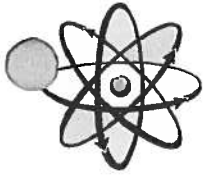


Town of Mt. Desert

2014 Exterior Lighting Audit

Prepared by:
Jay C. Perruzzi
Atom Electric LLC

SIGNED PROPOSAL



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

February 9, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast harbor, Maine 04662

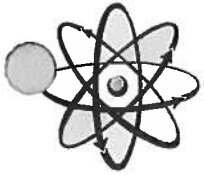
Re: Energy Audit
Exterior lighting throughout Town

Tony, after a nighttime survey of the Town properties listed below...

1. Somesville Wastewater Treatment Plant.
2. Somesville Fire Station.
3. MDES on Joy Road.
4. Town Office building complex including the parking areas.
5. NEH Marina including buildings, bollards, and pole mounted.
6. Seal Harbor Beach parking lot.
7. Seal Harbor Marina/Pier.
8. Seal Harbor Wastewater Treatment Plant.
9. Seal Harbor Fire Station.
10. Otter Creek Pump Station.
11. Bartlett's Landing Marina/Pier.

I propose an Energy Audit of the exterior lighting that will include the following information...

1. Current energy use based on the total fixtures in service at this time.
2. Recommendations on replacing existing light fixtures with Dark Sky compliant fixtures that also conform to Efficiency Maine standards.
3. Calculating the estimated cost savings associated with these changes.
4. Calculating the break-even period for recouping the cost of the new light fixtures that **Does Not Include** the cost of associated **Labor**.
5. Total cost of new lighting fixtures on a per property basis.
6. Total estimated Efficiency Maine rebated associated with these changes.
7. As a licensed contractor, an estimated cost to perform the recommended changes associated with this Audit.



Atom Electric LLC
January 30, 2014
Page 2 of 2

Pursuant to our earlier conversation and regarding Items #4 and #7 on the second list, I would recommend getting multiple bids for performing the recommended work.

Once you have an Efficiency Maine approved list of lighting fixtures, any licensed contractor can perform the work and **should** be able to help you get your associated rebate from Efficiency Maine.

CED-Gilman, the electrical distributor in Ellsworth is also an E. M. partner and generally helps me out on that end as well. I spoke with the Branch Manager this morning and he assured me that that is the case.

If you were to put this out to bid with that specified list of fixtures and they were purchased through them, they would assist your Town with the required paperwork regardless of who actually installs the fixtures, etc.

In effect, I am doing the investigative end to help prepare a lighting package for you that could be sent out to bid.

With all that in mind...

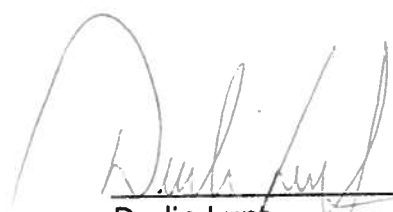
I propose to submit to you the information specified in the second list for the properties specified on the first list, no later than March 21, 2014, for a total cost "not-to-exceed" **\$3200.00**.

Additionally, I will be willing to attend **one** future Town of Mt. Desert Selectmen's meeting to explain the report before those present.

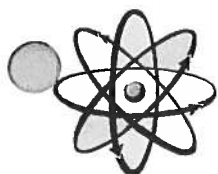
Please sign and return this proposal when accepted, and make a copy for your records.

Thank you for your consideration,



Jay C. Perruzzi
Atom Electric LLC

Durlin Lunt
Mt. Desert Town Manager



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

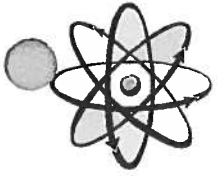
March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast harbor, Maine 04662

Re: Energy Audit
Exterior lighting throughout Town

General Notes...

1. The tables/charts that I am supplying for each property were created using information from a number of sources.
2. All calculations were made using (12) hrs/day for photo-cell, time clock, or Dusk-to-Dawn operated lights and (1) hr/day for lights that are controlled by switches.
3. For some of the light fixtures there are not suitable replacements. Most notably the "artsy" type lights in front of MDES, and the in-ground flag pole/memorial lights at the Town Office and Marina area:
 - a. These fixtures are included in both wattage totals, before/after any retrofit work is done. That cost will continue at the same rate.
4. Efficiency Maine Rebates were included in the "Base Fixture Cost" line item where applicable:
 - a. There is no rebate offered when LED lamps simply replace some type of fluorescent lamps.
 - b. There is no rebate offered if the existing light fixture is owned by the electric Utility company.
 - i. Some of the quotation sheets from CED had to be adjusted when we discovered that fact.
5. The "Payoff" line information is for the cost of the fixtures themselves, and **does not** include the **Labor** involved in making these changes:
 - a. I have included a proposal to do that work, and this can be measured against other contractors to order to determine the total cost associated with making the recommended changes.



Atom Electric LLC
March 21, 2014
Page 2 of 2

6. As we discussed via E-mail, I will bring a "hard copy" of this report to the Town Office on Monday March 24, 2014 by 9 AM.
7. Per Request of Dennis Schubert, I will attach the packages electronically, as a test run, to see if this might be a good way to disseminate the information.

Thank you for your consideration,



Jay C. Perruzzi
Atom Electric LLC



Somesville Wastewater Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	1138 Watts	860 Watts	1998 Watts
Replacement Lighting	600 Watts	182 Watts	782 Watts
Energy Savings KWH / year	2350 KWH/year	246.8 KWH/year	2596.8 KWH/year
Energy Savings \$\$\$ / year	\$399.50 / year	\$41.96 / year	\$441.46 / year
Base Fixture Cost (minus Rebates)	\$2,800	\$546	\$3,346
Payoff / years	7.00 years	13.01 years	7.58 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018735	02/21/14	003	02/25/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSLs	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

SOMESVILLE SEWER

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	WALL	PAC REPLACEMENT				
02	20	LUMAR	XTOR3A	30W 5000K LED BRONZE	240.00	E	4,800.00
03	*	SHOE BOX	LAMP REPLACEMENT				
04	7	RAB	ALED26	26W LED AREA LT	253.00	E	1,771.00
05	*	REBATE IF APPROVED: \$3225					
06	*	ESTIMATED ANNUAL ENERGY SAVINGS \$715.09					

MDSE: 6,571.00

TAX: 361.41

TOTAL: 6,932.41

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

DESCRIPTION

The patent pending Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks.

SPECIFICATION FEATURES

Construction

Slim, low profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 10W and 20W. The large housing is available in the 30W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied lever-lock connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 10W models operate in -40°C to 40°C [-40°F to 104°F]. 20W and 30W models operate in -30°C to 40°C [-22°F to 104°F]. Crosstour luminaires

maintain greater than 70% of initial light output after 50,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 10W, 120V 50/60 Hz., 20W and 30W, 120-277V 50/60Hz.

Finish

Crosstour is protected with a Super TGIC carbon bronze or summit white polyester powder coat paint. SuperTGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

Crosstour features a five-year limited warranty.



XTOR CROSSTOUR LED

WALL / SURFACE MOUNT
POST / BOLLARD MOUNT
LOW LEVEL MOUNT
INVERTED MOUNT

Sustainable Design

DESIGNLIGHTS
CONSORTIUM

CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Ingress Protection Rated
ADA Compliant
LM79 / LM80 Compliant
ROHS Compliant
ARRA Compliant
DLC Qualified Models
Lighting Facts® Approved
Title 24 Compliant
NOM Compliant Models

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

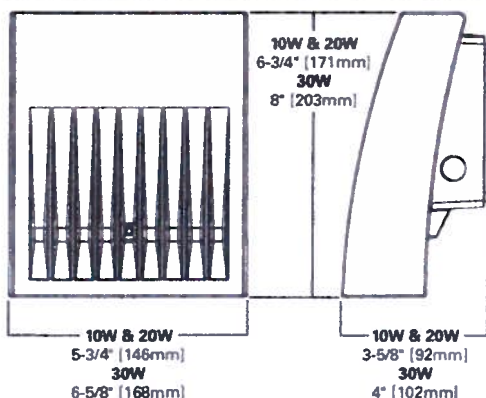
Effective Projected Area:
(Sq. Ft.)
XTOR1A/XTOR2A=0.34
XTOR3A = 0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

ADH111091 pc
2012-01-16 08:42:31

DIMENSIONS



ORDERING INFORMATION

SAMPLE NUMBER: XTOR2A-N-WT-PC1



Series
 XTOR1A=Small Door, 10W ¹
 XTOR2A=Small Door, 20W ²
 XTOR3A=Large Door, 30W ²



LED Kelvin Color ³
 — = Bright White
 (Standard) 5000K
 N = Neutral Warm
 White, 3500K



Housing Color
 — = Carbon Bronze (Standard)
 WT = Summit White



Options (specify voltage) ⁴
 PC1=Photocontrol 120 V
 PC2=Photocontrol 208-277 V



Accessories ⁵
 WG/XTOR=Wireguard (fits both)

Notes:

- 1 120V only XTOR1A not available in 3500K.
 2 Design Lights Consortium™ qualified (down mount only).
 Consult Design Lights Consortium website for all applications.
 3 PC2 only available in 20W and 30W models.
 4 PC1 and PC2 photo controls are factory installed. PC2 not available on XTOR1A models.
 5 Order WG/XTOR wire guard separately.

STOCK ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A = 10W, 5000K, Carbon Bronze	XTOR2A = 20W, 5000K, Carbon Bronze	XTOR3A = 30W, 5000K, Carbon Bronze
XTOR1A-WT = 10W, 5000K, Summit White	XTOR2A-N = 20W, 3500K, Carbon Bronze	XTOR3A-N = 30W, 3500K, Carbon Bronze
XTOR1A-PC1 = 10W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT = 20W, Summit White	XTOR3A-WT = 30W, Summit White
	XTOR2A-PC1 = 20W, 120V PC, Carbon Bronze	XTOR3A-PC1 = 30W, 120V PC, Carbon Bronze



Days Quick-Ship

5-DAY QUICK SHIP ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A-WT-PC1 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC2 = 20W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2 = 30W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1 = 20W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1 = 30W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2 = 20W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2 = 30W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT = 20W, 3500K, Summit White	XTOR3A-N-WT = 30W, 3500K, Summit White
	XTOR2A-N-PC1 = 20W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1 = 30W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2 = 20W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2 = 30W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WT-PC1 = 20W, 3500K, Summit White, 120V PC	XTOR3A-N-WT-PC1 = 30W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2 = 20W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2 = 30W, 3500K, Summit White, 208-277V PC

LUMENS - CRI / CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens	719	1361	947	2243	1600
CCT (Kelvin)	5000	5000	3500	5000	3500
Color Rendering Index (CRI)	68	67	86	69	84

CURRENT DRAW

	XTOR1A	XTOR2A	XTOR3A
120V	.13A	0.2A	0.3A
208V	--	0.1A	0.15A
240V	--	0.15A	0.15A
277V	--	0.15A	0.15A

ALED26

JOB NAME: _____

DATE: _____

TYPE: _____

DESCRIPTION

ALED Area Lights mount to 4" square steel poles at 15-20'. 1 to 4 fixtures can be mounted to each pole. IES Full Cutoff, Fully Shielded optics. 5 year Warranty.

SPECIFICATIONS

UL Listing

Suitable for wet locations. Suitable for mounting within 4' of the ground.

Country of Origin

Designed by RAB in New Jersey and assembled in Taiwan

Trade Agreements Act Compliant

This product is a product of Taiwan and a "designated country" end product that complies with the Trade Agreements Act.

GSA Schedule

This product is suitable for listing on the GSA Schedule of the US General Services in accordance with FAR Subpart 25.4

Warranty

RAB LED fixtures give you peace of mind because both the fixture and light engine components are backed by RAB's 5 Year Warranty. For more information,

Lumen Maintenance

The LED will deliver 70% of its initial lumens at 50,000 hours of operation.

Housing

Precision die cast aluminum housing, lens frame.

Gaskets

High temperature silicone.

Effective Projected Area

EPA = 0.27

Finish

Chip and fade resistant polyester powder coat finish.

Green Technology

ALEDs are Mercury, Arsenic and UV free.

IESNA LM-79 & IESNA LM-80 Testing

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Color Stability

RAB LEDs exceed industry standards for chromatic stability.

Color Uniformity

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

Ambient Temperature

Suitable for use in 40C ambient temperatures.

Fixture Efficacy

61 Lumens per Watt

Color Accuracy

66 CRI

Color Temperature (Nominal CCT)

5169 K (Daylight)

LED Light Engine

Multi-chip 26W high output long life LED Driver Constant Current, 720mA, Class 2, 6 KV Surge Protection, 100V-277V, 50-60 Hz, 100-240V .4 Amps

Cold Weather Starting

The minimum starting temperature is -40F/-40C

Heatsink

Cast aluminum thermal management system for optimal heat sinking. The ALED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

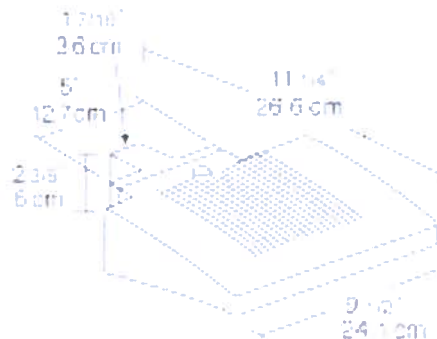
California Title 24

ALED complies with California Title 24 building and electrical codes.

Equivalency

The ALED26 is Equivalent in delivered lumens to a 70 W Metal Halide Area Light

DIMENSIONS



ORDERING INFORMATION

LED	Total Watts	Lamp Type	Lamp Base	Ballast	Starting Amps/ Operating Amps				Input Watts	LAMP ANSI	Initial Lumens	Lamp Hours
					120V	208V	240V	277V				
Lamp supplied with fixture	26	LED	Heat-sink	Constant Current	0.26	0.16	0.14	0.12	30.2	N/A	1816	50000

Factory Installed Options
 Add suffix to Catalog Number

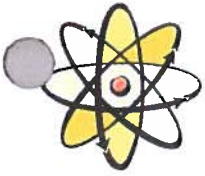
Photocontrol for 277V (/PC2)

Photocontrol for 120V (/PC)

Note: Specifications may change without notice

RAB Lighting, Inc. • 170 Ludlow Ave • Northvale, NJ 07647 • Tel: 888 RAB-1000 • Fax: 888 RAB-1232 • www.rabweb.com

© 2012



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast Harbor, Maine 04662

Re: Somesville Wastewater

The property currently has (7) pole mounted lights that are switched on when needed and (20) building mounted lights that are controlled by various photo-cells.

The scope of work would involve...

1. Re-wiring the (20) wall light fixtures to disconnect the fluorescent "ballast" and to install a new porcelain, Edison-base, socket that will accept a self-ballasted, screw-in LED lamp:
 - a. These fixtures will have their own photo-cells.
2. Replacing the (7) existing pole-mounted fixtures with a new style of LED fixture:
 - a. These fixtures would continue to be operated by switch.

I would perform the above mentioned work for a price "not to exceed"...
\$2700.00 plus the cost of the fixtures.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC





Somesville Fire Department Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	384 Watts	310 Watts	694 Watts
Replacement Lighting	60 Watts	120 Watts	180 Watts
Energy Savings KWH / year	1415.2 KWH/year	69.2 KWH/year	1484.4 KWH/year
Energy Savings \$\$\$ / year	\$240.58 / year	\$11.76 / year	\$252.34 / year
Base Fixture Cost (minus Rebates)		\$309	\$265
Payoff / years	1.28 years	22.5 years	2.27 years

	Dusk-to-Dawn	Switched	Total
Utility fed Lighting	128 Watts		128 Watts
Replacement Lighting (If allowed)	84 Watts		84 Watts
Energy Savings KWH / year	192.2 KWH/year		192.2 KWH/year
Energy Savings \$\$\$ / year	\$32.67 / year		\$32.67 / year
Base Fixture Cost (minus Rebates)		\$625	\$625
Payoff / years	19.13 years		

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018731	02/21/14	003	02/26/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

CUS PO #:

JOB NAME:
SOMESVILLE FIRE

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*			TWO LIGHTS BY TRUCK DOORS			
02	*			I WOULD SUGGEST THAT THE TWO FIXTURES BESIDE THE GARAGE			
03	*			DOORS SOULD BE DISCONTINUED AND ONE 78 WATT LED PUT			
04	*			IN THE PEAK ABOVE THE CENTER DOOR			
05	1	RAB	WPLED4T78	REPL LENS & BRZ HINGE	537.17	E	537.17
06	*			DOUBLE FLOOD OUTBACK			
07	2	SYL	LED18PAR38/DIM/830/F	78641 LED18 PAR38 40 DEG	60.72	E	121.44
				DIM NS			
08	2	RAB	H101W	WHT BELL SHAPED FLOOD	22.95	E	45.90
09	1	RAB	VXCW	1/2IN WHT TAP N/CVR	5.95	E	5.95
10	1	RAB	C103W	CVR	4.40	E	4.40
11	*			CFL REPLACEMENTS			
12	7	SYL	LED12A19/DIM/O/827	78907 12W LED LMP	27.71	E	193.97
13	*			POLE MOUNTED FLOOD LIGHT			
14	1	ATLAS	FLDX84LED	84W LED FLOODLIGHT	571.35	E	571.35
15	1	COOPR	SAB	GALV ANGLE BRACKET	56.00	E	56.00
16	*			REBATE IF APPROVED= \$210			
17	*			1-WALL PACK @ \$100.00 EACH			
18	*			2-LED LAMPS @ \$25.00 EACH			
19	*			THERE IS NO REBATE FOR "LED LAMPS REPLACING CFL'S"			
20	*			ESTIMATED ANNUAL SAVINGS \$368.00			

MDSE: 1,536.18

TAX: 84.49

TOTAL: 1,620.67

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

ULTRA HD Professional Series LED PAR Lamps

High Definition Lighting



The SYLVANIA ULTRA HD Professional Series family of LED PAR lamps offers premium performance in every category. With exceptional color quality, efficiency, and electrical design standards, this top-tier family of lamps is designed to ensure the highest aesthetics while complying with the most stringent sustainability goals. Designed to be the most efficient replacements for halogen at 3000K, these SYLVANIA LED lamps last up to 20 times longer and are rated for use in damp locations. An optimized LED selection process is used to ensure that color within the ULTRA HD Professional family of LED lamps is extremely consistent, within a 3-step MacAdam ellipse. With outstanding color rendering capabilities (95 typical CRI) and exceptionally rich deep red content (R9>60), ULTRA HD Professional Series LED lamps enhance warm color palettes and make whites more crisp, making them ideal for residential, hospitality, healthcare or retail applications. With lamp efficacies higher than 50 lumens per watt and smooth dimming performance, ULTRA HD Professional Series LED lamps are an ideal part of any energy-conservation strategy.

Key Features & Benefits

- 95 typical CRI
- Excellent color quality – within a 3-step MacAdam ellipse
- R9 greater than 60
- Assembled in USA
- No warm up time, instant on with full light output and stable color
- Lasts up to 20 times longer than comparable PAR lamps
- Available in 2700K and 3000K color temperature
- Reduces energy consumption up to 80%
- UV and IR free
- RoHS compliant
- Dimmable to 10%*
- Mercury and lead free
- Long life: up to 50,000 hours (L70)
- Suitable for damp locations

* Performance may vary depending on dimmer use in application. Please refer to Dimmer Compatibility List (RETRO-DIM) for a list of compatible dimmers or visit www.sylvania.com/LEDretrofit



Product Offering

Lamp Type	Wattage	Color Temperature	Beam Angle	Lumens
PAR38	21	3000K	30°	1150
PAR38	20	2700K & 3000K	12°	1000 & 1050
PAR30LN	17	3000K	25° & 40°	970
PAR30	15	3000K	40°	880
PAR20	10	3000K	30°	550
PAR16	8	3000K	36°	390
MR16	7	3000K	36°	400

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b

Application Information

Market Segments

- Art galleries and museums
- Hospitality
- Offices
- Residential
- Restaurants
- Retail

Applications

- Accent/display lighting
- General lighting
- Recessed downlighting
- Track lighting

Application Notes

1. Operating Temperature -40°F and +113°F (-40°C and +45°C)
-4°F to +104°F (-20°C to +40°C)
2. Suitable for outdoor use when used in a UL rated fixture where protected from weather
3. Use in fixtures that support 2lb. lamp
4. Not for use with emergency light fixtures or exit lights
5. Not for use in enclosed fixture
6. All PAR lamps from OSRAM SYLVANIA use polymethyl methacrylate (PMMA) for their lenses. It is a transparent thermoplastic, often used as a lightweight, shatter-resistant alternative to glass.



Catalog #

Project

Comments

Prepared by

Type

Ordering Information

Item Number	Ordering Abbreviation	Wattage (W)	Base Type	Replaces	Input Voltage (VAC)	Average Rated Life (hrs L ₇₀) ¹	CCT ²	Typical Lumens (lm) ³	CBCP (cd)	CRI ⁴	Beam Angle	R9	Power Factor	ENERGY STAR [®]
78745	LED21PAR38/DIM/P/930/FL30	21	Med	90W PAR38	120	50,000	3000K	1150	3700	95	30°	62	0.7	Yes
78741	LED21PAR38/GU24/DIM/P/930/FL30	21	GU24	90W PAR38	120	50,000	3000K	1150	3700	95	30°	62	0.7	Yes
78904	LED20PAR38/DIM/P/927/WSP12	20	Med	90W PAR38	120	40,000	2700K	1000	14,000	93	12°	77	0.98	Yes
78906	LED20PAR38/DIM/P/930/WSP12	20	Med	90W PAR38	120	40,000	3000K	1050	18,000	93	12°	77	0.98	Yes
78746	LED17PAR30LN/DIM/P/930/NFL25	17	Med	75W PAR30LN	120	50,000	3000K	970	3400	95	25°	62	0.7	Yes
78742	LED17PAR30LN/GU24/DIM/P/930/NFL25	17	GU24	75W PAR30LN	120	50,000	3000K	970	3400	95	25°	62	0.7	Yes
78758	LED17PAR30LN/DIM/P/930/FL40	17	Med	75W PAR30LN	120	50,000	3000K	970	1600	95	40°	62	0.7	Yes
78747	LED15PAR30/DIM/P/930/FL40	15	Med	60W PAR30	120	50,000	3000K	880	1700	95	40°	62	0.7	Yes
78743	LED15PAR30/GU24/DIM/P/930/FL40	15	GU24	60W PAR30	120	50,000	3000K	880	1700	95	40°	62	0.7	Yes
78748	LED10PAR20/DIM/P/930/FL30	10	Med	50W PAR20	120	50,000	3000K	550	1600	95	30°	63	0.9	Yes
78744	LED10PAR20/GU24/DIM/P/930/FL30	10	GU24	50W PAR20	120	50,000	3000K	550	1600	95	30°	63	0.9	Yes
72547	LED8PAR16/GU10/DIM/FL36P	8	GU10	50WPAR16	120	25,000	3000K	390	950	90	36°	50	0.73	No
72546	LED8PAR16/DIM/930/FL36	8	Med	50WPAR16	120	25,000	3000K	390	950	90	36°	50	0.73	No
72544	LED7MR16/DIM/930/FL36	7	GU5.3	35WMR16	12	25,000	3000K	400	1000	95	36°	90	0.91	No

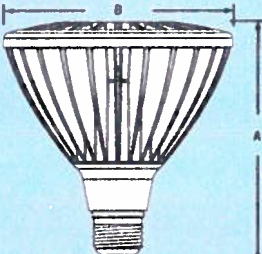
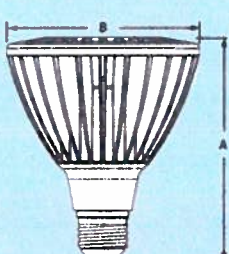
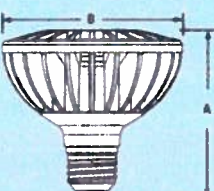
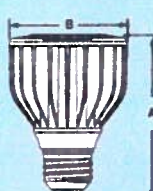
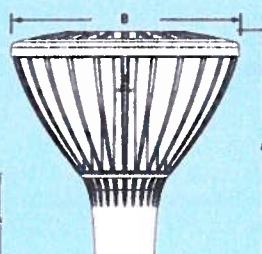
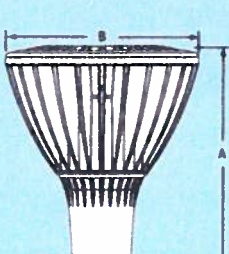
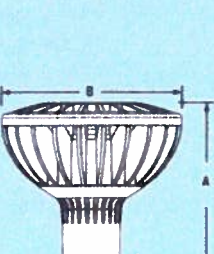
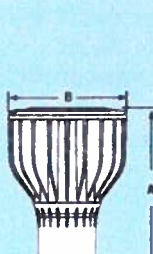



OSRAM SYLVANIA submits most lamps for ENERGY STAR testing. Early qualification for ENERGY STAR lamps begin at 25,000 hours (L₇₀) regardless that the design of the lamp is manufactured for a greater life expectancy. As the lamps pass ENERGY STAR qualifications, manufacturers are able to increase rated life as dictated by ENERGY STAR guidelines becoming either provisionally qualified or fully qualified. Please visit ENERGYSTAR.gov for more information about testing requirements for ENERGY STAR qualified products.

1. Hours lifetime with 70% (L₇₀) lumen maintenance 2. Thermally stable typical lumens (±10%) 3. Thermally stable typical CCT (±10%) 4. CRI - Color Rendering Index

Ordering Guide

LED	21	PAR38	/	DIM	/	P	/	930	/	FL	30
LED Lamps	Wattage 7, 8, 10, 15, 17, 20, 21	Lamp Type: PAR20, PAR30, PAR30LN, PAR38, PAR16, MR16		DIM = Dimmable		Professional Series		CRI, CCT: 930: 90+ CRI, 3000K CCT 2700K CCT		Beam Type FL: Flood NFL: Narrow Flood WSP: Wide Spot	Beam Angle 12°, 25°, 30°, 36°, 40°

Lamp Dimensions

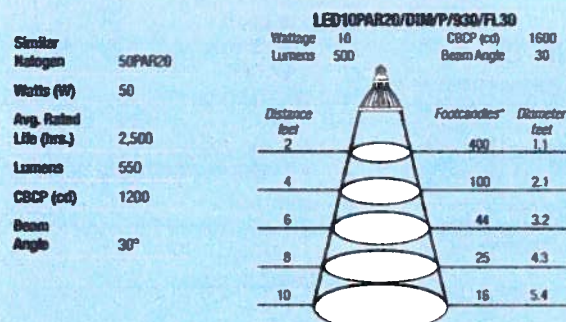
	(A) HQL (inches)	(B) Diameter (inches)					
PAR38 Med Base	4.99	4.76		PAR38 Med Base	PAR30LN Med Base	PAR30 Med Base	PAR20 Med Base
PAR38 GU24	5.03	4.76		PAR38 GU24	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR30LN Med Base	4.67	4.02		PAR30LN Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR30LN GU24	4.72	4.02		PAR30LN GU24	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR30 Med Base	3.53	3.75		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR30 GU24	3.60	3.75		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR20 Med Base	3.42	2.50		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR20 GU24	3.50	2.50		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR16 Med Base	3.00	1.96		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR16 GU10	2.31	1.96		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24
MR16 GU5.3	1.90	1.97		PAR30 Med Base	PAR30LN GU24	PAR30 GU24	PAR20 GU24

Energy Savings

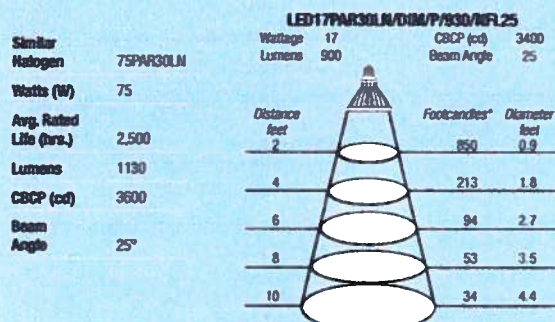
Basic Product Description	LED Life (hrs.)	Similar Halogen	Halogen Life (hrs.)	Watts Saved	Energy Savings*	LED Life vs. Halogen Life
LED21PAR38	50,000	90PAR38	2,500	69	\$379.50	20x
LED20PAR38	40,000	90PAR38	2,500	68	\$299.20	16x
LED17PAR30LN	50,000	75PAR30LN	2,500	58	\$319.00	20x
LED15PAR30	50,000	60PAR30	3,000	45	\$247.50	16x
LED10PAR20	50,000	50PAR20	2,500	40	\$220.00	20x
LED8PAR16	25,000	50PAR16	2,000	42	\$115.00	12.5x

*Energy savings over life of lamp calculated at \$0.11/kWh

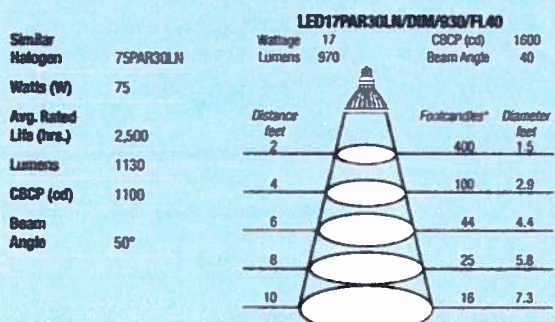
Technical Information



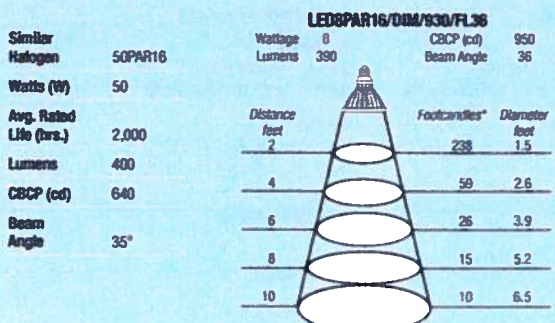
*Approximate footcandle values at center of beam



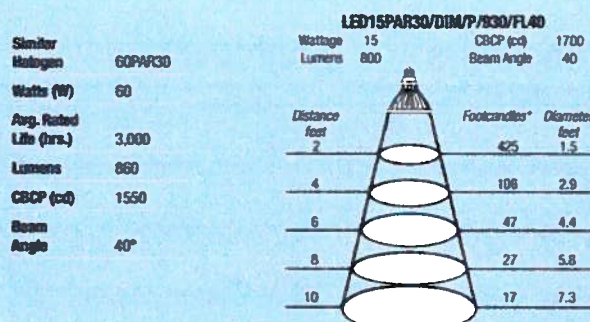
*Approximate footcandle values at center of beam



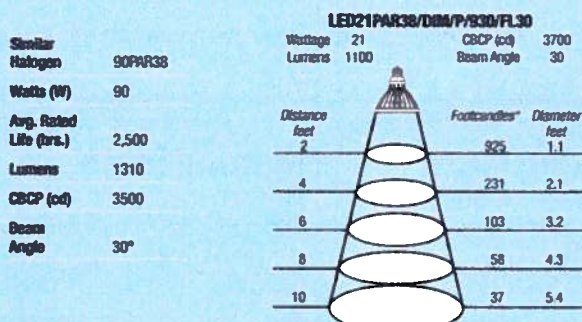
*Approximate footcandle values at center of beam



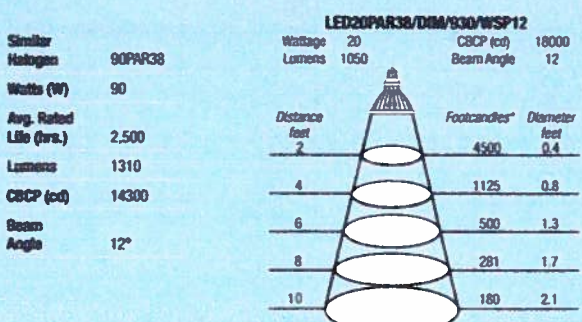
*Approximate footcandle values at center of beam



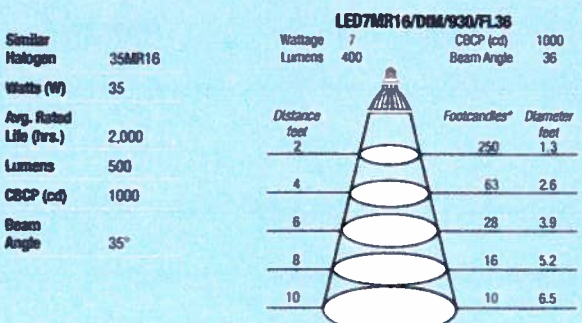
*Approximate footcandle values at center of beam



*Approximate footcandle values at center of beam



*Approximate footcandle values at center of beam



*Approximate footcandle values at center of beam

lighting facts
A Regalux Inc. Co.

Light Output (Lumens)	550
Watts	10
Lumens per Watt (Efficacy)	55

Color Accuracy
Color Rendering Index (CRI)

	95
--	----

Light Color
Standard Color Temperature of 3000K

3000 (Bright White)

Warm White Bright White Daylight

2700K 3000K 4000K 5000K

For more information, visit www.regalux.com or call 1-800-854-7662. Regalux Inc. is a leading manufacturer of energy-efficient lighting solutions. Our products are designed to provide superior performance and long life.

With Energy Star® lighting, you can help the planet and save money.

Regalux Inc. is a leading manufacturer of energy-efficient lighting solutions. Our products are designed to provide superior performance and long life.

For more information, visit www.regalux.com or call 1-800-854-7662.

[illegible]

lighting facts
A Project by the IESNA

Light Output (Lumens)	970
Watts	17
Lumens per Watt (Efficacy)	57
Color Accuracy (Color Rendering Index CRI)	95

Light Color
(Color Rendering Index CRI 95)

3000 (Bright White)

Warm White Bright White Daylight

2700K 3500K 4100K 5000K

As results are approaching 100%, the Color Appearance Analysis for the 3000K warm white is approaching the target, indicating the color rendering is approaching the target.

Visit www.lightingfacts.com for the Lighting Facts of 1200K to 6500K

Registered by the IESNA on 10/27/2011 10:17:17 AM
 All rights reserved. © 2011 IESNA. All rights reserved.
 Project Name: Lighting Facts of 1200K to 6500K

lighting facts
a Regenera Inc. LLC

Light Output (Lumens)	1150
Walls	21
Lumens per Watt (Efficacy)	55
Color Accuracy Color Rendering Index (CRI)	95

3000K (Bright White)

Warm White Bright White Coolwhite

2700K 3000K 4000K 5000K

For more information, visit www.lightingfacts.com for the Color Rendering Index (CRI) and Color Temperature (CT) of all our products.

Visit www.lightingfacts.com for the Color Rendering Index

Regenera Inc. is a 501(c)(3) non-profit organization.

501(c)(3) non-profit organization. 501(c)(3) non-profit organization.

For more information, visit www.lightingfacts.com for the Color Rendering Index (CRI) and Color Temperature (CT) of all our products.

lighting facts
a requirement of LED

Light Output (Lumens)	1150
Watts	21
Lumens per Watt (Efficacy)	55

Color Accuracy
Color Rendering Index (CRI)

95

Light Color
Color Temperature: 3000K (Bright White)

Warm White Bright White Designer

2700K 3000K 4000K 5000K

LED light is being designed to match 3000K color temperature. This is a standard and the color temperature of the light is slightly warmer than standard 3000K. The LED light is designed to match 3000K color temperature and is slightly warmer than standard 3000K.

Visit www.lightingfacts.com to look for the LED Reference Guide.

Lighting Facts is a service of the LED Lighting Association (LLA).
 LED Lighting Association (LLA) is a non-profit organization that represents the LED lighting industry. The LLA is the only organization that represents the LED lighting industry and is the only organization that represents the LED lighting industry.

Lighting facts

Light Output (Lumens)	970
Watts	17
Lumens per Watt (Efficacy)	97

Color Accuracy Color Rendering Index (CRI)	95
---	----

Light Color
Correlated Color Temperature (CCT)

3000K (Bright White)

4000K (Warm White) 5000K (Bright White) 6500K (Cool White)

400nm 500nm 600nm 700nm

Most manufacturers look for the higher performance CRI to

Highpower LED luminaire 100W = 10,000lm

LED luminaire 100W = 10,000lm

LED luminaire 100W = 10,000lm

LED luminaire 100W = 10,000lm

Lighting facts

Light Output (Lumens) **880**

Watts **15**

Lumens per Watt (Efficacy) **58**

Color Accuracy **95**
Color Rendering Index (CRI)

Light Color 3000K (Bright White)
Correlated Color Temperature (CCT)

2700K 3000K 3500K 4000K 5000K

Warm White Bright White Daylight

As the color temperature increases, the light shifts from warm white to bright white to daylight. The higher the CRI, the more accurately the light renders colors.

Visit www.lightingfacts.com for the Label Reference Guide.

Regulation to help protect the public health and safety by establishing minimum requirements for the labeling of energy-related products.

U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy

U.S. Environmental Protection Agency, Energy Star Program

lighting facts
Lighting Facts from the Lighting Facts website

Light Output (Lumens)	550
Watts	10
Lumens per Watt (Efficacy)	55
Color Accuracy <small>(Color Rendering Index (CRI))</small>	95

Light Color
(Color Temperature in Kelvin or K)

3000 (Bright White)

Warm White Bright White Daylight

2700K 3000K 3500K 5000K

As shown on a color scale from 2700K to 5000K, spectrum shifted to the left is warmer (warmer = more red/orange) and spectrum shifted to the right is cooler (cooler = more blue).

Visit www.lightingfacts.com for the Lighting Facts Guide

Lighting Facts is a registered trademark of the Lighting Facts website.

Sample Specification

Lamp(s) shall be ULTRA HD Professional Series lamps (21W PAR38, 20W PAR38, 17W PAR30LN, 15W PAR30, 10W PAR20) having either a medium base or GU24 base. Lamp(s) shall have an average rated life of up to 50,000 at L₇₀. Lamps should have a typical CRI of 95 with a R9 > 60 and an excellent color quality at 3-step MacAdam ellipse.

United States
OSRAM SYLVANIA
100 Endicott Street
Danvers, MA 01923
1-800-LIGHTBULB

Trade
Phone: 800-255-5042
Fax: 800-255-5043

National Accounts
Phone: 800-562-4671
Fax: 800-562-4674

OEM/Special Markets
Phone: 800-762-7191
Fax: 800-762-7192

Retail
Phone: 800-842-7010
Fax: 800-842-7011

SYLVANIA Lighting Services
Phone: 800-323-0572
Fax: 800-537-0784

Display/Optic
Phone: 888-677-2627
Fax: 855-543-1043

Canada
OSRAM SYLVANIA LTD.
2001 Drew Road
Mississauga, ON L5S 1S4
1-800-LIGHTBULB

Trade
Phone: 800-263-2852
Fax: 800-667-6772

OEM/Special Markets/Display/Optic
Phone: 800-265-2852
Fax: 800-667-6772

Retail
Phone: 800-720-2852
Fax: 800-667-6772

SYLVANIA Lighting Services
Phone: 800-663-4268
Fax: 866-239-1278

Mexico
OSRAM MEXICO
Tultitlan/Edo de Mexico
Phone: 011-52-55-58-99-18-50

ENCELIUM® Products

United States
Phone: 201-508-1570
Fax: 201-508-1589

Canada
Phone: 905-731-7678
Fax: 905-731-1401

www.sylvania.com

ULTRA LED A-line Lamps

Omnidirectional



Rated up to 25,000 hours at 70% lumen maintenance, SYLVANIA ULTRA LED A-line omnidirectional lamps offer years of service and reduce energy and maintenance costs. SYLVANIA ULTRA LED lamps are environmentally preferred products. They are RoHS compliant and contain no mercury, lead or other hazardous materials. They emit no UV or IR radiation. A CRI of 80 ensures good color definition and with warm white 2700K CCT, these lamps can be used in many applications in both homes and businesses.

Key Features & Benefits

- Dimmable down to 10%*
- Long life: up to 25,000 hours (L₇₀)
- UV and IR free
- Mercury and lead free
- RoHS compliant
- Available in 2700K color temperature
- Suitable for indoor environments only
- Reduces energy consumption up to 82%
- Last up to 33 times longer than incandescent lamps
- No warm-up time, instant-on with full light output and stable color

* Performance may vary depending on dimmer used in application. Please refer to Dimmer Compatibility List (RETRO-DIM) for a list of compatible dimmers or visit www.SYLVANIA.com/LED Retrofit



Product Offering

Ordering Abbreviation	Wattage	Color Temperature	Typical Lumens
LED8A19/DIM/O/827	8	2700K	470
LED12A19/DIM/O/827	12	2700K	820
LED14A19/DIM/O/827	14	2700K	1100
LED20A21/DIM/O/827	20	2700K	1600

Application Information

Applications

- Downlights
- Pendant fixtures
- Table lamps
- Wall sconces

Market Segments

- Healthcare
- Hospitality
- Residential
- Retail

Application Notes

1. Operating temperature range between -20°C and +45°C (-4°F and + 113°F)
2. Not for use with emergency light fixtures or exit lights
3. Use in open fixture
4. Suitable for indoor use

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b.



Specification Data

Catalog #

Project

Comments

Prepared by

Type

Ordering Information

Item Number	Ordering Abbreviation	Wattage (W)	Base Type	Replaces	Input Voltage (V)	Average Rated Life (hrs.) ¹	CCT ²	Typical Lumens (lm) ²	CRI ⁴	Power Factor	Bulb Finish	ENERGY STAR [®]
78935	LED8A19/DIM/O/827	8	Medium	40WA19	120	25,000	2700K	470	80	.95	Frosted	Yes
78907	LED12A19/DIM/O/827	12	Medium	60WA19	120	25,000	2700K	820	80	.95	Frosted	Yes
78911	LED14A19/DIM/O/827	14	Medium	75WA19	120	25,000	2700K	1100	80	.98	Frosted	No
78951	LED20A21/DIM/O/827	20	Medium	100WA19	120	25,000	2700K	1600	81	.98	Frosted	No

OSRAM SYLVANIA submits most lamps for ENERGY STAR testing. Early qualification for ENERGY STAR lamps begin at 25,000 hours (L_{70}) regardless that the design of the lamp is manufactured for a greater life expectancy. As the lamps pass ENERGY STAR qualifications, manufacturers are able to increase rated life as dictated by ENERGY STAR guidelines becoming either provisionally qualified or fully qualified. Please visit ENERGYSTAR.gov for more information about testing requirements for ENERGY STAR qualified products.

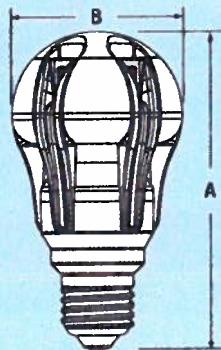
1. Hours lifetime with 70% (L_{70}) lumen maintenance 2. Thermally stable typical lumens ($\pm 10\%$)
 3. Thermally stable typical CCT ($\pm 10\%$) 4. CRI – Color Rendering Index

Ordering Guide

LED	8	A19	/	DIM	/	0	/	827
LED Lamps	Wattage: 8	Lamp Type: A19/A21		Dimmable		Omnidirectional		CRI, CCT: 827: 80+ CRI, 2700K CCT

Lamp Dimensions

	(A) MOL (inches)	(B) Diameter (inches)
LED8A19	4.42	2.44
LED12A19	4.42	2.44
LED14A19	4.42	2.44
LED20A21	5.29	2.99



Energy Savings

Basic Product Description	LED Life (hrs.)	LED Lumens	Similar Incandescent	Incandescent Lumens	Incandescent Life (hrs.)	Watts Saved	Energy Savings*	LED Life vs. Incandescent
LED8A19	25,000	470	40W A19	465	1500	32	\$ 88.00	>16x
LED12A19	25,000	820	60W A19	850	1000	48	\$132.00	25x
LED14A19	25,000	1100	75W A19	1170	750	61	\$167.75	>33x
LED20A21	25,000	1600	100W A19	1690	750	80	\$220.00	> 33x

*Energy savings over life of lamp calculated at \$0.11/kWh



LED Flood Light

FLDX84LED 84 Watt LED Flood Light



SPECIFICATIONS:

Construction:

Rugged Traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility. The smooth housing prevents debris build up and maximizes airflow over housing.

Optics:

Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations reduces glare and offensive light.

Thermal Management:

Atlas' Patent Pending exclusive Thermal Stacking Technology System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:

Luminaire is certified to UL Standards for Wet Locations

AC Input:

120/208/240/277 V

Driver:

Constant current, Class 2, 120-277 VAC, 50-60 Hz

High Efficiency – min. 88%

Off-State Power: 0 Watts

LEDs:

4100K CCT

Delivers 70% or greater of initial lumens at 100,000 hours

Epoxy Guard™ protective conformal coated boards

Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance. They are tested and binned at 700mA which is the actual operating current used in Atlas LED luminaires, giving a better representation of actual performance.

Reduced Glare:

Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Warranty:

Five-year limited warranty

Testing:

Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80, and have received the Department of Energy "Lighting Facts" label.

Installation:

Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Weight:

15.0 lbs

Photo Control:

For factory installed 120V button photo control add suffix PC to part number.

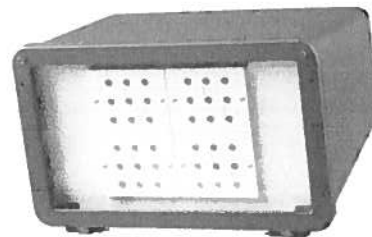
Project Information

Job Name

Fixture Type 84 Watt LED Flood Light

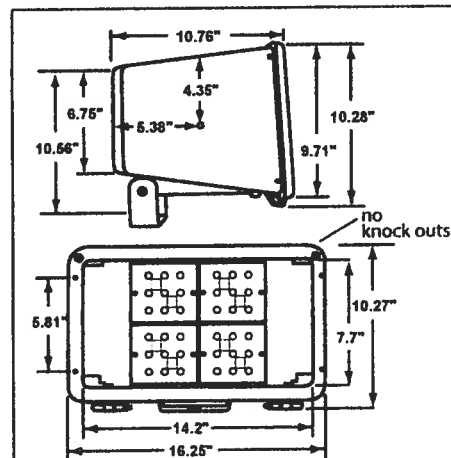
Catalog Number FLDX84LED

Approved by



Optional Factory
Installed Slipfitter
FLDX-84LEDs

DIMENSIONS:



Patent Pending

ATLAS LIGHTING PRODUCTS, INC.

PO BOX 2348 | BURLINGTON, NC 27216

800-849-8485 | FAX: 336-227-0110 | www.atlaslightingproducts.com

Made in the USA of US and imported parts. Meets Buy American requirements within the ARRA.

DESCRIPTION

The patent pending Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks.

SPECIFICATION FEATURES

Construction

Slim, low profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 10W and 20W. The large housing is available in the 30W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied lever-lock connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 10W models operate in -40°C to 40°C (-40°F to 104°F). 20W and 30W models operate in -30°C to 40°C (-22°F to 104°F). Crosstour luminaires

maintain greater than 70% of initial light output after 50,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 10W, 120V 50/60 Hz., 20W and 30W, 120-277V 50/60Hz.

Finish

Crosstour is protected with a Super TGIC carbon bronze or summit white polyester powder coat paint. SuperTGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

Crosstour features a five-year limited warranty.



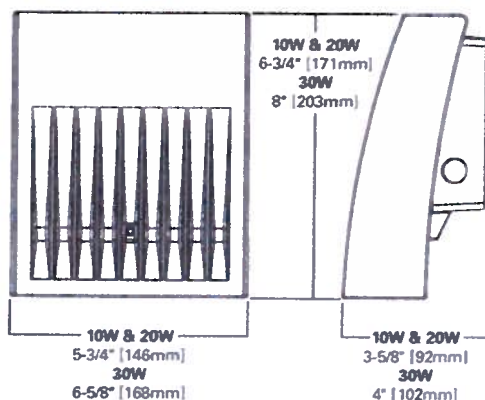
XTOR CROSSTOUR LED

WALL / SURFACE MOUNT
POST / BOLLARD MOUNT
LOW LEVEL MOUNT
INVERTED MOUNT

SustainableLEDesign

DESIGNLIGHTS
CONSORTIUM

DIMENSIONS



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Ingress Protection Rated
ADA Compliant
LM79 / LM80 Compliant
ROHS Compliant
ARRA Compliant
DLC Qualified Models
Lighting Facts® Approved
Title 24 Compliant
NOM Compliant Models

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area:
(Sq. Ft.)
XTOR1A/XTOR2A=0.34
XTOR3A = 0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 - 5.25 lbs. [1.7 - 2.4 kgs.]

ORDERING INFORMATION

SAMPLE NUMBER: XTOR2A-N-WT-PC1

Series XTOR1A=Small Door, 10W ¹ XTOR2A=Small Door, 20W ² XTOR3A=Large Door, 30W ²	LED Kelvin Color ² — = Bright White (Standard) 5000K N = Neutral Warm White, 3500K	Housing Color — = Carbon Bronze (Standard) WT = Summit White	Options (specify voltage) ⁴ PC1=Photocontrol 120 V PC2=Photocontrol 208-277 V	Accessories ⁵ WG/XTOR=Wireguard (fits both)

Notes:

1 120V only XTOR1A not available in 3500K.

2 Design Lights Consortium™ qualified (down mount only).

Consult Design Lights Consortium website for all applications.

3 PC2 only available in 20W and 30W models.

4 PC1 and PC2 photo controls are factory installed. PC2 not available on XTOR1A models.

5 Order WG/XTOR wire guard separately.

STOCK ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A = 10W, 5000K, Carbon Bronze	XTOR2A = 20W, 5000K, Carbon Bronze	XTOR3A = 30W, 5000K, Carbon Bronze
XTOR1A-WT = 10W, 5000K, Summit White	XTOR2A-N = 20W, 3500K, Carbon Bronze	XTOR3A-N = 30W, 3500K, Carbon Bronze
XTOR1A-PC1 = 10W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT = 20W, Summit White	XTOR3A-WT = 30W, Summit White
	XTOR2A-PC1 = 20W, 120V PC, Carbon Bronze	XTOR3A-PC1 = 30W, 120V PC, Carbon Bronze



Days Quick-Ship

5-DAY QUICK SHIP ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A-WT-PC1 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC2 = 20W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2 = 30W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1 = 20W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1 = 30W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2 = 20W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2 = 30W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT = 20W, 3500K, Summit White	XTOR3A-N-WT = 30W, 3500K, Summit White
	XTOR2A-N-PC1 = 20W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1 = 30W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2 = 20W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2 = 30W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WT-PC1 = 20W, 3500K, Summit White, 120V PC	XTOR3A-N-WT-PC1 = 30W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2 = 20W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2 = 30W, 3500K, Summit White, 208-277V PC

LUMENS - CRI / CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens	719	1361	947	2243	1600
CCT (Kelvin)	5000	5000	3500	5000	3500
Color Rendering Index (CRI)	68	67	86	69	84

CURRENT DRAW

	XTOR1A	XTOR2A	XTOR3A
120V	.13A	0.2A	0.3A
208V	--	0.1A	0.15A
240V	--	0.15A	0.15A
277V	--	0.15A	0.15A

C103W

Die cast round covers with one or three 1/2" holes. Fit 4" round boxes. Supplied with thick foam rubber gasket and two #10-24 stainless steel screws. 3 hole cover comes with one die cast 1/2" close-up plug.

Color: White

Weight: 0.2 lbs

Technical Specifications

UL Listing:

Suitable for wet locations.

Covers:

Precision die cast aluminum round covers.

Screws:

10-24 Brass Round Head Phillips/slotted.

Gasket:

1/8" thick closed cell silicone rubber for long lasting seal won't crumple or break.

Replacement Plugs:

Available for round and rectangular covers and boxes.

Hole Count:

3 Hole

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

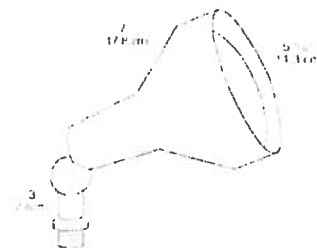


H101W

Large size flood for easier relamping and glare reduction. Durable one piece die casting with rugged mounting arm, weatherproof gasket and drain holes. Accepts 150 watt PAR 38 max. Lamp not supplied.

Color: White

Weight: 1.4 lbs



Lamp Info

Type: PAR38
Watts: 150W
Shape/Size: N/A
Base: N/A
ANSI: N/A
Hours: 0
Lamp Lumens: 0
Efficacy: N/A

Ballast Info

Type: N/A
120V: N/A
208V: N/A
240V: N/A
277V: N/A
Input Watts: 0W
Efficiency: N/A

Technical Specifications

UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground. When using as an uplight in outdoor applications, a Hood or a Visor must be used.

Sockets:

Porcelain with all copper current carrying components.

Swivels:

Fully adjustable with sure-grip locks. 1/2" NPS threaded arm with serrated locking swivel fits all standard mounting covers. Color matched EZ Grip lock nuts.

Housings:

Die cast aluminum with powder coat finish.

Lamps:

Medium base Par-38 lamps up to 150 watts. Halogen lamps give brighter light and choice of beam spreads.

Gaskets:

High temperature silicone rubber extends around both socket and lamp.

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

VXCW

Die cast aluminum wiring box with weatherproof gasket, ground screw, and two sturdy lugs for wall or ceiling mounting. Supplied with four color matched close-up plugs.

Color: White

Weight: 0.5 lbs

Technical Specifications

UL Listing:

Suitable for wet locations.

Box Material:

Precision die cast aluminum.

Gasket:

1/8" thick closed cell silicone rubber.

Screws:

10-24 Stainless steel Round Head Phillips/slotted.

Ground Screw:

10-24 Green corrosion protected steel slotted washer head screw provided in pre-tapped hole
Box Diameter

Side Hole Thread Size:

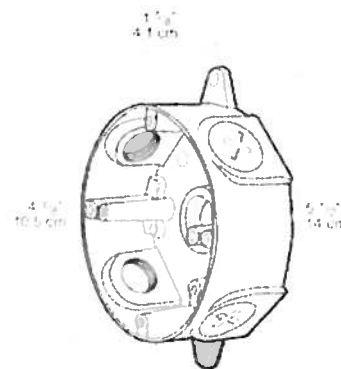
1/2"

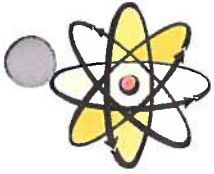
Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

Weight Capacity:

If the fixture you are using weighs more than 20 lbs., use an XC cover plate instead of a C103.





Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast harbor, Maine 04662

Re: Somesville Fire Department

The property currently has (1) pole-mounted light that is fed directly from the Utility line. The light is operated by a photo-cell.

The property also has (2) wall-mounted HPS fixtures on the South side that seem to be on continuously.

The property also has (1) 2-head flood-light on the West side of the building, to shine on the Generator area. This light is switch controlled.

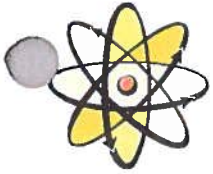
The property also has (7) wall lights that currently have CFL lamps installed in them. These lights are switch controlled.

The scope of work would involve...

1. If the Utility allows it, I would replace the pole-mounted light with the LED version listed in the package:
 - a. This light would continue to be controlled by a photo-cell.
2. Replace the (2) wall-mounted HPS fixtures with (2) LED fixtures mounted as high as possible:
 - a. These lights would be controlled by a photo-cell.
3. I would replace the aging 2-head flood lamp fixture with a new box, cover, and covered type heads, and lamp it with (2) LED flood lamps:
 - a. This lamp would continue to be switch controlled.
4. I would replace the (7) CFL type lamps with self-ballasted, LED lamps:
 - a. These lamps would continue to be switch controlled.

Efficiency Maine does not offer any cash incentive to change from CFL type lamps to an LED version.

Efficiency Maine does not offer any cash incentive to replace light fixtures that are owned by the Utility.



Atom Electric LLC
March 21, 2014
Page 2 of 2

I would perform the above mentioned work for a price "not to exceed"...
\$1000.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC



MDES Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	4020 Watts	0 Watts	3645 Watts
Replacement Lighting	1878 Watts	0 Watts	1878 Watts
Energy Savings KWH / year	9356 KWH/year	0 KWH/year	9356 KWH/year
Energy Savings \$\$\$ / year	\$1590.52 / year	\$0 / year	\$1590.52 / year
Base Fixture Cost (minus Rebates)		\$3,483 \$0 / year	\$3,483
Payoff / years	2.19 years	0 years	2.19 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page 001 OF 001
QUOTE # 1018770	Date 02/26/14	Rev # 002	Rev Date 02/26/14
QUOTE EXPIRES 03/28/2014		PREPARED BY SHAWN	
SLS 3324		INSLs 4000	
FOB SHIPPING POINT		FREIGHT PREPAID	

CUS PO #:

JOB NAME:

NE HBR SCHOOL

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	RECESSED 6" TRIMS					
02	4	COOPR	RL560WH6830	LED RETROFIT	52.00	E	208.00
03	*	SQUARE TRIMS					
04	*	I HAVE NO REPLACEMENT FOR THE SQUARE TRIMS					
05	*	IF THEY CAN BE CONVERTED TO ROUND YOU COULD USE THE					
06	*	SAME TRIMS AS ABOVE					
07	*	70 WATT DOME STYLE FIXTURE (OUT BACK ENTRY)					
08	2	SYL	LED20A21/DIM/O/827	78951 20W LMP	4035.00	C	80.70
09	*	FRONT POLE LIGHTS					
10	*	NO REPLACEMENT LAMPS FOR THESE					
11	*	YOU WOULD NEED TO BUY NEW FIXTURES IF YOU WANT "LED"					
12	7	RAB	WPLEDC52/PCS	LED WLPK LT FX	357.00	E	2,499.00
13	*	ROOF MOUNTED FLOODS					
14	4	ATLAS	FLDX84LEDS	84W LED FLOODLIGHT	571.35	E	2,285.40
15	*	REBATE IF APPROVED=\$1130.00					
16	*	4-RECESSED LED TRIMS @\$35.00 EACH					
17	*	2-20 WATT LED BULBS @ \$25.00 EACH					
18	*	7-52 WATT WALL PACKS @ \$100.00 EACH					
19	*	4- 84 WATT FLOODS @ \$60.00 EACH					
20	*	ESTIMATED SAVINGS BASED ON ALL FIXTURES RUNNING 1 HOUR					
21	*	PER DAY 7 DAYS A WEEK IS \$142.57					

MDSE: 5,073.10

TAX: 279.02

TOTAL: 5,352.12

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

DESCRIPTION

The Halo RL560 is a complete LED Baffle-Trim Module for 5" and 6" aperture recessed downlights; suitable for new construction, remodel and retrofit installation. The RL560 is cULus Listed for use with Halo and All-Pro, and is UL Classified for use with other compatible 5" and 6" housings. The RL560 with integral LED driver offers 120 volt dimming capability. The RL560 lens provides uniform illumination and wet location listing. The die-cast construction makes any housing AIR-TITE for added HVAC savings and code compliance.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

MECHANICAL

Module - Trim

- Module includes LED, heat sink, reflector, lens, baffle-trim and driver
- Durable die-cast aluminum construction
- Heat sink designed to conduct heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments
- Halo matte white paint finish
- Halo satin nickel plated finish

Lens

- Impact-resistant polycarbonate
- Convex form for lamp-like appearance
- High lumen transmission
- Diffusing for even illumination

MOUNTING

Torsion Spring Brackets

- Precision formed torsion spring brackets secure torsion springs to fit compatible housings with torsion spring mounting tabs.

5" & 6" Friction Blade Kit

- Stainless steel friction blades provide alternative to torsion springs for retrofit in 5" and 6" housings without torsion spring mounting tabs.
- Friction blade design allows the RL560 to be installed in any position within the housing aperture (360 degrees).
- Replacement Kit: model RL56CLIP

Housing Compatibility

See Housing Compatibility

LED

- 600 lumens
- Color Temperature: 3000K
- CRI: 83
- Lumen Maintenance: L70/B50 70% lumens / 50,000 hours
- Efficacy 64 Lumens per Watt
- LED is a chip on board design consisting of a multiple LED package to create one virtual light source for a productive "cone of light"

ELECTRICAL

Power Connections

- LED connector is a non-screw base luminaire disconnect offering easy installation with the matching Halo 5" H550 Series and 6" H750 Series housings.

- LED Connector meets California Title-24 high-efficacy luminaire requirement for a non-screw base socket, and where required to qualify as a high-efficacy luminaire.
- The included E26 medium screw-base Edison adapter provides easy retrofit of incandescent housings (see Housing Compatibility).

Ground Connection

- Separate grounding cable included on the module for attachment to the housing during installation.

LED Driver

- Dimmable driver is a 120 Volt, high efficiency, electronic power supply providing DC power to the LED.
- Driver meets FCC EMI/RFI Consumer Level limits for use in residential and commercial installations.
- Driver features high power factor, low THD, and has integral thermal protection in the event of over temperature or internal failure.
- Driver is specifically designed for compatibility with RL560 series LED.

Dimming

- The Halo RL560 LED module is designed for dimming capability to 15% in normal operation with standard 120V electronic low voltage, LED-Rated, and many incandescent dimmers.
- The RL560 has dimming capability to 5% with select dimmers with low end trim adjustment. (Consult dimmer manufacturer for dimmer compatibility and details. Note, some dimmers require a neutral in the wallbox.)

Warranty

Cooper Lighting provides a five year limited warranty on RL56 LED.

Compliance

Labels

- UL/cUL Listed 1598 Luminaire (with listed Halo and All-Pro housings)
- UL Classified (with other housings - see Housing Compatibility)
- UL/cUL Listed for Damp Location
- UL/cUL Listed for Wet Location - Shower Applications
- IP56 Ingress Protection rated
- May be installed in housings in direct contact with air permeable insulation and combustible material

Qualification

- ENERGY STAR® qualified
- Can be used for State of California Title 24 high efficacy luminaire compliance
- Can be used for International Energy Conservation Code (IECC) high efficacy luminaire compliance

IC and AIR-TITE™

Certified under ASTM-E283 and listed UL/cUL 1598 with compatible housings, may be used to meet insulated ceiling and restricted air-flow requirements such as:

- Washington State Energy Code
- International Energy Conservation Code (IECC)
- New York State Energy Conservation Construction Code (NY-ECCC)
- State of California Title 24 "Recessed Luminaires in Insulated Ceilings."

RL560 Series Energy Data:

(Values at non-dimming line voltage)
Minimum Starting Temp: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 18, Class B (Consumer)
Sound Rating: Class A standards
Input Voltage: 120V
Power Factor: >0.90
Input Frequency: 50/60Hz
THD: <20%
Rated Wattage: 10W
Input Power: 9.4W
Input Current: .15A
Maximum IC (Insulated Ceiling) Ambient Continuous Operating Temperature: 25°C (77°F)
Maximum Non-IC Ambient Continuous Operating Temperature 40°C (104°F)



Qualified and compliant. Refer to ENERGY STAR® Qualified Products List and CEC (T24) Appliance Database for listings.



RL560WH - White



RL560SN - Satin Nickel

5-Inch / 6-Inch LED Recessed Retrofit Baffle-Trim Module with LED Connector and E26 Medium Screw-base Adapter

FOR USE IN INSULATED CEILING AND NON-INSULATED CEILING RATED HOUSINGS

HIGH EFFICACY LED WITH INTEGRAL DRIVER - DIMMABLE

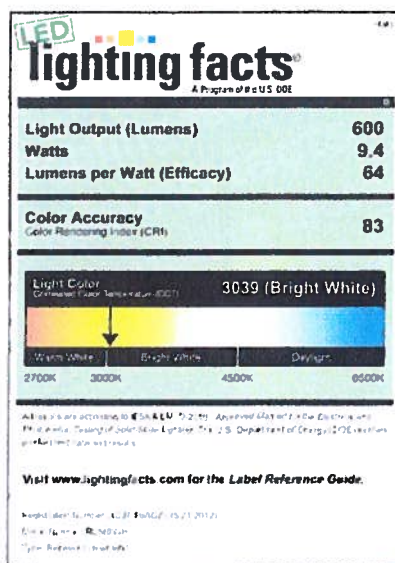
LED Lighting Data:

Lumens:	600
Correlated Color Temperature (CCT):	3000K
Color Rendering Index (CRI, Ra):	83

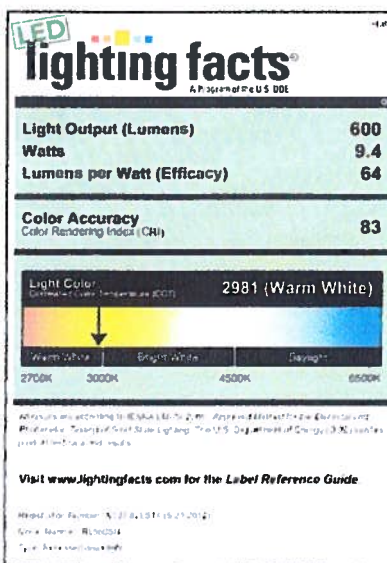


LIGHTING FACTS

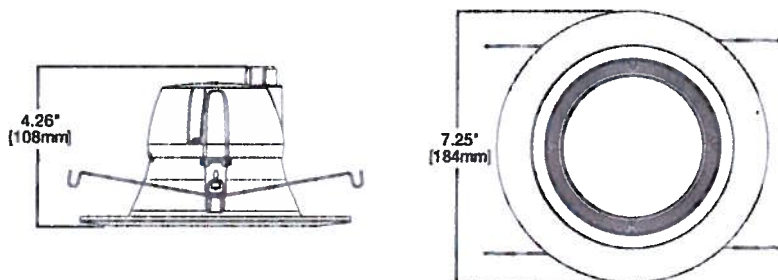
RL560WH



RL560SN



DIMENSIONS



ORDERING INFORMATION

SAMPLE NUMBER: RL560WH

Complete unit includes a RL560 Baffle-Trim LED Module and a 5" and 6" compatible housing, ordered separately.

RL56 Series

RL560WH= 6" Retrofit Baffle - Trim LED Module, Matte White
RL560SN= 6" Retrofit Baffle - Trim LED Module, Satin Nickel

Accessory (order separately)

RL56CLIP=Replacement kit of 5" and 6" Friction Clips for retrofitting into an existing housing without torsion spring receiving brackets.
OT400P=Oversize Flat White Metal Trim Ring 6" I.D. x 9-1/4" O.D. (ring slips behind RL560 ring, in stepped configuration)
OT403P=Oversize White Plastic Trim Ring 6" I.D. x 8" O.D. (ring slips behind RL560 ring, in stepped configuration)
TRIM690WH=Oversize Matte White Metal Trim Ring. Designed for RL560 ring to inset into oversize ring for an even (non-stepped) trim surface

HOUSINGS - Halo and All-Pro UL Listed Compatibility**Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)**

HALO	Recessed Can Size	Catalog Number	Description
	5"	H550ICAT	5" LED, Insulated Ceiling, AIR-TITE, New Construction Housing
		H550RICAT	5" LED, Insulated Ceiling, AIR-TITE, Remodel Housing
	6"	H750ICAT	6" LED, Insulated Ceiling, AIR-TITE, New Construction Housing
		H750RICAT	6" LED, Insulated Ceiling, AIR-TITE, Remodel Housing
		H750T	6" LED, Non-IC, AIR-TITE, New Construction Housing
		H750TD010	6" LED, Non-IC, AIR-TITE, New Construction Housing, 0-10V DC Dimming
		H750TCPD010	6" LED, Non-IC, AIR-TITE, New Construction/Remodel Chicago Plenum Housing, 0-10V DC Dimming
		H750RINTD010	6" LED, Non-IC, AIR-TITE, Remodel International Housing, 0-10V DC Dimming
		H750RTD010	6" LED, Non-IC, AIR-TITE, Remodel Housing, 0-10V DC Dimming
		H750TCP	6" LED, Non-IC, New Construction/Remodel Chicago Plenum Housing
		H2750ICAT	6" LED, Shallow, Insulated Ceiling, AIR-TITE, New Construction Housing

Compatible Halo Incandescent E26 Screwbase Housings

HALO	5"	H5ICAT	5" Insulated Ceiling, AIR-TITE New Construction Housing
		H5RICAT	5" Insulated Ceiling, AIR-TITE Remodel Housing
		H5T	5" Non-IC, New Construction Housing
		H5RT	5" Non-IC, Remodel Housing
		H5TM	5" Non-IC, New Construction Housing (metric version - Canada)
		H25ICAT	5" Shallow, Insulated Ceiling, AIR-TITE New Construction
	6"	H7ICAT	6" Insulated Ceiling, AIR-TITE New Construction Housing
		H7RICAT	6" Insulated Ceiling, AIR-TITE Remodel Housing
		H7ICT	6" Insulated Ceiling, New Construction Housing
		H7RICT	6" Insulated Ceiling, Remodel Housing
		H7ICATNB	6" Insulated Ceiling, AIR-TITE New Construction Housing, No Socket Bracket
		H7ICTNB	6" Insulated Ceiling, New Construction Housing, No Socket Bracket
		H7T	6" Non-IC, New Construction Housing
		H7RT	6" Non-IC, Remodel Housing
		H7TNB	6" Non-IC, New Construction Housing, No Socket Bracket
		H7TCP	6" Non-IC, Chicago Plenum, New Construction/Remodel Housing
		H7UICT	6" Insulated Ceiling, Universal New Construction Housing
		H7UICAT	6" Insulated Ceiling, Universal, AIR-TITE, New Construction Housing
		H27ICAT	6" Shallow, Insulated Ceiling, AIR-TITE New Construction Housing
		H27RICAT	6" Shallow, Insulated Ceiling, AIR-TITE Remodel Housing
		H27ICT	6" Shallow, Insulated Ceiling, New Construction Housing
		H27RICT	6" Shallow, Insulated Ceiling, Remodel Housing
		H27T	6" Shallow, Non-IC, New Construction Housing
		H27RT	6" Shallow, Non-IC, Remodel Housing

Halo LED Retrofit Enclosures

HALO	6"	ML7BXRFK	6" Retrofit Enclosure, Non-IC, BX Whip
		ML7E26RFK	6" Retrofit Enclosure, Non-IC, E26 Screw base Interface

HOUSINGS - Halo and All-Pro UL Listed Compatibility (continued)**Compatible All-Pro Incandescent E26 Screwbase Housings**

All-Pro	Recessed Can Size	Catalog Number	Description
	5"	EI500AT	5" Insulated Ceiling, AIR-TITE New Construction Housing
		EI500RAT	5" Insulated Ceiling, AIR-TITE Remodel Housing
		ET500	5" Non-IC, New Construction Housing
		ET500R	5" Non-IC, Remodel Housing
	6"	EI700AT	6" Insulated Ceiling, AIR-TITE New Construction Housing
		EI700RAT	6" Insulated Ceiling, AIR-TITE Remodel Housing
		EI700	6" Insulated Ceiling, New Construction Housing
		EI700R	6" Insulated Ceiling, Remodel Housing
		EI700ATNB	6" Insulated Ceiling, AIR-TITE New Construction Housing, No Socket Bracket
		EI700NB	6" Insulated Ceiling, New Construction Housing, No Socket Bracket
		EI700U	6" Insulated Ceiling, Universal New Construction Housing
		EI700UAT	6" Insulated Ceiling, Universal, AIR-TITE, New Construction Housing
		ET700	6" Non-IC, New Construction Housing
		ET700R	6" Non-IC, Remodel Housing
		EI2700AT	6" Shallow, Insulated Ceiling, AIR-TITE New Construction Housing
		EI2700	6" Shallow, Insulated Ceiling, New Construction Housing
		EI2700R	6" Shallow, Insulated Ceiling, AIR-TITE Remodel Housing
		ET2700	6" Shallow, Non-IC, New Construction Housing
		ET2700R	6" Shallow, Non-IC, Remodel Housing

HOUSINGS - UL Classified for retrofit compatibility

RL560 is UL Classified for retrofit in the following 5" and 6" recessed housings:

Juno	IC22, IC22R, IC22W, IC22S, IC23, IC23W, IC21, IC21R, IC2, TC2, TC2R, IC20, IC20R, IC25, IC25R, IC25W, IC25S, TC20, TC20R
Capri	CR1, PR1, QL1, R9ASIC, R5*
Lightolier	1104ICS*, 1104ICR*, 1104SIC*, 1104SICR*, 1004ICS*, 1004ICR*, 1004SIC*, 1004SICR*
	1104ICX - Requires installation of ML7RAB retrofit adapter band accessory (not included).
Progress	P87-AT*, P86TG
Lithonia	L7X, L7XP
Thomas	PS1, R9ASIC/PS9RM
Prescolite	IBXS
Commercial Electric	C7ICA (H3), H18
Elco	(HL7ICA) EL7ICA

*Requires replacement of torsion springs with friction clips (accessory replacement kit: RL56CLIP).

*Shallow Lightolier housings require can to be raised to highest position and two tabs inside socket cup to be bent outward.

ULTRA LED A-line Lamps

Omnidirectional



Rated up to 25,000 hours at 70% lumen maintenance, SYLVANIA ULTRA LED A-line omnidirectional lamps offer years of service and reduce energy and maintenance costs. SYLVANIA ULTRA LED lamps are environmentally preferred products. They are RoHS compliant and contain no mercury, lead or other hazardous materials. They emit no UV or IR radiation. A CRI of 80 ensures good color definition and with warm white 2700K CCT, these lamps can be used in many applications in both homes and businesses.

Key Features & Benefits

- Dimmable down to 10%*
- Long life: up to 25,000 hours (L₇₀)
- UV and IR free
- Mercury and lead free
- RoHS compliant
- Available in 2700K color temperature
- Suitable for indoor environments only
- Reduces energy consumption up to 82%
- Last up to 33 times longer than incandescent lamps
- No warm-up time, instant-on with full light output and stable color

* Performance may vary depending on dimmer used in application. Please refer to Dimmer Compatibility List (RETRO-DIM) for a list of compatible dimmers or visit www.SYLVANIA.com/LED Retrofit



Product Offering

Ordering Abbreviation	Wattage	Color Temperature	Typical Lumens
LED8A19/DIM/O/827	8	2700K	470
LED12A19/DIM/O/827	12	2700K	820
LED14A19/DIM/O/827	14	2700K	1100
LED20A21/DIM/O/827	20	2700K	1600

Application Information

Applications

- Downlights
- Pendant fixtures
- Table lamps
- Wall sconces

Market Segments

- Healthcare
- Hospitality
- Residential
- Retail

Application Notes

1. Operating temperature range between -20°C and +45°C (-4°F and + 113°F)
2. Not for use with emergency light fixtures or exit lights
3. Use in open fixture
4. Suitable for indoor use

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Ordering Information

Item Number	Ordering Abbreviation	Wattage (W)	Base Type	Replaces	Input Voltage (V)	Average Rated Life (hrs.) ¹	CCT ³	Typical Lumens (lm) ²	CRI ⁴	Power Factor	Bulb Finish	ENERGY STAR [®]
78935	LED8A19/DIM/O/827	8	Medium	40WA19	120	25,000	2700K	470	80	.95	Frosted	Yes
78907	LED12A19/DIM/O/827	12	Medium	60WA19	120	25,000	2700K	820	80	.95	Frosted	Yes
78911	LED14A19/DIM/O/827	14	Medium	75WA19	120	25,000	2700K	1100	80	.98	Frosted	No
78951	LED20A21/DIM/O/827	20	Medium	100WA19	120	25,000	2700K	1600	81	.98	Frosted	No

OSRAM SYLVANIA submits most lamps for ENERGY STAR testing. Early qualification for ENERGY STAR lamps begin at 25,000 hours (L_{70}) regardless that the design of the lamp is manufactured for a greater life expectancy. As the lamps pass ENERGY STAR qualifications, manufacturers are able to increase rated life as dictated by ENERGY STAR guidelines becoming either provisionally qualified or fully qualified. Please visit ENERGYSTAR.gov for more information about testing requirements for ENERGY STAR qualified products.

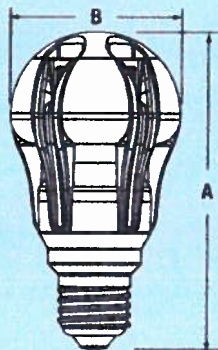
1. Hours lifetime with 70% (L_{70}) lumen maintenance 2. Thermally stable typical lumens ($\pm 10\%$)
 3. Thermally stable typical CCT ($\pm 10\%$) 4. CRI - Color Rendering Index

Ordering Guide

LED LED Lamps	8 Wattage: 8	A19 Lamp Type: A19/A21	/	DIM Dimmable	/	0 Omnidirectional	/	827 CRI, CCT: 827: 80+ CRI, 2700K CCT
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Lamp Dimensions

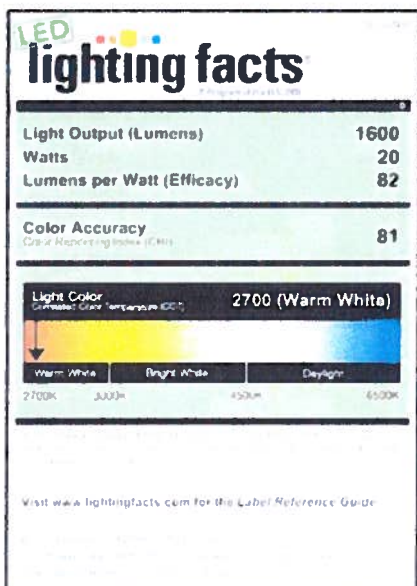
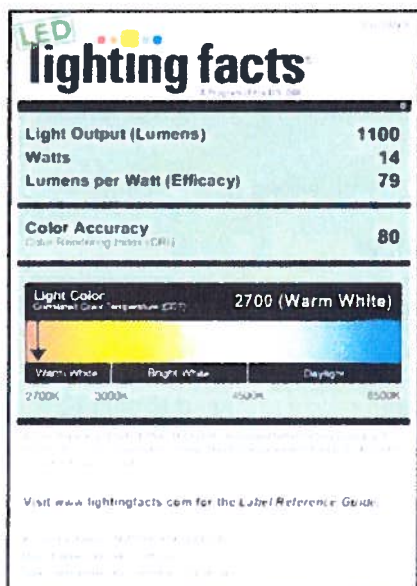
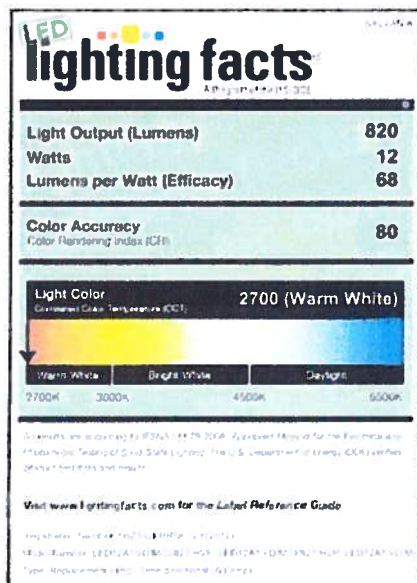
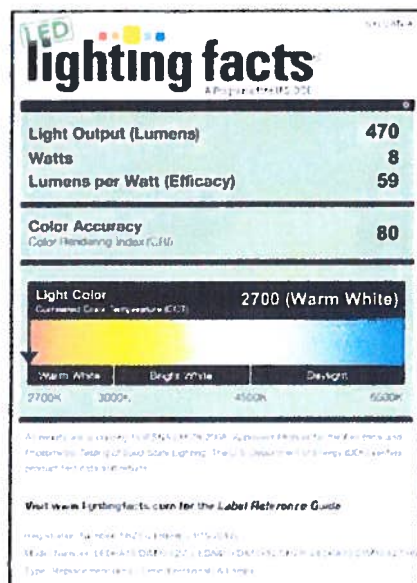
	(A) HDL (inches)	(B) Diameter (inches)
LED8A19	4.42	2.44
LED12A19	4.42	2.44
LED14A19	4.42	2.44
LED20A21	5.29	2.99



Energy Savings

Basic Product Description	LED Life (hrs.)	LED Lumens	Similar Incandescent	Incandescent Lumens	Incandescent Life (hrs.)	Watts Saved	Energy Savings*	LED Life vs. Incandescent
LED8A19	25,000	470	40W A19	465	1500	32	\$ 88.00	>16x
LED12A19	25,000	820	60W A19	850	1000	48	\$132.00	25x
LED14A19	25,000	1100	75W A19	1170	750	61	\$167.75	>33x
LED20A21	25,000	1600	100W A19	1690	750	80	\$220.00	> 33x

*Energy savings over life of lamp calculated at \$0.11/kWh



United States
OSRAM SYLVANIA
100 Endicott Street
Danvers, MA 01923
1-800-LIGHTBULB

Trade
Phone: 800-255-5042
Fax: 800-255-5043

National Accounts
Phone: 800-562-4671
Fax: 800-562-4674

OEM/Special Markets
Phone: 800-762-7191
Fax: 800-762-7192

Retail
Phone: 800-842-7010
Fax: 800-842-7011

SYLVANIA Lighting Services
Phone: 800-323-0572
Fax: 800-537-0784

Display/Optic
Phone: 888-677-2627
Fax: 855-543-1043

Canada
OSRAM SYLVANIA LTD.
2001 Drew Road
Mississauga, ON L5S 1S4
1-800-LIGHTBULB

Trade
Phone: 800-263-2852
Fax: 800-667-6772

OEM/Special Markets/Display/Optic
Phone: 800-265-2852
Fax: 800-667-6772

Retail
Phone: 800-720-2852
Fax: 800-667-6772

SYLVANIA Lighting Services
Phone: 800-663-4268
Fax: 866-239-1278

Mexico
OSRAM MEXICO
Tultitlan/Edo de Mexico
Phone: 011-52-55-58-99-18-50

ENCELUM Technologies
United States
Phone: 201-928-2400
Fax: 201-928-4028

Canada
Phone: 905-731-7678
Fax: 905-731-1401

www.sylvania.com

[/sylvania](https://twitter.com/sylvania)
[/sylvania](https://facebook.com/sylvania)

SYLVANIA is a registered trademark of OSRAM SYLVANIA Inc.
SEE THE WORLD IN A NEW LIGHT is a registered trademark of OSRAM SYLVANIA Inc.
ENERGY STAR is a registered trademark of the US government.
Specifications subject to change without notice.

WPLEDC52/PCS2

LED 52W Wallpacks. 3 cutoff options. Patent Pending thermal management system. 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze

Weight: 17.6 lbs

LED Info

Watts: 52W
Color Temp: 5000K (Cool)
Color Accuracy: 65
L70 Lifespan: 100000
LM79 Lumens: 5,903
Efficacy: 97 LPW

Driver Info

Type: Constant Current
120V: N/A
208V: 0.33A
240V: 0.29A
277V: 0.24A
Input Watts: 61W
Efficiency: 86%

Technical Specifications

Photocell:

277V Swivel Photocell Included. Photocell is compatible with 208V-277V.

UL Listing:

Suitable for wet locations.

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

LEDs:

Two (2) multi-chip, high-output, long-life LEDs.

Drivers:

Two drivers, constant current, 720mA, Class 2, 100 - 277V, 50 - 60 Hz, 100 - 277VAC .8 Amps.

THD:

8.3% at 120V, 11% at 277V

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Surge Protection:

6kV

Cold Weather Starting:

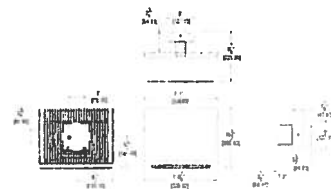
The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The WPLED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:

Precision die cast aluminum housing, lens frame.



Mounting:

Die-cast aluminum wall bracket with (5) 1/2" conduit openings with plugs. Two-piece bracket with tether for ease of installation and wiring.

Arm:

Die-cast aluminum with wiring access plate.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Patents:

The WPLED design is protected by patents in the U.S. Pat D653,377, Canada Pat. 142252, China Pat. ZL201130356930.8, and Mexico Pat. 36921 and pending patent in TW.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone.

RAB
LIGHTING

Tech Help Line: 888 RAB-1000

Email: sales@rabweb.com

On the web at: www.rabweb.com

Lens:

Tempered glass

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

WPLEDs are Mercury and UV free.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Replacement:

The WPLED52 replaces 250W HID Wallpacks.

California Title 24:

WPLED complies with California Title 24 building and electrical codes.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. See our full warranty .

Country of Origin:

Designed by RAB in New Jersey and assembled in Taiwan.

Trade Agreements Act Compliant:

This product is a product of Taiwan and a "designated country" end product that complies with the Trade Agreements Act.

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

FLDX84LED 84 Watt LED Flood Light

SPECIFICATIONS:
Construction:

Rugged Traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility. The smooth housing prevents debris build up and maximizes airflow over housing.

Optics:

Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations reduces glare and offensive light.

Thermal Management:

Atlas' Patent Pending exclusive Thermal Stacking Technology System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:

Luminaire is certified to UL Standards for Wet Locations

AC Input:

120/208/240/277 V

Driver:

Constant current, Class 2, 120-277 VAC, 50-60 Hz

High Efficiency – min. 88%

Off-State Power: 0 Watts

LEDs:

4100K CCT

Delivers 70% or greater of initial lumens at 100,000 hours

Epoxy Guard™ protective conformal coated boards

Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance. They are tested and binned at 700mA which is the actual operating current used in Atlas LED luminaires, giving a better representation of actual performance.

Reduced Glare:

Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Warranty:

Five-year limited warranty

Testing:

Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80, and have received the Department of Energy "Lighting Facts" label.

Installation:

Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Weight:

15.0 lbs

Photo Control:

For factory installed 120V button photo control add suffix PC to part number.

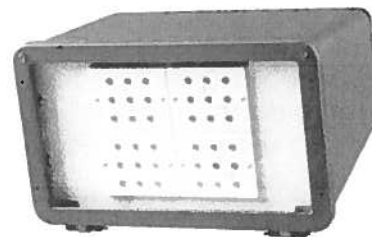
Project Information

Job Name

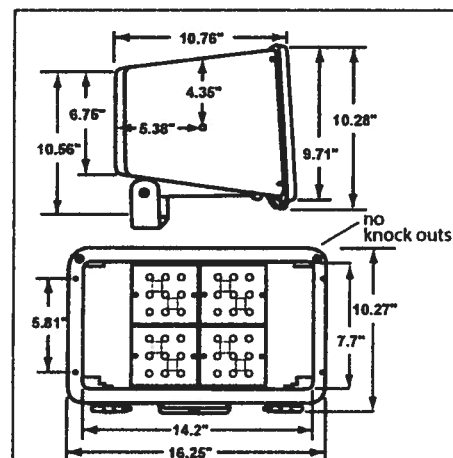
Fixture Type 84 Watt LED Flood Light

Catalog Number FLDX84LED

Approved by



Optional Factory
Installed Slipfitter
FLDX-84LED5

DIMENSIONS:


Patent Pending

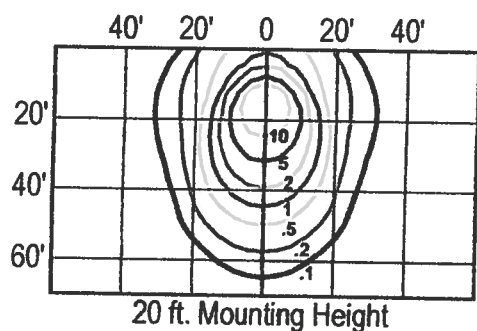
ATLAS LIGHTING PRODUCTS, INC.

PO BOX 2348 | BURLINGTON, NC 27216

800-849-8485 | FAX: 336-227-0110 | www.atlaslightingproducts.com

Made in the USA of US and imported parts. Meets Buy American requirements within the ARRA.

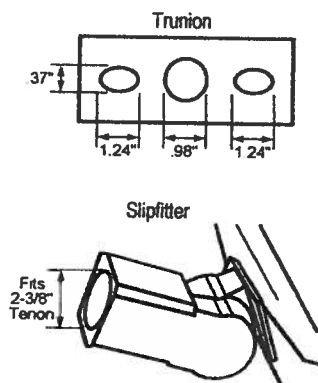
PHOTOMETRIC



ENERGY SAVINGS

LED		HID			ANNUAL SAVINGS
WATTAGE	ANNUAL COST	SOURCE WATTAGE	TOTAL WATTAGE USED	ANNUAL COST	
84	\$37	200	232	\$103	\$66
84	\$37	250	285	\$125	\$88
84	\$37	400	458	\$201	\$164

MOUNTING DETAIL



To Order Use Part #: **FLDX-84LEDS**

lighting facts®

A Program of the U.S. DOE

Light Output (Lumens)	6767
Watts	82.07
Lumens per Watt (Efficacy)	82

Color Accuracy	71
Color Rendering Index (CRI)	

Light Color
Correlated Color Temperature (CCT) 3929 (Bright White)



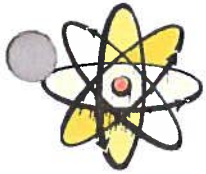
All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: PRB4-R744FA / 7-18-2013

Model Number: FLDX84LED Upgrade 07-2013

Label Field or Spotlight Fixture



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast Harbor, Maine 04662

Re: Mt. Desert Elementary School

The property currently has (9) recessed lights under canopies. The lights are operated dusk-to-dawn.

There is (1) 20W LED fixture that shines on the flag-pole. The light is operated dusk-to-dawn.

There are (6) "artsy" type pole lights on the North side. These lights are operated dusk-to-dawn.

The property also has (7) wall-mounted HPS fixtures on the South and West sides. These fixtures are controlled by photo-cell.

The property also has (2) surface-mounted MH fixtures at one of the rear entries. These fixtures are operated dusk-to-dawn.

There is (1) 9W fluorescent step light with unknown control.

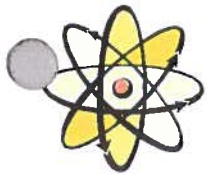
The property also has (3) roof-mounted 400W MVR fixtures. These fixtures are controlled by a photo-cell.

The scope of work would involve...

1. Rewire the round recess lights to accept a round LED fixture/trim.
2. Replace the square recessed lights with a round housing that would accept a round LED fixture/trim.
3. The LED flag-pole light would remain. It is already an LED.
4. The (6) "artsy" lights would need to remain, because there is not an equivalent replacement.
5. The (7) wall-mounted HPS fixtures would be replaced by LED type.
6. The (2) surface-mounted fixtures would need to be rewired to accept the self-ballasted, screw in, LED light bulbs.
7. The 9W fluorescent step light would remain.
8. The (3) roof-mounted MVR fixtures would be replaced with LED type.

All fixtures would continue to be controlled as before.

Efficiency Maine does not offer any cash incentive to change from CFL type lamps to an LED version.



Atom Electric LLC
March 21, 2014
Page 2 of 2

I would perform the above mentioned work for a price "not to exceed"...
\$2500.00 plus the cost of the fixtures/lamps.

<

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC





NEH Town Office Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	2127 Watts	0 Watts	2127 Watts
Replacement Lighting	963 Watts	0 Watts	963 Watts
Energy Savings KWH / year	5084 KWH/year	0 KWH/year	5084 KWH/year
Energy Savings \$\$\$ / year	\$864.28 / year	\$0 / year	\$864.28 / year
Base Fixture Cost (minus Rebates)		\$1,564 \$0 / year	\$1,564
Payoff / years	1.81 years	0 years	1.81 years

	Dusk-to-Dawn	Switched	Total
Utility fed Lighting	512 Watts		512 Watts
Replacement Lighting	0 Watts		0 Watts
Energy Savings KWH / year	2236 KWH/year		2236 KWH/year
Energy Savings \$\$\$ / year	\$380.12 / year		\$380.12 / year
Base Fixture Cost (minus Rebates)		\$0	\$0
Payoff / years			

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018772	02/26/14	000	02/26/14
QUOTE EXPIRES		PREPARED BY	
03/28/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

N.E. HBR TOWN OFFICE

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	PARKING LOT POLE LIGHTS					
02	6	MISC	LED-8033	REPLACEMENT LAMP	174.29	E	1,045.74
03	*	35 WATT WALL PACKS					
04	3	LUMAR	XTOR3A-PC1	30W 5000K LED PC-120V BRONZE	254.29	E	762.87
05	*	23 WATT CFL SCREW IN LAMPS					
06	2	SYL	LED12A19/DIM/O/827	78907 12W LED LMP	27.71	E	55.42
07	*	KIM LTV10					
08	*	NO REPLACEMENT					
09	*	REBATE IF APPROVED=\$300.00					
10	*	NO REBATE FOR THE POLE LIGHT LAMPS					
11	*	3-WALL PACKS @ \$100.00 EACH					
12	*	NO REBATE FOR "LED REPLACING CFLS"					
13	*	ESTIMATED ANNUAL ENERGY SAVINGS \$812.00					

MDSE: 1,864.03

TAX: 102.52

TOTAL: 1,966.55

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

LED-8033 Post Top / Site / Wall Pack

38w = 150W
LED MH / HPS

SKU No. (USA)

LED-8033E30

LED-8033E42

LED-8033E57

SKU No. Canada

LED-8033E30C 38W, 3000K

LED-8033E42C 38W, 4200K

LED-8033E57C 38W, 5700K

Description:

LED retrofit design to replace MH and HPS lamps up to 150w. Fully encapsulated, 38 watt LED with E26 Edison base. Compact size and 360° LED placement allows suitable for fully enclosed post top, shoe box and other typical HID fixtures giving full illumination. 38W power consumption

- Replaces up to a 150W HID
- 360° Illumination with "Up mounted LED's"
- 120-277VAC, Non-Dimmable (USA)
- 120-347VAC, Non-Dimmable (Canada)
- Available in 3000K, 4200K, and 5700K CCT
- >80 CRI
- 50,000 hr. rated L70 LED life
- Operating temp: -40°F - 122°F
- Double Insulated
- UL Listed (US & CA) Damp Locations and rated for enclosed fixtures
- 5 Year warranty

Applications:

LED Post top / Site / Area LED for HID retrofit lamps lower energy costs, bulb and ballast replacement costs and also can greatly reduce costly equipment rental when re-lamping HID lamps on and off cycle. LED for HID retrofits will also eliminate lamp disposal issues due to the mercury content in many HID lamps.

- Outdoor area lighting
- Bollard / Post Top
- Wall Pack
- Cold display
- Security Lighting

Packaging: 9/Master Carton

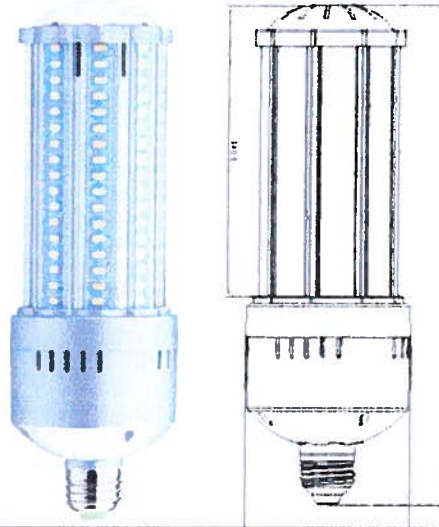
Unit : 4.7" x 4.7" x 8.9"

Master: 14.8" x 14.8" x 9.5"

Installation Notes:

- When installing LED-8000 series retrofit lamps within HID fixtures, ballast must be bypassed when present.
- 8000 series retrofits are UL damp rated, sealing the fixtures after installation will deliver best results.
- Installing surge/lightning protectors is highly recommended and helps to eliminate premature driver failure caused by surges and other power fluctuations.

Top Mounted LED's!



lighting facts
LED Product Partner



Technical Specifications

Bulb Type	HID Retrofit	Mounting	E26
Bulb Material	Aluminum/ Polycarbonate	LEDs:	153 Samsung/ Mason #5630 LED's
Power Consumption	38 watts	Beam Angle	360 °
Lumens	3000K: 3889 Lm 4200K: 4232 Lm 5700K: 4116 Lm	Dimmable	No
Efficacy	100-107 LPW	Replaces	Up to 150W HID
Rated LED Life	Up to 50,000 Hrs.	CCT	3000K 4200K 5700K
Power Factor:	>99	CRI:	> 80
IR / UV	None	Mercury/ Lead Content	None
Warranty	5 year Limited	Dimensions	9.52" X 3.15"

Note: All specification information falls within a $\pm 2\%$ range and is subject to change without notice.

NOTE: Light Efficient Design is providing this Information to the general public. Please note that all products contained herein are trademarked, copyrighted, and/or have patents pending. Any use of these designs is strictly prohibited without prior written consent. Light Efficient Design protects its proprietary information vigorously in the courts of the United States of America.

188 S Northwest Highway • Cary, IL 60013
(847) 380-3540 • FAX: (847) 380-3542
www.led-llc.com

SPIC LED-8028 5/1/2013

DESCRIPTION

The patent pending Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks.

SPECIFICATION FEATURES

Construction

Slim, low profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 10W and 20W. The large housing is available in the 30W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied lever-lock connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 10W models operate in -40°C to 40°C (-40°F to 104°F). 20W and 30W models operate in -30°C to 40°C (-22°F to 104°F). Crosstour luminaires

maintain greater than 70% of initial light output after 50,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 10W, 120V 50/60 Hz., 20W and 30W, 120-277V 50/60Hz.

Finish

Crosstour is protected with a Super TGIC carbon bronze or summit white polyester powder coat paint. SuperTGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

Crosstour features a five-year limited warranty.



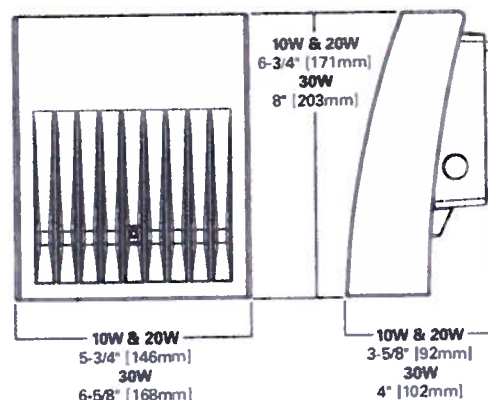
XTOR CROSSTOUR LED

WALL / SURFACE MOUNT
POST / BOLLARD MOUNT
LOW LEVEL MOUNT
INVERTED MOUNT

SustainableLEDesign

DESIGNLIGHTS
A LUMARK COMPANY

DIMENSIONS



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Ingress Protection Rated
ADA Compliant
LM79 / LM80 Compliant
ROHS Compliant
ARRA Compliant
DLC Qualified Models
Lighting Facts® Approved
Title 24 Compliant
NOM Compliant Models

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area:
(Sq. Ft.)
XTOR1A/XTOR2A=0.34
XTOR3A = 0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

ORDERING INFORMATION

SAMPLE NUMBER: XTOR2A-N-WT-PC1

--	--	--	--	--

Series
 XTOR1A=Small Door, 10W ¹
 XTOR2A=Small Door, 20W ²
 XTOR3A=Large Door, 30W ²

LED Kelvin Color ³
 — = Bright White
 (Standard) 5000K
 N = Neutral Warm
 White, 3500K

Housing Color
 — = Carbon Bronze (Standard)
 WT = Summit White

Options (specify voltage) ⁴
 PC1=Photocontrol 120 V
 PC2=Photocontrol 208-277 V

Accessories ⁵
 WG/XTOR=Wireguard (fits both)

Notes:

1 120V only XTOR1A not available in 3500K.

2 Design Lights Consortium™ qualified (down mount only).

Consult Design Lights Consortium website for all applications.

3 PC2 only available in 20W and 30W models.

4 PC1 and PC2 photo controls are factory installed. PC2 not available on XTOR1A models.

5 Order WG/XTOR wire guard separately.

STOCK ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A = 10W, 5000K, Carbon Bronze	XTOR2A = 20W, 5000K, Carbon Bronze	XTOR3A = 30W, 5000K, Carbon Bronze
XTOR1A-WT = 10W, 5000K, Summit White	XTOR2A-N = 20W, 3500K, Carbon Bronze	XTOR3A-N = 30W, 3500K, Carbon Bronze
XTOR1A-PC1 = 10W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT = 20W, Summit White	XTOR3A-WT = 30W, Summit White
	XTOR2A-PC1 = 20W, 120V PC, Carbon Bronze	XTOR3A-PC1 = 30W, 120V PC, Carbon Bronze



Days Quick-Ship

5-DAY QUICK SHIP ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A-WT-PC1 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC2 = 20W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2 = 30W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1 = 20W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1 = 30W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2 = 20W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2 = 30W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT = 20W, 3500K, Summit White	XTOR3A-N-WT = 30W, 3500K, Summit White
	XTOR2A-N-PC1 = 20W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1 = 30W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2 = 20W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2 = 30W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WT-PC1 = 20W, 3500K, Summit White, 120V PC	XTOR3A-N-WT-PC1 = 30W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2 = 20W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2 = 30W, 3500K, Summit White, 208-277V PC

LUMENS - CRI / CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens	719	1361	947	2243	1600
CCT (Kelvin)	5000	5000	3500	5000	3500
Color Rendering Index (CRI)	68	67	86	69	84

CURRENT DRAW

	XTOR1A	XTOR2A	XTOR3A
120V	.13A	0.2A	0.3A
208V	--	0.1A	0.15A
240V	--	0.15A	0.15A
277V	--	0.15A	0.15A

ULTRA LED A-line Lamps

Omnidirectional



Rated up to 25,000 hours at 70% lumen maintenance, SYLVANIA ULTRA LED A-line omnidirectional lamps offer years of service and reduce energy and maintenance costs. SYLVANIA ULTRA LED lamps are environmentally preferred products. They are RoHS compliant and contain no mercury, lead or other hazardous materials. They emit no UV or IR radiation. A CRI of 80 ensures good color definition and with warm white 2700K CCT, these lamps can be used in many applications in both homes and businesses.

Key Features & Benefits

- Dimmable down to 10%*
- Long life: up to 25,000 hours (L₇₀)
- UV and IR free
- Mercury and lead free
- RoHS compliant
- Available in 2700K color temperature
- Suitable for indoor environments only
- Reduces energy consumption up to 82%
- Last up to 33 times longer than incandescent lamps
- No warm-up time, instant-on with full light output and stable color

* Performance may vary depending on dimmer used in application. Please refer to Dimmer Compatibility List (RETRO-DIM) for a list of compatible dimmers or visit www.SYLVANIA.com/LED Retrofit



Product Offering

Ordering Abbreviation	Wattage	Color Temperature	Typical Lumens
LED8A19/DIM/O/827	8	2700K	470
LED12A19/DIM/O/827	12	2700K	820
LED14A19/DIM/O/827	14	2700K	1100
LED20A21/DIM/O/827	20	2700K	1600

Application Information

Applications

- Downlights
- Pendant fixtures
- Table lamps
- Wall sconces

Market Segments

- Healthcare
- Hospitality
- Residential
- Retail

Application Notes

1. Operating temperature range between -20°C and +45°C (-4°F and + 113°F)
2. Not for use with emergency light fixtures or exit lights
3. Use in open fixture
4. Suitable for indoor use

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b.



Specification Data

Prepared by

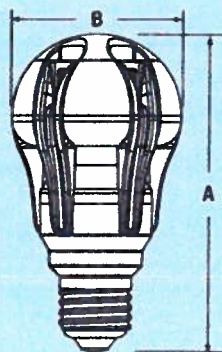
Item Number	Ordering Abbreviation	Wattage (W)	Base Type	Replaces	Input Voltage (V)	Average Rated Life (hrs.) ¹	CCT ²	Typical Lumens (lm) ²	CRI ⁴	Power Factor	Bulb Finish	ENERGY STAR [®]
78935	LED8A19/DIM/0/827	8	Medium	40WA19	120	25,000	2700K	470	80	.95	Frosted	Yes
78907	LED12A19/DIM/0/827	12	Medium	60WA19	120	25,000	2700K	820	80	.95	Frosted	Yes
78911	LED14A19/DIM/0/827	14	Medium	75WA19	120	25,000	2700K	1100	80	.98	Frosted	No
78951	LED20A21/DIM/0/827	20	Medium	100WA19	120	25,000	2700K	1600	81	.98	Frosted	No

OSRAM SYLVANIA submits most lamps for ENERGY STAR testing. Early qualification for ENERGY STAR lamps begin at 25,000 hours (L₇₀) regardless that the design of the lamp is manufactured for a greater life expectancy. As the lamps pass ENERGY STAR qualifications, manufacturers are able to increase rated life as dictated by ENERGY STAR guidelines becoming either provisionally qualified or fully qualified. Please visit ENERGYSTAR.gov for more information about testing requirements for ENERGY STAR qualified products.

1. Hours lifetime with 70% (L_{70}) lumen maintenance 2. Thermally stable typical lumens ($\pm 10\%$)
3. Thermally stable typical CCT ($\pm 10\%$) 4. CRI – Color Rendering Index

LED	8	A19	/	DM	/	0	/	827
LED	Wattage:	Lamp Type:		Dimmable		Omnidirectional		CRI, CCT:
Lamps	8	A19/A21						827: 80+ CRI, 2700K CCT

	(A) MOL (Inches)	(B) Diameter (Inches)
LED8A19	4.42	2.44
LED12A19	4.42	2.44
LED14A19	4.42	2.44
LED20A21	5.29	2.99




Energy Savings

Basic Product Description	LED Life (hrs.)	LED Lumens	Similar Incandescent	Incandescent Lumens	Incandescent Life (hrs.)	Watts Saved	Energy Savings*	LED Life vs. Incandescent
LED8A19	25,000	470	40W A19	465	1500	32	\$ 88.00	>16x
LED12A19	25,000	820	60W A19	850	1000	48	\$132.00	25x
LED14A19	25,000	1100	75W A19	1170	750	61	\$167.75	>33x
LED20A21	25,000	1600	100W A19	1690	750	80	\$220.00	> 33x

*Energy savings over life of lamp calculated at \$0.11/kWh

[illegible]



LED lighting facts


A Program of the U.S. DOE

Light Output (Lumens)	820
Watts	12
Lumens per Watt (Efficacy)	68

Color Accuracy Color Rendering Index (CRI)	90
--	-----------

Light Color
 Correlated Color Temperature (CCT)

2700 (Warm White)



Warm White

Bright White

Daylight

2700K

3000K

4500K

6500K

Awards are given to LEDS that meet or exceed the following minimum requirements:

- Lumens per Watt of at least 50
- Color Rendering Index (CRI) of at least 90
- Color Temperature of 2700K or higher
- Life span of at least 25,000 hours

Visit www.lightingfacts.com for the Label Reference Guide

LED 10W

lighting facts

A Energy Star® LED

Light Output (Lumens)	1100
Watts	14
Lumens per Watt (Efficacy)	79

Color Accuracy
Color Rendering Index (CRI)

80


Light Color
Color Temperature (Kelvin)

2700 (Warm White)

Warm white Bright white Daylight

2700K 3000K 4500K 6500K

Visit www.lightingfacts.com for the Label Reference Guide

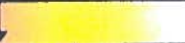


lighting facts

WHICH LED LIGHT IS BEST FOR YOU?

Light Output (Lumens)	1600
Watts	20
Lumens per Watt (Efficacy)	82

Color Accuracy	81
<small>Color Rendering Index (CRI)</small>	

Light Color <small>Correlated Color Temperature (CCT)</small> 	2700 (Warm White)
--	--------------------------

Warm White
Bright White
Daylight

2700K
3000K
4500K
6500K

Visit www.lightingfacts.com for the Label Reference Guide!

United States
OSRAM SYLVANIA
100 Endicott Street
Danvers, MA 01923
1-800-LIGHTBULB

Trade
Phone: 800-255-5042
Fax: 800-255-5043

National Accounts
Phone: 800-562-4671
Fax: 800-562-4674

OEM/Special Markets
Phone: 800-762-7191
Fax: 800-762-7192

Retail
Phone: 800-842-7010
Fax: 800-842-7011

SYLVANIA Lighting Services
Phone: 800-323-0572
Fax: 800-537-0784

Display/Optic
Phone: 888-677-2627
Fax: 855-543-1043

Canada
OSRAM SYLVANIA LTD.
2001 Drew Road
Mississauga, ON L5S 1S4
1-800-LIGHTBULB

Trade
Phone: 800-263-2852
Fax: 800-667-6772

OEM/Special Markets/Display/Optic
Phone: 800-265-2852
Fax: 800-667-6772

Retail
Phone: 800-720-2852
Fax: 800-667-6772

SYLVANIA Lighting Services
Phone: 800-663-4268
Fax: 866-239-1278

Mexico
OSRAM MEXICO
Tultitlan/Edo de Mexico
Phone: 011-52-55-58-99-18-50

ENCELIUM Technologies

United States
Phone: 201-928-2400
Fax: 201-928-4028

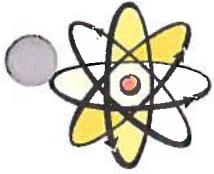
Canada
Phone: 905-731-7678
Fax: 905-731-1401

www.sylvania.com

 /sylvania

 /sylvania

SYLVANIA is a registered trademark of OSRAM SYLVANIA Inc.
SEE THE WORLD IN A NEW LIGHT is a registered trademark of OSRAM SYLVANIA Inc.
ENERGY STAR is a registered trademark of the US government.
Specifications subject to change without notice.



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast Harbor, Maine 04662

Re: NEH Town Office

The property currently has (1) pole-mounted light that is fed directly from the Utility line. The light is operated by a photo-cell.

The property also has (6) pole-mounted parking lot lights. These lights are operated dusk-to-dawn.

The property also has (3) wall-mounted HPS fixtures on the South side and West side. These fixtures are controlled by photo-cell.

The property also has (2) wall-mounted LED lights on the South side.

These fixtures are controlled by switch and photo-cell.

The property also has (1) in-ground mounted flag-pole light. This light is operated dusk-to-dawn.

The property also has (6) wall lights that currently have CFL lamps installed in them. These lights are operated dusk-to-dawn.

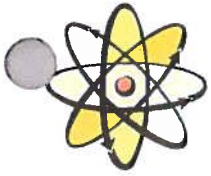
The scope of work would involve...

1. Eliminate the Utility owned light that shines on the North side of the building. It is not needed.
2. Rewire the (6) pole lights to accept a self-ballasted LED lamp.
3. Replace the (3) wall-mounted HPS fixtures with LED type.
4. The wall-mounted LED lights will remain.
5. The in-ground flag-pole light will remain, because there is no equivalent replacement.
6. Replace the CFL lamps with LED type.

All lights will continue to be controlled as before.

Efficiency Maine does not offer any cash incentive to change from CFL type lamps to an LED version.

Efficiency Maine does not offer any cash incentive to replace light fixtures that are owned by the Utility.



Atom Electric LLC
March 21, 2014
Page 2 of 2

I would perform the above mentioned work for a price "not to exceed"...
\$1250.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,



Jay C. Perruzzi
Atom Electric LLC



NEH Marina1 Dock Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	620 Watts	0 Watts	620 Watts
Replacement Lighting	168 Watts	0 Watts	168 Watts
Energy Savings KWH / year	1974.3 KWH/year	0 KWH/year	1974.3 KWH/year
Energy Savings \$\$\$ / year	\$335.63 / year	\$0 / year	\$335.63 / year
Base Fixture Cost (minus Rebates)	\$1,023	\$0 / year	\$1,023
Payoff / years	3.05 years	0 years	3.05 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018736	02/21/14	002	02/26/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

N.E. HBR DOCK

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	DOUBLE FLOODS ON POLES					
02	2	ATLAS	FLDX84LEDS	84W LED FLOODLIGHT	571.35	E	1,142.70
03	*	REBATE IF APPROVED: \$120.00					
04	*	2- FLOODS AT \$60.00 EACH = \$120.00					
05	*	ESTIMATED ANNUAL SAVINGS \$335.64					

MDSE: 1,142.70

TAX: 62.85

TOTAL: 1,205.55

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

FLDX84LED 84 Watt LED Flood Light



SPECIFICATIONS:

Construction:

Rugged Traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility. The smooth housing prevents debris build up and maximizes airflow over housing.

Optics:

Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations reduces glare and offensive light.

Thermal Management:

Atlas' Patent Pending exclusive Thermal Stacking Technology System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:

Luminaire is certified to UL Standards for Wet Locations

AC Input:

120/208/240/277 V

Driver:

Constant current, Class 2, 120-277 VAC, 50-60 Hz

High Efficiency – min. 88%

Off-State Power: 0 Watts

LEDs:

4100K CCT

Delivers 70% or greater of initial lumens at 100,000 hours

Epoxy Guard™ protective conformal coated boards

Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance. They are tested and binned at 700mA which is the actual operating current used in Atlas LED luminaires, giving a better representation of actual performance.

Reduced Glare:

Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Warranty:

Five-year limited warranty

Testing:

Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80, and have received the Department of Energy "Lighting Facts" label.

Installation:

Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Weight:

15.0 lbs

Photo Control:

For factory installed 120V button photo control add suffix PC to part number.

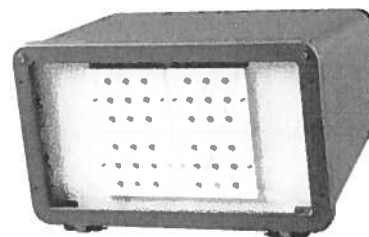
Project Information

Job Name

Fixture Type 84 Watt LED Flood Light

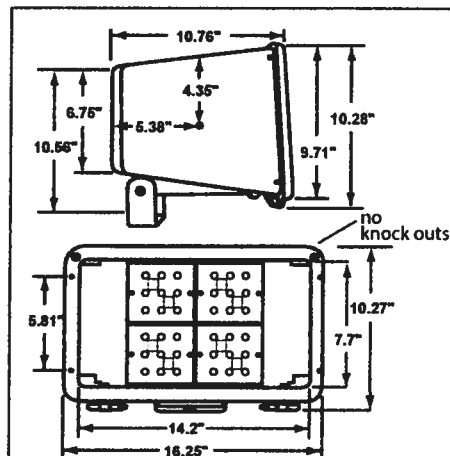
Catalog Number FLDX84LED

Approved by



Optional Factory
Installed Slipfitter
FLDX-84LEDS

DIMENSIONS:



Patent Pending

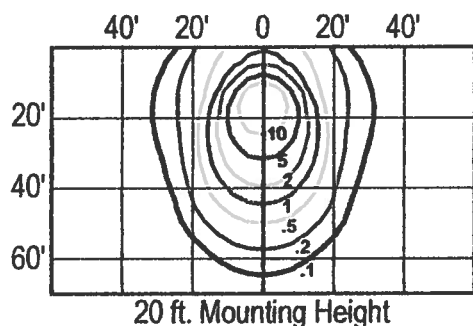
ATLAS LIGHTING PRODUCTS, INC.

PO BOX 2348 | BURLINGTON, NC 27216

800-849-8485 | FAX: 336-227-0110 | www.atlaslightingproducts.com

Made in the USA of US and imported parts. Meets Buy American requirements within the ARRA.

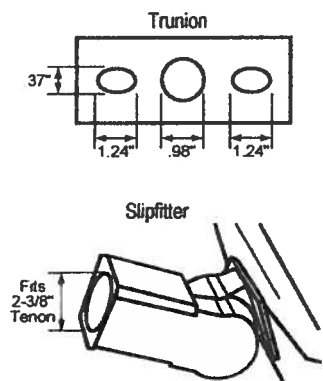
PHOTOMETRIC



ENERGY SAVINGS

LED		HID			ANNUAL SAVINGS
WATTAGE	ANNUAL COST	SOURCE WATTAGE	TOTAL WATTAGE USED	ANNUAL COST	
84	\$37	200	232	\$103	\$66
84	\$37	250	285	\$125	\$88
84	\$37	400	458	\$201	\$164

MOUNTING DETAIL



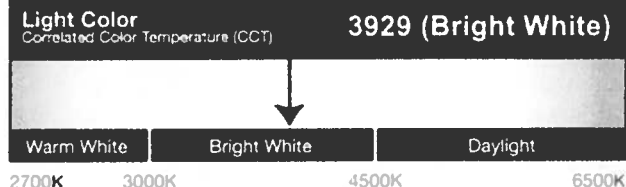
To Order Use Part #: FLDX-84LEDS

lighting facts®

A Program of the U.S. DOE

Light Output (Lumens) 6767
Watts 82.07
Lumens per Watt (Efficacy) 82

Color Accuracy 71
 Color Rendering Index (CRI)



All results are according to IESNA LM-79-2008 - *Approved Method for the Electrical and Photometric Testing of Solid State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: PRB4-R244E6 v1 18 2013

Model Number: FLDX84LED Update 07 2013

Type: Flood (No Spill) Fixture

NEH Marina2 Bollard/Building Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	1776 Watts	0 Watts	1776 Watts
Replacement Lighting	376 Watts	0 Watts	376 Watts
Energy Savings KWH / year	6115.2 KWH/year	0 KWH/year	6115.2 KWH/year
Energy Savings \$\$\$ / year	\$1039.58 / year	\$0 / year	\$1039.58 / year
Base Fixture Cost (minus Rebates)	\$17,343	\$0 / year	\$17,343
Payoff / years	16.7 years	0 years	16.7 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

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TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018950	03/21/14	001	03/21/14
QUOTE EXPIRES		PREPARED BY	
04/20/2014		SHAWN	
SLS		INSLs	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

NEH MARINA BOLLARDS

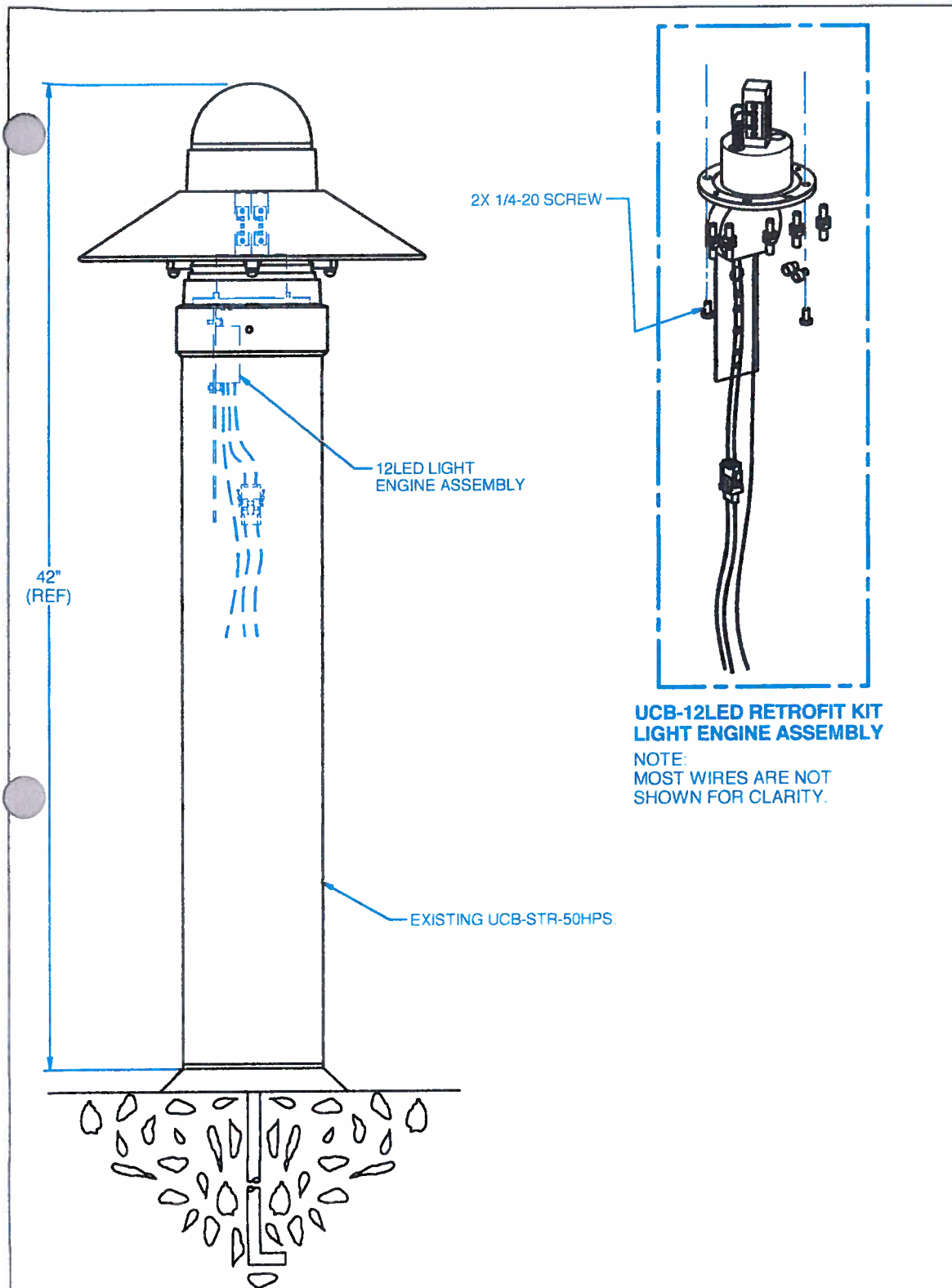
LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	BOLLARD RETROFIT					
02	20	MISC	14A-1135-UCB-RETROFI	14A-1135-UCB-RETROFIT-12LE D-MTB	746.67	E	14,933.40
03	*	WALL MT RETROFIT					
04	2	MISC	14A-1136-UCS-RETROFI	14A-1136-UCS-RETROFIT-12LE D-MTB	746.67	E	1,493.34
05	*	NO EFFICIENCY MAINE REBATE...					
06	*	ANNUAL ESTIMATED ENERGY SAVINGS \$550.00					

MDSE: 16,426.74

TAX: 903.47

TOTAL: 17,330.21

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TYPE

CATALOG NUMBER

UCB-12LED WW OR BW
RETROFIT

14A-1135

FINISH: POLYESTER POWDER
COAT.

AAL COLOR:

TO MATCH:

PROVIDE A SAMPLE COLOR CHIP

LAMPING LED

LAMP TYPE LED

SOCKET LED

WATTAGE 32 watts

VOLTAGE 120 thru 277 volts

ANCHOR BOLTS
QTY

SIZE

BOLT CIRCLE

PROJECTION

FS1/FS2 OPTIONS:
FUSE HOLDERS ONLY.
FUSES BY OTHERS.

LEVELING NUTS AND WASHERS
MUST BE INSTALLED UNDER ALL
BASES

ONE APPROVED DRAWING
MUST BE RETURNED TO A.A.L.
BEFORE THIS PRODUCT CAN BE
FABRICATED

WARNING: THIS FIXTURE MUST
BE GROUNDED IN ACCORDANCE
WITH LOCAL CODES OR THE
NATIONAL ELECTRICAL CODE.
FAILURE TO DO SOMAY RESULT
IN SERIOUS PERSONAL INJURY.

SOLD TO:

PO#

JOB NAME:

NORTHEAST HARBOR MARINA RETROFIT

14A-1135

DATE
3/19/2014

DRWN
Paolo

DATE
REVIEWED

By ddeconick at 1:39 pm, Mar 19, 201

DATE
REV

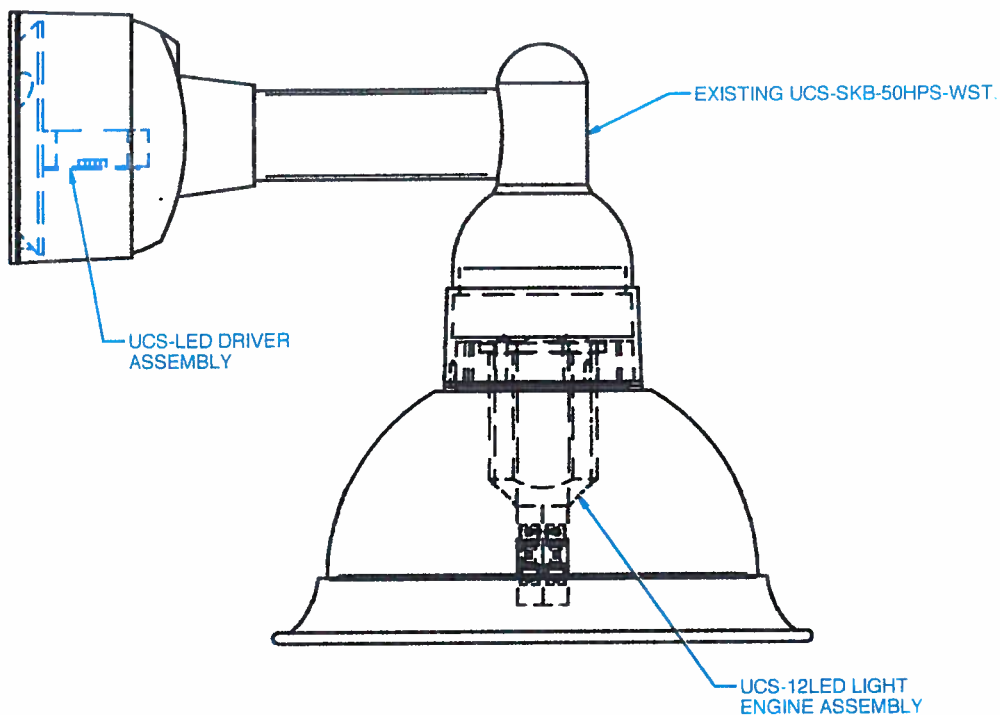


Hubbell Lighting, Inc.

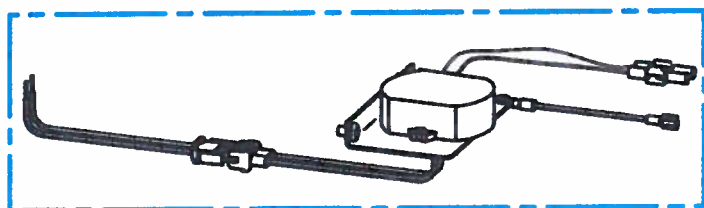


16555 East Gale Avenue
City of Industry, CA 91745
(626)968-5666

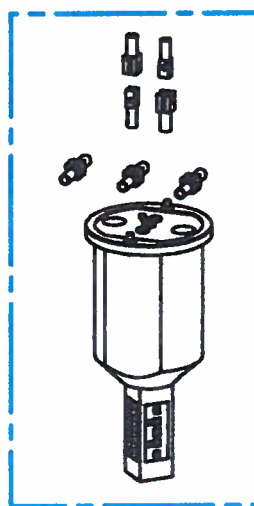
Architectural Area Lighting
Reserves The Right To Change
Manufacturing Processes Without
Notice.



NOTE:
MOST WIRES ARE NOT
SHOWN FOR CLARITY.



UCS-LED DRIVER ASSEMBLY



UCS-12LED RETROFIT
LIGHT ENGINE ASSEMBLY

TYPE	
CATALOG NUMBER	UCS-12LED WW OR BW RETROFIT
	14A-1136
FINISH: POLYESTER POWDER COAT.	
AAL COLOR:	
TO MATCH:	
PROVIDE A SAMPLE COLOR CHIP	
LAMPING	LED
LAMP TYPE	LED
SOCKET	LED
WATTAGE	32 watts
VOLTAGE	120 thru 277 volts
ANCHOR BOLTS QTY	
SIZE	
BOLT CIRCLE	
PROJECTION	
FS1/FS2 OPTIONS: FUSE HOLDERS ONLY. FUSES BY OTHERS.	
LEVELING NUTS AND WASHERS MUST BE INSTALLED UNDER ALL BASES	
ONE APPROVED DRAWING MUST BE RETURNED TO A.A.I. BEFORE THIS PRODUCT CAN BE FABRICATED	
WARNING: THIS FIXTURE MUST BE GROUNDED IN ACCORDANCE WITH LOCAL CODES OR THE NATIONAL ELECTRICAL CODE. FAILURE TO DO SOMAY RESULT IN SERIOUS PERSONAL INJURY.	

SOLD TO:

PO#

JOB NAME:

NORTHEAST HARBOR MARINA RETROFIT



Hubbell Lighting, Inc.



16555 East Gale Avenue
City of Industry, CA 91745
(626)968-5666

Architectural Area Lighting
Reserves The Right To Change
Manufacturing Processes Without
Notice.

14A-1136

DATE 3/19/2014 DRWN Paolo

REVIEWED

By ddeconick at 4:04 pm, Mar 19, 201

NEH Marina3 Pole/Ground Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	5028 Watts	0 Watts	5028 Watts
Replacement Lighting	1084 Watts	0 Watts	1084 Watts
Energy Savings KWH / year	17227.4 KWH/year	0 KWH/year	17227.4 KWH/year
Energy Savings \$\$\$ / year	\$2928.66 / year	\$0 / year	\$2928.66 / year
Base Fixture Cost (minus Rebates)	\$5,569	\$0 / year	\$5,569
Payoff / years	1.90 years	0 years	1.90 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTATION			Page
			001 OF 002
QUOTE #	Date	Rev #	Rev Date
1018920	03/18/14	001	03/18/14
QUOTE EXPIRES		PREPARED BY	
04/17/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

CUS PO #:

JOB NAME:

NEH MARINA

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	POLES					
02	17	MISC	UCM-LK-T2-32LED-5K-7	UCM-LK-T2-32LED-5K-700-MTB -WIRED1	502.57	E	8,543.69
03	*	ESTIMATED EFFICIENCY MAINE REBATE \$2975.00					
04	*	JAY THIS FIXTURE WOULD NEED TO BE SUBMITTED FOR APPROVAL					
05	*	WITH EFFICIENCY MAINE...IT IS NOT ON THE DLC LIST					
06	*						
07	*	BOLLARDS					
08	20	SYL	LED12A19/DIM/O/827	78907 12W LED LMP	27.71	E	554.20
09	*	THEY DO NOT AN "LED" REPLACEMENT FOR THE BOLLARDS					
10	*	YOU COULD USE LED LAMPS BUT THE LAMP LIFE WOULD BE LESS					
11	*	THAN THE 50,000 HOURS STATED ON THE LAMPS					
12	*	ESTIMATED EFFICIENCY MAINE REBATE \$300.00					
13	*						
14	*	HARBOR MASTERS BUILDING					
15	2	SYL	LED12A19/DIM/O/827	78907 12W LED LMP	27.71	E	55.42
16	*	SAME AS BOLLARDS/NO LED REPLACEMENT NOW					
17	*	YOU COULD USE LED LAMPS BUT THE LAMP LIFE WOULD BE LESS					
18	*	THAN THE 50,000 HOURS STATED ON THE LAMPS					
19	*	ESTIMATED EFFICIENCY MAINE REBATE \$30.00					
20	*						
21	*	YACHTSMAN BUILDING					
22	1	SYL	LED12A19/DIM/O/827	78907 12W LED LMP	27.71	E	27.71
23	*	SAME AS BOLLARDS/NO LED REPLACEMENT NOW					
24	*	YOU COULD USE LED LAMPS BUT THE LAMP LIFE WOULD BE LESS					
25	*	THAN THE 50,000 HOURS STATED ON THE LAMPS					
26	*	ESTIMATED EFFICIENCY MAINE REBATE \$15.00					
27	*						
28	*	ESTIMATED ANNUAL SAVINGS ON THE BOLLARDS AND WALL					
29	*	MOUNTED FIXTURES \$922.00 ANNUALLY					
30	*						

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CED

DBA GILMAN ELECTRIC-ELLSWORTH

25 EASTWARD LANE, SUITE 2

ELLSWORTH ME 04605

TEL: 207 667-6166 FAX: 207 667-2201

CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211

SOUTHWEST HARBOR, ME 04679

TEL: (207) 244-7508

QUOTATION			Page
			002 OF 002
QUOTE #	Date	Rev #	Rev Date
1018920	03/18/14	001	03/18/14
QUOTE EXPIRES		PREPARED BY	
04/17/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

NEH MARINA

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
31	*	ESTIMATED ANNUAL SAVINGS ON THE POLE LIGHTS \$670.00					
32	*	ANNUALLY					

MDSE: 9,181.02

TAX: 504.96

TOTAL: 9,685.98

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

UCM-LK – Universe® Medium – MicroCore Upgrade Kits

TYPE |

- 0-10v dimming ready
- Surge protection included

- IP66 Construction of optics
- Color matched Bezel



UCM (MicroCore)

1. UPGRADE KIT	2. UPLIGHT	3. DISTRIBUTION	4. COLOR TEMPERATURE	5. BALLAST/ DRIVER	6. BEZEL FINISH/ COLOR
UCM-LK					

1. UPGRADE KIT

- ☐ UCM-LK – Universe medium 32 LED upgrade kit

2. UPLIGHT

- ☐ UPLT – LEDs for internal illumination of housings with luminous elements, additional 4 watts.

2. DISTRIBUTION (Class 2, 120 thru 277 volt)

- ☐ T2 (IES Type 2 distribution)
☐ T3 (IES Type 3 distribution)
☐ T4 (IES Type 4 distribution)
☐ T5 (IES Type 5 distribution)
☐ TL (IES 45° Left distribution)
☐ TR (IES 45° Right distribution)

3. COLOR TEMPERATURE

- ☐ 32LED-3K (Warm White 3000K diodes)
☐ 32LED-4K (Neutral White 4000K diodes)
☐ 32LED-5K (Bright White 5000K diodes)

4. BALLAST/DRIVER

- ☐ 700 (700 milliamp drive current, 75 watts.)

5. BEZEL FINISH/COLOR

Bezel available in 13 standard finishes and premium finishes.

- ☐ AWT (Arctic White)
☐ BLK (Black)
☐ MTB (Matte Black)
☐ DGN (Dark Green)
☐ DBZ (Dark Bronze)
☐ WRZ (Weathered Bronze)
☐ BRM (Metallic Bronze)
☐ VBL (Verde Blue)
☐ CRT (Corten)
☐ MAL (Matte Aluminum)
☐ MDG (Medium Grey)
☐ ATG (Antique Green)
☐ LGY (Light Grey)
☐ RAL/PREMIUM COLOR (Provide RAL)
☐ CUSTOM COLOR (Provide color chip for matching)

SPECIFICATIONS

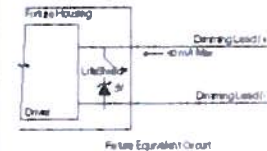
OPTICAL

All optical systems shall provide IES Types II, III, IV, V, Custom, 45° Left & 45° Right distributions. Standard color temperatures shall be 3000K, 4000K and 5000K. See <http://www.aal.net> for comprehensive photometric data.

MicroCore upgrade kits shall be composed of a distributed optical array of modules assembled together. Each module shall position the LEDs in a canted orientation allowing the diode's natural maximum output to begin at a high peak angle. An optically clear injection molded lens shall be coupled to every diode and LEDs shall be mounted to an anodized aluminum die-cast heat sink. A one piece injection molded silicone gasket shall seal each module for protection from the environment. MicroCore upgrade kits shall require the use of the existing flat glass lens of existing luminaires. An optional house side shield shall be integral to each module. Luminaires featuring MicroCore light engines are provided standard without a glass lens.

ELECTRICAL

All upgrade kit shall accept 120 thru 277 volt input with integral surge protection. LifeShield™ shall be provided with all configurations for added protection in extreme temperature environments (-30°C to 60°C). The electrical assembly shall be mounted to a serviceable tray mounted within the driver compartment. The surge protector shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave with a clamping voltage of 320V and surge rating of 372J. The surge protector case shall be a high-temperature, flame resistant plastic enclosure. Driver has a 0-10v dimming interface with a dimming range of 10-100%. Approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV. (Note: not compatible with current sourcing dimmers). Consult factory for compatible dimming systems.



See next page

JOB _____

TYPE _____

NOTES _____

UCM-LK – Universe® Medium – MicroCore Upgrade Kits

TYPE

The first dimension is the height of fixtures with LEDs or horizontal reflectors.
The second is for the opal lens and the third is the glass refractor fixture.


























CERTIFICATION

The upgrade kit shall be listed with ETL for outdoor, wet location use. Conforms to UL1598 and Canadian CSA Std. C22.2 no.250 standard. Universe Luminaire housings shall be constructed to IP65 standards. MicroCore Optical arrays shall be constructed to IP66 standards.

WARRANTY

Housing, LEDs driver and LifeShield™ shall be warranted for five years. Any unauthorized return, repair, replacement or modification of the product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not cover poles, arms, mounting, or any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. *Contact AAL for complete warranty language, exceptions, and limitations.

DIMENSIONS

HOOD	NO LUMINOUS	4 LUMINOUS WINDOW (WIN)	SOLID RINGS (SR)	VERTICAL SLOTS (VSL)	LUMINOUS RINGS (LUM)
ANG	 DIA: 20"/508mm	 14.7"/373mm 18"/457mm 16.7"/424mm	 20.5"/520mm 22.2"/563mm 20.8"/528mm	 20.7"/526mm 22.5"/572mm 21.1"/536mm	 20.5"/521mm 22.2"/564mm 20.8"/528mm
BEL	 DIA: 24"/610mm	 15.8"/401mm 18"/457mm 16.7"/424mm	 21.4"/543mm 22.2"/563mm 20.8"/528mm	 21.6"/549mm 22.5"/572mm 21.1"/536mm	 21.4"/543mm 22.2"/564mm 20.8"/528mm
FLR	 DIA: 22"/559mm	 14.5"/368mm 18.1"/457mm 16.8"/427mm	 19.8"/503mm 22.3"/566mm 21"/533mm	 20.1"/510mm 22.6"/574mm 21.2"/538mm	 19.8"/503mm 22.3"/566mm 21"/533mm
STR	 DIA: 24"/610mm	 14"/355mm 18.1"/457mm 16.7"/424mm	 19.8"/503mm 22.3"/566mm 20.9"/531mm	 20"/506mm 22.5"/574mm 21.2"/538mm	 19.8"/503mm 22.3"/566mm 20.9"/531mm
SKB	 DIA: 24"/610mm	 19.7"/500mm 19.7"/500mm 19.7"/500mm	 23.9"/607mm 23.9"/607mm 23.9"/607mm	 24.2"/615mm 24.2"/615mm 24.2"/615mm	 23.9"/607mm 23.9"/607mm 23.9"/607mm

UCM-T5-32LED-5K-700

WATTAGE: 74.9

LUMEN OUTPUT: 6,721 EFFICACY: 90.0 Lm/W

B3 U0 G1

FORWARD LIGHT LUMEN

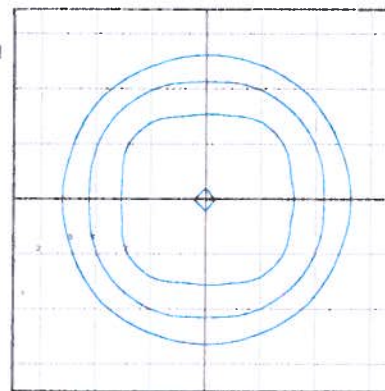
FL	30°	3.0%	198.9
FM	60°	24.5%	1,649.5
FH	80°	22.0%	1,476.8
FVH	90°	1.0%	70

BACK LIGHT

BL	30°	2.9%	197.2
BM	60°	24.2%	1,629.5
BH	80°	21.4%	1,439.2
BVH	90°	1.0%	64

UPLIGHT

UL	100°	0%	-
UH	180°	0%	-



UPLIGHT 0%
DOWNLIGHT 100%

12' MOUNTING HEIGHT

UCM-T3-32LED-5K-700

WATTAGE: 74.9

LUMEN OUTPUT: 6619 EFFICACY: 88 Lm/W

B2 U0 G2

FORWARD LIGHT LUMEN

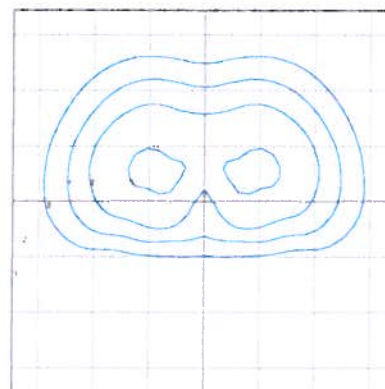
FL	30°	3.6%	239.1
FM	60°	38.6%	2559.6
FH	80°	34.5%	2282.4
FVH	90°	1.2%	79.9

BACK LIGHT

BL	30°	2.3%	150.7
BM	60°	10.9%	720.3
BH	80°	8.3%	550.7
BVH	90°	0.6%	40.0

UPLIGHT

UL	100°	0%	0
UH	180°	0%	0



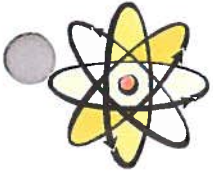
UPLIGHT 0%
DOWNLIGHT 100%

12' MOUNTING HEIGHT

IES files can be found at www.aal.net

WEIGHT & EPA

HOOD	LED	GLASS REFRACTOR	HORIZONTAL REFLECTOR	OPAL LENS
No luminous	WT (lbs)	EPA	WT (lbs)	EPA
ANG	28.55	.60	22.30	.59
BEL	32.00	.73	24.25	.71
FLR	28.85	.53	22.60	.54
STR	31.75	.59	24.00	.60
SKB	32.10	.90	24.35	.90
4 Lum Window				
WND-ANG	30.70	.72	24.45	.72
WND-BEL	34.15	.85	26.40	.83
WND-FLR	31.00	.65	24.75	.66
WND-STR	33.90	.71	26.15	.72
WND-SKB	34.25	1.03	26.50	1.03
Solid Rings				
SR-ANG	33.70	.74	27.45	.74
SR-BEL	37.15	.87	29.40	.85
SR-FLR	34.00	.67	27.75	.68
SR-STR	36.90	.73	29.15	.74
SR-SKB	37.25	1.05	29.50	1.05
Vertical Slots				
VSL-ANG	31.45	.72	25.20	.72
VSL-BEL	34.90	.85	27.15	.83
VSL-FLR	31.75	.65	25.50	.66
VSL-STR	34.65	.71	26.90	.72
VSL-SKB	35.00	1.03	27.25	1.03
Lum Rings				
LUM-ANG	32.85	.74	26.60	.74
LUM-BEL	34.15	.85	28.55	.85
LUM-FLR	33.15	.67	24.75	.66
LUM-STR	36.05	.73	28.30	.74
LUM-SKB	36.40	1.05	28.65	1.05



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast Harbor, Maine 04662

Re: NEH Marina 1, 2, & 3

The property currently has (2) pole-mounted HPS lights on the dock.

The lights are operated by a photo-cell.

The property also has (20) bollard path lights.

These lights are operated dusk-to-dawn.

The property also has (3) wall-mounted HPS fixtures. Two on the South side of the Harbor Master's office and one on the West side of the Yachtsman Building. These fixtures are operated dusk-to-dawn.

The property also has (10) recessed lights with CFL lamps installed, between the Visitor's Center, Harbor Master's Office, and the Yachtsman Building. These fixtures are controlled by switch and/or photo-cell.

The property also has (1) in-ground mounted flag-pole light.

This light is operated dusk-to-dawn.

The property also has (1) in-ground mounted monument light.

This light is operated dusk-to-dawn.

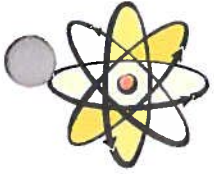
The property also has (17) pole-mounted parking lot lights.

These lights are operated dusk-to-dawn.

The scope of work would involve...

1. Replace the (2) pole-mounted HPS lights with LED type.
2. Install the LED retrofit kits in the (20) bollard path lights.
3. Install the LED retrofit kits in the (3) wall-mounted HPS lights.
4. Rewire the recessed light fixtures to accept screw-in LED lamps.
5. The in-ground flag-pole light will remain, because there is no equivalent replacement.
6. The in-ground monument light will remain, because there is no equivalent replacement.
7. Install the LED retrofit kits in the (17) pole-mounted lights.

All lights will continue to be controlled as before.



Atom Electric LLC
March 21, 2014
Page 2 of 2

Efficiency Maine does not offer any cash incentive to change from CFL type lamps to an LED version.

I would perform the above mentioned work for a price "not to exceed"...
\$4200.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC



Seal Harbor Dock Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	634 Watts		634 Watts
Replacement Lighting	180 Watts		180 Watts
Energy Savings KWH / year	1983.1 KWH/year		1983.1 KWH/year
Energy Savings \$\$\$ / year	\$337.13 / year		\$337.13 / year
Base Fixture Cost (minus Rebates)		\$1,023	\$1,023
Payoff / years	3.03 years		3.03 years

	Dusk-to-Dawn	Switched	Total
Utility fed Lighting	210 Watts		210 Watts
Replacement Lighting	40 Watts		40 Watts
Energy Savings KWH / year	742.6 KWH/year		742.6 KWH/year
Energy Savings \$\$\$ / year	\$126.24 / year		\$126.24 / year
Base Fixture Cost (minus Rebates)		\$185	\$185
Payoff / years	1.46 years		1.46 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018737	02/21/14	002	02/26/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

SEAL HBR DOCK

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	DOUBLE FLOODS ON POLE					
02	2	ATLAS	FLDX84LEDS	84W LED FLOODLIGHT	571.35	E	1,142.70
03	*	YARD LIGHT					
04	1	HUB	DDL9L1	LED DUSK-TO-DAWN 40WATT	185.26	E	185.26
05	*	REBATE IF APPROVED: \$295.00					
06	*	2 FLOODS AT \$60.00 EACH = \$120.00					
07	*	1-YARD LIGHT AT \$175.00 EACH = \$175.00					
08	*	ESTIMATED ANNUAL SAVINGS \$461.87					

MDSE: 1,327.96

TAX: 73.04

TOTAL: 1,401.00

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FLDX84LED 84 Watt LED Flood Light

SPECIFICATIONS:
Construction:

Rugged Traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility. The smooth housing prevents debris build up and maximizes airflow over housing.

Optics:

Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations reduces glare and offensive light.

Thermal Management:

Atlas' Patent Pending exclusive Thermal Stacking Technology System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:

Luminaire is certified to UL Standards for Wet Locations

AC Input:

120/208/240/277 V

Driver:

Constant current, Class 2, 120-277 VAC, 50-60 Hz

High Efficiency – min. 88%

Off-State Power: 0 Watts

LEDs:

4100K CCT

Delivers 70% or greater of initial lumens at 100,000 hours

Epoxy Guard™ protective conformal coated boards

Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance. They are tested and binned at 700mA which is the actual operating current used in Atlas LED luminaires, giving a better representation of actual performance.

Reduced Glare:

Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Warranty:

Five-year limited warranty

Testing:

Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80, and have received the Department of Energy "Lighting Facts" label.

Installation:

Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Weight:

15.0 lbs

Photo Control:

For factory installed 120V button photo control add suffix PC to part number.

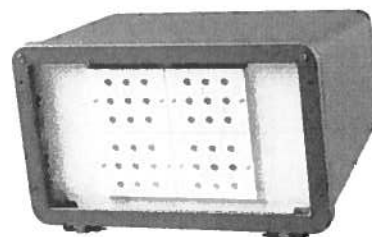
Project Information

Job Name

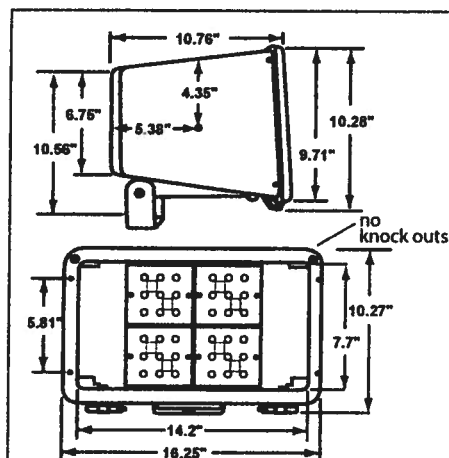
Fixture Type 84 Watt LED Flood Light

Catalog Number FLDX84LED

Approved by



Optional Factory
Installed Slipfitter
FLDX-84LEDs

DIMENSIONS:


Patent Pending

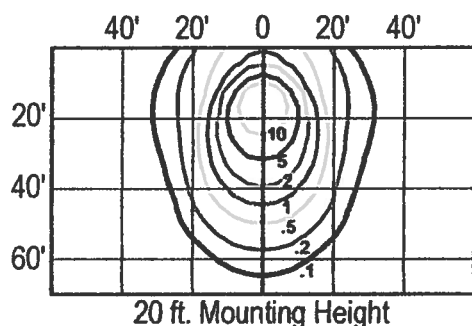
ATLAS LIGHTING PRODUCTS, INC.

PO BOX 2348 | BURLINGTON, NC 27216

800-849-8485 | FAX: 336-227-0110 | www.atlaslightingproducts.com

Made in the USA of US and imported parts. Meets Buy American requirements within the ARRA.

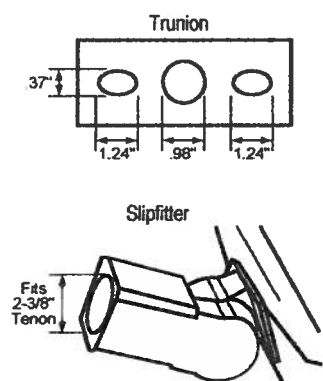
PHOTOMETRIC



ENERGY SAVINGS

LED		HID			ANNUAL SAVINGS
WATTAGE	ANNUAL COST	SOURCE WATTAGE	TOTAL WATTAGE USED	ANNUAL COST	
84	\$37	200	232	\$103	\$66
84	\$37	250	285	\$125	\$88
84	\$37	400	458	\$201	\$164

MOUNTING DETAIL



To Order Use Part #: **FLDX-84LEDS**

lighting facts[®]

A Program of the U.S. DOE

Light Output (Lumens) 6767
Watts 82.07
Lumens per Watt (Efficacy) 82

Color Accuracy 71
 Color Rendering Index (CRI)

Light Color 3929 (Bright White)
 Correlated Color Temperature (CCT)



All results are according to IESNA LM-79-2008 Approved Method for the Electrical and Photometric Testing of Solid State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: PRB4-R044EB-17 10/2013

Model Number: FLDX84LED Upgrade 07/2013

Light Fixture Style: 84-Flood

DUSK-TO-DAWN DDL MULTIPURPOSE LED LUMINAIRE

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

Multi-purpose dusk-to-dawn LED luminaire provides general purpose area/security, roadway and landscape lighting. For operation in -35°C - 40°C ambient temperatures.

Construction:

- Rugged die-cast aluminum housing with both 2-3/8" & 1-5/8" OD mast arm mount capability as well as direct wall/surface mounting; Textured gray power paint provides corrosion resistance and clean finish

LED:

- 9 high power LEDs deliver 3437 lumens with symmetrical lens and 3246 with asymmetrical lens
- 5100 CCT, 67 CRI

Optical/Electrical

- Symmetric LED lens installed standard
- Field rotatable asymmetric LED lens included for pathway/ roadway applications
- 120V operation, 50/60Hz
- 120V twist-lock style photocontrol included
- Refractor provides enhanced security lighting and LED brightness control
- Zero uplight design for environmentally friendly installations

Installation:

Versatile mounting options include:

- Three 1/4" slots for wall/surface
- 24" (18" projection) aluminum mast arm included
- Mast arm clamp adjusts to 2-3/8" or 1-5/8" arms

Listings:

- Meets DesignLights Consortium (DLC) qualifications
- Listed to UL1598 for use in wet locations
- Driver IP66 and RoHS compliant

Warranty:

For more information visit:

<http://www.hubbelloutdoor.com/resources/warranty/>

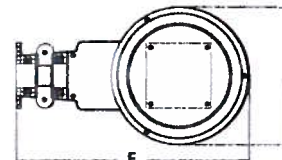
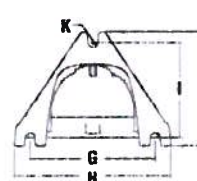
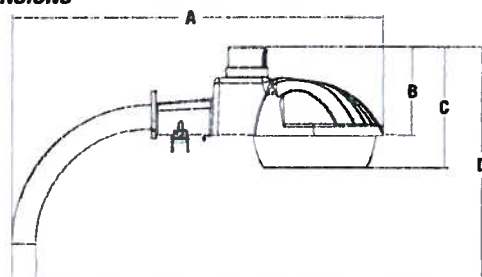
PRODUCT IMAGE(S)



NEW



DIMENSIONS



A	B	C	D	E	F
29.72"	6"	8.25"	16.19"	9.45"	16"
754 mm	152 mm	209 mm	411 mm	240 mm	406 mm

G	H	I	J	K
3.62"	4.52"	2.74"	3.29"	.138"
92 mm	115 mm	69 mm	84 mm	3.5 mm

CERTIFICATIONS/LISTINGS



SHIPPING INFORMATION

Catalog Number	G.W.(kg)/ CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
DDL-9L-1 (Single carton 1pc.)	4.57	17.83"	14.49"	7.68"
DDL-9L-1 (Master carton 2 pcs.)	10.00	18.23"	14.88"	16.34"

Carton dimensions for shipping purposes only

ORDERING INFORMATION

Catalog Number	Construction	Mount	Wattage	Drive Current	Voltage	Color Temperature	Lumens	LPW	Weight lbs (kg)
DDL-9L-1	Die-cast aluminum	Arm/Wall/Surface	40	1280mA	120V	5100K	3437	86	6.8 (3.08)



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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DDL-9L-SPEC-11/13

PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5100K nominal, 67 CRI)				
				LUMENS	LPW	B	U	G
9	1280mA	40W	Symmetric	3437	86	1	0	1
9	1280mA	40W	Asymmetric	3246	81	1	0	1

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment, application and inherent performance tolerances of the electrical components.

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LAT)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99
50°C	122°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

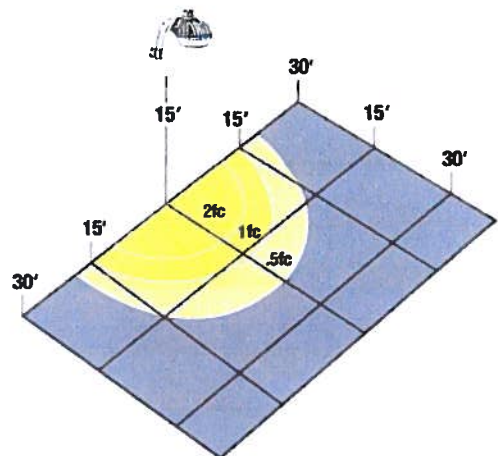
PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP	OPERATING HOURS					Calculated L70 (HOURS)
	0	25,000	50,000	1TM-21-11 60,000	100,000	
40°C / 104°F	0.99	0.94	0.91	0.89	0.84	>216,000

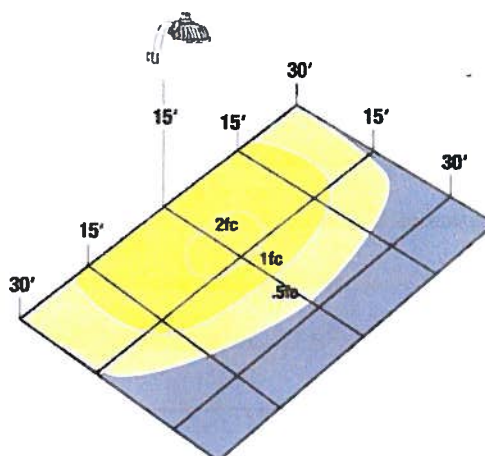
ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (W)
9	1	STD. (1280mA)	120	0.35	40

PHOTOMETRICS For additional photometric information and IES downloads, visit our web site at www.hubbelloutdoor.com



Symmetric LED lens

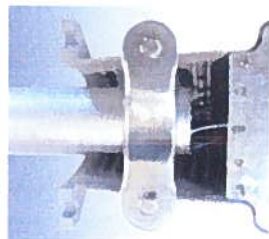


Asymmetric LED lens

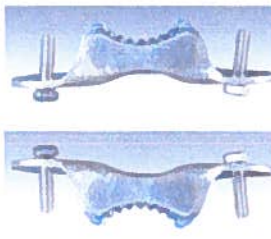
MOUNTING OPTIONS



Dual rows of serrated teeth ensure positive grip on mast arm, preventing loosening due to continuous vibration



Bottom view of stainless steel mast arm clamp



Stainless steel mast arm clamp is reversible accommodating either 2-3/8" or 1-5/8" OD arms



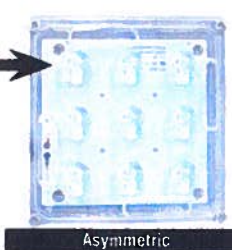
Mast arm clamp easily adjusts to 1-5/8" OD arms with two 3/8" bolts



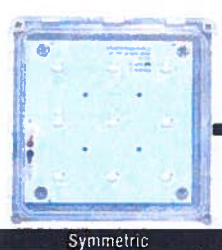
Reversible clamp easily adjusts to 2-3/8" OD arms with two 3/8" bolts



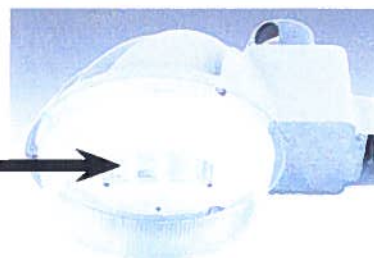
Molded orientation marker for rotatable LED asymmetric lens, align lens with "house" icon for desired light direction



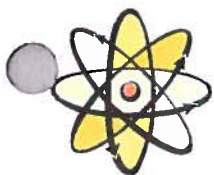
Asymmetric



Symmetric



Field rotatable/exchangeable LED lenses included



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast harbor, Maine 04662

Re: Seal Harbor Dock

The property currently has (1) pole-mounted light that is fed directly from the Utility line. The light is operated by a photo-cell.
The property also has (2) pole-mounted HPS fixtures on the dock.
The lights are operated by a photo-cell.

The scope of work would involve...

1. If the Utility allows it, I would replace the pole-mounted light with the LED version listed in the package:
 - a. This light would continue to be controlled by a photo-cell.
2. I would replace the (2) pole-mounted HPS fixtures with an LED fixture.
 - a. This light would be controlled by a photo-cell.

Efficiency Maine does not offer any cash incentive to replace light fixtures that are owned by the Utility.

I would perform the above mentioned work for a price "not to exceed"...
\$800.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC



Seal Harbor Wastewater Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	1309 Watts	1311 Watts	2620 Watts
Replacement Lighting	528 Watts	288 Watts	816 Watts
Energy Savings KWH / year	3411.4 KWH/year	372.4 KWH/year	3783.8 KWH/year
Energy Savings \$\$\$ / year	\$579.94 / year	\$63.31 / year	\$643.25 / year
Base Fixture Cost (minus Rebates)	\$1,828	\$1,052	\$2,880
Payoff / years	3.15 years	16.6 years	4.48 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI
ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page 001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018738	02/21/14	003	02/24/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSL	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:
JOB NAME: SEAL HBR WWTP

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	500 WATT QUARTZ					
02	1	MAX	MLFL45LED50	50W FLOOD LIGHT	247.93	E	247.93
03	*	50W HPS SHOE BOX					
04	6	RAB	ALED26	26W LED AREA LT	253.00	E	1,518.00
05	*	WPTGHH100QT					
06	2	LUMAR	XTOR3A	30W 5000K LED BRONZE	240.00	E	480.00
07	*	175 WATT SHOE BOX					
08	3	RAB	ALED52	BRZ LED LT FX	357.00	E	1,071.00
09	*	100 WATT SHOE BOX					
10	1	RAB	ALED52	BRZ LED LT FX	357.00	E	357.00
11	*	50 WATT MH WALL PACK					
12	1	LUMAR	XTOR3A	30W 5000K LED BRONZE	240.00	E	240.00
13	*	100 WATT MH SHOE BOX					
14	6	RAB	ALED52	BRZ LED LT FX	357.00	E	2,142.00
15	*	REBATE IF APPROVED: \$3160.00					
16	*	1-FLOOD @ \$60.00 EACH					
17	*	16-POLE MOUNTED AREA LIGHTS @\$176.00 EACH					
18	*	3-WALL PAC @ \$100.00 EACH					
19	*	ESTIMATED ANNUAL SAVINGS \$1339.58					

MOSE: 6,055.93

TAX: 333.08

TOTAL: 6,389.01

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MLFL Small Flood Lights



LED Small Flood Light Series

The LED Small Flood Lights are efficient, energy saving replacements for metal halide and quartz halogen fixtures, containing an integral listed driver.

The fixtures can mount at a broad range of angles with a yoke style arm and a 1/2" NPT threaded nipple.

FEATURES:

- Replaces 100 watt quartz halogen through 175 watt metal halide fixtures
- Delivered lumens: 15W: 1160
25W: 1670
45W: 3620
- CCT: 5000K
- CRI > 68
- Black ceramic paint frit lens mask reduces glare and improves appearance
- Universal 120 to 277V, 50/60 Hz driver
- 1/2" NPT threaded nipple included
- Constructed without any hazardous materials
- Compatible with mechanical relay type Photocell and occupancy sensor
- LM-79/80 reports available
- DesignLights Consortium® qualified
- 50,000 hour rated life at L70 standards
- Five year limited warranty

MOUNTING:

- All models come standard with a yoke and a 1/2" NPT strain relief fitting for easy installation

PROJECT NAME	
CATALOG NUMBER	
NOTES	
FIXTURE TYPE	FIXTURE SCHEDULE



CONSTRUCTION:

Fixture: The heavy duty cast aluminum two-piece housing is polyester TGIC powder-coated for long durability, rust and corrosion resistance and IP65-rated to seal out water, dust and insects.

Lens: Tempered glass with black frit mask for reduced glare and improved finish. Polycarbonate lens available as an option.

LED Module: Copper plating provides high thermal transfer rate, minimizing the junction temperature of the LEDs.

Finish: Dark Bronze

Luminaire Ordering Information:



Watts	Order Number	Model Number	Lumens	CRI	CCT	L70 (Hrs)	Dimensions (H"xW"xD")
15	72247	MLFL15LED50	1160	68	5000	50,000	3.4"x4.5"x4.0"
25	72248	MLFL25LED50	1670	68	5000	50,000	5.6"x7.1"x5.4"
45	72249	MLFL45LED50	3620	68	5000	50,000	7.6"x8.9"x6.3"

†Preliminary data

MLFL Small Flood Lights

LED Small Flood Light Series



GENERAL SPECIFICATIONS:

ITEM	SPECIFICATION	DETAILS
General Performance	Color Temperature (CCT)	5000K
	L70 Rating	50,000 hrs.
	Color Rendering Index (CRI)	68
Electrical	Power Factor	Over 97%
	Input Voltage	120V-277V 50/60 Hz
Physical	Housing	Aluminum
	Lens	Tempered Glass*
	Mounting	Yoke with ½" threaded fitting
	Operating Temperature	-30F to 130F
Certification	Certification	cETLus, FCC, LM-79, LM-80, DLC
	Material Usage	RoHS compliant no mercury
	Environment	IP65
	Humidity	20% - 85% RH, non condensing
	Warranty	5 year

* Polycarbonate lens available as an option

	Wide Optics		
SPECIFICATION	MLFL15LED50	MLFL25LED50	MLFL45LED50
Lumens	1160	1670	3620
Efficacy	87 lm/W	78 lm/W	91 lm/W
Power Consumption	13 W	21 W	40 W
Beam Angle (H x V)	101°x110°	105°x99°	105°x108°
Field Angle (H x V)	126°x142°	126°x125°	137°x143°

Lighting layouts and spacing criteria available upon request

†Preliminary data

DIMENSIONS:



MLFL15LED50



MLFL25LED50



MLFL45LED50



DESCRIPTION

ALED Area Lights mount to 4" square steel poles at 15-20'. 1 to 4 fixtures can be mounted to each pole. IES Full Cutoff, Fully Shielded optics. 5 year Warranty.

SPECIFICATIONS

UL Listing

Suitable for wet locations. Suitable for mounting within 4' of the ground.

Country of Origin

Designed by RAB in New Jersey and assembled in Taiwan

Trade Agreements Act Compliant

This product is a product of Taiwan and a "designated country" end product that complies with the Trade Agreements Act.

GSA Schedule

This product is suitable for listing on the GSA Schedule of the US General Services in accordance with FAR Subpart 25.4

Warranty

RAB LED fixtures give you peace of mind because both the fixture and light engine components are backed by RAB's 5 Year Warranty. For more information,

Lumen Maintenance

The LED will deliver 70% of its initial lumens at 50,000 hours of operation.

Housing

Precision die cast aluminum housing, lens frame.

Gaskets

High temperature silicone.

Effective Projected Area

EPA = 0.27

Finish

Chip and fade resistant polyester powder coat finish.

Green Technology

ALEDs are Mercury, Arsenic and UV free.

IESNA LM-79 & IESNA LM-80 Testing

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Color Stability

RAB LEDs exceed industry standards for chromatic stability.

Color Uniformity

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

Ambient Temperature

Suitable for use in 40C ambient temperatures.

Fixture Efficacy

61 Lumens per Watt

Color Accuracy

66 CRI

Color Temperature (Nominal CCT)

5169 K (Daylight)

LED Light Engine

Multi-chip 26W high output long life LED Driver Constant Current, 720mA, Class 2, 6 KV Surge Protection, 100V-277V, 50-60 Hz, 100-240V .4 Amps

Cold Weather Starting

The minimum starting temperature is -40F/-40C

Heatsink

Cast aluminum thermal management system for optimal heat sinking. The ALED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

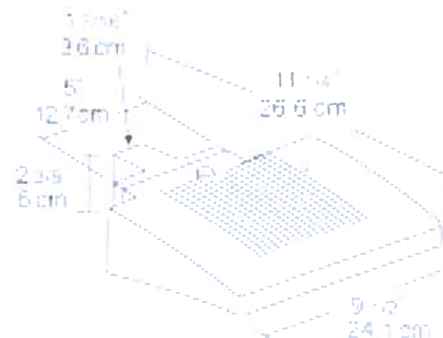
California Title 24

ALED complies with California Title 24 building and electrical codes.

Equivalency

The ALED26 is Equivalent in delivered lumens to a 70 W Metal Halide Area Light

DIMENSIONS



ORDERING INFORMATION

LED	Total Watts	Lamp Type	Lamp Base	Ballast	Starting Amps/ Operating Amps				Input Watts	LAMP ANSI	Initial Lumens	Lamp Hours
					120V	208V	240V	277V				
Lamp supplied with fixture	26	LED	Heat-sink	Constant Current	0.26	0.16	0.14	0.12	30.2	N/A	1816	50000

Factory Installed Options
 Add suffix to Catalog Number

Photocontrol for 277V (/PC2)

Photocontrol for 120V (/PC)

Note: Specifications may change without notice

RAB Lighting, Inc. • 170 Ludlow Ave • Northvale, NJ 07647 • Tel: 888 RAB-1000 • Fax: 888 RAB-1232 • www.rabweb.com

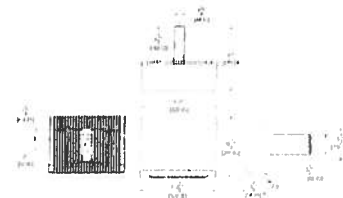
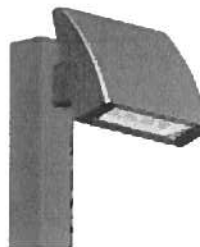
© 2012

ALEDC52N

ALED Area Lights mount to 4" square steel poles at 15-20'. Available in regular, cutoff and full cutoff versions. 1 to 4 fixtures can be mounted to each pole. IES Full Cutoff, Fully Shielded optics. 5 year Warranty.

Color: Bronze

Weight: 16.4 lbs



LED Info

Watts: 52W
Color Temp: 4000K (Neutral)
Color Accuracy: 82
L70 Lifespan: 100000
LM79 Lumens: 4,589
Efficacy: 76 LPW

Driver Info

Type: Constant Current
120V: 0.51A
208V: 0.33A
240V: 0.29A
277V: 0.24A
Input Watts: 60W
Efficiency: 87%

Technical Specifications

UL Listing:

Suitable for wet locations and Suitable for mounting below 4' of the ground.

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

IES Classification:

The Type III distribution is ideal for roadway, general parking and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

LEDs:

Two (2) multi-chip, high-output, long-life LEDs.

Drivers:

Two drivers, constant current, 720mA, Class 2, 100 - 277V, 50 - 60 Hz, 100 - 277VAC .8 Amps.

THD:

13% at 120V

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Surge Protection:

6kV

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The ALED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:

Precision die cast aluminum housing, lens frame.

Arm:

Die-cast aluminum with wiring access plate.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

ALEDs are Mercury and UV free.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

RAB
LIGHTING

Tech Help Line: 888 RAB-1000

Email: sales@rabweb.com

On the web at: www.rabweb.com

Replacement:

The ALED52 replaces 150W HID Area Lights.

California Title 24:

ALED complies with California Title 24 building and electrical codes.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Patents:

The WPLED design is protected by patents pending in the U.S., Canada, China, Taiwan and Mexico.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

Trade Agreements Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:

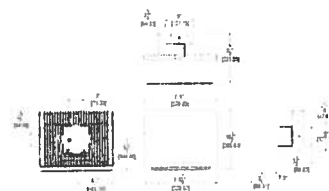
Suitable in accordance with FAR Subpart 25.4.

WPLEDC52/PCS2

LED 52W Wallpacks. 3 cutoff options. Patent Pending thermal management system. 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze

Weight: 17.6 lbs



LED Info

Watts: 52W
Color Temp: 5000K (Cool)
Color Accuracy: 65
L70 Lifespan: 100000
LM79 Lumens: 5,903
Efficacy: 97 LPW

Driver Info

Type: Constant Current
120V: N/A
208V: 0.33A
240V: 0.29A
277V: 0.24A
Input Watts: 61W
Efficiency: 86%

Technical Specifications

Photocell:

277V Swivel Photocell Included. Photocell is compatible with 208V-277V.

UL Listing:

Suitable for wet locations.

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

LEDs:

Two (2) multi-chip, high-output, long-life LEDs.

Drivers:

Two drivers, constant current, 720mA, Class 2, 100 - 277V, 50 - 60 Hz, 100 - 277VAC .8 Amps.

THD:

8.3% at 120V, 11% at 277V

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Surge Protection:

6kV

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The WPLED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:

Precision die cast aluminum housing, lens frame.

Mounting:

Die-cast aluminum wall bracket with (5) 1/2" conduit openings with plugs. Two-piece bracket with tether for ease of installation and wiring.

Arm:

Die-cast aluminum with wiring access plate.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Patents:

The WPLED design is protected by patents in the U.S. Pat D653,377, Canada Pat. 142252, China Pat. ZL201130356930.8, and Mexico Pat. 36921 and pending patent in TW.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone.

RAB
LIGHTING

Tech Help Line: 888 RAB-1000

Email: sales@rabweb.com

On the web at: www.rabweb.com

Lens:

Tempered glass

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

WPLEDs are Mercury and UV free.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Replacement:

The WPLED52 replaces 250W HID Wallpacks.

California Title 24:

WPLED complies with California Title 24 building and electrical codes.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. See our full warranty .

Country of Origin:

Designed by RAB in New Jersey and assembled in Taiwan.

Trade Agreements Act Compliant:

This product is a product of Taiwan and a "designated country" end product that complies with the Trade Agreements Act.

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

DESCRIPTION

The patent pending Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks.

SPECIFICATION FEATURES

Construction

Slim, low profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 10W and 20W. The large housing is available in the 30W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied lever-lock connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 10W models operate in -40°C to 40°C [-40°F to 104°F]. 20W and 30W models operate in -30°C to 40°C [-22°F to 104°F]. Crosstour luminaires

maintain greater than 70% of initial light output after 50,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 10W, 120V 50/60 Hz., 20W and 30W, 120-277V 50/60Hz.

Finish

Crosstour is protected with a Super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

Crosstour features a five-year limited warranty.



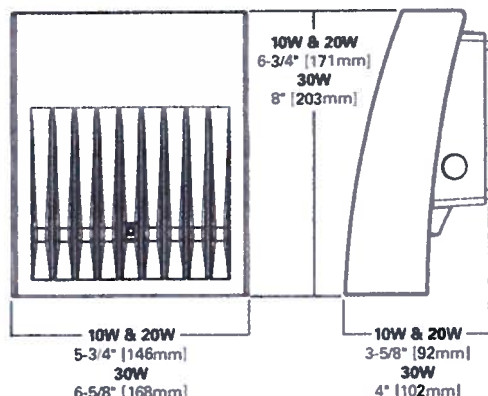
XTOR CROSSTOUR LED

WALL / SURFACE MOUNT
POST / BOLLARD MOUNT
LOW LEVEL MOUNT
INVERTED MOUNT

SustainableLEDesign

DESIGNLIGHTS
CONSORTIUM

DIMENSIONS



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Ingress Protection Rated
ADA Compliant
LM79 / LM80 Compliant
ROHS Compliant
ARRA Compliant
DLC Qualified Models
Lighting Facts® Approved
Title 24 Compliant
NOM Compliant Models

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area:
(Sq. Ft.)
XTOR1A/XTOR2A=0.34
XTOR3A = 0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 - 5.25 lbs. [1.7 - 2.4 kgs.]

ORDERING INFORMATION

SAMPLE NUMBER: XTOR2A-N-WT-PC1

Series XTOR1A=Small Door, 10W ¹ XTOR2A=Small Door, 20W ² XTOR3A=Large Door, 30W ²	LED Kelvin Color ³ ____ = Bright White (Standard) 5000K N = Neutral Warm White, 3500K	Housing Color ____ = Carbon Bronze (Standard) WT = Summit White	Options (specify voltage) ⁴ PC1=Photocontrol 120 V PC2=Photocontrol 208-277 V	Accessories ⁵ WG/XTOR=Wireguard (fits both)

Notes:

1 120V only XTOR1A not available in 3500K.

2 Design Lights Consortium™ qualified (down mount only).

Consult Design Lights Consortium website for all applications.

3 PC2 only available in 20W and 30W models.

4 PC1 and PC2 photo controls are factory installed. PC2 not available on XTOR1A models.

5 Order WG/XTOR wire guard separately.

STOCK ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A = 10W, 5000K, Carbon Bronze	XTOR2A = 20W, 5000K, Carbon Bronze	XTOR3A = 30W, 5000K, Carbon Bronze
XTOR1A-WT = 10W, 5000K, Summit White	XTOR2A-N = 20W, 3500K, Carbon Bronze	XTOR3A-N = 30W, 3500K, Carbon Bronze
XTOR1A-PC1 = 10W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT = 20W, Summit White	XTOR3A-WT = 30W, Summit White
	XTOR2A-PC1 = 20W, 120V PC, Carbon Bronze	XTOR3A-PC1 = 30W, 120V PC, Carbon Bronze



Days Quick-Ship

5-DAY QUICK SHIP ORDERING INFORMATION

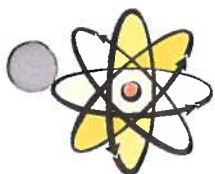
10W Series	20W Series	30W Series
XTOR1A-WT-PC1 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC2 = 20W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2 = 30W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1 = 20W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1 = 30W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2 = 20W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2 = 30W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT = 20W, 3500K, Summit White	XTOR3A-N-WT = 30W, 3500K, Summit White
	XTOR2A-N-PC1 = 20W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1 = 30W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2 = 20W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2 = 30W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WT-PC1 = 20W, 3500K, Summit White, 120V PC	XTOR3A-N-WT-PC1 = 30W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2 = 20W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2 = 30W, 3500K, Summit White, 208-277V PC

LUMENS - CRI / CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens	719	1361	947	2243	1600
CCT (Kelvin)	5000	5000	3500	5000	3500
Color Rendering Index (CRI)	68	67	86	69	84

CURRENT DRAW

	XTOR1A	XTOR2A	XTOR3A
120V	.13A	0.2A	0.3A
208V	--	0.1A	0.15A
240V	--	0.15A	0.15A
277V	--	0.15A	0.15A



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast Harbor, Maine 04662

Re: Seal Harbor Wastewater

The property currently has (1) 500W wall-mounted quartz light.
This light is controlled by a switch.

The property also has (6) 50W wall-mounted HPS fixtures.
These lights are controlled by a photo-cell.

The property also has (2) 100W wall-mounted MH light fixture.
These fixtures are controlled by a photo-cell.

The property also has (3) 175W pole-mounted MH light fixture.
These fixtures are controlled by a switch.

The property also has (1) 100W pole-mounted MH light fixture.
This fixture is controlled by a switch.

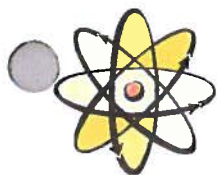
The property also has (1) 50W wall-mounted MH light fixture.
This fixture is controlled by a switch.

The property also has (6) 100W pole-mounted HPS fixtures.
These fixtures are controlled by a photo-cell.

The scope of work would involve...

1. Replacing the (1) quartz light with a 50W LED light.
2. Replace the (6) wall-mounted HPS lights with 26W LED lights.
3. Replace the (2) wall-mounted MH lights with 30W LED lights.
4. Replace the (3) pole-mounted MH lights with 52W LED lights.
5. Replace the (1) pole-mounted MH light with a 52W LED light.
6. Replace the (1) wall-mounted MH light with a 30W LED light.
7. Replace the (6) pole-mounted HPS lights with 52W LED lights.

All lights will continue to be controlled as before.



Atom Electric LLC
March 21, 2014
Page 2 of 2

I would perform the above mentioned work for a price "not to exceed"..
\$2750.00 plus the cost of the fixtures.

Thank you for your consideration,

Jay C. Perruzzi Atom Electric LLC



Seal Harbor Fire Department Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	230 Watts	640 Watts	870 Watts
Replacement Lighting	60 Watts	120 Watts	180 Watts
Energy Savings KWH / year	742.6 KWH/year	189.3 KWH/year	931.9 KWH/year
Energy Savings \$\$\$ / year	\$126.24 / year	\$32.18 / year	\$158.42 / year
Base Fixture Cost (minus Rebates)		\$10	\$217
Payoff / years	0.08 years	6.74 years	1.50 years

	Dusk-to-Dawn	Switched	Total
Utility fed Lighting	210 Watts		210 Watts
Replacement Lighting	40 Watts		40 Watts
Energy Savings KWH / year	742.6 KWH/year		742.6 KWH/year
Energy Savings \$\$\$ / year	\$126.24 / year		\$126.24 / year
Base Fixture Cost (minus Rebates)		\$185	\$185
Payoff / years	1.46 years		1.46 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI
ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018739	02/21/14	001	02/24/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSLs	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:
SEAL HBR FIRE

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*			POLE MOUNTED YARD LIGHT			
02	1	HUB	DDL9L1	LED DUSK-TO-DAWN 40WATT	185.26	E	185.26
03	*			(3) DOUBLE FLOOD SET UP			
04	6	SYL	LED18PAR38/DIM/830/F	78641 LED18 PAR38 40 DEG DIM NS	60.72	E	364.32
05	6	RAB	H101W	WHT BELL SHAPED FLOOD	22.95	E	137.70
06	3	RAB	VXCW	1/2IN WHT TAP N/CVR	5.95	E	17.85
07	3	RAB	C103W	CVR	4.40	E	13.20
08	*			BUILDING MOUNTED YARD LIGHT			
09	1	HUB	DDL9L1	LED DUSK-TO-DAWN 40WATT	185.26	E	185.26
10	*			WALL MOUNT CAGE LIGHT			
11	1	SYL	LED12A19/DIM/O/827	78907 12W LED LMP	27.71	E	27.71
12	*			REBATE IF APPROVED: \$350.00			
13	*			1-YARD LIGHT - \$175.00			
14	*			7-SCREW IN LED BULBS- \$175.00			
15	*			THERE IS A YARD LIGHT ON THE BUILDING..ARE YOU DELETING?			
16	*			IF NOT THAN YOU WOULD HAVE ANOTHER \$175.00 IN REBATES			
17	*			ANNUAL SAVINGS IS HARD TO ESTIMATE I DON'T KNOW HOW LONG			
18	*			THESE ARE ON EACH DAY			
19	*			IF ALL LIGHTS ARE ON 1 HOUR A DAY,7DAYS A WEEK THERE IS			
20	*			A 53.00 SAVINGS			

MDSE: 931.30

TAX: 51.22

TOTAL: 982.52

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

DUSK-TO-DAWN DDL MULTIPURPOSE LED LUMINAIRE

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

Multi-purpose dusk-to-dawn LED luminaire provides general purpose area/security, roadway and landscape lighting. For operation in -35°C - 40°C ambient temperatures.

Construction:

- Rugged die-cast aluminum housing with both 2-3/8" & 1-5/8" OD mast arm mount capability as well as direct wall/surface mounting; Textured gray power paint provides corrosion resistance and clean finish

LED:

- 9 high power LEDs deliver 3437 lumens with symmetrical lens and 3246 with asymmetrical lens
- 5100 CCT, 67 CRI

Optical/Electrical

- Symmetric LED lens installed standard
- Field rotatable asymmetric LED lens included for pathway/ roadway applications
- 120V operation, 50/60Hz
- 120V twist-lock style photocontrol included
- Refractor provides enhanced security lighting and LED brightness control
- Zero uplight design for environmentally friendly installations

Installation:

Versatile mounting options include:

- Three 1/4" slots for wall/surface
- 24" (18" projection) aluminum mast arm included
- Mast arm clamp adjusts to 2-3/8" or 1-5/8" arms

Listings:

- Meets DesignLights Consortium (DLC) qualifications
- Listed to UL1598 for use in wet locations
- Driver IP66 and RoHS compliant

Warranty:

For more information visit:

<http://www.hubbelloutdoor.com/resources/warranty/>

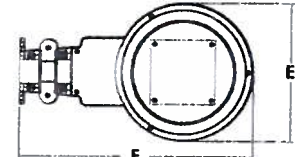
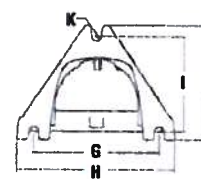
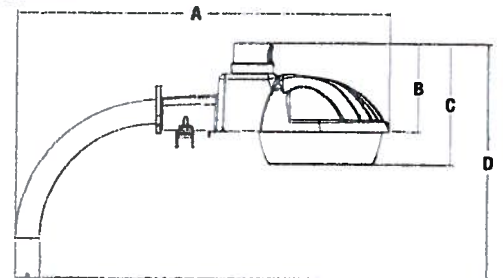
PRODUCT IMAGE(S)



NEW



DIMENSIONS



A	B	C	D	E	F
29.72"	6"	8.25"	16.19"	9.45"	16"
754 mm	152 mm	209 mm	411 mm	240 mm	406 mm
G	H	I	J	K	
3.62"	4.52"	2.74"	3.29"	.138"	
92 mm	115 mm	69 mm	84 mm	3.5 mm	

SHIPPING INFORMATION

Catalog Number	G.W.(kg)/CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
DDL-9L-1 (Single carton 1pc.)	4.57	17.83"	14.49"	7.68"
DDL-9L-1 (Master carton 2 pcs.)	10.00	18.23"	14.88"	16.34"

Carton dimensions for shipping purposes only

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION

Catalog Number	Construction	Mount	Wattage	Drive Current	Voltage	Color Temperature	Lumens	LPW	Weight lbs. (kg)
DDL-9L-1	Die-cast aluminum	Arm/Wall/Surface	40	1280mA	120V	5100K	3437	86	6.8 (3.08)



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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DDL9LED-SPEC-11/13

PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5100K nominal, 67 CRI)				
				LUMENS	LPW	B	U	G
9	1280mA	40W	Symmetric	3437	86	1	0	1
9	1280mA	40W	Asymmetric	3246	81	1	0	1

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment, application and inherent performance tolerances of the electrical components.

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LAT)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99
50°C	122°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

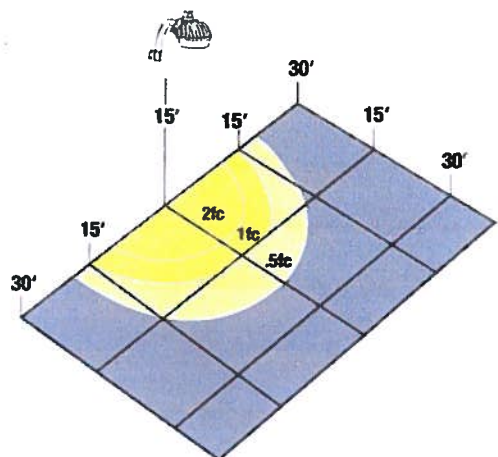
PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	OPERATING HOURS					Calculated L70 (HOURS)
	0	25,000	50,000	TM-21-11 60,000	100,000	
40°C / 104°F	0.99	0.94	0.91	0.89	0.84	>216,000

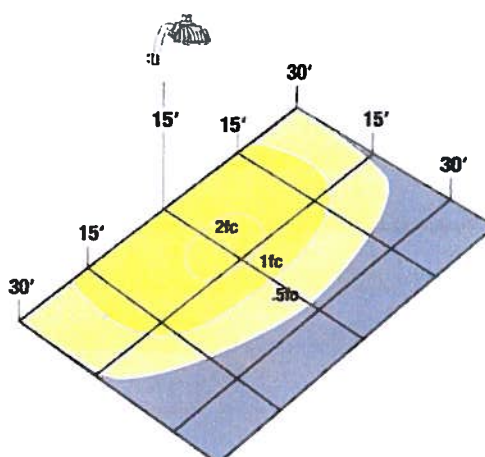
ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (W)
9	1	STD. (1280mA)	120	0.35	40

PHOTOMETRICS For additional photometric information and IES downloads, visit our web site at www.hubbelloutdoor.com



Symmetric LED lens

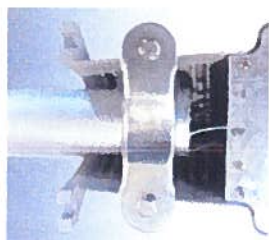


Asymmetric LED lens

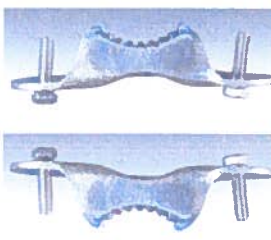
MOUNTING OPTIONS



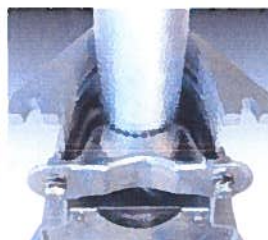
Dual rows of serrated teeth ensure positive grip on mast arm, preventing loosening due to continuous vibration



Bottom view of stainless steel mast arm clamp



Stainless steel mast arm clamp is reversible accommodating either 2-3/8" or 1-5/8" OD arms



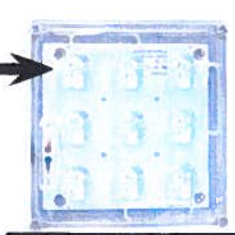
Mast arm clamp easily adjusts to 1-5/8" OD arms with two 3/8" bolts



Reversible clamp easily adjusts to 2-3/8" OD arms with two 3/8" bolts



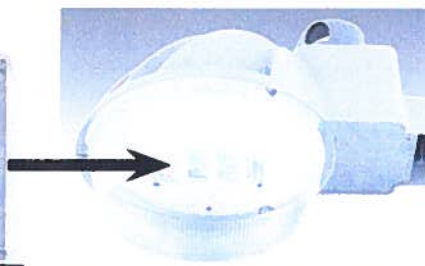
Molded orientation marker for rotatable LED asymmetric lens, align lens with "house" icon for desired light direction



Asymmetric



Symmetric



Field rotatable/exchangeable LED lenses included



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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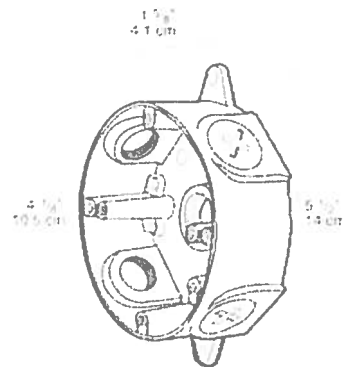
00LSLED-SPEC-11/13

VXCW

Die cast aluminum wiring box with weatherproof gasket, ground screw, and two sturdy lugs for wall or ceiling mounting. Supplied with four color matched close-up plugs.

Color: White

Weight: 0.5 lbs



Technical Specifications

UL Listing:

Suitable for wet locations.

Box Material:

Precision die cast aluminum.

Gasket:

1/8" thick closed cell silicone rubber.

Screws:

10-24 Stainless steel Round Head Phillips/slotted.

Ground Screw:

10-24 Green corrosion protected steel slotted washer head screw provided in pre-tapped hole
Box Diameter

Side Hole Thread Size:

1/2"

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

Weight Capacity:

If the fixture you are using weighs more than 20 lbs., use an XC cover plate instead of a C103.

C103W

Die cast round covers with one or three 1/2" holes. Fit 4" round boxes. Supplied with thick foam rubber gasket and two #10-24 stainless steel screws. 3 hole cover comes with one die cast 1/2" close-up plug.

Color: White

Weight: 0.2 lbs

Technical Specifications

UL Listing:

Suitable for wet locations.

Covers:

Precision die cast aluminum round covers.

Screws:

10-24 Brass Round Head Phillips/slotted.

Gasket:

1/8" thick closed cell silicone rubber for long lasting seal won't crumple or break.

Replacement Plugs:

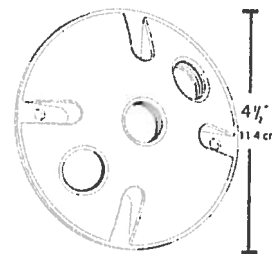
Available for round and rectangular covers and boxes.

Hole Count:

3 Hole

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.



H101W

Large size flood for easier relamping and glare reduction. Durable one piece die casting with rugged mounting arm, weatherproof gasket and drain holes. Accepts 150 watt PAR 38 max. Lamp not supplied.

Color: White

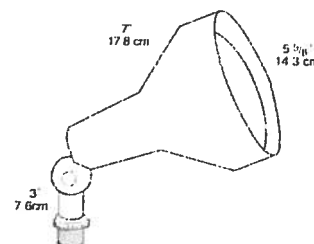
Weight: 1.4 lbs

Lamp Info

Type: PAR38
Watts: 150W
Shape/Size: N/A
Base: N/A
ANSI: N/A
Hours: 0
Lamp Lumens: 0
Efficacy: N/A

Ballast Info

Type: N/A
120V: N/A
208V: N/A
240V: N/A
277V: N/A
Input Watts: 0W
Efficiency: N/A



Technical Specifications

UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground. When using as an uplight in outdoor applications, a Hood or a Visor must be used.

Sockets:

Porcelain with all copper current carrying components.

Swivels:

Fully adjustable with sure-grip locks. 1/2" NPS threaded arm with serrated locking swivel fits all standard mounting covers. Color matched EZ Grip lock nuts.

Housings:

Die cast aluminum with powder coat finish.

Lamps:

Medium base Par-38 lamps up to 150 watts. Halogen lamps give brighter light and choice of beam spreads.

Gaskets:

High temperature silicone rubber extends around both socket and lamp.

Patents:

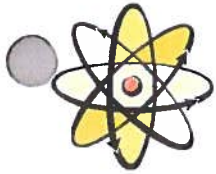
RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

RAB
LIGHTING

Tech Help Line: 888 RAB-1000

Email: sales@rabweb.com

On the web at: www.rabweb.com



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast harbor, Maine 04662

Re: Seal Harbor Fire Department

The property currently has (1) pole-mounted light that is fed directly from the Utility line. The light is operated by a photo-cell.

The property also has (2) 2-head flood-light on the West side of the building. These lights are switch controlled.

The property also has (1) 20W LED light on the West side of the building. This light is operated dusk-to-dawn.

The property also has (1) wall-mounted yard light type fixture.

This light is controlled by a photo-cell.

The property also has (1) 2-head flood-light on the East side of the building. This light is controlled by a switch.

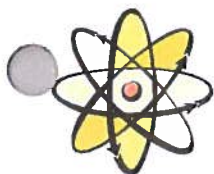
The property also has (1) wall-mounted vapor-tite light with a 100W incandescent light bulb installed in it. This light is controlled by a switch.

The scope of work would involve...

1. If the Utility allows it, I would replace the pole-mounted light with the LED version listed in the package:
 - a. This light would continue to be controlled by a photo-cell.
2. Replace the (2) 2-head flood-light fixtures, with a new box, cover, and covered heads, and lamp it with LED flood lamps.
3. The 20W LED fixture will remain.
4. Replace the 175W MH yard light with the LED equivalent.
5. Replace the (1) 2-head flood-light fixture, with a new box, cover, and covered heads, and lamp it with LED flood lamps.
6. Replace the 100W incandescent bulb with the LED equivalent.

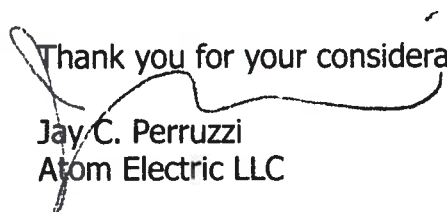
All lights will continue to be controlled as before.

Efficiency Maine does not offer any cash incentive to replace light fixtures that are owned by the Utility.



Atom Electric LLC
March 21, 2014
Page 2 of 2

I would perform the above mentioned work for a price "not to exceed"...
\$1000.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC



Otter Creek Wastewater Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting		360 Watts	360 Watts
Replacement Lighting		72 Watts	72 Watts
Energy Savings KWH / year		104.8 KWH/year	104.8 KWH/year
Energy Savings \$\$\$ / year		\$17.82 / year	\$17.82 / year
Base Fixture Cost (minus Rebates)		\$143	\$143
Payoff / years		8.02 years	8.02 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page 001 OF 001
QUOTE # 1018740	Date 02/21/14	Rev # 002	Rev Date 02/24/14
QUOTE EXPIRES 03/23/2014		PREPARED BY SHAWN	
SLS 3324		INSLs 4000	
FOB SHIPPING POINT		FREIGHT PREPAID	

CUS PO #:

JOB NAME:

OTTER CREEK WATER

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	(2) DOUBLE FLOOD					
02	4	SYL	LED18PAR38/DIM/830/F	78641 LED18 PAR38 40 DEG DIM NS	60.72	E	242.88
03	4	RAB	H101W	WHT BELL SHAPED FLOOD	22.95	E	91.80
04	2	RAB	VXCW	1/2IN WHT TAP N/CVR	5.95	E	11.90
05	2	RAB	C103W	CVR	4.40	E	8.80
06	2	RAB	STL200W	STEALTH SENSOR WHT	60.90	E	121.80
07	*	REBATE IF APPROVED: 4-LAMPS AT \$25.00 EACH=\$100.00					
08	*	ANNUAL SAVINGS WOULD BE HARD TO DETERMINE AS THESE ARE					
09	*	ON MOTION SENSORS					
10	*	IF THESE WERE ON 1 HOUR A DAY 7 DAYS A WEEK THE SAVINGS					
11	*	WOULD BE \$17.82 PER YEAR					

MDSE: 477.18

TAX: 26.24

TOTAL: 503.42

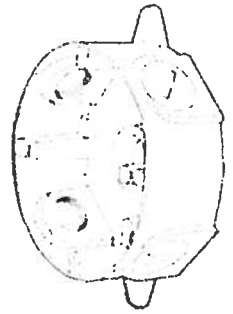
PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

VXCW

Die cast aluminum wiring box with weatherproof gasket, ground screw, and two sturdy lugs for wall or ceiling mounting. Supplied with four color matched close-up plugs.

Color: White

Weight: 0.5 lbs



Technical Specifications

UL Listing:

Suitable for wet locations.

Box Material:

Precision die cast aluminum.

Gasket:

1/8" thick closed cell silicone rubber.

Screws:

10-24 Stainless steel Round Head Phillips/slotted.

Ground Screw:

10-24 Green corrosion protected steel slotted washer head screw provided in pre-tapped hole
Box Diameter

Side Hole Thread Size:

1/2"

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

Weight Capacity:

If the fixture you are using weighs more than 20 lbs., use an XC cover plate instead of a C103.

C103W

Die cast round covers with one or three 1/2" holes. Fit 4" round boxes. Supplied with thick foam rubber gasket and two #10-24 stainless steel screws. 3 hole cover comes with one die cast 1/2" close-up plug.

Color: White

Weight: 0.2 lbs

Technical Specifications

UL Listing:

Suitable for wet locations.

Covers:

Precision die cast aluminum round covers.

Screws:

10-24 Brass Round Head Phillips/slotted.

Gasket:

1/8" thick closed cell silicone rubber for long lasting seal won't crumple or break.

Replacement Plugs:

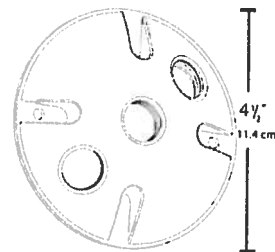
Available for round and rectangular covers and boxes.

Hole Count:

3 Hole

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.



H101W

Large size flood for easier relamping and glare reduction. Durable one piece die casting with rugged mounting arm, weatherproof gasket and drain holes. Accepts 150 watt PAR 38 max. Lamp not supplied.

Color: White

Weight: 1.4 lbs

Lamp Info

Type: PAR38
Watts: 150W
Shape/Size: N/A
Base: N/A
ANSI: N/A
Hours: 0
Lamp Lumens: 0
Efficacy: N/A

Ballast Info

Type: N/A
120V: N/A
208V: N/A
240V: N/A
277V: N/A
Input Watts: 0W
Efficiency: N/A

Technical Specifications

UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground. When using as an uplight in outdoor applications, a Hood or a Visor must be used.

Sockets:

Porcelain with all copper current carrying components.

Swivels:

Fully adjustable with sure-grip locks. 1/2" NPS threaded arm with serrated locking swivel fits all standard mounting covers. Color matched EZ Grip lock nuts.

Housings:

Die cast aluminum with powder coat finish.

Lamps:

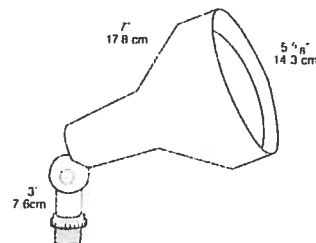
Medium base Par-38 lamps up to 150 watts. Halogen lamps give brighter light and choice of beam spreads.

Gaskets:

High temperature silicone rubber extends around both socket and lamp.

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.



STL200W

STEALTH Sensor with special 200° detection pattern to provide wide coverage side to side. Excellent for building perimeter protection. Lens masks allow customization of detection zone.

Color: White

Weight: 1.2 lbs

Technical Specifications

UL Listing:

Suitable for wet locations.

Power Consumption:

1 watt.

Time Adjustment:

5 seconds to 12 minutes.

Surge Protection:

Withstands up to 6000 volts.

Wide Sensitivity Control:

Adjustable from 100% to 30%.

Temperature Compensation:

Sensitivity adjusts automatically for consistent detection in hot and cold ambient temperatures.

Wall Switch Manual Override:

Two flip logic prevents activation by momentary power outages. Override resets to auto at dawn. No extra wiring needed.

LED Detection Indicator:

Shows when sensor is detecting in daytime and glows red at night for "on-guard" deterrence.

Advanced Detection Logic:

Minimizes false triggers.

Color Matched Lens:

Dark lens with bronze units, white lens with white units.

RF Immunity:

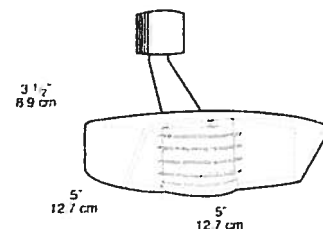
Circuits fully shielded for maximum radio frequency immunity.

Horizontal Lock, No-tool Joints:

Keeps sensing pattern level for fast, error-free installation.

Photoelectric Control:

Deactivates lights during daylight. Fully adjustable for 24 hour operation or custom applications.



Floodlights:

Precision die cast aluminum. 1/2" NPS threaded arm with serrated locking swivel fits all standard mounting boxes and covers.

Voltage:

120 Volts AC 60 Hertz.

Lens Mask:

Customized press apply lens mask included to reduce coverage easily.

Detection:

200° view.

Switching Capacity:

1000 watts incandescent @ 120 volts, 8 amps.

Patents:

RAB sensor and fixture designs are protected under U.S. and International Intellectual Property laws.

Warranty:

10 year sensor warranty.

ULTRA HD Professional Series LED PAR Lamps

High Definition Lighting



The SYLVANIA ULTRA HD Professional Series family of LED PAR lamps offers premium performance in every category. With exceptional color quality, efficiency, and electrical design standards, this top-tier family of lamps is designed to ensure the highest aesthetics while complying with the most stringent sustainability goals. Designed to be the most efficient replacements for halogen at 3000K, these SYLVANIA LED lamps last up to 20 times longer and are rated for use in damp locations. An optimized LED selection process is used to ensure that color within the ULTRA HD Professional family of LED lamps is extremely consistent, within a 3-step MacAdam ellipse. With outstanding color rendering capabilities (95 typical CRI) and exceptionally rich deep red content (R9>60), ULTRA HD Professional Series LED lamps enhance warm color palettes and make whites more crisp, making them ideal for residential, hospitality, healthcare or retail applications. With lamp efficacies higher than 50 lumens per watt and smooth dimming performance, ULTRA HD Professional Series LED lamps are an ideal part of any energy-conservation strategy.

Key Features & Benefits

- 95 typical CRI
- Excellent color quality – within a 3-step MacAdam ellipse
- R9 greater than 60
- Assembled in USA
- No warm up time, instant on with full light output and stable color
- Lasts up to 20 times longer than comparable PAR lamps
- Available in 2700K and 3000K color temperature
- Reduces energy consumption up to 80%
- UV and IR free
- RoHS compliant
- Dimmable to 10%*
- Mercury and lead free
- Long life: up to 50,000 hours (L70)
- Suitable for damp locations

* Performance may vary depending on dimmer use in application. Please refer to Dimmer Compatibility List (RETRO-DIM) for a list of compatible dimmers or visit www.sylvania.com/LEDretrofit



Product Offering

Lamp Type	Wattage	Color Temperature	Beam Angle	Lumens
PAR38	21	3000K	30°	1150
PAR38	20	2700K & 3000K	12°	1000 & 1050
PAR30LN	17	3000K	25° & 40°	970
PAR30	15	3000K	40°	880
PAR20	10	3000K	30°	550
PAR16	8	3000K	36°	390
MR16	7	3000K	36°	400

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b

Application Information

Market Segments

- Art galleries and museums
- Hospitality
- Offices
- Residential
- Restaurants
- Retail

Applications

- Accent/display lighting
- General lighting
- Recessed downlighting
- Track lighting

Application Notes

1. Operating Temperature -40°F and +113°F (-40°C and +45°C)
-4°F to +104°F (-20°C to +40°C)
2. Suitable for outdoor use when used in a UL rated fixture where protected from weather
3. Use in fixtures that support 2lb. lamp
4. Not for use with emergency light fixtures or exit lights
5. Not for use in enclosed fixture
6. All PAR lamps from OSRAM SYLVANIA use polymethyl methacrylate (PMMA) for their lenses. It is a transparent thermoplastic, often used as a lightweight, shatter-resistant alternative to glass.



Specification Data

Catalog #

Type

Project

Comments

Prepared by

Ordering Information

Item Number	Ordering Abbreviation	Wattage (W)	Base Type	Replaces	Input Voltage (VAC)	Average Rated Life (hrs L ₇₀) ¹	CCT ²	Typical Lumens (lm) ³	CBCP (cd)	CRI ⁴	Beam Angle	R9	Power Factor	ENERGY STAR [®]
78745	LED21PAR38/DIM/P/930/FL30	21	Med	90W PAR38	120	50,000	3000K	1150	3700	95	30°	62	0.7	Yes
78741	LED21PAR38/GU24/DIM/P/930/FL30	21	GU24	90W PAR38	120	50,000	3000K	1150	3700	95	30°	62	0.7	Yes
78904	LED20PAR38/DIM/P/927/WSP12	20	Med	90W PAR38	120	40,000	2700K	1000	14,000	93	12°	77	0.98	Yes
78906	LED20PAR38/DIM/P/930/WSP12	20	Med	90W PAR38	120	40,000	3000K	1050	18,000	93	12°	77	0.98	Yes
78746	LED17PAR30LN/DIM/P/930/NFL25	17	Med	75W PAR30LN	120	50,000	3000K	970	3400	95	25°	62	0.7	Yes
78742	LED17PAR30LN/GU24/DIM/P/930/NFL25	17	GU24	75W PAR30LN	120	50,000	3000K	970	3400	95	25°	62	0.7	Yes
78758	LED17PAR30LN/DIM/P/930/FL40	17	Med	75W PAR30LN	120	50,000	3000K	970	1600	95	40°	62	0.7	Yes
78747	LED15PAR30/DIM/P/930/FL40	15	Med	60W PAR30	120	50,000	3000K	880	1700	95	40°	62	0.7	Yes
78743	LED15PAR30/GU24/DIM/P/930/FL40	15	GU24	60W PAR30	120	50,000	3000K	880	1700	95	40°	62	0.7	Yes
78748	LED10PAR20/DIM/P/930/FL30	10	Med	50W PAR20	120	50,000	3000K	550	1600	95	30°	63	0.9	Yes
78744	LED10PAR20/GU24/DIM/P/930/FL30	10	GU24	50W PAR20	120	50,000	3000K	550	1600	95	30°	63	0.9	Yes
72547	LED8PAR16/GU10/DIM/FL36P	8	GU10	50WPAR16	120	25,000	3000K	390	950	90	36°	50	0.73	No
72546	LED8PAR16/DIM/930/FL36	8	Med	50WPAR16	120	25,000	3000K	390	950	90	36°	50	0.73	No
72544	LED7MR16/DIM/930/FL36	7	GU5.3	35WMR16	12	25,000	3000K	400	1000	95	36°	90	0.91	No

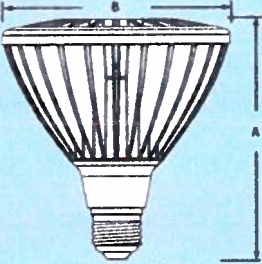
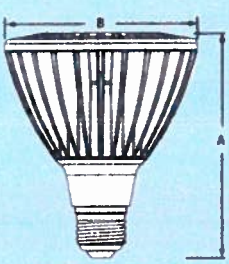
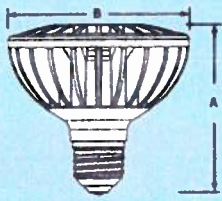
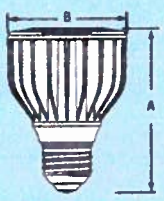
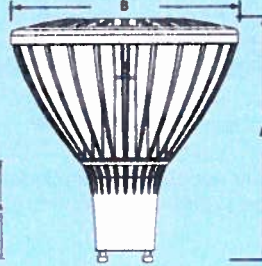
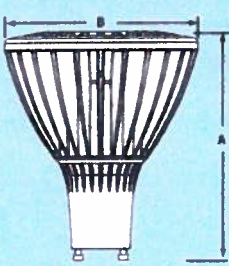
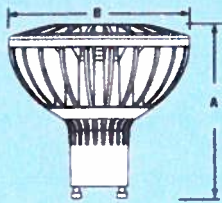
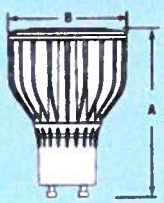


OSRAM SYLVANIA submits most lamps for ENERGY STAR testing. Early qualification for ENERGY STAR lamps begin at 25,000 hours (L₇₀) regardless that the design of the lamp is manufactured for a greater life expectancy. As the lamps pass ENERGY STAR qualifications, manufacturers are able to increase rated life as dictated by ENERGY STAR guidelines becoming either provisionally qualified or fully qualified. Please visit ENERGYSTAR.gov for more information about testing requirements for ENERGY STAR qualified products.

1. Hours lifetime with 70% (L₇₀) lumen maintenance 2. Thermally stable typical lumens (±10%) 3. Thermally stable typical CCT (±10%) 4. CRI - Color Rendering Index

Ordering Guide

LED	21	PAR38	/	DIM	/	P	/	930	/	FL	30
LED Lamps	Wattage 7, 8, 10, 15, 17, 20, 21	Lamp Type: PAR20, PAR30, PAR30LN, PAR38, PAR16, MR16		DIM = Dimmable		Professional Series		CRI, CCT: 930: 90+ CRI, 3000K CCT 2700K CCT		Beam Type FL: Flood NFL: Narrow Flood WSP: Wide Spot	Beam Angle 12°, 25°, 30°, 36° 40°

Lamp Dimensions

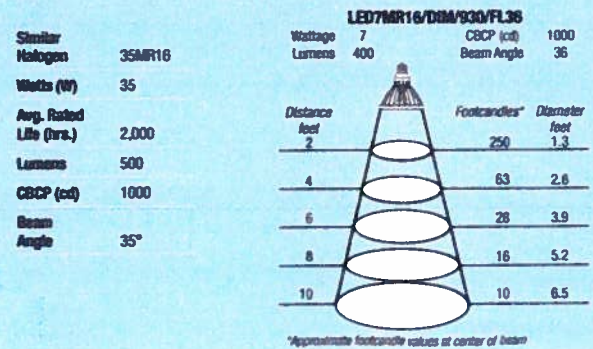
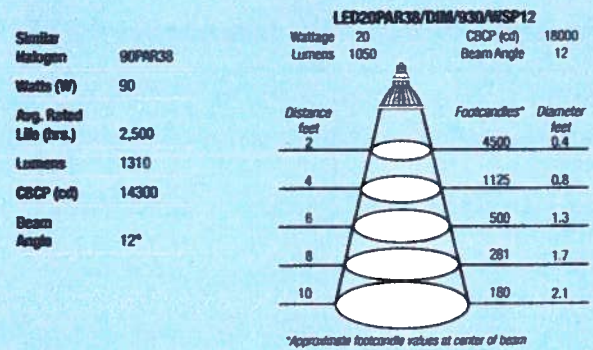
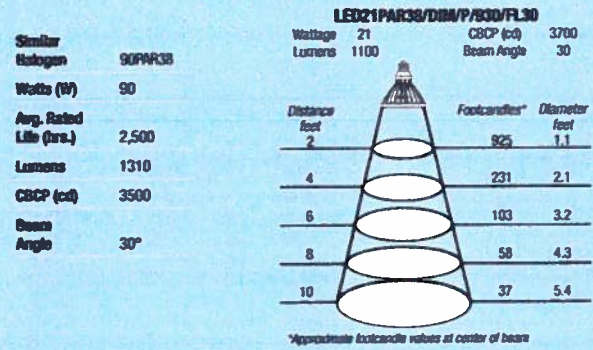
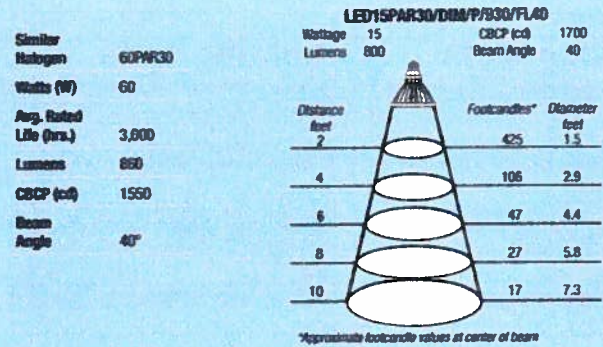
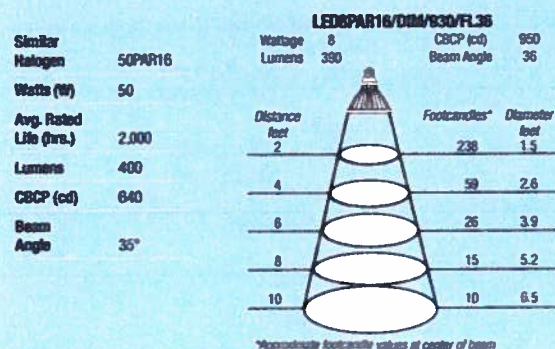
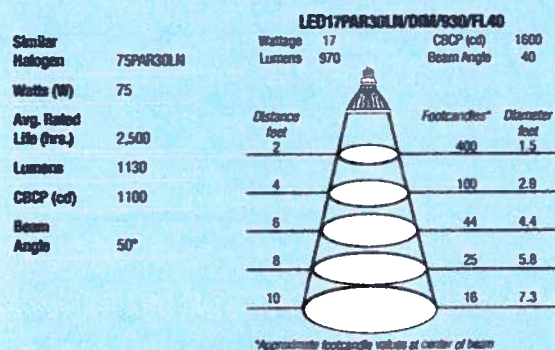
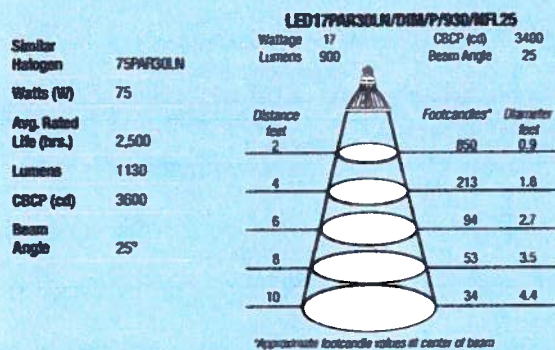
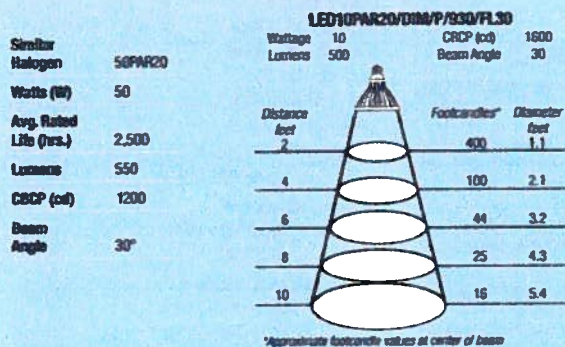
	(A) HDL (inches)	(B) Diameter (inches)					
PAR38 Med Base	4.99	4.76		PAR38 Med Base	PAR30LN Med Base	PAR30 Med Base	PAR20 Med Base
PAR38 GU24	5.03	4.76					
PAR30LN Med Base	4.67	4.02					
PAR30LN GU24	4.72	4.02					
PAR30 Med Base	3.53	3.75		PAR38 GU24	PAR30LN GU24	PAR30 GU24	PAR20 GU24
PAR20 Med Base	3.42	2.50					
PAR20 GU24	3.50	2.50					
PAR16 Med Base	3.00	1.96					
PAR16 GU10	2.31	1.96					
MR16 GU5.3	1.90	1.97					


Energy Savings

Basic Product Description	LED Life (hrs.)	Similar Halogen	Halogen Life (hrs.)	Watts Saved	Energy Savings*	LED Life vs. Halogen Life
LED21PAR38	50,000	90PAR38	2,500	69	\$379.50	20x
LED20PAR38	40,000	90PAR38	2,500	68	\$299.20	16x
LED17PAR30LN	50,000	75PAR30LN	2,500	58	\$319.00	20x
LED15PAR30	50,000	60PAR30	3,000	45	\$247.50	16x
LED10PAR20	50,000	50PAR20	2,500	40	\$220.00	20x
LED8PAR16	25,000	50PAR16	2,000	42	\$115.00	12.5x

*Energy savings over life of lamp calculated at \$0.11/kWh

Technical Information





Light Output (Lumens)

Watts

Lumens per Watt (Efficacy)

550

10

55

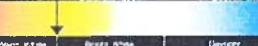
Color Accuracy

Color Rendering Index (CRI)

95

Light Color

(Warm White, Neutral White, Cool White)



3000 (Bright White)

Warm White Neutral White Cool White Energy

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Visit www.lightingfacts.com for the full list of participating brands.

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Lighting Facts is a registered trademark of the Lighting Facts Group.

lighting facts
a page from the U.S. DOE

Light Output (Lumens)	880
Watts	15
Lumens per Watt (Efficacy)	58
Color Accuracy (Color Rendering Index (CRI))	95

Light Color
ColorTemperature.com Temperature and CCT

3000 (Bright White)

Warm White Bright White Daylight

2700K 3000K 4000K 5000K

Color accuracy is important for many applications. The U.S. Department of Energy has developed a new lighting fact sheet showing the U.S. Department of Energy's new lighting fact sheet.

Visit www.lightingfacts.com for the Color Rendering Index (CRI)

Registration Number: 10777-001-001

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lighting facts
a ProjectWorx Inc. CRE

Light Output (Lumens)	970
Watts	17
Lumens per Watt (Efficacy)	57
Color Accuracy Color Rendering Index (CRI)	95

Light Color
Correlated Color Temperature (CCT): 3000 (Bright White)

Warm White Bright White Neutral Daylight

2700K 3000K 4000K 5000K

[illegible]

lighting facts
A Comprehensive Guide to LED

Light Output (Lumens)	1150
Watts	21
Lumens per Watt (Efficacy)	53
Color Accuracy Color Rendering Index (CRI)	93

Light Color
CRI 93+ (Bright White)

Diagram showing the color spectrum with labels: Red, Orange, Yellow, Green, Blue, and Purple. A vertical line indicates the color temperature range from 2700K to 6500K.

Specification	Value
Light Output (Lumens)	970
Watts	17
Lumens per Watt (Efficacy)	57
Color Accuracy (Color Rendering Index CRI)	95
Light Color (Temperature, Kelvin range 2700-6500)	3900 K (Bright White)

Color spectrum bar: Warm White (2700K) —————> 3900K (Bright White) —————> Daylight (5000K) —————> 6500K

lighting facts

Energy Star® is a U.S. Government program.

Light Output (Lumens)	880
Watts	15
Lumens per Watt (Efficacy)	58

Color Accuracy
Color Rendering Index (CRI)

95

Light Color
Correlated Color Temperature (CCT)

3000 (Bright White)

Deep Red Bright White Daylight Blue

2700K 3000K 3500K 5000K

lighting facts
the new standard

Light Output (Lumens)	550
Watts	10
Lumens per Watt (Efficacy)	55
Color Accuracy (Color Rendering Index CRI)	95

Light Color
3000K (Bright White)

Color temperature scale from 2700K to 6500K. The 3000K point is highlighted in yellow, corresponding to the 'Bright White' label. The scale includes labels for Warm White, Bright White, and Daylight.

Sample Specification

Lamp(s) shall be ULTRA HD Professional Series lamps (21W PAR38, 20W PAR38, 17W PAR30LN, 15W PAR30, 10W PAR20) having either a medium base or GU24 base. Lamp(s) shall have an average rated life of up to 50,000 at L₇₀. Lamps should have a typical CRI of 95 with a R9 > 60 and an excellent color quality at 3-step MacAdam ellipse.

United States
OSRAM SYLVANIA
100 Endicott Street
Danvers, MA 01923
1-800-LIGHTBULB

Trade
Phone: 800-255-5042
Fax: 800-255-5043

National Accounts
Phone: 800-562-4671
Fax: 800-562-4674

OEM/Special Markets
Phone: 800-762-7191
Fax: 800-762-7192

Retail
Phone: 800-842-7010
Fax: 800-842-7011

SYLVANIA Lighting Services
Phone: 800-323-0572
Fax: 800-537-0784

Display/Optic
Phone: 888-677-2627
Fax: 855-543-1043

Canada
OSRAM SYLVANIA LTD.
2001 Drew Road
Mississauga, ON L5S 1S4
1-800-LIGHTBULB

Trade
Phone: 800-263-2852
Fax: 800-667-6772

OEM/Special Markets/Display/Optic
Phone: 800-265-2852
Fax: 800-667-6772

Retail
Phone: 800-720-2852
Fax: 800-667-6772

SYLVANIA Lighting Services
Phone: 800-663-4268
Fax: 866-239-1278

Mexico
OSRAM MEXICO
Tultitlan/Edo de Mexico
Phone: 011-52-55-58-99-18-50

ENCELUM® Products

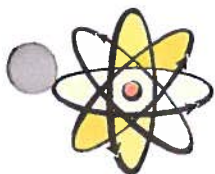
United States
Phone: 201-508-1570
Fax: 201-508-1589

Canada
Phone: 905-731-7678
Fax: 905-731-1401

www.sylvania.com

 /sylvania

 /sylvania



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast Harbor, Maine 04662

Re: Otter Creek Pump Station

The property currently has (2) 2-head flood-lights.
The fixtures are motion-activated, as well as, switch controlled.

The scope of work would involve...

1. Replace the flood-light fixture boxes, covers, covered heads, and motion sensors, and then lamp with LED lamps.

Both fixtures would continue to be controlled as before.

I would perform the above mentioned work for a price "not to exceed"...
\$400.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC





Bartlett's Landing Lighting Comparison

	Dusk-to-Dawn	Switched	Total
Existing Lighting	620 Watts		620 Watts
Replacement Lighting	168 Watts		168 Watts
Energy Savings KWH / year	1974.3 KWH/year		1974.3 KWH/year
Energy Savings \$\$\$ / year	\$335.63 / year		\$335.63 / year
Base Fixture Cost (minus Rebates)		\$1,023	\$1,023
Payoff / years	3.05 years		3.05 years

	Dusk-to-Dawn	Switched	Total
Utility fed Lighting	350 Watts		350 Watts
Replacement Lighting (If allowed)	128 Watts		128 Watts
Energy Savings KWH / year	969.7 KWH/year		969.7 KWH/year
Energy Savings \$\$\$ / year	\$164.85 / year		\$164.85 / year
Base Fixture Cost (minus Rebates)		\$813	\$813
Payoff / years	4.93 years		4.93 years

CED

DBA GILMAN ELECTRIC-ELLSWORTH
25 EASTWARD LANE, SUITE 2
ELLSWORTH ME 04605
TEL: 207 667-6166 FAX: 207 667-2201
CONTACT: SREID

QUOTE FOR: JAY C PERRUZZI

ACCT #: DM-60139 JAY C PERRUZZI

P.O. BOX 1211
SOUTHWEST HARBOR, ME 04679
TEL: (207) 244-7508

QUOTATION			Page
			001 OF 001
QUOTE #	Date	Rev #	Rev Date
1018730	02/21/14	002	02/26/14
QUOTE EXPIRES		PREPARED BY	
03/23/2014		SHAWN	
SLS		INSLs	
3324		4000	
FOB		FREIGHT	
SHIPPING POINT		PREPAID	

CUS PO #:

JOB NAME:

PRETTY MARSH DOCK

LN	QTY	MFR	CATALOG #	DESCRIPTION	PRICE	UOM	EXT AMT
01	*	DOCK LIGHTS (DBL HEAD POLE LIGHTS)					
02	2	ATLAS	FLDX84LEDS	84W LED FLOODLIGHT	571.35	E	1,142.70
03	*	UTILITY POLE LIGHTS					
04	1	HUB	DDL9L1	LED DUSK-TO-DAWN 40WATT	185.26	E	185.26
05	1	ATLAS	FLDX84LED	84W LED FLOODLIGHT	571.35	E	571.35
06	1	COOPR	SAB	GALV ANGLE BRACKET	56.00	E	56.00
07	*	REBATE IF APPROVED: TOTAL = \$355.00					
08	*	3-FLOODS AT \$60.00 EACH= \$180.00					
09	*	1-YARD LIGHT AT \$175.00 EACH= \$175.00					
10	*	ESTIMATED ANNUAL ENERGY SAVINGS = \$433.66					

MDSE: 1,955.31

TAX: 107.54

TOTAL: 2,062.85

PLEASE NOTE: THIS IS NOT AN OFFER TO CONTRACT, BUT MERELY A QUOTATION OF CURRENT PRICES FOR YOUR CONVENIENCE AND INFORMATION. ORDERS BASED ON THIS QUOTATION ARE SUBJECT TO YOUR ACCEPTANCE OF THE TERMS AND CONDITIONS STATED IN OUR WRITTEN ACKNOWLEDGEMENT OF ORDER. WE MAKE NO REPRESENTATION WITH RESPECT TO COMPLIANCE WITH JOB SPECIFICATIONS.

FLDX84LED 84 Watt LED Flood Light



SPECIFICATIONS:

Construction:

Rugged Traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility. The smooth housing prevents debris build up and maximizes airflow over housing.

Optics:

Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations reduces glare and offensive light.

Thermal Management:

Atlas' Patent Pending exclusive Thermal Stacking Technology System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:

Luminaire is certified to UL Standards for Wet Locations

AC Input:

120/208/240/277 V

Driver:

Constant current, Class 2, 120-277 VAC, 50-60 Hz

High Efficiency – min. 88%

Off-State Power: 0 Watts

LEDs:

4100K CCT

Delivers 70% or greater of initial lumens at 100,000 hours

Epoxy Guard™ protective conformal coated boards

Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance. They are tested and binned at 700mA which is the actual operating current used in Atlas LED luminaires, giving a better representation of actual performance.

Reduced Glare:

Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Warranty:

Five-year limited warranty

Testing:

Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80, and have received the Department of Energy "Lighting Facts" label.

Installation:

Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Weight:

15.0 lbs

Photo Control:

For factory installed 120V button photo control add suffix PC to part number.

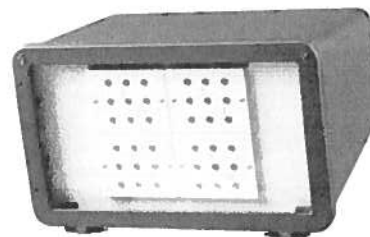
Project Information

Job Name

Fixture Type 84 Watt LED Flood Light

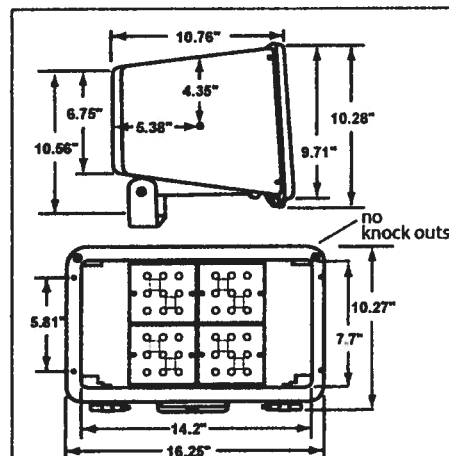
Catalog Number FLDX84LED

Approved by



Optional Factory
Installed Slipfitter
FLDX-84LEDs

DIMENSIONS:



Patent Pending

PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5100K nominal, 67 CRI)				
				LUMENS	LPW	B	U	G
9	1280mA	40W	Symmetric	3437	86	1	0	1
9	1280mA	40W	Asymmetric	3246	81	1	0	1

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment, application and inherent performance tolerances of the electrical components.

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LAT)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99
50°C	122°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

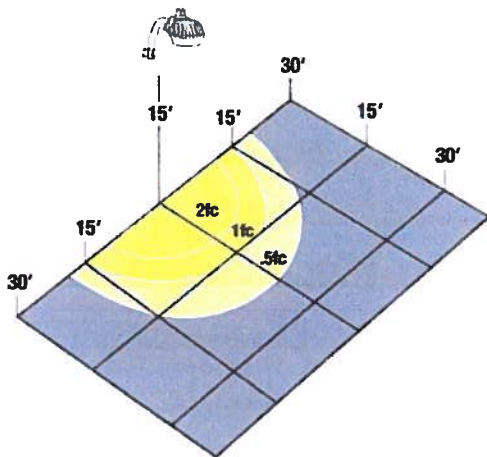
PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP	OPERATING HOURS					Calculated L70 (HOURS)
	0	25,000	50,000	TM-21-11 60,000	100,000	
40°C / 104°F	0.99	0.94	0.91	0.89	0.84	>216,000

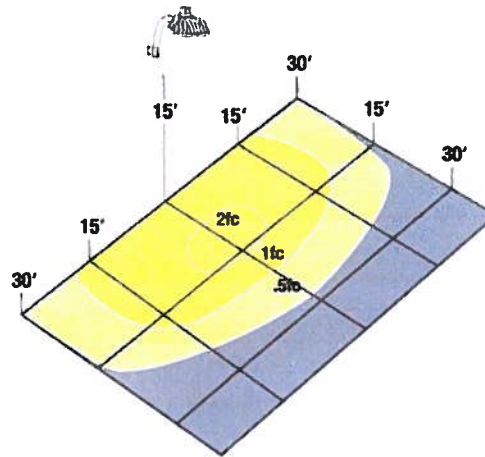
ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (W)
9	1	STD. (1280mA)	120	0.35	40

PHOTOMETRICS For additional photometric information and IES downloads, visit our web site at www.hubbelloutdoor.com



Symmetric LED lens

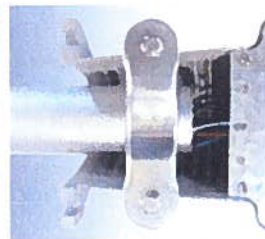


Asymmetric LED lens

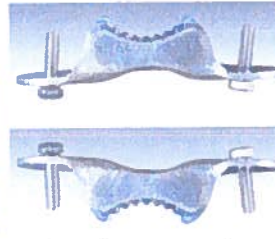
MOUNTING OPTIONS



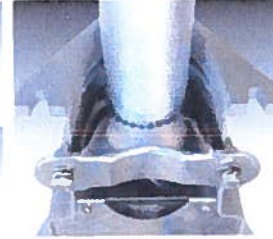
Dual rows of serrated teeth ensure positive grip on mast arm, preventing loosening due to continuous vibration



Bottom view of stainless steel mast arm clamp



Stainless steel mast arm clamp is reversible accommodating either 2-3/8" or 1-5/8" OD arms



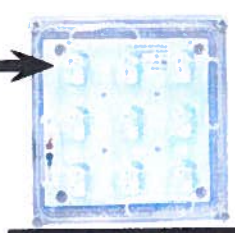
Mast arm clamp easily adjusts to 1-5/8" OD arms with two 3/8" bolts



Reversible clamp easily adjusts to 2-3/8" OD arms with two 3/8" bolts



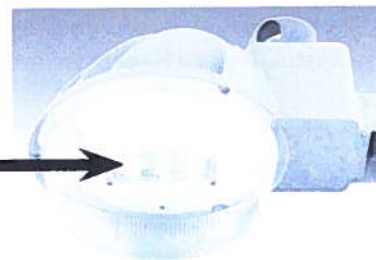
Molded orientation marker for rotatable LED asymmetric lens, align lens with "house" icon for desired light direction



Asymmetric



Symmetric



Field rotatable/exchangeable LED lenses included



HUBBELL
Outdoor Lighting

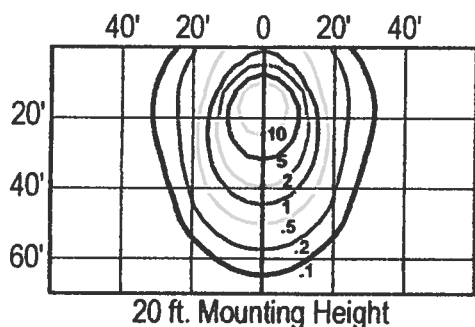
Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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DOLED-SPEC-11/13

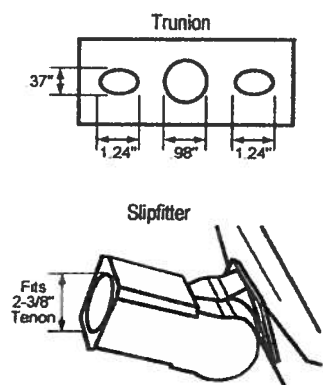
PHOTOMETRIC



ENERGY SAVINGS

LED		HID			ANNUAL SAVINGS
WATTAGE	ANNUAL COST	SOURCE WATTAGE	TOTAL WATTAGE USED	ANNUAL COST	
84	\$37	200	232	\$103	\$66
84	\$37	250	285	\$125	\$88
84	\$37	400	458	\$201	\$164

MOUNTING DETAIL



To Order Use Part #: **FLDX-84LEDS**

lighting facts

A Program of the U.S. DOE

Light Output (Lumens)	6767
Watts	82.07
Lumens per Watt (Efficacy)	82

Color Accuracy	71
Color Rendering Index (CRI)	

Light Color		3929 (Bright White)
Correlated Color Temperature (CCT)		
Warm White	Bright White	Daylight
2700K	3000K	4500K 6500K

All results are according to IESNA LM-79-2008, Approved Method for the Electrical and Photometric Testings of Solid State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: PRE-REGISTERED 2-18-2012

Model Number: FLDX84LED (powered by 2012)

Type: Flood or Spotlight Fixture

DUSK-TO-DAWN DDL MULTIPURPOSE LED LUMINAIRE

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

Multi-purpose dusk-to-dawn LED luminaire provides general purpose area/security, roadway and landscape lighting. For operation in -35°C - 40°C ambient temperatures.

Construction:

- Rugged die-cast aluminum housing with both 2-3/8" & 1-5/8" OD mast arm mount capability as well as direct wall/surface mounting; Textured gray powder paint provides corrosion resistance and clean finish

LED:

- 9 high power LEDs deliver 3437 lumens with symmetrical lens and 3246 with asymmetrical lens
- 5100 CCT, 67 CRI

Optical/Electrical

- Symmetric LED lens installed standard
- Field rotatable asymmetric LED lens included for pathway/ roadway applications
- 120V operation, 50/60Hz
- 120V twist-lock style photocontrol included
- Refractor provides enhanced security lighting and LED brightness control
- Zero uplight design for environmentally friendly installations

Installation:

Versatile mounting options include:

- Three 1/4" slots for wall/surface
- 24" (18" projection) aluminum mast arm included
- Mast arm clamp adjusts to 2-3/8" or 1-5/8" arms

Listings:

- Meets DesignLights Consortium (DLC) qualifications
- Listed to UL1598 for use in wet locations
- Driver IP66 and RoHS compliant

Warranty:

For more information visit:

<http://www.hubbelloutdoor.com/resources/warranty/>

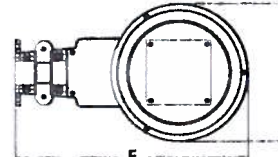
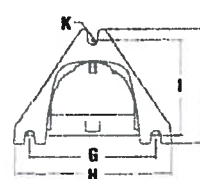
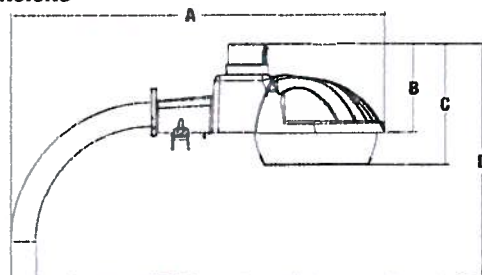
PRODUCT IMAGE(S)



NEW



DIMENSIONS



A	B	C	D	E	F
29.72"	6"	8.25"	16.19"	9.45"	16"
754 mm	152 mm	209 mm	411 mm	240 mm	406 mm
G	H	I	J	K	
3.62"	4.52"	2.74"	3.29"	.138"	
92 mm	115 mm	69 mm	84 mm	3.5 mm	

SHIPPING INFORMATION

Catalog Number	G.W.(kg)/CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
DDL-9L-1 (Single carton 1pc.)	4.57	17.83"	14.49"	7.68"
DDL-9L-1 (Master carton 2 pcs.)	10.00	18.23"	14.88"	16.34"

Carton dimensions for shipping purposes only

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION

Catalog Number	Construction	Mount	Wattage	Drive Current	Voltage	Color Temperature	Lumens	LPW	Weight lbs. (kg)
DDL-9L-1	Die-cast aluminum	Arm/Wall/Surface	40	1280mA	120V	5100K	3437	86	6.8 (3.08)



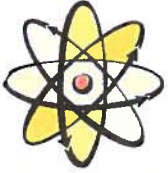
HUBBELL
Outdoor Lighting

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Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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DDL9LED-SPEC-11/13



Atom Electric LLC
PO Box 1211
Southwest Harbor, ME 04679

March 21, 2014

To: Tony Smith
Public Works Director
Town of Mount Desert
P.O. Box 248
Northeast harbor, Maine 04662

Re: Bartlett's Landing

The property currently has (2) pole-mounted lights that are fed directly from the Utility line. The lights are operated by a photo-cell. The property also has (2) 250W pole-mounted HPS fixtures on the Dock. These lights are controlled by a photo-cell.

The scope of work would involve...

1. If the Utility allows it, I would replace the pole-mounted lights with the LED versions listed in the package:
2. Replace the (2) 250W MH Dock lights with the LED equivalent.

All lights will continue to be controlled by photo-cells..

Efficiency Maine does not offer any cash incentive to replace light fixtures that are owned by the Utility.

I would perform the above mentioned work for a price "not to exceed"...
\$1000.00 plus the cost of the fixtures/lamps.

Thank you for your consideration,

Jay C. Perruzzi
Atom Electric LLC

