

LFR-6RDS

LITEFRAME 6" ROUND SHALLOW DOWNLIGHT

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

FEATURES

- 6" LED shallow downlight delivering 1000–3000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications
- Optional housing accessories available
- Four beam distributions
- 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 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

- High purity spun aluminum reflector, self-flanged
- 61° visual cutoff to source image and 45° cutoff to source
- Specular or Semi-Specular anodized or White painted cone reflector finish/colors
- Painted flange options 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
- Remote emergency battery option available

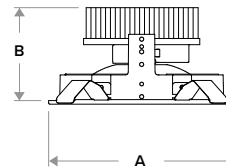
INSTALLATION

- Accommodates ceiling thickness from 0.50" to 2.50"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L–15L 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.)

LITEFRAME
2.0



SERVICE PROGRAMS



Typical Dimensions and Weights			
Lumen Package	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	713 (181)	3.56 (90)	4 (1.8)

See DIMENSIONS section for complete details

CERTIFICATIONS

- cCSAus certified to UL 1598
- For 30L: 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	1000–3000
Wattage Range	8–29
Efficacy Range (LPW)	96–126
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–242 (120V)

*Based on Specular, 35K, 80 CRI

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Gray Shading = Service Program **STOCK** **QS10**
Limit of 150 Luminaries

ORDERING GUIDE

Example: LFR-6RDS-M-10L35K8-WD-DM1 / LFR-6RDS-T-S / LFR-6RD-H

CATALOG # _____

FIXTURE MODULE

LFR-6RDS-M																
Ap/Shp/Funct	Lumen Output		CCT		CRI		Distribution		Driver Options		Control Options		Voltage		Module Options	
LFR-6RDS-M 6" Round Shallow Downlight Fixture Module for Direct Install <i>(Non-IC frame or IC housing available under Housing Options below)</i>	10L	1000	27K	2700K	8	80+	VNR	Very Narrow (19°/0.3 SC)	DM1	0–10V Dimming to 1%	NX Lighting Controls		Standard 120–277V		CP	Chicago Plenum ^{5,6}
	15L	1500	30K	3000K	9	90+	NR	Narrow (25°/0.4 SC)	DM01	0–10V Dimming to < 1%	Networked Wireless		34	347V ⁴	EMR	6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light ⁶
	20L	2000	35K	3500K			MD	Medium (34°/0.6 SC)	PDM	Phase (Forward/Reverse) Dimming to 1%	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ³				DTS	Device Transfer Switch with Dimming Bypass ^{6,7}
	25L	2500	40K	4000K			WD	Wide (55°/0.8 SC)	DMX	DMX with RDM dimming to < 0.1%	Networked Wired					
	30L	3000 ¹	50K	5000K					DALI	DALI Dimming to 1%	NXE NX Wired Dual RJ45 SmartPORTS, without Sensor ³					
									EDM	Lutron Hi-Lume EcoSystem Dimming to 1% ²						

TRIM (Ships separately)

LFR-6RDS-T			
Aperture/Shape/Function	Reflector Finish/Color	Flange Color Options	Lower Trim Options
LFR-6RDS-T 6" Round Shallow Downlight Trim Assembly	S Specular SS Semi-Specular WC Painted White Cone and Flange	Standard matches reflector color WT White Flange ⁸ BT Black Flange	FM Flush Mount Mud-In Ring ¹¹

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function		
<input type="checkbox"/>	LFR-6RD-H	6" Housing Frame, New Construction, Non-IC
<input type="checkbox"/>	LFR-6RD-H-IC	6" Housing Enclosure, New Construction, IC Rated ^{9,10}



Accessories		
<input type="checkbox"/>	LiteGear	LiteGear® Inverter, 125VA–250VA
<input type="checkbox"/>	LPS Series	LightPower Micro-Inverter, 20VA–55VA
<input type="checkbox"/>	LF-FMR6-R	Flush Mount Mud-in Ring, 6" ¹¹
<input type="checkbox"/>	LF-MOR6-R-WH	Metal Oversized Ring, 6" Round, White (10.12" outside diameter)
<input type="checkbox"/>	LFR-SCA6-__	Sloped Ceiling Adapter, 6" White ¹²

- Notes:
- 30L requires marked spacing. See line art for more details.
 - EDM available 15L–30L.
 - NX requires DM1 driver option.
 - 347V requires DM1 driver option; not available with Controls, DTS, EMR.
 - CP not available with PDM, DMX, Controls.
 - Module options not available in combination.
 - DTS available with DM1, DM01, or DALI.
 - WT not needed for WC.
 - IC available up to 30L; 10L–15L 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.
 - Flush Mount Flange (FM) requires FMR accessory (sold separately).
 - Specify slope angle 5°–35° in 5° increments. Not available with FM option.

LFR-6RDS

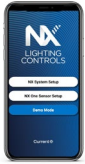
LITEFRAME 6" ROUND SHALLOW DOWNLIGHT

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

PERFORMANCE DATA TABLE

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

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	935	7.6	123
		Narrow	926	7.6	122
		Medium	897	7.6	118
		Wide	965	7.6	126
15L	1500	Very Narrow	1442	12.3	117
		Narrow	1428	12.3	116
		Medium	1384	12.3	112
		Wide	1488	12.3	121
20L	2000	Very Narrow	1934	16.4	118
		Narrow	1915	16.4	117
		Medium	1855	16.4	113
		Wide	1995	16.4	121
25L	2500	Very Narrow	2452	23.0	107
		Narrow	2428	23.0	106
		Medium	2352	23.0	102
		Wide	2529	23.0	110
30L	3000	Very Narrow	2905	29.1	100
		Narrow	2877	29.1	99
		Medium	2787	29.1	96
		Wide	2997	29.1	103

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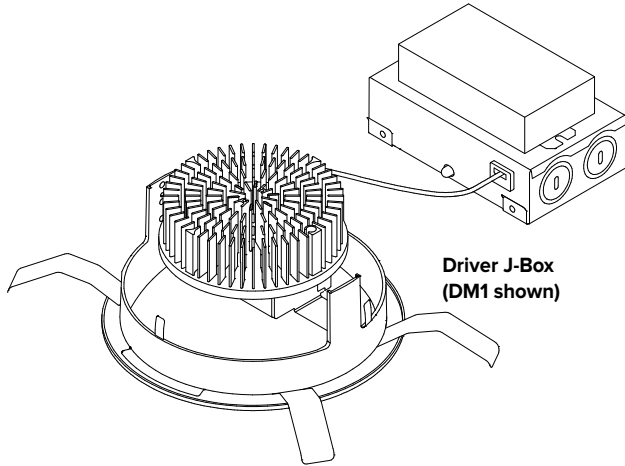
TYPE: _____ PROJECT: _____

CATALOG #: _____

DIMENSIONS

LFR-6RDS-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.



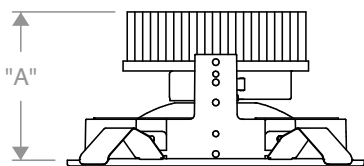
Light Engine
with Trim assembly installed

DIMENSIONAL DATA		
APERTURE		ø5.75" (101.6mm)
OVERALL		ø7.13" (181.0mm)
FLANGE WIDTH	Standard	0.69" (17.5mm)
	Flush Mount	0.20" (5.1mm)
FLANGE TO FLANGE	Standard	Ø7.13" (136.6mm)
	Flush Mount	Ø6.15" (156.2mm)
CEILING CUTOUT	Standard	Ø6.50" (165.1mm)
	Flush Mount	Ø6.63" (168.4mm)
CEILING THICKNESS		0.50" – 2.50" (12.7 – 63.5mm)

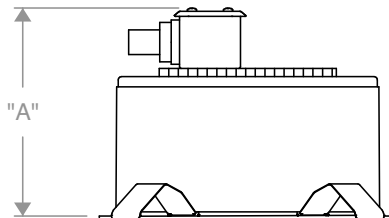
LFR-6RDS LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *		
LUMEN PACKAGE	FIXTURE MODULE	BEAM DISTRIBUTION
		VNR / NR / MD / WD
10L-30L	STANDARD	3.56" (90.4mm)
	CP	4.95" (125.7mm)

* Note: Add ½" minimum plenum clearance above overall Light Engine Height.
** For 30L: 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.



Side View Standard



Side View CP – Chicago Plenum

LFR-6RDS

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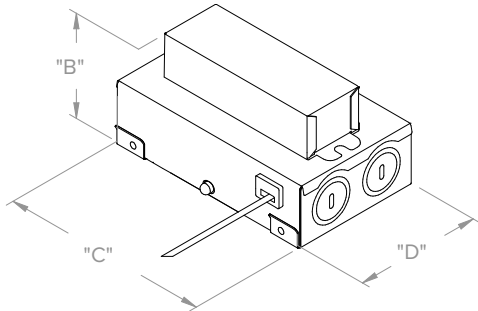
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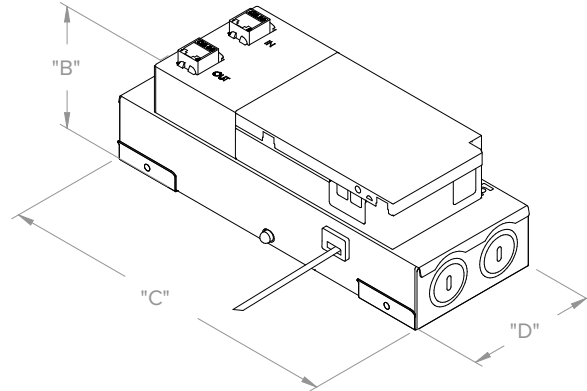
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DIMENSIONS CONTINUED

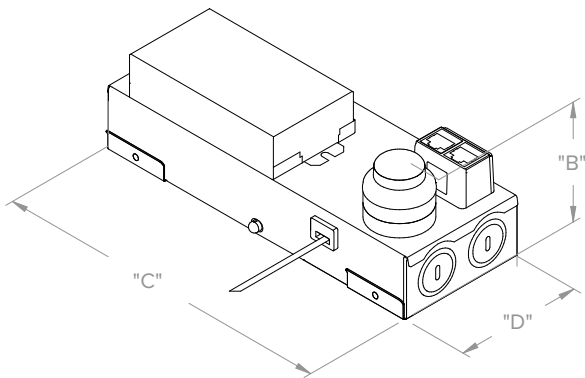
DRIVER J-BOX



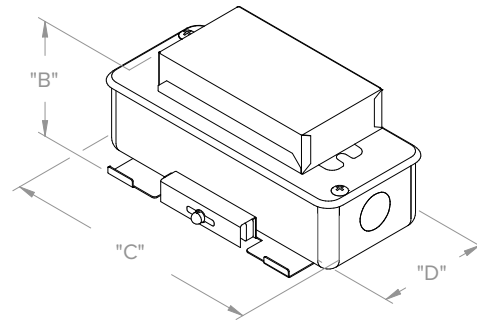
DM1 / DM01 / PDM / DALI



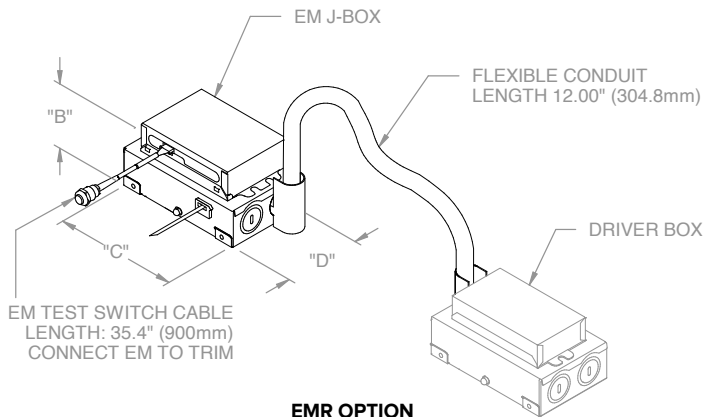
DMX



NX CONTROLS OPTION



CP



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)	3.00" (76.2mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	3.50" (88.9mm)
NX	3.02" (76.7mm)	8.68" (220.5mm)	3.23" (82.0mm)	3.75" (95.3mm)
EMR	2.73" (69.3mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.00" (76.2mm)
CP	1.89" (73.4mm)	6.50" (165.1mm)	2.72" (69.1mm)	3.00" (76.2mm)

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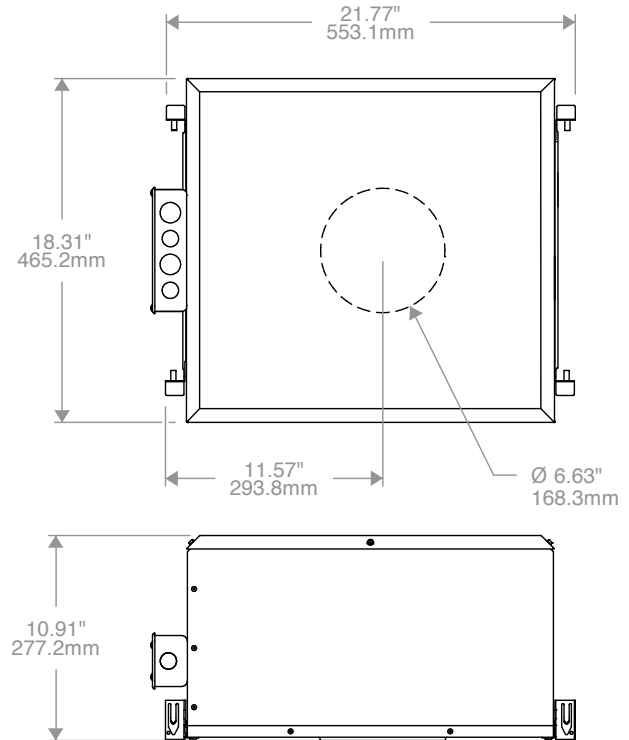
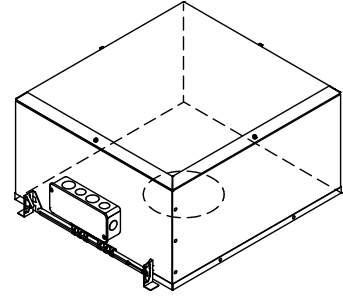
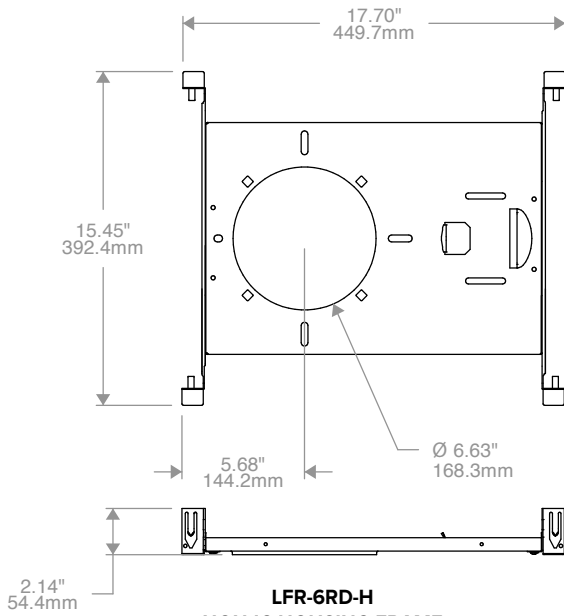
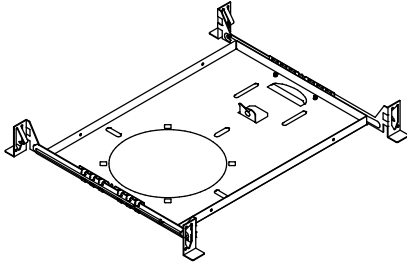
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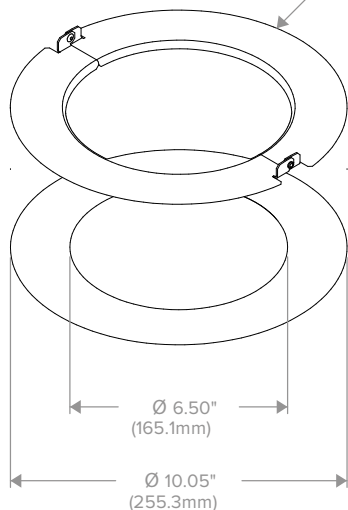
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DIMENSIONS CONTINUED

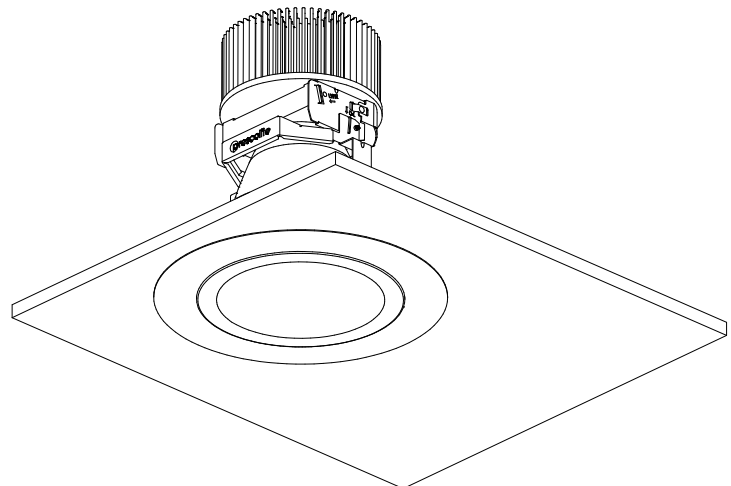
OPTIONAL HOUSINGS



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



(See LF-MOR Installation Instruction for more details)



LFR-6RDS

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PHOTOMETRY

LFR-6RDS-M-20L35K8VNR-DM1 / LFR-6RDS-T-VNR-S

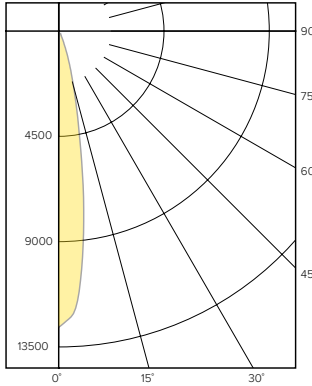
LUMINAIRE DATA

Test No.	21.00941
Description	2000 lm, Very Narrow, 3500K, 80 CRI
Delivered Lumens	1934
Watts	16.4W
Efficacy	118
Mounting	Recessed
Spacing Criterion	0.32
Beam Angle (FWHM)	19

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1864	96.4
0-60	1930	99.8
0-90	1934	100.0
0-180	1934	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	12661
5	10708
15	2467
25	392
35	121
45	52
55	29
65	2
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4390
55°	3018
65°	282
75°	0
85°	0

*Candela/Square Meter

LFR-6RDS-M-20L35K8NR-DM1 / LFR-6RDS-T-S

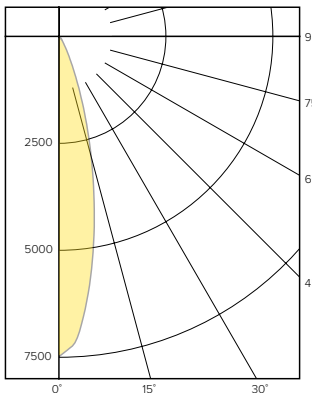
LUMINAIRE DATA

Test No.	21.00942
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	1915
Watts	16.4W
Efficacy	117
Mounting	Recessed
Spacing Criterion	0.42
Beam Angle (FWHM)	25

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1826	95.4
0-60	1911	99.8
0-90	1915	100.0
0-180	1915	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	7484
5	6573
15	2912
25	693
35	171
45	68
55	36
65	2
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5740
55°	3746
65°	282
75°	0
85°	0

*Candela/Square Meter

LFR-6RDS-M-20L35K8MD-DM1 / LFR-6RDS-T-S

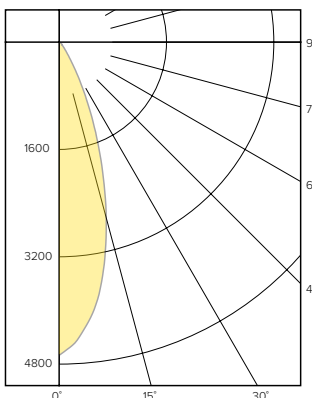
LUMINAIRE DATA

Test No.	21.00944
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	1855
Watts	16.4W
Efficacy	113
Mounting	Recessed
Spacing Criterion	0.56
Beam Angle (FWHM)	34

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1759	94.8
0-60	1850	99.7
0-90	1855	100.0
0-180	1855	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	4669
5	4294
15	2711
25	1017
35	222
45	69
55	42
65	3
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5825
55°	4371
65°	424
75°	0
85°	0

*Candela/Square Meter

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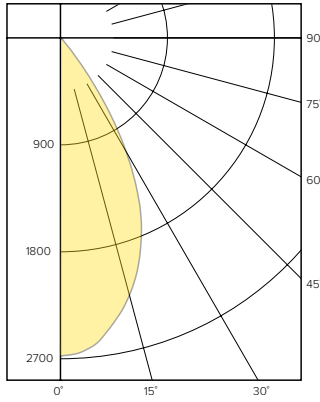
PHOTOMETRY CONTINUED

LFR-6RDS-M-20L35K8WD-DM1 / LFR-6RDS-T-S

LUMINAIRE DATA

Test No.	21.00943
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	1995
Watts	16.4W
Efficacy	121
Mounting	Recessed
Spacing Criterion	0.83
Beam Angle (FWHM)	55

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2677
5	2628
15	2241
25	1587
35	560
45	41
55	18
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	3461
55°	1873
65°	141
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1936	97.1
0-60	1993	99.9
0-90	1995	100.0
0-180	1995	100.0

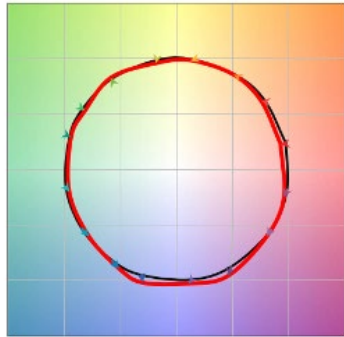
LUMEN MULTIPLIER

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



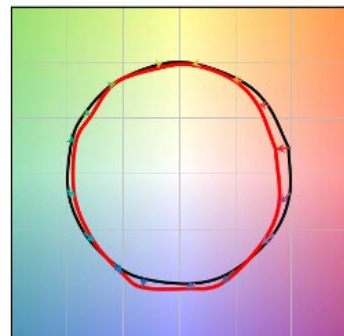
— Reference Illuminant — Test Source

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



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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 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.