

# LFCR-4RD-N

LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

LITEFRAME  
Commercial



## FEATURES

- 4" LED downlight delivering 500–5000 lumens
- Wide Beam Distribution (1.0 Spacing Criteria) Standard
- 2700K–5000K, 90+ CRI (2 SDCM)
- Dimming protocols include 0–10V, Phase, DMX, DALI
- NX Lighting Controls wired and wireless controls capability available
- TriGain® technology is standard and delivers 90 CRI (50+ R9) color rendition without efficacy compromise



## SERVICE PROGRAMS

tradeSELECT® QS10

## CONTROLS TECHNOLOGY



## SPECIFICATIONS

### CONSTRUCTION

- Standard fixture module designed for Non-IC, with new construction housing
- All housing options come standard with pre-installed bar hangers
- Die cast aluminum fixture module with torsion springs for secure mounting to fixture housing
- Snap-in driver junction box allows for both installation and service from below ceiling
- Light engine connections use plenum rated (CMP) cable
- Quick disconnects standard for ease of installation

### OPTICS

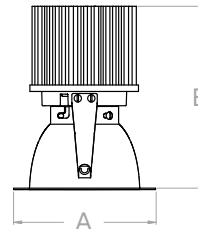
- High purity spun aluminum reflector, self-flanged
- 55° visual cutoff to source image and 55° cutoff to source
- Specular, semi-specular, or Softglow (diffuse) anodized finishes. White and black painted cone reflector colors also available.
- Painted flange options in white or black

### ELECTRICAL

- Chip-on-board LED with 2 SDCM
- TriGain® is a patented narrow-band potassium fluorosilicate (PFS) phosphor technology which provides improved color rendition without compromise to LED efficacy
- 2700K, 3000K, 3500K, 4000K, 5000K CCTs, 90+ CRI
- Long LED life: L80 / >66,000 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) DMX, DALI, and Lutron 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 0.00" to 1.25". Thick Ceiling Adapter available to order as accessory to accommodate up to 3".
- Fixture module including driver fully accessible from above or below the ceiling



Typical Dimensions and Weights				
Lumen Package	Aperture Inches (mm)	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
05L-15L	4.0 (101.6)	5.25 (133.4)	3.9 (99.1)	3.91 (1.8)
20L-30L			5.2 (132.1)	4.14 (1.9)
35L-50L			6.8 (172.7)	4.39 (1.99)

See DIMENSIONS section for complete details

### CERTIFICATIONS

- cCSAus certified to UL 1598
- For 45L-50L: Marked spacing required (24" fixture center to center; 24" fixture center to building member; 0.5" above fixture)
- Downlight suitable for wet locations, covered ceiling. Wall wash suitable for damp locations
- Shower trim is IP65 rated (room side) when properly installed per installation instructions
- 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	500–5000
Wattage Range	5.9–52.1
Efficacy Range (LPW)	94–110
Reported Life (Hours)	L80 / >66,000

\*Based on Specular, 35K, 90 CRI

# LFCR-4RD-N

LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION DOWNLIGHT

Gray Shading = Service Program

tradeSELECT® QS10  
Limit of 150 Luminaires

## ORDERING GUIDE

Example: LFCR-4RD-H / LFCR-4D-MN-10L35K9-WD-DM1 / LFCR-4RD-T-WD-S

CATALOG #

### HOUSING (Ships separately)

Aperture/Shape/Function	
<input type="checkbox"/> LFCR-4RD-H	4" Housing Frame, New Construction, Non-IC
<input type="checkbox"/> LFCR-4RD-H-IC	4" Housing Enclosure, New Construction, IC Rated <sup>1</sup>
<input type="checkbox"/> LFCR-4RD-H-CP	4" Housing Enclosure, New Construction, Chicago Plenum <sup>2</sup>

### FIXTURE MODULE (Ships separately)

LFCR-4D-MN	9			WD				
Ap/Shp/Funct	Lumen Output	CCT	CRI	Distribution	Driver Options	Control Options	Module Options <sup>4</sup>	
LFCR-4D-MN 4" Downlight Fixture Module, New Construction	05L 500	27K 2700K	9 90+	WD Wide (65° /1.0 SC)	<b>120-277V Options</b>	<b>NX Lighting Controls</b>	<b>EM</b> 10W Emergency Battery Pack with Integral Test Switch  <b>EMR</b> 10W Emergency Battery Pack with Remote Test Switch  <b>DTS</b> Device Transfer Switch with Dimming Bypass <sup>11,12</sup>  <b>F</b> Fuse  <b>HA</b> High Ambient Option (40°C) <sup>13,14</sup>	
	10L 1000	30K 3000K			<b>DM1</b> 0-10V Dimming to 1%	<b>Networked Wireless</b>		
	15L 1500	35K 3500K			<b>DM01</b> 0-10V Dimming to < 1% <sup>5</sup>	<b>NXW</b> NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor <sup>9</sup>		
	20L 2000	40K 4000K			<b>PDM</b> Phase (Forward/Reverse) Dimming to 1% <sup>6</sup>	<b>Networked Wired</b>		
	25L 2500	50K 5000K			<b>DALI</b> DALI Dimming to 1% <sup>5</sup>	<b>NXE</b> NX Wired Dual RJ45 SmartPORTS, without Sensor <sup>9</sup>		
	30L 3000				<b>DM00</b> Lutron Athena Compatible Driver for static white CCT	<b>Other Lighting Controls</b>		
	35L 3500				<b>DMX1</b> DMX with RDM dimming to 1%	<b>Networked Wireless</b>		
	40L 4000				<b>347V Option</b>	<b>AWNR</b> Lutron Athena Enabled <sup>10</sup>		
	45L 4500 <sup>3</sup>				<b>DM34</b> 0-10V Dimming to 1% (347V input) <sup>7,8</sup>			
	50L 5000 <sup>3</sup>							

### TRIM (Ships separately)

LFCR-4RD-T	Style <sup>18</sup>		Trim Distribution	Reflector Finish	Flange Color Options <sup>17</sup>	Trim Options
LFCR-4RD-T 4" Round Downlight Trim Assembly	<i>Do not specify trim style for standard trim</i>		WD Wide (1.0 SC)	<i>Do not specify reflector finish for SH Trim Style</i>	<i>Standard matches reflector color</i>	<b>EM</b> Pre-punched reflector for EM integral test switch and indicator  <b>AM</b> Antimicrobial Coating <sup>15,16</sup>
	SH	Non-Conductive Shower Trim with Acrylic, Micro-prism Lens	WW Wall Wash	<b>S</b> Specular	WT White Flange	
				<b>SS</b> Semi-Specular	BT Black Flange	
				<b>VS</b> Softglow		
				<b>WC</b> Painted White Cone		
				<b>BC</b> Painted Black Cone		

Notes:



- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>IC Housing available 05L-20L, not available with controls or EMR</li> <li>CP housing available 05-30L. CP Housing is IC Rated 05L-20L, non-IC rated 25L-30L, not available with controls options or EMR</li> <li>Lumen outputs 45L-50L require marked spacing with dims (24"x24"x1/2" above fixture)</li> <li>Module options EM/EMR/DTS not available in combination</li> <li>DM01 &amp; DALI available 05L-45L</li> <li>PDM available 10L-45L</li> <li>DM34 available 05L-35L</li> <li>DM34 not available with EM, EMR, DTS, or F fixture module options</li> <li>NXW/NXE control options require DM1 or DM34 driver option</li> </ol> | <ol style="list-style-type: none"> <li>AWNR control option requires DM00 driver option (DM00 only available in combination with AWNR)</li> <li>Consult factory for DTS with control options</li> <li>DTS requires driver options DM1, DM01 or DALI</li> <li>HA option available 05L-25L</li> <li>HA not available with IC or CP Options</li> <li>AM not available with WC or Specular Clear (S or SWT), also available with WT for SH trim</li> <li>AM not available with WW or EM</li> <li>WT not available for WC, BT not available for BC</li> <li>SH not available with WW or EM, requires WT or BT- reflector finish not applicable, available with lumen output 05L-30L</li> </ol> |
|--|--|

Accessories	
<input type="checkbox"/> MOR4-R-WH	Metal Oversized Ring, 4" Round, White (8.3" outside diameter)
<input type="checkbox"/> MOR4-R-BL	Metal Oversized Ring, 4" Round, Black (8.3" outside diameter)
<input type="checkbox"/> LFCR-TCA	Thick ceiling accessory (1.25"-3")
<input type="checkbox"/> LFR-SCA4-__	Sloped Ceiling Adapter, 4" White  Specify slope angle 5°-35° in 5° increments. Not available with EM options

# LFCR-4RD-N

LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION 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	✓	✓	✓	-	-	✓	✓	✓ <sup>1</sup>		NXFSP

<sup>1</sup> 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

## OTHER 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		
Other	AWN	The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. <sup>1</sup>	✓	✓	-	-	-	✓	✓	-		A-WN-D01-RF-WH

<sup>1</sup> Lutron Athena Hub required to enable Networking, Grouping and Scheduling.

# LFCR-4RD-N

LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION DOWNLIGHT

## PERFORMANCE DATA TABLE

Performance Data shown is 3500K 90+ CRI with Specular reflector.

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
05L	500	Wide	552	5.9	95
		Wall Wash	572	5.9	97
10L	1000	Wide	1062	11.2	94
		Wall Wash	1101	11.2	98
15L	1500	Wide	1533	15.2	101
		Wall Wash	1589	15.2	105
20L	2000	Wide	2034	21.3	95
		Wall Wash	2108	21.7	97
25L	2500	Wide	2554	24.1	106
		Wall Wash	2647	24.1	110
30L	3000	Wide	3062	29.8	103
		Wall Wash	3173	29.8	106
35L	3500	Wide	3597	36.8	98
		Wall Wash	3728	36.8	101
40L	4000	Wide	4053	41.6	97
		Wall Wash	4200	41.6	101
45L	4500	Wide	4566	45.3	101
		Wall Wash	4732	45.3	104
50L	5000	Wide	5065	52.1	97
		Wall Wash	5249	52.1	101

## LUMEN MULTIPLIER

Option	27K9	30K9	35K9	40K9	50K9
Multiplier	0.95	0.99	1.00	1.00	1.00

Photometrics are published below 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 & COLOR MULTIPLIER

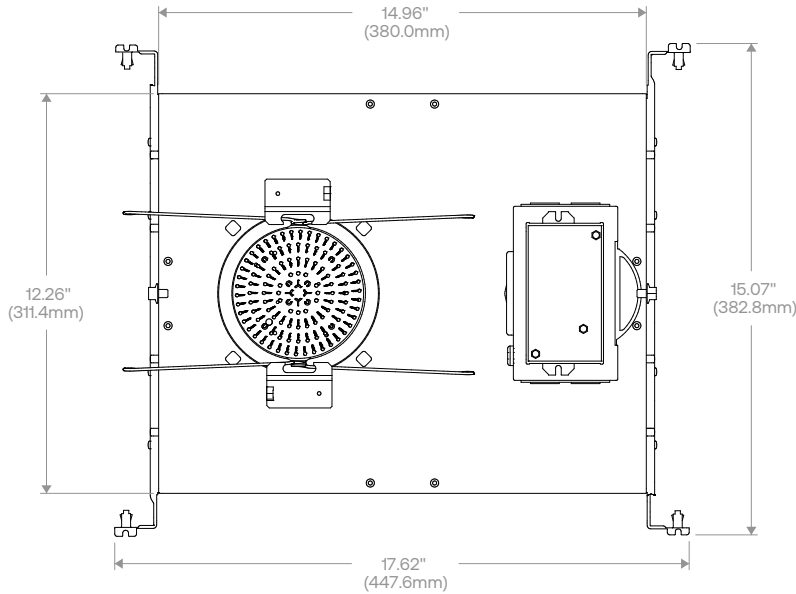
Option	Specular (S)	Semi-Specular (SS)	Soft Glow (VS)	White Cone (WC)	Black Cone (BC)
Multiplier	1.00	1.00	0.89	0.98	0.44

# LFCR-4RD-N

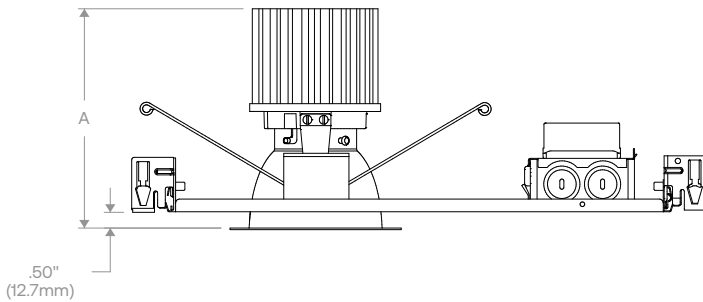
LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION DOWNLIGHT

## DIMENSIONS

### Standard New Construction Housing, Fixture Module, and Trim assembly



Top View Standard



Side View Standard

DIMENSIONAL DATA		
Aperture		Ø4.00" (101.6mm)
Flange	Standard	Ø5.25" (133.4mm)
Ceiling Cutout		Ø4.75" to 4.88" (120.7mm to 123.8mm)
Ceiling Thickness	Standard	Ø0.00" to 1.25" (0.00mm to 31.8mm)
	With TCA Accessory	Ø1.25" to 3.00" (31.8mm to 76.2mm)

Lumen Package	"A"
05L-15L	3.9" (99.1mm)
20L-30L	5.2" (132.1mm)
35L-50L	6.8" (172.7mm)

Note: When using SCA Sloped Ceiling Adapter accessory, see LFR-SCA specification sheet and installation instructions for dimensional data, max. ceiling thickness and other details.

# LFCR-4RD-N

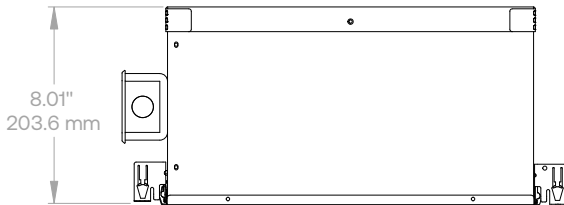
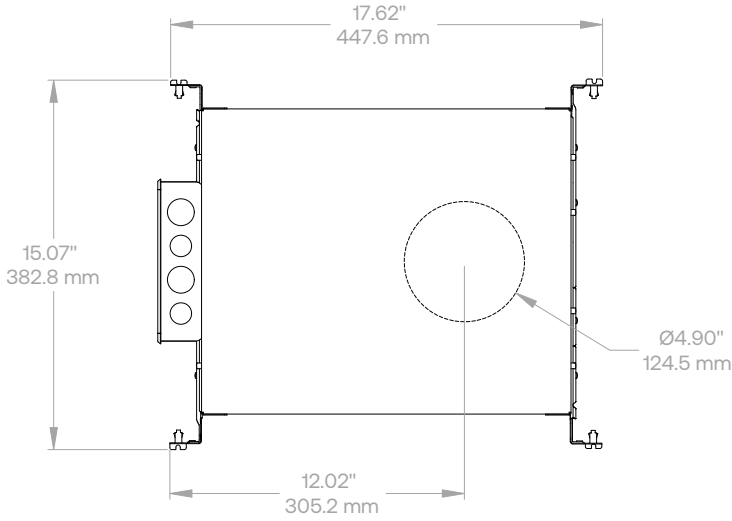
LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION DOWNLIGHT

## DIMENSIONS CONTINUED

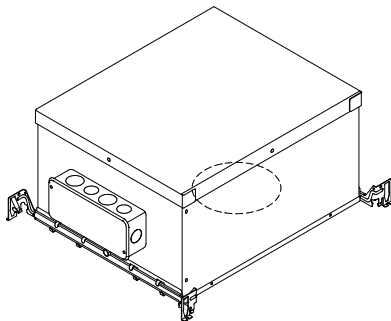
DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_

CATALOG #: \_\_\_\_\_



**LFCR-4RD-H-IC/CP**



**OPTIONAL IC/CP HOUSING**

# LFCR-4RD-N

LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION DOWNLIGHT

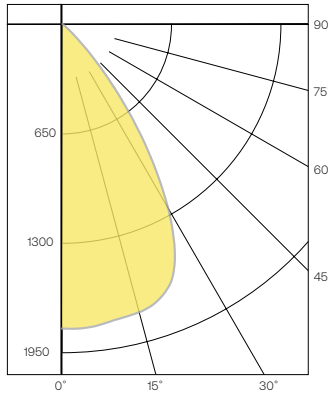
## PHOTOMETRY

### LFCR-4RD-H / LFCR-4D-MN-20L35K9-WD-DM1 / LFCR-4RD-T-WD-S

#### LUMINAIRE DATA

Test No.	P25.01118
Description	2000 lm, Wide, 3500K, 90 CRI
Delivered Lumens	2034
Watts	21.3W
Efficacy	95.3
Mounting	Recessed
Spacing Criterion	1.0
Beam Angle (FWHM)	68

#### POLAR GRAPH



#### CANDELA DISTRIBUTION

Degree	Candela
0	1810
5	1810
15	1580
25	832
35	146
45	3
55	1
65	1
75	0
85	0
90	0

#### LUMINANCE DATA\*

Vertical Angle	Average
45°	25468
55°	645
65°	292
75°	477
85°	0

\*Candela/Square Meter

#### ZONAL LUMEN SUMMARY

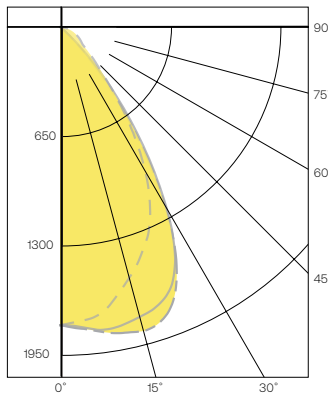
Zone	Lumens	% Luminaire
0-40	1895	93.2
0-60	2032	99.9
0-90	2034	100.0
0-180	2034	100.0

### LFCR-4RD-H / LFCR-4D-MN-20L35K9-WD-DM1 / LFCR-4RD-T-WW-S

#### LUMINAIRE DATA

Test No.	26.00057
Description	2000 lm, Wall Wash, 3500K, 90 CRI
Delivered Lumens	2108
Watts	21.7W
Efficacy	126
Mounting	Recessed
Spacing Criterion	N/A
Beam Angle (FWHM)	N/A

#### POLAR GRAPH



#### CANDELA DISTRIBUTION

Degree	Candela
0	1762
5	1737
15	1547
25	1255
35	734
45	297
55	152
65	103
75	53
85	14
90	0

#### LUMINANCE DATA\*

Vertical Angle	Average
45°	51808
55°	32687
65°	876
75°	953
85°	1415

\*Candela/Square Meter

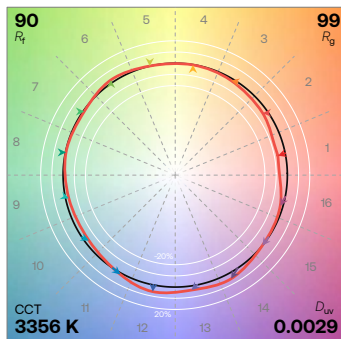
#### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1844	87.5
0-60	2055	97.5
0-90	2108	100.0
0-180	1928	100.0

LEGEND  
 0-deg - - - - -  
 90-deg - - - - -  
 180-deg - - - - -

## TM-30 DATA

COLOR VECTOR GRAPHIC  
3500K, 90 CRI



— Reference Illuminant — Test Source

# LFCR-4RD-N

LITEFRAME COMMERCIAL 4" ROUND  
NEW CONSTRUCTION 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](http://currentlighting.com/prescolite).

### DMX

See instruction sheet on [currentlighting.com/prescolite](http://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](http://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, 10W x 120 LPW = 1200 lumens in emergency mode.