

# LED Lamps Update

LED Lamps  
Oct, 2015

# A Lamps

LED Lamps  
Oct, 2015

# 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



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



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

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

# 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

# Philips LED A19 3000K



DIMMABLE



## Product Positioning

- Performance dimmable A19
- 60W A19 replacement (Dimmable)
- 3000K (Compliments 2700K & 5000K lamps)
- 25,000 hour life (L70)
- ENERGY STAR Certified

6NC	Product Description	Watts	Equivalent Wattage	Life (L70)	Lumens	CCT
459057	9A19/LED/830/DIM 120V	9	60	25,000	800	3000

# 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



# Bulbs/BR

LED Lamps  
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# BR40 Transition

12W/ 2700K / 800lm  
65W EQUIVALENT



Out of Stock!

431940 12BR40/F90 2700 DIM AF

9W/ 2700K-2200K /  
650lm  
65W EQUIVALENT



457010 9BR40/LED/827-22/DIM



Available  
Now

# Philips LED Reflectors with Warm Glow Effect

## Product Positioning



- Warm glow lighting effect now across all reflectors
- Performance reflectors with warm glow effect
- The more you dim the warmer the light
  - Dims from 2700K to 2200K
- Traditional shapes (R20, BR30, BR40)
- ENERGY STAR® Certified



6NC	Product Description	Watts	Equivalent Wattage	Life (L70)	Lumens	CCT (K)
456979	6R20/LED/827-22/DIM	6	50	25,000	450	2700-2200
457044	9BR30/LED/827-22/DIM	9	65	25,000	650	2700-2200
457010	9BR40/LED/827-22/DIM	9	65	25,000	650	2700-2200

# GU10 Transition

**6W / 3000K / 300lm**  
50W EQUIVALENT



**4.5W / 3000K / 315lm**  
50W EQUIVALENT



Available  
Now



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

454405 4.5GU10/LED/830/F25 DIM

# 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



**PHILIPS**

\*15D in 2700K only

# 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



# PAR30L Single Optic (Gen2)

Avail July

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



12.5W Gen2 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





# PAR38 Outdoor Transition

**PAR38**  
TRANSITION FROM  
OUTDOOR TO 'UL WET'



17W  
1050lm

PROFESSIONAL



**NEW LOOK**

15W  
1050lm

# Candles

LED Lamps  
Oct, 2015

# DiamondSpark Energy Star®

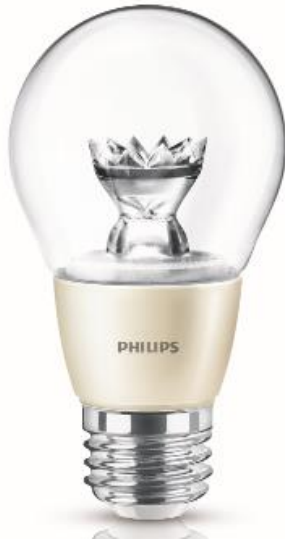
- Full range of products now Energy Star® certified (on Energy Star website)



# 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

# Philips LED Portfolio with Warm Glow



**A-Shape:  
(A19)**

ENERGY STAR

Warm Glow Dimmable Light

Warm Glow Dimmable Light

**Small Reflectors:  
(GU10, MR16)**

ENERGY STAR

Warm Glow Dimmable Light

Warm Glow Dimmable Light

**Large Reflectors  
(R20, BR30, BR40)**

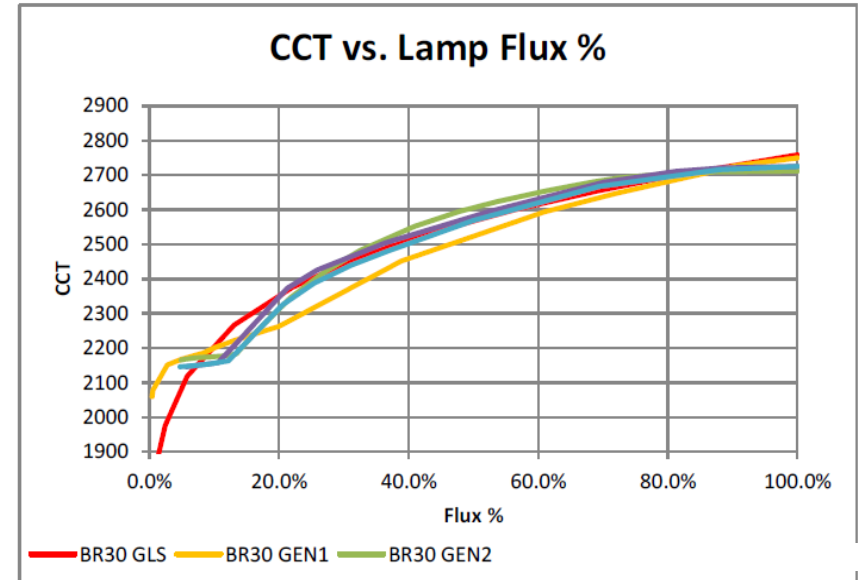
ENERGY STAR

Warm Glow Dimmable Light

Warm Glow Dimmable Light

Warm Glow Dimmable Light

**Candles – Coming soon!**



# Low Voltage Reflectors

LED Lamps  
Oct, 2015

# 10W HO to 8.5W MRX16

Avail  
Nov.

**10W MRX16**  
2700K/3000K/4000K  
25D/35D



- 1.5W Less
- Similar Lumens
- Similar MBCP
- Same Lens
- Same Diameter
- Same MOL

- Open Fixtures
- Open/Closed Fixtures
- Active Cooling
- Passive Cooling

New Part Numbers

Energy Star

**8.5W MRX16**  
2700K/3000K/4000K  
25D/35D



Expected Nov 2015



# 7W MRX16 to 7W MR16

Avail  
Nov.

**7W & 7W HO MRX16**  
2700K/3000K/4000K  
15D/25D/35D



- Same Wattage
- Similar Lumens
- Similar MBCP
- Same Diameter
- Open & Enclosed Fixtures
- Passive Cooling

**7W MR16**  
2700K/3000K/4000K  
15D/25D/35D



2.2" MOL 1.95"  
New Part Numbers

Energy Star

Expected Nov 2015





# MR16 Transition Plan

Days to Delistment	6NC	Product Description	Phase out Date	Sub 6NC	Sub Desc	Phase In Date	Days to Intro
32	432393	10MRX16/F25 2700 DIM HO	1-Nov	457507	8.5MRX16/F25 2700 DIM AF	15-Nov	46
DELISTED	432401	10MRX16/F25 3000 DIM HO	1-Sep	457515	8.5MRX16/F25 3000 DIM AF	25-Sep	Now Available
32	432419	10MRX16/F25 4000 DIM HO	1-Nov	457523	8.5MRX16/F25 4000 DIM AF	15-Nov	46
DELISTED	432427	10MRX16/F35 2700 DIM HO	1-Sep	457531	8.5MRX16/F35 2700 DIM AF	25-Sep	Now Available
DELISTED	432435	10MRX16/F35 3000 DIM HO	1-Sep	457549	8.5MRX16/F35 3000 DIM AF	25-Sep	Now Available
32	432443	10MRX16/F35 4000 DIM HO	1-Nov	457556	8.5MRX16/F35 4000 DIM AF	15-Nov	46
32	432591	7MRX16/F25 2700 DIM AF	1-Nov	457440	7MR16/F25 2700 DIM AF2	25-Sep	Now Available
32	432609	7MRX16/F25 3000 DIM AF	1-Nov	457457	7MR16/F25 3000 DIM AF2	15-Nov	46
32	432617	7MRX16/F25 4000 DIM AF	1-Nov	457465	7MR16/F25 4000 DIM AF2	15-Nov	46
32	432625	7MRX16/F35 2700 DIM AF	1-Nov	457473	7MR16/F35 2700 DIM AF2	15-Nov	46
32	432633	7MRX16/F35 3000 DIM AF	1-Nov	457481	7MR16/F35 3000 DIM AF2	25-Sep	Now Available
32	432641	7MRX16/F35 4000 DIM AF	1-Nov	457499	7MR16/F35 4000 DIM AF2	15-Nov	46
32	432658	7MRX16/S15 2700 DIM AF	1-Nov	457416	7MR16/S15 2700 DIM AF2	15-Nov	46
DELISTED	432666	7MRX16/S15 3000 DIM AF	1-Sep	457424	7MR16/S15 3000 DIM AF2	25-Sep	Now Available
32	432674	7MRX16/S15 4000 DIM AF	1-Nov	457432	7MR16/S15 4000 DIM AF2	15-Nov	46
DELISTED	433623	7MRX16/F25 2700 DIM AF HO	1-Sep	457440	7MR16/F25 2700 DIM AF2	25-Sep	Now Available
32	433631	7MRX16/F25 3000 DIM AF HO	1-Nov	457457	7MR16/F25 3000 DIM AF2	15-Nov	46
32	433649	7MRX16/F30 2700 DIM AF HO	1-Nov	457473	7MR16/F35 2700 DIM AF2	15-Nov	46
DELISTED	433656	7MRX16/F30 3000 DIM AF HO	1-Sep	457481	7MR16/F35 3000 DIM AF2	25-Sep	Now Available



# Philips LED AR111



## Product Positioning

- High performance optics for maximum punch and minimal glare
- Beautifully rendered colors
- Crisp beam control
- Non-Dimmable\*
- Long life (25,000 to 40,000 hrs)
- Works with existing halogen beam accessories
- No UV in beam preserves artwork

Product Number	Ordering Code	Watts	Equip Watts	Rated Avg. Life L70 (H)	CCT (°K)	Lumens	CRI	Beam	MBCP	Available
458570	20AR111/LED/830/F25 DIM 12V	20	100	25,000	3000	1280	80	25	6600	Sep-2015
458562	20AR111/LED/830/S15 DIM 12V	20	100	25,000	3000	1280	80	15	8500	Sep-2015
458554	15AR111/LED/930/F25 DIM 12V	15	75	40,000	3000	780	90	25	1660	Sep-2015
460139	20AR111/LED/827/F25 DIM 12V	20	100	25,000	2700	1240	80	25	5800	Nov-2015
460147	15AR111/LED/927/F25 DIM 12V	15	75	40,000	2700	740	90	25	3900	Nov-2015
460154	15AR111/LED/927/F40 DIM 12V	15	75	40,000	2700	740	90	40	1400	Nov-2015

# InstantFit

LED Lamps  
Oct, 2015

# Product Positioning



**PHILIPS InstantFit**



Fluorescent T8 Replacements


Fluorescent "PL" Replacements

4' 2100lm  
DIM 

4' 2100lm  
Glass

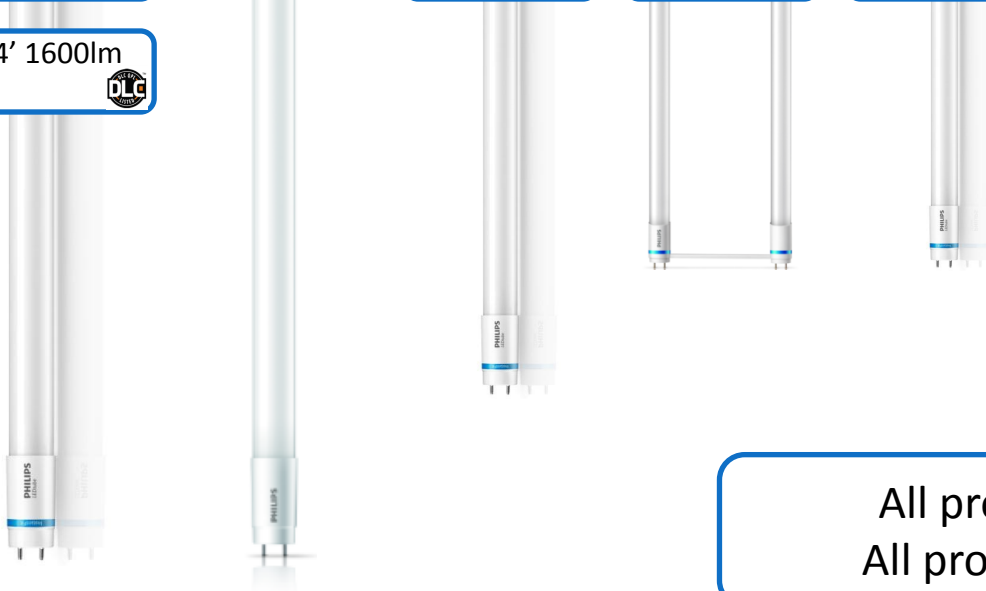
3' 1200lm

U-Bent  
2100lm

2' 1050lm 

2' PL-L

4' 1600lm 



**Avail  
NOW**

All products in stock  
All products on PS500

# InstantFit TLED

## Portfolio Breadth

- Linear T8 - 4' (3 options), 3' & 2'
- U-bent
- PL Replacements - PL-L, PL-C/T
- Glass

## Performance

- Wide ballast compatibility (IS, PS, Emergency & Dim)
- >100lm/W
- 50,000-hour life L70 (40,000-hour PL-L)
- 5-year limited warranty

## Application locations

- UL Listed - Easy plug-and-play replacement
- NSF Certified
- Dimmable

## When to use

- Maximum light output & energy savings
- DLC required /Rebates
- Food service



PARKING GARAGE



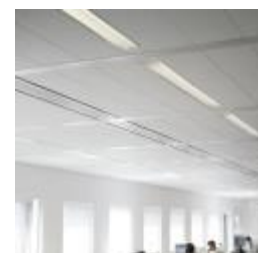
HOSPITALITY



RETAIL



OFFICE



GENERAL LIGHTING



FOOD INDUSTRY



# InstantFit Glass

## Ballast Compatibility

- System Certified with >20 Instant-Start ballasts
- Certified with >50 Instant-Start ballasts
- System Certified with 8 Emergency ballasts

## Application locations

- Safe in vapor tight fixtures
- NSF – Certified / Food Service

## When to use

- Low initial investment
- Wider beam desired



## Compatibility of Glass TLED

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

**RoHS  
COMPLIANT**



## 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.

# Philips InstantFit TLED

## Instant Savings

LED Lamps  
August, 2015

# Why Philips InstantFit LEDtube

Not all the LED tubes are equally created: How to Compare ?



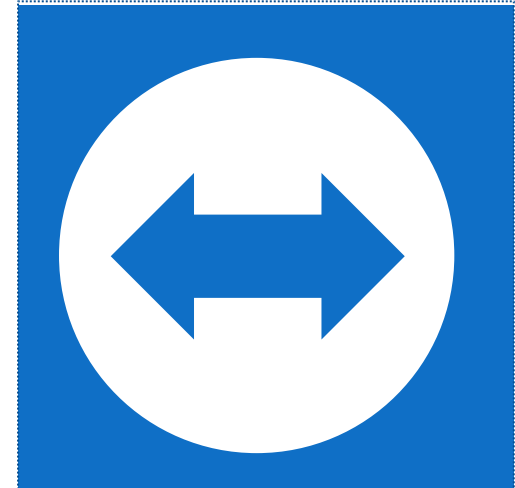
## Quality Of Light

- Uniform light
- Maintained lumen
- Maintained color



## Safe & Reliable

- Regulation compliance
- Safe overtime
- System certified



## Compatibility

- Proven compatibility
- Energy savings
- Fit in applications

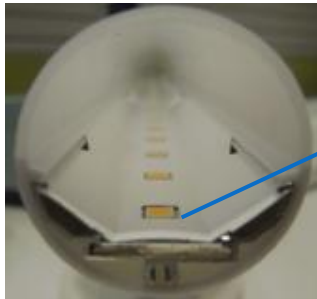




# Quality of Light

Uniform light level & visual comfort

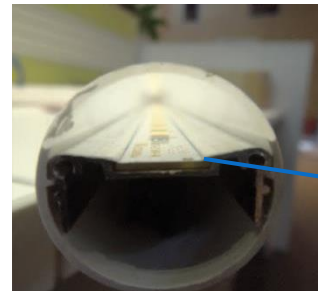
## Philips InstantFit LED T8



*LED strip on the bottom to minimize spottiness, while reflector used to control beam angle*

- **Uniform light output without spottiness**

## Competition



*LED strip elevated to the middle lead to spottiness*

- High intensive spots are visible from individual LEDs. Discomfort & non-uniform light output



# Quality of Light

Prevent stroboscopic effects

## Philips InstantFit LEDtube



- **Stable drive current leading to stable lamp operation to ensure visual comfort, free from stroboscopic effect**

## Competition



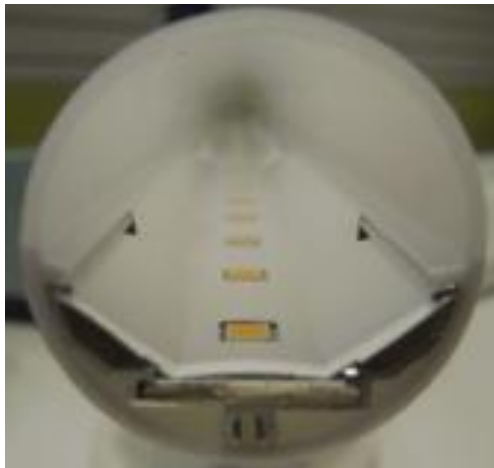
- **Fluctuating drive current leading to stroboscopic effect that can cause annoying visual artifacts, with dizziness and discomfort**



# Reliable & Safe

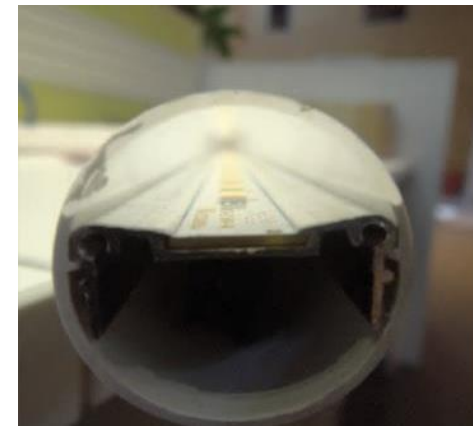
Effective heat management

## Philips InstantFit T8 LED



- LED strip on the bottom improves heat conduction with the ambient air
- Reliably deliver life claims

## Competition



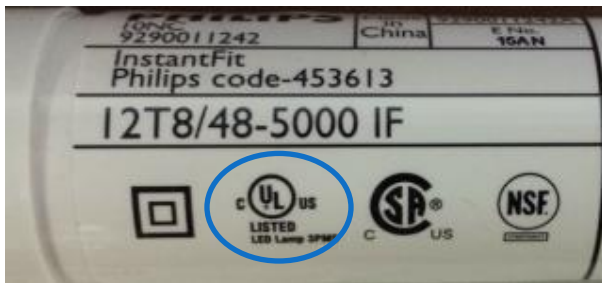
- Heat trapped inside the tube, which could lead to premature lumen decay and early LED failure



# Reliable & Safe

Regulation compliance: UL listed

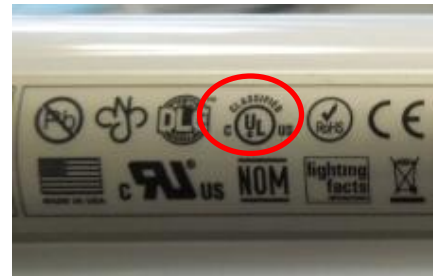
## Philips InstantFit LED T8



### UL Listed Device

- Complete stand-alone device
- Plug & play
- No contingencies, just check lamp labels
- Suitable to use with electronic ballasts
- Device for general-use

## Competition



### UL Classified Device

- Kit – lamp with additional components or instructions
- Limited applications with specific ballast and luminaire types defined
- Need qualified technician for installations
- Strictly follow instructions, and require warning labels on retrofitted fixtures
- Need to check and verify the correct lamp holders, install with LED drivers or by-pass existing ballasts
- Device for special-use

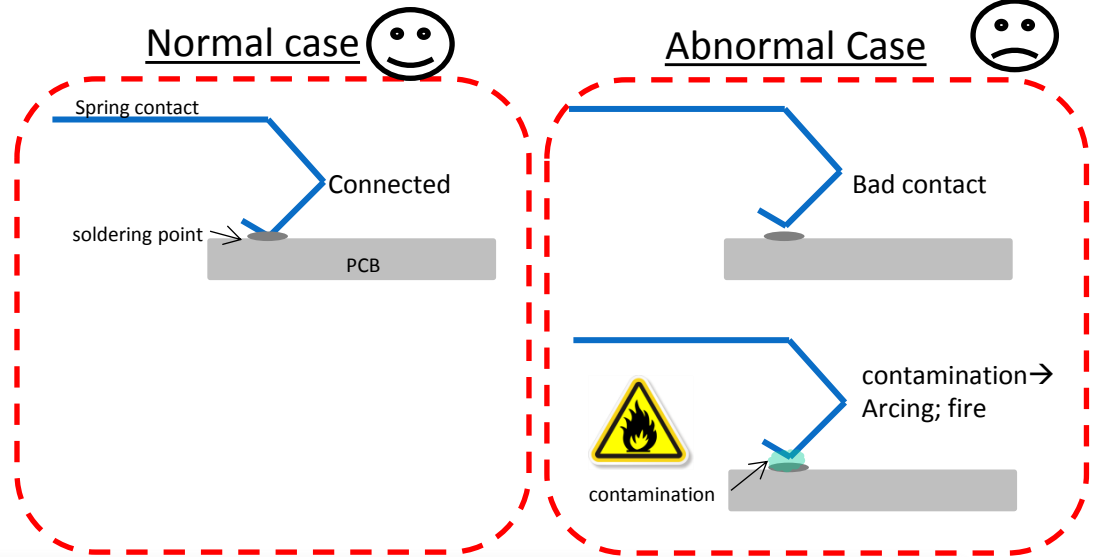
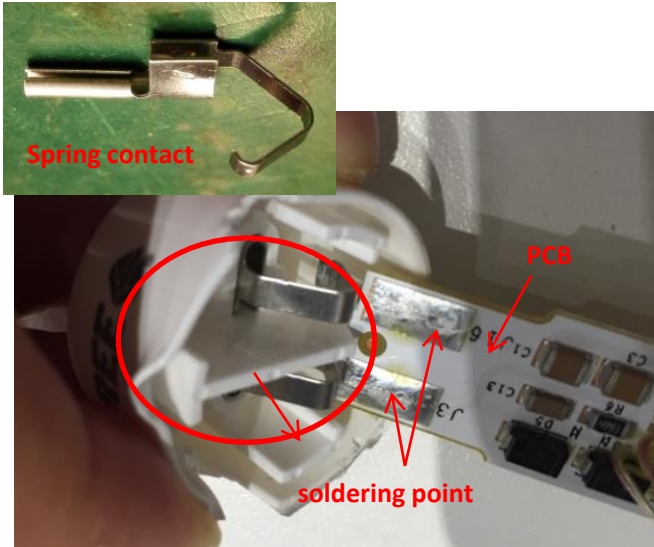




# Reliable & Safe

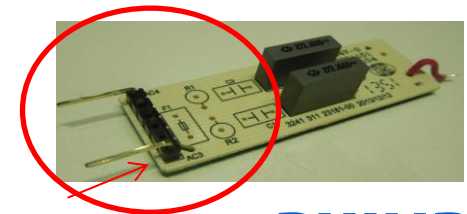
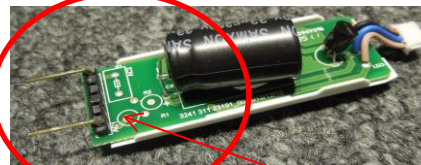
## Poor mechanical design is to cause risk of arcing (contd)

### Competition



- The Spring contact secures the circuit board mechanically and is responsible for the electrical connection between the lamp and ballast
- A bad contact or contamination may lead to electrical arcing.

PHILIPS



Components secured by wave soldering

**PHILIPS**



# Reliable & Safe

Ensure safety in Mis-use applications

## Philips InstantFit LEDtube



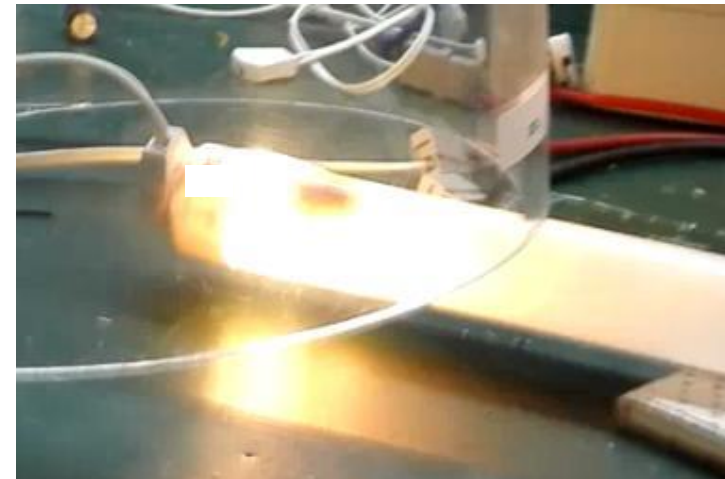
Mis-use	Smoke	Fire	Shock
Mains	no	no	no
EM	no	no	no

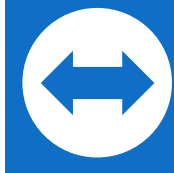
- PHILIPS internal design rule ensures no safety issues (smoke, fire, shock) happen even when installers insert our InstantFit HF TLED into a mains wired or EM ballast fixtures by mistake

## Competition



Mis-use	Smoke	Fire	Shock
Mains	yes	yes	yes
EM	yes	yes	yes





# Compatibility

System certified

## Philips InstantFit LED T8






**World's #1 Sold In LED Lighting**

**#1 Market Share for Ballasts**

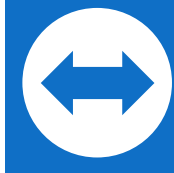


- System evaluated by both lamp & ballasts to ensure system performance.
- A 100+ year tradition of innovative products, in providing lighting solutions

## Compatibility Requirements

1. Energy Savings >40% 
2. Lifetime delivered 
3. Similar light output 

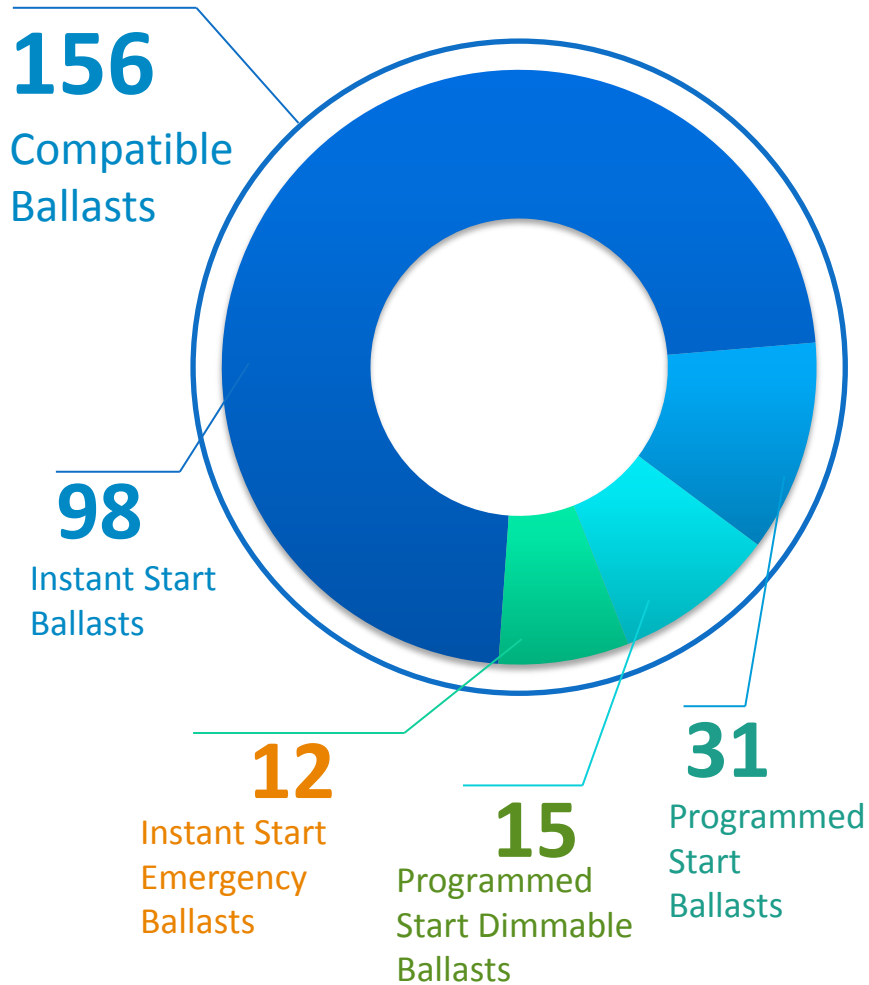
- Newcomers lack the ballast expertise (a major component of the system) to ensure system performance during retrofit



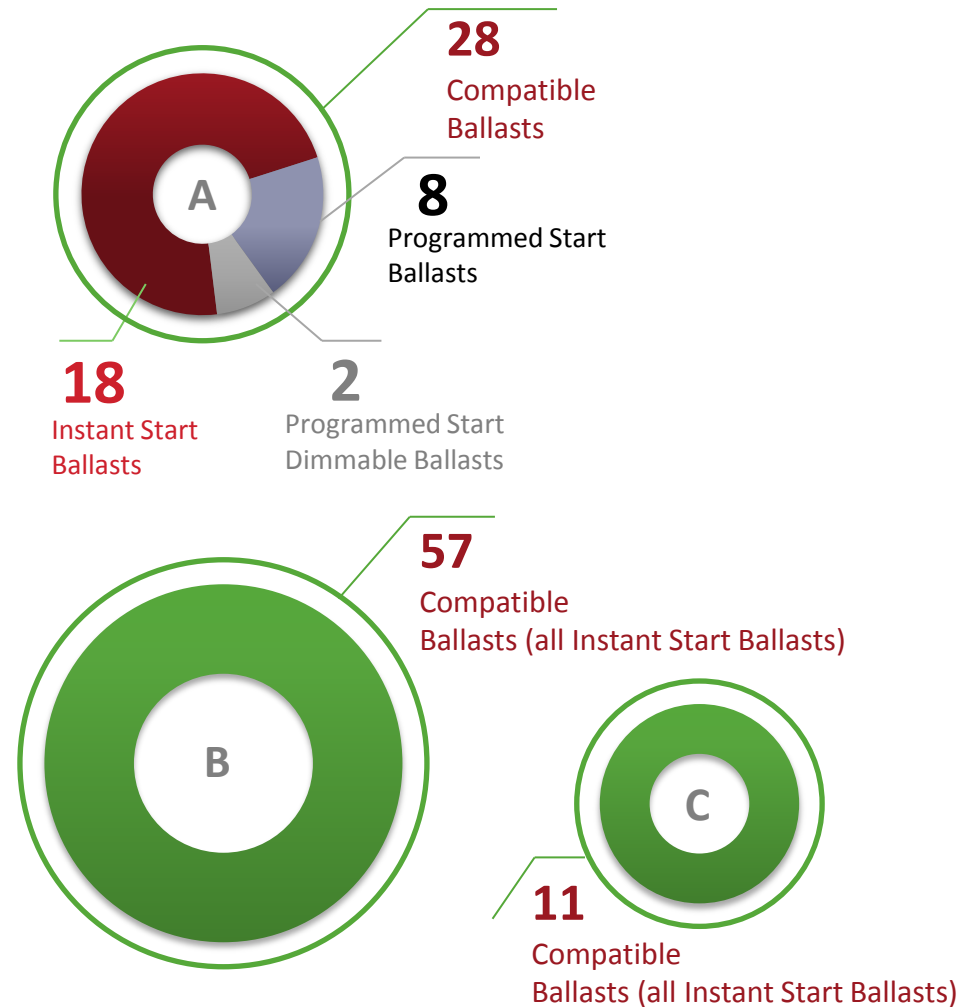
# Compatibility

Ballast list coverage – tested & verified

## Philips InstantFit LED T8



## Competition





# Switch to Philips InstantFit TLED **NOW**

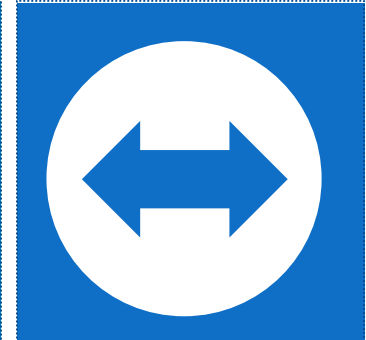
Instant savings with attractive paybacks



Quality Of Light



Safe & Reliable



Compatibility

- ✓ Significant energy savings compared to conventional fluorescent
- ✓ Lowest energy consumption LED tubes in the market
- ✓ Maintained quality of light over time
- ✓ Safe and hassle free installation with InstantFit solutions
- ✓ Pay back period achievable within 2 years
- ✓ Trusted quality and performance

# InstantFit TLED T8

[www.philips.com/instantfit](http://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

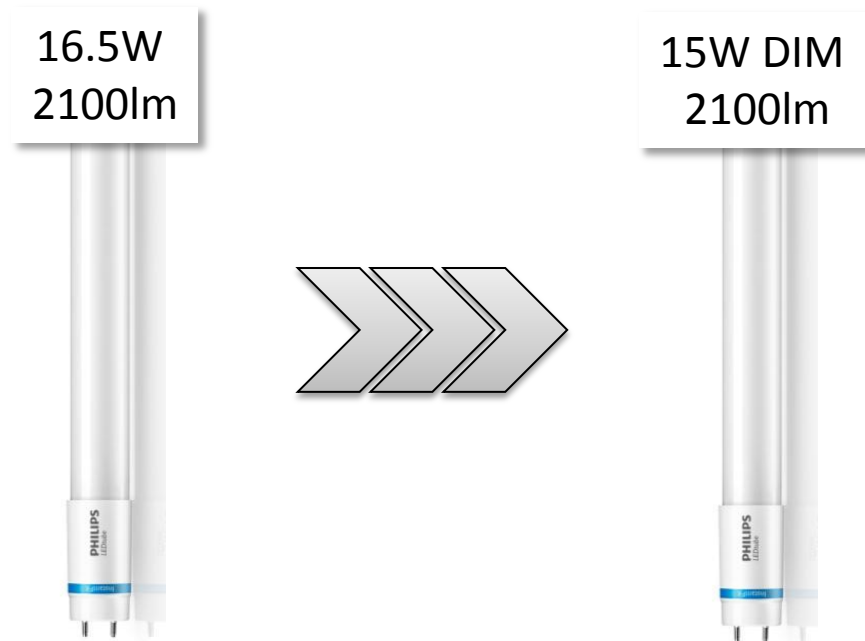
- 3000K / 3500K / 4000K / 5000K
- 50,000 h Life (L70)/ 5-year Limited Warrant



2100 Lumen U-Bend T8\*

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

# 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

# InstantFit – PL-L

July 2015

## InstantFit PL-L



## Product Positioning

- Philips InstantFit family grows with PL-L lamp compatible with instant start ballasts
- Life not impacted by on/off cycling
- ROI of <2 years
- UL Listed & Long Life

## Pricing and Product Details

6NC	Description	Bare Lamp Wattage	System Wattage	Lumens	Color (K)	Life (hrs)	Warranty <sup>1</sup>	Beam Angle
456632	16.5PL-LED/24-3000 IF 10/1	16.5	21	1900	3000	40,000	5 Yr	160°
456640	16.5PL-LED/24-3500 IF 10/1	16.5	21	2000	3500	40,000	5 Yr	160°
456657	16.5PL-LED/24-4000 IF 10/1	16.5	21	2100	4000	40,000	5 Yr	160°

<sup>1</sup> 5 year limited warranty based on 12 hrs/day

# InstantFit PL-C/T – Official Launch 23-Oct



Vertical



Horizontal

8.5W/10.5W PL-C/T (Oct)

- 2700K, 3000K, 3500K, 4000K
- 26W Equiv.
- Program Start ballast compatible
- Horizontal & Vertical
- Non-dimmable
- No DLC/Energy Star category

# T8 LED Lamp (InstantFit) Drivers

**J. Cummings**  
Philips Lighting  
August 7, 2015

# Two new, dedicated drivers for Philips T8 LED InstantFit Lamp

- **ICN-2P16-TLED-N** operates 1 or 2 lamps
- **ICN-4P16-TLED-N** operates 3 or 4 lamps
- IntelliVolt 120-177V
- Based on economical eFluo ballast platform; lamps operated at high frequency
- Optimized to provide the highest efficiency while operating TLED lamps at their design wattage/lumens
  - When replacing existing ballast due to age or mandate, new drivers offer the highest efficiency opportunity
  - Full rated light output (Ballast Factor ~1.0)
  - Extra energy savings compared to operating with standard ICN, IOPA ballasts
- Familiar N size housing
- "Instant Start" wiring
- -35M ordering suffix = 30 pcs/ carton
- Inventory available beginning in August Pricing;
- Incremental adder to ICN's, IOPA's



# Philips T8 LED InstantFit Lamps Compatibility

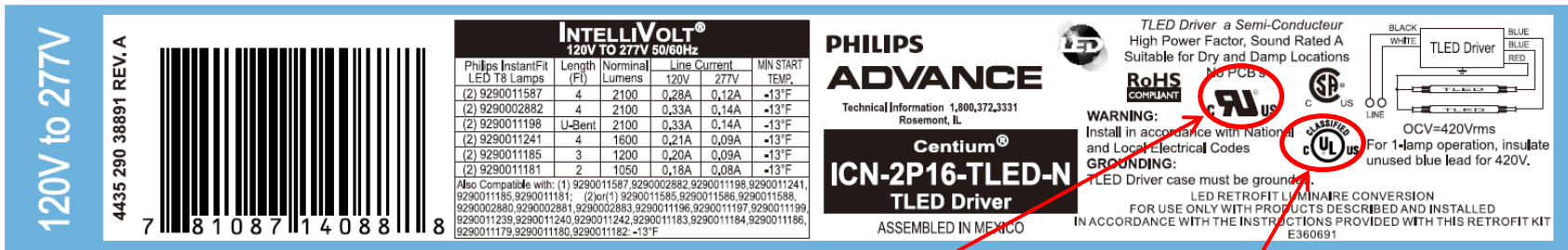
T8 LED Lamp Description	T8 LED Lamp Product No.	T8 LED Lamp Model No.	T8 LED Lamp Ordering Code	Bare Lamp Watts (W)	Nom. Initial Lumens
LED InstantFit T8 - 4'	453589	9290011239	12T8/48-3000 IF 10/1	12	1500
	453597	9290011240	12T8/48-3500 IF 10/1		1500
	453605	9290011241	12T8/48-4000 IF 10/1		1600
	453613	9290011242	12T8/48-5000 IF 10/1		1650
LED InstantFit T8 - 4' High Output	456897	9290011585	15T8/48-3000 IF 10/1	15	2000
	456905	9290011586	15T8/48-3500 IF 10/1		2000
	456913	9290011587	15T8/48-4000 IF 10/1		2100
	456921	9290011588	15T8/48-5000 IF 10/1		2100
LED InstantFit T8 - 4' High Output	434860	9290002880	16.5T8/48-3000 IF 10/1	16.5	2000
	434878	9290002881	16.5T8/48-3500 IF 10/1		2000
	434886	9290002882	16.5T8/48-4000 IF 10/1		2100
	434894	9290002883	16.5T8/48-5000 IF 10/1		2150
LED InstantFit T8 U-Bent -6" High Output	452664	9290011196	16.5T8/22.5-3000 IF-6U 10/1	16.5	2000
	452672	9290011197	16.5T8/22.5-3500 IF-6U 10/1		2000
	452680	9290011198	16.5T8/22.5-4000 IF-6U 10/1		2100
	452698	9290011199	16.5T8/22.5-5000 IF-6U 10/1		2150
LED InstantFit T8 - 3'	452052	9290011183	10.5T8/36-3000 IF 10/1	10.5	1100
	452060	9290011184	10.5T8/36-3500 IF 10/1		1160
	452078	9290011185	10.5T8/36-4000 IF 10/1		1200
	452086	9290011186	10.5T8/36-5000 IF 10/1		1270
LED InstantFit T8 - 2'	452011	9290011179	8.5T8/24-3000 IF 10/1	8.5	950
	452029	9290011180	8.5T8/24-3500 IF 10/1		1040
	452037	9290011181	8.5T8/24-4000 IF 10/1		1050
	452045	9290011182	8.5T8/24-5000 IF 10/1		1100



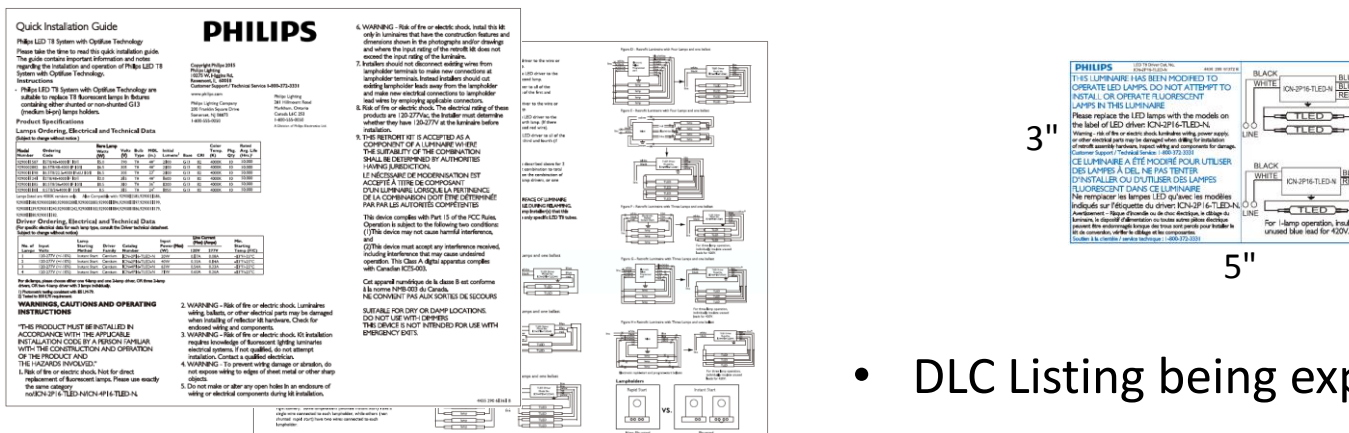
- For each lamp type, there are 4 color temperatures available: 3000K, 3500K, 4000K, 5000K
- 4 Lamp model does not operate U Bent lamps



# Primarily a retrofit product, Drivers have dual UL status



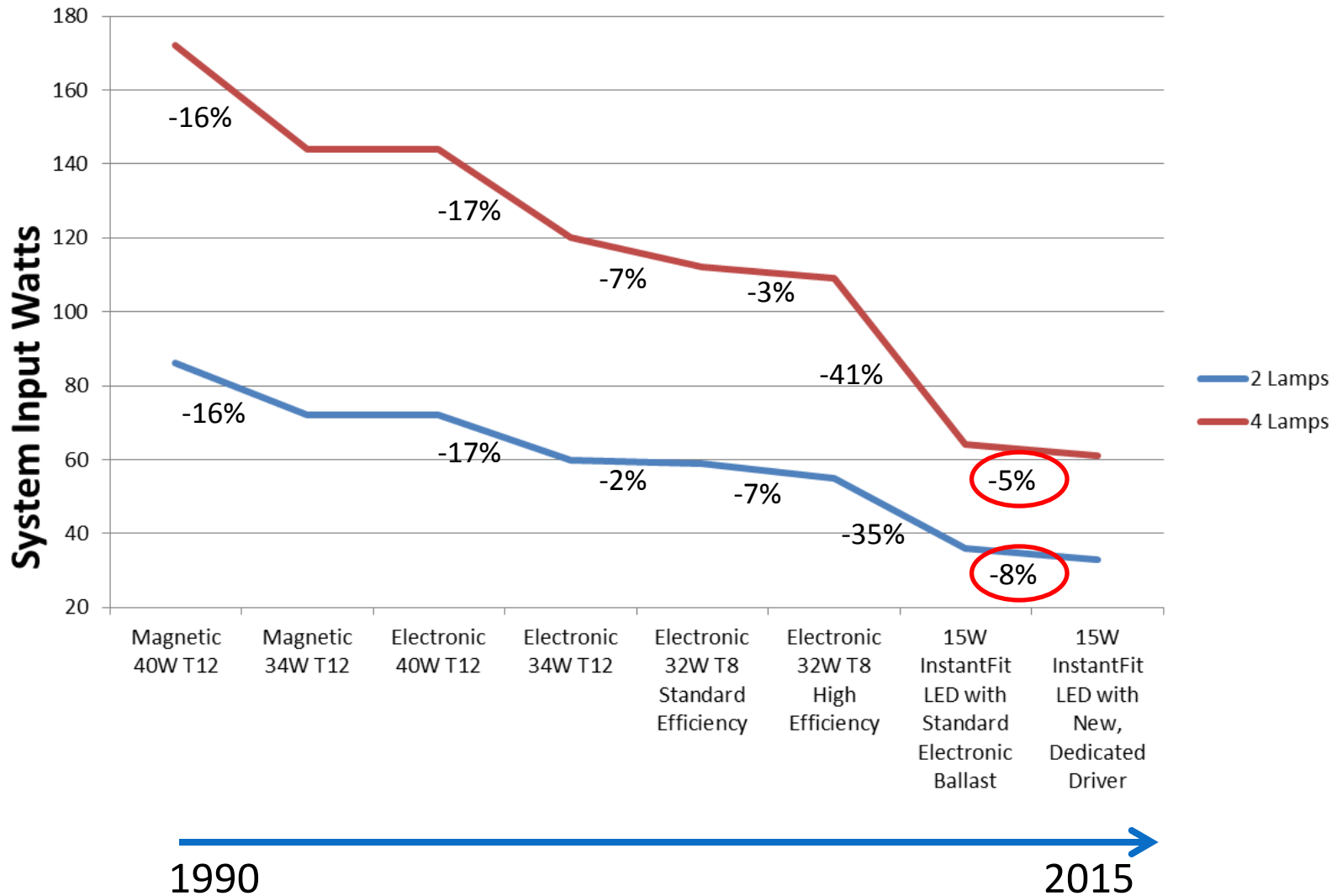
- Driver is a UL Recognized Component
- Driver and lamp(s) comprise a UL Classified Retrofit Kit
- Each carton includes Installation Guide (i.e. instruction sheet) with common "From / To" wiring diagrams
- Each driver includes label to be field applied in the luminaire cautioning against using fluorescent lamps for future replacements



- DLC Listing being explored

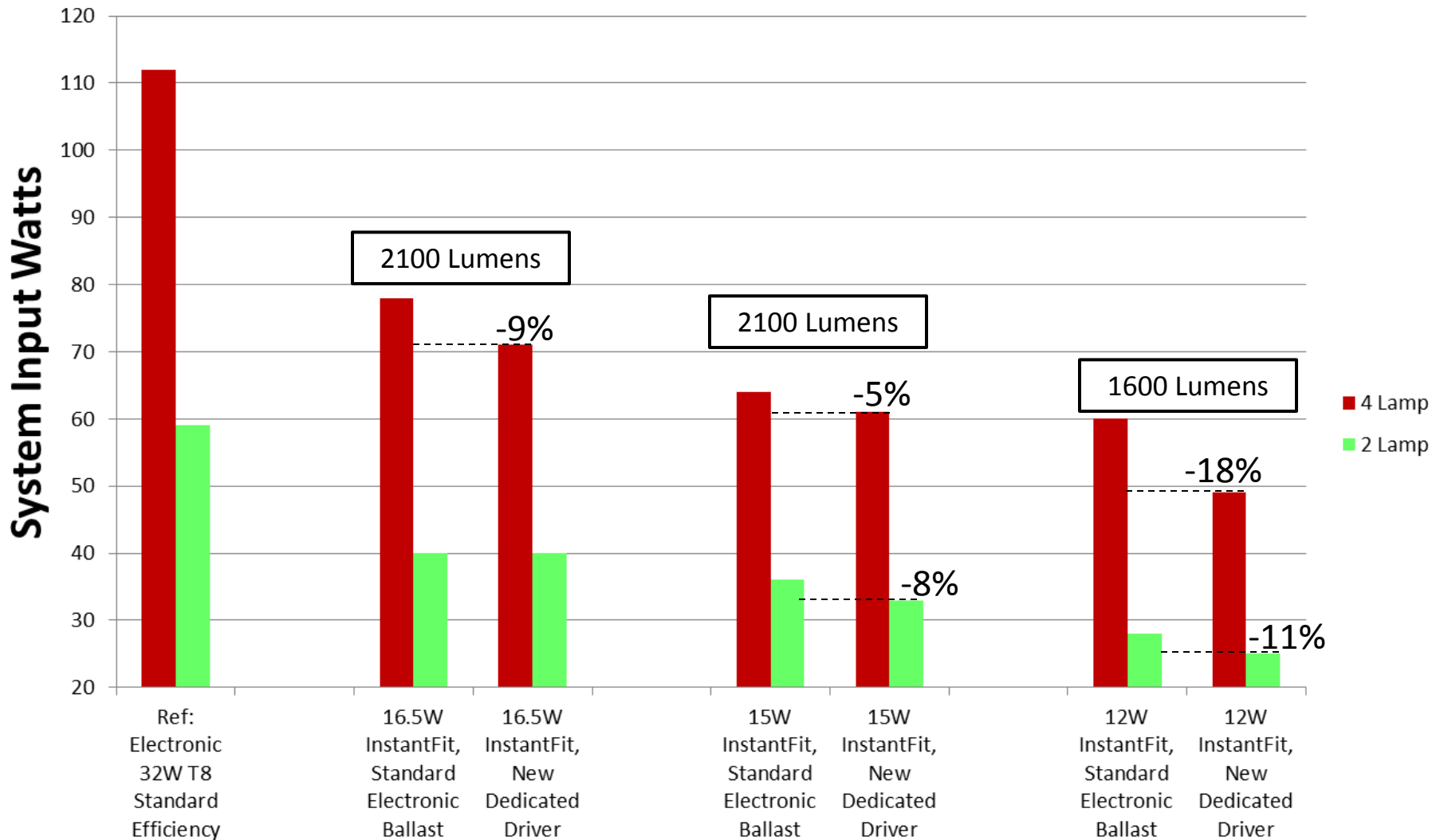


# T12 & T8 System Efficiency - 25 years of Evolution



Overall 60+% Power Reduction over 25 Years!

# System input Watts Comparison





# Driver Data Sheets Available (soon on web)

**PHILIPS ADVANCE**

**Electrical Specifications**

TS LED Lamp Brand	TS LED Lamp Description	TS LED Lamp Product No.	TS LED Lamp Model No.	TS LED Lamp Ordering Code	Bare Lamp Wpts (W)	Nom. Initial Lumens	Min. Start Temp (°F/°C)	Num. of Lamps	Input Current (A)	Input Power (W)	Max THD%	Power Factor
Philips	LED InstantFit T8 - 4	453589	929011239	12T8-48-3000 IF 101	12	1500	-13/25	2	0.210/0.09	25	10	0.990/95
		453597	929011240	12T8-48-3500 IF 101	12	1500	-13/25	2	0.210/0.09	25	10	0.990/95
		453605	929011241	12T8-48-4000 IF 101	12	1500	-13/25	2	0.210/0.09	25	10	0.990/95
Philips	LED InstantFit T8 - 4 High Output	456887	929011585	15T8-48-3000 IF 101	15	2000	-13/25	2	0.280/0.12	33	10	0.990/97
		456905	929011586	15T8-48-3500 IF 101	15	2000	-13/25	2	0.280/0.12	33	10	0.990/97
		456913	929011587	15T8-48-4000 IF 101	15	2100	-13/25	2	0.280/0.12	33	10	0.990/97
Philips	LED InstantFit T8 - 4 High Output	456921	929011588	15T8-48-5000 IF 101	15	2100	-13/25	2	0.280/0.12	33	10	0.990/97
		434860	929002880	16.5T8-48-3000 IF 101	16.5	2000	-13/25	2	0.330/0.14	40	10	0.990/97
		434878	929002881	16.5T8-48-3500 IF 101	16.5	2100	-13/25	2	0.330/0.14	40	10	0.990/97
Philips	LED InstantFit T8 U-Bowl - 4 High Output	452064	929011196	16.5T8-22-5-3000 F-5U 101	16.5	2000	-13/25	2	0.330/0.14	40	10	0.990/97
		452072	929011197	16.5T8-22-5-3500 F-5U 101	16.5	2000	-13/25	2	0.330/0.14	40	10	0.990/97
		452080	929011198	16.5T8-22-5-4000 F-5U 101	16.5	2100	-13/25	2	0.330/0.14	40	10	0.990/97
Philips	LED InstantFit T8 U-Bowl - 4 High Output	452088	929011199	16.5T8-22-5-5000 F-5U 101	16.5	2100	-13/25	2	0.330/0.14	40	10	0.990/97
		452552	929011183	10.5T8-36-3000 IF 101	10.5	1100	-13/25	2	0.200/0.09	24	10	0.990/95
		452578	929011185	10.5T8-36-4000 IF 101	10.5	1200	-13/25	2	0.200/0.09	24	10	0.990/95
Philips	LED InstantFit T8 - 3	452066	929011184	10.5T8-36-3000 IF 101	10.5	1100	-13/25	2	0.200/0.09	24	10	0.990/95
		452074	929011186	10.5T8-36-4000 IF 101	10.5	1200	-13/25	2	0.200/0.09	24	10	0.990/95
		452082	929011188	10.5T8-36-5000 IF 101	10.5	1270	-13/25	2	0.200/0.09	24	10	0.990/95
Philips	LED InstantFit T8 - 2	452011	929011179	8.5T8-24-3000 IF 101	8.5	950	-13/25	2	0.180/0.08	21	10	0.990/94
		452029	929011180	8.5T8-24-3500 IF 101	8.5	1000	-13/25	2	0.180/0.08	21	10	0.990/94
		452037	929011181	8.5T8-24-4000 IF 101	8.5	1050	-13/25	2	0.180/0.08	21	10	0.990/94
452045	929011182	8.5T8-24-5000 IF 101	8.5	1100	-13/25	2	0.180/0.08	21	10	0.990/94		

**ICN-2P16-TLED-N**

Brand Name: CENTIUM  
 Driver Type: T8 LED Electronic  
 Lamp Connection: Parallel  
 Input Voltage: 120-277V  
 Input Frequency: 50/60 Hz  
 Status: Active

**Wiring Diagram**

Diag. 64

Standard Lead Length (inches)	in.	cm.
Black	24	61.0
White	24	61.0
Blue	28	71.1
Red	43	109.2

**Enclosure**

**Enclosure Dimensions**

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.5"	1.3"	1.0"	8.9"
9.1/2"	1.3/10"	1"	8.9/10"
24.1 cm	3.3 cm	2.5 cm	22.6 cm

Revised: 07/28/15

Data is based on tests performed by Philips Lighting Inc. in a controlled environment and is representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

Philips Lighting N.A.  
 10275 West Higgins Road • Rosemont, IL 60018 • www.philips.com/advance  
 Tel: 800-322-2086 • Fax: 800-423-1882 • Customer Support: 800-372-3331 • OEM Support: 866-915-5886

**PHILIPS ADVANCE**

**Electrical Specifications**

TS LED Lamp Brand	TS LED Lamp Description	TS LED Lamp Product No.	TS LED Lamp Model No.	TS LED Lamp Ordering Code	Bare Lamp Wpts (W)	Nom. Initial Lumens	Min. Start Temp (°F/°C)	Num. of Lamps	Input Current (A)	Input Power (W)	Max THD%	Power Factor
Philips	LED InstantFit T8 - 4	453589	929011239	12T8-48-3000 IF 101	12	1500	-13/25	4	0.410/0.16	49	10	0.990/95
		453597	929011240	12T8-48-3500 IF 101	12	1500	-13/25	4	0.410/0.16	49	10	0.990/95
		453605	929011241	12T8-48-4000 IF 101	12	1500	-13/25	4	0.410/0.16	49	10	0.990/95
Philips	LED InstantFit T8 - 4 High Output	456887	929011585	15T8-48-3000 IF 101	15	2000	-13/25	4	0.510/0.22	61	10	0.990/97
		456905	929011586	15T8-48-3500 IF 101	15	2000	-13/25	4	0.510/0.22	61	10	0.990/97
		456913	929011587	15T8-48-4000 IF 101	15	2100	-13/25	4	0.510/0.22	61	10	0.990/97
Philips	LED InstantFit T8 - 4 High Output	456921	929011588	15T8-48-5000 IF 101	15	2100	-13/25	4	0.510/0.22	61	10	0.990/97
		434860	929002880	16.5T8-48-3000 IF 101	16.5	2000	-13/25	4	0.600/0.26	71	10	0.990/97
		434878	929002881	16.5T8-48-3500 IF 101	16.5	2100	-13/25	4	0.600/0.26	71	10	0.990/97
Philips	LED InstantFit T8 - 3	452052	929011183	10.5T8-36-3000 IF 101	10.5	1100	-13/25	4	0.380/0.17	45	10	0.990/95
		452070	929011184	10.5T8-36-4000 IF 101	10.5	1160	-13/25	4	0.380/0.17	45	10	0.990/95
		452088	929011186	10.5T8-36-5000 IF 101	10.5	1270	-13/25	4	0.380/0.17	45	10	0.990/95
Philips	LED InstantFit T8 - 2	452011	929011179	8.5T8-24-3000 IF 101	8.5	950	-13/25	3	0.330/0.15	39	10	0.990/94
		452029	929011180	8.5T8-24-3500 IF 101	8.5	1000	-13/25	3	0.330/0.15	39	10	0.990/94
		452037	929011181	8.5T8-24-4000 IF 101	8.5	1050	-13/25	3	0.330/0.15	39	10	0.990/94
452045	929011182	8.5T8-24-5000 IF 101	8.5	1100	-13/25	3	0.330/0.15	39	10	0.990/94		

**Wiring Diagram**

Diag. 66

Standard Lead Length (inches)	in.	cm.
Black	24	61.0
White	28	71.1
Blue	28	71.1
Red	43	109.2
Yellow	43	109.2

**Enclosure**

**Enclosure Dimensions**

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.5"	1.3"	1.0"	8.9"
9.1/2"	1.3/10"	1"	8.9/10"
24.1 cm	3.3 cm	2.5 cm	22.6 cm

Revised: 07/28/15

Data is based on tests performed by Philips Lighting Inc. in a controlled environment and is representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

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**ICN-4P16-TLED-N**

Brand Name: CENTIUM  
 Driver Type: T8 LED Electronic  
 Lamp Connection: Parallel  
 Input Voltage: 120-277V  
 Input Frequency: 50/60 Hz  
 Status: Active



ICN2P16TLEDN  
 Datasheet 7-28-15



ICN4P16TLEDN  
 Datasheet 7-28-15

- Product bulletin in process
- InstantFit compatibility guide will be updated @ [www.philips.com/instantfit](http://www.philips.com/instantfit)
- Contact John Cummings with questions

# 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**



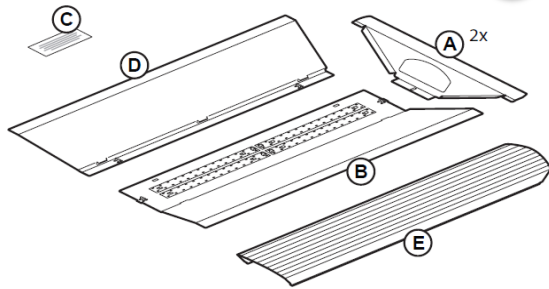
\*Higher and lower lumen packages are available

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

**PHILIPS**

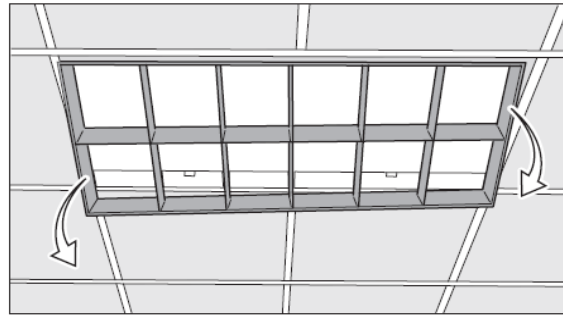
# Quick and Easy Installation before installing, carefully review all installation instructions and warnings

Set contains

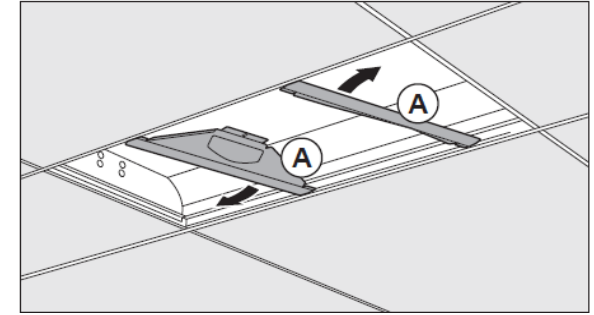


- A Side Panel
- B LED Panel
- C Troffer Label
- D Closing Panel
- E Diffuser

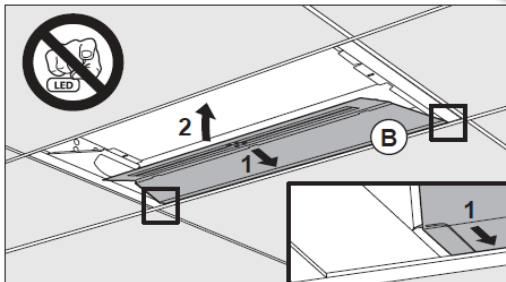
## 1 Remove host fixture contents



## 2 Installation of Side Panels (A)

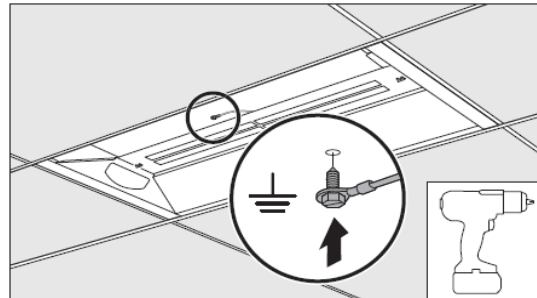


## Installation LED Panel (B)

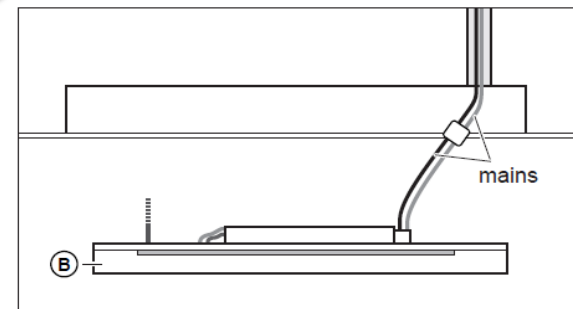


7. Install LED panel (B) in between troffer and T-grid.

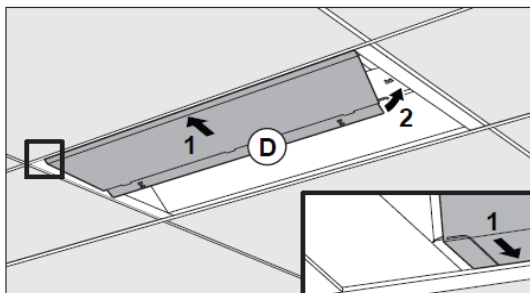
## 4 Ground connection (Situation I - 2)



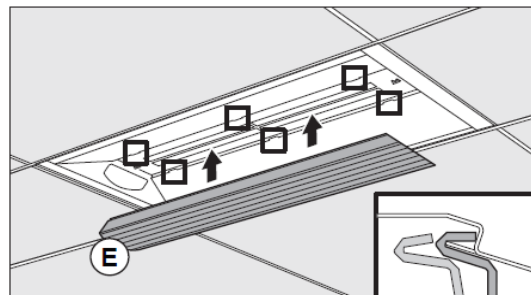
## 5 Mains connection



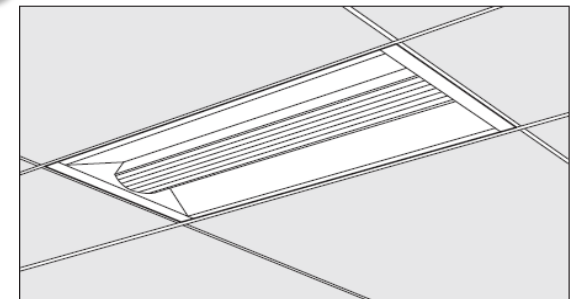
## Installation Closing Panel (D)



## 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

# The Evokit *Spacewise* Accessory Platform

Integrated, wireless occupancy and daylight harvesting. Ver4.1 adds private offices and conference rooms to the application space

Up to 50 fixtures can be controlled in a group

Visit [philips.com/spacewise](http://philips.com/spacewise) for details



**PHILIPS**

# 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

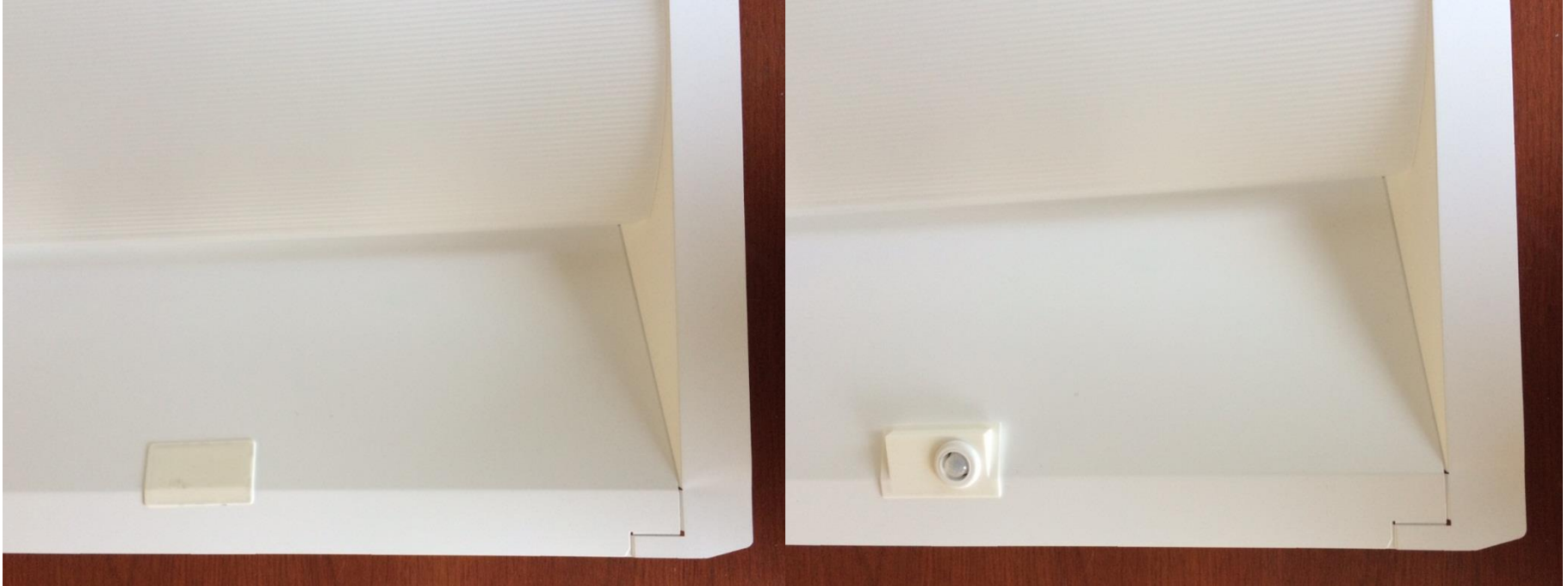
- Simpleset technology is available in the 0-10V and SR versions
  - A downloadable Android smartphone app is used to adjust the max lumen level from the **rated output** down to 1500lm (DLC range)
    - The smartphone needs to be right next to the driver
  - This can reduce the number of sku's a distributor 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



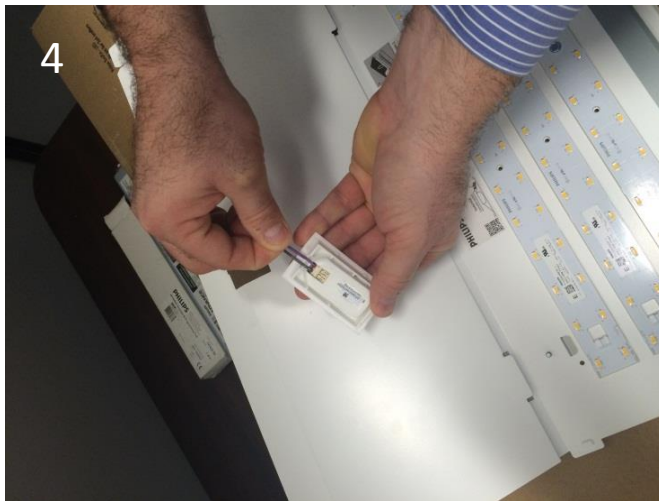
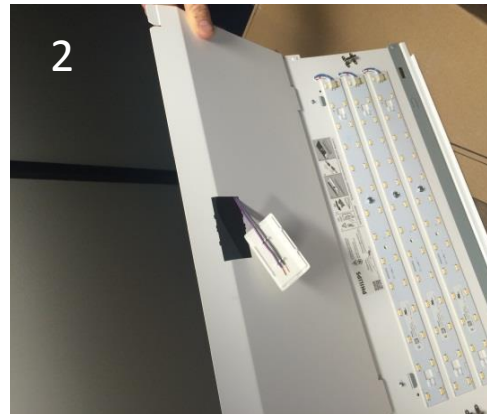
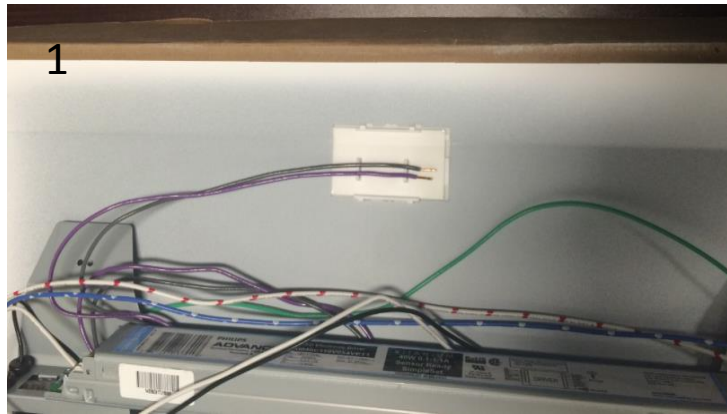
The smartphone app adjusts the max lumen level (within the DLC range) simply by placing the smartphone next to the NFC antenna on the driver and tapping a few tabs on the screen. Evokit does not need to be powered up. Distributors can set the max lumen level before they ship to their customers, and contractors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

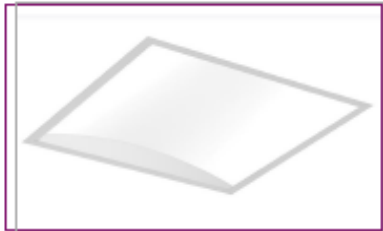


# LED offering 2015

Statement

Performance

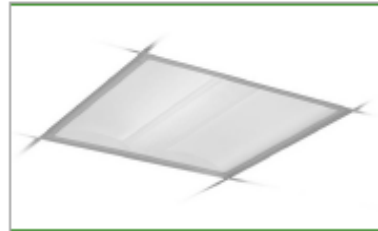
Core



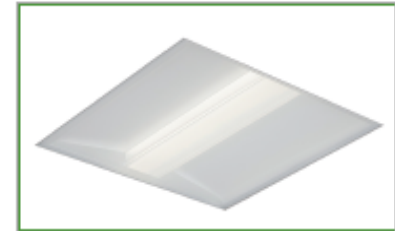
ArcForm



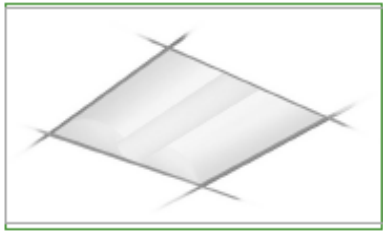
VersaForm



SofTrace LED



ClearAppeal LED



Arioso LED



DuaLED



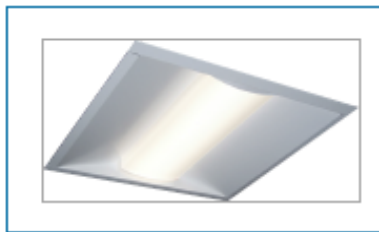
Coffaire LED



SpecPlus LED



HP90 LED

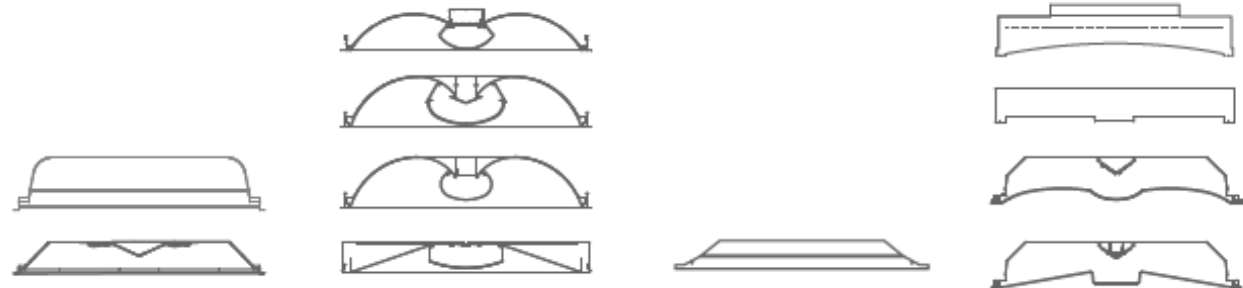


EvoGrid LED



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
Philips Day-Brite	Performance		Arioso LED		SofTrace LED ClearAppeal LED*
		Spec Plus LED	Coffaire 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

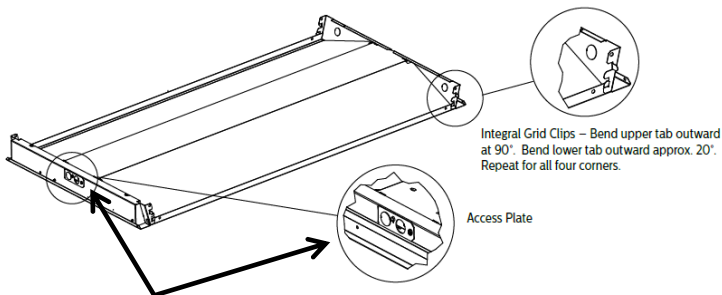
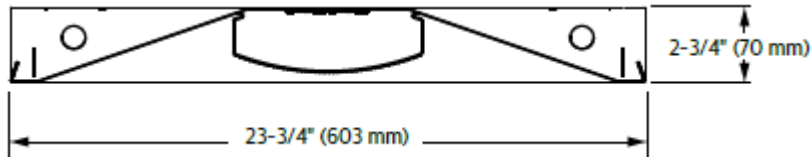


**Change**  
within reach

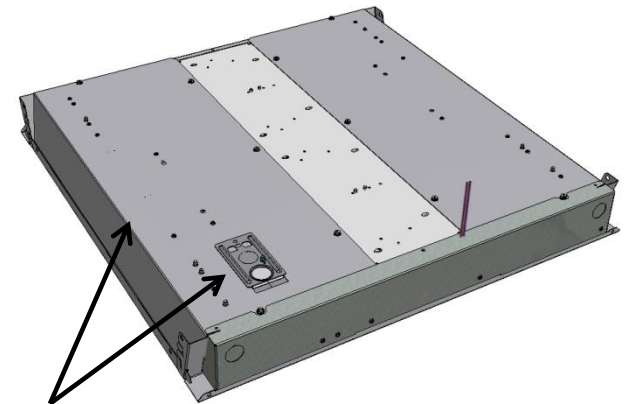
**PHILIPS**

# 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.

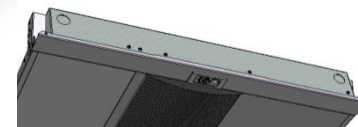
Emergency driver & continuous row options require side covers. Access plate located as shown.

# 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

**PHILIPS**

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

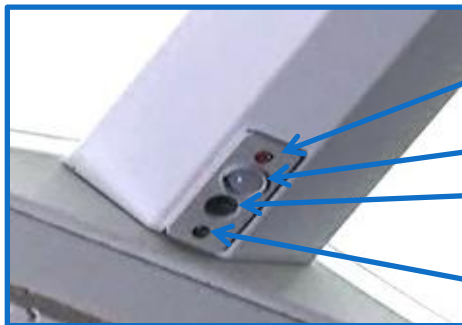
Product Marketing  
July 17, 2015

**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:

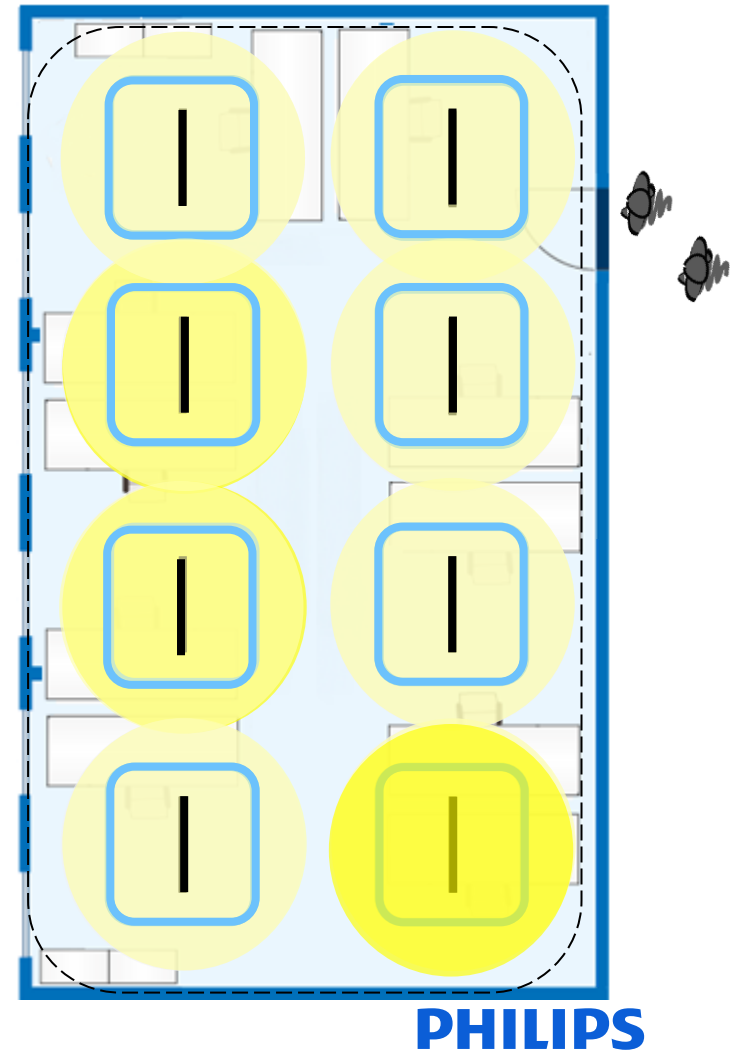
- The wireless network can have up to 50 devices (luminaire / wireless UI)
- A wireless device can only be in one wireless network
- All luminaires within a network have similar automated behavior (same mode)



# 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
<b>Out of the box behavior</b>	<b>Behavior of the luminaires before grouping or being altered via the commissioning remote.</b>					
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
<b>Start-up and Dim behavior</b>	<b>Behavior of the luminaires after grouping.</b>					
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	<b>Behavior of the luminaires before grouping or being altered via the commissioning remote.</b>			
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	<b>Behavior of the luminaires after grouping.</b>			
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

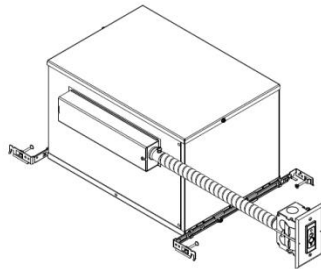
Available Aug 2015



DuaLED



Downlight  
Coming soon



Daisy chain multiple  
downlights; 400VA max  
rating.



FBX HighBay  
Coming soon

A young child is smiling and holding a glowing LED light stick. The background is a night festival with many colorful lights and bokeh effects. The child is wearing a light-colored t-shirt with a graphic design.

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



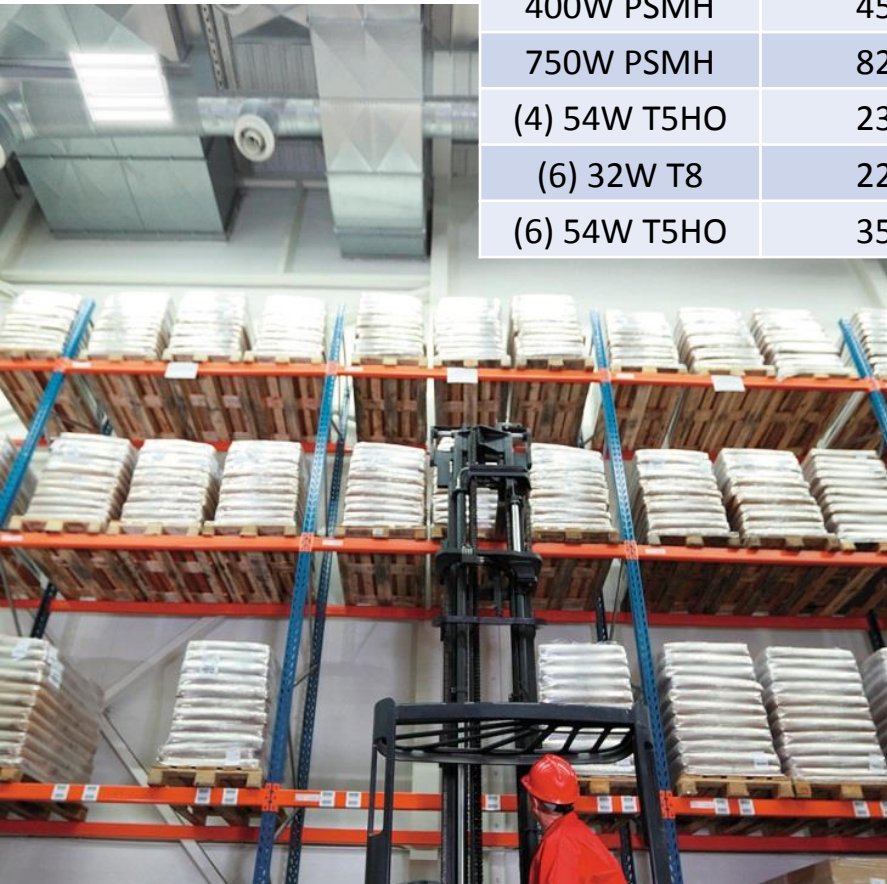
[FBX\\_HE.pdf](#)

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**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.

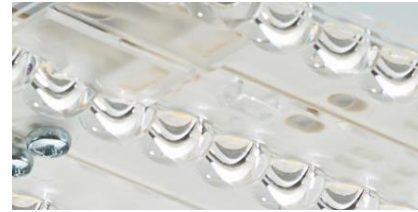


1. General Distribution (no optics)
2. With Optics (narrow, medium, wide, or aisle)



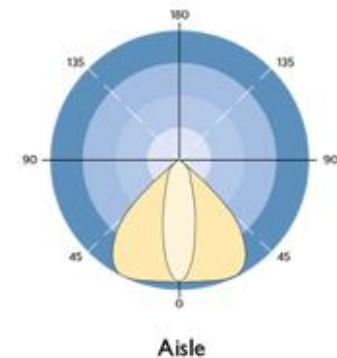
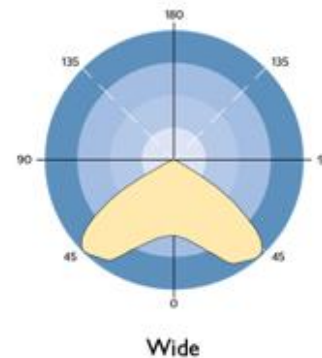
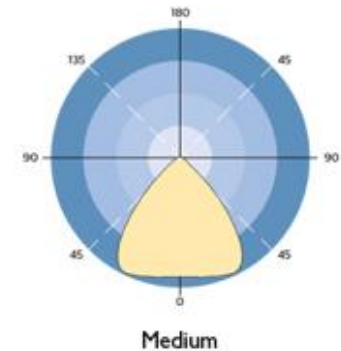
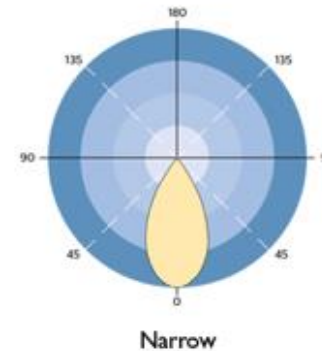
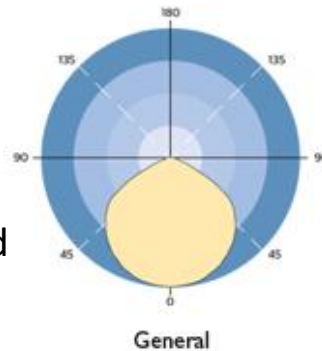
3. Clear Acrylic Lens (LCA) option
4. Frosted Acrylic Lens (LFA) option
5. Prismatic Acrylic Lens (LPA) option

# 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



# Options & Accessories



Wire Guard



Chain Kit



Cable Kit



Pendant Hanger



Emergency Option



Motion Detector

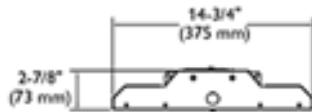
Multiple options and accessories are available to match the luminaire to the existing space requirements or to the desired design effect.

# Dimensions

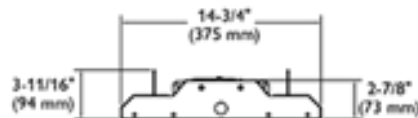
Each of the three sizes is configured for specific lumen packages. Tailoring the size of the luminaire to the lumen package increases efficiencies in material usage.



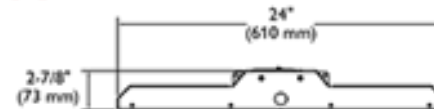
**FBX08L**  
**FBX12L**



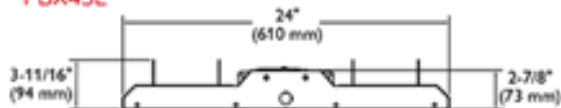
**FBX08L high ambient**  
**FBX12L high ambient**



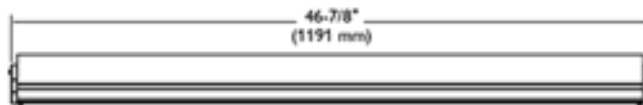
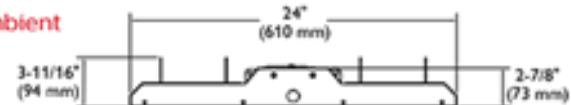
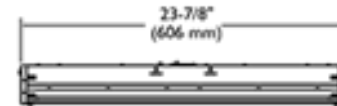
**FBX16L**  
**FBX20L**  
**FBX24L**



**FBX36L**  
**FBX45L**



**FBX16L high ambient**  
**FBX20L high ambient**  
**FBX24L high ambient**



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**Day-Brite**

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**CFI**

# 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!!