PHILIPS

Day-Brite

CFI

Recessed

DuaLED 1x4

2700, 3600, 4100, or 4700 lumens

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

The Philips Day-Brite / Philips CFI DuaLED recessed LED is a highly efficient, visually comfortable, architecturally styled recessed LED luminaire designed with a minimalistic strategy to achieve sustainable objectives. Its clean modern design offers a fresh variation on the popular dual chamber theme and provides architectural styling compatible with virtually any area.

Ordering guide

Example: 1DLG27L840-4-D-UNV-DIM

Width	Family	Ceiling Type	Lumen Package	Color	Length	Center Diffuser	Voltage	Driver	Options
1	DL	G		–	4 –	D –	–	–	
1 1'	**DL** DuaLED	**G** Grid	**27L** 2700 delivered lumens **36L** 3600 delivered lumens **41L** 4100 delivered lumens **47L** 4700 delivered lumens	**830** 80 CRI, 3000K **835** 80 CRI, 3500K **840** 80 CRI, 4000K **850** 80 CRI, 5000K	**4** 4'	**D** Diffuse (opal)	**UNV** Universal Voltage, 120-277 volt **347** 347V	**DIM** 0-10V dimming **SDIM** Step dimming to 40% input power **DALI** DALI dimming	**CC** Custom color **F1** 3/8" flex, 3 wire 18 gauge 6' **F2** 3/8" flex, 4 wire 18 gauge 6' **F1/D** 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires **F2/5W** 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires **GLR** Fusing, fast blow **EMLED** Integral emergency battery pack (requires ballast enclosure on top of luminaire) **CHIC** Chicago Plenum rated

Accessories (order separately)

- **FMA14 –** 1'x4' "F" mounting frame for NEMA "F" mounting

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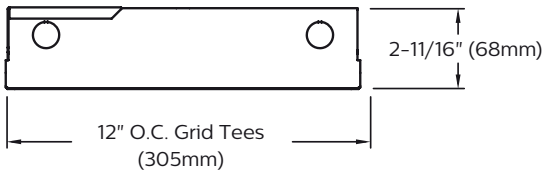
Application

- A highly efficient, visually comfortable, architecturally styled recessed LED luminaire designed with a minimalistic strategy to achieve sustainable objectives.
- Low profile configuration is only 2-11/16" high and is compatible with virtually any plenum.
- Clean, modern design provides architectural styling compatible with virtually any area.
- Soft opal diffuser with large luminous area minimizes apparent brightness and provides high visual comfort perfect for a wide variety of general lighting applications like offices, schools, retail, or healthcare.
- Four lumen packages over a wide range provide significant application flexibility over light levels and/or luminaire spacing.
- A high lumen package can be used in conjunction with wide luminaire spacing to reduce luminaire quantities and overall cost while maintaining good uniformity.
- Directs a controlled amount of light to the higher angles in the room to balance the brightness of the surfaces and eliminate "cave effect" while creating the impression of a larger, brighter space without glare.
- Excellent color rendering with a CRI of 80.
- LEDs are an excellent source for use with controls since dimming or frequent switching does not degrade the performance or life of the source. External sensors are available for use.
- Designed for use with standard Grid (NEMA "G") or Narrow Grid (NEMA "NFG") ceiling T-bars. Drywall or plaster requirements can be accommodated by using an FMA14 "F" mounting frame (sold separately.)
- Listed for use in non-insulated ceilings (Type Non-IC).
- DuaLED luminaires are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers. (www.designlights.org/QPL)

Construction/Finish

- Uncomplicated design is well under 3" in depth and only requires a few parts outside of the electrical system and hardware, creating several benefits:
  - Less material required
  - Less packaging required
  - Reduced weight
  - Less energy required for construction and assembly
  - More luminaires can be shipped per truck to reduce fuel use and emissions
- Luminaire is painted after fabrication with a matte white polyester powder coating for a high quality, durable finish with no unfinished edges to create an installation hazard or potential for corrosion.
- T-bar grid clips are included for easy installation.

Dimensions



Electrical

- Driver and LED boards are easily accessible from below without tools. Multiple LED boards are individually replaceable if needed via plug-in connectors to ensure long service life.
- 0-10V dimming is standard. Emergency options are available to add even more application flexibility. Emergency models require a taller driver enclosure that increases luminaire depth.
- Five year limited luminaire warranty includes LED boards and driver (emergency driver and batteries have a three year warranty in models so equipped). Visit **www.philips.com/warranties** for complete warranty information.
- High efficiency LEDs have a minimum 70,000 hour rated life (L70.)
- cETLus listed to UL and CSA standards, suitable for damp locations.

Enclosure

- Diffuser has large surface area for brightness control.
- Opal diffuser provides soft, comfortable lighting while maintaining high efficiency.
- Diffuser requires no frames or fasteners and can be easily removed from below without tools if needed.

General Notes

- All options factory installed.
- All accessories are field installed.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

Energy Data

Luminaire	Catalog Number	Input Power	Efficacy
1x4	1DLG27L840	21.5	124
	1DLG36L840	29.0	123
	1DLG41L840	34.7	121
	1DLG47L840	39.1	120

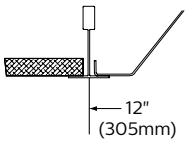
Ceiling configuration

1 DL G 36L840

Ceiling type

G = Grid (NEMA G)

SIDE



(NEMA Type G)
Lay-in acoustical ceilings using exposed grid suspension, with tees for luminaires on 12" x 48" spacing.

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Photometry

1x4 DuaLED, 2700 nominal delivered lumens — LER – 124

Catalog No.	1DLG27L840-4-D-UNV-DIM
Test No.	35431
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	2674
Input Watts	21.5

Comparative yearly lighting energy cost per 1000 lumens – **$1.94** based on 3000 hrs. and $.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candela distribution

Vertical Angle	Horizontal Angle 0°	45°	90°	-45°
0	913	913	913	913
5	900	910	916	910
15	869	884	889	884
25	807	821	830	821
35	716	733	744	733
45	601	623	634	623
55	468	491	500	491
65	325	345	345	345
75	182	185	184	185
85	54	46	49	46

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	714	26.7
0- 40	1172	43.8
0- 60	2086	78.0
0- 90	2675	100.0

Average Luminance

Angle	End	45°	Cross
45	3990	4134	4206
55	3830	4019	4089
65	3609	3829	3825
75	3301	3359	3339
85	2923	2493	2622

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)	80%			70%			50%	
Wall (pw)	70	50	30	70	50	30	50	30
RCR	Zonal cavity method - Effective floor reflectance = 20%							
0	118	118	118	115	115	115	111	111
1	108	104	98	106	101	96	96	93
2	97	90	82	95	88	81	84	79
3	90	79	70	86	77	69	73	68
4	81	69	60	80	68	59	66	58
5	75	61	53	72	60	53	58	51
6	69	56	46	68	55	46	53	46
7	64	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	41	34	55	41	34	40	33
10	52	39	30	51	39	30	38	30

Room Cavity Ratio

1x4 DuaLED, 3600 nominal delivered lumens — LER – 123

Catalog No.	1DLG36L840-4-D-UNV-DIM
Test No.	35432
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	3567
Input Watts	29.0

Comparative yearly lighting energy cost per 1000 lumens – **$1.95** based on 3000 hrs. and $.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candela distribution

Vertical Angle	Horizontal Angle 0°	45°	90°	-45°
0	1218	1218	1218	1218
5	1200	1214	1222	1214
15	1159	1179	1186	1179
25	1077	1095	1106	1095
35	954	979	992	979
45	802	831	845	831
55	625	655	668	655
65	433	459	461	459
75	243	247	246	247
85	73	62	66	62

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	952	26.7
0- 40	1563	43.8
0- 60	2782	78.0
0- 90	3568	100.0

Average Luminance

Angle	End	45°	Cross
45	5321	5512	5607
55	5111	5357	5465
65	4805	5099	5116
75	4402	4476	4462
85	3925	3333	3526

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)	80%			70%			50%	
Wall (pw)	70	50	30	70	50	30	50	30
RCR	Zonal cavity method - Effective floor reflectance = 20%							
0	118	118	118	115	115	115	111	111
1	108	104	98	106	101	96	96	93
2	97	90	82	95	88	81	84	79
3	90	79	70	86	77	69	73	68
4	81	69	60	80	68	59	66	58
5	75	61	53	72	60	53	58	51
6	69	56	46	68	55	46	53	46
7	64	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	41	34	55	41	34	40	33
10	52	39	30	51	39	30	38	30

Room Cavity Ratio

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1x4 DuaLED, 4100 nominal delivered lumens

LER – 121

Catalog No.	1DLG41L840-4-D-UNV-DIM
Test No.	35433
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	4220
Input Watts	34.7

Comparative yearly lighting energy cost per 1000 lumens – **$1.97** based on 3000 hrs. and $.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candela distribution

Vertical Angle	Horizontal Angle 0°	45°	90°	-45°
0	1440	1440	1440	1440
5	1418	1435	1445	1435
15	1371	1394	1402	1394
25	1273	1295	1308	1295
35	1129	1157	1173	1157
45	948	981	1000	981
55	739	774	791	774
65	513	543	546	543
75	287	293	291	293
85	86	74	78	74

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1126	26.7
0- 40	1849	43.8
0- 60	3292	78.0
0- 90	4222	100.0

Average Luminance

Angle	End	45°	Cross
45	6293	6508	6636
55	6049	6329	6472
65	5690	6033	6057
75	5210	5303	5279
85	4646	3957	4183

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)	80%			70%			50%	
Wall (pw)	70	50	30	70	50	30	50	30
RCR	Zonal cavity method - Effective floor reflectance = 20%							
0	118	118	118	115	115	115	111	111
1	108	104	98	106	101	96	96	93
2	97	90	82	95	88	81	84	79
3	90	79	70	86	77	69	73	68
4	81	69	60	80	68	59	66	58
5	75	61	53	72	60	53	58	51
6	69	56	46	68	55	46	53	46
7	64	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	41	34	55	41	34	40	33
10	52	39	30	51	39	30	38	30

Room Cavity Ratio

1x4 DuaLED, 4700 nominal delivered lumens

LER – 120

Catalog No.	1DLG47L840-4-D-UNV-DIM
Test No.	35436
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	4706
Input Watts	39.1

Comparative yearly lighting energy cost per 1000 lumens – **$2.00** based on 3000 hrs. and $.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candela distribution

Vertical Angle	Horizontal Angle 0°	45°	90°	-45°
0	1606	1606	1606	1606
5	1581	1603	1611	1603
15	1528	1556	1564	1556
25	1419	1447	1459	1447
35	1257	1292	1307	1292
45	1056	1096	1114	1096
55	823	865	881	865
65	571	606	606	606
75	319	325	324	325
85	96	81	86	81

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1256	26.7
0- 40	2062	43.8
0- 60	3671	78.0
0- 90	4708	100.0

Average Luminance

Angle	End	45°	Cross
45	7007	7274	7394
55	6734	7075	7205
65	6335	6728	6732
75	5785	5887	5878
85	5141	4345	4603

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)	80%			70%			50%	
Wall (pw)	70	50	30	70	50	30	50	30
RCR	Zonal cavity method - Effective floor reflectance = 20%							
0	118	118	118	115	115	115	111	111
1	108	104	98	106	101	96	96	93
2	97	90	82	95	88	81	84	79
3	90	79	70	86	77	69	73	68
4	81	69	60	80	68	59	66	58
5	75	61	53	72	60	53	58	51
6	69	56	46	68	55	46	53	46
7	64	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	41	34	55	41	34	40	33
10	52	39	30	51	39	30	38	30

Room Cavity Ratio

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