

PHILIPS Day-Brite CFI

Recessed

FluxGrid 2x2

3000, 3800, or 4500 lumens



Project: _____

Location: _____

Cat.No: _____

Type: _____

Lumens: _____ Qty: _____

Notes: _____

The Philips Day-Brite / Philips CFI FluxGrid LED recessed offers architectural appeal with “must have” features. Two different lens styles, discrete air handling, integral emergency, and access to the boards and driver from below make FluxGrid an ideal solution for a wide range of applications.

Ordering guide – Standard configurations available with all choices, unless otherwise noted.

Base configurations selections indicated by blue.

Example: 2FGG38B840-2-D-UNV-DIM

Width	Family	Ceiling Type	Air Function	Lumens	Color	Length	Center Diffuser	Voltage	Driver	Options
2	FG	G				2				
2 2'	FG FluxGrid	G Grid	Blank Static H Air return	Standard Configurations 30L 3000 nominal delivered lumens 38L 3800 nominal delivered lumens 45L 4500 nominal delivered lumens Base Configurations 38B 3800 nominal delivered lumens	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K	2 2'	D Diffuse (ribbed) DS Diffuse (smooth)	UNV Universal voltage 120-277V 120¹ 120V 277¹ 277V 347 347V	DIM^{2,3} Dimming Step dimming to 40% input power SDIM MarkX phase dimming XDIM¹ Lutron Hi-lume A 1% dimming L3D⁴ Lutron LDE5 5% dimming LDE DALI	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 F2/6W 3/8" single flex, 6 wire 18 gauge 6' for dimmable and EMLED luminaires GLR Fusing, fast blow EMLED⁵ Integral emergency battery pack SWZDT⁶ Integral sensor, daylighting and occupancy, advanced grouping with dwell time DAYOCC⁶ Integral sensor, daylighting and occupancy, basic grouping CHIC Chicago Plenum rated

Footnotes:

- XDIM requires 120V or 277V specification.
- Integral SWZDT and DAYOCC options dimmable to 5% via wireless wall switch. See p. 2.
- Non-controls configurations are 0-10V dimmable to 1% for standard configurations. Base configurations are 0-10V dimmable to 10%.
- Specify 38L or 45L lumen packages only.
- Philips Bodine BSL310, 1100lm nominal delivered.
- Specify DIM driver option only.

Accessories (order separately)

- FMA22** – 2'x2' "F" mounting frame for NEMA "F" mounting
- FGD2L** – FG 2' ribbed replacement lens
- FGDS2L** – FG 2' smooth replacement lens
- FGHD2L** – FG 2' air return ribbed replacement lens
- FGHDS2L** – FG 2' air return smooth replacement lens
- FSK22** – 2'x2' surface mount field installation kit (factory welded seams)
- FSF22** – 2'x2' surface mount field assembly kit (field assembled)

Energy data

Luminaire	Catalog Number	Input Power	Efficacy
2x2 Standard	2FGG30L840	27.1	112
	2FGG38L840	33.4	110
	2FGG45L840	44.6	106
2x2 Base	2FGG38B840	33.6	114



2FG FluxGrid LED recessed 2x2

3000, 3800, or 4500 lumens

Application

- 3" deep low profile configuration provides minimal penetration into the plenum space
- Acrylic diffuser available in ribbed and smooth configurations provides even illumination with comfortable appeal
- Standard and base configurations available in multiple lumen packages to suit the needs of various applications
- Lambertian distribution creates uniform horizontal and vertical illuminance on the work plane and reduces scalloping on the walls
- CRI 80 minimum color rendering with balanced spectrum
- LEDs coupled with standard dimming provide prolonged lumen maintenance. Optional integral sensors contribute further to LED lumen maintenance
- Designed for use with standard 15/16" wide Grid (NEMA "G") T-bars. Drywall or plaster applications require use with the FMA24 "F" mounting frame accessory (sold and shipped separately)
- Continuous row mounting is possible with a 1" gap between fixtures accommodated by others
- Metal side covers are die formed with a conical shape to enhance light distribution and visual aesthetic
- Injection molded lens retainers allow for easy, tool-free access to the LED boards and driver from below, and provide positive lens retention
- Luminaire finish is matte white polyester powder coat for high quality, durable finish
- T-bar grid clips are integral to the body
- Air return option provides air flow through a unique lens retainer design. Air passes through architectural forms in the lens retainers (each end), and through the end plate of the luminaire. A cover plate is provided to control air flow through the luminaire, or make it static as required
- Integral controls options include sensor mounted in one lens retainer. Controls are commissioned via intuitive Philips app on a Droid smartphone either through NFC or an IR blaster
- EMLED option requires the emergency battery pack be installed with a top side cover. Access from above
- To estimate lumen output in emergency mode, multiply emergency pack wattage by efficacy, then by 1.10
- Base configurations provide up to 124 lumens per watt and are available in 4200 lumen flux and 3500K and 4000K color temperatures
- LED boards are accessible from below by removal of the lens. Lens removal is tool-free by compressing the sides and pushing to one end
- LED driver is accessible from below by removal of the lens and integral wireway cover. The wireway cover is easily removed with a flat head screwdriver
- Other driver options including step dimming (SDIM, 100%/40%), DALI, phase dimming (XDIM), and Lutron are available
- Five year limited luminaire warranty includes LED boards and driver. Visit www.philips.com/warranties for complete warranty information.
- TM-21 predicted L70 lumen maintenance up to 85,000 hours
- cETLus listed to UL and CSA standards, suitable for damp locations
- FluxGrid luminaires are DesignLights Consortium qualified. Please see the DLC QPL list for exact catalog numbers (<http://www.designlights.org/QPL>)

Enclosure

- Opal acrylic diffuser provides visually comfortable lumenance without compromise to luminaire efficacy.
- Diffuser requires no frames or fasteners and can be easily removed from below without the use of tools

Construction/Finish

- Uncomplicated design is 3" deep with minimal material overlap creating several benefits:
 - Less material required
 - Less packaging required
 - Reduced weight for ease of handling and transit
 - Less energy required for construction and assembly
- More luminaires can be shipped per truck to reduce fuel consumption

General notes

- All options are 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

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
- Standard configurations provide up to 120 lumens per watt and are available with 5 lumen packages and 3000, 3500, 4000, and 5000K color temperatures

DAYOCC & SpaceWise DT (SWZDT)

- Commissioning via compatible Android phone and Philips Field App
- Dimming via compatible wireless wall switch only (see below)
- Register for the commissioning app at <http://registration.componentcloud.philips.com/appregistration/>
- Integral sensing options (DAYOCC, SWZG2, SWZDT) may not be combined
- For more information including recommended switches, refer to the following –

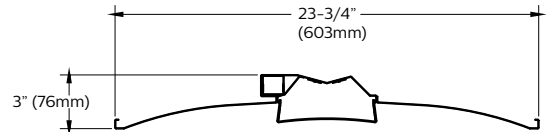
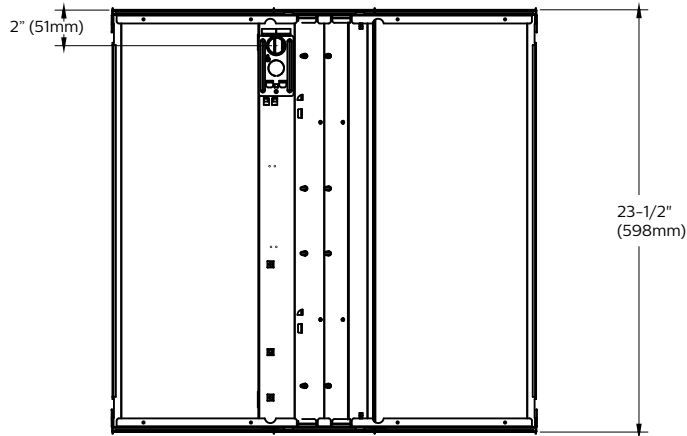
DAYOCC – www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/DAYOCC_sensor.pdf

SWZDT – www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZDT_sensor.pdf

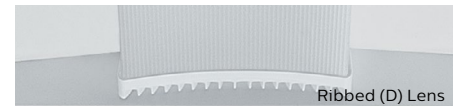
2FG FluxGrid LED recessed 2x2

3000, 3800, or 4500 lumens

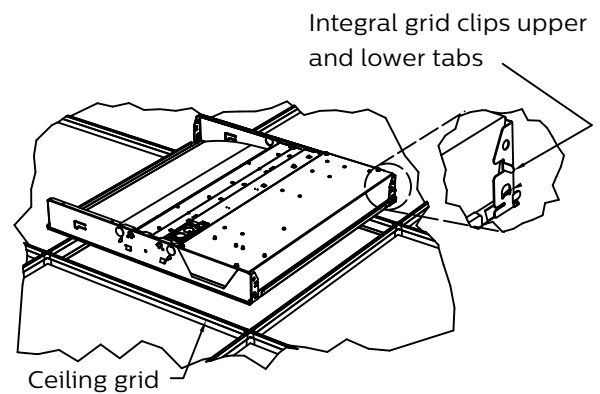
Dimensions



Controls sensor integrated into one lens retainer.



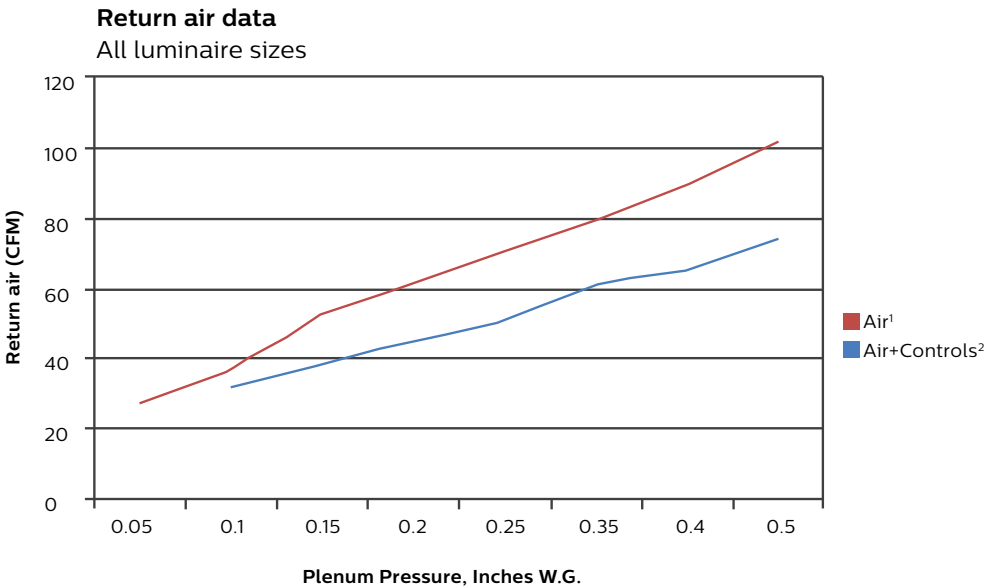
The air return option allows air to flow through vents in the lens retainers on each end. Air blades are provided on each end of the luminaire to control air flow to the plenum.



2FG FluxGrid LED recessed 2x2

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Air return



Return air - noise criteria

All luminaire sizes

CFM									
Mode		27	37	53	62	71	80	90	102
Air ¹	NC (dB)	<15	24	25	29	33	35	38	40

CFM									
Mode			31	38	45	51	61	65	74
Air+Controls ²	NC (dB)		<15	19	21	25	28	30	34

1. Air-only option includes air return lens retainers and pattern control blades on both ends of luminaire.
2. Air+Controls includes the air return lens retainer and pattern control blade on one end of the luminaire.
Control lens retainer on the other with matching width.

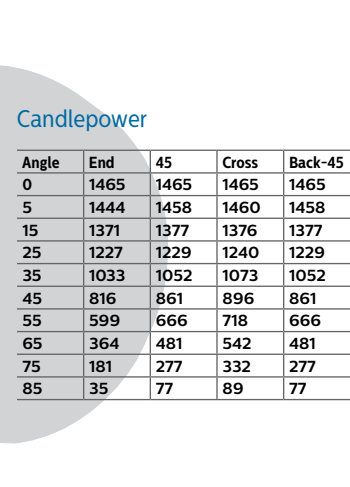
2FG FluxGrid LED recessed 2x2

3000, 3800, or 4500 lumens

Photometry

2x2 FluxGrid recessed LED, base configuration, 3800 nominal delivered lumens

LER - 114

Catalog No.	2FGG38B840-2-D-UNV-DIM		Light Distribution					Average Luminance																																																																																																																																																																	
Test No.	36779		<table><tr><th>Degrees</th><th>Lumens</th><th>% Luminaire</th></tr><tr><td>0-30</td><td>1092</td><td>28.5</td></tr><tr><td>0-40</td><td>1750</td><td>45.7</td></tr><tr><td>0-60</td><td>3005</td><td>78.5</td></tr><tr><td>0-90</td><td>3830</td><td>100</td></tr><tr><td>0-180</td><td>3830</td><td>100</td></tr></table>	Degrees	Lumens	% Luminaire	0-30	1092	28.5	0-40	1750	45.7	0-60	3005	78.5	0-90	3830	100	0-180	3830	100	<table><tr><th>Zone</th><th>End</th><th>45°</th><th>Cross</th></tr><tr><td>45</td><td>14765</td><td>15577</td><td>16218</td></tr><tr><td>55</td><td>13366</td><td>14854</td><td>16007</td></tr><tr><td>65</td><td>11026</td><td>14550</td><td>16415</td></tr><tr><td>75</td><td>8928</td><td>13683</td><td>16392</td></tr><tr><td>85</td><td>5123</td><td>11304</td><td>13036</td></tr></table>	Zone	End	45°	Cross	45	14765	15577	16218	55	13366	14854	16007	65	11026	14550	16415	75	8928	13683	16392	85	5123	11304	13036																																																																																																																											
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Lumens	3828																																																																																																																																																																								
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Comparative yearly lighting energy cost per 1000 lumens – **\$2.11** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips 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 FluxGrid recessed LED, standard configuration, 3000 nominal delivered lumens

LER - 112

Catalog No.	2FGG30L840-2-D-UNV-DIM	Candlepower <table><tr><th>Angle</th><th>End</th><th>45</th><th>Cross</th><th>Back-45</th></tr><tr><td>0</td><td>1171</td><td>1171</td><td>1171</td><td>1171</td></tr><tr><td>5</td><td>1154</td><td>1165</td><td>1166</td><td>1165</td></tr><tr><td>15</td><td>1095</td><td>1099</td><td>1100</td><td>1099</td></tr><tr><td>25</td><td>980</td><td>982</td><td>990</td><td>982</td></tr><tr><td>35</td><td>825</td><td>840</td><td>858</td><td>840</td></tr><tr><td>45</td><td>652</td><td>688</td><td>717</td><td>688</td></tr><tr><td>55</td><td>447</td><td>497</td><td>555</td><td>497</td></tr><tr><td>65</td><td>292</td><td>359</td><td>405</td><td>359</td></tr><tr><td>75</td><td>144</td><td>222</td><td>266</td><td>222</td></tr><tr><td>85</td><td>28</td><td>62</td><td>72</td><td>62</td></tr></table>	Angle	End	45	Cross	Back-45	0	1171	1171	1171	1171	5	1154	1165	1166	1165	15	1095	1099	1100	1099	25	980	982	990	982	35	825	840	858	840	45	652	688	717	688	55	447	497	555	497	65	292	359	405	359	75	144	222	266	222	85	28	62	72	62
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Test No.	36780																																																								
S/MH	1.2																																																								
Lamp Type	LED																																																								
Lumens	3023																																																								
Input Watts	27																																																								

Comparative yearly lighting energy cost per 1000 lumens – **\$2.14** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips 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.

Light Distribution			Average Luminance			
Degrees	Lumens	% Luminaire	Zone	End	45°	Cross
0-30	873	28.9	45	11803	12452	12964
0-40	1398	46.2	55	9978	11082	12387
0-60	2381	78.7	65	8831	10868	12264
0-90	3024	100	75	7133	10950	13125
0-180	3024	100	85	4081	9131	10540

Coefficients of Utilization									
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20								
Ceil		80			70			50	
Wall	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	109	104	98	106	102	97	96	93	
2	98	91	83	95	89	81	84	80	
3	90	80	70	88	78	69	75	68	
4	82	70	61	80	68	60	67	59	
5	76	63	54	73	61	54	59	53	
6	69	56	47	68	56	47	54	46	
7	65	52	42	64	51	42	50	41	
8	60	46	39	58	46	39	45	38	
9	56	44	34	56	42	34	41	34	
10	53	40	32	52	40	32	39	32	

2FG FluxGrid LED recessed 2x2

3000, 3800, or 4500 lumens

Photometry

2x2 FluxGrid recessed LED, standard configuration, 3800 nominal delivered lumens

LER - 110

Catalog No.	2FGG38L840-2-D-UNV-DIM
Test No.	36781
S/MH	1.2
Lamp Type	LED
Lumens	3682
Input Watts	33

Comparative yearly lighting energy cost per 1000 lumens – **\$2.18** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips 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.

Candlepower

Angle	End	45	Cross	Back-45
0	1419	1419	1419	1419
5	1398	1411	1414	1411
15	1326	1333	1333	1333
25	1187	1191	1200	1191
35	998	1019	1039	1019
45	790	834	868	834
55	580	644	695	644
65	353	434	491	434
75	174	268	321	268
85	33	76	85	76

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1057	28.7
0-40	1694	46
0-60	2903	78.8
0-90	3683	100
0-180	3683	100

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20	80	70	50	30	50	30	50	30
Ceil									
Wall	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	109	104	98	106	102	97	96	93	
2	98	91	83	95	89	81	84	80	
3	90	80	70	88	78	69	75	68	
4	82	70	61	80	68	60	67	59	
5	76	63	54	73	61	54	59	53	
6	69	56	47	68	56	47	54	46	
7	65	52	42	64	51	42	48	41	
8	60	46	39	58	46	39	45	38	
9	56	44	34	55	42	34	41	34	
10	53	40	32	52	40	32	39	32	

2x2 FluxGrid recessed LED, standard configuration, 4500 nominal delivered lumens

LER - 106

Catalog No.	2FGG45L840-2-D-UNV-DIM
Test No.	36782
S/MH	1.2
Lamp Type	LED
Lumens	4704
Input Watts	45

Comparative yearly lighting energy cost per 1000 lumens – **\$2.26** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips 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.

Candlepower

Angle	End	45	Cross	Back-45
0	1800	1800	1800	1800
5	1774	1791	1794	1791
15	1684	1691	1692	1691
25	1507	1512	1523	1512
35	1268	1294	1319	1294
45	1003	1058	1103	1058
55	736	818	882	818
65	447	590	666	590
75	221	340	407	340
85	42	96	108	96

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1342	28.5
0-40	2150	45.7
0-60	3692	78.4
0-90	4706	100
0-180	4706	100

Average Luminance

Zone	End	45°	Cross
45	18141	19143	19949
55	16417	18253	19674
65	13545	17871	20175
75	10900	16807	20115
85	6210	14034	15825

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20	80	70	50	30	50	30	50	30
Ceil									
Wall	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	109	104	98	106	101	97	96	93	
2	98	90	83	95	89	81	84	80	
3	90	79	70	88	78	69	75	68	
4	82	69	61	80	68	60	67	58	
5	76	63	54	73	61	53	59	52	
6	69	56	47	68	56	46	54	46	
7	65	52	42	63	51	42	48	41	
8	60	46	39	58	46	38	45	38	
9	56	42	34	55	42	34	41	34	
10	53	40	32	52	40	32	39	32	

