prescolite

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

LITEFRAME 2.0



FEATURES

- 4” LED adjustable accent delivering 1000–8000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications, optional IC and CP housing accessories available
- Available in four beam distributions
- Precise hot aiming/locking 0–40° tilt
- 2700K–5000K, 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

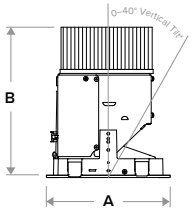
C US TriGain® technology

CONTROLS TECHNOLOGY

NX WIRELESS NX WIRED

SERVICE PROGRAMS

STOCK



Typical Dimensions and Weights			
Lumen Package	"A" Width Inches (mm)	"B" Height Inches (mm)	Weight Lbs (kg)
10L–35L	7.38 (187)	7.05 (179)	5.5 (2.5)
40L–50L	7.38 (187)	7.65 (194)	5.8 (2.6)
60L–80L	7.38 (187)	8.83 (224)	6.4 (2.9)

See DIMENSIONS section for complete details

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)
- Multiple beam distributions allow dramatic effects with minimal occlusion
- High purity, four panel aluminum reflector, self-flanged
- Standard Angle Cut cone in Specular or Semi-Specular anodized or White with painted flange options

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, TriGain technology 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 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
- Current’s patented TriGain® phosphor delivers 90 CRI color quality at 80 CRI efficacy

INSTALLATION

- Accommodates ceiling thickness from 0.50" to 1.25"
- 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.)
- Chicago Plenum requires CP housing option

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
- Suitable for -20°C to 25°C standard. Up to 40°C available on certain configurations, contact factory for details

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	1000–8000
Wattage Range	7–69
Efficacy Range (LPW)	90–137
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	63–576 (120V)

*Based on Specular, 35K, 90 CRI

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LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

Gray Shading = Service Program STOCK

ORDERING GUIDE

Example: LFR-6SQA-M-10L35K9-WD-DM1 / LFR-6SQA-T-S / LFR-6SQD-H

CATALOG #

FIXTURE MODULE

LFR-6SQA-M – [ ] [ ] 9 – [ ] – [ ] [ ] [ ] – [ ]

Ap/Shp/Funct	Lumen Output	CCT	CRI	Distribution	Driver Options	Control Options	Voltage	Module Options
LFR-6SQA-M 6" Square Adjustable Fixture Module for Direct Install *(Non-IC frame, IC or CP housings available under Housing Options below)*	**10L** 1000 **15L** 1500 **20L** 2000 **25L** 2500 **30L** 3000 **35L** 3500 **40L** 4000 **50L** 5000 **60L** 6000 [1] **70L** 7000 [1] **80L** 8000 [1]	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**9** 90+	**VNR** Very Narrow (15°) **NR** Narrow (24°) **MD** Medium (38°) **WD** Wide (52°)	**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] **2DM** Lutron Hi-Lume 2-wire Dimming to 1% (120V Forward Phase only) [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]	*Standard 120–277V* **34** 347V [4]	**EMR** 10W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light [5] **DTS** Device Transfer Switch with Dimming Bypass [5,6]

TRIM (Ships separately)

LFR-6SQA-T – [ ] – [ ] [ ]

Aperture/Shape/Function	Trim Style	Reflector Finish/Color	Flange Color Options
LFR-6SQA-T 6" Square Adjustable Trim Assembly	*Standard Cut Cone*	**S** Specular **SS** Semi-Specular **WC** Painted White Cone and Flange	*Standard matches reflector color* **WT** White Flange [7] **BT** Black Flange

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
☐ **LFR-6SQD-H**	6" Housing Frame, New Construction, Non-IC
☐ **LFR-6SQD-H-IC**	6" Housing Enclosure, New Construction, IC Rated [8,9]
☐ **LFR-6SQD-H-CP**	6" Housing Enclosure, New Construction, Chicago Plenum [10]

Accessories	
☐ **LiteGear**	LiteGear® Inverter, 125VA–250VA
☐ **LPS Series**	LightPower Micro-Inverter, 20VA–55VA
☐ **LF-MOR6-SQ-WH**	Metal Oversized Ring, 6" Square, White (10.3" outside dimension)

Notes:

1 60L–80L require marked spacing. See line art for more details.
2 DM01, PDM, DMX, DALI available up to 50L. EDM available 15L–40L.
3 NX requires DM1 driver option.
4 347V requires DM1 driver option; available 10L–40L; not available with Controls, DTS, EMR.
5 Module options not available in combination.
6 DTS available with DM1, DM01, or DALI.
7 WT not needed for WC.
8 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 insulation types.)
9 IC housing not available for use in combination with Controls or with Module options EMR, DTS.
10 CP available up to 35L; not available with DMX, Controls, or EMR options.

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LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

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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LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

PERFORMANCE SUMMARY

Performance data provided below is for 3500K, 90+ CRI with Specular Clear reflector

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	960	7.4	130
		Narrow	1093	7.4	148
		Medium	1046	7.4	141
		Wide	803	7.4	109
15L	1500	Very Narrow	1466	11.3	130
		Narrow	1669	11.3	148
		Medium	1597	11.3	141
		Wide	1227	11.3	109
20L	2000	Very Narrow	1744	14.6	119
		Narrow	1985	14.6	136
		Medium	1899	14.6	130
		Wide	1459	14.6	100
25L	2500	Very Narrow	2475	19.3	128
		Narrow	2817	19.3	146
		Medium	2695	19.3	140
		Wide	2071	19.3	107
30L	3000	Very Narrow	3034	24.1	126
		Narrow	3453	24.1	143
		Medium	3304	24.1	137
		Wide	2538	24.1	105
35L	3500	Very Narrow	3564	28.9	123
		Narrow	4056	28.9	140
		Medium	3880	28.9	134
		Wide	2981	28.9	103
40L	4000	Very Narrow	3951	32.3	122
		Narrow	4496	32.3	139
		Medium	4302	32.3	133
		Wide	3305	32.3	102
50L	5000	Very Narrow	4914	42	117
		Narrow	5593	42	133
		Medium	5350	42	127
		Wide	4111	42	98
60L	6000	Very Narrow	6026	49.4	122
		Narrow	6859	49.4	139
		Medium	6562	49.4	133
		Wide	5042	49.4	102
70L	7000	Very Narrow	7016	58.9	119
		Narrow	7985	58.9	136
		Medium	7640	58.9	130
		Wide	5869	58.9	100
80L	8000	Very Narrow	7995	69	116
		Narrow	9104	69	132
		Medium	8705	69	126
		Wide	6688	69	97

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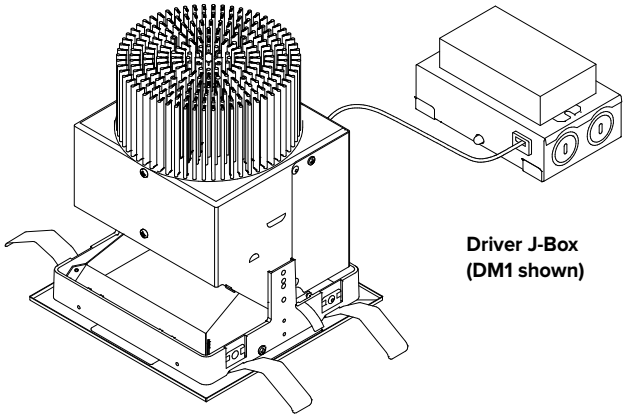
LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

DIMENSIONS

LFR-6SQA-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.



Driver J-Box (DM1 shown)

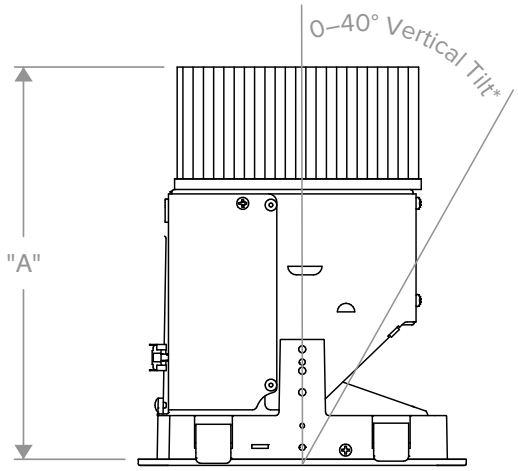
Light Engine with Trim assembly installed

DIMENSIONAL DATA	
APERTURE	□ 6.00" (152.4mm)
FLANGE TO FLANGE	□ 7.38" (187.4mm
FLANGE WIDTH	0.71" (18.0mm)
CEILING CUTOUT	□ 6.75" (171.5mm)
CEILING THICKNESS	0.50"–1.25" (12.7–31.8mm)

LFR-6SQA LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *		
LUMEN PACKAGE	BEAM DISTRIBUTION	
	VNR	NR / MD/ WD
10L–35L	8.16" (207.3mm)	6.94" (176.3mm)
40L–50L	8.73" (221.7mm)	7.51" (190.7mm)
60L–80L	9.92" (252.0mm)	8.70" (221.0mm)

* Note: Add ½" 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

* 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

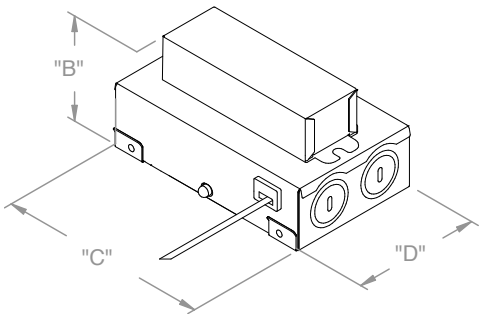
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LFR-6SQA

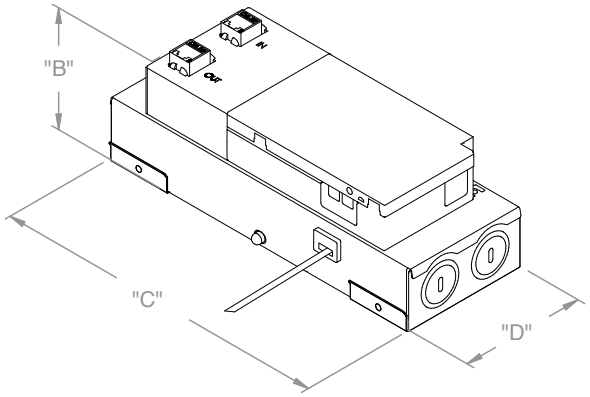
LITEFRAME 6" SQUARE ADJUSTABLE

DIMENSIONS (CONTINUED)

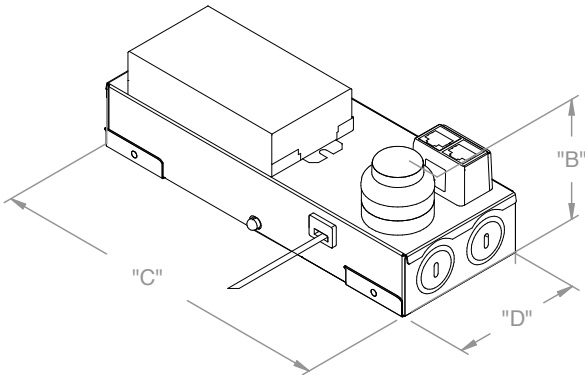
DRIVER J-BOX



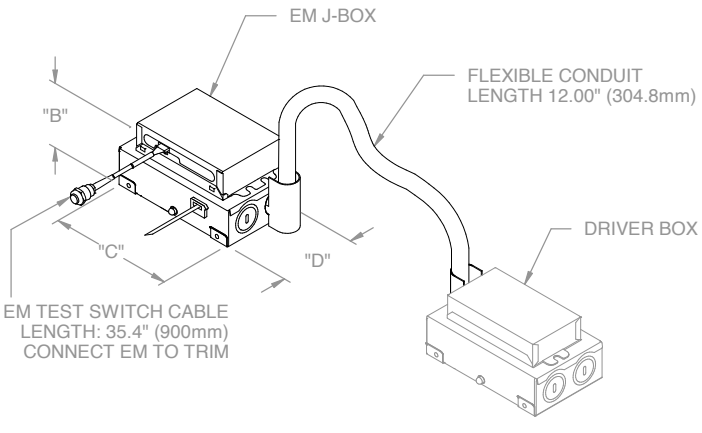
DM1 / DM01 / PDM / DALI



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)	3.00" (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)

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LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

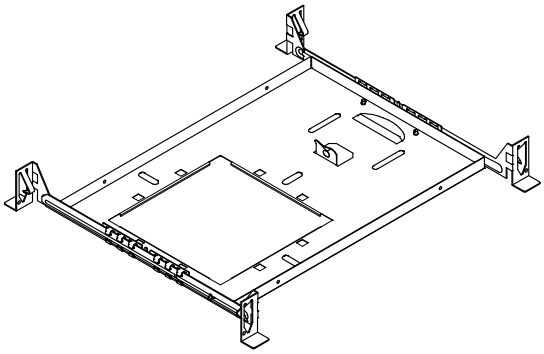
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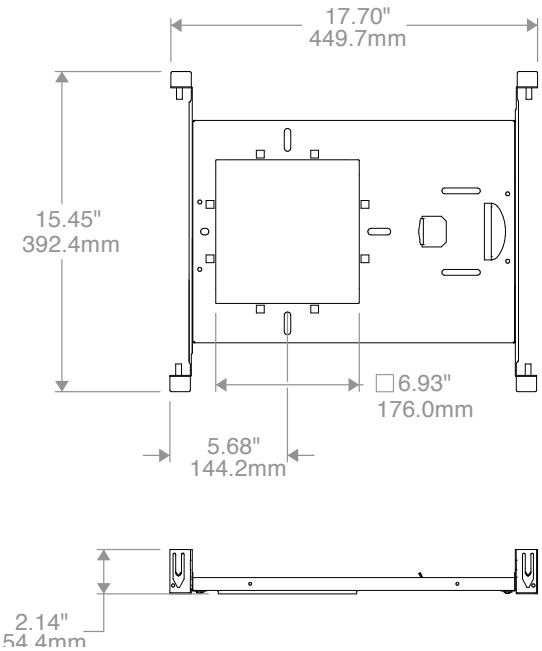
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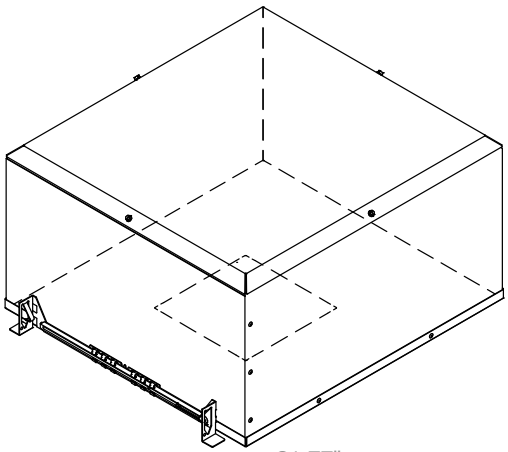
DIMENSIONS (CONTINUED)

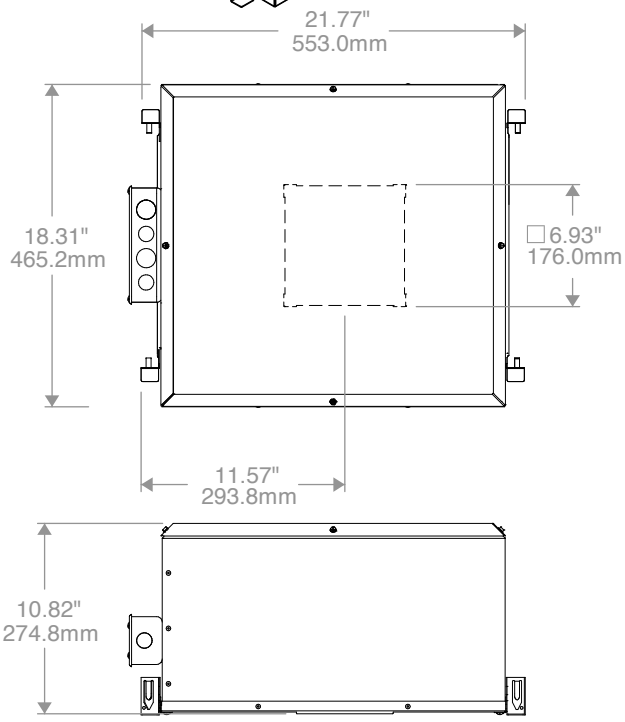
OPTIONAL HOUSINGS



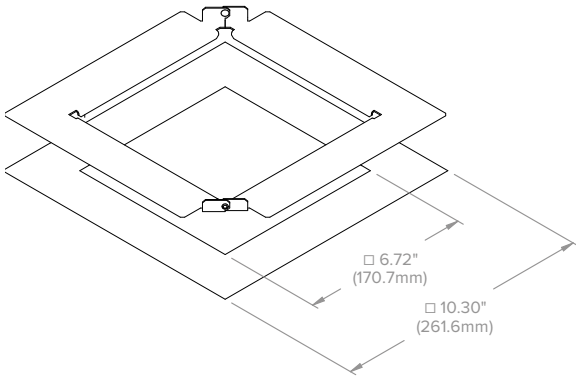


LFR-6SQD-H
NON-IC HOUSING FRAME

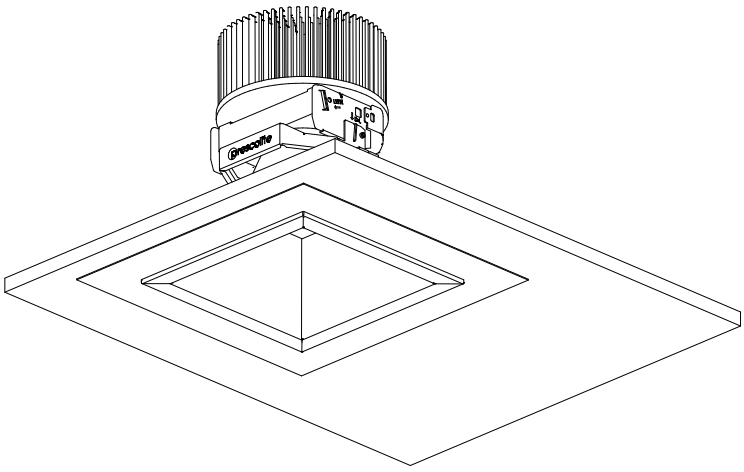




LFR-6SQD-H-IC
LFR-6SQD-H-CP
IC or CP HOUSING



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



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LITEFRAME 6" SQUARE ADJUSTABLE

PHOTOMETRY

LFR-6SQA-M-20L35K9VNR-DM1 / LFR-6SQA-T-S

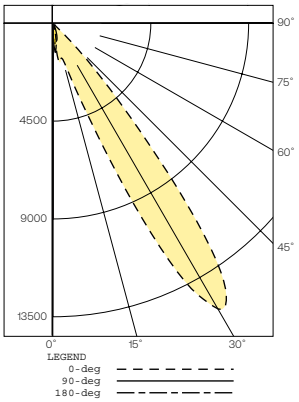
LUMINAIRE DATA

Test No.	**25.00951**
Description	**2000 lm, Very Narrow, 3500K, 90 CRI**
Delivered Lumens	**1744**
Watts	**14.6W**
Efficacy	**120**
Mounting	**Recessed/Ceiling**
Beam Angle (FWHM)	**15**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1581	90.6
0–60	1742	99.9
0–90	1744	100.0
0–180	1744	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	876
5	1037
15	1744
25	10590
35	12620
45	1093
55	42
65	4
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	66553
55°	3153
65°	408
75°	166
85°	0

*Candela/Square Meter

LFR-6SQA-M-20L35K9NR-DM1 / LFR-6SQA-T-S

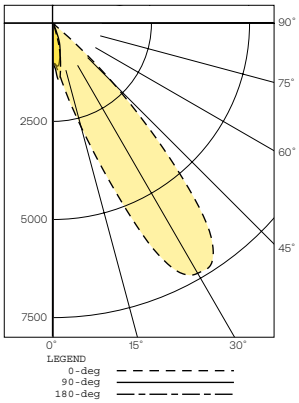
LUMINAIRE DATA

Test No.	**25.00952**
Description	**2000 lm, Narrow, 3500K, 90 CRI**
Delivered Lumens	**1985**
Watts	**14.6W**
Efficacy	**136**
Mounting	**Recessed/Ceiling**
Beam Angle (FWHM)	**24**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1679	84.6
0–60	1983	99.9
0–90	1985	100.0
0–180	1985	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1008
5	1153
15	2683
25	6626
35	7111
45	2306
55	57
65	16
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	140412
55°	4279
65°	1630
75°	0
85°	0

*Candela/Square Meter

LFR-6SQA-M-20L35K9MD-DM1 / LFR-6SQA-T-S

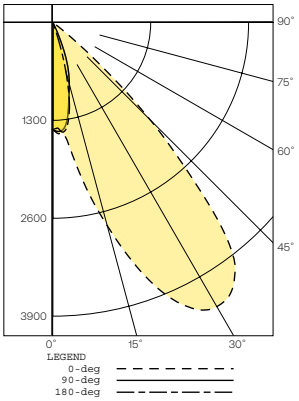
LUMINAIRE DATA

Test No.	**25.00953**
Description	**2000 lm, Medium, 3500K, 90 CRI**
Delivered Lumens	**1899**
Watts	**14.6W**
Efficacy	**131**
Mounting	**Recessed/Ceiling**
Beam Angle (FWHM)	**38**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1589	83.7
0–60	1897	99.9
0–90	1899	100.0
0–180	1899	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1423
5	1476
15	2790
25	4147
35	4202
45	1843
55	61
65	16
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	112220
55°	4579
65°	1630
75°	0
85°	0

*Candela/Square Meter

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LFR-6SQA

LITEFRAME 6" SQUARE ADJUSTABLE

PHOTOMETRY (CONTINUED)

LFR-6SQA-M-20L35K9WD-DM1 / LFR-6SQA-T-S

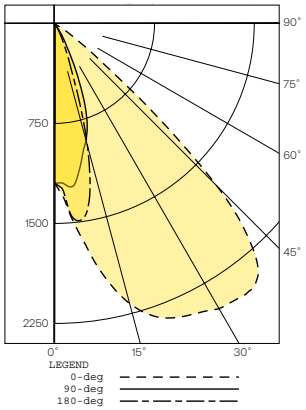
LUMINAIRE DATA

Test No.	**25.00954**
Description	**2000 lm, Wide, 3500K, 90 CRI**
Delivered Lumens	**1759**
Watts	**14.6W**
Efficacy	**121**
Mounting	**Recessed/Ceiling**
Beam Angle (FWHM)	**52**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1416	80.5
0–60	1754	99.7
0–90	1759	100.0
0–180	1759	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1191
5	1460
15	2166
25	2406
35	2483
45	1752
55	200
65	21
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	106679
55°	15013
65°	2139
75°	0
85°	0

*Candela/Square Meter

LUMEN MULTIPLIER

Option	27K9	30K9	35K9	40K9	50K9
Multiplier	0.94	0.98	1.00	1.01	1.02

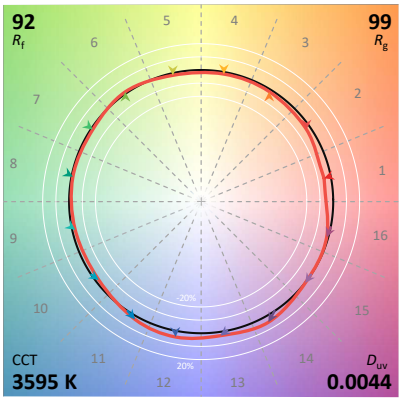
Photometrics are published at a nominal 3500 Kelvin, 90+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

REFLECTOR FINISH MULTIPLIER (Based on Clear (Standard) Color)

Option	Specular (S)	Semi-Specular (SS)	White Cone (WC)
Multiplier	1	0.909	0.984

TM-30 DATA

COLOR VECTOR GRAPHIC
3500K, 90 CRI



TEST RESULTS - 3500K	
Value	90+ CRI
R_f	92
R_g	99
CCT (K)	3595
D_{UV}	0.0044
x	0.4045
y	0.4004
CIE R_a	93
CIE R_9	61

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LFR-6SQA

LITEFRAME 6" SQUARE 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.

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, 10W x 120 LPW = 1200 lumens in emergency mode.

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