



**TOWN OF CHAPEL HILL
Planning Department**

405 Martin Luther King Jr. Blvd.
Chapel Hill, NC 27514-5705

phone (919) 969-5066 fax (919) 969-2014
www.townofchapelhill.org

**Community Design Commission
Final Plan Application**

This application should be used to submit Final Plan applications to the Community Design Commission including building elevations, site lighting, and alternative buffers. For assistance with this application, please contact the Chapel Hill Planning Department at (919) 969-5066 or at planning@townofchapelhill.org.

Section A: Property Information

Property Address:	107 Green Cedar Lane
Zoning:	R-5-C

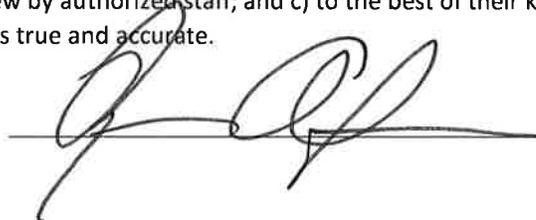
Type of Application

Building Elevation Alternative Buffers

Section B: Applicant Information (for contact purposes)

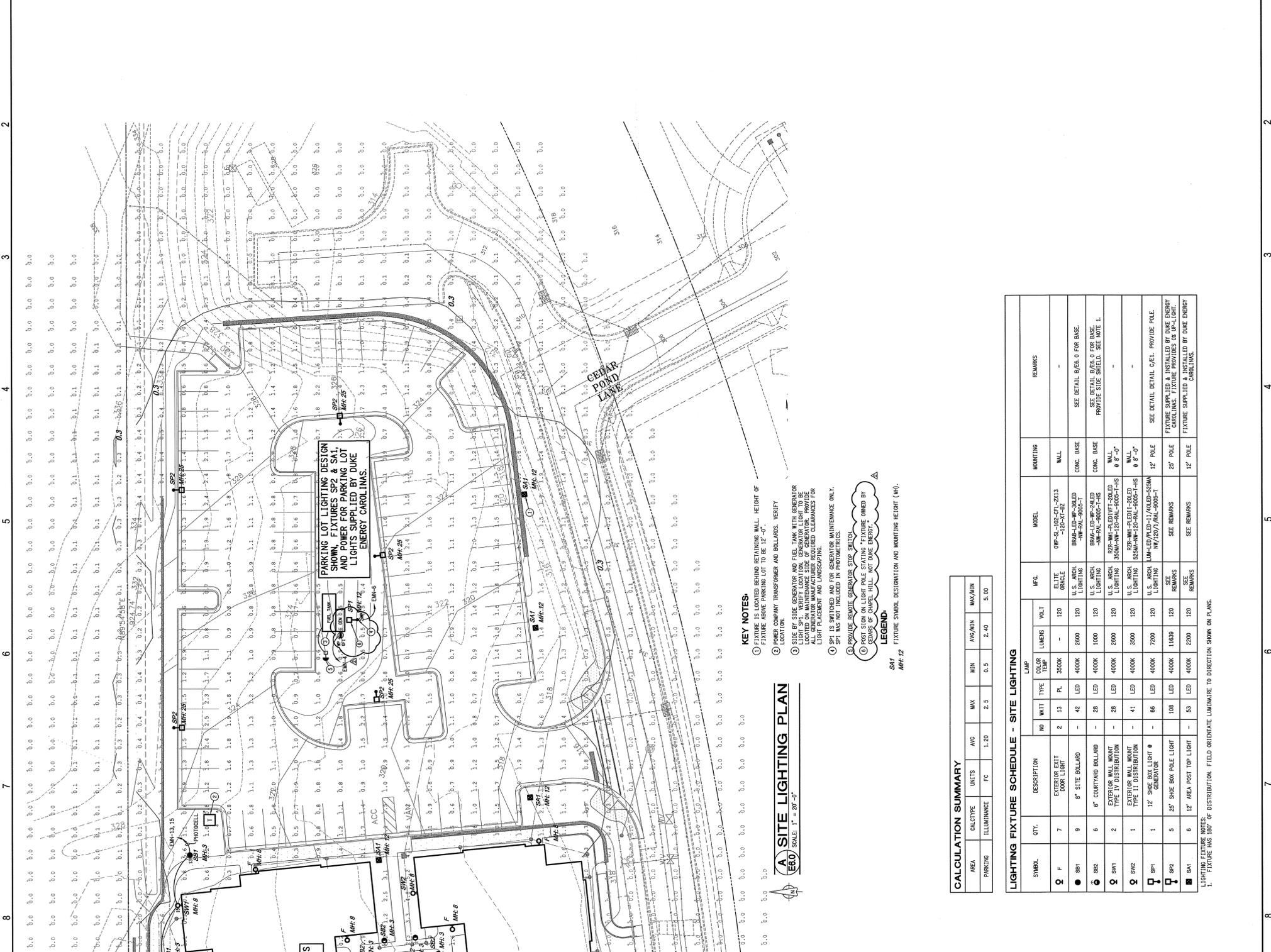
Name:	Ryan Akers				
Address:	2905 Meridian Parkway				
City:	Durham	State:	NC	Zip Code:	27713
Phone Number:	919-287-0778	Email:	akers@mcadamsco.com		

The undersigned applicant hereby certifies that: a) the property owner authorizes the filing of this application; b) authorizes on-site review by authorized staff; and c) to the best of their knowledge and belief, all information supplied with this application is true and accurate.

Signature:  Date: 2/23/18

Parcel Identifier Number (PIN): 9798-02-85-2905

The Community Design Commission meets regularly on the fourth Tuesday of each month. For confirmation of a meeting date and the placement of your request on the agenda, please contact the Planning Department at (919) 969-5066.



KEY NOTES:
 1. FIXTURE IS LOCATED BEHIND RETAINING WALL. HEIGHT OF FIXTURE ABOVE PARKING LOT TO BE 12'-0".
 2. POWER COMPANY TRANSFORMER AND BOLLARDS, VERIFY LOCATION.
 3. SIDE BY SIDE GENERATOR AND FUEL TANK WITH GENERATOR LIGHTS SHALL BE INSTALLED TO THE EAST OF THE BUILDING. ALL GENERATOR MANUFACTURER REQUIRED CLEARANCES FOR LIGHT PLACEMENT AND LANDSCAPING.
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A SITE LIGHTING PLAN
 SCALE: 1" = 20'-0"

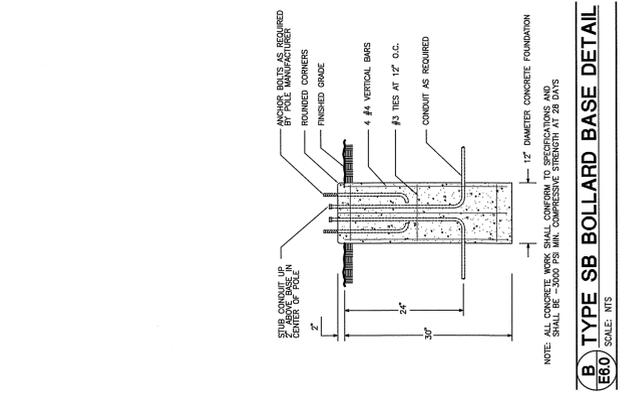
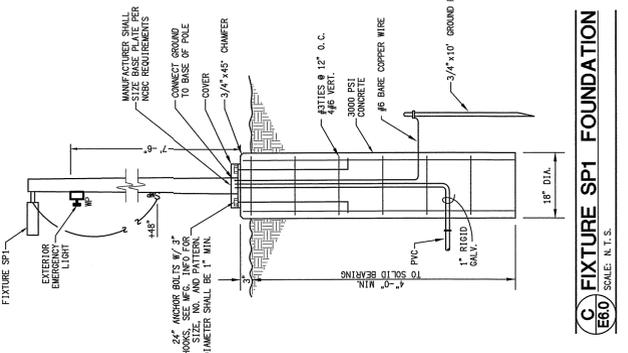
CALCULATION SUMMARY

AREA	QUANTITY	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING	ILLUMINANCE	FC	1.20	2.5	0.5	2.40	5.00

LIGHTING FIXTURE SCHEDULE - SITE LIGHTING

SYMBOL	QTY.	DESCRIPTION	LAMP			MFC.	MOUNTING	REMARKS
			NO	WATT	COLOR TEMP			
Q F	7	EXTERIOR EXIT DOOR LIGHT	2	13	3500K	-	WALL	-
● S81	9	8" SITE BOLLARD	42	LED	4000K	2600	CONC. BASE	SEE DETAIL B/E/E.0 FOR BASE.
● S82	6	6" COURTYARD BOLLARD	28	LED	4000K	1000	CONC. BASE	SEE DETAIL B/E/E.0 FOR BASE.
Q SW1	2	EXTERIOR WALL MOUNT TYPE IV DISTRIBUTION	28	LED	4000K	2600	WALL	SEE DETAIL B/E/E.0 FOR BASE. PROVIDE SIDE SHIELD. SEE NOTE 1.
Q SW2	1	EXTERIOR WALL MOUNT TYPE II DISTRIBUTION	41	LED	4000K	3600	WALL	SEE DETAIL B/E/E.0 FOR BASE. PROVIDE SIDE SHIELD. SEE NOTE 1.
Q SW3	1	12" SHADE BOX LIGHT	86	LED	4000K	7200	12" POLE	SEE DETAIL B/E/E.0 FOR BASE. PROVIDE SIDE SHIELD. SEE NOTE 1.
Q SW4	5	25" SHADE BOX LIGHT	108	LED	4000K	11430	25" POLE	FIXTURE SUPPLIED BY DUKE ENERGY CAROLINA. FIXTURE PROVIDED BY DUKE ENERGY.
■ S41	6	12" AREA MOUNT LIGHT	53	LED	4000K	2200	12" POLE	FIXTURE SUPPLIED BY DUKE ENERGY.

1. FIXTURE WAS 180" OF DISTRIBUTION. FIELD ORIENTATE LUMINAIRE TO DIRECTION SHOWN ON PLANS.



NOTE: ALL CONCRETE WORK SHALL CONFORM TO SPECIFICATIONS AND SHALL BE 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS.



Excellence in Illumination Engineering Software
since 1984



sample banner copyright 2013 Lighting Analysts, Inc.

Photometric Report (Type C)

Filename: Deluxe Traditional LED.ies
[TEST] TR12-0654 -SCALED
[TESTLAB] PHILIPS HADCO LIGHTING
[ISSUEDATE] 9/17/2016
[MANUFAC] PHILIPS-HADCO LIGHTING
[LUMCAT] VX15148AV5NNA3NN - VERTICAL RIBBED ACRYLIC
PANELS
[LUMINAIRE] VX15148AV5NNA3NN 48 LED LEDGINE REBEL R
BOARD, TYPE V OPTICS, 350 mA DRIVER
[LAMP] 48 LED BOARD

Maximum Candela = 2334.35135284662 at 90 H 65 V

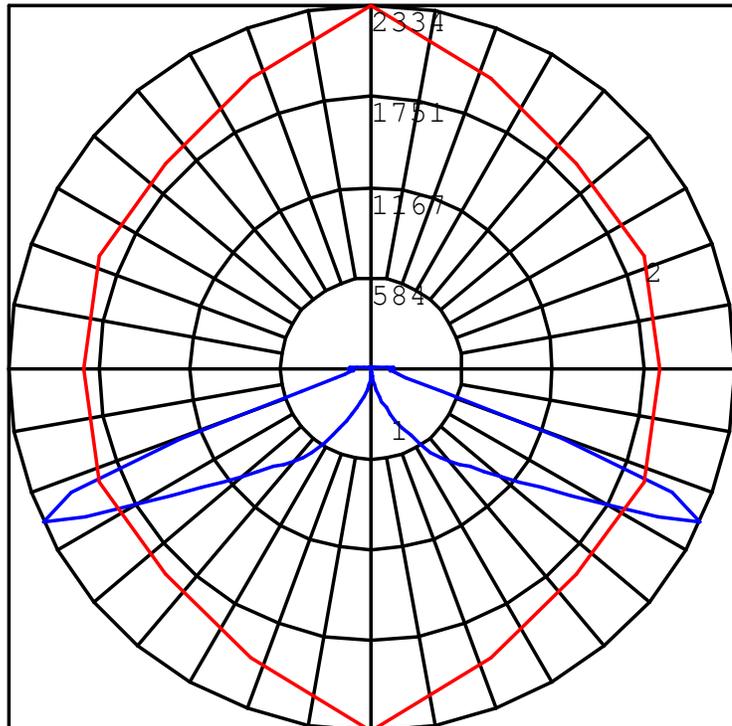
Classification:

Road Classification: Type VS, Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.02
Luminaire Efficacy Rating (LER): 95
Indoor Classification: Direct
BUG Rating : B3-U3-G1

Polar Candela Curves:

Vertical Plane Through:
1) 90 - 270 Horizontal

Horizontal Cone Through:
2) 65 Vertical





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Photometric Report (Type C)

Filename: Deluxe Traditional LED.ies
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[TESTLAB] PHILIPS HADCO LIGHTING
[ISSUEDATE] 9/17/2016
[MANUFAC] PHILIPS-HADCO LIGHTING
[LUMCAT] VX15148AV5NNA3NN - VERTICAL RIBBED ACRYLIC PANELS
[LUMINAIRE] VX15148AV5NNA3NN 48 LED LEDGINE REBEL R BOARD, TYPE V OPTICS, 350 mA DRIVER
[LAMP] 48 LED BOARD

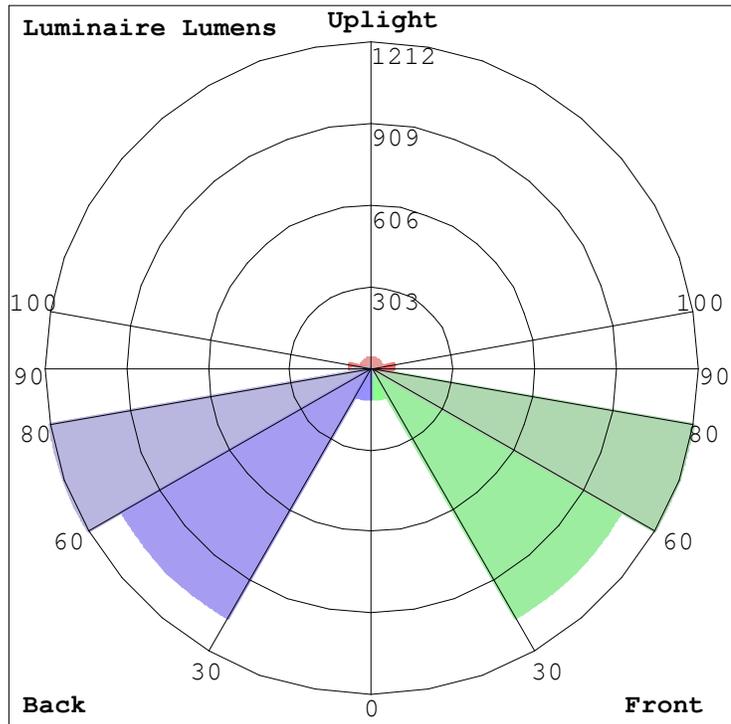
Maximum Candela = 2334.35135284662 at 90 H 65 V

Classification:

Road Classification: Type VS, Short, N.A. (deprecated)
Upward Waste Light Ratio: 0.02
Luminaire Efficacy Rating (LER): 95
Indoor Classification: Direct
BUG Rating : B3-U3-G1

LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	115.3	N.A.	2.3
FM (30-60)	1068.4	N.A.	21.1
FH (60-80)	1212.3	N.A.	24.0
FVH (80-90)	73.5	N.A.	1.5
BL (0-30)	115.3	N.A.	2.3
BM (30-60)	1068.4	N.A.	21.1
BH (60-80)	1212.3	N.A.	24.0
BVH (80-90)	73.5	N.A.	1.5
UL (90-100)	81.2	N.A.	1.6
UH (100-180)	35.7	N.A.	0.7
Total	5055.9	N.A.	100.0
BUG Rating	B3-U3-G1		



Project

Cedars site C Hill

Tom Grantham, LC, CEM
 Tom.Grantham@duke-energy.com
 Business Development Mgr
 4601 CORPORATE DRIVE
 CONCORD, NC 28027
 980-255-5736 Office
 704 519 6702 Mobile



Date:1/20/2017

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Luminaire Schedule

Symbol	Qty	Label	Description	Arrangement	Lumens/Lamp	LLF
	6	Deluxe Traditional LED	VX15148AV5NNA3M	SINGLE	N.A.	0.850
	5	110 watt LED Area	ATB0 30B LED E10	SINGLE	N.A.	0.850

Luminaire Location Summary

LumNo	Label	X	Y	Z	Orient	Tilt
35	Deluxe Traditional LED	1998070.874	785913.595	12	273.012	0
36	Deluxe Traditional LED	1998077.452	785837.223	12	96.872	0
37	Deluxe Traditional LED	1998253.217	785893.862	12	2.421	0
38	Deluxe Traditional LED	1998330.365	785891.279	12	99.294	0
39	Deluxe Traditional LED	1998390.659	785896.395	12	89.385	0
40	Deluxe Traditional LED	1998224.76	785961.439	12	5.932	0
41	110 watt LED Area	1998300.766	785962.535	25	183.527	0
42	110 watt LED Area	1998425.315	785978.641	25	0.987	0
43	110 watt LED Area	1998363.23	785961.976	25	278.184	0
44	110 watt LED Area	1998285.118	786049.136	25	270	0
45	110 watt LED Area	1998392.657	786050.162	25	269.224	0

Project

Cedars site C Hill

Tom Grantham, LC, CEM
Tom.Grantham@duke-energy.com
Business Development Mgr
4601 CORPORATE DRIVE
CONCORD, NC 28027
980-255-5736 Office
704 519 6702 Mobile



Date:1/20/2017

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Numeric Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
site	Illuminance	Fc	0.33	2.6	0.0	N.A.	N.A.

Statistical Area Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
Parking	1.19	2.6	0.5	2.38	5.20

LPD Area Summary			
Label	Area	Total Watts	LPD



STANDARD LED

POLY-CARBONATE SLIMLINE WALL PACK

OWP-SL-102



SUGGESTED USE - For general and security lighting for parking garages, ramps, walkways, loading docks, apartment buildings, recreation facilities, warehouses and any other type of entrances.

CONSTRUCTION - High impact poly-carbonate housing and front frame with hood. Includes weatherproof hardware. The one piece silicone gasket effectively limits outside contaminants by sealing off the optical chamber. The reflector is made of die-formed specular anodized aluminum for high efficiency. CFL fixtures have 4 pin plug in base & standard ballast of min. starting Temp. of 0°F/-18°C, extreme Temp. ballast (XT) with -20°F/-30°C is available. **with 2 ballast**

FINISH - Dark bronze corrosion-resistant polyester powder finish is standard.

LENS - Prismatic poly-carbonate refractor designed for excellent glare control.

INSTALLATION - Convenient, easy mount over standard 4" outlet box; or use 1/2" surface conduit.

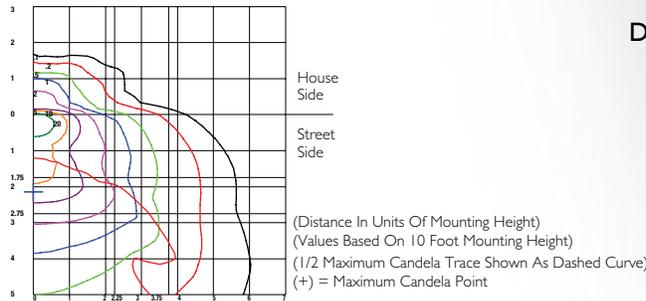
LISTINGS - UL/ C-UL for wet location.

LAMP - Not Included.

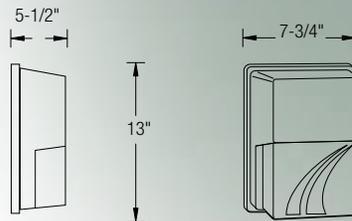
All specifications are subject to change without notice.



OWP-SL-102-CFL-1X26-MVOLT



Dimensions:



ORDERING GUIDE Example: OWP-SL-102-CFL-1X26-MVOLT

SERIES	WATTAGE	VOLTAGE	OPTIONS	COLOR
OWP-SL-102	CFL-2X13 (2X13W Compact Fluorescent)	CFL^{2,3,4} MVOLT(120/277)	2 BALLAST PC120 - Photo control (120V only) PC277 - Photo control (277V only) SF - Single fuse DF - Double fuse XT - -20°F/-30°C Min. Temp. Bal. (CFL only)	BZ - BRONZE
	CFL-1X26 (1X26W Compact Fluorescent)			
	CFL-1X32 (1X32W Compact Fluorescent)	120		
	CFL-1X42 (1X42W Compact Fluorescent)	208		
	CFL-2X26 (2X26W Compact Fluorescent)	240		
		347		
ACCESSORIES				
OWP-SL-102-RL - Replacement lens kit				

- NOTES:**
1. Pulse Start standard on all fixtures above 175W.
 2. Lamps are not included for CFL.
 3. Please consult factory for dimming options.
 4. Consult factory for other wattages and options.



SOLID STATE BOLLARDS

BRA SERIES-LED

SPECIFICATIONS

BOLLARD

Durable corrosion resistant extruded and cast aluminum construction. 1/4" wall thickness.

LED POWER ARRAY™

Three-dimensional array consisting of 6 individual LED tubes for the BDA8 model and 4 individual LED tubes for the BDA6 model, which are fastened to a retaining plate equally spaced to provide 360° of even illumination output. Each LED tube consists of a circuit board populated with a multiple of LED's which is fastened to a radial aluminum heat sink. A white polycarbonate lens and end caps protect each LED tube's internal components and provides diffusion to prevent shadowing and striations.

INTERNAL LOUVER (IL) - A specular louver stack conceals the inner LED Power Array Module and provides uplight and glare control through the external clear polycarbonate lens.

CAST LOUVER (CL) - External cast aluminum louver stack protects the internal LED Power Array Module and provides uplight and glare control. An internal clear polycarbonate lens is integrated with the LED Power Array Module.

OPAL LENS (WP) - Exterior white polycarbonate lens protects the internal LED Power Array Module and provides a uniform white glow.

RADIAL LED MODULE

LED'S are mounted to a circular heatsink in a radial array. The radial LED module is concealed in the cap of the bollard. LED's are not directly visible from angles above 90°.

PARABOLIC REFLECTOR (TR) - A specular Parabolic Reflector reflects a portion of the distribution from the radial LED module and provides a uniform wide angle throw through the outer clear polycarbonate lens.

LED EMITTERS

High Output LED's are driven at 350mA for nominal 1 Watt output each. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

LED DRIVER

UL and CUL recognized Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for (347-480VAC). Driver is mechanically fastened to a retaining bracket. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimmable and High-Low Driver options available.

FINISH

Polyester powder coat incorporates four step iron phosphate process to pretreat metal surface for maximum adhesion. Top coat is baked at 400°F for maximum hardness and exterior durability.

PROJECT NAME: _____

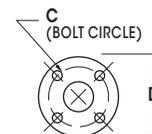
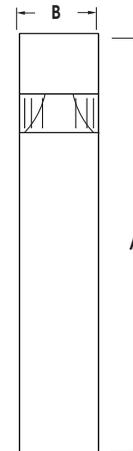
FIXTURE TYPE: _____



BRA

BRA8 SHOWN WITH -TR OPTICS

PATENT PENDING



BOLLARD	A	B	C	D
BRA8	42" 1067mm	8" 203mm	6" 152mm	8" 203mm
BRA6	42" 1067mm	6" 152mm	4" 102mm	6" 152mm



2015239

SOLID STATE AREA LIGHTING

LUM SERIES-PLED

S P E C I F I C A T I O N S

HOUSING

Heavy cast low copper aluminum assembly (A360 alloy, <0.4% copper). Housing attaches to pole via a one piece, extruded aluminum arm with centering guides for internal draw bolts. Housing/pole junction is gasketed. All exposed hardware is stainless steel. Internal protected hardware is electro-zinc plated.

PLED™ OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

LED DRIVERS

Drivers are UL and cUL recognized mounted on a single plate and factory prewired with quick-disconnect plugs. Constant current driver is electronic and has a power factor of >0.90 and a minimum operating temperature of -40°F. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

MOUNTINGS

Arm - One piece heavy wall extruded aluminum with internal draw bolt guides. Arm is secured to housing and pole with stainless steel draw bolts.

Wall - Heavy wall extruded aluminum arm with draw bolts integrates with a cast aluminum wall plate and mounting bracket.

FINISH

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step sand blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Texture finish is standard.

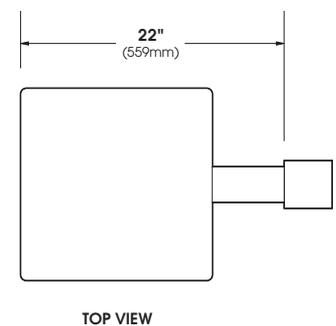
PROJECT NAME: _____

FIXTURE TYPE: _____

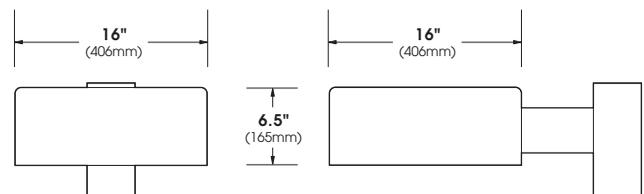


LUM PLED

PATENT PENDING



TOP VIEW



FRONT VIEW

SIDE VIEW

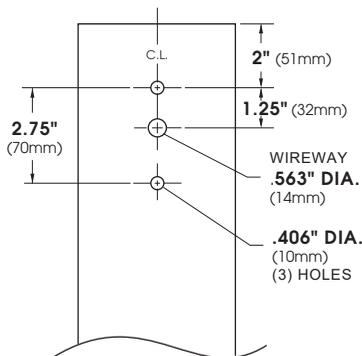


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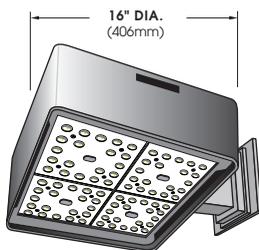
LUM SERIES - PLED

S P E C I F I C A T I O N S

POLE DRILLING TEMPLATE

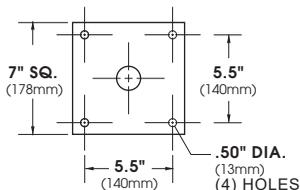


WALL MOUNT

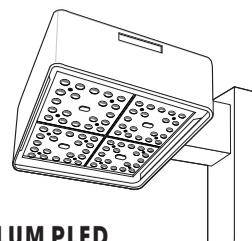


EXTRUDED ALUMINUM ARM AND CAST ALUMINUM WALL BRACKET ASSEMBLY PROVIDED WITH BUILT IN GASKETED WIRE ACCESS FOR FIXTURE / SUPPLY WIRE CONNECTION.

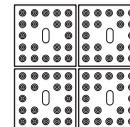
WALL PLATE



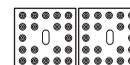
PLED™ MODULES



LUM PLED
E.P.A. = 1.12
Available in:
80 & 40 LED Array



80 LED Array



40 LED Array

No. of LEDs	Drive Current	System Watts	HID Equivalent
40	350mA	45	70 - 100
	525mA	66	100 - 150
	700mA	91	175
	1050mA	142	200 - 250
80	350mA	92	150 - 175
	525mA	136	200 - 250
	700mA	184	400

Spec/Order Example: LUM-LED/PLED-V-SQ/80LED-700mA/NW/277/1/RAL9005

S P E C / O R D E R I N G I N F O R M A T I O N

MODEL	OPTICS	LED	MOUNTING	FINISH	OPTIONS
<input type="checkbox"/> LUM LED	PLED™ DISTRIBUTION <input type="checkbox"/> TYPE II PLED-II <input type="checkbox"/> TYPE II FRONT ROW PLED-II-FR <input type="checkbox"/> TYPE II MEDIAN ILLUMINATOR PLED-II-ML <input type="checkbox"/> TYPE III PLED-III <input type="checkbox"/> TYPE IV PLED-IV <input type="checkbox"/> TYPE IV PLED-IV-FT <input type="checkbox"/> TYPE V NARROW PLED-V-SQ-N <input type="checkbox"/> TYPE V PLED-V-SQ-M <input type="checkbox"/> TYPE V PLED-V-SQ-W	No. LEDs <input type="checkbox"/> 80LED <input type="checkbox"/> 40LED DRIVE CURRENT <input type="checkbox"/> 1050mA <input type="checkbox"/> 700mA <input type="checkbox"/> 525mA <input type="checkbox"/> 350mA COLOR TEMP-CCT <input type="checkbox"/> NW (4000K)* *STANDARD <input type="checkbox"/> CW (5000K) <input type="checkbox"/> WW (3000K) OTHER LED COLORS AVAILABLE CONSULT FACTORY VOLTAGE <input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480 <small>NOTE: 1 - 700mA MAXIMUM</small>	ARM MOUNT <input type="checkbox"/> 1 <input type="checkbox"/> 2-180 <input type="checkbox"/> 2-90 <input type="checkbox"/> 3-120 <input type="checkbox"/> 3-90 <input type="checkbox"/> 4-90 ADJUSTABLE KNUCKLE FITTER <input type="checkbox"/> NKLE27 <input type="checkbox"/> NKLE23 <input type="checkbox"/> UNIVERSAL POLE ADAPTOR UPA WALL MOUNT <input type="checkbox"/> WM	STANDARD TEXTURED FINISH <input type="checkbox"/> BLACK RAL-9005-T <input type="checkbox"/> WHITE RAL-9003-T <input type="checkbox"/> GREY RAL-7004-T <input type="checkbox"/> DARK BRONZE RAL-8019-T <input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) SEE USALTG.COM FOR ADDITIONAL COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HLSW <input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ... HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... PC+V <input type="checkbox"/> TWIST LOCK PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) ... TPC+V <input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY ... TPR <input type="checkbox"/> SINGLE FUSE (120V, 277V) SF <input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) DF

LUM SERIES - PLED

LAMP/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K	INITIAL LUMENS - 3000K	INITIAL LUMENS - 5000K	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
40	LED	40 PLED Optical Module - 350mA	5,077 - 5,464	4,445 - 4,784	5,199 - 5,595	60,000+	-20°F	45	120 277	0.38 0.17
40	LED	40 PLED® Optical Module - 525mA	6,977 - 7,507	6,108 - 6,573	7,144 - 7,687	60,000+	-20°F	66	120 277	0.58 0.25
40	LED	40 PLED® Optical Module - 700mA	8,425 - 9,067	7,376 - 7,938	8,627 - 9,285	60,000+	-20°F	91	120 277	0.76 0.33
40	LED	40 PLED® Optical Module - 1050mA	10,956 - 11,792	9,592 - 10,324	11,219 - 12,075	60,000+	-20°F	142	120 277	1.19 0.52
80	LED	80 PLED® Optical Module - 350mA	10,153 - 10,926	8,889 - 9,566	10,397 - 11,188	60,000+	-20°F	92	120 277	0.77 0.34
80	LED	80 PLED® Optical Module - 525mA	13,952 - 15,015	12,215 - 13,146	14,287 - 15,376	60,000+	-20°F	136	120 277	1.14 0.50
80	LED	80 PLED® Optical Module - 700mA	16,851 - 18,139	14,752 - 15,877	17,254 - 18,570	60,000+	-20°F	184	120 277	1.54 0.67

NOTES:

1. Max Input Amps is the highest of starting, operating, or open circuit currents
2. Lumen values for LED Modules vary according to the distribution type
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use 10KV - 20KV surge suppressors.
5. L70(9K) - TM-21 6x rule applied

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

SOLID STATE AREA LIGHTING

RAZAR WALLMOUNT-LED

S P E C I F I C A T I O N S

OPTICAL HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance $\pm .003$ ") to facilitate thermal transfer of heat to housing and cooling fins. The Optical Housing bolts to the Electrical Housing forming a unified assembly. The minimum wall thickness is .188".

ELECTRICAL HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly. Minimum wall thickness is .188". Fixture Mounting Plate affixes to mounting surface over a recessed j-box. Electrical Housing anchors on the top edge of the Mounting Plate and stainless steel recessed socket head screws tighten the Electrical Housing to the Mounting Plate from the bottom.

PLED™ OPTICAL MODULES

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. The asymmetric distributions, have a micro-reflector inside the refractor which re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce Type II, III, and Type IV site/area distributions as well as other specialty asymmetric distributions. Panels are field replaceable and field rotatable in 90° increments.

LED DRIVER(S)

Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F. Driver(s) is/are UL and cUL recognized and mounted to a driver assembly plate that has slotted holes to facilitate ease of assembly removal for fixture installation. Quick disconnects for incoming power and optical assembly power are provided. Drivers accept an input of 120-277V, 50/60Hz and utilize 0-10V dimming. 347V-480V, 50,60Hz also available on some models. Surge protector supplied for field installation at the most conveniently serviceable location.

LED EMITTERS

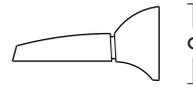
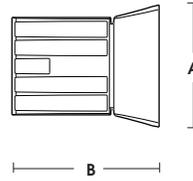
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

FINISH

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

PROJECT NAME: _____

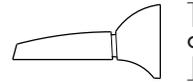
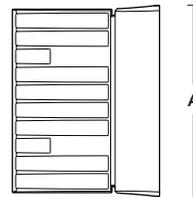
PROJECT TYPE: _____



FIXTURE	A	B	C
RZRW1	8.75" (225mm)	12" (305mm)	6" (152mm)
RZRW1-EM	11" (279mm)	14" (356mm)	6.5" (165mm)

RZR-WM1

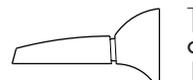
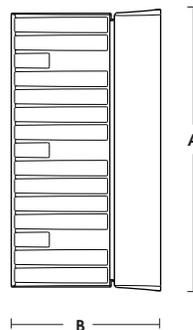
PATENT PENDING



FIXTURE	A	B	C
RZRW2	16" (406mm)	12" (305mm)	6" (152mm)
RZRW2-EM	16" (406mm)	14" (356mm)	6.5" (165mm)

RZR-WM2

PATENT PENDING



FIXTURE	A	B	C
RZRW3	23" (584mm)	12" (305mm)	6" (152mm)
RZRW3-EM	23" (584mm)	14" (356mm)	6.5" (165mm)

RZR-WM3

PATENT PENDING

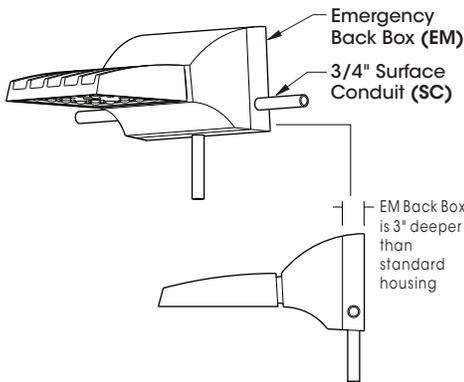


2015309

RAZAR WALLMOUNT SERIES-LED

S P E C I F I C A T I O N S

ADDITIONAL OPTIONS



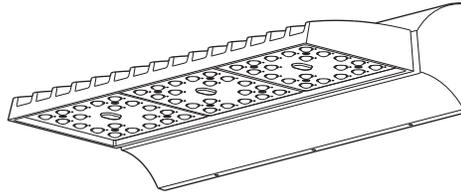
THE EMERGENCY OPTION BACK BOX EXTENDS 3" BEYOND THE STANDARD HOUSING AND CONTAINS THE EMERGENCY COMPONENTS (EC) INCLUDING BATTERIES OR CAN BE USED FOR SURFACE CONDUIT (SC) APPLICATIONS. THERE IS TO BE AN SC1, SC2, AND SC3 OPTION FOR THE DIFFERING HOUSING SIZES. SC SHIPS WITH THREADED CONDUIT PLUGS.

THE EM-LED SYSTEM PROVIDES POWER TO THE LED ARRAY TO MEET THE FOLLOWING LIGHT LEVELS FOR A MINIMUM OF 90 MINUTES -

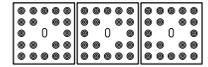
- WM1 = 45% @ 350MA
- WM2 = 36% @ 350MA
- WM3 = 24% @ 350MA

* MULTIPLY THE % ABOVE BY THE LUMEN OUTPUT @ 350MA

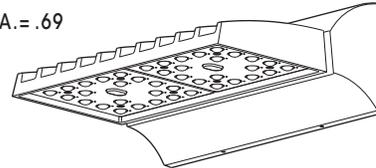
PLED® MODULES



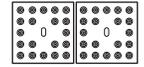
RZR-WM3-LED E.P.A.= .69
Available in:
60 LED Module



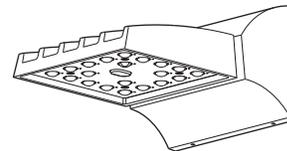
60 LED Module



RZR-WM2-LED E.P.A.= .47
Available in:
40 LED Module



40 LED Module



RZR-WM1-LED E.P.A.= .33
Available in:
20LED Module



20 LED Module

MAX INPUT WATTAGE

# OF LED's	DRIVE CURRENT			
	350mA	525mA	700mA	1050mA
60	55W	79W	105W	157W
40	45W	66W	87W	134W
20	28W	41W	53W	81W

Spec/Order Example: RZR-WM2/PLED-IV/40LED-700mA/CW/277/RAL-8019-S/SF

S P E C / O R D E R I N G I N F O R M A T I O N

MODEL	OPTICS	LED MODE			VOLTAGE	FINISH	OPTIONS
<input type="checkbox"/> RZR-WM1	PLED® DISTRIBUTION TYPE <input type="checkbox"/> TYPE II SW2 PLED-II <input type="checkbox"/> TYPE II FRONT ROW PLED-II-FR <input type="checkbox"/> TYPE III PLED-III <input type="checkbox"/> TYPE IV PLED-IV <input type="checkbox"/> TYPE IV-FT PLED-IV-FT SW1	NO. LED's RZR-WM1 <input type="checkbox"/> 20LED RZR-WM2 <input type="checkbox"/> 40LED RZR-WM3 <input type="checkbox"/> 60LED	DRIVE CURRENT <input type="checkbox"/> SW1 350mA <input type="checkbox"/> 525mA <input type="checkbox"/> SW2 <input type="checkbox"/> 1050mA	COLOR TEMP - CCT <input type="checkbox"/> NW (4000K) *STANDARD <input type="checkbox"/> CW (5000K) <input type="checkbox"/> WW (3000K) CONSULT FACTORY FOR OTHER LED COLORS	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	STANDARD TEXTURED FINISH <input type="checkbox"/> BLACK RAL-9005-T <input type="checkbox"/> WHITE RAL-9003-T <input type="checkbox"/> GREY RAL-7004-T <input type="checkbox"/> DARK BRONZE RAL-8019-T <input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S) CONSULT FACTORY FOR CUSTOM COLORS	<input type="checkbox"/> HIGH-LOW DIMMING FOR EXTERNAL CONTROL... HLSW <input type="checkbox"/> HOUSE SIDE SHIELDING HS-PLED <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V)... PC+V <input type="checkbox"/> SINGLE FUSE (120V & 277V)... SF <input type="checkbox"/> DOUBLE FUSE (208V & 240V)... DF <input type="checkbox"/> EMERGENCY BACKUP 1... EM1 <input type="checkbox"/> EMERGENCY BACKUP 1 (HOUSING ONLY)... EMH1 <input type="checkbox"/> EMERGENCY BACKUP 2... EM2 <input type="checkbox"/> EMERGENCY BACKUP 3... EM3 <input type="checkbox"/> SURFACE CONDUIT 1... SC1 <input type="checkbox"/> SURFACE CONDUIT 2... SC2 <input type="checkbox"/> SURFACE CONDUIT 3... SC3

RAZAR WALLMOUNT-LED

LAMP/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K	INITIAL LUMENS - 3000K	INITIAL LUMENS - 5000K	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
20	LED	20 PLED® Optical Module - 350mA	2,501 - 2,789	2,189 - 2,442	2,561 - 2,857	60,000+	-20°F	28	120 277	0.24 0.10
20	LED	20 PLED® Optical Module - 525mA	3,523 - 3,930	3,085 - 3,441	3,608 - 4,025	60,000+	-20°F	41	120 277	0.34 0.15
20	LED	20 PLED® Optical Module - 700mA	4,411 - 4,920	3,862 - 4,308	4,517 - 5,039	60,000+	-20°F	53	120 277	0.45 0.20
20	LED	20 PLED® Optical Module - 1050mA	5,797 - 6,466	5,075 - 5,661	5,937 - 6,622	60,000+	-20°F	81	120 277	0.68 0.30
40	LED	40 PLED® Optical Module - 350mA	5,002 - 5,579	4,379 - 4,884	5,122 - 5,713	60,000+	-20°F	45	120 277	0.38 0.17
40	LED	40 PLED® Optical Module - 525mA	7,047 - 7,860	6,170 - 6,881	7,216 - 8,049	60,000+	-20°F	66	120 277	0.55 0.24
40	LED	40 PLED® Optical Module - 700mA	8,822 - 9,840	7,724 - 8,615	9,034 - 10,077	60,000+	-20°F	87	120 277	0.73 0.32
40	LED	40 PLED® Optical Module - 1050mA	11,594 - 12,932	10,150 - 11,322	11,872 - 13,244	60,000+	-20°F	134	120 277	1.12 0.49
60	LED	60 PLED® Optical Module - 350mA	7,502 - 8,368	6,568 - 7,326	7,683 - 8,570	60,000+	-20°F	55	120 277	0.46 0.20
60	LED	60 PLED® Optical Module - 525mA	10,570 - 11,790	9,254 - 10,322	10,824 - 12,074	60,000+	-20°F	79	120 277	0.68 0.30
60	LED	60 PLED® Optical Module - 700mA	13,233 - 14,760	11,586 - 12,923	13,552 - 15,116	60,000+	-20°F	105	120 277	0.88 0.38
60	LED	60 PLED® Optical Module - 1050mA	17,391 - 19,398	15,226 - 16,983	17,810 - 19,866	60,000+	-20°F	157	120 277	1.31 0.57

NOTES:

1. Max Input Amps is the highest of starting, operating, or open circuit currents
2. Lumen values for LED Modules vary according to the distribution type
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use 10KV - 20KV surge suppressors.
5. L70(10K) - TM-21 6x rule applied

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.