PHILIPS

Day-Brite

CFI

Recessed

DuaLED 2x4

Up to 7300 lumens

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Philips Day-Brite / Philips CFI DuaLED recessed 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. SpaceWise technology for selected applications is optional for additional energy savings and control.

Ordering guide – Standard configurations available with all choices, unless otherwise noted. Base configurations selections indicated by blue.

Example: 2DLG49L840-4-D-UNV-DIM

Width	Family	Ceiling Type	Lumen Package	Color	Length	Center Diffuser	Voltage	Driver	Options
2 –	DL –	G –	–	–	4 –	D –	–	–	
2 2'	**DL** DuaLED	**G** Grid	**Standard configurations** **43L** 4300 nominal delivered lumens **49L** 4900 nominal delivered lumens **58L**[1] 5800 nominal delivered lumens **73L** 7300 nominal delivered lumens **Base configuration** **42B** 4200 nominal 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 120-277V **347** 347V	**DIM**[2,6] Dimming **L3D**[3] Lutron Hi-Lume A, 1% Dimming **LDE**[3] Lutron LDE5, 5% dimming **DALI** DALI dimming **SDIM**[1] Step dimming to 40% input power	**AG** Antimicrobial paint **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** Bodine BSL310 10W battery pack (requires driver enclosure on top of luminaire) **EMLED7**[7] Bodine BSL17 7W battery pack (requires driver enclosure on top of luminaire) **SWZG2**[4,5] Integral sensor, daylighting and occupancy, advanced grouping with dwell time and zoning **SWZDT**[4] Integral sensor, daylighting and occupancy, advanced grouping with dwell time **DAYOCC**[4] Integral sensor, daylighting and occupancy, basic grouping **CHIC** Chicago Plenum rated

Footnotes

1 58L and 73L not available with the SWZG2 and SDIM options.
2 Integral SWZDT and DAYOCC options dimmable to 5% via wireless wall switch. See p. 2.
3 Specify L3D or LDE options only for 43L lumen package or lower.
4 Specify only with -DIM driver option.
5 Must order SWZ-REMOTE SpaceWise handheld remote with each system order.
6 Non-controls and SWZG2 configurations are 0-10V dimmable to 1% for Standard configurations. Base configurations are 0-10V dimmable to 5%.
7 Available only with Base configurations.

SpaceWise (SWZG2) accessories (order separately)

- **LRM1743** – External sensor to increase occupancy coverage area of SpaceWise luminaire groups
- **SWZ-REMOTE** – SpaceWise handheld remote for grouping and configuration (at least one remote required for any SpaceWise installation)
- **UID8451/10** – Wireless Dimmer Switch Selector
- **UID8461/10** – Wireless Scene Selector

Other accessories (order separately)

- **FMA24** – 2'x4' "F" mounting frame for NEMA "F" mounting
- **FSK24** – 2'x4' surface mount field installation kit (not available with emergency options)

DuaLED recessed 2x4

Up to 7300 lumens

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 offers a fresh variation on the popular dual chamber theme and provides architectural styling compatible with virtually any area.
- Soft opal diffusers with large luminous area minimize apparent brightness and provide high visual comfort perfect for a wide variety of general lighting applications like offices, schools, retail, or healthcare.
- Multiple lumen packages over a wide range to 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. Integral or 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 FMA24 "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

Electrical

- Integral sensor options for occupancy sensing and/or daylight harvesting are available for additional energy savings
- Total luminaire efficacy as high as 130 LPW (lumens per Watt) significantly reduces energy use compared to conventional 2x4 sources.
- 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 to 1% for Standard configurations, and 5% for Base configurations.
- Emergency options are available to add even more application flexibility. Emergency models require a top mounted driver enclosure or a metal can emergency driver mounted to the housing/top enclosure that increases luminaire depth.
- Five year limited luminaire warranty includes LED boards and driver. Visit **www.philips.com/warranties** for complete warranty information.
- Predicted L70 lumen maintanance up to 70,000 hours for Standard configurations and 50,000 hours for Base configurations.
- To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire efficacy, then by 1.10. Typical lumen output is 1400lm for EMLED and 980lm for EMLED7.
- cETLus listed to UL and CSA standards. Standard DuaLED suitable for damp locations.

Enclosure

- Dual chamber configuration utilizes two diffusers with large surface area for brightness control.
- Opal diffusers provide soft, comfortable lighting while maintaining high efficiency.
- Diffusers require 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.

SpaceWise (SWZG2)

- Commissioning via SWZ-REMOTE handheld remote, must order a minimum of one per installation
- Integral sensing options (DAYOCC, SWZG2, SWZDT) may not be combined
- 0-10V dimmable to 1%
- For more information on the sensor, please refer to www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZG2_sensor.pdf
- Visit www.philips.com/spacewise for more information about SpaceWise Technology (SWZG2)

DAYOCC & SpaceWise DT (SWZDT)

- Commissioning via compatible Android phone and Philips Field App
- Dimming via compatible wireless wall switch only (see below)
- Register for the commissioning app at http://registration.componentcloud.philips.com/appregistration/
- Integral sensing options (DAYOCC, SWZG2, SWZDT) may not be combined
- For more information including recommended switches, refer to the following –

  DAYOCC – www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/DAYOCC_sensor.pdf

  SWZDT – www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZDT_sensor.pdf

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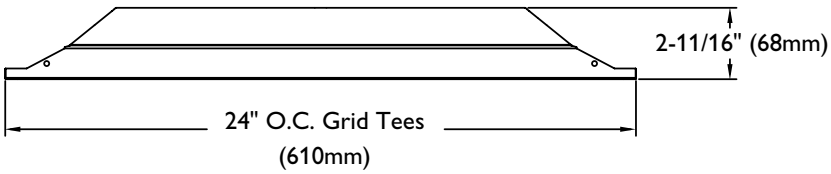
Up to 7300 lumens

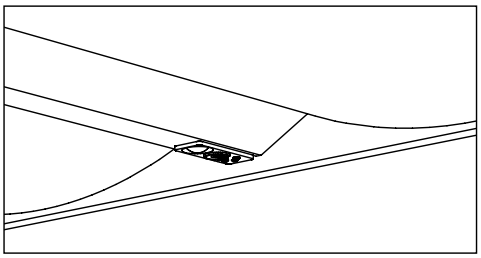
Energy Data

Luminaire	Catalog Number	Input Power	Efficacy
2x4 Standard	2DLG43L840	34	130
	2DLG49L840	37	130
	2DLG58L840	46	129
	2DLG73L840	57	127
2x4 Base	2DLG42B840	33	128

Dimensions

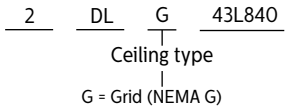


* **EMLED and EMLED7** are 1-3/4" (45mm) deeper

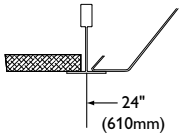


SpaceWise (SWZG2) and SpaceWise DT (SWZDT) automated wireless technology is available for integrated occupancy and daylight harvesting. Individual options for dimming, occupancy detection, and daylight harvesting (DAYOCC) are also available if SpaceWise options are not selected.

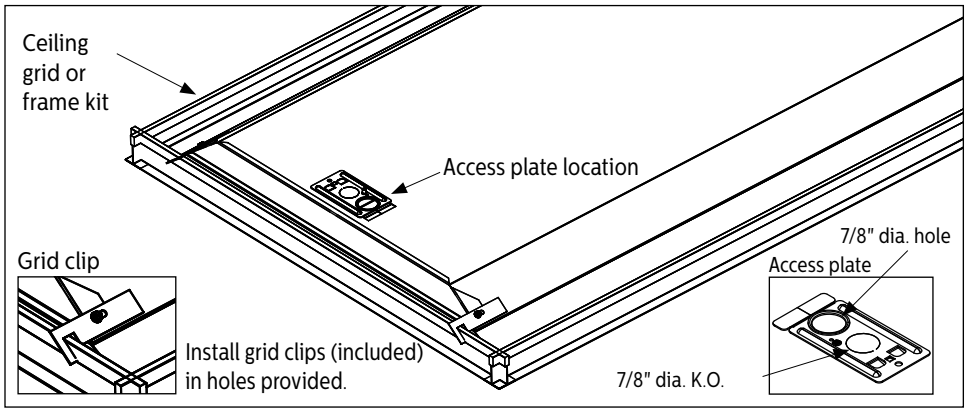
Ceiling Configuration



SIDE



(NEMA Type G)
Lay-in acoustical ceilings using exposed grid suspension, with tees for luminaires on 24" x 48" spacing.



DuaLED recessed 2x4

Up to 7300 lumens

2x4 DuaLED, 4200 nominal delivered lumens

Catalog No. 2DLG42B840-4-D-UNV
Test No. 37667
S/MH 1.3
Lamp Type LED
Lumens/Lamp 4161
Input Watts 33

Comparative yearly lighting energy cost per 1000 lumens – **$1.88** 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	1434	1434	1434	1434
5	1432	1428	1431	1428
15	1379	1379	1383	1379
25	1280	1280	1283	1280
35	1135	1140	1146	1140
45	956	967	975	967
55	748	765	771	765
65	521	540	536	540
75	275	276	272	276
85	82	75	75	75

LER – 128

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1114	26.8
0- 40	1827	43.9
0- 60	3253	78.2
0- 90	4161	100.0

Average Luminance

Angle	End	45°	Cross
45	1965	1986	2002
55	1893	1937	1953
65	1790	1855	1841
75	1543	1550	1526
85	1367	1248	1245

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	109	104	98	106	101	96	96	93
2	98	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	52
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	42	34	55	41	34	40	33
10	53	39	30	51	39	30	38	30

Room Cavity Ratio

2x4 DuaLED, 4300 nominal delivered lumens

Catalog No. 2DLG43L840-4-D
Test No. 36164
S/MH 1.3
Lamp Type LED
Lumens/Lamp 4445
Input Watts 34.1

Comparative yearly lighting energy cost per 1000 lumens – **$1.85** 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	1530	1530	1530	1530
5	1524	1524	1528	1524
15	1471	1476	1481	1476
25	1365	1372	1379	1372
35	1210	1220	1232	1220
45	1016	1032	1044	1032
55	790	811	820	811
65	548	568	566	568
75	307	310	302	310
85	91	75	71	75

LER – 130

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1193	26.8
0- 40	1956	44.0
0- 60	3472	78.1
0- 90	4445	100.0

Average Luminance

Angle	End	45°	Cross
45	2679	2721	2752
55	2569	2636	2666
65	2418	2508	2497
75	2213	2235	2176
85	1945	1609	1523

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	109	104	98	106	101	96	96	93
2	98	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	52
6	69	56	46	68	55	46	53	46
7	65	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	42	34	55	41	34	40	34
10	53	39	30	51	39	30	38	30

Room Cavity Ratio

2x4 DuaLED, 4900 nominal delivered lumens

Catalog No. 2DLG49L840-4-D
Test No. 36166
S/MH 1.3
Lamp Type LED
Lumens/Lamp 4919
Input Watts 37.7

Comparative yearly lighting energy cost per 1000 lumens – **$1.85** 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	1692	1692	1692	1692
5	1686	1687	1691	1687
15	1628	1633	1639	1633
25	1512	1517	1526	1517
35	1338	1351	1362	1351
45	1123	1141	1155	1141
55	873	896	908	896
65	604	629	626	629
75	339	343	334	343
85	101	84	79	84

LER – 130

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1320	26.8
0- 40	2165	44.0
0- 60	3842	78.1
0- 90	4919	100.0

Average Luminance

Angle	End	45°	Cross
45	2962	3010	3045
55	2838	2913	2953
65	2666	2777	2763
75	2444	2474	2403
85	2155	1804	1692

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	109	104	98	106	101	96	96	93
2	98	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	52
6	69	56	46	68	55	46	53	46
7	65	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	42	34	55	41	34	40	34
10	53	39	30	51	39	30	38	30

Room Cavity Ratio

DuaLED recessed 2x4

Up to 7300 lumens

2x4 DuaLED, 5800 nominal delivered lumens — LER – 129

Catalog No. 2DLG58L840-4-D
Test No. 36167
S/MH 1.3
Lamp Type LED
Lumens/Lamp 6007
Input Watts 46.3

Comparative yearly lighting energy cost per 1000 lumens – **$1.85** 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	2067	2067	2067	2067
5	2059	2060	2066	2060
15	1989	1994	2001	1994
25	1845	1853	1864	1853
35	1636	1648	1666	1648
45	1372	1393	1411	1393
55	1068	1096	1109	1096
65	741	769	765	769
75	416	419	407	419
85	123	102	95	102

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1612	26.8
0- 40	2644	44.0
0- 60	4692	78.1
0- 90	6007	100.0

Average Luminance

Angle	End	45°	Cross
45	3618	3675	3721
55	3471	3562	3604
65	3269	3392	3376
75	2994	3021	2934
85	2640	2187	2039

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	109	104	98	106	101	96	96	93
2	98	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	52
6	69	56	46	68	55	46	53	46
7	65	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	42	34	55	41	34	40	34
10	53	39	30	51	39	30	38	30

Room Cavity Ratio

2x4 DuaLED, 7300 nominal delivered lumens — LER – 127

Catalog No. 2DLG73L840-4-D
Test No. 36170
S/MH 1.3
Lamp Type LED
Lumens/Lamp 7307
Input Watts 57.3

Comparative yearly lighting energy cost per 1000 lumens – **$1.88** 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	2514	2514	2514	2514
5	2504	2506	2513	2506
15	2419	2427	2434	2427
25	2246	2256	2266	2256
35	1989	2006	2026	2006
45	1669	1695	1716	1695
55	1299	1331	1348	1331
65	900	933	931	933
75	505	510	496	510
85	150	124	117	124

Light Distribution

Degrees	Lumens	% Luminaire
0- 30	1961	26.8
0- 40	3216	44.0
0- 60	5707	78.1
0- 90	7308	100.0

Average Luminance

Angle	End	45°	Cross
45	4402	4470	4525
55	4222	4329	4384
65	3973	4117	4108
75	3641	3671	3570
85	3216	2655	2495

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	109	104	98	106	101	96	96	93
2	98	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	52
6	69	56	46	68	55	46	53	46
7	65	51	41	63	50	41	47	40
8	59	46	38	57	46	36	44	36
9	56	42	34	55	41	34	40	34
10	53	39	30	51	39	30	38	30

Room Cavity Ratio

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