PHILIPS

LED

Lamps brochure

Energy savings that inspire

Transforming LED lighting

The world-wide transformation to energy-efficient LED technologies continues at a rapid pace. Philips remains on the cutting edge with exciting,meaningful LED solutions that can help transform your environment and reinforce brand identity, while reducing lighting-related energy costs and minimizing environmental impact.

Our lighting expertise

As the world's largest lighting company, and a trusted lighting brand for over 125 years, we listen and respond to our customers; and focus our research investments into building meaningful LED innovations that can help to save money, beautify spaces and inspire action. Our expertise extends throughout the entire LED solution as we manufacture all of the LED components, thus ensuring efficient and reliable performance.

Inherent product quality

By employing the latest advances in optics, electrical LED packages, lamp shape and heat management methods, we can produce high-quality, long-lasting LED solutions for you. Additionally, all our products are subject to rigorous internal production standards as well as third-party testing and certification. In this manner, we can provide you with high-quality and consistently-performing products that meet or exceed the latest environmental, safety and regulatory standards and codes, and allow you to make confident, informed decisions.

Creating value for you

As a simple, convenient replacement of other lighting technologies, our LED retrofit lamps are installed quickly and without complexity so you can immediately enjoy a beautifully lit space in a sustainable manner. Reduced energy, maintenance and relamping savings add up to fast payback times, and in the long term, reduce your total cost of ownership. With Philips LED solutions, your future is brighter than ever.

This is **real compatibility**

Philips InstantFit LED T8 and 4-pin long compact (PL-L) lamps

Other lamps claim compatibility, but only InstantFit has been proven to work with 184 types of ballast, delivering even light output, proven energy savings and a long average lifetime. That's true compatibility.

	Philips	OSI	GE	Green Creative
Compatibility				
Number of compatible ballasts	**184**	106	121	75
Based on manufacturers' web sites at time of printing.				
Energy				
Savings: Average savings* when used with compatible ballasts	**44%**	35%	40%	36%
Efficacy: Minimum 110lm/W with ballast	**Yes**	Yes	Yes	No
*Based on internal benchmark testing. *Savings based on comparison to F32T8 electronic instant start systems.*				
Safety				
UL Listed	**Yes**	No	No	Yes
"Pin safety" feature to protect against shock and heat	**Yes**	No	No	No
UL listing is based on manufacturers' web sites at time of printing; Pin safety based on internal benchmark testing.				
Rated Life				
50,000 hour life LED T8 available	**Yes**	Yes	Yes	Yes
70,000 hour life LED T8 available	**Yes**	No	No	No
Based on manufacturers' web sites at time of printing. Tested to B50 L70 requirement with a ballast factor ≤0.88.				
Flexibility				
Registered use as: Type A (plug & play), Type C (with LED driver)	**Yes**	No	No	No
Based on manufacturers' web sites at time of printing.				

**Based on the next leading competitor and their number of compatible ballasts at time of printing.*

- InstantFit works with 184 ballasts — more than any other lamp — so you know it's going to perform as expected and keep you from having to redo any jobs
- Savings — proven over 40% energy savings over fluorescent means a satisfied customer and no time wasted going back to redo a job
- Lifetime delivered — average life rating of 50,000 hours, with up to 70,000 in the portfolio, means satisfied customers and a better reputation
- Improved profit and more time growing business thanks to no time redoing jobs
- Light Quality and performance predictability— consistent light output and no flicker means satisfied customers and no wasted time redoing a job.
- Proven product history and a company with a long history of innovation and reliability in the lighting industry.
- Most models feature a 5 year limited warranty[5]

Linear LED InstantFit lamps

A B C D

Ordering, electrical and technical data (Subject to change without notice)

	Product No.	Model No.	Ordering Code	Volts (Depending on Ballast) (V)	Base	CRI	Color Temp. (K)	Pkg Qty	LED Lifetime[5]	MOL (In.)	Beam Angle
	InstantFit LED T8 - 4'										
	46826-4	9290011239	10T8/48-3000 IF 10/1	120-277, 347	G13	82	3000	10	50,000	48	160°
●	46827-2	9290011240	10T8/48-3500 IF 10/1	120-277, 347	G13	82	3500	10	50,000	48	160°
●	46828-0	9290011241	10T8/48-4000 IF 10/1	120-277, 347	G13	82	4000	10	50,000	48	160°
●	46829-8	9290011242	10T8/48-5000 IF 10/1	120-277, 347	G13	82	5000	10	50,000	48	160°
●	46956-9	9290011239	10T8/48-3000 IF 10/1 TAA	120-277,347-480	G13	82	3000	10	50,000	48	160°
●●	46957-7	9290011240	10T8/48-3500 IF 10/1 TAA	120-277,347-480	G13	82	3500	10	50,000	48	160°
●●	46958-5	9290011241	10T8/48-4000 IF 10/1 TAA	120-277,347-480	G13	82	4000	10	50,000	48	160°
●●	46959-3	9290011242	10T8/48-5000 IF 10/1 TAA	120-277,347-480	G13	82	5000	10	50,000	48	160°
	InstantFit LED T8 - 4' dimmable[4] high output										
	46830-6	9290011585	14T8/48-3000 IF 10/1	120-277, 347	G13	82	3000	10	50,000	48	160°
●	46831-4	9290011586	14T8/48-3500 IF 10/1	120-277, 347	G13	82	3500	10	50,000	48	160°
●	46832-2	9290011587	14T8/48-4000 IF 10/	120-277, 347	G13	82	4000	10	50,000	48	160°
●	46833-0	9290011588	14T8/48-5000 IF 10/1	120-277, 347	G13	82	5000	10	50,000	48	160°
●	46960-1	9290011585	14T8/48-3000 IF 10/1 TAA	120-277,347-480	G13	82	3000	10	50,000	48	160°
●●	46961-9	9290011586	14T8/48-3500 IF 10/1 TAA	120-277,347-480	G13	82	3500	10	50,000	48	160°
●●	46962-7	9290011587	14T8/48-4000 IF 10/1 TAA	120-277,347-480	G13	82	4000	10	50,000	48	160°
●●	46963-5	9290011588	14T8/48-5000 IF 10/1 TAA	120-277,347-480	G13	82	5000	10	50,000	48	160°
	InstantFit LED T8 - 4' ultra high output										
●	46313-3	9290012267	16.5T8 LED/48-3500 IF 10/1 UHO	120-277, 347	G13	82	3500	10	70,000	48	160°
●	46314-1	9290012268	16.5T8 LED/48-4000 IF 10/1 UHO	120-277, 347	G13	82	4000	10	70,000	48	160°
●	46315-8	9290012269	16.5T8 LED/48-5000 IF 10/1 UHO	120-277, 347	G13	82	5000	10	70,000	48	160°
	InstantFit LED T8 - 4'glass										
	45656-6	9290011511	17T8/48-4000 IFG 10/1	120-277, 347	G13	82	4000	10	36,000	48	240°
	45657-4	9290011512	17T8/48-5000 IFG 10/1	120-277, 347	G13	82	5000	10	36,000	48	240°
	InstantFit LED T8 - 3'										
	46932-0	929001311304	9T8 LED/36-3000 IF 10/1	120-277, 347	G13	82	3000	10	50,000	36	160°
	46933-8	929001311404	9T8 LED/36-3500 IF 10/1	120-277, 347	G13	82	3500	10	50,000	36	160°
	46934-6	929001311504	9T8 LED/36-4000 IF 10/1	120-277, 347	G13	82	4000	10	50,000	36	160°
	46935-3	929001311604	9T8 LED/36-5000 IF 10/1	120-277, 347	G13	82	5000	10	50,000	36	160°
	InstantFit LED T8 - 2' high output										
	46927-0	929001310804	7T8 LED/24-3000 IF 10/1	120-277, 347	G13	82	3000	10	50,000	24	160°
●	46928-8	929001310904	7T8 LED/24-3500 IF 10/1	120-277, 347	G13	82	3500	10	50,000	24	160°
●	46929-6	929001311004	7T8 LED/24-4000 IF 10/1	120-277, 347	G13	82	4000	10	50,000	24	160°
●	46930-4	929001311104	7T8 LED/24-5000 IF 10/1	120-277, 347	G13	82	5000	10	50,000	24	160°
	InstantFit LED T8 U-Bent - 6" high output										
●	46937-9	929001311804	13T8 LED/24-3000 IF-6U 10/1	120-277, 347	G13	82	3000	10	50,000	22.5	160°
●	46938-7	929001311904	13T8 LED/24-3500 IF-6U 10/1	120-277, 347	G13	82	3500	10	50,000	22.5	160°
●	46939-5	929001312004	13T8 LED/24-4000 IF-6U 10/1	120-277, 347	G13	82	4000	10	50,000	22.5	160°
●	46940-3	929001312104	13T8 LED/24-5000 IF-6U 10/1	120-277, 347	G13	82	5000	10	50,000	22.5	160°
	InstantFit LED 4-Pin long compact (PL-L) - 2' high output										
	45663-2	9290011513	16.5PL-LED/24-3000 IF 10/1	120-277	2G11	82	3000	10	40,000	22.5	160°
	45664-0	9290011514	16.5PL-LED/24-3500 IF 10/1	120-277	2G11	82	3500	10	40,000	22.5	160°
	45665-7	9290011515	16.5PL-LED/24-4000 IF 10/1	120-277	2G11	82	4000	10	40,000	22.5	160°

See page 9 for footnotes

Ballast technical data (Subject to change without notice)

Product No.	Bare Lamp Watts (W)	Average System Watts (W)			Initial Lumens[7]		
		Low Ballast Factor (0.78)	Normal Ballast Factor (0.88)	High Ballast Factor (1.18)	Low Ballast Factor (0.78)	Normal Ballast Factor (0.88)	High Ballast Factor (1.18)
InstantFit LED T8 - 4'							
46826-4	10	10.5	12.5	16.5	1300	1500	1700
46827-2	10	10.5	12.5	16.5	1300	1500	1800
46828-0	10	10.5	12.5	16.5	1400	1600	1850
46829-8	10	10.5	12.5	16.5	1450	1600	2000
46420-6	10	10.5	12.5	16.5	1300	1500	1700
46421-4	10	10.5	12.5	16.5	1300	1500	1800
46422-2	10	10.5	12.5	16.5	1400	1600	1850
46423-0	10	10.5	12.5	16.5	1450	1600	2000
InstantFit LED T8 - 4' dimmable[4] high output							
46830-6	14	15	17	25.5	1800	2000	2700
46831-4	14	15	17	25.5	1800	2000	2700
46832-2	14	15	17	25.5	1900	2100	2800
46833-0	14	15	17	25.5	1900	2100	2800
46424-8	14	15	17	25.5	1800	2000	2700
46425-5	14	15	17	25.5	1800	2000	2700
46426-3	14	15	17	25.5	1900	2100	2800
46427-1	14	15	17	25.5	1900	2100	2800
InstantFit LED T8 - 4' ultra high output							
46313-3	16.5	18	20	27	2200	2400	2950
46314-1	16.5	18	20	27	2250	2500	3050
46315-8	16.5	18	20	27	2250	2500	3050
InstantFit LED T8 - 4' glass							
45656-6	17	18.0	20.0	26.5	1850	2100	2450
45657-4	17	18.0	20.0	26.5	1850	2100	2450
InstantFit LED T8 - 3'							
46932-0	9	10.5	11.5	15.5	950	1100	1300
46933-8	9	10.5	11.5	15.5	950	1100	1300
46934-6	9	10.5	11.5	15.5	1050	1200	1400
46935-3	9	10.5	11.5	15.5	1050	1200	1400
InstantFit LED - 2' high output							
46927-0	7	9	10	14	950	1050	1200
46928-8	7	9	10	14	950	1050	1200
46929-6	7	9	10	14	1050	1100	1300
46930-4	7	9	10	14	1050	1100	1300
InstantFit LED T8 U-Bent - 6" high output							
46937-9	13	14	16	21	1800	2000	2700
46938-7	13	14	16	21	1800	2000	2700
46939-5	13	14	16	21	1900	2100	2800
46940-3	13	14	16	21	1900	2100	2800
InstantFit LED 4-Pin long compact (PL-L) - 2' high output							
45663-2	17	N/A	21	N/A	N/A	1900	N/A
45664-0	17	N/A	21	N/A	N/A	2000	N/A
45665-7	17	N/A	21	N/A	N/A	2100	N/A

System Power Compatibility Guide

Measured system wattage of the Philips InstantFit LED T8 versus a comparable linear fluorescent lamp when used with the reference ballast.

	Reference Ballast	ICN-1P32-N	ICN-2P32-N	ICN-3P32-N	ICN-4P32-N
	Ballast Factor	0.88	0.88	0.88	0.88
	Number of Lamps	1	2	3	4
	Lamp Type	**System Power (W)***			
Specification	F32T8	31	59	85	112
	InstantFit 12 W	12.5	27.5	40	58
	InstantFit 15 W	24	35.5	46	63

T8 electro magnetic compatible lamps
Ordering, electrical and technical data (Subject to change without notice)

Product No.	Model No.	Ordering Code	Volts (Depending on Ballast) (V)	Base	CRI	Color Temp. (K)	LED Liftetime (hrs.)[5]	MOL (In.)	Beam Angle
InstantFit LED T8 EM compatible – 4' glass									
46311-7	9290012265	20T12 EM LED/48-4000 IF G	120-277, 347	G13	83	4000	36,000	48	240°
46312-5	9290012266	20T12 EM LED/48-6500 IF G	120-277, 347	G13	83	6500	36,000	48	240°

		Average System Watts (W)			Initial Lumens[5]		
Product No.	Bare Lamp Watts (W)	Low Ballast Factor (0.78)	Normal Ballast Factor (0.88)	High Ballast Factor (1.18)	Low Ballast Factor (0.78)	Normal Ballast Factor (0.88)	High Ballast Factor (1.18)
InstantFit LED T8 EM compatible – 4' glass							
46311-7	20	20	23	31	1850	2100	2800
46312-5	20	20	23	31	1850	2100	2800

Suitable for use in fixtures where ambient temperature is between -4°F (-20°C) and 113°F (45°C).

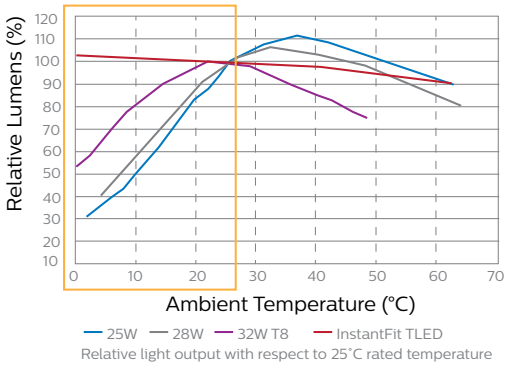
System wattage of the Philips InstantFit T8 vs a comparable linear T12[8]

(Subject to change without notice)

Ballast Model No.	Manufacturer	System Voltage	No. of Lamps	System Power (W) T12 Fluorescent	System Power (W) T8 LED	Energy Savings (%)[9]
R-140-1-TP	Philips Advance	120	1	52.1	26.1	50.0%
RL-140-TP	Philips Advance	120	1	32.8	25.6	21.7%
R-2S40-1-TP	Philips Advance	120	2	88.9	47.1	47.0%
XQM-2S40-TP	Philips Advance	220	2	95.5	51.9	45.6%
V-2S40-1-TP	Philips Advance	277	2	90.2	45.3	49.8%
RQM-2S40-3-TP	Philips Advance	120	2	86.9	46.4	46.6%
R-2S34-TP-5	Philips Advance	120	2	81.1	41.5	48.8%
V-2S34-TP	Philips Advance	277	2	79.2	42.6	46.3%
RM-2S35-TP	Philips Advance	120	2	60.9	41.2	32.4%

Relative Light Output vs. Ambient Temperature

4' T8 Lamps - 0.88 BF Ballast



Relative light output with respect to 25˚C rated temperature

Suitable for use in fixtures where ambient temperature is between -4°F (-20°C) and 113°F (45°C).

Warning: Philips LED T8 InstantFit lamps will only operate properly on compatible Instant-start and Programmed-start ballasts. Please refer to the Philips LED T8 InstantFit Installation Guide, which can be obtained through your local Philips Sales Representative, or visit www.philips.com/instantfit

FCC Note: This device complies with Part 18 of the FCC Rules.

Footnotes from pages 5-9

1. Based on the next leading competitor and their number of compatible ballasts at time of printing.
2. Savings based on comparison to F32T8 electronic instant start systems.
3. Tested to B50 L70 requirement with a ballast factor < 0.88.
4. (2) Lamp F32T8 electronic instant start system with 0.88 ballast factor= 58 system watts; (2) Philips InstantFit LED T8 =29 system watts. 58 - 29 = 29 system watts saved and 29/58 = 50% energy saved.
5. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50, L70). Testing with a ballast whose ballast factor is ≤ 0.88.
6. Compatibility subject to change as additional ballasts are tested. If you do not see your ballast on the compatibility list please contact your local Philips Lighting representative.
7. Photometric testing consistent with IES LM-79.
8. Measured data provided as a reference. System power may vary depending on ballast manufacturer and ballast age. Please refer to www.philips.com/instantfit for the latest ballast compatibility guide.
9. (1) Lamp F40T12 rapid start system = 52 system watts; (1) Philips InstantFit LED T8 = 26 system watts. 52 – 26 = 26 system watts saved and 26/52 = 50% energy saved.

● This lamp is DLC 4.0 qualified.

● Products offered under the Trade Agree ments Act (TAA). For more information, visit http://www.va.gov/oal/business/fss/taa.asp.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Cube (cu. Ft.)	Pallet Qty	Lamps/ SKU	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
InstantFit LED T8 - 4'												
InstantFit LED T8 - 4' Dimmable High Output												
InstantFit LED T8 - 4' Ultra High Output												
InstantFit LED T8 - 4' Glass												
InstantFit LED T8 - 3'												
InstantFit LED T8 - 2' High Output												
InstantFit LED U-Bent - 6" High Output												
InstantFit LED 4-Pin long compact (PL-L) - 2' High Output												
InstantFit LED T8 EM compatible - 4' glass												

Please visit www.philips.com/instanfit for the most up-to-date shipping information.

This is **real compatibility**

Philips InstantFit LED 4-pin lamps make the transition to LED from CFL 4-pin lamps as simple as replacing a lamp. With both vertical and horizontal options and a wide array of color temperatures, the InstantFit LED lamps can quickly and effectively replace compact fluorescent lamps. The horizontal version includes a rotatable end cap to ensure the light is correctly aimed.

Benefits

- 50% energy savings v/s F32T8 electronic instant-start systems[1]
- Can be used in food areas and refrigerated food displays
- Convert to LED technology without the need to re-wire the fixture[2]
- Long life (50,000 hours[3]) v/s F32T8 fluorescent lamps (38,000 hours)
- Can be switched "on/off" frequently
- No Mercury, allowing for non-hazardous waste disposal
- Light distribution that uniformly illuminates the work surface

Applications

- Retail plazas
- Downtown shopping districts

Features

- Compatible with a wide range of electronic instant-start, programmed-start, & emergency ballasts; select models are compatible with dimming ballasts[4]
- Certain models feature a plastic shatter-proof construction
- Plastic models are made with a UL94V-0 flame retardant material
- Fits into the existing fluorescent sockets (eg. G13 & 2G11)
- Contains no mercury
- Low temperature operation (down to -4 F or -20C)
- Negligible UV radiation (less than 1 uW/lm for wavelengths shorter than 425 nm)
- 160 degree beam angle
- Certain models are compliant with the federal Trade Agreements Act (TAA)
- Most models feature a 5 year limited warranty[5]

Sustainable 4-pin Philips LED InstantFit lamps

A B

Ordering, electrical and technical data (Subject to change without notice)

Product No.	Model No.	Ordering Code	Volts (Depending on Ballast) (V)	Bare Lamp Watts (W)	Avg. System Watts (W)	Equiv. Watts (W)	Base	CRI	Color Temp. (K)	Lumens	Life[3]	Beam Angle	Key
45836-4	9290011807	8.5PL-C/T LED/26H-2700 IF 4P	100-277, 347	8.5	10.5	26	G24q/GX24	>80	2700	900	40000	120	A
45837-2	9290011808	8.5PL-C/T LED/26H-3000 IF 4P	100-277, 347	8.5	10.5	26	G24q/GX24	>80	3000	900	40000	120	A
45838-0	9290011809	8.5PL-C/T LED/26H-3500 IF 4P	100-277, 347	8.5	10.5	26	G24q/GX24	>80	3500	900	40000	120	A
45839-8	9290011810	8.5PL-C/T LED/26H-4000 IF 4P	100-277, 347	8.5	10.5	26	G24q/GX24	>80	4000	950	40000	120	A
45840-6	9290011811	10.5PL-C/T LED/26V-2700 IF 4P	100-277, 347	10.5	14.5	26	G24q/GX24	>80	2700	1200	40000	120	B
45841-4	9290011812	10.5PL-C/T LED/26V-3000 IF 4P	100-277, 347	10.5	14.5	26	G24q/GX24	>80	3000	1200	40000	120	B
45842-2	9290011813	10.5PL-C/T LED/26V-3500 IF 4P	100-277, 347	10.5	14.5	26	G24q/GX24	>80	3500	1200	40000	120	B
45843-0	9290011814	10.5PL-C/T LED/26V-4000 IF 4P	100-277, 347	10.5	14.5	26	G24q/GX24	>80	4000	1300	40000	120	B

1. CFL 4-pin with a 12,000 hour rated average life versus the LED 4-pin with a 40,000 hour life (B50, L70).
2. Using 2 26W CFL 4-pin lamps on a programmed-start ballast = 52 system watts. Using 2 Philips LED InstantFit 4-pin lamps on a programmed-start ballast = 21 system watts. 52 – 21 = 31 watts saved; 31W/52W = 60% energy saved.
3. Tested to B50 L70 Requirement. This is defined as the number of hours when 50% of a large group of identical lamps drops below 70% of its initial lumens.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Cube (cu. Ft.)	Pallet Qty	Lamps/ SKU	SKUs per Layer	Layers High	SKU Dimensions (W x D x H) (In.)	Case Dimensions (W x D x H) (In.)	Pallet Dimensions (W x D x H) (In.)
45836-4	45836-2	45836-7	10	2.26	0.113	3250	1	650	5	1.3 x 1.3 x 6.4	8 x 3.4 x 7.2	47.2 x 39.4 x 41.6
45837-2	45837-9	45837-4	10	2.26	0.113	3250	1	650	5	1.3 x 1.3 x 6.4	8 x 3.4 x 7.2	47.2 x 39.4 x 41.6
45838-0	45838-6	45838-1	10	2.26	0.113	3250	1	650	5	1.3 x 1.3 x 6.4	8 x 3.4 x 7.2	47.2 x 39.4 x 41.6
45839-8	45839-3	45839-8	10	2.26	0.113	3250	1	650	5	1.3 x 1.3 x 6.4	8 x 3.4 x 7.2	47.2 x 39.4 x 41.6
45840-6	45840-9	45840-4	10	2.55	0.129	2100	1	350	6	2 x 2 x 4.9	11 x 4.5 x 4.5	47.2 x 39.4 x 39.8
45841-4	45841-6	45841-1	10	2.55	0.129	2100	1	350	6	2 x 2 x 4.9	11 x 4.5 x 4.5	47.2 x 39.4 x 39.8
45842-2	45842-3	45842-8	10	2.55	0.129	2100	1	350	6	2 x 2 x 4.9	11 x 4.5 x 4.5	47.2 x 39.4 x 39.8
45843-0	45843-0	45843-5	10	2.55	0.129	2100	1	350	6	2 x 2 x 4.9	11 x 4.5 x 4.5	47.2 x 39.4 x 39.8

Save energy, **retain your uniqueness**

Philips TrueForce LED high lumen post top lamp makes it easy to upgrade to long lasting, energy saving LED technology without sacrificing your site's unique outdoor character. Save yourself the hassle of replacing your entire luminaire, and retrofit with the Philips TrueForce LED high lumen post top lamp.

Benefits

- Saves 70% energy savings vs. 100W HPS systems, or 58% energy savings vs. 70W HPS systems†
- Long life lowers maintenance costs by reducing re-lamp frequency
- Upgrade your light quality with beautiful, white light
- Worry-free compatibility with the ballast bypass technology

Applications

- Historic post top light fixtures installed in:
- Retail plazas
- Downtown shopping districts
- Municipalities
- Universities

Features

- Center beam position mimics HID light center length
- UL damp rated (UL1993 + UL1598C)
- Built in 10kV surge protection
- Available in 3 Correlated Color Temperatures (CCT): 2700K, 3000K or 4000K
- Type V light distribution
- UL Type B system solution
- 5-year limited warranty depending upon operating hours‡

Philips Trueforce LED high lumen post top lamp

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Replacement Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Approx Lumens[2]	Color Temp (K)	CRI	Dim
Up to a 100W ANSI S54 ballast replacement												
466631	9290012810	40ED28/LED/727/ND 120-277V	40	70-100	120-277	ED28	E39	50,000	5,000	2700K	70	N
463364	9290012261	40ED28/LED/730/ND 120-277V	40	70-100	120-277	ED28	E39	50,000	5,000	3000K	70	N
463372	9290012262	40ED28/LED/740/ND 120-277V	40	70-100	120-277	ED28	E39	50,000	5,000	4000K	70	N

Energy saving solution

Estimated lighting costs using a 100W ANSI S54 ballast			
Present Wattage		130	W
× Annual operating hours		4,000	hrs
	=	520,000	Watt-Hours
÷ 1,000	=	520	kWh per year
× kWh rate of $0.11	=	$57.20	per year
× 100 lamps		$5,720.00	annual energy cost per space

Estimated lighting costs using a Philips TrueForce LED high lumen post top lamp			
Present Wattage		40	W
× Annual operating hours		4,000	hrs
	=	160,000	Watt-Hours
÷ 1,000	=	160	kWh per year
× kWh rate of $0.11	=	$17.60	per year
× 100 lamps		$1,760.00	annual energy cost per space
Total estimated annual savings◊		**$3,960.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 100W lamps on an ANSI S54 ballast with the Philips LED TrueForce high lumen lamp can provide significant energy cost savings of $3,960.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use.

Footnotes from front:

† Light output comparison based upon the ENERGY STAR® Integral LED Lamp Center Beam Intensity Benchmark tool which can be found at EnergyStar.gov/LEDbulbs, LED Light Bulbs for Partners, Program Requirements PDF Pg. 11.

‡ For details, please visit http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Volume (cu.ft.)	Pallet Qty.	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
Up to a 100W ANSI S54 ballast replacement											
46051-9	46663-3	46663-8	4	11.10	0.937	192	48	4	4.8 x 4.8 x 10.0	11.9 x 11.9 x 11.4	47.2 x 39.4 x 51.5
46336-4	46336-6	46336-1	4	11.10	0.937	192	48	4	4.8 x 4.8 x 10.0	11.9 x 11.9 x 11.4	47.2 x 39.4 x 51.5
46337-2	46337-3	46337-8	4	11.10	0.937	192	48	4	4.8 x 4.8 x 10.0	11.9 x 11.9 x 11.4	47.2 x 39.4 x 51.5

Accent **without distraction**

airflux TECHNOLOGY

Philips LED PAR lamps with AirFlux technology improves visual experience with superior lighting aesthetics and optimal thermal efficiency in a sleek, lightweight design.

Benefits

- Maximizes focus on merchandise with improved visual comfort
- Blend seamlessly into existing luminaires
- Will not fade colors, avoids inventory spoilage
- Create contrast and depth
- Long life—reduced maintenance cost
- Low energy use and waste—better for the environment

Applications

- Track and recessed luminaires
- Accent and general lighting in retail, hospitality, office, museum and residential spaces

Features

- Single Optic lamps deliver greater visual comfort and increase merchandise “pop”
- Sleek, lightweight, finless design
- Excellent light output and candle power
- Emit virtually no UV/IR light in the beam
- Uniform beam distribution
- Smooth dimming to 10% of full light levels*
- Contains no mercury

PAR LED lamps with AirFlux technology

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Repl. Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens	MBCP[2] (Cd)	Color Temp (K)	CRI	Dim[3]	Key
43535-4	9290011131	17PAR38/S15 2700 DIM AF SO	17	100	120	PAR38	E26 - Med	50,000	1200	10000	2700K	80	Dimmable	D
43536-2	9290011132	17PAR38/S15 3000 DIM AF SO	17	100	120	PAR38	E26 - Med	50,000	1200	10500	3000K	80	Dimmable	D
43537-0	9290011133	17PAR38/S15 4000 DIM AF SO	17	100	120	PAR38	E26 - Med	50,000	1300	11000	4000K	80	Dimmable	D
43538-8	9290011134	17PAR38/F25 2700 DIM AF SO	17	120	120	PAR38	E26 - Med	50,000	1200	6800	2700K	80	Dimmable	D
43539-6	9290011135	17PAR38/F25 3000 DIM AF SO	17	120	120	PAR38	E26 - Med	50,000	1200	7100	3000K	80	Dimmable	D
43540-4	9290011136	17PAR38/F25 4000 DIM AF SO	17	120	120	PAR38	E26 - Med	50,000	1300	7500	4000K	80	Dimmable	D
43541-2	9290011137	17PAR38/F35 2700 DIM AF SO	17	120	120	PAR38	E26 - Med	50,000	1200	3200	2700K	80	Dimmable	D
43542-0	9290011138	17PAR38/F35 3000 DIM AF SO	17	120	120	PAR38	E26 - Med	50,000	1200	3400	3000K	80	Dimmable	D
43543-8	9290011139	17PAR38/F35 4000 DIM AF SO	17	120	120	PAR38	E26 - Med	50,000	1300	3600	4000K	80	Dimmable	D
45966-9	9290011862	17PAR38/LED/827/F25 DIM AF SO-B	17	120	120	PAR38	E26 - Med	50,000	1200	6800	2700K	80	Dimmable	E
45967-7	9290011937	17PAR38/LED/830/F25 DIM AF SO-B	17	120	120	PAR38	E26 - Med	50,000	1250	7100	3000K	80	Dimmable	E
45968-5	9290011941	17PAR38/LED/830/F25 DIM AF SO-S	17	120	120	PAR38	E26 - Med	50,000	1250	7100	3000K	80	Dimmable	F
45466-0	9290011323	12.5PAR30L/F25 2700 DIM SO	12.5	75	120	PAR30L	E26 - Med	50,000	850	5000	2700K	80	Dimmable	C
45467-8	9290011324	12.5PAR30L/F25 3000 DIM SO	12.5	75	120	PAR30L	E26 - Med	50,000	900	5300	3000K	80	Dimmable	C
45468-6	9290011325	12.5PAR30L/F25 4000 DIM SO	12.5	75	120	PAR30L	E26 - Med	50,000	950	5500	4000K	80	Dimmable	C
45469-4	9290011326	12.5PAR30L/F35 2700 DIM SO	12.5	75	120	PAR30L	E26 - Med	50,000	850	2400	2700K	80	Dimmable	C
45470-2	9290011327	12.5PAR30L/F35 3000 DIM SO	12.5	75	120	PAR30L	E26 - Med	50,000	900	2600	3000K	80	Dimmable	C
45471-0	9290011328	12.5PAR30L/F35 4000 DIM SO	12.5	75	120	PAR30L	E26 - Med	50,000	950	2750	4000K	80	Dimmable	C
43526-3	9290011122	12PAR30S/S15 2700 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	7400	3000K	80	Dimmable	A
43527-1	9290011123	12PAR30S/S15 3000 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	7900	3000K	80	Dimmable	A
43529-7	9290011125	12PAR30S/F25 2700 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	5000	2700K	80	Dimmable	A
43530-5	9290011126	12PAR30S/F25 3000 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	5300	3000K	80	Dimmable	A
43531-3	9290011127	12PAR30S/F25 4000 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	5500	4000K	80	Dimmable	A
43532-1	9290011128	12PAR30S/F35 2700 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	2400	2700K	80	Dimmable	A
43533-9	9290011129	12PAR30S/F35 3000 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	2500	3000K	80	Dimmable	A
43534-7	9290011130	12PAR30S/F35 4000 DIM AF SO	12	75	120	PAR30S	E26 - Med	50,000	900	2700	4000K	80	Dimmable	A
45964-4	9290011863	12PAR30S/LED/827/F25 DIM AF SO-B	12	75	120	PAR30S	E26 - Med	50,000	850	5000	2700K	80	Dimmable	B
45965-1	9290011938	12PAR30S/LED/830/F25 DIM AF SO-B	12	75	120	PAR30S	E26 - Med	50,000	900	5300	3000K	80	Dimmable	B

Energy saving solution

Estimated lighting costs using a standard 100W PAR38 Halogen lamp			
Present Wattage		100	W
× Annual operating hours		4,000	hrs
	=	400,000	Watt-Hours
÷ 1,000	=	400	kWh per year
× kWh rate of $0.11	=	$44.00	per year
× 100 lamps		$4,400.00	annual energy cost per space

Estimated lighting costs using a Philips 17W PAR38 LED lamp			
Present Wattage		17	W
× Annual operating hours		4,000	hrs
	=	68,000	Watt-Hours
÷ 1,000	=	68	kWh per year
× kWh rate of $0.11	=	$7.48	per year
× 100 lamps		$748.00	annual energy cost per space
Total estimated annual savings◊		**$3,652.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 incandescent lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 100W halogen PAR38 lamps with the Philips 17W LED PAR38 lamps can provide significant energy cost savings of $3,652.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79. Maximum Beam Candlepower.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.).

This lamp is ENERGY STAR® Certified.

Footnotes from front:

* Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

** Design life is based on engineering testing and probability analysis

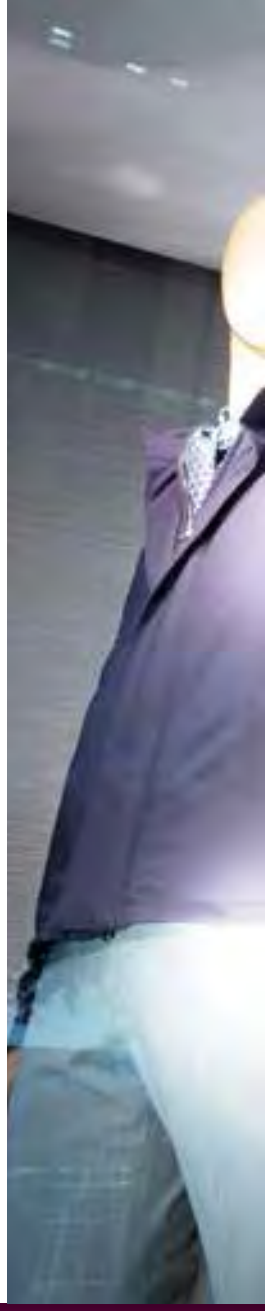
‡ For details, please visit http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd

† Light output comparison based upon the ENERGY STAR® Integral LED Lamp Center Beam Intensity Benchmark tool which can be found at EnergyStar.gov/LEDbulbs, LED Light Bulbs for Partners, Program Requirements PDF Pg. 11.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Cube (cu. Ft.)	Pallet Qty	SKUs per Layer	Layers High	SKU Dimensions (W x D x H) (In.)	Case Dimensions (W x D x H) (In.)	Pallet Dimensions (W x D x H) (In.)
43535-4	43535-6	43535-1	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43536-2	43536-3	43536-8	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43537-0	43537-0	43537-5	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43538-8	43538-7	43538-2	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43539-6	43539-4	43539-9	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43540-4	43540-0	43540-5	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43541-2	43541-7	43541-2	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43542-0	43542-4	43542-9	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
43543-8	43543-1	43543-6	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
45966-9	45966-6	45966-1	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
45967-7	45967-3	45967-8	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
45968-5	45968-0	45968-5	6	6.11	0.55	504	72	7	4.8 x 4.8 x 5.4	15.1 x 10.3 x 6.1	48 x 40 x 43.7
45466-0	43526-4	43526-9	6	5.59	0.33	672	96	7	4.0 x 4.0 x 4.9	12.6 x 8.4 x 5.3	47.2 x 39.4 x 43.1
45467-8	43527-1	43527-6	6	5.59	0.33	672	96	7	4.0 x 4.0 x 4.9	12.6 x 8.4 x 5.3	47.2 x 39.4 x 43.1
45468-6	43529-5	43529-0	6	5.59	0.33	672	96	7	4.0 x 4.0 x 4.9	12.6 x 8.4 x 5.3	47.2 x 39.4 x 43.1
45469-4	43530-1	43530-6	6	5.59	0.33	672	96	7	4.0 x 4.0 x 4.9	12.6 x 8.4 x 5.3	47.2 x 39.4 x 43.1
45470-2	43531-8	43531-3	6	5.59	0.33	672	96	7	4.0 x 4.0 x 4.9	12.6 x 8.4 x 5.3	47.2 x 39.4 x 43.1
45471-0	43532-5	43532-0	6	5.59	0.33	672	96	7	4.0 x 4.0 x 4.9	12.6 x 8.4 x 5.3	47.2 x 39.4 x 43.1
43526-3	43533-2	43533-7	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43527-1	43534-9	43534-4	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43529-7	45964-2	45964-7	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43530-5	45965-9	45965-4	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43531-3	45466-1	45466-6	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43532-1	45467-8	45467-3	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43533-9	45468-5	45468-0	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
43534-7	45469-2	45469-7	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
45964-4	45470-8	45470-3	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6
45965-1	45471-5	45471-0	6	3.67	0.24	1080	120	9	3.6 x 3.6 x 4.0	11.4 x 11.4 x 4.8	48 x 40 x 43.6

A classic design for a familiar look



Philips Professional glass PAR LED lamps with single optic technology provide the familiar look and feel of traditional halogen PARs while using a fraction of the energy.

Benefits

- Saves 85% energy When comparing a 13.5W PAR38 LED lamp to a 90W halogen PAR38 lamp†
- Long life lowers maintenance costs by reducing re-lamp frequency
- Will not fade colors, avoids inventory spoilage
- Contains no mercury
- Suitable for use in enclosed fixtures

Applications

- Track luminaires
- Accent lighting in retail, hospitality, office and residential spaces

Features

- 25,000-hour claimed lifetime for Energy Star®Qualified lamps*
- 50,000-hour LED lifetime**
- Glass finish for a look and feel replicating traditional halogen PARs
- 3-year limited warranty depending upon operating hours‡

Professional glass PAR LED lamps

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Repl. Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens	MBCP[2] (Cd)	Color Temp (K)	CRI	Dim[3]	Key
467696	9290012912	16PAR38/AMB/F25/827/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	6000	2700K	80	Dimmable	C
467704	9290012913	16PAR38/AMB/F25/830/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	6000	3000K	80	Dimmable	C
467712	9290012914	16PAR38/AMB/F25/840/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	6000	4000K	80	Dimmable	C
468181	9290012915	16PAR38/AMB/F25/850/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	6000	5000K	80	Dimmable	C
467720	9290012916	16PAR38/AMB/F40/827/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	2500	2700K	80	Dimmable	C
467738	9290012917	16PAR38/AMB/F40/830/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	2500	3000K	80	Dimmable	C
467746	9290012918	16PAR38/AMB/F40/840/DIM ULW	16	120	120	PAR38	E26 - Med	25,000	1,200	2500	4000K	80	Dimmable	C
467753	9290012920	13.5PAR38/AMB/F25/827/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	4100	2700K	80	Dimmable	C
467761	9290012921	13.5PAR38/AMB/F25/830/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	4100	3000K	80	Dimmable	C
467779	9290012922	13.5PAR38/AMB/F25/840/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	4100	4000K	80	Dimmable	C
468199	9290012923	13.5PAR38/AMB/F25/850/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	4100	5000K	80	Dimmable	C
467787	9290012924	13.5PAR38/AMB/F40/827/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	1700	2700K	80	Dimmable	C
467795	9290012925	13.5PAR38/AMB/F40/830/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	1700	3000K	80	Dimmable	C
467803	9290012926	13.5PAR38/AMB/F40/840/DIM ULW	13.5	90	120	PAR38	E26 - Med	25,000	950	1700	4000K	80	Dimmable	C
467811	9290012940	12PAR30L/AMB/F25/827/DIM ULW	12	75	120	PAR30L	E26 - Med	25,000	850	3300	2700K	80	Dimmable	B
467829	9290012941	12PAR30L/AMB/F25/830/DIM ULW	12	75	120	PAR30L	E26 - Med	25,000	850	3300	3000K	80	Dimmable	B
467837	9290012942	12PAR30L/AMB/F25/840/DIM ULW	12	75	120	PAR30L	E26 - Med	25,000	850	3300	4000K	80	Dimmable	B
467845	9290012944	12PAR30L/AMB/F40/827/DIM ULW	12	75	120	PAR30L	E26 - Med	25,000	850	1500	2700K	80	Dimmable	B
467852	9290012945	12PAR30L/AMB/F40/830/DIM ULW	12	75	120	PAR30L	E26 - Med	25,000	850	1500	3000K	80	Dimmable	B
467860	9290012946	12PAR30L/AMB/F40/840/DIM ULW	12	75	120	PAR30L	E26 - Med	25,000	850	1500	4000K	80	Dimmable	B
467878	9290012948	12PAR30S/AMB/F25/827/DIM ULW	12	75	120	PAR30S	E26 - Med	25,000	850	3300	2700K	80	Dimmable	A
467886	9290012949	12PAR30S/AMB/F25/830/DIM ULW	12	75	120	PAR30S	E26 - Med	25,000	850	3300	3000K	80	Dimmable	A
467894	9290012950	12PAR30S/AMB/F25/840/DIM ULW	12	75	120	PAR30S	E26 - Med	25,000	850	3300	4000K	80	Dimmable	A
467902	9290012952	12PAR30S/AMB/F40/827/DIM ULW	12	75	120	PAR30S	E26 - Med	25,000	850	1500	2700K	80	Dimmable	A
467910	9290012953	12PAR30S/AMB/F40/830/DIM ULW	12	75	120	PAR30S	E26 - Med	25,000	850	1500	3000K	80	Dimmable	A
467928	9290012954	12PAR30S/AMB/F40/840/DIM ULW	12	75	120	PAR30S	E26 - Med	25,000	850	1500	4000K	80	Dimmable	A

Energy saving solution

Estimated lighting costs using a standard 90W PAR38 Halogen lamp			
Present Wattage		90	W
× Annual operating hours		4,000	hrs
	=	360,000	Watt-Hours
÷ 1,000	=	360	kWh per year
× kWh rate of $0.11	=	$39.60	per year
× 100 lamps		$3,960.00	annual energy cost per space

Estimated Lighting Costs Using a Philips 13.5W PAR38 LED lamp			
Present Wattage		13.5	W
× Annual operating hours		4,000	hrs
	=	54,000	Watt-Hours
÷ 1,000	=	54	kWh per year
× kWh rate of $0.11	=	$5.94	per year
× 100 lamps		$594.00	annual energy cost per space
Total estimated annual savings◊		**$3,366.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79. Maximum Beam Candlepower.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

This lamp is ENERGY STAR® Certified.

Footnotes from front:

* Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

** LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50, L70).

‡ For details, please visit http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd

† Light output comparison based upon the ENERGY STAR® Integral LED Lamp Center Beam Intensity Benchmark tool which can be found at EnergyStar.gov/LEDbulbs, LED Light Bulbs for Partners, Program Requirements PDF Pg. 11.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs)	Case Volume (cu. ft.)	Pallet Qty	SKU's per layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
46769-6	46769-2	46769-7	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46770-4	46770-8	46770-3	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46771-2	46771-5	46771-0	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46818-1	46818-7	46818-2	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46772-0	46772-2	46772-7	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46773-8	46773-9	46773-4	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46774-6	46774-6	46774-1	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46775-3	46775-3	46775-8	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46776-1	46776-0	46776-5	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46777-9	46777-7	46777-2	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46819-9	46819-4	46819-9	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46778-7	46778-4	46778-9	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46779-5	46779-1	46779-6	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46780-3	46780-7	46780-2	6	6.51	0.72	384	48	8	4.9 x 4.9 x 5.4	17.2 x 12.1 x 6.0	47.2 x 39.4 x 54.0
46781-1	46781-4	46781-9	6	4.92	0.34	768	96	8	4.1 x 4.1 x 4.9	12.5 x 8.4 x 5.6	47.2 x 39.4 x 50.2
46782-9	46782-1	46782-6	6	4.92	0.34	768	96	8	4.1 x 4.1 x 4.9	12.5 x 8.4 x 5.6	47.2 x 39.4 x 50.2
46783-7	46783-8	46783-3	6	4.92	0.34	768	96	8	4.1 x 4.1 x 4.9	12.5 x 8.4 x 5.6	47.2 x 39.4 x 50.2
46784-5	46784-5	46784-0	6	4.92	0.34	768	96	8	4.1 x 4.1 x 4.9	12.5 x 8.4 x 5.6	47.2 x 39.4 x 50.2
46785-2	46785-2	46785-7	6	4.92	0.34	768	96	8	4.1 x 4.1 x 4.9	12.5 x 8.4 x 5.6	47.2 x 39.4 x 50.2
46786-0	46786-9	46786-4	6	4.92	0.34	768	96	8	4.1 x 4.1 x 4.9	12.5 x 8.4 x 5.6	47.2 x 39.4 x 50.2
46787-8	46787-6	46787-1	6	4.03	0.26	1056	96	11	4.1 x 4.1 x 3.6	12.5 x 8.4 x 4.3	47.2 x 39.4 x 52.6
46788-6	46788-3	46788-8	6	4.03	0.26	1056	96	11	4.1 x 4.1 x 3.6	12.5 x 8.4 x 4.3	47.2 x 39.4 x 52.6
46789-4	46789-0	46789-5	6	4.03	0.26	1056	96	11	4.1 x 4.1 x 3.6	12.5 x 8.4 x 4.3	47.2 x 39.4 x 52.6
46790-2	46790-6	46790-1	6	4.03	0.26	1056	96	11	4.1 x 4.1 x 3.6	12.5 x 8.4 x 4.3	47.2 x 39.4 x 52.6
46791-0	46791-3	46791-8	6	4.03	0.26	1056	96	11	4.1 x 4.1 x 3.6	12.5 x 8.4 x 4.3	47.2 x 39.4 x 52.6
46792-8	46792-0	46792-5	6	4.03	0.26	1056	96	11	4.1 x 4.1 x 3.6	12.5 x 8.4 x 4.3	47.2 x 39.4 x 52.6

Intensity and punch in a compact size

Philips LED GU10, PAR16 and PAR20 lamps
deliver effective light output in a smaller size

Benefits

- Will not fade colors, avoids inventory spoilage
- Focus light where it's needed most
- Create contrast and depth
- Long life—reduced maintenance cost
- Low energy use and waste—better for the environment

Features

- Emits virtually no UV/IR light in the beam
- Uniform beam distribution
- Smooth dimming to 10% of full light levels*
- Contains no mercury
- PAR20 available in 15°, 25° or 35° beam angle
- AirFlux technology for sleek, lightweight design
- Select PAR20 lamps available in black finish

Applications

- Track and recessed luminaires
- Accent and general lighting in retail and hospitality spaces
- Difficult to reach and maintain applications

* Dimmable when using leading and trailing edge dimmers. See Philips Website (www.philips.com/ledtechguide) for compatible dimmers.

GU10, PAR16 and PAR20 LED lamps

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Repl. Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens	MBCP[2] (Cd)	Color Temp (K)	CRI	Dim[3]	Key
468140	9290013006	4.5GU10/LED/F35/830/DIM	4.5	50	120	GU10	GU10	25,000	400	750	3000K	80	Dimmable	A
464981	9290012454	7PAR16/LED/3000/F35 Dim 120V	7	50	120	PAR16	E26 - Med	25,000	500	1000	3000K	80	Dimmable	C
464999	9290012456	7PAR16S/LED/3000/F35 Dim 120V	7	50	120	PAR16S	E26 - Med	25,000	500	1000	3000K	80	Dimmable	B
463729	9290012247	6PAR20/LED/827/S15/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	480	2800	2700K	80	Dimmable	D
463646	9290012250	6PAR20/LED/827/F25/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	480	1800	2700K	80	Dimmable	D
463653	9290012251	6PAR20/LED/830/F25/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	500	1850	3000K	80	Dimmable	D
463661	9290012252	6PAR20/LED/840/F25/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	520	1900	4000K	80	Dimmable	D
463679	9290012253	6PAR20/LED/827/F35/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	480	1000	2700K	80	Dimmable	D
463687	9290012254	6PAR20/LED/830/F35/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	500	1050	3000K	80	Dimmable	D
463695	9290012255	6PAR20/LED/840/F35/DIM SO 120V	6	50	120	PAR20	E26 - Med	25,000	520	1080	4000K	80	Dimmable	D
463703	9290012259	6PAR20/LED/827/F25/DIM SO-B 120V	6	50	120	PAR20	E26 - Med	25,000	480	1800	2700K	80	Dimmable	E
463711	9290012260	6PAR20/LED/830/F25/DIM SO-B 120V	6	50	120	PAR20	E26 - Med	25,000	500	1850	3000K	80	Dimmable	E

Energy saving solution

Estimated lighting costs using a standard 50W PAR20 Halogen Lamp			
Present Wattage		50	W
× Annual operating hours		4,000	hrs
	=	200,000	Watt-Hours
÷ 1,000	=	200	kWh per year
× kWh rate of $0.11	=	$22.00	per year
× 100 lamps		$2,200.00	annual energy cost per space

Estimated lighting costs using a Philips 6W PAR20 LED Lamp			
Present Wattage		6	W
× Annual operating hours		4,000	hrs
	=	24,000	Watt-Hours
÷ 1,000	=	24	kWh per year
× kWh rate of $0.11	=	$2.64	per year
× 100 lamps		$264.00	annual energy cost per space
Total estimated annual savings◊		**$1,936.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79. Maximum Beam Candlepower.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

This lamp is ENERGY STAR® Certified.

Footnotes from front:

* Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

** Design life is based on engineering testing and probability analysis

‡ For details, please visit http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd

† Light output comparison based upon the ENERGY STAR® Integral LED Lamp Center Beam Intensity Benchmark tool which can be found at EnergyStar.gov/LEDbulbs, LED Light Bulbs for Partners, Program Requirements PDF Pg. 11.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs)	Case Volume (cu. ft.)	Pallet Qty	SKU's per layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
46814-0	46814-9	46814-4	10	1.52	0.08	5700	380	15	2.0 x 2.0 x 2.4	10.5 x 4.4 x 3.0	48.0 x 40.0 x 51.6
46498-1	46498-1	46498-6	4	1.19	0.25	720	144	5	4.7 x 2.0 x 8.0	9.4 x 5.4 x 8.7	47.2 x 39.4 x 49.2
46499-9	46499-8	46499-3	4	1.19	0.25	720	144	5	4.7 x 2.0 x 8.0	9.4 x 5.4 x 8.7	47.2 x 39.4 x 49.2
46372-9	46372-4	46372-9	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46364-6	46364-9	46364-4	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46365-3	46365-6	46365-1	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46366-1	46366-3	46366-8	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46367-9	46366-8	46367-5	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46368-7	46368-7	46368-2	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46369-5	46369-4	46369-9	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46370-3	46370-0	46370-5	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4
46371-1	46371-7	46371-2	6	1.44	0.11	2574	234	11	2.6 x 2.6 x 3.2	8.3 x 5.6 x 4.0	48.0 x 40.0 x 44.4

Higher performace LED retrofits for accent lighting

Philips LED MR16 and MRX16 dimmable lamps provide industry leading flux, crisp beams and smooth dimming, while expanding available applications to include enclosed fixtures.

Benefits

- Best-in-class flux, intensity and beam quality
- Minimal color shift & stable flux output throughout lifetime

Applications

- Enclosed fixture compatible*
- Track and recessed luminaires
- Accent lighting in retail and hospitality spaces
- Difficult to reach and maintain applications

Features

- Suitable for use in enclosed fixtures[1]
- 40,000-hr life[2] for 7W MR16 & 8.5W MRX16
- All lamps are dimmable with select models featuring a warm glow effect. The color temperature of the lamp transitions from 2700K to 2200K with dimming
- Crisp, uniform beam with optics engineered to eliminate multiple shadows
- No harmful UV radiation
- "Perfect fit" mechanical design fits most MR16 fixtures
- Patented intelligent driver enables broad compatibility with existing magnetic and electronic halogen transformers

* Please see MR16 technical application guide for details

** Dimmable when using leading and trailing edge dimmers. See Philips Website (www.philips.com/ledtechguide) for compatible dimmers.

MR16 and MRX16 LED lamps

Ordering, electrical and technical data (Subject to change without notice)

	Product Number	Model Number	Ordering Code	Equiv. Watts[3] (W)	Description	Bulb	Base	Lamp Watts (W)	Dim	LED Lifetime (Hrs)	Color Temp (K)	Lumens	CRI	Beam Angle	MBCP[4] (cd)	Key
	Up to a 35W halogen MR16 Replacement[3]															
Warm Glow	45453-8	9290011278	6.5MR16/F25/2700-2200 DIM 12V	35	Flood 25° Warm-Glow	MR16	GU5.3	6.5	Yes	25,000	2700 - 2200	410	80	25	1750	A
Warm Glow	45454-6	9290011279	6.5MR16/F35/2700-2200 DIM 12V	35	Flood 35° Warm-Glow	MR16	GU5.3	6.5	Yes	25,000	2700 - 2200	410	80	35	900	A
☐	45478-5	9290011518	6.6MR16/F25/3000 DIM 12V	35	Flood 25° 3000K	MR16	GU5.3	6.6	Yes	25,000	3000	430	80	25	1800	B
☐	45760-6	9290011522	6.6MR16/F35/3000 DIM 12V	35	Flood 35° 3000K	MR16	GU5.3	6.6	Yes	25,000	3000	430	80	35	1000	B
	Up to a 50W halogen MR16 Replacement[3]															
■	46152-5	9290011525	7MR16/LED/S15/827/DIM AF2	35	Spot 15° 2700K	MR16	GU5.3	7	Yes	40,000	2700	500	80	15	3500	C
■	46153-3	9290011526	7MR16/LED/S15/830/DIM AF2	35	Spot 15° 3000K	MR16	GU5.3	7	Yes	40,000	3000	500	80	15	3600	C
■	46154-1	9290011527	7MR16/LED/S15/840/DIM AF2	35	Spot 15° 4000K	MR16	GU5.3	7	Yes	40,000	4000	530	80	15	3800	C
■	46155-8	9290011528	7MR16/LED/F25/827/DIM AF2	50	Flood 25° 2700K	MR16	GU5.3	7	Yes	40,000	2700	500	80	25	2400	C
■	46156-6	9290011529	7MR16/LED/F25/830/DIM AF2	50	Flood 25° 3000K	MR16	GU5.3	7	Yes	40,000	3000	500	80	25	2500	C
■	46157-4	9290011530	7MR16/LED/F25/840/DIM AF2	50	Flood 25° 4000K	MR16	GU5.3	7	Yes	40,000	4000	530	80	25	2600	C
■	46158-2	9290011531	7MR16/LED/F35/827/DIM AF2	50	Flood 35° 2700K	MR16	GU5.3	7	Yes	40,000	2700	500	80	35	1320	C
■	46159-0	9290011532	7MR16/LED/F35/830/DIM AF2	50	Flood 35° 3000K	MR16	GU5.3	7	Yes	40,000	3000	500	80	35	1350	C
■	46160-8	9290011533	7MR16/LED/F35/840/DIM AF2	50	Flood 35° 4000K	MR16	GU5.3	7	Yes	40,000	4000	530	80	35	1400	C
	Up to a 75W halogen MR16 Replacement[3]															
■	45750-7	9290011498A	8.5MRX16/F25 2700 DIM AF	75	Flood 25° 2700K	MRX16	GU5.3	8.5	Yes	40,000	2700	635	80	25	3100	D
■	45751-5	9290011499A	8.5MRX16/F25 3000 DIM AF	75	Flood 25° 3000K	MRX16	GU5.3	8.5	Yes	40,000	3000	660	80	25	3250	D
■	45752-3	9290011500A	8.5MRX16/F25 4000 DIM AF	75	Flood 25° 4000K	MRX16	GU5.3	8.5	Yes	40,000	4000	710	80	25	3350	D
■	45753-1	9290011501A	8.5MRX16/F35 2700 DIM AF	75	Flood 35° 2700K	MRX16	GU5.3	8.5	Yes	40,000	2700	635	80	35	1650	D
■	45754-9	9290011502A	8.5MRX16/F35 3000 DIM AF	75	Flood 35° 3000K	MRX16	GU5.3	8.5	Yes	40,000	3000	660	80	35	1700	D
■	45755-6	9290011503A	8.5MRX16/F35 4000 DIM AF	75	Flood 35° 4000K	MRX16	GU5.3	8.5	Yes	40,000	4000	710	80	35	1750	D

Note: Lamps are suitable for use in enclosed fixtures.

1. Comparison based on the ENERGY STAR® Lamp Center Beam tool
   - Predicted 35W / 15d halogen, Minimum Center Beam Intensity: 3,367
   - Predicted 35W / 25° halogen, Minimum Center Beam Intensity: 1,601 cd
   - Predicted 35W / 35° halogen, Minimum Center Beam Intensity: 906 cd
   - Predicted 50W / 25° halogen, Minimum Center Beam Intensity: 2,323 cd
   - Predicted 50W / 35° halogen, Minimum Center Beam Intensity: 1,315 cd
   - Predicted 75W / 25° halogen, Minimum Center Beam Intensity: 2,583 cd
   - Predicted 75W / 35° halogen, Minimum Center Beam Intensity: 1,463 cd
2. Transformer dependent. Dimmable electronic transformers can be dimmed using Electronic Low Voltage (ELV) dimmers. Dimmable magnetic transformers can be dimmed using Magnetic Low Voltage (MLV) dimmers.
3. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
4. Based on photometric testing consistent with IES LM-79. Maximum Beam Candlepower.

■ This lamp is ENERGY STAR® Certified.

☐ ENERGY STAR® Test in progress.

Warm Glow Dims from 2700K to 2200K along the black body line, while maintaining CRI.

Energy saving solution

Estimated lighting costs using a standard 75W MR16 Halogen Lamp		
Present Wattage	75	W
× Annual operating hours	4,000	hrs
=	300,000	Watt-Hours
÷ 1,000 =	300	kWh per year
× kWh rate of $0.11 =	$33.00	per year
× 100 lamps	$3,300.00	annual energy cost per space

Estimated lighting costs using a Philips 8.5W LED MRX16 Lamp		
Present Wattage	8.5	W
× Annual operating hours	4,000	hrs
=	34,000	Watt-Hours
÷ 1,000 =	34	kWh per year
× kWh rate of $0.11 =	$3.74	per year
× 100 lamps	$374.00	annual energy cost per space
Total estimated annual savings◊	**$2,926.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 halogen lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 75W MR16 halogen lamps with the Philips 8.5W LED MR16 lamps can provide significant energy cost savings of $2,926.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Volume (cu. Ft.)	Pallet Qty	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
Up to a 35W halogen MR16 Replacement											
45453-8	45453-1	45453-6	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45456-6	45454-8	45454-3	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45475-5	45758-7	45758-2	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45760-6	45760-0	45760-5	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
Up to a 50W halogen MR16 Replacement											
46152-5	46152-2	46152-7	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46153-3	46153-9	46153-4	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46154-1	46154-6	46154-1	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46155-8	46155-3	46155-8	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46156-6	46156-0	46156-5	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46157-4	46157-7	46157-2	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46158-2	46158-4	46158-9	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46159-0	46159-1	46159-6	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46160-8	46160-7	46160-2	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
Up to a 75W halogen MR16 Replacement											
45750-7	45750-1	45750-6	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45751-5	45751-8	45751-3	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45752-3	45752-5	45752-0	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45753-1	45753-2	45753-7	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45754-9	45754-9	45754-4	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45755-6	45755-6	45755-1	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6

Beautiful light in the perfect package

Philips AR111 LED lamps delivers the high quality light in a perfect-fit size, while providing incredible energy savings.

A suitable retrofit solution for spot and general lighting applications in the hospitality and retail industry.

Benefits

- Excellent compatibility with most traditional halogen transformers
- “Perfect fit” mechanical design fits most AR111 fixtures
- Optics designed to work with existing halogen lenses and beam shaping accessories

Features

- Delivers a brilliant visual effect with CRI 90 and R9>50
- Anti-glare optical bridge increases visual comfort
- Best-in-class flux, intensity and beam quality
- Reflecting cup with V-groove prism array for high optical efficiency

Applications

- Enclosed fixture compatible*
- Track and recessed luminaires
- Accent lighting in retail and hospitality spaces
- Difficult to reach and maintain applications

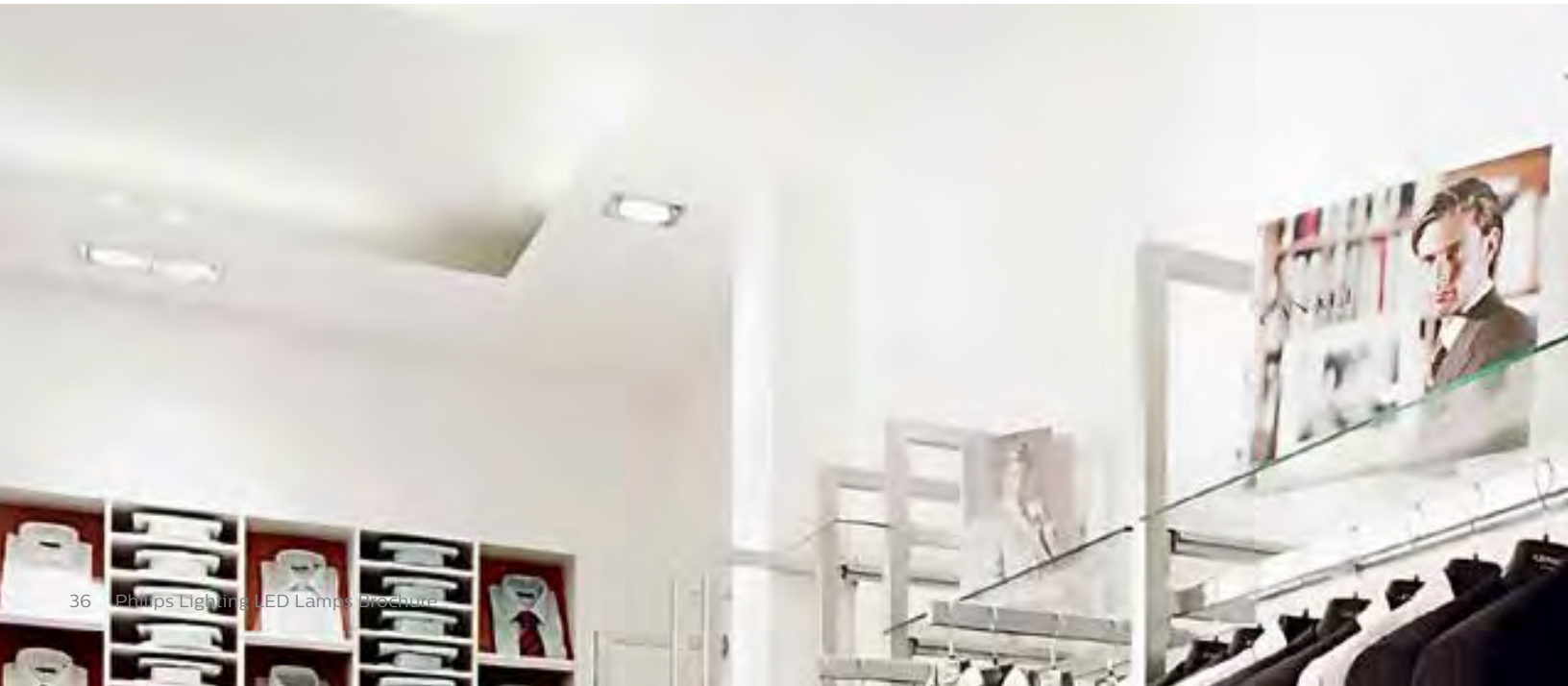
* Please see MR16 technical application guide for details

** Dimmable when using leading and trailing edge dimmers. See Philips Website (www.philips.com/ledtechguide) for compatible dimmers.

AR111 LED lamps

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Replacement Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens	MBCP[2] (Cd)	Color Temp (K)	CRI	Dim[3]
463778	9290012439	11AR111/LED/927/S8 DIM 12V 6/1	11	50	12	AR111	GX53	40,000	600	7800	2700K	90	Dimmable
463786	9290012440	11AR111/LED/930/S8 DIM 12V 6/1	11	50	12	AR111	GX53	40,000	610	8000	3000K	90	Dimmable
460147	9290011702	15AR111/LED/927/F25/DIM 12V 6/1	15	75	12	AR111	GX53	40,000	740	3900	2700K	90	Dimmable
460154	9290011704	15AR111/LED/927/F40/DIM 12V 6/1	15	75	12	AR111	GX53	40,000	740	1400	2700K	90	Dimmable
458554	9290011703	15AR111/LED/930/F25 DIM 12V 6/1	15	75	12	AR111	GX53	40,000	780	1660	3000K	90	Dimmable
460139	9290011708	20AR111/LED/827/F25/DIM 12V 6/1	20	100	12	AR111	GX53	25,000	1340	5800	2700K	80	Dimmable
458562	9290011706	20AR111/LED/830/S15 DIM 12V 6/1	20	100	12	AR111	GX53	25,000	1280	8500	3000K	80	Dimmable
458570	9290011709	20AR111/LED/830/F25 DIM 12V 6/1	20	100	12	AR111	GX53	25,000	1280	6600	3000K	80	Dimmable



Energy saving solution

Estimated lighting costs using a standard 75W AR111 Halogen Lamp			
Present Wattage		75	W
× Annual operating hours		4,000	hrs
	=	300,000	Watt-Hours
÷ 1,000	=	300	kWh per year
× kWh rate of $0.11	=	$33.00	per year
× 100 lamps		$3,300.00	annual energy cost per space

Estimated lighting costs using a Philips 15W AR111 LED Lamp			
Present Wattage		15	W
× Annual operating hours		4,000	hrs
	=	60,000	Watt-Hours
÷ 1,000	=	60	kWh per year
× kWh rate of $0.11	=	$6.60	per year
× 100 lamps		$660.00	annual energy cost per space
Total estimated annual savings◊		**$2,640.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 halogen lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 75W AR111 halogen lamps with the Philips 15W LED AR111 lamps can provide significant energy cost savings of $2,640.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79. Maximum Beam Candlepower.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

Footnotes from front:

* Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

** Design life is based on engineering testing and probability analysis

‡ For details, please visit http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd

† Light output comparison based upon the ENERGY STAR® Integral LED Lamp Center Beam Intensity Benchmark tool which can be found at EnergyStar.gov/LEDbulbs, LED Light Bulbs for Partners, Program Requirements PDF Pg. 11.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Cube (cu. Ft.)	Pallet Qty	SKUs per Layer	Layers High	SKU Dim. (W x D x Hww) (In.)	Case Dim. (W x D x H) (In.)	Pallet Dim. (W x D x H) (In.)
46377-8	46377-9	46377-4	6	6.00	0.32	858	78	11	4.4 x 4.4 x 3.6	13.8 x 9.3 x 4.3	48.0 x 40.0 x 53.5
46378-6	46378-6	46378-1	6	6.00	0.32	858	78	11	4.4 x 4.4 x 3.6	13.8 x 9.3 x 4.3	48.0 x 40.0 x 53.5
46014-7	46014-3	46014-8	6	6.00	0.27	702	78	9	4.4 x 4.4 x 3.6	13.5 x 9.1 x 3.9	47.2 x 39.4 x 44.7
46015-4	46015-0	46015-5	6	6.00	0.27	702	78	9	4.4 x 4.4 x 3.6	13.5 x 9.1 x 3.9	47.2 x 39.4 x 44.7
45855-4	45855-3	45855-8	6	6.00	0.27	702	78	9	4.4 x 4.4 x 3.6	13.5 x 9.1 x 3.9	47.2 x 39.4 x 44.7
46013-9	46013-6	46013-1	6	6.00	0.27	702	78	9	4.4 x 4.4 x 3.6	13.5 x 9.1 x 3.9	47.2 x 39.4 x 44.7
45856-2	45856-0	45856-5	6	6.00	0.27	702	78	9	4.4 x 4.4 x 3.6	13.5 x 9.1 x 3.9	47.2 x 39.4 x 44.7
45857-0	45857-7	45857-2	6	6.00	0.27	702	78	9	4.4 x 4.4 x 3.6	13.5 x 9.1 x 3.9	47.2 x 39.4 x 44.7

Creates a **warm, inviting atmosphere**

Philips LED R20, BR30 and BR40 Indoor Reflector lamps with warm glow effect provide a soft, diffused light and smooth dimming that is ideal for recessed down lighting.

Benefits

- Saves 86% energy when compared to a 65W incandescent BR30[†]
- Integrate seamlessly into recessed downlight luminaires
- Reduce distractions in the ceiling
- Uniform light distribution with greater visual comfort
- Long life—reduced maintenance cost
- Low energy use and waste—better for the environment

Applications

- Down-lighting in retail, hospitality, office and residential spaces

Features

- Diffused light with wide light distribution
- Smooth dimming to 10% of full light levels*
- 25,000-hour rated average life for Energy Star®Qualified lamps**
- 3-year limited warranty depending upon operating hours[‡]

Ambient lighting with Philips LED R20, BR30 and BR40 lamps

Ordering, electrical and technical data (Subject to change without notice)

	Product Number	Model Number	Order Code	Nom. Watts (W)	Repl. Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens[2]	Color Temp (K)	CRI	Dim[3]	Key
Warm Glow	45697-9	9290011557	6R20/LED/827-22/DIM 120V	6	45	120	R20	E26 - Med	25,000	450	2200K - 2700K	80	Dimmable	A
Warm Glow	45704-4	9290011555	9BR30/LED/827-22/DIM 120V	9	65	120	BR30	E26 - Med	25,000	650	2200K - 2700K	80	Dimmable	B
	45810-9	9290011749	9BR30/LED/827/DIM 120V	9	65	120	BR30	E26 - Med	10,950	650	2700K	80	Dimmable	B
	45806-7	9290011556	8BR30/LED/850/DIM 120V	9	65	120	BR30	E26 - Med	25,000	650	5000K	80	Dimmable	B
	46520-3	9290012218	BC9.5BR30/AMB/927/DIM 120V	9.5	65	120	BR30	E26 - Med	25,000	650	2700K	90	Dimmable	B
Warm Glow	45701-0	9290011558	10BR40/LED/827-22/DIM 120V	10	65	120	BR40	E26 - Med	25,000	800	2200K - 2700K	80	Dimmable	C
	45983-4	9290011950	10BR40/LED/850/DIM 120V	10	65	120	BR40	E26 - Med	25,000	800	5000K	80	Dimmable	C

Energy saving solution

Estimated lighting costs using a standard 65W BR30 Halogen			
Present Wattage		65	W
× Annual operating hours		4,000	hrs
	=	260,000	Watt-Hours
÷ 1,000	=	260	kWh per year
× kWh rate of $0.11	=	$28.60	per year
× 100 lamps		$2,860.00	annual energy cost per space

Estimated lighting costs using a Philips 9W Dimmable LED BR30 Lamp			
Present Wattage		9	W
× Annual operating hours		4,000	hrs
	=	36,000	Watt-Hours
÷ 1,000	=	36	kWh per year
× kWh rate of $0.11	=	$3.96	per year
× 100 lamps		$396.00	annual energy cost per space
Total estimated annual savings◊		**$2,464.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 incandescent lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 65W BR30 incandescent lamps with the Philips 9W LED BR30 lamps can provide significant energy cost savings of $2,464.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

This lamp is ENERGY STAR® Certified.

Warm Glow Light dims to a warm glow, similar to incandescent.

Footnotes from front:

* Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

** Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

‡ For details, please visit http://www.usa.lighting.philips.com/ connect/tools_literature/warranties.wpd.

† Light output comparison based on photometric testing consistent with IES LM-79.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Cube (cu. Ft.)	Pallet Qty	SKUs per Layer	Layers High	SKU Dim. (W x D x Hww) (In.)	Case Dim. (W x D x H) (In.)	Pallet Dim. (W x D x H) (In.)
45697-9	45697-9	45697-4	6	1.45	0.11	2340	234	10	2.4 x 2.4 x 3.9	8.1 x 5.4 x 4.5	48.0 x 40.0 x 45.9
45704-4	45704-4	45704-9	6	2.77	0.31	840	120	7	3.6 x 3.6 x 5.2	11.4 x 7.8 x 6.0	48.0 x 40.0 x 42.8
45810-9	45810-2	45810-7	4	2.97	0.42	450	90	5	4.1 x 4.1 x 5.7	13.0 x 8.8 x 6.4	47.2 x 39.4 x 37.8
45806-7	45806-5	45806-0	6	2.77	0.31	840	120	7	3.6 x 3.6 x 5.2	11.4 x 7.8 x 6.0	48.0 x 40.0 x 42.8
46520-3	46520-9	46520-4	4	1.65	0.58	300	60	5	5.7 x 3.8 x 8.0	16.4 x 6.8 x 9.0	48.0 x 40.0 x 45.9
45701-0	45701-3	45701-8	6	3.25	0.57	432	72	6	4.6 x 4.6 x 6.3	14.4 x 9.8 x 7.0	48.0 x 40.0 x 42.8
45983-4	45983-3	45983-8	6	3.25	0.57	432	72	6	4.6 x 4.6 x 6.3	14.4 x 9.8 x 7.0	48.0 x 40.0 x 42.8

Omni-directional LED lamps, an energy saving alternative to popular incandescents.

Philips A-shape and 3-way LED lamps are the smart LED alternative to standard incandescent A-shape lamps. The unique lamp design provides omni-directional light with excellent dimming performance.

Ideal for decorative and ambient lighting in retail outlets, hotels, restaurants, government buildings, and multi-unit residences.

Benefits

- Uniform light distribution
- Create the perfect ambience
- No warm up time—instant 100% light output
- Will not fade colors, avoids inventory spoilage
- Long life—reduced maintenance cost
- Low energy use and waste—better for the environment

Applications

- Table and floor lamps, pendants, and wall sconces
- Ambient lighting in hotels, restaurants, retail and residential spaces

Features

- Provides light all-around*
- Instant-on light
- Emits virtually no UV/IR light in the beam
- Warm white light
- Smooth dimming to 5% of full light levels
- Contains no mercury

Ambient lighting with Philips LED A-Shape and 3-way lamps

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Replacement Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens[2]	Finish	Color Temp (K)	CRI	Dim[3]	Key
With WarmGlow dimming														
45576-6	9290011347	6.5A19/LED/827-22/DIM	6.5	40	120	A19	E26	25,000	450	Frosted	2200K - 2700K	80	Dimmable	A
45582-4	9290011840	9.5A19/LED/827-22/DIM	9.5	60	120	A19	E26	25,000	800	Frosted	2200K - 2700K	80	Dimmable	A
45907-3	9290011839	14A21/LED/827-22/DIM	14	75	120	A21	E26	25,000	1100	Frosted	2200K - 2700K	80	Dimmable	B
45911-5	9290011741	18A21/LED/827-22/DIM	18	100	120	A21	E26	25,000	1600	Frosted	2200K - 2700K	80	Dimmable	B
45874-5	9290011815	7A19/LED/827-22/CL/DIM	7	40	120	A19	E26	25,000	450	Clear	2200K - 2700K	80	Dimmable	A
46251-5	9290012151	6A19/LED/827-22/CL/DIM	6	40	120	A19	E26	25,000	480	Clear	2200K - 2700K	80	Dimmable	A
45883-6	9290011816	10A19/LED/827-22/CL/DIM	10	60	120	A19	E26	25,000	800	Clear	2200K - 2700K	80	Dimmable	A
46253-1	9290012149	10A19/LED/827-22/CL/DIM	10	60	120	A19	E26	25,000	800	Clear	2200K - 2700K	80	Dimmable	A
With standard dimming														
46126-9	9290012006	9.5A19/AMB/827/DIM	9.5	60	120	A19	E26	25,000	800	Frosted	2700K	80	Dimmable	A
45905-7	9290011969	9A19/LED/830/DIM	9	60	120	A19	E26	25,000	800	Frosted	3000K	80	Dimmable	A
45588-1	9290011970	9A19/AMB/850/DIM	9	60	120	A19	E26	25,000	800	Frosted	5000K	80	Dimmable	A
46518-7	9290012633	BC10A19/AMB/927/DIM	10	60	120	A19	E26	25,000	800	Frosted	2700K	90	Dimmable	A
Without dimming														
46063-4	9290012036	5.5A19/LED/827/ND	5.5	40	120	A19	E26	10,950	450	Frosted	2700K	80	Non-Dim	A
45550-1	9290011350	8.5A19/LED/827 ND	8.5	60	120	A19	E26	10,950	800	Frosted	2700K	80	Non-Dim	A
46298-5	9290012193	10.5A19/LED/827 ND	10.5	75	120	A19	E26	10,950	1000	Frosted	2700K	80	Non-Dim	A
45568-3	9290011349	14.5A19/LED/827 ND	14.5	100	120	A19	E26	10,950	1500	Frosted	2700K	80	Non-Dim	A
46232-5	9290012126	8.5A19/LED/827/CL/ND	8.5	60	120	A19	E26	10,950	800	Clear	2700K	80	Non-Dim	A
46071-7	9290012037	5A19/LED/850/ND	5	40	120	A19	E26	10,950	450	Frosted	5000K	80	Non-Dim	A
45560-0	9290011352	8A19/LED/850 ND	8.5	60	120	A19	E26	10,950	800	Frosted	5000K	80	Non-Dim	A
46301-8	9290012194	9.5A19/LED/850 ND	9.5	75	120	A19	E26	10,950	1000	Frosted	5000K	80	Non-Dim	A
45571-7	9290011351	14A19/LED/850 ND 120V	14	100	120	A19	E26	10950	1500	Frosted	5000K	80	Non-Dim	A
LED 3-way lamps														
45916-4	9290011742	18A21/LED/827 3WAY ND	5/ 8/ 18	40-60-100	120	A21	E26d	25,000	450/ 800/ 1600	Frosted	2700K	80	Non-Dim	C
46515-3	9290012584	22A21/LED/827 3WAY ND	8/ 16/ 22	50-100-150	120	A21	E26d	10,950	620/ 1600/ 2200	Frosted	2700K	80	Non-Dim	C

Energy saving solution

Estimated lighting costs using a standard 60W Incandescent A19 lamp			
Present Wattage		60	W
× Annual operating hours		4,000	hrs
	=	240,000	Watt-Hours
÷ 1,000	=	240	kWh per year
× kWh rate of $0.11	=	$26.40	per year
× 100 lamps		$2,640.00	annual energy cost per space

Estimated lighting costs using a Philips 9.5W LED A19 lamp			
Present Wattage			W
× Annual operating hours		9.5	hrs
	=	4,000	Watt-Hours
÷ 1,000	=	38,000	kWh per year
× kWh rate of $0.11	=	38	per year
× 100 lamps		$4.18	annual energy cost per space
Total estimated annual savings◊		**$2,222.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 incandescent lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 60W A19 incandescent lamps with the Philips 9.5W LED WarmGlow A19 lamps can provide significant energy cost savings of $2,222.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

■ This lamp is ENERGY STAR® Certified.

□ ENERGY STAR® Test in progress.

WarmGlow Light dims to a warm glow, similar to incandescent.

Footnotes from front:

* Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

** Design life is based on engineering testing and probability analysis.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Volume (cu.ft.)	Pallet Qty.	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
With WarmGlow dimming											
45576-6	45576-7	45576-2	6	2.62	0.11	1584	264	6	2.4 x 2.4 x 4.9	7.7 x 5.3 x 4.7	47.2 x 39.4 x 38.8
45582-4	45582-8	45582-3	6	1.71	0.13	1848	264	7	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 43.0
45907-3	45907-9	45907-4	6	2.80	0.18	1224	204	6	2.7 x 2.7 x 5.4	8.6 x 5.9 x 6.1	47.2 x 39.4 x 42.6
45911-5	45911-6	45911-1	6	2.80	0.18	1224	204	6	2.7 x 2.7 x 5.4	8.6 x 5.9 x 6.1	47.2 x 39.4 x 42.6
45874-5	45874-4	45874-9	10	3.40	0.32	1050	150	7	2.4 x 2.4 x 4.7	14.8 x 7.0 x 5.4	47.2 x 39.4 x 43.2
46251-5	46251-2	46251-7	10	2.46	0.21	2160	270	8	2.4 x 2.4 x 4.7	12.8 x 5.3 x 5.4	47.2 x 39.4 x 49.0
45883-6	45883-6	45883-1	10	3.40	0.32	1050	150	7	2.4 x 2.4 x 4.7	14.8 x 7.0 x 5.4	47.2 x 39.4 x 43.2
46253-1	46253-6	46253-1	10	2.46	0.21	2160	270	8	2.4 x 2.4 x 4.7	12.8 x 5.3 x 5.4	47.2 x 39.4 x 49.0
With standard dimming											
46126-9	46126-3	46126-8	6	1.71	0.13	1848	264	7	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 43.0
45905-7	45905-5	45905-0	6	1.71	0.13	1848	264	7	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 43.0
45588-1	45588-0	45588-5	6	1.71	0.13	1848	264	7	2.5 x 2.5 x 4.7	7.8 x 5.3 x 5.3	47.2 x 39.4 x 43.0
46518-7	46518-6	46518-1	4	2.24	0.44	420	84	5	5.7 x 2.5 x 8.0	13.4 x 6.4 x 8.8	47.2 x 39.4 x 50.0
Without dimming											
46063-4	46063-1	46063-6	6	1.14	0.12	1764	252	7	2.4 x 2.4 x 4.4	7.8 x 5.4 x 5.1	47.2 x 39.4 x 41.5
45550-1	45550-7	45550-2	4	0.93	0.09	1482	212	7	2.5 x 2.5 x 4.4	10.7 x 3.0 x 5.0	47.2 x 39.4 x 40.9
46298-5	46298-7	46298-2	6	1.14	0.12	1764	252	7	2.4 x 2.4 x 4.4	7.8 x 5.4 x 5.1	47.2 x 39.4 x 41.5
45568-3	45568-2	45568-7	6	1.14	0.12	1764	252	7	2.4 x 2.4 x 4.4	7.8 x 5.4 x 5.1	47.2 x 39.4 x 41.5
46232-5	46232-1	46232-6	10	2.47	0.21	1820	260	7	2.4 x 2.4 x 4.7	12.8 x 5.3 x 5.4	47.2 x 39.4 x 37.8
46071-7	46071-6	46071-1	6	1.14	0.12	1764	252	7	2.4 x 2.4 x 4.4	7.8 x 5.4 x 5.1	47.2 x 39.4 x 41.5
45560-0	45560-6	45560-1	4	0.93	0.09	1484	212	7	2.5 x 2.5 x 4.4	10.7 x 3.0 x 5.0	47.2 x 39.4 x 40.9
46301-8	46301-4	46301-9	6	1.14	0.12	1764	252	7	2.4 x 2.4 x 4.4	7.8 x 5.4 x 5.1	47.2 x 39.4 x 41.5
45571-7	45571-2	45571-7	6	1.14	0.12	1764	252	7	2.4 x 2.4 x 4.4	7.8 x 5.4 x 5.1	47.2 x 39.4 x 41.5
LED 3-way lamps											
45916-4	45916-1	45916-6	6	2.80	0.18	1224	204	6	2.7 x 2.7 x 5.4	8.6 x 5.9 x 6.1	47.2 x 39.4 x 42.6
46515-3	46515-5	46515-0	6	2.80	0.18	1224	204	6	2.7 x 2.7 x 5.4	8.6 x 5.9 x 6.1	47.2 x 39.4 x 42.6

Breathtaking brilliance **sparkling white light**

Philips DiamondSpark LED dimmable candle lamps with warm glow effect incorporate a revolutionary new shaped prism that allows the optics to radiate brilliant, clear and sparkling white LED light

Benefits

- Saves 88% energy when compared to a 40W incandescent decorative lamp†
- Create an incandescent-like effect with WarmGlow dimming on select models
- Integrates into existing decorative fixtures with offerings in both candelabra and medium bases
- Long life lowers maintenance costs by reducing re-lamp frequency
- Contains no mercury

Features

- 25,000-hour rated average life for Energy Star®Qualified lamps*
- Suitable for installation in dry or damp locations
- Smooth dimming to 10% of full light levels**
- 3-year limited warranty depending upon operating hours‡

Philips LED candle and decorative lamps

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts (W)	Repl. Watts (W)	Volts (V)	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens[2]	Finish	Color Temp (K)	CRI	Dim[3]	Key
46187-1	9290012137	4.5B11/LED/827/E12/DIM	4.5	40	120	B11	E12 Cand	15,000	300	Clear	2700K	80	Dimmable	A
46193-9	9290012138	4.5B11/LED/827/E26/DIM	4.5	40	120	B11	E26 - Med	15,000	300	Clear	2700K	80	Dimmable	B
Warm Glow 45723-4	9290011668	3.5B12/LED/827-22/E12 DIM	3.5	25	120	B12	E12 Cand	25,000	180	Clear	2200K - 2700K	80	Dimmable	C
Warm Glow 45712-7	9290011670	4.5B12/LED/827-22/E12 DIM	4.5	40	120	B12	E12 Cand	25,000	330	Clear	2200K - 2700K	80	Dimmable	C
Warm Glow 45719-2	9290011673	4.5B12/LED/827-22/E26/DIM	4.5	40	120	B12	E26 - Med	25,000	330	Clear	2200K - 2700K	80	Dimmable	D
Warm Glow 45869-5	9290011820	7B12/LED/827-22/E12/DIM	7	60	120	B12	E12 Cand	25,000	500	Clear	2200K - 2700K	80	Dimmable	C
Warm Glow 45866-1	9290011821	7B12/LED/827-22/E26/DIM	7	60	120	B12	E26 - Med	25,000	500	Clear	2200K - 2700K	80	Dimmable	D
Warm Glow 45721-8	9290011671	4.5BA12/LED/827-22/E12/DIM	4.5	40	120	BA12	E12 Cand	25,000	330	Clear	2200K - 2700K	80	Dimmable	E
Warm Glow 45818-2	9290011791	4.5BA12/LED/827-22/E26/DIM	4.5	40	120	BA12	E26 - Med	25,000	330	Clear	2200K - 2700K	80	Dimmable	F
Warm Glow 45863-8	9290011822	7F15/LED/827-22/E26/DIM	7	60	120	F15	E26 - Med	25,000	500	Clear	2200K - 2700K	80	Dimmable	G
Warm Glow 46398-3	9290012133	5.5A15/LED/827-22/E12/CL/DIM	5.5	40	120	A15	E12 Cand	25,000	450	Clear	2200K - 2700K	80	Dimmable	H
Warm Glow 46252-3	9290012150	5.5A15/LED/827-22/E26/CL/DIM	5.5	40	120	A15	E26 - Med	25,000	450	Clear	2200K - 2700K	80	Dimmable	I
Warm Glow 45880-2	9290011817	7G25/LED/827-22/E26/CL/DIM	7	40	120	G25	E26 - Med	25,000	450	Clear	2200K - 2700K	80	Dimmable	J
Warm Glow 45934-7	9290011898	10G25/LED/827-22/E26/CL/DIM	10	60	120	G25	E26 - Med	25,000	800	Clear	2200K - 2700K	80	Dimmable	J
46586-4	9290012674	4.5G25/LED/827/ND	4.5	40	120	G25	E26 - Med	15,000	350	Frosted	2700K	80	Non-Dim	K
46588-0	9290012675	6.5G25/LED/827/ND	6.5	60	120	G25	E26 - Med	15,000	500	Frosted	2700K	80	Non-Dim	K
46587-2	9290012693	4G25/LED/850/ND	4	40	120	G25	E26 - Med	15,000	350	Frosted	5000K	80	Non-Dim	K
46589-8	9290012694	5G25/LED/850/ND	5	60	120	G25	E26 - Med	15,000	500	Frosted	5000K	80	Non-Dim	K

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).

2. Based on photometric testing consistent with IES LM-79.

3. Dimmable when using leading and trailing edge dimmers.

This lamp is ENERGY STAR® Certified.

Warm Glow Dims from 2700K to 2200K along the black body line, while maintaining CRI.

Footnotes from front:

* Early initial qualification for Energy Star allows for directional lamp life claims of 25,000 hours (L70) with 3,000 hour actual test data, LM80 data and in-situ temperature measurements. As the lamps pass Energy Star requirements, manufacturers may increase the lifetime of a product as dictated by Energy Star guidelines. See http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showLightbulbs for further details.

** Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

‡ For details, please visit http://www.usa.lighting.philips.com/ connect/tools_literature/warranties.wpd

† Light output comparison based on photometric testing consistent with IES LM-79

Energy saving solution

Estimated lighting costs using a standard 40W decorative incandescent lamp			
Present Wattage		40	W
× Annual operating hours		4,000	hrs
	=	160,000	Watt-Hours
÷ 1,000	=	160	kWh per year
× kWh rate of $0.11	=	$17.60	per year
× 100 lamps		$1,760.00	annual energy cost per space

Estimated lighting costs using a Philips 4.5W decorative LED lamp			
Present Wattage		4.5	W
× Annual operating hours		4,000	hrs
	=	18,000	Watt-Hours
÷ 1,000	=	18	kWh per year
× kWh rate of $0.11	=	$1.98	per year
× 100 lamps		$198.00	annual energy cost per space
Total estimated annual savings◊		**$1,562.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 incandescent lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 40W decorative incandescent lamps with the Philips 4.5W LED decorative lamps can provide significant energy cost savings of $1,562.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Volume (cu.ft.)	Pallet Qty.	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
46187-1	46187-4	46187-9	8	1.20	0.07	13140	730	18	1.4 x 1.4 x 4.4	7.6 x 3.3 x 5.0	48.0 x 40.1 x 97.4
46193-9	46193-5	46193-0	8	1.20	0.07	13140	730	18	1.4 x 1.4 x 4.4	7.6 x 3.3 x 5.0	48.0 x 40.1 x 97.4
45723-4	45723-5	45723-0	10	1.70	0.13	2730	390	7	2.0 x 2.0 x 4.5	10.5 x 4.3 x 5.1	47.2 x 39.4 x 41.7
45712-7	45712-9	45712-4	10	1.70	0.13	2730	390	7	2.0 x 2.0 x 4.5	10.5 x 4.3 x 5.1	47.2 x 39.4 x 41.7
45719-2	45719-8	45719-3	10	1.70	0.13	2730	390	7	2.0 x 2.0 x 4.5	10.5 x 4.3 x 5.1	47.2 x 39.4 x 41.7
45869-5	45869-0	45869-5	10	1.70	0.13	2730	390	7	2.0 x 2.0 x 4.5	10.5 x 4.3 x 5.1	47.2 x 39.4 x 41.7
45866-1	45866-9	45866-4	10	1.70	0.13	2730	390	7	2.0 x 2.0 x 4.5	10.5 x 4.3 x 5.1	47.2 x 39.4 x 41.7
45721-8	45721-1	45721-6	10	1.90	0.11	2900	580	5	1.6 x 1.6 x 5.7	8.4 x 3.6 x 6.3	47.2 x 39.4 x 37.4
45818-2	45818-8	45756-8	10	1.90	0.11	2900	580	5	1.6 x 1.6 x 5.7	8.4 x 3.6 x 6.3	47.2 x 39.4 x 37.4
45863-8	45863-8	45863-3	8	2.40	0.23	1440	240	6	2.0 x 2.0 x 4.8	12.2 x 5.8 x 5.5	47.4 x 39.4 x 39.0
46398-3	46398-4	46398-9	10	2.11	0.12	3800	380	10	2.0 x 2.0 x 3.9	10.6 x 4.5 x 4.5	47.2 x 39.4 x 51.6
46252-3	46252-9	46252-4	10	2.11	0.12	3800	380	10	2.0 x 2.0 x 3.9	10.6 x 4.5 x 4.5	47.2 x 39.4 x 51.6
45880-2	45880-5	45880-0	10	1.80	0.26	840	120	7	2.8 x 2.8 x 4.7	10.8 x 7.7 x 5.4	47.2 x 39.4 x 43.2
45934-7	45934-5	45934-0	6	2.50	0.32	612	102	6	3.1 x 3.1 x 5.1	11.7 x 8.4 x 5.7	47.2 x 39.4 x 40.2
46586-4	46586-5	46586-0	6	1.81	0.18	1380	138	10	3.3 x 3.3 x 3.8	10.3 x 6.9 x 4.4	47.2 x 39.4 x 50.6
46588-0	46588-9	46588-4	6	1.81	0.18	1380	138	10	3.3 x 3.3 x 3.8	10.3 x 6.9 x 4.4	47.2 x 39.4 x 50.6
46587-2	46587-2	46587-7	6	1.81	0.18	1380	138	10	3.3 x 3.3 x 3.8	10.3 x 6.9 x 4.4	47.2 x 39.4 x 50.6
46589-8	46589-6	46589-1	6	1.81	0.18	1380	138	10	3.3 x 3.3 x 3.8	10.3 x 6.9 x 4.4	47.2 x 39.4 x 50.6

Create a vintage look with LED technology

Philips LED vintage style lamps allow you to maintain a warm, classic

Benefits

- Maintain existing aestheics while enjoying the benefits of energy-saving LED technology
- > 80% energy savings when compared conventional equivalents
- 5x the lifetime when it compared to to conventional equivalents (15,000 hrs)
- Light distribution and color which replicates the effect of standard, vintage-style incandscent lamps
- Provides a warm, cozy light effect even at maximum brightness
- Some products feature an amber finish to increase the decorative effect when in use and also when turned off

Features

- A variety of aesthetically pleasing, classic lamp shapes (A19b, A15, ST19 & BA11)
- Integrates a compact driver design to achieve the decorative look and feel
- Instant on
- Certain models feature smooth (and deeper) dimming
- A15, A19b, and ST19 lamps are UL wet rated for outdoor usage (e.g. Marquee signs, patios, pergolas)

Philips Vintage LED lamps

Ordering, electrical and technical data (Subject to change without notice)

Product Number	Model Number	Order Code	Nom. Watts	Replacement Watts	Volts	Lamp Type	Base	LED Lifetime[1] (hrs.)	Lumens[2]	Color Temp (K)	CRI	Dim[3]	UL Wet rated	Key
466524	9290012687	4.5BA11/LEDFilament/820/CL-A/DIM	4.5	40	120V	BA11	E12 - Candelabra	15,000	350	2000K	80	Dimmable	N	A
461111	9290012096	2A15/LEDFilament/822/CL/ND 120V	2	25	120V	A15	E26 - Med	15,000	220	2200K	80	Non-Dim	Y	B
461665	9290012101	4.5A19b/LEDFilament/820/CL-A/DIM	4.5	60	120V	A19b	E26 - Med	15,000	350	2000K	80	Dimmable	Y	D
461673	9290012102	5.5ST19/LEDFilament/820/CL-A/DIM	5.5	40	120V	ST19	E26 - Med	15,000	400	2000K	80	Dimmable	Y	C

Energy saving solution

Estimated lighting costs using a standard 60W Incandescent A19b Lamp			
Present Wattage		60	W
× Annual operating hours		4,000	hrs
	=	240,000	Watt-Hours
÷ 1,000	=	240	kWh per year
× kWh rate of $0.11	=	$26.40	per year
× 100 lamps		$2,640.00	annual energy cost per space

Estimated lighting costs using a Philips 4.5W Filament LED A19b Lamp			
Present Wattage		4.5	W
× Annual operating hours		4,000	hrs
	=	18,000	Watt-Hours
÷ 1,000	=	18	kWh per year
× kWh rate of $0.11	=	$1.98	per year
× 100 lamps		$198.00	annual energy cost per space
Total estimated annual savings◊		**$2,442.00**	

◊ Based on 100 lamps per space operating at 4,000 hours per year

This example shows an application of 100 incandescent lamps, operating 4,000 hours per year at a cost of $0.11 per kWh. Replacing 100 standard 60W A19b incandescent lamps with the Philips 4.5W filament LED A19b lamps can provide significant energy cost savings of $2,442.00 per year. Your actual savings may vary depending on the energy costs in your geographic location.

1. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).
2. Based on photometric testing consistent with IES LM-79.
3. Dimmable when using leading and trailing edge dimmers. (See http://www.philips.com/ledtechguide for compatible dimmers.)

Shipping data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Volume (cu.ft.)	Pallet Qty.	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
46652-4	46652-7	46652-2	6	0.67	0.07	3840	480	8	1.8 x 1.8 x 5.0	5.8 x 4.0 x 5.5	47.2 x 39.4 x 50.4
46111-1	46111-9	46111-4	10	0.89	0.16	1680	210	8	2.0 x 2.0 x 3.8	11.7 x 5.7 x 4.2	47.2 x 39.4 x 42.9
46166-5	46166-9	46166-4	12	1.93	0.28	1512	216	7	2.6 x 2.6 x 4.7	10.9 x 8.3 x 5.4	47.2 x 47.2 x 43.5
46167-3	46167-6	46167-1	6	1.43	0.20	1020	204	5	2.6 x 2.6 x 4.7	8.8 x 6.0 x 6.7	47.2 x 39.4 x 39.0

PLt-1443BR 12/16 www.philips.com/lighting

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