# **PHILIPS Day-Brite CFI**

Recessed

FluxGrid 1x4

3000, 3800, or 4500 lumens



Project:	
Location:	
Cat.No:	
Туре:	
Lumens:	Qty:
Notes:	

Example: 1FGG41B840-4-D-UNV-DIM

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**

		1		I					I		
Width	Family	Ceiling	Air Function	Lumens	Color	Length	Center	Voltage	Driver <sup>6</sup>	Options	
		Туре					Diffuser				
	l ——		l								
1	FG	l G				4					
1 1'	FG FluxGrid	<b>G</b> Grid	Blank <sup>1</sup> Static	Standard Configurations	830 80 CRI,	4 4'	<b>D</b> <sup>1</sup> Diffuse	UNV¹ Universal	DIM <sup>1,3,4</sup> 0-10V	F1 <sup>1</sup>	3/8" flex, 3 wire 18 gauge 6'
			H Air return		3000K		(ribbed)	voltage	dimming	F21	3/8" flex, 4 wire 18 gauge 6'
				<b>30L</b> 3000 nominal	8351 80 CRI,		DS¹ Diffuse	120-277V	SDIM Step dimming	F1/D1	3/8" twin flex, 3 wire 18
				delivered lumens	3500K		(smooth)	120 <sup>2</sup> 120V	to 40% input		gauge 6' for dimmable
				38L 3800 nominal	8401 80 CRI,			<b>277</b> <sup>2</sup> 277V	power		luminaires
				delivered lumens	4000K			<b>347</b> 347V	XDIM <sup>2</sup> MarkX phase	F2/5W1	3/8" single flex, 5 wire 18
				45L 4500 nominal	850 80 CRI,				dimming		gauge 6' for dimmable
				delivered lumens	5000K				L3D⁵ Lutron Hi-lume		luminaires
									A 1% dimming	F2/6W <sup>1</sup>	3/8" single flex, 6 wire 18
				Base Configurations					LDE Lutron LDE5		gauge 6' for dimmable and
									5% dimming		EMLED luminaires
				41B1 4100 nominal					DALI DALI	GLR <sup>1</sup>	Fusing, fast blow
				delivered lumens						EMLED <sup>1,6</sup>	Integral emergency battery
											pack
										SWZDT <sup>7</sup>	Integral sensor, daylighting
											and occupancy, advanced
											grouping with dwell time
										DAYOC <sup>7</sup>	Integral sensor, daylighting
											and occupancy, basic
											grouping
										CHIC1	Chicago Plenum rated

#### Footnotes:

- 1 Base configurations available with noted options.
- 2 XDIM requires 120V or 277V specification.
- 3 Integral SWZDT and DAYOCC options dimmable to 5% via wireless wall switch.
- ${\bf 4}$  O-10V dimming to 1% for Standard, and 5% for Base configurations.
- 5 Specify 38L or 45L lumen packages only.
- 6 Philips Bodine BSL310, 1100lm nominal delivered.
- 7 Specify DIM driver option only.

#### **Accessories (order separately)**

- FMA14 1'x4' "F" mounting frame for NEMA "F" mounting
- FGD4L FG 4' ribbed replacement lens
- $\cdot$  FGDS4L FG 4' smooth replacement lens
- $\cdot$  FGHD4L FG 4' air return ribbed replacement lens
- FGHDS4L FG 4' air return smooth replacement lens

### Energy data

Luminaire	Catalog Number	Input Power	Efficacy
	1FGG30L840	24.5	121
1x4 Standard	1FGG38L840	31.9	120
	1FGG45L840	38.6	116
1x4 Base	1FGG41B840	33.6	124





#### 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") 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. 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

#### **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

#### **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 121 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 4100 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 70,000 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)

#### **DAYOCC & SpaceWise DT (SWZDT)**

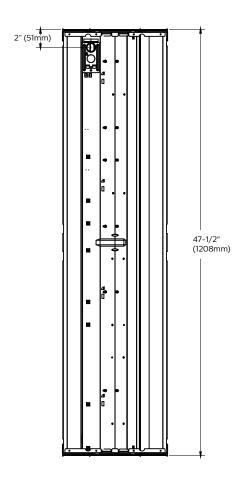
- Commissioning via compatible Android phone and Philips Field App
- Dimming via compatible wireless wall switch only (see below)
- Register for the commissioning app at http:// registration.componentcloud.philips.com/ appregistration/
- Integral sensing options (DAYOCC, SWZG2, SWZDT) may not be combined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

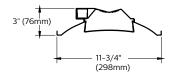
**DAYOCC** – www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/DAYOCC\_sensor.pdf

**SWZDT** – www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZDT\_sensor.pdf

3000, 3800, or 4500 lumens

#### **Dimensions**



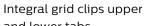


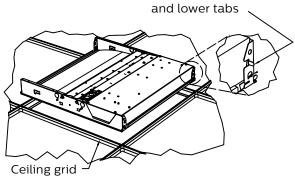


Controls sensor integrated into one lens retainer.



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.

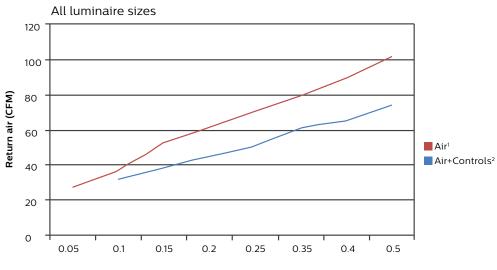




### 3000, 3800, or 4500 lumens

#### Air return





Plenum Pressure, Inches W.G.

#### Return air - noise criteria

All luminaire sizes

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

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

Air-only option includes air return lens retainers and pattern control blades on both ends of luminaire.
 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.

#### 3000, 3800, or 4500 lumens

#### **Photometry**

#### 1x4 FluxGrid recessed LED, base configuration, 4100 nominal delivered lumens

**LER - 124** 

Catalog No. 1FGG41B840-4-D-UNV-DIM

 Test No.
 36798

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 4157

 Input Watts
 34

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.  $\,$ 

#### Candlepower

Angle	End	45	Cross	Back-45
0	1595	1595	1595	1595
5	1569	1584	1590	1584
15	1497	1505	1509	1505
25	1352	1363	1372	1363
35	1150	1177	1196	1177
45	921	980	1005	980
55	684	757	782	757
65	421	523	516	523
75	214	245	233	245
85	41	42	36	42

# Light Distribution Degrees Lumens % Luminaire 0-30 1203 28.9 0-40 1939 46.6 0-60 3354 80.6 0-90 4150 99.8 0-180 4160 100

Average Luminance							
Zone	End	45°	Cross				
45	7833	8328	8541				
55	7163	7932	8196				
65	5994	7436	7342				
75	4961	5697	5418				
85	2807	2924	2469				

#### Coefficients of Utilization

EFFEC	TIVE FLC	OR CAVI	TY REFLE	CTANCE	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	105	100	106	102	97	97	94
2	98	91	84	96	89	82	85	81
3	91	80	71	88	79	70	76	68
4	82	70	63	81	69	61	68	60
5	77	64	55	73	63	54	60	53
6	70	57	48	68	56	47	55	46
7	66	52	44	64	51	42	50	41
8	60	47	39	59	46	39	46	38
9	56	44	35	56	42	34	41	34
10	54	40	33	52	40	32	39	32

#### 1x4 FluxGrid recessed LED, standard configuration, 3000 nominal delivered lumens

Catalog No. 1FGG30L840-4-D-UNV-DIM

 Test No.
 36797

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 2975

 Input Watts
 24

Comparative yearly lighting energy cost per 1000 lumens – \$1.97 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	1156	1156	1156	1156
5	1137	1148	1152	1148
15	1084	1090	1094	1090
25	979	987	994	987
35	833	854	867	854
45	667	711	727	711
55	462	521	548	521
65	305	353	349	353
75	154	177	168	177
85	29	30	26	30

#### **Light Distribution**

0		
Degrees	Lumens	% Luminaire
0-30	871	29.3
0-40	1405	47.2
0-60	2411	81
0-90	2970	99.8
0-180	2977	100

#### Average Luminance

**LER - 121** 

	0		
Zone	End	45°	Cross
45	5667	6042	6184
55	4839	5455	5743
65	4332	5022	4960
75	3579	4111	3906
85	2028	2069	1766

#### Coefficients of Utilization

pfc =	20							
Ceil	1	80			70			50
Wall	70	50	30	70	50	30	50	30
RCR								
0	118	118	118	115	115	115	111	111
1	109	105	100	106	102	98	97	94
2	100	92	84	96	90	83	85	81
3	91	81	72	88	79	71	76	69
4	82	71	63	81	69	61	68	60
5	77	64	55	75	63	55	60	54
6	70	57	48	68	56	48	55	47
7	66	53	44	64	52	44	50	42
8	60	47	40	59	46	39	46	39
9	56	44	35	56	44	35	41	34
10	54	40	33	53	40	33	39	32

#### 3000, 3800, or 4500 lumens

#### **Photometry**

#### 1x4 FluxGrid recessed LED, standard configuration, 3800 nominal delivered lumens

**LER - 120** 

Catalog No. 1FGG38L840-4-D-UNV-DIM

 Test No.
 36796

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 3830

 Input Watts
 32

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.  $\,$ 

#### Candlepower

End	45	Cross	Back-45
1480	1480	1480	1480
1456	1470	1475	1470
1388	1396	1401	1396
1254	1264	1274	1264
1067	1093	1111	1093
853	911	932	911
633	705	725	705
391	454	447	454
198	227	216	227
38	39	33	39
	1480 1456 1388 1254 1067 853 633 391 198	1480 1480 1456 1470 1388 1396 1254 1264 1067 1093 853 911 633 705 391 454 198 227	1480         1480         1480           1456         1470         1475           1388         1396         1401           1254         1264         1274           1067         1093         1111           853         911         932           633         705         725           391         454         447           198         227         216

# Light Distribution Mean % Luminaire 0-30 1116 29.1 0-40 1798 46.9 0-60 3111 81.2 0-90 3831 100 0-180 3832 100

Average Luminance						
Zone	End	45°	Cross			
45	7255	7742	7919			
55	6636	7383	7595			
65	5554	6453	6355			
75	4592	5281	5019			
85	2586	2683	2297			

#### Coefficients of Utilization

EFFEC	TIVE FLC	OR CAVI	TY REFLE	CTANCE	20 PER (j	ofc=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	105	100	106	102	98	97	94	
2	100	92	84	96	90	83	85	81	
3	91	81	72	88	79	71	76	69	
4	82	71	63	81	69	61	68	60	
5	77	64	55	75	63	55	60	53	
6	70	57	48	68	56	47	55	47	
7	66	52	44	64	52	42	50	42	
8	60	47	39	59	46	39	46	39	
9	56	44	35	56	42	35	41	34	
10	54	40	33	52	40	33	39	32	

#### 1x4 FluxGrid recessed LED, standard configuration, 4500 nominal delivered lumens

Catalog No. 1FGG45L840-4-D-UNV-DIM

 Test No.
 36795

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 4546

 Input Watts
 39

Comparative yearly lighting energy cost per 1000 lumens – \$2.03 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	1751	1751	1751	1751
5	1723	1739	1746	1739
15	1643	1652	1658	1652
25	1484	1495	1507	1495
35	1263	1293	1314	1293
45	1010	1077	1103	1077
55	750	833	859	833
65	462	558	551	558
75	235	269	257	269
85	45	46	40	46
		_		

#### **Light Distribution**

_		
Degrees	Lumens	% Luminaire
0-30	1320	29
0-40	2129	46.8
0-60	3683	81
0-90	4548	100
0-180	4548	100

#### Average Luminance

**LER - 116** 

Zone	End	45°	Cross
45	8587	9155	9376
55	7860	8728	9001
65	6577	7931	7834
75	5446	6254	5957
85	3069	3193	2773

#### Coefficients of Utilization

EFFEC	TIVE FLC	OR CAVI	TY REFLE	CTANCE	20 PER (	ofc=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	105	100	106	102	98	97	94	
2	98	91	84	96	90	82	85	81	
3	91	81	72	88	79	71	76	69	
4	82	70	63	81	69	61	68	60	
5	77	64	55	75	63	55	60	53	
6	70	57	48	68	56	47	55	46	
7	66	52	44	64	52	42	50	42	
8	60	47	39	59	46	39	46	39	
9	56	44	35	56	42	35	41	34	
10	54	40	33	52	40	33	39	32	

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