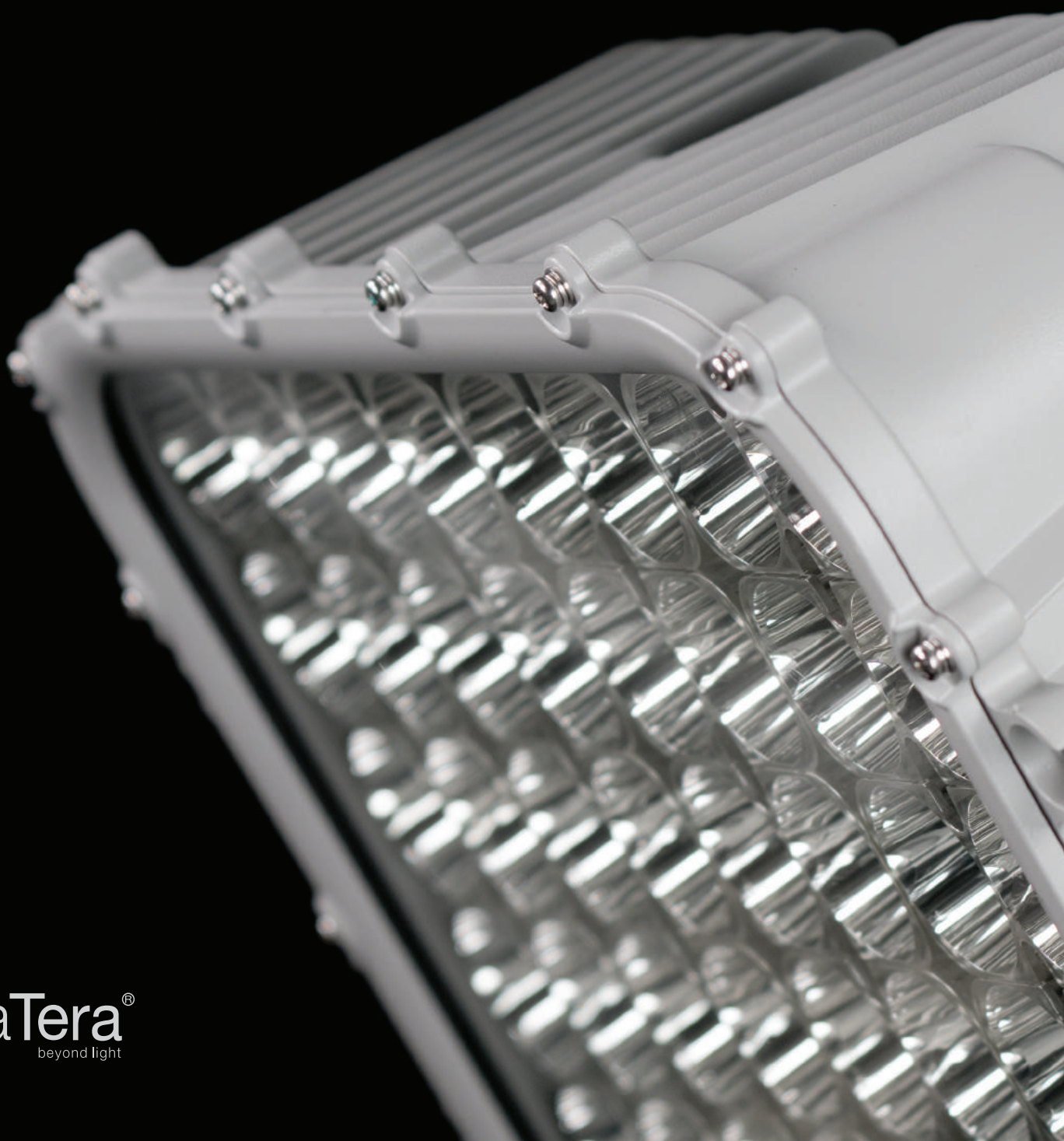
VOL.8.2 | ENG.

GigaTera
LED Lighting

2019 LED LIGHTING CATALOG



GigaTera®
beyond light

Contents

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Products

GigaTera®
beyond light

2019

LED LIGHTING CATALOG

GigaTera

WHO WE ARE

GigaTera, the world leader in LED sports lighting industry

GigaTera is a world-class Total Lighting Solution provider with high power LED lighting(sports, harbor, and industrial).
Our proprietary "Narrow Multi-Beam Forming" application is leading the market with cutting-edge manufacturing technology with the highest efficiency, reliability and most competitive price.

FACILITIES

Manufacturing and R&D facilities in Korea and World wide.
GigaTera produces high-quality LED products with state-of-the-art production, equipment and innovative engineering.

WHAT WE OFFER

Sports Lighting / Global lead of IoT Total Solution

GigaTera has been providing customers with non-flicker technology, superior color quality guarantee, and various event / entertainment solutions for the UHD broadcasting, which is based on communication technology for 25 years. We are also taking the lead in building a smart safe city that can secure various kinds of disaster, crime safety and golden time by integrating IoT / ICT technology of smart lighting with image detection and sound source detection.

WHAT WE OWN

Build vertical integration system from R&D to mass production

GigaTera has built up a vertical sequencing system from R&D to mass production, with over 260 patents and registered top engineers(CRAZY LAB). In addition, GigaTera has state-of-the-art reliability equipment, large chamber facilities, innovative manufacturing lines and technologies. We are also building global networks such as USA, Europe, Japan, India, Middle East and Southeast Asia.

History

2019
- LED lighting installation - San mames Stadium in Spain
- LED lighting installation - Boeing / Saint Louis Cardinals / Tampa bay / BNSF in U.S.A
- LED lighting installation - GE Power Plant in Bahrain
- LED lighting installation - ZPMC(Crane Manufacture) in China
- LED lighting installation - Sanyo Auto Racing field in Japan

2018
- LED Sports lighting installation - Pepsi center(NBA & NHL stadium)
- Successful hosting of Pyeongchang 2018 Winter Olympic Games through installation of GigaTera lighting
- LED lighting installation – DP World port terminal 1,2 in Dubai
- Highpower LED lighting installation - Boeing Factory

2017
- LED lighting installation - Miami Dolphins(NHL) Stadium in U.S.A
- LED lighting installation - Saga horse track in Japan
- LED lighting installation – Hyundai Motors factory in India
- Established GigaTera Inc. separated from KMW

2016
- LED lighting installation - Pyeongchang 2018 winter olympic stadium (*Skijumping, Biathlon, CrossCountry, Speed skating, Curling)
- The world's first LED lighting installation - Horse racing stadium (Japan)

2015
- LED lighting installation - New York Yankee stadium
- Established GigaTera India
- Established GigaTera Turkey
- Established a new factory (Vietnam)

2014
- The world's first LED lighting installation - MLB baseball stadium (Seattle, Mariners)
- Acquired the 1st ICT IT Converged LED security lighting in quality certification (*SPES,SPES 2)
- Established GigaTera EU GmbH (Düsseldorf, Germany)
- Established GigaTera Middle East L.L.C (AbuDhabi, UAE)
- Established GigaTera G^+ (China)
- Established GigaTera Japan Inc. (Japan)
- Established a new factory (Cheonan Factory)

2013
- Selected as a world class 300 corporate
- Export sales revenue, US $200 Mil

2012
- TALQ consortium regular member registered
- Registered ESCO (No.2012-0557-4)
- Certified for its High Efficacy Energy Equipment of LED area lighting (*Stella-50W, Stella-70W)

2011
- Laboratory approved (Anseong Factory)
- Developed IT converged LED Lighting
- Established coating factory branch
- Acquired TL9000 certification

2010
- Approved as advanced technology center by the ministry of Knowledge & Economy
- Acquired KS certificate in LED lighting
- New technology (NET) certification

2009
- Developed LED security lighting with antenna embedded
- Developed eco-friendly LED security lighting
- 8th Luminaire design grand-prix award
- Developed downlight integrated Antenna)

2008
- Export sales revenue, US $100 Mil

2007
- Korea Technology Grand-prix award

2006
- Awarded industry package (Filed of information and communication & small and medium enterprises development exploit)

2004
- Awarded the IR52 Jang Young Sil

2001
- Acquired KS A/ISO 14001 certificate
- A President citation (The Trade Day)

2000
- Established Huatian Telecom Inc. China (Xi'an)
- Established KMW Inc, Japan
- Registered KOSDAQ (Code)

1998
- Established a new factory (Dongtan)

1997
- KT Mark approved from the minister of Science and Technology
- President citation (The national conference of venture business)
- Established the 3rd factory (Yong-in)

1996
- Acquired the ISO9001 Certificate
- Changed the company name to KMW Inc.
- The minister of science and technology prize for venture business (*The 1st prize of venture business)

1995
- Established KMW U.S.A (LA)
- Laboratory approved
- Established headquarter office

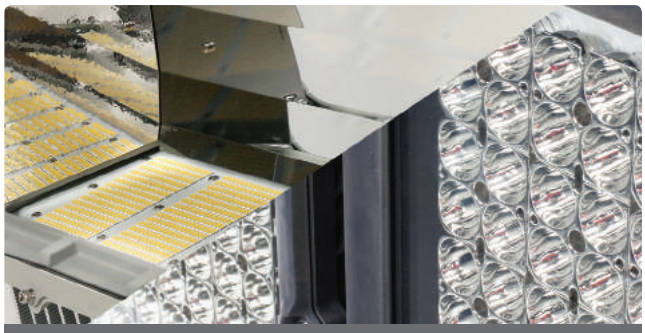
1994
- Prize for the chief of industry development at the competitive exhibition of new products

1991
- Established (Korea Micro Wave)

Technology

1. Reflector

- High Luminous Efficacy - More efficient than using lens diffusers
- Reflection ratio of 95% ~ 97% - Reflector
- Minimum glare and loss of luminance



Middle Power LED / High Power LED

Reflector

2. Smart Lighting Control Technology (GESS™)

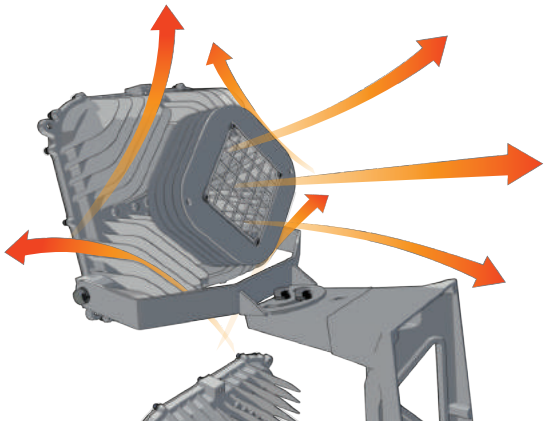
- Efficient and cost-effective control network system for build-up, maintenance and expansion as compare with the other control systems
- Smart upgrade be supported

Wireless Control	Wired Control	Sensor Control
ZigBee, WiFi, LTE, W-CDMA	DALI, DMX-512, 1-10V	Occupancy Sensor Daylight Sensor

3. Heat Dissipation Technology

- Proven Data from official organization
- Proper Junction Temperature Control
- Ensure customers long Life products

There are two major sources in the LED light fixture. One is from the LED light source itself, and the other is in the AC to DC converter. It is very critical factor to use external heat dissipation structures.
GigaTera®'s luminaries design is based on thermal control techniques to enhance natural convection when considering optical and thermal design.



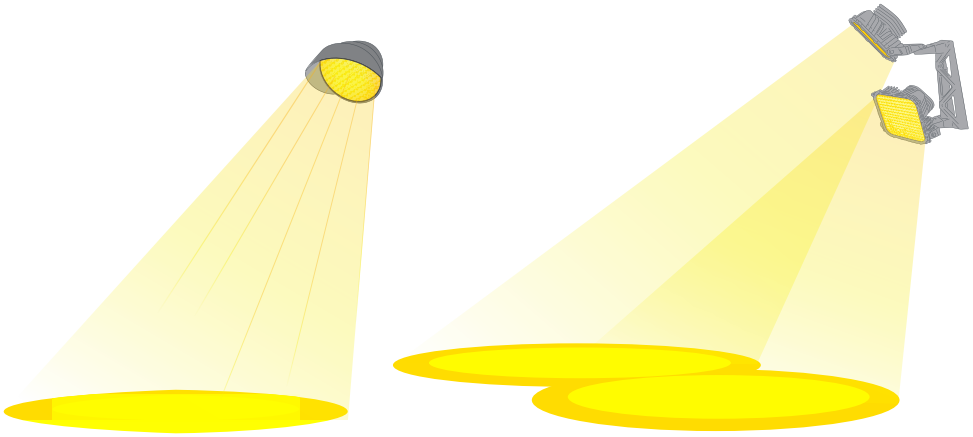
Characteristics

1. The junction temperature of the LED light source is kept below 149°F (65°C). (Theoretically, in order for the LED to achieve a life span of over 50,000 hours
   the junction temperature should be below 176°F (80°C)
2. Heat sources like the transformer and FET of the driver are designed with aheat dissipating mechanical structure to keep the temperature difference(ΔT) between the inside lead and outside temperature not more than 86°F (30°C).
3. As is commonly known, air flows from cold to hot.
   GigaTera® maximizes this natural convection at the level of fixture design utilizing, for example, it uses an optimal mechanical structure for a vertically positioned LED module.

4. Narrow Multi-Beam Forming (NMBF) Technology

- GigaTera®'s renovated technology
- Maximizes energy savings
- Most optimized technology for preventing light pollution

Most manufacturers design the lighting fixtures implementing lens and reflector technologies for desired light distribution.
These existing LED lighting methods according to the characteristics of the light will spread to a wider area and will also fall on the area that does not need the light and may lead to light pollution which is inefficient in terms of energy savings.
GigaTera® 's NMBF technology prevents light pollution and emits the light only to the target area, NMBF is advanced technology to control luminance with low power consumption to provide a simillar level of luminous flux and also to maximize energy savings.



other LED lighting

NMBF LED lighting

Characteristics

Modular type reflectors emit light to the area where light is required, without the glare.

5. In-House Driver Technology

- GigaTera® has both the in house qualified driver engineers and the core technology.
- Performs for 2 months (1,440 hours) at +80°C acceleration test to ensure long life.
- GigaTera® ensures a 50,000 hours life time of the driver with its in-house technology and reliability test.
  Accordingly, any failed product during acceleration is not commercialized.

Temperature acceleration test

Reliability Test Facilities

HIGH TEMP. Chamber

Test Capacity
TEMP. RANGE : RT ~ 80˚C

Cryochamber

Test Capacity
TEMP. RANGE : -70˚C ~ 80˚C

Drop Tester

Test Capacity
Drop Height : 30cm ~ 100cm
Test Weight : MAX 50Kg
Test Size : MAX 900*600*900

Splash Water Chamber

Test Capacity
IPX5 : 12.5L/min ±5% (More than 3min)
IPX6 : 100L/min ±5% (More than 3min)

Salt Water Spray Chamber

Test Capacity
35˚C & NaCl 5%

Dust Chamber

Test Capacity
IP6X : Protection against external dust of
1 mm or less

On/Off Tester

Test Capacity
ON/OFF Test : Max. 30 available
ON/OFF Time : Depends on user settings

TEMP&HUMI Chamber

Test Capacity
TEMP. RANGE : -50˚C ~ 120 ˚C
HUMI. RANGE : 30% ~ 98% RH

Thermal Shock Chamber

Test Capacity
TEMP. RANGE : -50˚C~ 150˚C

Dry Oven

Test Capacity
TEMP. RANGE : RT ~ 250 ˚C

Integrating Sphere System

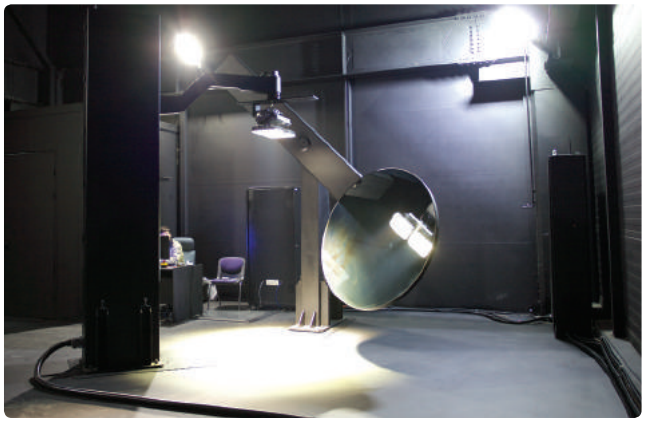
- A system to measure the spectral properties, light efficiency
- Luminous flux radiate from a central position of the light source on the inner surface
- Real time measure of lamp stability and statistical analysis

standard metric
- CIE 84
- IESNA LM79

Test Results

1) Test Temperature (˚C)
2) Burning Time (min)
3) Burning Attitude (Orientation)
4) Input Power (Voltage, Current, Power)
5) Total Lumen (lm)
6) Efficiency (lm/W)
7) Relative Spectral Energy Distribution Diagram
8) Relative Spectral Energy Data
9) Color Coordinates (x, y)
10) CIE 1931 Chromaticity Diagram
11) Correlated Color Temperature (K)
12) CRI (Color Rendering Index, Ra)
13) Special Color Rendering Indices (R1 ~ R15, Rt)
14) Color Rendering Group
15) Color Appearance Group
16) Dominant Wavelength (nm)
17) Peak Wavelength (nm)
18) Weighted Average Wavelength (nm)
19) FWHM (nm)
20) Spectral Energy (%)
21) Excitation Purity
22) Colorimetric Purity (%)
23) SDCM (Standard Deviation of Color Matching)
: McAdam Ellipse step calculation
24) ANSI C78.377-2011 Color System

Mirror Type Goniophotometer



- Rotating luminaire or light source around the optical axis and reflecting emitted light to mirror to measure the spectral properties and luminous intensity via sensor
- Set burning position to the same as actual installation of luminaire
- CIE and IESNA LM79 Stabilization Method applied for stabilization evaluation of light source
- Measurement Integration Time autoconfiguation
- Measure in conformity with NEMA Classification

standard metric
- CIE 43, 69, 70, 84, 121, 127
- IESNA LM31, LM35, LM41, LM42, LM46, LM79

Test Results

1) Beam angle / Field angle
2) LID diagram : Polar curve, H-V Plot
3) 10% LID diagram : Polar curve, H-V Plot
4) Cone Intensity Distribution diagram
5) Luminous Intensity Data table
6) IsoCandela diagrams
7) ConeLux Levels
8) IsoLux diagrams
9) 3D web format for IsoLux and IsoCandela diagrams
10) Luminance table
11) Cone Luminance Distribution diagram
12) Luminous flux summary table
13) Zonal flux diagram
14) Lumen Pie Chart
15) Luminance Limiting Curve (glare rating)
16) IESNA Zonal Cavity Coefficient table
17) CIBSE TM5 Utilizatin factor table
18) Roadway Utilization factor diagram with table export
19) CIBSE LG3 rating (glare control for VDUs)
20) UGR Table
21) IESNA Roadway : Type I/II/III/IV and Short/Medium/Long
22) Photometric Solid with azimuth angle offset
23) LM79 Test Report software
(1) Weighted Average (x, y) data
(2) Weighted Average (u, v) data
(3) Weighted Average CCT data
(4) Maximum Delta u'v'
(5) xy, u'v' distribution chart at CIE1931 chromaticity diagram

LED Flood Lighting - *Area Flood Lighting*

SMA SUMA

Excellent light distribution even at long distance

- High luminous efficacy 120 lm/W
- Tilting structure for optimized aimlng (Upward : 10˚, Downward : 20˚)
- Wired/Wireless dimming controls
- Outstanding cooling technology and durability

Application

Harbour, Airport aprons, Airplane Hangars, Container terminals, Sporting facilities, Parking lots

Specifications

* Tolerance : ± 5%

Driver Type	Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
Built-in	**SMA600**	600W	120 lm/W	72,000 lm	5000K (3000K, 4000K available)	70 Ra	19.3 kg / 42.5 lb	AC200~277V AC347~480V	-30°C~55°C -22°F~131°F
	SMA400	400W		48,000 lm			18.6 kg / 41.0 lb		
Remote	**SMA600**	600W		72,000 lm			13.5 kg / 29.8 lb	DC100V (RED)	
	SMA400	400W		48,000 lm			12.5 kg / 27.6 lb		

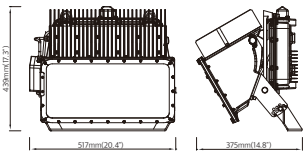
Body	Cast Aluminum	Mounting Option	Swivel Bracket
Cover	Tempered Glass 4T (Clear)	Light Distribution	Asymmetric Wide
Finish	Powder Coating	Control System	Remote type : Wired (RS-485, DMX512) / Built-in type : Wireless, NEMA-7

※ more details of Remote Driver(RED) on p.18

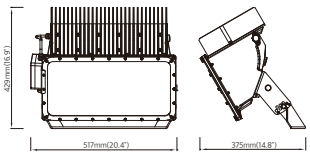
Dimensions

• SMA600

[Built-in Driver type]

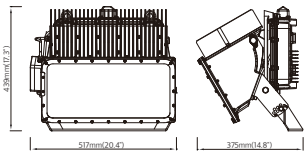


[Remote Driver type]

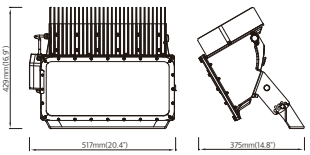


• SMA400

[Built-in Driver type]



[Remote Driver type]



LED Flood Lighting - *Sports Flood Lighting*

SFH SUFA-H

CB CE UL KC

High quality sports stadium lighting

- No glare from Narrow beam reflector
- 1,500 fps flicker free super slow-motion(SSM)
- High CRI & R9 Content better visibility
- Wired dimming controls

Application

Sports Complex, Football Stadium, Soccer Stadium, Tennis Court, Indoor Arenas

Specifications

* Tolerance : ± 5%

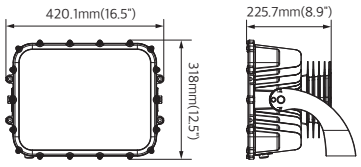
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SFH1K2	1200W	95 lm/W 100 lm/W 105 lm/W	114,000 lm 120,000 lm 126,000 lm	5000K (3000K, 4000K, 5700K available)	90 Ra 80 Ra 70 Ra	26.0 kg / 57.3 lb	DC100V (RED)	-30°C~55°C -22°F~131°F
SFH600	600W	95 lm/W 100 lm/W 105 lm/W	57,000 lm 60,000 lm 63,000 lm		90 Ra 80 Ra 70 Ra	10.0 kg / 22.6 lb		

Body	Cast Aluminum	Light Distribution	20° / 30°
Cover	Tempered Glass 4.0T (Clear), Anti UV & Dust, Shatter Proof	Control System	Wired (RS-485)
Finish	Powder Coating		

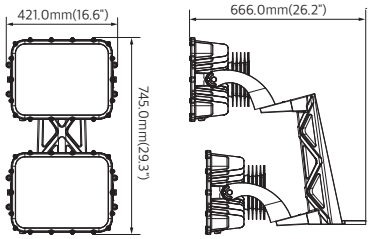
※more details of Remote Driver(RED) on p.18

Dimensions

• SFH600



• SFH1K2



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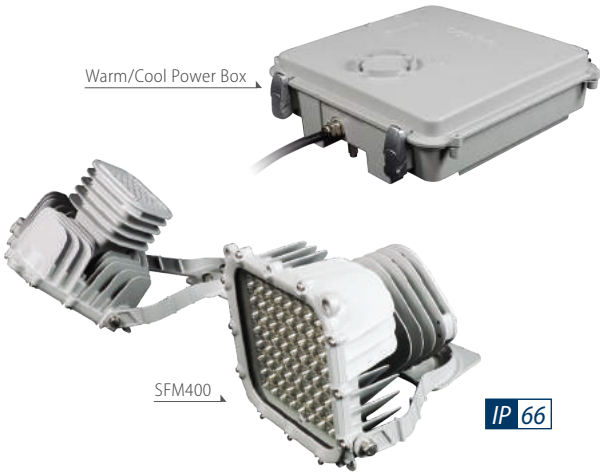
SFM SUFA-M

FC DLC UL



Tilt and rotate for easy aiming and optimized uniformity

- Excellent cooling structure design increases heat dissipation
- High CRI & R9 for better visibility
- Wired event lighting control system
- Color Tunable (4000K ~ 5700K)

Application

Sports stadiums, Indoor Venues

Specifications

* Tolerance : ± 5%

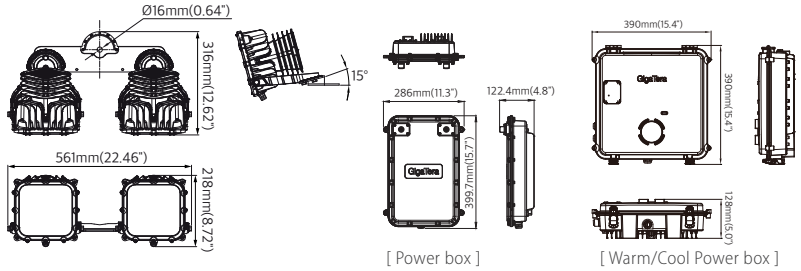
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight (Exclude Driver)	Input Voltage	Operation Temperature
SFM1K2 *200W x 6*	1200W	100 lm/W 105 lm/W 115 lm/W	120,000 lm 126,000 lm 138,000 lm	5000K (3000K, 4000K, 5700K available)	90 Ra 80 Ra 70 Ra	21.0 kg / 46.3 lb	DC100V (RED)	-30°C~55°C -22°F~131°F
SFM400	400W	100 lm/W 105 lm/W 115 lm/W	40,000 lm 42,000 lm 44,000 lm		90 Ra 80 Ra 70 Ra	8.0 kg / 17.6 lb	AC200~277V AC347~480V	
SFM400 *Warm/Cool*	400W	90 lm/W 95 lm/W	36,000 lm 38,000 lm	5700K 4000K, 5000K	90 Ra			
		95 lm/W 100 lm/W	38,000 lm 40,000 lm	5700K 4000K, 5000K	80Ra			

Body	Cast Aluminum
Cover	Tempered Glass 3.2T (Clear), Anti UV & Dust, Shatter Proof
Finish	Powder Coating
Light Distribution	15° / 30° / 45°
Control System	Wired (RS-485)

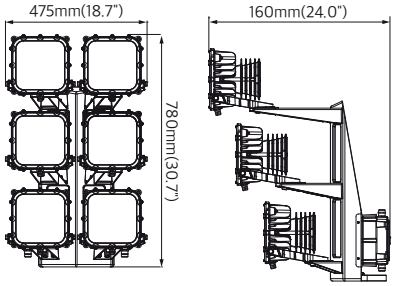
※ more details of Remote Driver(RED) on p.18

Dimensions

• SFM400



• SFM1K2



LED Flood Lighting - *Sports Flood Lighting*

SFA SUFA-A

High luminous efficacy

- Ultimate 1 to 1 replacement for 2kW HID
- Glare free & No light pollution from Narrow beam reflector
- Flicker free proven upto 1,500 fps ultra slow-motion
- High CRI & R9 Content better visibility
- Tilt and rotate for easy aiming
- Linkage with wired control system even for event light control

Application

Sports stadiums, Indoor Venues, Ports

Specifications

* Tolerance : ± 5%

Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SFA1K2	1200W	100 lm/W 105 lm/W 115 lm/W	120,000 lm 126,000 lm 138,000 lm	5000K (3000K, 4000K, 5700K available)	90 Ra 80 Ra 70 Ra	18.0 kg / 39.7 lb	DC100V (RED)	-30°C~55°C -22°F~131°F
SFA800	800W	100 lm/W 105 lm/W 115 lm/W	80,000 lm 84,000 lm 92,000 lm		90 Ra 80 Ra 70 Ra	13.0 kg / 28.6 lb	DC200V (BLU)	

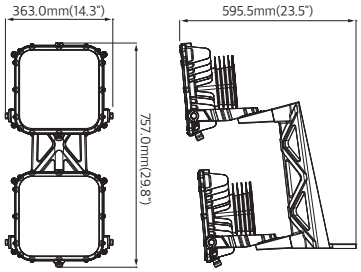
Body	Cast Aluminum
Cover	Tempered Glass 3.2T (Clear), Tempered Glass 4.0T (Clear, only 800W) Anti UV & Dust, Shatter Proof
Finish	Powder Coating

Light Distribution	15° / 30° / 45°
Control System	Wired(RS-485, DMX512), Wireless(only 800W), NEMA-7(only 800W)

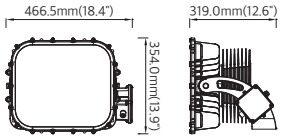
※ more details of Remote Driver(RED, BLU) on p.18~19

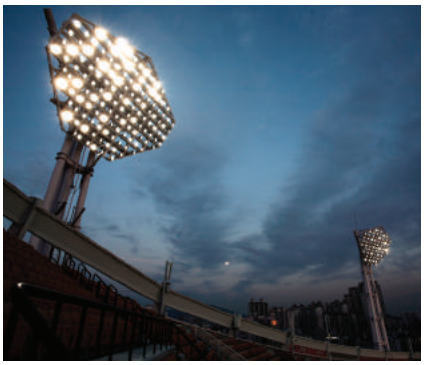
Dimensions

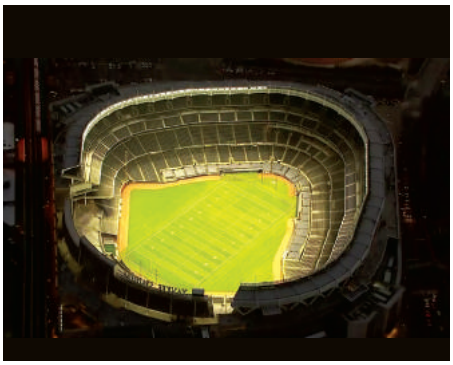
• SFA1K2



• SFA800







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SFX SUFA-X

IP 66

SFX600

Spectacular sports lighting comes with high efficacy and less glare optic technology

- No glare from Narrow beam reflector
- Flicker free 1,500 fps ultra slow-motion
- High CRI & R9 for better visibility
- Wired event lighting control system

Application

Sports stadiums, Indoor Venues, Ports

Specifications

* Tolerance : ± 5%

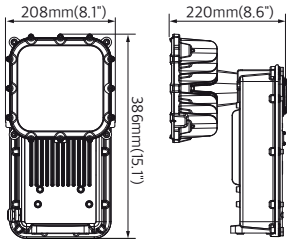
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SFX600	600W	105 lm/W 115 lm/W	63,000 lm 69,000 lm	5000K (3000K, 4000K, 5700K available)	80 Ra 70 Ra	16.6 kg / 36.6 lb	AC200~277V AC220~240V AC347~480V	-30°C~55°C -22°F~131°F
SFX200	200W	105 lm/W 115 lm/W	21,000 lm 23,000 lm		80 Ra 70 Ra	7.5 kg / 16.5 lb	AC100~277V AC347~480V	-30°C~60°C -22°F~140°F

Body	Cast Aluminum
Cover	Tempered Glass 3.2T (Clear), Anti UV & Dust, Shatter Proof
Finish	Powder Coating

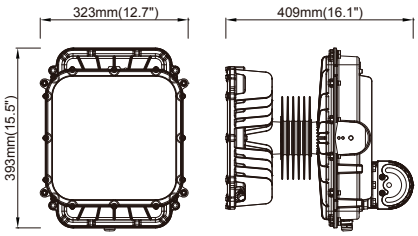
Mounting Option	Swivel Bracket
Light Distribution	15° / 30° / 45°
Control System	Wireless / Wired (RS-485)

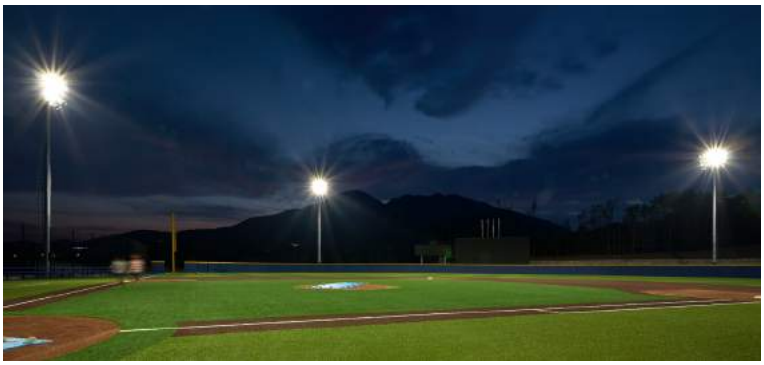
Dimensions

• SFX200



• SFX600





MA MAHA

IP 66

Unrivaled efficacy 145 lm/W

- Replacement for HID flood light
- Outstanding cooling technology and durability
- High-power LED light with middle power LED chips and reflector technology
- Excellent light distribution and minimized glare
- Smart lighting control using wireless or Receptacle

Application

Sporting Facilities, Airplane Hangars, Airport Aprons, Parking Lots, Harbour, Yard

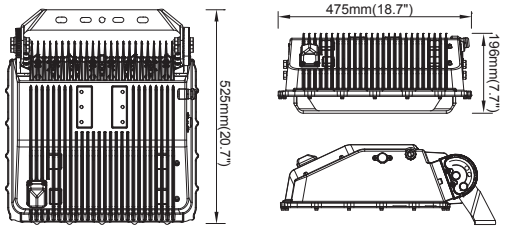
Specifications

* Tolerance : ± 5%

Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
MA300	300W	145 lm/W	43,500 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	15.0 kg / 33.1 lb	AC100~240 V AC100~277 V AC347~480 V	-30°C~55°C -22°F~131°F

Body	Cast Aluminum	Mounting Option	Swivel Bracket / Pole Mount Bracket
Cover	Tempered Glass 4T (Clear)	Light Distribution	Asymmetric Wide
Finish	Powder Coating	Control System	Wireless / NEMA-7

Dimensions



The above specifications were updated in October 2019 / The content may be subject to change without notice.

LED Flood Lighting - *Area Flood Lighting*

MAH MAHA-PLUS (Built-in driver type)

CB CE UL FC DLC K

Unrivaled efficacy 150 lm/W

- Asymmetric beam distribution enabling cost efficient 1 on 1 replacement for HID flood light
- Outstanding cooling technology and durability
- Excellent light distribution and minimized glare
- Smart lighting control using wireless or Receptacle

Application

Sporting Facilities, Airplane Hangars, Airport Aprons, Parking Lots, Harbour, Yard

Specifications

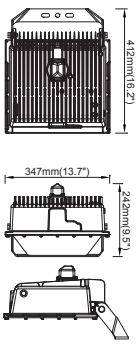
* Tolerance : ± 5%

Driver Type	Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
Built-in	**MAH800**	800W	120 lm/W	96,000 lm	5000K (3000K, 4000K, 5700K available)	70 Ra	25.2 kg / 56.2 lb	AC220~240 V AC200 ~277 V AC347~480 V	-30°C~55°C -22°F~131°F
	MAH600	600W	150 lm/W	90,000 lm		80 Ra	20.0 kg / 44.0 lb		
	MAH500	500W		75,000 lm			15.0 kg / 33.1 lb	AC220~240 V AC200 ~277 V	
	MAH400	400W		60,000 lm				AC100~240 V AC120~277 V AC347~480 V	
	MAH250	250W		37,500 lm			7.5 kg / 16.6 lb	AC220~240 V AC200~277 V AC347~480 V	
	MAH200	200W		30,000 lm				AC100~240 V AC120~277 V AC347~480 V	
	MAH150	150W	145 lm/W	21,750 lm				AC100~240V AC100~277V	-30°C~60°C -22°F~140°F

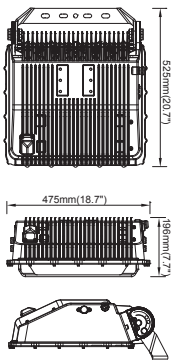
Body	Cast Aluminum	Mounting Option	Swivel Bracket / Pole Mount Bracket
Cover	Tempered Glass 4T (Clear)	Light Distribution	Asymmetric Wide
Finish	Powder Coating	Control System	Wireless / NEMA-7 (Except MAH800)

Dimensions

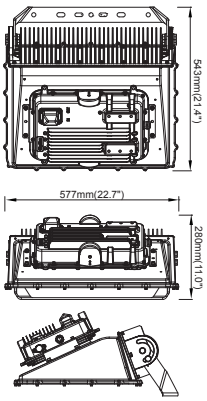
• MAH150 / MAH200 / MAH250



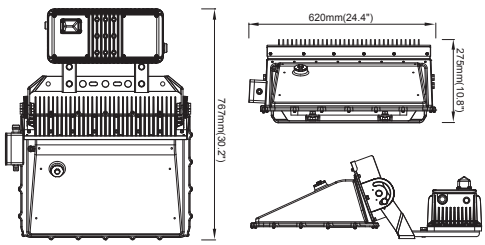
• MAH400 / MAH500



• MAH600



• MAH800



MAHA-PLUS (Remote driver type) MAH

Unrivaled efficacy 150 lm/W

- Asymmetric beam distribution enabling cost efficient 1 on 1 replacement for HID flood light
- Outstanding cooling technology and durability
- Excellent light distribution and minimized glare
- Smart lighting control using wireless or wired

Application

Sporting Facilities, Airplane Hangars, Airport Aprons, Parking Lots, Harbour, Yard

Specifications

* Tolerance : ± 5%

Driver Type	Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
Remote	**MAH800**	800W	120 lm/W	96,000 lm	5000K (3000K, 4000K, 5700K available)	70 Ra	15.2 kg / 33.5 lb	DC200V (BLU)	-30°C~55°C -22°F~131°F
	MAH500	500W	150 lm/W	75,000 lm		80 Ra	11.3 kg / 24.9 lb	DC100V (RED)	-30°C~53°C -22°F~127°F
	MAH400	400W		60,000 lm					

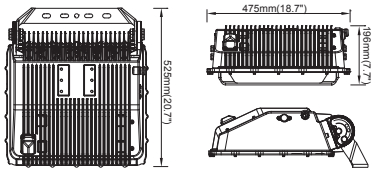
Body	Cast Aluminum
Cover	Tempered Glass 4T (Clear)
Finish	Powder Coating

Mounting Option	Swivel Bracket / Pole Mount Bracket
Light Distribution	Asymmetric Wide
Control System	Wireless(MAH800 only) / Wired (RS-485, DMX512)

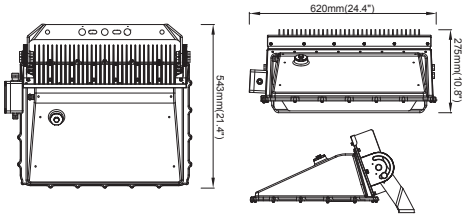
※more details of Remote Driver(RED, BLU) on p.18~19

Dimensions

• MAH400 / MAH500



• MAH800



RED Remote Driver

RED (External Remote Driver)

- The maximum cable distance between the product and RED driver is 2.5SQ or 13AWG, which is 70 meters.

Remote Driver IP box

IP 66

Application Products

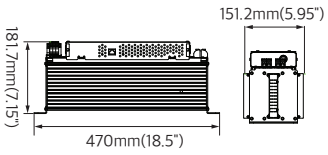
SMA400, SFH1K2, SFH600, SFA1K2, MAH500, MAH400

Specifications

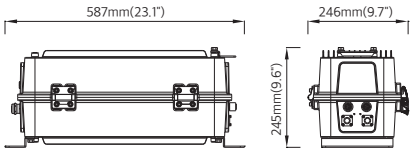
Model	Power	Input Voltage	Output Voltage	Input Current	Output Rated Current	Weight
RED1K2	1300W	AC200~277V AC200~240V AC220~240V AC347~480V	DC 100V	Max. 7.6A (@200Vac) Max. 4.4A (@347Vac)	Max. 6.5A x 2EA	13.0 kg / 28.7 lb
RED1K0	1100W			Max. 6.3A (@200Vac) Max. 3.7A (@347Vac)	Max. 5.5A x 2EA	
RED600	650W			Max. 3.8A (@200Vac) Max. 2.2A (@347Vac)	Max. 6.5A	10.0 kg / 22.0 lb

Dimensions

• RED (Remote Driver)



• RED IP BOX (Optional)



Appendix - *External Remote Driver*

BLU Remote Driver

BLU (External Remote Driver)

- The maximum cable distance between the product and BLU driver is 2.5SQ or 13AWG, which is 80 meters.

Application Product

SFA800, MAH800

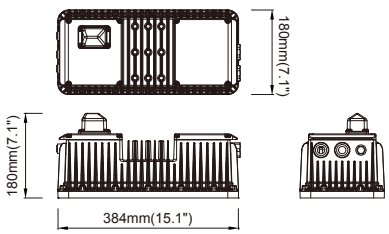
IP 66

Specifications

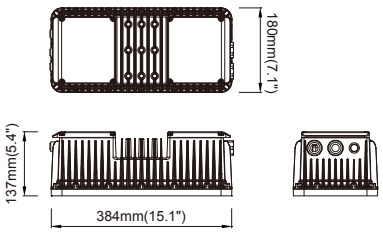
Model	Power	Input Voltage	Output Voltage	Input Current	Output Rated Current	Weight
BLU1K0	855W	AC200~277V AC200~240V AC347~480V	DC 200V	Max. 5.0A (@200Vac) Max. 2.9A (@347Vac)	Max. 4.5A	10.0 kg / 22.1 lb

Dimensions

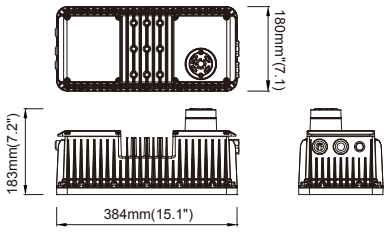
• Wireless

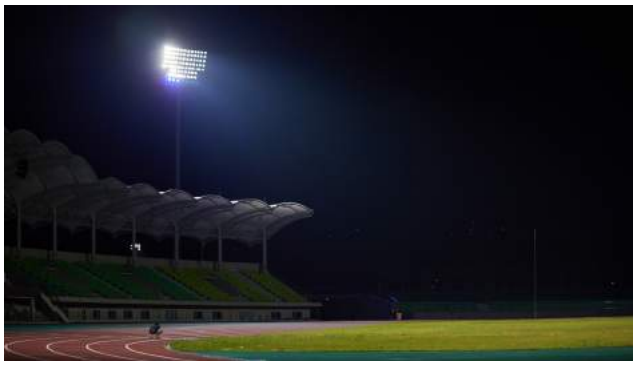


• Wired



• NEMA-7





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LED Flood Lighting - *façade Lighting*

MA RGB MAHA-RGB

IP 66

R
G
B

Highlighting the symbol of the place through inspiring night views

- Automatic RGB Color Conversion
- Optimized Wired Control Solutions through easy GUI-based program

Application

Bridge, Commercial Building, Village & Private House, Sports Arena

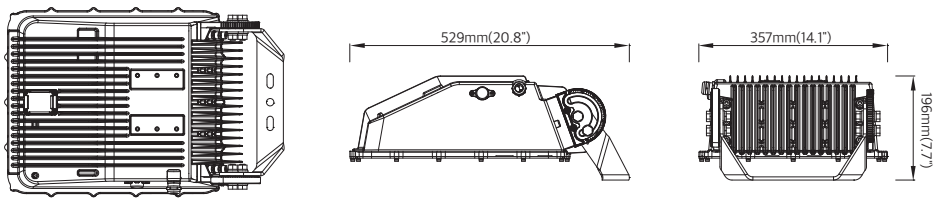
Specifications

* Tolerance : ± 5%

Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
MA070-RGB	70W	-	-	Full Color	80 Ra	10 kg / 22.1 lb	AC100~277V	-30℃~60℃ -22℉~140℉

Body	Cast Aluminum	Mounting Option	Surface Mount / Swivel Bracket
Cover	Tempered Glass 3.2T (Frosted)	Light Distribution	Asymmetric
Finish	Powder Coating	Control System	Wired (RS-485)

Dimensions



LED Bay Lighting

SEH SEGA-High Power

Optimize high bay factory

- Efficacy of 135 lm/W
- Optimized light distribution
- Maximized heat dissipation via unique vertical cooling structure
- Wireless and wired light control

Application

Factories, Warehouses, Sports Arenas, Airports, Gyms, Superstores, Airplane hangars

Specifications

* Tolerance : ± 5%

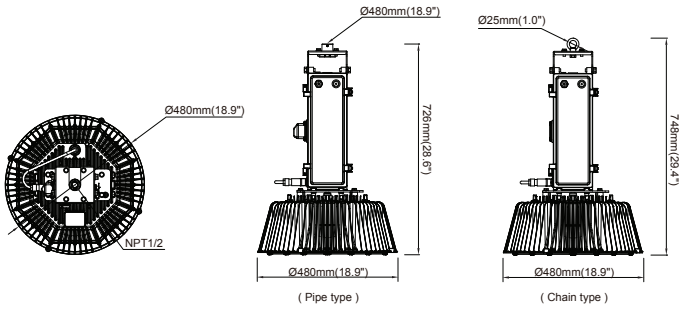
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SEH500	500W	135 lm/W	67,500 lm	5000K (3000K, 3500K, 4000K available)	80 Ra	20.0 kg / 44.1 lb	AC347~480V AC120~277V	-30°C~60°C -22°F~140°F
SEH450	450W		60,750 lm					
SEH400	400W		54,000 lm					

Body	Cast Aluminum
Cover	Tempered Glass 4T (Frosted)
Finish	Powder Coating

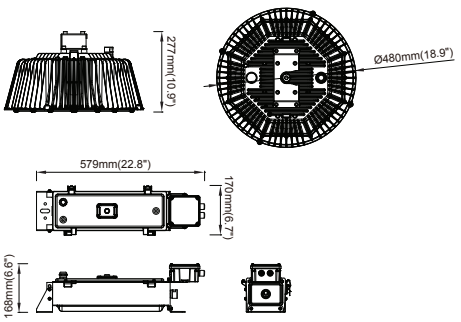
Mounting Option	Ceiling Bracket (Pipe / Chain)
Light Distribution	80°
Control System	Wireless / Wired(0-10V, RS-485, DMX-512)

Dimensions

• Integrated Driver type



• Separated Driver type



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LED Bay Lighting

SEJ SEGA-JP

High Power High Bay Lighting

- Efficacy of 140 lm/W
- Optimized light distribution
- Maximized heat dissipation via unique vertical cooling structure
- Wireless light control

Application

Factories, Warehouses, Sports Arenas, Airports, Gyms, Superstores, Airplane hangars

Specifications

* Tolerance : ± 5%

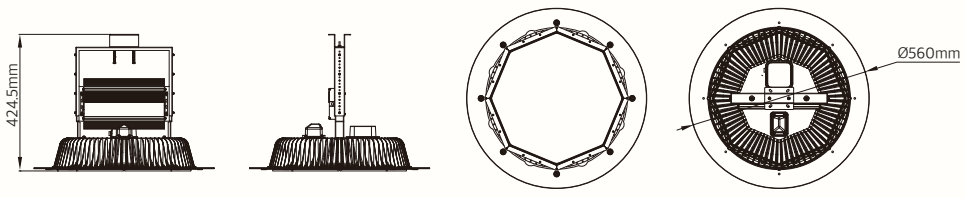
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SEJ320	320W	140 lm/W	44,800 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	9.0 kg / 19.8 lb	AC100~240V	-30°C~60°C -22°F~140°F
SEJ280	280W		39,200 lm					

Body	Cast Aluminum
Cover	Tempered Glass 3.2T (Frosted)
Finish	Powder Coating

Mounting Option	Ceiling Bracket(Height Adjustable type)
Light Distribution	80° (Symmetric)
Control System	Wireless

Dimensions

• SEJ 320 /280



LED Bay Lighting

SE SEGA

CB CE UL FC DLC PSE KC

Long life cycle with vertical thermal fin structure

- Unrivaled Efficacy 145 lm/W, 135 lm/W (*optional)
- Wireless dimming control (*optional)

IP 65

Application

Factories, Warehouses, Superstores, Sports Arenas, Airports, Gyms

Specifications

* Tolerance : ± 5%

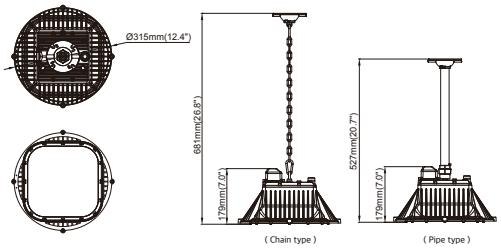
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SE200	200W	140 lm/W (F) 150 lm/W (C)	28,000 lm 30,000 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	6.0 kg / 13.2 lb	AC100~277V AC100~240V AC347~480V	-30°C~60°C -22°F~140°F
SE160	160W	135 lm/W (F) 145 lm/W (C)	21,600 lm 23,200 lm					
SE130	130W	135 lm/W (F) 145 lm/W (C)	17,550 lm 18,550 lm					
SE100	100W	135 lm/W (F) 145 lm/W (C)	13,500 lm 14,500 lm			4.4 kg / 9.7 lb	AC100~277V AC100~240V	
SE080	80W	135 lm/W (F) 145 lm/W (C)	10,800 lm 11,600 lm					

- C : Clear / F : Frosted

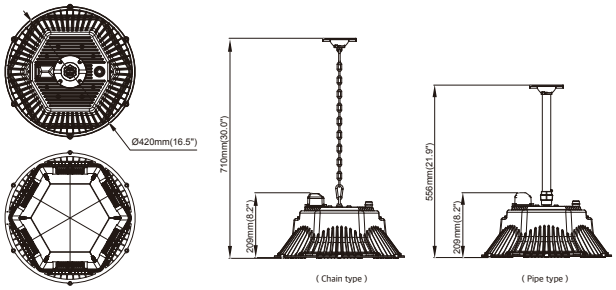
Body	Cast Aluminum
Cover	Tempered Glass 3.2T (Clear / Frosted)
Finish	Powder Coating
Mounting Option	Ceiling Bracket (Pipe / Chain)
Light Distribution	SE080, SE100 : 80° / 110° I SE130, SE160, SE200 : 90° / 130°
Control System	Wireless

Dimensions

• SE080 / SE100



• SE130 / SE160 / SE200



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LED Bay Lighting

EFL EFL

Amazing luminous efficacy 150 lm/W

- Excellent Cooling Structure
- Light weight
- Easy Replacement and Installation

Application

Factories, Superstores, Warehouses

Specifications

* Tolerance : ± 5%

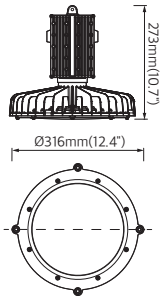
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
EFL130	130W	140 lm/W (F) 150 lm/W (C)	18,200 lm 19,500 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	4.9 kg / 10.8 lb	AC100~240V AC100~277V	-30°C~60°C -22°F~140°F
EFL100	100W	140 lm/W (F) 150 lm/W (C)	14,000 lm 15,000 lm					

- C : Clear / F : Frosted

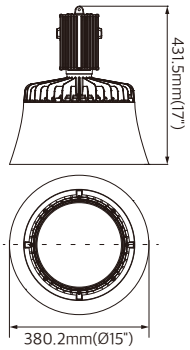
Body	Cast Aluminum
Cover	Glass or Polycarbonate (Diffuser)
Finish	Anodized
Mounting Option	Ceiling Bracket (Pipe and Chain)
Light Distribution	120° (Standard) / 80° (Option)
Control System	Wired (1-10V)

Dimensions

• EFL100 / EFL130



• EFL100 / EFL130 (Shade Type)



LED Bay Lighting

IBL IBL-PLUS

Visual comfort and high efficiency lighting

- Comfortable and soft bay light
- Easy replacement and installation

Application

Factories, Warehouses, Superstores, Sports Arenas, Airports, Gyms

Specification

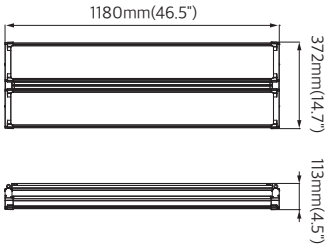
* Tolerance : ± 5%

Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
IBL400	400W	135 lm/W	54,000 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	11.0 kg / 24.3 lb	AC100~277V AC100~240V AC347~480V	-10°C~55°C 14°F~131°F
IBL300	300W		40,500 lm					
IBL200	200W		27,000 lm			6.9 kg / 15.2 lb		

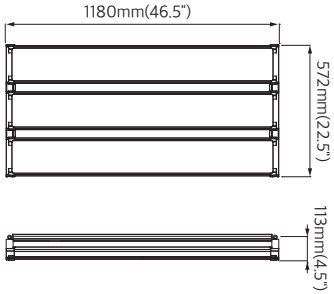
Body	Extruded Aluminum	Mounting Option	Wire Pendant
Cover	Polycarbonate (Clear)	Light Distribution	80° / 130°
Finish	Anodized	Control System	Wireless

Dimensions

• IBL200



• IBL300 / 400



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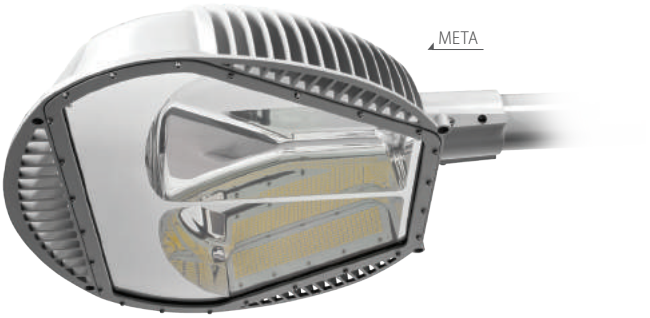
LED Roadway Lighting - *Street Lighting*

MT META



High Luminous Efficacy 140 lm/W

- Excellent Light Distribution and Uniformity
- Wireless Lighting Control
- Built-in 20kV Surge Protection Device

IP 66

Application

Expressway, Highways, Roadways, Streets

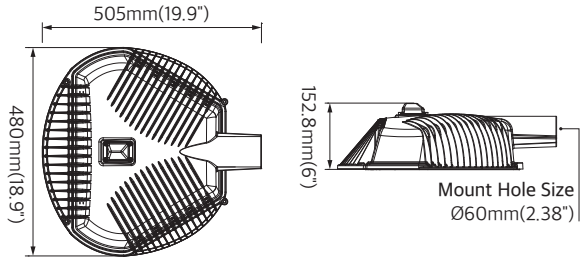
Specifications

* Tolerance : ± 5%

Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
MT180	180W	140 lm/W	25,200 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	7.9 kg / 17.4 lb	AC100~277 V AC100~240 V AC347~480 V	-30°C~60°C -22°F~140°F
MT150	150W		21,000 lm					

Body	Cast Aluminum
Cover	Tempered Glass 4T (Clear)
Finish	Powder Coating
Mounting Option	Horizontal Tenon Mount
Light Distribution	Type III-S
Control System	Wireless / Sensor (Daylight)

Dimensions



SET SETA

DLC CB CE UL FC PSE KC

IP 66

High Efficiency 135 lm/W

- Wireless Lighting Control
- Built-in 20kV Surge Protection Device

Application

Industry complexes, Business parks, Local-ways, Alley-ways

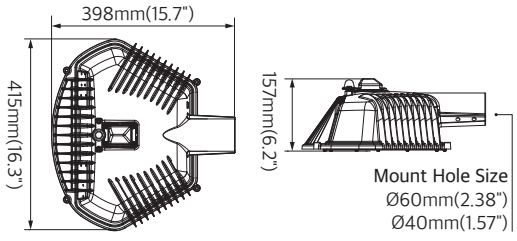
Specifications

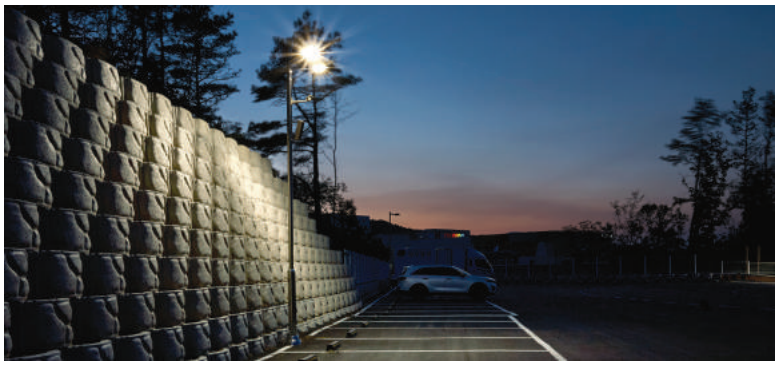
* Tolerance : ± 5%

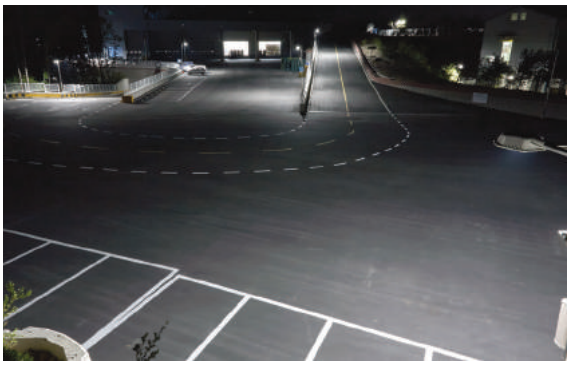
Model	Power	*Luminous Efficacy	*Luminous Flux	Color Temperature	CRI	Weight	Input Voltage	Operation Temperature
SET100	100W	135 lm/W	13,500 lm	5000K (3000K, 4000K, 5700K available)	80 Ra	4.5 kg / 9.9 lb	AC100~277 V AC100~240 V	-30°C~60°C -22°F~140°F
SET080	80W		10,800 lm					

Body	Cast Aluminum	**Mounting Option**	Horizontal Tenon Mount
Cover	Tempered Glass 4T (Clear)	**Light Distribution**	Type II-S
Finish	Powder Coating	**Control System**	Wireless / Sensor (Daylight)

Dimensions







The above specifications were updated in October 2019 / The content may be subject to change without notice.

Lighting Control System

USB Converter

This is connected to the PC's USB port

- In this device, the received control command is converted into a RS-485 communication signal and transmitted to the master unit.

Application

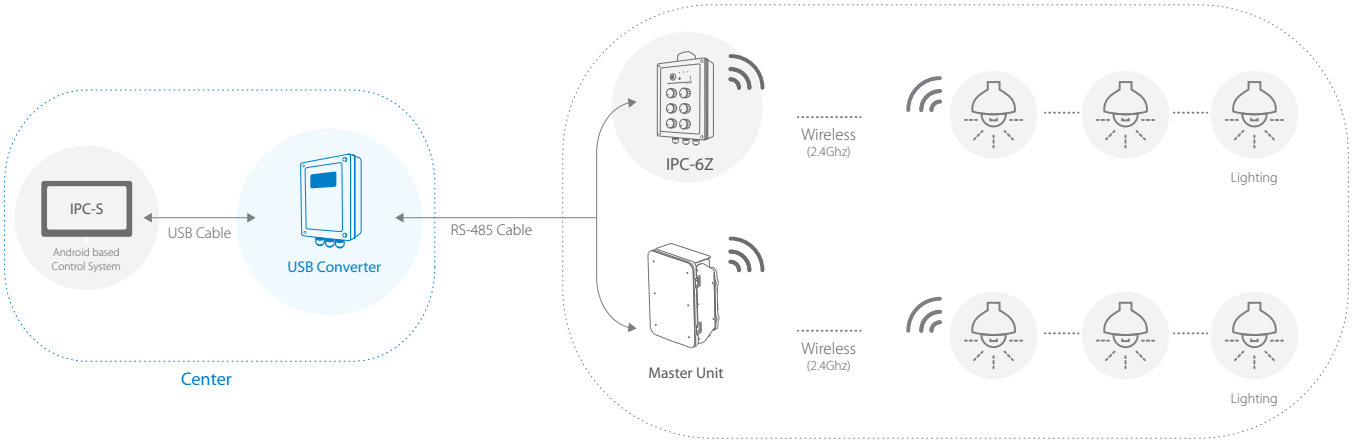
Industrial high bay, Sports Lighting, High mast, Flood Light, Indoor

Specifications

* Tolerance : ± 5%

Model	Power Consumption	Communication Method	Data Rate	Dimension	Weight	Input Voltage	Operation Temperature
USB Converter	Max. 1W	USB, RS-485	115,200[bps]	130 x 213 x 61 mm 5.1 x 8.4 x 2.4 inch	0.6 kg / 1.3 lb	DC 5V	-20°C~60°C -4°F~140°F

System configuration



* Wireless repeater is recommended for areas with poor signal reception

Lighting Control System

Master Unit Lighting Control Unit

This device transmits the control command of the GUI operation program

- For wired communications, the master unit can monitor and control a maximum of 32 lighting fixtures.
- For wireless communications, the master unit can monitor and control a maximum of 200 lighting fixtures.

Application

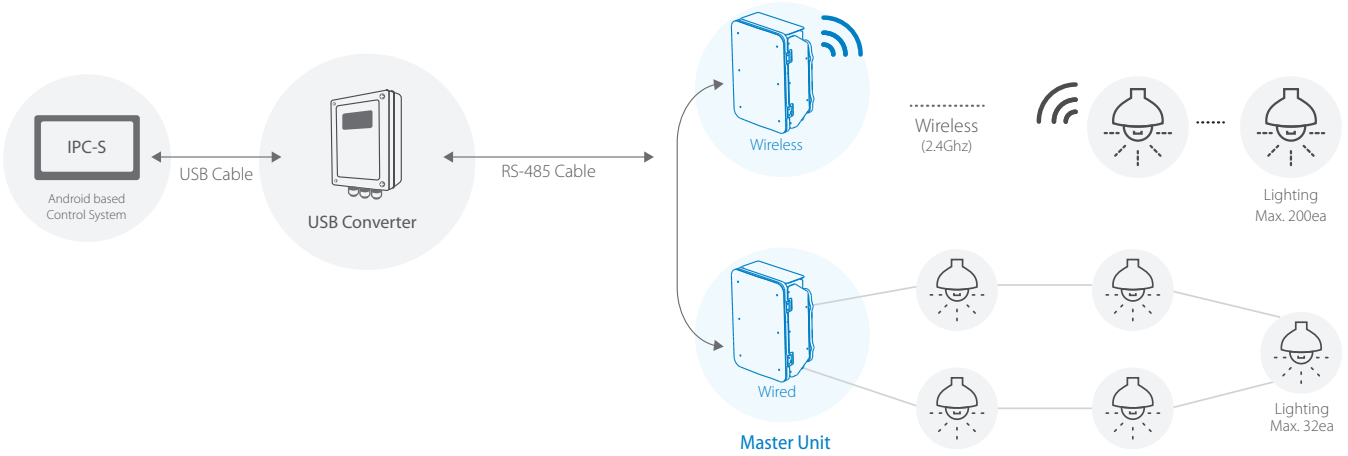
Industrial high bay, Sports Lighting, High mast, Flood Light

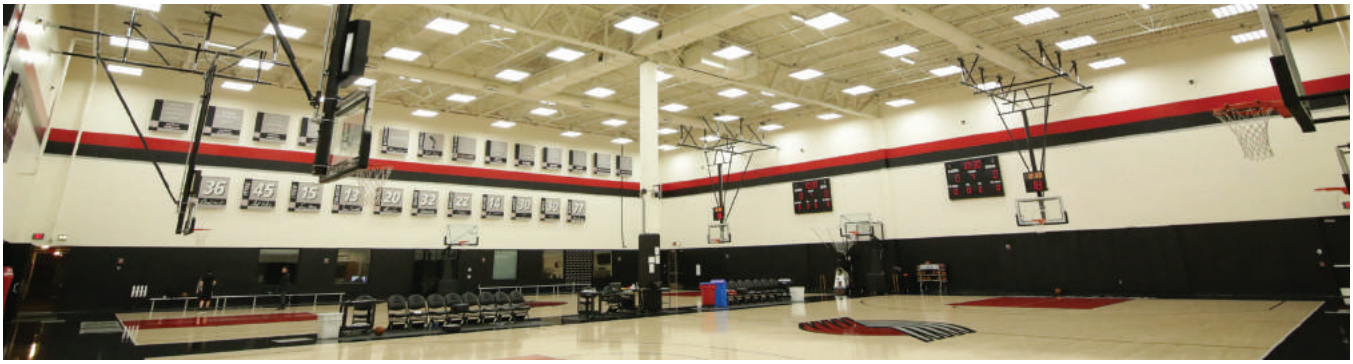
Specifications

* Tolerance : ± 5%

Model	Power Consumption	Communication Method	Data Rate	Dimension	Weight	Input Voltage	Operation Temperature
Master	Max. 2.5W	RS-485 Wireless 250kbps	115,200[bps]	216 x 336 x 140 mm 8.5 x 13.2 x 5.5 inch	3.8 kg / 8.4 lb	AC 100~240V AC 100~277V	-20℃~60℃ -4℉~140℉

System configuration





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Lighting Control System

IPC Intelligent Power Controller

Wall switch with dimming and schedule extension
Wireless control with 10-100% dimming range

- Intelligent Power Controller
- 10~100% Brightness control
- On/Off control for each zone and group
- Wireless sensor network control
- Easy group and zone settings using a remote controller
- IPC-1Z, IPC-2Z , IPC-3Z, IPC-6Z

Application

Industrial high bay, Sports Lighting, High mast

Specifications

* Tolerance : ± 5%

Model	Power Consumption	Communication Method	Data Rate	Dimension	Weight	Input Voltage	Operation Temperature
IPC 1Z / 2Z / 3Z	Max. 2.5W	RS-485 / Wireless	115,200[bps], 8-N-1 / Wireless 250kbps	105 x 265 x 100 mm 4.1x 10.4 x 3.9 inch	1.0 kg /2.0 lb	AC 100~277V AC 347~480V	-20°C~60°C -4°F~140°F
IPC - 6Z				180 x 305 x 100 mm 7.1x 12.0 x 3.9 inch	1.5 kg / 3.3 lb		

System configuration

(1Group / Max. 200ea Lighting Control)

* Wireless repeater is recommended for areas with poor signal reception

Lighting Control System

Gateway Roadway Lighting Control

The Gateway allows communication with command between the GeSS system and node.

- This action is carried by using 2G/3G wireless connection and Ethernet.
- Through wireless connection, the lighting fixture and node can be monitored and controlled.

Application

Highway, Roadway, Street

Specifications

* Tolerance : ± 5%

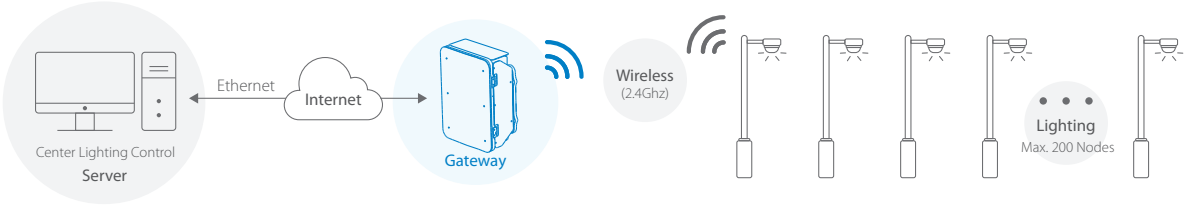
Model	Power Consumption	Communication Method	Dimension	Weight	Input Voltage	Operation Temperature
Gateway	Max. 2.5W	Ethernet, WCDMA (Web/GUI) Wireless (Lighting)	216 x 336 x 140 mm 8.5 x 13.2 x 5.5 inch	3.8 kg / 8.4 lb	AC 100~240V AC 100~277V	-20°C~60°C -4°F~140°F

System configuration

*For local control only due to the distance limitation

• Wireless

• Wired



*** Notes** | Up to monodirectional *LOS@200M is valid between the gateway and the first node.
One gateway can be used to control up to 200 roadway lightings.

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About GigaTera

Giga, stands for the frequency range in wireless telecommunications,
Tera, stands for the frequency range in LED lighting.

GigaTera pursues a unique and state-of-the-art
IT converged lighting technology in intended for
contributing to human society.

The most current version of this document will always be available in website

www.gigateraled.com

GigaTera reserves the right to make changes without notice
in order to supply the best product possible.

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