

From: [Richard Neill](#)
To: [Laura Marotta](#)
Subject: FW: Village Lighting
Date: Thursday, June 11, 2020 8:59:54 AM
Attachments: [SLV - Deco Lighting Locations.pdf](#)
[Spacing for Colonial Decorative Lights.pdf](#)

From: Donna Dennis <donna.dennis@stlucievillagefl.gov>
Sent: Thursday, June 11, 2020 7:11 AM
To: Dale Reed <dale.reed@stlucievillagefl.gov>; Ingrid Vanhekken <ingrid.vanhekken@stlucievillagefl.gov>; Jim Grimes <jamesgrimes22@comcast.net>; John Langel <john.langel@stlucievillagefl.gov>; William Thuess <william.thuess@stlucievillagefl.gov>; Tim Ritter <tim.ritter@stlucievillagefl.gov>
Cc: Richard Neill <richard.neill@stlucievillagefl.gov>; Carl Peterson <carl.peterson@stlucievillagefl.gov>; Scott Dennis <scott.dennis@stlucievillagefl.gov>
Subject: Fw: Village Lighting

Good morning Board members,

Please see the attached Deco Lighting sheet, Bill's summary of information below, and the attached lighting spacing plan in order to be ready to discuss the lighting agenda item during the June 16 meeting.

Thank you all and best regards,

Donna

Donna Dennis

Clerk

St. Lucie Village, FL

772-466-6900

Please Note: Florida has a broad public records law. As a result, any written communication created or received by Town of St. Lucie Village officials and employees will be made available to the public and media upon request, unless otherwise exempt. Under Florida law, email addresses are public records. If you do not want your email address released in response to a public records request, do not send electronic mail to this office. Instead, contact our office by phone or in person.

From: William Thiess

Sent: Wednesday, June 10, 2020 5:54 PM

To: Donna Dennis; Scott Dennis; Richard Neill

Cc: Carl Peterson; Michael Chidgey; Larry Lammers; Bo Hutchinson

Subject: Village Lighting

Good evening all,

I received the attached layout from Michael Chidgey for installing Colonial Decorative lights on the east side or the west side of North Indian River Drive. The yellow circles and lines in that attachment are for placing lights on the east side of the road. The dollar figures represent the cost to put lights at those locations. These decorative lights are typically installed at no cost to the customer if power is readily available at the desired location. The installation cost in those cases is recovered through the monthly rental fee of \$12.26 per light. To provide coverage on the south end of the drive for this nine-light configuration, two lights would need to be added where power is not readily available. Adding those two lights would cost \$8,700 and that would be the total cost for this option. We can discuss the pros and cons of the “east side” option at Tuesday’s meeting.

The green circles and lines show locations on the west side of the road that are feasible for locating these decorative lights. FPUA used a spacing that ranges from 121 feet to 339 feet but is consistently closer to the 220-foot average spacing (see my notes on spacing, attached). That is a reasonable spacing for this type of light if the objective is to put some light on most of the road. Eight of these lights can be installed at zero cost, but the other six would involve significant cost (\$17,100 total). The monthly rate for each of these decorative lights is \$12.26, so the 14 lights would cost \$171.64 per month (plus taxes or power cost adjustments, if applicable) versus \$163.28 for the 8 taller LED lights we discussed at the last meeting.

If we opted to only install the eight Colonial Decorative lights that cost \$0 on the west side of the road, the spacing would be very irregular, ranging from 121 feet to 956 feet. This arrangement would provide accent lighting at the \$0 locations but would result in much of the road being dark.

I contacted Michael Chidgey to see if he or someone from FPUA can connect to our June 16 meeting via GoToMeeting to answer questions, and he said that they would be willing to do that.

Bill

From: Donna Dennis <donna.dennis@stlucievillagefl.gov>
Sent: Monday, June 15, 2020 1:40 PM
To: James Grimes <JAMESGRIMES22@comcast.net>; Ingrid Vanhekken <ingrid.vanhekken@stlucievillagefl.gov>; Dale Reed <dale.reed@stlucievillagefl.gov>; John Langel <john.langel@stlucievillagefl.gov>; Tim Ritter <tim.ritter@stlucievillagefl.gov>; Carl Peterson <carl.peterson@stlucievillagefl.gov>; Scott Dennis <scott.dennis@stlucievillagefl.gov>; Richard Neill <richard.neill@stlucievillagefl.gov>
Subject: Fwd: FW: Lighting for North Indian River Drive

Dear Board members,

Please see attached and below in regard to the Village lighting. This is email #1 - email #2 follows.

Thank you and regards,
Donna

----- Forwarded message -----

From: William Thiess <william.thiess@stlucievillagefl.gov>
Date: Mon, Jun 15, 2020, 10:35 AM
Subject: FW: Lighting for North Indian River Drive
To: Donna Dennis <donna.dennis@stlucievillagefl.gov>, Scott Dennis <scott.dennis@stlucievillagefl.gov>
Cc: Richard Neill <richard.neill@stlucievillagefl.gov>

Donna,

This email should be forwarded to the Board, as it may be useful in the discussion of decorative light fixtures. I will forward Michael's response.

Bill

From: William Thiess
Sent: Tuesday, June 9, 2020 5:25 PM
To: Michael Chidgey <mchidgey@fpua.com>
Cc: Larry Lammers <lammers@fpua.com>; Donna Dennis <donna.dennis@stlucievillagefl.gov>; Scott Dennis <scott.dennis@stlucievillagefl.gov>; Richard Neill <richard.neill@stlucievillagefl.gov>
Subject: Lighting for North Indian River Drive

Michael,

The fixture on the attached sheets appears to be the same one that we discussed taking a look at. I have several questions:

1. Can the elongated light pattern shown on the bottom left of page 4 be achieved?
2. On that figure, it looks like the fixture puts 10% illumination (573 lumens) on the ground at about 4.5 x 16', or 72' from the base. Is that correct?
3. Can a blackout panel be installed on the west panel of the fixture if requested by residents?
4. The figure you sent to me a while back showed 14 of these fixtures on the west side of the road with an average spacing of about 220 feet. With 10% illumination at 72 feet from the base of the pole, 220' spacing would minimize dark areas between most of the fixtures, correct? Also, wouldn't doubling the spacing to 440' result in a lot of dark road?

If you could answer these questions, it would help in our analysis.

Also, would you be available to attend our virtual meeting June 16 at 6:30 PM? We are using the GoToMeeting app and can send you the connection information if you are able to attend.

Thanks for your help on this.

Bill

From: Donna Dennis <donna.dennis@stlucievillagefl.gov>
Sent: Monday, June 15, 2020 1:41 PM
To: James Grimes <JAMESGRIMES22@comcast.net>; Ingrid Vanhekken <ingrid.vanhekken@stlucievillagefl.gov>; Dale Reed <dale.reed@stlucievillagefl.gov>; John Langel <john.langel@stlucievillagefl.gov>; Tim Ritter <tim.ritter@stlucievillagefl.gov>; Carl Peterson <carl.peterson@stlucievillagefl.gov>; Scott Dennis <scott.dennis@stlucievillagefl.gov>; Richard Neill <richard.neill@stlucievillagefl.gov>
Subject: Fwd: FW: Lighting for North Indian River Drive

Email #2 of 2.

Thank you for all you do.

Regards,
Donna

----- Forwarded message -----

From: William Thiess <william.thiess@stlucievillagefl.gov>
Date: Mon, Jun 15, 2020, 10:35 AM
Subject: FW: Lighting for North Indian River Drive
To: Donna Dennis <donna.dennis@stlucievillagefl.gov>, Scott Dennis <scott.dennis@stlucievillagefl.gov>
Cc: Richard Neill <richard.neill@stlucievillagefl.gov>

Donna,

Please forward this as well. I have a call in to Michael Chidgey for clarification on some of his answers.

Thanks,

Bill

From: Michael Chidgey <mchidgey@fpu.com>
Sent: Wednesday, June 10, 2020 7:20 AM
To: William Thiess <william.thiess@stlucievillagefl.gov>
Cc: Larry Lammers <lammers@fpu.com>; Donna Dennis <donna.dennis@stlucievillagefl.gov>; Scott Dennis <scott.dennis@stlucievillagefl.gov>; Richard Neill <richard.neill@stlucievillagefl.gov>
Subject: RE: Lighting for North Indian River Drive

Bill,

Yes sir, that is the correct spec sheet.

1. No, unfortunately ours looks like this (the top one):
2. I believe those numbers indicate footcandles. To put the numbers in perspective, a parking garage like the one at city hall should be around 5fc and a typical gas station runs around 12.5fc at the pumps.
3. We did not purchase the blackout panels with these fixtures. In the past maintenance of accessories has been troublesome, so we decided to remove them from our latest light selections.
4. These fixtures provide limited light output. The value these provide is that areas looking to achieve low, but uniform, light levels can do so easily. Due to the even spread of light projected by these fixtures, we can achieve good light uniformity numbers meaning very few hotspots – this makes it a lot easier on the eye.

I'm sure either myself or Larry will be able to attend. We will confirm prior to the meeting.

Thanks,

Michael Chidgey

Engineering Technician II

Electric & Gas Engineering

Fort Pierce Utilities Authority

mchidgey@fpu.com

772.466.1600 ext. 6459

From: William Thiess [<mailto:william.thiess@stlucievillagefl.gov>]

Sent: Tuesday, June 9, 2020 5:25 PM

To: Michael Chidgey <mchidgey@fpu.com>

Cc: Larry Lammers <lammers@fpu.com>; Donna Dennis <donna.dennis@stlucievillagefl.gov>; Scott Dennis <scott.dennis@stlucievillagefl.gov>; Richard Neill <richard.neill@stlucievillagefl.gov>

Subject: Lighting for North Indian River Drive

CAUTION: This email originated from outside of FPUA. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Michael,

The fixture on the attached sheets appears to be the same one that we discussed taking a look at. I have several questions:

1. Can the elongated light pattern shown on the bottom left of page 4 be achieved?
2. On that figure, it looks like the fixture puts 10% illumination (573 lumens) on the ground at about 4.5 x 16', or 72' from the base. Is that correct?
3. Can a blackout panel be installed on the west panel of the fixture if requested by residents?
4. The figure you sent to me a while back showed 14 of these fixtures on the west side of the road with an average spacing of about 220 feet. With 10% illumination at 72 feet from the base of the pole, 220' spacing would minimize dark areas between most of the fixtures, correct? Also, wouldn't doubling the spacing to 440' result in a lot of dark road?

If you could answer these questions, it would help in our analysis.

Also, would you be available to attend our virtual meeting June 16 at 6:30 PM? We are using the GoToMeeting app and can send you the connection information if you are able to attend.

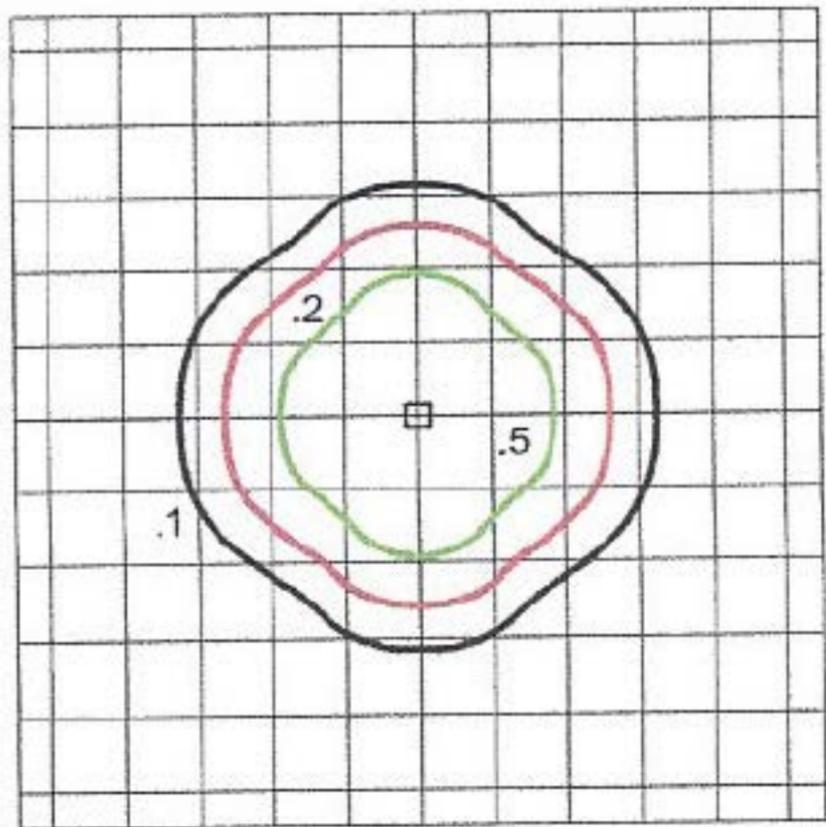
Thanks for your help on this.

Bill



	SLV Lighting		Colonial Fixtures		JOB #	
	DATE	DESCRIPTION	BY: AP	SCALE	DESIGNED	SHEET
	ELECTRIC & GAS ENGINEERING		VERIFY SCALE BAR IS EQUAL TO	1" =		
	1701 SOUTH 27TH STREET		ONE INCH ON ORIGINAL DRAWING	14'		
	P.O. BOX 1178 (24000)		ADJUST ALL SCALED DIMENSIONS			
	FT. PIERCE, FLORIDA 34947		ACCORDINGLY			
	(772) 486-1600 / FAX (772) 461-1908					

Light Location	#0	Distance Between
St. Lucie Lane (Replacement)	0	0 240'
Tim G. south PL		4500 220'
Aliff SE corner	956'	3700 264'
Road N. of Bruno		1400 232'
Rohm/Orme PL		0 200'
Peed just S. of house	377'	2000 177'
Just S. of Summerlin	213	0 213'
North PL of	121	0 121'
Dale S. PL		0 198'
SE corner of Amy/Ken Flick	360'	2000 162'
SE corner of Louis		0 251'
S. side Lien driveway	486	3500 235'
Hoskins driveway	339	0 339
Chamberlin (replacement)		0



Grid Distance in Units of Mounting Height at 16'
Initial Footcandle Values at Grade



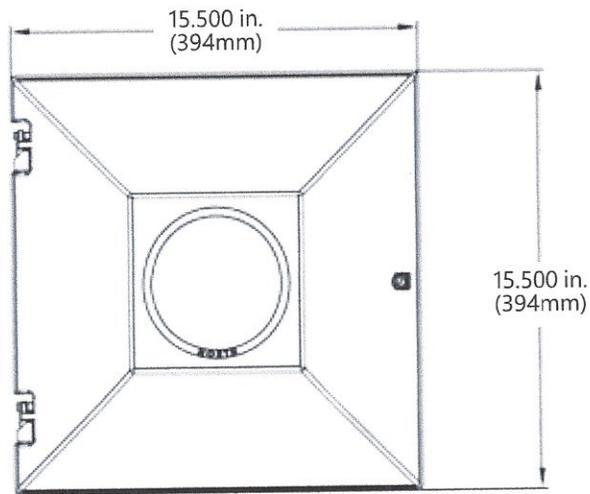
Evolve[®]
LED Post Top
Town & Country (EPTT)



GE current
a Daintree company

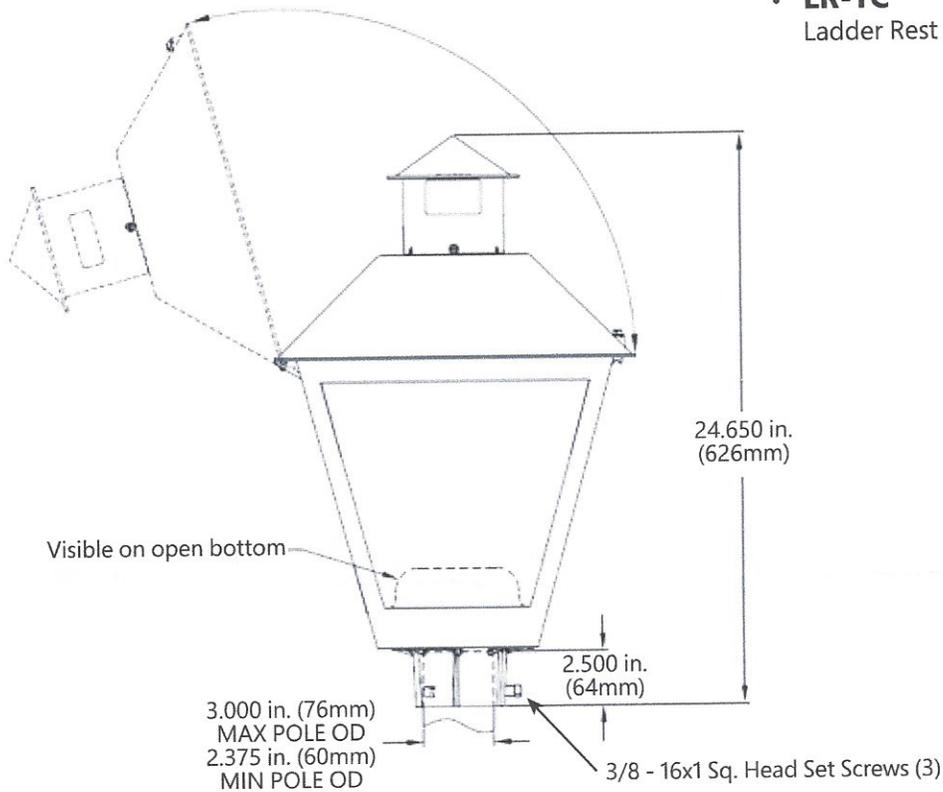
Product Dimensions

Town & Country Post Top (EPTT)



EPTT - Accessories

- **LSPR-TT**
Perforated Shield for
A/P Refractor design
- **LSSR-TT**
Solid Shield for
A/P Refractor design
- **LSPN-TT**
Perforated Shield "Bare Aluminum" for
Open Sided design
- **LSSN-TT**
Solid Shield "Black" for
Open Sided design
- **LR-TC**
Ladder Rest – Black



DATA

- Approximate Net Weight: 14-18 lbs (6.2-8 kgs)
- Suggested Mounting Height: 8-18 ft. (2.5-5.5 M)
- Effective Projected Area: 1.6 sq ft. max (0.15 sq M max)

Product Features

The Evolve® LED Town & Country Post Top offers energy efficiency and quality of light in a classic look and style. The advanced LED optical system provides improved horizontal and vertical uniformity, reduced glare and improved lighting control. GE's unique optical technology effectively aims the light where needed.

The Town & Country post top can yield up to a 60-percent reduction in system energy compared with standard HID systems, depending on applications. This reliable system operates well in cold temperatures and offers more than 20 years of service life, reducing maintenance frequency and expense, based on a rated 100,000 hour life and 12 hours of operation per day.

Applications

- Roadway, site, area, and general lighting utilizing advanced LED optical system providing high uniformity, excellent vertical illuminance, reduced offsite visibility, and reduced on-site glare.

Housing

- Die-cast aluminum housing.
- Traditional lantern design.
- Cupola compatible with C136.10 PE's and Shorting Caps and LightGrid 2.0 node.

LED & Optical Assembly

- Structured LED array for optimized Roadway/Walkway photometric distributions.
- Utilizes high brightness 2700K, 3000K, 4000K and 5000K LEDs at 70 CRI typical.
- LM-79 tests and reports are performed in accordance with IESNA standards.

Lumen Maintenance Tables

Projected Lxx per IES TM-21 at 25°C for reference:

LUMEN OUTPUT CODES	Lxx(10k)@Hours		
	25,000 hr	50,000 hr	60,000 hr
02, 03, 04, 05	L94	L89	L87
06	L97	L96	L96
07	L96	L94	L93

Note: Projected Lxx based on LM80 (10,000 hour testing). DOE Lighting Facts Verification Testing Tolerances apply to initial luminous flux and lumen maintenance measurements.

Lumen Ambient Temperature Factors:

Ambient Temp (°C)	Initial Flux Factor
10	1.02
20	1.01
25	1.00
30	0.99
40	0.98
45	0.97



Please refer to the DLC QPL website for the latest and most complete information. www.designlights.org/QPL



International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

Ratings

- **Surge Protection:** per ANSI C136.2-2015
 - 6kV/3kA "Basic: (40 Strikes)" – Standard (Driver Internal)
 - 10kV/5kA "Enhanced (40 Strikes)" – Secondary SPD, Option R
- **Safety:** /cUL Listed. UL1598 listed, suitable for wet locations
- **Environmental:** Compliant with the materials restrictions of RoHS
- **EMI:** Title 47 CFR Part 15 Class A
- **Vibration:** 3.0G per ANSI C136.41-2010
- **Operating Temperature:** -40°C to 50°C
 - LM-79 testing in accordance with IESNA Standards.
 - LED optical enclosure rated IP65 per ANSI C136.25-2009

Electrical

- **Input Voltage:** 120-277V
- **Input Frequency:** 50/60Hz
- **Power Factor (PF)*:** ≥90
- **Total Harmonic Distortion (THD)*:** ≤20%

* System PF and THD specified at rated watts.

Mounting

- Mounts to 2-3/8 to 3-inch (60-76mm) OD vertical tenon.

Construction & Finish

- **Housing:** Die cast enclosure
- Corrosion resistant polyester powder paint, minimum 2.0 mil. thickness.
- **Standard colors:** Black & Dark Bronze.
- RAL & custom colors available.

Controls

- **Dimming:** Standard 0-10V; Optional DALI
- **Sensors:** Photo-electric sensors (PE) available
- Supports LightGrid via 7-Pin C136.41 socket

Accessories

- House Side Shields
- Ladder Rest

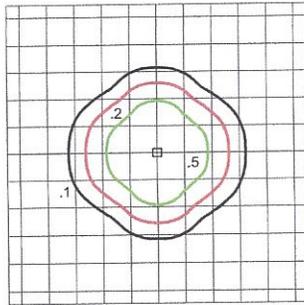
Warranty

- 5 Year Standard
- 10 Year Optional

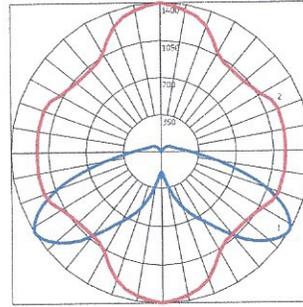
Photometrics: Town & Country Post Top (EPTT)

EPTT
120-277V
(05AA50)

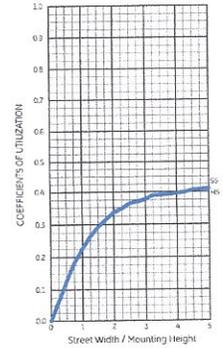
5,730 Lumens
EPTT01_05AA50_-120-277V.IES



Grid Distance in Units of Mounting Height at 16'
Initial Footcandle Values at Grade

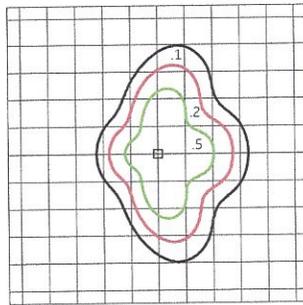


— Vertical plane through horizontal angle of Max. Cd at 90°
— Horizontal cone through vertical angle of Max. Cd at 57°

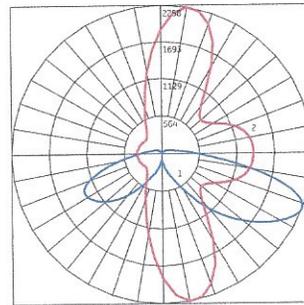


EPTT
120-277V
(05BA50)

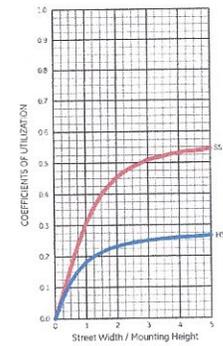
5,200 Lumens
EPTT01_05BA50_-120-277V.IES



Grid Distance in Units of Mounting Height at 16'
Initial Footcandle Values at Grade

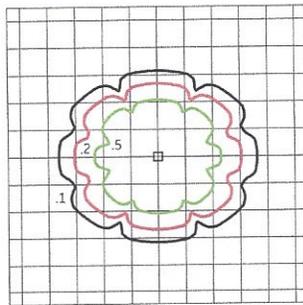


— Vertical plane through horizontal angle of Max. Cd at 80°
— Horizontal cone through vertical angle of Max. Cd at 68°

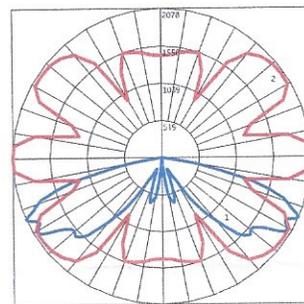


EPTT
120-277V
(05AN50)

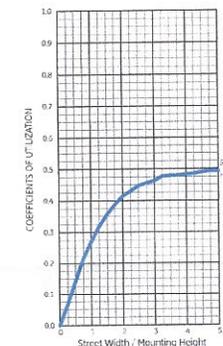
6,300 Lumens
EPTT01_05AN50_-120-277V.IES



Grid Distance in Units of Mounting Height at 16'
Initial Footcandle Values at Grade

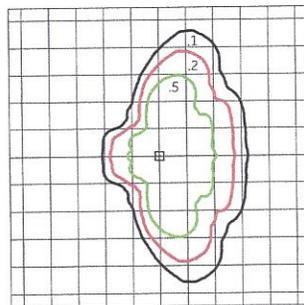


— Vertical plane through horizontal angle of Max. Cd at 0°
— Horizontal cone through vertical angle of Max. Cd at 66°

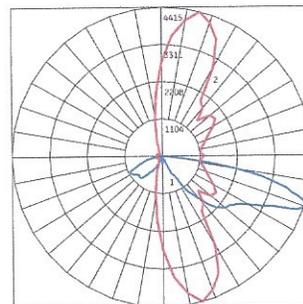


EPTT
120-277V
(05BN50)

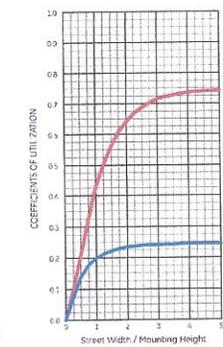
5,730 Lumens
EPTT01_05BN50_-120-277V.IES



Grid Distance in Units of Mounting Height at 16'
Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 71°



Ordering Number Logic

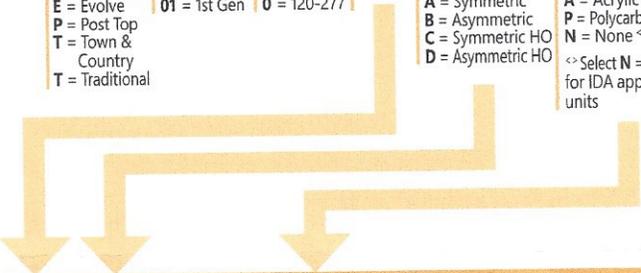
Town & Country Post Top (EPTT)



EPTT 01 0

P

FAMILY	GENERATION	VOLTAGE	LUMEN OUTPUT	DIST. CODE	REFRACTOR	LED COLOR TEMP	CONTROLS	MOUNTING ARM	COLOR	OPTIONS
E = Evolve P = Post Top T = Town & Country T = Traditional	01 = 1st Gen	0 = 120-277		A = Symmetric B = Asymmetric C = Symmetric HO D = Asymmetric HO	A = Acrylic P = Polycarbonate N = None <> <> Select N = None for IDA approved units	27 = 2700K <> 30 = 3000K <> 40 = 4000K 50 = 5000K <> Select 2700K or 3000K CCT for IDA approved units	A = ANSI C136.41 7-pin dimming PE Socket D = ANSI C136.41 7-pin dimming PE Socket w/Shorting Cap E = ANSI C136.41 7-pin dimming PE Socket w/non-dimming PE	P = Pole Mounted	DKBZ = Dark Bronze BLCK = Black	L = Latch Canopy P = Prewire with 6 Ft of 14/3 cable R = Secondary 10kV/5kA Surge Protection XXX = Special Options U = Dali Programmable*



LUMEN OUTPUT	DISTRIBUTION CODE	DESCRIPTION	REFRACTOR CODE	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE	BUG RATING			IES FILE NAME			
				2700K	3000K	4000K		2700K	3000K	4000K	2700K	3000K	4000K	5000K
02	A	Symmetric	A	2650	2730	2840	26	B1-U3-G2	B1-U3-G2	B1-U3-G2	EPTT01_02AA27_-120-277VIES	EPTT01_02AA30_-120-277VIES	EPTT01_02AA40_-120-277VIES	EPTT01_02AA50_-120-277VIES
03	A	Symmetric	A	3100	3200	3320	30	B2-U3-G2	B2-U3-G2	B2-U3-G2	EPTT01_03AA27_-120-277VIES	EPTT01_03AA30_-120-277VIES	EPTT01_03AA40_-120-277VIES	EPTT01_03AA50_-120-277VIES
04	A	Symmetric	A	4460	4600	4710	44	B2-U3-G2	B2-U3-G2	B2-U3-G2	EPTT01_04AA27_-120-277VIES	EPTT01_04AA30_-120-277VIES	EPTT01_04AA40_-120-277VIES	EPTT01_04AA50_-120-277VIES
05	A	Symmetric	A	5480	5650	5730	56	B2-U3-G2	B2-U3-G2	B2-U3-G2	EPTT01_05AA27_-120-277VIES	EPTT01_05AA30_-120-277VIES	EPTT01_05AA40_-120-277VIES	EPTT01_05AA50_-120-277VIES
06	C	Symmetric HO	A	5490	5680	5900	56	B2-U3-G2	B2-U3-G2	B3-U3-G3	EPTT01_06CA27_-120-277VIES	EPTT01_06CA30_-120-277VIES	EPTT01_06CA40_-120-277VIES	EPTT01_06CA50_-120-277VIES
07	C	Symmetric HO	A	6720	6950	7380	73	B2-U4-G3	B3-U4-G3	B3-U4-G3	EPTT01_07CA27_-120-277VIES	EPTT01_07CA30_-120-277VIES	EPTT01_07CA40_-120-277VIES	EPTT01_07CA50_-120-277VIES
02	B	Asymmetric	A	2490	2560	2610	26	B1-U3-G2	B1-U3-G2	B1-U3-G2	EPTT01_02BA27_-120-277VIES	EPTT01_02BA30_-120-277VIES	EPTT01_02BA40_-120-277VIES	EPTT01_02BA50_-120-277VIES
03	B	Asymmetric	A	2910	3000	3060	30	B1-U3-G2	B1-U3-G2	B1-U3-G2	EPTT01_03BA27_-120-277VIES	EPTT01_03BA30_-120-277VIES	EPTT01_03BA40_-120-277VIES	EPTT01_03BA50_-120-277VIES
04	B	Asymmetric	A	3980	4100	4250	44	B1-U3-G3	B1-U3-G3	B1-U3-G3	EPTT01_04BA27_-120-277VIES	EPTT01_04BA30_-120-277VIES	EPTT01_04BA40_-120-277VIES	EPTT01_04BA50_-120-277VIES
05	B	Asymmetric	A	4850	5000	5200	56	B2-U3-G3	B2-U3-G3	B2-U3-G3	EPTT01_05BA27_-120-277VIES	EPTT01_05BA30_-120-277VIES	EPTT01_05BA40_-120-277VIES	EPTT01_05BA50_-120-277VIES
06	D	Asymmetric HO	A	5090	5300	5500	56	B2-U3-G3	B2-U3-G3	B2-U3-G3	EPTT01_06DA27_-120-277VIES	EPTT01_06DA30_-120-277VIES	EPTT01_06DA40_-120-277VIES	EPTT01_06DA50_-120-277VIES
07	D	Asymmetric HO	A	6230	6485	6880	73	B2-U4-G3	B2-U4-G3	B2-U4-G3	EPTT01_07DA27_-120-277VIES	EPTT01_07DA30_-120-277VIES	EPTT01_07DA40_-120-277VIES	EPTT01_07DA50_-120-277VIES
02	A	Symmetric	P	2080	2140	2200	26	B1-U3-G1	B1-U3-G1	B1-U3-G1	EPTT01_02AP27_-120-277VIES	EPTT01_02AP30_-120-277VIES	EPTT01_02AP40_-120-277VIES	EPTT01_02AP50_-120-277VIES
03	A	Symmetric	P	2430	2500	2580	30	B1-U3-G1	B1-U3-G1	B1-U3-G1	EPTT01_03AP27_-120-277VIES	EPTT01_03AP30_-120-277VIES	EPTT01_03AP40_-120-277VIES	EPTT01_03AP50_-120-277VIES
04	A	Symmetric	P	3490	3600	3740	44	B2-U3-G2	B2-U3-G2	B2-U3-G2	EPTT01_04AP27_-120-277VIES	EPTT01_04AP30_-120-277VIES	EPTT01_04AP40_-120-277VIES	EPTT01_04AP50_-120-277VIES
05	A	Symmetric	P	4270	4400	4590	56	B2-U3-G2	B2-U3-G2	B2-U3-G2	EPTT01_05AP27_-120-277VIES	EPTT01_05AP30_-120-277VIES	EPTT01_05AP40_-120-277VIES	EPTT01_05AP50_-120-277VIES
06	C	Symmetric HO	P	4300	4400	4670	56	B2-U3-G2	B2-U3-G2	B2-U3-G2	EPTT01_06CP27_-120-277VIES	EPTT01_06CP30_-120-277VIES	EPTT01_06CP40_-120-277VIES	EPTT01_06CP50_-120-277VIES
07	C	Symmetric HO	P	5260	5390	5840	73	B2-U4-G2	B2-U4-G2	B3-U4-G2	EPTT01_07CP27_-120-277VIES	EPTT01_07CP30_-120-277VIES	EPTT01_07CP40_-120-277VIES	EPTT01_07CP50_-120-277VIES
02	B	Asymmetric	P	1900	1960	2000	26	B1-U3-G1	B1-U3-G1	B1-U3-G2	EPTT01_02BP27_-120-277VIES	EPTT01_02BP30_-120-277VIES	EPTT01_02BP40_-120-277VIES	EPTT01_02BP50_-120-277VIES
03	B	Asymmetric	P	2230	2300	2340	30	B1-U3-G2	B1-U3-G2	B1-U3-G2	EPTT01_03BP27_-120-277VIES	EPTT01_03BP30_-120-277VIES	EPTT01_03BP40_-120-277VIES	EPTT01_03BP50_-120-277VIES
04	B	Asymmetric	P	3200	3300	3380	44	B1-U3-G2	B1-U3-G2	B1-U3-G2	EPTT01_04BP27_-120-277VIES	EPTT01_04BP30_-120-277VIES	EPTT01_04BP40_-120-277VIES	EPTT01_04BP50_-120-277VIES
05	B	Asymmetric	P	3880	4000	4170	56	B1-U3-G2	B1-U3-G2	B1-U3-G2	EPTT01_05BP27_-120-277VIES	EPTT01_05BP30_-120-277VIES	EPTT01_05BP40_-120-277VIES	EPTT01_05BP50_-120-277VIES
06	D	Asymmetric HO	P	3940	4100	4330	56	B1-U3-G2	B1-U3-G2	B1-U3-G3	EPTT01_06DP27_-120-277VIES	EPTT01_06DP30_-120-277VIES	EPTT01_06DP40_-120-277VIES	EPTT01_06DP50_-120-277VIES
07	D	Asymmetric HO	P	4820	5020	5410	73	B2-U4-G3	B2-U4-G3	B2-U4-G3	EPTT01_07DP27_-120-277VIES	EPTT01_07DP30_-120-277VIES	EPTT01_07DP40_-120-277VIES	EPTT01_07DP50_-120-277VIES
02	A	Symmetric	N	2900	2990	3060	26	B2-U0-G1	B2-U0-G1	B2-U0-G1	EPTT01_02AN27_-120-277VIES	EPTT01_02AN30_-120-277VIES	EPTT01_02AN40_-120-277VIES	EPTT01_02AN50_-120-277VIES
03	A	Symmetric	N	3400	3500	3580	30	B2-U0-G1	B2-U0-G1	B2-U0-G1	EPTT01_03AN27_-120-277VIES	EPTT01_03AN30_-120-277VIES	EPTT01_03AN40_-120-277VIES	EPTT01_03AN50_-120-277VIES
04	A	Symmetric	N	4850	5000	5140	44	B2-U0-G1	B3-U0-G1	B3-U0-G1	EPTT01_04AN27_-120-277VIES	EPTT01_04AN30_-120-277VIES	EPTT01_04AN40_-120-277VIES	EPTT01_04AN50_-120-277VIES
05	A	Symmetric	N	5920	6100	6300	56	B3-U0-G1	B3-U0-G1	B3-U0-G1	EPTT01_05AN27_-120-277VIES	EPTT01_05AN30_-120-277VIES	EPTT01_05AN40_-120-277VIES	EPTT01_05AN50_-120-277VIES
06	C	Symmetric HO	N	5930	6180	6420	56	B3-U0-G1	B3-U0-G1	B3-U0-G1	EPTT01_06CN27_-120-277VIES	EPTT01_06CN30_-120-277VIES	EPTT01_06CN40_-120-277VIES	EPTT01_06CN50_-120-277VIES
07	C	Symmetric HO	N	7260	7560	8030	73	B3-U0-G1	B3-U0-G1	B3-U0-G1	EPTT01_07CN27_-120-277VIES	EPTT01_07CN30_-120-277VIES	EPTT01_07CN40_-120-277VIES	EPTT01_07CN50_-120-277VIES
02	B	Asymmetric	N	2630	2720	2770	26	B1-U0-G1	B1-U0-G1	B1-U0-G1	EPTT01_02BN27_-120-277VIES	EPTT01_02BN30_-120-277VIES	EPTT01_02BN40_-120-277VIES	EPTT01_02BN50_-120-277VIES
03	B	Asymmetric	N	3080	3180	3240	30	B1-U0-G1	B1-U0-G1	B1-U0-G1	EPTT01_03BN27_-120-277VIES	EPTT01_03BN30_-120-277VIES	EPTT01_03BN40_-120-277VIES	EPTT01_03BN50_-120-277VIES
04	B	Asymmetric	N	4370	4500	4640	44	B1-U0-G2	B1-U0-G2	B1-U0-G2	EPTT01_04BN27_-120-277VIES	EPTT01_04BN30_-120-277VIES	EPTT01_04BN40_-120-277VIES	EPTT01_04BN50_-120-277VIES
05	B	Asymmetric	N	5430	5600	5730	56	B1-U0-G2	B1-U0-G2	B1-U0-G2	EPTT01_05BN27_-120-277VIES	EPTT01_05BN30_-120-277VIES	EPTT01_05BN40_-120-277VIES	EPTT01_05BN50_-120-277VIES
06	D	Asymmetric HO	N	5470	5700	5950	56	B1-U0-G2	B1-U0-G2	B1-U0-G2	EPTT01_06DN27_-120-277VIES	EPTT01_06DN30_-120-277VIES	EPTT01_06DN40_-120-277VIES	EPTT01_06DN50_-120-277VIES
07	D	Asymmetric HO	N	6700	6980	7440	73	B2-U0-G2	B2-U0-G2	B2-U0-G2	EPTT01_07DN27_-120-277VIES	EPTT01_07DN30_-120-277VIES	EPTT01_07DN40_-120-277VIES	EPTT01_07DN50_-120-277VIES

Not DLC Listed