

LFR-4RD (SH)

LITEFRAME 4" ROUND
 NON-CONDUCTIVE SHOWER DOWNLIGHT

LITEFRAME
 2.0



FEATURES

- 4" LED downlight delivering 1000–6000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications
- Non-conductive dead-front trim with four regressed lens options
- Suitable for wet locations, covered ceiling
- IP65 rated (room side)
- 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

SERVICE PROGRAMS

STOCK QS10



CONTROLS TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Standard Fixture Module designed for Non-IC, Direct Install construction
- Optional Non-IC frame or IC 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/enclosure
- Light Engine connections use plenum rated (CMP) cable

OPTICS

- Durable, non-conductive trim with 1/2" regressed lens
- Lens options include acrylic, polycarbonate, or tempered glass micro-prism, and clear acrylic
- Smooth room side lens surface for easy wipe down
- Available in white or black trim and flange color

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
- Remote emergency battery option available

INSTALLATION

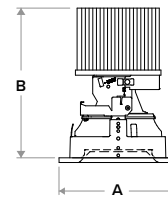
- Accommodates ceiling thickness from 0.50" to 2.50"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)

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
- IP65 rated (room side) when properly installed per installation instructions
- Suitable for wet locations, covered ceiling. EMR: 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



Typical Dimensions and Weights			
Lumen Package	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	5.54 (141)	5.45 (138)	4.3 (1.9)
35L - 60L	5.54 (141)	7.03 (179)	4.5 (2.1)

See DIMENSIONS section for complete details

KEY DATA	
Lumen Range	1000–6000
Wattage Range	8–54
Efficacy Range (LPW)	71–88
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–425 (120V)

*Based on 35K, 80 CRI

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Gray Shading = Service Program



ORDERING GUIDE

Example: LFR-4RD-M-10L35K8-WD-DM1 / LFR-4RD-T-SH-WTAML / LFR-4RD-H

CATALOG #

FIXTURE MODULE

LFR-4RD-M	Lumen Output		CCT		CRI		Distribution	Driver Options	Control Options	Voltage	Module Options
Ap/Shp/Funct	10L	1000	27K	2700K	8	80+	WD Wide (49°/0.7 SC)	DM1 0–10V Dimming to 1%	NX Lighting Controls	<i>Standard 120–277V</i> 34 347V ³	CP Chicago Plenum ^{4,5}
LFR-4RD-M 4" Round Downlight Fixture Module for Direct Install	15L	1500	30K	3000K	9	90+		DM01 0–10V Dimming to < 1% ¹	Networked Wireless		EMR 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light ⁵
<i>(Non-IC frame or IC housing available under Housing Options below)</i>	20L	2000	35K	3500K				PDM Phase (Forward/Reverse) Dimming to 1% ¹	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ²		DTS Device Transfer Switch with Dimming Bypass ^{5,6}
	25L	2500	40K	4000K				DMX DMX with RDM dimming to < 0.1% ¹	Networked Wired		
	30L	3000	50K	5000K				DALI DALI Dimming to 1% ¹	NXE NX Wired Dual RJ45 SmartPORTS, without Sensor ²		
	35L	3500						EDM Lutron Hi-Lume EcoSystem Dimming to 1% ¹			
	40L	4000									
	50L	5000¹									
	60L	6000¹									

TRIM (Ships separately)

LFR-4RD-T	Trim Style		Flange Color Options	Lens Options
Aperture/Shape/Function	SH	Non-Conductive Shower Trim	WT White Trim and Flange	AML Acrylic, Micro-prism
LFR-4RD-T 4" Round Downlight Trim Assembly			BT Black Trim and Flange Flange	PML Polycarbonate, Micro-prism
				GML Tempered glass, Micro-prism
				ACL Acrylic, Clear

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
<input type="checkbox"/>	LFR-4RD-H 4" Housing Frame, New Construction, Non-IC
<input type="checkbox"/>	LFR-4RD-H-IC 4" Housing Enclosure, New Construction, IC Rated ^{7,8}

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

Notes:



- 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.
- CP not available with PDM, DMX, or Controls.
- Module options not available in combination.
- DTS available with DM1, DM01 or DALI.
- 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 for use in combination with Controls or with Module Options CP, EMR, DTS.

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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	✓	✓	✓	-	-	✓	✓	✓ ¹		NXDSP

¹ 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 DATA TABLE

Performance data provided below is for 3500K, 80 CRI

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Acrylic Micro-prism (AML)	664	7.6	87
		Polycarbonate Micro-prism (PML)	639	7.6	84
		Tempered Glass Micro-prism (GML)	665	7.6	88
		Acrylic Clear (ACL)	670	7.6	88
15L	1500	Acrylic Micro-prism (AML)	997	11.8	84
		Polycarbonate Micro-prism (PML)	959	11.8	81
		Tempered Glass Micro-prism (GML)	998	11.8	85
		Acrylic Clear (ACL)	1006	11.8	85
20L	2000	Acrylic Micro-prism (AML)	1286	15.1	85
		Polycarbonate Micro-prism (PML)	1238	15.1	82
		Tempered Glass Micro-prism (GML)	1288	15.1	85
		Acrylic Clear (ACL)	1298	15.1	86
25L	2500	Acrylic Micro-prism (AML)	1670	20.9	80
		Polycarbonate Micro-prism (PML)	1608	20.9	77
		Tempered Glass Micro-prism (GML)	1673	20.9	80
		Acrylic Clear (ACL)	1686	20.9	81
30L	3000	Acrylic Micro-prism (AML)	1991	26.0	77
		Polycarbonate Micro-prism (PML)	1917	26.0	74
		Tempered Glass Micro-prism (GML)	1995	26.0	77
		Acrylic Clear (ACL)	2009	26.0	77
35L	3500	Acrylic Micro-prism (AML)	2420	29.4	82
		Polycarbonate Micro-prism (PML)	2330	29.4	79
		Tempered Glass Micro-prism (GML)	2425	29.4	82
		Acrylic Clear (ACL)	2442	29.4	83
40L	4000	Acrylic Micro-prism (AML)	2698	32.9	82
		Polycarbonate Micro-prism (PML)	2597	32.9	79
		Tempered Glass Micro-prism (GML)	2703	32.9	82
		Acrylic Clear (ACL)	2723	32.9	83
50L	5000	Acrylic Micro-prism (AML)	3282	42.0	78
		Polycarbonate Micro-prism (PML)	3160	42.0	75
		Tempered Glass Micro-prism (GML)	3289	42.0	78
		Acrylic Clear (ACL)	3313	42.0	79
60L	6000	Acrylic Micro-prism (AML)	3915	53.4	73
		Polycarbonate Micro-prism (PML)	3769	53.4	71
		Tempered Glass Micro-prism (GML)	3923	53.4	73
		Acrylic Clear (ACL)	3952	53.4	74

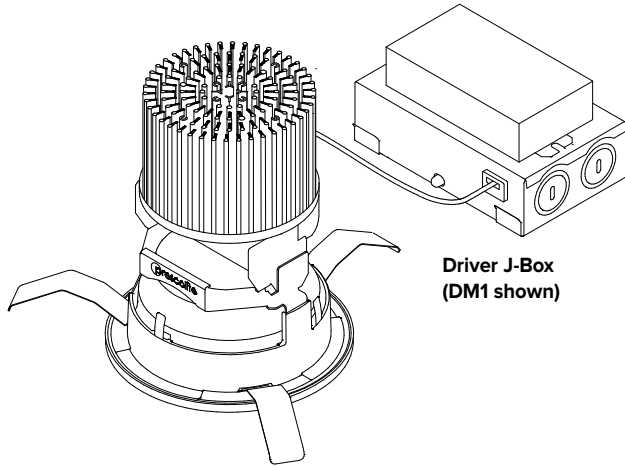
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DIMENSIONS

LFR-4RD-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.



**Light Engine
with Trim assembly installed**

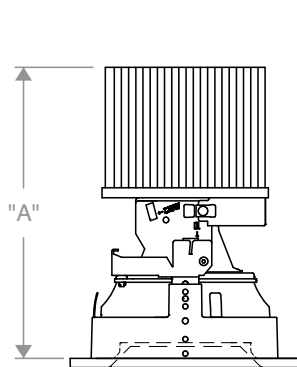
**Driver J-Box
(DM1 shown)**

DIMENSIONAL DATA	
APERTURE	ø4.00" (101.6mm)
FLANGE WIDTH	0.84" (21.3mm)
FLANGE TO FLANGE	Ø5.54" (140.8mm)
CEILING CUTOUT	Ø4.75" (120.7mm)
CEILING THICKNESS	0.50" – 2.50" (12.7 – 63.5mm)

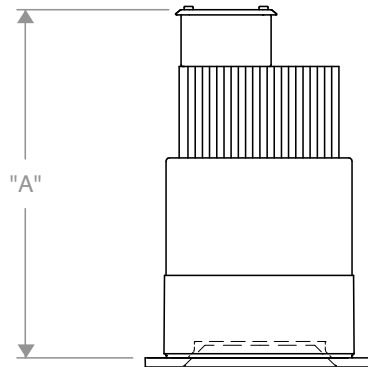
LFR-4RD LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *		
LUMEN PACKAGE	FIXTURE MODULE	
10L-30L	STANDARD	5.45" (138.5mm)
	CP	6.85" (173.9mm)
35L-60L	STANDARD	7.03" (178.6mm)
	CP	8.43" (214.0mm)

* Note: Add 1/2" 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.
 **** Lumen offering Finalization: TBD Since Thermal Testing In-Progress.



Side View Standard



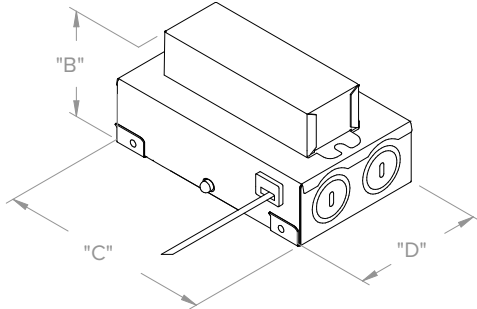
Side View CP – Chicago Plenum

LFR-4RD (SH)

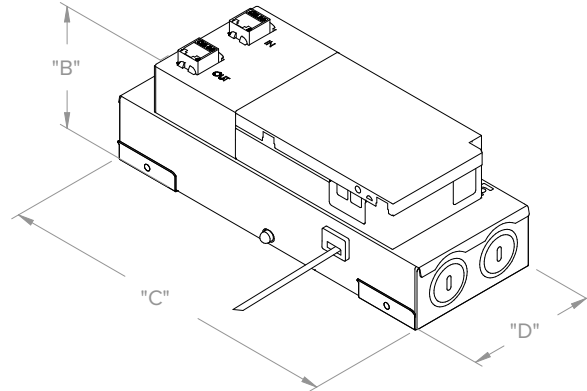
LITEFRAME 4" ROUND
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DIMENSIONS CONTINUED

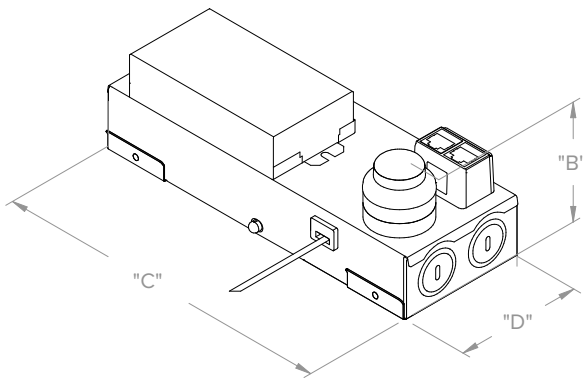
DRIVER J-BOX



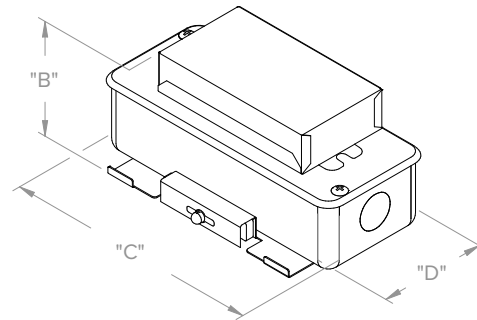
DM1 / DM01 / PDM / DALI



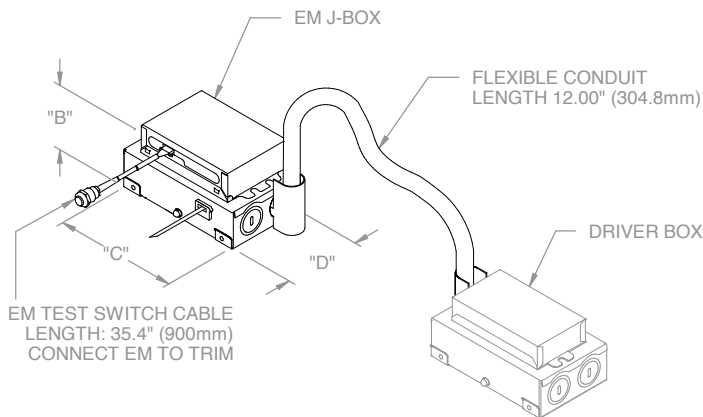
DMX



NX CONTROLS OPTION



CP



EM/EMR OPTION

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

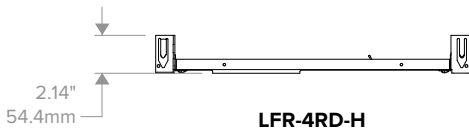
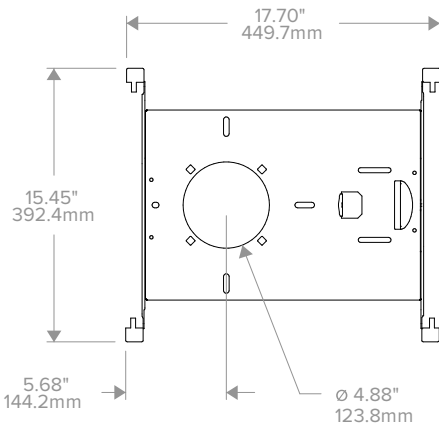
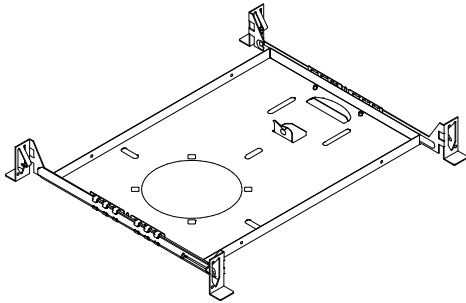
OVERALL DRIVER J-BOX DIMENSIONS (ALL LUMEN OUTPUTS)				
DRIVER/ CONTROLS OPTIONS	"B" (HEIGHT)	"C" (LENGTH)	"D" (WIDTH)	MINIMUM J-BOX PLENUM CLEARANCE
DM1 / DM01 / PDM / DALI	2.67" (67.8mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.50" (88.9mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	5.00" (127.0mm)
NX	3.02" (76.7mm)	8.68" (220.5mm)	3.23" (82.0mm)	6.00" (152.4mm)
EM/EMR	2.73" (69.3mm)	5.34" (135.6mm)	3.23" (82.0mm)	4.00" (101.6mm)
CP	1.89" (73.4mm)	6.50" (165.1mm)	2.72" (69.1mm)	5.00" (127mm)

LFR-4RD (SH)

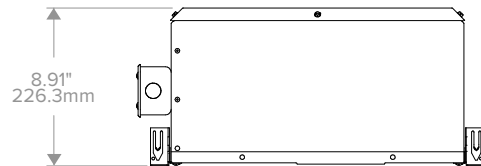
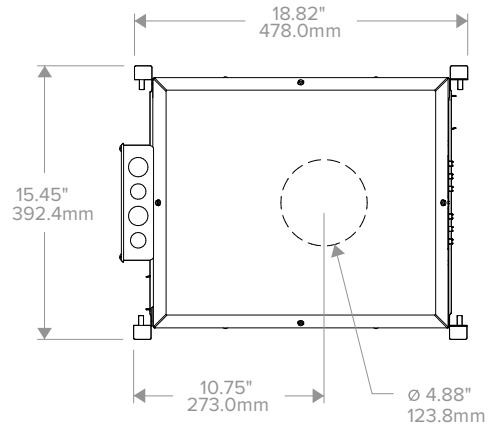
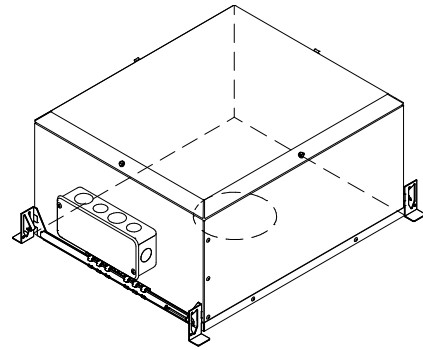
LITEFRAME 4" ROUND
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DIMENSIONS CONTINUED

OPTIONAL HOUSINGS

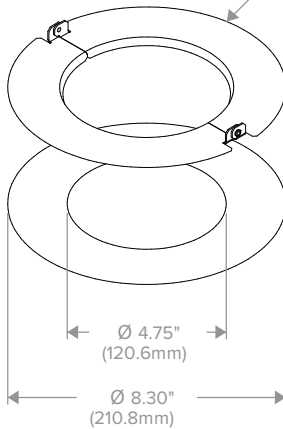


**LFR-4RD-H
NON-IC HOUSING FRAME**



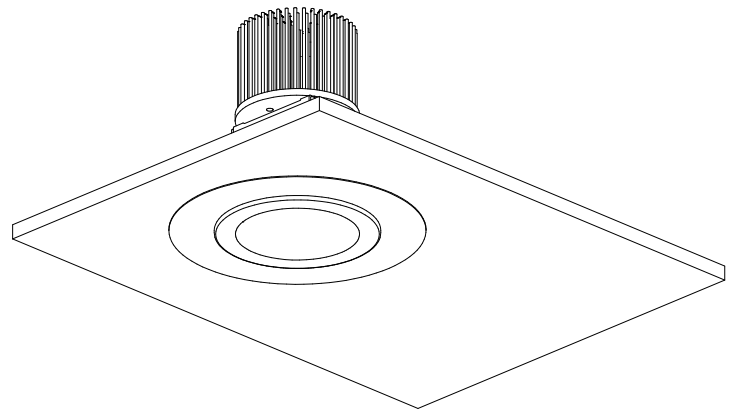
**LFR-4RD-H-IC
IC HOUSING**
Not for use with CP Shroud

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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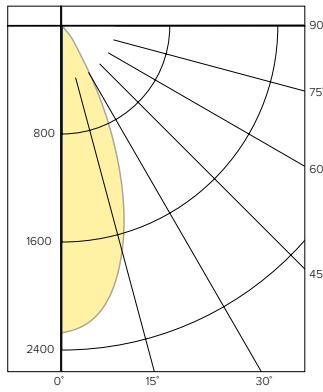
PHOTOMETRY

LFR-4RD-M-20L35K8-DM1 / LFR-4RD-T-SH-WTGML

LUMINAIRE DATA

Test No.	22.00587
Description	2000 lm, Acrylic Micro-prism lens, 3500K, 80 CRI
Delivered Lumens	1288
Watts	15.1W
Efficacy	85
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	44

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2276
5	2220
15	1739
25	874
35	212
45	39
55	15
65	9
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6803
55°	3226
65°	2627
75°	1430
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

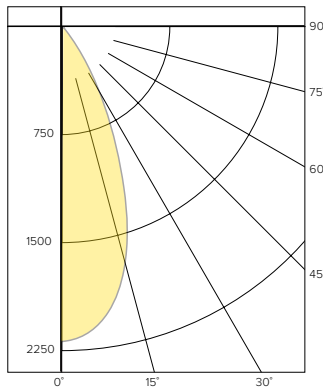
Zone	Lumens	% Luminaire
0-40	1228	95.3
0-60	1276	99.9
0-90	1288	100.0
0-180	1288	100.0

LFR-4RD-M-20L35K8-DM1 / LFR-4RD-T-SH-WTPML

LUMINAIRE DATA

Test No.	22.00588
Description	2000 lm, Polycarbonate Micro-prism lens, 3500K, 80 CRI
Delivered Lumens	1238
Watts	15.1W
Efficacy	82
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	45

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2194
5	2144
15	1709
25	844
35	189
45	35
55	14
65	8
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6105
55°	3011
65°	2335
75°	1430
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

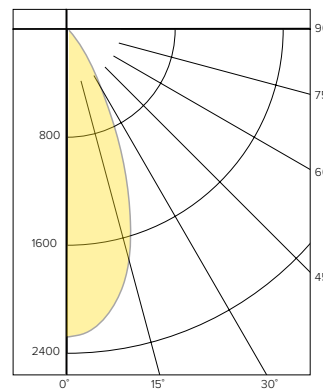
Zone	Lumens	% Luminaire
0-40	1184	95.6
0-60	1227	99.1
0-90	1238	100.0
0-180	1238	100.0

LFR-4RD-M-20L35K8-DM1 / LFR-4RD-T-SH-WTAML

LUMINAIRE DATA

Test No.	22.00594
Description	2000 lm, Tempered Glass Micro-prism lens, 3500K, 80 CRI
Delivered Lumens	1286
Watts	15.1W
Efficacy	85
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	45

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2287
5	2229
15	1778
25	876
35	196
45	35
55	15
65	8
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6105
55°	3226
65°	2335
75°	1430
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1230	95.6
0-60	1274	99.1
0-90	1286	100.0
0-180	1286	100.0

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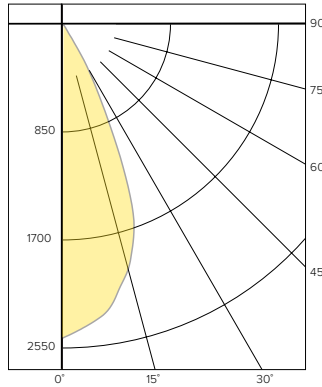
PHOTOMETRY CONTINUED

LFR-4RD-M-20L35K8-DM1 / LFR-4RD-T-SH-WTACL

LUMINAIRE DATA

Test No.	22.00595
Description	2000 lm, Acrylic Clear lens, 3500K, 80 CRI
Delivered Lumens	1298
Watts	15.1W
Efficacy	86
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	46

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2480
5	2383
15	2008
25	909
35	64
45	16
55	8
65	4
75	2
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	2791
55°	1720
65°	1167
75°	953
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1271	97.9
0-60	1292	99.6
0-90	1298	100.0
0-180	1298	100.0

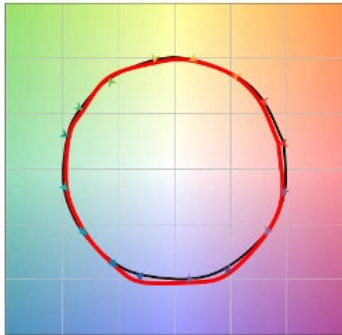
LUMEN MULTIPLIER

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



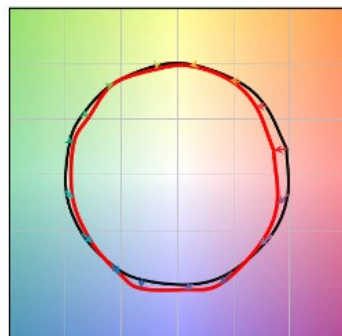
— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 90 CRI



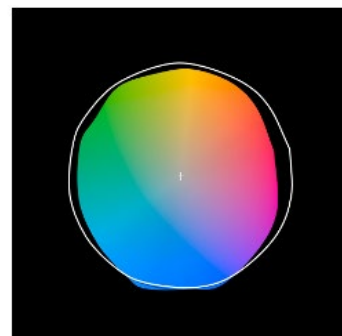
TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R _t	85	90
R _g	95	99
CCT (K)	3422	3416
D _{uv}	-0.0008	-0.0019
x	0.4089	0.408
y	0.3906	0.3877
CIE R _a	85	93
CIE R _g	16	66

COLOR VECTOR GRAPHIC
3500K, 80 CRI



— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 80 CRI



LFR-4RD (SH)

LITEFRAME 4" ROUND
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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.

DMX

See instruction sheet on 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.com 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.