

SR3

3" ROUND RECESSED

Spectrum's A Spec 3" recessed round downlight series features a shallow plenum housing and variety of trims for accent and general illumination.

LUMENS / WATTAGE DATA			
PART NUMBER	DELIVERED LUMENS ¹	SYSTEM WATTS	LPW
RD3F 07L 35K MD NL	832	7	119
RD3F 10L 35K MD NL	1170	10.3	114
RD3F 15L 35K MD NL	1560	14.1	111
RD3F 20L 35K MD NL	2132	21.1	101
RD3F 25L 35K MD NL	2600	26.3	99

Downlight Shallow 3500K 80CRI Medium Beam No Lens

¹ Performance varies for each trim, CCT, CRI, Beam Spread, Lens option; See Photometry files for data for selected option.

PRODUCT SELECTOR GUIDE

SERIES	LUMENS ¹	CCT	OPTICS	DRIVER / VOLTAGE	OPTIONS	BAR HANGER	TRIM	LUMENS ¹	CCT	OPTICS	FINISH	FLANGE	LENSES	OPTIONS
SR3MO	10L	35K	MD	DS2W1	FS	H12	RD3F	10L	35K	MD	MW	MF	GL	WL

EXAMPLE

FIXTURE HOUSING SPECIFICATION

SERIES	LUMENS ^{3,5}	CCT ⁶	OPTIC	DRIVER / DIMMING / VOLTAGE	OPTIONS ¹⁰	BAR HANGER OPTIONS
FLANGED HOUSINGS / FRAMES	07L 700Lm 10L 1000Lm 15L ⁴ 1500Lm 20L 2000Lm 25L 2500Lm	80 CRI 27K 2700K 30K 3000K 35K 3500K 40K 4000K	ND Narrow Beam MD Medium Beam WD Wide Beam XW Extra Wide Beam EB1 ¹⁸ Elliptical Beam 1 (63°x29°) EB2 ¹⁸ Elliptical Beam 2 (64°x32°)	120V DO101 1% 0-10v DS2W1 ELV/Triac DL3E1 1% Lutron, Ecosystem Fade EL101 1% EldoLED 0-10V EDO11 0.1% EldoLED 0-10V AWN1 ⁹ Athena Wireless Node (RF Module Only)	FS Fusing EM ¹¹ Emergency Battery CCEA ¹¹ Chicago Plenum	H12 12" - 24" Expandable Bars BH27 27" Solid Bars CB24 24" C-Channel Bars CH24 24" Chicago Bars
FLANGELESS HOUSINGS / FRAMES	3 Lumen Selection Must Match Trim Lumen Selection 4 15L max for Adjustable Accent 5 Nominal Delivered Lumens Are Shown Above, Refer to Photometric Data for Delivered Lumens	90 CRI 27HK 2700K 30HK 3000K 35HK 3500K 40HK 4000K	XN Extra Narrow Beam NA Narrow Beam MA Medium Beam WA Wide Beam WV ¹⁹ Wall Wash	277V DO102 1% 0-10v DL3E2 1% Lutron, Ecosystem Fade EL102 1% EldoLED EDO12 0.1% EldoLED AWN2 ⁹ Athena Wireless Node (RF Module Only)	10 List Option in Order of Appearance 11 EM Not Available in IC Housing or Chicago Plenum Option (CCEA) 12 EM Requires Above Ceiling Access, Supplied with Remote Mounted Test Switch	
1 Adjustable Accent Trims offered in SR3MC and SR3MI only 2 Chicago Plenum offered in SR3MC, SR3NMC, and SR3MI, SR3NM only		6 CCT Selection must match Trim CCT selection	7 EBI and EB2 available with RD3F, RD3N and RD3N trims only 8 WV Optic for Wall Wash Trims Only	9 Athena Wireless Node not available with CCEA		

AVAILABLE TRIM / MODULE TYPES



TRIM / MODULE SPECIFICATION

TRIM	LUMENS ^{14,16}	CCT ¹⁷	OPTIC	FINISH ²⁰	FLANGE FINISH	ACCESSORIES ^{22,26}
DOWNLIGHT & PINHOLE DOWNLIGHT	07L 700Lm 10L 1000Lm 15L ¹⁵ 1500Lm 20L 2000Lm 25L 2500Lm	80 CRI 27K 2700K 30K 3000K 35K 3500K 40K 4000K	ND Narrow Beam (23°) MD Medium Beam (26°) WD Wide Beam (37°) XW Extra Wide Beam (64°) EB1 ¹⁸ Elliptical Beam 1 (63°x29°) EB2 ¹⁸ Elliptical Beam 2 (64°x32°)	MW Matte White MB Matte Black PT Platinum Silver CC Custom Color	TRIM WITH FLANGE MF Match Trim Finish WF ²¹ White Flange	NL ^{23,24} No Lens SO Micro Prism Glass Lens GL Clear Glass Lens HL ^{25,26} Hex Cell Louver
ADJUSTABLE ACCENT		90 CRI	ADJUSTABLE ACCENT		FLANGELESS TRIM	
RA3F ¹³ 35° Adjustable Shallow Flange	14 Lumen Selection Must Match Frame 15 15L max for Adjustable Accent	27HK 2700K 30HK 3000K 35HK 3500K 40HK 4000K	XN Extra Narrow Beam (13°) NA Narrow Beam (24°) MA Medium Beam (34°) WA Wide Beam (46°)	20 Wall Wash and Pinhole Finish is for Flange Only	No Option Available	22 List accessories / options in order of appearance 23 WL and Lens options Not Available With Wall Wash (NL Only) 24 EBI and EB2 comes with Lens, Lens selection not available 25 HL only available with Adjustable 26 For Adjustable trims, NL, SO, GL can be selected with WL and for HL or neither
WALL WASH WITH FLANGE						OPTIONS WL ^{23,27,28} Wet Location
RN3F ¹³ Open Wall Wash Flange	16 Nominal Delivered Lumens Are Shown Above, Refer to Photometric Data for Delivered Lumens				21 For use with Matte Black, Platinum Silver and Custom Color finishes only	
DOWNLIGHT FLANGELESS						
RD3N Downlight Shallow Flangeless						
RDD3N Downlight Deep Flangeless						
WALL WASH FLANGELESS						
RN3N Open Wall Wash Flangeless						
13 Adjustable Accent requires a SR3MC or SR3MI Frame		17 CCT Selection must match Frame CCT selection	18 EBI and EB2 available with RD3F, RD3N and RD3N trims only 19 WV Optic for Wall Wash Trims Only			27 For Adjustable trim, for WL, a Clear Glass Lens is included on trim. Two Additional Accessories may be selected 28 For Downlight and Pinhole, WL available if SO or GL are selected



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FINISH

MW
Matte WhiteMB
Matte BlackPT
Platinum SilverCC
Custom Color

PRODUCT FEATURES

- Versatile 3" round aperture recessed LED downlights for both Non-IC, IC [insulated ceilings], and Chicago Code with a wide range of lumen outputs and optical systems, and trim options.
- Two-stage optical systems for smooth light distribution and focus control. Tool-less driver and j-box access. "Posi-lock" trim retention springs. Flangeless trims [Plaster ring included with fixture] are available. All frames are capable of installation in ceiling thicknesses from 1/16" to 1" thick.

Adjustable Optic/Trim

- NEW**
- Angle adjustment [up to 35°] and rotation [up to 355°] can be made from below the ceiling to ensure proper alignment to the surface to be illuminated.
 - Tilt can be adjusted using a Philips head screwdriver to turn the worm gear.
 - Rotation lock can be engaged by using a Philips head screwdriver.
 - Four unique optic packages [from 13° to 46°] that can be swapped in the field.

Wallwasher Optic/Trim

- NEW**
- Unique, Patented, Multi-stage optical system precision molded for smooth light distribution from the ceiling line to the floor and horizontally across the wall. While providing superior room side brightness control.
 - Rotation of Trim [365°] can be done from below the ceiling to ensure proper alignment to the surface to be illuminated.

Elliptical Beam Optics

- NEW**
- Unique Elliptical Beam Pattern Optics can be set and adjusted from below the ceiling to orient the elliptical beam pattern to spread light bi-directionally in a space. Beam pattern changes from the EB1 to the EB2 optical system. [See photometrics]

Trim Finish

- A variety of architectural trim finish options utilizing powdercoat colors. Matte White flange is an Option for non-white finishes

Electronics

- LED system features state of the art, high efficiency LEDs providing consistent stable color with excellent CCT control over the life of the light engine. Base 80 min CRI with 3-step MacAdam ellipse binning. High CRI of 90 min is also available as a standard option.
- Variety of electronic 120/277V and Dimming options are available. Emergency backup version available as standard option.

Construction

- Housing/frames are constructed of Galvanized/Galvanneal steel and/or aluminum to resist rust and corrosion with Integral J-box and snap on covers.

Code Compliance

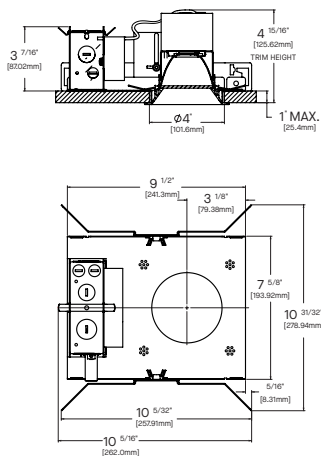
- cULus Damp or Wet Location to comply with both US and Canadian standards and codes. Suitable for use in air return plenums.
- Designed, manufactured, and assembled in Fall River, MA, BAA compliant.
- Selected for the 2023 IES Progress Report.
- Recyclable materials utilized wherever possible.

HOUSING DIMENSIONS

Ceiling Cutout: 4" Ø

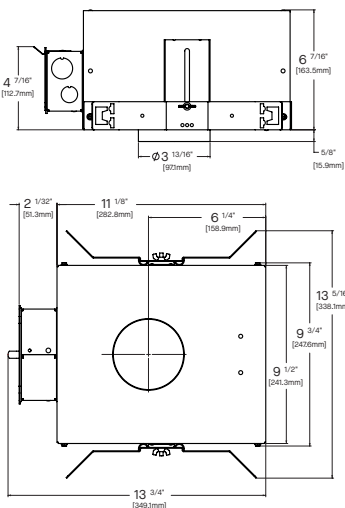
SR3MO - Non-IC New Construction

Non-IC rated, thermally protected frame-in kit for new construction. Non-IC designation requires insulation must be minimum of 3" from housing.



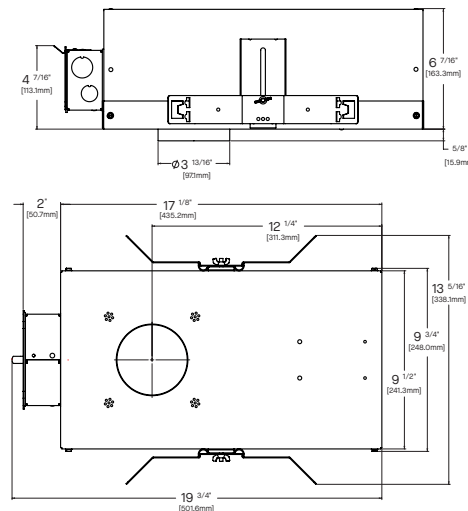
SR3MC - Non-IC New Construction, Adjustable

Non-IC rated, thermally protected frame-in kit for new construction. Non-IC designation requires insulation must be minimum of 3" from housing.



SR3MI - IC New Construction

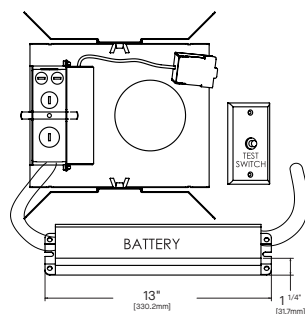
IC rated frame-in kit for new construction with direct insulation contact and CCEA (Chicago Plenum) compatibility.



EMERGENCY BATTERY

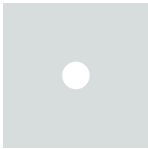
EM - 3" EM Option

EM requires above ceiling access, supplied with remote mounted test switch. Not available in IC Housing or Chicago Plenum option

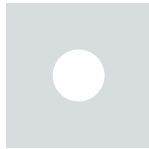


OPTICS

XN - Extra Narrow Beam



ND - Narrow Beam



MD - Medium Beam



WD - Wide Beam



XW - Extra Wide Beam

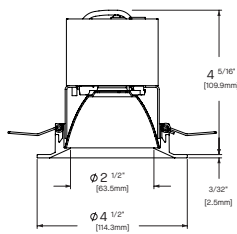


WW - Wall Wash



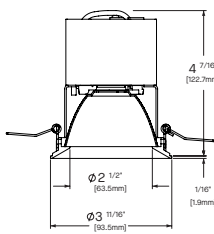
TRIM / MODULE DATA

RD3F - Downlight Shallow Flange



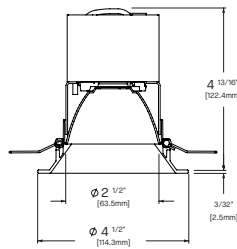
Add 1/8" Height When Using Lens

RD3N - Downlight Shallow Flangeless



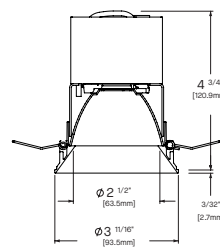
Add 1/8" Height When Using Lens

RDD3F - Downlight Deep Flange



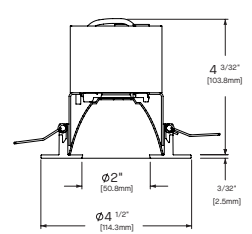
Add 1/8" Height When Using Lens

RDD3N - Downlight Deep Flangeless



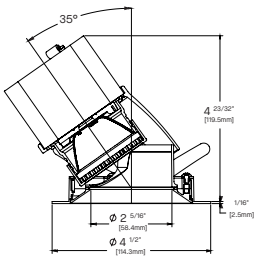
Add 1/8" Height When Using Lens

RH3F - Pinhole Flange

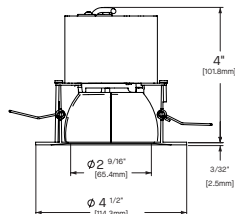


Add 1/8" Height When Using Lens

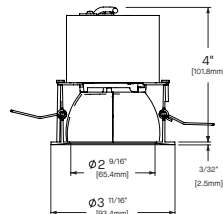
RA3F - 30° Adjustable Shallow Flange



RNW3F - Open Wall Wash Flange



RNW3N - Open Wall Wash Flangeless



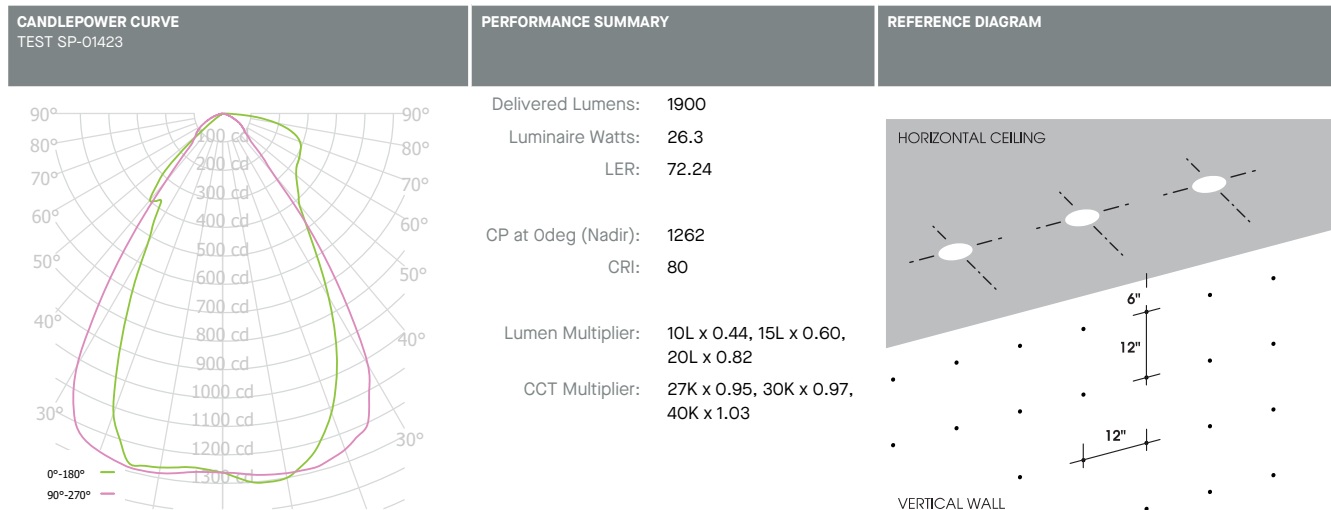
SR3

3" ROUND RECESSED

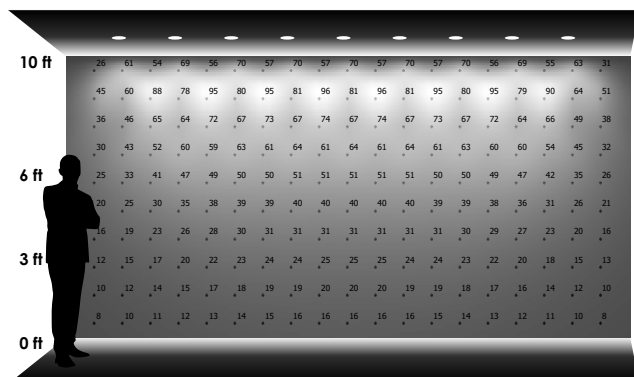


Spectrum Lighting

SR3Mx 25L 35K WW xx xx RNW3F 25L 35K WW MB NL - Wall Wash

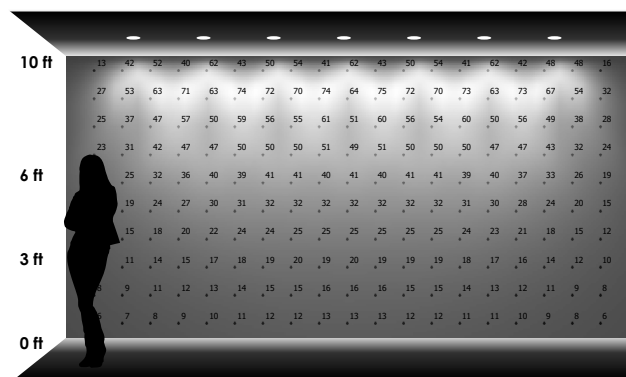


PERFORMANCE DATA - INITIAL ILLUMINATION (FOOTCANDLES) ON WALL - DIRECT LIGHT ONLY



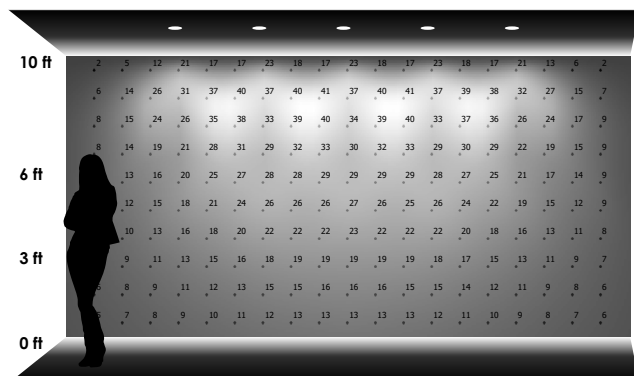
9 LUMINAIRES

2' - 0" away from wall
2' - 0" between luminaires



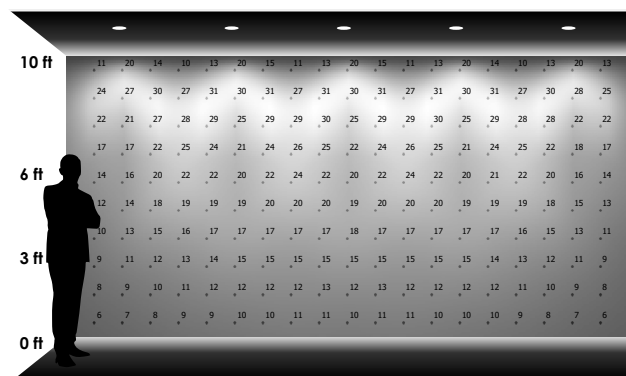
7 LUMINAIRES

2' - 6" away from wall
2' - 6" between luminaires



5 LUMINAIRES

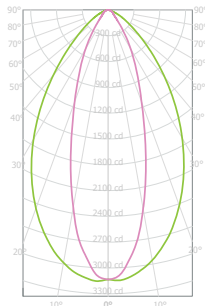
3' - 0" away from wall
3' - 0" between luminaires



5 LUMINAIRES

3' - 0" away from wall
4' - 0" between luminaires

SR3Mx 25L 35K EB2 xx xx RD3x 25L 35K EB2 MW xx - Elliptical Beam 2, Shallow

CANDLEPOWER CURVE TEST SP-01427	INTENSITY CANDELA 0° AZIMUTH				ZONAL LUMENS			SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY				
	0°	90°	180°	270°	0° - 10°	279	11%	Mtg Height AFF	FC at Center	Beam Length	Beam Width	FC at Beam Edge
	0°	3134	3134	3134	0° - 20°	877	36%	8'	49 fc	10.0'	4.5'	15 fc
	5°	3108	2902	3122	0° - 30°	1476	60%	10'	31 fc	12.5'	5.7'	10 fc
	15°	2722	1681	2751	0° - 40°	1927	79%	12'	22 fc	15.0'	6.8'	7 fc
	25°	2081	782	2106	0° - 60°	2346	96%	14'	16 fc	17.5'	7.9'	5 fc
	35°	1366	319	1350	0° - 80°	2440	100%	16'	12 fc	20.0'	9.1'	4 fc
	45°	730	114	686	0° - 90°	2444	100%	20'	8 fc	25.0'	11.4'	2 fc
	55°	325	68	303	Total	2444	100%	24'	9 fc	30.0'	13.6'	2 fc
	90°	2	2	2				28'	4 fc	35.0'	15.9'	1 fc

Delivered Lumens: 2444
Luminaire Watts: 26.3
LER: 92.93

CP at 0° (Nadir): 3134
CRI: 80

Beam Angle: 64° x 32°
Spacing Ratio: 0.92 x 0.52

Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82
CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03

See Page 1 for System Watts for all outputs

Beam Angle: The included angle between those points on opposite sides of the beam axis at which the luminous intensity (candela) emitted by the luminaire is 50% of the maximum candela.

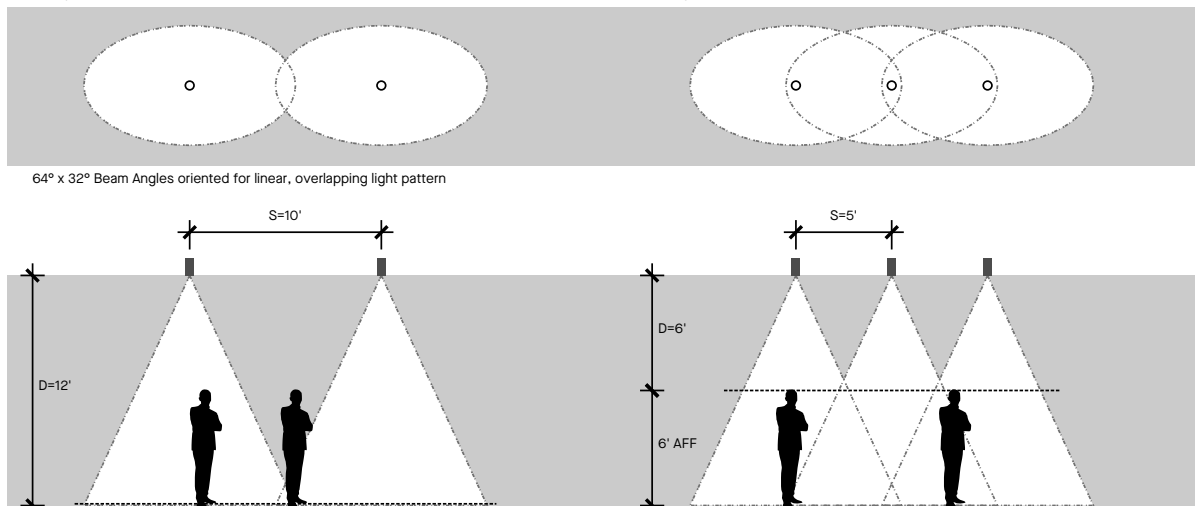
Spacing Ratio: The on-center fixture spacing, divided by the vertical distance from the fixture aperture to the illuminated surface.

To estimate uniform illumination at a horizontal plane, use Spacing Ratio data to determine maximum fixture spacing.

The examples below illustrate concepts for an aisle/hallway, for uniform illumination (FC) at floor, or at 6' above finished floor (AFF). To estimate maximum fixture spacing for uniform illumination, multiply mounting Distance x Spacing Ratio.

Example A: Uniform FC at Floor

Example B: Uniform FC at 6' AFF



Example A: Uniform FC at Floor

Example B: Uniform FC at 6' AFF

S = Spacing between fixtures
D = Distance from aperture to horizontal plane

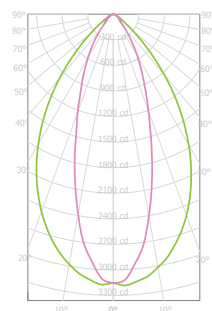
Note: Illumination will also be uniform at < 6' AFF

Spacing Ratio for this optic: 0.92 x 0.52
With optic oriented as shown, Spacing Ratio should be ≤ 0.92

$$\frac{S}{D} = \frac{10'}{12'} = 0.83$$

$$\frac{S}{D} = \frac{5'}{6'} = 0.83$$

SR3Mx 25L 35K EB2 xx xx RDD3x 25L 35K EB2 MW xx - Elliptical Beam 2, Deep

CANDLEPOWER CURVE
TEST SP-01426INTENSITY
CANDELA
0° AZIMUTH

	0°	90°	180°	270°
0°	3154	3154	3154	3154
5°	3148	2936	3128	2908
15°	2797	1756	2753	1748
25°	2160	835	2128	859
35°	1356	351	1375	392
45°	567	119	612	131
55°	140	73	157	77
90°	2	1	2	2

ZONAL LUMENS

0° - 10°	282	12%
0° - 20°	896	37%
0° - 30°	1529	64%
0° - 40°	2008	84%
0° - 60°	2341	96%
0° - 80°	2397	100%
0° - 90°	2400	100%
Total	2400	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mtg Height AFF	FC at Center	Beam Length	Beam Width	FC at Beam Edge
8'	49 fc	10.1'	4.7'	15 fc
10'	32 fc	12.6'	5.9'	10 fc
12'	22 fc	15.1'	7.0'	7 fc
14'	16 fc	17.6'	8.2'	5 fc
16'	12 fc	20.1'	9.4'	4 fc
20'	8 fc	25.2'	11.7'	2 fc
24'	5 fc	30.2'	14.0'	2 fc
28'	4 fc	35.2'	16.4'	1 fc

Delivered Lumens: 2400
Luminaire Watts: 26.3
LER: 91.25

CP at 0° (Nadir): 3154
CRI: 80

Beam Angle: 64° x 33°
Spacing Ratio: 0.94 x 0.54

Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82
CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03

Beam Angle: The included angle between those points on opposite sides of the beam axis at which the luminous intensity (candela) emitted by the luminaire is 50% of the maximum candela.

Spacing Ratio: The on-center fixture spacing, divided by the vertical distance from the fixture aperture to the illuminated surface.

To estimate uniform illumination at a horizontal plane, use Spacing Ratio data to determine maximum fixture spacing.

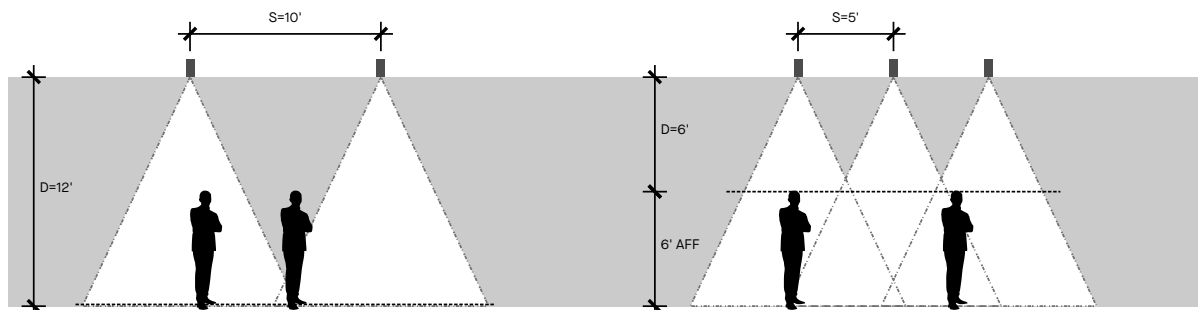
The examples below illustrate concepts for an aisle/hallway, for uniform illumination (FC) at floor, or at 6' above finished floor (AFF). To estimate maximum fixture spacing for uniform illumination, multiply mounting Distance x Spacing Ratio.

Example A: Uniform FC at Floor

Example B: Uniform FC at 6' AFF



64° x 33° Beam Angles oriented for linear, overlapping light pattern



Example A: Uniform FC at Floor

Example B: Uniform FC at 6' AFF

S = Spacing between fixtures
D = Distance from aperture to horizontal plane

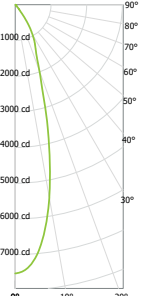
Spacing Ratio for this optic: 0.94 x 0.54
With optic oriented as shown, Spacing Ratio should be ≤ 0.94

$$\frac{S}{D} = \frac{10'}{12'} = 0.83$$

$$\frac{S}{D} = \frac{5'}{6'} = 0.83$$

Note: Illumination will also be uniform at < 6' AFF

SR3Mx 25L 35K MD xx xx RDD3F 25L 35K MD MW NL - Deep

CANDLEPOWER CURVE TEST SP-01410	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS	SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY	MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES HORIZONTAL FOOTCANDLES AND WATTS/SQ FT											
	0°	0° - 10° 625 24%	Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 4	RCR 6					
	0° 7528	0° - 20° 1571 60%	8' 118 fc	4.1'	54 fc	12'	4'	155	1.68	142	1.69				
	5° 7023	0° - 30° 2198 84%	10' 75 fc	5.1'	34 fc	16'	6'	77	0.83	71	0.84				
	15° 3486	0° - 40° 2519 97%	12' 52 fc	6.1'	24 fc	20'	8'	32	0.34	42	0.50				
	25° 1340	0° - 60° 2575 99%	14' 38 fc	7.1'	17 fc	Delivered Illuminance Rating: (DIR)		92 FC per W/Sq. Ft.		84 FC per W/Sq. Ft.					
	35° 504	0° - 80° 2590 99%	16' 29 fc	8.1'	13 fc										
	45° 40	0° - 90° 2592 100%	20' 19 fc	10.2'	9 fc	Recessed mounting Square rooms used for multiple units: RCR 4: Length & Width = Ceiling Ht. - 2.5' x 2.50 RCR 6: Length & Width = Ceiling Ht. - 2.5' x 1.66 * Average Initial Footcandles at 2.5' Above Floor									
	55° 19	Total 2605 100%	24' 13 fc	12.2'	6 fc										
	90° 2		28' 10 fc	14.2'	4 fc										

Delivered Lumens: 2605
Luminaire Watts: 26.3
LER: 99.05

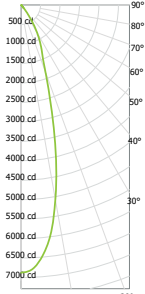
CP at 0° (Nadir): 7528
CRI: 80

Beam Angle: 29°
Spacing Ratio: 0.47

Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82
CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03

See Page 1 for System Watts for all outputs

SR3Mx 25L 35K MD xx xx RDD3F 25L 35K MD MW GL - Deep

CANDLEPOWER CURVE TEST SP-01409	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS	SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY				MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES HORIZONTAL FOOTCANDLES AND WATTS/SQ FT							
	0°	0° - 10° 575 24%	Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 4		RCR 6			
	0° 6876	0° - 20° 1452 61%							FC *	W/Sq. Ft.	FC *	W/Sq. Ft.		
	5° 6449	0° - 30° 2023 85%							12' 4'	141 1.68	130 1.69			
	15° 3213	0° - 40° 2287 96%							16' 6'	70 0.83	64 0.84			
	25° 1240	0° - 60° 2346 99%							20' 8'	29 0.34	38 0.50			
	35° 404	0° - 80° 2360 99%							Delivered Illuminance Rating: (DIR)		84 FC per W/Sq. Ft.		77 FC per W/Sq. Ft.	
	45° 49	0° - 90° 2363 99%							Recessed mounting Square rooms used for multiple units: RCR 4: Length & Width = Ceiling Ht. - 2.5' x 2.50 RCR 6: Length & Width = Ceiling Ht. - 2.5' x 1.66 * Average Initial Footcandles at 2.5' Above Floor					
	55° 19	Total 2375 100%												
	90° 1													

Delivered Lumens: 2375
Luminaire Watts: 26.3
LER: 90.30

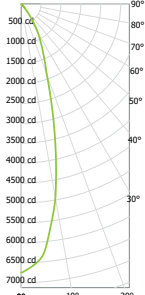
CRI: 80

Beam Angle: 29°
Spacing Ratio: 0.48

Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82
CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03

See Page 1 for System Watts for all outputs

SR3Mx 25L 35K MD xx xx RDD3F 25L 35K MD MW SO - Deep

CANDLEPOWER CURVE TEST SP-01411	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS	SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY	MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES HORIZONTAL FOOTCANDLES AND WATTS/SQ FT											
	0°	0° - 10° 558 23%	Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 4	RCR 6					
	0° 6749	0° - 20° 1439 59%	8' 105 fc	4.1'	48 fc	12'	4'	144	1.68	132	1.69				
	5° 6325	0° - 30° 2030 83%	10' 67 fc	5.1'	31 fc	16'	6'	71	0.83	65	0.84				
	15° 3179	0° - 40° 2315 95%	12' 47 fc	6.2'	21 fc	20'	8'	29	0.34	39	0.50				
	25° 1258	0° - 60° 2404 99%	14' 34 fc	7.2'	16 fc	Delivered Illuminance Rating: (DIR)		86 FC per W/Sq. Ft.		78 FC per W/Sq. Ft.					
	35° 449	0° - 80° 2425 99%	16' 26 fc	8.2'	12 fc										
	45° 67	0° - 90° 2427 100%	20' 17 fc	10.3'	8 fc	Recessed mounting Square rooms used for multiple units: RCR 4: Length & Width = Ceiling Ht. - 2.5' x 2.50 RCR 6: Length & Width = Ceiling Ht. - 2.5' x 1.66 * Average Initial Footcandles at 2.5' Above Floor									
	55° 33	Total 2438 100%	24' 12 fc	12.3'	5 fc										
	90° 2		28' 9 fc	14.4'	4 fc										

Delivered Lumens: 2438
Luminaire Watts: 26.3
LER: 92.70

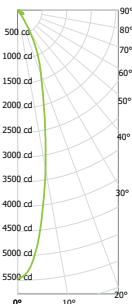
CP at 0° (Nadir): 6749
CRI: 80

Beam Angle: 29°
Spacing Ratio: 0.48

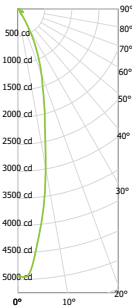
Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82
CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03

See Page 1 for System Watts for all outputs

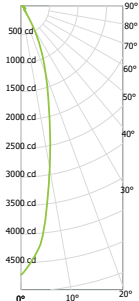
SR3Mx 25L 35K ND xx xx RH3F 25L 35K ND MW NL - Pinhole

CANDLEPOWER CURVE TEST SP-01413_1	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS	SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY	MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES HORIZONTAL FOOTCANDLES AND WATTS/SQ FT											
	0°	0° - 10° 406 22%	Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 6		RCR 8				
	0° 5469	0° - 20° 999 55%	8 ' 85 fc	3.4 ' 40 fc	16 ' 73	4 ' 1.31	75	1.48	FC ' W/Sq. Ft.	FC ' W/Sq. Ft.					
	5° 4752	0° - 30° 1425 78%	10 ' 55 fc	4.3 ' 26 fc	20 ' 62	5 ' 1.12	45	0.88							
	15° 2108	0° - 40° 1557 85%	12 ' 38 fc	5.1 ' 18 fc	24 ' 41	6 ' 0.74	30	0.58							
	25° 935	0° - 60° 1696 93%	14 ' 28 fc	6.0 ' 13 fc	Delivered Illuminance Rating: (DIR)		55 FC per W/Sq. Ft.		51 FC per W/Sq. Ft.						
	35° 188	0° - 80° 1797 98%	16 ' 21 fc	6.8 ' 10 fc			Recessed mounting Square rooms used for multiple units: RCR 6: Length & Width = Ceiling Ht. - 2.5' x 1.66 RCR 8: Length & Width = Ceiling Ht. - 2.5' x 1.25 * Average Initial Footcandles at 2.5' Above Floor								
	45° 48	0° - 90° 1814 99%	20 ' 14 fc	8.6 ' 6 fc											
	55° 124	Total 1827 100%	24 ' 9 fc	10.3 ' 4 fc											
	90° 3		28 ' 7 fc	12.0 ' 3 fc											
Delivered Lumens: 1827	CP at 0° (Nadir): 5469	Beam Angle: 24°	Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82												
Luminaire Watts: 26.3	CRI: 80	Spacing Ratio: 0.40	CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03												
LER: 69.47															

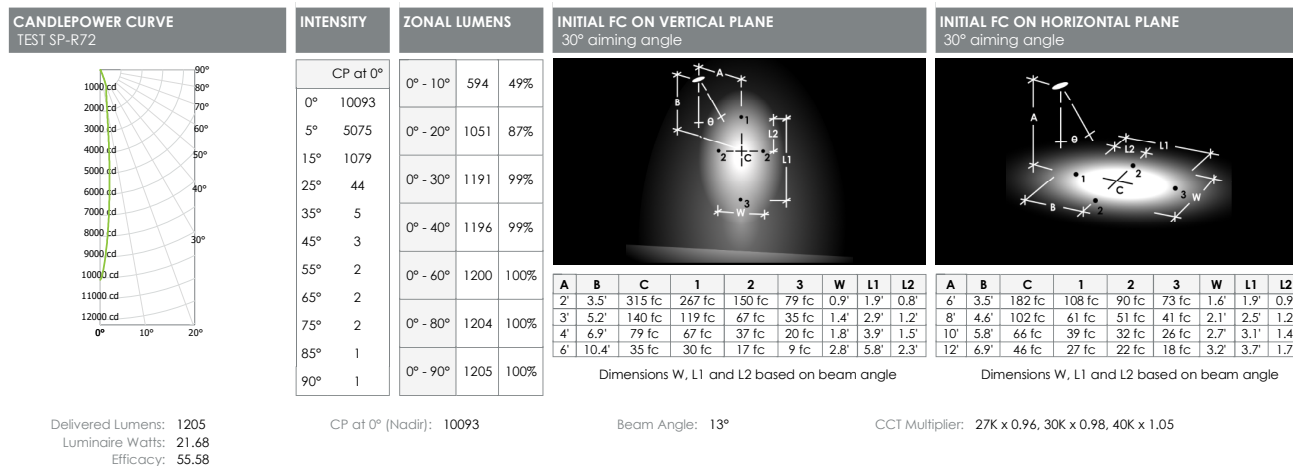
SR3Mx 25L 35K ND xx xx RH3F 25L 35K ND MW GL - Pin Hole

CANDLEPOWER CURVE TEST SP-01412_1	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS	SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY	MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES HORIZONTAL FOOTCANDLES AND WATTS/SQ FT						
	0°	0° - 10° 369 23%	Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 6	RCR 8
	0° 4938	0° - 20° 899 56%	8 ' 77 fc	3.4 ' 36 fc	Delivered Illuminance Rating: (DIR)	49 FC per W/Sq. Ft.	45 FC per W/Sq. Ft.			
	5° 4294	0° - 30° 1261 79%	10 ' 49 fc	4.2 ' 23 fc						
	15° 1921	0° - 40° 1369 86%	12 ' 34 fc	5.1 ' 16 fc						
	25° 814	0° - 60° 1498 94%	14 ' 25 fc	5.9 ' 12 fc						
	35° 148	0° - 80° 1575 99%	16 ' 19 fc	6.8 ' 9 fc						
	45° 54	0° - 90° 1584 99%	20 ' 12 fc	8.5 ' 6 fc	Recessed mounting Square rooms used for multiple units: RCR 6: Length & Width = Ceiling Ht. - 2.5' x 1.66 RCR 8: Length & Width = Ceiling Ht. - 2.5' x 1.25 * Average Initial Footcandles at 2.5' Above Floor					
	55° 105	Total 1595 100%	24 ' 9 fc	10.2 ' 4 fc						
	90° 2		28 ' 6 fc	11.9 ' 3 fc						

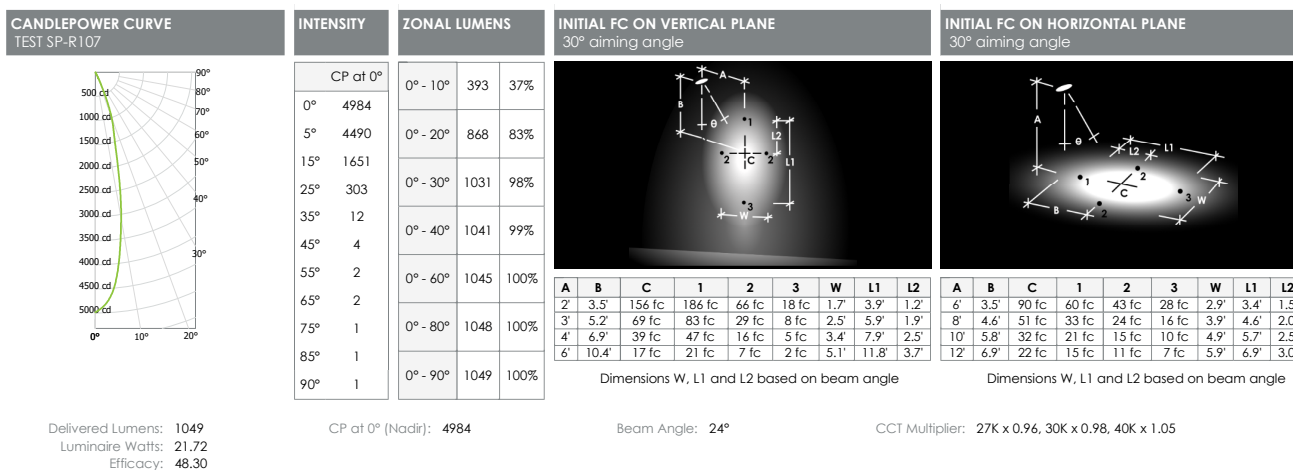
SR3Mx 25L 35K ND xx xx RH3F 25L 35K ND MW SO - Pin Hole

CANDLEPOWER CURVE TEST SP-01414_1	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS	SINGLE UNIT: PERFORMANCE HORIZONTAL FOOTCANDLES INITIAL DOWNLIGHT ONLY	MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES HORIZONTAL FOOTCANDLES AND WATTS/SQ FT								
	0°	0° - 10° 352 21%	Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 6		RCR 8	
	0° 4711	0° - 20° 886 54%	8 ' 74 fc	3.6 ' 34 fc	16' 4'	65 1.31	67 1.48					
	5° 4133	0° - 30° 1254 76%	10 ' 47 fc	4.5 ' 22 fc	20' 5'	56 1.12	40 0.88					
	15° 1896	0° - 40° 1383 84%	12 ' 33 fc	5.4 ' 15 fc	24' 6'	37 0.74	26 0.58					
	25° 810	0° - 60° 1525 93%	14 ' 24 fc	6.3 ' 11 fc	Delivered Illuminance Rating: (DIR) 50 FC per W/Sq. Ft. 45 FC per W/Sq. Ft.							
	35° 182	0° - 80° 1619 99%	16 ' 18 fc	7.1 ' 9 fc								
	45° 72	0° - 90° 1628 99%	20 ' 12 fc	8.9 ' 5 fc								
	55° 93	Total 1642 100%	24 ' 8 fc	10.7 ' 4 fc								
	90° 3		28 ' 6 fc	12.5 ' 3 fc								
	Delivered Lumens: 1642	CP at 0° (Nadir): 4711	Beam Angle: 25°	Lumen Multiplier: 07L x 0.32, 10L x 0.45, 15L x 0.60, 20L x 0.82								
	Luminaire Watts: 26.3	CRI: 80	Spacing Ratio: 0.42	CCT Multiplier: 27K x 0.94, 30K x 0.96, 40K x 1.03								
	LER: 62.43			See Page 1 for System Watts for all outputs								

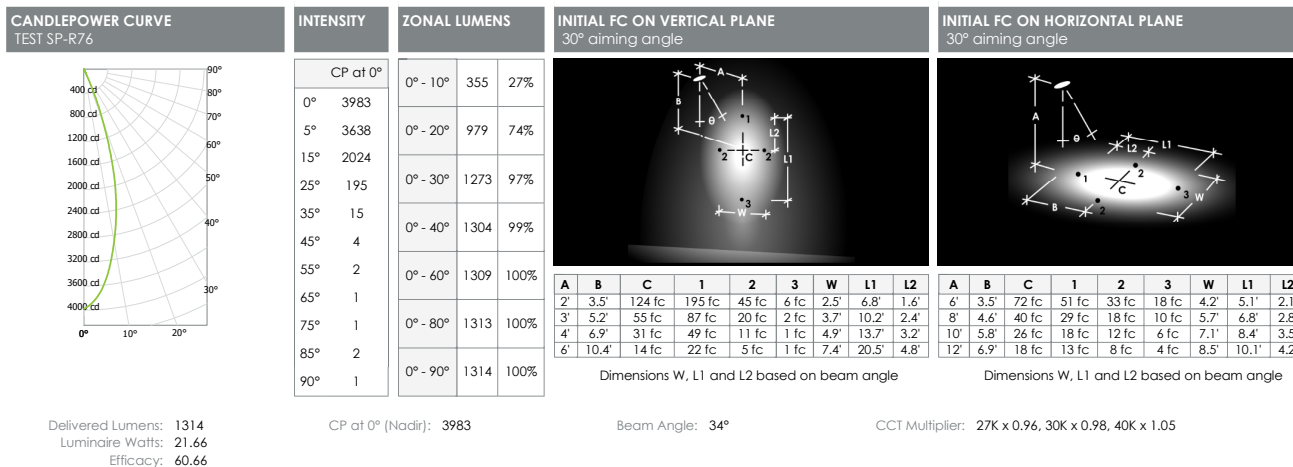
SR3Mx 15L 35K XN xx xx RA3F 15L 35K XN MW MF NL - Adjustable



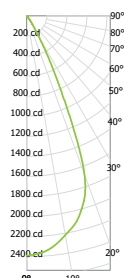
SR3Mx 15L 35K NA xx xx RA3F 15L 35K NA MW MF NL - Adjustable



SR3Mx 15L 35K MA xx xx RA3F 15L 35K MA MW MF NL - Adjustable

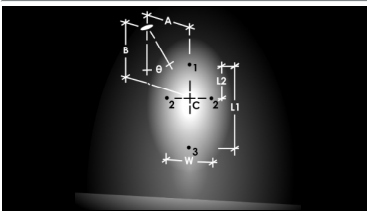
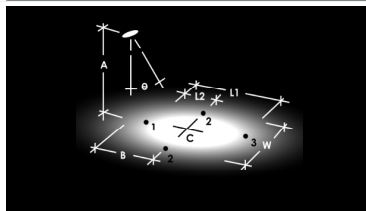


SR3Mx 15L 35K WA xx xx RA3F 15L 35K WA MW MF NL - Adjustable

CANDLEPOWER CURVE
TEST SP-R78

INTENSITY

CP at 0°		ZONAL LUMENS	
0°	2388	0° - 10°	233 18%
5°	2345	0° - 20°	787 62%
15°	2045	0° - 30°	1182 93%
25°	762	0° - 40°	1258 99%
35°	76	0° - 60°	1265 100%
45°	4	0° - 80°	1268 100%
55°	2	0° - 90°	1270 100%
65°	2		
75°	1		
85°	1		
90°	2		

INITIAL FC ON VERTICAL PLANE
30° aiming angleINITIAL FC ON HORIZONTAL PLANE
30° aiming angle

A	B	C	1	2	3	W	L1	L2
2'	3.5'	75 fc	151 fc	22 fc	1 fc	3.4'	14.2'	1.9'
3'	5.2'	33 fc	67 fc	10 fc	0 fc	5.0'	21.3'	2.9'
4'	6.9'	19 fc	38 fc	5 fc	0 fc	6.7'	28.4'	3.9'
6'	10.4'	8 fc	17 fc	2 fc	0 fc	10.1'	42.7'	5.8'

Dimensions W, L1 and L2 based on beam angle

A	B	C	1	2	3	W	L1	L2
6'	3.5'	43 fc	32 fc	18 fc	7 fc	5.8'	7.1'	2.7'
8'	4.6'	24 fc	18 fc	10 fc	4 fc	7.8'	9.5'	3.6'
10'	5.8'	16 fc	12 fc	7 fc	3 fc	9.7'	11.9'	4.5'
12'	6.9'	11 fc	8 fc	5 fc	2 fc	11.6'	14.3'	5.4'

Dimensions W, L1 and L2 based on beam angle

Delivered Lumens: 1270
Luminaire Watts: 21.72
Efficacy: 58.47

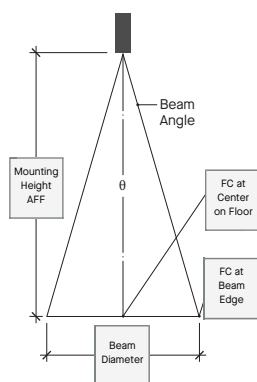
CP at 0° (Nadir): 2388

Beam Angle: 46°

CCT Multiplier: 27K x 0.96, 30K x 0.98, 40K x 1.05

HOW TO USE PERFORMANCE DATA

SINGLE UNIT



Cone of Light of a single, symmetrical beam luminaire. Direct initial illumination (FC) and Beam Angle diameter directly beneath fixture; shown at different distances from aperture to horizontal plane. Calculated using Inverse Square Law.

$$FC_H = CP \times (\cos \theta) \div D^2$$

$$\text{Beam Diam.} = \frac{1}{2} \text{ Beam Angle (Tan)} \times 2D$$

- CP Candela at 0° (Nadir)
- $\cos \theta$ Cosine of θ Angle
- D Distance (Mounting Height AFF)
- FC_H Footcandles, Horizontal
- Beam Angle Cone of light to 50% max. CP
- Beam Diam. Pattern of light at Beam Angle

INITIAL FC ON VERTICAL PLANE & INITIAL FC ON HORIZONTAL PLANE

INITIAL FC ON VERTICAL PLANE

- A Horizontal distance from vertical plane to center of aperture
- B Vertical distance from aperture to center of beam on vertical plane
- C Vertical FC at center of beam on vertical plane
- 1 Vertical FC at top edge of beam angle on vertical plane
- 2 Vertical FC at left and right edge of beam angle on vertical plane
- 3 Vertical FC at bottom edge of beam angle on vertical plane
- W Width of beam angle (point 2 to point 2) on vertical plane
- L1 Length of beam angle (point 1 to point 3) on vertical plane
- L2 Length from center (point C to point 1) on vertical plane

INITIAL FC ON HORIZONTAL PLANE

- A Vertical distance from horizontal plane to center of aperture
- B Horizontal distance from aperture to center of beam on horizontal plane
- C Horizontal FC at center of beam on horizontal plane
- 1 Horizontal FC at top edge of beam angle on horizontal plane
- 2 Horizontal FC at left and right edge of beam angle on horizontal plane
- 3 Horizontal FC at bottom edge of beam angle on horizontal plane
- W Width of beam angle (point 2 to point 2) on horizontal plane
- L1 Length of beam angle (point 1 to point 3) on horizontal plane
- L2 Length from center (point C to point 1) on horizontal plane