

PHILIPS LIGHTOLIER

Downlighting

LyteCaster

5" Round adjustable
1000 Lumens



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

Philips Lightolier LyteCaster LED Adjustable Downlights are a low cost solution for slope ceiling and wall washing applications that features a 30° tilt. The shallow 3.5" luminaire height conserves the plenum space and is damp location listed. The modular and interchangeable light engine/trim allows for an easy future upgrade.

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

Ordering guide: Frame-In kit

Example: L5RAE1VA

Series	Frame type	Dimming	Input voltage	Version
L5R	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VA
L5R LyteCaster 5" Round	A AirSeal IC, New Construction, Screw AN AirSeal IC, New Construction, Nail	E ELV dimming Z10 0-10V	1 120V U Universal	VA Version A ¹

Ordering guide: Adjustable light engine / Trim

Example: L5RA10827WVA

Series	Lumens	CRI	CCT	Finish	Version
L5RA	10	<input type="checkbox"/>	<input type="checkbox"/>	W	VA
L5RA LyteCaster 5" Round adjustable	10 1000	8 80 9 90	27 2700K 30 3000K 35 3500K 40 4000K 27 2700K	W White (with white flange) W White (with white flange)	VA Version A ¹

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

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

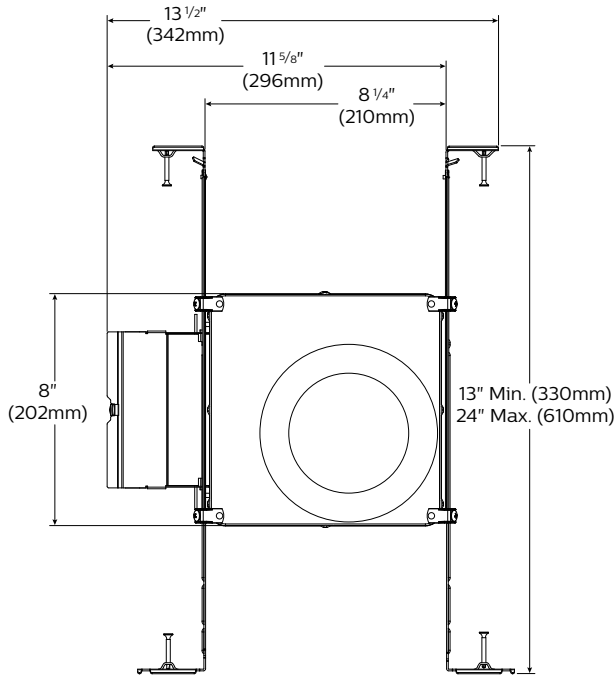


L5RA LyteCaster 5" Round adjustable

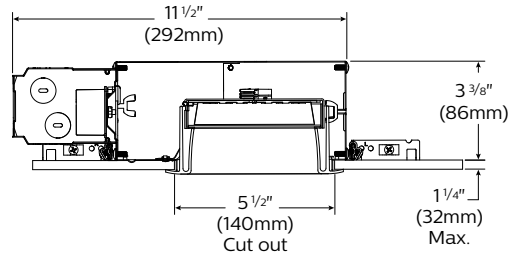
General purpose downlight, 1000 lumens

Frame-in kit

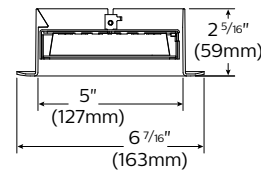
Bottom view



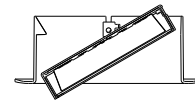
Side view



Adjustable light engine/trim



Maximum tilt: 30°



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 1/4" (32mm) 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: 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:** 5 1/2" (140mm).

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.

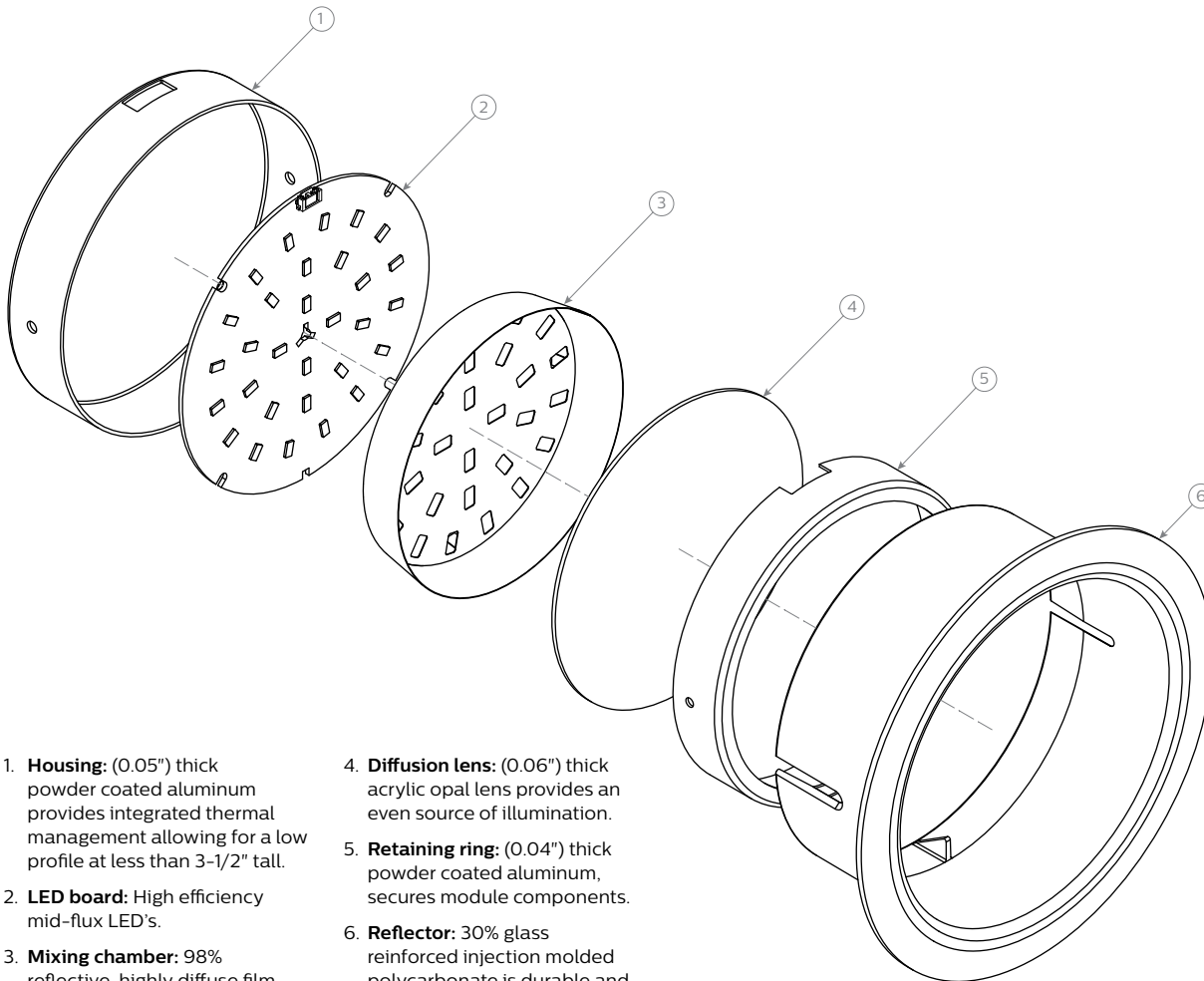
Labels

cULus Listed Type I.C., frames are suitable for damp location. Trims are cULus suitable for damp location. Complies with Air Leakage.

L5RA LyteCaster 5" Round adjustable

General purpose downlight, 1000 lumens

Reflector: Round adjustable



- 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 30° tilt.

Electrical

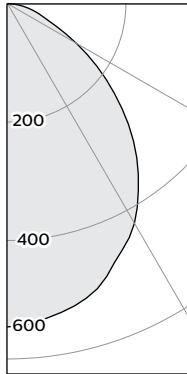
Screw / Nail Frame-in kit Electrical specifications	Input volts	Input freq.	Input current	LED drive current	Input power	LED power	THD factor	Power factor
L5RAE1VA	120V	50/60Hz	0.10A	260mA	12W	10W	<20%	>0.9
L5RAZ10UVA	120V	50/60Hz	0.11A	260mA	13W	11W	<10%	>0.9
	277V	50/60Hz	0.06A	260mA	13W	11W	<15%	>0.9

L5RA LyteCaster 5" Round adjustable

General purpose downlight, 1000 lumens

80 CRI, 1000 lumens (downlight photometry shown)

Candela Curves



Angle	Mean CP	Lumens
0	546	
5	541	
10	529	
15	515	145
20	490	
25	459	212
30	429	
35	385	241
40	340	
45	289	222
50	236	
55	184	165
60	135	
65	91	93
70	63	
75	45	48
80	28	
85	12	13
90	0	

Single unit data

Height to Lighted Plane	Initial Center Beam Foot-Candles	Beam Dia. (ft)*
5'	22	6.0'
6'	15	7.2'
7'	11	8.4'
8'	9	9.6'
9'	7	10.8'

* 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.
5'	49.5	0.51
6'	32.5	0.34
7'	23.2	0.24
8'	19.3	0.20
9'	15.5	0.16

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

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	110	106	102	99	104	97	99	94	96	91	87
	2	101	94	88	83	92	82	89	80	85	78	74
	3	93	84	76	70	82	70	79	69	77	67	64
	4	86	75	67	61	74	60	71	60	69	59	56
	5	80	68	59	53	67	53	65	52	63	52	49
	6	74	61	53	47	60	47	59	47	57	46	44
	7	69	56	48	42	55	42	54	42	52	41	39
	8	64	51	43	38	51	38	49	38	48	37	35
	9	60	47	40	34	47	34	46	34	45	34	32
	10	56	44	36	31	43	31	42	31	41	31	29

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	408	34.3%
0-40	649	54.5%
0-60	1036	87.1%
0-90	1190	100.0%

CRI and CCT adjustment factors

90CRI 2700K = 0.71
80CRI 2700K = 0.89
80CRI 3000K = 0.97
80CRI 3500K = 1.00

Frame: L5RAE1VA
Light engine: L5R10835VA
Trim: L5RDW

Report no³: 685GFR

Output lumens: 1190 lm
Input Watts: 11.6 W
Spacing Criterion: 1.2

Efficacy: 102.6 lm/W
CCT²: 3500 K
CRI: ≥80

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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