

PHILIPS Day-Brite CFI

Recessed

FluxGrid LED 2x2

with Power over ethernet
(PoE) technology



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, discreet 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: 2FGG38L840-2-D-LV-POE-SYS

Width	Family	Ceiling Type	Air Function	Lumens	Color	Length	Center Diffuser	Voltage	Driver	Options
2	FG	G				2		LV	POE	
2 2'	FG FluxGrid	G Grid	Blank Static H Air return	30L 3000 nominal delivered lumens 38L 3800 nominal delivered lumens 45L 4500 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)	LV Low voltage	POE Power over ethernet	SYS PoE daylight and motion detection EMLED 600lm integral emergency driver and battery pack

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/controls ribbed replacement lens
- FGHDS2L – FG 2' air return/controls smooth replacement lens



2FG FluxGrid LED recessed 2x2

with Power over ethernet (PoE)

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.
- Multiple lumen packages available 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 controls provide prolonged 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 FMA14 "F" mounting frame accessory (sold and shipped separately).
- Continuous row mounting is possible with a 1" gap between fixtures accommodated by others.

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
- 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.
- Optional integral emergency driver and battery pack provide 600lm nominal output, test switch and light on side panel (top access).
- Emergency battery has a 3 month pre-installed shelf life, and must be stored and installed in environments of -20°C to 30°C (-4°F to 86°F) ambient, and 45-85% relative

humidity.

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.

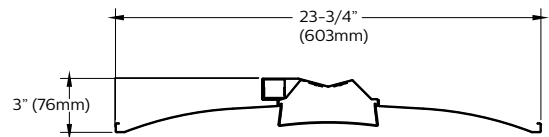
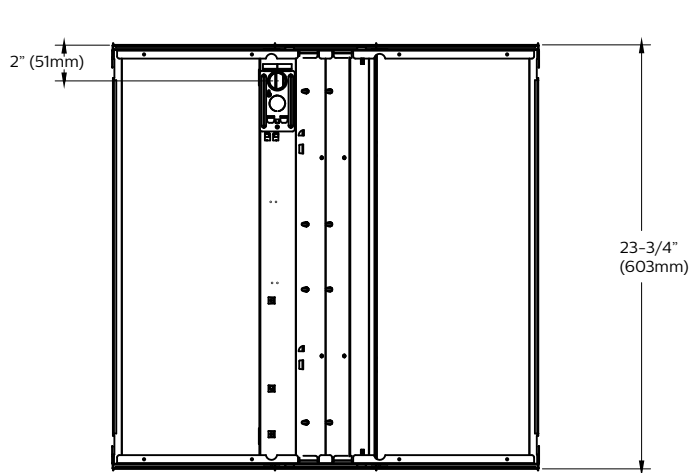
Electrical

- Integral sensor options for occupancy sensing (PIR) and/or daylight harvesting are available for additional energy savings with no reduction of life or increase in installation labor
- 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.
- POE lighting controller is accessible from above.
- Five year limited luminaire warranty includes LED boards and POE lighting controller. Optional emergency battery has a 4 year limited warranty. 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.

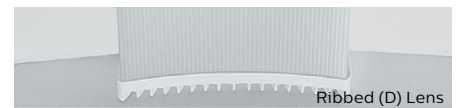
2FG FluxGrid LED recessed 2x2

with Power over ethernet (PoE)

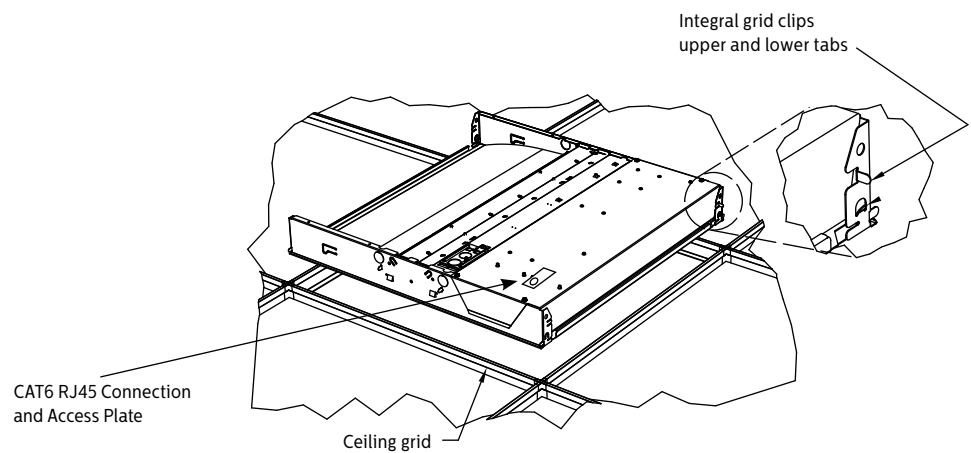
Dimensions



Controls sensor integrated into one lens retainer. (Representative sensor placement shown)



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.



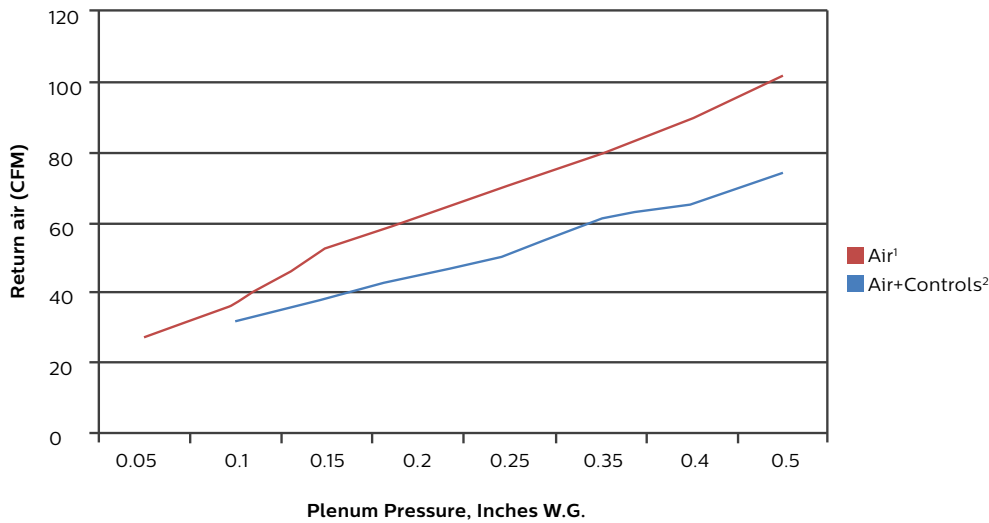
2FG FluxGrid LED recessed 2x2

with Power over ethernet (PoE)

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.

Photometry

2x2 FluxGrid LED recessed with PoE, 3000 nominal delivered lumens LER – 125

Catalog No.	2FGG30L840-2-D-LV-POE	Candlepower				Light Distribution			Average Luminance			
		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45	Cross
Test No.	37994	0	1087	1087	1087	0-30	821	27.5	45	11227	12278	12915
S/MH	1.2	5	1072	1079	1082	0-40	1327	44.5	55	10292	11844	12791
Lamp Type	LED	15	1019	1026	1032	0-60	2310	77.5	65	9188	11617	12869
Lumens	2982	25	915	933	947	0-90	2981	100.0	75	7501	11454	13367
Input Watts	24	35	774	814	838	0-180	2982	100.0	85	4635	9182	9625
		45	617	675	710							
		55	459	528	570							
		65	302	382	423							
		75	151	230	269							
		85	31	62	65							

Coefficients of Utilization												
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)												
pcc	80			70			50					
pw	70	50	30	70	50	30	50	30				
RCR												
0	118	118	118	115	115	115			111	111		
1	108	103	98	106	101	96			96	93		
2	97	90	82	95	88	81			83	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			48	40		
8	59	46	38	58	46	38			45	36		
9	56	42	34	55	41	34			40	34		
10	53	40	32	52	39	30			38	30		

2FG FluxGrid LED recessed 2x2

with Power over ethernet (PoE)

2x2 FluxGrid LED recessed with PoE, 3800 nominal delivered lumens LER – 120

Catalog No.		2FGG38L840-2-D-LV-POE		Candlepower				Light Distribution				Average Luminance			
Test No.		37995		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross	
S/MH		1.2		0	1427	1427	1427	0-30	1078	27.6	45	14683	15997	16873	
Lamp Type		LED		5	1408	1418	1422	0-40	1743	44.6	55	13462	15420	16748	
Lumens		3912		15	1339	1348	1358	0-60	3034	77.5	65	12007	15049	16854	
Input Watts		33		25	1203	1226	1247	0-90	3912	100.0	75	9798	14781	17514	
				35	1018	1068	1101	0-180	3912	100.0	85	6033	11876	12816	
				45	812	884	933								
				55	604	691	751								
				65	397	497	557								
				75	198	299	354								
				85	41	81	87								
Comparative yearly lighting energy cost per 1000 lumens – \$2.00 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.															
Coefficients of Utilization															
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)															
pcc		80			70			50							
pw		70	50	30	70	50	30	70	50	30	50	30			
RCR															
0		118	118	118	115	115	115	111	111	111	111	111			
1		108	103	98	106	101	96	96	93	93	93	93			
2		97	90	82	95	88	81	84	79	79	79	79			
3		90	79	70	86	77	69	73	68	68	68	68			
4		81	69	60	80	68	59	66	58	58	58	58			
5		75	61	53	72	60	53	58	52	52	52	52			
6		69	56	46	68	55	46	54	46	46	46	46			
7		65	51	41	63	50	41	48	40	40	40	40			
8		59	46	38	58	46	38	45	36	36	36	36			
9		56	42	34	55	41	34	40	34	34	34	34			
10		53	40	32	52	39	30	38	30	30	30	30			

2x2 FluxGrid LED recessed with PoE, 4500 nominal delivered lumens LER – 116

Catalog No.		2FGG45L840-2-D-LV-POE		Candlepower					Light Distribution			Average Luminance			
Test No.		37996		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross	
S/MH		1.2		0	1655	1655	1655	0-30	1251	27.6	45	17122	18623	19708	
Lamp Type		LED		5	1634	1646	1649	0-40	2021	44.6	55	15702	17914	19558	
Lumens		4530		15	1552	1563	1574	0-60	3515	77.6	65	13995	17496	19661	
Input Watts		39		25	1396	1421	1444	0-90	4530	100.0	75	11444	17180	20466	
				35	1182	1236	1277	0-180	4530	100.0	85	7086	14172	15205	
				45	941	1024	1083								
				55	700	799	872								
				65	460	575	646								
				75	230	346	412								
				85	48	96	103								
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 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.															
Coefficients of Utilization															
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)															
pcc	80			70			50								
pw	70	50	30	70	50	30	50	30							
RCR															
0	118	118	118	115	115	115	111	111							
1	108	104	98	106	101	96	96	93							
2	97	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	76	63	53	72	60	53	58	52							
6	69	56	46	68	55	46	54	46							
7	65	51	41	63	50	41	48	40							
8	59	46	38	58	46	38	45	36							
9	56	42	34	55	41	34	40	34							
10	53	40	32	52	39	30	38	30							

