

SmartWatt Energy Training July 2015

July 28 2015

PHILIPS

Philips Lamps and Luminaires



Richard Cremmen BN Yanow

PHILIPS

Philips LED A-Shape Portfolio



40W/60W/75W



40W/60W



75W/100W/3W

Philips SlimStyle A21 75W Equivalent

8W / 10.5W
40W / 60W EQUIVALENT



8A19/SLIM/2700 DIM
10.5A19/SLIM/2700 DIM

13W
75W EQUIVALENT



13A21/SLIM/2700 DIM



13W
75W EQUIVALENT



9.5BR30/SLIM/F90 2700 DIM

A19 with Warm Glow Lighting Effect

6.5W / 9.5W
2700-2200K
40W / 60W EQUIVALENT



453324 9.5A19/2200-2700 DIM
453316 6.5A19/2200-2700 DIM

5.5W / 9W
5000K
40W / 60W EQUIVALENT



454041 9A19/LED/5000 DIM
454058 5.5A19/LED/5000 DIM

Philips LED A21 3-Way

- Works with standard 3-way sockets
- 40W / 60W / 100W Energy Star® equiv.
- 470 / 840 / 1620 lumens
- Available in 2700K
- 25,000 hour life

5W / 9W / 20W
40W / 60W / 100W EQUIVALENT



453365 20A21/END/2700 3W DIM

GU10 Transition

6W / 3000K / 300lm
50W EQUIVALENT



423509 6PAR16/END/F25 3000 DIM
(GU10)



4.5W / 3000K / 315lm
50W EQUIVALENT



Available
Now



454405 4.5GU10/LED/830/F25 DIM

BR30 Transition

65W BR30 SW
TRANSITION TO
'SLIMSTYLE'



65W BR30 SW
TRANSITION TO
'WarmGlow'



Philips LED R/BR



R20

- 8W / 450 lumens
- Replaces a 50W incandescent
- 45,000 h Life
- Dimmable



BR30 AirFlux

- 9.5W / 730 lumens
- Replaces a 65W incandescent
- WarmGlow, dimmable technology
- 25,000 h Life



BR30 SlimStyle

- 9.5W / 650 lumens
- Replaces a 65W incandescent
- 25,000 h Life
- Dimmable



BR40 AirFlux

- 12W / 800 lumens
- Replaces a 65W Incandescent
- 25,000 h Life
- Dimmable



Philips PAR LED Single Optic



PAR30S

- 900 lm
- 15D/25D/36D
- Non-Dimmable



PAR30L

- 900 lm
- 25D/36D
- Dimmable



PAR38

- 900 lm/1200 lm
- 15D/25D/36D
- Dimmable

2700K, 3000K, 3500K, 4000K

50,000 hrs Rated Life

PAR Transition

12.5 PAR30S
Now Dimmable



12W



12.5W



19 PAR38
Now Single Optic



19W



17W



PAR38 Outdoor Transition

PAR38
TRANSITION FROM
OUTDOOR TO 'UL WET'



PROFESSIONAL

NEW LOOK



DiamondSpark Energy Star®

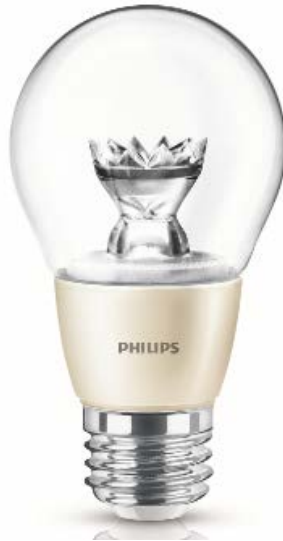
- Full range of products now Energy Star® certified (on Energy Star website)



Diamond Spark



4.5W / 2700K / 330lm
40W EQUIVALENT



454488 4.5A19/LED/827 DIM

4.5W / 2700K / 330lm
40W EQUIVALENT



454496 4.5G25/2700-E26 DIM

MR16 Lamps

Available Now!

6.5W MR16
35W EQUIVALENT

7W MRX16
35W EQUIVALENT

7W MRX16 HO
50W EQUIVALENT

10W MRX16
75W EQUIVALENT



Low Cost
Perfect Fit

High performance
Long Life

More "Punch"
Long Life

Highest Lumens
Active Cooling

MR16 with Warm Glow Lighting Effect

6.5W
2700-2200K
35W EQUIVALENT



Available
Now



454538 6.5MR16/F25/2700-2200 DIM 12V
454546 6.5MR16/F35/2700-2200 DIM 12V

What is InstantFit?

Easiest Transition to LED



World's #1 Sold
In LED Lighting

+

PHILIPS
ADVANCE *

#1 Market Share for
Instant-Start Ballasts

=



Philips InstantFit
LED T8



*Lamps are compatible with more than Philips Advance ballasts

PHILIPS

InstantFit TLED T8

www.philips.com/instantfit



4' 1600 Lumen T8

- 3000K / **3500K** / **4000K** / **5000K**
- 50,000 h Life (L70)/ 5-year Limited Warrant



4' 2100 Lumen T8

- **3000K** / **3500K** / **4000K** / **5000K**
- 50,000 h Life (L70)/ 5-year Limited Warrant
- DLC Approved



3' 1200 Lumen T8*

- 3000K / 3500K / 4000K / 5000K
- 50,000 h Life (L70) 5-year Limited Warranty



2' 1050 Lumen T8

- 3000K / **3500K** / **4000K** / **5000K**
- 50,000 h Life (L70)/ 5-year Limited Warrant



2100 Lumen U-Bend T8*

- 3000K / 3500K / 4000K / 5000K
- 50,000 h Life (L70)/ 5-year Limited Warranty

LED Lamps Update

LED Lamps Product Management

LED Lamps

July, 2015

Portfolio Update



Glossy white base

Translucent white base

| Old 6NC | Old Desc |
|---------|---------------------------|
| 453324 | 9.5A19/2200-2700 DIM 120V |
| 453316 | 6.5A19/2200-2700 DIM 120V |

| New 6NC | New Desc |
|---------|----------------------------|
| 455824 | 9.5A19/LED/827-22 DIM 120V |
| 455766 | 6.5A19/LED/827-22 DIM 120V |

PAR30L Single Optic (Gen2)

Avail July

12W Gen1 PAR30L
2700K/3000K/4000K
25D/35D



- 0.5W More
- Same Lumens
- Same MBCP
- Same Lens
- Same Diameter
- Same MOL

2pc housing 1pc housing

New Part Numbers

Energy Star

12.5W Gen2 PAR30L
2700K/3000K/4000K
25D/35D



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PAR20 (Gen2)

Avail
July

8W Gen1 PAR20
2700K/3000K/4000K
25D/35D

6W Gen2 PAR20L
2700K/3000K/4000K
15D*/25D/35D



2W Less

Same Lighting Effect

Same Diameter

New Lens

Smaller AirFlux Vents

2pc housing

1pc housing

Same Products

Same MOL

Same Base

New Part Numbers

Energy Star



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*15D in 2700K only

LED Lamps Launch

InstantFit Glass & Dimmable TLEDs

LED Lamps Product Management

LED Lamps

July, 2015

Product Positioning



PHILIPS InstantFit



Fluorescent T8 Replacements

Fluorescent "PL" Replacements

4' 2100lm
DIM

4' 2100lm
Glass

3' 1200lm

U-Bent
2100lm

2' 1050lm

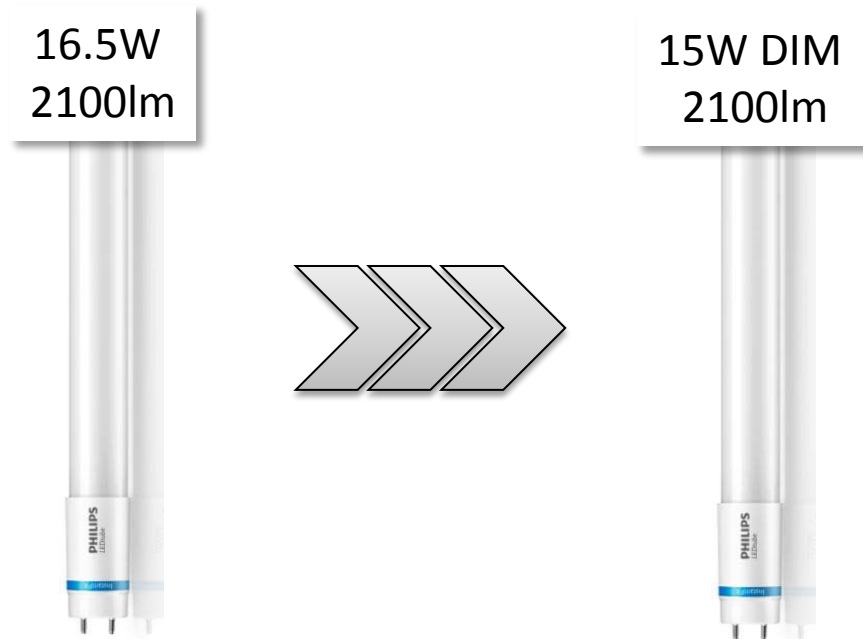
2' PL-L

4' 1600lm



All products in stock
All products on PS500

Product Positioning



| Old 6NC | Old Desc |
|---------|-------------------|
| 434860 | 16.5T8/48-3000 IF |
| 434878* | 16.5T8/48-3500 IF |
| 434886 | 16.5T8/48-4000 IF |
| 434894 | 16.5T8/48-5000 IF |

| New 6NC | New Desc |
|---------|---------------------|
| 456897 | 15T8/48-3000 IF DIM |
| 456905 | 15T8/48-3500 IF DIM |
| 456913 | 15T8/48-4000 IF DIM |
| 456921 | 15T8/48-5000 IF DIM |

*Delisted, zero inventory

Application Notes – Dimmable TLED

Ballast Compatibility

- Works with 15 dimmable ballasts
- Increased Program Start (FO) ballast compatibility
- Increased Emergency ballast compatibility

Dimmer Compatibility

- 0-10V
- Mark 10 dimmers dependent upon ballast

Application locations

- Safe in vapor tight fixtures
- Lower wattage = greater energy savings

When to use

- Daylight harvesting & dimming requirement
- Maximum light output & energy savings
- DLC required /Rebates

Compatibility Comparison 15W vs. 16.5W

| 15W DIM 2100lm | Emergency | T8 PS (Dim) | T8 PS (FO) | T8 IS* | Totals |
|------------------|-----------|-------------|------------|--------|--------|
| System Certified | 16 | 8 | 8 | 24 | 56 |
| Certified | 0 | 7 | 23 | 57 | 87 |
| Total | 16 | 15 | 31 | 81 | 143 |

| 16.5W 2100lm | Emergency | T8 PS (Dim) | T8 PS (FO) | T8 IS* | Totals |
|------------------|-----------|-------------|------------|--------|--------|
| System Certified | 12 | | 4 | 39 | 55 |
| Certified | 0 | | 9 | 56 | 65 |
| Total | 12 | | 13 | 95 | 120 |

*Fulham has not completed testing of the 15W dimmable. Once complete the dimmable compatibility will grow.



Application Notes – Glass TLED



Ballast Compatibility

- System Certified with >78 Instant-Start ballasts
- Certified with >50 Instant-Start ballasts
- System Certified with 8 Emergency ballasts

Compatibility of Glass TLED

| 17W Glass 2100lm | Emergency | T8 IS* | Totals |
|---------------------|-----------|-----------|--------|
| System Certified | 8 | 24 | 32 |
| Certified | 0 | 54 | 54 |
| Total | 8 | 78 | 86 |

Application locations

- Safe in vapor tight fixtures
- Low initial price point
- NSF – Certified / Food Service

When to use

- Low initial investment
- Wider beam desired



Glass TLED NSF Rating?

- Yes – Approved for use in “Food Zone (Non-contact), Splash Zone, and Non-food Zone”
- Verified at the NSF website:
<http://info.nsf.org/Certified/Food/>
Models: 9290011511 & 9290011512
- Glass TLEDs should be covered since joints and seams must be sealed and strict dimensional requirements followed to allow cleaning, and preventing accumulation of dirt and debris.

4' TLED Selling Guide



| Product | When to use |
|-----------|------------------------------|
| 12W | Max Energy Savings |
| 15W Dim | High lumen, Dimmable |
| 17W Glass | Low initial Price w/o rebate |

Evokit generation three

June 2015

[G3 Table](#)

PHILIPS

Philips EvoKit LED

Specifications

| | |
|--------------------------------|---|
| Light Output | 2x4 = 4200lm 2x2 = 3200lm Other* |
| System Watts | 2x4 = 36 2x2 = 28 |
| CCT | 3500/4000/5000K |
| CRI | >80 |
| Install Time | <5 Minutes |
| Dimming | 0-10V (Mark7) Line Voltage (Mark10) Step / bi-level |
| Min. Depth of Existing Troffer | 3" |
| Limited Warranty | 5 Years** |



*Higher and lower lumen packages are available

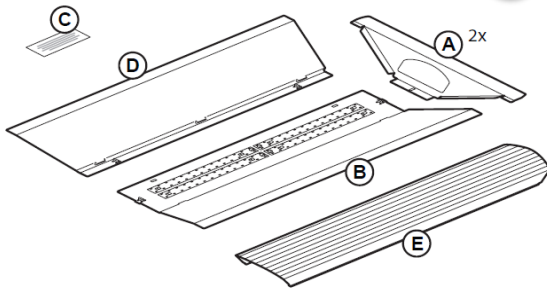
**Please contact your Philips sales rep for warranty terms and conditions

PHILIPS

Quick and Easy Installation

before installing, carefully review all installation instructions and warnings

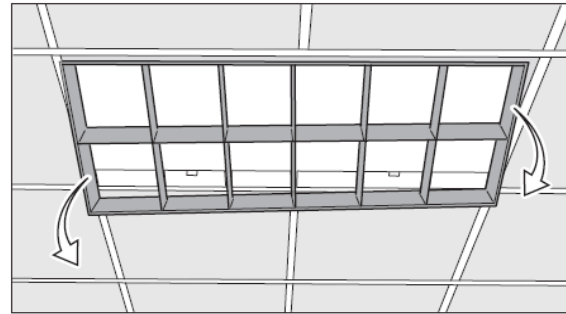
Set contains



- A Side Panel
- B LED Panel
- C Troffer Label
- D Closing Panel
- E Diffuser

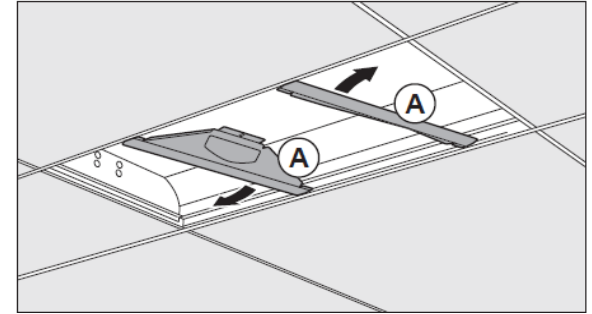
1

Remove host fixture contents

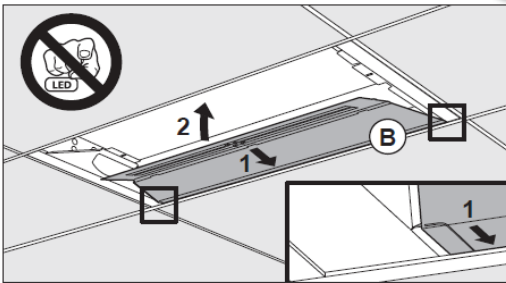


2

Installation of Side Panels (A)



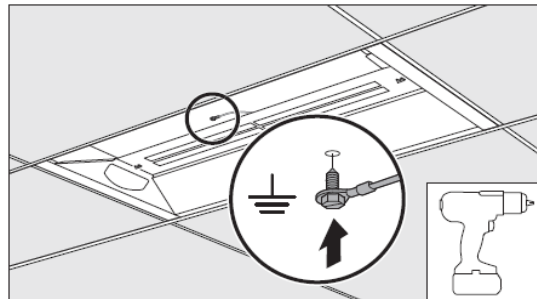
Installation LED Panel (B)



7. Install LED panel (B) in between troffer and T-grid.

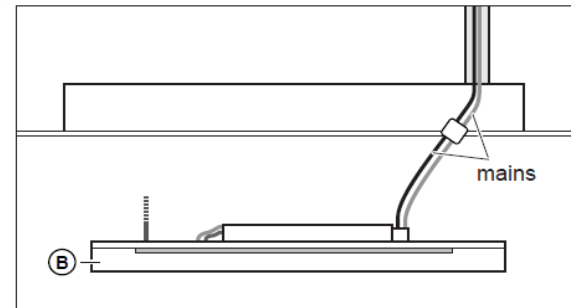
4

Ground connection (Situation 1 - 2)

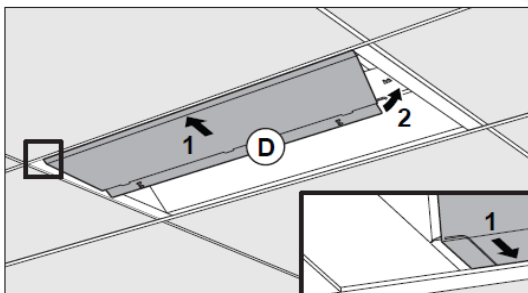


5

Mains connection

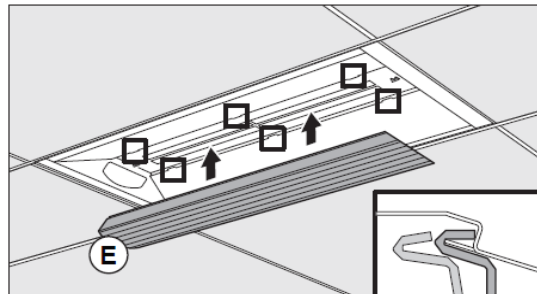


Installation Closing Panel (D)



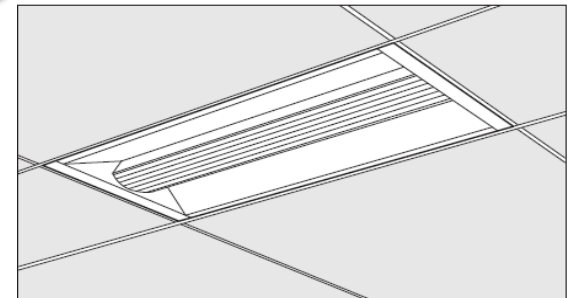
7

Installation Diffuser (E)



8

Complete - Energize Unit



Features

- Dimming is Standard
 - 0-10
 - Widely available and most common
 - UNIVERSAL INPUT VOLTAGE (120-277V)
 - Mark10 / line voltage
 - Very unique to Philips
 - Eliminates the need to pull additional wires
 - There is a dimmer compatibility list of Mark10 dimmers
 - DEDICATED INPUT VOLTAGE (120 OR 277V)
 - Step / bi-level
 - Two hot wires
 - Both connected...100% light output
 - One, but not both connected...40% light output
 - UNIVERSAL INPUT

Features

- Earthquake accessory
 - Separately purchased accessory meant to mechanically secure the LED panel to the existing luminaire for code compliance
 - There is an application guide detailing how to install the accessory
 - Comes in bags of 50. Two are required per kit.

- Emergency battery back-up
 - To be installed in the field
 - Suitable for use with Philips 503441 battery back-up

What is Simpleset Technology



It used to be that a resistor installed into the terminal block on the driver set the drive current which controls the light output. The resistor was installed at the factory.



With Simpleset, a resistor is no longer required because the driver current can now be programmed wirelessly. The factory uses a wand-type device to program the drivers.

We have taken this ability to wirelessly program the drivers and have brought it to the field.

EvoKit, Simpleset Technology

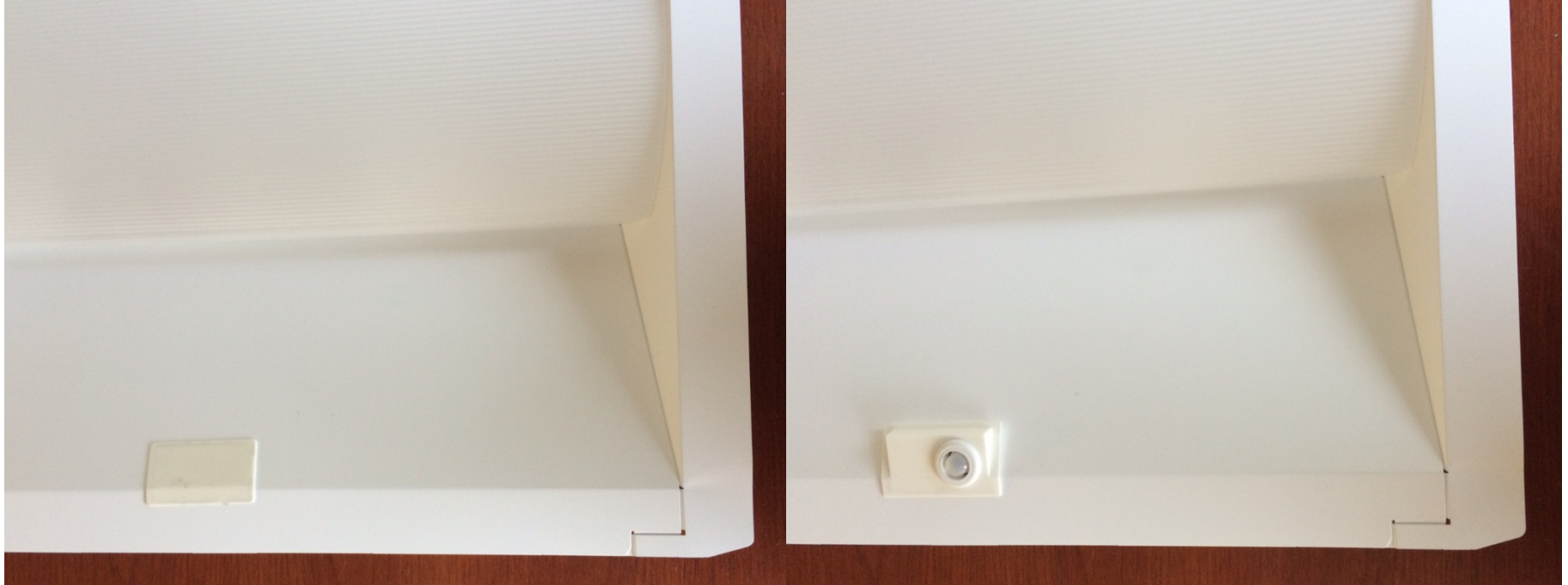
- Simpleset technology is available in the 0-10V and SR versions
 - A downloadable Android smartphone app is used to adjust the max lumen level from the **rated output** down to 1500lm (DLC range)
 - The smartphone needs to be right next to the driver
 - This can reduce the number of sku's a distributor stocks or contractor specifies
 - This also gives the distributor/contractor the added flexibility to give their customers exactly the lumen level they want...and to modify that lumen level right up to the point of installation
 - The Simpleset feature does not have to be used. It's there to give the user the ability to easily tune the evokit before installation...if they chose to do so

SIMPLESET



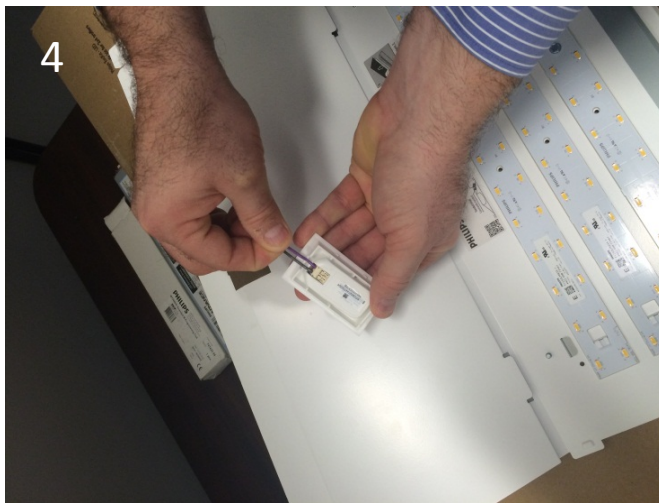
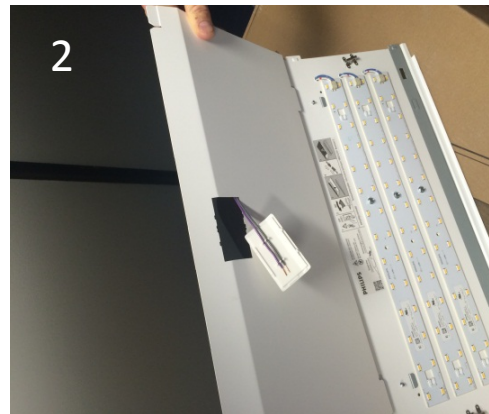
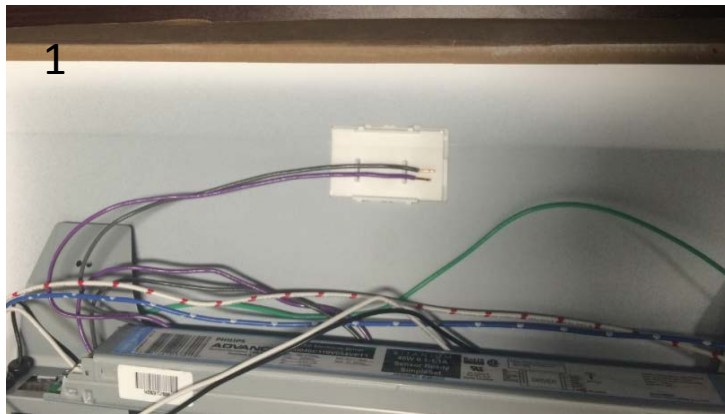
The smartphone app adjusts the max lumen level (within the DLC range) simply by placing the smartphone next to the NFC antenna on the driver and tapping a few tabs on the screen. Evokit does not need to be powered up. Distributors can set the max lumen level before they ship to their customers, and contractors can set it right before installation. Will be available in the 0-10 and SR versions.

What is EvokitSR (sensor ready)



EvokitSR is meant to be fitted with an (appropriate) sensor in the field, ie it is sensor ready. There would be no reason to buy the evokitSR if you are not intending on adding controls. It is shipped with a mounting hole and cover.

EVOKIT SR



A platform to which various different sensors can be **EASILY** connected depending on what level of sensing and control you want, from simple occ / daylight sensing to data-reporting cloud-connected sensing. EvokitSR ships with a cover that has the two sensing wires attached to the back of it. Remove the cover...remove the wires...insert the wires into the sensor...insert the sensor into the hole...THAT'S IT!

Evokit breakdown

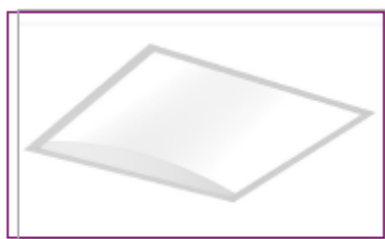
2x4 4700/4200/3600lm

2x2 3200/2300lm

| | | CCT | Integrated Controls | Simpleset | Input Voltage |
|-------------|-------------------|-------------------------|--------------------------------|-----------|------------------|
| EVOKIT GEN3 | 0-10V | 3500K 4000K 5000K | Spacewise | Available | 120-277V 347V |
| | Mark10 | 3500K 4000K | | | 120V 277V |
| | Step | 3500K 4000K | | | 120-277V |
| | SR (sensor ready) | 3500K 4000K 5000K | Contact your local Philips rep | Available | 120-277V |

LED offering 2015

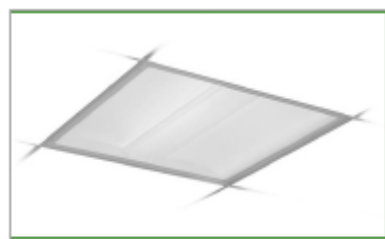
Statement Performance Core



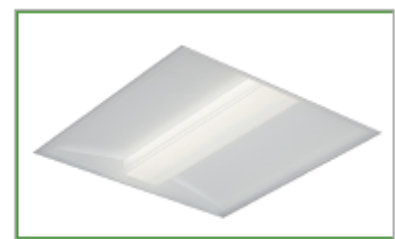
ArcForm



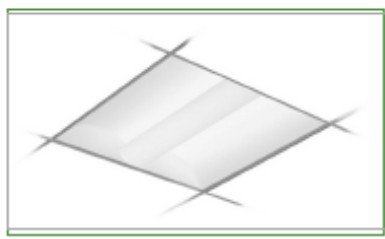
VersaForm



SofTrace LED



ClearAppeal LED



Arioso LED



DuaLED



Coffaire LED



SpecPlus LED



HP90 LED

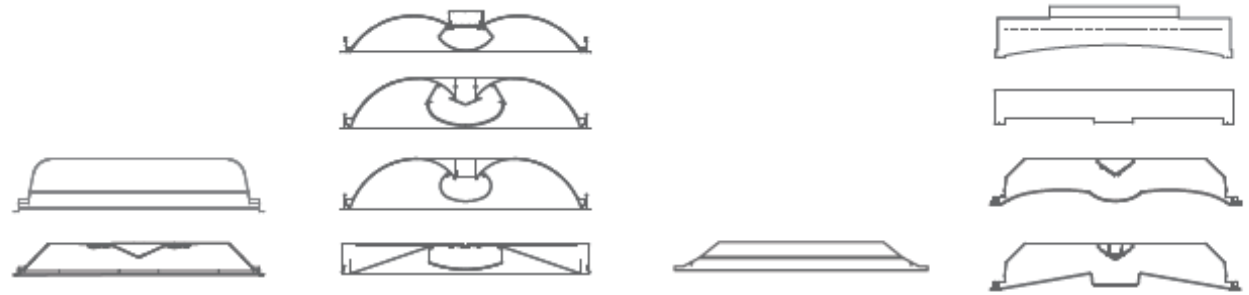


EvoGrid LED



T-Grid LED

LED portfolio positioning 2015



Performance ↑
\$\$\$
\$

| Brand | Positioning | Prismatic Lens | Single Lens Basket | Double Lens Basket | Full Lens |
|------------------|-------------|--------------------|-------------------------|--------------------|-----------------------------------|
| Philips Ledalite | Statement | | | | ArcForm VersaForm |
| | Performance | | Arioso LED | | SoftTrace LED ClearAppeal LED* |
| Philips Day-Brte | | Spec Plus LED | Coffatre LED | DuaLED | |
| | Core | | HP90 LED EvoGrid LED | | |
| | | T-Grid LED Troffer | | | |

Philips Day-Brite EvoGrid Recessed LED*

Advantages

- Modern architectural aesthetics
- High efficiency, up to 110 LPW
- Extensive range of lumen packages and color temperatures
- Future proof
- Integral day and occupancy sensors to enable code compliance
- Integral wireless control solution (SWZ) by Q3 2015
- All sizes (1x4, 2x2, and 2x4) available by Q3 2015
- L70, 50K – predicted life as per TM21A
- Standard 0-10V dimming
- DLC listed by time of launch

* Available June 2015



Philips Day-Brite ClearAppeal LED

Advantages

- Glare free lighting for visual comfort and pleasing appearance
- Controlled amount of light directed at higher angles eliminates cave effect
- Highest efficiency in the category (up to 110 LPW)
- Single piece extruded lens
- Future proof
- Integral day and occupancy sensors to enable code compliance
- Integral wireless control solution (SWZ)
- All sizes (1x4, 2x2, and 2x4) available in both surface and recessed models
- L70, 50K – predicted life as per TM21A
- Bottom access enables ease of maintenance
- Standard 0-10V dimming
- DLC listed by time of launch



Philips Day-Brite EvoGrid LED Recessed luminaire family

Craig Wright

Indoor General Area

June 2015

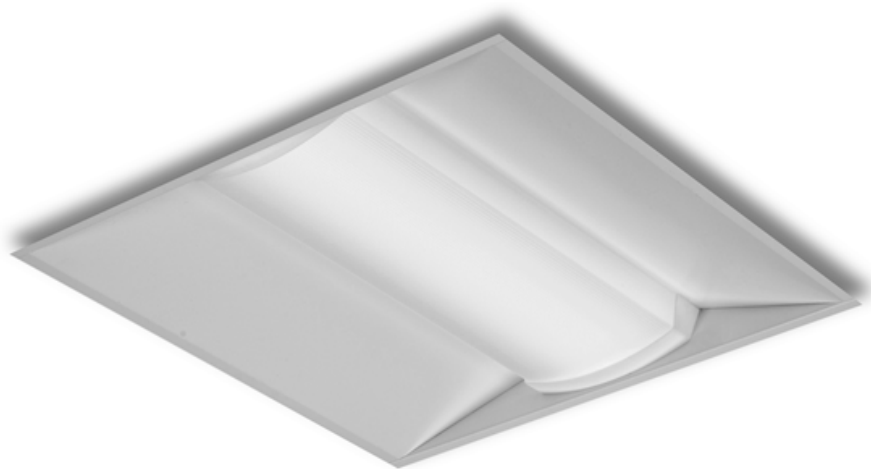


Change
within reach

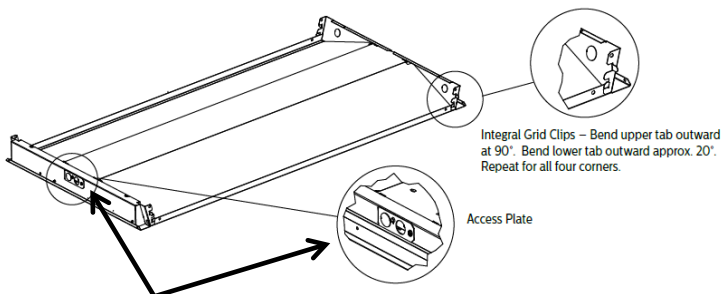
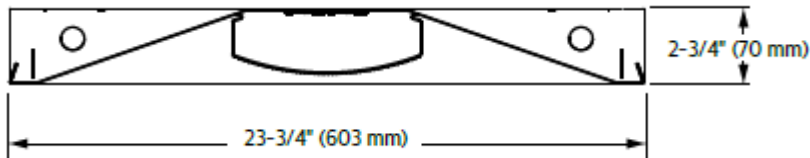
PHILIPS

Product Details

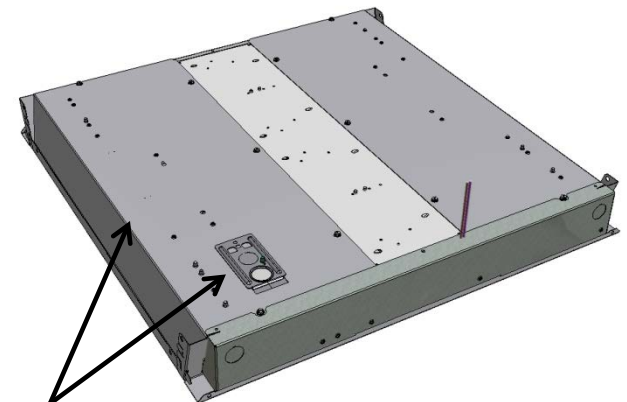
Design



- Attractive single lens enclosure and architectural aesthetics.
- Uniform glare-free lighting without pixilation
- Matt White high reflectance finish.
- Integrated Grid Clips
- 2.75" depth



Standard configuration w/ driver mounted on end. Access plate located as shown.



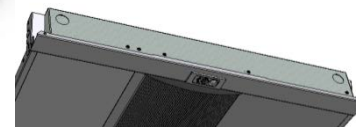
Emergency driver & continuous row options require side covers. Access plate located as shown.

Product Details

- 3 sizes: 2x2, 2x4 and (1x4 by Q4 2015)
- T-Grid and Dry wall ceilings
- Currently Static only. Air by Q4 2015.
- 3500, 4000 and 5000K
- CRI >80+
- Calculated L70 up to 50K as per TM21A.
- Predicted L70 up to 80K as per TM21.
- 3000, 3800, 4500lm (2x2)
- 3800, 4300, 4800, 5400, 7400lm (2x4)
- 2600, 3000, 4000lm (1x4) – by Q4
- Chicago plenum
- 120/277V, 347V
- Integrated battery packs
- Integrated Daylight and Occupancy sensors
- Space Wise under development. Expected to be available by Q4 2015.
- Standard dimming (0-10V)
- DALI, Step-dim, Phase Dim, and Lutron Hi-Lume A and EcoSystem drivers as options



Actilume Day and Occ Sensor



Space Wise



A young child is smiling and holding a glowing light stick at a night festival. The background is filled with colorful bokeh lights in shades of blue, green, and yellow. The child is wearing a light-colored t-shirt with a graphic design.

Philips SpaceWise Technology

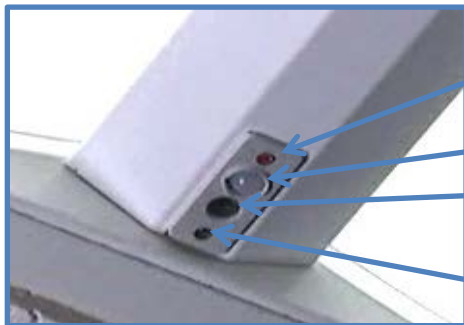
Product Marketing
July 17, 2015

PHILIPS

What is SpaceWise Technology?

Affordable, Automated, Wireless LED lighting solution

- An integral LED lighting system with embedded sensors and wireless controls designed specifically for luminaire replacement / upgrade opportunities.
- A system that delivers deep energy savings of Up to 75%* through automated, subtle, granular dimming behavior.
- Economical and simple with easy to install and use; no commissioning or design.
- Smart: algorithms maintain handshake between effective lighting performance with user comfort.
- Stand-alone: no external connections, no integration with BMS solutions



LED indicator: Red = Motion detected
Yellow = No motion detected

PIR Sensor: Occupancy sensor

Closed Loop For daylighting and automatic

Light Sensor: Light level calibration

IR Receiver: Receives signals from the commissioning remote

The fundamentals of SpaceWise Technology

Basic functionality

- SpaceWise enables wireless connected luminaires in a room or area.
- Luminaires detect presence and share occupancy information.
- All luminaires within a group act in a predefined 'office' or 'industry' automated behavior.
 - Automated behavior is activated by selecting the appropriate application mode via the commissioning remote (IRT9090).
- All of this without any additional investments in control cables or complex commissioning.

Simple installations:

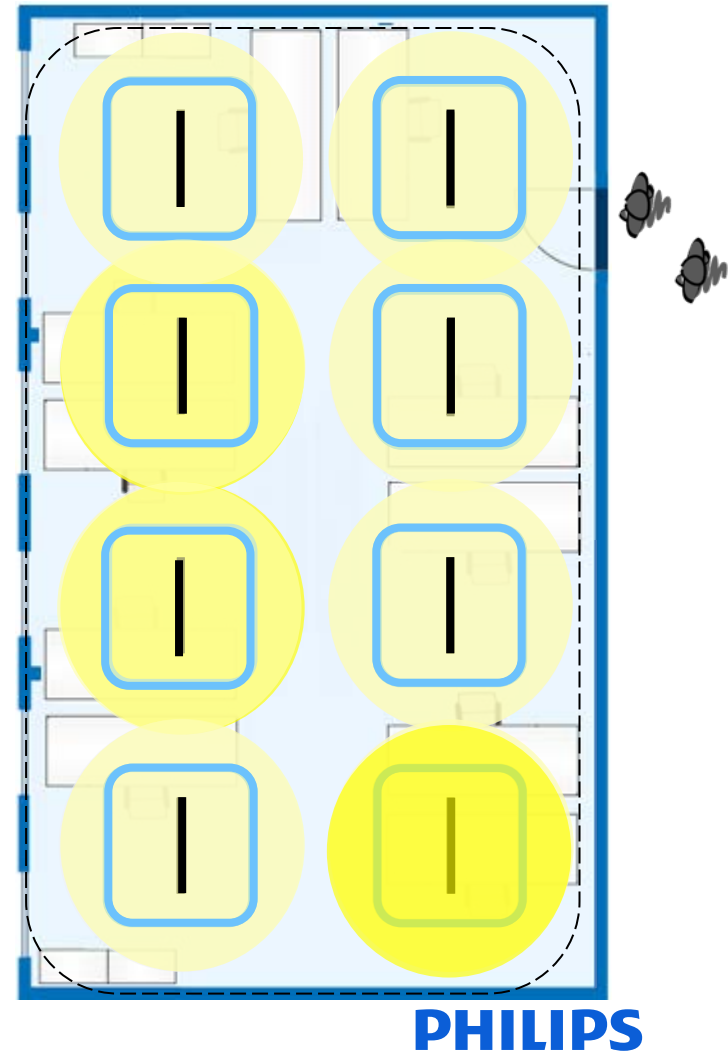
- The wireless network can have up to 50 devices (luminaire / wireless UI)
- A wireless device can only be in one wireless network
- All luminaires within a network have similar automated behavior (same mode)



How does the system work ?

Granular dimming behavior

- Upon entering the SpaceWise luminaires detect movement and the luminaires turn on at a background level.
- As occupants settle down lights dim up to task level (determined by the daylight sensor and the wattage trim level).
- As workers move away, their lights dim down to the background level.
- When the group is entirely empty lights turn off.
- There is no flashing of lights as the system is smart to distinguish between a fast motion and a stable motion.



SpaceWise Mode selection

Selection between Office and Industry Applications



'Office' application modes

- 1 Private office / Meeting room Auto ON
- 3 Private office / Meeting room Manual ON
- 5 Corridor & Stairwell Auto OFF
- 24 Open office Auto ON
- 25 Open office Manual ON
- 26 Corridors & Stairwell Auto dim to background

'Industry' application modes (coming soon)

6. Storage Auto ON
7. Warehouse Auto ON
8. Distribution center Auto ON
9. Warehouse comfort Auto ON

SpaceWise Applications

Office Modes (can also be used for classrooms)

| Application setting | Mode 1: Private Office/ Meeting Room - Auto On | Mode 3: Private Office/Meeting Room - Manual On | Mode 24: Open Office – Auto On | Mode 25: Open Office – Manual On | Mode 26: Corridors & Stairwells | Mode 5: Corridors & Stairwells |
|-----------------------------------|--|--|--------------------------------------|--|---------------------------------------|--------------------------------------|
| Out of the box behavior | Behavior of the luminaires before grouping or being altered via the commissioning remote. | | | | | |
| Power-up state | On | On | On | On | On | On |
| Hold Time | 10 min | 10 min | 10 min | 10 min | 10 min | 10 min |
| Background Level | 25% | 25% | 25% | 25% | 25% | 25% |
| Prolong Time | Infinite | Infinite | Infinite | Infinite | Infinite | Infinite |
| Start-up and Dim behavior | Behavior of the luminaires after grouping. | | | | | |
| Background Level | 27% | 27% | 27% | 27% | 27% | 10% |
| Fading to Switch On | 1s | 1s | 1s | 1s | 1s | 1s |
| Hold Time | 10 min | 10 min | 10 min | 10 min | 5 min | 5 min |
| Fading to Background Level | 10s | 10s | 10s | 10s | 10s | 10s |
| Prolong Time | 15 min | 0 min | 15 min | 0 min | 15 min | Infinite |
| Occupancy Mode | Auto On / Auto Off | Manual On / Auto Off | Auto On / Auto Off | Manual On / Auto Off | Auto On / Auto Off | Auto On / No Auto Shutoff |

*Hold time is the occupancy time out after which the luminaire dims from the task level to the background level.

** Prolong time is the time for which the luminaire stays at the background level before switching off.

SpaceWise Applications

Industry Modes (coming soon)

| Application setting | Mode 6: Storage | Mode 7: Warehouse | Mode 8: Distribution Center | Mode 9: Warehouse Comfort |
|----------------------------|--|----------------------|--------------------------------|---------------------------------|
| Out of the box behavior | Behavior of the luminaires before grouping or being altered via the commissioning remote. | | | |
| Power-up state | On | On | On | On |
| Hold Time* | 15 min | 15 min | 15 min | 15 min |
| Background Level | 30% | 30% | 30% | 30% |
| Prolong Time** | Infinite | Infinite | Infinite | Infinite |
| Start-up and Dim behavior | Behavior of the luminaires after grouping. | | | |
| Switch ON Level | 60% | 60% | 60% | 60% |
| Background Level | 10% | 20% | 10% | 20% |
| Fading to Switch On | 0s | 0s | 0s | 0s |
| Hold Time | 2 min | 5 min | 2 min | 5 min |
| Fading to Background Level | 10s | 10s | 10s | 10s |
| Prolong Time | 2 min | 5 min | Infinite | Infinite |
| Switch OFF to 0% | Yes | Yes | No. Stays at background level | No. Stays at background level |

*Hold time is the occupancy time out after which the luminaire dims from the task level to the background level.

** Prolong time is the time for which the luminaire stays at the background level before switching off.

SpaceWise Portfolio



EvoKit



EvoGrid

Available Sept 2015



ClearAppeal

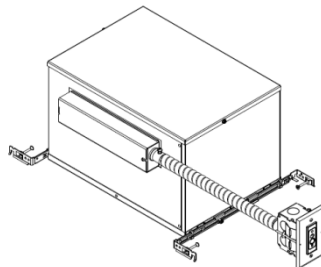
Available Aug 2015



DuaLED



Downlight
Coming soon



Daisy chain multiple
downlights; 400VA max
rating.



FBX HighBay
Coming soon

Balance of the stock Portfolio

Portfolio Product High Bay



FBD
High Bay Fluorescent
2, 3, 4, 6 lamp



FBL
LED High Bay



FBX
LED High Bay (new)

Portfolio Product Strip



N1, TN1
Strip 1 lamp
2', 4', 8'

T2, TT2
Strip 2 lamp
2', 4', 8'

IS, TIS
Industrial 1, 2
lamp 4', 8'

T1F3
Industrial 3
lamp

Product Portfolio Troffers



SPS
Troffer
2X2,
2X4, LED



2TG
Troffer 2X2,
2X4
Fluorescent ,
LED



2LP3
Parabolic
2X2, 2X4
Fluorescent

Product Portfolio WRAPS



SJ1, TSJ1

Wrap 1 lamp- 4', 8'

OWN2, TOWN2

Wrap 2 lamp- 2', 4', 8'

CAW3

Wrap 3 lamp- 4'

DWAE, TDWAE,

V2WAE3

Vaportight 1, 2,

3 lamp- 4', 8'

A young child is smiling and holding a glowing light stick at a night festival. The background is filled with colorful bokeh lights in shades of blue, green, and yellow. The child is wearing a light-colored t-shirt with a graphic design. The overall scene is festive and brightly lit by the ambient festival lights.

Philips Day-Brite / Philips CFI
LED High Bay FBX

PHILIPS

LED High Bay FBX



PHILIPS
Day-Brite

PHILIPS
CFI

LED High Bay FBX

Key Features

- Efficacies up to 120 lm/w
- Multiple lumen packages up to 45,000 nominal delivered lumens
- Three sizes optimized to lumen packages
- Multiple light distribution patterns
- 4000K and 5000K color temperatures
- 80+ CRI
- 0-10V dimming drivers are standard
- Available in all standard voltages 120V - 480V
- Available for ambient temperatures up to 55C
- Multiple mounting options
- Optional motion detector
- Optional integral emergency battery
- DLC listed (check DLC website to confirm exact catalog number)

Enjoy
**flexibility
& savings**
along with quality illumination



[FBX_HE.pdf](#)

PHILIPS
Day-Brite

PHILIPS
CFI

Conventional Comparison

| Conventional System | Conventional System Wattage | FBX Potential Equivalent | FBX System Wattage | Energy Savings | % Savings |
|---------------------|-----------------------------|--------------------------|--------------------|----------------|-----------|
| 100W PSMH | 129W | FBX08LL40 | 82W | 47W | 36.43% |
| 150W PSMH | 190W | FBX12LL40 | 98W | 92W | 48.42% |
| 250W PSMH | 288W | FBX16LL40 | 165W | 123W | 42.71% |
| 400W PSMH | 454W | FBX24LL40 | 197W | 257W | 56.61% |
| 750W PSMH | 820W | FBX45LL40 | 398W | 422W | 51.46% |
| (4) 54W T5HO | 236W | FBX16LL40 | 165W | 71W | 30.08% |
| (6) 32W T8 | 221W | FBX16LL40 | 165W | 56W | 25.34% |
| (6) 54W T5HO | 354W | FBX24LL40 | 197W | 157W | 44.35% |



Compared to conventional systems, the FBX LED technology can save up to 56% of the energy required to light a space.

Optics & Lenses

Multiple optics are available to create the proper lighting design for the application. Optional lenses are available to cover the LEDs, diffuse the images created by each LED, or reduce glare. Note that the addition of the lens will reduce the light output and could possibly distort the desired effect of the optical distribution.

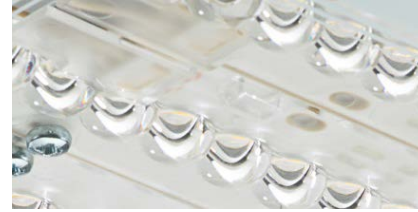


1. General Distribution (no optics)
2. With Optics (narrow, medium, wide, or aisle)



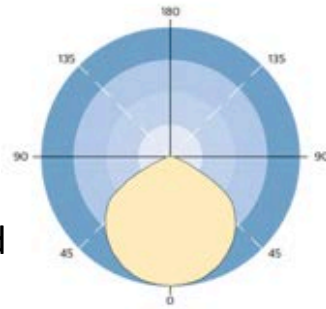
3. Clear Acrylic Lens (LCA) option
4. Frosted Acrylic Lens (LFA) option
5. Prismatic Acrylic Lens (LPA) option

Light Distributions

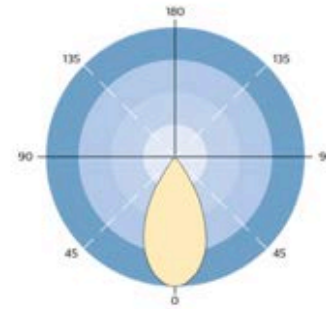


Each optic is designed for a specific purpose:

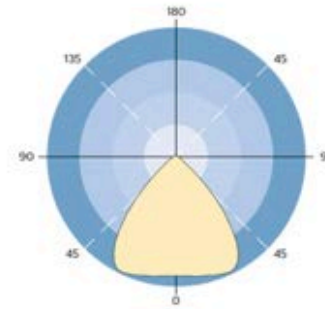
- General distribution allows a wash of light in any application
- Narrow beam allows focused light in higher ceiling areas
- Medium beam is tailored for mid mounting heights
- Wide beam is perfect for low bay areas or locations with wider fixture spacing
- Aisle beam has an asymmetric distribution for aisle or rack areas



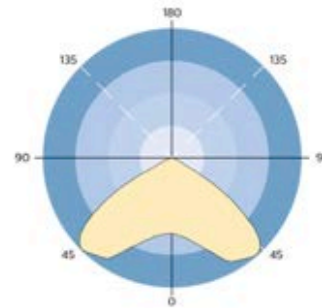
General



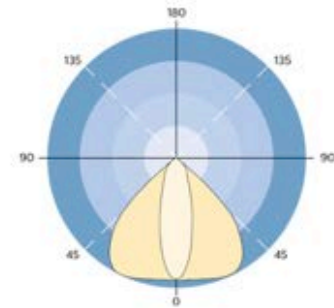
Narrow



Medium



Wide



Aisle

Options & Accessories



Wire Guard



Chain Kit



Cable Kit



Pendant Hanger



Emergency Option



Motion Detector

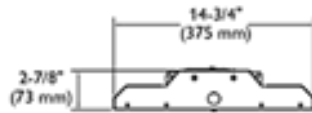
Multiple options and accessories are available to match the luminaire to the existing space requirements or to the desired design effect.

Dimensions

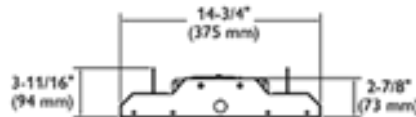
Each of the three sizes is configured for specific lumen packages. Tailoring the size of the luminaire to the lumen package increases efficiencies in material usage.



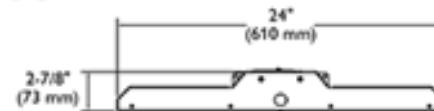
FBX08L
FBX12L



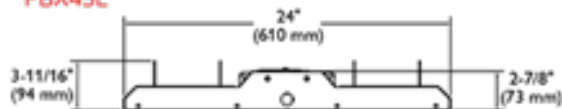
FBX08L high ambient
FBX12L high ambient



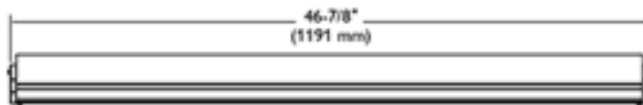
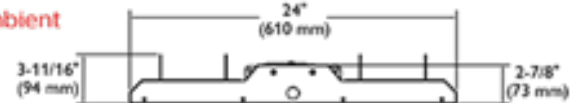
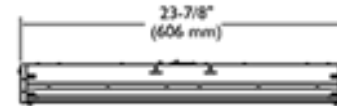
FBX16L
FBX20L
FBX24L



FBX36L
FBX45L



FBX16L high ambient
FBX20L high ambient
FBX24L high ambient



Portfolio Cheat Sheet

| Category | Catalog Number/ Description | Stock Status |
|----------------------------------|---|--------------|
| High Bay FBD DOOR WITH LENS 2-4L | FBD-4E-1W | Stock |
| High Bay FBD DOOR WITH LENS 6L | FBD-6E-1W | Stock |
| High Bay FBD Fluorescent | FBD254HO-UNV-1/2-EB | Stock |
| High Bay FBD Fluorescent | FBD332-UNV-1/3-EBH | MTO |
| High Bay FBD Fluorescent | FBD354HO-UNV-1/3-EB | Stock |
| High Bay FBD Fluorescent | FBD432-UNV-1/4-EBH | Stock |
| High Bay FBD Fluorescent | FBD454HO-UNV-1/4-EB-2LS | Stock |
| High Bay FBD Fluorescent | FBD632-UNV-1/42-EBH | Stock |
| High Bay FBD Fluorescent | FBD654HO-UNV-1/42-EB | Stock |
| High Bay FBD GUARD 2-4L | WG-FBD4 | Stock |
| High Bay FBD GUARD 6L | WG-FBD6 | Stock |
| High Bay FBD GYM GUARD 2-4L | FBD4-GL | Stock |
| High Bay FBD GYM GUARD 6L | FBD6-GL | Stock |
| Industrial- Strip 4' | IS132-UNV-1/1-EB-QHE132T8UVISLSC | Stock |
| Industrial- Strip 4' | IS132-UNV-1/1-EB-QHE132T8UVISNSC | Stock |
| Industrial- Strip 4' | IS232-UNV-1/2-EB-QHE232T8UVISHSC | Stock |
| Industrial- Strip 4' | IS232-UNV-1/2-EB-QHE232T8UVISLSC | Stock |
| Industrial- Strip 4' | IS232-UNV-1/2-EB-QHE232T8UVISNSC | Stock |
| Industrial- Strip Tandem | T1F332-PP-UNV-1/42-EB-QHE232T8UVISHSC-QHE432T8UVISH | MTO |
| Industrial- Strip Tandem | TIS132-UNV-1/2-EB-QHE232T8UVISHSC | Stock |
| Industrial- Strip Tandem | TIS132-UNV-1/2-EB-QHE232T8UVISLSC | Stock |
| Industrial- Strip Tandem | TIS132-UNV-1/2-EB-QHE232T8UVISNSC | Stock |
| Industrial- Strip Tandem | TIS232-UNV-1/4-EB-QHE432T8UVISH | Stock |
| Industrial- Strip Tandem | TIS232-UNV-1/4-EB-QHE432T8UVISLSC | Stock |
| Industrial- Strip Tandem | TIS232-UNV-1/4-EB-QHE432T8UVISNSC | Stock |

The End



Thank you!!