PHILIPS

Day-Brite

CFI

Recessed

FluxGrid LED 2x2

3000, 3800, or 4500 lumens



Project:

Location:

Cat.No:

Type:

Lumens: Qty:

Notes:

The Philips Day-Brite / Philips CFI Recessed FluxGrid LED 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

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

Width	Family	Ceiling Type	Air Function	Lumens	Color	Length	Center Diffuser	Voltage	Driver	Options
2	FG	G		38B	840	2	D	UNV	DIM	
2 2'	**FG** FluxGrid	**G** Grid	**Blank**[1] Static **H** Air return	*Standard Configurations* **30L** 3000 nominal delivered lumens **38L** 3800 nominal delivered lumens **45L** 4500 nominal delivered lumens *Base Configurations* **38B**[1] 3800 nominal delivered lumens	**830** 80 CRI, 3000K **835**[1] 80 CRI, 3500K **840**[1] 80 CRI, 4000K **850** 80 CRI, 5000K	**2** 2'	**D**[1] Diffuse (ribbed) **DS**[1] Diffuse (smooth)	**UNV**[1] Universal voltage 120-277V **120**[2] 120V **277**[2] 277V **347** 347V	**DIM**[1,6] 0-10V dimming **SDIM** Step dimming to 40% input power **XDIM**[2] MarkX phase dimming **L3D**[3] Lutron Hi-lume A 1% dimming **LDE** Lutron LDE5 5% dimming **DALI** DALI	**F1**[1] 3/8" flex, 3 wire 18 gauge 6' **F2**[1] 3/8" flex, 4 wire 18 gauge 6' **F1/D**[1] 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires **F2/5W**[1] 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires **F2/6W**[1] 3/8" single flex, 6 wire 18 gauge 6' for dimmable and EMLED luminaires **GLR**[1] Fusing, fast blow **EMLED**[1,5] Integral emergency battery pack **DAYOCC**[4] Integral sensor, daylighting and occupancy, Philips EasySense SNS102 **CHIC**[1] Chicago Plenum rated

Footnotes:

1. Base configurations available with noted options.
2. XDIM requires 120V or 277V specification.
3. Specify 38L or 45L lumen packages only.
4. Specify DIM driver option only with DAYOCC controls option. Dimming via wall switch.
5. Philips Bodine BSL310, 1100lm nominal delivered.
6. 0-10v dimming to 1% for Standard, and 5% for Base configurations.

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

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

2FG Recessed FluxGrid LED 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 Grid (NEMA "G") or Narrow Grid (NEMA "NFG" ceiling 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

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
- 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

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
- 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 (emergency driver and batteries have a three year warranty in models so equipped). 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

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, pertroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility

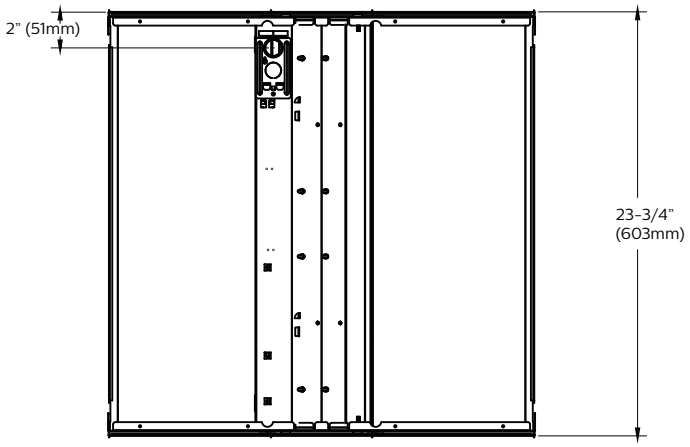
DAYOCC

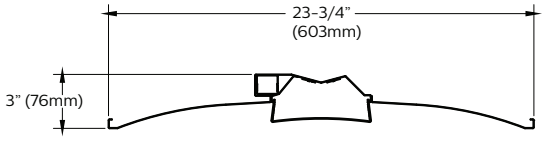
- Integrated fixture mount Philips EasySense sensor featuring daylight and PIR occupancy sensing
- Compatibility with Philips Advance Xitanium SR Sensor Ready LED drivers
- Features automatic or manual on/off scenarios for code compliance and to realize full energy savings potential
- Basic grouping to a wireless switch via an IR interface with the Philips Field App
- Self-powered single rocker switch Illumra #ZBT-S1AWH (sourced by others), up to 40 luminaires may be grouped to a single switch
- Register for the commissioning app at http://registration.componentcloud.philips.com/appregistration/
- For more information visit www.philips.com/EasySense

2FG Recessed FluxGrid LED 2x2

3000, 3800, or 4500 lumens

Dimensions



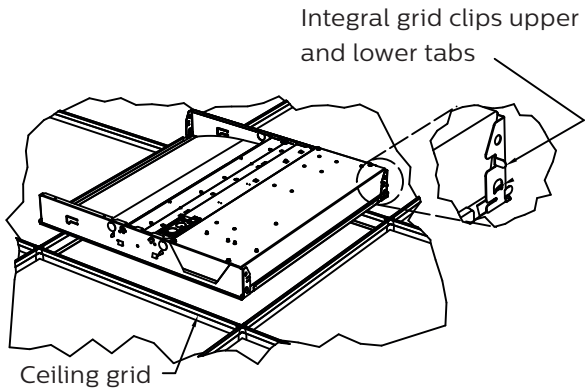




Controls sensor integrated into one lens retainer.



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.

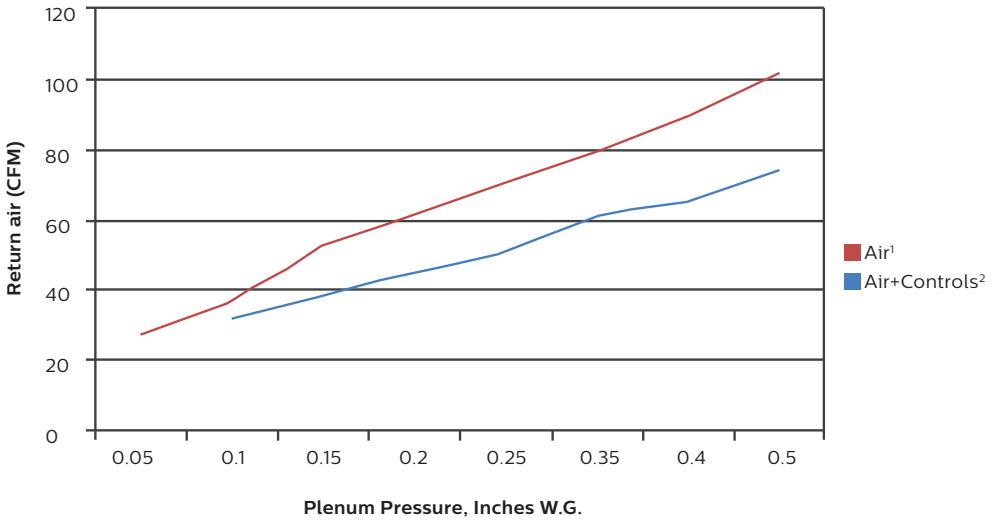


2FG Recessed FluxGrid LED 2x2

3000, 3800, or 4500 lumens

Air return

Return air data
All luminaire sizes



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 Recessed FluxGrid LED 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
Test No. 36779
S/MH 1.2
Lamp Type LED
Lumens 3828
Input Watts 34

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.

Candlepower

Angle	End	45	Cross	Back-45
0	1465	1465	1465	1465
5	1444	1458	1460	1458
15	1371	1377	1376	1377
25	1227	1229	1240	1229
35	1033	1052	1073	1052
45	816	861	896	861
55	599	666	718	666
65	364	481	542	481
75	181	277	332	277
85	35	77	89	77

Light Distribution

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

Average Luminance

Zone	End	45°	Cross
45	14765	15577	16218
55	13366	14854	16007
65	11026	14550	16415
75	8928	13683	16392
85	5123	11304	13036

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	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

2x2 FluxGrid recessed LED, standard configuration, 3000 nominal delivered lumens — LER - 112

Catalog No. 2FGG30L840-2-D-UNV-DIM
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.

Candlepower

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

Light Distribution

Degrees	Lumens	% Luminaire
0-30	873	28.9
0-40	1398	46.2
0-60	2381	78.7
0-90	3024	100
0-180	3024	100

Average Luminance

Zone	End	45°	Cross
45	11803	12452	12964
55	9978	11082	12387
65	8831	10868	12264
75	7133	10950	13125
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 Recessed FluxGrid LED 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

Average Luminance

Zone	End	45°	Cross
45	?	?	?
55	?	?	?
65	?	?	?
75	?	?	?
85	?	?	?

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	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							
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	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

© 2016 Philips Lighting Holding B.V. All rights reserved.
Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.
philips.com/luminaires

Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008