

PHILIPS Day-Brite CFI

Recessed

FluxGrid LED 1x4

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: 1FGG38L840-4-D-LV-POE-SYS

Width	Family	Ceiling Type	Air Function	Lumens	Color	Length	Center Diffuser	Voltage	Driver	Options
1	FG	G				4		LV	POE	
1 1'	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	4 4'	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)

- **FMA14** – 1'x4' “F” mounting frame for NEMA “F” mounting
- **FGD4L** – FG 4' ribbed replacement lens
- **FGDS4L** – FG 4' smooth replacement lens
- **FGHD4L** – FG 4' air return/controls ribbed replacement lens
- **FGHDS4L** – FG 4' air return/controls smooth replacement lens



1FG FluxGrid LED recessed 1x4

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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.

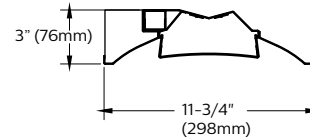
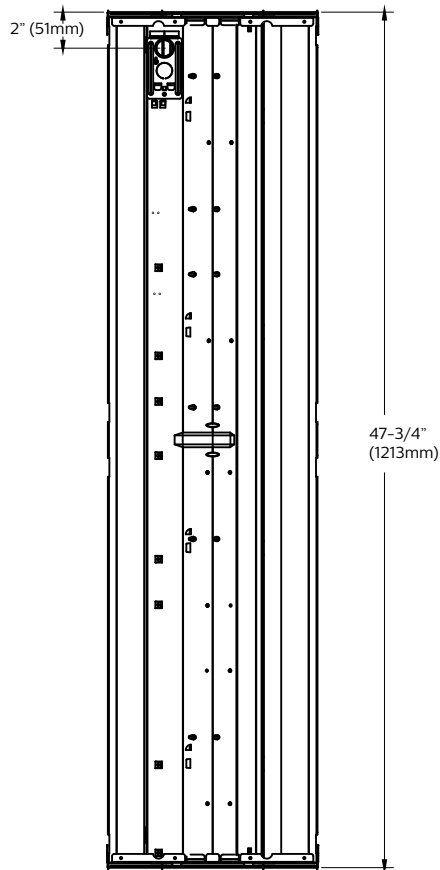
Electrical

- 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 70,000 hours.
- cETLus listed to UL and CSA standards, suitable for damp locations.

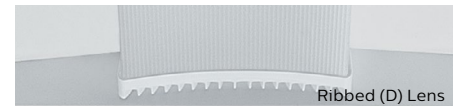
1FG FluxGrid LED recessed 1x4

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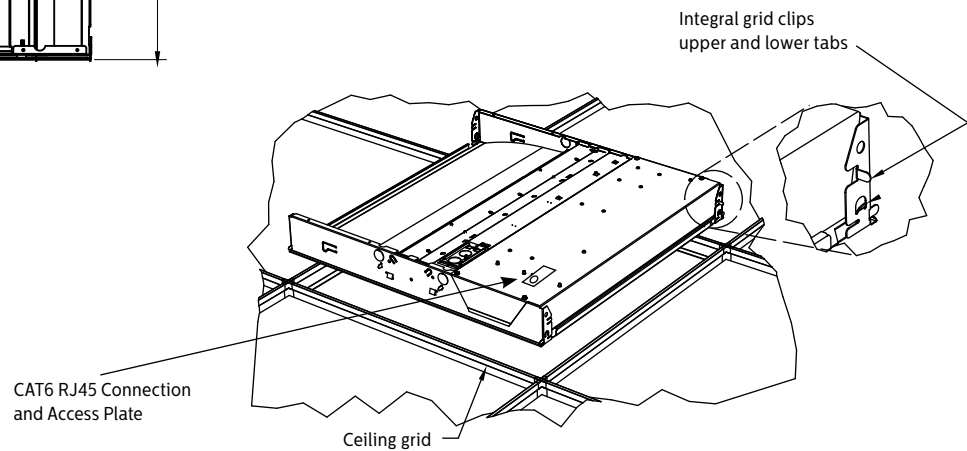
Dimensions



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.



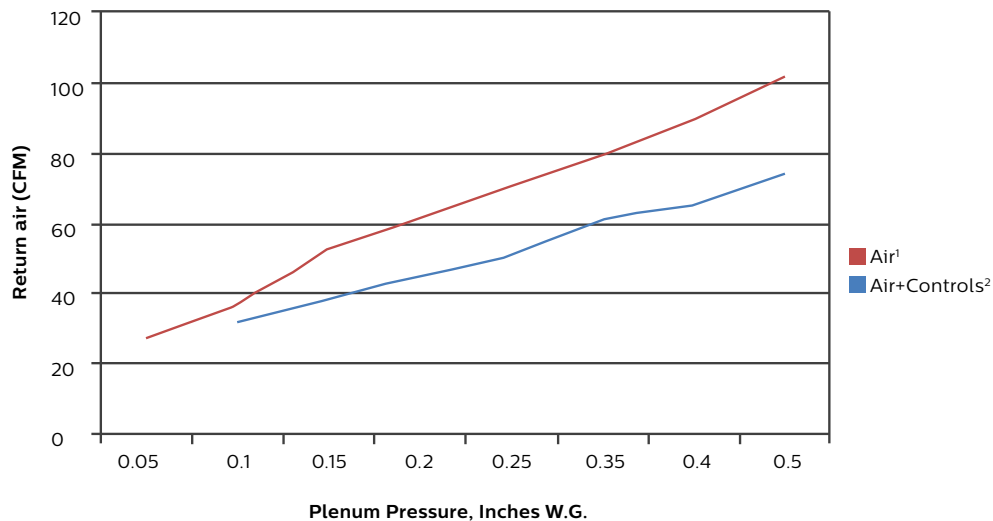
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Air return

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

1x4 FluxGrid LED recessed with PoE, 3000 nominal delivered lumens

LER – 130

Catalog No.		Candlepower				Light Distribution			Average Luminance			
Test No.		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45	Cross
S/MH		0	1174	1174	1174	0-30	891	28.4	45	6526	6987	7222
Lamp Type		5	1157	1166	1173	0-40	1441	46.0	55	6022	6696	6991
Lumens		15	1103	1111	1118	0-60	2505	80.0	65	5431	6324	6378
Input Watts		25	998	1012	1025	0-90	3132	100.0	75	4514	5242	4829
		35	853	883	901	0-180	3132	100.0	85	2578	2315	1860
		45	686	735	759							
		55	514	571	596							
		65	341	397	401							
		75	174	202	186							
		85	33	30	24							

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	109	104	100	106	102	97			97	94		
2	98	91	83	96	89	82			85	80		
3	91	80	71	88	79	70			76	68		
4	82	70	61	81	69	61			67	59		
5	76	64	55	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	55	42	34			41	34		
10	53	40	32	52	40	32			39	32		

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1x4 FluxGrid LED recessed with PoE, 3800 nominal delivered lumens LER – 128

Catalog No.		1FGG38L840-4-D-LV-POE			
Test No.		38013			
S/MH		1.2			
Lamp Type		LED			
Lumens		3845			
Input Watts		30			
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 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	
0	1439	1439	1439	
5	1414	1427	1438	
15	1350	1361	1371	
25	1223	1242	1257	
35	1045	1083	1105	
45	840	904	930	
55	629	703	730	
65	419	489	492	
75	214	245	229	
85	41	36	30	

Light Distribution				Average Luminance			
Degrees	Lumens	% Luminaire		Angle	End	45°	Cross
0-30	1092	28.4		45	7989	8595	8845
0-40	1767	45.9		55	7371	8244	8565
0-60	3075	80.0		65	6669	7775	7834
0-90	3845	100.0		75	5570	6373	5946
0-180	3845	100.0		85	3164	2763	2308

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	109	104	100	106	102	97	97 94
2	98	91	83	96	89	82	85 80
3	91	80	71	88	78	70	76 68
4	82	70	61	81	69	61	67 59
5	76	63	55	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	55	42	34	41 34
10	53	40	32	52	40	32	39 32

1x4 FluxGrid LED recessed with PoE, 4500 nominal delivered lumens LER – 125

Catalog No.		1FGG45L840-4-D-LV-POE			
Test No.		38014			
S/MH		1.2			
Lamp Type		LED			
Lumens		4534			
Input Watts		36			
Comparative yearly lighting energy cost per 1000 lumens – \$1.92 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	
0	1699	1699	1699	
5	1674	1687	1698	
15	1596	1608	1618	
25	1444	1464	1485	
35	1234	1275	1305	
45	992	1062	1098	
55	743	827	861	
65	495	575	582	
75	252	289	271	
85	48	43	35	

Light Distribution			
Degrees	Lumens	% Luminaire	
0-30	1289	28.4	
0-40	2086	46.0	
0-60	3627	80.0	
0-90	4534	100.0	
0-180	4534	100.0	

Average Luminance			
Angle	End	45°	Cross
45	9433	10103	10446
55	8708	9694	10094
65	7874	9144	9259
75	6552	7521	7030
85	3689	3280	2732

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	109	104	100	106	102	97	97	94
2	98	91	83	96	89	82	85	80
3	91	80	71	88	79	70	76	68
4	82	70	61	81	69	61	67	59
5	76	63	55	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	55	42	34	41	34
10	53	40	32	52	40	32	39	32

