

PHILIPS Day-Brite CFI

Recessed

DuaLED 2x4

with SpaceWise
technology option



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 58L¹ 5800 nominal delivered lumens 73L¹ 7300 nominal delivered lumens	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 SDIM¹ Step dimming to 40% power
Footnotes:						Options		
¹ 58L and 73L not available with the SWZG2 and SDIM options. ² OCC option allows individual auto shutoff per luminaire and is not recommended for applications with multiple luminaires. ³ DAY option requires manual light level calibration. ⁴ SWZG2 option provides occupancy sensing suitable for rooms with multiple luminaires, along with daylight harvesting with auto-calibration. See page 2 for more information. ⁵ Must order SWZ-REMOTE SpaceWise handheld remote with each system order.						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/SW 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) OCC² Integral sensor, occupancy DAY³ Integral sensor, daylighting, requires -DIM driver SWZG2^{1,4,5} SpaceWise automated wireless technology for integrated occupancy and daylight harvesting -DIM driver CHIC Chicago Plenum rated Integral sensing options (OCC, DAY, SWZG2) may not be combined. Must order remote separately. See Accessories below.		

Accessories (order separately)

- **FMA24** – 2'x4' "F" mounting frame for NEMA "F" mounting
- **SWZ-REMOTE** – SpaceWise handheld remote for grouping and configuration (at least one remote required for any SpaceWise installation)
- **LRM1743** – External sensor to increase occupancy coverage area of SpaceWise luminaire groups
- **UID8451/10** – Wireless Dimmer Switch Selector
- **UID8461/10** – Wireless Scene Selector



DuaLED recessed 2x4 LED

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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 105 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 luminaire limited warranty includes components, LED boards and driver (emergency driver and batteries have a three year limited warranty in models so equipped.)
- High efficiency LEDs have a minimum 50,000 hour rated life (L70). Predicted L70 lifetime based on LED manufacturer's supplied LM-80 data and in-situ laboratory testing
- ETL listed to UL and CSA standards. Standard DuaLED suitable for damp locations. SpaceWise is not 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.

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.

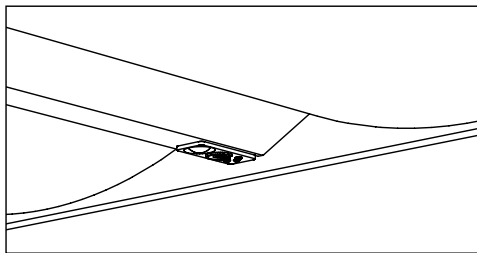
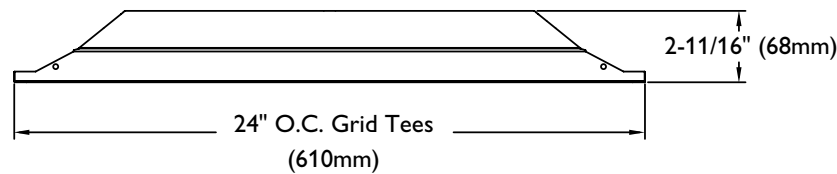
DuaLED recessed 2x4 LED

with SpaceWise technology option

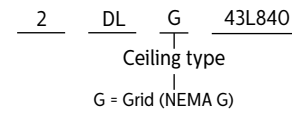
Energy Data

Standard DuaLED				DuaLED with SpaceWise Technology (SWZ option)								
Model	Initial Delivered Lumens at 25° C Ambient ¹	Input Power	Lumens Per Watt ²	High Power Setting		Medium Power Setting ¹⁰		Low Power Setting		Minimum Power Setting		
				Initial Delivered Lumens at 25° C Ambient ¹	Input Power Max Output	Approx. Initial Delivered Lumens at 25° C Ambient	Input Power Max Output	Approx. Initial Delivered Lumens at 25° C Ambient	Input Power Max Output	Approx. Initial Delivered Lumens at 25° C Ambient	Input Power Max Output	Input Power Background Output
2DLG43L840-4-D	4,292	41W	105LPW	4,292	41W	3,773	38W	3,301	277V/120V	2,829	277V/120V	14W
2DLG49L840-4-D	4,936	48W	103LPW	4,936	48W	4,338	44W	3,796	39W/39W	3,254	34W/33W	15W
2DLG58L840-4-D	5,566	57W	97LPW									
2DLG73L840-4-D	7,157	73W	98LPW									

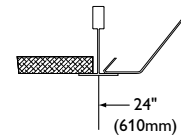
Dimensions



Ceiling Configuration



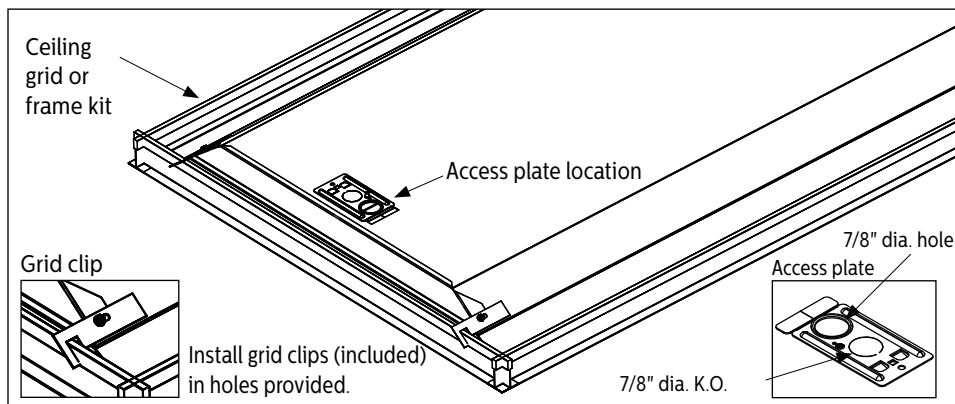
SIDE



(NEMA Type G)

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

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.



DuaLED recessed 2x4 LED

with SpaceWise technology option

Photometry

2x4 DuaLED, 4300 nominal delivered lumens

Catalog No.	2DLG43L840-4-D	Candlepower				Light Distribution			Average Luminance			
Test No.	32081	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
S/MH	1.3	0	1567	1567	1567	0-30	1217	28.4	45	2182	2213	2244
Lamp Type	41WLED	5	1560	1561	1565	0-40	1990	46.4	55	2016	2079	2120
Lumens/Lamp	4292	10	1539	1540	1543	0-60	3483	81.2	65	1748	1852	1864
Input Watts	40.9	15	1505	1506	1507	0-90	4291	100.0	75	1280	1415	1427
Comparative yearly lighting energy cost per 1000 lumens – \$2.29 based on 3000 hrs. and \$.08 pwr KWH.		20	1457	1459	1461							
The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.		25	1393	1399	1400							
Photometric values based on test performed in compliance with LM-79.		30	1321	1323	1328							
		35	1230	1236	1243							
		40	1128	1140	1150							
		45	1016	1030	1045							
		50	890	912	928							
		55	761	785	801							
		60	624	652	665							
		65	487	515	519							
		70	348	376	373							
		75	218	241	243							
		80	105	126	133							
		85	29	42	47							

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Coefficients of Utilization											
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)											
pcc	80			70			50				
pw	70	50	30	70	50	30	50	30			
RCR											
0	118	118	118	115	115	115	111	111			
1	109	105	101	106	102	98	97	94			
2	100	91	84	96	90	82	85	81			
3	91	80	71	88	79	70	76	69			
4	82	70	63	81	69	61	68	60			
5	77	64	55	73	63	54	60	53			
6	70	56	48	68	56	47	55	46			
7	66	52	42	64	51	42	50	41			
8	60	47	39	58	46	39	46	38			
9	56	44	34	56	42	34	41	34			
10	53	40	32	52	40	32	39	32			

2x4 DuaLED, 4900 nominal delivered lumens

Catalog No.	2DLG49L840-4-D	Candlepower				Light Distribution			Average Luminance			
Test No.	32080	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
S/MH	1.3	0	1803	1803	1803	0-30	1399	28.4	45	2506	2547	2582
Lamp Type	48WLED	5	1793	1796	1800	0-40	2289	46.4	55	2315	2393	2440
Lumens/Lamp	4936	10	1770	1771	1775	0-60	4006	81.2	65	2006	2130	2148
Input Watts	48.1	15	1731	1732	1734	0-90	4935	100.0	75	1466	1627	1640
Comparative yearly lighting energy cost per 1000 lumens – \$2.33 based on 3000 hrs. and \$.08 pwr KWH.		20	1675	1679	1680							
The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.		25	1603	1609	1611							
Photometric values based on test performed in compliance with LM-79.		30	1519	1522	1528							
		35	1414	1422	1430							
		40	1299	1311	1323							
		45	1167	1186	1202							
		50	1025	1050	1068							
		55	874	904	921							
		60	718	751	765							
		65	558	593	598							
		70	400	434	430							
		75	250	277	280							
		80	121	145	153							
		85	33	48	54							

LER – 103

Coefficients of Utilization											
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)											
pcc	80			70			50				
pw	70	50	30	70	50	30	50	30			
RCR											
0	118	118	118	115	115	115	111	111			
1	109	105	101	106	102	98	97	94			
2	100	91	84	96	90	82	85	81			
3	91	80	71	88	79	70	76	69			
4	82	70	63	81	69	61	68	60			
5	77	64	55	73	63	54	60	53			
6	70	56	48	68	56	47	55	46			
7	66	52	42	64	51	42	50	41			
8	60	47	39	58	46	39	46	38			
9	56	44	34	56	42	34	41	34			
10	53	40	32	52	40	32	39	32			

DuaLED recessed 2x4 LED

with SpaceWise technology option

2x4 DuaLED, 5800 nominal delivered lumens

LER – 97

Catalog No.	2DLG58L840-4-D	Candlepower				Light Distribution			Average Luminance			
Test No.	32084	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45'	Cross
S/MH	1.3	0	2032	2032	2032	0-30	1578	28.4	45	2825	2871	2909
Lamp Type	57WLED	5	2022	2025	2029	0-40	2580	46.4	55	2611	2698	2749
Lumens/Lamp	5566	10	1995	1997	2001	0-60	4516	81.2	65	2262	2402	2416
Input Watts	57.4	15	1951	1952	1954	0-90	5565	100.0	75	1651	1837	1854
		20	1888	1893	1894				85	657	950	1079
		25	1806	1814	1816							
		30	1711	1716	1723							
		35	1594	1603	1612							
		40	1464	1478	1491							
		45	1315	1337	1354							
Comparative yearly lighting energy cost per 1000 lumens – \$2.47 based on 3000 hrs. and \$.08 pwr KWH.		50	1155	1183	1204							
The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.		55	986	1019	1038							
Photometric values based on test performed in compliance with LM-79.		60	809	847	861							
		65	629	669	672							
		70	451	488	484							
		75	281	313	316							
		80	136	164	173							
		85	38	55	62							

2x4 DuaLED, 7300 nominal delivered lumens

LER – 98

Catalog No.	2DLG73L840-4-D	Candlepower				Light Distribution			Average Luminance			
Test No.	32078	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45'	Cross
S/MH	1.3	0	2613	2613	2613	0-30	2028	28.4	45	3632	3693	3749
Lamp Type	73WLED	5	2599	2603	2609	0-40	3317	46.4	55	3358	3467	3543
Lumens/Lamp	7157	10	2564	2567	2573	0-60	5806	81.2	65	2907	3088	3122
Input Watts	73.4	15	2508	2510	2514	0-90	7154	100.0	75	2129	2375	2404
		20	2427	2433	2437				85	850	1241	1410
		25	2321	2332	2336							
		30	2199	2207	2216							
		35	2048	2061	2075							
Comparative yearly lighting energy cost per 1000 lumens – \$2.47 based on 3000 hrs. and \$.08 pwr KWH.		40	1880	1901	1921							
The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.		45	1691	1719	1745							
Photometric values based on test performed in compliance with LM-79.		50	1485	1521	1552							
		55	1268	1309	1338							
		60	1040	1088	1112							
		65	809	859	869							
		70	580	630	626							
		75	363	405	410							
		80	175	213	225							
		85	49	71	81							

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