A Solid-State Lighting Premium Expert

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Solid-State Lighting Series

Low / High Bay Datasheet

Low/high bay lighting is typically used in industrial applications. They have the same features as high bay lighting but with a different sized enclosed reflector. Edison Opto provides a better lighting solution of light in low/high ceiling applications.

The appearance of Edison Low/High Bay is as similar as traditional low/high bay lighting but it saves more energy and has lower light depreciation rates to decrease both energy and maintenance cost. Without complicated installation and too much limited condition, Edison Low/High Bay provides a great lighting solution for industrial applications.

Features :

- Solid State Lighting Technology
- Superior Quality Light
- Reduce CO_2Emission
- Energy Saving(50W/100W)
- Ecologically Friendly
- Long life-time
- IP65

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Nomenclature

The following table describes the available colors, and wattage.

E B 1 W - 050 - 0

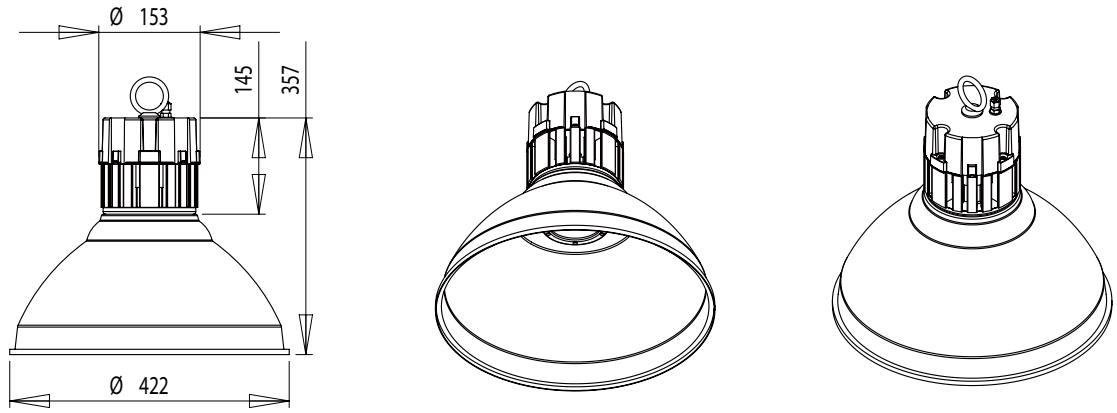
X1 X2 X3 X4 X5 X6

X1 SSL Series		X2 Module Type		X3 Reflector		X4 Color		X5 Wattage		X6 Serial NO.1
Code	Type	Code	Type	Code	Type	Code	Type	Code	Type	
E	EDISON	B	Bay	0	Without Reflector	W	Cool White	050	50W	
				1	16" Reflector	H	Neutral White	100	100W	
						X	Warm White			

Figure 1 : Low / High Bay nomenclature.

Dimensions

EB1x - 0500



EB1x - 1000

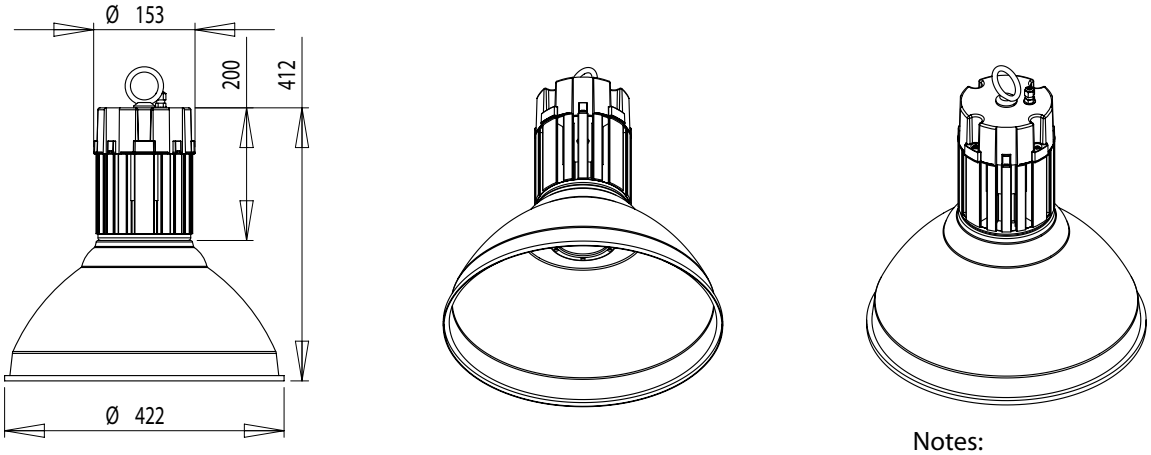


Figure 2 : Low / High Bay dimensions.

Notes:
1. Unit : mm.
2. Tolerance : ± 5.0 mm.

Absolute Maximum Ratings

The following table shows electrical characteristics and operating temperature of Low/High Bay.

Parameter	Symbol	Rating	Units
Plastic Housing Temperature	T_C	80	°C
Operating Temperature	T_{opr}	-30~40	°C
Storage Temperature	T_{stg}	-40~60	°C
AC Input Voltage	V	100~277	V

Table 1 : Low / High Bay absolute maximum ratings.

Specifications

The following describes the choices of color temperature, angles, and CRI of Low/High Bay for different demand.

Parameter	Rating	Units
Power Consumption	50 / 100	W
Field Angle	100	Degree
Color Temperature	6600 / 4300 / 3000	K
CRI	70 / 75 / 80	/
Weight (EB1x - 0500)	3.5±0.2	kg
Weight (EB1x - 1000)	4.5±0.2	kg

Table 2 : Low / High Bay specifications.

Illuminance Specifications

The tables present the illuminance level with respect to different color temperature.

Power Consumption	Parameter	CCT	Field Angle	Flux (min.)	Flux (Typ.)
50W	EB1W-0500	6600K	100°	2400	2700 lm
	EB1H-0500	4300K	100°	2100	2300 lm
	EB1X-0500	3000K	100°	2000	2200 lm
100W	EB1W-1000	6600K	100°	4500	5000 lm
	EB1H-1000	4300K	100°	3700	4100 lm
	EB1X-1000	3000K	100°	3300	3600 lm

Power Consumption	Parameter	Lux@ 4m (Typ.)	Lux@ 6m (Typ.)	Lux@ 8m (Typ.)	Lux@ 10m (Typ.)	Lux@12m (Typ.)
50W	EB1W-0500	114	53	30	19	13
	EB1H-0500	97	45	25	16	11
	EB1X-0500	93	43	24	15	11
100W	EB1W-1000	212	98	56	35	24
	EB1H-1000	173	80	45	29	20
	EB1X-1000	152	70	40	25	18

Table 3 : Low / High Bay illuminance specifications.

Application

Edison Low/High Bay can produce an intense light in a certain area. It can be easily installed or replaced a traditional low/high bay lighting in warehouse, factory, gymnasium, large outlet, and etc.

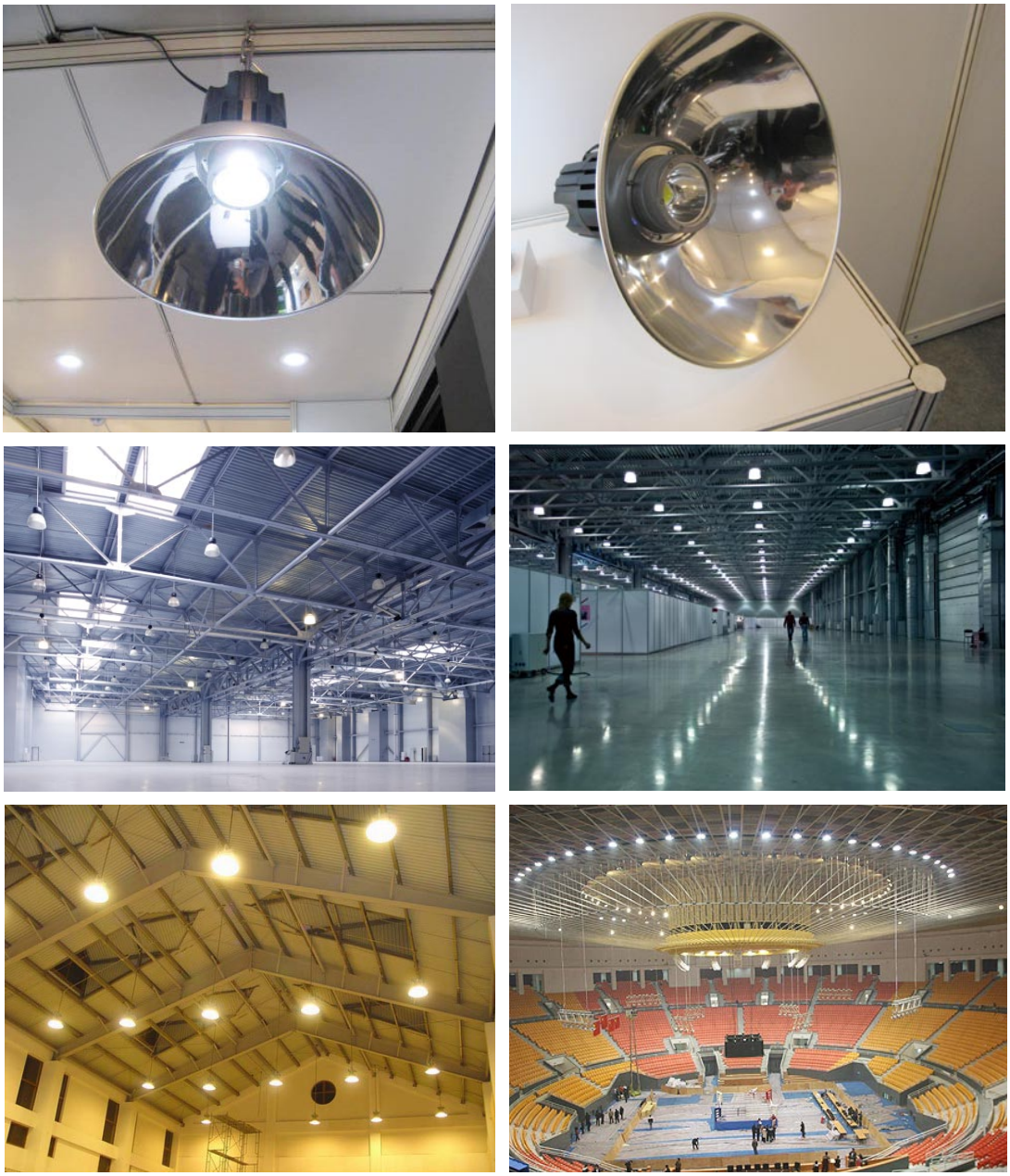


Figure 3 : Low / High Bay application.

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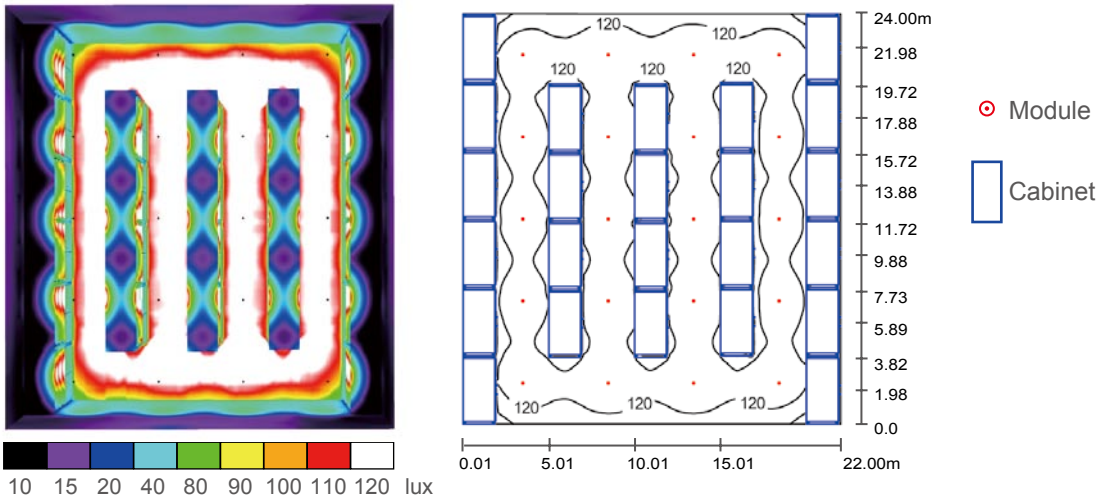
Application



No.of module: 20
Flux per module: 5,000lm
Total Power: 1,000W
Area: 528m² / 5,683ft²
LPD: 1.89 W/m² / 0.18 W/ft²
Workplan height: 0.85m

Height of Room: 8.000 m, Mounting Height: 6.400 m,
Light loss factor: 0.80, Values in Lux, Scale 1:309

Surface	ρ [%]	E_{av} [lux]	E_{min} [lux]	E_{max} [lux]
Workplane	/	112	2.23	143
Floor	20	74	4.03	132
Ceiling	70	14	9	19
Walls (4)	50	16	2.48	55

Figure 4 : Low / High Bay light plan example : warehouse application picture.

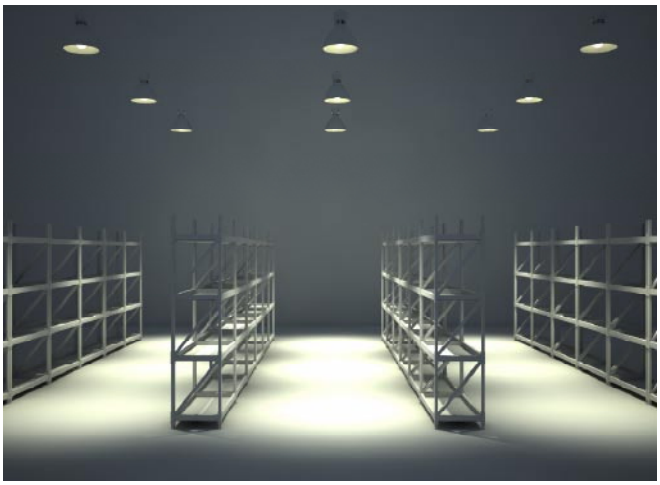


Figure 5 : Low / High Bay light plan example : warehouse simulation picture.

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Environmentally Friendly

With the increasing demand for energy and the effect on global warming, Edison Opto plays a role in preserving the forest by reducing energy consumption, and CO_2 emission one step at a time.

Replacing traditional mercury vapor lamp with Ediosn Opto EdiStar Module lighting application, one can help in reducing global warming by lots of CO_2 annually.

50W Low Bay VS 100W Mercury Vapor Lamp

Power Reduction by 50%	=	Reduction of CO_2 emission by 168 kg	=	Saves 12 trees a year

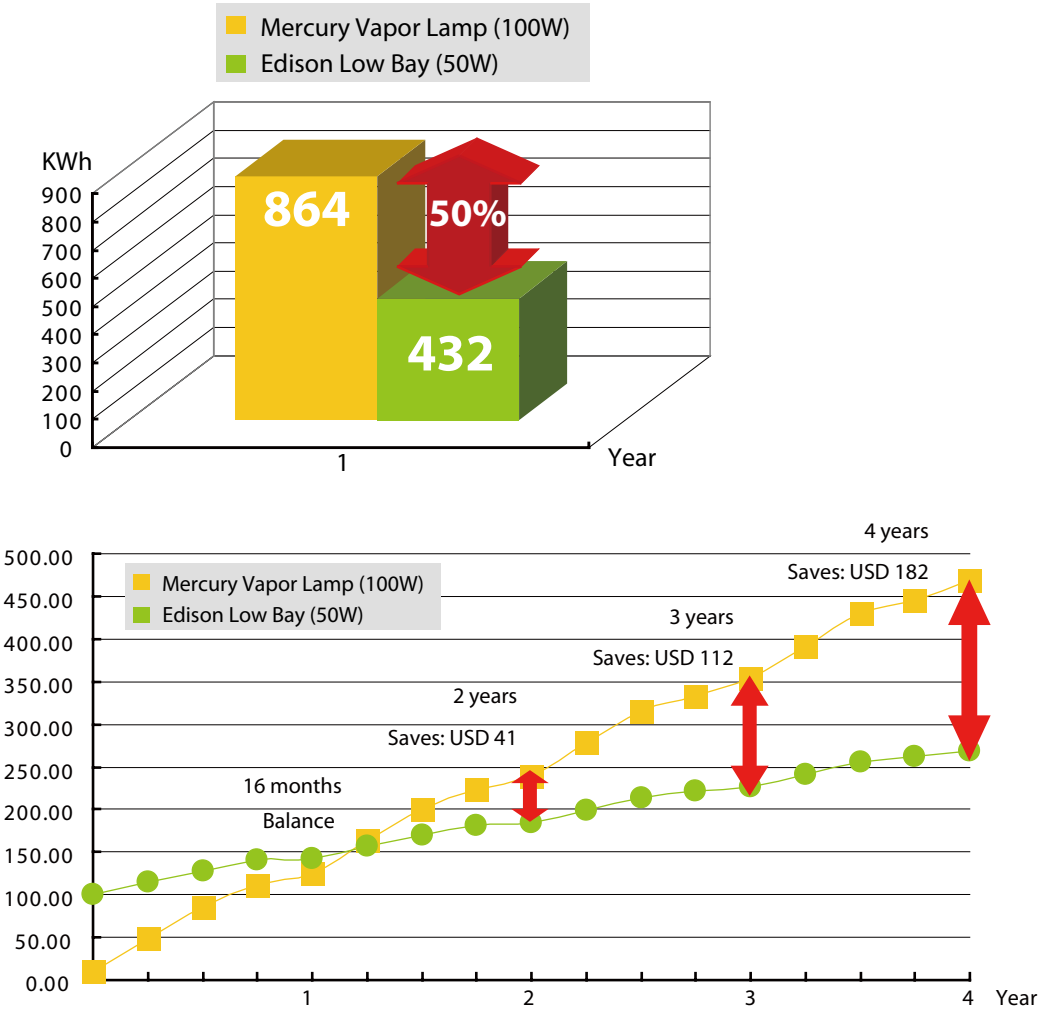


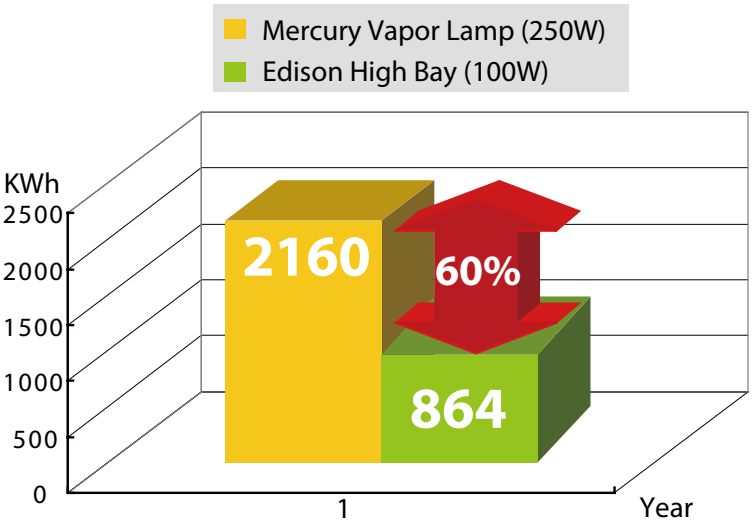
Figure 6 : 50W Low Bay VS 100W Mercury Vapor Lamp.

Note : Calculation based on 24 hours of daily operation.

Environmentally Friendly

100W High Bay VS 250W Mercury Vapor Lamp

Power Reduction by 60%	=	Reduction of CO_2 emission by 505 kg	=	Saves 36 trees a year



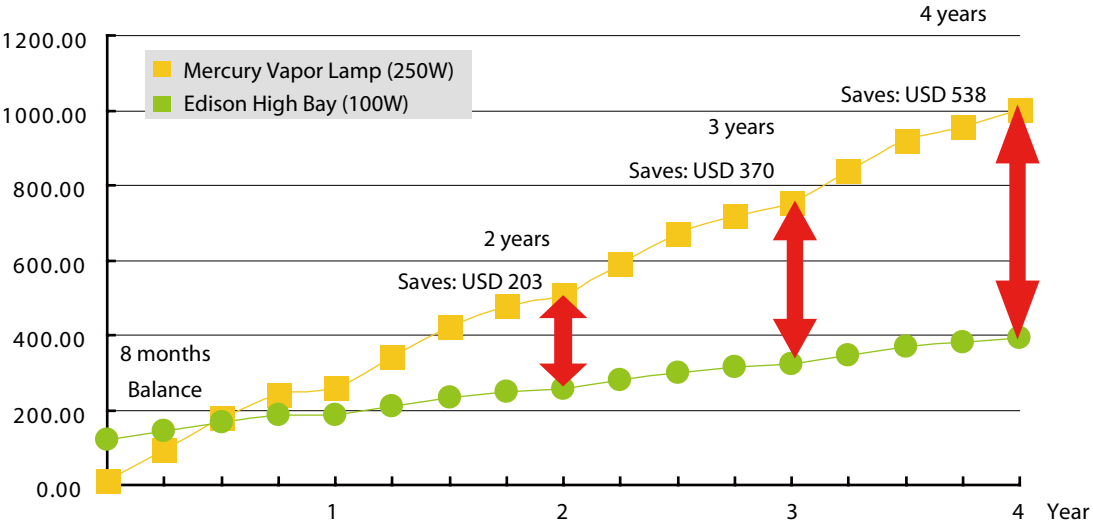


Figure 7 : 100W High Bay VS 250W Mercury Vapor Lamp.

Note : Calculation based on 24 hours of daily operation (¢9.41/KWh).

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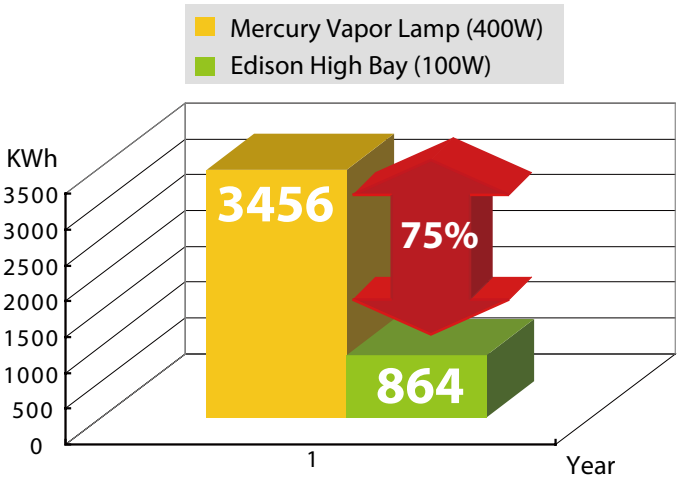
Environmentally Friendly

100W High Bay VS 400W Mercury Vapor Lamp

Power Reduction by 75%	=	Reduction of CO_2 emission by 1010 kg	=	Saves 72 trees a year



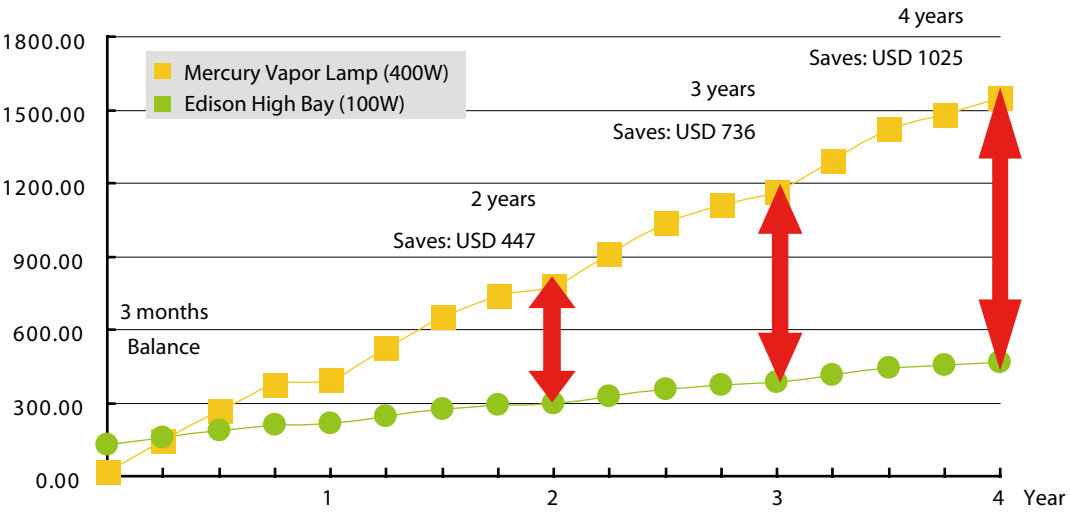
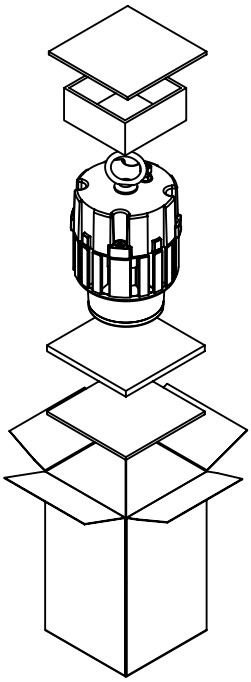


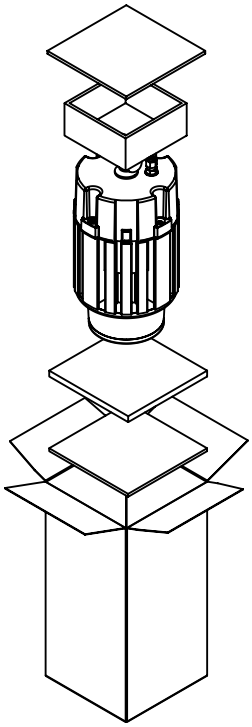
Figure 8 : 100W High Bay VS 400W Mercury Vapor Lamp.

Note : Calculation based on 24 hours of daily operation (¢9.41/KWh).

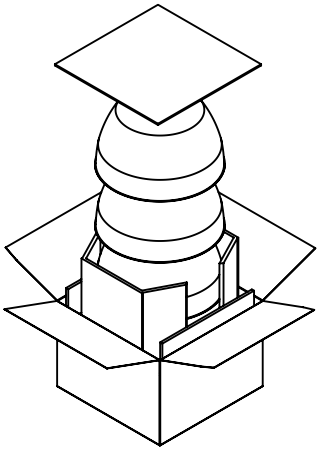
Package Information



50W Packge



100W Packge



Reflector Packge

Notes : 1. 50W Package : 15.5cm(width)*15.5cm(length)*26.5cm(height)
2. 100W Package : 15.5cm(width)*15.5cm(length)*H32cm(height)
3. Reflector Package : 47cm(width)*47cm(length)*H30cm(height)

Figure 9 : Low / High Bay package.

List of the modifications

Versions	Modification	Date
1	1. Establish a Datasheet.	2010.02.01

Table 4 : list of the modifications for Low / High Bay.