

# PHILIPS LIGHTOLIER

## Downlighting

### LyteCaster

4" Round downlight  
650 Lumens



Project:	
Location:	
Cat.No:	
Type:	
Lamps:	Qty:
Notes:	

Philips Lightolier LyteCaster LED Downlights feature a 3.5" luminaire height that conserves plenum space without compromising the 70° physical and reflected cutoff. The modular and interchangeable light engine allows for an easy future upgrade. The downlight is wet location listed and comes in 3 standard options.

**Complete product = Frame-in kit + Adjustable light engine / Trim Order each separately**

#### Ordering guide: Frame-In kit

Example: L4RAE1VA

Series	Frame type	Dimming	Input voltage	Version
<b>L4R</b>				<b>VA</b>
<b>L4R</b> LyteCaster 4" Round	<b>A</b> AirSeal IC, New Construction, Screw <b>AN</b> AirSeal IC, New Construction, Nail	<b>E</b> ELV/Triac dimming <b>Z10</b> 0-10V	<b>1</b> 120V <b>U</b> Universal	<b>VA</b> Version A <sup>1</sup>

#### Ordering guide: Light engine

Example: L4R06827VA

Series	Lumens	CRI	CCT	Version
<b>L4R</b>	<b>06</b>			<b>VA</b>
<b>L4R</b> LyteCaster 4" Round	<b>06</b> 650	<b>8</b> 80	<b>27</b> 2700K <b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K	<b>VA</b> Version A <sup>1</sup>
		<b>9</b> 90	<b>27</b> 2700K	

**Note:** Lumen output is calculated based on 80 CRI and 3500K CCT. Please consult adjustment factors table on page 4 for other lumen outputs.

#### Ordering guide: Trim

Example: L4RDW

Series	Luminaire type	Finish
<b>L4R</b>		
<b>L4R</b> LyteCaster 4" Round	<b>D</b> Open Downlight	<b>D</b> Clear diffuse (with white flange) <b>W</b> White (with white flange)
	<b>B</b> Baffle Downlight	<b>W</b> White (with white flange)

1. Version A (VA) frames and light engines are not compatible with previous versions.

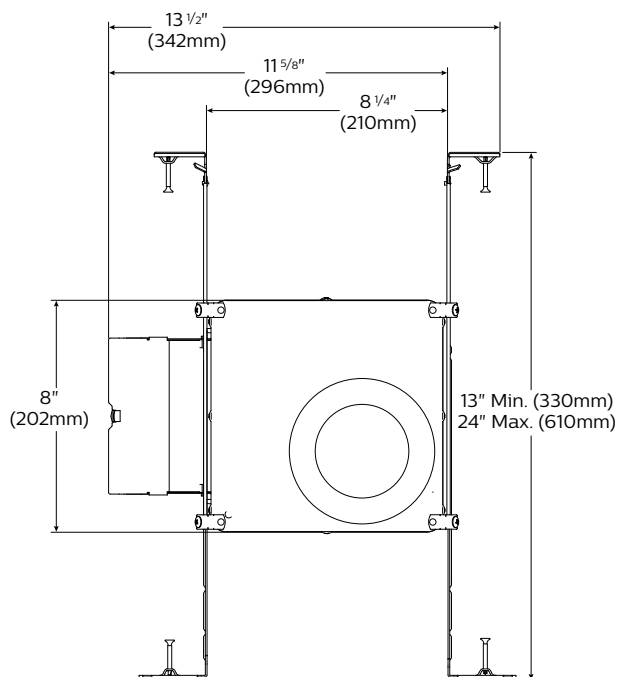


# L4R LyteCaster 4" Round

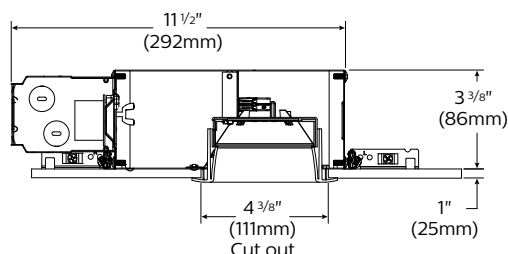
General purpose downlight, 650 lumens

## Frame-in kit

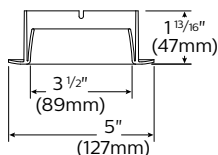
### Bottom view



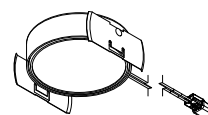
### Side view



### Downlight trim



### Light engine



## Features

- Housing:** .026" galvanized steel. UL listed for direct contact with thermal insulation. Airseal® housing minimizes air leakage to less than 2 CFM at 1.57PSF (or 75PA), which complies with Title 24, the International Energy Conservation Code, and Washington State Energy Code (Section 502.4). This reduces heat loss and condensation in ceiling. Access door for inspection of junction box.
- Lower frame and top cover:** .026" galvanized steel. Accommodates ceilings up to 1" (25mm) thick. 3/8" (9.5mm) deep integral lip with four notches at 90° apart to simplify alignment. Locks into position along length of mounting bars with locking screws.
- Junction Box:** 2.5" X 5 3/8" X 2" (27 cu. in) .032" galvanized steel. UL listed 90 ° supply conductors. Rated for branch circuit wiring supplying connected luminaires (daisy chaining).
- Retaining clips:** Permit easy and fast installation of light engine/trim.
- Mounting bars:** .059" galvanized steel. Bars pivot for easy attachment and wire-in below ceiling line. Bars extend to accommodate 16" (406mm) to 24" (610mm) O.C. joist spacing. Bars can accommodate 12" (305mm) O.C. joist spacing after a slight field modification (see Instruction sheet). Features integral self tapping phillips/ square drive screws for secure attachment to wood or metal construction. Also available with integral nails. Attaches to T-bar ceilings without the need of accessories. Bars installed on shortest dimension of frame, but can be easily repositioned 90 degrees from original position.

- Driver:** ELV /Triac: 120V, 50/60Hz. RoHS compliant, Class 2 power supply. Complies with FCC rules per Title 47 Part 15 (Class B) for EMI / RFI (conducted & radiated). Class A sound rating.  
**0-10V:** 120/277V, 50/60Hz. RoHS compliant, Class 2 power supply. Complies with FCC rules per Title 47 Part 15 (Class A) for EMI / RFI (conducted & radiated). Class A sound rating.
- Ceiling cutout:** 4 3/8" (111mm).

## Options and Accessories

For fire rated box accessory, use Fireline:

16FR2X10	16" on center 2x10 construction
16FR2X6	16" on center 2x6 construction

See Fireline spec sheets for more information.

## Electrical

**Lifetime:** Expected lifetime 50,000 hours and backed by a 5-year warranty. (see Philips.com/warranties for details)

## Recommended dimmers

See LED-DIM Specification Sheet.

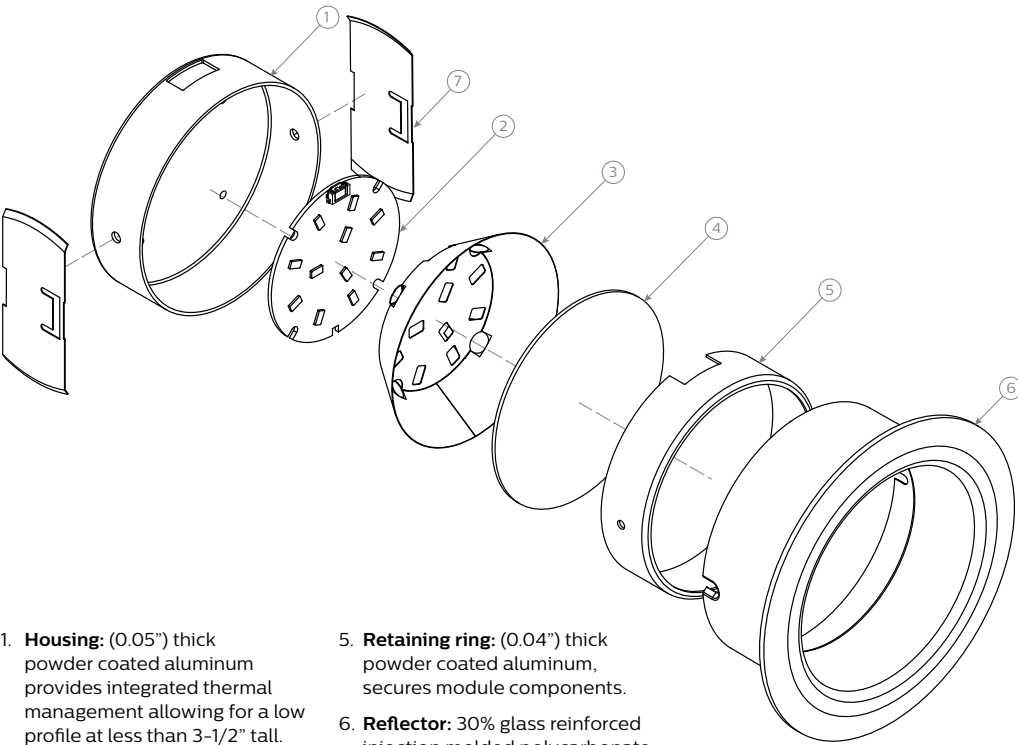
## Labels

cULus Listed Type I.C., frames are suitable for damp location. Trims are cULus suitable for wet location (no shower lens unit required). Complies with Air Leakage.

# L4R LyteCaster 4" Round

General purpose downlight, 650 lumens

Reflector: Round downlight



1. **Housing:** (0.05") thick powder coated aluminum provides integrated thermal management allowing for a low profile at less than 3-1/2" tall.

2. **LED board:** High efficiency mid-flux LED's.

3. **Mixing chamber:** 98% reflective, highly diffuse film.

4. **Diffusion lens:** (0.06") thick acrylic opal lens provides an even source of illumination.
5. **Retaining ring:** (0.04") thick powder coated aluminum, secures module components.

6. **Reflector:** 30% glass reinforced injection molded polycarbonate is durable and provides a 70° cutoff to the source.

7. **Retaining clips:** 29 gauge Stainless Steel, allows tool-less installation of light engine to trim.

Electrical

Screw / Nail Frame-in kit Electrical specifications	Input volts	Input freq.	Input current	LED drive current	Input power	LED power	THD factor	Power factor
L4RAE1VA	120V	50/60Hz	0.07A	220mA	7W	6W	<20%	>0.9
L4RAZ10UVA	120V	50/60Hz	0.07A	220mA	8W	6W	<10%	>0.9
	277V	50/60Hz	0.04A	220mA	8W	5W	<10%	>0.9

# L4R LyteCaster 4" Round

General purpose downlight, 650 lumens

80 CRI, 650 lumens

Candela Curves		Angle	Mean CP	Lumens	Single unit data			Coefficients of utilization																																				
		0	307	29	Height to Lighted Plane	Initial Center Beam Foot-Candles	Beam Dia. (ft)*	Ceiling	80%				70%		50%		30%		0%																									
		5	303																																									
		10	297																																									
		15	289		81	5'	12	6.0'																																				
		20	275	119	6'	9	7.2'	Room Cavity Ratio	Wall	70	50	30	10	50	10	50	10	50	10	0																								
		25	258		7'	6	8.4'		RCR	Zonal cavity method - Effective floor reflectance = 20%																																		
		30	241		8'	5	9.6'			0	119	119	119	119	116	116	111	111	106	106	100																							
		35	216		9'	4	10.8'			1	110	106	102	99	104	97	100	94	96	91	87																							
		40	191	* Beam diameter is where foot-candles drop to 50% of maximum.	Multiple unit data - RCR 2	Spacing on center	Initial Center Beam Foot-Candles			Watts per Sq. Ft.	2	101	94	88	83	92	82	89	80	86	78	75																						
		45	162								125	3	93	84	77	71	82	70	80	69	77	68	65																					
		50	132								92	4	86	75	67	61	74	61	72	60	69	59	56																					
		55	103								50	5	80	68	60	54	67	53	65	53	63	52	50																					
60	74	25	6								74	62	53	47	61	47	59	47	57	46	44																							
65	49	7	7								69	56	48	42	55	42	54	42	53	42	39																							
70	33	7	8								64	52	44	38	51	38	50	38	48	38	36																							
75	24	25	9					60	48		40	35	47	34	46	34	45	34	32																									
80	15	7	10					57	44		37	32	44	31	43	31	42	31	29																									
85	6																																											
90	0																																											
Frame: L4RAE1VA Light engine: L4R06835VA Trim: L4RDW		Report no³: 659GFR																																										
Output lumens: 662.8lm Input Watts: 6.9 W Spacing Criterion: 1.2		Efficacy: 96.1lm/W CCT²: 3500 K CRI: ≥80		38"x38"x10" Room, Workplane 2.5' above floor, 80/50/20% Reflectances																																								
				<table><tr><th colspan="2">Zonal lumens &amp; percentages</th><th colspan="2">CRI and CCT adjustment factors</th></tr><tr><th>Zone</th><th>Lumens %Luminaire</th><td colspan="2">90CRI 2700K: = 0.71</td></tr><tr><td>0-30</td><td>229 34.5%</td><td colspan="2">80CRI 2700K: = 0.89</td></tr><tr><td>0-40</td><td>364 54.9%</td><td colspan="2">80CRI 3000K: = 0.97</td></tr><tr><td>0-60</td><td>581 87.6%</td><td colspan="2">80CRI 3500K: = 1.00</td></tr><tr><td>0-90</td><td>663 100.0%</td><td colspan="2"></td></tr></table>																	Zonal lumens & percentages		CRI and CCT adjustment factors		Zone	Lumens %Luminaire	90CRI 2700K: = 0.71		0-30	229 34.5%	80CRI 2700K: = 0.89		0-40	364 54.9%	80CRI 3000K: = 0.97		0-60	581 87.6%	80CRI 3500K: = 1.00		0-90	663 100.0%		
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Frame: L4RAE1VA  
Light engine: L4R06835VA  
Trim: L4RDW

Report no<sup>3</sup>: 659GFR

Output lumens: 662.8lm  
Input Watts: 6.9W  
Spacing Criterion: 1.2

Efficacy: 96.1lm/W  
CCT<sup>2</sup>: 3500K  
CRI: ≥80

38"x38"x10' Room, Workplane 2.5'  
above floor, 80/50/20% Reflectances

1. Wattage: controlled to within ± 5%
2. Correlated Color Temperature: within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

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Philips Lighting, North America Corporation  
200 Franklin Square Drive, Somerset, NJ 08873  
Tel. 855-486-2216

Philips Lighting Canada Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008