

PHILIPS Day-Brite CFI

Recessed

FluxGrid LED 2x4

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: 2FGG43L840-4-D-LV-POE-SYS

Width	Family	Ceiling Type	Air Function	Lumens	Color	Length	Center Diffuser	Voltage	Driver	Options
2	FG	G				4		LV	POE	
2 2'	FG FluxGrid	G Grid	Blank Static H Air return	38L 3800 nominal delivered lumens 43L 4300 nominal delivered lumens 48L 4800 nominal delivered lumens 54L 4800 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)

- FMA24 – 2'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



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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.

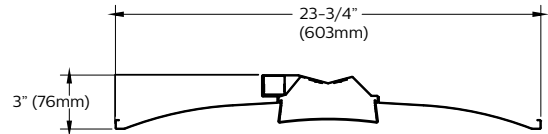
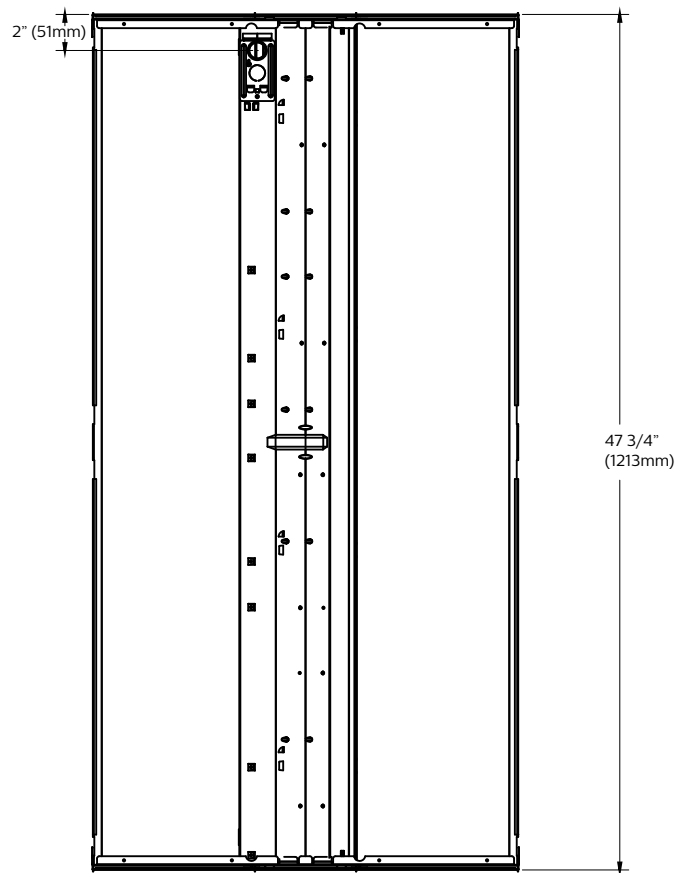
Electrical

- 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.

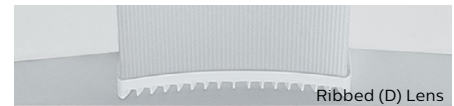
2FG FluxGrid LED recessed 2x4

with Power over ethernet (PoE)

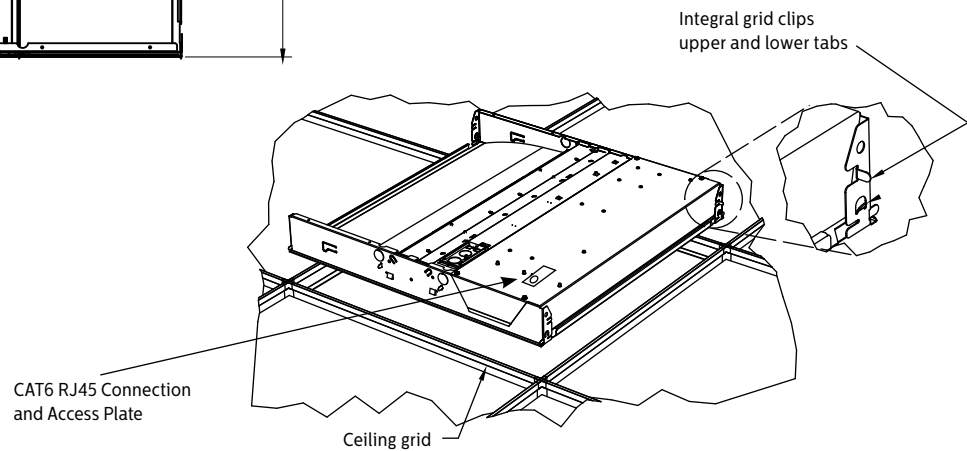
Dimensions



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.



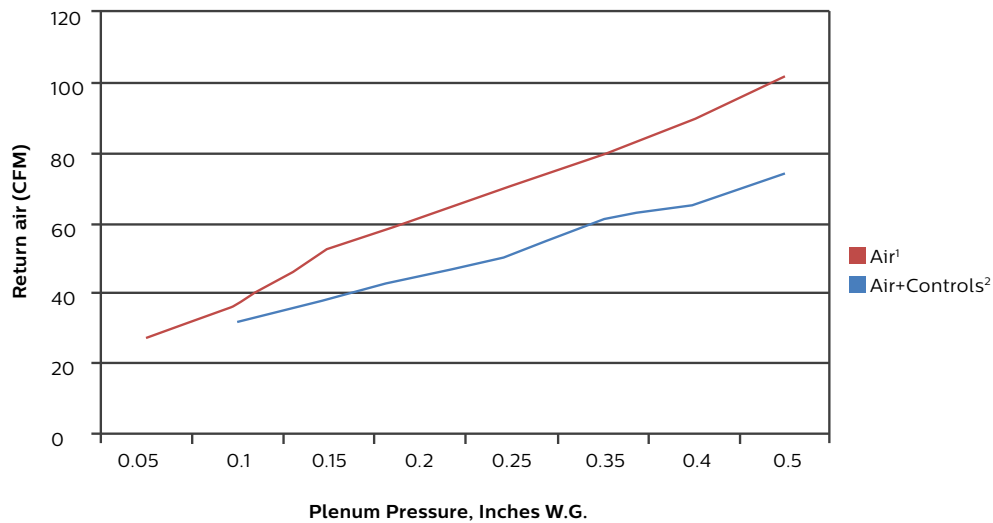
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Air return

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.

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Photometry

2x4 FluxGrid LED recessed with PoE, 3800 nominal delivered lumens LER – 129

Catalog No.		2FGG38L840-4-D-LV-POE		Candlepower				Light Distribution			Average Luminance				
Test No.		37997		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45'	Cross	
S/MH		1.2		0	1381	1381	1381	0-30	1050	27.2	45	6822	7375	7663	
Lamp Type		LED		5	1364	1373	1377	0-40	1698	44.0	55	6261	7141	7599	
Lumens		3859		15	1301	1311	1317	0-60	2962	76.8	65	5604	7065	7860	
Input Watts		30		25	1175	1193	1209	0-90	3858	100.0	75	4608	7367	8454	
				35	1002	1040	1063	0-180	3859	100.0	85	2648	6821	7228	
				45	803	868	901								
				55	597	681	725								
				65	394	497	553								
				75	198	317	364								
				85	38	99	105								
Comparative yearly lighting energy cost per 1000 lumens – \$1.86 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						
1		108	103	98	105	101	96	96	93						
2		97	90	82	94	88	81	83	79						
3		89	79	69	86	77	68	73	67						
4		81	69	60	79	68	59	66	57						
5		75	61	53	72	60	52	58	51						
6		68	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	34						
10		53	39	30	51	39	30	38	30						

2x4 FluxGrid LED recessed with PoE, 4300 nominal delivered lumens LER – 127

Catalog No.		2FGG43L840-4-D-LV-POE		Candlepower				Light Distribution			Average Luminance				
Test No.		37998		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45'	Cross	
S/MH		1.2		0	1574	1574	1574	0-30	1195	27.2	45	7763	8401	8718	
Lamp Type		LED		5	1553	1561	1569	0-40	1934	44.0	55	7134	8133	8649	
Lumens		4397		15	1481	1493	1499	0-60	3374	76.7	65	6382	8039	8941	
Input Watts		35		25	1338	1359	1376	0-90	4397	100.0	75	5230	8396	9587	
				35	1138	1184	1210	0-180	4397	100.0	85	2979	7656	8062	
				45	913	988	1026								
				55	681	776	825								
				65	449	565	629								
				75	225	362	413								
				85	43	111	117								
Comparative yearly lighting energy cost per 1000 lumens – \$1.89 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		
				RCR											
				0			118			115			111		
				1			108			105			96		
				2			97			94			83		
				3			89			86			73		
				4			81			79			66		
				5			75			72			58		
				6			68			68			53		
				7			64			63			47		
				8			59			57			44		
				9			56			55			40		
				10			53			51			38		

2x4 FluxGrid LED recessed with PoE, 4800 nominal delivered lumens LER – 124

Catalog No.		2FGG48L840-4-D-LV-POE		Candlepower				Light Distribution			Average Luminance				
Test No.		37999		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45'	Cross	
S/MH		1.2		0	1758	1758	1758	0-30	1335	27.2	45	8676	9384	9740	
Lamp Type		LED		5	1735	1745	1750	0-40	2160	44.0	55	7962	9086	9667	
Lumens		4909		15	1655	1667	1675	0-60	3768	76.8	65	7103	8975	9993	
Input Watts		40		25	1495	1518	1538	0-90	4909	100.0	75	5815	9357	10718	
				35	1275	1323	1352	0-180	4909	100.0	85	3290	8469	9076	
				45	1021	1104	1146								
				55	760	867	922								
				65	499	631	703								
				75	250	403	462								
				85	48	123	132								
Comparative yearly lighting energy cost per 1000 lumens – \$1.94 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							
1	108	103	98	105	101	96	96	93							
2	97	90	82	94	88	81	83	79							
3	89	79	69	86	77	68	73	67							
4	81	69	60	79	68	59	66	57							
5	75	61	53	72	60	52	58	51							
6	68	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	34							
10	53	39	30	51	39	30	38	30							

2FG FluxGrid LED recessed 2x4

with Power over ethernet (PoE)

2x4 FluxGrid LED recessed with PoE, 5400 nominal delivered lumens LER – 120

Catalog No.	2FGG54L840-4-D-LV-POE	Candlepower				Light Distribution			Average Luminance			
		Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
Test No.	38000	0	2008	2008	2008	0-30	1525	27.2	45	9914	10726	11134
S/MH	1.2	5	1983	1994	2000	0-40	2468	43.9	55	9092	10391	11037
Lamp Type	LED	15	1890	1904	1913	0-60	4307	76.7	65	8141	10279	11441
Lumens	5615	25	1709	1735	1755	0-90	5614	100.0	75	6679	10739	12279
Input Watts	47	35	1455	1512	1545	0-180	5615	100.0	85	3800	9780	10532
		45	1166	1262	1310							
		55	868	992	1053							
		65	572	723	804							
		75	288	462	529							
		85	55	142	153							

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	105	101	96	96	93				
2	97	90	82	94	88	81	83	79				
3	89	79	69	86	77	68	73	67				
4	81	69	60	79	68	59	66	57				
5	75	61	53	72	60	52	58	51				
6	68	56	46	67	55	46	53	45				
7	64	51	41	63	50	40	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				

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.

