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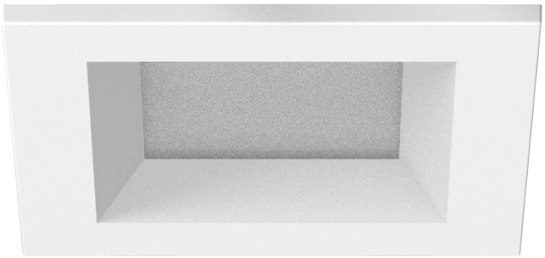
LFR-4SQD (SH)

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, 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



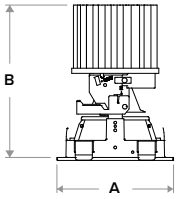
SERVICE PROGRAMS

STOCK QS10

C US WET LOCATION IP65 TriGain technology

CONTROLS TECHNOLOGY

NX WIRELESS NX WIRED



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

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 ½" 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, 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 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
- Current's patented TriGain® phosphor delivers 90 CRI color quality at 80 CRI efficacy

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
- 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	1000–6000
Wattage Range	8–53
Efficacy Range (LPW)	83–105
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	65–446 (120V)

*Based on 35K, 90 CRI

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LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

Gray Shading = Service Program STOCK QS10 Limit of 150 Luminaries

ORDERING GUIDE

Example: LFR-4SQD-M-10L35K9-WD-DM1 / LFR-4SQD-T-SH-WTAML / LFR-4SQD-H

CATALOG #

FIXTURE MODULE

LFR-4SQD-M – [ ] [ ] 9 – WD – [ ] [ ] [ ] –

Ap/Shp/Funct	Lumen Output	CCT	CRI	Distribution	Driver Options	Control Options	Voltage	Module Options
LFR-4SQD-M 4" Square Downlight Fixture Module for Direct Install *(Non-IC frame or IC housing available under Housing Options below)*	**10L** 1000 **15L** 1500 **20L** 2000 **25L** 2500 **30L** 3000 **35L** 3500 **40L** 4000 **50L** 5000[1] **60L** 6000[1]	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**9** 90+	**WD** Wide (46°/0.7 SC)	**DM1** 0–10V Dimming to 1% **DM01** 0–10V Dimming to < 1%[1] **PDM** Phase (Forward/Reverse) Dimming to 1%[1] **DMX** DMX with RDM dimming to < 0.1%[1] **DALI** DALI Dimming to 1%[1] **EDM** Lutron Hi-Lume EcoSystem Dimming to 1%[1]	**NX Lighting Controls** Networked Wireless **NXW** NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [2] Networked Wired **NXE** NX Wired Dual RJ45 SmartPORTS, without Sensor [2]	*Standard 120–277V* **34** 347V[3]	**CP** Chicago Plenum[4, 5] **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-4SQD-T – – [ ] [ ]

Aperture/Shape/Function	Trim Style	Flange Color Options	Lens Options
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	
☐	**LFR-4SQD-H**	4" Housing Frame, New Construction, Non-IC
☐	**LFR-4SQD-H-IC**	4" Housing Enclosure, New Construction, IC Rated [7,8]

	Accessories	
☐	**LiteGear**	LiteGear® Inverter, 125VA–250VA
☐	**LPS Series**	LightPower Micro-Inverter, 20VA–55VA
☐	**LF-MOR4-SQ-WH**	Metal Oversized Ring, 4" Square, White (8.3" outside dimension)

Notes:

1 DM01, PDM, DMX, DALI available up to 50L. EDM available 15L–40L.
2 NX requires DM1 driver option.
3 347V requires DM1 driver option; available 10L–40L; not available with Controls, DTS, EMR.
4 CP not available with PDM, DMX, or Controls.
5 Module options not available in combination.
6 DTS available with DM1, DM01 or DALI.
7 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.)
8 IC Housing not for use in combination with Controls or with Module Options CP, EMR, DTS.

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LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER 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

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LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

PERFORMANCE DATA TABLE

Performance data shown is 3500K, 90+ 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)	793	7.7	103
		Polycarbonate Micro-prism (PML)	762	7.7	99
		Tempered Glass Micro-prism (GML)	795	7.7	104
		Acrylic Clear (ACL)	799	7.7	104
15L	1500	Acrylic Micro-prism (AML)	1089	11.8	93
		Polycarbonate Micro-prism (PML)	1046	11.8	89
		Tempered Glass Micro-prism (GML)	1091	11.8	93
		Acrylic Clear (ACL)	1097	11.8	93
20L	2000	Acrylic Micro-prism (AML)	1506	15	100
		Polycarbonate Micro-prism (PML)	1447	15	96
		Tempered Glass Micro-prism (GML)	1509	15	101
		Acrylic Clear (ACL)	1517	15	101
25L	2500	Acrylic Micro-prism (AML)	1961	20.4	96
		Polycarbonate Micro-prism (PML)	1884	20.4	92
		Tempered Glass Micro-prism (GML)	1965	20.4	96
		Acrylic Clear (ACL)	1975	20.4	97
30L	3000	Acrylic Micro-prism (AML)	2367	25.9	91
		Polycarbonate Micro-prism (PML)	2274	25.9	88
		Tempered Glass Micro-prism (GML)	2372	25.9	92
		Acrylic Clear (ACL)	2384	25.9	92
35L	3500	Acrylic Micro-prism (AML)	2841	29.9	95
		Polycarbonate Micro-prism (PML)	2730	29.9	91
		Tempered Glass Micro-prism (GML)	2847	29.9	95
		Acrylic Clear (ACL)	2861	29.9	96
40L	4000	Acrylic Micro-prism (AML)	3193	32.7	97
		Polycarbonate Micro-prism (PML)	3067	32.7	94
		Tempered Glass Micro-prism (GML)	3199	32.7	98
		Acrylic Clear (ACL)	3215	32.7	98
50L	5000	Acrylic Micro-prism (AML)	3842	42.6	90
		Polycarbonate Micro-prism (PML)	3691	42.6	87
		Tempered Glass Micro-prism (GML)	3850	42.6	90
		Acrylic Clear (ACL)	3869	42.6	91
60L	6000	Acrylic Micro-prism (AML)	4591	53.1	86
		Polycarbonate Micro-prism (PML)	4410	53.1	83
		Tempered Glass Micro-prism (GML)	4600	53.1	87
		Acrylic Clear (ACL)	4623	53.1	87

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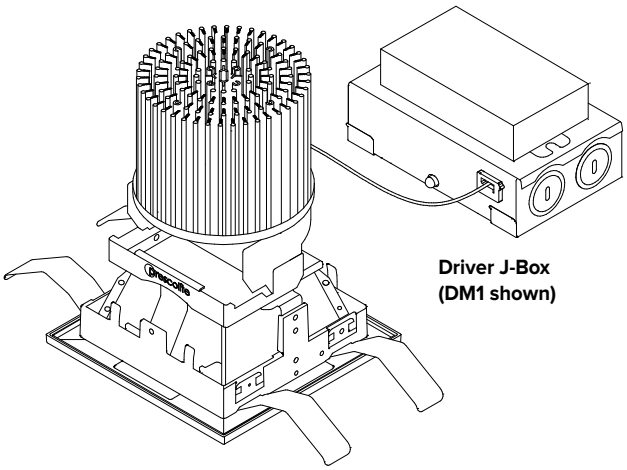
LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

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.



Driver J-Box (DM1 shown)

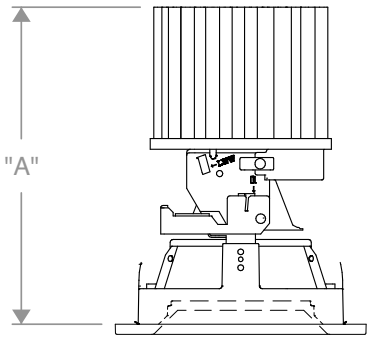
Light Engine with Trim assembly installed

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)

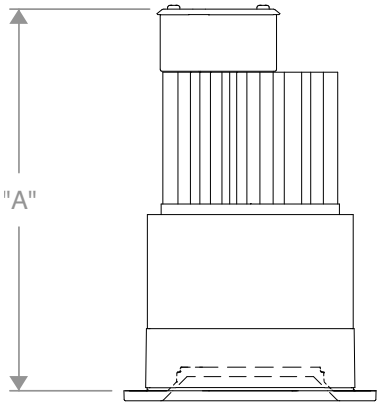
LFR-4SQD LIGHT ENGINE

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 ½" 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.



Side View Standard



Side View CP – Chicago Plenum

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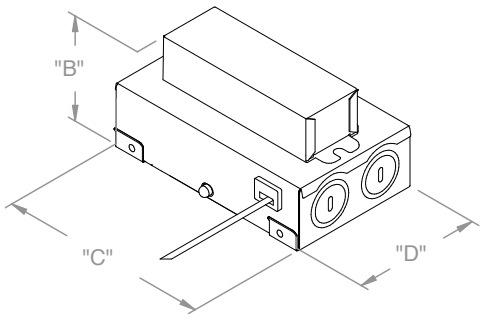
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LFR-4SQD (SH)

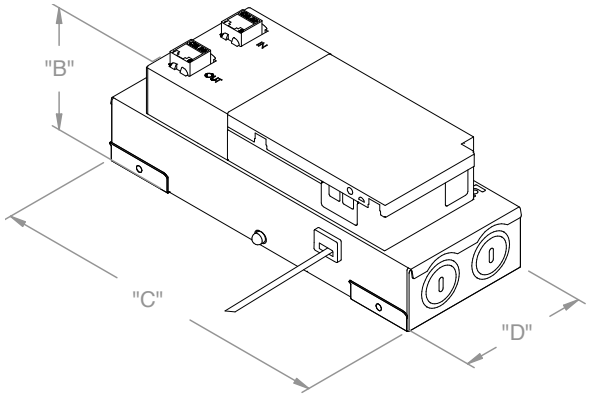
LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

DIMENSIONS (CONTINUED)

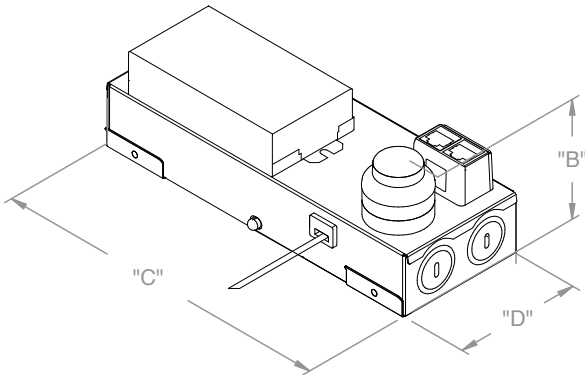
DRIVER J-BOX



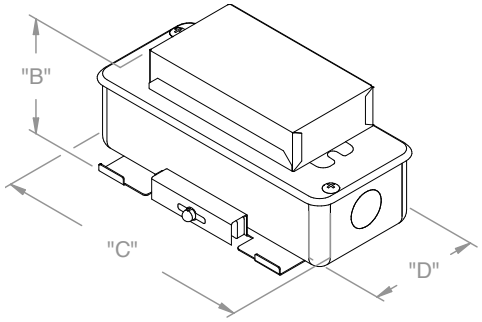
DM1 / DM01 / PDM / DALI



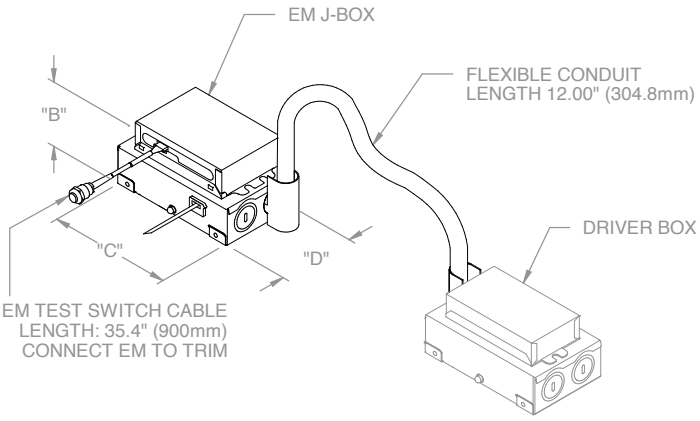
DMX



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)

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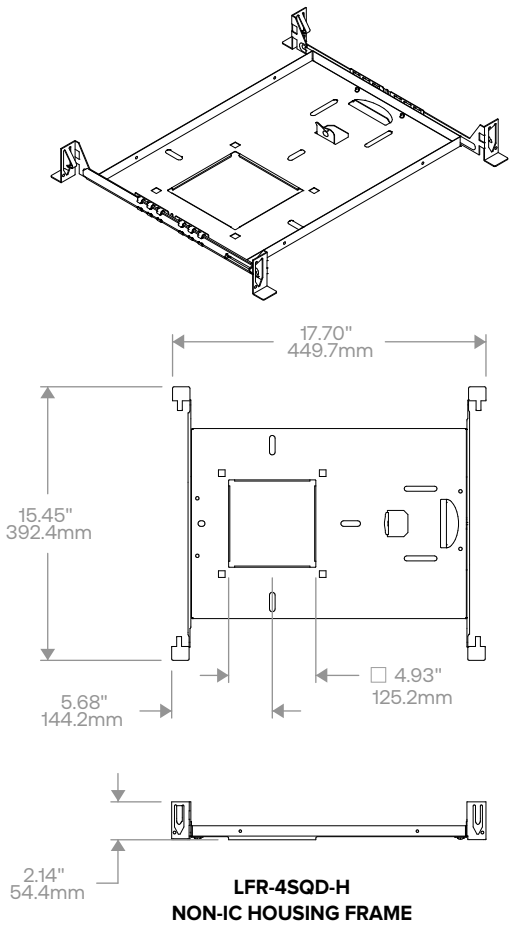
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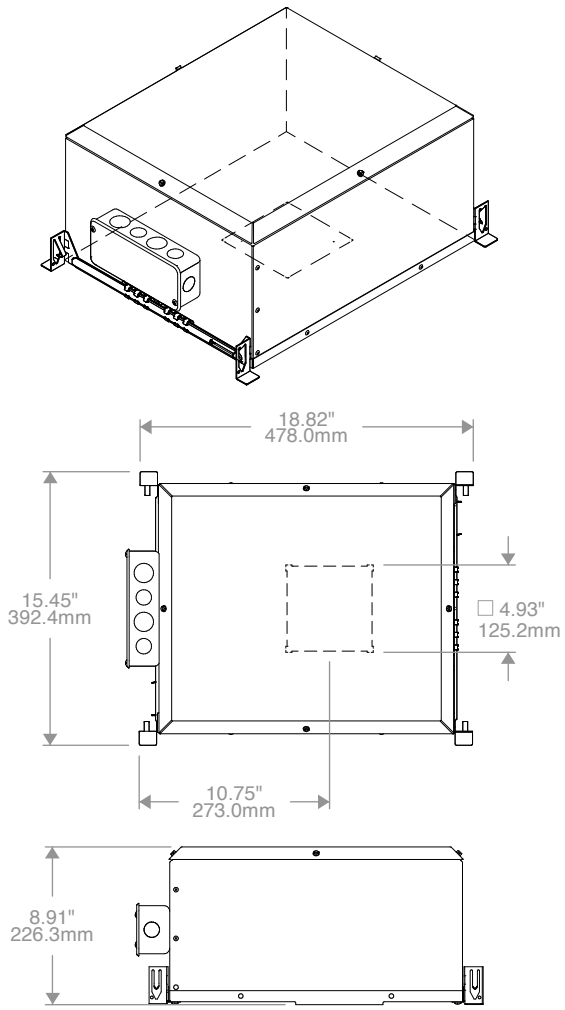
LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

DIMENSIONS (CONTINUED)

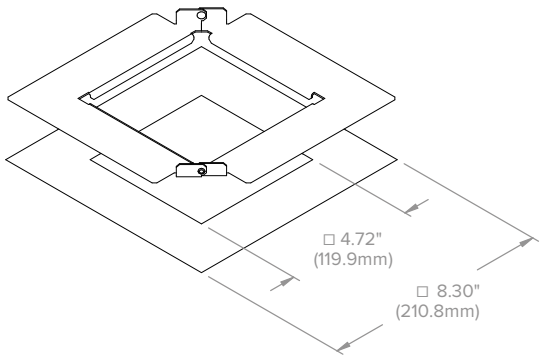
OPTIONAL HOUSINGS



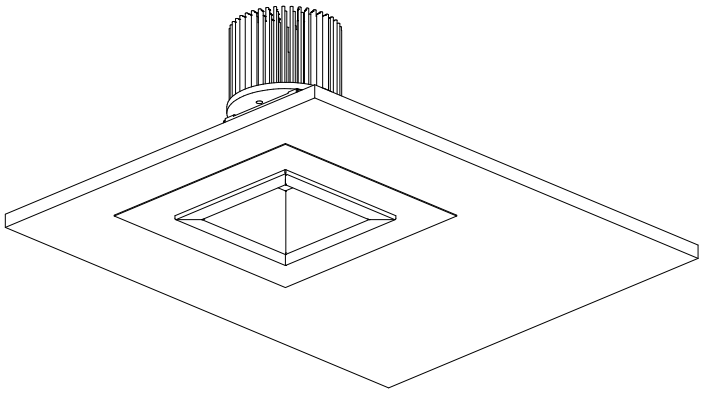
LFR-4SQD-H
NON-IC HOUSING FRAME



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)



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LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

PHOTOMETRY

LFR-4SQD-M-20L35K9-DM1 / LFR-4SQD-T-SH-WTGML

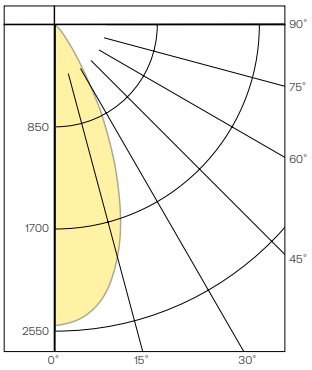
LUMINAIRE DATA

Test No.	**22.00596-R03**
Description	**2000 lm, Tempered Glass Micro-prism lens, 3500K, 90 CRI**
Delivered Lumens	**1510**
Watts	**15W**
Efficacy	**101**
Mounting	**Recessed**
Spacing Criterion	**0.7**
Beam Angle (FWHM)	**45**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1450	96.1
0–60	1499	99.3
0–90	1510	100.0
0–180	1510	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2491
5	2450
15	1967
25	1004
35	247
45	40
55	14
65	8
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5834
55°	2517
65°	1952
75°	1195
85°	0

*Candela/Square Meter

LFR-4SQD-M-20L35K9-DM1 / LFR-4SQD-T-SH-WTPML

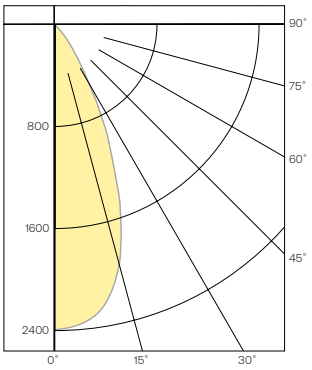
LUMINAIRE DATA

Test No.	**22.00598-R03**
Description	**2000 lm, Polycarbonate Micro-prism lens, 3500K, 90 CRI**
Delivered Lumens	**1448**
Watts	**15W**
Efficacy	**97**
Mounting	**Recessed**
Spacing Criterion	**0.8**
Beam Angle (FWHM)	**45**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1389	96.0
0–60	1437	99.2
0–90	1448	100.0
0–180	1448	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2390
5	2352
15	1931
25	931
35	191
45	32
55	13
65	8
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	4667
55°	2337
65°	1952
75°	1195
85°	0

*Candela/Square Meter

LFR-4SQD-M-20L35K9-DM1 / LFR-4SQD-T-SH-WTAML

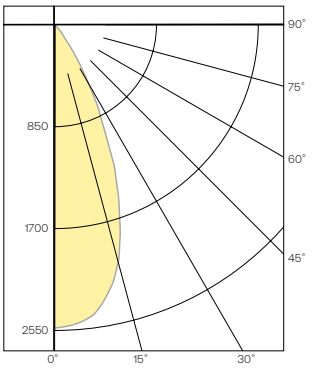
LUMINAIRE DATA

Test No.	**22.00600-R03**
Description	**2000 lm, Acrylic Micro-prism lens, 3500K, 90 CRI**
Delivered Lumens	**1506**
Watts	**15W**
Efficacy	**100**
Mounting	**Recessed**
Spacing Criterion	**0.8**
Beam Angle (FWHM)	**45**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1446	96.0
0–60	1494	99.2
0–90	1506	100.0
0–180	1506	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2490
5	2448
15	1995
25	990
35	222
45	37
55	14
65	9
75	3
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	5396
55°	2517
65°	2196
75°	1195
85°	0

*Candela/Square Meter

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LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

PHOTOMETRY (CONTINUED)

LFR-4SQD-M-20L35K9-DM1 / LFR-4SQD-T-SH-WTACL

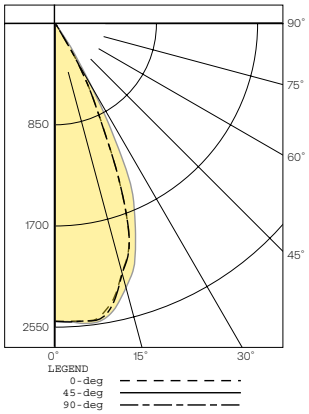
LUMINAIRE DATA

Test No.	**25.00774**
Description	**2000 lm, Acrylic Clear lens, 3500K, 90 CRI**
Delivered Lumens	**1517**
Watts	**15W**
Efficacy	**101**
Mounting	**Recessed**
Spacing Criterion	**0.8**
Beam Angle (FWHM)	**46**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–40	1493	98.4
0–60	1511	99.6
0–90	1517	100.0
0–180	1517	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2503
5	2511
15	2176
25	957
35	68
45	16
55	6
65	4
75	2
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	2192
55°	1013
65°	917
75°	749
85°	0

*Candela/Square Meter

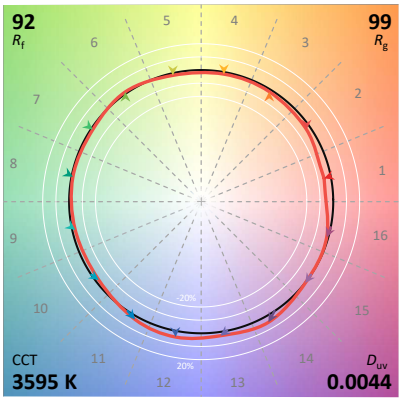
LUMEN MULTIPLIER

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.

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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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4SQD (SH)

LITEFRAME 4" SQUARE
NON-CONDUCTIVE SHOWER DOWNLIGHT

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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