

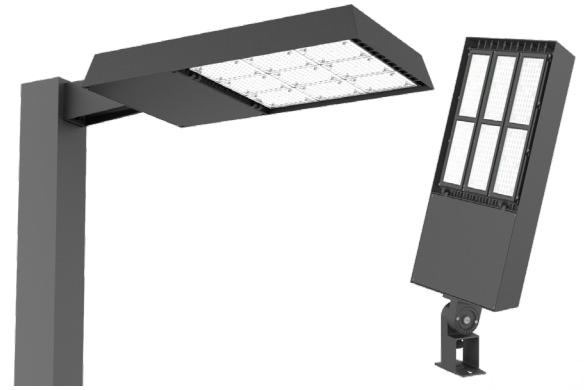
DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

RATIO 3 Series

AREA/SITE/FLOOD LIGHTER

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Area and flood optics available for maximum versatility
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 7-Pin with networked controls
- Best in class surge protection



RELATED PRODUCTS

- [Airo](#)
 [Ratio Area](#)
 [Ratio Family](#)

CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Rectilinear form mimics the traditional shoebox form factor keeping a similar but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 540 or 720 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero uplight at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Standard square arm mount, compatible with B3 drill pattern
- Knuckle arm fitter option available for 2-3/8" OD tenon. Max tilt of 60 degrees with 4 degree adjustable increments. (Restrictions apply for 7-pin options)

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD

ELECTRICAL (CONTINUED)

- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard.
- SiteSync™ wireless control system is available via 7-pin See ordering information and details at: www.hubbellighting.com/sitesync
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor via 7-pin

CERTIFICATIONS

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- Fixture is IP66 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See [Buy American Solutions](#)

WARRANTY

- 5 year limited warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	35,000–80,000
Wattage Range	230–575
Efficacy Range (LPW)	117–151
Fixture Projected Life (Hours)	L70>60K
Weights lbs. (kg)	35 (15.9)

RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

ORDERING GUIDE

Example: RAR3-720L-375-3K7-2-A4-UNV-PSS-SWP-BC

 CATALOG #

ORDERING INFORMATION

Series	# LEDs - Lumens	CCT/CRI	Distribution	Mounting
RAR3 Ratio Area Size 3	720L-375 55,000 Lumens	3K7 3000K, 70 CRI	2 IES TYPE II	ASQ Arm mount for square pole/flat surface
	720L-415 60,000 Lumens	4K7 4000K, 70 CRI	3 IES TYPE III	A3 Arm mount for 3" round pole
	720L-455 65,000 Lumens	5K7 5000K, 70 CRI	4W IES TYPE IV	A4 Arm mount for 4" round pole
	720L-495 70,000 Lumens	3K8 3000K, 80 CRI	5QW IES TYPE V	A5 Arm mount for 5" round pole
	720L-535 75,000 Lumens	4K8 4000K, 80 CRI		MAF Mast arm fitter for 2-3/8" OD
	720L-575 80,000 Lumens	5K8 5000K, 80 CRI		WB Wall bracket
RAR3 Ratio Flood Size 3 ⁷	540L-235 35,000 Lumens		N Narrow, 2x2	K Knuckle
	540L-280 40,000 Lumens		M Medium Flood, 4x4	Y Yoke
	540L-320 45,000 Lumens		W Wide Flood, 6x6	T Trunnion
	540L-365 50,000 Lumens			
	540L-405 55,000 Lumens			
	540L-450 60,000 Lumens			
	540L-490 65,000 Lumens			

Optic Rotation	Voltage	Color	Control Options Network	Options
Blank for no rotation	UNV 120-277V	BLT Black Matte Textured	SWP SiteSync pre-commissioned ³	BC Backlight control
L Optic rotation left	120 120V	BLS Black Gloss Smooth	SWPM_ SiteSync pre-commissioned w/ motion detection ^{3,6}	F Fusing (must specify voltage)
R Optic rotation right	208 208V	DBT Dark Bronze Matte Textured	NXWE NX Wireless Enabled (module + radio)	TB Terminal block
	240 240V	DBS Dark Brone Gloss Smooth	NXSPW_F NX Wireless, PIR Occ. Sensor, Daylight Harvesting ^{2,3,5}	
	277 277V	GTT Graphite Matte Textured	NXSP_F NX, PIR Occ. Sensor, Daylight Harvesting ^{2,3,5}	
	347 347V	LGS Light Grey Gloss Smooth	WIR Wireless Controls, wiSCAPE	
	480 480V	LGT Light Grey Matte Textured	Stand Alone Sensors	
		PSS Platinum Silver Smooth	SCP_F Remote control programmable line voltage sensor (Wattstopper FSP-211B, 221B; all voltages) ^{3,6}	
		WHT White Matte Textured	WSPD_ Bluetooth WASP ^{3,6}	
		WHS White Gloss Smooth	Control Options	
		VGT Verde Green Textured	7PR 7-Pin Receptacle ³	
		Color Option	7PR-SC 7-Pin receptacle with shunting cap ³	
		CC Custom Color	7PR-MD40F Low voltage sensor and 7-Pin Receptacle ³	
			7PR-TL 7-Pin PCR with photocontrol	
			PC Button Photocontrol ⁴	
			ADD AutoDim timer based dimming	
			ADT AutoDim time of day dimming	
			Sensors	
			BTS_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens ¹	
			BTSO_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height ²	

Notes:

- 1 Replace "_" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
- 2 Replace "_" with "12" for up to 12' mounting height
- 3 Control option not available with yoke or trunnion mounting
- 4 Not available with 480V
- 5 Replace "_" with "14" for up to 14' mounting height, "40" for up to 40' mounting height
- 6 Specify mounting height; 8=8', 40=40'
- 7 Flood only configurations below the dotted line

RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

CONTROLS ACCESSORIES

Control Options

Standalone

SW7PR	SiteSync™ on fixture module via 7PR
SWUSB	SiteSync™ Software on USB
SWTAB	SiteSync™ Windows Tablet
SWBRG	SiteSync™ Wireless Bridge Node
SWFC	SiteSync™ Field Commission Serve
SCPREMOTE	Order at least one per project location to program and control

Networked – Wireless

WIR-RME-L wiSCAPE External Fixture Module^{1,2}

NX Networked – Wireless

NXOFM-1R1D-UNV NX Wireless, Daylight Harvesting, BLE, 7 pin twisted lock

Notes:

- 1 Works with external networked photosensor
- 2 wiSCAPE Gateway required for system programming

OPTIONS AND ACCESSORIES - STOCK (ORDERED SEPARATELY)

Catalog Number	Description
<input type="checkbox"/> RARRPA3DB	Round pole adapter 3.5" to 4.13" for ASQ arm, 3.5" to 4.13" OD pole, dark bronze finish

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

Catalog Number	Description
<input type="checkbox"/> RAR-RPA_XX	Round pole adapter ^{1,2}
<input type="checkbox"/> SETAVP-XX	4" square pole top tenon adapter, 2 3/8" OD slipfitter ²
<input type="checkbox"/> RETAVP-XX	4" round pole top tenon adapter; 2 3/8" OD slipfitter for max. Four fixtures (90°); order 4" round pole adapters separately ²
<input type="checkbox"/> BIRD-SPIKE-4	Ratio bird deterrent/spikes
<input type="checkbox"/> RARWB-XX	Wall bracket - use with Mast Arm Fitter or Knuckle ²

- 1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
- 2 Replace "XX" with desired color/paint finish

House Side Shield Accessories

<input type="checkbox"/> RAR3 HSS-90-B-XXX	House Side Shield Back 90°
<input type="checkbox"/> RAR3 HSS-90-F-XXX	House Side Shield Front 90 deg
<input type="checkbox"/> RAR3 HSS-90-S-XXX	House Side Shield Side 90 deg
<input type="checkbox"/> RAR3 HSS-270-BSS-XXX	House Side Shield Back, Side & Side 270 deg
<input type="checkbox"/> RAR3 HSS-270-FSS-XXX	House Side Shield Front, Side & Side 270 deg
<input type="checkbox"/> RAR3 HSS-270-FSB-XXX	House Side Shield Front, Side & Back 270 deg
<input type="checkbox"/> RAR3 HSS-360-XXX	House Side Shield 360 deg

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

EPA

Config.	EPA	Diagram
1	1.1ft ²	
2 @ 90°	1.5ft ²	
2 @ 180°	2.1ft ²	
3 @ 90°	2.6ft ²	
4 @ 90°	2.6ft ²	
30°	2.6ft ²	
60°	4.1ft ²	

RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR3 AREA	375	372.6	2	55201	148	3	0	4	54925	147	3	0	4	52717	141	3	0	4
			3	56126	151	3	0	4	55846	150	3	0	4	53601	144	3	0	4
			4W	54169	145	3	0	5	53899	145	3	0	5	51732	139	3	0	5
			5QW	55768	150	5	0	4	55489	149	5	0	4	53259	143	5	0	4
	415	417.9	2	61036	146	3	0	4	60731	145	3	0	4	58290	139	3	0	4
			3	62059	149	3	0	4	61749	148	3	0	4	59267	142	3	0	4
			4W	59896	143	3	0	5	59596	143	3	0	5	57201	137	3	0	5
			5QW	61664	148	5	0	4	61355	147	5	0	4	58889	141	5	0	4
	455	452.1	2	65358	145	3	0	4	65031	144	3	0	4	62416	138	3	0	4
			3	66453	147	3	0	4	66121	146	3	0	4	63463	140	3	0	4
			4W	64136	142	3	0	5	63816	141	3	0	5	61250	135	3	0	5
			5QW	66029	146	5	0	4	65699	145	5	0	4	63058	139	5	0	4
	495	497.9	2	71036	143	3	0	4	70680	142	3	0	4	67839	136	3	0	4
			3	72226	145	3	0	4	71865	144	3	0	4	68976	139	3	0	4
			4W	69708	140	3	0	5	69360	139	3	0	5	66571	134	3	0	5
			5QW	71765	144	5	0	4	71407	143	5	0	4	68536	138	5	0	4
	535	532.4	2	75236	141	3	0	4	74859	141	3	0	4	71850	135	3	0	4
			3	76497	144	3	0	4	76114	143	3	0	4	73054	137	3	0	4
			4W	73830	139	3	0	5	73460	138	3	0	5	70507	132	3	0	5
			5QW	76009	143	5	0	4	75628	142	5	0	4	72588	136	5	0	4
575	581.0	2	80768	139	4	0	5	80364	138	4	0	5	77134	133	4	0	5	
		3	82122	141	3	0	4	81711	141	3	0	4	78426	135	3	0	4	
		4W	79259	136	4	0	5	78862	136	4	0	5	75692	130	4	0	5	
		5QW	81598	140	5	0	5	81190	140	5	0	5	77926	134	5	0	5	

RAR3 Flood Performance Data on next page

* Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	NEMA	5K (5000K NOMINAL 70 CRI)		4K (4000K NOMINAL 70 CRI)		3K (3000K NOMINAL 70 CRI)	
					Lumens	LPW	Lumens	LPW	Lumens	LPW
RAR3 FLOOD	235	237.4	N	2x2	34088	144	33925	143	32620	137
			M	4x4	32198	136	32044	135	30812	130
			W	6x6	33445	141	33285	140	32005	135
	280	279.5	N	2x2	39632	142	39442	141	37925	136
			M	4x4	37434	134	37255	133	35822	128
			W	6x6	38884	139	38698	138	37209	133
	320	322.0	N	2x2	44602	139	44388	138	42681	133
			M	4x4	42129	131	41927	130	40315	125
			W	6x6	43760	136	43550	135	41875	130
	365	364.8	N	2x2	49699	136	49461	136	47559	130
			M	4x4	46944	129	46719	128	44922	123
			W	6x6	48761	134	48528	133	46661	128
	405	408.0	N	2x2	54796	134	54534	134	52437	129
			M	4x4	51758	127	51511	126	49529	121
			W	6x6	53762	132	53505	131	51447	126
	450	451.4	N	2x2	59256	131	58973	131	56705	126
			M	4x4	55971	124	55703	123	53561	119
			W	6x6	58138	129	57860	128	55634	123
	490	491.4	N	2x2	63831	130	63513	129	60973	124
			M	4x4	60292	123	59992	122	57592	117
			W	6x6	62626	127	62315	127	59822	122

* Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 L90 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

ELECTRICAL DATA

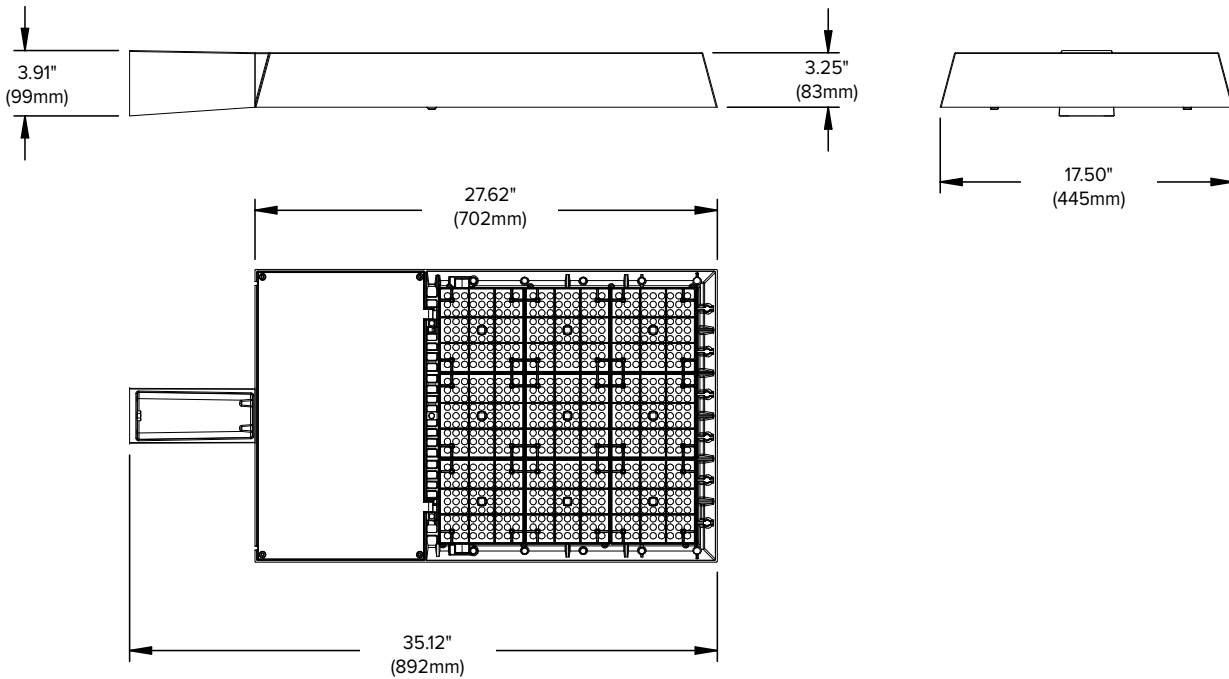
# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR3 AREA	375	120	3.11	372.6
		208	1.79	
		240	1.55	
		277	1.35	
		347	1.07	
		480	0.78	
	415	120	3.48	417.9
		208	2.01	
		240	1.74	
		277	1.51	
		347	1.20	
		480	0.87	
	455	120	3.77	452.1
		208	2.17	
		240	1.88	
		277	1.63	
		347	1.30	
		480	0.94	
	495	120	4.15	497.9
		208	2.39	
		240	2.07	
		277	1.80	
		347	1.43	
		480	1.04	
535	120	4.44	532.4	
	208	2.56		
	240	2.22		
	277	1.92		
	347	1.53		
	480	1.11		
575	120	4.84	581.0	
	208	2.79		
	240	2.42		
	277	2.10		
	347	1.67		
	480	1.21		

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR3 FLOOD	235	120	1.98	237.4
		208	1.14	
		240	0.99	
		277	0.86	
		347	0.68	
		480	0.49	
	280	120	2.33	279.5
		208	1.34	
		240	1.16	
		277	1.01	
		347	0.81	
		480	0.58	
	320	120	2.68	322.0
		208	1.55	
		240	1.34	
		277	1.16	
		347	0.93	
		480	0.67	
	365	120	3.04	364.8
		208	1.75	
		240	1.52	
		277	1.32	
		347	1.05	
		480	0.76	
	405	120	3.40	408.0
		208	1.96	
		240	1.70	
		277	1.47	
		347	1.18	
		480	0.85	
	450	120	3.76	451.4
		208	2.17	
		240	1.88	
		277	1.63	
		347	1.30	
		480	0.94	
490	120	4.10	491.4	
	208	2.36		
	240	2.05		
	277	1.77		
	347	1.42		
	480	1.02		

RATIO 3 SERIES

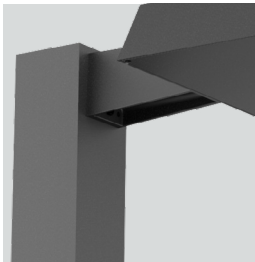
AREA/SITE/FLOOD LIGHTER

DIMENSIONS

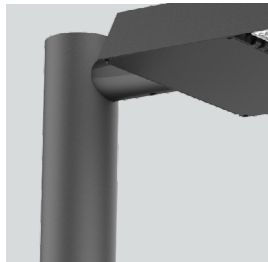


ADDITIONAL INFORMATION

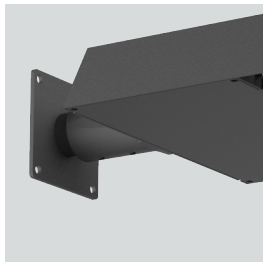
MOUNTING



Arm Mount – Fixture ships with integral arm for ease of installation. Compatible with Hubbell Outdoor B3 drill pattern. Available on Area configurations.



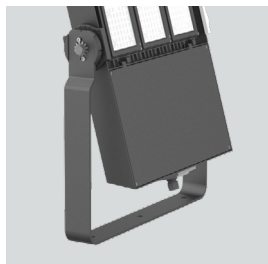
MAF – Fits 2-3/8" OD arms Roadway applications. Available on Area configurations.



Wall Mount – Wall mount bracket designed for building mount applications. Available on Area configurations.



Knuckle – Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Available on Area and Flood configurations.



Yoke – For mounting directly to flat surfaces or crossarms. Available on flood configurations.

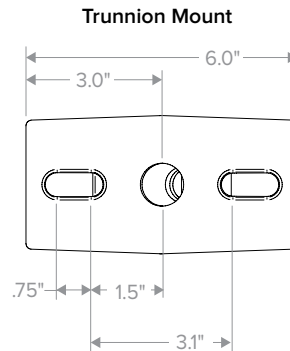
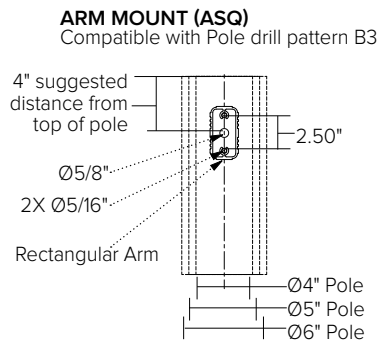


Trunnion – For mounting directly to flat surfaces or crossarms. Available on flood configurations.

RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

ADDITIONAL INFORMATION (CONT'D)



SITESYNC 7-PIN MODULE



SW7PR



- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	Delay 0-9 Hours	R6

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

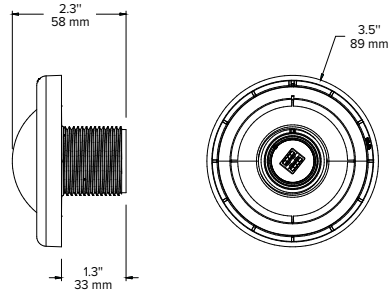
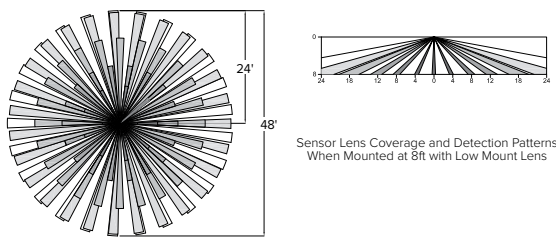
ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	12-6 AM and 9-11P	R6

RATIO 3 SERIES

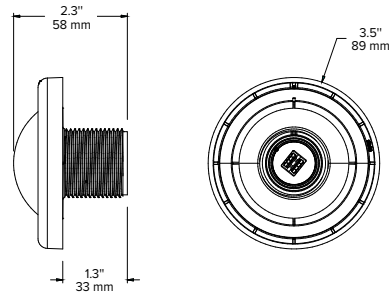
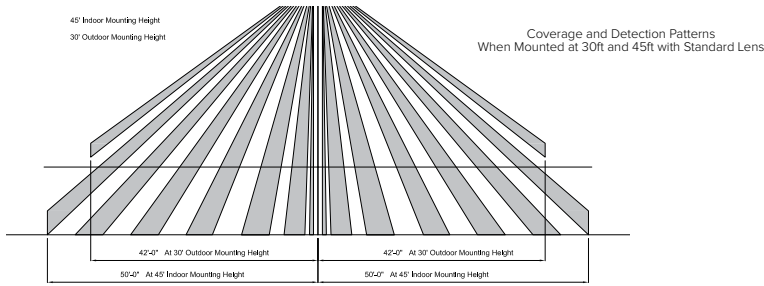
AREA/SITE/FLOOD LIGHTER

ADDITIONAL INFORMATION (CONT'D)

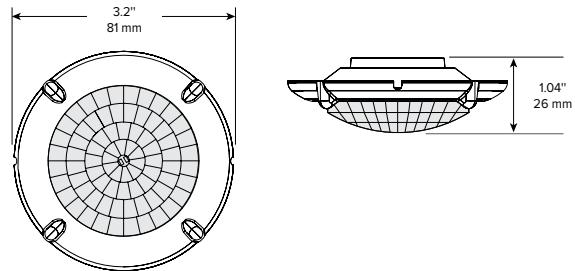
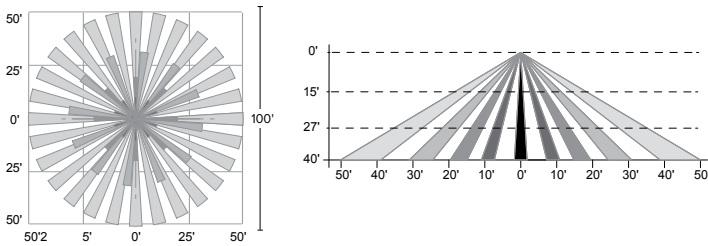
NXSP-14F



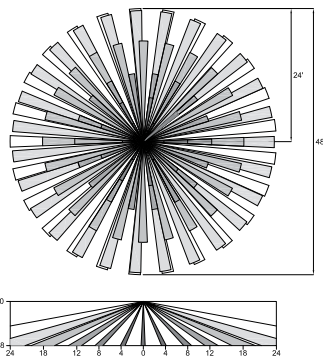
NXSP-30F



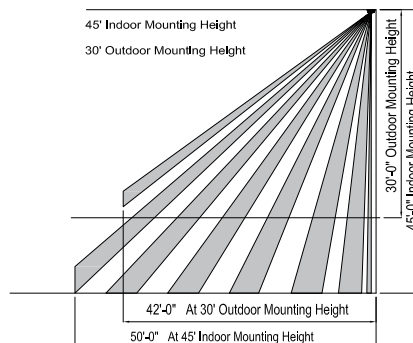
SCP-40F



BTWASP



Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens



Sensor Lens Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

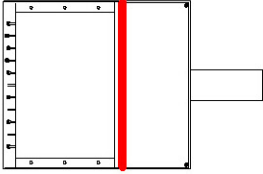
RATIO 3 SERIES

AREA/SITE/FLOOD LIGHTER

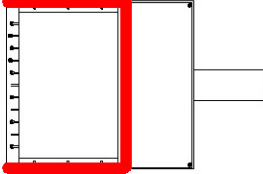
ADDITIONAL INFORMATION (CONT'D)

RATIO HOUSE SIDE SHIELD

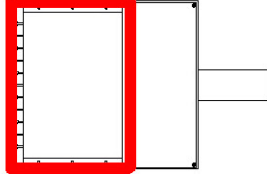
RARx HSS-90-B-xx



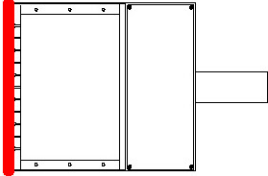
RARx HSS-270-BSS-xx



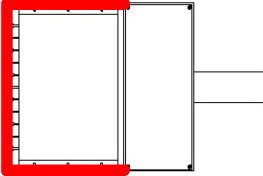
RARx HSS-360-xx



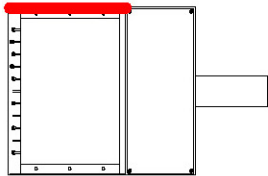
RARx HSS-90-F-xx



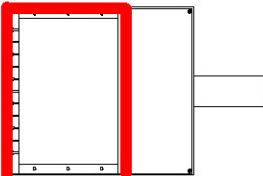
RARx HSS-270-FSS-xx



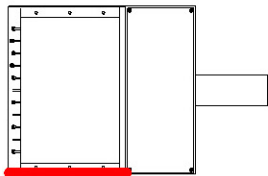
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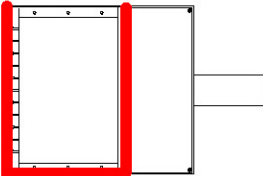
RARx HSS-270-FSB-xx



RARx HSS-90-S-xx



RARx HSS-270-FSB-xx



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