

# LFR-4RA

LITEFRAME 4" ROUND ADJUSTABLE

## FEATURES

- 4" LED adjustable accent delivering 1000–6000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications, optional IC and CP housing accessories available
- Select from Angle Cut Cone, Pinhole or Slot trim styles
- Available in four beam distributions
- Precise hot aiming/locking 0–40° tilt, full 361° rotation
- 2700K–5000K, 80+ and 90+ CRI (2 SDCM)
- Dimming protocols include 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem
- NX Lighting Controls wired and wireless controls capability available



## CONTROLS TECHNOLOGY



## SPECIFICATIONS

### CONSTRUCTION

- Standard Fixture Module designed for Non-IC, Direct Install construction
- Optional Non-IC frame, IC or CP housing available with pre-installed bar hangers
- Die cast aluminum fixture module support ring with spring steel clips for secure mounting to ceiling
- Driver J-Box can be installed and accessed from below the ceiling as direct install or easily snap on to optional housing frame/enclosures
- Light Engine connections use plenum rated (CMP) cable

### OPTICS

- Manual friction adjustment with angle indicator and thumbscrew lock for precise hot aiming
- Vertical Tilt: 40° (≤ 0.75" ceiling thickness); 30° (up to 1.25" ceiling thickness)
- Smooth 361° horizontal rotation with locking screw
- Multiple beam distributions allow dramatic effects with minimal occlusion
- High purity spun aluminum reflector, self-flanged
- Standard Angle Cut cone in Specular or Semi-Specular anodized or White with painted flange options
- Optional Pinhole or Slot trim styles available in White or Black

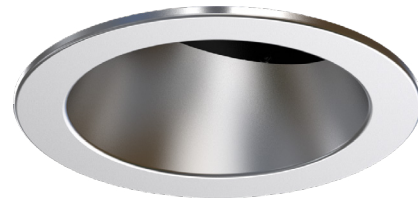
### ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >50,000 hours (TM-21)
- Universal voltage 120-277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection
- Flicker-free dimming options in a wide range of protocols from 1% to <0.1% performance
- 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem options
- NX Lighting Controls provides options for standalone and networked functionality with wired or wireless connectivity for NX system deployments
- Emergency battery pack option available with remote test switch and indicator light

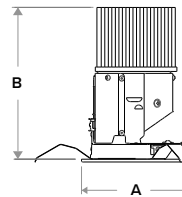
### INSTALLATION

- Accommodates ceiling thickness from 0.50" to 1.25"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)
- Chicago Plenum requires CP housing option

## LITEFRAME 2.0



## SERVICE PROGRAMS



Typical Dimensions and Weights			
Lumen Package	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	5.37 (136)	5.89 (150)	4.5 (2)
35L - 60L	5.37 (136)	7.47 (190)	4.8 (2.2)

See DIMENSIONS section for complete details

### CERTIFICATIONS

- cCSAus certified to UL 1598
- For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture
- Suitable for damp locations
- EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EMR: Emergency battery packs are California Energy Commission (CEC) Title 20 Compliant
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring

### WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	1000–6000
Wattage Range	8–54
Efficacy Range (LPW)	69–109
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–450 (120V)

\*Based on Specular, 35K, 80 CRI

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Gray Shading = Service Program **STOCK**

## ORDERING GUIDE

Example: LFR-4RA-M-10L35K8-WD-DM1 / LFR-4RA-T-S / LFR-4RD-H

CATALOG #

### FIXTURE MODULE

LFR-4RA-M	Lumen Output		CCT		CRI		Distribution	Driver Options	Control Options	Voltage	Module Options																				
<b>Ap/Shp/Funct</b>																															
<b>LFR-4RA-M</b> 4" Round Adjustable Fixture Module for Direct Install <i>(Non-IC frame, IC or CP housings available under Housing Options below)</i>	<b>10L</b> 1000	<b>15L</b> 1500	<b>20L</b> 2000	<b>25L</b> 2500	<b>30L</b> 3000	<b>35L</b> 3500	<b>40L</b> 4000	<b>50L</b> 5000 <sup>1</sup>	<b>60L</b> 6000 <sup>1</sup>	<b>27K</b> 2700K	<b>30K</b> 3000K	<b>35K</b> 3500K	<b>40K</b> 4000K	<b>50K</b> 5000K	<b>8</b> 80+	<b>9</b> 90+	<b>VNR</b> Very Narrow (14°)	<b>NR</b> Narrow (25°)	<b>MD</b> Medium (34°)	<b>WD</b> Wide (48°)	<b>DM1</b> 0-10V Dimming to 1%	<b>DM01</b> 0-10V Dimming to < 1% <sup>2</sup>	<b>PDM</b> Phase (Forward/Reverse) Dimming to 1% <sup>2</sup>	<b>DMX</b> DMX with RDM dimming to < 0.1% <sup>2</sup>	<b>DALI</b> DALI Dimming to 1% <sup>2</sup>	<b>EDM</b> Lutron Hi-Lume EcoSystem Dimming to 1% <sup>2</sup>	<b>NX Lighting Controls</b> <u>Networked Wireless</u> <b>NXW</b> NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor <sup>3</sup>	<b>Standard</b> 120-277V	<b>34</b> 347V <sup>4</sup>	<b>EMR</b> 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light <sup>5</sup>	<b>DTS</b> Device Transfer Switch with Dimming Bypass <sup>5,6</sup>

### TRIM (Ships separately)

LFR-4RA-T	Trim Style	Reflector Finish/Color	Flange Color Options
<b>Aperture/Shape/Function</b>			
<b>LFR-4RA-T</b> 4" Round Adjustable Trim Assembly	<i>Standard Cut Cone</i>	<b>S</b> Specular	<i>Standard matches reflector color</i>
	<b>PH</b> Pinhole <sup>7</sup>	<b>SS</b> Semi-Specular	<b>WT</b> White Flange <sup>8</sup>
	<b>SLT</b> Slot <sup>7</sup>	<b>WC</b> Painted White Cone and Flange	<b>BT</b> Black Flange

### HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
<input type="checkbox"/> <b>LFR-4RD-H</b> 4" Housing Frame, New Construction, Non-IC	
<input type="checkbox"/> <b>LFR-4RD-H-IC</b> 4" Housing Enclosure, New Construction, IC Rated <sup>9,10</sup>	
<input type="checkbox"/> <b>LFR-4RD-H-CP</b> 4" Housing Enclosure, New Construction, Chicago Plenum <sup>11</sup>	

Accessories	
<input type="checkbox"/> <b>LiteGear</b>	LiteGear® Inverter, 125VA–250VA
<input type="checkbox"/> <b>LPS Series</b>	LightPower Micro-Inverter, 20VA–55VA
<input type="checkbox"/> <b>LF-MOR4-R-WH</b>	Metal Oversized Ring, 4" Round, White (8.3" outside diameter)



Notes:

- 50L and 60L require marked spacing. See line art for more details.
- DM01, PDM, DMX, DALI available up to 50L. EDM available 15L–40L.
- NX requires DM1 driver option.
- 347V requires DM1 driver option; available 10L–40L; not available with Controls, DTS, EMR.
- Module options not available in combination.
- DTS available with DM1, DM01 or DALI.
- PH and SLT available in painted reflector/flange only. Must specify WT or BT.
- WT not needed for WC.
- IC available up to 35L; 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)
- IC housing not available for use in combination with Controls or with Module options EMR, DTS.
- CP available up to 35L; not available with DMX, Controls, or EMR options.

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## NX LIGHTING CONTROLS

Control Option Ordering Logic & Description			Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	-	-	✓	✓	✓		NXRM2-H
NX Wired	NXE	NX Wired Dual RJ45 SmartPORTS, without Sensor	✓	✓	✓	-	-	✓	✓	✓ <sup>1</sup>		NXDSP

<sup>1</sup> Requires NXBTC, order separately.

### NX LIGHTING CONTROLS APP



The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.



Android



Apple iOS

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## PERFORMANCE SUMMARY

Performance data provided below is for 3500K, 80 CRI with Specular Clear reflector

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	538	7.6	71
		Narrow	826	7.6	109
		Medium	749	7.6	99
		Wide	766	7.6	101
15L	1500	Very Narrow	807	11.8	68
		Narrow	1240	11.8	105
		Medium	1125	11.8	95
		Wide	1150	11.8	97
20L	2000	Very Narrow	1237	15.2	82
		Narrow	1600	15.2	105
		Medium	1452	15.2	95
		Wide	1483	15.2	97
25L	2500	Very Narrow	1353	20.9	65
		Narrow	2079	20.9	99
		Medium	1885	20.9	90
		Wide	1927	20.9	92
30L	3000	Very Narrow	1613	26.0	62
		Narrow	2478	26.0	95
		Medium	2247	26.0	86
		Wide	2297	26.0	88
35L	3500	Very Narrow	1961	29.4	67
		Narrow	3012	29.4	102
		Medium	2732	29.4	93
		Wide	2792	29.4	95
40L	4000	Very Narrow	2186	32.9	66
		Narrow	3358	32.9	102
		Medium	3046	32.9	93
		Wide	3112	32.9	95
50L	5000	Very Narrow	2659	42.0	63
		Narrow	4085	42.0	97
		Medium	3705	42.0	88
		Wide	3786	42.0	90
60L	6000	Very Narrow	3172	53.4	59
		Narrow	4873	53.4	91
		Medium	4420	53.4	83
		Wide	4517	53.4	85

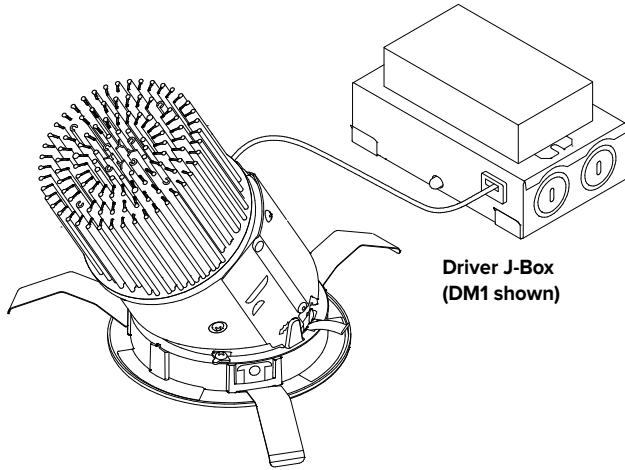
# LFR-4RA

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## DIMENSIONS

### LFR-4RA-M

Fixture Module consists of Light Engine and Driver J-Box assemblies.  
Overall dimensions for each are dependent upon configuration selected.  
See the following pages for details.



DIMENSIONAL DATA	
APERTURE	Ø 4.00" (101.6mm)
OVERALL	Ø 5.37" (136.5mm)
FLANGE WIDTH	0.71" (18.0mm)
CEILING CUTOUT	Ø 4.75" (120.7mm)
CEILING THICKNESS	0.50" – 1.25" (12.7 - 31.8mm)

**Light Engine  
with Trim assembly installed**

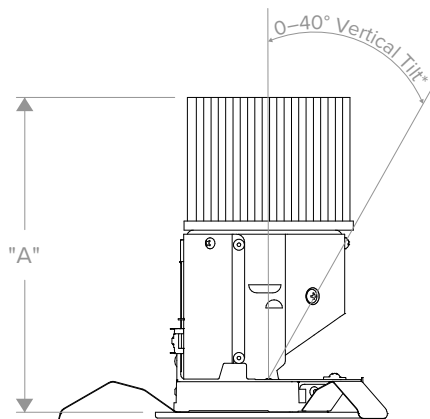
### LFR-4RA LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *		
LUMEN PACKAGE	BEAM DISTRIBUTION	
	VNR	NR / MD / WD
10L-30L	6.68" (169.7mm)	5.89" (149.7mm)
35L-60L	8.26" (209.9mm)	7.47" (189.8mm)

\* Note: Add ½" minimum plenum clearance above overall Light Engine Height.

\*\* For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture

\*\*\* Non-IC rating requires 3" from insulation and combustible materials.



\* Vertical Tilt:  
0-40° up to 0.75" ceiling thickness  
0-35° for 0.75" to 1" ceiling thickness  
0-30° for 1" to 1.25" ceiling thickness

361° Horizontal Rotation

**Side View Standard**

# LFR-4RA

LITEFRAME 4" ROUND ADJUSTABLE

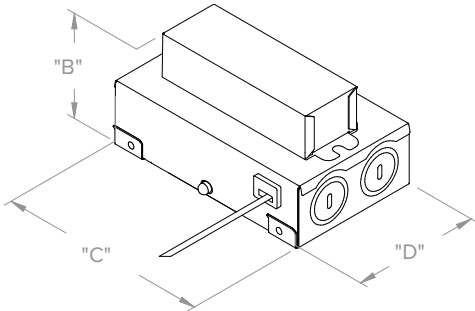
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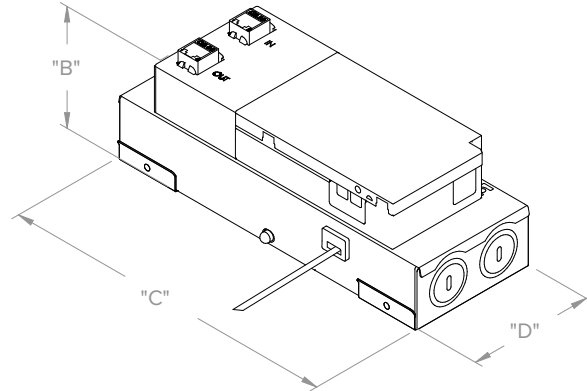
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## DIMENSIONS CONTINUED

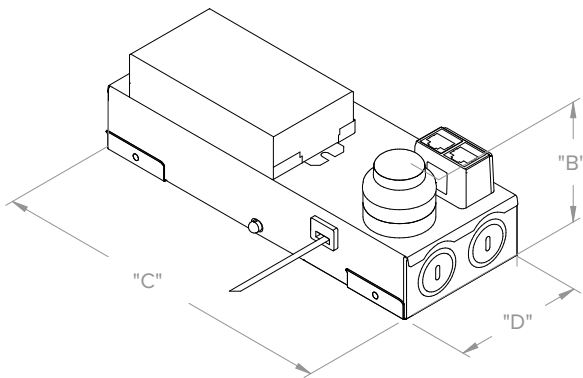
### DRIVER J-BOX



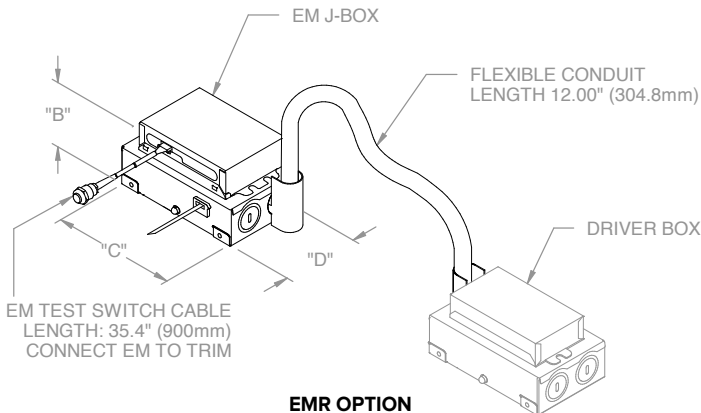
**DM1 / DM01 / PDM / DALI**



**DMX**



**NX CONTROLS OPTION**



**EMR OPTION**

EMR/Driver J-Box Conduit (provided) connects to Driver J-Box (see Driver J-Box for additional details)

OVERALL DRIVER J-BOX DIMENSIONS (ALL LUMEN OUTPUTS)				
DRIVER/ CONTROLS /OPTIONS	"B" (HEIGHT)	"C" (LENGTH)	"D" (WIDTH)	MINIMUM J-BOX PLENUM CLEARANCE
DM1 / DM01 / PDM / DALI	2.67" (67.8mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.50" (88.9mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	5.00" (127.0mm)
NX	3.02" (76.7mm)	8.68" (220.5mm)	3.23" (82.0mm)	6.00" (152.4mm)
EMR	2.73" (69.3mm)	5.34" (135.6mm)	3.23" (82.0mm)	4.00" (101.6mm)

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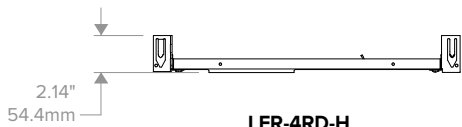
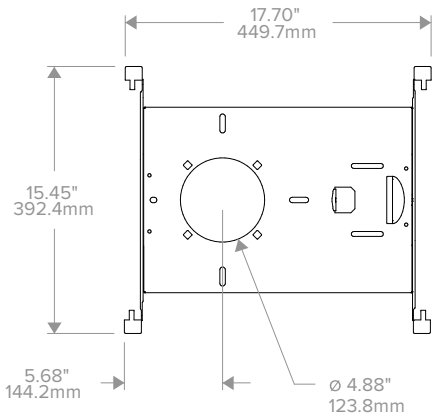
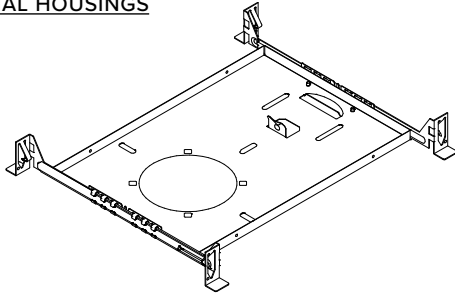
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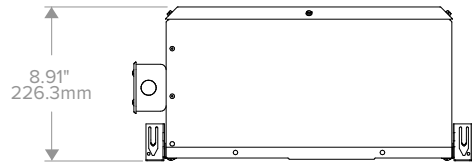
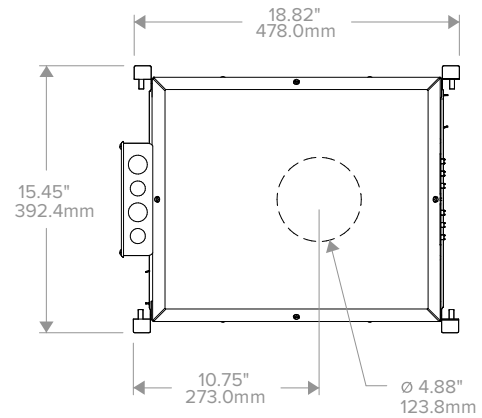
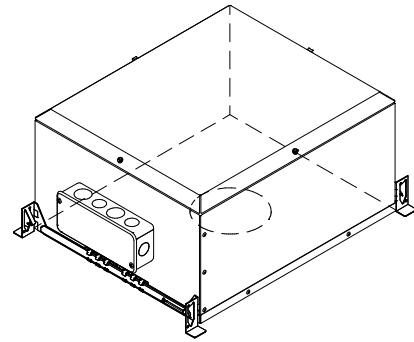
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## DIMENSIONS CONTINUED

### OPTIONAL HOUSINGS

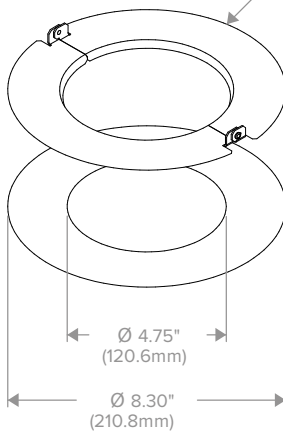


**LFR-4RD-H  
NON-IC HOUSING FRAME**



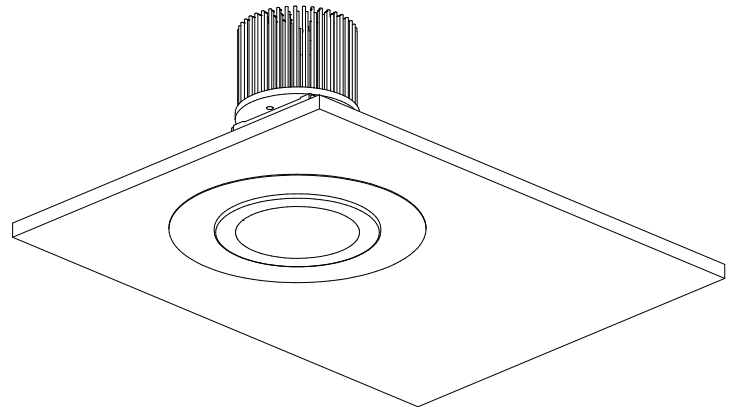
**LFR-4RD-H-IC  
LFR-4RD-H-CP  
IC or CP HOUSING**

Metal 2-piece adapter (included)  
to be installed above ceiling



**ROUND LF-MOR4-R  
METAL OVERSIZED RING**

(See LF-MOR Installation Instruction for more details)



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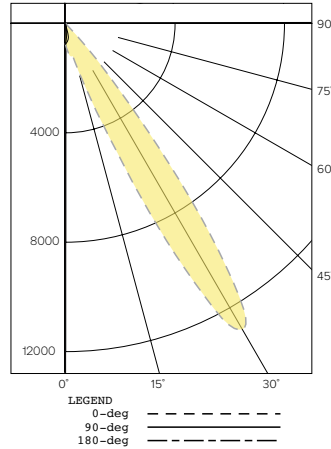
## PHOTOMETRY

### LFR-4RA-M-20L35K8VNR-DM1 / LFR-4RA-T-VNR-S

#### LUMINAIRE DATA

Test No.	21.001694
Description	2000 lm, Very Narrow, 3500K, 80 CRI
Delivered Lumens	1237
Watts	15.2W
Efficacy	82
Mounting	Recessed
Beam Angle (FWHM)	14

#### POLAR GRAPH



#### CANDELA DISTRIBUTION

Degree	Candela
0	751
5	1023
15	1670
25	8770
35	8660
45	208
55	40
65	28
75	0
85	0
90	0

#### LUMINANCE DATA\*

Vertical Angle	Average
45°	36283
55°	8602
65°	8172
75°	0
85°	0

\*Candela/Square Meter

#### ZONAL LUMEN SUMMARY

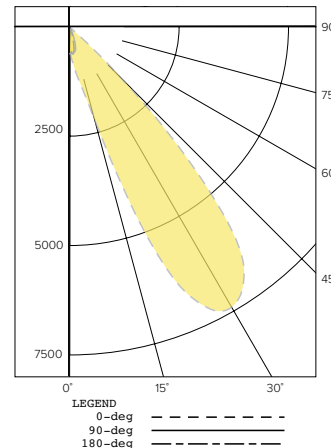
Zone	Lumens	% Luminaire
0-40	1175	94.9
0-60	1233	99.7
0-90	1237	100.0
0-180	1237	100.0

### LFR-4RA-M-20L35K8NR-DM1 / LFR-4RA-T-S

#### LUMINAIRE DATA

Test No.	21.00601
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	1600
Watts	15.2W
Efficacy	105
Mounting	Recessed
Beam Angle (FWHM)	25

#### POLAR GRAPH



#### CANDELA DISTRIBUTION

Degree	Candela
0	588
5	852
15	2217
25	6914
35	6922
45	1930
55	46
65	8
75	0
85	0
90	0

#### LUMINANCE DATA\*

Vertical Angle	Average
45°	336663
55°	9892
65°	2335
75°	0
85°	0

\*Candela/Square Meter

#### ZONAL LUMEN SUMMARY

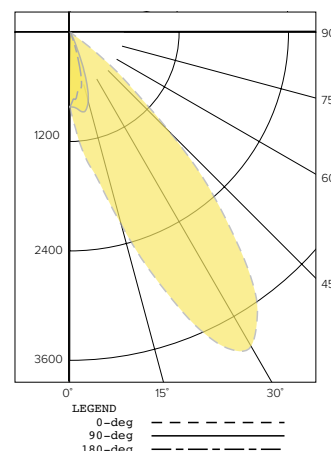
Zone	Lumens	% Luminaire
0-40	1416	88.5
0-60	1599	99.9
0-90	1600	100.0
0-180	1600	100.0

### LFR-4RA-M-20L35K8MD-DM1 / LFR-4RA-T-S

#### LUMINAIRE DATA

Test No.	P21.00602
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	1452
Watts	15.2W
Efficacy	95
Mounting	Recessed
Beam Angle (FWHM)	34

#### POLAR GRAPH



#### CANDELA DISTRIBUTION

Degree	Candela
0	818
5	1214
15	2197
25	3733
35	3564
45	1552
55	49
65	13
75	0
85	0
90	0

#### LUMINANCE DATA\*

Vertical Angle	Average
45°	270726
55°	10537
65°	3794
75°	0
85°	0

\*Candela/Square Meter

#### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1240	85.4
0-60	1449	99.8
0-90	1452	100.0
0-180	1452	100.0



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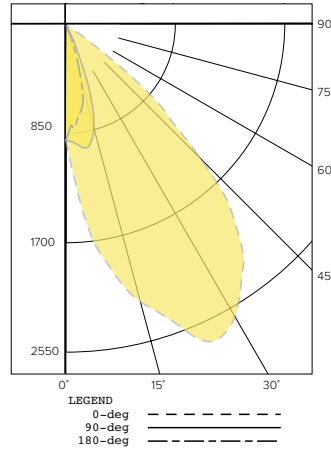
## PHOTOMETRY CONTINUED

### LFR-4RA-M-20L35K8WD-DM1 / LFR-4RA-T-S

#### LUMINAIRE DATA

Test No.	P21.00603
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	1483
Watts	15.2W
Efficacy	97
Mounting	Recessed
Beam Angle (FWHM)	48

#### POLAR GRAPH



#### CANDELA DISTRIBUTION

Degree	Candela
0	892
5	1423
15	2220
25	2705
35	2382
45	1525
55	282
65	7
75	0
85	0
90	0

#### LUMINANCE DATA\*

Vertical Angle	Average
45°	266016
55°	60643
65°	2043
75°	0
85°	0

\*Candela/Square Meter

#### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1219	82.2
0-60	1481	99.9
0-90	1483	100.0
0-180	1483	100.0

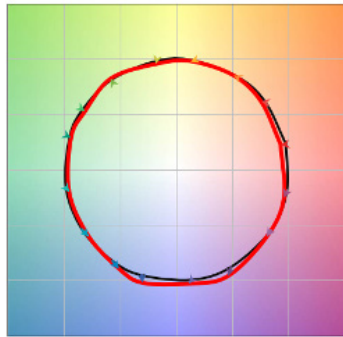
#### LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9	50K9
Multiplier	0.93	0.96	1.00	1.01	1.03	0.78	0.82	0.85	0.87	0.89

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

## TM-30 DATA

#### COLOR VECTOR GRAPHIC 3500K, 90 CRI



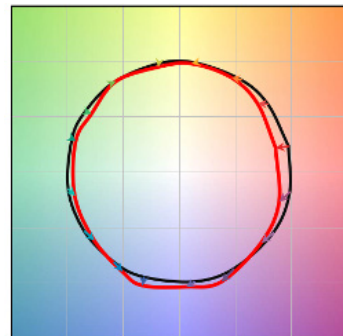
— Reference Illuminant — Test Source

#### COLOR DISTORTION GRAPHIC 3500K, 90 CRI



TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R <sub>t</sub>	85	90
R <sub>g</sub>	95	99
CCT (K)	3422	3416
D <sub>uv</sub>	-0.0008	-0.0019
x	0.4089	0.408
y	0.3906	0.3877
CIE R <sub>a</sub>	85	93
CIE R <sub>g</sub>	16	66

#### COLOR VECTOR GRAPHIC 3500K, 80 CRI



— Reference Illuminant — Test Source

#### COLOR DISTORTION GRAPHIC 3500K, 80 CRI



# LFR-4RA

LITEFRAME 4" ROUND ADJUSTABLE

## ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120–277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

\* Values for DM1 option shown, values for other dimming options may vary.

## ADDITIONAL INFORMATION

### Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information on [currentlighting.com/prescolite](http://currentlighting.com/prescolite).

### DMX

See instruction sheet on [currentlighting.com/prescolite](http://currentlighting.com/prescolite) for connection & installation information.

### Central Inverters

For full fixture output in back-up mode, we recommend you visit [currentlighting.com/dual-lite](http://currentlighting.com/dual-lite) for your Central Lighting Inverter options. Please contact your local Current representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

### Lumen Output in Emergency Mode

To determine the lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW). For example, 6W x 120 LPW = 720 lumens in emergency mode.