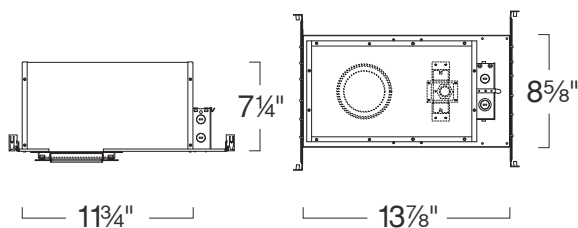


3.5" Phantom LED Trimless Housing w/ 3.5" 12W LED Trimless Reflector Cone

MINI-ARC PHANTOM TRIMLESS



FEATURE:

SPECIFICATION

Ceiling cut-out: 5 7/8"

Application: Architectural-grade recessed "Trimless" downlight for low to medium height ceilings for residential commercial installations. Trimless design provides a clean unobstructed "zero-sight" line ceiling. Die-Cast aluminum plaster frame disc installed on housing for easy installation. A variety of trims compatible styles and finishes are available to achieve the proper décor and illumination.

Housing: Pre-wired housing with Die-Cast adjustment plate with pre-set ceiling thickness for easy installation in 1/2", 5/8", 3/4" and 1 inch ceilings. Integral thermal protector to guard against improper lamping and installation. Housing provides an adjustable socket plate which allows for use of different lamp types. Trim is secured with QuickLok mounting mechanism for an easy scratch free installation.

Mounting: Housing suitable for new construction installations only, supplied with (2) 24" adjustable hanger bars with 90 degrees repositioning ability. Hanger bars equipped with nail-less install 3/4" serrated barbed studs and with captive nails, for faster and easier secure mounting in wood joists. Set-screws lock into position and prevent shifting after installation. Earthquake structural cable compatible for drop panel ceiling or any other mounting that requires direct support from structural ceilings.

Driver: Electronic Constant Current driver integrally mounted in fixture. Easily accessible from below ceiling.

Dimming: 0-10V dimming option (-D10) works with most 0-10V dimmers. Factory qualified for use with Leviton IP710-DLX and Lutron NTFTV-WH. The Lutron Hi-Lume 1% dimming option (-DHL) works with compatible Lutron dimmers: NovaT NTF-10-277, Skylark SF-12P277 & Vieri VTF-6A. **Uni-Dim™** is a universal dimming system that works with most ELV, Incandescent and 0-10V fluorescent dimmers.

Connector: Housing supplied with Thermo Plastic Quick Connector.

Junction Box: 16 gauge pre-wired galvanized steel Junction Box, 32 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with 3/4", 1" and Romex knock-outs. Strain clamps to install or remove covers for easy access and ground wire. Equipped with safety standard fitting for flex-conduit.

Insulation Contact: IC rated airtight housing rated for direct contact with low to medium density loosefill blown and rolled insulation.

Safety Labels: ETL/CETL listed. Suitable for damp locations. NYC approved: Calendar #41937.



Applications: Mini-Arc 'Trimless' trims provide a flat, unobstructed 'zero-sight line' view of the ceiling. Trims easily install into a die-cast aluminum adjustment plate that mounts onto the housing. This miniature Reflector trim is perfect for commercial and high-end residential applications.

Lumen Maintenance: Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Thermal Management: Effective thermal dissipation facilitated by integral cast-aluminum, heat sink design for maximum heat rejection to provide long LED life.

Warm Dimming: With this new technology, you can create the warm glow of traditional incandescent dimming while offering extraordinary energy efficiency and service life of LED Lighting. Allow for fixture start at a full 2700K when at full-brightness and smoothly dim down to 5% level with the warm glow of 1850K using dimming option the frame-in kit.

Mounting: Steel pressure springs mounted on trim to ensure positive retention inside housing.

Warranty: Covered by a 5 Year Warranty to be free of defects in materials and craftsmanship. Recommended for applications where ambient temperatures do not exceed 35°C, installations exceeding this temperature will result in reduced LED lamp life and a voided warranty.

Accessories: Takes (1) 2" Media.

Label: cETL Listed

Title 24/JA8 Compliant

- LHXLD419C70 /LRX4LH21 -T27
- LHXLD419C70 /LRX4LH21 -T30
- LHXLD419C70 /LRX4LH21 -T40

3.5" PHANTOM LED TRIMLESS HOUSING

LHXLD4 12W LED

WATTAGE	DRIVER TYPE	OPTIONS
LHXLD412C35 :12W	Blank :120V Non-Dimming	Blank :None
	UE :120V/277V Non-Dimming	-EM :Remote Emergency
	UE-D10 :120V/277V (0-10V Dimming)	
	-DIN :Incandescent/ELV Dimming	
	-DHL :HiLume Dimming 120V/277V*	
	UE-DUN :120V/277V (ELV/0-10V Universal Dimming)	

* Not available for Remodel. Only dims in 120V.

3.5" 12W LED TRIMLESS REFLECTOR CONE

LRX4LH21 12W Max LED

Ordering example: LHXLD412C35-EM/LRX4LH21SW

FINISH	BEAM SPREAD	LED
LRX4LH21SW :Satin Reflector / White Ring	Blank :45° Narrow Flood	Blank :3000K
LRX4LH21W :White Reflector / White Ring	-B30 :30° Spot	-C90 :3000K, 90CRI
	-B60 :60° Wide Flood	-C97 :3000K, 97CRI
		-T17 :1700K*
		-T25 :2500K*
		-T27 :2700K
		-T27-C90 :2700K, 90 + CRI
		-T27-C97 :2700K, 97CRI
		-T35 :3500K
		-T40 :4000K
		-TWD :1850K-2700K Warm Dimming

* Extended Lead Time may apply. Consult Factory.

LHXLD412: 4" LED Downlight

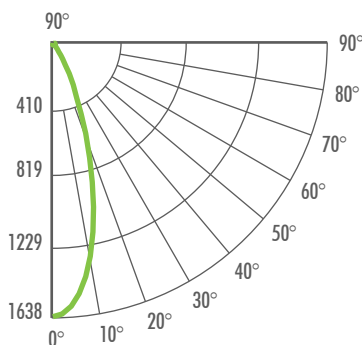
Lamp: (1) LED	Test Report File #
Total Rated Fixture Lumen : 617 Lm	L08121604
Total Luminaire Efficacy : 51 Lm/W	LHXLD412
Luminous Diameter : 2.04"	Light Laboratory Inc.
Color Rendering Index (CRI) : 80+	LHXLD412
Color Temperature : 3000K	
Estimated Life : 50,000 hrs. L70	
Lamp Equivalents : 50W MR16, PAR20, 18W CFL	

Fixture Data

	LED Module Lumen	Fixture Lumen	Input Wattage
@ 3000K	650	617.0	12W
@ 4000K	734	697.0	12W

ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixt
0 - 20	394.92	64.00
0 - 30	543.24	88.00
0 - 40	593.17	96.10
0 - 60	615.91	99.80
0 - 80	617.32	100.00
0 - 90	617.44	100.00
10 - 90	477.84	77.40
20 - 40	198.25	32.10
20 - 50	214.12	34.70
40 - 70	23.82	3.90
60 - 80	1.41	0.20
70 - 80	0.33	0.10
80 - 90	0.12	0.00



CANDELA TABULATION

CD./SQ.M (FOOTLAMBERTS)

Angle	0
0.0	1638.36
2.0	1623.50
4.0	1579.66
8.0	1412.20
12.0	1157.95
16.0	864.41
22.0	457.50
30.0	154.83
36.0	65.21
42.0	26.82
54.0	8.76
64.0	0.94
74.0	0.33

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	20	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	102	100	108	104	101	98	101	98	96	98	96	94	95	94	92	91
3	106	100	96	93	104	99	95	92	96	93	91	94	91	89	92	90	88	86
4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	88	86	84	82
5	98	91	86	82	96	90	85	82	88	84	81	87	83	81	85	82	80	79
6	94	87	82	78	93	86	81	78	85	81	78	83	80	77	82	79	77	75
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69
9	84	77	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	67
10	82	74	69	66	81	73	69	66	73	68	66	72	68	65	71	68	65	64

FOOTCANDLE CHART DATA

Height	Spacing (Ft.)	Avg. FC	Max : Min	Height	Spacing	Avg. FC	Max : Min
8'	4' x 4'	44.6	1.2 : 1	10'	4' x 4'	44.1	1.1 : 1
8'	5' x 5'	28.5	1.5 : 1	10'	5' x 5'	28.1	1.1 : 1
8'	6' x 6'	20.6	2.0 : 1	10'	6' x 6'	20.2	1.4 : 1
9'	4' x 4'	44.5	1.1 : 1	12'	4' x 4'	43.7	1.1 : 1
9'	5' x 5'	28.3	1.3 : 1	12'	5' x 5'	27.8	1.0 : 1
9'	6' x 6'	20.4	1.6 : 1	12'	6' x 6'	19.8	1.3 : 1

LUMINANCE DATA

CD./SQ.M (FOOTLAMBERTS)

Angle	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	13045	13045	13045
55	6464	6464	6464
65	942	942	942
75	558	558	558
85	598	598	598

ZONAL LUMINANCE SUMMARY

CD./SQ.M (FOOTLAMBERTS)

Zone	Lumens
0-10	139.60
10-20	255.32
20-30	148.32
30-40	49.93
40-50	15.87
50-60	6.87
60-70	1.08
70-80	0.33
80-90	0.12
90-100	0.00

MULTIPLIERS

COLOR TEMP

3,000K	1.00
4,000K	1.13
2,700K	0.90