GREEN Electric Solutions

TAK SALES CO. INC.
858 755-4505

powered by hybra

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GREEN Electric Solutions

OSRAM

CREE

powered by hybra

- ✔ Proprietary Heat Spreader™ Technology
- ✔ Highest-Performance LEDs from Cree and Osram (5-year warranty)
- ✔ Top-of the line Drivers (5-year warranty)
- ✔ Durable and rust-proof cast aluminum housings (10-year warranty)
- ✔ Highest fixture lumens per watt (LPW) available in the industry
- ✔ Reduce input watts (energy consumption) by 67-90+ %
- ✔ 100,000+ hour expected life with minimal lumen depreciation
- ✔ All LEDs, drivers, and fixtures are UL approved
- ✔ Versatile, adjustable mounting options maximizing coverage
- ✔ IP 67 rated fixtures, modules, and drivers for maximum protection
- ✔ IES, ISTMT, and ITL third-party testing data available
- ✔ Modular design, fully adjustable for multiple IES configurations
- ✔ Designed with quick disconnects for easy upgrade to new technology

CLASSIFIED C UL US • IEUQ CERTIFIED

RoHS 2002/95/EC

CE

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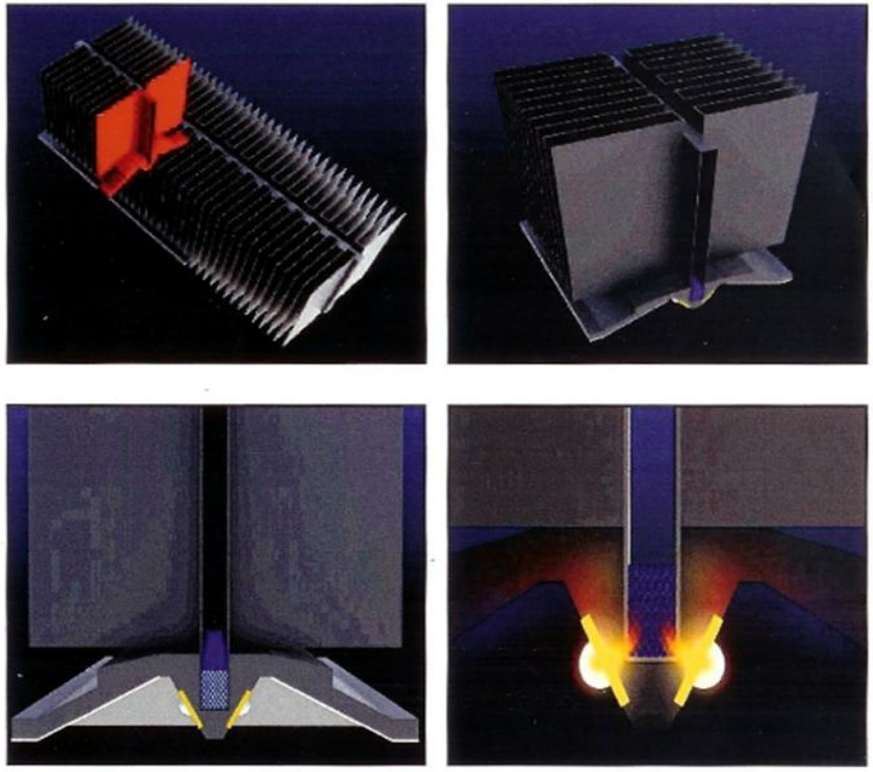
Hybra's Patented Heat Spreader™ Technology

HYBRA'S PATENTED HEAT SPREADER™ TECHNOLOGY DISSIPATES HEAT FROM LEDS AT A LEVEL UNMATCHED BY ANY COMPETITOR'S TECHNOLOGY.

JUNCTION TEMPERATURE is the temperature at the point where an individual diode connects to its base. Maintaining a low junction temperature increases output and slows lumen depreciation. Junction temperature is a key metric for evaluating the quality and longevity of LED products.

The three main factors affecting junction temperature are drive current, thermal path, and ambient temperature. In general, higher drive currents will generate more heat at the diode. Transferring heat away from the diode is the most important factor in maintaining the diode's longevity, light output, and light color. The amount of heat that can be removed depends upon the ambient temperature and the design of the thermal path from the diode to the surroundings. (Source: DOE)

The U.S. Department of Energy (DOE) advises: "Heat management and an awareness of the operating environment are critical considerations to the design and application of LED luminaries for general illumination. Successful products will use superior heat sink designs to dissipate heat and minimize junction temperature. Keeping the junction temperature as low as possible and within the manufacturer specifications is necessary in order to maximize the performance potential of LEDs."



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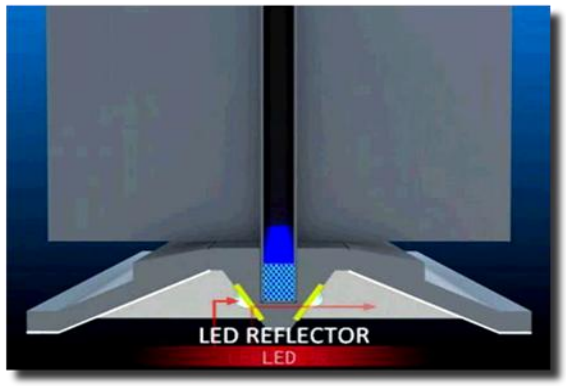
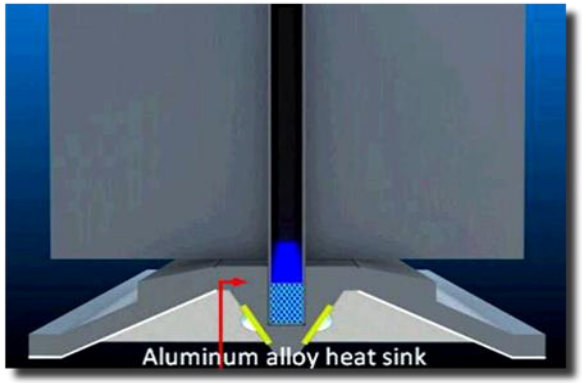
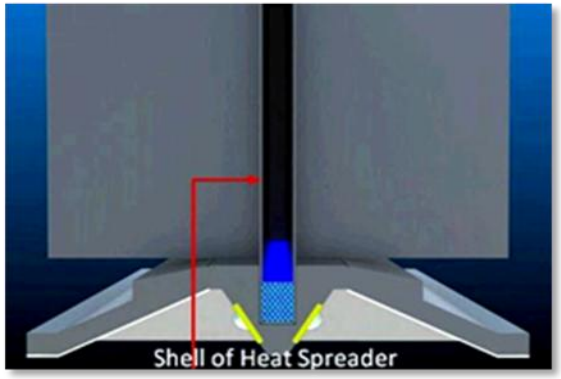
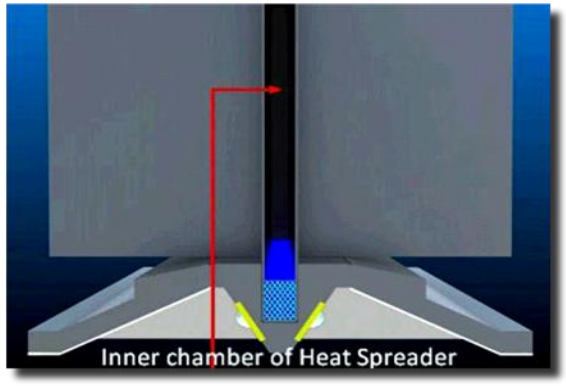
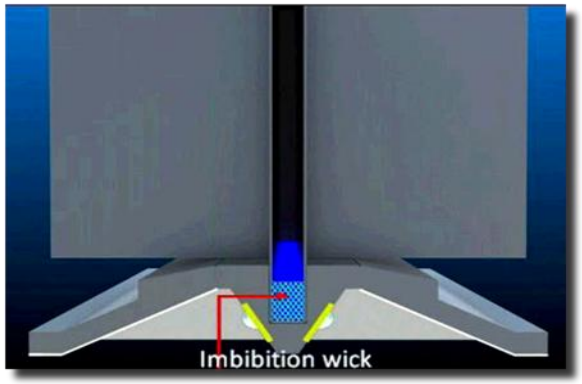
Analysis of the Heat Transferring Procedure

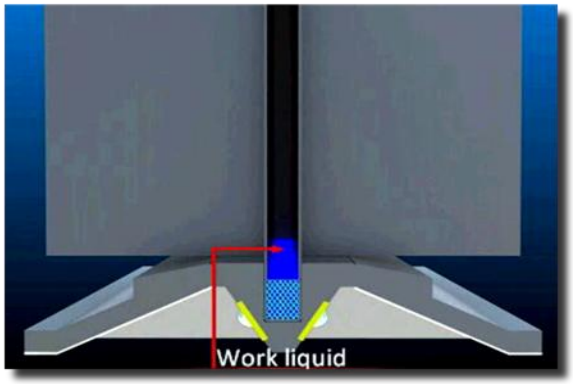












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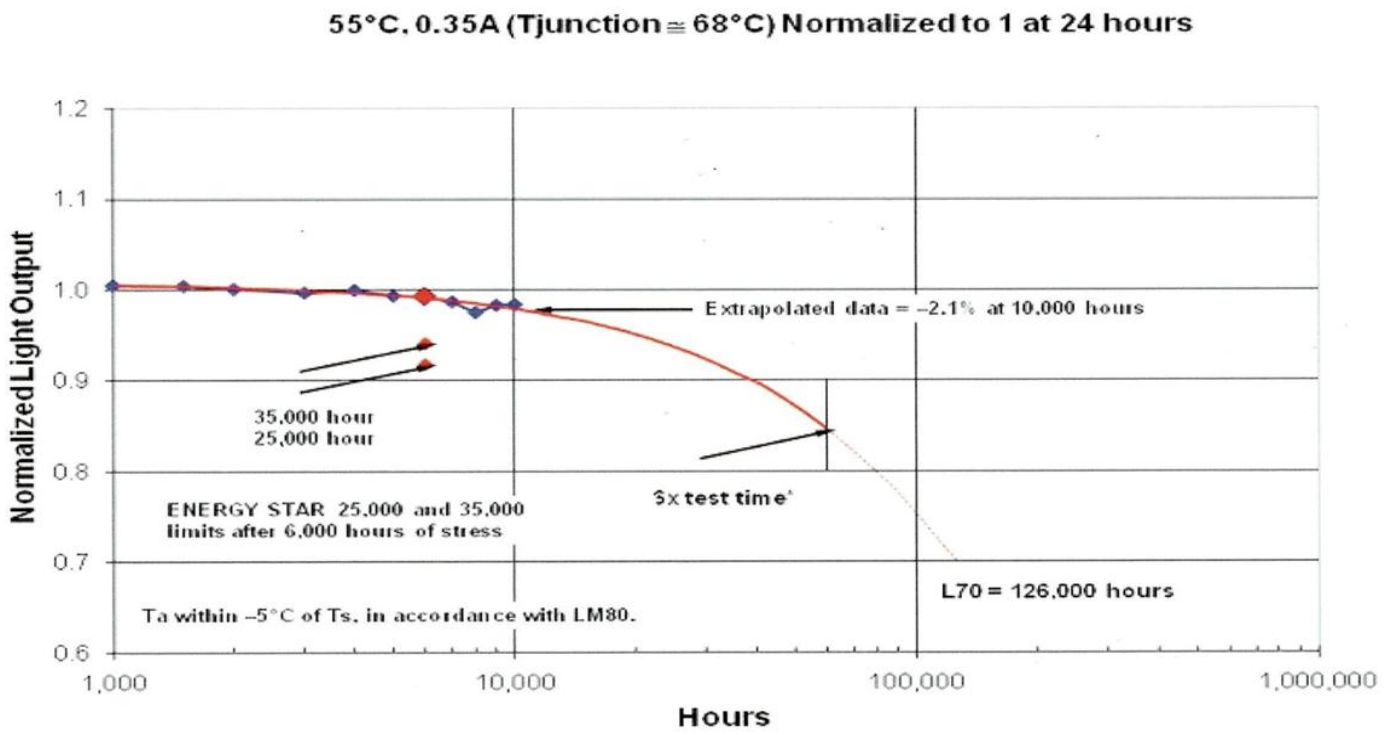

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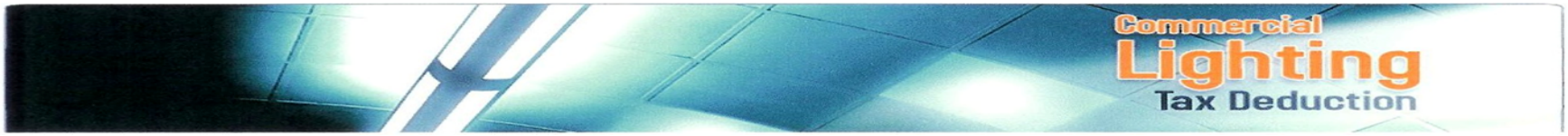
Light Guide:
Lighting & HVAC Interactions

Lighting systems convert only a minority fraction of their electrical input into useful light output. Much of the rest is released directly as heat into the space. Therefore, any upgrade of the lighting system that reduces input wattage reduces the amount of heat that must be removed by the air cooling system. This results in air cooling energy savings during the operation of the building. In new construction, an energy-efficient lighting design can result in significant savings in the installed cost of cooling systems.

A rule of thumb in the industry is that 1 kWh of air conditioning energy is saved for every 3 kWh of lighting energy. This, however, is often not accurate because it does not account for different climates. A retrofit in a building in Alaska, obviously, will not yield the same air conditioning energy savings benefit as in a building in Florida - in fact, in Alaska this heat is quite useful, and the retrofit could result in a much higher heating bill!

In the northern regions, the cost of additional heating can cancel out the air cooling energy savings, but in many areas of the United States the air cooling savings, which will be 0-30% of the lighting energy savings, will exceed this additional heating cost.



Lighting Conservation Tax Incentives $.60 Federal Tax Deduction per Square Foot!

The Energy Policy Act of 2005 included a new tax incentive, to improve the energy efficiency of commercial buildings. The **"Commercial Building Tax Deduction"** establishes a tax deduction for expenses incurred for energy efficient building expenditures made by a building owner.

* Buildings that save 50 percent of projected annual energy costs across all three components are eligible for a tax deduction of $1.80 per. Sq.ft.

** Buildings that save a specified percentage of projected annual energy costs for one of the three components – building envelope (10 percent whole building energy savings), **lighting (20 percent),** or heating and cooling (20 percent) – **are eligible for a $0.60 per square foot deduction.**

*** For lighting improvements that reduce lighting use by 25-40 percent and also employ dual switching (ability to switch roughly half the lights off and still have fairly uniform light distribution), the $0.60 per square foot may be prorated, ranging from $0.30 per square foot for 25 percent lighting energy savings to $0.60 per square foot for 40 percent savings.

The Emergency Economic Stabilization Act of 2008 (HR-1424), approved and signed on October 3, 2008,
extends the benefits of the Energy Policy Act of 2005 through December 31, 2013.

Improving your lighting systems is one of the first steps EPA recommends to increase the efficiency of your buildings whether you are retrofitting existing buildings or designing new buildings. **This is not only because lighting upgrades are so cost effective, but also because less heat is generated from efficient lighting systems,** affecting the proper sizing of more capital-intensive heating and cooling systems. As outlined in the ENERGY STAR Building Upgrade Manual, a strategy that combines efficient lighting technologies, controls, and appropriate light levels is the most effective approach to meeting energy efficiency goals, including those required to qualify for the partial tax deduction. Read the Lighting Section, helpful information for lighting, don't forget to jump ahead of the curve, be a forward leaning, lean and mean energy machine, **update to our state-of-the-art SMD LED Tubes and save 75% over standard Fluorescent Tubes.**

You may qualify for a deduction of $0.60 per square foot if the lighting system employs dual switching (ability to switch roughly half the lights off and still have fairly uniform light distribution) and reduces installed lighting power by at least 25% from values specified in specific cited tables in ASHRAE Standard 90.1-2001. As lighting power reductions climb from 25% to 40%, the deduction is increased proportionally, up to $0.60 for a 40% power reduction (plus the dual switching). For a typical building, a lighting power reduction of 40% increases the building's ENERGY STAR rating by about 10 points.

Lighting consumes close to 35 percent of the electricity used in commercial buildings in the United States and affects other building systems through its electrical requirements and the waste heat that it produces. Upgrading lighting systems with efficient light sources, fixtures, and controls can reduce lighting energy use, improve the visual environment, and affect the sizing of HVAC and electrical systems.

CONSULT A TAX PROFESSIONAL

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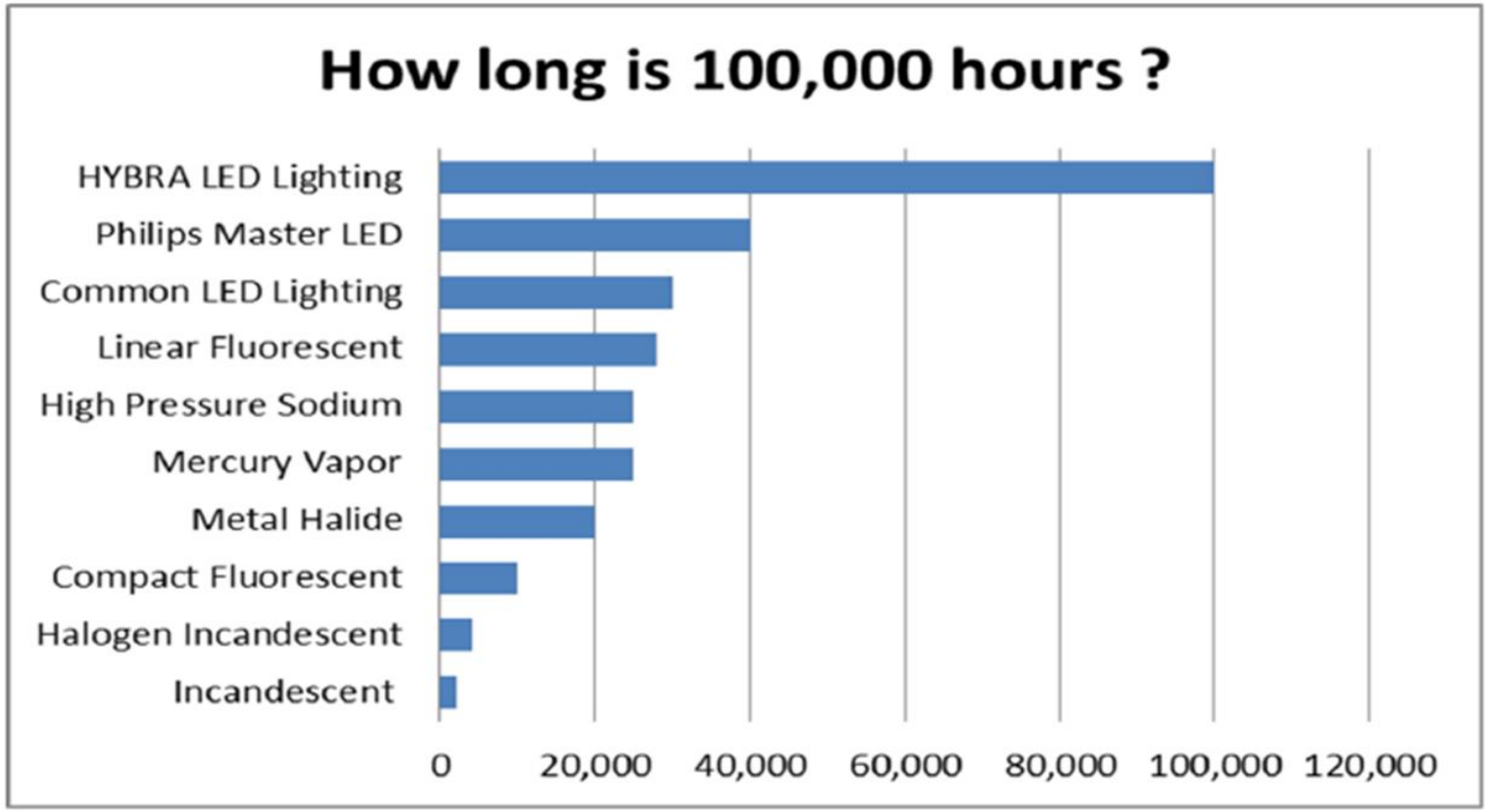

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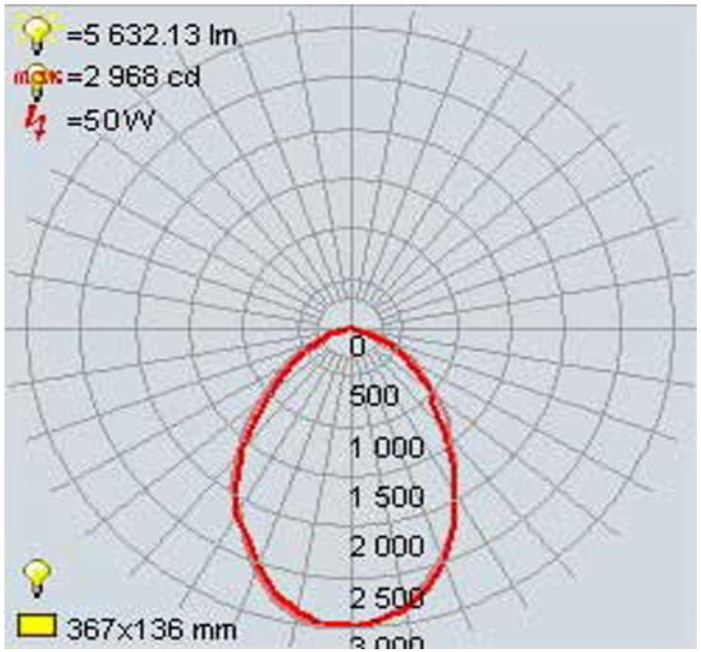
Life Span L70 TEST RESULTS

Green Electric Solutions LED 50W High/Low Bay light lumen preservation, was tested and rated at **99.08% in 6,000** hours, therefore, the life span is rated at **100,000** hours of life

Hour (h)	light flux(lm)	DC Voltage (V)	DC current (A)	Preservation rate of light
1	5632	49.00	1.408	100.00%
1000	5716	49.02	1.411	101.49%
2000	5755	49.10	1.412	100.68%
3000	5771	49.00	1.409	100.28%
4000	5763	49.04	1.405	99.88%
5000	5733	49.01	1.413	99.48%
6000	5680	49.02	1.411	99.08%



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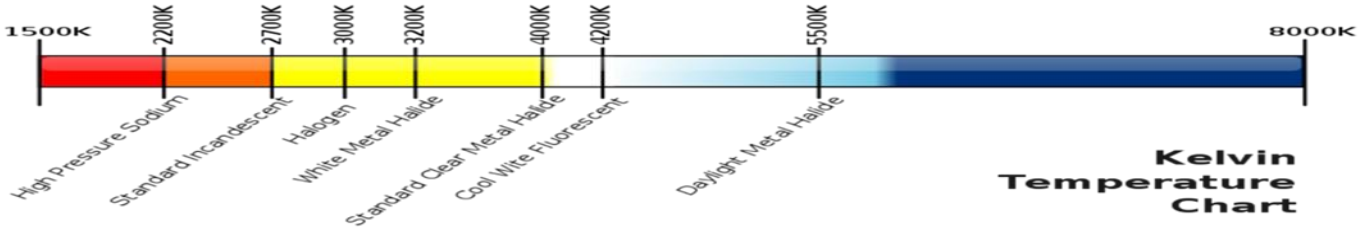
PERFORMANCE CHARACTICS OF MAJOR TYPES OF LIGHTING

October 2011 Electrical Contractor Magazine “Lighting 101”

Type	Watts (W)	Efficacy (LPW)	Lamp lumen depreciation	Life (hours)	Correlated color temperature (K)	Color rendering index (CRI)
Incandescent	0.1–1,500	15–25	0.90	600–4,000	2,700	90–95
Halogen	0.5–1,500	20–35	0.95	2,000–6,000	2,900	90–100
Fluorescent	5–215	74–100	0.92–0.66	12,000–20,000	3,000–6,000	50–90
Mercury vapor	35–1,000	20–63	0.84–0.55	20,000+	3,000–6,000	20–50
Metal halide	35–1,500	80–125	0.92–0.59	7,500–20,000	3,000–4,500	60–70
High-pressure sodium	35–1,000	65–140	0.92–0.90	20,000+	2,000–3,000	20–30



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112 Lumens Per Watt

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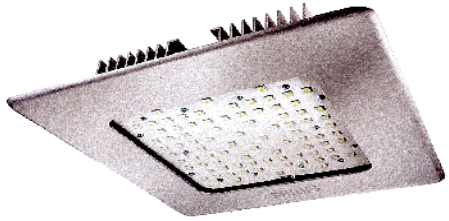
LOW BAY – Commercial - Industrial – Retail – Warehouse – Garage - Plant






COMPARE	250HD	T-5 HO	Philips	Hybra
	Metal Halide	Fluorescent	LED	LED
Lighting Type	Bay Light	Bay Light	Bay Light	Bay Light
Consumption Watts	250-W	336-W	75-W	**50-W**
Watts to Lumens Efficiency	95	78	88	**112**
Hours Light Life Lab Tested	**10,000hr**	**20,000hr**	**50,000hr**	**100,000hr**
Motion Sensor	None	None	Ready	**Ready**
Diming Control	None	Optional	Optional	**Optional**
Generates A/C heat load	Yes	Yes	No	**No**
100% Instance On Light	No	No	Yes	**Yes**
100% Recyclable	No	No	Yes	**Yes**
Does Product Contains				
Mercury - Xenon - Krypton	Yes	Yes	No	**No**
UV or Phosphorus Light	Yes	Yes	No	**No**
Zero Maintenance 12hr/4380	**2.2 yrs**	**4.5 yrs**	**11.4 yrs**	**22.8 yrs**

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GREEN Electric Solutions

100,000 hours of LIFE

CREE powered by hybra

Compare	GE	General Electric			Philips		Hybra	
Type	T12	Fluorescent	T8		Master LED		LED	LED
Lamps	1	2	4		1		1	2
Wattage	48	64	128		22		18	36
Lumens	1700	2650	5300		1500		1500	6000
Energy Saving of 25% and more	No	No	No		No		Yes	Yes
Life Span of Lamp and Ballast	2,000	20,000	20,000		40,000		100,000	100,000
Generates A/C Heat Load	Yes	Yes	Yes		No		No	No
Generates Harmonics	Yes	Yes	Yes		No		No	No
100% Instance On Light	No	No	No		Yes		Yes	Yes
Noise Buzz and Flicker	Yes	Yes	Yes		No		No	No
100% Recyclable	No	No	No		?		Yes	Yes
Does the Product Contains								
Mercury - Neon - Xenon - Krypton	Yes	Yes	Yes		No		No	No
UV or Phosphorus Light	Yes	Yes	Yes		No		No	No
Zero Maintenance 12hr pr day	2.1 mo.	4.5 yrs	4.5 yrs		9.1 yrs		22.8 yrs	22.8 yrs

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GREEN Electric Solutions

Retro-Fit Kits are
UL2 & IEUQ Approved

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HYBRA LED KITS are UL Approved
Available size 2 – 3 - 4 and 8 foot 9 W up to 36W
Available with an External Driver @ 100,000hr Life
Or Available with a Internal driver @ 50,000hr Life
Liquid Lenses can provide beam angle 45 up to 210
Dimmable and Sensor Ready Kits * Upon Request

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18-Watt SMD LED 4ft Tube

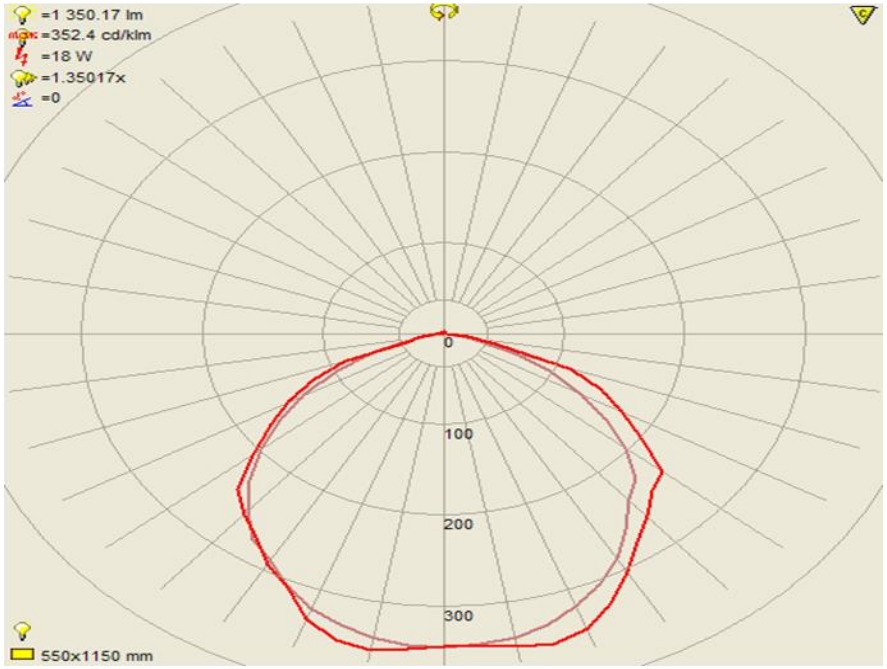
TECHNICAL PARAMETER

ITEM :	LED TUBE
ITEM NO. :	HT-DG18RRB
RATED CURRENT :	350mA
RATED POWER :	36W
LIGHT SOURCE :	CREE XP
INPUT VOLTAGE :	90-264VAC
COLOR TEMPERATURE :	2580-7040K
NO. OF LEDS :	280 PCS
LUMINOUS FLUX (TYP.) :	≥3000LM
POWER FACTOR (TYP.) :	≥0.9
JUNCTION TEMPERATURE :	+20℃ Ambient
WORK TEMPERATURE :	-30 ～ 40℃
STORAGE TEMPERATURE :	-40 ～ 80℃
PROTECTION GRADE :	IP20 – IP65

Life Span L70 TEST RESULTS

Green Electric Solutions LED 18W 4ft tube light lumen preservation, was tested and rated at **98.19% in 6,000** hours, therefore, the life span is rated at **100,000** hours of life

Hour (h)	light flux(lm)	DC Voltage (V)	DC current (A)	Preservation rate of light
1	1350	29.98	0.558	100.00%
1000	1374	29.89	0.552	101.77%
2000	1371	29.87	0.543	99.78%
3000	1362	29.95	0.556	99.38%
4000	1349	29.96	0.554	98.98%
5000	1329	29.97	0.548	98.59%
6000	1305	29.97	0.559	98.19%



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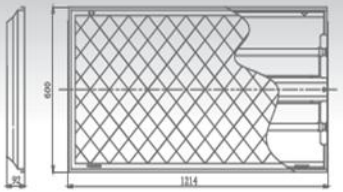
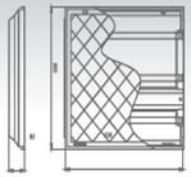


36-Watt LED Grille Light

TECHNICAL PARAMETER

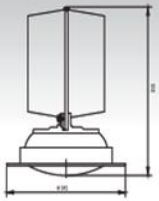
ITEM:	LED GRILLE LIGHT
ITEM NO.:	LE-SW-GS2×18G
RATED CURRENT:	350mA
RATED POWER:	2×18W
LIGHT SOURCE:	LOW POWER LED
INPUT VOLTAGE:	90–264VAC
COLOR TEMPERATURE:	CW/NW/WW
PH. LUMINOUS FLUX (TYP.):	≥2500LM–3800LM (CW) ≥2300LM–3500LM (NW) ≥2200LM–3300LM (WW)
SC. LUMINOUS FLUX (TYP.):	≥4850LM–7372LM (CW) ≥4462LM–6790LM (NW) ≥4268LM–6402LM (WW)
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–30° to 40°C
STORAGE TEMPERATURE:	–40° to 70°C
PROTECTION GRADE :	IP20
SIZE:	1214×600×92mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	8.5KG



30-Watt LED Grille Light

TECHNICAL PARAMETER

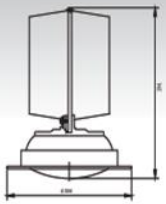
ITEM:	LED GRILLE LIGHT
ITEM NO.:	LE-SW-GS3×10G
RATED CURRENT:	350mA
RATED POWER:	3×10W
LIGHT SOURCE:	LOW POWER LED
INPUT VOLTAGE:	90–264VAC
COLOR TEMPERATURE:	CW/NW/WW
PH. LUMINOUS FLUX (TYP.):	≥2000LM–3000LM (CW) ≥1900LM–2900LM (NW) ≥1800LM–2700LM (WW)
SC. LUMINOUS FLUX (TYP.):	≥3880LM–5820LM (CW) ≥3686LM–5526LM (NW) ≥3492LM–5238LM (WW)
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–30° to 40°C
STORAGE TEMPERATURE:	–40° to 70°C
PROTECTION GRADE :	IP20
SIZE:	600×600×92mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	5.5KG



12-Watt/18-Watt LED Down Light

TECHNICAL PARAMETER

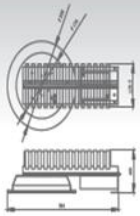
ITEM:	LED DOWN LIGHT
ITEM NO.:	LE-SW-TD12Y/18Y
POWER:	12W/18W
LIGHT SOURCE:	LOW POWER LED
INPUT VOLTAGE:	90–264VAC
COLOR TEMPERATURE:	CW/NW/WW
PH. LUMINOUS FLUX (TYP.):	≥650LM–800LM (12Y) ≥1000LM–1200LM (18Y)
SC. LUMINOUS FLUX (TYP.):	≥1261LM–1552LM (12Y) ≥1940LM–2328LM (18Y)
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–30° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP20
SIZE:	Ø181×212mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	1.3KG



36-Watt LED Down Light

TECHNICAL PARAMETER

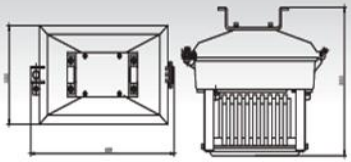
ITEM:	LED DOWN LIGHT
ITEM NO.:	LE-SW-TD36Y
POWER:	36W
LIGHT SOURCE:	LOW POWER LED
INPUT VOLTAGE:	90–264VAC
COLOR TEMPERATURE:	CW/NW/WW
PH. LUMINOUS FLUX (TYP.):	≥2600LM–2800LM (CW) ≥2400LM–2600LM (NW) ≥2200LM–2400LM (WW)
SC. LUMINOUS FLUX (TYP.):	≥5044LM–5432LM (CW) ≥4656LM–5044LM (NW) ≥4268LM–4656LM (WW)
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–30° to 45°C
STORAGE TEMPERATURE:	–40° to 60°C
PROTECTION GRADE :	IP20
SIZE:	Ø194×266mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	1.79KG



40-Watt LED Down Light

TECHNICAL PARAMETER

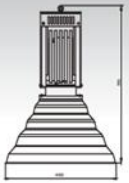
ITEM:	LED DOWN LIGHT
ITEM NO.:	LE-SW-TD40Y
POWER:	40W
LIGHT SOURCE:	LOW POWER LED
INPUT VOLTAGE:	90–264VAC
COLOR TEMPERATURE:	CW/NW/WW
PH. LUMINOUS FLUX (TYP.):	≥2800LM–3000LM (CW) ≥2400LM–2800LM (NW) ≥2200LM–2400LM (WW)
SC. LUMINOUS FLUX (TYP.):	≥5432LM–5820LM (CW) ≥4656LM–5432LM (NW) ≥4268LM–4656LM (WW)
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–30° to 45°C
STORAGE TEMPERATURE:	–40° to 60°C
PROTECTION GRADE :	IP20
SIZE:	384×238×113.5mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	2.5KG



50-Watt LED Footpath Light

TECHNICAL PARAMETER

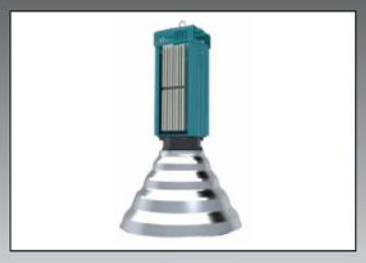
ITEM:	LED FOOTPATH LIGHT
ITEM NO.:	LE-SW-JL50A
POWER:	50W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥4000LM–5000LM
SC. LUMINOUS FLUX (TYP.):	≥ 7760LM–9700LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–30° to 45°C
STORAGE TEMPERATURE:	–40° to 60°C
PROTECTION GRADE :	IP66
SIZE:	409×222×333mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	8.5 KG

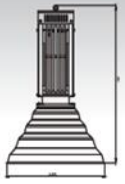


75-Watt/100-Watt LED Industrial Light

TECHNICAL PARAMETER

ITEM:	LED INDUSTRIAL LIGHT
ITEM NO.:	LE-SW-GK75A/100A
POWER:	75W/100W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥6000LM–8000LM ≥8000LM–10000LM
SC. LUMINOUS FLUX (TYP.):	≥11640LM–15520LM ≥15520LM–19400LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	ø522×654mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	4KG



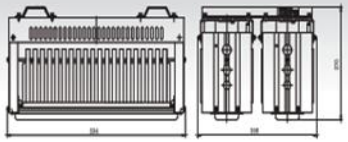


150-Watt LED Industrial Light

TECHNICAL PARAMETER

ITEM:	LED INDUSTRIAL LIGHT
ITEM NO.:	LE-SW-GK150A
POWER:	150W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥12000LM–13000LM
SC. LUMINOUS FLUX (TYP.):	≥23280LM–25220LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	ø522×747mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	4.3KG

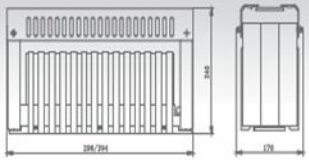
400W LED High Bay Light



TECHNICAL PARAMETER

ITEM:	LED HIGH/LOW BAY LIGHT
ITEM NO.:	LE-SW-MZ2×200A
POWER:	400W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–6500K
PH. LUMINOUS FLUX (TYP.):	≥30000LM
SC. LUMINOUS FLUX (TYP.):	≥58200LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–30° to 45°C
STORAGE TEMPERATURE:	–40° to 60°C
PROTECTION GRADE :	IP65
SIZE:	534×358×270mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	15 KG

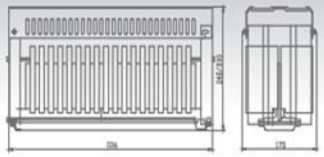
50W/75W/100W LED High/Low Bay Light



TECHNICAL PARAMETER

ITEM:	LED HIGH/LOW BAY LIGHT
ITEM NO.:	LE-SW-MZ50A/75A/100A
POWER:	50W/75W/100W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥4000LM–5000LM
	≥6000LM–7000LM
	≥8000LM–9000LM
SC. LUMINOUS FLUX (TYP.):	≥7760LM–9700LM
	≥11640LM–13580LM
	≥15520LM–17460LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–35° to 50°C
STORAGE TEMPERATURE:	–35° to 85°C
PROTECTION GRADE :	IP65
SIZE:	298×176×240mm (50A/75A)
	394×176×239mm (100A)
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	4.5/4.8/5.5 KG

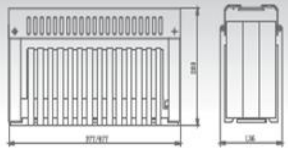
150W/250W LED High/Low Bay Light



TECHNICAL PARAMETER

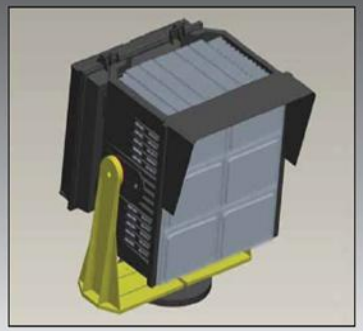
ITEM:	LED HIGH/LOW BAY LIGHT
ITEM NO.:	LE-SW-MZ150A/250A
POWER:	150W/250W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥12000LM–13000LM
	≥20000LM–22000LM
SC. LUMINOUS FLUX (TYP.):	≥23280LM–25220LM
	≥38800LM–42680LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	534×176×245mm (150A)
SIZE:	534×176×335mm (250A)
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	7.3/10.4 KG

50-Watt LED Parking Garage Light



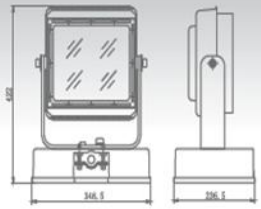
TECHNICAL PARAMETER

ITEM:	LED MODULE LIGHT
ITEM NO.:	LE-SW-MZ50A
POWER:	50W
LIGHT SOURCE:	OSLON LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥5632LM
SC. LUMINOUS FLUX (TYP.):	≥10362.88LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–35° to 60°C
STORAGE TEMPERATURE:	–35° to 85°C
PROTECTION GRADE:	IP65
SIZE:	368×116×195mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	2.9KG



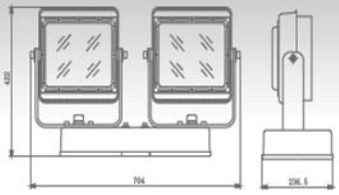
1300-Watt Sport Light

TECHNICAL PARAMETER	
ITEM:	LED SPORT LIGHT
ITEM NO.:	LE-SW-TG1300A
POWER:	1300W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	100–277VAC
COLOR TEMPERATURE:	5000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥150000LM
SC. LUMINOUS FLUX (TYP.):	≥ 276000LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE:	IP67
SIZE:	632×605×599mm
LIGHT ATTENUATION (100000h):	≤31%



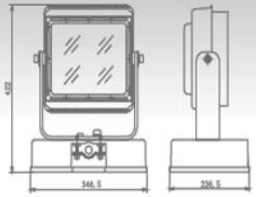
50-Watt LED Billboard Light I

TECHNICAL PARAMETER	
ITEM:	LED VERSA LIGHT
ITEM NO.:	LE-SW-TG50J
POWER:	50W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	100–277VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥3500LM
SC. LUMINOUS FLUX (TYP.):	≥6440LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–30° to 50°C
STORAGE TEMPERATURE:	–40° to 60°C
PROTECTION GRADE:	IP67
SIZE:	340×230×380mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	7KG



100-Watt LED Versa Light II

TECHNICAL PARAMETER	
ITEM:	LED VERSA LIGHT
ITEM NO.:	LE-SW-TG100J
POWER:	100W
LIGHT SOURCE:	OSLON LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥7200LM
SC. LUMINOUS FLUX (TYP.):	≥13248LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–30° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE:	IP67
SIZE:	726×302.4×298mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	10.5KG



50-Watt LED Versa Light I

TECHNICAL PARAMETER	
ITEM:	LED VERSA LIGHT
ITEM NO.:	LE-SW-TG50J
POWER:	50W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	100–277VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥3500LM
SC. LUMINOUS FLUX (TYP.):	≥6440LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–30° to 50°C
STORAGE TEMPERATURE:	–40° to 60°C
PROTECTION GRADE:	IP67
SIZE:	340×230×380mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	7KG

Presented By TAK Sale 858 755-4505

450-Watt/600-Watt LED High Mast Lights

TECHNICAL PARAMETER	
ITEM:	LED MAST LIGHT
ITEM NO.:	LE-SW-DL450J/600J
POWER:	450W/600W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥36000LM–45000LM
	≥50000LM–60000LM
SC. LUMINOUS FLUX (TYP.):	≥69840LM–87300LM
	≥97000LM–116400LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	956×448×227.5mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	21/22.5 KGS

200-Watt/300-Watt LED Semi-High Mast Lights

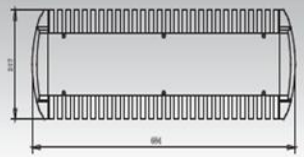
TECHNICAL PARAMETER	
ITEM:	LED MAST LIGHT
ITEM NO.:	LE-SW-DL200J/300J
POWER:	200W/300W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥16000LM–18000LM
	≥25000LM–30000LM
SC. LUMINOUS FLUX (TYP.):	≥31040LM–34920LM
	≥48500LM–58200LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	770×448×227.5mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	17.2/18 KGS

120-Watt LED Street Light

TECHNICAL PARAMETER	
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL120J
POWER:	120W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥9000LM
SC. LUMINOUS FLUX (TYP.):	≥16560LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP67
SIZE:	933.5×217×102mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	11KG

300-Watt LED Street Light

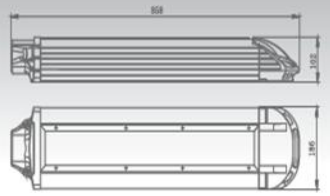
TECHNICAL PARAMETER	
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL300J
POWER:	300W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥22200LM
SC. LUMINOUS FLUX (TYP.):	≥40848LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP67
SIZE:	772×384×270mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	25KG



75-Watt LED Street Light

TECHNICAL PARAMETER

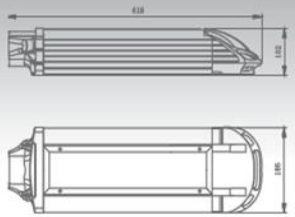
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL75A
POWER:	75W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥6000LM–7000LM
SC. LUMINOUS FLUX (TYP.):	≥11640LM–13580LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	684×217×101mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	7.5 KG



50-Watt LED Street Light

TECHNICAL PARAMETER

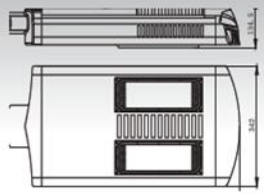
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL50A
POWER:	50W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥4000LM–5000LM
SC. LUMINOUS FLUX (TYP.):	≥7760LM– 9700LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	858×186×102mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	7.5 KG



25-Watt LED Street Light

TECHNICAL PARAMETER

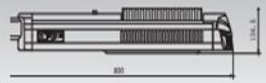
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL25A
POWER:	25W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥2000LM–2500LM
SC. LUMINOUS FLUX (TYP.):	≥3880LM–4850LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	618×186×102mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	5.0 KG

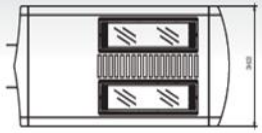


120-Watt LED Street Light

TECHNICAL PARAMETER

ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL120A
POWER:	120W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥9600LM–10000LM
SC. LUMINOUS FLUX (TYP.):	≥18624LM–19400LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	750×342×134.5mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	12KG

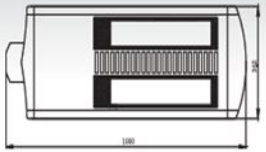




150-Watt LED Street Light

TECHNICAL PARAMETER

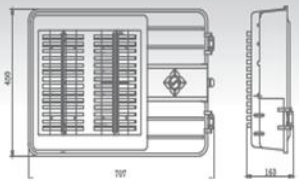
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL150A
POWER:	150W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥12000LM–13000LM
SC. LUMINOUS FLUX (TYP.):	≥23280LM–25220LM
POWER FACTOR (TYP.):	≥0.9
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	800×342×134.5mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	14KG



200-Watt LED Street Light

TECHNICAL PARAMETER

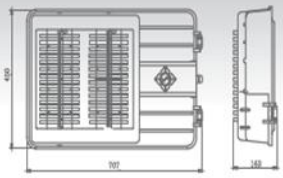
ITEM:	LED STREET LIGHT
ITEM NO.:	LE-SW-DL200A
POWER:	200W
LIGHT SOURCE:	HIGH POWER LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥16000LM–17000LM
SC. LUMINOUS FLUX (TYP.):	≥31040LM–32980LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE :	IP65
SIZE:	1000×342×134.5mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	16KG



120-Watt LED Shoebox Light

TECHNICAL PARAMETER

ITEM:	LED SHOEBOX
ITEM NO.:	LE-SW-DL120X
POWER:	120W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥9000LM
SC. LUMINOUS FLUX (TYP.):	≥16560LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE:	IP67
SIZE:	707×450×163mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	17KG

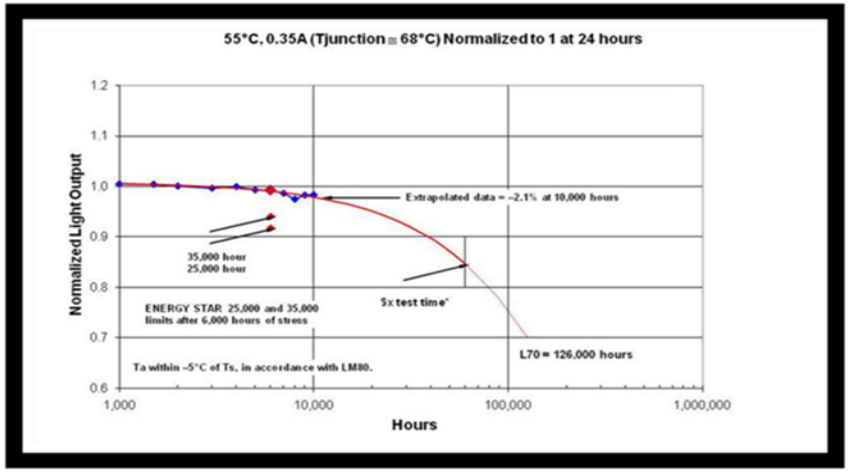


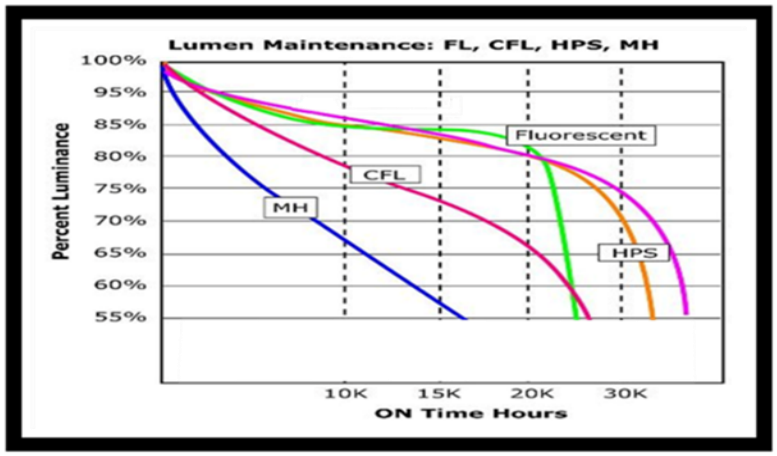
200-Watt LED Shoebox Light

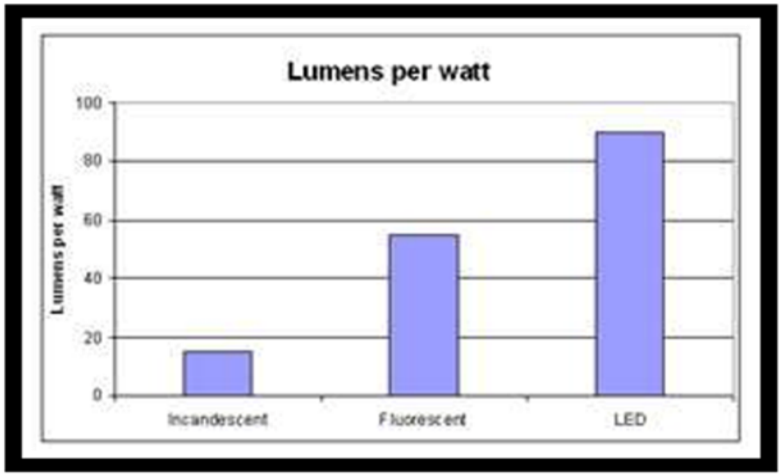
TECHNICAL PARAMETER

ITEM:	LED SHOEBOX
ITEM NO.:	LE-SW-DL200X
POWER:	200W
LIGHT SOURCE:	OSRAM/CREE LED
INPUT VOLTAGE:	90–305VAC
COLOR TEMPERATURE:	4000K–7000K
PH. LUMINOUS FLUX (TYP.):	≥14800LM
SC. LUMINOUS FLUX (TYP.):	≥27232LM
POWER FACTOR (TYP.):	≥0.95
WORK TEMPERATURE:	–40° to 50°C
STORAGE TEMPERATURE:	–40° to 80°C
PROTECTION GRADE:	IP67
SIZE:	707x450x163mm
LIGHT ATTENUATION (100000h):	≤31%
N.WT.:	17.5KG

100,000 hours of LIFE







Presented By TAK Sale 858 755-4505

Hybra LED Reduces your Co2 Carbon Foot Print & 100% Recyclable without any Hazard Issues

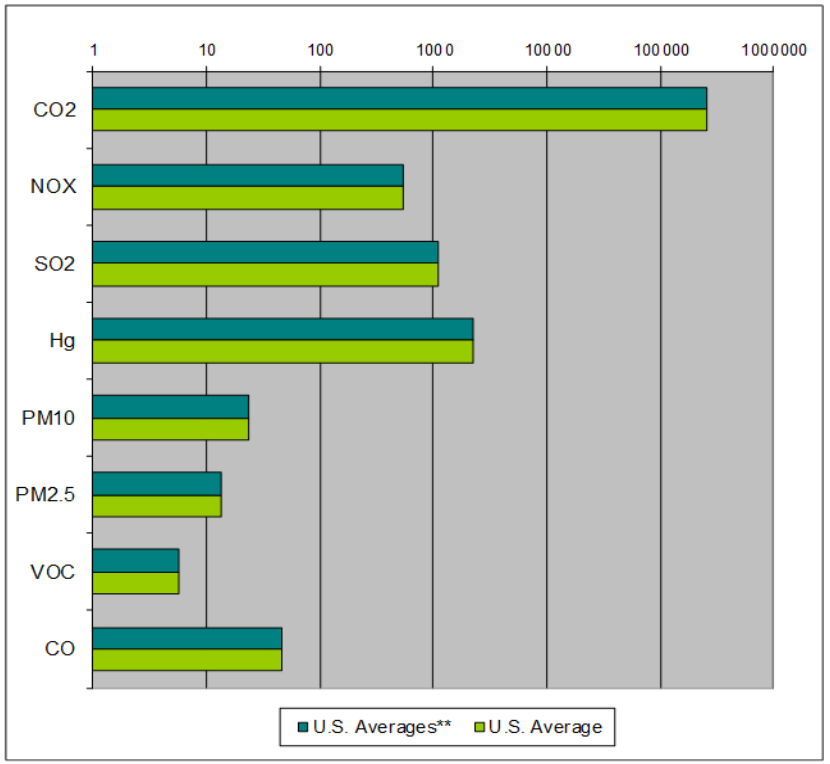
Select a state: U.S. Averages**

Projected Annual Energy Savings: **131,535** kWh

Estimated Reductions in:	U.S. Averages**	U.S. Average	
Carbon Dioxide (CO_2):	**256,493**	**256,493**	lbs
Nitrogen Oxide (NO_X):	**538**	**538**	lbs
Sulfur Dioxide (SO_2):	**1,115**	**1,115**	lbs
Mercury (Hg):	**2,210**	**2,210**	mg
Particulate Matter (PM10):	**24**	**24**	lbs
Particulate Matter (PM2.5):	**13**	**13**	lbs
Volitile Organic Compounds (VOC):	**6**	**6**	lbs
Carbon Monoxide (CO):	**46**	**46**	lbs

Resulting in the equivalent of:

# of cars taken off the road:	**21.3**	- or -
# of Gallons of Gasoline Saved:	**13,206**	- or -
# of trees planted:	**2,983**	- or -
# of Barrels of Oil Saved:	**271**	



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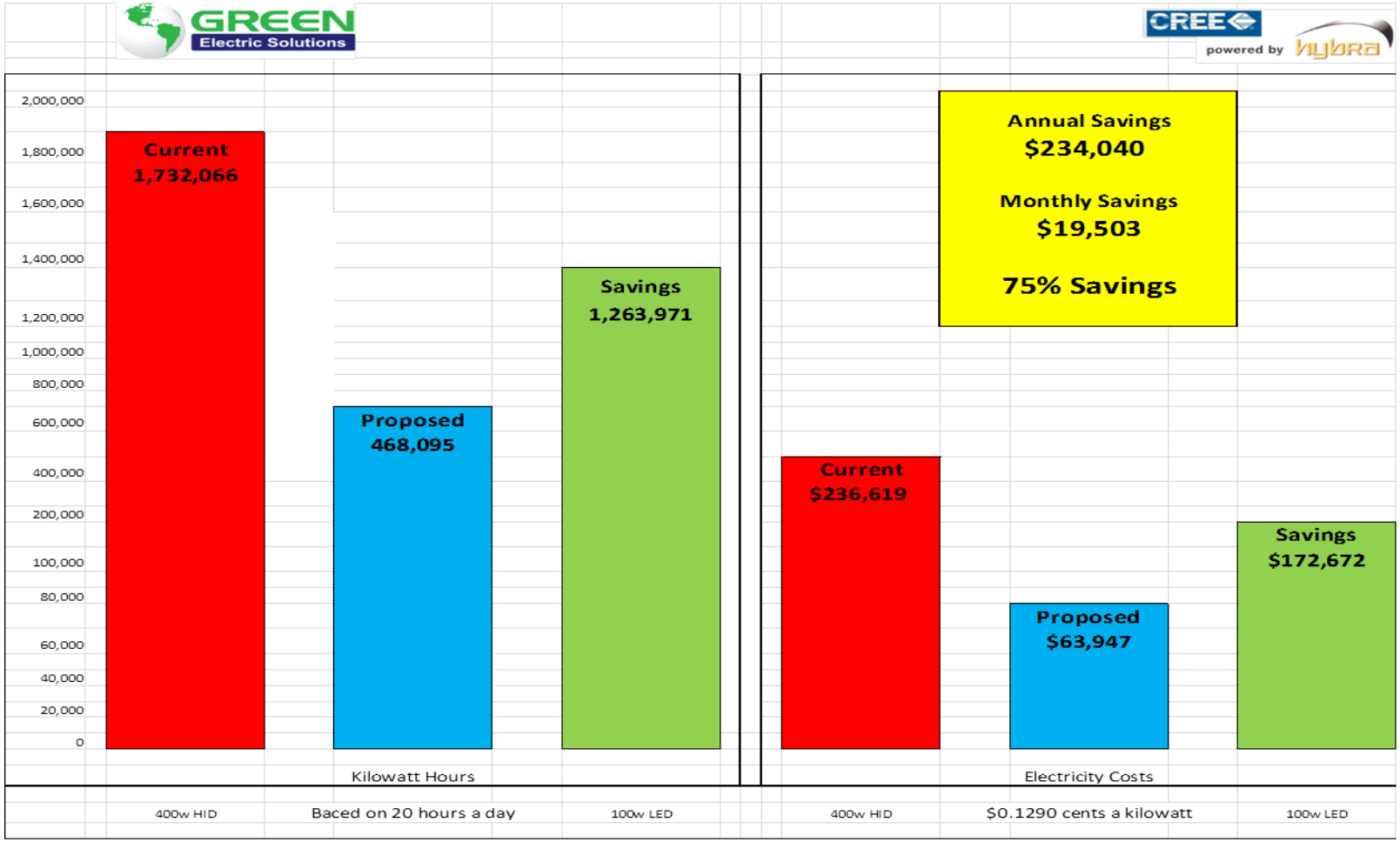
Bottom Line : Hybra LED Lighting is more Cost Effective



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