

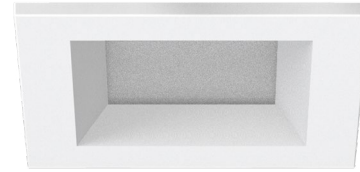
LFR-4SQD (SH)

LITEFRAME 4" SQUARE
 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 options available

INSTALLATION

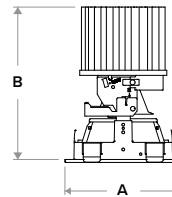
- Accommodates ceiling thickness from 0.50" to 2.50"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation 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" Width (SQ) Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	5.57 (141)	5.45 (138)	4.3 (1.9)
35L - 60L	5.57 (141)	7.03 (179)	4.6 (2.1)

See DIMENSIONS section for complete details

KEY DATA	
Lumen Range	1000–6000
Wattage Range	8–54
Efficacy Range (LPW)	74–93
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–450 (120V)

*Based on 35K, 80 CRI

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ORDERING GUIDE

Gray Shading = Service Program



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

CATALOG #

FIXTURE MODULE

LFR-4SQD-M	Lumen Output		CCT		CRI	Distribution	Driver Options	Control Options	Voltage	Module Options
Ap/Shp/Funct	10L	1000	27K	2700K	8 80+	WD Wide (46°/0.7 SC)	DM1 0–10V Dimming to 1%	NX Lighting Controls	<i>Standard</i> 120–277V	CP Chicago Plenum ^{4,5} EMR 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light ⁵ DTS Device Transfer Switch with Dimming Bypass ^{5,6}
LFR-4SQD-M 4" Square Downlight Fixture Module for Direct Install	15L	1500	30K	3000K	9 90+		DM01 0–10V Dimming to < 1% ¹	Networked Wireless		
(Non-IC frame or IC housing available under Housing Options below)	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		
	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-4SQD-T	Trim Style	Flange Color Options	Lens Options
Aperture/Shape/Function			
LFR-4SQD-T 4" Square Downlight Trim Assembly	SH Non-Conductive Shower Trim	WT White Trim and Flange BT Black Trim and Flange	AML Acrylic, Micro-prism PML Polycarbonate, Micro-prism GML Tempered glass, Micro-prism ACL Acrylic, Clear

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
<input type="checkbox"/> LFR-4SQD-H	4" Housing Frame, New Construction, Non-IC
<input type="checkbox"/> LFR-4SQD-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-SQ-WH	Metal Oversized Ring, 4" Square, White (8.3" outside dimension)



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 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	Acrylic Micro-prism (AML)	710	7.7	93
		Polycarbonate Micro-prism (PML)	682	7.7	89
		Tempered Glass Micro-prism (GML)	712	7.7	93
		Acrylic Clear (ACL)	715	7.7	93
15L	1500	Acrylic Micro-prism (AML)	1067	11.7	91
		Polycarbonate Micro-prism (PML)	1025	11.7	88
		Tempered Glass Micro-prism (GML)	1070	11.7	91
		Acrylic Clear (ACL)	1075	11.7	92
20L	2000	Acrylic Micro-prism (AML)	1368	15.2	90
		Polycarbonate Micro-prism (PML)	1313	15.2	87
		Tempered Glass Micro-prism (GML)	1371	15.2	90
		Acrylic Clear (ACL)	1377	15.1	91
25L	2500	Acrylic Micro-prism (AML)	1750	20.3	86
		Polycarbonate Micro-prism (PML)	1681	20.3	83
		Tempered Glass Micro-prism (GML)	1755	20.3	86
		Acrylic Clear (ACL)	1762	20.3	87
30L	3000	Acrylic Micro-prism (AML)	2112	25.6	83
		Polycarbonate Micro-prism (PML)	2029	25.6	79
		Tempered Glass Micro-prism (GML)	2118	25.6	83
		Acrylic Clear (ACL)	2127	25.6	83
35L	3500	Acrylic Micro-prism (AML)	2558	29.2	87
		Polycarbonate Micro-prism (PML)	2456	29.2	84
		Tempered Glass Micro-prism (GML)	2565	29.2	88
		Acrylic Clear (ACL)	2576	29.2	88
40L	4000	Acrylic Micro-prism (AML)	2834	32.9	86
		Polycarbonate Micro-prism (PML)	2721	32.9	83
		Tempered Glass Micro-prism (GML)	2841	32.9	86
		Acrylic Clear (ACL)	2853	32.9	87
50L	5000	Acrylic Micro-prism (AML)	3500	42.8	82
		Polycarbonate Micro-prism (PML)	3361	42.8	78
		Tempered Glass Micro-prism (GML)	3510	42.8	82
		Acrylic Clear (ACL)	3524	42.8	82
60L	6000	Acrylic Micro-prism (AML)	4127	53.3	77
		Polycarbonate Micro-prism (PML)	3963	53.3	74
		Tempered Glass Micro-prism (GML)	4138	53.3	78
		Acrylic Clear (ACL)	4156	53.3	78

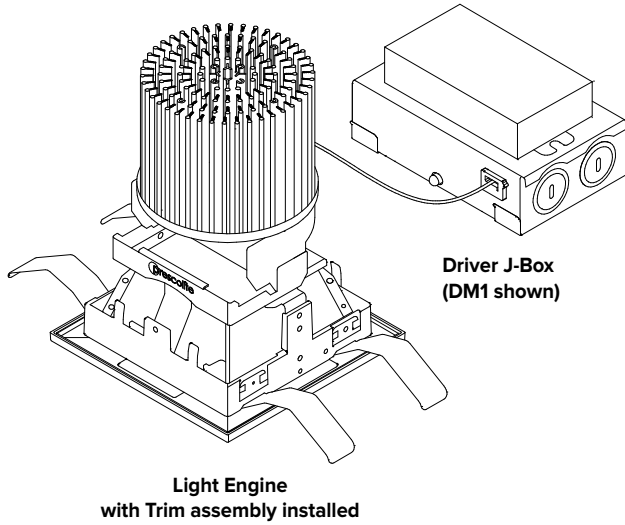
LFR-4SQD (SH)

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DIMENSIONS

LFR-4SQD-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.

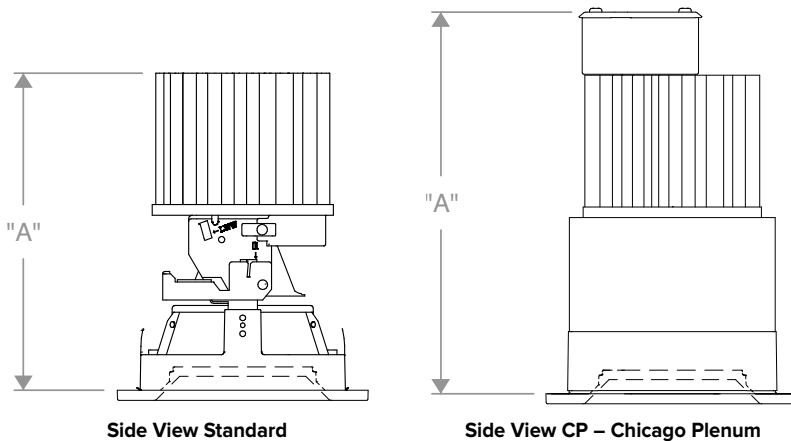


DIMENSIONAL DATA	
APERTURE	□ 4.00" (101.6mm)
FLANGE WIDTH	0.86" (21.9mm)
FLANGE TO FLANGE	□ 5.57" (141.5mm)
CEILING CUTOUT	□ 4.75" (120.7mm)
CEILING THICKNESS	0.50" – 2.50" (12.7 – 63.5mm)

LFR-4SQD LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *		
LUMEN PACKAGE	FIXTURE MODULE	NR / MD/ WD
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.



LFR-4SQD (SH)

LITEFRAME 4" SQUARE
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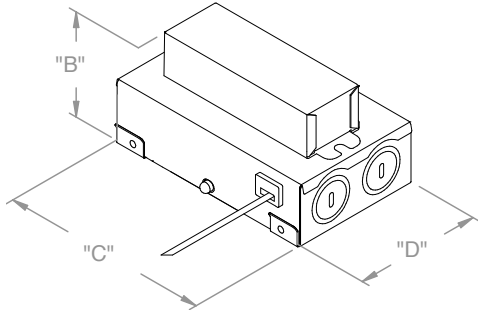
DIMENSIONS CONTINUED

DATE: _____ LOCATION: _____

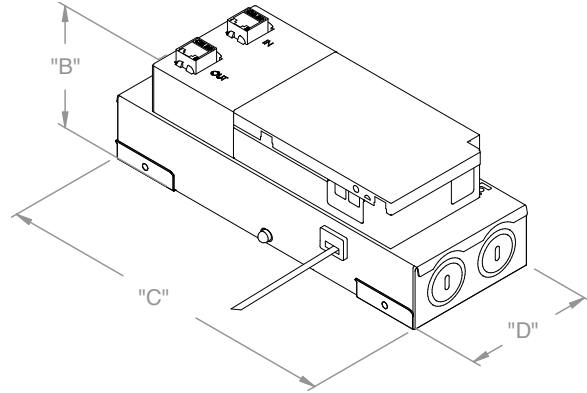
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CATALOG #: _____

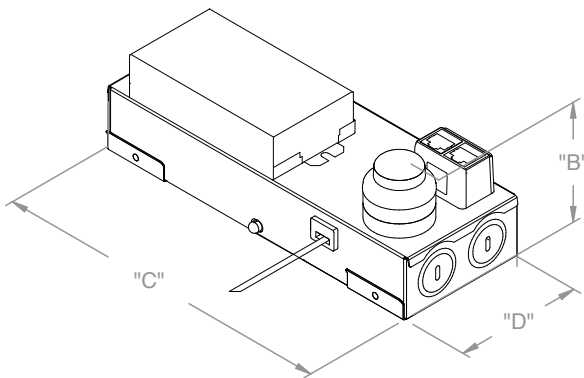
DRIVER J-BOX



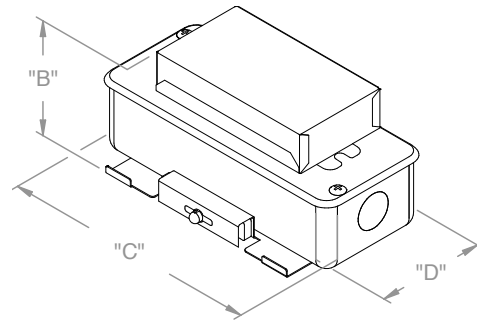
DM1 / DM01 / PDM / DALI



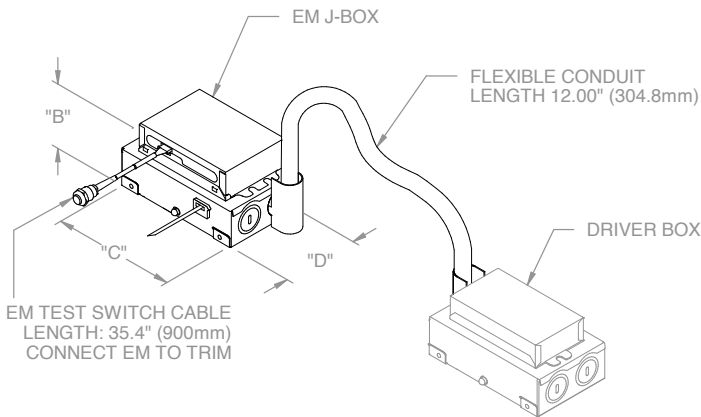
DMX



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)

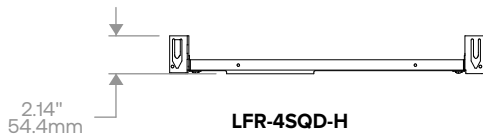
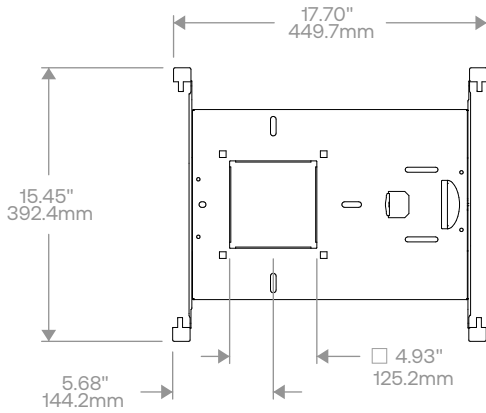
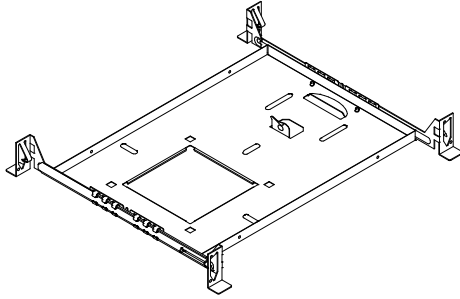
OVERALL DRIVER J-BOX DIMENSIONS (ALL LUMEN OUTPUTS)				
DRIVER/ CONTROLS OPTIONS	"B" (HEIGHT)	"C" (LENGTH)	"D" (WIDTH)	MINIMUM J-BOX PLENUM CLEARANCE
DM1 / DM01 / PDM / DALI	2.67" (67.8mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.50" (88.9mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	5.00" (127.0mm)
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-4SQD (SH)

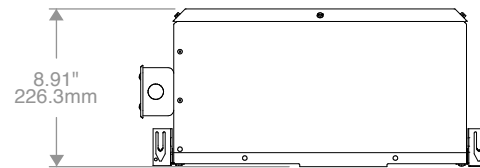
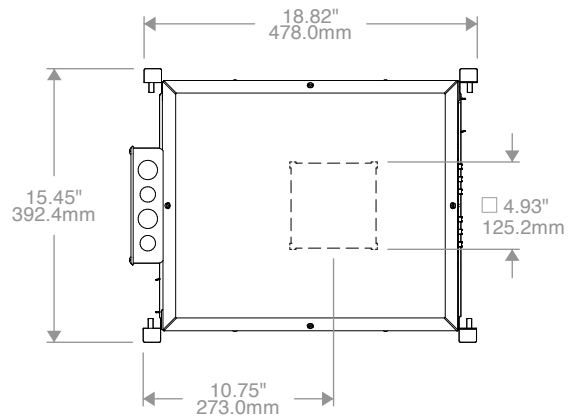
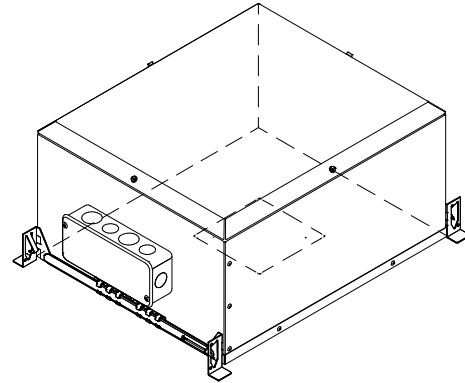
LITEFRAME 4" SQUARE
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DIMENSIONS CONTINUED

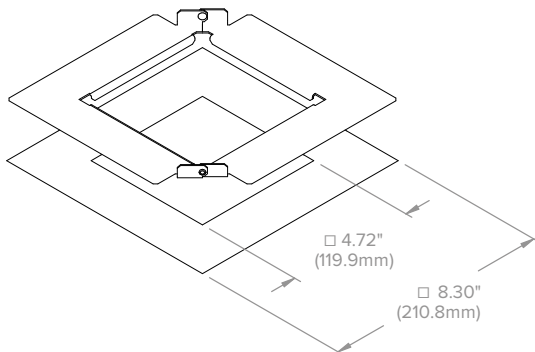
OPTIONAL HOUSINGS



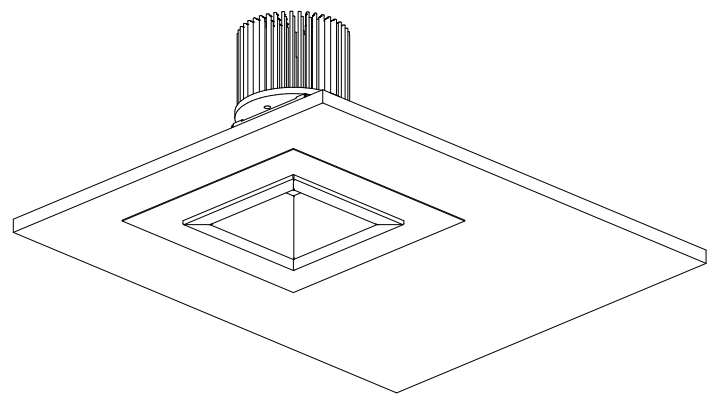
LFR-4SQD-H
NON-IC HOUSING FRAME



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



LF-MOR4-SQ
METAL OVERSIZED RING
(See LF-MOR Installation Instruction for more details)



LFR-4SQD (SH)

LITEFRAME 4" SQUARE
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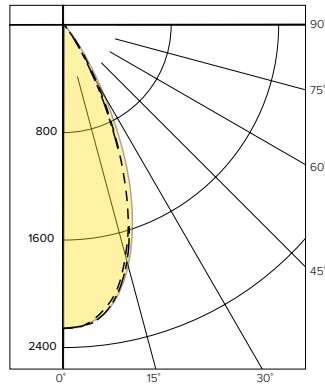
PHOTOMETRY

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

LUMINAIRE DATA

Test No.	22.00596
Description	2000 lm, Acrylic Micro-prism lens, 3500K, 80 CRI
Delivered Lumens	1371
Watts	15.2W
Efficacy	90
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	45

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2263
5	2226
15	1787
25	912
35	224
45	36
55	13
65	7
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5255
55°	2340
65°	1710
75°	1197
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

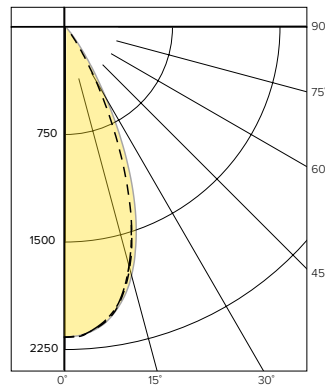
Zone	Lumens	% Luminaire
0-40	1318	96.1
0-60	1361	99.3
0-90	1371	100.0
0-180	1371	100.0

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

LUMINAIRE DATA

Test No.	22.00598
Description	2000 lm, Polycarbonate Micro-prism lens, 3500K, 80 CRI
Delivered Lumens	1313
Watts	15.2W
Efficacy	90
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	45

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2169
5	2134
15	1752
25	845
35	173
45	29
55	12
65	7
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4234
55°	2160
65°	1710
75°	1197
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

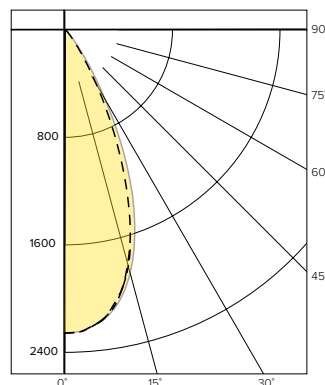
Zone	Lumens	% Luminaire
0-40	1261	96.0
0-60	1304	99.2
0-90	1313	100.0
0-180	1313	100.0

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

LUMINAIRE DATA

Test No.	22.00600
Description	2000 lm, Tempered Glass Micro-prism lens, 3500K, 80 CRI
Delivered Lumens	1368
Watts	15.2W
Efficacy	90
Mounting	Recessed
Spacing Criterion	0.7
Beam Angle (FWHM)	45

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2262
5	2224
15	1812
25	899
35	202
45	34
55	13
65	8
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4963
55°	2340
65°	1954
75°	1197
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1314	96.0
0-60	1357	99.2
0-90	1368	100.0
0-180	1368	100.0

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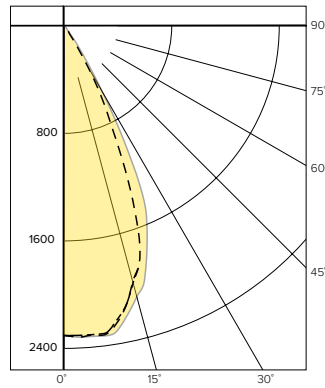
PHOTOMETRY CONTINUED

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

LUMINAIRE DATA

Test No.	22.00601
Description	2000 lm, Acrylic Clear lens, 3500K, 80 CRI
Delivered Lumens	1377
Watts	15.2W
Efficacy	91
Mounting	Recessed
Spacing Criterion	0.8
Beam Angle (FWHM)	46

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2309
5	2315
15	1979
25	871
35	63
45	14
55	6
65	4
75	2
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	2044
55°	1080
65°	977
75°	798
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1355	98.4
0-60	1372	99.6
0-90	1377	100.0
0-180	1377	100.0

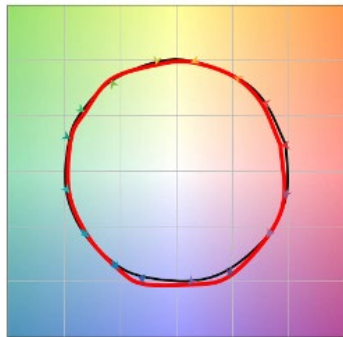
LUMEN MULTIPLIER

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



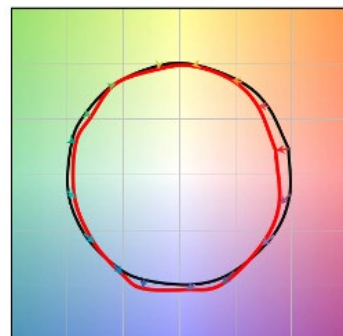
— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 90 CRI



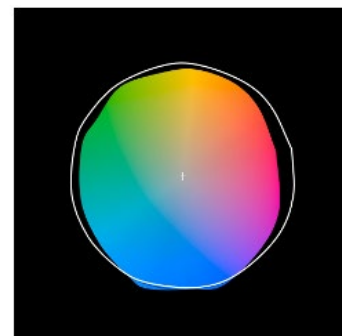
TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R _t	85	90
R _g	95	99
CCT (K)	3422	3416
D _{uv}	-0.0008	-0.0019
x	0.4089	0.408
y	0.3906	0.3877
CIE R _a	85	93
CIE R _g	16	66

COLOR VECTOR GRAPHIC 3500K, 80 CRI



— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 80 CRI



LFR-4SQD (SH)

LITEFRAME 4" SQUARE
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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.