



Lightolier LED retrofit downlight provides an easy and quick downlight solution without the traditional frame and reflector. Perfect for installation in existing ceilings or new construction with the benefits of energy saving LED technology.

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

Fixture

example: RD4R089301W

Family	Size	Lumens	CRI	CCT	Voltage	Finish
RD			9	30	1	W
RD Retrofit downlight	4R 4-inch Round	08 900 lm	9 90CRI	30 3000K	1 120V	W White (matte)
	5R 5/6-inch Round	12 1400 lm				

Features

- Flange:** One piece self flange spun aluminum. White painted with baffle.
- Lens:** High transmittance lens allowing for smooth, comfortable light pattern.
- Power supply:** Integral class 2 driver. (see Electrical section for specifications)
- Friction spring:** Stainless steel.
- Lifetime:** L70 at 42,000 hours and backed with a 5-year warranty (see Philips.com/warranties for details).
- LED board:** Light emitted source.
- Power connection:** Trim features quick connect plug installed as standard. Trim ships with a medium base socket adapter whip for installation into incandescent housings with medium base sockets.

Electrical

Electronic power supply: RoHS compliant. Class 2 power unit for use in a dry and damp locations.

Dimming: Intended for ELV/TRIAC (120V) dimming. For more details, please see LED-DIM-DL spec sheet.

Labels

cULus classified.
 Title 24 (JA8-2016).
 ENERGY STAR®.
 Wet Location.
 IC rated.

Electrical specs	Dimming	Nominal Lumens	Input volts	Input freq.	Input current	Input Power	THD Factor	Power Factor	Minimum Operating Temp.	Maximum Operating Temp.
RD4R	ELV/TRIAC	900lm	120V	60Hz	114A	13W	<35%	>0.9	-20°C	40°C
RD5R	ELV/TRIAC	1400lm	120V	60Hz	161A	18.5W	<30%	>0.9	-20°C	40°C

Light to go

Compatible configurations

Fixture

RD4R089301W
 RD5R129301W



RD Retrofit Downlight

Round 4" & 5/6" Apertures

Compatibility

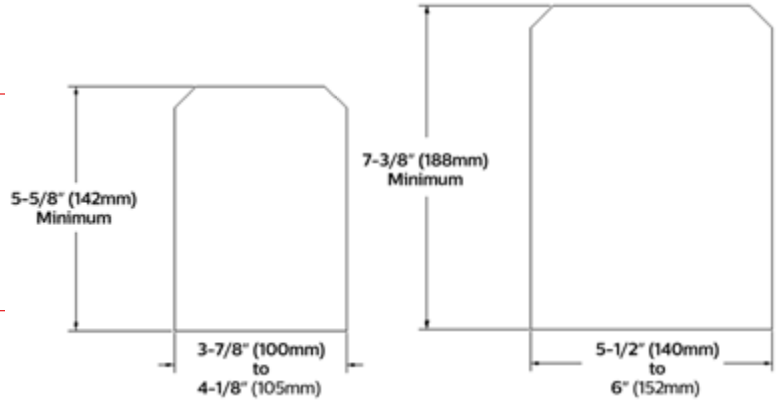
Installs into IC or Non-IC rough in sections with cylindrical recessed metal housings.

RD4R series

Manufacturer	Model
Philips	CP4RN
	CP4RR
	FDIC4V50
	P4
	P4R
	P4ASIC
	P4GU
	P4RGU
	R4
	RR4
	R4ASICG
Halo	H991CAT
	H99T
	H99RT
Seagull	1179
	1105
All-Pro	E1400ATSB

RD5R series

Manufacturer	Model	
Philips	CP6RN 1104IC	
	CP6RR 1004IC	
	CR1NBQP 1004ICN	
	QL6NBQP 1004ICNQ	
	P6GU 1004ICNS	
	P6RGU 1004ICQ	
	PR75ASIC 1004ICN	
	PRR75ICX	
	FD2IC6V90	
	Halo	H7T,
		H7RT,
H7ICAT,		
H7RICAT		
Lithonia	L7X	
Juno	IC22	
Progress	P87-A1	

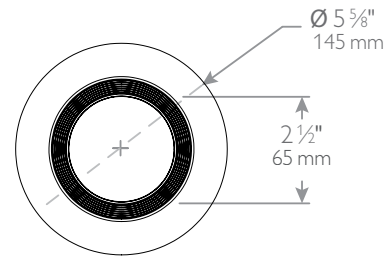
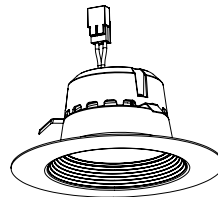
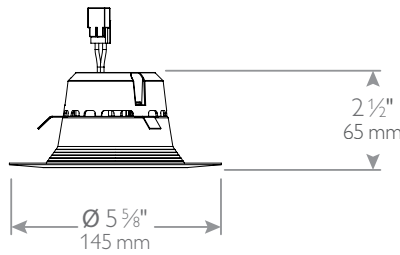


RD4R Series, minimum 3-7/8" (100mm) to maximum 4-1/8" (105mm) diameter and 5-5/8" (142mm) height

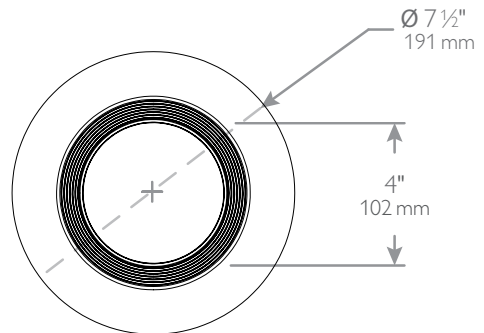
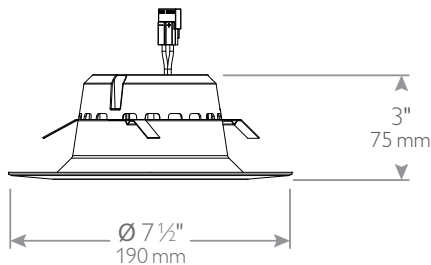
RD5R Series, minimum 5-1/2" (140mm) to maximum 6" (152mm) diameter and 7-3/8" (188mm) height

Dimensions

Retrofit downlight 4"



Retrofit downlight 5/6"



RD Retrofit Downlight

Round 4" & 5/6" Apertures

4-inch, 12W, 76.4lm/W

Candela Curve	Angle	Mean CP	Lumens
	0	397	
	5	395	37
	10	388	
	15	377	106
	20	361	
	25	342	158
	30	320	
	35	293	184
	40	261	
	45	227	181
	50	190	
	55	150	145
	60	108	
	65	67	82
	70	32	
	75	11	21
	80	5	
	85	1	3
	90	0	

Report#: RD4R089301W

Output lumens:	917lms	Efficacy:	76.4lm/w
Spacing Criterion:	1.2	CCT ³ :	3000K
Input Watts ² :	12W	CRI:	90min

Single unit data		
Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	16	6.0'
6'	11	7.2'
7'	8	8.4'
8'	6	9.6'
9'	5	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'	38.3	0.53
6'	25.2	0.35
7'	18.0	0.25
8'	15.0	0.21
9'	12.0	0.17

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	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	89	81	86	79	75
	3	94	84	77	71	83	70	80	69	77	68	65
	4	86	75	67	61	74	61	71	60	69	59	56
	5	79	68	59	53	66	53	64	52	63	52	49
	6	74	61	53	47	60	47	58	46	57	46	43
	7	68	56	47	42	55	41	53	41	52	41	39
	8	64	51	43	37	50	37	49	37	48	37	35
	9	60	47	39	34	46	34	45	33	44	33	31
	10	56	43	36	31	43	31	42	30	41	30	28

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	302	32.9%
0-40	486	53.0%
0-60	812	88.5%
0-90	917	100.0%

5/6-inch, 18W, 78.4lm/W

Candela Curve	Angle	Mean CP	Lumens
	0	564	
	5	561	53
	10	552	
	15	538	152
	20	517	
	25	492	227
	30	463	
	35	429	270
	40	390	
	45	347	272
	50	300	
	55	250	232
	60	197	
	65	139	151
	70	80	
	75	30	49
	80	8	
	85	3	4
	90	0	

Report#: RD5R129301W

Output lumens:	1411lms	Efficacy:	78.4lm/w
Spacing Criterion:	1.2	CCT ³ :	3000K
Input Watts ² :	18W	CRI:	90min

Single unit data		
Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	23	6.0'
6'	16	7.2'
7'	12	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'	58.3	0.80
6'	38.3	0.52
7'	27.3	0.37
8'	22.8	0.31
9'	18.2	0.25

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	93	87	82	92	81	88	79	85	77	74
	3	92	83	75	69	81	68	78	67	75	66	63
	4	85	74	65	59	72	58	70	58	67	57	54
	5	78	66	57	51	65	51	63	50	61	50	47
	6	72	59	51	45	59	44	57	44	55	44	41
	7	67	54	46	40	53	39	52	39	50	39	37
	8	62	49	41	35	49	35	47	35	46	35	33
	9	58	45	37	32	45	32	44	32	43	31	30
	10	55	42	34	29	41	29	40	29	39	29	27

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	433	30.6%
0-40	702	49.8%
0-60	1206	85.5%
0-90	1411	100.0%

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

