Spectrum Lighting

PROJECT:

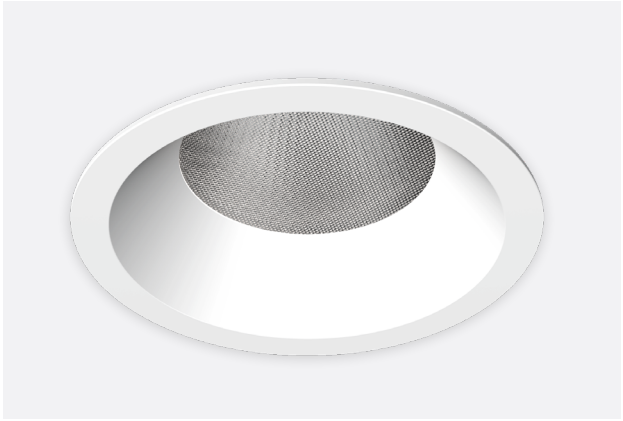
QUANTITY: TYPE:

spec

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
						+		+								
EXAMPLE																
SR3MO	10L	35K	MD	DS2W1	FS	+	H12	+	RD3F	10L	35K	MD	MW	MF	GL	WL

FIXTURE HOUSING SPECIFICATION

SERIES

FLANGED HOUSINGS / FRAMES	
SR3MO	Non-IC New Construction (Open Frame)
SR3MC[1,2]	Non-IC New Construction (Closed Frame)
SR3MI[1,2]	IC New Construction
FLANGELESS HOUSINGS / FRAMES	
SR3NMO	Non-IC New Construction (Open Frame)
SR3NMC[2]	Non-IC New Construction (Closed Frame)
SR3NMI[2]	IC New Construction

1 Adjustable Accent Trims offered in SR3MC and SR3MI only
2 Chicago Plenum offered in SR3MC, SR3NMC, and SR3MI, SR3NMI only

LUMENS[3,5]

07L	700Lm
10L	1000Lm
15L[4]	1500Lm
20L[4]	2000Lm
25L[4]	2500Lm

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

CCT[6]

80 CRI	
27K	2700K
30K	3000K
35K	3500K
40K	4000K
90 CRI	
27HK	2700K
30HK	3000K
35HK	3500K
40HK	4000K

6 CCT Selection must match Trim CCT selection

OPTIC

DOWNLIGHT AND PINHOLE DOWNLIGHT	
ND	Narrow Beam
MD	Medium Beam
WD	Wide Beam
XW	Extra Wide Beam
EB1[7]	Elliptical Beam 1 (63°x29°)
EB2[7]	Elliptical Beam 2 (64°x32°)
ADJUSTABLE ACCENT	
XN	Extra Narrow Beam
NA	Narrow Beam
MA	Medium Beam
WA	Wide Beam
WALL WASH	
WW[8]	Wall Wash

7 EB1 and EB2 available with RD3F, RD3N and RDD3N trims only
8 WW Optic for Wall Wash Trims Only

DRIVER / DIMMING / VOLTAGE

120V	
DO101	1% 0-10v
DS2W1	ELV/Triac
DL3E1	1% Lutron, Ecosystem Fade
EL101	1% EldoLED 0-10V
ED011	0.1% EldoLED 0-10V
AWN1[9]	Athena Wireless Node (RF Module Only)
277V	
DO102	1% 0-10v
DL3E2	1% Lutron, Ecosystem Fade
EL102	1% EldoLED
ED012	0.1% EldoLED
AWN2[9]	Athena Wireless Node (RF Module Only)

9 Athena Wireless Node not available with CCEA

OPTIONS[10]

FS	Fusing
EM[11,12]	Emergency Battery
CCEA[11]	Chicago Plenum

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

BAR HANGER OPTIONS

H12	12" - 24" Expandable Bars
BH27	27" Solid Bars
CB24	24" C-Channel Bars
CH24	24" Chicago Bars

AVAILABLE TRIM / MODULE TYPES

RDD3F RNW3F RD3F RD3N RDD3N RA3F RNW3N RH3F

NEW NEW NEW

TRIM / MODULE SPECIFICATION

TRIM

DOWNLIGHT & PINHOLE DOWNLIGHT	
RD3F	Downlight Shallow Flange
RH3F	Pinhole Flange
RDD3F	Downlight Deep Flange
ADJUSTABLE ACCENT	
RA3F[13]	35° Adjustable Shallow Flange
WALL WASH WITH FLANGE	
RNW3F	Open Wall Wash Flange
DOWNLIGHT FLANGELESS	
RD3N	Downlight Shallow Flangeless
RDD3N	Downlight Deep Flangeless
WALL WASH FLANGELESS	
RNW3N	Open Wall Wash Flangeless

13 Adjustable Accent requires a SR3MC or SR3MI Frame

LUMENS[14,16]

07L	700Lm
10L	1000Lm
15L[15]	1500Lm
20L[15]	2000Lm
25L[15]	2500Lm

14 Lumen Selection Must Match Frame
15 15L max for Adjustable Accent
16 Nominal Delivered Lumens Are Shown Above, Refer to Photometric Data for Delivered Lumens

CCT [17]

80 CRI	
27K	2700K
30K	3000K
35K	3500K
40K	4000K
90 CRI	
27HK	2700K
30HK	3000K
35HK	3500K
40HK	4000K

17 CCT Selection must match Frame CCT selection

OPTIC

DOWNLIGHT & PINHOLE	
ND	Narrow Beam (23°)
MD	Medium Beam (28°)
WD	Wide Beam (37°)
XW	Extra Wide Beam (64°)
EB1[18]	Elliptical Beam 1 (63°x29°)
EB2[18]	Elliptical Beam 2 (64°x32°)
ADJUSTABLE ACCENT	
XN	Extra Narrow Beam (13°)
NA	Narrow Beam (24°)
MA	Medium Beam (34°)
WA	Wide Beam (46°)
WALL WASH	
WW[19]	Wall Wash

18 EB1 and EB2 available with RD3F, RD3N and RDD3F, RDD3N trims only
19 WW Optic for Wall Wash Trims Only

FINISH[20]

MW	Matte White
MB	Matte Black
PT	Platinum Silver
CC	Custom Color

20 Wall Wash and Pinhole Finish is for Flange Only

FLANGE FINISH

TRIM WITH FLANGE	
MF	Match Trim Finish
WF[21]	White Flange
FLANGELESS TRIM	
No Option Available	

21 For use with Matte Black, Platnium Silver and Custom Color finishes only

ACCESSORIES[22,26]

NL[23,24]	No Lens
SO	Micro Prism Glass Lens
GL	Clear Glass Lens
HL[25/26]	Hex Cell Louver

22 List accessories / options in order of appearance
23 WL and Lens options Not Available With Wall Wash (NL Only)
24 EB1 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/or HL or neither

OPTIONS

WL[23,27,28]	Wet Location

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

SR3 3" ROUND RECESSED

Spectrum Lighting

FINISH

MW Matte White

MB Matte Black

PT Platinum Silver

CC 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.

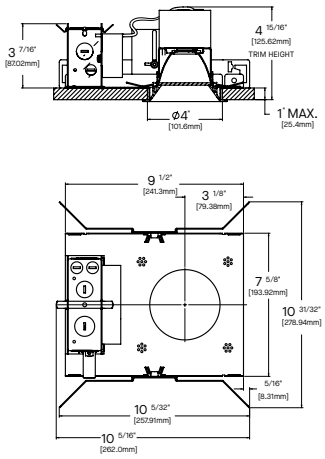
SR3 3" ROUND RECESSED

HOUSING DIMENSIONS

Ceiling Cutout: 4" Ø

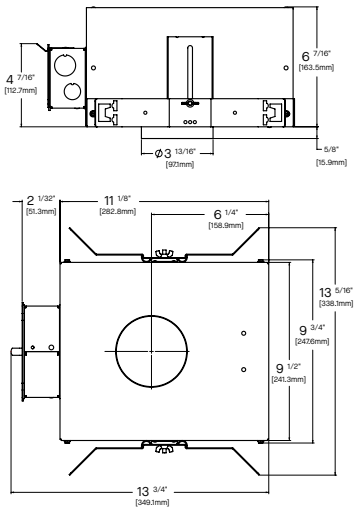
SR3MO - Non-IC New Construction

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



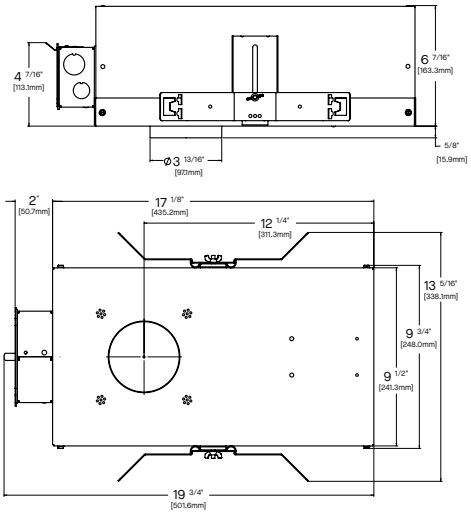
SR3MC - Non-IC New Construction, Adjustable

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

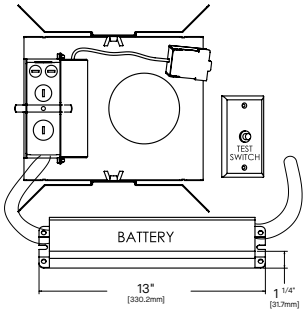
IC rated frame-in kit for new construction with direct insulation contact and CCEA (Chicago Plenum) compatibility.



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



SR3 3" ROUND RECESSED

Spectrum Lighting

OPTICS

XN - Extra Narrow Beam

ND - Narrow Beam

MD - Medium Beam

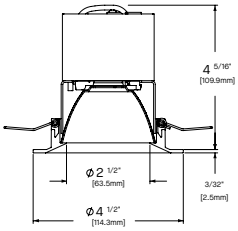
WD - Wide Beam

XW - Extra Wide Beam

WW - Wall Wash

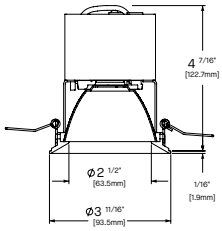
TRIM / MODULE DATA

RD3F - Downlight Shallow Flange



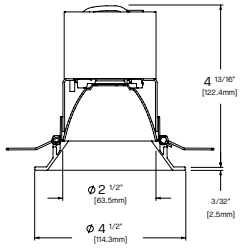
Add 1/8" Height When Using Lens

RD3N - Downlight Shallow Flangeless



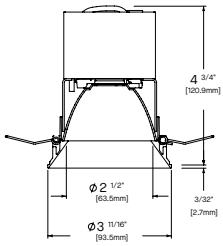
Add 1/8" Height When Using Lens

RDD3F - Downlight Deep Flange



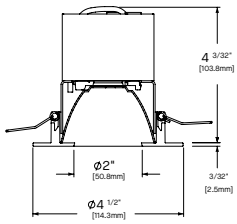
Add 1/8" Height When Using Lens

RDD3N - Downlight Deep Flangeless



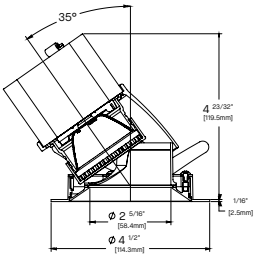
Add 1/8" Height When Using Lens

RH3F - Pinhole Flange

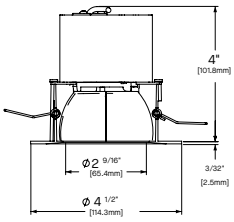


Add 1/8" Height When Using Lens

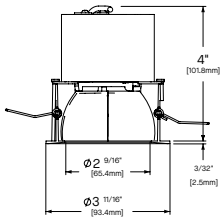
RA3F - 30° Adjustable Shallow Flange



RNW3F - Open Wall Wash Flange



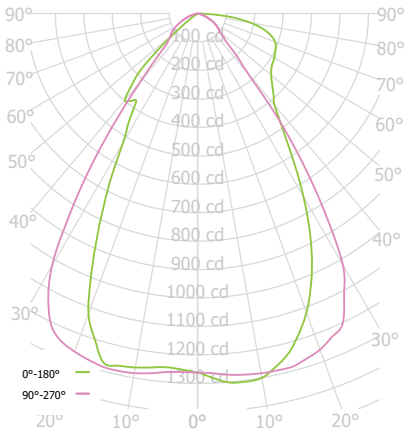
RNW3N - Open Wall Wash Flangeless



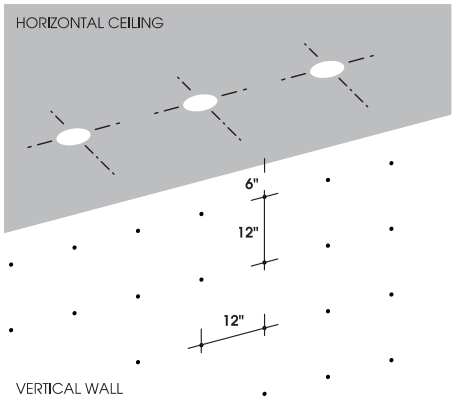
SR3 3" ROUND RECESSED

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

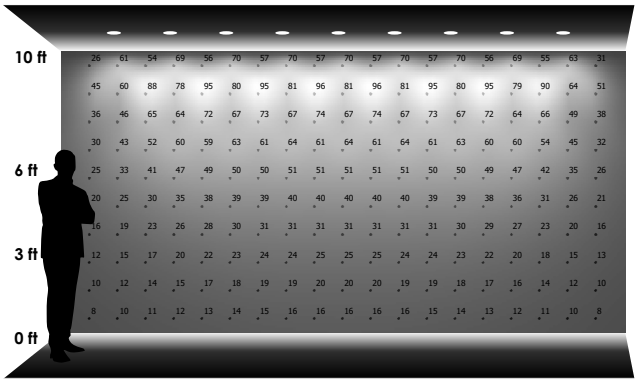
CANDLEPOWER CURVE TEST SP-01423	PERFORMANCE SUMMARY	REFERENCE DIAGRAM



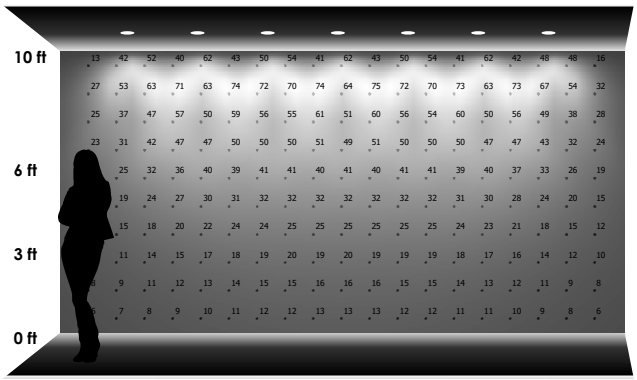
Delivered Lumens:	1900
Luminaire Watts:	26.3
LER:	72.24
CP at 0deg (Nadir):	1262
CRI:	80
Lumen Multiplier:	10L x 0.44, 15L x 0.60, 20L x 0.82
CCT Multiplier:	27K x 0.95, 30K x 0.97, 40K x 1.03



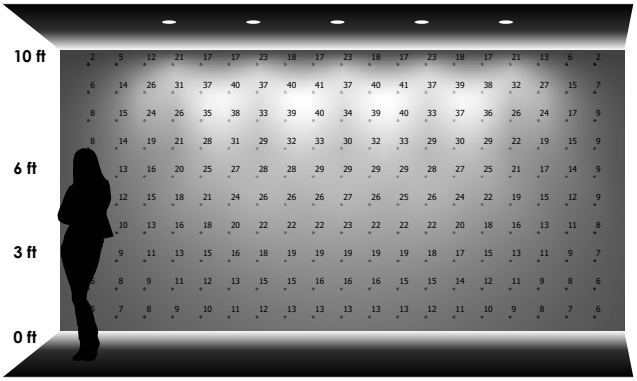
PERFORMANACE DATA - INITIAL ILLUMINATION (FOOTCANDLES) ON WALL - DIRECT LIGHT ONLY



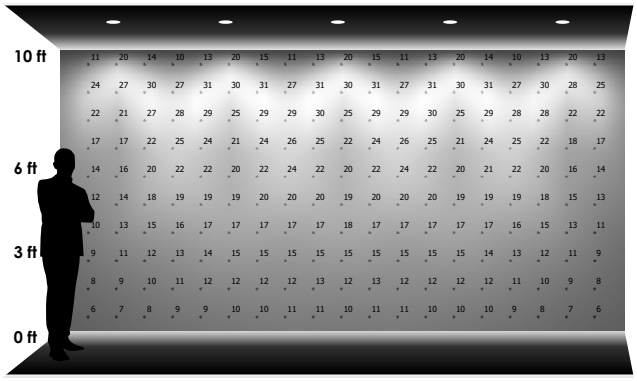
9 LUMINAIRES
2' - 0" away from wall
2' - 0" between luminaires



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



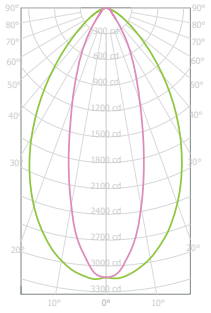
5 LUMINAIRES
3' - 0" away from wall
3' - 0" between luminaires



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

	0°	90°	180°	270°
0°	3134	3134	3134	3134
5°	3108	2902	3122	2889
15°	2722	1681	2751	1676
25°	2081	782	2106	784
35°	1366	319	1350	317
45°	730	114	686	115
55°	325	68	303	68
90°	2	2	2	2

ZONAL LUMENS

0° - 10°	279	11%
0° - 20°	877	36%
0° - 30°	1476	60%
0° - 40°	1927	79%
0° - 60°	2346	96%
0° - 80°	2440	100%
0° - 90°	2444	100%
Total	2444	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	10.0 '	4.5 '	15 fc
10 '	31 fc	12.5 '	5.7 '	10 fc
12 '	22 fc	15.0 '	6.8 '	7 fc
14 '	16 fc	17.5 '	7.9 '	5 fc
16 '	12 fc	20.0 '	9.1 '	4 fc
20 '	8 fc	25.0 '	11.4 '	2 fc
24 '	5 fc	30.0 '	13.6 '	2 fc
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.

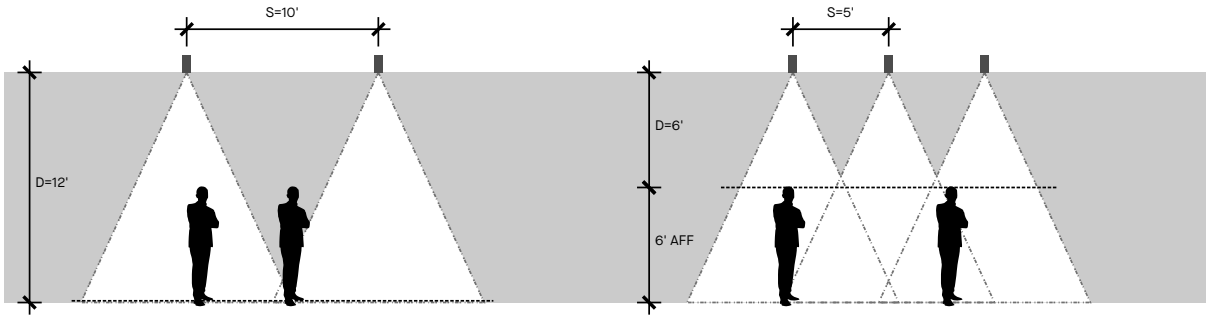
To estimate uniform illumination at a horizontal plane, use Spacing Ratio data to determine maximum fixture spacing.

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

64° x 32° 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: 0.92 x 0.52
With optic oriented as shown, Spacing Ratio should be ≤ 0.92

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

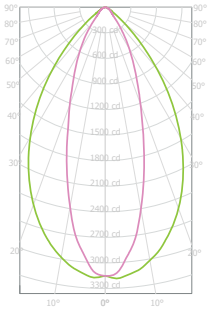
Note: Illumination will also be uniform at < 6' AFF

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

SR3 3" ROUND RECESSED

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

CANDLEPOWER CURVE
TEST SP-01426



INTENSITY
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	98%
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.

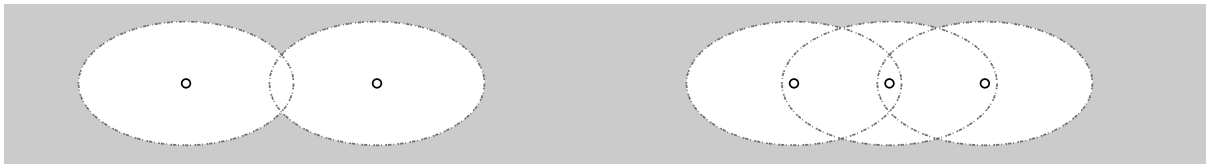
Spacing Ratio: The on-center fixture spacing, divided by the vertical distance from the fixture aperture to the illuminated surface.

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

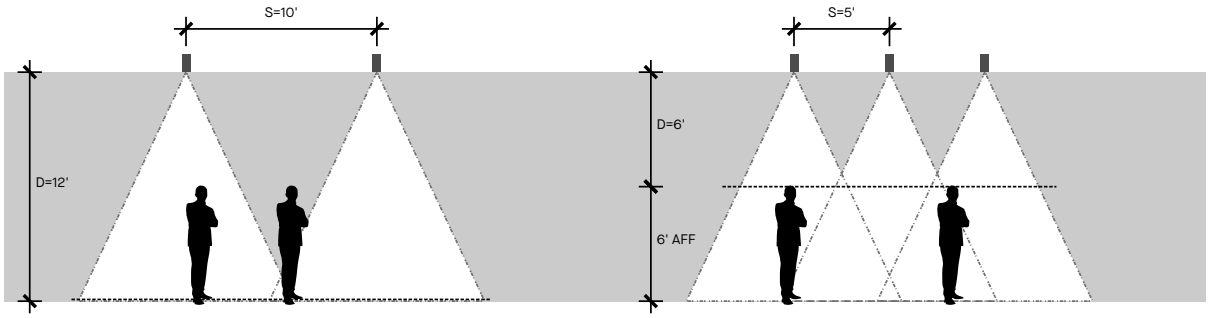
The examples below illustrate concepts for an aisle/hallway, for uniform illumination (FC) at floor, or at 6' above finished floor (AFF). To estimate maximum fixture spacing for uniform illumination, multiply mounting Distance x Spacing Ratio.

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

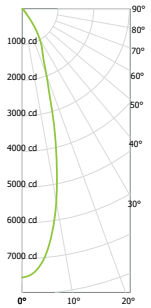
$$\frac{S}{D} = \frac{10'}{12'} = 0.83$$

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

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

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

CANDLEPOWER CURVE
TEST SP-01410



INTENSITY
CANDELA
0° AZIMUTH

	0°
0°	7528
5°	7023
15°	3486
25°	1340
35°	504
45°	40
55°	19
90°	2

ZONAL LUMENS

0° - 10°	625	24%
0° - 20°	1571	60%
0° - 30°	2198	84%
0° - 40°	2519	97%
0° - 60°	2575	99%
0° - 80°	2590	99%
0° - 90°	2592	100%
Total	2605	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge
8 '	118 fc	4.1 '	54 fc
10 '	75 fc	5.1 '	34 fc
12 '	52 fc	6.1 '	24 fc
14 '	38 fc	7.1 '	17 fc
16 '	29 fc	8.1 '	13 fc
20 '	19 fc	10.2 '	9 fc
24 '	13 fc	12.2 '	6 fc
28 '	10 fc	14.2 '	4 fc

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
HORIZONTAL FOOTCANDLES AND WATTS/SQ FT

Ceiling Height	Fixture Spacing	RCR 4		RCR 6	
		FC *	W/Sq. Ft.	FC *	W/Sq. Ft.
12'	4'	155	1.68	142	1.69
16'	6'	77	0.83	71	0.84
20'	8'	32	0.34	42	0.50
Delivered Illuminance Rating: (DIR)		92 FC per W/Sq. Ft.		84 FC per W/Sq. Ft.	

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

Delivered Lumens: 2605
Luminaire Watts: 26.3
LER: 99.05

CP at 0° (Nadir): 7528
CRI: 80

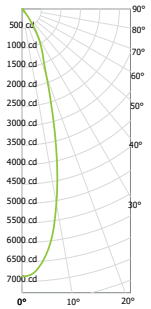
Beam Angle: 29°
Spacing Ratio: 0.47

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

	0°
0°	6876
5°	6449
15°	3213
25°	1240
35°	404
45°	49
55°	19
90°	1

ZONAL LUMENS

0° - 10°	575	24%
0° - 20°	1452	61%
0° - 30°	2023	85%
0° - 40°	2287	96%
0° - 60°	2346	99%
0° - 80°	2360	99%
0° - 90°	2363	99%
Total	2375	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge
8 '	107 fc	4.1 '	49 fc
10 '	69 fc	5.1 '	31 fc
12 '	48 fc	6.2 '	22 fc
14 '	35 fc	7.2 '	16 fc
16 '	27 fc	8.2 '	12 fc
20 '	17 fc	10.3 '	8 fc
24 '	12 fc	12.3 '	5 fc
28 '	9 fc	14.4 '	4 fc

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
HORIZONTAL FOOTCANDLES AND WATTS/SQ FT

Ceiling Height	Fixture Spacing	RCR 4		RCR 6	
		FC *	W/Sq. Ft.	FC *	W/Sq. Ft.
12'	4'	141	1.68	130	1.69
16'	6'	70	0.83	64	0.84
20'	8'	29	0.34	38	0.50
Delivered Illuminance Rating: (DIR)		84 FC per W/Sq. Ft.		77 FC per W/Sq. Ft.	

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

Delivered Lumens: 2375
Luminaire Watts: 26.3
LER: 90.30

CRI: 80

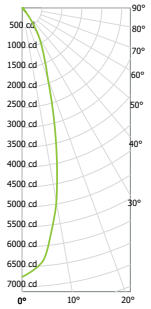
Beam Angle: 29°
Spacing Ratio: 0.48

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

	0°
0°	6749
5°	6325
15°	3179
25°	1258
35°	449
45°	67
55°	33
90°	2

ZONAL LUMENS

0° - 10°	558	23%
0° - 20°	1439	59%
0° - 30°	2030	83%
0° - 40°	2315	95%
0° - 60°	2404	99%
0° - 80°	2425	99%
0° - 90°	2427	100%
Total	2438	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge
8 '	105 fc	4.1 '	48 fc
10 '	67 fc	5.1 '	31 fc
12 '	47 fc	6.2 '	21 fc
14 '	34 fc	7.2 '	16 fc
16 '	26 fc	8.2 '	12 fc
20 '	17 fc	10.3 '	8 fc
24 '	12 fc	12.3 '	5 fc
28 '	9 fc	14.4 '	4 fc

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
HORIZONTAL FOOTCANDLES AND WATTS/SQ FT

Ceiling Height	Fixture Spacing	RCR 4		RCR 6	
		FC *	W/Sq. Ft.	FC *	W/Sq. Ft.
12'	4'	144	1.68	132	1.69
16'	6'	71	0.83	65	0.84
20'	8'	29	0.34	39	0.50
Delivered Illuminance Rating: (DIR)		86 FC per W/Sq. Ft.		78 FC per W/Sq. Ft.	

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

Delivered Lumens: 2438
Luminaire Watts: 26.3
LER: 92.70

CP at 0° (Nadir): 6749
CRI: 80

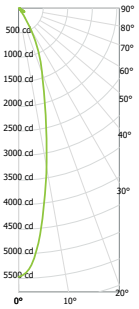
Beam Angle: 29°
Spacing Ratio: 0.48

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

	0°
0°	5469
5°	4752
15°	2108
25°	935
35°	188
45°	48
55°	124
90°	3

ZONAL LUMENS

0° - 10°	406	22%
0° - 20°	999	55%
0° - 30°	1425	78%
0° - 40°	1557	85%
0° - 60°	1696	93%
0° - 80°	1797	98%
0° - 90°	1814	99%
Total	1827	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge
8 '	85 fc	3.4 '	40 fc
10 '	55 fc	4.3 '	26 fc
12 '	38 fc	5.1 '	18 fc
14 '	28 fc	6.0 '	13 fc
16 '	21 fc	6.8 '	10 fc
20 '	14 fc	8.6 '	6 fc
24 '	9 fc	10.3 '	4 fc
28 '	7 fc	12.0 '	3 fc

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
HORIZONTAL FOOTCANDLES AND WATTS/SQ FT

Ceiling Height	Fixture Spacing	RCR 6		RCR 8	
		FC *	W/Sq. Ft.	FC *	W/Sq. Ft.
16'	4'	73	1.31	75	1.48
20'	5'	62	1.12	45	0.88
24'	6'	41	0.74	30	0.58
Delivered Illuminance Rating: (DIR)		55 FC per W/Sq. Ft.		51 FC per W/Sq. Ft.	

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

Delivered Lumens: 1827
Luminaire Watts: 26.3
LER: 69.47

CP at 0° (Nadir): 5469
CRI: 80

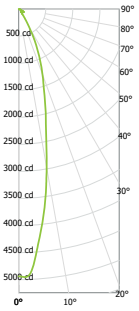
Beam Angle: 24°
Spacing Ratio: 0.40

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 GL - Pin Hole

CANDLEPOWER CURVE
TEST SP-01412_1



INTENSITY
CANDELA
0° AZIMUTH

	0°
0°	4938
5°	4294
15°	1921
25°	814
35°	148
45°	54
55°	105
90°	2

ZONAL LUMENS

0° - 10°	369	23%
0° - 20°	899	56%
0° - 30°	1261	79%
0° - 40°	1369	86%
0° - 60°	1498	94%
0° - 80°	1575	99%
0° - 90°	1584	99%
Total	1595	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge
8 '	77 fc	3.4 '	36 fc
10 '	49 fc	4.2 '	23 fc
12 '	34 fc	5.1 '	16 fc
14 '	25 fc	5.9 '	12 fc
16 '	19 fc	6.8 '	9 fc
20 '	12 fc	8.5 '	6 fc
24 '	9 fc	10.2 '	4 fc
28 '	6 fc	11.9 '	3 fc

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
HORIZONTAL FOOTCANDLES AND WATTS/SQ FT

Ceiling Height	Fixture Spacing	RCR 6		RCR 8	
		FC *	W/Sq. Ft.	FC *	W/Sq. Ft.
16'	4'	64	1.31	66	1.48
20'	5'	55	1.12	39	0.88
24'	6'	36	0.74	26	0.58
Delivered Illuminance Rating: (DIR)		49 FC per W/Sq. Ft.		45 FC per W/Sq. Ft.	

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

Delivered Lumens: 1595
Luminaire Watts: 26.3
LER: 60.65

CP at 0° (Nadir): 4938
CRI: 80

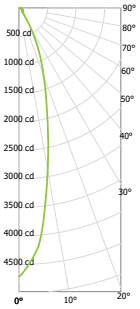
Beam Angle: 24°
Spacing Ratio: 0.40

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 SO - Pin Hole

CANDLEPOWER CURVE
TEST SP-01414_1



INTENSITY
CANDELA
0° AZIMUTH

	0°
0°	4711
5°	4133
15°	1896
25°	810
35°	182
45°	72
55°	93
90°	3

ZONAL LUMENS

0° - 10°	352	21%
0° - 20°	886	54%
0° - 30°	1254	76%
0° - 40°	1383	84%
0° - 60°	1525	93%
0° - 80°	1619	99%
0° - 90°	1628	99%
Total	1642	100%

SINGLE UNIT: PERFORMANCE
HORIZONTAL FOOTCANDLES
INITIAL DOWNLIGHT ONLY

Mounting Distance	FC at Beam Center	Diameter at Beam Angle	FC at Beam Edge
8 '	74 fc	3.6 '	34 fc
10 '	47 fc	4.5 '	22 fc
12 '	33 fc	5.4 '	15 fc
14 '	24 fc	6.3 '	11 fc
16 '	18 fc	7.1 '	9 fc
20 '	12 fc	8.9 '	5 fc
24 '	8 fc	10.7 '	4 fc
28 '	6 fc	12.5 '	3 fc

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
HORIZONTAL FOOTCANDLES AND WATTS/SQ FT

Ceiling Height	Fixture Spacing	RCR 6		RCR 8	
		FC *	W/Sq. Ft.	FC *	W/Sq. Ft.
16'	4'	65	1.31	67	1.48
20'	5'	56	1.12	40	0.88
24'	6'	37	0.74	26	0.58
Delivered Illuminance Rating: (DIR)		50 FC per W/Sq. Ft.		45 FC per W/Sq. Ft.	

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

Delivered Lumens: 1642
Luminaire Watts: 26.3
LER: 62.43

CP at 0° (Nadir): 4711
CRI: 80

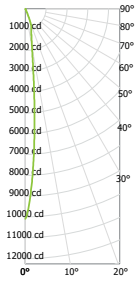
Beam Angle: 25°
Spacing Ratio: 0.42

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

CANDLEPOWER CURVE
TEST SP-R72



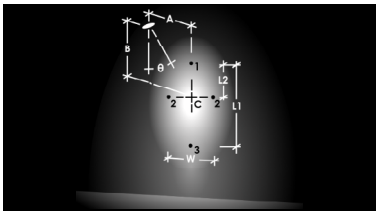
INTENSITY

	CP at 0°
0°	10093
5°	5075
15°	1079
25°	44
35°	5
45°	3
55°	2
65°	2
75°	2
85°	1
90°	1

ZONAL LUMENS

0° - 10°	594	49%
0° - 20°	1051	87%
0° - 30°	1191	99%
0° - 40°	1196	99%
0° - 60°	1200	100%
0° - 80°	1204	100%
0° - 90°	1205	100%

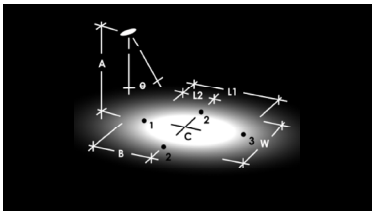
INITIAL FC ON VERTICAL PLANE
30° aiming angle



A	B	C	1	2	3	W	L1	L2
2'	3.5'	315 fc	267 fc	150 fc	79 fc	0.9'	1.9'	0.8'
3'	5.2'	140 fc	119 fc	67 fc	35 fc	1.4'	2.9'	1.2'
4'	6.9'	79 fc	67 fc	37 fc	20 fc	1.8'	3.9'	1.5'
6'	10.4'	35 fc	30 fc	17 fc	9 fc	2.8'	5.8'	2.3'

Dimensions W, L1 and L2 based on beam angle

INITIAL FC ON HORIZONTAL PLANE
30° aiming angle



A	B	C	1	2	3	W	L1	L2
6'	3.5'	182 fc	108 fc	90 fc	73 fc	1.6'	1.9'	0.9'
8'	4.6'	102 fc	61 fc	51 fc	41 fc	2.1'	2.5'	1.2'
10'	5.8'	66 fc	39 fc	32 fc	26 fc	2.7'	3.1'	1.4'
12'	6.9'	46 fc	27 fc	22 fc	18 fc	3.2'	3.7'	1.7'

Dimensions W, L1 and L2 based on beam angle

Delivered Lumens: 1205
Luminaire Watts: 21.68
Efficacy: 55.58

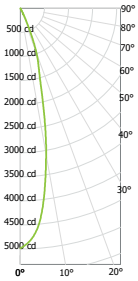
CP at 0° (Nadir): 10093

Beam Angle: 13°

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

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

CANDLEPOWER CURVE
TEST SP-R107



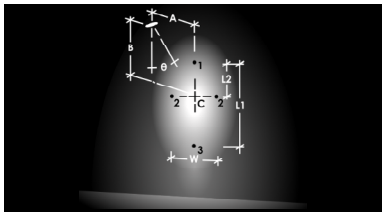
INTENSITY

	CP at 0°
0°	4984
5°	4490
15°	1651
25°	303
35°	12
45°	4
55°	2
65°	2
75°	1
85°	1
90°	1

ZONAL LUMENS

0° - 10°	393	37%
0° - 20°	868	83%
0° - 30°	1031	98%
0° - 40°	1041	99%
0° - 60°	1045	100%
0° - 80°	1048	100%
0° - 90°	1049	100%

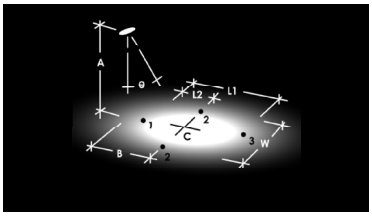
INITIAL FC ON VERTICAL PLANE
30° aiming angle



A	B	C	1	2	3	W	L1	L2
2'	3.5'	156 fc	186 fc	66 fc	18 fc	1.7'	3.9'	1.2'
3'	5.2'	69 fc	83 fc	29 fc	8 fc	2.5'	5.9'	1.9'
4'	6.9'	39 fc	47 fc	16 fc	5 fc	3.4'	7.9'	2.5'
6'	10.4'	17 fc	21 fc	7 fc	2 fc	5.1'	11.8'	3.7'

Dimensions W, L1 and L2 based on beam angle

INITIAL FC ON HORIZONTAL PLANE
30° aiming angle



A	B	C	1	2	3	W	L1	L2
6'	3.5'	90 fc	60 fc	43 fc	28 fc	2.9'	3.4'	1.5'
8'	4.6'	51 fc	33 fc	24 fc	16 fc	3.9'	4.6'	2.0'
10'	5.8'	32 fc	21 fc	15 fc	10 fc	4.9'	5.7'	2.5'
12'	6.9'	22 fc	15 fc	11 fc	7 fc	5.9'	6.9'	3.0'

Dimensions W, L1 and L2 based on beam angle

Delivered Lumens: 1049
Luminaire Watts: 21.72
Efficacy: 48.30

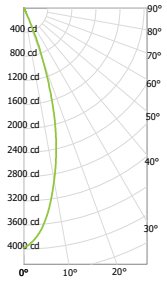
CP at 0° (Nadir): 4984

Beam Angle: 24°

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

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

CANDLEPOWER CURVE
TEST SP-R76



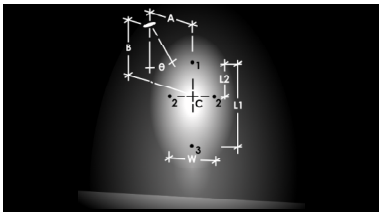
INTENSITY

	CP at 0°
0°	3983
5°	3638
15°	2024
25°	195
35°	15
45°	4
55°	2
65°	1
75°	1
85°	2
90°	1

ZONAL LUMENS

0° - 10°	355	27%
0° - 20°	979	74%
0° - 30°	1273	97%
0° - 40°	1304	99%
0° - 60°	1309	100%
0° - 80°	1313	100%
0° - 90°	1314	100%

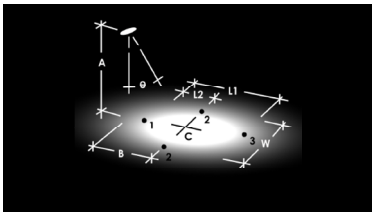
INITIAL FC ON VERTICAL PLANE
30° aiming angle



A	B	C	1	2	3	W	L1	L2
2'	3.5'	124 fc	195 fc	45 fc	6 fc	2.5'	6.8'	1.6'
3'	5.2'	55 fc	87 fc	20 fc	2 fc	3.7'	10.2'	2.4'
4'	6.9'	31 fc	49 fc	11 fc	1 fc	4.9'	13.7'	3.2'
6'	10.4'	14 fc	22 fc	5 fc	1 fc	7.4'	20.5'	4.8'

Dimensions W, L1 and L2 based on beam angle

INITIAL FC ON HORIZONTAL PLANE
30° aiming angle



A	B	C	1	2	3	W	L1	L2
6'	3.5'	72 fc	51 fc	33 fc	18 fc	4.2'	5.1'	2.1'
8'	4.6'	40 fc	29 fc	18 fc	10 fc	5.7'	6.8'	2.8'
10'	5.8'	26 fc	18 fc	12 fc	6 fc	7.1'	8.4'	3.5'
12'	6.9'	18 fc	13 fc	8 fc	4 fc	8.5'	10.1'	4.2'

Dimensions W, L1 and L2 based on beam angle

Delivered Lumens: 1314
Luminaire Watts: 21.66
Efficacy: 60.66

CP at 0° (Nadir): 3983

Beam Angle: 34°

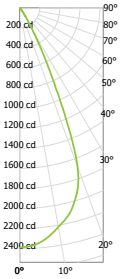
CCT Multiplier: 27K x 0.96, 30K x 0.98, 40K x 1.05

SR3 3" ROUND RECESSED

Spectrum Lighting

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

CANDLEPOWER CURVE
TEST SP-R78



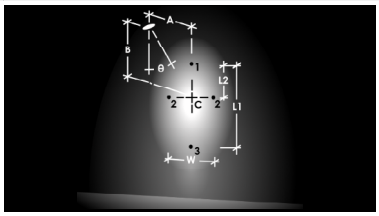
INTENSITY

	CP at 0°
0°	2388
5°	2345
15°	2045
25°	762
35°	76
45°	4
55°	2
65°	2
75°	1
85°	1
90°	2

ZONAL LUMENS

0° - 10°	233	18%
0° - 20°	787	62%
0° - 30°	1182	93%
0° - 40°	1258	99%
0° - 60°	1265	100%
0° - 80°	1268	100%
0° - 90°	1270	100%

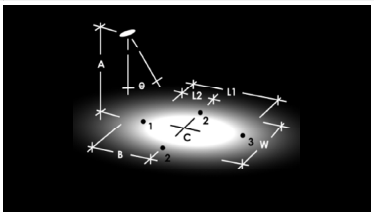
INITIAL FC ON VERTICAL PLANE
30° aiming angle



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

INITIAL FC ON HORIZONTAL PLANE
30° aiming 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

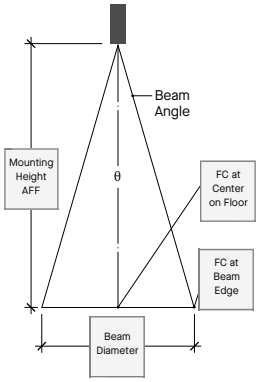
CP at 0° (Nadir): 2388

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.

$FC_H = CP \times (\text{Cos } \theta) \div D^2$

Beam Diam. = ½ Beam Angle (Tan) x 2D

- CP — Candela at 0° (Nadir)
- Cos θ — 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