





Project: Location: Cat.No: Туре: Qty: Lamps Notes:

The Day-Brite / 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

Ordering guide - Standard configurations available with all choices, unless otherwise noted. Base configurations selections indicated by blue. Example: 1DLG41L840-4-D-UNV-DIM

styling compatible with virtually any area.

Width	Family	Ceiling Type	Lumen Package	Color	Length	Center Diffuser	Voltage		Driver	Options
1	DL	G		_	4 -	D –		-	-	
1 1'	DL DuaLED	G Grid	Standard configurations 27L 2700 nominal delivered lumens 36L 3600 nominal delivered lumens 41L 4100 nominal delivered lumens 47L 4700 nominal delivered lumens 48 ase configuration 37B 3700 nominal delivered lumens	835 80 CRI, 3500K	4 4'	D Diffuse (opal)	Vol	tage,)-277 t	DIM¹ O-10V dimming SDIM Step dimming to 40% input power LDE² Lutron LDE5, 5% dimming DALI DALI dimming	AG Antimibrobial paint F1 3/8" flex, 3 wire 18 gauge 6' F1/D 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 F1/S flex flex flex flex flex flex flex flex

Footnotes:

- 0-10V dimming to 1% for Standard configurations and 5% for Base configurations.
 Specify LDE option only for 27L and 36L lumen packages.
- 3 Available only with Base configurations.
- 4 Switching to auxiliary circuit in the event of utility power loss. Luminaire operates as normal including with integrated controls.

Accessories (order separately)

- FMA14 1'x4' "F" mounting frame for NEMA "F" mounting
- FSK14 1'x4' surface mount field installation kit (welded seams, not available with emergency options)
- FSF14 1'x4' surface mount field assembly kit (field assembled, not available with emergency options)





1DL DuaLED recessed 1x4

Up to 4700 lumens

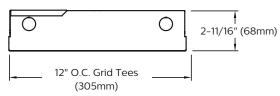
Application

- 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 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.
- Multiple 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



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

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 to 1% for Standard configurations, and 5% for Base configurations
- 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.
- 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 1300lm for EMLED and 850lm for EMLED7.
- · 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.

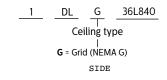
General Notes

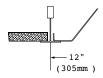
- · All options factory installed
- · All accessories are field installed.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum 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
	1DLG27L840	21	124
44 Chandand	1DLG36L840	29	123
1x4 Standard	1DLG41L840		121
	1DLG47L840	39	120
1x4 Base	1DLG37B840	33	111

Ceiling configuration





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

1DL DuaLED recessed 1x4

Up to 4700 lumens

Photometry

1x4 DuaLED, 3700 nominal delivered lumens

Catalog No.	1DLG37B840-4-D-UNV
Test No.	37670
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	3738
Input Watts	34

Comparative yearly lighting energy cost per 1000 lumens – **\$2.16** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the 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.

LER - 111

Candela distribution								
Vertical		Horizontal Angle						
Angle	0°	45°	90°	-45°				
0	1284	1284	1284	1284				
5	1266	1277	1283	1277				
15	1223	1235	1239	1235				
25	1138	1149	1157	1149				
35	1013	1025	1035	1025				
45	854	876	883	876				
55	669	694	700	694				
65	466	474	471	474				
75	244	249	245	249				
85	72	64	63	64				

Light Distribution Degrees Lumens % Luminaire 0-30 1000 26.7 0-40 1642 43.9 0-60 2930 78.4 0-90 3738 100.0

Average Luminance							
Angle	End	45°	Cross				
45	5378	5514	5559				
55	5194	5384	5434				
65	4911	4996	4960				
75	4198	4276	4207				
85	3662	3289	3223				

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	Z	onal cav	ity metho	od - Effec	tive floo	reflecta	nce = 20%	6
0	118	118	118	115	115	115	111	111
o 1	109	104	98	106	101	96	96	93
₩ 2	98	90	82	95	88	81	84	79
e 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
9 6	69	56	46	68	55	46	53	46
Room Cavity Ratio 8 4 9 5 5 5 0 7	65	51	41	63	50	41	47	40
Ž 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

1x4 DuaLED, 3600 nominal delivered lumens

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 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

ertical	Horizontal Angle						
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

LER - 123

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	7	Zonal cav	ity metho	od - Effe	tive floo	r reflecta	nce = 20%	6
Room Cavity Ratio 0 6 8 4 9 9 5 7 8 0 0 1 0	118 108 97 90 81 75 69 64 59 56	118 104 90 79 69 61 56 51 46 41	118 98 82 70 60 53 46 41 38 34	115 106 95 86 80 72 68 63 57 55	115 101 88 77 68 60 55 50 46 41 39	115 96 81 69 59 53 46 41 36 34	111 96 84 73 66 58 53 47 44 40 38	111 93 79 68 58 51 46 40 36 33

1DL DuaLED recessed 1x4

Up to 4700 lumens

1x4 DuaLED, 4100 nominal delivered lumens

 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 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.

LER - 121

Light Distribution Degrees Lumens % Luminaire 0-30 1126 26.7 0-40 1849 43.8 0-60 32.92 78.0 0-90 4222 100.0

Average Luminance Angle End 55 65 3957

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	7	onal cav	ity metho	od - Effec	tive floo	r reflecta	nce = 209	6
Room Cavity Ratio 6 8 2 9 2 7 8 2 0 0 1 7 8 8 2 0	118 108 97 90 81 75 69 64 59 56	118 104 90 79 69 61 56 51 46 41	118 98 82 70 60 53 46 41 38 34 30	115 106 95 86 80 72 68 63 57 55	115 101 88 77 68 60 55 50 46 41 39	115 96 81 69 59 53 46 41 36 34	111 96 84 73 66 58 53 47 44 40 38	111 93 79 68 58 51 46 40 36 33 30

1x4 DuaLED, 4700 nominal delivered lumens

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 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.

LER – 120

ertical	Horizontal Angle					
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		

Candela distribution

Candela distribution

Horizontal Angle

90°

·45°

45°

Vertical

Angle

0 1440

1371

1129

513

287

Light Distribution

Lumens	% Luminaire
1256	26.7
2062	43.8
3671	78.0
4708	100.0
	1256 2062 3671

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

