

OP2L Series

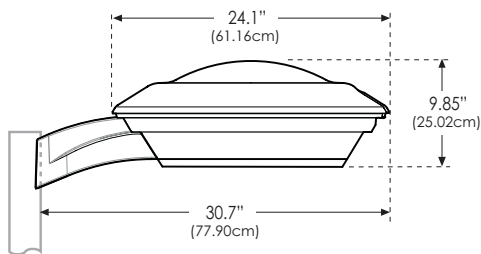
Optra-2 LED Area Luminaire - 49 LEDs

Type:		Job:					Approvals:	
Catalog Number:								
OP2L - 49 - - - -								
Series	# of LEDs	Distribution	Voltage	Mounting	Options (Factory Installed)	Finish	Accessories (Field Installed)	Date:
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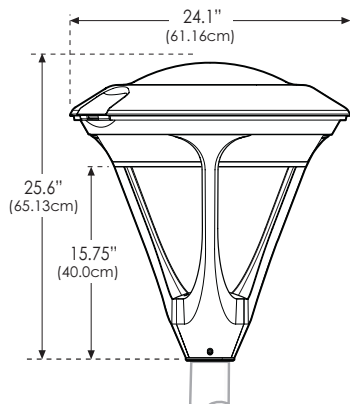


Overall Dimensions *For Reference Only*

Arm Mount SR3



Post Top Mount PTTR



Weight (maximum)

Arm Mount	Post Top Mount
51 lbs. (23.13 kgs)	54 lbs. (24.49 kgs)

Specifications

Rated Life

60,000 hours.

Housing / Construction

Die-cast aluminum housing with corrosion resistant hardware. The 49 LED Optra-2 is designed in a 24" optical housing. Optic chamber constructed to IP65. Die-cast aluminum heatsink allows for long life of LEDs up to a 40°C ambient.

LED and Board Array

49 Lumiled Rebel LEDs. LED only: 100 lumens per watt. System only: 60-63 lumens per watt @ 25°C. See technical data for details. Color temperature: Neutral White 4125K +/- 175K. Aluminum metal clad board. RoHS compliant.

Driver

High efficiency multi-volt driver (50 or 60hz), maintains constant current flow to LEDs to accommodate LED variations. High power factor (>90% standard). Constant current: 525mA. Voltage: 120-277. Temperature range: -30°C (-22°F) to 40°C (106°F). Open / short circuit protection. Off-state power consumption is 0.0 watts. RoHS compliant.

LED Optical System: Type II, III, IV or V distribution

Type V standard open optic meets IES Full Cutoff criteria. Standard open units with Type II, III, or IV optics are Semi-Cutoff, but may be specified with flat glass lens option to meet Full Cutoff criteria.

The optical head is equipped with an electrical disconnect and is fully gasketed to ensure Dust-Tite construction for higher maintained light levels.

Mounting

Field installed surface arm mount shall be of die-cast aluminum for mounting to 3" to 5" O.D. round or square pole. Post top version mounts to a 2-3/8" O.D. x 4" vertical tenon.

Finish

Standard finish shall be Textured Satin Aluminum UltraClad polyester powder coating, 2.5 mil nominal thickness, electrostatically applied and oven cured to ensure extreme durability. Other colors may be specified.

Cradle to Cradle Recycling

To minimize environmental impact at end of product life cycle, the C2C product recycling assistance program is available.

Listings

ETL Listed luminaire, UL 1598, suitable for Wet Locations. The quality systems of this facility have been registered by UL to the ISO 9001 Series Standards. Optra 2 LED is a DesignLights Consortium qualified product.

Warranty / Terms and Conditions

Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See Warranty Information on www.sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty.



PHILIPS



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Technical Data (Based on 525mA standard driver)

Rated Life: 60,000 hrs.

Color Temp: 4125K +/- 175K CCT)

standard open optics

	OP2L-49-2L	OP2L-49-3L	OP2L-49-4L	OP2L-49-5L
Total System Watts	90W	90W	90W	90W
Initial Lumens @ 25°C Ambient	5679 @ 525mA	5657 @ 525mA	5684 @ 525mA	5570 @ 525mA
Lumens per Watt @ 25°C Ambient	63	63	63	62
Initial Lumens @ 40°C Ambient	5372 @ 525mA	5352 @ 525mA	5377 @ 525mA	5269 @ 525mA
Lumens per Watt @ 40°C Ambient	60	60	60	58

with optional clear lens

	90W	90W	90W	90W
Total System Watts	90W	90W	90W	90W
Initial Lumens @ 25°C Ambient	4736 @ 525mA	4730 @ 525mA	4404 @ 525mA	4686 @ 525mA
Lumens per Watt @ 25°C Ambient	53	53	49	52
Initial Lumens @ 40°C Ambient	4480 @ 525mA	4475 @ 525mA	4166 @ 525mA	4433 @ 525mA
Lumens per Watt @ 40°C Ambient	50	50	46	49

with optional diffuse lens

	90W	90W	90W	90W
Total System Watts	90W	90W	90W	90W
Initial Lumens @ 25°C Ambient	3694 @ 525mA	3707 @ 525mA	3736 @ 525mA	3663 @ 525mA
Lumens per Watt @ 25°C Ambient	41	41	41	41
Initial Lumens @ 40°C Ambient	3495 @ 525mA	3507 @ 525mA	3534 @ 525mA	3465 @ 525mA
Lumens per Watt @ 40°C Ambient	39	39	39	38

Note: Due to LED forward voltage variations and driver efficiency, total system watts could vary +/-8%.

Series	# of LEDs	Distribution ¹	Voltage	Mounting	Options	Finish
<input checked="" type="checkbox"/> OP2L	<input checked="" type="checkbox"/> 49	<input type="checkbox"/> 2L Type-II LED <input type="checkbox"/> 3L Type-III LED <input type="checkbox"/> 4L Type-IV LED <input type="checkbox"/> 5L Type-V LED	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347	<input type="checkbox"/> SR4 ² Arm Mount to 4" - 5" OD Round Pole <input type="checkbox"/> SR3 ² Arm Mount to 3" - 3.9" OD Round Pole <input type="checkbox"/> SS ² Arm Mount to 3" - 5" Square Pole <input type="checkbox"/> PTTR ³ Post Top Mount to 4" OD Round Pole <input type="checkbox"/> PTTR-3 ³ Post Top Mount to 3" OD Round Pole	<input type="checkbox"/> F1 Single Fuse (120/277V) <input type="checkbox"/> F2 Double Fuse (208/240V) <input type="checkbox"/> PCB Photocontrol Button <input type="checkbox"/> CL Clear Lens (flat glass) <input type="checkbox"/> DL Diffused Lens (flat glass)	<input type="checkbox"/> TSA Textured Satin Aluminum <input type="checkbox"/> TBK Textured Black <input type="checkbox"/> TDB Textured Dark Bronze <input type="checkbox"/> TWHT Textured White <input type="checkbox"/> TGR Textured Gray <input type="checkbox"/> TGN Textured Green <input type="checkbox"/> RAL(*) Specify Custom RAL color number

1) Standard unit features open optics and are classified as semi-cutoff. Full cutoff available with flat lens option (clear or diffuse glass).

2) Refer to Optra 2 Arm Mount Drill Template #14.

3) Requires 2-3/8" O.D. x 4" vertical tenon (by others).

Accessories (Ordered Separately)

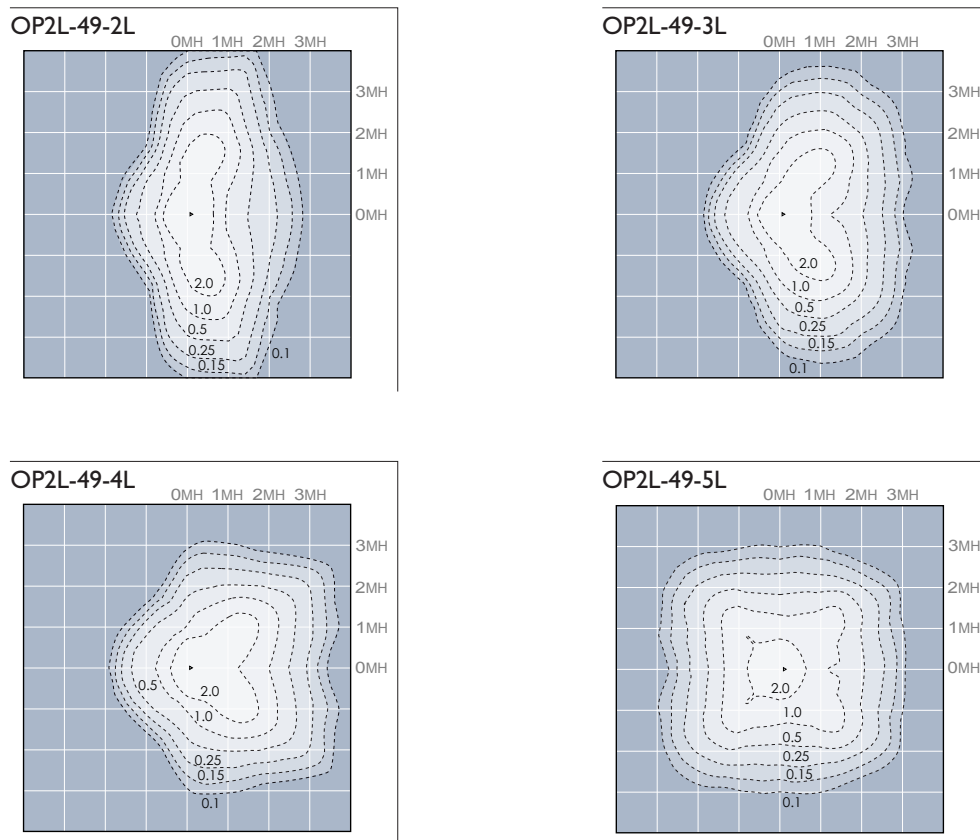
<input type="checkbox"/> RPTA-190-DT14	Round Pole Tenon Adapter - 1 @ 90	<input type="checkbox"/> SPTA-190-DT14	Square Pole Tenon Adapter - 1 @ 90
<input type="checkbox"/> RPTA-290-DT14	Round Pole Tenon Adapter - 2 @ 90	<input type="checkbox"/> SPTA-290-DT14	Square Pole Tenon Adapter - 2 @ 90
<input type="checkbox"/> RPTA-2180-DT14	Round Pole Tenon Adapter - 2 @ 180	<input type="checkbox"/> SPTA-2180-DT14	Square Pole Tenon Adapter - 2 @ 180
<input type="checkbox"/> RPTA-390-DT14	Round Pole Tenon Adapter - 3 @ 90	<input type="checkbox"/> SPTA-390-DT14	Square Pole Tenon Adapter - 3 @ 90
<input type="checkbox"/> RPTA-3120-DT14	Round Pole Tenon Adapter - 3 @ 120	<input type="checkbox"/> SPTA-490-DT14	Square Pole Tenon Adapter - 4 @ 90
<input type="checkbox"/> RPTA-490-DT14	Round Pole Tenon Adapter - 4 @ 90	<input type="checkbox"/> SW-OP2L	Wall Mount Junction Box
<input type="checkbox"/> F1-KIT	Single Fuse Kit (120/277V)	<input type="checkbox"/> SK-OP2L	External House Side Shield
<input type="checkbox"/> F2-KIT	Double Fuse Kit (208/240V)		

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Optra-2 LED Area Luminaire - 49 LEDs

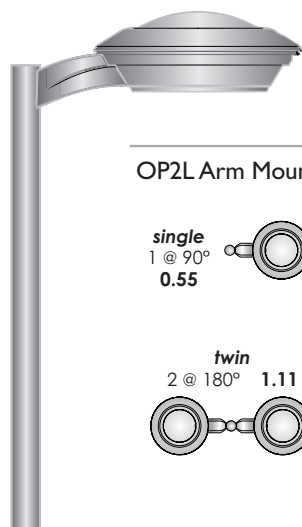
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Distribution Patterns Photometric data calculated at 15' Mounting Height.



EPA Effective Projected Area in Ft²

Sturdy yet lightweight all aluminum construction and computer designed profile ensure low EPAs: only 0.55 sq. ft. for the single arm mount unit.



OP2L Arm Mount EPA Data

single
1 @ 90°
0.55

twin
2 @ 180°
1.11

3 @ 120°
1.34

2 @ 120°
1.11

2 @ 90°
1.11

3 @ 90°
1.45

4 @ 90°
1.47



OP2L Post Top

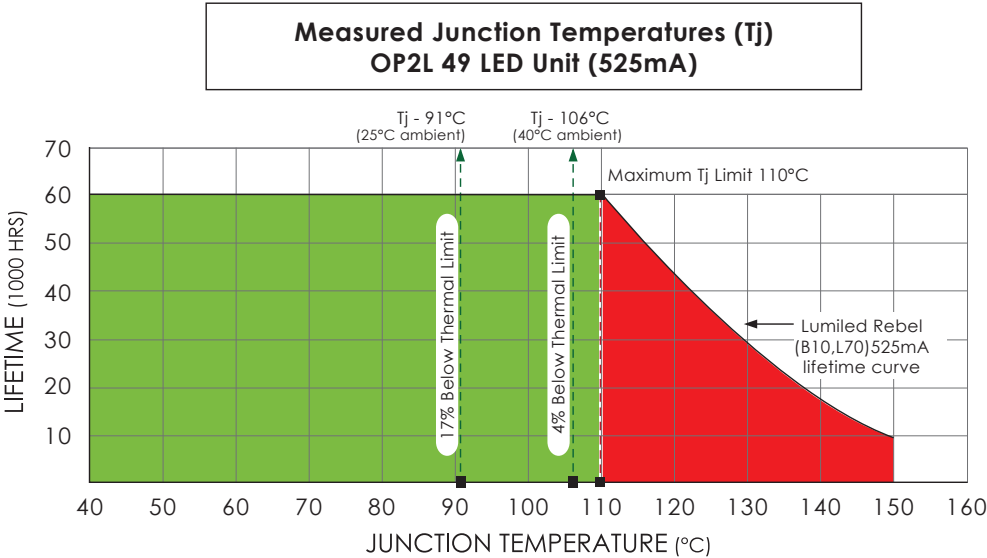
EPA Data
0.80

Post Top Mount requires 2-3/8" O.D. x 4" vertical tenon.

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Green shaded portion represents junction temperatures below LED manufacturer's recommended limit to ensure a minimum of 60,000 hours of rated life.

Potential Life Expectancy Table Above the 60,000 Rated LED Life at Multiple Ambient Temperatures OP2L-49-3L Unit (525mA)

Note: LED rated life per the B10,L70 curve is 60,000 hrs. The table below showing potential LED life expectancy is based on Optra-2 LED thermal management, actual junction temperature (Tj) and projected B10,L70 curves.

OP2L-49-3L (525mA)

AVERAGE OUTDOOR AMBIENT TEMP	FIXTURE JUNCTION TEMP (Tj)	POTENTIAL LED LIFE EXPECTANCY B10, L70 (hrs)	FIXTURE EFFICACY (lumens / watt)	POTENTIAL LED LIFE EXPECTANCY @ 10 HRS/ DAY (yrs)
-30°C / -22°F	36°C	131,700	67	36.1
-20°C / -4°F	46°C	120,000	65	32.9
-10°C / 14°F	56°C	108,300	65	29.7
0°C / 32°F	66°C	96,700	64	26.5
10°C / 50°F	76°C	85,000	64	23.3
25°C / 77°F	91°C	67,700	63	18.6
30°C / 86°F	96°C	63,500	62	17.4
40°C / 104°F	106°C	60,000	61	16.4

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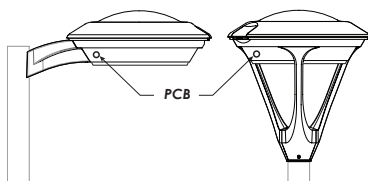
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Option details (Factory Installed)

- F1** Single Fuse (120/277V)
F2 Double Fuse (208/240V)
Consists of 1 or 2 fuses mounted internally.
(Voltage must be specified.)

- PCB** Photocell Button
Factory installed photocell button.
(Voltage must be specified.)



- CL** Clear Lens
Fixture meets IES Full Cutoff level with flat glass lens.

- DL** Diffuse Lens
Fixture meets IES Full Cutoff level with flat glass lens.

Accessory details (Shipped Separately)

- F1-KIT** Single Fuse Kit (120/277V)
F2-Kit Double Fuse Kit (208/240V)
Kit consists of 1 or 2 fuses for field installation.
(Voltage must be specified.)

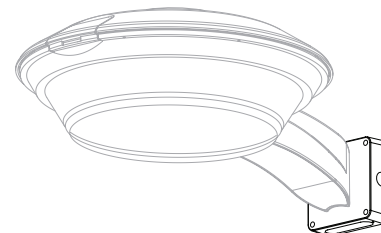
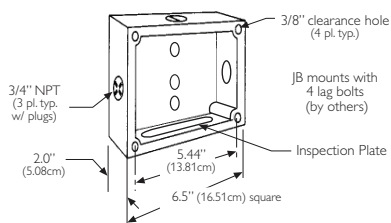
- RPTA** Round Pole Tenon Adapter allows mounting of OP2L SR4 arm mount unit to round pole with 2-3/8" O.D. x 4" tall pole top tenon.
(Configuration must be specified.)



- SPTA** Square Pole Tenon Adapter allows mounting of OP2L SS arm mount unit to square pole with 2-3/8" O.D. x 4" tall pole top tenon.
(Configuration must be specified.)



- SW-OP2L** Wall Mount Junction Box
Thru-Wire junction box allows wall mounting using standard surface arm (SS).



- SK-OP2L** External House Side Shield
Additional EPA per shield: **0.49**

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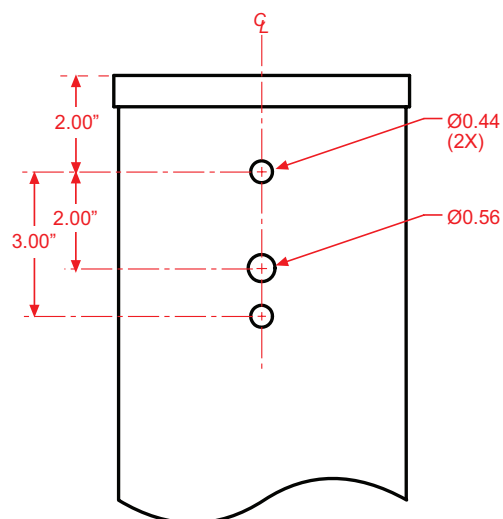
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Type:

Job:

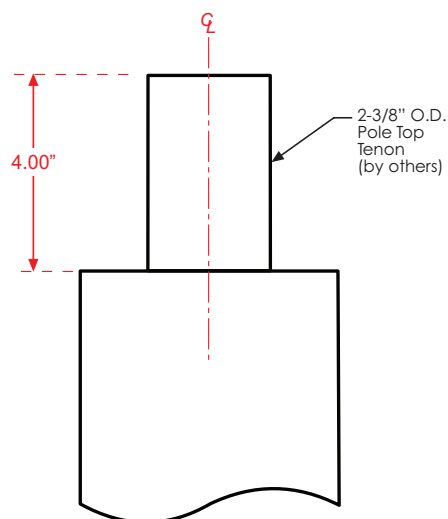
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Arm Mount Drill Template (NTS)



SR4 . . . Arm mount to 4" - 5" Round Pole
SR3 . . . Arm mount to 3" - 3.9" Round Pole
SS . . . Arm mount to 3" - 5" Square Pole
DRILL TEMPLATE NO. 14

Post Top Detail (NTS)



PTTR . . . 4" Round Pole with Post Top Tenon
PTTR-3 . . 3" Round Pole with Post Top Tenon
standard post top mount configurations

Notes



ISO 9001
Certified

DESIGNLIGHTS
CONSORTIUM



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G200-102/0814

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