## EXPEDITED AVAILABILITY

## QSR-PLED

SPECIFICATIONS

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 <± .003") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/INTEGRATED ARM Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

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. 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 Type III and Type IV site/area distributions. Panels are field replaceable and field rotatable in 90° increments, LED's are 4000K CCT.

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 directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. 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.

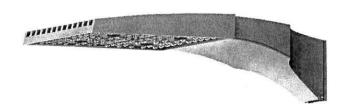
FINISH

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:

Kessler Ridge apartment

PROJECT TYPE:

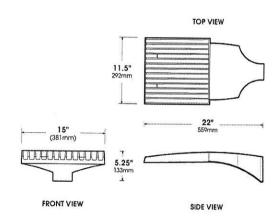
Site light pole type 'PL'



## **QSR-LED\***

\*UNIVERSAL POLE MOUNTING BRACKET INCLUDED

PATENT PENDING



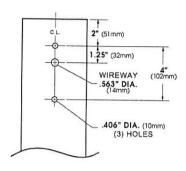






## SPECIFICATIONS

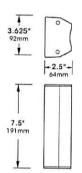
## POLE DRILLING TEMPLATE



# UNIVERSAL POLE MOUNTING BRACKET



FITS ROUND OR SQUARE POLES.



### PLED™ MODULES



QSR-LED E.P.A.= 0.45 Available in: 48 & 24LED Module



24 LED Array

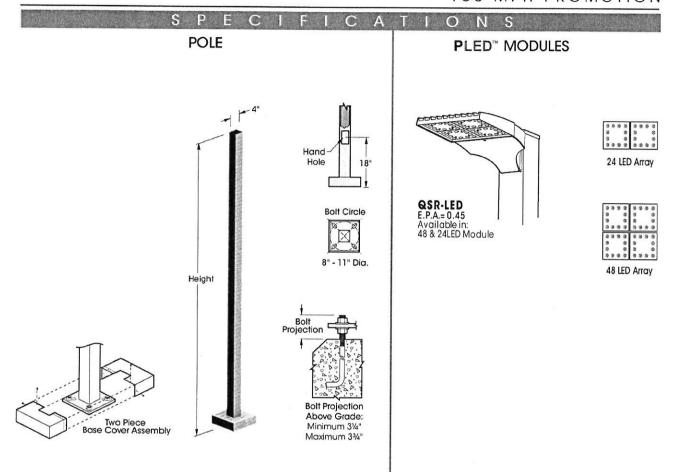


48 LED Array

SPEC/OR	DER	ING	IN	F O	RMA	TION
CATALOG #	LED COUNT	VOLTAGE	WATTS	LUMENS	REPLACES HID	OPTIONS
		= Specify Voltage			<u> </u>	<u> </u>
QSR/2480/PLED-III/*/RAL-8019/DBZ	24	□ 120	68	7548	150W	SURGE PROTECTORSP
QSR/2480/PLED-IV/*/RAL-8019/DBZ	24	208	68	7480	150W	JONGET ROLLEGION SP
☐ QSR/4850/PLED-III/*/RAL-8019/DBZ	48	<b>1</b> 240	79	10040		☐ HOUSE SIDE SHIELD HS-PLE
QSR/4850/PLED-IV/*/RAL-8019/DBZ	48	☐ <b>27</b> 7	79	10349 10270	250W 250W	LI HOUSE SIDE SHIELD HS-PLE
	10			10270	25000	
QSR/4810/PLED-III/*/RAL-8019/DBZ	48		160	18240	400W	
QSR/4810/PLED-IV/*/RAL-8019/DBZ	48		160	18040	400W	
		* = Specify Voltage	01	- 44-1		
☐ QSR/2480/PLED-III/*/RAL-8019/DBZ	24	□ 347	68	7548	150W	
QSR/2480/PLED-IV/*/RAL-8019/DBZ	24	□ 480	68	7480	150W	
QSR/4850/PLED-III/*/RAL-8019/DBZ	48		70			
QSR/4850/PLED-IV/*/RAL-8019/DBZ	48		79	10349 10270	250W	
			/ 4	102/0	250W	
QSR/4810/PLED-III/*/RAL-8019/DBZ	48		160	18240	400W	
QSR/4810/PLED-IV/*/RAL-8019/DBZ	48		160	18040	400W	

## **QSR - PLED**

## 100 MPH PROMOTION



SPEC	ORDERIN (	<b>}</b> ,	N F	O R	M A	T	ON
POLE	CATALOG #	VOLTAGE	WATTS	LUMENS	REPLACES HID	LED COUNT	OPTIONS
		* = Specify Voltage					
15'0"- 4" Sq - 11Ga	SNTS-154-11/QSR/2480/PLED-III/*/RAL-8019/DBZ	□ 120	68	7548	150W	24	SURGE PROTECTOR
15'0"- 4" Sq - 11Ga	☐ SNTS-154-11/QSR/2480/PLED-IV/*/RAL-8019/DBZ	<b>2</b> 08	68	7480	150W	24	SP
20'0"- 4" Sq - 11Ga	SMIC 204 11 (OCD /40EG /DIED III/4 /DAL 2010 /DRZ	□ 240	70	10040		Park tal	☐ HOUSE SIDE SHIELD
	SNTS-204-11/QSR/4850/PLED-III/*/RAL-8019/DBZ	□ 277	79	10349	250W	48	HOUSE SIDE SHIELD
20'0"- 4" Sq - 11Ga	SNTS-204-11/QSR/4850/PLED-IV/*/RAL-8019/DBZ		79	10270	250W	48	
25'0"- 4" Sq - 11Ga	☐ SNTS-254-11/QSR/4810/PLED-III/*/RAL-8019/DBZ		160	18240	400W	48	
25'0"- 4" \$q - 11Ga	SNTS-254-11/QSR/4810/PLED-IV/*/RAL-8019/DBZ		160	18040	400W	48	
	·	* = Specify Voltage					
15'0"- 4" Sq - 11Ga	SNTS-154-11/QSR/2480/PLED-III/*/RAL-8019/DBZ	□ 347	68	7548	150W	24	
15'0"- 4" Sq - 11Ga	SNTS-154-11/QSR/2480/PLED-IV/*/RAL-8019/DBZ	□ 480	68	7480	150W	24	
20'0"- 4" Sg - 11Ga	☐ SNTS-204-11/QSR/4850/PLED-III/*/RAL-8019/DBZ		79	10349	250W	48	
20'0"- 4" Sq - 11Ga	SNTS-204-11/QSR/4850/PLED-IV/*/RAL-8019/DBZ		79	10270	250W	48	
25'0"- 4" Sq - 11Ga	SNTS-254-11/QSR/4810/PLED-III/*/RAL-8019/DBZ		160	18240	400W	48	
25'0"- 4" Sq - 11Ga	SNTS-254-11/QSR/4810/PLED-IV/*/RAL-8019/DBZ		160	18040	400W	48	

## EXPEDITED AVAILABILITY

E C IFICATIO

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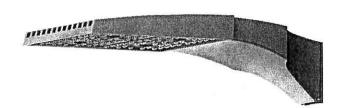
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.

PROJECT NAME:

Kessler Ridge apartment

PROJECT TYPE:

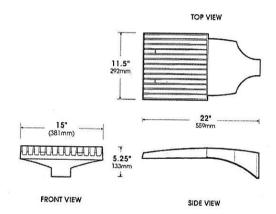
Site light pole type 'PL 1



QSR-LED\*

\*UNIVERSAL POLE MOUNTING BRACKET INCLUDED

PATENT PENDING



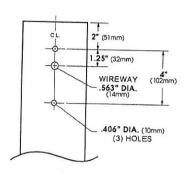






## SPECIFICATIONS

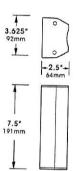
## POLE DRILLING TEMPLATE



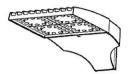
# UNIVERSAL POLE MOUNTING BRACKET



FITS ROUND OR SQUARE POLES.



PLED™ MODULES



QSR-LED E.P.A.= 0.45 Available in: 48 & 24LED Module



24 LED Array

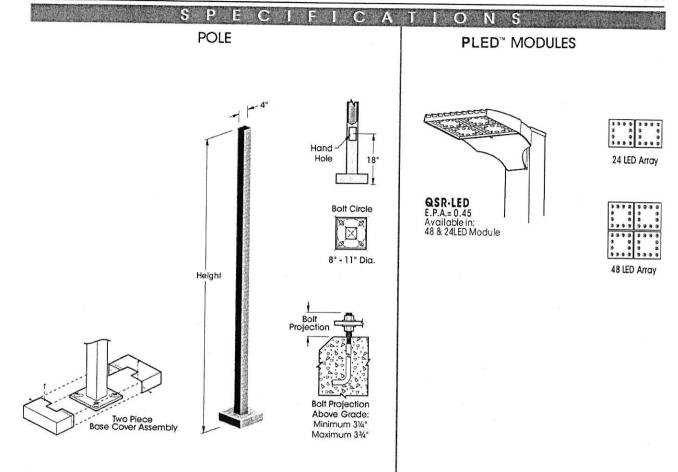


48 LED Array

CATALOG #	D E R			F O	R M A	TION
CAIALOG #	LED COUNT	VOLTAGE	WATTS	LUMENS	REPLACES HID	OPTIONS
		* = Specify Voltage		na problem	J	
QSR/2480/PLED-III/*/RAL-8019/DBZ	24	□ 120	68	7548	150W	□ girpor morrana
QSR/2480/PLED-IV/*/RAL-8019/DBZ	24	208	68	7480	150W	SURGE PROTECTORSP
QSR/4850/PLED-III/*/RAL-8019/DBZ	48	<b>"</b> □ 240	1		1000 P. 100	A
QSR/4850/PLED-IV/*/RAL-8019/DBZ	48	277	79	10349	250W	☐ HOUSE SIDE SHIELD HS-PLED
			/4	10270	250W	
QSR/4810/PLED-III/*/RAL-8019/DBZ	48		160	18240	400W	
QSR/4810/PLED-IV/*/RAL-8019/DBZ	48		160	18040	400W	
		* = Specify Voltage		Y- Table		
QSR/2480/PLED-III/*/RAL-8019/DBZ	24	□ 347	68	7548	150W	
QSR/2480/PLED-IV/*/RAL-8019/DBZ	24	☐ 480	68	7348	150W	
QSR/4850/PLED-III/*/RAL-8019/DBZ	48			A 30 A 40 A 5 A 5 A 5 A 5 A 5 A 5 A 5 A 5 A 5 A		
QSR/4850/PLED-IV/*/RAL-8019/DBZ	48	1 / / / / / / / / / / / / / / / / / / /		10349	250W	
	40		79	10270	250W	
QSR/4810/PLED-III/*/RAL-8019/DBZ	48		160	18240	400W	1.
QSR/4810/PLED-IV/*/RAL-8019/DBZ	48		160	18040	400W	
				1-1-149 (4.14)	000547025	

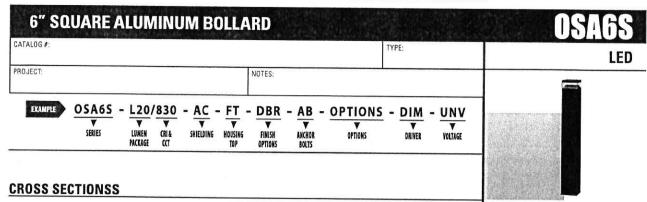
## QSR - PLED

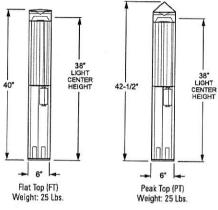
100 MPH PROMOTION



POLE		CATALOG #	VOLTAGE	WATTS	LUMENS	REPLACES HID	LED COUNT	OPTIONS
			* = Specify Voltage					
15'0"- 4" Sq - 11Ga	SNTS-15	4-11/QSR/2480/PLED-III/*/RAL-8019/DBZ	□ 120	68	7548	150W	24	☐ SURGE PROTECTOR
15'0"- 4" Sq - 11Ga	SNTS-15	4-11/QSR/2480/PLED-IV/*/RAL-8019/DBZ	208	68	7480	150W	24	SP
Acion 44 A 3 3 3 4			□ 240		116.5%		de la sult	
20'0"- 4" Sq - 11Ga		4-11/QSR/4850/PLED-III/*/RAL-8019/DBZ	□ 277	79	10349	250W	48	HOUSE SIDE SHIELD
20'0"- 4" Sq - 11Ga	☐ SNTS-20	4-11/QSR/4850/PLED-IV/*/RAL-8019/DBZ		79	10270	250W	48	
25'0"- 4" Sq - 11Ga	☐ SNTS-25	4-11/QSR/4810/PLED-III/*/RAL-8019/DBZ		160	18240	400W		
25'0"- 4" Sq - 11Ga		4-11/QSR/4810/PLED-IV/*/RAL-8019/DBZ		160	18040	400W	48	
	10000 III 8000 III	, , , , , , , , , , , , , , , , , , , ,		,,,,	100-10	4001	48	
			* = Specify Voltage					
15'0"- 4" Sq - 11Ga	SNTS-15	4-11/QSR/2480/PLED-III/*/RAL-8019/DBZ	□ 347	68	7548	150W	04	
15'0"- 4" Sq - 11Ga		4-11/QSR/2480/PLED-IV/*/RAL-8019/DBZ	☐ 480	68	7480	150W	24	
				60.47.47		10011	24	
20'0"- 4" Sq - 11Ga		4-11/QSR/4850/PLED-III/*/RAL-8019/DBZ		79	10349	250W	48	
20'0"- 4" Sq - 11Ga	☐ SNTS-20	4-11/QSR/4850/PLED-IV/*/RAL-8019/DBZ		79	10270	250W	48	
5'0"- 4" Sq - 11Ga	SNTS-25	4-11/QSR/4810/PLED-III/*/RAL-8019/DBZ		160	18240	400W		
5'0"- 4" Sq - 11Ga		4-11/QSR/4810/PLED-IV/*/RAL-8019/DBZ		160	18040	400W	48	
						40011	40	

## BOLLARD LIGHT TYPE 'BL'





## **FEATURES**

- LEDs provide high-efficacy, good color rendering, a variety of color options, and 50,000 hours rated life (L70).
- Square aluminum bollard features a highly reflective bowl reflector with colormatched trim for effective light distribution and pleasing appearance day or night.
- Available with flat or peak top.
- ► Up to 2000-lumen module.
- ► 80 CRI minimum.
- ► 2700K, 3000K, 3500K, or 4000K.
- Finned, extruded aluminum heat sink for maximum heat dissipation.
- ► This fixture is proudly made in the USA.

### ORDERING INFORMATION

#### SERIES

**OSA6S** 

6" Square Aluminum Bollard

#### LED PACKAGE

	Example: l	L20/830	D. SEAR
LUMEN PACKAGE	NOMINAL LUMENS	MINIMUM CRI & CCT	AVERAGE SYSTEM WATTAGE
L11	1100	827 = 80 CRI, 2700K 830 = 80 CRI, 3000K	17
L20	2000	835 = 80 CRI, 3500K 840 = 80 CRI, 4000K	27

Nominal lumens based on 3500K CCT, actual lumens may vary.

## SHIELD/REFLECTOR

See back for shielding details.

Acrylic lens with bowl reflector

#### **HOUSING TOP**

FT	Flat top
PT	Peak to

#### **FINISH OPTIONS**

•
5)
RAL #9006)
3)
olor

#### **ANCHOR BOLTS**

AB	Anchor bolts (Three 3/8" x 12" cast-in galvanized steel anchor J-bolts, shipped with fixture. Mounting template included.)
LAB	Less anchor bolts
PAB	Pre-shipped anchor bolts (Three 3/8" x 12" cast-in galvanized steel anchor J-bolts. Mounting template included.)

## OPTIONS

Single fuse (120V, 277V, or 347V only; must specify voltage)
Double fuse (208V, 240V, or 480V only; must specify voltage)

#### DRIVER

DRV	Driver prewired for non-dimming applications
DIM	10% dimming driver prewired for 0-10V low
	voltage applications

### VOLTAGE

120	120V
208	208V
240	240V
277	277V
UNV	120-277V
347	347V
480	480V



LED

### **SPECIFICATIONS**

**Housing** — Fabricated aluminum, minimum .125" thick.

**Housing Top** — Formed aluminum, minimum .125" thick.

Reflector - Spun aluminum upper and lower reflectors with clear specular finish. Shield - UV stabilized clear acrylic sealed

with silicone. Type V distribution.

Electrical — High quality mid-power LED board. L70 at 50,000 hours. Prewired at factory for easy field installation. Rated -40°F

minimum starting temperature. Finish - Super durable polyester powder

coat bonded to phosphate-free, multi-stage pretreated metal, meets and exceeds AAMA 2604 specifications for outdoor durability.

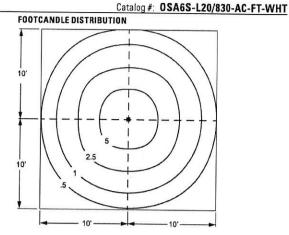
Mounting — Minimum 2" recessed in ground with four-point hot dip galvanized 1/4" A36 steel baseplate. For accurate installation a fullscale mounting template is provided with each bollard and anchor bolt order.

Labels - cETLus conforms to UL STD 1598 and UL STD 8750; Certified to CAN/CSA STD C22.2 No. 250.0. Suitable for wet locations. Warranty - 5-year limited warranty, see hew.com/warranty.

### **PHOTOMETRY**

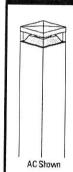
#### **TEST REPORT INFORMATION**

- Test Report #: 100570727CHI-004
- ► Date: 09/12/12
- ► Lamp Type: LED
- ► Rated Lumens: 1039
- ► Watts: 27.5
- ► Lumens Per Watt: 37.8
- ► CRI: 84.6
- ► CCT: 3001K



#### **FIXTURE DETAILS**

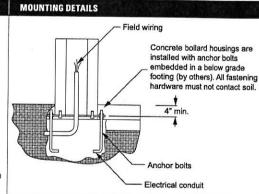
#### SHIELDING



#### MOUNTING TEMPLATE



Mounting template is provided with each order. A pdf file (not to scale) of the mounting template is available at www.hew.com.



Project:

Efficiency:

## HSLED13B

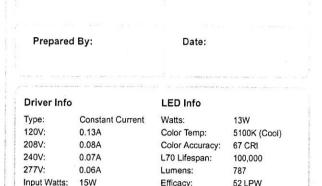




Bullet shape die cast aluminum flood with spotlighting for over 40 feet away. 13 Watt LED High Performance Light Engine.

Color: Black

Weight: 3.5 lbs



Type:

#### **Technical Specifications**

#### Listings

#### **UL Listing:**

Suitable for wet locations. Suitable for ground mounting.

#### 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.

#### **LED Characteristics**

#### Lifespan:

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

#### LEDs:

13 Watt high output, long-life LED.

#### Color Consistency:

7-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.

#### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2008.

#### Optical

#### Spotlight Distribution:

Beam Angle of 11° and Field Angle of 24° enables the HSLED to produce a very narrow spot distribution.

#### **Lumen Maintenance:**

100,000 hours Life Based on LM-80 Tests.

#### **NEMA Type:**

2H x 2V Beam Spread.

#### **Electrical**

#### Driver:

Constant Current, Class 2, 100-277V, 50-60Hz, 100-240VAC 0.3-0.15A, 277VAC 0.15A.

#### Surge Protection:

4kV

#### Construction

#### **Ambient Temperature:**

Suitable for use in 40°C ambient temperatures.

#### **Cold Weather Starting:**

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

#### Thermal Management:

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

#### Housing:

Precision die-cast aluminum housing, hood and mounting arm.

#### 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:

Mercury and UV free, and RoHS compliant,

#### Other

86%

#### 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.

#### California Title 24:

HSLED13 complies with 2013 California Title 24 building and electrical codes as a commercial outdoor non-pole-mounted fixture < 30 Watts when used with a photosensor control. Select catalog number PCS900(120V) or PCS900/277 to order a photosensor.

#### Patents:

The design of the HSLED is protected by Taiwan Patent 01510965 and patents pending in US, Canada, China, 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.