

Y o u r
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T o t a l
T h e r m a l
S o l u t i o n

COOLONE



Factory Lighting

It is different if a corporation specializing in cooling makes it.

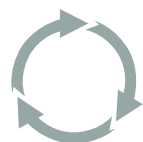
Please try meeting the cooling technology, which is a new product, of COOLONE, a corporation specializing in cooling. From the materials to the designs, everything is perfect. Please try experiencing the cooling product which is one level higher.

COOLONE
www.coolone.kr

Tel_070.7707.1113~6 Fax_031.311.2111
Mail_ktw4693@gmail.com H.P_010-3569-4693
603~608, 1115, Siheung-daero, Siheung-si, Gyeonggi-do, Republic of Korea

Water-proof and dust-proof

The IP65 certification was received through a formal organization.
And you can use it outdoors.



The product

Most of the components are made in Korea.
And the products are shipped after being
produced, assembled, and inspected at our
company. When there is a request for a complete
product, a utnsil, or a partial product, all of them
can be supplied.



Cooling

As a company specializing in cooling, the company
is proud of the heat performance with the product of
which the temperature was optimized through the
know-how that has been accumulated for a long time.



The weight

The weight of th product is super-light at 1.6kg (Not including the SMPS).
And, as the weight is light, it can be used as a wall lamp.



The design

It is a design that has optimized the cooling.
And, as the 3-colored paintings are used,
the design is proud of the dignity and the
fashionableness.



A/S

After-service : The after-service is based on 3 years.
And it involves 1 to 1 free-of-charge replacements
(Excluding installations).



The price

It is the lowest price compared to the smae
performances that are transacted at present.

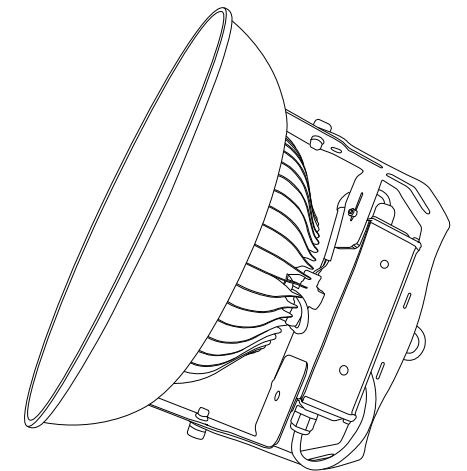
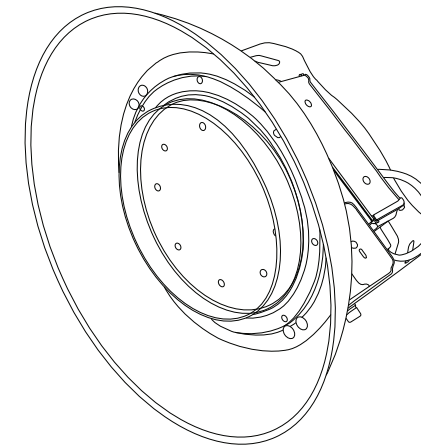
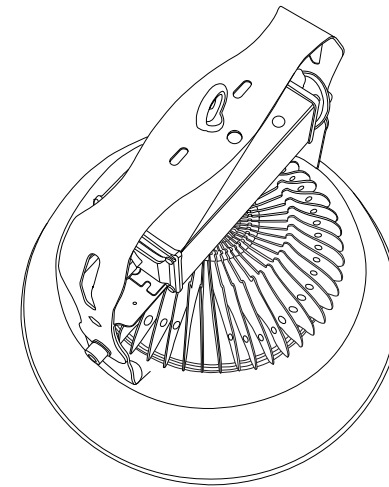


The parts

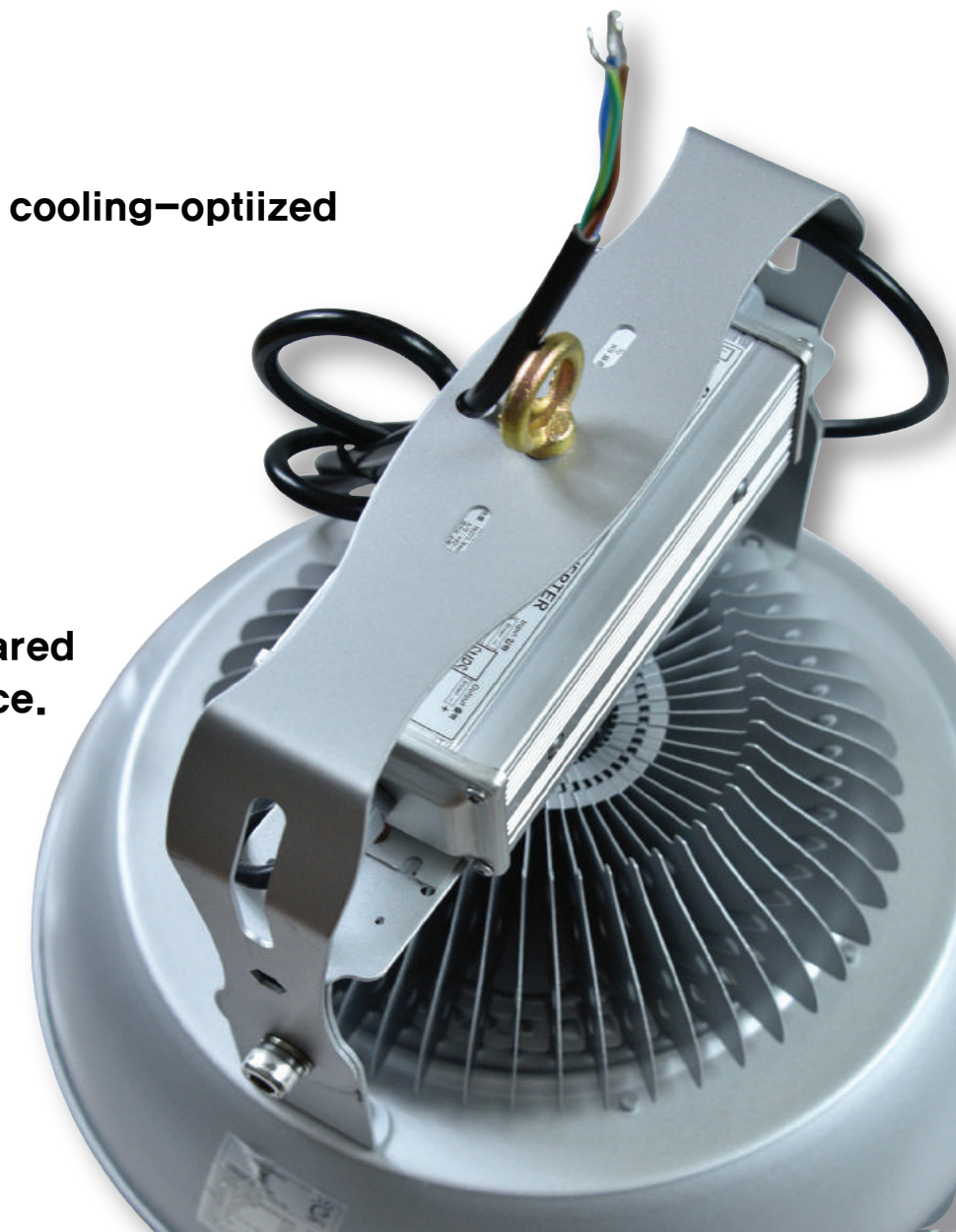
Regarding the chips, the LG Innotek G4, which is proud of the best performance, was used.
And, regarding the SMPS, a procuct by a Korean manufacturing company which possesses
the KS certification was used. And, for the material quality of the PCB, the metal PCB, which
is stable, was used. And, regarding the lens cover, also, the degree of difficulty was made to
be high in order to reduce the rate of loss.



Factory Light Stack Fin 100W~150W

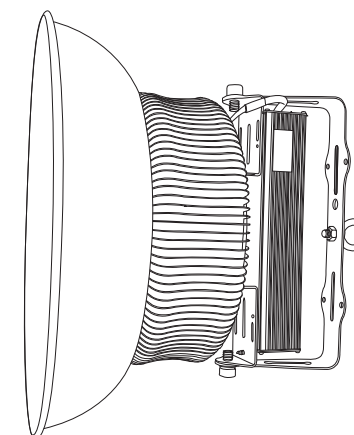
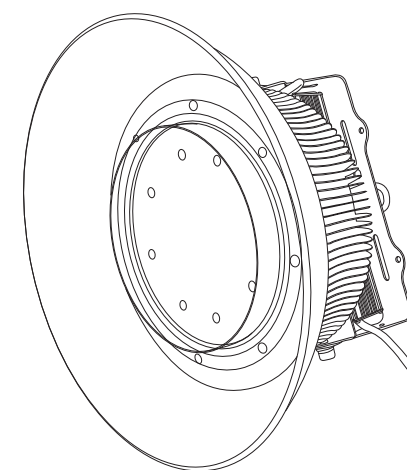
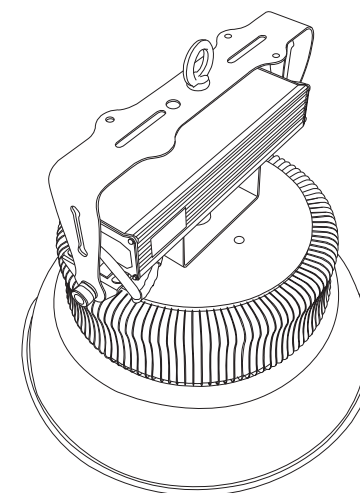


- ▶ The temperature of the cooling-optimized LED lead is 50°C
- ▶ Super-light at 1.6kg.
- ▶ Direct production and manufacturing.
- ▶ The lowest price compared to the same performance.
- ▶ The localization of the components.
- ▶ Patent / Design Certification



Item	Type	Chip specification /Light efficiency	SMPS	Weight (KG)	A/S	Certification	In case of using outdoors	Color-temperature /Color rendering	Radiant heat (room temperature25°C)
AC type 100W	Stack Fin	G2, 118 lm/W	X	1.6	3~5 years	KC	available for using outdoors	3400K ~ 5700K more than 85	LED Lead 58°C
DC type 100W	Stack Fin	G2, 118 lm/W	Osram	1.6	3~5 years	KC /High efficiency	available for using outdoors		LED Lead 50°C
DC type 100W	Stack Fin	G4, 130 lm/W	Damoa	1.6	3~5 years	KC /High efficiency	available for using outdoors		LED Lead 50°C
DC type 120W	Stack Fin	G4, 130 lm/W	Damoa	1.6	3~5 years	KC /High efficiency	available for using outdoors		LED Lead 50°C
DC type 120W	Stack Fin	G4, 130 lm/W	Osram	1.6	3~5 years	KC /High efficiency	IP67 /Using outdoors		LED Lead 50°C
DC type 150W	Stack Fin	G4, 130 lm/W	Damoa	1.6	3~5 years	KC /High efficiency	available for using outdoors		LED Lead 54°C
DC type 150W	Stack Fin	G4, 130 lm/W	Osram	1.6	3~5 years	KC /High efficiency	IP67 /Using outdoors		LED Lead 58°C

Factory Light Stack Fin 200W

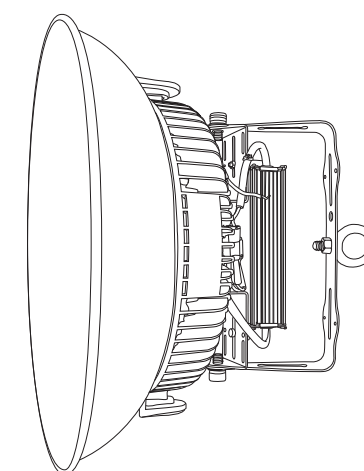
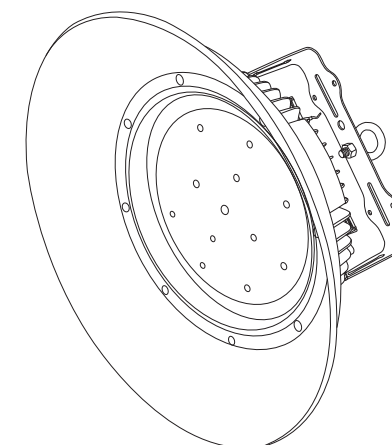
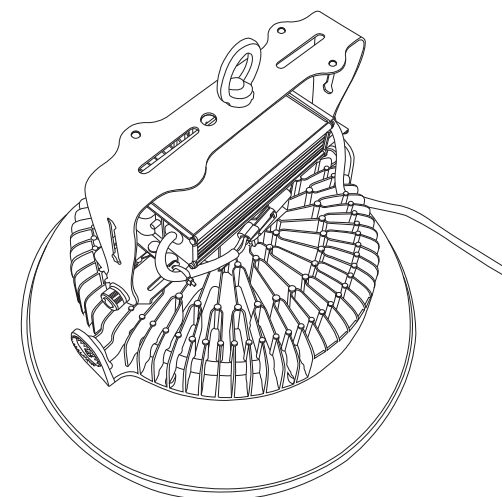


- ▶ The temperature of the cooling-optimized LED lead is 50°C
- ▶ Super-light at 2.0kg.
- ▶ Direct production and manufacturing.
- ▶ The lowest price compared to the same performance.
- ▶ The localization of the components.
- ▶ Patent / Design Certification

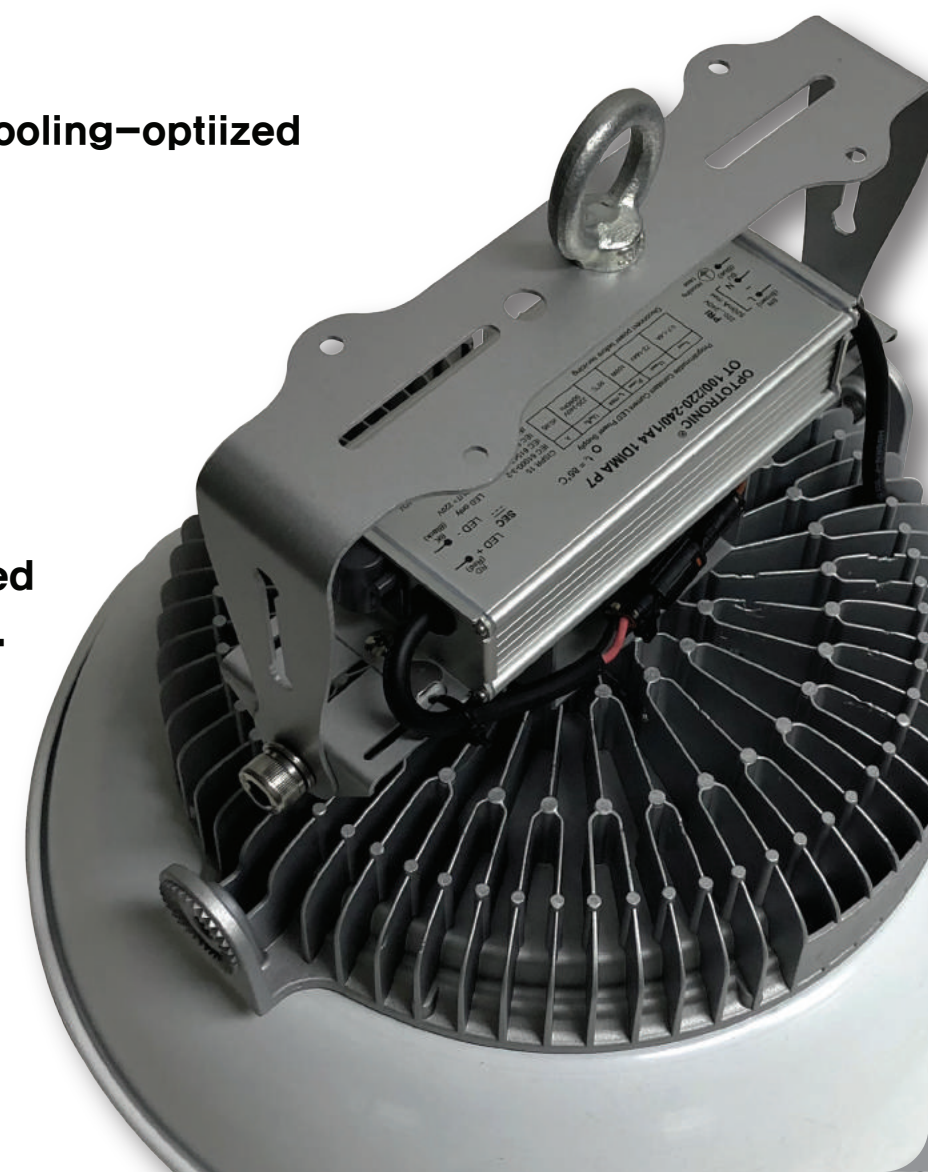


Item	Type	Chip specification /Light efficiency	SMPS	Weight (KG)	A/S	Certification	In case of using outdoors	Color-temperature /Color rendering	Radiant heat (room temperature25°C)
DC type 200W	Stack Fin	G4, 130 lm/W	Osram	2.0	3~5 years	KC /High efficiency	available for using outdoors	3400K ~ 5700K more than 85	LED Lead 58°C

Factory Light Die-Casting 80-100W (IP67)

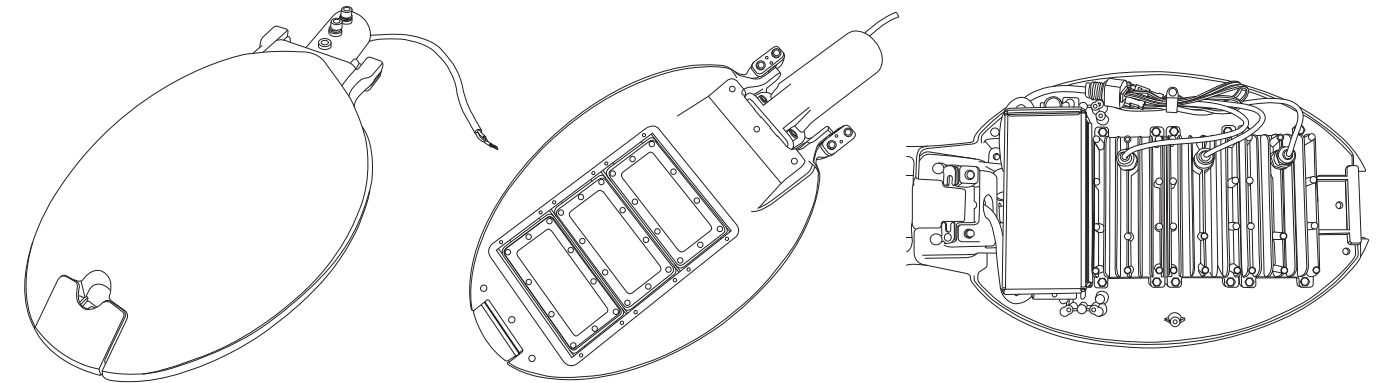


- ▶ The temperature of the cooling-optiized LED lead is 50°C
- ▶ Super-light at 2.3kg.
- ▶ Direct production and manufacturing.
- ▶ The lowest price compared to the same performance.
- ▶ The localization of the components.
- ▶ Patent / Design Certification



Item	Type	Chip specification /Light efficiency	SMPS	Weight (KG)	A/S	Certification	In case of using outdoors	Color-temperature /Color rendering	Radiant heat (room temperature25°C)
DC type 80W	Die-Casting	G2, 118 lm/W	Osram	2.3	3~5 years	KC /High efficiency	IP67 /Using outdoors	3400K ~ 5700K more than 85	LED Lead 53°C
DC type 100W	Die-Casting	G2, 118 lm/W	Osram	2.3	3~5 years	KC /High efficiency	IP67 /Using outdoors		LED Lead 53°C

Security Light 25~75W



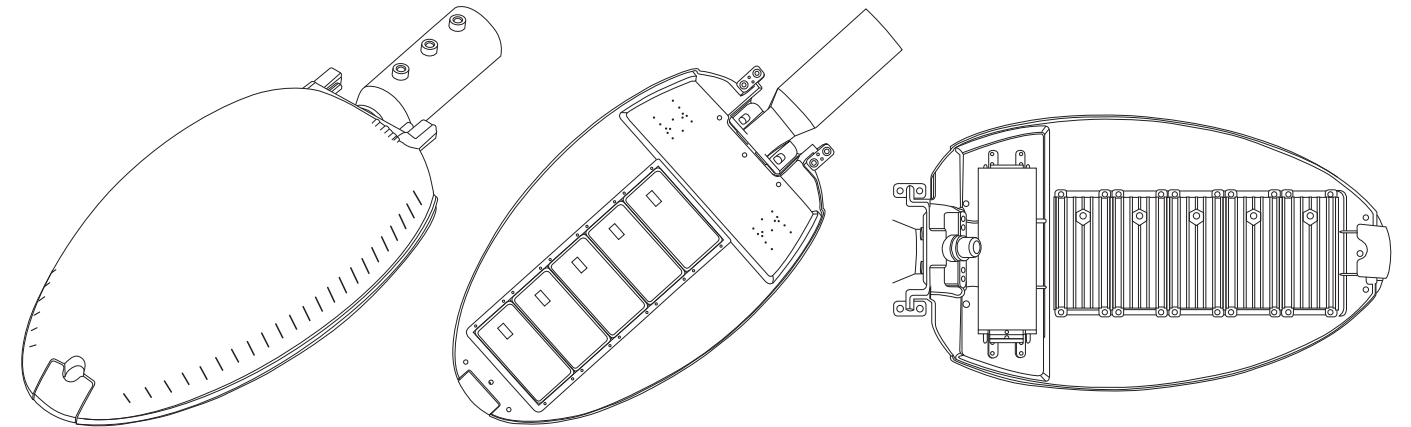
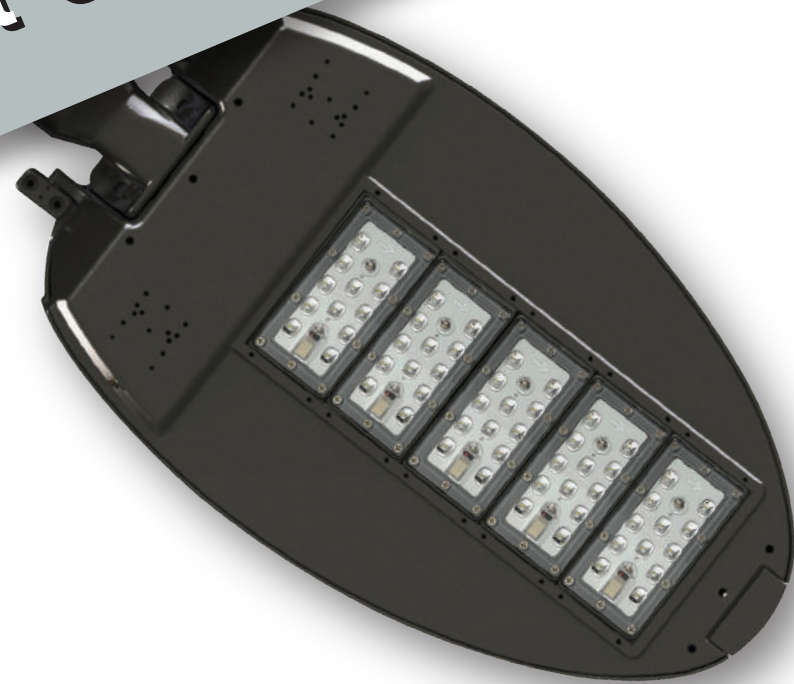
- ▶ The temperature of the cooling-optimized LED lead is 50℃
- ▶ Direct production and manufacturing.
- ▶ The lowest price compared to the same performance.
- ▶ The localization of the components.



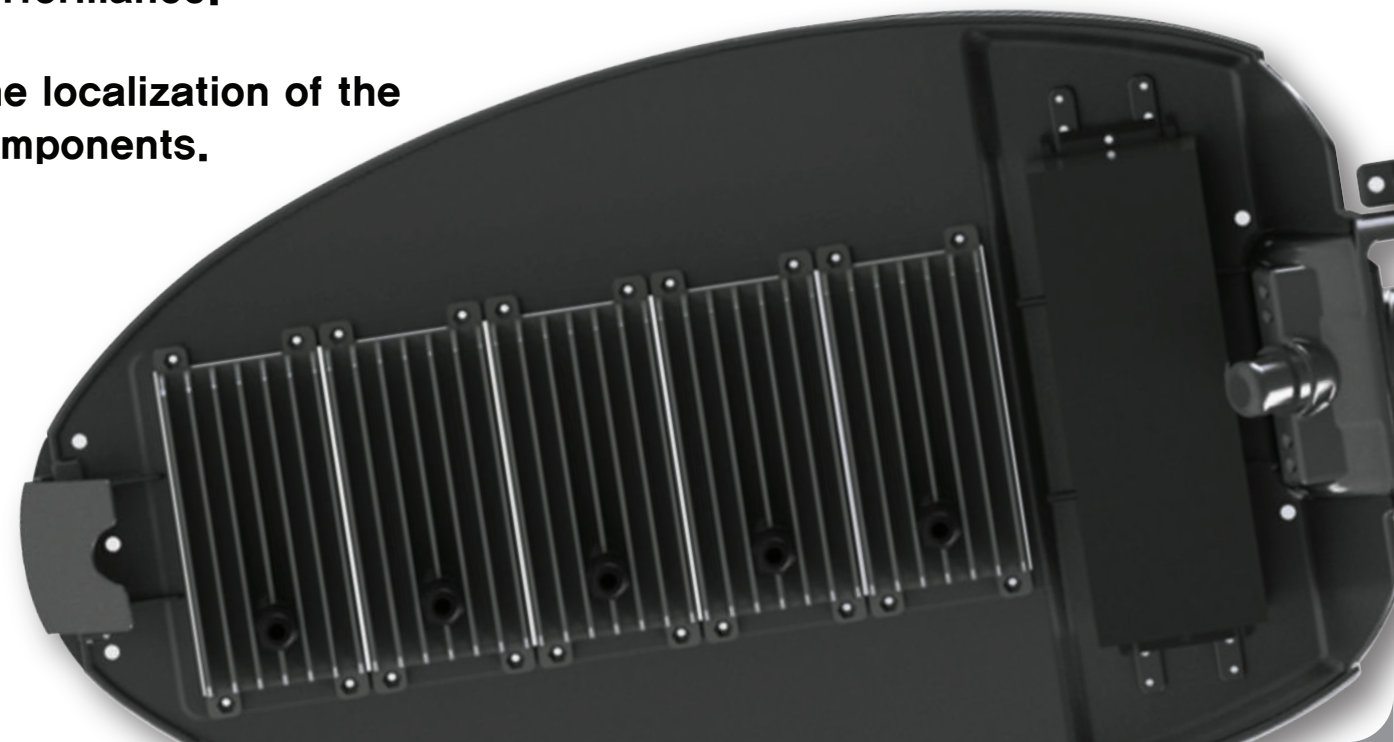
LED Security Light

Model	Chip specification /Light efficiency	Certification	In case of using outdoors	A/S
Security Light (case, 25W module, SMPS)	25W x 3 = 75W	KS	Using outdoors	3~5 years
Security Light outer case			Using outdoors	3~5 years
25W module	Samsung chip		Using outdoors	3~5 years

Street Light 50~150W



- ▶ The temperature of the cooling-optimized LED lead is 50℃
- ▶ Direct production and manufacturing.
- ▶ The lowest price compared to the same performance.
- ▶ The localization of the components.



LED Street Light

Model	Chip specification /Light efficiency	Certification	In case of using outdoors	A/S
Security Light (case, 30W module, SMPS)	30W x 5 = 150W	KS	Using outdoors	3~5 years
Security Light outer case			Using outdoors	3~5 years
30W module	Samsung chip		Using outdoors	3~5 years

Reasons to replace with LED light

Approximately 65% reduction in annual usage
/ Price Competitiveness Best Product

Existing lighting vs LED factory light

 Previous factory light 250W [Metal Halide] Monthly cost : 568,570 X 12 Annual cost : 6,825,000 won	 LED factory light 100W Monthly cost : 182,000 X 12 Annual cost : 2,184,000 won
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※ replacement standards of 50 piece of metal light, Based on 10 hours x 1 month (25 days)

LED Highbay lighting

High efficiency LED floodlight
/ LED high ceiling light

Optimum radiation LED Factory light

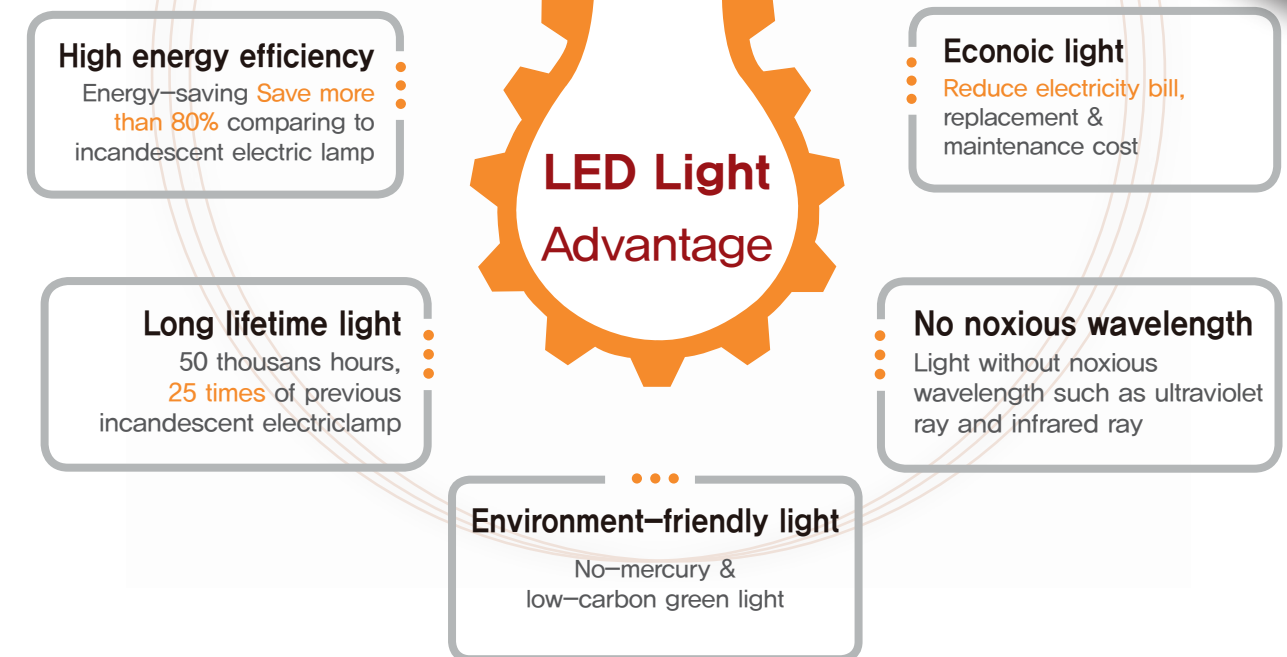
Made with specialized radiation technology[Hold patent] KC
/ Domestic parts which certification high efficiency

3 year free AS guarantee

Direct production & manufacturing



Advantages of LED lighting and Importance of heat dissipation



LED chip is weak for heat as semi-conductor.

LED light emits heat of high temperature if it is used for long time. So, its luminous efficiency drops considerably and lifetime gets shortened as time goes by. And malfunction may be caused as thermal strain is generated in the sei-conductor. So, LED light should use heat protection structure that is well-designed for heat.

This product spends less luminous efficiency for using long time and guarantees long lifetime comparing to other products as proven product by specialized heat protection techology and heat-reliability verification.

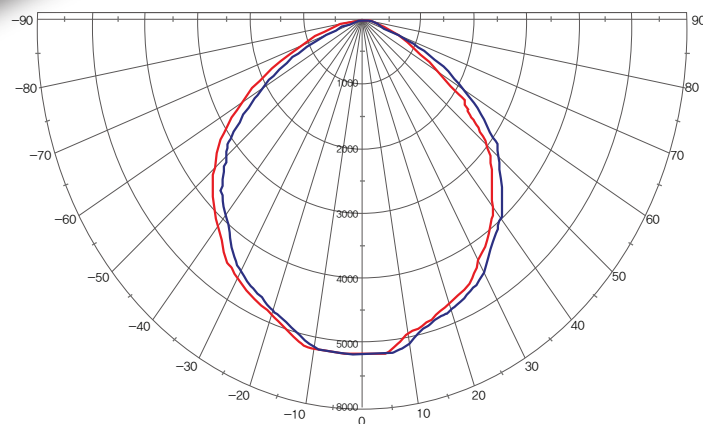


* Case of installation : Can be used at blast furnace company with surrounding temperature of 50 ~ 60℃ / Frozen storage with surrounding temperature of -25 ~ -30℃

The 100W floodlight

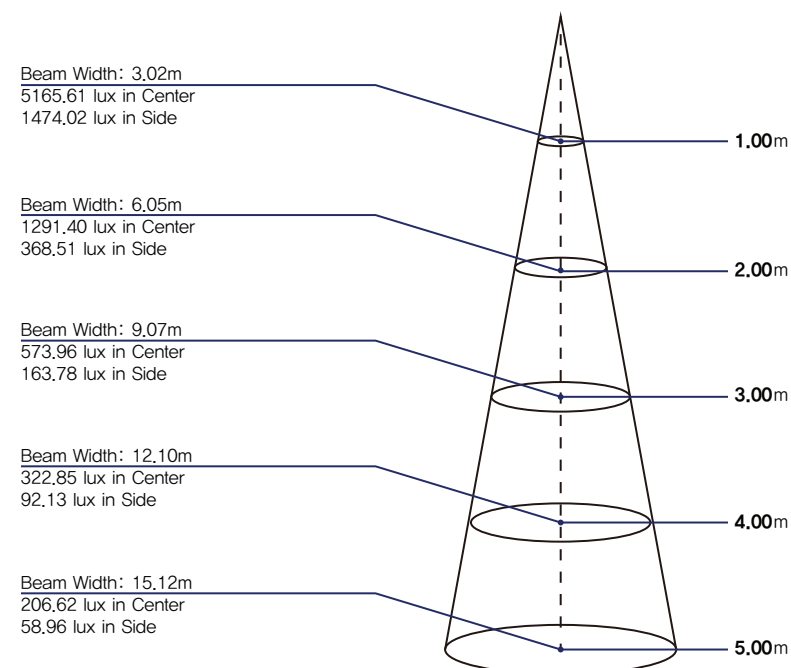
(The data of the light measurement and the color rendering measurement)

Polar Diagram



[TEST] the 100W floodlight(COOLONE)
[DATE] 2015.10.29
[LUMINAIRE]
Avg. Voltage = 219.82(V)
Avg. Current = 530.47(mA)
Avg. Wattage = 109.51(W)
Avg. PF = 0.9390
Avg. Frequency = 59.9971(Hz)
Avg. Efficiency = 126.66(lm/W)
- Avg. CCT = (K)

Conical Luminance



Average Beam Angle = 113.0°

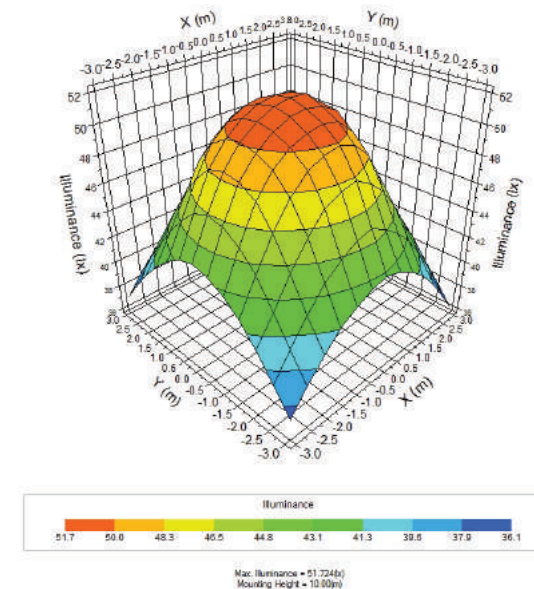
Max. Beam Angle = 113.4° at $\phi 1 = 105^\circ \sim \phi 2 = 285^\circ$

Min. Beam Angle = 112.6° at $\phi 1 = 0^\circ \sim \phi 2 = 180^\circ$

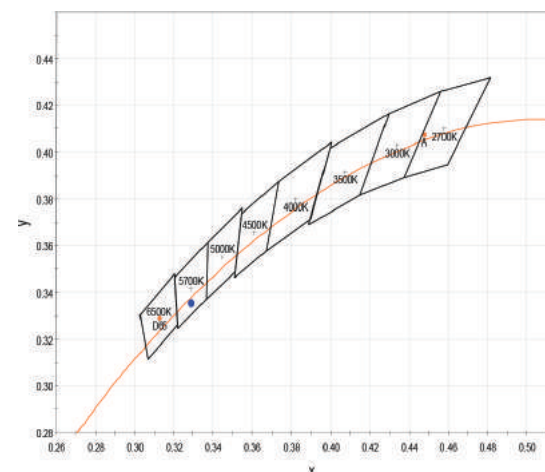
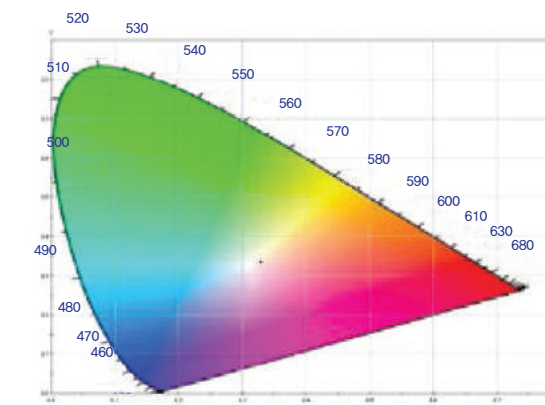
The 100W floodlight

(The data of the light measurement and the color rendering measurement)

Iso Lux Diagram (3D)



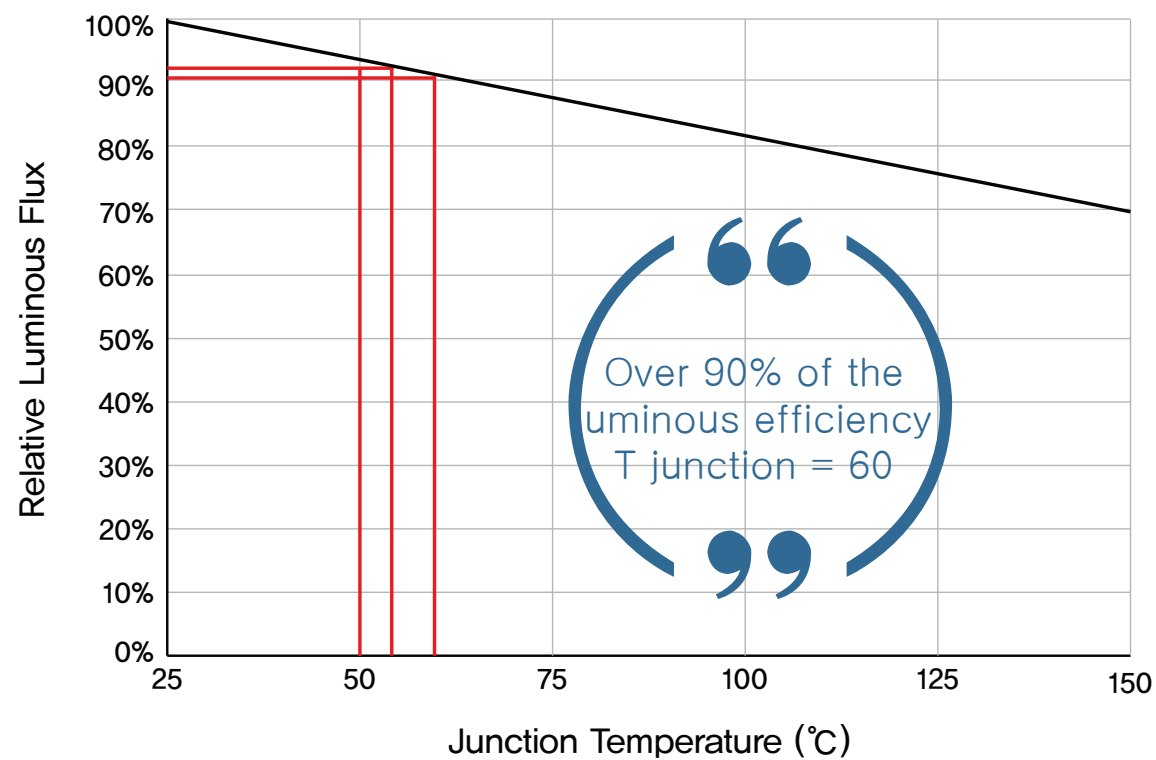
Color Diagram



	Measured	Data
1	Rad	1.12934
2	x	0.33
3	y	0.3360
4	z	0.3355
5	u	0.2061
6	v	0.4744
7	v'	0.3162
8	CCT(K)	5680.6
9	dominant WL (nm)	499.1
10	Purity	0.0
11	Centroid WL(nm)	545.4
12	Peak WL(nm)	447.1
13	FWHM(nm)	19.6
14	CRI	84.0
15	R[1]	83.8
16	R[2]	86.7
17	R[3]	88.1
18	R[4]	85.8
19	R[5]	85.1
20	R[6]	81.8
21	R[7]	86.9
22	R[8]	73.8
23	R[9]	21.0
24	R[10]	68.3
25	R[11]	86.7
26	R[12]	65.8
27	R[13]	84.0
28	R[14]	93.5
29	R[15]	79.7

The thermal test of the floodlight by watt (W)

Relative Flux vs. Junction Temperature (I=350mA)



Items	The number of LED' s	LED LEAD (°C)	T junction (°C)	Life expectancy (hr)
100W	240ea	50°C	53°C	270,000
120W	320ea	54°C	57°C	210,000
150W	360ea	58°C	61°C	200,000

For the above data and materials, the data of the chip manufacturing companies were referred to. And there cand be the differences between the actual life span and the luminous efficiency.

