

# PHILIPS Day-Brite CFI

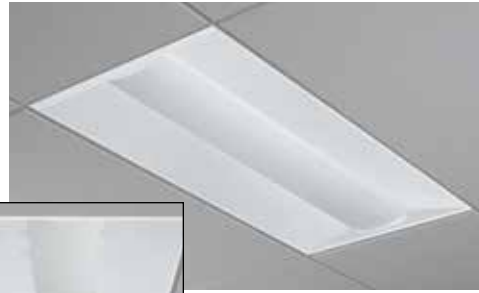
Recessed

EvoGrid  
LED 2x4

Up to 7400 lumens



Air return model



Static model



Project: \_\_\_\_\_  
Location: \_\_\_\_\_  
Cat.No: \_\_\_\_\_  
Type: \_\_\_\_\_  
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.

## Ordering guide

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	<b>Standard efficacy</b> <b>38L</b> 3800 nominal delivered lumens <b>43L</b> 4300 nominal delivered lumens <b>48L</b> 4800 nominal delivered lumens <b>54L</b> 5400 nominal delivered lumens <b>74L</b> 7400 nominal delivered lumens  <b>High efficacy</b> <b>38LH</b> 3800 nominal delivered lumens <b>43LH</b> 4300 nominal delivered lumens <b>48LH</b> 4800 nominal delivered lumens <b>54LH</b> 5400 nominal delivered lumens <b>74LH</b> 7400 nominal delivered lumens	<b>830<sup>1</sup></b> 80 CRI, 3000K <b>835</b> 80 CRI, 3500K <b>840</b> 80 CRI, 4000K <b>850<sup>1</sup></b> 80 CRI, 5000K	4' 4'	<b>D</b> Diffuse (opal) <b>DS</b> Diffuse smooth (opal) <b>R</b> Diffuse round ribbed (opal) <b>RS</b> Diffuse round smooth (opal)	<b>UNV</b> Universal Voltage, 120-277 volt <b>120<sup>2</sup></b> 120V <b>277<sup>2</sup></b> 277V <b>347</b> 347V	<b>DIM<sup>3,9</sup></b> Dimming Step dimming to 40% input power <b>SDIM<sup>4</sup></b> MarkX phase dimming <b>XDIM<sup>2</sup></b> Lutron Hi-lume A 1% dimming <b>LDE</b> Lutron LDE5, 5% dimming <b>DALI</b> DALI	<b>F1</b> 3/8" flex, 3 wire 18 gauge 6' <b>F2</b> 3/8" flex, 4 wire 18 gauge 6' <b>F1/D</b> 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires <b>F2/5W</b> 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires <b>F2/6W</b> 3/8" single flex, 6 wire 18 gauge 6' for dimmable and emergency luminaires <b>GLR</b> Fusing, fast blow <b>EMLED</b> Integral emergency battery pack, 1100lm nominal (ballast enclosure on top of luminaire) <b>IAP<sup>6</sup></b> Integral Interact Pro RF sensor, enables network lighting control <b>SWZG2<sup>4,7</sup></b> Integral sensor, daylighting and occupancy, advanced grouping with dwell time and zoning <b>SWZDT<sup>6</sup></b> Integral sensor, daylighting and occupancy, advanced grouping with dwell time <b>DAYOCC<sup>6</sup></b> Integral sensor, daylighting and occupancy, basic grouping <b>CHIC</b> Chicago Plenum rated <b>CRM<sup>8</sup></b> Continuous row mount <b>TAP</b> Top access plate

1 3000K and 5000K color temperatures available only on high efficacy configurations

2 XDIM requires 120V or 277V specification.

3 Integral IAP, 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

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 between fixtures.

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

## SpaceWise accessories (order separately)

- **LRM1743** – External sensor to increase occupancy coverage area 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

## Other accessories (order separately)

- **FMA24** – 2'x4' "F" mounting frame for NEMA "F" mounting
- **EVD4L** – EvoGrid 2'x4' rectangular ribbed replacement lens
- **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 (factory welded seams), order with -TAP (top access plate) option (SWZG2 and EMLED option not available)
- **FSF24** – 2'x4' surface mount field assembly kit, order with -TAP (top access plate) option (SWZG2 and EMLED option not available)



interact  
ready.

# 2EV EvoGrid LED recessed 2x4

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.
- Access plate located on end provides easy field wiring. TAP option provides top mounted access plate.

## 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](http://www.philips.com/warranties) for complete warranty information.
- TM-21 predicted L70 lumen maintenance up to 80,000 hours for high efficacy 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
- 0-10V dimming to 1%
- 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](http://www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZG2_sensor.pdf)
- Visit [Philips.com/spacewise](http://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](http://www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/DAYOCC_sensor.pdf)

**SWZDT** – [www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZDT\\_sensor.pdf](http://www.lightingproducts.philips.com/documents/webdb2/DayBrite/pdf/SWZDT_sensor.pdf)

## Interact Pro (IAP)

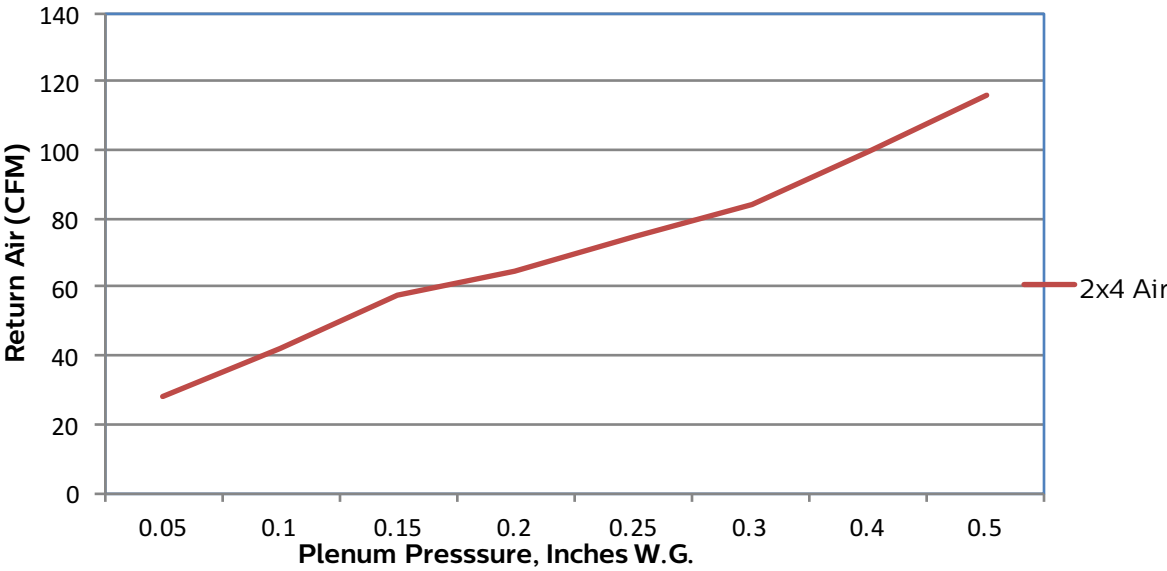
- Interact Pro brings the power of connected lighting to small and medium businesses without the complexity usually associated with connected lighting.
- Interact Pro includes an app, a portal and a broad portfolio of wireless Luminaires, lamps and retrofit kits all working on the same system.
- Commissioning via Interact Pro App (Android or iPhone)
- Prepare commissioning remotely via Interact Pro portal
- Requires compatible Interact Pro Gateway and internet connectivity for commissioning
- Compatible with UID8451/10 ZigBee Greenpower wireless dimmer switch
- Compatible with wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) or wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1)
- For more information on Interact Pro visit: [www.interact-lighting.com/pro](http://www.interact-lighting.com/pro)
- For more information on Interact Ready visit: [www.philips.com/interactready](http://www.philips.com/interactready)

## Energy data

Luminaire	Catalog Number	Input Power	Efficacy
2x4	2EVG38L840-4-D	37	110
	2EVG43L840-4-D	41	108
	2EVG48L840-4-D	48	105
	2EVG54L840-4-D	55	103
	2EVG74L840-4-D	83	93
	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
2x4 High Efficacy	2EVG38LH840-4-D	27	139
	2EVG43LH840-4-D	32	139
	2EVG48LH840-4-D	36	138
	2EVG54LH840-4-D	39	137
	2EVG74LH840-4-D	56	134
	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

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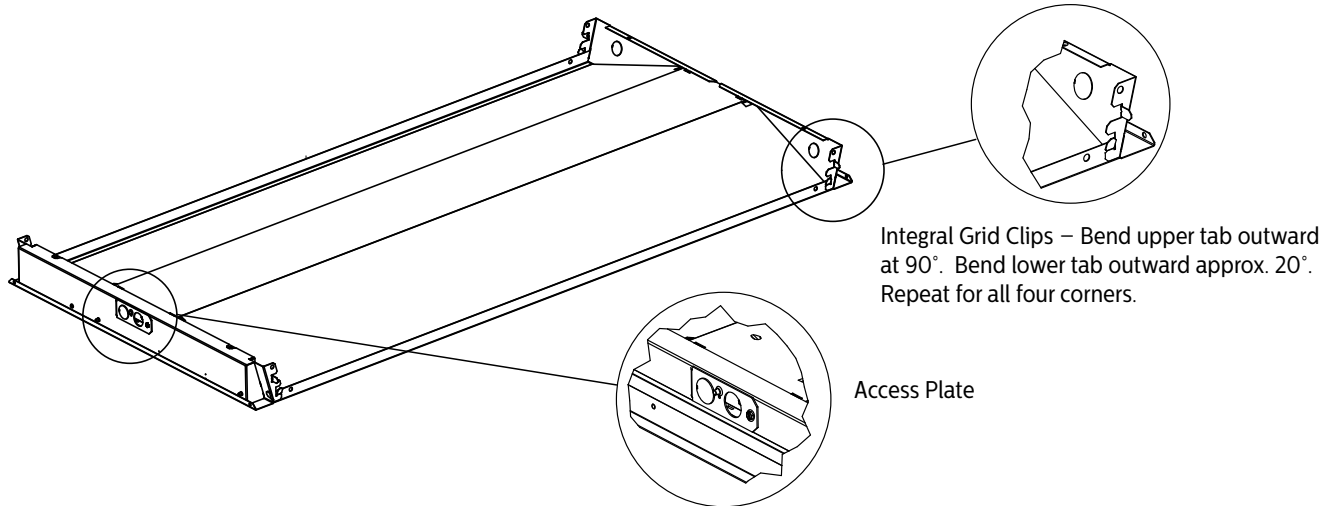
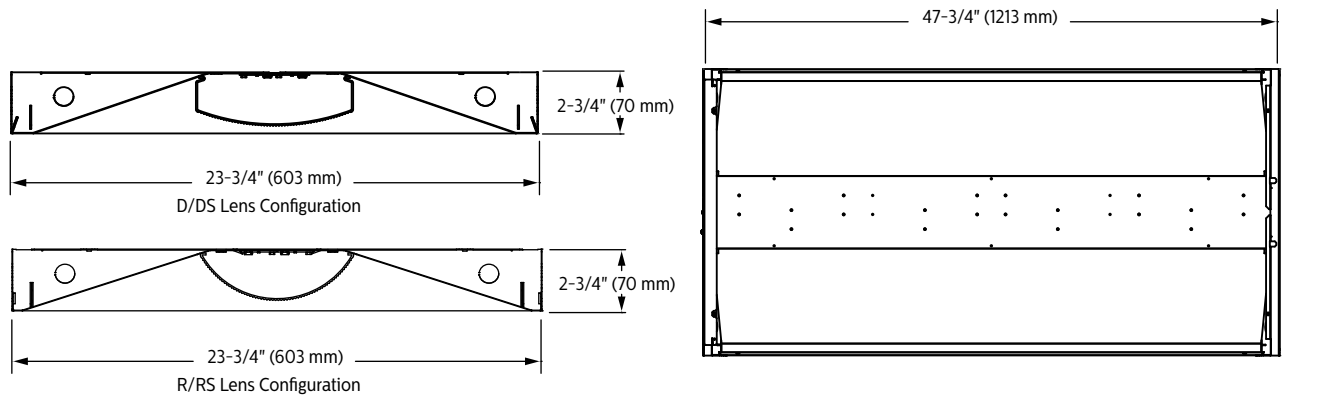


Pressure	0.05	0.1	0.15	0.2	0.25	0.3	0.4	0.5
CFM	28	42	58	65	75	84	100	116
Noise	<15	24	34	37	41	45	47	49

# 2EV EvoGrid LED recessed 2x4

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.

InterAct Pro (IAP), SpaceWise DT (SWZDT), and DAYOCC sensors are located in the center on one end flange similar to shown above.

# 2EV EvoGrid LED recessed 2x4

Up to 7400 lumens

## Photometry

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

LER – 138

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

#### Candlepower

Angle	End	45	Cross	Back-45
<b>0</b>	1778	1778	1778	1778
<b>5</b>	1749	1771	1782	1771
<b>15</b>	1669	1701	1714	1701
<b>25</b>	1509	1545	1566	1545
<b>35</b>	1283	1333	1364	1333
<b>45</b>	1022	1087	1134	1087
<b>55</b>	751	838	913	838
<b>65</b>	494	613	704	613
<b>75</b>	264	393	465	393
<b>85</b>	74	114	119	114

#### Light Distribution

Degrees	Lumens	% Luminaire
<b>0-30</b>	1358	27.7
<b>0-40</b>	2189	44.7
<b>0-60</b>	3775	77.1
<b>0-90</b>	4899	100.0
<b>0-180</b>	4899	100.0

#### Average Luminance

Zone	End	45°	Cross
<b>45</b>	7532	8012	8362
<b>55</b>	6828	7614	8295
<b>65</b>	6090	7566	8686
<b>75</b>	5319	7922	9360
<b>85</b>	4450	6795	7112

#### 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	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	

### 2x4 EvoGrid recessed LED, 4800 nominal delivered lumens

LER – 105

<b>Catalog No.</b>	2EVG48L840-4-D-UNV-DIM
<b>Test No.</b>	34090
<b>S/MH</b>	1.2
<b>Lamp Type</b>	LED
<b>Lumens</b>	5015
<b>Input Watts</b>	48

Comparative yearly lighting energy cost per 1000 lumens – **\$1.29** 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
<b>0</b>	1830	1830	1830	1777
<b>5</b>	1813	1820	1825	1770
<b>15</b>	1725	1739	1746	1700
<b>25</b>	1554	1571	1582	1541
<b>35</b>	1317	1347	1365	1330
<b>45</b>	1048	1096	1132	1086
<b>55</b>	771	851	930	838
<b>65</b>	510	642	733	614
<b>75</b>	279	417	485	394
<b>85</b>	81	123	132	111

#### Light Distribution

Degrees	Lumens	% Luminaire
<b>0-30</b>	1387	27.6
<b>0-40</b>	2228	44.4
<b>0-60</b>	3836	76.4
<b>0-90</b>	5019	100.0
<b>0-180</b>	5020	100.0

#### Average Luminance

Zone	End	45°	Cross
<b>45</b>	7725	8080	8349
<b>55</b>	7009	7732	8457
<b>65</b>	6290	7919	9045
<b>75</b>	5613	8389	9769
<b>85</b>	4870	7342	7903

#### 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	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	

# 2EV EvoGrid LED recessed 2x4

Up to 7400 lumens

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

LER – 144

<b>Catalog No.</b> 2EVG48LH840-4-R-UNV-DIM <b>Test No.</b> 38774 <b>S/MH</b> 1.3 <b>Lamp Type</b> LED <b>Lumens</b> 4927 <b>Input Watts</b> 34  Comparative yearly lighting energy cost per 1000 lumens – <b>\$1.67</b> 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.	<b>Candlepower</b>					<b>Light Distribution</b>			<b>Average Luminance</b>			
	<b>Angle</b>	<b>End</b>	<b>45</b>	<b>Cross</b>	<b>Back-45</b>	<b>Degrees</b>	<b>Lumens</b>	<b>% Luminaire</b>	<b>Zone</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>
	0	1666	1666	1666	1666	0-30	1286	26.1	45	7359	8120	8741
	5	1634	1661	1671	1661	0-40	2100	42.6	55	6833	8050	9071
	15	1560	1599	1619	1599	0-60	3736	75.8	65	5772	8313	9621
	25	1420	1475	1513	1475	0-90	4932	100.0	75	4800	8216	10115
	35	1227	1304	1363	1304	0-180	4932	100.0	85	3218	7919	7650
	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							

## 2x4 EvoGrid recessed LED, 4800 nominal delivered lumens

LER – 122

<b>Catalog No.</b> 2EVG48L840-4-R-UNV-DIM <b>Test No.</b> 38786 <b>S/MH</b> 1.3 <b>Lamp Type</b> LED <b>Lumens</b> 4903 <b>Input Watts</b> 40  Comparative yearly lighting energy cost per 1000 lumens – <b>\$1.97</b> 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.	<b>Candlepower</b>					<b>Light Distribution</b>			<b>Average Luminance</b>			
	<b>Angle</b>	<b>End</b>	<b>45</b>	<b>Cross</b>	<b>Back-45</b>	<b>Degrees</b>	<b>Lumens</b>	<b>% Luminaire</b>	<b>Zone</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>
	0	1658	1658	1658	1658	0-30	1280	26.1	45	7307	8088	8690
	5	1623	1653	1664	1653	0-40	2090	42.6	55	6785	8019	9012
	15	1550	1591	1612	1591	0-60	3719	75.8	65	5735	8297	9556
	25	1411	1468	1506	1468	0-90	4902	100.0	75	4761	8153	9672
	35	1219	1299	1357	1299	0-180	4903	100.0	85	3206	7578	7524
	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							

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