



# Technical Application Guide for PHILIPS LED Lamps

PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable  
LED Bulb



**PHILIPS**



PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb integrates leading LED light source and compact high efficiency driver into a A-shape form-factor. Not only does it employ hi-tech IC solution to ensure the dimming system control, it also delivers a light intensity and quality which meets the Energy Star standard of 40W & 60W bulb.

As a replacement for the most commonly used incandescent model, PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb is ideal for wide applications of general lighting, and industrial OEM equipment lighting in open luminaries.

## Design Highlights

- About 80% energy saving
- Long lifetime of 25,000 hours (L70, B50)
- Form-factor is designed as a direct retrofit into A19 fixtures
- Dimmable with recommended dimmers
- CCT 2700K & 5000K offered
- No UV and Cool Beam (no IR)
- Environmental friendly, no mercury or any other hazardous substances
- RoHS compliant

## Application areas

PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb is suitably designed for general lighting applications in hospitality and retail industries.

Unlike the traditional 40W & 60W incandescent bulbs, PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb offers 80% energy saving and a longer lifetime of 25,000hours (equivalent to 5.7 years if lit 12hrs a day), especially ideal for 24/7 applications to ensure minimum maintenance cost and maximum energy saving in hotels, restaurants, cafes and shops, especially suitable for various applications in the public areas such as:

- Corridors / Stairway / Washroom
- Lobby / Reception areas
- Hotel rooms / Bars

## Application notes

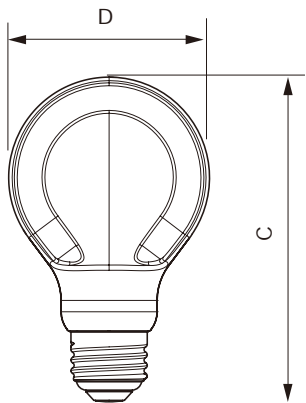
- Operating temperature range is between -20°C and 45°C ambient in free air, Tc max =85°C (60W) and 75°C (40W) for rated life. (See Lifetime + Sustainability Curves) Storage temperature range is between -40°C and 65°C, humidity range is between 10% and 90%
- Suitable to apply in damp indoor environments and open fixtures with E26 lamp-holder that offer sufficient space
- Dimmable with most of leading and trailing edge dimmers in NAM market (refer to the recommended dimmer list on the last page)
- Not intended for use with emergency light fixtures or exit lights
- For use in fixtures that can structurally support a lamp weighing 0.138 pound
- Maximum 40pcs of this lamp can be loaded on one switch
- When mix load this lamp with other LED lamps without dimmer, please ensure total number of the lamps less than 40pcs.

# Technical Specifications

Product type	Voltage	Power	Base	Power Factor	Flux (lm)	Beam Angle (°)	CCT (K)	Lifetime (hrs)	CRI	Dimmable
PHILIPS 120V SlimStyle 8-40W 2700K Dimmable LED Bulb	120	8	E26	>0.85	450	300	2700	25,000	80	Yes
PHILIPS 120V SlimStyle 7-40W 5000K Dimmable LED Bulb	120	7	E26	>0.85	450	300	5000	25,000	80	Yes
PHILIPS 120V SlimStyle 10.5-60W 2700K Dimmable LED Bulb	120	10.5	E26	>0.85	800	300	2700	25,000	80	Yes
PHILIPS 120V SlimStyle 10.5-60W 5000K Dimmable LED Bulb	120	10.5	E26	>0.85	800	300	5000	25,000	80	Yes

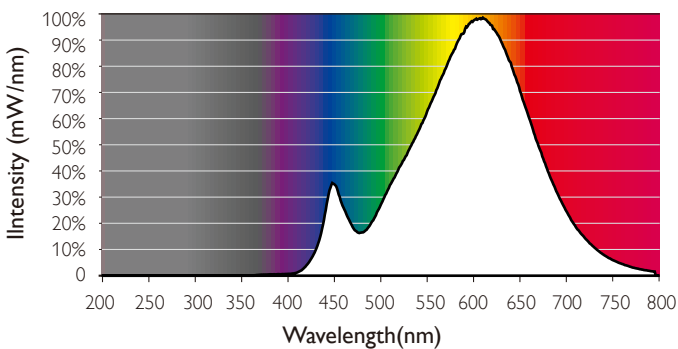
# Fixture Compatibility

Type	C Max. AOL (mm)	D Max. Diameter (mm)	Weight (g)	Weight (pound)
PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb	111.6	69	62.6	0.138

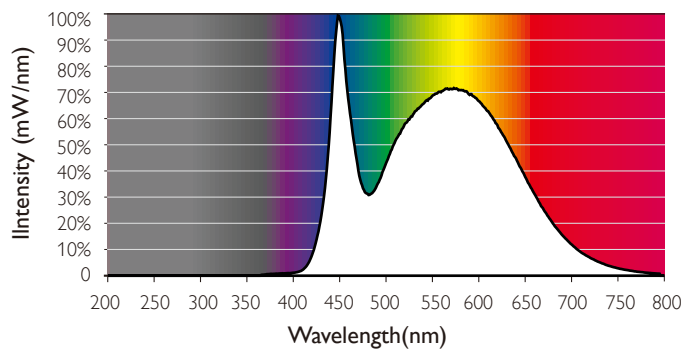


# Spectral Power Distribution

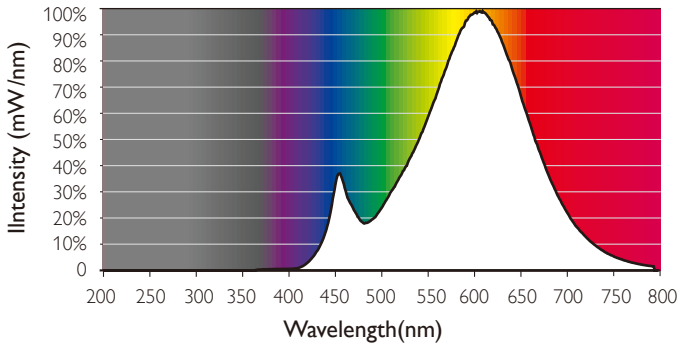
Spectral of 120V VisionLED 8-40W 2700K Dimmable



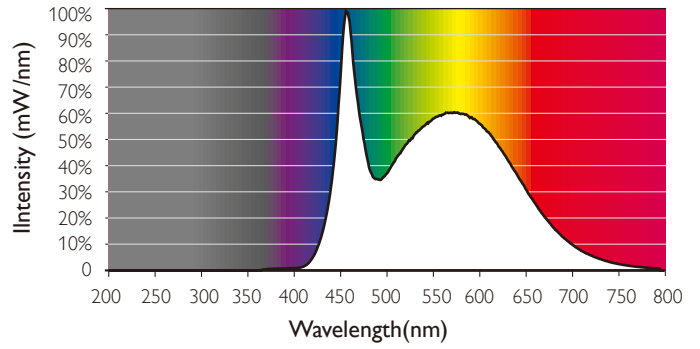
Spectral of 120V VisionLED 7-40W 5000K Dimmable



Spectral of 120V VisionLED 10.5-60W 2700K Dimmable

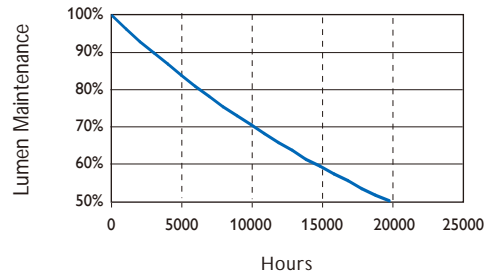
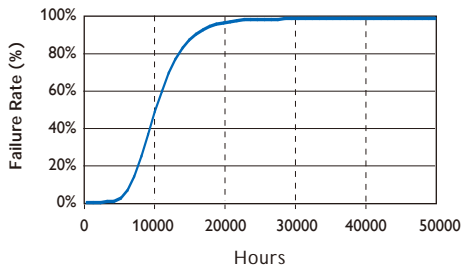


Spectral of 120V VisionLED 10.5-60W 5000K Dimmable

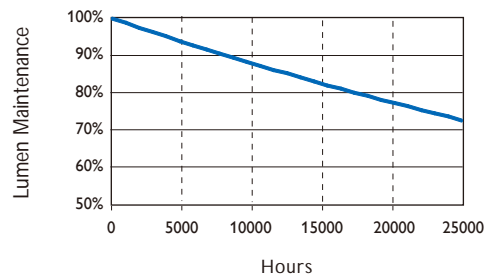
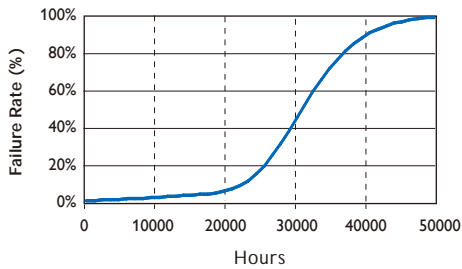


## Temperature

LED Bulb 8-40W 2700K/5000K



LED Bulb 10.5-60W 2700K/5000K



PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb is designed for operation in all A19 lighting installations in open fixtures, 10mm free air space is needed around the lamp housing to ensure long lifetime.



$$60W\ 2700K = T_c\ \text{Max}\ 85\ ^\circ\text{C}$$

$$60W\ 5000K = T_c\ \text{Max}\ 85\ ^\circ\text{C}$$

$$40W\ 2700K = T_c\ \text{Max}\ 75\ ^\circ\text{C}$$

$$40W\ 5000K = T_c\ \text{Max}\ 75\ ^\circ\text{C}$$

# Photometric Diagrams

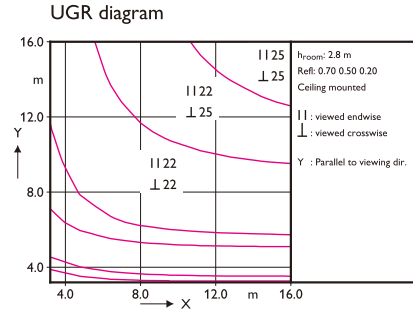
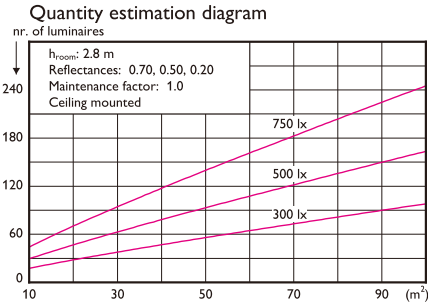
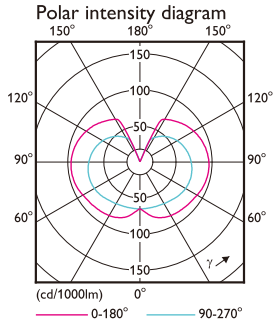
## 120V SlimStyle 8-40W 2700K Dimmable LED Bulb

1 x 450 lm

Light output ratio 1.00  
Service upward 0.46  
Service downward 0.54

CIE flux code 23 48 74 54 100

UGR<sub>cen</sub> (4Hx8H, 0.25H) 22



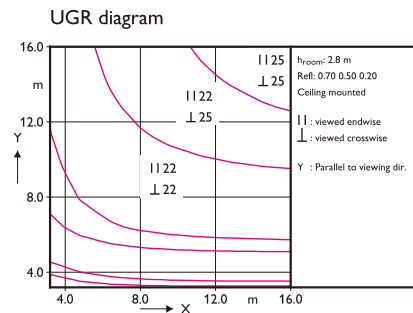
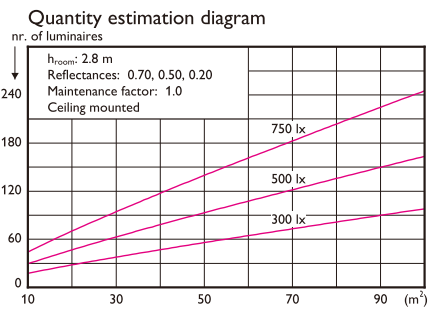
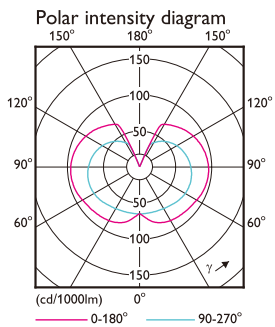
## 120V SlimStyle 8-40W 5000K Dimmable LED Bulb

1 x 450 lm

Light output ratio 1.00  
Service upward 0.46  
Service downward 0.54

CIE flux code 23 48 74 54 100

UGR<sub>cen</sub> (4Hx8H, 0.25H) 22



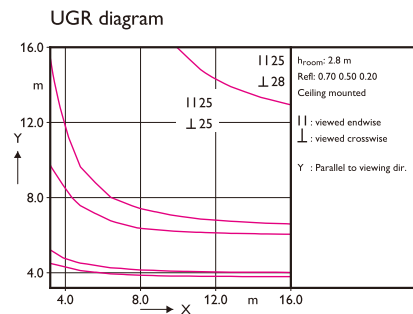
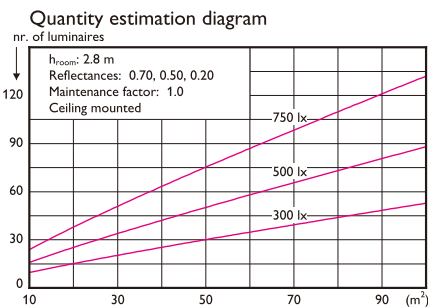
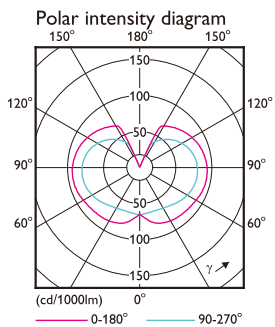
## 120V SlimStyle 10.5-60W 2700K Dimmable LED Bulb

1 x 800 lm

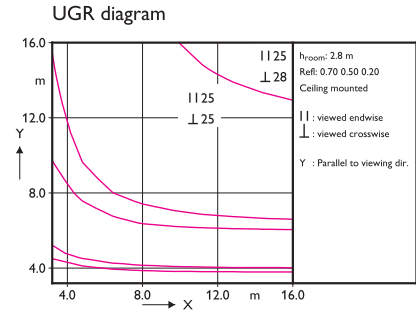
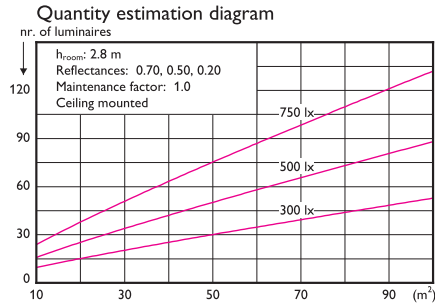
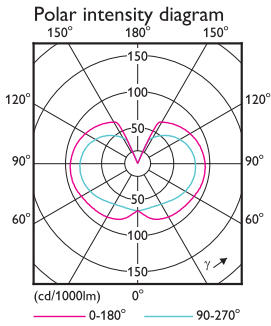
Light output ratio 1.00  
Service upward 0.46  
Service downward 0.54

CIE flux code 22 47 73 54 100

UGR<sub>cen</sub> (4Hx8H, 0.25H) 24

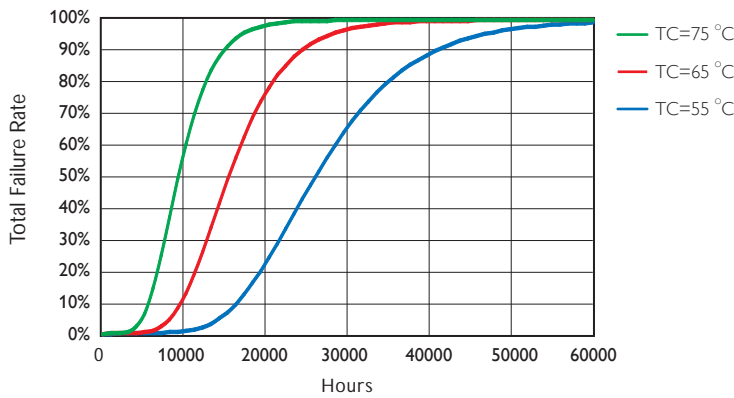


Light output ratio	1.00	CIE flux code	22 47 73 54 100
Service upward	0.46		
Service downward	0.54	UGRcen (4Hx8H, 0.25H)	24



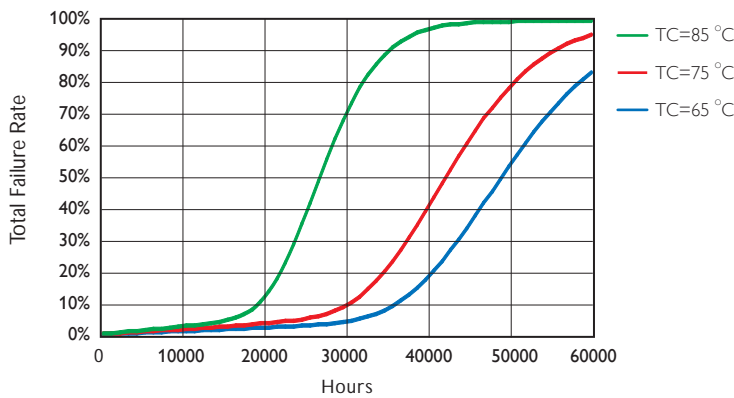
## Lifetime + Sustainability

### Failure Rate Curve of SlimStyle 8-40W 2700K/5000K



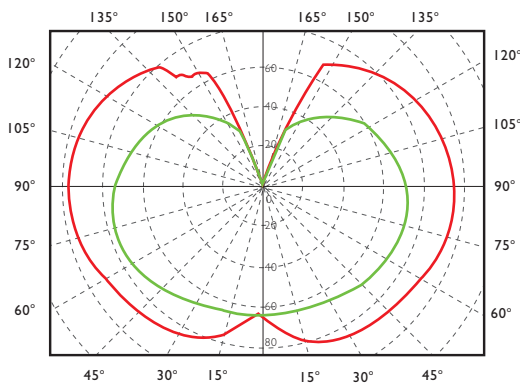
- PHILIPS 120V SlimStyle 8-40W/10.5-60W 2700K/5000K Dimmable LED Bulb has a lifetime of 25,000 hours, defined as the number of hours when 50% of a large group of identical lamps below 70% of its initial lumens.
- Lifetime estimation based on the application environment condition: please refer to the Tc for lifetime forecast.

### Failure Rate Curve of SlimStyle 10.5-60W 2700K/5000K

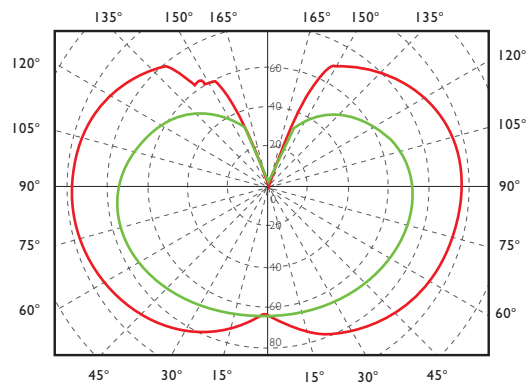


# Polar Diagram Comparison

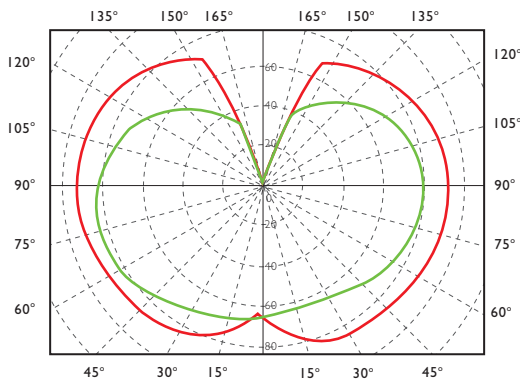
40W 2700K Dimmable



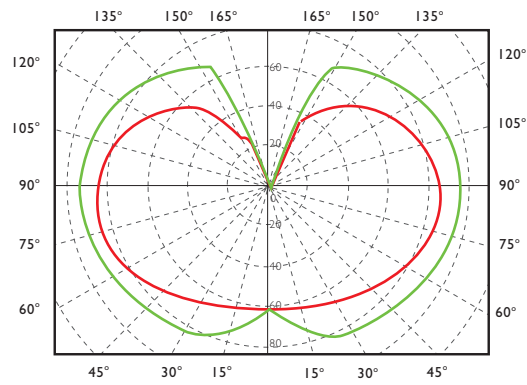
40W 5000K Dimmable



60W 2700K Dimmable



60W 5000K Dimmable



# Lighting Facts Label

**LED lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	450
Watts	8
Lumens per Watt (Efficacy)	56

**Color Accuracy**  
Color Rendering Index (CRI) 80

**Light Color**  
Correlated Color Temperature (CCT) 2700 (Warm White)

2700K 3000K 4000K 5000K

Warm White Bright White Daylight

All results are according to IESNA LM-79-09. Approved Method for the Electrical and Photometric Testing of Solid State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: 2125-495321 (1612615)  
Model Number: 428002704  
Type: Lamp - Directional

**LED lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	450
Watts	8
Lumens per Watt (Efficacy)	56

**Color Accuracy**  
Color Rendering Index (CRI) 80

**Light Color**  
Correlated Color Temperature (CCT) 2700 (Warm White)

2700K 3000K 4000K 5000K

Warm White Bright White Daylight

All results are according to IESNA LM-79-09. Approved Method for the Electrical and Photometric Testing of Solid State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: 2125-121711 (1612615)  
Model Number: 428002704  
Type: Lamp - Directional

**LED lighting facts**  
A Program of the U.S. DOE

Light Output (Lumens)	450
Watts	7
Lumens per Watt (Efficacy)	64

**Color Accuracy**  
Color Rendering Index (CRI) 80

**Light Color**  
Correlated Color Temperature (CCT) 5000 (Daylight)

2700K 3000K 4000K 5000K

Warm White Bright White Daylight

All results are according to IESNA LM-79-09. Approved Method for the Electrical and Photometric Testing of Solid State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: 2125-65284 (1612615)  
Model Number: 428002706  
Type: Lamp - Directional



## Dimming Performance

### GAIA 60W 2700K Dimmable Bulb

Dimmer info						Results								
NO.	Brand	Type #	Load Type	Load	Region	lamp quantity 1-8 lamps								
						1	2	3	4	5	6	7	8	
1	Leviton	RRD-6NA	RC	600W	NAM									
2	Leviton	6681	R	600W	NAM									
3	Leviton	6613-PL	RL	600W	NAM									
4	Leviton	6615-P	RC	300W	NAM									
5	Leviton	IPI 06	R	600W	NAM									
6	Lutron	SLV-600P	RL	450W	NAM									
7	Lutron	DV-600P	R	600W	NAM									
8	Lutron	DVCL-153P	RL	600W	NAM									
9	Lutron	DVELV-300P	RC	300W	NAM									
10	Lutron	NLV-1000	RL	800W	NAM									
11	Lutron	MACL-153M	LED	600W	NAM									
12	Lutron	MRF2-6ND-120	R	600W	NAM									
13	Philips Lightolier	OS600VA	RL	600VA	NAM									
14	lutron	SCL-153P	R	600W	NAM									
15	Leviton	6674	RL	600W	NAM									
16	lightolier	V600VAU	RL	600W	NAM									
17	watt stopper	DCD267-IV	RCL	600W	NAM									
18	Lutron	QSGR-3P	R	25-2000W	NAM									
19	Philips Lightolier	ZP600VA	RL	600VA	NAM									



## GAIA 60W 5000K Dimmable Bulb

Dimmer info						Results								
NO.	Brand	Type #	Load Type	Load	Region	lamp quantity 1-8 lamps								
						1	2	3	4	5	6	7	8	
1	Leviton	RRD-6NA	RC	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
2	Leviton	6681	R	600W	NAM	Red	Red	Red	Red	Red	Red	Red	Red	Red
3	Leviton	6613-PL	RL	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
4	Leviton	6615-P	RC	300W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
5	Leviton	IPI 06	R	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
6	Lutron	SLV-600P	RL	450W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
7	Lutron	DV-600P	R	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
8	Lutron	DVCL-153P	RL	600W	NAM	Red	Red	Red	Red	Red	Red	Red	Red	Red
9	Lutron	DVELV-300P	RC	300W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
10	Lutron	NLV-1000	RL	800W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
11	Lutron	MACL-153M	LED	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
12	Lutron	MRF2-6ND-120	R	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
13	Philips Lightolier	OS600VA	RL	600VA	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
14	lutron	SCL-153P	R	600W	NAM	Red	Red	Red	Red	Red	Red	Red	Red	Red
15	Leviton	6674	RL	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
16	lightolier	V600VAU	RL	600W	NAM	Red	Red	Red	Red	Red	Red	Red	Red	Red
17	watt stopper	DCD267-IV	RCL	600W	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green
18	Lutron	QSGR-3P	R	25-2000W	NAM	Red	Red	Red	Red	Red	Red	Red	Red	Red
19	Philips Lightolier	ZP600VA	RL	600VA	NAM	Green	Green	Green	Green	Green	Green	Green	Green	Green

## WARNINGS & CAUTIONS

Suitable for use in open luminaires (fixtures). Not for use in totally enclosed luminaires.

Suitable for use in damp locations.

Risk of Electric Shock- DO NOT USE WHERE DIRECTLY EXPOSED TO WATER.

ADDED WEIGHT OF THE DEVICE MAY CAUSE INSTABILITY OF A FREE-STANDING PORTABLE LUMINAIRE.

USE ONLY WITH A PORTABLE TABLE LAMP THAT IS PROVIDED WITH A SHADE.

This device is not intended for use with emergency exit fixtures.

Before replacing, turn off power and let lamp cool to avoid electrical shock or burn..

NOTES: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

## WARRANTY STATEMENT

Limited Warranty terms are included inside lamp package.



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