

PHILIPS

Downlighting

Surface mount

5" and 7" round aperture



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

Philips LED Surface mount downlighting is a real problem-solver fixture. When you are faced with a challenging ceiling, but you still want a great-looking downlight that's easy to install, Surface mount is the answer.

Fixture

example: PSD5R079301W

Family	Size	Lumens	CRI	CCT	Voltage	Finish
PSD			9	30	1	W
PSD Surface-mount downlight	5R 5-inch Round	07 700 lm	9 90CRI	30 3000K	1 120V	W White (matte)
	7R 7-inch Round	09 1000 lm				

Features

- Flange:** One piece plastic flange. White painted.
- Lens:** Diffused lens for smooth, comfortable light pattern.
- Power supply:** Integral class 2 driver (see Electrical section for specifications).
- LED Strip:** Edge lit technology used.
- Lifetime:** L70 at 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).
- Compliance:** Non-conductive fixture for shower light application.
- Support Cable Wire:** Support cable wire attached to the fixture. Hook the cable on the mounting bracket to hold the fixture.
- Bracket:** The product is supplied with a bracket for installation.

Electrical

Electronic power supply: RoHS compliant. Class 2 power unit.

Dimming: ELV/TRIAC (120V) dimming compatibility. Dim down to 10%.

Lutron DVELV-300P (ELV)
 Lutron DV-603P (TRIAC)
 Lutron MACL-153M (TRIAC)

Listings

cETLus listed.
 Ceiling-mounted: wet location.
 ENERGY STAR®.
 Title 24 (JA8-2016).
 IC rated.

Electrical specs	Dimming	Nominal Lumens	Input volts	Input freq.	Input current	Input Power	Power Factor	Minimum Operating Temp.	Maximum Operating Temp.
PSD5R	ELV/TRIAC	700lm	120V	60Hz	90A	10.5W	>0.9	-20°C	45°C
PSD7R	ELV/TRIAC	1000lm	120V	60Hz	135A	15.5W	>0.9	-20°C	45°C



Lighttogo

Surface mount LED

5" and 7" round aperture downlight

Compatibility

Installs into standard J-box applications:



3 1/2" and 4" round (plastic)



4" octagonal (metal)

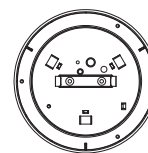
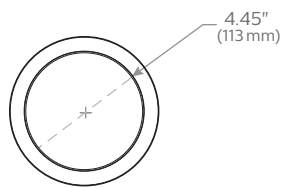
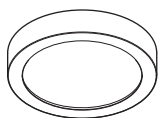
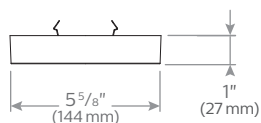


Fire rated J-box

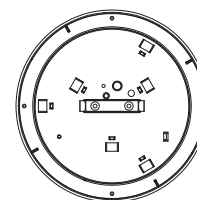
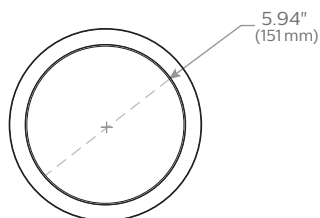
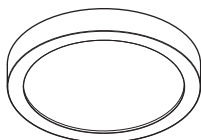
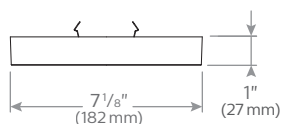
Fire rated classification is per the ceiling and junction box ratings.

Dimensions

Surface Downlight 5"



Surface Downlight 7"

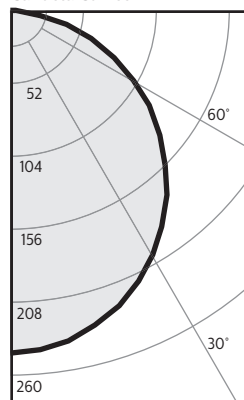


Surface mount LED

5" and 7" round aperture downlight

5-inch, 10W, 69.4lm/W

Candela Curves



Report#: PSD5R079301W

Output lumens: 680 lms
Spacing Criterion: 1.2
Input Watts²: 9.8 W

Angle	Mean CP	Lumens
0	244	
5	242	
10	238	23
15	232	
20	223	66
25	213	
30	201	99
35	187	
40	172	119
45	155	
50	138	122
55	119	
60	100	110
65	80	
70	60	83
75	40	
80	21	47
85	3	
90	0	11

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	10	6.0'
6'	7	7.2'
7'	5	8.4'
8'	4	9.6'
9'	3	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'	27.3	0.43
6'	17.9	0.29
7'	12.8	0.20
8'	10.7	0.17
9'	8.5	0.14

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

Coefficients of utilization

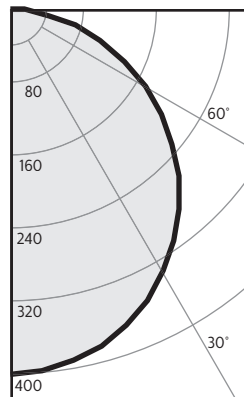
Ceiling		80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	109	104	100	96	102	94	98	91	94	89	84
	2	99	91	84	78	89	77	85	75	82	74	70
	3	90	80	71	65	78	64	75	63	72	62	59
	4	83	71	62	55	69	55	67	54	64	53	50
	5	76	63	54	47	62	47	60	47	58	46	43
	6	70	57	48	41	56	41	54	41	52	40	38
	7	65	51	43	37	51	36	49	36	48	36	34
	8	60	47	38	33	46	32	45	32	44	32	30
	9	57	43	35	29	42	29	41	29	40	29	27
10	53	40	32	27	39	27	38	26	37	26	24	

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	188	27.7%
0-40	307	45.2%
0-60	539	79.3%
0-90	680	100.0%

7-inch, 15W, 73.5lm/W

Candela Curves



Report#: PSD7R099301W

Output lumens: 1118 lms
Spacing Criterion: 1.2
Input Watts²: 15.2 W

Angle	Mean CP	Lumens
0	400	
5	398	
10	391	38
15	382	
20	368	108
25	352	
30	332	163
35	310	
40	285	195
45	259	
50	230	200
55	200	
60	169	180
65	137	
70	104	136
75	73	
80	42	78
85	14	
90	0	21

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'	44.8	0.67
6'	29.4	0.44
7'	21.0	0.32
8'	17.5	0.26
9'	14.0	0.21

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	109	104	100	96	102	94	97	91	93	88	84
	2	99	91	84	78	89	77	85	75	82	73	70
	3	90	79	71	65	78	64	75	63	72	62	59
	4	82	70	62	55	69	54	67	54	64	53	50
	5	76	63	54	47	62	47	60	46	58	46	43
	6	70	57	48	41	56	41	54	41	52	40	38
	7	65	51	43	36	51	36	49	36	48	36	33
	8	60	47	38	32	46	32	45	32	44	32	30
	9	56	43	35	29	42	29	41	29	40	29	27
10	53	40	32	26	39	26	38	26	37	26	24	

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	308	27.6%
0-40	503	45.0%
0-60	883	79.0%
0-90	1118	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.

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