

LITEFRAME[®]
2.0



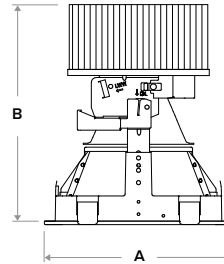
FEATURES

- 6" LED downlight delivering 1000–8000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications
- Optional housing accessories available
- Five 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

SERVICE PROGRAMS



CONTROLS TECHNOLOGY



Typical Dimensions and Weights			
Lumen Package	"A" Width Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 35L	7.38 (187)	6.71 (170)	4.6 (2.1)
40L - 50L	7.38 (187)	7.28 (185)	4.8 (2.2)
60L - 80L	7.38 (187)	8.47 (215)	5.4 (2.4)

See DIMENSIONS section for complete details

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, 4 panel aluminum reflector, self-flanged
- Specular or Semi-Specular anodized or White painted cone reflector finish/colors
- Painted flange options in White or Black
- Optional clear lens trim for wet location applications
- Wide Angle and Soft Focus lens filter/clip accessories available

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
- Integral and remote emergency battery options 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.)

CERTIFICATIONS

- cCSAus certified to UL 1598
- For ≥60L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture
- Suitable for wet locations, covered ceiling when used with CL lens trim; all other configurations, suitable for damp locations
- EM/EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EM/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	1000–8000
Wattage Range	8–70
Efficacy Range (LPW)	114–143
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–583 (120V)

*Based on Specular, 35K, 80 CRI

LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

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

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

ORDERING GUIDE

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

CATALOG # _____

FIXTURE MODULE

LFR-6SQD-M															
Ap/Shp/Funct	Lumen Output		CCT		CRI	Distribution		Driver Options		Control Options		Voltage		Module Options	
LFR-6SQD-M 6" Square 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 (16°/0.3 SC) NR Narrow (27°/0.5 SC) MD Medium (38°/0.6 SC) WD Wide (50°/0.9 SC) XW Extra Wide (62°/1.2 SC) ¹²	DM1 0-10V Dimming to 1% DM01 0-10V Dimming to < 1% ² PDM Phase (Forward/ Reverse) Dimming to 1% ² DMX DMX with RDM dimming to < 0.1% ² DALI DALI Dimming to 1% ² EDM Lutron Hi-Lume EcoSystem Dimming to 1% ²	NX Lighting Controls Networked Wireless NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ³ Networked Wired NXE NX Wired Dual RJ45 SmartPORTS, without Sensor ³	<i>Standard</i> 120-277V 34 347V ⁴	CP Chicago Plenum ^{5,6} EM 6W Emergency Battery Pack (CEC Title 20 Compliant) with integral test switch and indicator light ⁶ EMR 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light ⁶ DTS Device Transfer Switch with Dimming Bypass ^{6,7}				
	15L	1500	30K	3000K	9	90+									
	20L	2000	35K	3500K											
	25L	2500	40K	4000K											
	30L	3000	50K	5000K											
	35L	3500													
	40L	4000													
	50L	5000													
	60L	6000 ¹													
	70L	7000 ¹													
80L	8000 ¹														

TRIM (Ships separately)

LFR-6SQD-T										
Aperture/Shape/Function	Distribution		Reflector Finish/Color		Flange Color Options		Lens Options		Lower Trim Options	
LFR-6SQD-T 6" Square Downlight Trim Assembly	<i>Standard</i> NR, MD, WD, XW		S Specular ¹² SS Semi-Specular WC Painted White Cone and Flange	<i>Standard matches reflector color</i>		<i>Standard no lens</i>		EM Pre-punched reflector for EM integral test switch and indicator ⁹		
	VNR Very Narrow			WT White Flange ⁹	BT Black Flange	CL Clear Lens (Wet listed) ⁹		FM Flush Mount Flange ¹³		

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
<input type="checkbox"/>	LFR-6SQD-H 6" Housing Frame, New Construction, Non-IC
<input type="checkbox"/>	LFR-6SQD-H-IC 6" Housing Enclosure, New Construction, IC Rated ^{10,11}



Notes:

- 60L-80L 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, EM, EMR.
- CP not available with PDM, DMX, or Controls.
- Module options not available in combination.
- DTS available with DM1, DM01, or DALI.
- WT not needed for WC.
- CL lens and EM trim options not available in combination.
- IC available up to 35L; 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 types.)
- IC Housing not for use in combination with Controls or with Module Options CP, EM, EMR, DTS.
- XW distribution is not available for Specular (S) reflector finish.
- Flush Mount Flange requires FMR accessory.

Accessories

- SFL6** Soft Focus Lens and Clip, 6" Square
- WAL6** Wide Angle 80° Lens and Clip, 6" Square
- LiteGear** LiteGear® Inverter, 125VA-250VA
- LPS Series** LightPower Micro-Inverter, 20VA-55VA
- LF-FMR6-SQ** Flush Mount Mud-in Ring, 6" Square ¹³
- LF-MOR6-SQ-WH** Metal Oversized Ring, 6" Square, White (10.3" outside dimension)

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

LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

PERFORMANCE DATA TABLE

Performance data shown is 3500K 80+CRI with Specular reflector except Extra Wide distribution which is Semi-Specular.

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	1060	7.5	142
		Narrow	1050	7.5	141
		Medium	1023	7.5	137
		Wide	971	7.5	130
		Extra Wide	1025	7.5	137
15L	1500	Very Narrow	1622	11.4	142
		Narrow	1607	11.4	141
		Medium	1566	11.4	137
		Wide	1486	11.4	130
		Extra Wide	1568	11.4	138
20L	2000	Very Narrow	2069	14.5	143
		Narrow	2050	14.5	141
		Medium	1998	14.5	138
		Wide	1896	14.5	131
		Extra Wide	2001	14.5	138
25L	2500	Very Narrow	2707	19.4	139
		Narrow	2682	19.4	138
		Medium	2613	19.4	135
		Wide	2480	19.4	128
		Extra Wide	2618	19.4	135
30L	3000	Very Narrow	3307	24.2	137
		Narrow	3277	24.2	136
		Medium	3192	24.2	132
		Wide	3030	24.2	125
		Extra Wide	3198	24.2	132
35L	3500	Very Narrow	3870	28.9	134
		Narrow	3835	28.9	133
		Medium	3736	28.9	129
		Wide	3546	28.9	123
		Extra Wide	3743	28.9	129
40L	4000	Very Narrow	4357	32.3	135
		Narrow	4317	32.3	134
		Medium	4206	32.3	130
		Wide	3992	32.3	124
		Extra Wide	4213	32.3	131
50L	5000	Very Narrow	5415	41.9	129
		Narrow	5366	41.9	128
		Medium	5228	41.9	125
		Wide	4962	41.9	118
		Extra Wide	5237	41.9	125
60L	6000	Very Narrow	6653	49.5	134
		Narrow	6592	49.5	133
		Medium	6423	49.5	130
		Wide	6096	49.5	123
		Extra Wide	6434	49.5	130
70L	7000	Very Narrow	7768	59.0	132
		Narrow	7697	59.0	130
		Medium	7500	59.0	127
		Wide	7118	59.0	121
		Extra Wide	7513	59.0	127
80L	8000	Very Narrow	8882	69.2	128
		Narrow	8801	69.2	127
		Medium	8575	69.2	124
		Wide	8139	69.2	118
		Extra Wide	8591	69.2	124

LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

DATE: _____ LOCATION: _____

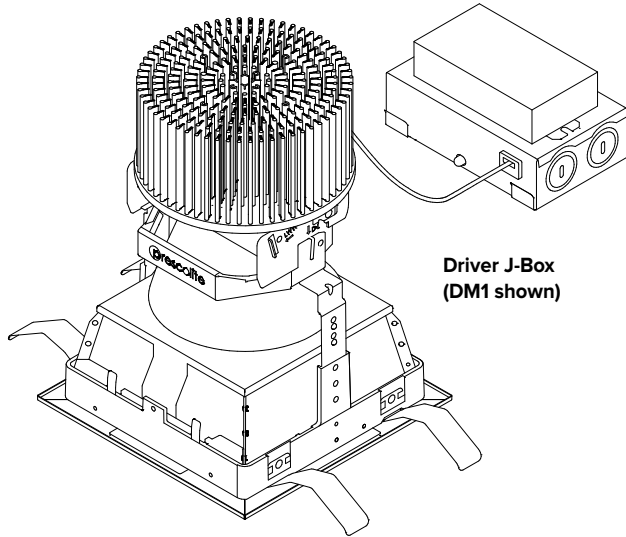
TYPE: _____ PROJECT: _____

CATALOG #: _____

DIMENSIONS

LFR-6SQD-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		□ 6.00" (152.4mm)
FLANGE WIDTH	Standard	0.69" (17.5mm)
	Flush Mount	0.20" (5.1mm)
FLANGE TO FLANGE	Standard	□ 7.38" (187.4mm)
	Flush Mount	□ 6.40" (162.6mm)
CEILING CUTOUT	Standard	□ 6.75" (171.5mm)
	Flush Mount	□ 6.88" (174.7mm)
CEILING THICKNESS		0.50" – 2.50" (12.7 – 63.5mm)

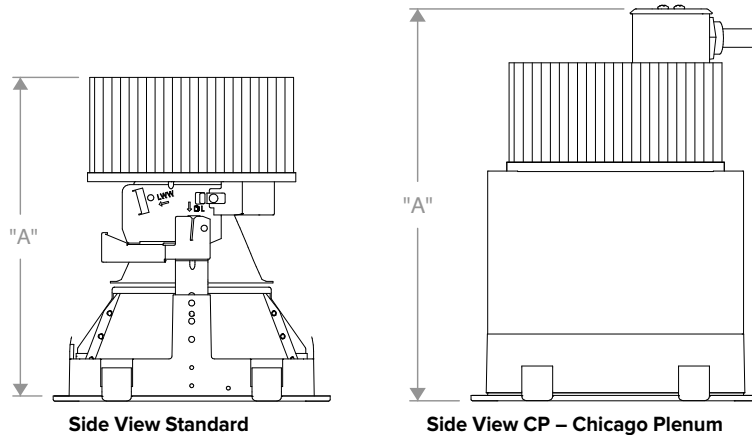
LFR-6SQD LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *				
LUMEN PACKAGE	FIXTURE MODULE	BEAM DISTRIBUTION		
		VNR	NR / MD / WD	XW
10L-35L	STANDARD	7.95" (202.0mm)	6.71" (170.5mm)	6.23" (158.3mm)
	CP	11.11" (282.1mm)	9.89" (250.6mm)	9.39" (238.5mm)
40L-50L	STANDARD	8.52" (216.5mm)	7.28" (185.0mm)	6.80" (172.8mm)
	CP	11.11" (282.1mm)	9.89" (250.6mm)	9.39" (238.5mm)
60L-80L	STANDARD	9.71" (246.7mm)	8.47" (215.2mm)	7.99" (203.0mm)
	CP	11.11" (282.1mm)	9.89" (250.6mm)	9.39" (238.5mm)

* Note: Add 1/2" minimum plenum clearance above overall Light Engine Height.

** For ≥60L: 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.

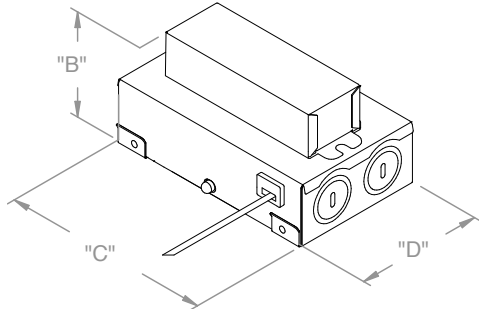


Side View Standard

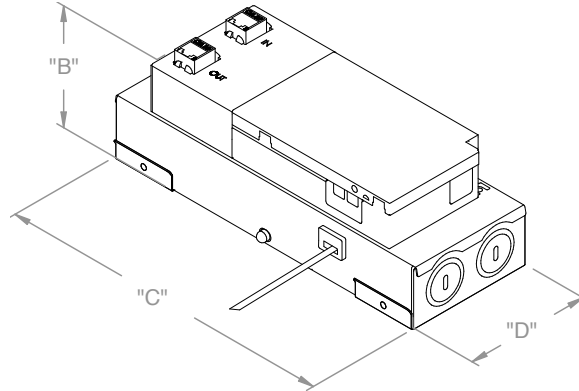
Side View CP – Chicago Plenum

DIMENSIONS CONTINUED

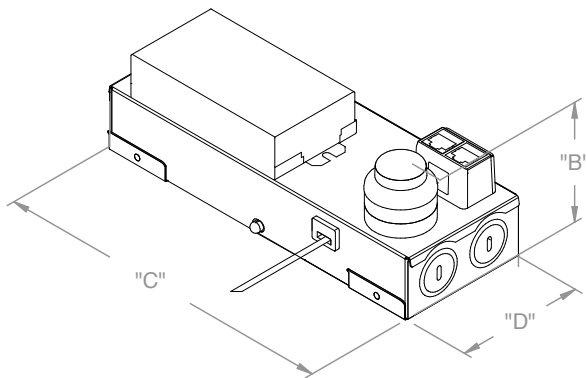
DRIVER J-BOX



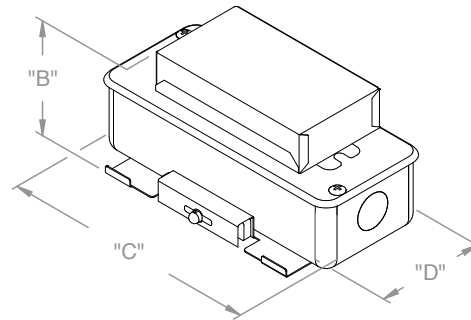
DM1 / DM01 / PDM / DALI



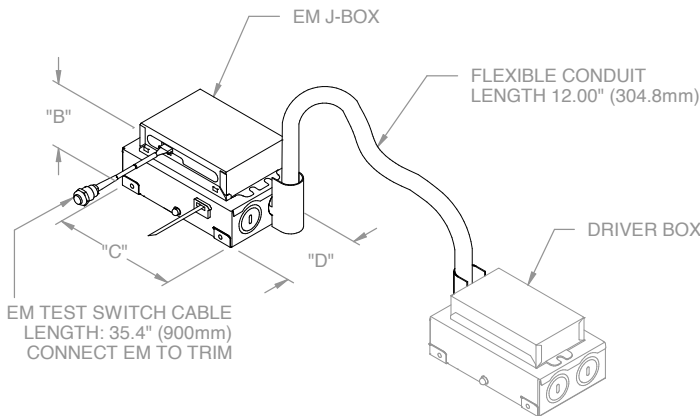
DMX



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)	3.00" (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)
EM/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)

LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

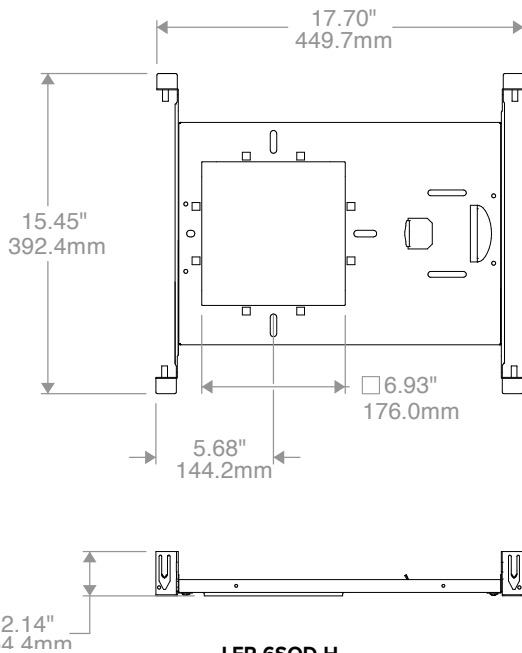
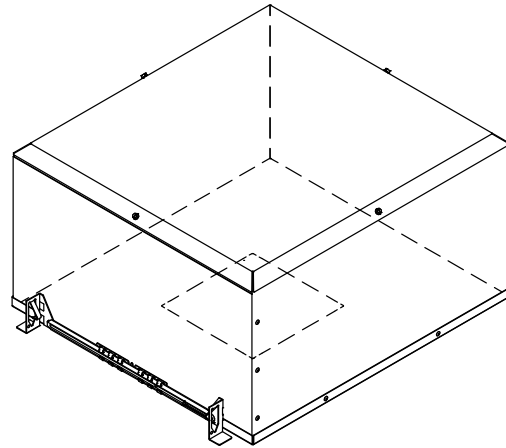
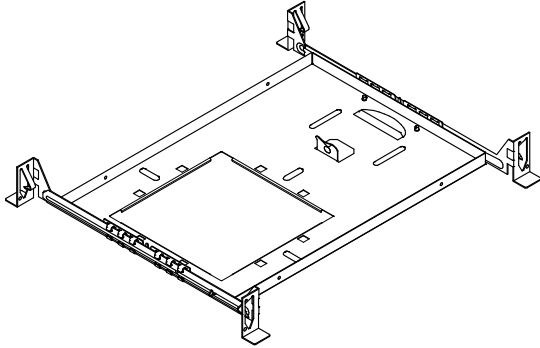
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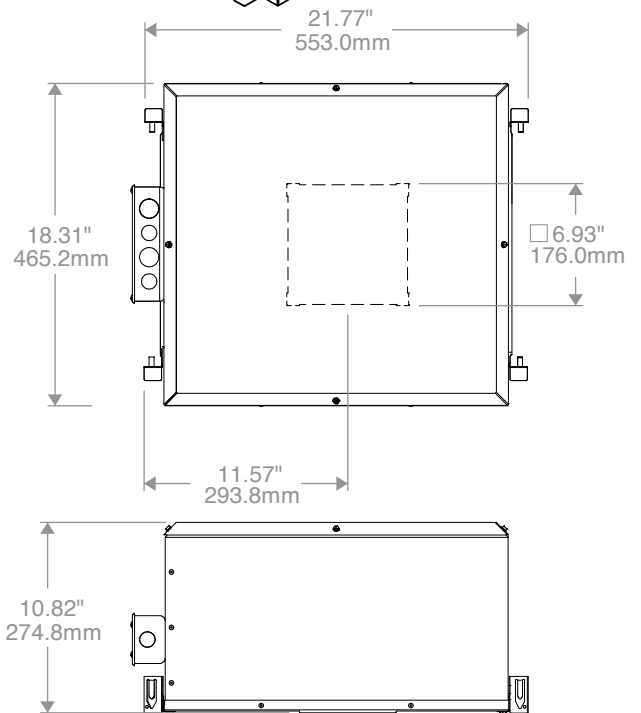
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DIMENSIONS CONTINUED

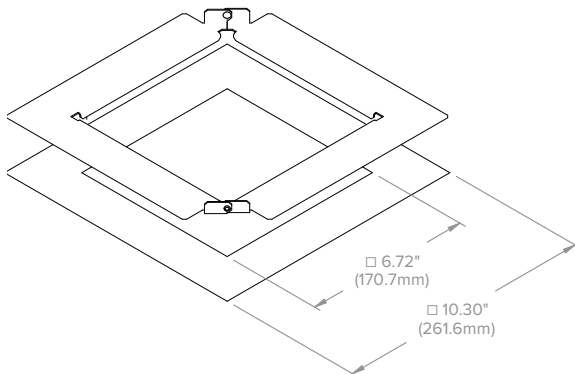
OPTIONAL HOUSINGS



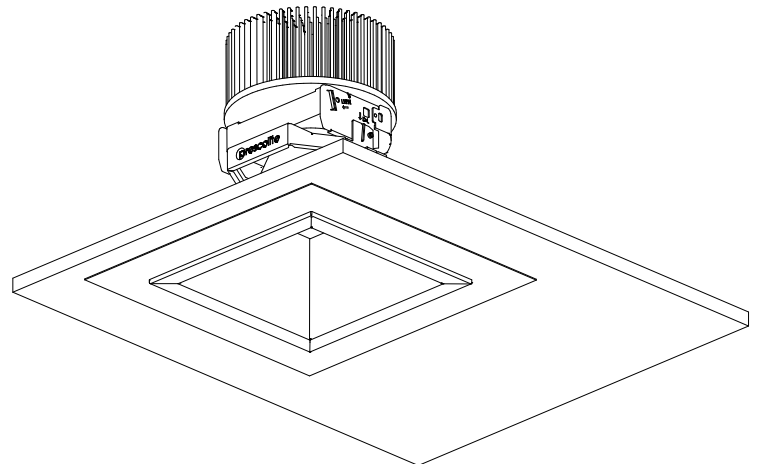
**LFR-6SQD-H
NON-IC HOUSING FRAME**



**LFR-6SQD-H-IC
IC HOUSING**
Not for use with CP Shroud



**LF-MOR6-SQ
METAL OVERSIZED RING**
(See LF-MOR Installation Instruction for more details)



LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

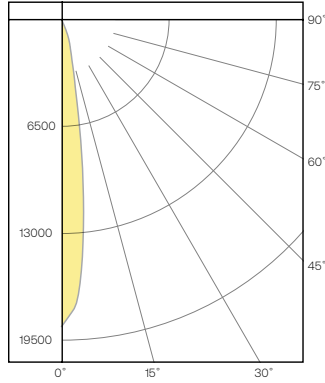
PHOTOMETRY

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

LUMINAIRE DATA

Test No.	22.00817
Description	2000 lm, Very Narrow, 3500K, 80 CRI
Delivered Lumens	2069
Watts	14.5W
Efficacy	143
Mounting	Recessed/Ceiling
Spacing Criterion	0.3
Beam Angle (FWHM)	16

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	18633
5	14605
15	2314
25	158
35	3
45	1
55	1
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	61
55°	75
65°	0
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

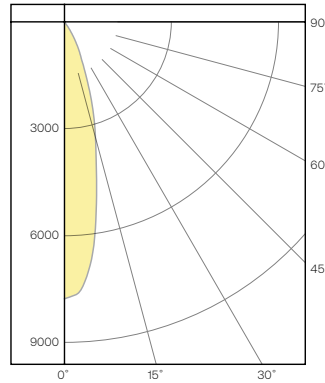
Zone	Lumens	% Luminaire
0-40	2068	99.9
0-60	2069	100.0
0-90	2069	100.0
0-180	2069	100.0

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

LUMINAIRE DATA

Test No.	22.00580
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	2050
Watts	14.5W
Efficacy	141
Mounting	Recessed/Ceiling
Spacing Criterion	0.5
Beam Angle (FWHM)	27

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	7758
5	7136
15	3237
25	1020
35	3
45	1
55	1
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	61
55°	75
65°	0
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

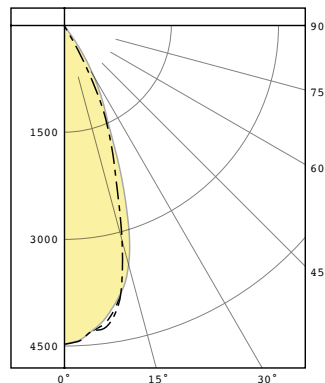
Zone	Lumens	% Luminaire
0-40	2050	100.0
0-60	2050	100.0
0-90	2050	100.0
0-180	2050	100.0

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

LUMINAIRE DATA

Test No.	22.00582
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	1998
Watts	14.5W
Efficacy	138
Mounting	Recessed/Ceiling
Spacing Criterion	0.6
Beam Angle (FWHM)	38

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	4465
5	4308
15	3183
25	1292
35	4
45	1
55	1
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	61
55°	75
65°	0
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1997	99.9
0-60	1998	100.0
0-90	1998	100.0
0-180	1998	100.0

LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

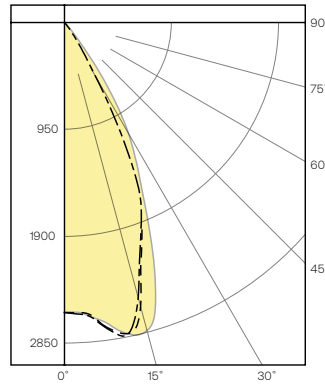
PHOTOMETRY CONTINUED

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

LUMINAIRE DATA

Test No.	P22.00584
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	1896
Watts	14.5W
Efficacy	131
Mounting	Recessed/Ceiling
Spacing Criterion	0.9
Beam Angle (FWHM)	50

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2574
5	2602
15	2612
25	1491
35	168
45	4
55	1
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	244
55°	75
65°	0
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

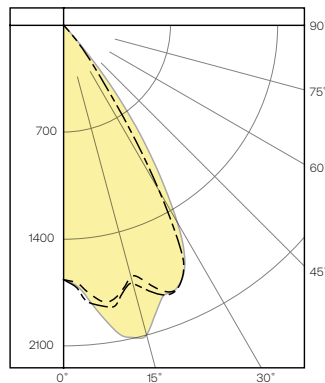
Zone	Lumens	% Luminaire
0-40	1883	99.3
0-60	1896	100.0
0-90	1896	100.0
0-180	1896	100.0

LFR-6SQD-M-20L35K8XW-DM1 / LFR-6SQD-T-SS

LUMINAIRE DATA

Test No.	22.00821
Description	2000 lm, Extra Wide, 3500K, 80 CRI
Delivered Lumens	2001
Watts	14.6W
Efficacy	138
Mounting	Recessed/Ceiling
Spacing Criterion	1.2
Beam Angle (FWHM)	62

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1663
5	1748
15	1701
25	1837
35	481
45	2
55	0
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	122
55°	0
65°	0
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1971	98.5
0-60	2001	100.0
0-90	2001	100.0
0-180	2001	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.

LENS OPTION / LENS FILTER ACCESSORY MULTIPLIER (Based on Clear Specular)

Option	CL (Clear Lens)	SFL6 (Soft Focus Accessory)	WAL6 (Wide Angle Accessory)
Multiplier	0.97	0.95	0.85

Multiply lumen/lens multipliers to calculate applicable combinations. Example: 30K8 with Clear Lens option (CL) = 0.96 x 0.97 = 0.97

LFR-6SQD

LITEFRAME 6" SQUARE DOWNLIGHT

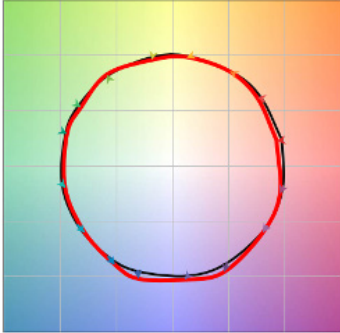
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

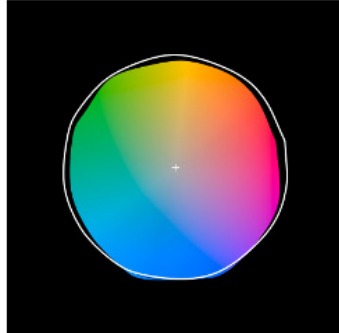
TM-30 DATA

COLOR VECTOR GRAPHIC
3500K, 90 CRI



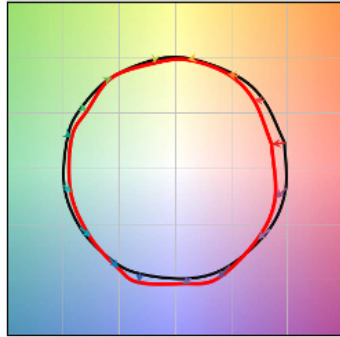
— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 90 CRI



TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_f	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_s	16	66

COLOR VECTOR GRAPHIC
3500K, 80 CRI



— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 80 CRI



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.