

Day-Brite

CFI

by @signify

Recessed

DuaLED 2x4

2DLG up to 7300 lumens



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: 2DLG49L840-4-D-UNV-DIM

Width	Family	Ceiling Type	Lumens (nominal delivered)	Color	Length	Center Diffuser	Voltage	Driver	Options
2	DL	G		–	4	D	–	–	
2 2'	DL DuaLED	G Grid	Base configuration 42B 4200 Standard configurations 43L 4300 49L 4900 58L 5800 73L 7300 Other lumen packages may be ordered in increments of 100lm from 4200 to 7300 lumens	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K	4 4'	D Diffuse (opal)	UNV Universal voltage 120-277V 347V	DIM² Dimming Lutron LDE5, 5% dimming LDE³ DALI dimming DALI Step dimming to 40% input power SDIM¹	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) EMLED7⁶ Bodine BSL17 7W battery pack (requires driver enclosure on top of luminaire) DSC Quick driver disconnect CHIC Chicago Plenum rated ER100^{4,7,8} UL924 listed sensor bypass relay, factory installed between driver & sensor Generator transfer device GTD/E⁷ UL924 listed Bodine GTD factory installed between driver and sensor GTD/SNSR^{4,7,8} Interact Pro scalable sensor with integral daylight & occupancy sensing, advanced grouping with dwell time SWZCS^{4,5} SpaceWise only sensor, daylighting and occupancy, advanced grouping with dwell time SWZDT⁴ Interact Pro RF sensor, enables wireless connected lighting control RADIO⁴ Interact Office advanced wireless sensor bundle, integral SC1500 w/loT capabilities for enterprise scale projects IAOSB^{4,5} Antimicrobial paint AG

Footnotes

- 58L and 73L not available with the SDIM option.
- 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.
- Available only with 43L lumen package or lower.
- Specify only with -DIM driver option.
- Must order IRT9015 Interact commissioning remote with each system order.
- Available only with Base configurations.
- Must be installed in conjunction with a UL1008 device.
- Must be ordered with an integral controls option.

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)

- FMA24 – 2'x4' "F" mounting frame for NEMA "F" mounting
- FSK24 – 2'x4' surface mount field installation kit (welded seams, not available with emergency options)
- FSF24 – 2'x4' surface mount field assembly kit (field assembled, not available with emergency options)



2DLG DualLED recessed 2x4

up to 7300 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 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).
- DualLED 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 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 1400lm for EMLD and 980lm for EMLD7.
- cETLus listed to UL and CSA standards. Standard DualLED suitable for damp locations.

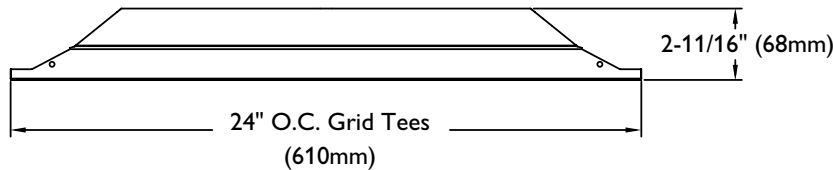
Enclosure

- 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.

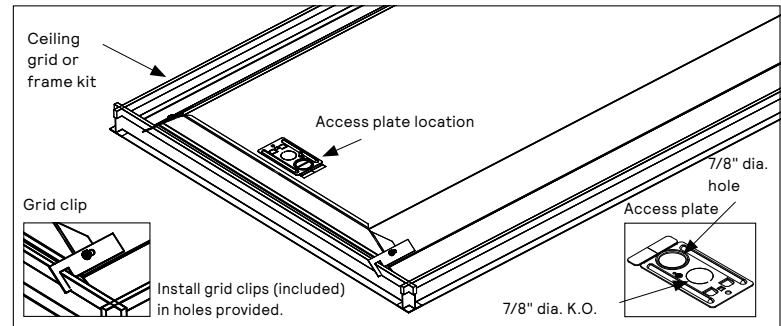
General Notes

- 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



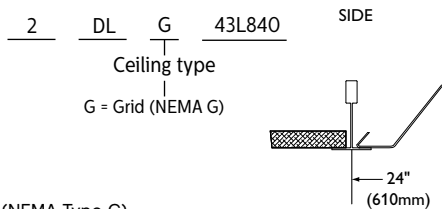
* EMLD and EMLD7 are 1-3/4" (45mm) deeper



Energy Data

Luminaire	Catalog Number	Input Power	Efficacy
2x4 Standard	2DLG43L840	32	136
	2DLG49L840	37	136
	2DLG58L840	44	134
	2DLG73L840	55	133
2x4 Base	2DLG42B840	33	136

Ceiling Configuration



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

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up to 7300 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

2DLG DualLED recessed 2x4

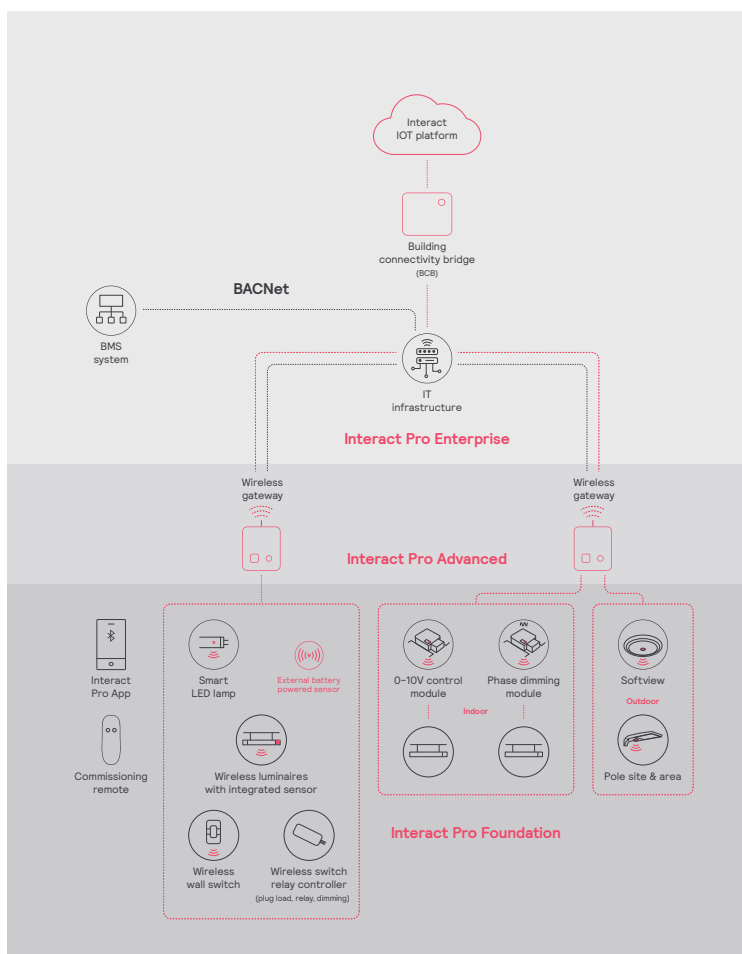
up to 7300 lumens

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



up to 7300 lumens

2x4 DuaLED, 4200 nominal delivered lumens

Catalog No.	2DLG42B840-4-D-UNV
Test No.	37667
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	4161
Input Watts	33

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 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	1434	1434	1434	1434
5	1432	1428	1431	1428
15	1379	1379	1383	1379
25	1280	1280	1283	1280
35	1135	1140	1146	1140
45	956	967	975	967
55	748	765	771	765
65	521	540	536	540
75	275	276	272	276
85	82	75	75	75

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0- 30	1114	26.8	45	1965	1986	2002
0- 40	1827	43.9	55	1893	1937	1953
0- 60	3253	78.2	65	1790	1855	1841
0- 90	4161	100.0	75	1543	1550	1526
			85	1367	1248	1245

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			
RCR	Zonal cavity method - Effective floor reflectance = 20%								
Room Cavity Ratio	0	118	118	118	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	64	51	41	63	50	41	47	40
	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	

2x4 DuaLED, 4300 nominal delivered lumens

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 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	0°	45°	Horizontal Angle	
			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			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	1193	26.8	45	2679	2721	2752
0-40	1956	44.0	55	2569	2636	2666
0-60	3472	78.1	65	2418	2508	2497
0-90	4445	100.0	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%							
Room Cavity Ratio	0	118	118	118	115	115	115	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, 4900 nominal delivered lumens

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 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	0°	45°	Horizontal Angle 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			Average Luminance			
Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
0-30	1320	26.8	45	2962	3010	3045
0-40	2165	44.0	55	2838	2913	2953
0-60	3842	78.1	65	2666	2777	2763
0-90	4919	100.0	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%							
Room Cavity Ratio	0	118	118	118	115	115	115	111
	1	109	104	98	106	101	96	96
	2	98	90	82	95	88	81	84
	3	90	79	70	86	77	69	73
	4	81	69	60	80	68	59	66
	5	75	61	53	72	60	53	58
	6	69	56	46	68	55	46	53
	7	65	51	41	63	50	41	47
	8	59	46	38	57	46	36	44
	9	56	42	34	55	41	34	40
10	53	39	30	51	39	30	38	

2DLG DuaLED recessed 2x4

up to 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	Candela distribution					Light Distribution			Average Luminance			
	Vertical Angle	0°	45°	90°	-45°	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0	2067	2067	2067	2067	0-30	1612	26.8	45	3618	3675	3721
	5	2059	2060	2066	2060	0-40	2644	44.0	55	3471	3562	3604
	15	1989	1994	2001	1994	0-60	4692	78.1	65	3269	3392	3376
	25	1845	1853	1864	1853	0-90	6007	100.0	75	2994	3021	2934
	35	1636	1648	1666	1648				85	2640	2187	2039
	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							

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 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.

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	Candela distribution					Light Distribution			Average Luminance			
	Vertical Angle	0°	45°	90°	-45°	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0	2514	2514	2514	2514	0-30	1961	26.8	45	4402	4470	4525
	5	2504	2506	2513	2506	0-40	3216	44.0	55	4222	4329	4384
	15	2419	2427	2434	2427	0-60	5707	78.1	65	3973	4117	4108
	25	2246	2256	2266	2256	0-90	7308	100.0	75	3641	3671	3570
	35	1989	2006	2026	2006				85	3216	2655	2495
	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							

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 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.



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