OAL4

LED Area Light

Project

Catalog

Type

Date

Product Description

Introducing NICOR's newest area light, the OAL4. This versatile lighting solution offers selectable wattage, color temperature (CCT), and beam distribution, ensuring maximum flexibility for various applications. Offering 150/120/100W and 300/240/200W models with 3/4/5K CCT and Type III/IV/V standard customized lighting is as easy as the flick of a switch. Includes an adjustable, multi-function mounting arm (pole+slipfitter) for simpler, quicker installation. Illuminate your space with the power of choice. Whether for parking lots, campuses, pathways, or any large open area, the OAL4 delivers tailored lighting solutions with unparalleled flexibility, efficiency, and reliability.

Construction
- Heavy duty die-cast construction with single piece housing
- Low profile design (<2.5") provides low wind resistance
- UV stabilized powder coat finish
- Stainless steel hardware and electrical SJ cord connection
- Latched and hinged driver compartment with silicone gasketing

Optical System
- Impact resistant polycarbonate lens
- Selectable distribution of Type III/IV/V via switch on fixture
- Optional Selectable distribution optic of Type II/III/IV
- Selectable CCT of 3000/4000/5000K
- Standard 80 CRI to improve safety and color definition in public places
- See BUG Rating on the Performance Data Table

Electrical
- Wattage selectable 150/120/100W and 300/240/200W
- Input voltage of 120-277VAC or 277-480VAC
- Surge protection 10kA on 120-277VAC and 20kA on 277-480VAC provides single phase protection for line/neutral, line/ground and neutral/ground in accordance with IEEE C62.41 2002 C High category
- Operating temperature rating of -40° to 122°F (-40°C to 50°C)

Controls
- 3-pin receptacle with shunt standard
- Optional 7 pin receptacle and shunt available
- Optional Microwave motion sensor accessories available
- 12V sensor socket preinstalled
- Standard full-range dimming with 0-10VDC dimmers

Mounting and installation
- Adjustable, multi-function mounting arm (pole+slipfitter) ships with fixture standard
- Fixture mounts to arms via unique dove tail system for easy installation
- Mounting arms available for a variety of installations.
  - Adjustable Pole Mount Arm provides -30°/+30° of adjustability and mounts to round or square poles
  - Slipfitter Mount Adaptor installs directly to a nominal 2.5" tenon
  - Straight Mount Arm mounts to a round or square pole
  - Trunnion Mounting Arm easily mounts to a variety of surfaces
  - Wall Mount Box allows for wall mounting in tandem with the Straight Arm or Pole Mount Arm
- All mounting arms are die-cast aluminum and available in Bronze or White

Listings
- cULus1598 Listed for Wet locations
- DLC 5.1 Premium Listed
- IP65 Rated
- Vibration rated to 3G per ANSI/IEEE C136.31-2010
- RoHS Compliant
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- TM-21 Reported L70(9k) life >50,000 hours
- LM-79, LM-80 testing performed in accordance with IESNA standards

Warranty
- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)

OAL4

LED Area Light

Selectable Wattage & CCT

Selectable Distribution

CERTIFIED · DLC LISTED PREMIUM · IP65 · WET LOCATION RATED · 5 YEAR WARRANTY

Ordering

Ordering Information

Example: OAL4150SUS8BZAS

Series	Version	Wattage	Voltage	CCTs	CRI	Finish	Optic	Photocell Socket	Motion Sensor Socket
OAL	**4**	☐ **150S**	☐ **U** (120-277 VAC)	**S** (3/4/5K)	**8** (80+)	☐ **BZ** (Bronze)	☐ **A** (Type III/IV/V)	☐ _ (3 Pin Receptacle & Shunt)	**S** *(12V 3-pin Socket)*
		☐ **300S**	☐ **H** (277-480 VAC)			☐ **WH** (White)[1]	☐ **B** (Type II/III/IV)	☐ **7** (7 Pin Receptacle & Shunt) [2]	
						☐ **BK** (Black)[2]			
						☐ **GA** (Gray Aluminum)[2]			
						☐ **GR** (Gray)[2]			
						☐ **CC** (Custom)[2]			

Specifications and dimensions subject to change without notice.
1) White available on U (120-277V) models only
2) Contact factory for MOQ and lead time.

Mounting Accessories

accessories sold separately

OAL3 mounting accessories are compatible with the OAL4 Fixture

Bronze Adjustable Pole Mounting Arm	☐ **OAL3JPOLEJARMBZ**
White Adjustable Pole Mounting Arm	☐ **OAL3JPOLEJARMWH**
Bronze 2" Diameter Slipfitter Adapter	☐ **OAL3SLIPFITARMBZ**
White 2" Diameter Slipfitter Adapter	☐ **OAL3SLIPFITARMWH**
Bronze 6" Straight Mounting Arm	☐ **OAL3STRAIGHTARMBZ**
White 6" Straight Mounting Arm	☐ **OAL3STRAIGHTARMWH**
Bronze 4" Trunnion Mounting Arm	☐ **OAL3TRUNIONBZ**
White 4" Trunnion Mounting Arm	☐ **OAL3TRUNIONWH**
Bronze Wall Mount Box[1]	☐ **OAL3WALLBOXBZ**
White Wall Mount Box[1]	☐ **OAL3WALLBOXWH**

Accessories are subject to change without notice.
1) The Wall Box accessory requires one of the following mounting arms:
OAL3STRAIGHTARMXX or OAL3JPOLEJARMXX

Shield Accessories

Front/Back Shield : **150W** Bronze Finish	☐ **OAL4150FRNTBKSHLDBZ**
Front/Back Shield : **150W** White Finish	☐ **OAL4150FRNTBKSHLDWH**
Side Shield :**150W** Bronze Finish	☐ **OAL4150SIDESHLDBZ**
Side Shield :**150W** White Finish	☐ **OAL4150SIDESHLDWH**
Front/Back Shield : **300W** Bronze Finish	☐ **OAL4300FRNTBKSHLDBZ**
Front/Back Shield : **300W** White Finish	☐ **OAL4300FRNTBKSHLDWH**
Side Shield :**300W** Bronze Finish	☐ **OAL4300SIDESHLDBZ**
Side Shield :**300W** White Finish	☐ **OAL4300SIDESHLDWH**

Daylight Sensor Accessories

Standard Voltage 3-Pin photocell (120-277 VAC)	☐ **OAL-PHOTOCELL**

Motion Sensor Accessories

Bronze Microwave Motion Sensor	☐ **H12V3SENSORMW3PBG**
White Microwave Motion Sensor	☐ **H12V3SENSORMW3PWH**
Remote Control for Sensors (works with V3 models)	☐ **H12V2REMOTE**

See individual Motion Sensor Spec Sheets for more information
Accessories are subject to change without notice.

Performance Data

Performance Data			Type III Optic			
Model	Watts Setting	CCT	Lumens	Watts	Efficiency	BUG Rating
OAL4150S	100	3000	14236	98.9	144.0	B3-U0-G3
		4000	15472	96.3	160.6	
		5000	14798	98.5	150.3	
	120	3000	17069	118.6	143.9	
		4000	17991	115.6	155.6	
		5000	17744	118.2	150.2	
	150	3000	21634	148.3	145.9	
		4000	22826	144.5	158.0	
		5000	22489	147.7	152.3	
OAL4300S	200	3000	28392	197.0	144.1	B4-U0-G4
		4000	30015	190.9	157.3	
		5000	29609	197.1	150.2	
	240	3000	34206	236.4	144.7	
		4000	36144	229.0	157.8	
		5000	35693	236.5	150.9	
	300	3000	43219	295.5	146.3	
		4000	45653	286.3	159.5	
		5000	45067	295.6	152.5	

Performance Data			Type IV Optic				Type V Optic			
Model	Watts Setting	CCT	Lumens	Watts	Efficiency	BUG Rating	Lumens	Watts	Efficiency	BUG Rating
OAL4150S	100	3000	14459	95.0	152.2	B3-U0-G3	14456	98.1	147.4	B4-U0-G4
		4000	15150	92.5	163.8		15256	97.5	156.4	
		5000	15150	95.3	159.0		15027	100.1	150.1	
	120	3000	17314	114.0	151.9		17334	117.7	147.3	
		4000	18166	111.0	163.7		18270	117.0	156.1	
		5000	18373	114.3	160.7		18019	120.2	150.0	
	150	3000	21965	142.5	154.1		21970	147.1	149.4	
		4000	23024	138.7	166.0		23181	146.3	158.4	
		5000	23024	142.9	161.1		22838	150.2	152.1	
OAL4300S	200	3000	28691	190.4	150.7	B5-U0-G5	28733	197.2	145.7	B5-U0-G5
		4000	29635	184.6	160.5		29586	191.2	154.7	
		5000	29545	190.7	154.9		29497	197.1	149.7	
	240	3000	34582	228.5	151.4		34570	236.6	146.1	
		4000	35661	221.5	161.0		35603	229.4	155.2	
		5000	35616	228.9	155.6		35558	236.5	150.4	
	300	3000	43666	285.6	152.9		43684	295.8	147.7	
		4000	45060	276.9	162.7		44986	286.8	156.9	
		5000	44970	286.1	157.2		44896	295.6	151.9	

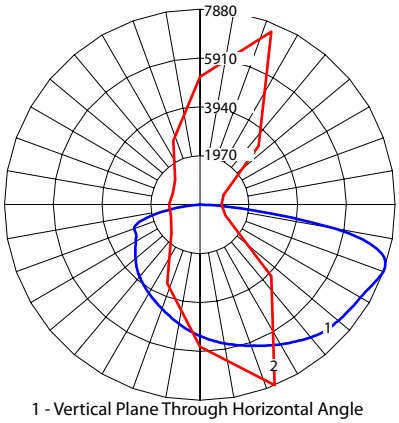
Photometric Data

OAL4 150W Type III 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	148
120V Current (A)	1.23
277V Current (A)	0.53
Delivered Lumens (Lm)	22489
System Efficacy (Lm/W)	152.3
Correlated Color Temp (K)	4866
Color Rendering Index (CRI)	83
Horizontal Beam Angle	152.6
Vertical Beam Angle	84.1
Spacing Criteria (0-180)	1.94
Spacing Criteria (90-270)	1.48
BUG Rating	B3-U0-G3

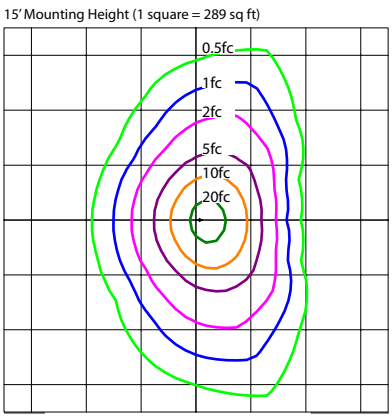
Intensity Summary (Candle Power)

Angle	Mean CP
0	5295
5	5726
15	6500
25	6974
35	7130
45	6997
55	5462
65	2006
75	677
85	190
90	0



1 - Vertical Plane Through Horizontal Angle
2 - Horizontal Cone Through Vertical Angle

15' Mounting Height (1 square = 289 sq ft)



Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	4433	19.7%
0-40	7698	34.2%
0-60	15668	69.7%
0-90	22489	100%
90-180	0	0%
0-180	22489	100%

Data Multiplier

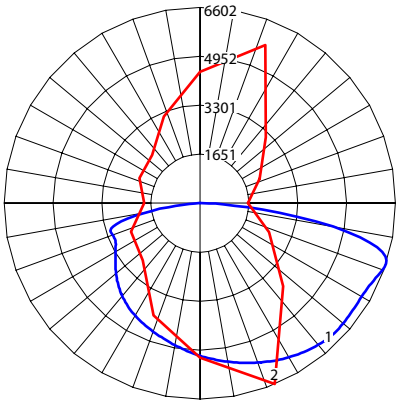
	3000K	4000K	5000K
100W	0.633	0.668	0.658
120W	0.759	0.800	0.789
150W	0.962	1.015	1.000

OAL4 150W Type IV 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	143
120V Current (A)	1.19
277V Current (A)	0.52
Delivered Lumens (Lm)	23024
System Efficacy (Lm/W)	161.1
Correlated Color Temp (K)	4867
Color Rendering Index (CRI)	83
Horizontal Beam Angle	149.7
Vertical Beam Angle	85.9
Spacing Criteria (0-180)	1.78
Spacing Criteria (90-270)	1.44
BUG Rating	B3-U0-G3

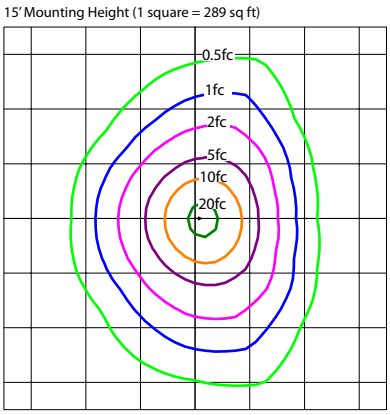
Intensity Summary (Candle Power)

Angle	Mean CP
0	5138
5	5368
15	5752
25	5951
35	5994
45	5853
55	4736
65	2962
75	1674
85	427
90	0



1 - Vertical Plane Through Horizontal Angle
2 - Horizontal Cone Through Vertical Angle

15' Mounting Height (1 square = 289 sq ft)



Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	4297	18.7%
0-40	7443	32.3%
0-60	15150	65.8%
0-90	23024	100%
90-180	0	0%
0-180	23024	100%

Data Multiplier

	3000K	4000K	5000K
100W	0.628	0.658	0.658
120W	0.752	0.789	0.789
150W	0.954	1.000	1.000

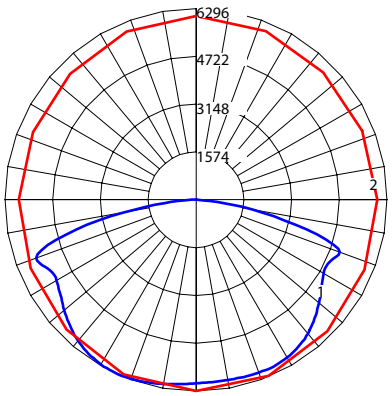
Photometric Data

OAL4 150W Type V 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	150
120V Current (A)	1.25
277V Current (A)	0.54
Delivered Lumens (Lm)	22837
System Efficacy (Lm/W)	152.0
Correlated Color Temp (K)	4869
Color Rendering Index (CRI)	83
Horizontal Beam Angle	155.5
Vertical Beam Angle	156.3
Spacing Criteria (0-180)	1.52
Spacing Criteria (90-270)	1.50
BUG Rating	B4-U0-G4

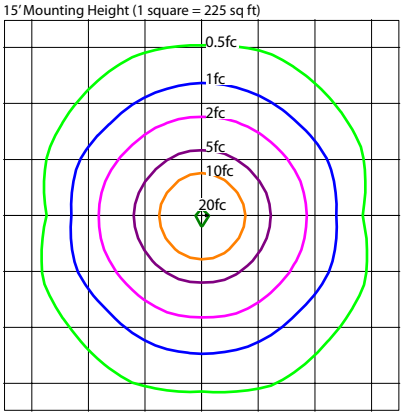
Intensity Summary (Candle Power)

Angle	Mean CP
0	4707
5	4699
15	4672
25	4613
35	4553
45	4482
55	4341
65	4203
75	3139
85	876
90	0



1 - Vertical Plane Through Horizontal Angle
2 - Horizontal Cone Through Vertical Angle

15' Mounting Height (1 square = 225 sq ft)



Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3952	17.3%
0-40	6841	30%
0-60	14070	61.6%
0-90	22838	100%
90-180	0	0%
0-180	22838	100%

Data Multiplier

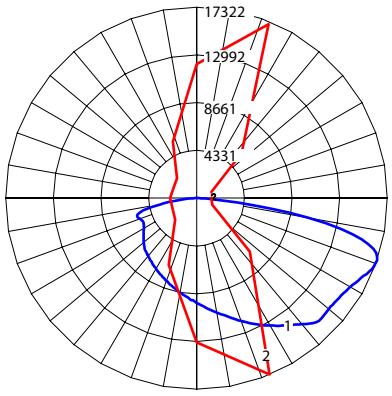
	3000K	4000K	5000K
100W	0.633	0.668	0.658
120W	0.759	0.800	0.789
150W	0.962	1.015	1.000

OAL4 300W Type III 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	296
120V Current (A)	2.47
277V Current (A)	1.07
Delivered Lumens (Lm)	45067
System Efficacy (Lm/W)	152.5
Correlated Color Temp (K)	4871
Color Rendering Index (CRI)	83
Horizontal Beam Angle	152.6
Vertical Beam Angle	89.5
Spacing Criteria (0-180)	2.08
Spacing Criteria (90-270)	1.64
BUG Rating	B4-U0-G4

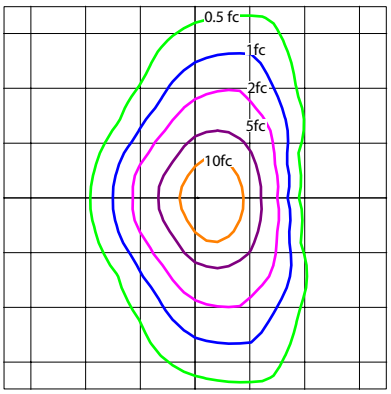
Intensity Summary (Candle Power)

Angle	Mean CP
0	9498
5	10662
15	12985
25	14462
35	14984
45	14655
55	10351
65	2851
75	980
85	251
90	0



1 - Vertical Plane Through Horizontal Angle
2 - Horizontal Cone Through Vertical Angle

25' Mounting Height (1 square = 625 sq ft)



Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	8494	18.8%
0-40	15067	33.4%
0-60	31316	69.5%
0-90	45067	100%
90-180	0	0%
0-180	45067	100%

Data Multiplier

	3000K	4000K	5000K
200W	0.630	0.666	0.657
240W	0.759	0.802	0.792
300W	0.959	1.013	1.000

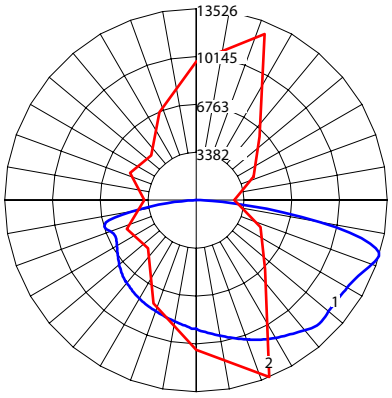
Photometric Data

OAL4 300W Type IV 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	286
120V Current (A)	2.38
277V Current (A)	1.03
Delivered Lumens (Lm)	44970
System Efficacy (Lm/W)	157.2
Correlated Color Temp (K)	4873
Color Rendering Index (CRI)	83
Horizontal Beam Angle	149.9
Vertical Beam Angle	129.8
Spacing Criteria (0-180)	1.90
Spacing Criteria (90-270)	1.58
BUG Rating	B5-U0-G5

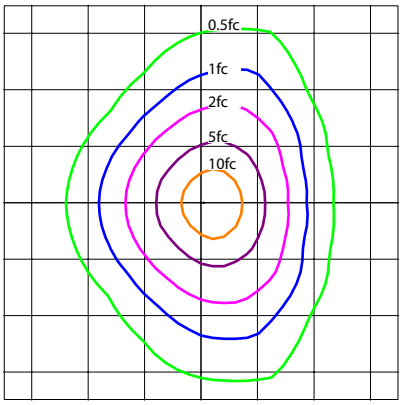
Intensity Summary (Candle Power)

Angle	Mean CP
0	9092
5	9744
15	10962
25	11687
35	11922
45	11655
55	9437
65	5823
75	3518
85	693
90	0



1 - Vertical Plane Through Horizontal Angle
2 - Horizontal Cone Through Vertical Angle

25' Mounting Height (1 square = 625 sq ft)



Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	7936	17.6%
0-40	13937	31%
0-60	28919	64.3%
0-90	44970	100%
90-180	0	0%
0-180	44970	100%

Data Multiplier

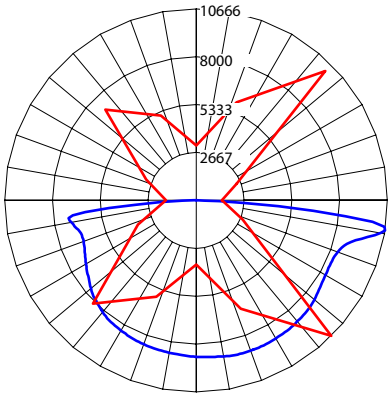
	3000K	4000K	5000K
200W	0.638	0.659	0.657
240W	0.769	0.793	0.792
300W	0.971	1.002	1.000

OAL 300W Type V 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	296
120V Current (A)	2.47
277V Current (A)	1.07
Delivered Lumens (Lm)	44896
System Efficacy (Lm/W)	295.4
Correlated Color Temp (K)	4875
Color Rendering Index (CRI)	83
Horizontal Beam Angle	126.0
Vertical Beam Angle	164.1
Spacing Criteria (0-180)	1.56
Spacing Criteria (90-270)	1.52
BUG Rating	B5-U0-G5

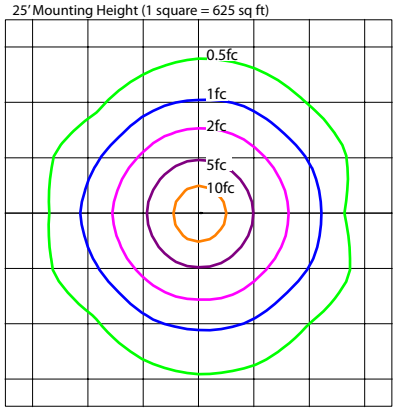
Intensity Summary (Candle Power)

Angle	Mean CP
0	8715
5	8761
15	8826
25	8801
35	8756
45	8551
55	8404
65	8820
75	6074
85	1174
90	0



1 - Vertical Plane Through Horizontal Angle
2 - Horizontal Cone Through Vertical Angle

25' Mounting Height (1 square = 625 sq ft)



Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	7355	16.4%
0-40	12770	28.4%
0-60	26470	59%
0-90	44896	100%
90-180	0	0%
0-180	44896	100%

Data Multiplier

	3000K	4000K	5000K
200W	0.640	0.659	0.657
240W	0.770	0.793	0.792
300W	0.973	1.002	1.000

Controls

Sensor Options

[_] - 3-pin Receptacle & Shunt
Standard configuration ships with a 3-pin photocell receptacle with shorting cap installed.

7 - 7-pin Photocell Receptacle & Shunt
Optional configuration ships with a 7-pin photocell receptacle with shorting cap installed allowing the use of advanced control systems that require NEMA 7-pin receptacles.

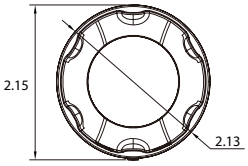
Recommended 0-10VDC Dimmers*
Lutron NTSTV
Lutron DVSTV
Cooper SF10P
Legrand RH4FBL3PW

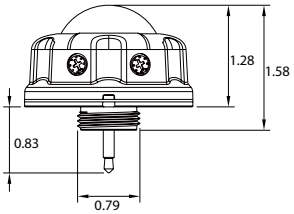
**Not a complete list. Check compatibility before installation.*

H12V3 PIR Motion Sensor

See the individual spec sheet for further information

- Field installed 12VDC sensor
- Infrared motion detector with built in daylight sensor
- Remote control programmable
- Highly configurable:
  - Detection area
  - Hold time
  - Dimming level
  - Stand-by period
  - Stand-by dimming
  - Daylight harvesting threshold
- Max mounting height: 40ft (12m)
- IP65 Rated

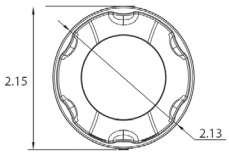


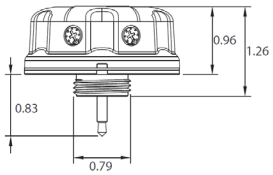


H12V3 Microwave Motion Sensor

See the individual spec sheet for further information

- Field installed 12VDC sensor
- Microwave motion detector with built in daylight sensor
- Remote control programmable
- Highly configurable:
  - Detection area
  - Hold time
  - Dimming level
  - Stand-by period
  - Stand-by dimming
  - Daylight harvesting threshold
- Max mounting height: 40ft (12m)
- IP65 Rated





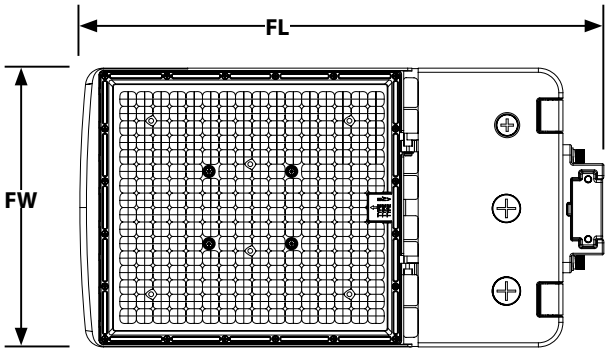
Remote Control for H12V3 Sensors

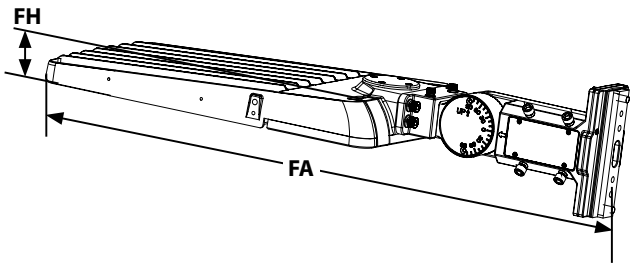
See the individual spec sheet for further information

- Allows programming of MW or PIR sensors
- Allows adjustment of:
  - Brightness
  - Hold time
  - Sensor Sensitivity
  - Daylight harvesting threshold
  - Stand-by dimming level
  - Stand-by time
  - Stand-by dimming

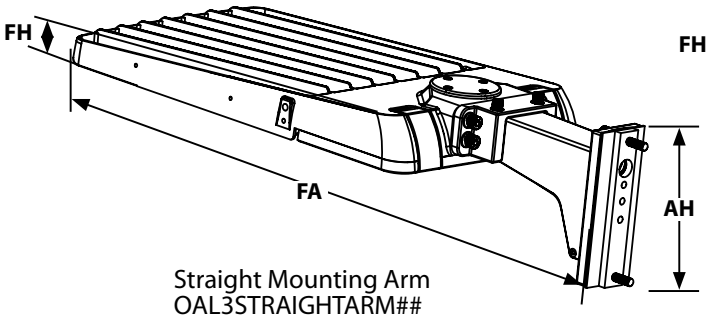
Dimensions

	150W	300W
Fixture Length (FL)	20.0 in (507 mm)	24 in (607 mm)
Fixture Height (FH)	2.25 in (57 mm)	2.25 in (57 mm)
Fixture Width (FW)	10.5 in (270 mm)	14.0 in (356 mm)
Fixture Length with Arm (FA)	29.1 in (740 mm)	33.1 in (841 mm)

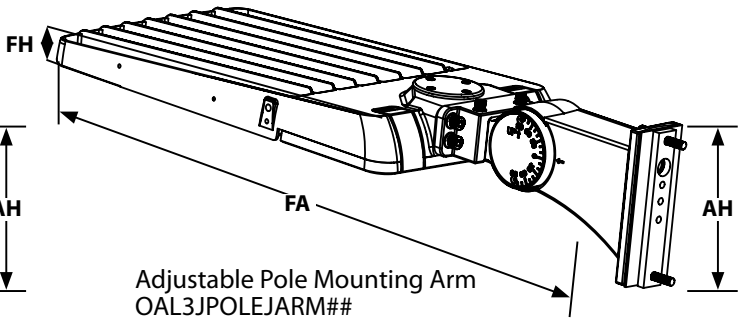




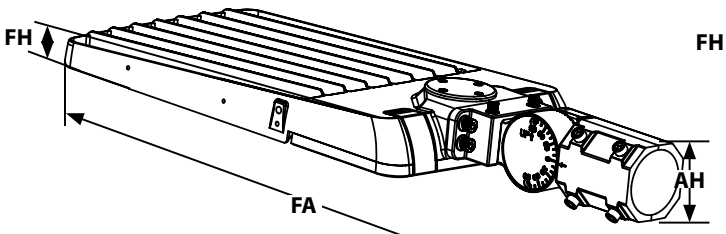
	Straight Arm	Adjustable Arm	Slipfitter	Trunnion
150W With Arm Length (AL)	25.4 in (645 mm)	28.0 in (711 mm)	27.0 in (686 mm)	26.1 in (664 mm)
300W With Arm Length (AL)	29.4 in (747 mm)	31.9 in (810 mm)	30.9 in (786 mm)	30.1 in (764 mm)
Arm Height (AH)	6.3 in (160 mm)	6.3 in (160 mm)	3.0 in (76 mm)	2.8 in (70 mm)



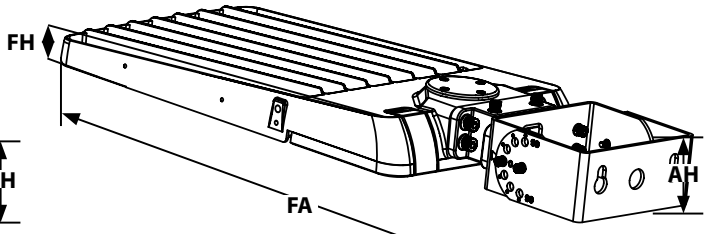
Straight Mounting Arm
OAL3STRAIGHTARM##



Adjustable Pole Mounting Arm
OAL3JPOLEJARM##



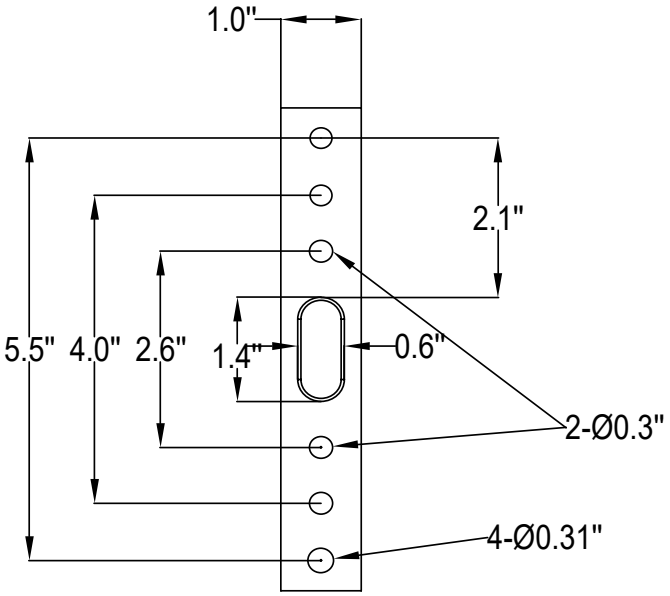
Slipfitter Adapter
OAL3SLIPFITARM##



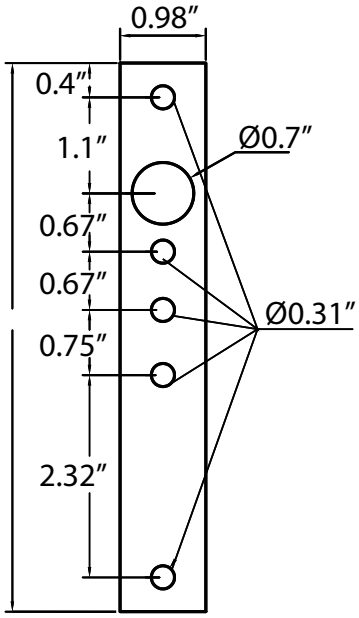
Trunnion Mounting Arm
OAL3TRUNNION##

Mounting Dimensions

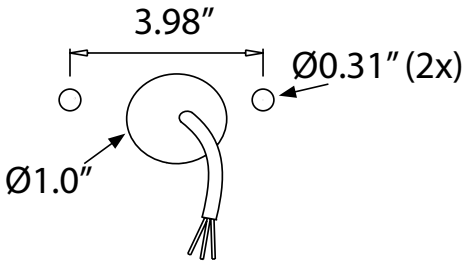
Drill Pattern
Multimount Arm



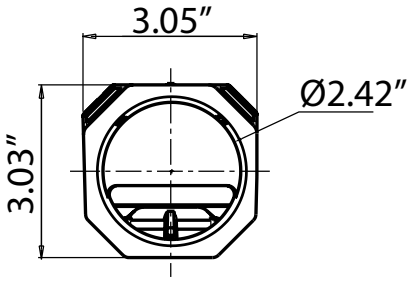
Drill Pattern
Straight Arm
Adjustable Arms



Drill Pattern
Yoke



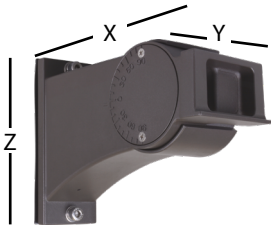
Tenon Mount Dimensions



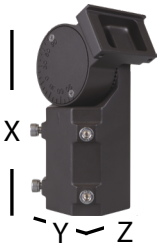
Mounting Accessories - *OAL3 mounting accessories are compatible with the OAL4 Fixture*

Dimensions (inch)	X	Y	Z	Note
OAL4 Multi-Mount Arm	7.6	2.4	6.5	Included Standard
OAL3JPOLEJARM	7.6	2.4	6.3	
OAL3SLIPFITARM	7.0	3.0	3.0	Fits 2.5" tennon
OAL3STRAIGHTARM	6.0	2.9	6.2	
OAL3TRUNNION[6]	4.6	2.8	6.1	
OAL3WALLBOX	6.9	2.5	5.7	

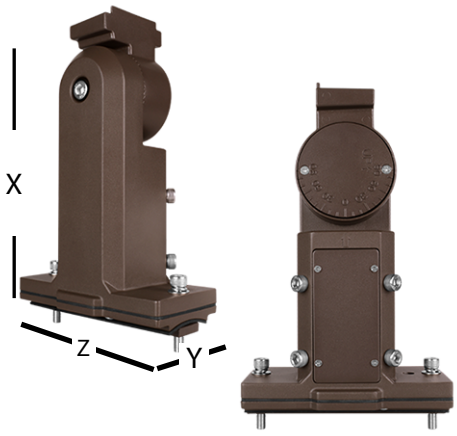
6) Dimensions are with Trunnion fully extended.



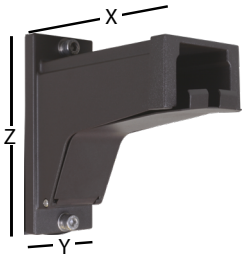
Adjustable Pole Mounting Arm
OAL3JPOLEJARM##



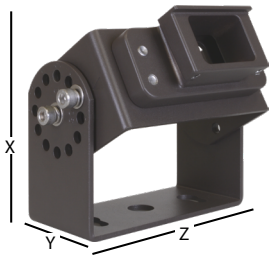
Slipfitter Adapter
OAL3SLIPFITARM##



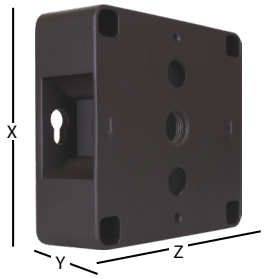
OAL4 Multi-mount Arm
Standard with every fixture.



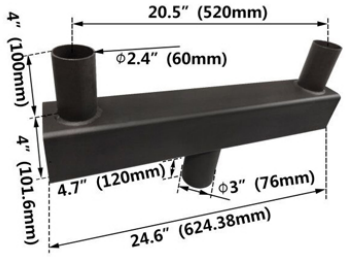
Straight Mounting Arm
for square or round pole
OAL3STRAIGHTARM##



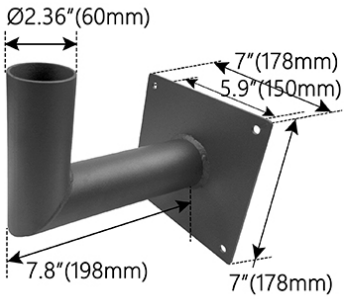
Trunnion Mounting Arm
OAL3TRUNNION##



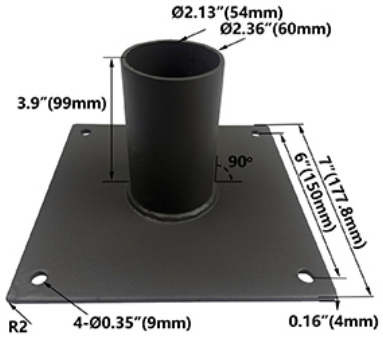
Trunnion Mounting Arm
OAL3WALLBOX##



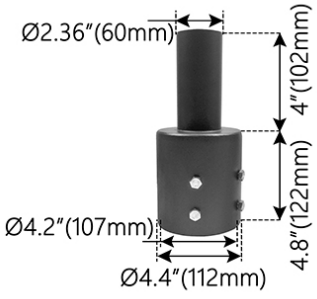
Low Profile Double Tenon
OPL41TN2



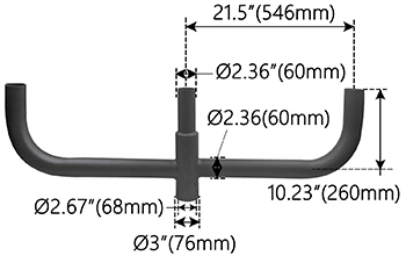
Wallmount 90° Bracket
OPL41WM2



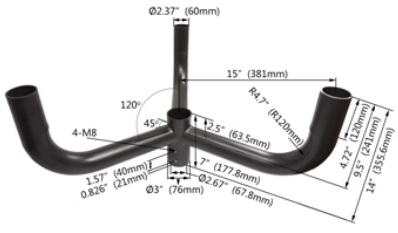
180° Wallmount Bracket
OPL41WM1



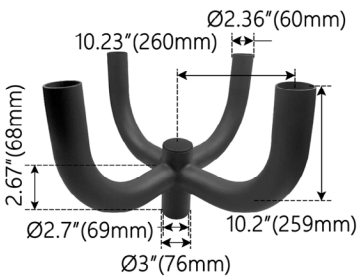
4" Round Tenon Adapter
OPL41TNA



180° Triple Bullhorn
OPL41BH3S



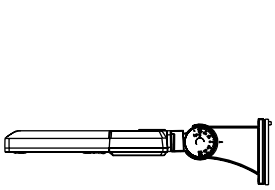
Triple 120° Bullhorn
OPL41BH3A



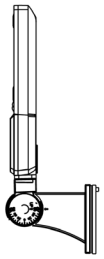
90° Quad Bullhorn
OPL41BH4A

EPA Data

Conditions: Horizontal winds only for calculations. Worst case total projected area used for calculations. All drag coefficients are set as worst case 1.2.



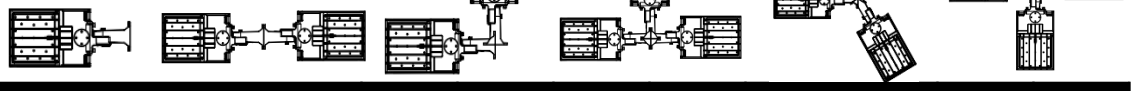
Mounting Angle 0°



Mounting Angle 90°

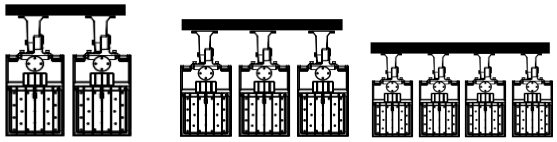
Weight (1 Luminaire)	
150W	14.33 lbs (6.50 kg)
300W	18.30 lbs (8.30 kg)

Wind Direction



Fixture	Angle	1 Luminaire		2 Luminaires 180°		2 Luminaires 90°		3 Luminaires 90°		3 Luminaires 120°		4 Luminaires 90°	
		ft²	m²	ft²	m²	ft²	m²	ft²	m²	ft²	m²	ft²	m²
150W	0	0.585	0.054	1.170	0.109	0.882	0.082	1.467	0.136	1.640	0.152	1.764	0.164
	30	0.958	0.089	1.917	0.178	1.543	0.143	2.875	0.267	3.182	0.296	3.087	0.287
	45	1.321	0.123	2.642	0.245	1.906	0.177	3.962	0.368	4.079	0.379	3.812	0.354
	60	1.599	0.149	3.198	0.297	2.184	0.203	4.797	0.446	4.586	0.426	4.368	0.406
	90	1.833	0.170	3.667	0.341	2.418	0.225	5.500	0.511	5.686	0.528	4.837	0.449
300W	0	0.660	0.061	1.320	0.123	1.023	0.095	1.683	0.156	1.880	0.175	2.045	0.190
	30	1.483	0.138	2.967	0.276	2.143	0.199	4.450	0.413	4.977	0.462	4.287	0.398
	45	2.063	0.192	4.126	0.383	2.426	0.225	6.190	0.575	6.372	0.592	4.851	0.451
	60	2.508	0.233	5.016	0.466	3.992	0.371	7.525	0.699	7.193	0.668	7.983	0.742
	90	2.883	0.268	5.767	0.536	4.947	0.460	8.650	0.804	8.943	0.831	9.893	0.919

Wind Direction



Fixture	Angle	Double Bullhorn		Triple Bullhorn		Quad Bullhorn	
		ft²	m²	ft²	m²	ft²	m²
150W	0	1.170	0.109	1.755	0.163	2.340	0.217
	30	1.917	0.178	2.875	0.267	3.833	0.356
	45	2.642	0.245	3.962	0.368	5.283	0.491
	60	3.198	0.297	4.797	0.446	6.396	0.594
	90	3.667	0.341	5.500	0.511	7.333	0.681
300W	0	1.320	0.123	1.980	0.184	2.640	0.245
	30	2.967	0.276	4.450	0.413	5.933	0.551
	45	4.126	0.383	6.190	0.575	8.253	0.767
	60	5.016	0.466	7.525	0.699	10.033	0.932
	90	5.767	0.536	8.650	0.804	11.533	1.071