

The 150 W HPS Decorative heads use 193 Watts per hour verses the 73 W LED Decorative heads which use 73 Watts per hour. That is 120 Watts saved per fixture per hour x a run time of 4323 hours per year. The total saving for 36 fixtures is 18,675.36 kWh per year. If you take the 18,675.36 kWh and times it by the cost of the energy for street lights which is \$0.09167, the savings in dollars is approximately \$1,711.80. Although these customer will see an increase of \$0.46 if a rate was created for the HPS decorative street lights the impact would have been a decrease. The rate payers will also see the savings in regards to the maintenance cost. It will also help to reduce the energy the District needs to purchase each month with is also a benefit to the rate payers. *Please see attachment 3- Lighting-Savings Calculation 150W HPS vs 73W LED Decorative*

COMM 1-4 Please provide evidence that Pascoag Utility District has been under-collecting on the 150 W HPS Decorative Street Lights.

Answer provided by: Harle Round

I sent out for quotes for the existing decorative post and 150 watt HPS heads. The cost of the post were \$1,969.00 and the 150 HPS Decorative post Top Lite is \$331.24 plus \$10 for fasteners brings the grand total to \$2,310.24 compared to a 150 HPS Watt Cobra Head Street light that costs \$81.47 and the brackets cost \$45 but they only have a useful life of between 5-8years. If I assume that we would need to replace the fixtures 3 times in twenty years the total cost would be \$289.41. If there had been a tariff created for the HPS Decorative Streetlights just the material cost would have been \$2,020.83 higher than the 150 Watt Cobra head street lights and the customers would have seen a decrease in rate. The total material cost of LED Decorative, post and fastener that we are proposing in the new tariff costs \$1,234.00. *Please see the quotes and cut sheets for the existing decorative HPS street Lights attachment 4-1 through 4-6, and the 150 Watt Cobra Head Street light attachments 5-1 through 5-4.*

COMM 1-5 When were the 150 W HPS Decorative Street Lights installed?

Answer provided by: Harle Round

The Decorative Street Lights were installed sometime around 2005 by the state of Rhode Island Department of Transportation. These fixtures were paid for and installed by the State.

COMM 1-6 Why did Pascoag not seek to correct the under-collection in its last base rate case?

Answer provided by: Harle Round

The last base rate case was in 2012 which I was not involved in. It was not until I started researching for our current grant that I realized the cost of the posts and fixture heads for the high pressure sodium decorative street lights were so much higher than a standard cobra head HPS fixture that we attached to a wooden pole. The District will be sure to get up-to-date pricing and re-evaluate its street lights in the next base rate case and if we have successfully phased out all of a certain type of HPS Street light, the District will seek permission to remove it from the tariff at that time. This will also give us a few more years to see how the LED's perform to the anticipated life of 20+ years.

COMM 1-7 What are the anticipated savings in maintenance costs that will occur with the 73 Watt LED lights?

Answer provided by: Harle Round

The LED Decorative head will eliminate the need to change the bulbs every four years. The anticipated savings on maintenance labor and bulbs will be \$36.93 for each fixture or \$1,329.48 per year for all 36 fixtures. *Please see attachment 3 The Lighting –Savings Calculation 150 Watt HPS vs 73Watt LED Decorative*

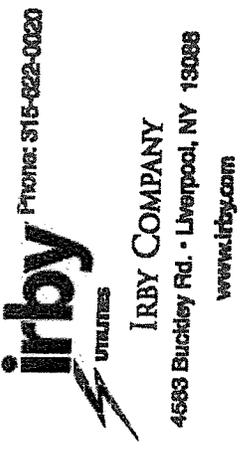
COMM 1-8 If Pascoag Utility District is replacing all of its 150 W HPS Decorative Street Lights, why is it necessary to retain reference to them in the tariff?

Answer provided by: Harle Round

In the new tariff there is no reference to the 150 W HPS Decorative Street Light. It only references the 73 W LED Decorative. It does have a reference to the 150 Watt Sodium Street Lights that is mounted on our wooden poles. We still have 150 Watt HPS Street Lights in the field and it may take a few years to replace all of them with LED's. We also have some customers who do not want to be changed out until we phase them out completely.

LED Decorative w/ post

Job Name: Pascoag October 2016 quote
Quote #: 2267-16-10692-1
Quote Label: Initial Version
Job Location: Pascoag, Rhode Island
Issue Date: 10/7/2016
Bid Date: 10/6/2016



Attachment 1



An Acuity Brands Company
Quoted To: Irby

Type	Qty	Catalog #	Unit #
LED w/ post	2	247L 20LEDE10 MVOLT 4K R3 AY PCLL WDA 15 FEJ 17 P07 ABG BK American Revolution Series 247L LED (247L): 247L American Revolution LED, 20 Chips, 1050 mA Driver, 72 Input Watts, MultiVolt (120-277V), 4000K, Type III, Acrylic, Solid-State Long Life Photocontrol Wadsworth Aluminum Pole (WDA): Wadsworth Aluminum Pole, 15 feet, 5 inch diameter Fluted, .25 wall, 17 inch Round Base, 3 X 3 Tension, Anchor bolts, galvanized steel. Powder Coat Paint Finish, Black	\$1224.00 each Pole \$ 808 LED Head \$ 416

Harle Round

From: Williams, Kenneth <kwilliams@irby.com>
Sent: Wednesday, October 19, 2016 2:09 PM
To: Harle Round
Cc: Bill Guertin; Carpentiere, Pamela; Williams, Kenneth
Subject: RE: IRBY AEL lighting quote

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon, please see the below quote.

2pcs
Part # 247L20LEDE10MVOLT4KR3AYPCLL
LED REVOLUTION SERIES 247LED 20 CHIPS 1050MA DRIVER 72 INPUT WATTS 120-277 VOLT 4000K TYPEIII
Price \$416.00 each LED Head only
5-15 days

Lighting - Savings Calculations 150w HPS vs 73 Watt LED Decorative

Assumptions in yellow (modify to fit your utility)

Lamp Replacement Labor	\$137.70	= 1 hr/lamp - 2 men @ \$48.85/hr loaded labor + \$40 truck/hr
Lamp hours/year	4323	
Cost of Energy per kwh	\$0.09167	

Existing Fixture	Energy Use in Watts	LED Replacement	Energy Use in Watts
150W HPS	193	73 Watt LED Dec.	73
	Energy \$/yr = \$76.48		Energy \$/yr = \$28.93
		Energy Savings / Year =	\$47.55

120 watts saved
518.76 kWh saved per year per fixture

Lamp & Labor Savings	
Assuming replacement HPS lamp cost = \$10.00/e	
Assume HPS lamp lasts 4 years	
1	= total number of fixtures
0.25	= Number of lamps to replace per year
Using Lamp Replacement Labor at page top	
the lamp replacement labor cost per year =	\$36.93
Annual Energy and Labor Savings =	\$84.48



Replacement Fixture	Number	Price Each	Total Cost
73 Watt 247L 20 LED E 10	1	\$ 416.00	\$ 416.00
Return on Investment Period (years) =			4.92

36 Fixtures X 518.76 kWhrs per year = 18,675.36/12 =1556.28 Kwhrs per month
 36 Fixtures X \$47.55 = \$1711.80 in Energy Savings per year; \$142.65 Per month
 36 Fixures X \$36.93 =\$1,329.48 In Labor Maintenance

The cost of the 73 W LED Decorative Head:	\$416
The cost of the Decorative Post:	\$808
Mounting Fasteners:	\$10
Total cost	\$1,234

Existing Decorative HPS Street Light

Harle Round

From: Chase, Daniel <DChase@wescodist.com>
Sent: Monday, January 09, 2017 3:55 PM
To: Harle Round
Cc: Trupiano, Josephine
Subject: FW: Pascoag (External E-Mail)
Attachments: XF45-& CF50-D5M-12-AB-BLK-30-30 Comparison.pdf

Hello Harle,
 It looks like the pole you requested is no longer avail.
 Here is the price for the replacement unit, see below

Per below the XF45 is no longer available. Engineering has attached comparison drawings so you can see the difference in the OD's.

These poles have been replaced with the CF50's

Qty 6
 CF50-D5M-12-AB-BLK-30-30
 \$1,969.00 ea (includes D5M base)
 LT 10-12 weeks ARO

Let me know if you have any questions

Thanks
 Dan

http://www.wesco.com/terms_and_conditions_of_sale.pdf
http://www.wesco.com/purchase_order_terms_and_conditions.pdf

Dan Chase
 Account Rep
 Wesco Distribution
 Manchester NH
 Office (603) 391-3118
 Toll Free (800) 258-5228
 Fax (603) 391-3126
 Cell (603) 264-6882
 dchase@wesco.com

existing fixtures

HPS Lamp
 +
 Post
 0.00

1,969.00 +
 331.24 +
 2,300.24 G+

Fasnew 10.00
 2,310.24

2,310.24 + - Cost of Decorative
 289.41 - - Cost of Standard HPS Street Light
 2,020.83 G+ - difference

From: Chase, Daniel [mailto:DChase@wesco]
Sent: Thursday, January 5, 2017 2:42 PM
To: John Doucette <jdoucette@firstlineassociates.com>
Subject: Pascoag

AGENCY: First Line Associates
 PROJECT: WESCO
 QUOTE#:

Attachment 4-2

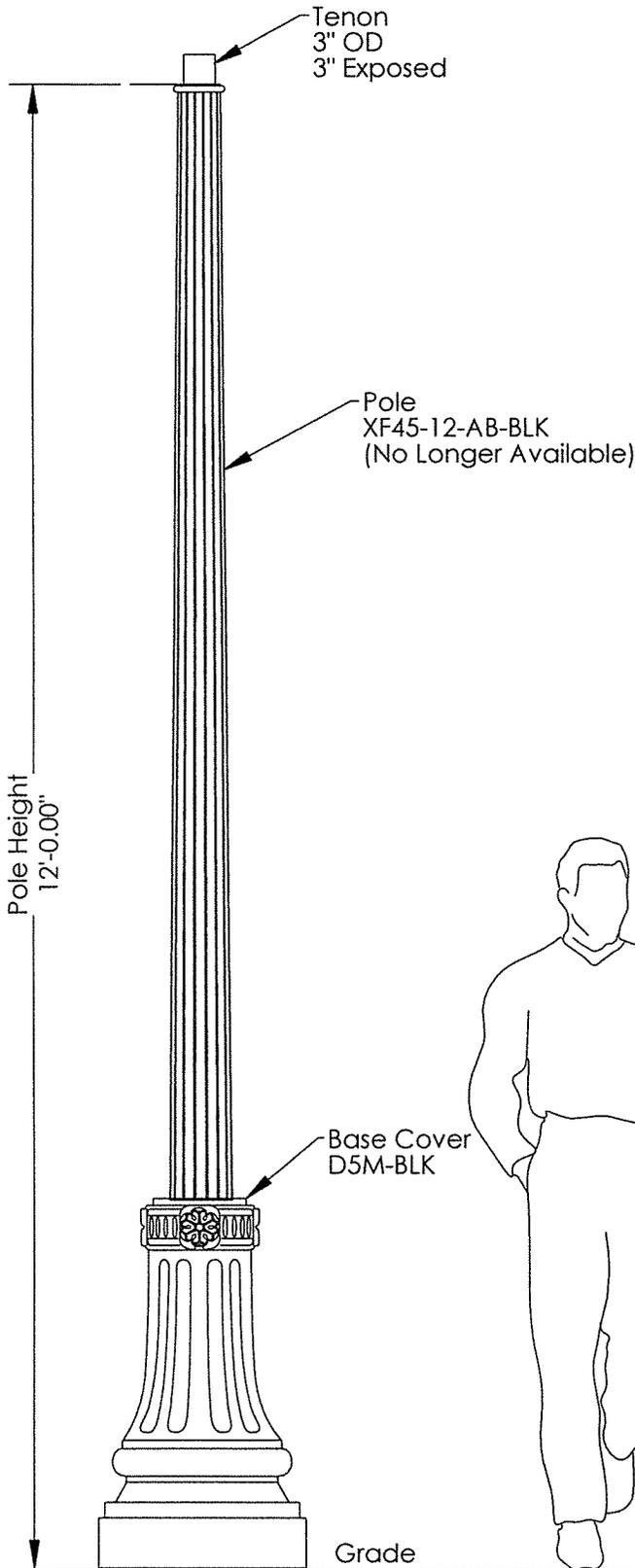
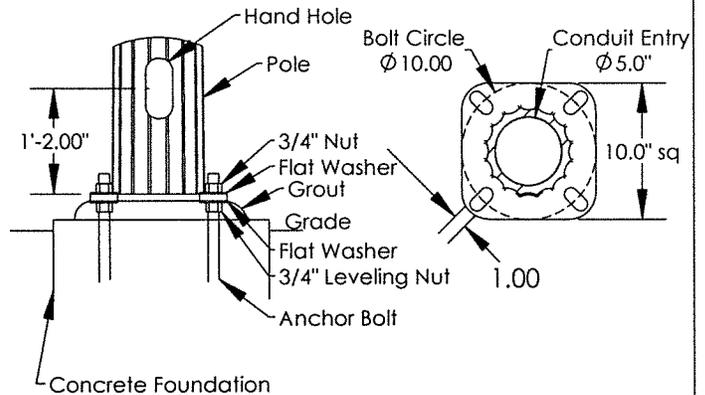
POLE

Model: XF45
 Top Dia: 4.5"
 Taper: .2"/ft
 Construction: Fiberglass Composite Inner Core
 72% Glass 28% Epoxy Resin
 Consisting of alternating 89°
 Hoops & 18° Helicals
 Elastomeric Urethane Outer Shell
 Anchor Base: 10"x10"x1/2" Hot Rolled Steel
 ASTM A36. Slots for 3/4" Bolts
 Bolt Circle: 10"
 Tenon: 3" OD 3" Exposed length 6061-T6 Alum
 Hand Hole: 2"x5" @ 14" above grade. Cover
 painted to match pole.
 Paint: UV & Cleaning chemical resistant
 Color: Whatley Standard Black
 MAX Attachment Weight: 100 lbs
 MAX Attachment EPA: 11.9 @ 90 mph AASHTO
 Pole Weight: 75 lbs approx

BASE COVER

Model: D5M
 Material: Elastomeric Urethane
 Color: Whatley Standard Black
 Height: 36"
 Width: 20"
 Weight: 31.5 lbs approx

ANCHOR BASE DETAIL



WHATLEY, INC. A Valmont Company
 19845 US Highway 76
 Newberry, SC. 29108
 phone: (877) 959-7678
 fax: (803) 276-8940
 web: www.whatley.com

REV	DESCRIPTION	DATE

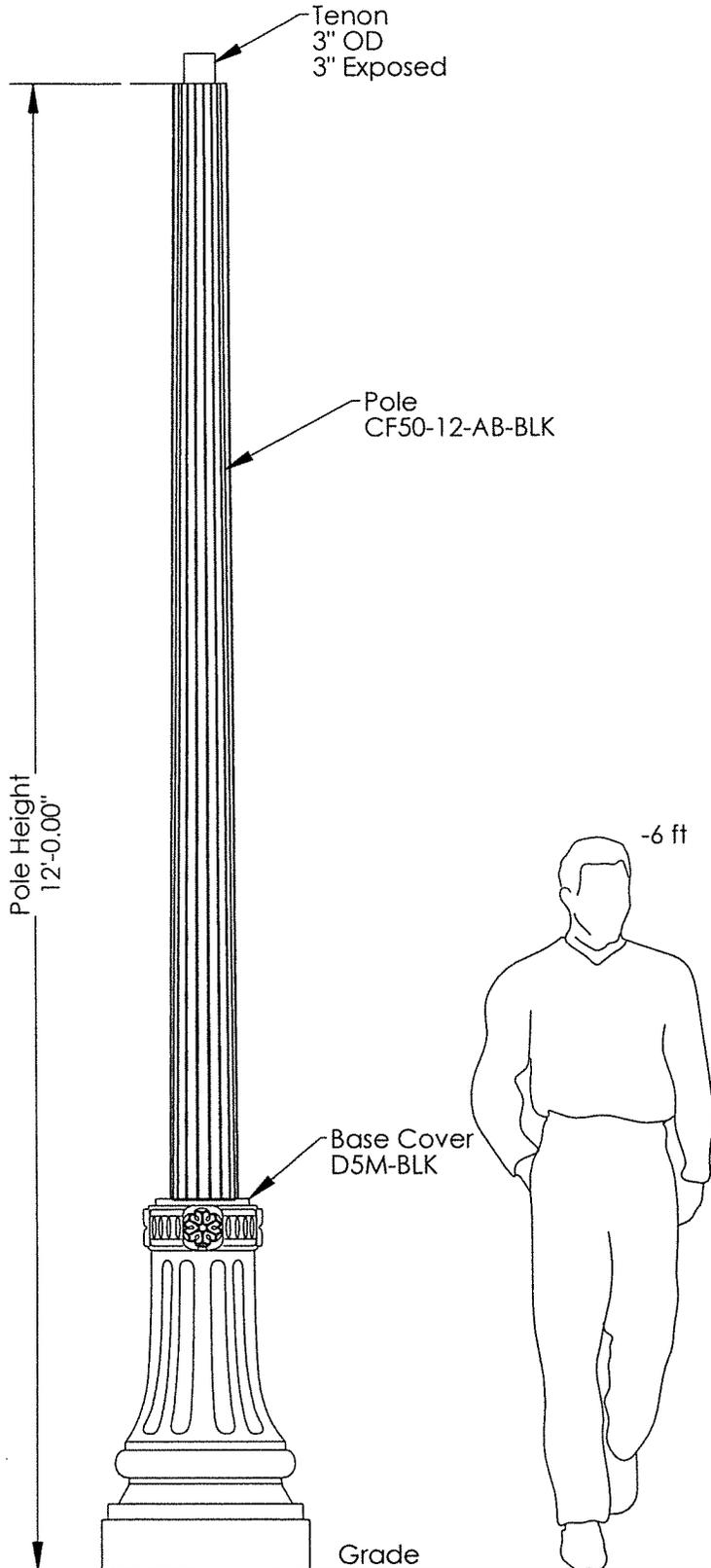
PART NO.		DESCRIPTION: Pole Assembly	
SCALE: 1:18	SIZE: A	REV.	XF45-D5M-12-AB-BLK-30-30

MATERIAL: Noted	DOCUMENTATION	INITIAL	DATE	UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES TOLERANCES: DECIMAL .XX ± .03 DECIMAL .XXX ± .010 ANGLE ± 1/2
	DRAWN	JTC	1/6/17	
	QUOTE REQUEST			
	TOOLING REQUEST			
	FIRST ARTICLE REQUEST			
FINISH: Smooth	FIRST ARTICLE INSPECTION			PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF WHATLEY, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF WHATLEY, INC. IS PROHIBITED.
	PRODUCTION RELEASE			

DO NOT SCALE DRAWING

AGENCY: First Line Associates
 PROJECT: WESCO
 QUOTE#:

Attachment 4-3



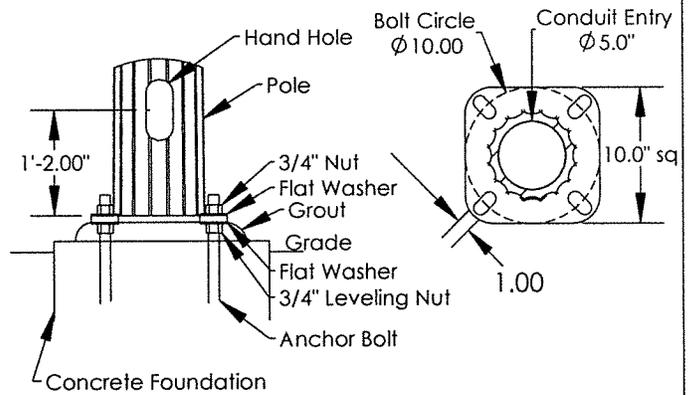
POLE

Model: CF50
 Top Dia: 5.32"
 Taper: .14"/ft
 Construction: Centrifugal Cast Fiberglass Composite
 Anchor Base: 10"x10"x1/2" Hot Rolled Steel ASTM A36. Slots for 3/4" Bolts
 Bolt Circle: 10"
 Tenon: 3" OD 3" Exposed length 6061-T6 Alum
 Hand Hole: 2"x5" @ 14" above grade. Cover painted to match pole.
 Paint: UV & Cleaning chemical resistant
 Color: Whatley Standard Black
 MAX Attachment Weight: 100 lbs
 MAX Attachment EPA: 15.5 @ 90 mph AASHTO
 Pole Weight: 65 lbs approx

BASE COVER

Model: D5M
 Material: Elastomeric Urethane
 Color: Whatley Standard Black
 Height: 36"
 Width: 20"
 Weight: 31.5 lbs approx

ANCHOR BASE DETAIL



WHATLEY, INC. A Valmont Company
 19845 US Highway 76
 Newberry, SC. 29108
 phone: (877) 959-7678
 fax: (803) 276-8940
 web: www.whatley.com

REV	DESCRIPTION	DATE

PART NO. _____ DESCRIPTION: Pole Assembly

SCALE: 1:18 SIZE: A REV. _____ CF50-D5M-12-AB-BLK-30-30

MATERIAL: Noted FINISH: Smooth DO NOT SCALE DRAWING	DOCUMENTATION	INITIAL	DATE	UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES TOLERANCES: DECIMAL .XX ± .03 DECIMAL .XXX ± .010 ANGLE ± 1/2	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF WHATLEY, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF WHATLEY, INC. IS PROHIBITED.
	DRAWN	JTC	1/6/17		
	QUOTE REQUEST				
	TOOLING REQUEST				
	FIRST ARTICLE REQUEST				
FIRST ARTICLE INSPECTION					
PRODUCTION RELEASE					



WESCO
DISTRIBUTION®

Attachment 4-4

200 PERIMETER ROAD
603-627-4659
MANCHESTER NH 03103

Quotation

UNLESS THERE ARE DIFFERENT OR ADDITIONAL TERMS AND CONDITIONS CONTAINED IN A MASTER AGREEMENT THAT MODIFY WESCO'S STANDARD TERMS, BUYER AGREES THAT THIS QUOTE AND ANY RESULTING PURCHASE ORDER WILL BE GOVERNED BY WESCO'S TERMS AND CONDITIONS DATED 011107 AVAILABLE AT [HTTP://WWW.WESCO.COM/TERMS_AND_CONDITIONS_OF_SALE.PDF](http://www.wesco.com/terms_and_conditions_of_sale.pdf), WHICH TERMS ARE INCORPORATED HEREIN BY REFERENCE AND MADE PART HEREOF. PLEASE CONTACT THE SELLER IDENTIFIED ON THIS QUOTE IF YOU REQUIRE A PRINTED COPY.

To: PASCOAG FIRE DIST
253 PASCOAG MAIN ST

PASCOAG RI 02859

Date: 01/09/17
Branch: 1120
Project Number: POST TOP LIGHT
Project Name
Quoted To: HARLE
Date of Your Inquiry: 01/09/17
When ordering please refer to Quotation Number: 373220

Item	Quantity	Catalog Number and Description	Unit Price	U/M	Total Price	Rate of Cash Discount	Shipping Time (Weeks)	Customer Delivery Date
10	6	COOPER***UTR15SR2334 150W HPS POST TOP LITE 70 WATT FIXTURE IS THE SAME PRICE	331.240	E	1987.44	0.00		02/28/17
		SUB-TOTAL			1987.44			
		TOTAL			1987.44			

F.O.B. Point of Shipment. The prices stated in this offer shall, unless renewed, automatically expire fifteen days (15) from the date of this offer.

Per:

DESCRIPTION

The Traditionaire™ luminaire displays the old-fashioned charm of traditional area lighting, enhancing any setting with a distinctive styling. UL listed and CSA certified for wet locations.

As a decorative luminaire, the Traditionaire luminaire tastefully complements the architectural and environmental design of parks and roadways.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

HOUSING + COVER: Hinged (stainless steel hinge pins) die-cast aluminum housing and cover with cupola. Standard color is black polyester powder coat. Other finish colors available. Consult your Streetworks representative. 1" ANSI wattage/source label.

Optical

REFRACTOR: Injection molded acrylic refractor panels.

Electrical

SOCKET: Mogul-base porcelain socket. (70-150W Pulse Start is medium-base socket standard).
BALLAST: Ballast assembly with encapsulated starter (where used). Tunnel type compression terminal lugs.

Mounting

Self-aligning pole-top fitter fits 3" O.D. pole tops or vertical tenons. Square headed 1-1/4" polymer coated mounting bolts with a lock nut.

Finish

Standard polyester powder coat finish in black. For more color options see optional color or consult your Streetworks representative for more information.

Efficiency Standards Notice

Select luminaires are manufactured to USA and California efficiency regulations. Ordering information for these territories is provided. The installer is responsible for installation to comply with these regulations.

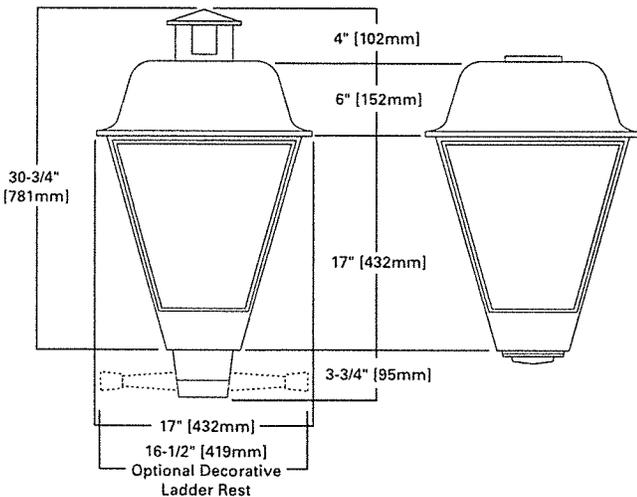


**UTR
TRADITIONAIRE**

70 - 250W
 Pulse Start Metal Halide
50 - 250W
 High Pressure Sodium

DECORATIVE LUMINAIRE

DIMENSIONS



EPA
 Effective Projected Area:
 2.3 Square Feet

SHIPPING DATA
 Approximate Net Weight:
 37 lbs. (17 kgs.)



ORDERING INFORMATION

Sample Number: UTR50SR2554

Product Family	Lamp Wattage	Lamp Type	Ballast Type ^{4,4}	Voltage ^{5,9}	Distribution
UTR=Traditionaire	Pulse Start Metal Halide ^{1,2} 70=70W 10=100W 15=150W 17=175W 17CEC=175W ³ 25=250W 25CEC=250W ³ High Pressure Sodium 50=50W 70=70W 10=100W 15=150W ⁴ 17=175W 20=200W 25=250W	P=Pulse Start Metal Halide S=High Pressure Sodium	C=CWI H=Reac./HPF N=Hi. Reac./NPF P=Hi. Reac./HPF ⁷ R=Reac./NPF W=CWA ⁸	2=120V 0=208V 4=240V 7=277V 8=480V ¹⁰ 9=347V W=Multi-Tap wired 120V V=Multi-Tap wired 240V N=Multi-Tap wired 277V	22=Type II 33=Type III ¹¹ 55=Type V
Options (Add as Suffix)				Accessories (Order Separately)	
4=NEMA Photocontrol Receptacle H=Plug-In Starter Receptacles W=20" #10 Leads P=Polycarbonate Lens Panels T=3/4" Pendant Mount Provision S=Snap Latches for Tool-less Lamp Replacement E=Factory Installed Cupola Cover with Cast Aluminum Eagle J=Factory Installed Ladder Rest U=UL/CSA Listed B=House Side Shield AP=Grey BK=Black BZ=Bronze WH=White				OA1219=TufGuard Vandal Shield TA1BK=Decorative Ladder Rest for Field Installation	

- NOTES:**
1. Medium-base pulse start metal halide is standard in 150W and below.
 2. DOE/EISA regulations replace the state of California's requirements and CEC designation will no longer be required for California installations on products manufactured beginning February 10, 2017.
 3. Required for California.
 4. 150W Units are for S55 Lamps.
 5. Consult an Eaton representative for lamp/ballast type/voltage compatibility.
 6. Consult an Eaton representative for availability of EISA compliant linear reactor pulse start metal halide ballasts.
 7. Pulse start metal halide EISA compliant high reactance ballasts are available in 70, 100 and 150 watts.
 8. Pulse start metal halide EISA compliant constant wattage autotransformer (CWA) ballasts are available in 150, 175, 200 and 250 watts.
 9. EISA or CEC compliant ballasts are not required in 347V and not available with triple-tap ballasts that consists of 120V/277V/347V and wired 347V.
 10. Pulse start metal halide 150W 480V requires high reactance to meet EISA requirements.
 11. Requires use of coated lamp to achieve Type III distribution.

Harle Round

From: Chase, Daniel <DChase@wescodist.com>
Sent: Thursday, January 12, 2017 2:56 PM
To: Bill Guertin
Cc: Harle Round; Trupiano, Josephine
Subject: RE: Re: Quote
Attachments: WESCO International, Inc. Quote #374421.pdf; OVH.pdf

Hello Bill,
Here is the quote and cut sheet. My best guess is that these type of fixtures last 5-8 years.

I hope this helps

Thanks
Dan

life of fixture 5-8 years average 7
would need to replace the fixture 2-3 times
in a 20 year period

Cost is 81.47
x 3 replacements in 20 years
= 244.41

http://www.wesco.com/terms_and_conditions_of_sale.pdf
http://www.wesco.com/purchase_order_terms_and_conditions.pdf + Bracket 45-

Dan Chase
Account Rep
Wesco Distribution
Manchester NH
Office (603) 391-3118
Toll Free (800) 258-5228
Fax (603) 391-3126
Cell (603) 264-6882
dchase@wesco.com

\$ 289.41 cost over 20 years
Bulb replacement 40.00 (\$10 every 4 years)
\$ 329.41

Cost of label + track every time we
visit a fixture \$147.70 x 4 in 20 years = \$590.80

From: Bill Guertin [mailto:bguertin@pud-ri.org]
Sent: Thursday, January 12, 2017 2:05 PM
To: Chase, Daniel
Cc: Harle Round
Subject: [EXTERNAL] Re: Quote

Hi Dan, could you provide a quote for a 150 Watt HPS Cobra Head. Also the expected life of that fixture please. Thank you.

Respectfully,

William J. Guertin
Assistant General Manager
Pascoag Utility District
(401)-568-6222 EXT 212 (Work)
TTY via RI Relay: 711



WESCO
DISTRIBUTION®

200 PERIMETER ROAD Attachment 5-2
603-627-4659
MANCHESTER NH 03103

Quotation

UNLESS THERE ARE DIFFERENT OR ADDITIONAL TERMS AND CONDITIONS CONTAINED IN A MASTER AGREEMENT THAT MODIFY WESCO'S STANDARD TERMS, BUYER AGREES THAT THIS QUOTE AND ANY RESULTING PURCHASE ORDER WILL BE GOVERNED BY WESCO'S TERMS AND CONDITIONS DATED 011107 AVAILABLE AT [HTTP://WWW.WESCO.COM/TERMS_AND_CONDITIONS_OF_SALE.PDF](http://www.wesco.com/terms_and_conditions_of_sale.pdf), WHICH TERMS ARE INCORPORATED HEREIN BY REFERENCE AND MADE PART HEREOF. PLEASE CONTACT THE SELLER IDENTIFIED ON THIS QUOTE IF YOU REQUIRE A PRINTED COPY.

To: PASCOAG FIRE DIST
253 PASCOAG MAIN ST

PASCOAG RI 02859

Date: 01/12/17
Branch: 1120
Project Number: 150 WATT HPS
Project Name
Quoted To: BILL
Date of Your Inquiry: 01/12/17
When ordering please refer to Quotation Number: 374421

Item	Quantity	Catalog Number and Description	Unit Price	U/M	Total Price	Rate of Cash Discount	Shipping Time (Weeks)	Customer Delivery Date
10	1	CPL OVH15SR23DH4 150 W HPS CUTOF	81.470	E	81.47	0.00		02/28/17
SUB-TOTAL					81.47			
TOTAL					81.47			

F.O.B. Point of Shipment. The prices stated in this offer shall, unless renewed, automatically expire fifteen days (15) from the date of this offer.

Per:

DESCRIPTION

The OVH Flat Glass roadway luminaire is ideal for roadways where cutoff is preferred or light trespass is an issue. Suitable for 3G vibration conditions.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

HOUSING: Die-cast aluminum housing and latch. 3G vibration rated. **DOOR:** Die-cast aluminum door frame with integral hinges for toolless relamping and maintenance. ANSI wattage/source label.

Electrical

SOCKET: Adjustable mogul-base porcelain socket. 150W Metal Halide and below is medium-base. **BALLAST ASSEMBLY:** Hard mounted ballast with encapsulated starter for protection from environmental abuse. Standard two position tunnel type compression terminal block. Three position available. Consult your Streetworks Representative. **PHOTOCONTROL:** Optional NEMA twistlock photocontrol receptacle also available.

Optical

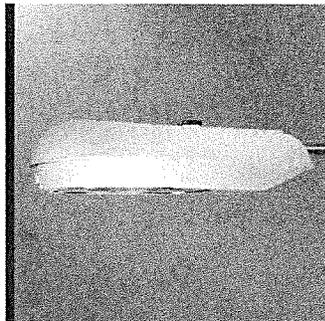
LENS: Removable tempered flat glass for use with High Pressure Sodium, Metal Halide and Pulse Start Metal Halide lamp sources. **REFLECTOR:** The optical system is a hydroformed anodized aluminum reflector with a Dacron polyester filter.

Mounting

Two-bolt/one bracket slipfitter with cast-in pipe stop and leveling steps. Fixed-in-place birdguard seals around 1-1/4" or 2" mounting arms (Birdguard not needed for 2" arm).

Finish

Standard grey polyester powder coat finish. Optional bronze, black and white finishes available.



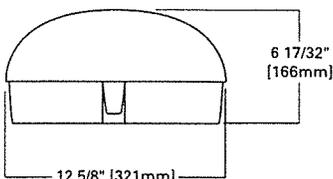
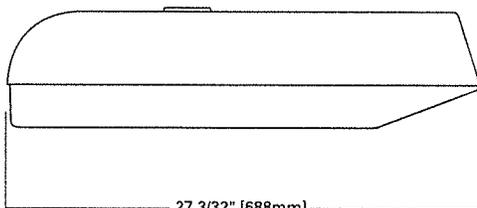
**OVH
FLAT GLASS**

50 - 250W
Pulse Start Metal Halide
High Pressure Sodium
Metal Halide

ROADWAY LUMINAIRE



DIMENSIONS

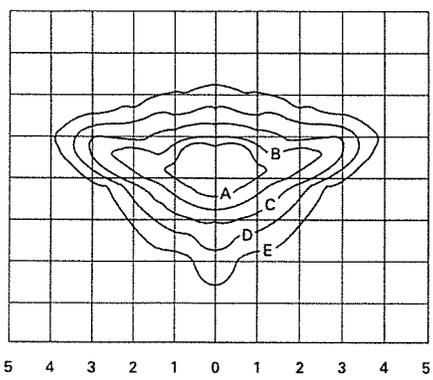


EPA
Effective Projected Area:
.80 Square Feet

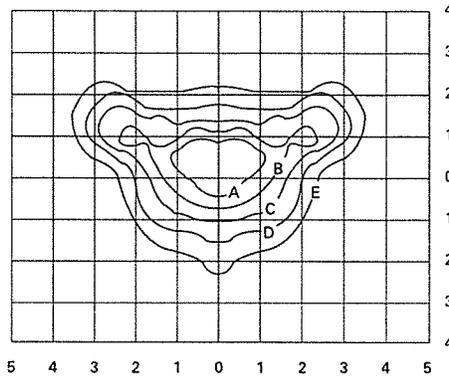
SHIPPING DATA
Approximate Net Weight:
28 lbs. (13 kgs.)



PHOTOMETRICS (Complete IES files available at www.cooperlighting.com)



OVH15S2D
150—Watt HPS
16,000—Lumen Clear Lamp
Type II-Medium Cutoff



OVH15S3D
150—Watt HPS
16,000—Lumen Clear Lamp
Type III-Medium Cutoff

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Isofootcandle Lines				
	A	B	C	D	E
OVH15S2D / OVH15S3D					
20'	3.20	1.60	0.80	0.32	0.16
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.35	0.14	0.07
35'	1.02	0.51	0.26	0.10	0.05

PHOTOMETRIC DISTRIBUTION (Curve Number)

Wattage	Light Source ¹	Lens Type	II MCO	III MCO
50-150	HPS	Flat Glass	OVH15S2D (150W)	OVH15S3D (150W)
175	MH	Flat Glass	OVH17M2D (175W)	OVH17M3D (175W)
200-250	HPS	Flat Glass	N/A	OVH25S2D (250W)

NOTE: 1 All light sources are clear unless noted otherwise.

ORDERING INFORMATION

Sample Number: OVH50SR22D4

<p>Product Family OVH=Flat_Glass_Luminaire</p> <p>Lamp Wattage ¹ <u>Pulse Start Metal Halide</u> 70=70W 10=100W 15=150W¹ 17=175W 25=250W <u>High Pressure Sodium</u> 50= 50W 70= 70W 10= 100W 15= 150W² 20= 200W 25= 250W <u>M.(Probe Start) ³</u> 17= 175W 25= 250W</p>	<p>Lamp Type ⁴ P=Pulse Start Metal Halide S=High Pressure Sodium M=Metal Halide</p> <p>Ballast Type ⁴ C=CWI H=Reac./HPF K=10KV CWA⁵ N=Hi.Reac./NPF P= Hi. Reac./HPF R= Hi.Reac./NPF W= CWA M= Mag. Reg.</p>	<p>Voltage ⁴ 2=120V 0=208V 4=240V 7=277V 8=480V 9=347V F=120/240 wired 120V W=Multi-Tap wired 120V V=Multi-Tap wired 240V N=Multi-Tap wired 277V</p>	<p>Distribution 2=Type II 3=Type III</p> <p>Optical Package D=MCO</p>	<p>Options CEC=California Title 20 Compliant Ballast (Applies to 175-250W Pulse Start MH only) 1=Single Fuse (120, 277 or 347V) 2=Double Fuse, (208, 240, or 480V) 4=NEMA Photocontrol Receptacle WH=White BK=Black BZ= Bronze A= Raw Aluminum Unfinished E= 150/100V HPS Ballast H= Plug in Starter Receptacle L= Lamp Included K= Level Indicator M= MOV Lightning Surge⁶ Protectors U= U.L./CSA Listed 3= Three Position Terminal Block</p>	<p>Accessories OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1014=NEMA Photocontrol - 120V OA1213=TufGuard Vandal Shield OA/RA1013=Photocontrol Shorting Cap</p>
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Notes: 1 150W and below Pulse Start Metal Halide are medium-base. All other lamps are mogul-base. Lamp not included. 2 150W Units are for S65 Lamps. 3 Probe Start Metal Halide available for non-US markets only (175-250W). 4 Refer to the technical section for lamp/ballast voltage compatibility. 5 Available 50-150W, 120/240 or single voltage only. 6 MOV option not available for any system requiring a three position terminal block (example - 240V with PCR wired 120V). In order for MOV option to function center terminal of three position terminal block must be connected to "Earth" ground.