PHILIPS

Day-Brite

CFI

Recessed

DuaLED 2x4

4300, 4900, 5800,
or 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

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

Width	Family	Ceiling Type	Lumen Package	Color	Length	Diffusers	Voltage	Driver
2	DL	G		–	4 –	D –	–	–
2 2'	**DL** DuaLED	**G** Grid	**43L** 4300 nominal delivered lumens **49L** 4900 nominal delivered lumens **58L**[1] 5800 nominal delivered lumens **73L**[1] 7300 nominal delivered lumens	**830** 80 CRI, 3000K **835** 80 CRI, 3500K **840** 80 CRI, 4000K **850** 80 CRI, 5000K Consult factory for other color temperature options and availability.	**4** 4'	**D** Diffuse (Opal)	**UNV** Universal voltage 120-277V **347** 347V	**DIM** 0-10v dimming **DALI** DALI dimming **L3D**[2] Lutron Hi-Lume A 1% Dimming **SDIM**[1] Step dimming to 40% power

Options

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)
DAYOCC[3,4,5]	Integral sensor, daylighting and occupancy, Philips EasySense SNS102
SWZG2[1,4,5,6]	SpaceWise automated wireless technology for integrated occupancy and daylight harvesting –DIM driver
CHIC	Chicago Plenum rated

Footnotes

1 58L and 73L not available with the SWZG2 and SDIM options.
2 Specify L3D option only for 43L lumen package or lower.
3 Dimming via wall switch. See page 2 for details..
4 Specify only with -DIM driver option.
5 Integral sensing options (DAYOCC, SWZG2) may not be combined.
6 Must order SWZ-REMOTE SpaceWise handheld remote with each system order.

SpaceWise 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

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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 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 is standard. 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 (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). Predicted L70 lifetime based on LED manufacturer's supplied LM-80 data and in-situ laboratory testing
- 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.

SpaceWise Technology (SWZG2)

- Optional SpaceWise automated wireless technology provides integrated occupancy sensing and daylight harvesting for additional control and energy savings.
- Requiring no system re-wiring, SpaceWise technology is appropriate for retrofit or new design and is an ideal replacement system for typical office layouts.
- Occupancy sensors are integral to each luminaire, with embedded automatic dimming behaviors appropriate to multiple office applications. Applications modes are selected using the handheld remote control, including open plan office, private office, conference room, and corridor.
- Daylight sensors are integral to each luminaire, eliminating the need for daylight zoning. Daylight sensing is automatic and re-calibration occurs daily when luminaires turn on.
- Open plan office mode offers occupant friendly granular dimming for maximum energy savings with no compromise to light levels or visual quality. Luminaires in large rooms and open plan areas are grouped together up to a maximum of 50 using a handheld remote, and max light output can be tuned. Granular dimming then provides full light output for occupied workstations, and non-occupied workstations stay at a background level to ensure visual quality. Grouped luminaires will dim to off when no presence is detected in the group.
- SpaceWise remote control must be purchased separately. Other peripherals include code compliant, wireless, batteryless switches and external sensors.
- Visit **philips.com/spacewise** for more information about SpaceWise technology.

DAYOCC

- Integrated fixture mount Philips EasySense sensor featuring daylight and PIR occupancy sensing.
- Compatibility with Philips Advance Xitanium SR Sensor Ready LED drivers.
- Features automatic or manual on/off scenarios for code compliance and to realize full energy savings potential.
- Basic grouping to a wireless switch via an IR interface with the Philips Field App.
- Self-powered single rocker switch Illumra #ZBT-S1AWH (sourced by others), up to 40 luminaires may be grouped to a single switch.
- Register for the commissioning app at http://registration.componentcloud.philips.com/appregistration/
- For more information visit www.philips.com/EasySense

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.

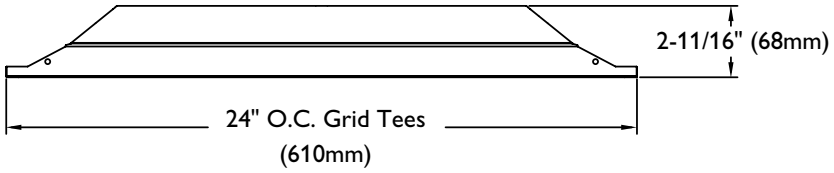
DuaLED recessed 2x4

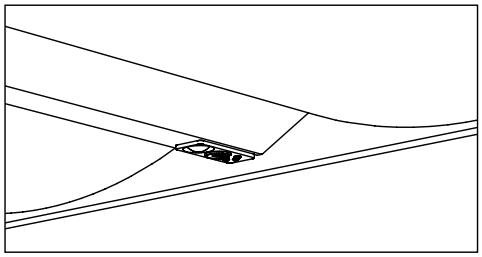
4300, 4900, 5800, or 7300 lumens

Energy Data

Luminaire	Catalog Number	Input Power	Efficacy
2x4	2DLG43L840	34.1	130
	2DLG49L840	37.7	130
	2DLG58L840	46.3	129
	2DLG73L840	57.3	127

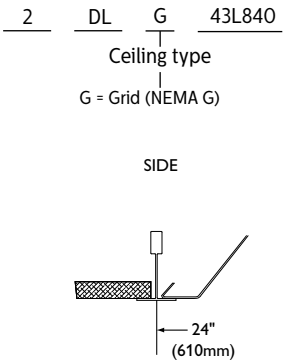
Dimensions



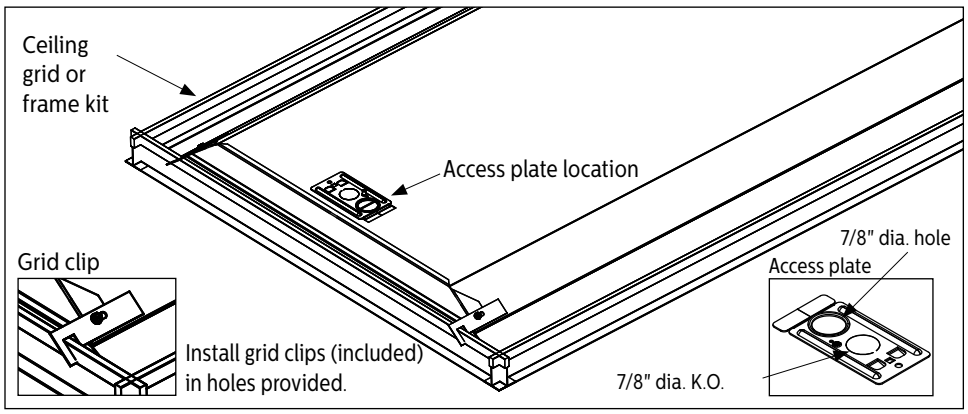


SpaceWise (SWZ) automated wireless technology is available for integrated occupancy and daylight harvesting. Individual options for dimming, occupancy detection, and daylight harvesting are also available if SpaceWise option is not selected.

Ceiling Configuration



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



DuaLED recessed 2x4

4300, 4900, 5800, or 7300 lumens

Photometry

2x4 DuaLED, 4300 nominal delivered lumens

LER – 130

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

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

LER – 130

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

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

4300, 4900, 5800, or 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%							
Room Cavity Ratio	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

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%							
Room Cavity Ratio	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

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