PHILIPS Day-Brite CFI

Recessed

EvoGrid LED 2x4

Ordering guide

Up to 7400 lumens



P

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

The Philips Day-Brite / Philips CFI EvoGrid LED recessed utilizes highly reliable and efficient Philips LED platform boards and dimmable driver enabling market leading performance in its category. Its soft opal diffuser with large luminous area minimizes apparent brightness compared to other basket luminaires and provides general lighting perfect for a wide variety of applications.

7 Must order SWZ-REMOTE SpaceWise handheld remote with each system order.

8 CRM includes side cover with top access plate and additional end cover. 7/8" gap

9 Non-controls and SWZG2 configurations are 0-10v dimmable to 1% for Standard

configurations. Base configurations are 0-10v dimmable to 5%.

Example: 2EVG38L840-4-D-UNV-DIM

Width	Family	Ceiling Type	Air Function	Lumens	Color	Length	Center Diffuser	Voltage	Driver	Options
2	EV	G				4 –	-	-	-	
2 2'	EV EvoGrid	G Grid	blank Static H Air Return	Standard efficacy 38L 3800 nominal delivered lumens 43L 4300 nominal delivered lumens 48L 4800 nominal delivered lumens 54L 5400 nominal delivered lumens 48LH 3800 nominal delivered lumens 43LH 4300 nominal delivered lumens 54LH 4800 nominal delivered lumens 54LH 7400 nominal delivered lumens	830 ¹ 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 ¹ 80 CRI, 5000K	4 4'	D Diffuse (opal) DS Diffuse smooth (opal) R Diffuse round ribbed (opal) RS Diffuse round smooth (opal)	UNV Universal Voltage, 120-277 volt 1202 120V 347 347V	DIM ^{3.9} O-10V dimming SDIM ⁴ Step dimming to 40% input power XDIM ² MarkX phase dimming L3D ⁵ Lutron Hi-lume A 1% dimming LDE Lutron LDE5, 5% dimming DALI DALI	F1 3/8" flex, 3 wire 18 gauge 6' F2 3/8" flex, 4 wire 18 gauge 6' F1/D 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires for dimmable luminaires F2/SW 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires for dimmable luminaires F2/GW 3/8" single flex, 6 wire 18 gauge 6' for dimmable and emergency luminaires gauge 6' for dimmable luminaires GLR Fusing, fast blow EMLED Integral emergency battery pack, 1100lm nominal (ballast enclosure on top of luminaire) SWZG2 ^{6,7} Integral sensor, daylighting and occupancy, advanced grouping with dwell time and zoning lintegral sensor, daylighting and occupancy, advanced grouping with dwell time DAYOCC ⁶ Integral sensor, daylighting and occupancy, basic grouping CHIC Chicago Plenum rated Continuous row mount

Footnotes

- 1 3000K and 5000K color temperatures available only on high efficacy configurations
- 2 XDIM requires 120V or 277V specification.
- 3 Integral SWZDT and DAYOCC options dimmable to 5% via wireless all switch. See page 2.
- 4 Consult factory for SDIM on 74L and 74LH packages.
- 5 Specify with 38L or 43L lumen packages only. Consult factory for higher lumen packages.
- 6 Specify only with -DIM driver option

SpaceWise accessories (order separately)

Other accessories (order separately)

- LRM1743 External sensor to increase occupancy coverage area FMA24 2'x4' "F" mounting frame for of SpaceWise luminaire groups
- SWZ-REMOTE SpaceWise handheld remote for grouping and configuration (at least one remote required for any SpaceWise installation)
- UID8451/10 Wireless Dimmer Switch Selector
- UID8461/10 Wireless Scene Selector

- NEMA "F" mounting
- EVD4L EvoGrid 2'x4' rectangular ribbed replacement lens

between fixtures

- EVDS4L EvoGrid 2'x4' rectangular smooth replacement lens
- EVR4L EvoGrid 2'x4' round ribbed replacement lens
- EVRS4L EvoGrid 2'x4' round smooth replacement lens
- FSK24 2'x4' surface mount field installation kit, order with -TAP (top access plate) option (SWZG2 option not available)



Up to 7400 lumens

Application

- A highly efficient, visually comfortable, architecturally styled recessed LED luminaire designed with a minimalistic strategy to achieve sustainable objectives.
- Low profile configuration is only 2-3/4" deep, requiring minimal plenum space.
- Soft opal diffuser with large luminous area minimizes apparent brightness and provides high visual comfort perfect for a wide variety of general lighting applications like offices, schools, retail, or healthcare.
- Multiple lumen packages over a wide range to provide significant application flexibility over light levels and/or luminaire spacing.
- Directs a controlled amount of light to the higher angles in the room to balance the brightness of the surfaces and eliminate "cave effect" while creating the impression of a larger, brighter space without glare.
- Excellent color rendering with a CRI of 80.
- LEDs are an excellent source for use with controls since dimming or frequent switching does not degrade the performance or life of the source. Integral or external sensors are available for use.
- Designed for use with standard Grid (NEMA "G") or Narrow Grid (NEMA "NFG") ceiling T-bars. Drywall or plaster requirements can be accommodated by using an FMA24 "F" mounting frame (sold separately.)
- Continuous row mount option (CRM) includes wireway covers on each end and on one side of housing.

Construction/Finish

- Uncomplicated design is 2-3/4" in depth and only requires a few parts outside of the electrical system and hardware, creating several benefits:
- Less material required
- Less packaging required
- Reduced weight
- Less energy required for construction and assembly
- More luminaires can be shipped per truck to reduce fuel use and emissions
- Luminaire finish is matte white polyester for a high quality, durable finish.
- T-bar grid clips are integral to body.

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.
- Total luminaire efficacy exceeding 139 LPW (lumens per Watt) with high efficiency packages.
- LED board is easily accessible from below without tools. Single LED board is replaceable if needed via plug-in connectors to ensure long service life.
- · LED driver is accessible from above.
- Emergency driver is accessible from above. To estimate lumen output in emergency mode, multiply emergency pack wattage by efficacy, then by 1.10. Typical lumen output is 1300lm for EMLED.
- Step dim 100/40% and additional dimming options 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 80,000 hours for high efficicacy and 50,000 hours for standard efficacy configurations.
- cETLus listed to UL and CSA standards, suitable for damp locations.
- EvoGrid luminaires are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers (http://www.designlights.org/QPL)

Enclosure

- Opal diffuser provides soft, comfortable lighting while maintaining high efficiency.
- Diffuser requires no frames or fasteners and can be easily removed from below without tools if needed.

General Notes

- · All options 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.

SpaceWise (SWZG2)

- Commissioning via SWZ-REMOTE handheld remote, must order a minimum of one per installation
- Integral sensing options (DAYOCC, SWZG2, SWZDT) may not be combined
- For more information on the sensor, please refer to www.lightingproducts.philips.com/ documents/webdb2/DayBrite/pdf/SWZG2_ sensor.pdf
- Visit Philips.com/spacewise for more information about SpaceWise Technology (SWZG2)

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 –

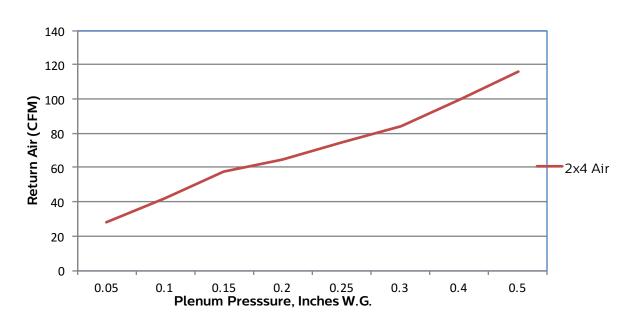
DAYOCC – www.lightingproducts.philips. com/documents/webdb2/DayBrite/pdf/ DAYOCC_sensor.pdf

SWZDT – www.lightingproducts.philips.com/ documents/webdb2/DayBrite/pdf/SWZDT_ sensor.pdf

Energy data

Luminaire	Catalog Number	Input Power	Efficacy
	2EVG38L840-4-D	37	110
	2EVG43L840-4-D	41	108
	2EVG48L840-4-D	48	105
	2EVG54L840-4-D	55	103
2x4	2EVG74L840-4-D	83	93
284	2EVG38L840-4-R	31	124
	2EVG43L840-4-R	35	124
	2EVG48L840-4-R	40	122
	2EVG54L840-4-R	46	120
	2EVG74L840-4-R	67	111
	2EVG38LH840-4-D	27	139
	2EVG43LH840-4-D	32	139
	2EVG48LH840-4-D	36	138
	2EVG54LH840-4-D	39	137
2x4	2EVG74LH840-4-D	56	134
High Efficacy	2EVG38LH840-4-R	26	142
	2EVG43LH840-4-R	30	142
	2EVG48LH840-4-R	34	143
	2EVG54LH840-4-R	39	143
	2EVG74LH840-4-R	53	140

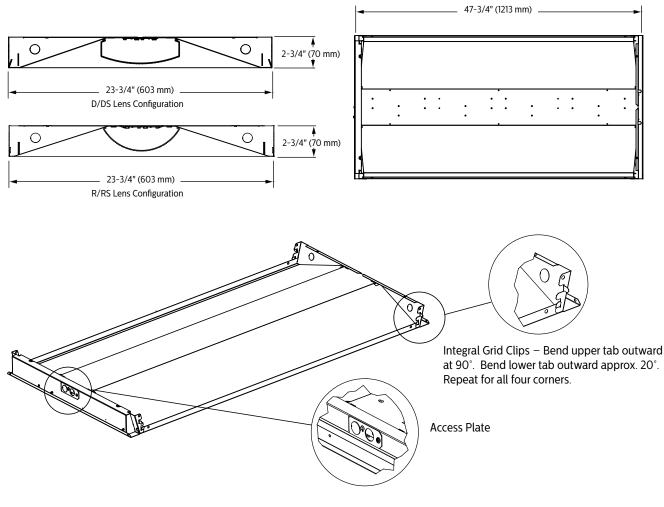
Up to 7400 lumens



Pressure	0.05	0.1	0.15	0.2	0.25	0.3	0.4	0.5
CFM	28	42	58	65	75	84	100	116
Noise	<15	24	34	37	41	45	47	49

Up to 7400 lumens

Dimensions





SpaceWise (SWZG2) automated wireless technology is available for integrated occupancy and daylight harvesting. Individual options for dimming, occupancy detection, and daylight harvesting are also available if SpaceWise option is not selected.

SpaceWise DT (SWZDT) sensor is located in the center on one end flange similar to SWZG2 shown.

Candlepower

End

Cross

Back-45

Angle

Up to 7400 lumens

Photometry

2x4 EvoGrid recessed LED, high efficacy, 4800 nominal delivered lumens

Catalog No.	2EVG48LH840-4-D-UNV-DIM
Test No.	34935
S/MH	1.2
Lamp Type	LED
Lumens	4897
Input Watts	36

Comparative yearly lighting energy cost per 1000 lumens – **\$1.74** 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.

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Photometric values based on test performed

in compliance with LM-79.

2x4 EvoGrid recessed LED, 4800 nominal delivered lumens

6 . I. N		Candlepower						
Catalog No.	2EVG48L840-4-D-UNV-DIM							
Test No.	34090	Angle	End	45	Cross	Back-45		
C /MIL	10	0	1830	1830	1830	1777		
S/MH	1.2	5	1813	1820	1825	1770		
Lamp Type	LED	15	1725	1739	1746	1700		
Lumens	5015	25	1554	1571	1582	1541		
Input Watts	48	35	1317	1347	1365	1330		
Input watts	40	45	1048	1096	1132	1086		
		55	771	851	930	838		
Comparative yearly lighting energy cost per		65	510	642	733	614		
	\$1.29 based on 3000 hrs. and	75	279	417	485	394		
\$.08 pwr KWH.		85	81	123	132	111		

LER – 138

Light Dist	Light Distribution			Avera	age Li	umina	nce
Degrees		Zone	End	45°	Cross		
0-30	1358	27.7		45	7532	8012	8362
0-40	2189	44.7		55	6828	7614	8295
0-60	3775	77.1		65	6090	7566	8686
0-90	4899	100.0		75	5319	7922	9360
0-180	4899	100.0		85	4450	6795	7112

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

рсс		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	69	86	77	68	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

LER – 105

Light Dist	ight Distribution			Avera	age Lu	umina	nce
Degrees	Lumens	% Luminaire		Zone	End	45°	Cross
0-30	1387	27.6		45	7725	8080	8349
0-40	2228	44.4		55	7009	7732	8457
0-60	3836	76.4		65	6290	7919	9045
0-90	5019	100.0		75	5613	8389	9769
0-180	5020	100.0		85 4870 7342 7903			

Coefficients of Utilization

EFFECT	IVE FLO	OR CAVITY	(REFLEC	TANCE 2	0 PER (p	fc=0.20)	

рсс		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	69	56	46	68	55	46	53	46
7	65	51	41	63	50	41	47	40
8	59	46	38	58	46	38	44	36
9	56	42	34	55	41	34	40	34
10	53	39	32	51	39	30	38	30

Up to 7400 lumens

2x4 EvoGrid recessed LED, high efficacy, 4800 nominal delivered lumens

LER - 144

% Luminaire 26.1 42.6 75.8 100.0

100.0

Average Luminance

7650

 Zone
 End
 45°

 45
 7359
 8120

 55
 6833
 8050

 65
 5772
 8313

 75
 4800
 8216

 85
 3218
 7919

Catalog No.	2EVG48LH840-4-R-UNV-D	м
Test No.	38774	4
S/MH	1.3	_
Lamp Type	LED	1
Lumens	4927	2
Input Watts	34	-
Comparative yea	rly lighting energy cost per	e

1000 lumens - \$1.67 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.

Angle	End	45	Cross	Back-45
0	1666	1666	1666	1666
5	1634	1661	1671	1661
15	1560	1599	1619	1599
25	1420	1475	1513	1475
35	1227	1304	1363	1304
45	998	1101	1186	1101
55	752	886	998	886
65	468	674	780	674
75	238	408	502	408
85	54	132	128	132

4932 Coefficients of Utilization

Light Distribution

Degrees 0-30 0-40 0-60 0-90 0-180

EFFEC	EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
рсс	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	97	105	101	95	95	93	
2	97	89	81	94	86	81	83	78	
3	89	78	68	85	76	68	72	67	
4	81	68	59	79	68	58	65	57	
5	75	60	52	72	59	52	57	50	
6	68	55	46	67	54	46	52	45	
7	64	50	40	61	48	40	47	40	
8	58	46	36	57	45	36	44	35	
9	56	41	34	54	40	33	40	33	
10	52	39	30	51	38	29	36	29	

Photometric values based on test performed in compliance with LM-79.

2x4 EvoGrid recessed LED, 4800 nominal delivered lumens

		Candle	epower	r
Catalog No.	2EVG48L840-4-R-UNV-DIM			
Test No.	38786	Angle	End	45
C/MI	12	0	1658	1658
S/MH	1.3	5	1623	1653
Lamp Type	LED	15	1550	1591
Lumens	4903	25	1411	1468
Input Watts	40	35	1219	1299
input watts	40	45	991	1097
		55	747	882
	arly lighting energy cost per	65	465	673
	\$1.97 based on 3000 hrs. and	75	236	405
\$.08 pwr KWH.		85	54	127

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.

Angle	End	45	Cross	Back-45
0	1658	1658	1658	1658
5	1623	1653	1664	1653
15	1550	1591	1612	1591
25	1411	1468	1506	1468
35	1219	1299	1357	1299
45	991	1097	1179	1097
55	747	882	992	882
65	465	673	775	673
75	236	405	480	405
85	54	127	126	127

LER - 122

Light Distribution			Aver	Average Luminance					
Degrees	Lumens	% Luminaire	Zone	End	45°	Cross			
0-30	1280	26.1	45	7307	8088	8690			
0-40	2090	42.6	55	6785	8019	9012			
0-60	3719	75.8	65	5735	8297	9556			
0-90	4902	100.0	75	4761	8153	9672			
0-180	4903	100.0	85	3206	7578	7524			
-									

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	97	105	101	96	95	93	
2	97	89	81	94	86	81	83	78	
3	89	78	69	85	76	68	72	67	
4	81	68	59	79	68	58	65	57	
5	75	60	52	72	59	52	57	50	
6	68	55	46	67	54	46	52	45	
7	64	50	40	61	48	40	47	40	
8	58	46	36	57	45	36	44	35	
9	56	41	34	54	40	33	40	33	
10	52	39	30	51	38	29	36	29	

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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