# **Day-Brite** by (signify

Recessed

DuaLED 2x2

## 2DLG up to 4400 lumens

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

example: 2DLG27L840-2-D-UNV-DIM

Integral sensor, daylighting and occupancy,

Integral sensor, daylighting and occupancy,

advanced grouping with dwell time and

Integral Interact Office daylighting and

occupancy sensor, enables wireless

advanced grouping with dwell time

connected lighting control

Chicago Plenum rated

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 styling compatible with virtually any area. SpaceWise Technology for selected applications is optional for additional energy savings and control.

## Ordering guide - standard & wireless controls

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

															-	
Width	Family	Ceiling Type	Lumens (nominal delivered)	Colo	or	Leng	th	Ce Di	enter iffuse	er	Voltage D		Driver		Options	
2	DL	G			-	2		D		-		-		_		
2 2'	DL DuaLED	G Grid	Standard configurations   27L 2700   30L1 3000   34L 3400 ns   38L 3800   44L 4400   Base configuration   40B 4000	830 835 840 850	80 CRI, 3000K 80 CRI, 3500K 80 CRI, 4000K 80 CRI, 5000K	2 2'		D	Dif (op	fuse bal)	UNV 347 24VDC <sup>1</sup>	Universal voltage 120-277V 347V 24V DC (EMerge Registered)	DIM <sup>2,3</sup> LDE <sup>3</sup> DALI SDIM	Dimming Lutron LDE5, 5% dimming DALI dimming Step dimming to 40% input power	AG F1 <sup>4</sup> F2 <sup>4</sup> F1/D <sup>4</sup> F2/5W <sup>4</sup> GLR <sup>4</sup> GTD/E <sup>9</sup> GTD/SNSR <sup>9,1C</sup> EMLED <sup>4</sup> EMLED <sup>4,8</sup>	Antimicrobial paint 3/8" Flex, 3 Wire 18 gauge 6' 3/8" Flex, 4 Wire 18 gauge 6' 3/8" Thex, 4 Wire 18 gauge 6' dimmable luminaires 3/8" Single Flex, 5 Wire 18 gauge 6' for dimmable luminaires Fusing, Fast Blow UL924 listed Bodine GTD factory installed on driver input UL924 listed Bodine GTD factory installed between driver and sensor Bodine BSL30 10W battery pack (requires driver enclosure on top of luminaire) Bodine BSL17 TW battery pack (requires driver enclosure on top of luminaire)
															DSC	Quick driver disconnect

## **Footnotes**

- 1 24VDC only available in 30L lumen package. Do not specify a driver option. 8 Available only with Base configurations.
- 2 Integral controls options dimmable to 5% via wireless wall switch. See p. 3. 9 Must be ordered with an integral controls option.
- 3 LDE option available only on 27L, 34L, 38L, and 44L lumen packages.
- 4 Not available in 24VDC.
- 5 Specify only with -DIM driver option.
- Must order SWZ-REMOTE SpaceWise handheld remote 6 with each system order.
- 7 Non-controls and SWZG2 configurations are 0-10V dimmable to 1% for Standard configurations. Base configurations are 0-10V dimmable to 5%.

## SpaceWise (SWZG2) accessories (order separately)

- 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)

- FMA22 2'x2' "F" mounting frame for NEMA "F" mounting
- FSK22 2'x2' surface mount field installation kit (welded seams, not available with emergency options)
- FSF22 2'x2' surface mount field assembly kit (field assembled, not available with emergency options)

- Not available with SWZG2 controls option. 10 Must be installed in conjunction with a UL1008 device.





SWZG26,7

IAO<sup>5</sup>

**SWZDT**⁵

сніс

zoning



## up to 4400 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.

**Dimensions** 

- 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.
- High efficiency source and luminaire design create significant energy savings over conventional solutions. Recommended light levels can frequently be achieved with lighting power densities of 0.5 to 0.85 Watts per square foot, complying with any known energy code.
- 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 FMA22 "F" mounting frame (sold separately.)

- Listed for use in non-insulated ceilings (Type Non-IC).
- Some DuaLED luminaires are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers, www.designlights. org/QPL.
- EMLED and 24VDC are NOT DLC qualified.

#### **Contruction/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 with no reduction of life or increase in installation labor.
- Total luminaire efficacy as high as 118 LPW (lumens per Watt) significantly reduces energy usage compared to conventional 2x2 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.

- 5 year manufacturer's limited warranty. Visit signify.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.
- The GTD/E option is used to bypass wall switches and allow luminaire operation on auxiliary power. Generator transfer requires installation in conjunction with a UL1008 listed device.
- The GTD/SNSR option is used to bypass integrated sensor control in the event of utility power loss. Generator transfer requires installation in conjunction with a UL1008 listed device.
- 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.





## Energy Data

Luminaire	Catalog Number	Input Power	Efficacy		
	2DLG27L840	22	118		
	2DLG34L840	29	117		
2x2 Standard	2DLG38L840	33	117		
	2DLG44L840	39	114		
2x2 Base	2DLG40B840	34	120		

## **Ceiling Configuration**



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

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## up to 4400 lumens

## **Wireless Controls Options**

### SpaceWise DT (SWZDT)

- Standalone daylight and occupancy sensing with advanced grouping and dwell time
- Commissioning via compatible Android phone and Philips Field App
- Dimming via compatible Zigbee wireless wall switch only (see link below for details)
- Register for the commissioning app at <a href="http://registration.componentcloud.philips.com/">http://registration.componentcloud.philips.com/</a> appregistration/
- Integral sensing options may not be combined
- For more information including recommended switches, refer to the following: -

SWZDT - www.usa.lighting.philips.com/systems/ lighting-systems/spacewise

## SpaceWise (SWZG2)

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

#### Interact Office (IAO)

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible Zigbee Green Power wall dimmer and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on wayfinding, room/desk reservation and offers open APIs
- Requires compatible Interact Office Gateway and internet connectivity for commissioning.
- For more information on Interact Office Wireless, visit: www.interact-lighting.com/office or

www.usa.lighting.philips.com/systems/systemareas/offices

## DuaLED shown with integral sensor



SWZDT sensor shown

## up to 4400 lumens

## Photometry

2x2 DuaLED,	4000 nominal delivered lumens					LE	R – 118											
Catalog No.		Candela	a distri	bution			Light Dis	Light Distribution						Average Luminance				
Test No.	37668	Vertical Angle	0°	Horizon 45°	tal Angle 90°	-45°	Degrees 0- 30 0- 40	Lumens 1092 1784	<b>% Luminaire</b> 27.2 44.5			Angle 45 55	<b>End</b> 4692 4493	<b>45°</b> 4777 4634	Cross 4872 4732			
Lamp Type Lumens/Lamp	LED 4010	5 15 25	1413 1407 1352 1249	1413 1405 1352 1250	1413 1407 1357 1258	1415 1405 1352 1250	0-60 0-90	3154 4009	78.7 100.0			65 75 85	4216 3606 3079	4400 3673 2967	4461 3704 3067			
Input Watts	34	35 45 55	1095 914 710	1104 930 732	1119 949 747	1104 930 732	Coefficients of Utilization EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)											
Comparative yea – <b>\$2.03</b> based or	rly lighting energy cost per 1000 lumens n 3000 hrs. and \$.08 pwr KWH.	65 75 85	491 257 74	512 262 71	519 264 74	512 262 71	Ceiling (p Wall (pw) RCR	cc) 70	80% 50 Zonal cav	30 ity metho	70 od - Effe	70% 50 ctive floo	30 or reflect	50 50 ance = 20	0% 30 %			
The photometric laboratory which Institute of Stanc Photometric valu compliance with						Room Cavity Ratio	0 118 1 109 2 98 3 90 4 81 5 76 6 69 7 65 8 59 9 56 10 53	118 104 90 79 63 56 51 46 42 39	118 98 82 70 60 54 46 41 38 34 32	115 106 95 86 80 73 68 63 58 55 51	115 102 88 78 68 61 55 50 46 41 39	115 97 81 69 60 53 46 41 38 34 30	111 96 84 75 66 58 54 48 45 40 38	111 93 80 68 58 52 46 40 36 34 30				

## 2x2 DuaLED, 3400 nominal delivered lumens

LER - 117

Catalog No		Candela	a distrik	oution			Light Distribution					Average Luminance					
Catalog No.	ZDE054E040 Z D ONV DIM	Vertical		Horizon	tal Angle		Degrees	Lumens	% Lumina	aire		Angle	End	45°	Cross		
Test No.	35427	Angle	0°	45°	90°	-45°	0-30	925	26.8			45	4024	4101	4177		
S/MH	1.3	0	1186	1186	1186	1186	0-40	1516	43.9			55	3856	3977	4058		
Lamp Type	LED	5	1182	1181	1182	1181	0-90	3451 100.					3620	3344	3337		
Lumens/Lamp	3450	15	1145	1143	1147	1143						85	2842	2621	2725		
	20.2	25	1058	1062	1069	1062											
Input watts	29.3	35	935	945	958	945	Cooffici	onto of	Litilizati								
		45	784	799	813	799											
		55	609	628	641	628	EFFECTIV	FLOOR (	CAVITY REF	LECTAN	CE 20 PI	ER (pfc=0	0.20)				
		65	421	439	442	439	Ceiling (p	c)	80%			70%		5	0%		
Comparative yea	rly lighting energy cost per 1000 lumens	75	236	238	238	238	Wall (pw)	70	50	30	70	50	30	50	30		
- \$2.03 based of	3000 hrs. and \$.08 pwr KWH.	85	68	63	65	63	RCR	70	ity metho	od - Effe	- Effective floor reflectance = 20%						
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.							Room Cavity Ratio	0 118 1 108 2 97 3 90 4 81 5 75 6 69 7 64 8 59 9 56 10 53	118 104 90 79 69 61 56 51 46 42 39	118 98 82 70 60 53 46 41 38 34 30	115 106 95 86 80 72 68 63 57 55 51	115 101 88 77 68 60 55 50 46 41 39	115 96 81 69 59 53 46 41 36 34 30	111 96 84 73 66 58 53 47 44 40 38	111 93 79 68 58 52 46 40 36 33 30		

## up to 4400 lumens

2x2 DuaLED,	LE	R – 117																	
Catalog No.	2DLG38L840-2-D-UNV-DIM	Candela	a distri	bution			Light Distribution					Average Luminance							
Test No.	35428	Angle	0°	Horizon 45°	al Angle 90°	-45°	0- 30	1032	26.8			Angle 45	<b>End</b> 4492	45 4574	4659				
S/MH	1.3	0	1323	1323	1323	1323	0-40	1692 43.9 3003 78.0				55	4302	4431	4532				
Lamp Type	LED	5	1319	1317	1319	1317	0-90	3850 100				75	3699	3734	4250 3742				
Lumens/Lamp	3849	15 25	1277 1181	1276	1279 1192	1276 1185						85	3171	2958	3054				
Input Watts	32.9	35	1044	1054	1068	1054	Coefficien	ts of	Utilizatio	on									
		45 55	<b>55</b> 680 700 716 700 EFFECTIVE FLOOR CAVITY REFLECTANCE 2										20 PER (pfc=0.20)						
Comparative yea	rly lighting energy cost per 1000 lumens	65	<b>65</b> 470 490	490	495	490	Ceiling (pcc) 80%				70%			0%					
- \$2.05 based of	1 3000 nrs. and \$.08 pwr KWH.	75 85	264 76	266 71	26/	266 71	Wall (pw)	70	50	30	70	50	30	50	30				
The photometric	results were obtained in the Day-Brite		, 0		15		RCR		Zonal cavi	ity metho	d - Effe	ctive floo	or reflecta	ance = 20	%				
laboratory which Institute of Stanc Photometric valu compliance with						Room Cavity Ratio 6 8 2 9 5 5 1 0	118 108 97 90 81 75 69 64 59 56 53	118 104 90 79 69 61 56 51 46 42 39	118 98 82 70 60 53 46 41 38 34 30	115 106 95 86 80 72 68 63 57 55 51	115 101 88 77 68 60 55 50 46 41 39	115 96 81 59 53 46 41 36 34 30	111 96 84 73 66 58 53 47 44 40 38	111 93 79 68 58 52 46 40 36 33 30					

#### 2x2 DuaLED, 4400 nominal delivered lumens

LER - 114

с., N		Candela	a distri	bution			Light Dis		Average Luminance							
Catalog No.	2DLG44L840-2-D-UNV-DIM	Vertical	al Horizontal Angle				Degrees	Lumens	% Lumina	aire		Angle	End	45°	Cross	
Test No.	35429	Angle	0°	45°	90°	-45°	0-30	1252	26.8			45	5436	5546	5651	
S/MH	1.3	0	1603	1603	1603	1603	0-40	2052	44.0			55	5212	5377	5500	
Lamp Type	LED	5	1598	1598	1600	1598	0-90	4668	100.0			75	4901	4553	4535	
Lumens/Lamp	4670	15	1548	1548	1553	1548						85	3880	3618	3730	
Input Watts	40.9	25 35 45	1264 1059	1278 1081	1296 1101	1278 1081	Coefficients of Utilization									
		55	824	850	870	850	EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
Comparative year	arly lighting energy cost per 1000	65	571	596	601	596	Ceiling (p	cc)	80%		70%		5	0%		
lumens – <b>\$2.07</b>	based on 3000 hrs. and \$.08 pwr KWH.	75 85	319 93	325	324 90	325 87	Wall (pw)	70	50	30	70	50	30	50	30	
The photometric	results were obtained in the Day-Brite	05	55	07	50	07	RCR		Zonal cavity method - Effective floor reflectance = 20%						1%	
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.							Room Cavity Ratio	$\begin{array}{cccc} 0 & 119 \\ 1 & 100 \\ 2 & 98 \\ 3 & 90 \\ 4 & 82 \\ 5 & 75 \\ 6 & 70 \\ 7 & 64 \\ 8 & 60 \\ 9 & 56 \\ 10 & 53 \end{array}$	119   104   90   79   70   62   56   51   46   43   39	119 99 83 71 61 53 47 42 38 34 34 31	116 106 96 87 80 73 68 63 58 55 51	116 101 88 77 69 61 55 50 46 42 39	116 97 82 70 60 53 47 42 37 34 31	111 97 85 74 66 59 53 48 44 41 38	111 94 79 68 59 52 46 41 37 33 33 31	

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

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