PHILIPS
LIGHTOLIER

Downlighting

CorePro LED

Attractive, affordable, and easy to install 4" downlight

LED

Core value LED downlight for new construction and remodel applications that installs in many existing residential and commercial applications.

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Ordering guide

example: CP4RB07830W

Catalog Number	Aperture	CRI	CCT	Lumens	System Watts (Max)	Efficacy (lm/W)	Voltage
CP4RB07830W	4-inch	80	3000K	800 lm	11	73	120
CP4RB07930W	4-inch	90	3000K	750 lm	11	68	120
CP4RB07840W	4-inch	80	4000K	850 lm	11	77	120

Features

1. **Reflector/Flange:** One piece self flange cast aluminum, powder coated, non yellowing, white baffle and flange.
2. **Lens:** High transmittance lens allowing for smooth, diffused light pattern.
3. **Power supply:** Class 2 driver. Factory wired electronic LED driver (see Electrical section for specifications).
4. **LED board:** Light emitted source.
5. **Friction spring:** Stainless steel.
6. **Power connection:** Trim features quick connect plug installed as standard installation into CP4RN and CP4RR housings with mating connector. Trim ships with a medium base socket adapter whip for installation into 4" incandescent housings with medium base sockets.
8. **Lifetime:** Expected lifetime 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).

Electrical

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

Dimming: All luminaires are intended for use with TRIAC type dimmers. Go to http://www.lightolier.com/MKACatpdfs/LED-DIM.PDF for the latest dimming switch capability information. 10%–100% dimming range.

Lumen Output	Input Voltage	Input Frequency	Max. Input Current	Max. Input Power	Max THD	Power Factor	Min. Temp. Operating
800 lm	120 V	50/60Hz	0.09A	11W	< 30%	> .9	–20° C

Performance data based on 80 CRI 3000K.

* Restrictions on Hazardous Substances (RoHS) is a European directive (2002/95/EC) designed to limit the content of 6 substances [lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)] in electrical and electronic products. For products used in North America compliance to RoHS is voluntary and self-certified.

Labels

cULus listed for wet locations. Energy Star certified.

Title 24 Certified to meet high efficiency requirements; 90 CRI configuration only.

RoHS COMPLIANT   c UL us LISTED   Title 24   ENERGY STAR

CP4   CorePro LED Downlight

Attractive, affordable, and easy to install 4″ downlight

CP4RN: 4" IC/Airseal frame-in kit housing

Housing – Constructed of formed aluminum. For use in direct contact with thermal insulation. Adjusts vertically in plaster frame to accommodate ceilings 1/2″ to 1-1/2″ thick. Ceiling opening 4 1/2″.
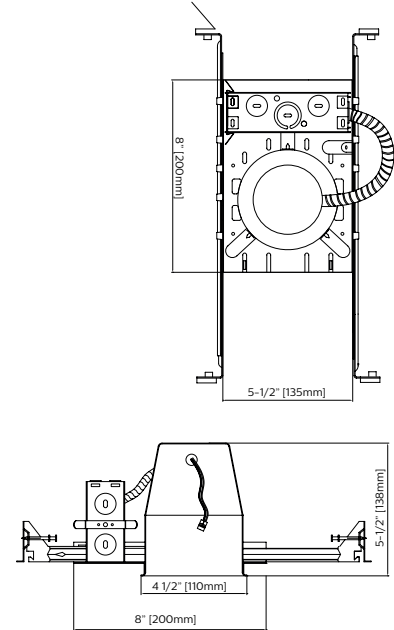
Electrical Connection – LED quick-connect adapter

Junction Box– galvanized steel with two snap-on covers and grounding pigtail. Knockouts for 1/2" & 3/4" conduit and Romex knockouts with strain relief

Bar Hangers: Pre-installed pre-nailed style bar hangers telescope from 16″ to 24″. Vertical design of interlocking bar hangers prevents sagging even at full 24″ extension. Style bar hangers may be used on either long or short axis of housing.

IC frame-in Kit – Housing is cULus Listed for direct contact with thermal insulation cULus Listed for Damp Locations and Through Branch Wiring, 4 in/4 out.

AirSeal™: Fixture is AirSeal™ rated according to ASTM E283 to no more than 2.0 cubic feet of air per minute at 75 pascals. Fixture meets Washington State Energy Code and Energy Conservation Code.


CP4RR: 4" IC/Airseal Remodeler Housing

Housing – Constructed of formed aluminum. Adjusts vertically in plaster frame to accommodate ceilings 1/2″to 1-1/4″ thick. Housing can be pulled through plaster frame for access to junction box. Ceiling opening of 4-1/2″.

Electrical Connection – LED quick-connect adapter

Junction Box – galvanized steel with two snap-on covers and grounding pigtail. Knockouts for 1/2" & 3/4" conduit and Romex knockouts with strain relief

IC Frame-in Kit – Housing is cULus Listed for direct contact with thermal insulation cULus Listed for Damp Locations and Through Branch Wiring, 4 in/4 out.
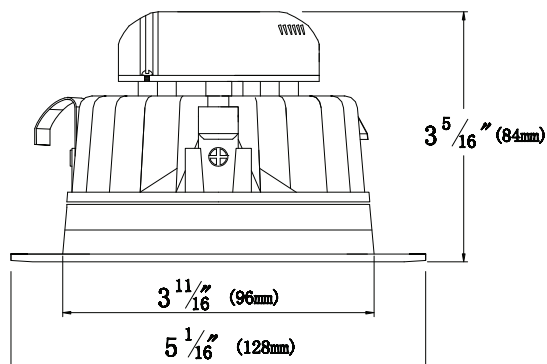
AirSeal™: Fixture is AirSeal™ rated according to ASTM E283 to no more than 2.0 cubic feet of air per minute at 75 pascals. Fixture meets Washington State Energy Code and Energy Conservation Code.
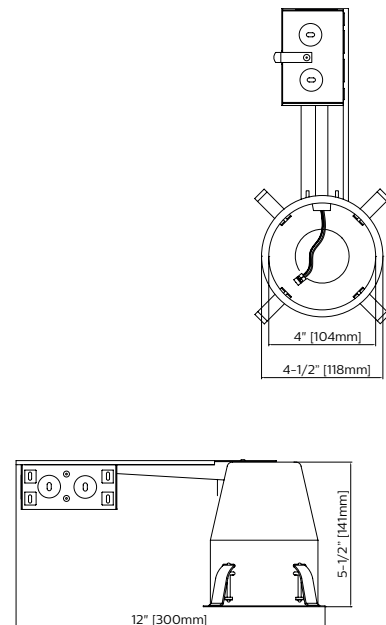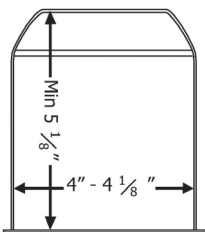
CP4 CorePro LED Downlight

Attractive, affordable, and easy to install 4" downlight

Dimensions

$3 \frac{5}{16}$ " (84mm)

$3 \frac{11}{16}$ " (96mm)

$5 \frac{1}{16}$ " (128mm)

E26 Compatibility*

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

* Any other luminaires meeting theses dimensions as shown are also compatible.

Min 5 $\frac{1}{8}$ "

4" - 4 $\frac{1}{8}$ "

4"unit shown with standard (E26) adapter to fit medium base sockets

CP4RN: IC c/w LED Connector New Construction Housing

CP4RR: IC c/w LED Connector Remodeler Housing

CP4   CorePro LED Downlight

Attractive, affordable, and easy to use 4″ downlight

CP4RB07830W

Candela Curves
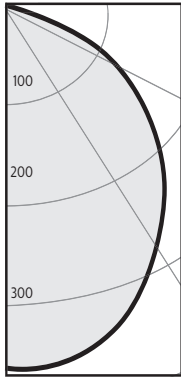
Angle	Mean CP	Lumens
0	343	
5	342	32
10	338	
15	329	91
20	316	
25	301	134
30	282	
35	261	157
40	239	
45	214	155
50	186	
55	156	127
60	125	
65	93	79
70	63	
75	34	27
80	13	
85	5	4
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	14	6.0
6'	10	7.2
7'	7	8.4
8'	5	9.6
9'	4	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.
33.6	0.47	0.55
22.1	0.31	0.36
15.8	0.22	0.26
13.1	0.19	0.21
10.5	0.15	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%										
0	119	119	119	119	116	116	111	111	106	106	100
1	110	106	102	99	104	97	100	94	96	91	87
2	101	94	88	82	92	81	88	80	85	78	74
3	93	83	76	70	82	69	79	68	76	67	63
4	85	74	66	60	73	59	70	58	68	58	55
5	79	67	58	52	65	52	63	51	61	50	48
6	73	60	52	46	59	45	57	45	56	45	42
7	68	55	46	40	54	40	52	40	51	40	38
8	63	50	42	36	49	36	48	36	47	36	34
9	59	46	38	33	45	33	44	33	43	32	30
10	55	43	35	30	42	30	41	30	40	29	28

Room Cavity Ratio

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0–30	258	31.9%
0–40	414	51.3%
0–60	696	86.3%
0–90	807	100.0%

Adjustment factors

Color temperature (CCT)

4000K = 105%

Report[1]: BTS165311

Output lumens:	806.9 lms	Efficacy:	75.4 lm/w
Input Watts[2]:	10.7W	CCT[3]:	3000 K
Spacing Criterion:	1.2	CRI:	>80

CP4RB07930W

Candela Curves
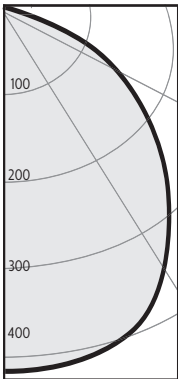
Angle	Mean CP	Lumens
0	377	
5	370	35
10	358	
15	340	98
20	317	
25	289	140
30	259	
35	228	154
40	195	
45	160	139
50	125	
55	92	100
60	64	
65	40	54
70	22	
75	10	18
80	4	
85	1	3
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	15	5.5
6'	10	6.6
7'	8	7.7
8'	6	8.8
9'	5	9.9

* 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.
33.6	0.47	
22.1	0.31	
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13.1	0.19	
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38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

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Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method – Effective floor reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	105	99	100	96	97	93	88
2	102	95	90	85	94	84	90	82	87	80	76
3	94	85	78	73	84	72	81	71	78	70	66
4	87	77	69	63	75	63	73	62	71	61	58
5	81	69	61	55	68	55	66	55	64	54	52
6	75	63	55	49	62	49	60	49	59	48	46
7	70	58	50	44	57	44	55	44	54	43	41
8	65	53	45	40	52	40	51	39	50	39	37
9	61	49	41	36	48	36	47	36	46	36	34
10	58	45	38	33	45	33	44	33	43	33	31

Room Cavity Ratio

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0–30	274	36.9%
0–40	428	57.6%
0–60	667	89.8%
0–90	743	100.0%

Report[1]: BTS165312

Output lumens:	742.7 lms	Efficacy:	68.8 lm/w
Input Watts[2]:	10.8 W	CCT[3]:	3000 K
Spacing Criterion:	1.1	CRI:	>90

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