



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.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Ordering guide – standard & wireless controls

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

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

Width	Family	Ceiling Type	Lumens (nominal delivered)	Color	Length	Center Diffuser	Voltage	Driver	Options
2	DL	G		–	2	D	–	–	
2 2'	DL DuaLED	G Grid	Base configuration 40B 4000 Standard configurations 27L 2700 30L 3000 34L 3400 38L 3800 44L 4400 Other lumen packages may be ordered in increments of 100lm from 2700 to 4400 lumens	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K	2 2'	D Diffuse (opal)	UNV Universal voltage 120-277V 347 347V	DIM¹ Dimming LDE² Lutron LDES, 5% dimming DALI DALI dimming SDIM Step dimming to 40% input power	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 Bodine BSL17 7W battery pack (requires driver enclosure on top of luminaire) DSC Quick driver disconnect CHIC Chicago Plenum rated ER100^{3,4,6,7} UL924 listed sensor bypass relay, factory installed between driver & sensor GTD/E³ UL924 listed Bodine GTD factory installed on driver input GTD/SNSR^{3,4,6,7} UL924 listed Bodine GTD factory installed between driver and sensor SWZCS^{4,5} Interact Pro scalable sensor with integral daylight & occupancy sensing, advanced grouping with dwell time SWZDT⁴ SpaceWise only sensor, daylighting and occupancy, advanced grouping with dwell time RADIO⁴ Interact Pro RF sensor, enables wireless connected lighting control IAOSB^{4,5} Interact Office advanced wireless sensor bundle, integral SC1500 w/loT capabilities for enterprise scale projects AG Antimicrobial paint

Footnotes

- 1 Integral controls options dimmable to 5% via wireless wall switch. Non-controls options are 0-10v dimmable to 1% for Standard configurations, and 10% for Base configurations.
- 2 LDE option available only on 27L, 34L, 38L, and 44L lumen packages.
- 3 Not available in 347V.
- 4 Specify only with -DIM driver option.
- 5 Must order IRT9015 Interact commissioning remote with each system order.
- 6 Must be ordered with an integral controls option.
- 7 Must be installed in conjunction with a UL1008 device.

SpaceWise (SWZCS) accessories (order separately)

- **IRT9015** – handheld remote for grouping and configuration (at least one remote required for any SWZCS installation)

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)

2DLG DualLED recessed 2x2

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.
- 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 DualLED luminaires are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers, www.designlights.org/QPL.
- EMLED is NOT DLC qualified.

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 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 maintenance 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 DualLED suitable for damp locations.

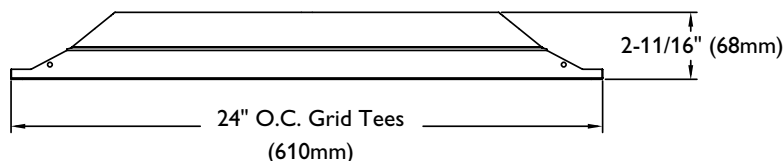
Enclosure

- 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.

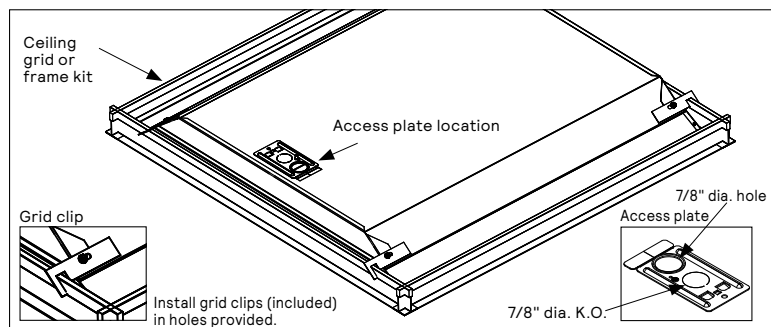
General Notes

- 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.

Dimensions



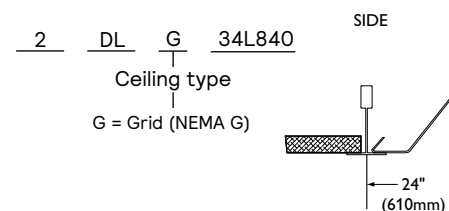
* EMLED and EMLED7 are 1-3/4" (45mm) deeper



Energy Data

Luminaire	Catalog Number	Input Power	Efficacy
2x2 Standard	2DLG27L840	22	126
	2DLG34L840	27	129
	2DLG38L840	31	126
	2DLG44L840	36	124
2x2 Base	2DLG40B840	34	126

Ceiling Configuration



(NEMA Type G)
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, wireless mesh networking 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 <http://registration.componentcloud.philips.com/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

Emergency Options (ER100)

- Power Sensing (Factory default) - Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output
- Power Interruption Detection (Field option) - Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output

DualLED shown with integral sensor



SWZDT sensor shown

Interact Pro scalable sensor for Foundation, Advanced & Enterprise tiers (SWZCS and an evolution of SpaceWise)

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- Interact Pro includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote onsite to identify and group devices together.
 - Compatible with:
 - SWS200 wireless scene switch
 - Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
 - Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
 - LCN3110: Battery powered IP65 presence sensor, OCC sensor IA CM IP65WH
 - LCN3120: Battery powered IP65 presence & daylight sensor, OCC-DL sensor IA CM IP65 WH
- For more information on Interact Pro visit: www.interact-lighting.com/interactproscalablesystem

Radio only sensor (RADIO)

- Integral RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.

Interact Pro scalable sensor bundles for Enterprise tier

- IAOSB option in addition to occupancy and daylight sensing supports advanced IoT capabilities such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Compatible with SWS200 wireless scene switch and Interact Ready wireless battery powered sensors.
- Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices

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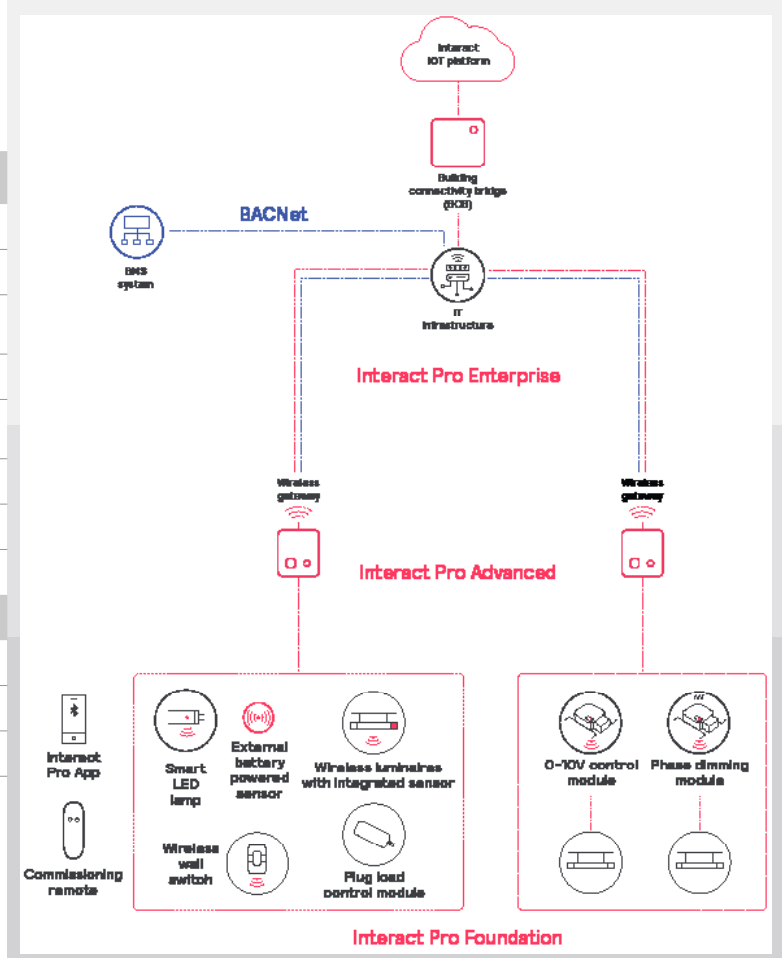
up to 4400 lumens

Interact Pro scalable system			
	Foundation	Advanced	Enterprise
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0-10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
• luminaires with integrated sensors	150
• smart TLEDs	150
Total number of ZGP devices (sensors and switches)	50
• sensors	30
• switches	50
• zones and groups	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16



2DLG DualLED recessed 2x2

up to 4400 lumens

Photometry

2x2 DualLED, 4000 nominal delivered lumens

LER – 118

Catalog No.	2DLG40B840-2-D-UNV	Candela distribution					Light Distribution			Average Luminance							
Test No.	37668	Vertical Angle	Horizontal Angle				Degrees	Lumens	% Luminaire	Angle	End	45°	Cross				
S/MH	1.2		0°	45°	90°	-45°	0- 30	1092	27.2	45	4692	4777	4872				
Lamp Type	LED	0	1413	1413	1413	1413	0- 40	1784	44.5	55	4493	4634	4732				
Lumens/Lamp	4010	5	1407	1405	1407	1405	0- 60	3154	78.7	65	4216	4400	4461				
Input Watts	34	15	1352	1352	1357	1352	0- 90	4009	100.0	75	3606	3673	3704				
		25	1249	1250	1258	1250								85	3079	2967	3067
		35	1095	1104	1119	1104											
		45	914	930	949	930											
		55	710	732	747	732											
		65	491	512	519	512											
		75	257	262	264	262											
		85	74	71	74	71											
Comparative yearly lighting energy cost per 1000 lumens – \$2.03 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.																	

2x2 DualLED, 3400 nominal delivered lumens

LER – 117

Catalog No.	2DLG34L840-2-D-UNV-DIM	Candela distribution					Light Distribution			Average Luminance			
Test No.	35427	Vertical Angle	Horizontal Angle				Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
S/MH	1.3	0°	0°	45°	90°	-45°	0-30	925	26.8	45	4024	4101	4177
Lamp Type	LED	5	1186	1186	1186	1186	0-40	1516	43.9	55	3856	3977	4058
Lumens/Lamp	3450	15	1145	1143	1147	1143	0-60	2692	78.0	65	3620	3774	3802
Input Watts	29.3	25	1058	1062	1069	1062	0-90	3451	100.0	75	3309	3344	3337
		35	935	945	958	945				85	2842	2621	2725
		45	784	799	813	799							
		55	609	628	641	628							
		65	421	439	442	439							
		75	236	238	238	238							
		85	68	63	65	63							
Comparative yearly lighting energy cost per 1000 lumens – \$2.03 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.													

2DLG DuaLED recessed 2x2

up to 4400 lumens

2x2 DuaLED, 3800 nominal delivered lumens

LER – 117

Catalog No. 2DLG38L840-2-D-UNV-DIM Test No. 35428 S/MH 1.3 Lamp Type LED Lumens/Lamp 3849 Input Watts 32.9	Candela distribution				Light Distribution			Average Luminance			
	Vertical Angle	Horizontal Angle			Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0°	45°	90°	-45°	0-30	1032	26.8	45	4492	4574	4659
	5	1319	1317	1319	0-40	1692	43.9	55	4302	4431	4532
	15	1277	1276	1279	0-60	3003	78.0	65	4040	4206	4250
	25	1181	1185	1192	0-90	3850	100	75	3699	3734	3742
	35	1044	1054	1068				85	3171	2958	3054
	45	875	891	907							
	55	680	700	716							
	65	470	490	495							
	75	264	266	267							
	85	76	71	73							

Comparative yearly lighting energy cost per 1000 lumens – **\$2.05** 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.

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	30
RCR	Zonal cavity method - Effective floor reflectance = 20%								
0	118	118	118	115	115	115	111	111	111
1	108	104	98	106	101	96	96	96	93
2	97	90	82	95	88	81	84	79	79
3	90	79	70	86	77	69	73	68	68
4	81	69	60	80	68	59	66	58	58
5	75	61	53	72	60	53	58	52	52
6	69	56	46	68	55	46	53	46	46
7	64	51	41	63	50	41	47	40	40
8	59	46	38	57	46	36	44	36	36
9	56	42	34	55	41	34	40	33	33
10	53	39	30	51	39	30	38	30	30

2x2 DuaLED, 4400 nominal delivered lumens

LER – 114

Catalog No. 2DLG44L840-2-D-UNV-DIM Test No. 35429 S/MH 1.3 Lamp Type LED Lumens/Lamp 4670 Input Watts 40.9	Candela distribution				Light Distribution			Average Luminance			
	Vertical Angle	Horizontal Angle			Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0°	45°	90°	-45°	0-30	1252	26.8	45	5436	5546	5651
	5	1598	1598	1600	0-40	2052	44.0	55	5212	5377	5500
	15	1548	1548	1553	0-60	3641	78.0	65	4901	5113	5161
	25	1430	1438	1447	0-90	4668	100.0	75	4475	4553	4535
	35	1264	1278	1296				85	3880	3618	3730
	45	1059	1081	1101							
	55	824	850	870							
	65	571	596	601							
	75	319	325	324							
	85	93	87	90							

Comparative yearly lighting energy cost per 1000 lumens – **\$2.07** 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.

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	30
RCR	Zonal cavity method - Effective floor reflectance = 20%								
0	119	119	119	116	116	116	111	111	111
1	108	104	99	106	101	97	97	94	94
2	98	90	83	96	88	82	85	79	79
3	90	79	71	87	77	70	74	68	68
4	82	70	61	80	69	60	66	59	59
5	75	62	53	73	61	53	59	52	52
6	70	56	47	68	55	47	53	46	46
7	64	51	42	63	50	42	48	41	41
8	60	46	38	58	46	37	44	37	37
9	56	43	34	55	42	34	41	33	33
10	53	39	31	51	39	31	38	31	31



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