

# PHILIPS LIGHTOLIER

## Downlighting

### LyteCaster

5" Round adjustable



Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cat.No: \_\_\_\_\_

Type: \_\_\_\_\_

Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_

Notes: \_\_\_\_\_

Philips Lightolier LyteCaster LED Adjustable Downlight is a low cost solution for slope ceiling and wall washing applications that features 30° tilt. Available in shallow new construction frame and IC remodeler. The downlight is damp location listed and interchangeable light engine/trim is available in 2 lumen packages.

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

#### Ordering guide: Frame-In kit

Example: L5RAE1VA

Series	Lumens <sup>1</sup>	Frame type	Dimming	Input voltage	Version
<b>L5R</b>					<b>VA</b>
L5R LyteCaster 5" Round	<b>blank</b> 1000 <b>15</b> 1500	<b>A</b> AirSeal IC, New Construction, Screw <b>AN</b> AirSeal IC, New Construction, Nail	<b>E</b> ELV dimming <b>Z10</b> 0-10V	<b>1</b> 120V <b>U</b> Universal	<b>VA</b> Version A <sup>2</sup>
	<b>10</b> 1000 <b>15</b> 1500	<b>R</b> AirSeal IC, Remodeler			

#### Ordering guide: Adjustable light engine / Trim

Example: L5RA10827WVA

Series	Lumens <sup>1</sup>	CRI	CCT	Finish	Version
<b>L5RA</b>				<b>W</b>	<b>VA</b>
L5RA LyteCaster 5" Round adjustable	<b>10</b> 1000 <b>15</b> 1500	<b>8</b> 80	<b>27</b> 2700K <b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K	<b>W</b> White (with white flange)	<b>VA</b> Version A <sup>2</sup>
			<b>9</b> 90		

**Note:** Lumen output is calculated based on 80 CRI and 3500K CCT. Please consult adjustment factors table on page 5 for other lumen outputs.

1. When ordering a Frame-in kit and a Light engine, the lumen package code must match.
2. Version A (VA) frames and light engines are not compatible with previous versions.

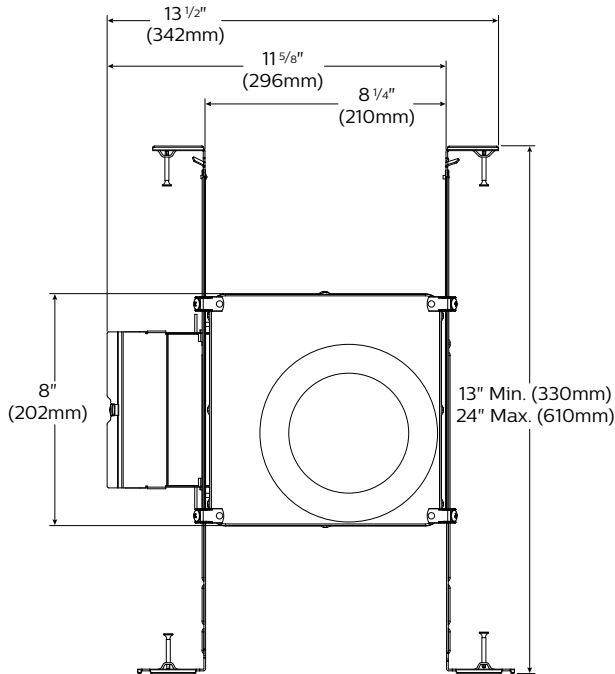


# L5RA LyteCaster 5" Round adjustable

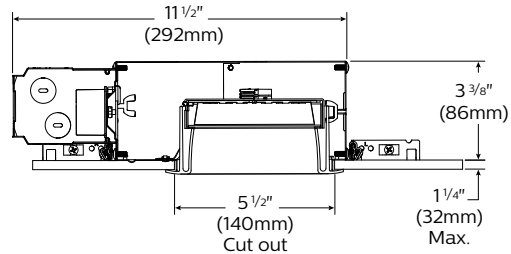
## General purpose downlight

### New construction frame-in kit

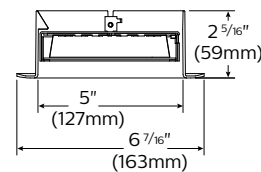
#### Bottom view



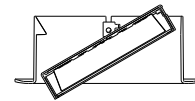
#### Side view



#### 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 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).

### 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

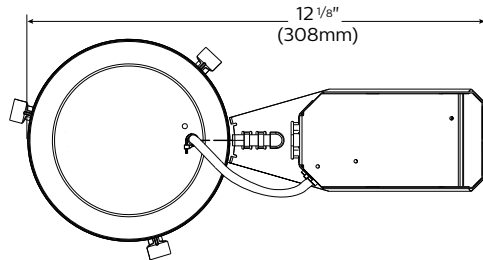
cULus Listed Type I.C., frames are suitable for damp location. Trims are cULus suitable for damp location. Complies with Air Leakage. Energy Star certified.

# L5RA LyteCaster 5" Round adjustable

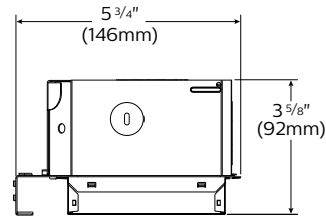
## General purpose downlight

### Remodeler kit

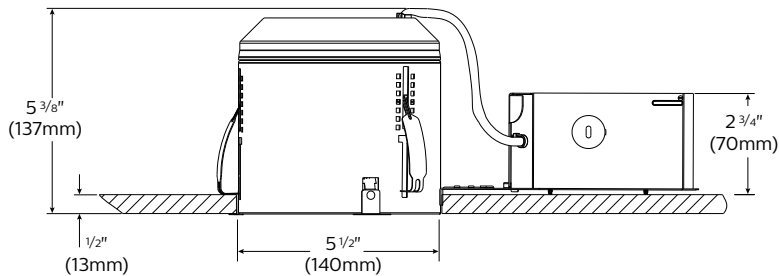
Bottom view



Side view



Side view



### Features

- Housing:** .032 Aluminum. UL listed for direct contact with thermal insulation. Integral retaining spring secures housing to ceilings up to 2" thick. Removable for access to junction box and ceiling plenum. 5 1/2" maximum for use in 2" x 6" joist construction and shallow plenum applications. Airseal® housing minimizes air leakage to less than 2 CFM at 1.57PSF (or 75PA), which complies with the International Energy Conservation Code, and Washington State Energy Code (Section 502.4). This reduces heat loss and condensation in ceiling.
- Junction Box:** 2 1/2" x 2 1/2" x 4 7/8" (29 cu in.) .031" galvanized steel. UL listed for 90°C supply conductors. Rated for branch circuit wiring supplying connected fixtures.
- Retaining clips:** Permit easy and fast installation of light engine/trim.
- 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:** 5 1/2" (140mm).

### 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.

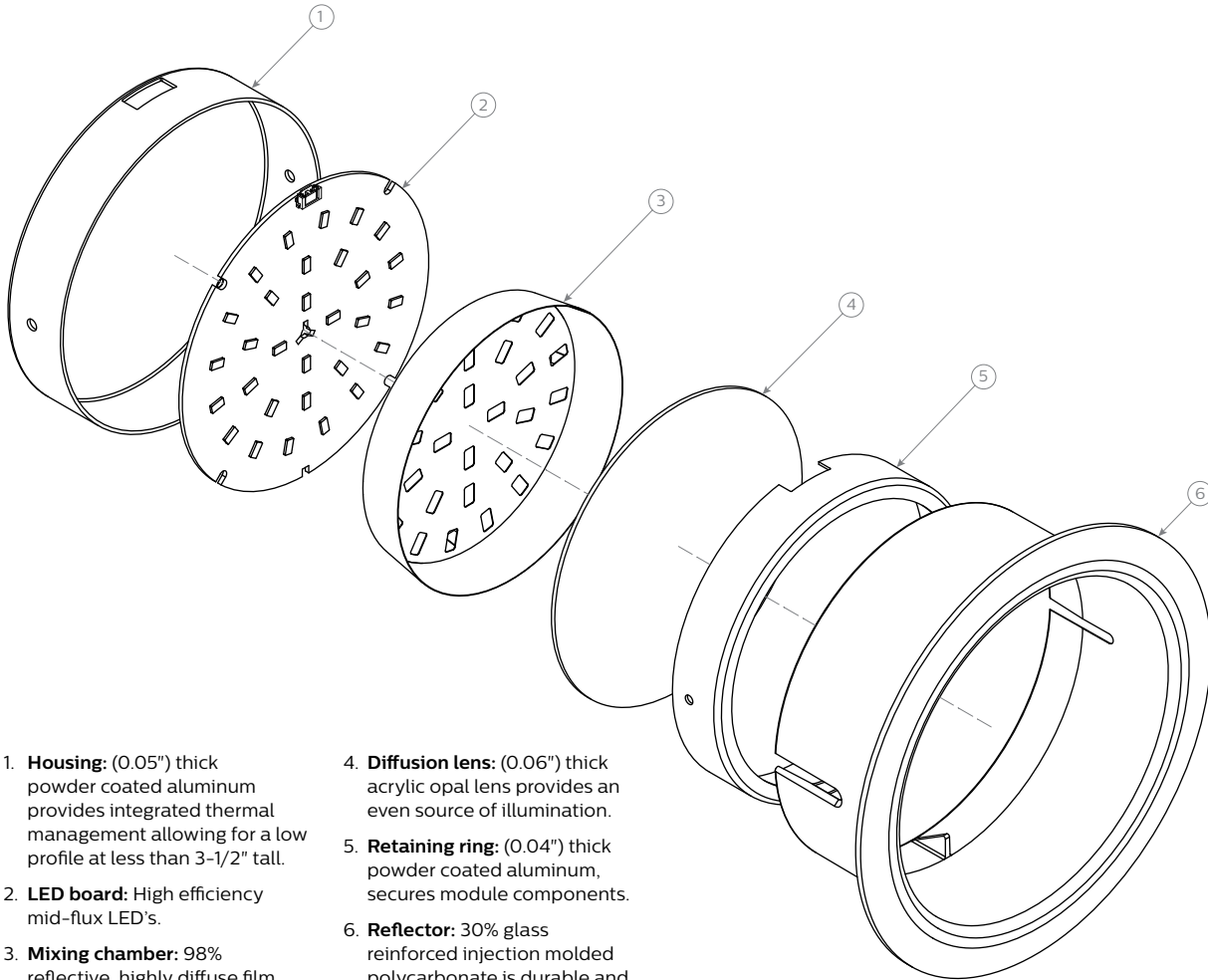
### Labels

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. Energy Star certified.

# L5RA LyteCaster 5" Round adjustable

General purpose downlight

## 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 specifications

Frame-in kit / Remodeler

	Lumens	Input volts	Input freq.	Input current	LED drive current	Input power	LED power	THD factor	Power factor
<b>L5RAE1VA / L5R10RE1VA</b>	1000	120V	50/60Hz	0.10A	260mA	12W	10W	<20%	>0.9
<b>L5RAZ10UVA / L5R10RZ10UVA</b>	1000	120V	50/60Hz	0.11A	260mA	13W	11W	<10%	>0.9
		277V	50/60Hz	0.06A	260mA	13W	11W	<15%	>0.9
<b>L5R15AE1VA / L5R15RE1VA</b>	1500	120V	50/60Hz	0.16A	375mA	15W	13W	<20%	>0.9
<b>L5R15AZ10UVA / L5R15RZ10UVA</b>	1500	120V	50/60Hz	0.26A	375mA	16W	13W	<10%	>0.95
		277V	50/60Hz	0.11A	375mA	16W	13W	<15%	>0.95

# L5RA LyteCaster 5" Round adjustable

## General purpose downlight

### 80 CRI, 1000 lumens (downlight photometry shown)

Angle	Mean CP	Lumens	Single unit data			Coefficients of utilization												
			Height to Lighted Plane	Initial Center Beam Foot-Candles	Beam Dia. (ft)*	Ceiling	80%				70%	50%	30%	0%				
0	546					Wall	70	50	30	10	50	10	50	10	0			
5	541	51	5'	22	6.0'	RCR	Zonal cavity method - Effective floor reflectance = 20%											
10	529		6'	15	7.2'		0	119	119	119	119	116	116	111	111	106	106	100
15	515	145	7'	11	8.4'		1	110	106	102	99	104	97	99	94	96	91	87
20	490		8'	9	9.6'		2	101	94	88	83	92	82	89	80	85	78	74
25	459	212	9'	7	10.8'		3	93	84	76	70	82	70	79	69	77	67	64
30	429		* Beam diameter is where foot-candles drop to 50% of maximum.				4	86	75	67	61	74	60	71	60	69	59	56
35	385	241	<b>Multiple unit data - RCR 2</b>				5	80	68	59	53	67	53	65	52	63	52	49
40	340		Spacing on center	Initial Center Beam Foot-Candles	Watts per Sq. Ft.		6	74	61	53	47	60	47	59	47	57	46	44
45	289	222	5'	49.5	0.51		7	69	56	48	42	55	42	54	42	52	41	39
50	236		6'	32.5	0.34		8	64	51	43	38	51	38	49	38	48	37	35
55	184	165	7'	23.2	0.24	9	60	47	40	34	47	34	46	34	45	34	32	
60	135	93	8'	19.3	0.20	10	56	44	36	31	43	31	42	31	41	31	29	
65	91		9'	15.5	0.16	<b>Zonal lumens &amp; percentages</b>						<b>CRI and CCT adjustment factors</b>						
70	63	48	38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances			Zone	Lumens	%Luminaire	90CRI 2700K: = 0.71									
75	45	13				0-30	408	34.3%	80CRI 2700K: = 0.89									
80	28					0-40	649	54.5%	80CRI 3000K: = 0.97									
85	12					0-60	1036	87.1%	80CRI 3500K: = 1.00									
90	0					0-90	1190	100.0%										

Frame: L5RAE1VA / L5RAZ10UVA / L5R10RE1VA / L5R10RZ10UVA  
 Light engine: L5R10B35VA  
 Trim: L5RDW

Report no<sup>3</sup>: 685GFR

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

Efficacy: 102.6lm/W  
 CCT<sup>2</sup>: 3500K  
 CRI: ≥80

### 80 CRI, 1500 lumens (downlight photometry shown)

Angle	Mean CP	Lumens	Single unit data			Coefficients of utilization												
			Height to Lighted Plane	Initial Center Beam Foot-Candles	Beam Dia. (ft)*	Ceiling	80%				70%	50%	30%	0%				
0	703					Wall	70	50	30	10	50	10	50	10	0			
5	697	66	5'	28	5.5'	RCR	Zonal cavity method - Effective floor reflectance = 20%											
10	682		6'	20	6.6'		0	119	119	119	119	116	116	111	111	106	106	100
15	656	185	7'	14	7.7'		1	110	106	102	99	104	97	99	94	96	91	87
20	619		8'	11	8.8'		2	101	94	88	83	92	82	89	80	85	78	74
25	576	265	9'	9	9.9'		3	93	84	76	70	82	70	79	69	77	67	64
30	527		* Beam diameter is where foot-candles drop to 50% of maximum.				4	86	75	67	61	74	60	71	60	69	59	56
35	474	296	<b>Multiple unit data - RCR 2</b>				5	80	68	59	53	67	53	64	52	63	52	49
40	417		Spacing on center	Initial Center Beam Foot-Candles	Watts per Sq. Ft.		6	74	61	53	47	60	47	59	46	57	46	44
45	357	275	5'	62.1	0.70		7	69	56	48	42	55	42	54	42	52	41	39
50	295	209	6'	40.8	0.46		8	64	51	43	38	51	38	49	38	48	37	35
55	234	121	7'	29.1	0.33	9	60	47	40	34	47	34	46	34	45	34	32	
60	175	60	8'	24.3	0.27	10	56	44	36	31	43	31	42	31	42	31	29	
65	120	17	9'	19.4	0.22	<b>Zonal lumens &amp; percentages</b>						<b>CRI and CCT adjustment factors</b>						
70	81		38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances			Zone	Lumens	%Luminaire	90CRI 2700K: = 0.71									
75	57					0-30	516	34.5%	80CRI 2700K: = 0.89									
80	35					0-40	811	54.3%	80CRI 3000K: = 0.97									
85	15					0-60	1295	86.7%	80CRI 3500K: = 1.00									
90	0					0-90	1494	100.0%										

Frame: L5R15AZ10UVA / L5R15AE1VA / L5R15RZ10UVA / L5R15RE1VA

Light engine: L5R15B35VA

Trim: L5RDW

Report no<sup>3</sup>: 879GFR

Output lumens: 1494lm  
 Input Watts: 15.7W  
 Spacing Criterion: 1.1

Efficacy: 95.1lm/W  
 CCT<sup>2</sup>: 3500K  
 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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