

# Proposal of Sports & Big space lighting



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**STELLON** Brightly anywhere

Illuminates us everywhere...

Stellar is a sport. We will put light into your space with a special brand of space lighting.

As a special sports, big space lighting brand Stellon brings light into your place.

Stellon realizes lighting design that is optimized for sports and large space lighting spaces.

Create a perfect lighting space with a delicate lighting design and a stable light environment.



※Stellon is representative brand of eGM Tech

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## Introduction

Company name : eGMTECH

President : Seounghun Kim

Establishment : December 29, 2010

Address : 86-21, 1 Gongdan-ro,  
Gumi, Gyeongsangbuk-do  
Korea



※e-GM Tech side night view

# History

- 2015**
  - DEC** Launched R,G,B color lighting
  - SEP** Launched SLIM series
  - AUG** Applied Sealing, mixing equipment : semi automated system
  - SEP** Launched SLIM series
  - JUN** Participated in 2015 Gyeongbuk South east asia trade delegation
  - MAY** Participated in 2015 Gyeongbuk CIS trade delegation
  - MAR** Participated in 2015 Gyeongbuk middle east trade delegation
  - MAR** ISO 14001:2004 / ISO 9001:2008 / G-CERTI
  - FEB** IP STAR company selected / Gyeongbuk regional intellectual property center

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- 2014**
  - DEC** Participated in the 2014 G-fair Malaysia Kuala Lumpur
  - NOV** Participated as the 2014 Asia Trade Mission Group (in Jakarta, Bangkok)
  - OCT** Participated in the 2014 LED Japan Conference & EXPO
  - OCT** Concluded an MOU with philippines company
  - OCT** Participated in the industry-academia project (Dongguk University)
  - OCT** Participated in the 2014 Excellent Product Exhibition in the Philippines and North Gyeongsang Province
  - SEP** Participated in the 2014 Hansang Network
  - JAN** JAN Certified as Green Technology Company (No. GE-14-00002)

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- 2013**
  - OCT** Dual-seal waterproof floodlight and its method
  - OCT** KC-certified for the NF220V32NA model Korea Testing & Research Institute
  - SEP** Registered the filling guide and floodlight cable waterproofing method based on it No. 10-1306924GH by the Korean Intellectual Property Office
  - AUG** Obtained Green Technology Certificate (No. GT-13-00178) Minister of Trade, Industry and Energy
  - AUG** Increase in capitals (recapitalization)
  - MAY** Registered the eligibility for procurement bidding Public Procurement Service
  - MAY** Confirmed to be Venture Company Small & medium Business Corporation
  - MAY** Certified for direct production / Korea Federation of SMEs
  - MAY** Signed an investment deal on the development for coastal and special lighting system with Japan-based NBS
  - FEB** Registered the production plant / Korea Industrial Complex Corporation
  - JAN** Expanded and moved the current plant in Gongdan-dong

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- 2012**
  - MAY** Applied the waterproof/damp proof technology to complete the development project of the 30W LED floodlight

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- 2011**
  - OCT** Embarked on the waterproof damp proof technology development project

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- 2010**
  - DEC** Established eGM Tech Co.,Ltd

- 2018**
  - FEB** IP68 Waterproof certificated obtained
  - APR** Participated trade missions in Turkey
  - MAY** Participated in Japan Trade Mission
  - MAY** Participation in LEDTEC AISA

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- 2017**
  - FEB** Awarded the Governor's commendation on the 53rd Daegu-Gyeongbuk Trade day ceremony
  - MAR** The 4th Gyeongbuk clean management awards on march 3rd
  - APR** Participated in the 2017 LEDTEC ASIA in Hochiminh, Vietnam
  - MAY** Participated in 2017 Asia trade delegation
  - SEP** Participated in JAPAN trade delegation
  - OCT** Awarded Gyeongsangbuk-do New Growth Company

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- 2016**
  - DEC** 2016 Participated in the 2016 Futures club ASIA trade delegation
  - DEC** Awarded the Governor's commendation on the 53rd Daegu-Gyeongbuk Trade day ceremony
  - OCT** Participated in 2016 Hong Kong International lighting Fair Autumn Edition
  - SEP** Participated in 2016 LEDTEC ASIA, Hanoi, Vietnam
  - APR** Participated in 2016 India trade delegation
  - APR** Certified CE, FCC, PSE certification
  - MAR** Slim model design patented
  - MAR** High efficiency certificate
  - FEB** Participated in 2016 Asia trade delegation
  - FEB** Relocateion for expansion



# Certification



# Business

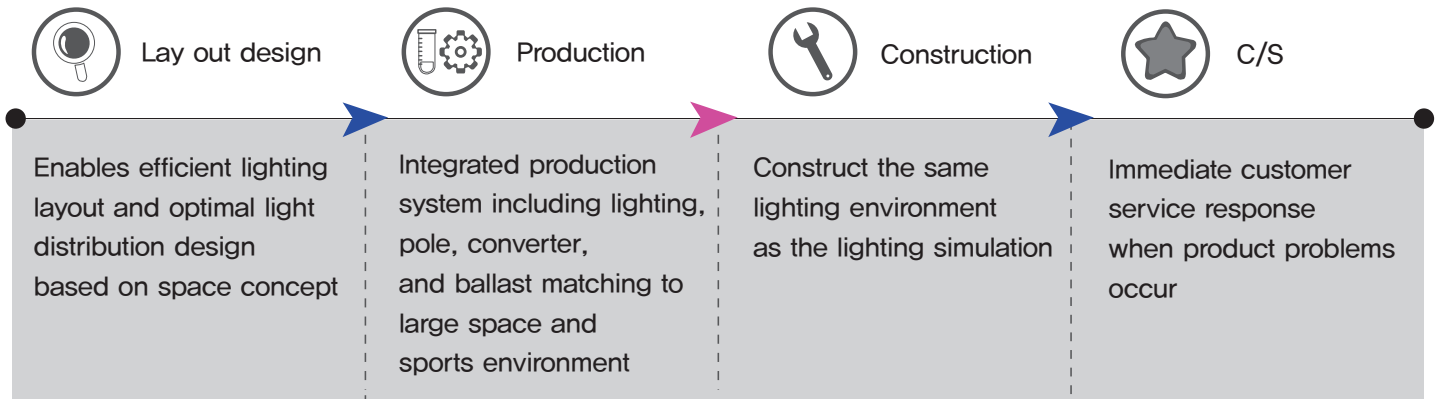


| Location                 | Use        | Installation place    | Model    | lighting count |
|--------------------------|------------|-----------------------|----------|----------------|
| Seoul hangang park       | Sports     | Futsal field          | 150W     | 8ea            |
| Pakistan jinnah Stadium  | Sports     | gymnasium             | 300W     | 114ea          |
| Kyung il university      | Sports     | soccer field          | 300W     | 108ea          |
| luge circuit (Tongyeong) | Theme park | Circuit               | 35WR,G,B | 450ea          |
| yok ji do (Tongyeong)    | Sports     | Tennis court          | 150W     | 16ea           |
| Sinjeri Gyeongsan        | Sports     | Foot volleyball court | 300W     | 16ea           |
| Andong university        | Sports     | Swimming pool         | 50W,80W  | 32ea           |
| hayang-eup Gyeongsan     | Big space  | Intersection          | 300W     | 16ea           |



# STELLON Intergrated Solution

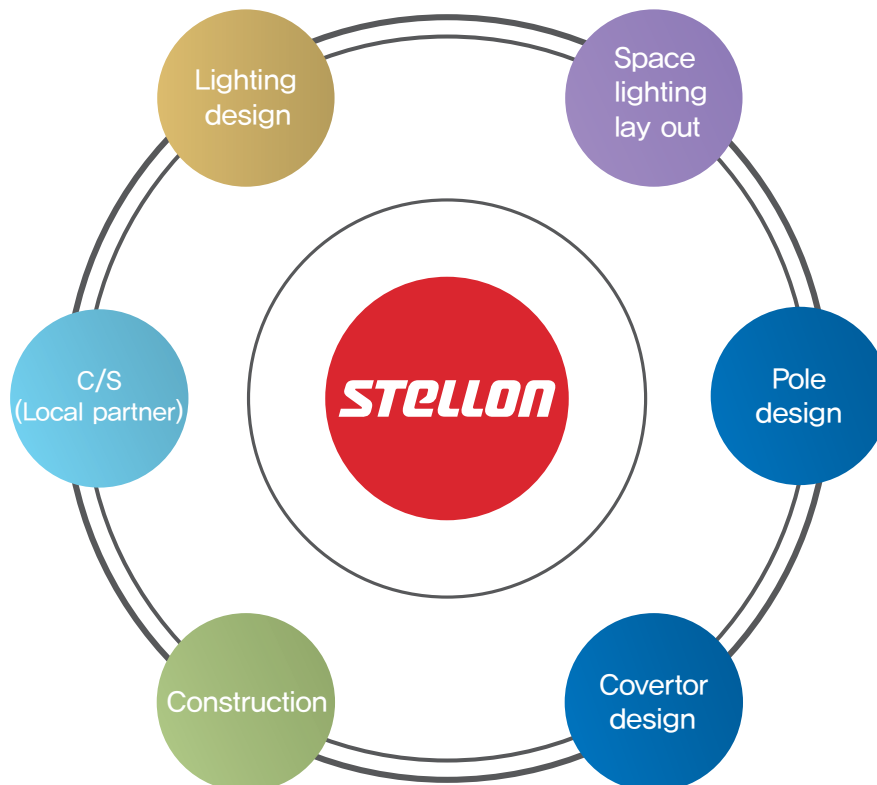
## Total lighting system process



Stellon is a leading brand of e-GM Tech, which produces various LED lighting including large space and sports lighting

Based on the experience of installation of various large-sized space and sports lighting, we are moving away from the strategy of the lighting manufacturer which simply supplies only the lighting

We are making a satisfying lighting by using the lighting identity utilization strategy that makes the identity of the space lighting unified based on the integrated system,



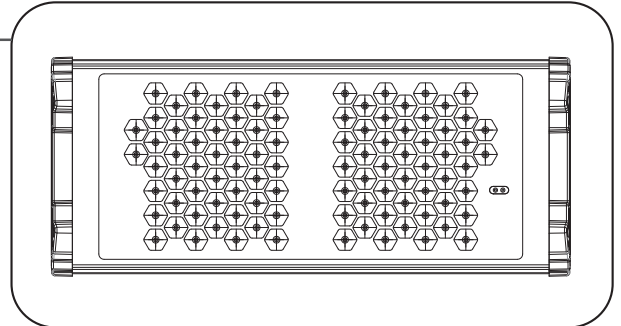


# STELLON Strong point of Stellon Lighting

## Stellon LED lights

Stellon LED lighting is 100% waterproof, moisture proof dustproof and highly durable with 2 patented technologies.

One side 20°, 20°, 40°, 60° Lens and 120° angle to minimize glare and optimize spatial illumination for light distribution in various environments.



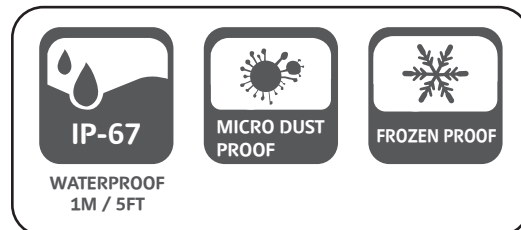
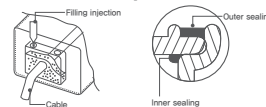
### HQI Replaceable Products

- Replacement of metal halide 1KW, 1.5KW
- 10 ~ 25% luminous flux increase
- Long lifespan, eco-friendly, saving energy management costs (compared to metal halide lighting)



### 100% Waterproof

- IP68
- 2 related patent



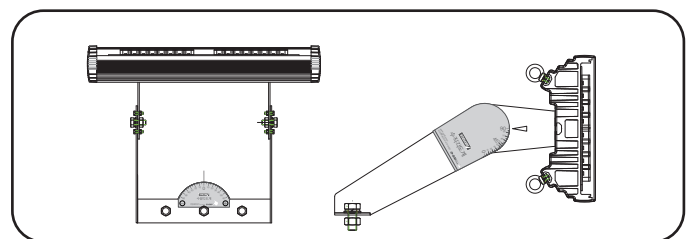
### Electricity cost reduction

- 30 ~ 40% Electricity savings (compared to HQI)
- Saving electricity consumption 3 ~ 5 times



### Horizontal, vertical aiming angle diagram

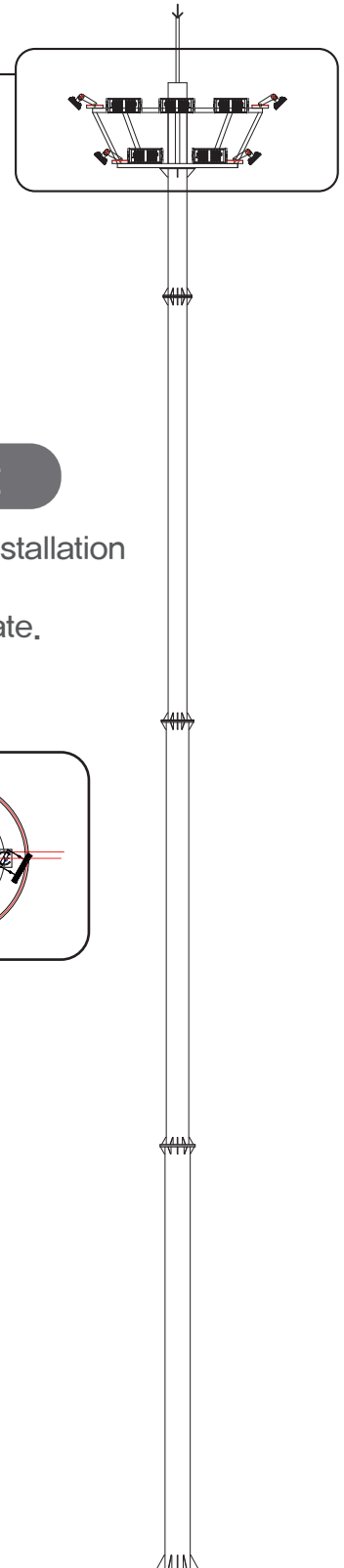
- Attaching angle diagram to lighting
- Angle alignment possible when replacing light



# STELLON Strong point of Stellon Pole

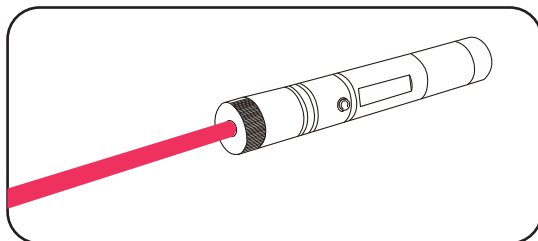
## Stellon Pole (Pipe, taper, lighting tower)

Stellon Pole can cope with any space and sports environment from pipe pole to taper and lighting tower pole according to the environment. Electrical wiring is installed inside the poles and the finish is clean. Ballast box space is provided at the bottom of the pole for stability and aesthetics.



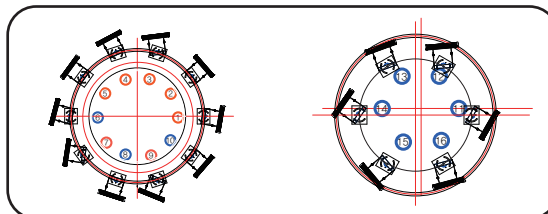
### Lighting aiming laser

- Precise direction measurement for required illuminance
- Saves work, construction time and easy to check aiming



### Rotating pole light

- If there is no restriction on installation environment, 360 degree work surface can be illuminate.



### Installation Height Wire Specification Table

-Product Wire Specification Table according to Pole Height(300W,600W)

| Height    | Wire standard (AWG) | Cross section (mm <sup>2</sup> ) | Shape |
|-----------|---------------------|----------------------------------|-------|
| Under 12m | 15                  | 1.5                              |       |
| 13~21m    | 13                  | 2.5                              |       |
| 22~34m    | 11                  | 4                                |       |

※ Ex) For 21m pole height, wire should be 13 AWG (cross-sectional 2.5mm)

# **STELLON** Lighting lay out simulation

Stellon implements 3D lighting lay out simulations for large spaces and sports spaces based on optimal lighting design.



# STELLON

## Comparison of the operating cost saving from 10 years of intersection

### Stellon energy saving

Stellon always strives to save the natural environment and energy

In comparison with the conventional technology,  
the energy saving rate is **78%!!**



### 10 years Maintenance cost reduction table

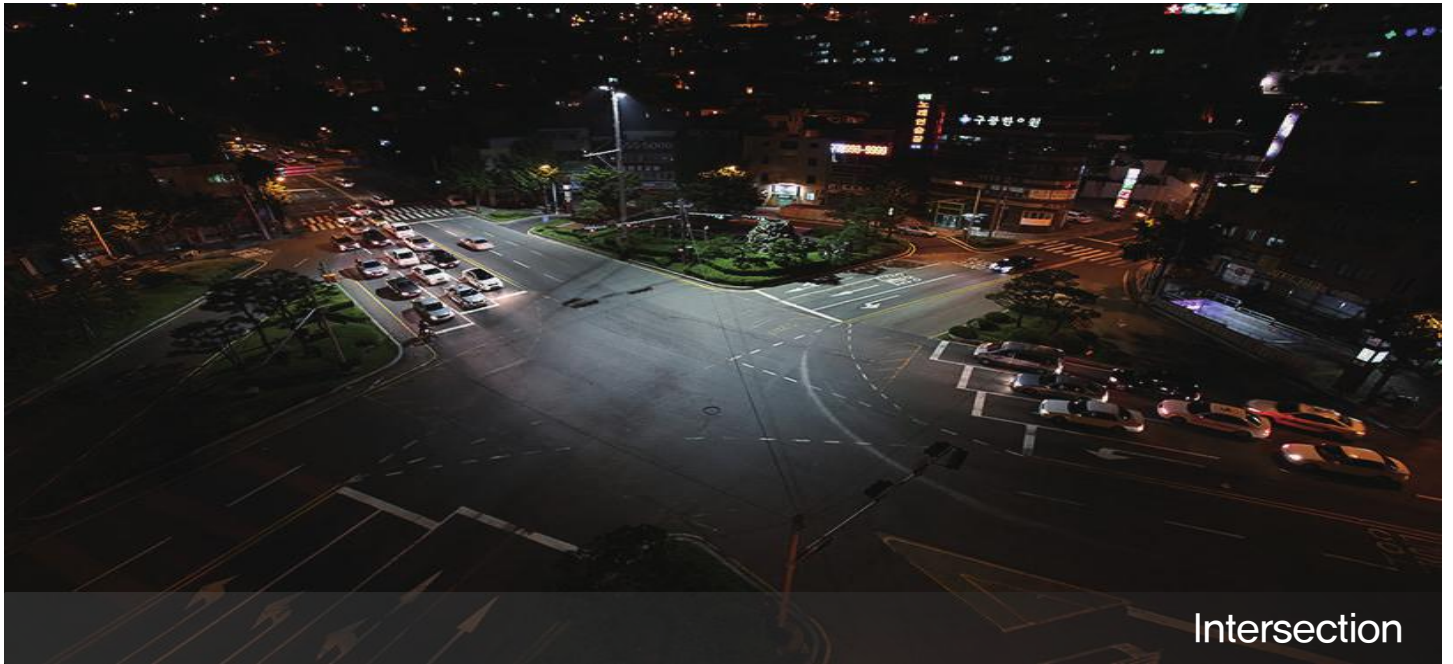
| 10 hours a day                 | Conventional street light<br>(Partly illuminate) | Conventional street light<br>(Wholely illuminate) | M company lighting<br>(Wholely illuminate : Avg.65lx) | <b>STELLON</b> lighting<br>(Wholely illuminate : Avg.65lx) |
|--------------------------------|--|---|---|--|
| Lighting type & quantity       | 400W 36ea/pcs                                    | 400W 72ea/pcs                                     | 1500W 6ea/pcs   | 300W 19ea/pcs  |
| Power consumption per hour     | 14.4KW   | 28.8KW  | 9KW   | 5.7KW  |
| Power consumption for 10 years | 525,600  | 1,051,200   | 328,500   | 208,050  |
| Power cost                     | \$525,600  | \$1,051,200                                       | \$328,500   | \$208,050  |
| Lighting replacement cost      | \$105,000  | \$210,000   | free of charge  | free of charge   |
| Maintenance cost               | \$305,000  | \$610,000   | free or charge  | free of charge   |
| Estimated cost                 | \$936,600  | \$1,871,200                                       | \$328,500   | <b>\$208,050</b>   |

### Estimation of savings

- 3 of intersections
- Partly illuminate:Partly illuminated by the crosswalk
- Wholely illuminate:Uniformly illuminate the whole area
- Electricity cost :1\$/Kwh, labor cost 100\$/12ea
- Lamp replacment request for 10 years:5times
- Conventional lighting and ballast :100\$ / set
- Other maintenance :Maintenance of facility outside the lamp

### Additional savings compared to M company

- Repositioning device
- Anti glare device
- Smart lamp system
- >No need for 3 kinds of accessories :  
Reduced cost by \$3,300



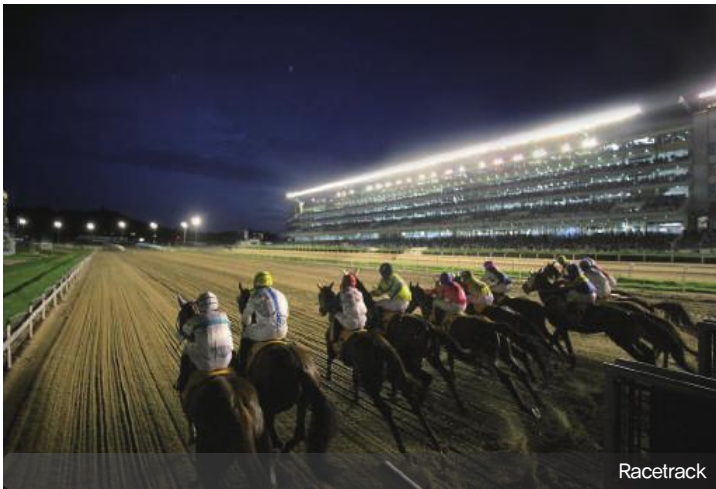
# Big space



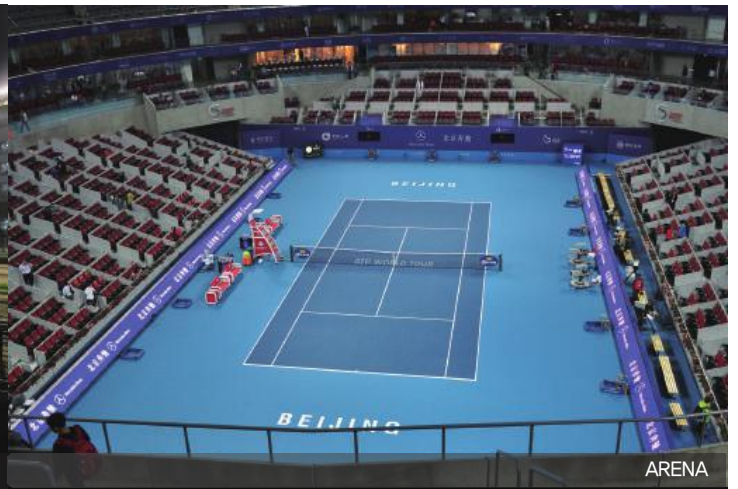


Stadium

# Sports space



Racetrack



ARENA



Baseball stadium



GOLF

# LED Flood lighting 100W



## Big space lighting 100W

100% waterproof, damp proof, dust proof  
oil proof floodlight fully supported to big space  
factory, sports and leisure lighting



■ : STANDARD (Perfect water proof(IP68 certificate, related patent) and 60~70% savings electricity cost

| Total flux | Luminance efficiency | Beam angle                            | CRI     | CCT                  |
|------------|----------------------|---------------------------------------|---------|----------------------|
| 10,200(lm) | 102lm/w              | One side 20° / 20° / 40° / 60° / 120° | Over 80 | 5700K<br>4000K 3000K |

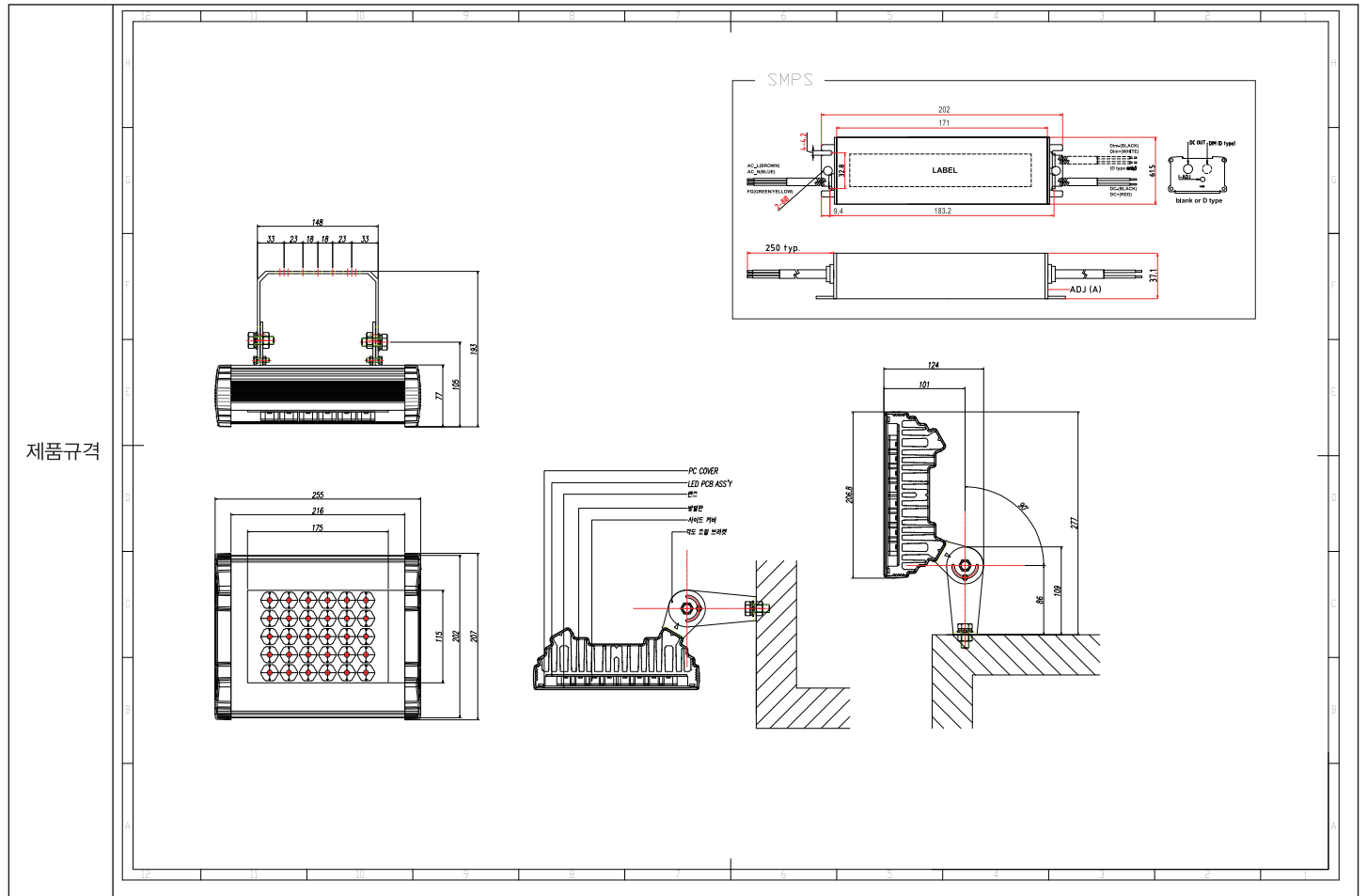
| Converter          | Input voltage          | Power consumption | PF        | Converter efficiency |
|--------------------|------------------------|-------------------|-----------|----------------------|
| Union<br>Mean well | AC100V~250V<br>50/60Hz | 100W              | Over 0.95 | 90%                  |

| IP level | IK level | Weight                            | Working temperature | Heatsink material | Cover material |
|----------|----------|-----------------------------------|---------------------|-------------------|----------------|
| IP68     | IK10     | Lighting 3.5kg<br>Converter 0.8kg | -40~50°C            | AL 6063           | Poly Carbonate |

## LED Flood lighting 100W classification

| Product name | Details name of product | Name of item                          | Purpose   |
|--------------|-------------------------|---------------------------------------|---|
| Light        | Flood light             | PL220V100WCS2-CW (One side 20 degree) | Indoor & Outdoor lighting tower<br><br>Leisure & Sports lighting<br><br>High ceiling factory<br><br>Large ware house etc. |
|              |                         | PL220V100WC20-CW (20 degree)          |   |
|              |                         | PL220V100WC40-CW (40 degree)          |   |
|              |                         | PL220V100WC60-CW (60 degree)          |   |
|              |                         | PL220V100WNA-CW (120 degree)          |   |

# LED Flood lighting 100W Dimension





# LED Flood lighting 150W



## Big space lighting 150W

100% waterproof, damp proof, dust proof  
oil proof floodlight fully supported to big space  
factory, sports and leisure lighting



■ : STANDARD (Perfect water proof(IP68 certificate, related patent) and 60~70% savings electricity cost

| Total flux | Luminance efficiency | Beam angle                            | CRI     | CCT                  |
|------------|----------------------|---------------------------------------|---------|----------------------|
| 15,450(lm) | 103lm/w              | One side 20° / 20° / 40° / 60° / 120° | Over 80 | 5700K<br>4000K 3000K |

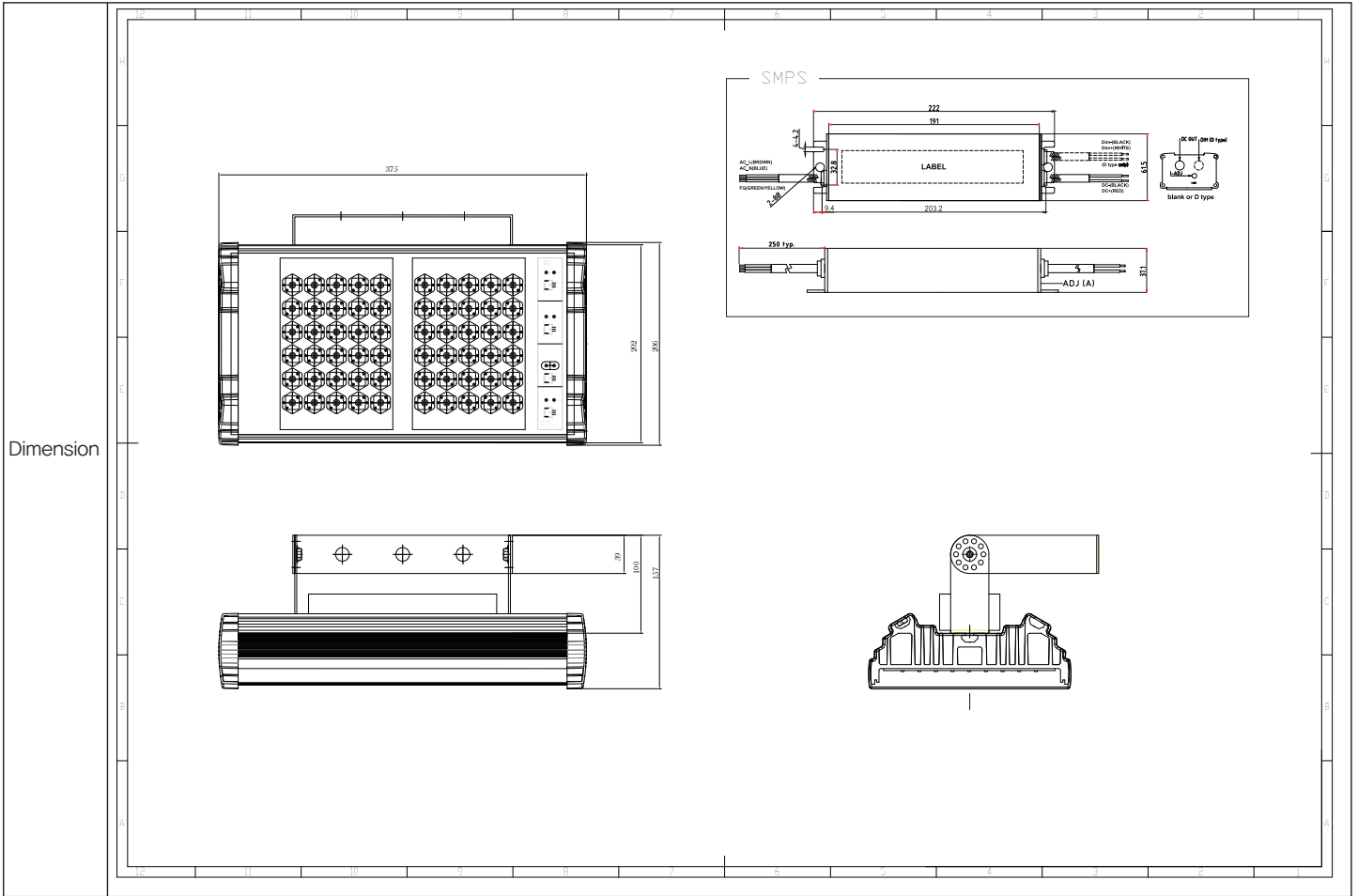
| Converter          | Input voltage          | Power consumption | PF        | Converter efficiency |
|--------------------|------------------------|-------------------|-----------|----------------------|
| Union<br>Mean well | AC160V~305V<br>50/60Hz | 150W              | Over 0.95 | 90%                  |

| IP level | IK level | Weight                        | Working temperature | Heatsink material | Cover material |
|----------|----------|-------------------------------|---------------------|-------------------|----------------|
| IP68     | IK10     | Lighting 4kg<br>Converter 1kg | -40~50°C            | AL 6063           | Poly Carbonate |

## LED Flood lighting 150W classification

| Product name | Details name of product | Name of item                          | Purpose   |
|--------------|-------------------------|---------------------------------------|---|
| Light        | Flood light             | PL220V150WCS2-CW (One side 20 degree) | Indoor & Outdoor lighting tower<br><br>Leisure & Sports lighting<br><br>High ceiling factory<br><br>Large ware house etc. |
|              |                         | PL220V150WC20-CW (20 degree)          |   |
|              |                         | PL220V150WC40-CW (40 degree)          |   |
|              |                         | PL220V150WC60-CW (60 degree)          |   |
|              |                         | PL220V150WNA-CW (120 degree)          |   |

# LED Flood lighting 150W Dimension



Dimension

# LED Flood lighting 200W



## Big space lighting 200W

100% waterproof, damp proof, dust proof  
oil proof floodlight fully supported to big space  
factory, sports and leisure lighting



■ : STANDARD (Perfect water proof(IP68 certificate, related patent) and 60~70% savings electricity cost

| Total flux | Luminance efficiency | Beam angle                            | CRI     | CCT                  |
|------------|----------------------|---------------------------------------|---------|----------------------|
| 19,830(lm) | 103lm/w              | One side 20° / 20° / 40° / 60° / 120° | Over 80 | 5700K<br>4000K 3000K |

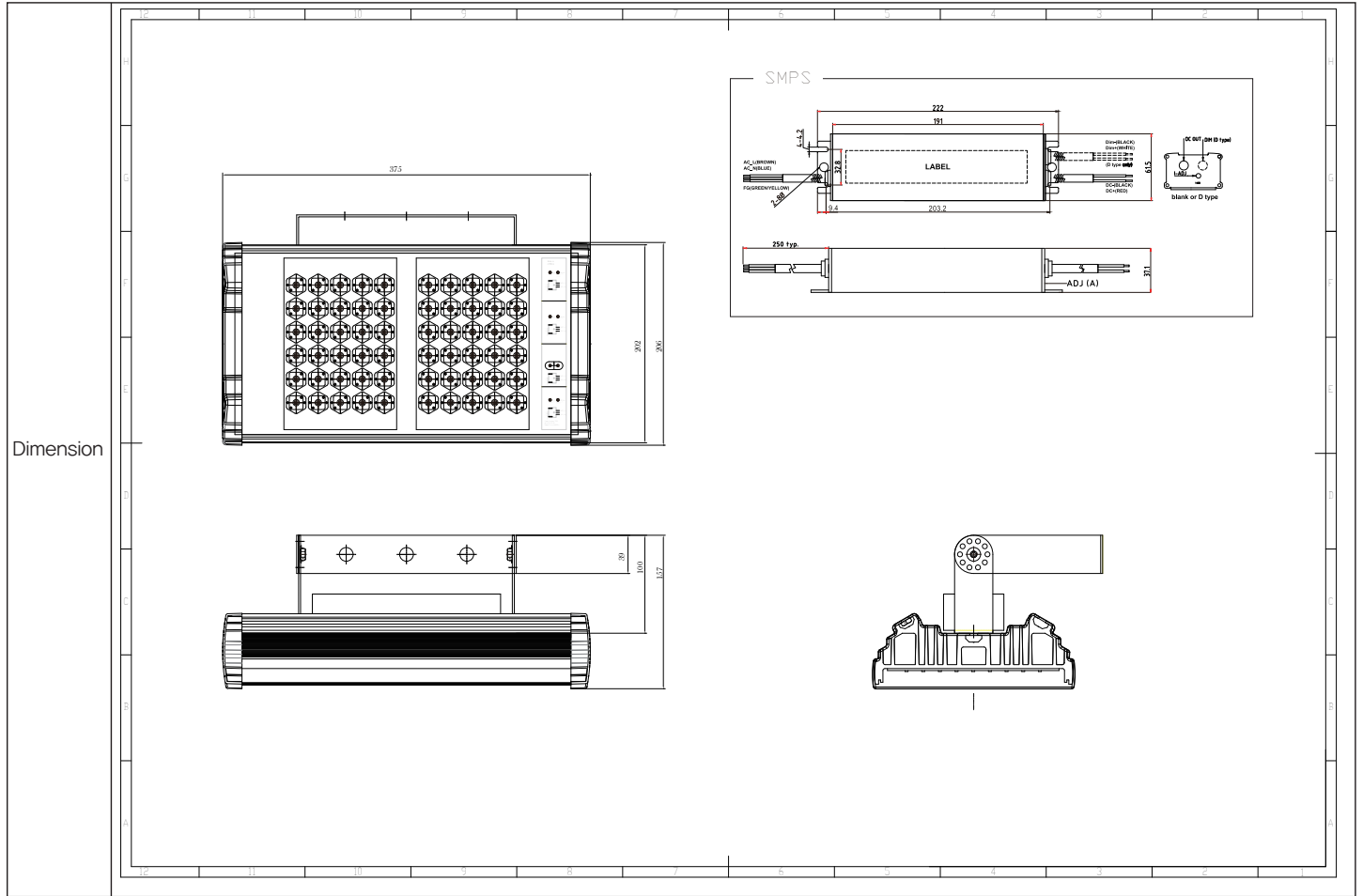
| Converter          | Input voltage          | Power consumption | PF        | Converter efficiency |
|--------------------|------------------------|-------------------|-----------|----------------------|
| Union<br>Mean well | AC100V~250V<br>50/60Hz | 200W              | Over 0.95 | 90%                  |

| IP level | IK level | Weight                        | Working temperature | Heatsink material | Cover material |
|----------|----------|-------------------------------|---------------------|-------------------|----------------|
| IP68     | IK10     | Lighting 4kg<br>Converter 1kg | -40~50°C            | AL 6063           | Poly Carbonate |

## LED Flood lighting 200W classification

| Product name | Details name of product | Name of item                          | Purpose   |
|--------------|-------------------------|---------------------------------------|---|
| Light        | Flood light             | PL220V200WCS2-CW (One side 20 degree) | Indoor & Outdoor lighting tower<br><br>Leisure & Sports lighting<br><br>High ceiling factory<br><br>Large ware house etc. |
|              |                         | PL220V200WC20-CW (20 degree)          |   |
|              |                         | PL220V200WC40-CW (40 degree)          |   |
|              |                         | PL220V200WC60-CW (60 degree)          |   |
|              |                         | PL220V200WNA-CW (120 degree)          |   |

# LED Flood lighting 200W Dimension



Dimension

# LED Flood lighting 300W



## Big space lighting 300W

100% waterproof, damp proof, dust proof  
oil proof floodlight fully supported to big space  
factory, sports and leisure lighting



■ : STANDARD (Perfect water proof(IP68 certificate, related patent) and 60~70% savings electricity cost

| Total flux | Luminance efficiency | Beam angle                       | CRI     | CCT                  |
|------------|----------------------|----------------------------------|---------|----------------------|
| 38,000(lm) | 126lm/w              | One side 20°/ 20°/ 40°/ 60°/120° | Over 80 | 5700K<br>4000K 3000K |

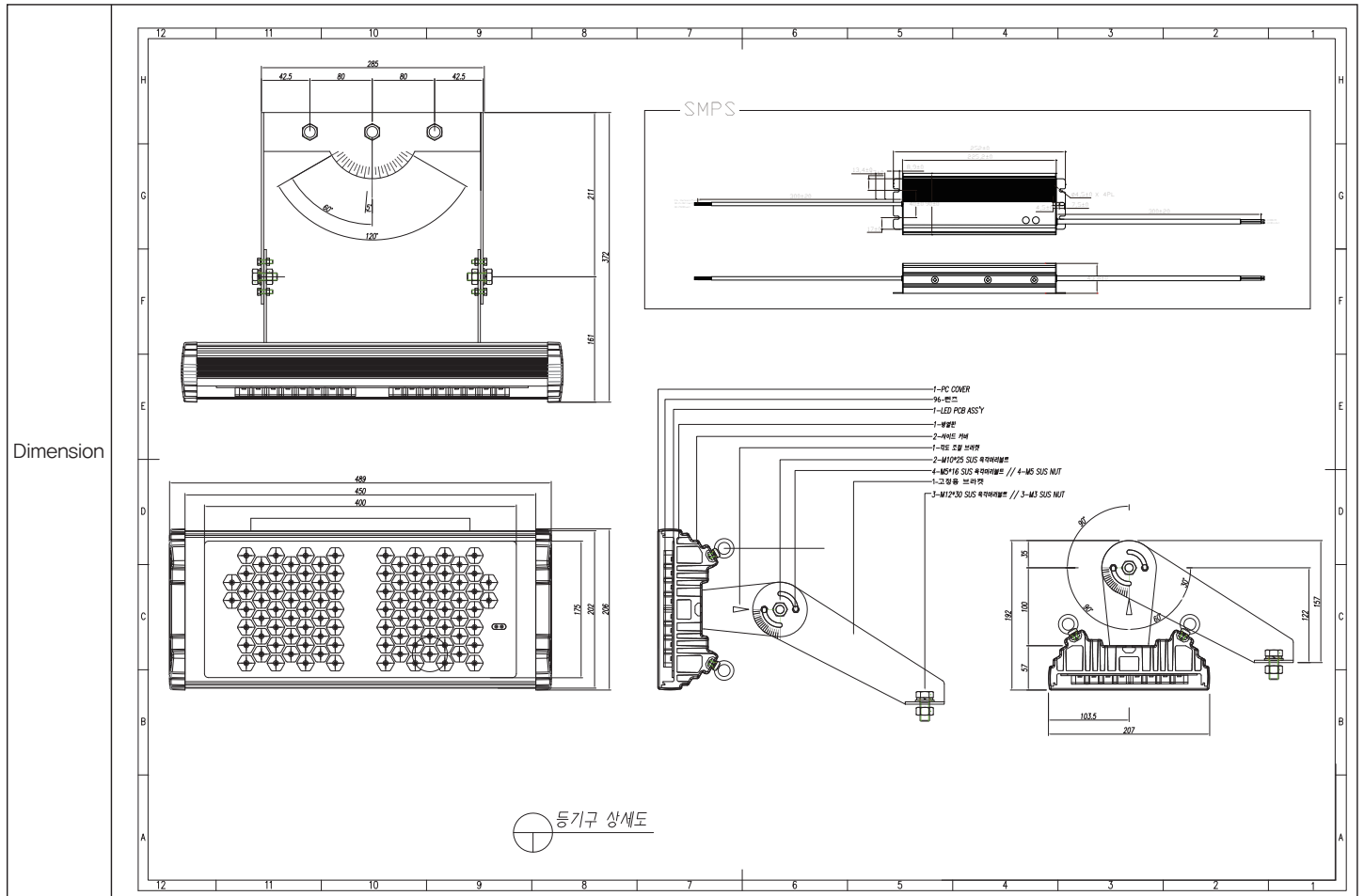
| Converter | Input voltage          | Power consumption | PF        | Converter efficiency |
|-----------|------------------------|-------------------|-----------|----------------------|
| Mean well | AC 90V~305V<br>50/60Hz | 300W              | Over 0.95 | 90%                  |

| IP level | IK level | Weight                            | Working temperature | Heatsink material | Cover material |
|----------|----------|-----------------------------------|---------------------|-------------------|----------------|
| IP68     | IK10     | Lighting 6.5kg<br>Converter 1.5kg | -40~50°C            | AL 6063           | Poly Carbonate |

## LED Flood lighting 300W Dimension

| Product name | Details name of product | Name of item                          | Purpose   |
|--------------|-------------------------|---------------------------------------|---|
| Light        | Flood light             | PL220V300WCS2-CW (One side 20 degree) | Indoor & Outdoor lighting tower<br><br>Leisure & Sports lighting<br><br>High ceiling factory<br><br>Large ware house etc. |
|              |                         | PL220V300WC20-CW (20 degree)          |   |
|              |                         | PL220V300WC40-CW (40 degree)          |   |
|              |                         | PL220V300WC60-CW (60 degree)          |   |
|              |                         | PL220V300WNA-CW (120 degree)          |   |

# LED Flood lighting 300W Dimension



## Installation Height Wire Specification Table

-In case of DC (Product Wire Specification Table according to Pole Height(300w,600w))

| Height    | Wire standard (AWG) | Cross section (mm <sup>2</sup> ) | Shape |
|-----------|---------------------|----------------------------------|-------|
| Under 12m | 15                  | 1.5                              |       |
| 13~21m    | 13                  | 2.5                              |       |
| 22~34m    | 11                  | 4                                |       |

※ Ex) For 21m pole height, wire should be 13 AWG (cross-sectional 2.5mm)

# LED Flood lighting 600W



## Big space lighting 600W

100% waterproof, damp proof, dust proof  
oil proof floodlight fully supported to big space  
factory, sports and leisure lighting



■ : STANDARD (Perfect water proof(IP68 certificate, related patent) and 60~70% savings electricity cost

| Total flux | Luminance efficiency | Beam angle                       | CRI     | CCT                  |
|------------|----------------------|----------------------------------|---------|----------------------|
| 76,000(lm) | 126lm/w              | One side 20°/ 20°/ 40°/ 60°/120° | Over 80 | 5700K<br>4000K 3000K |

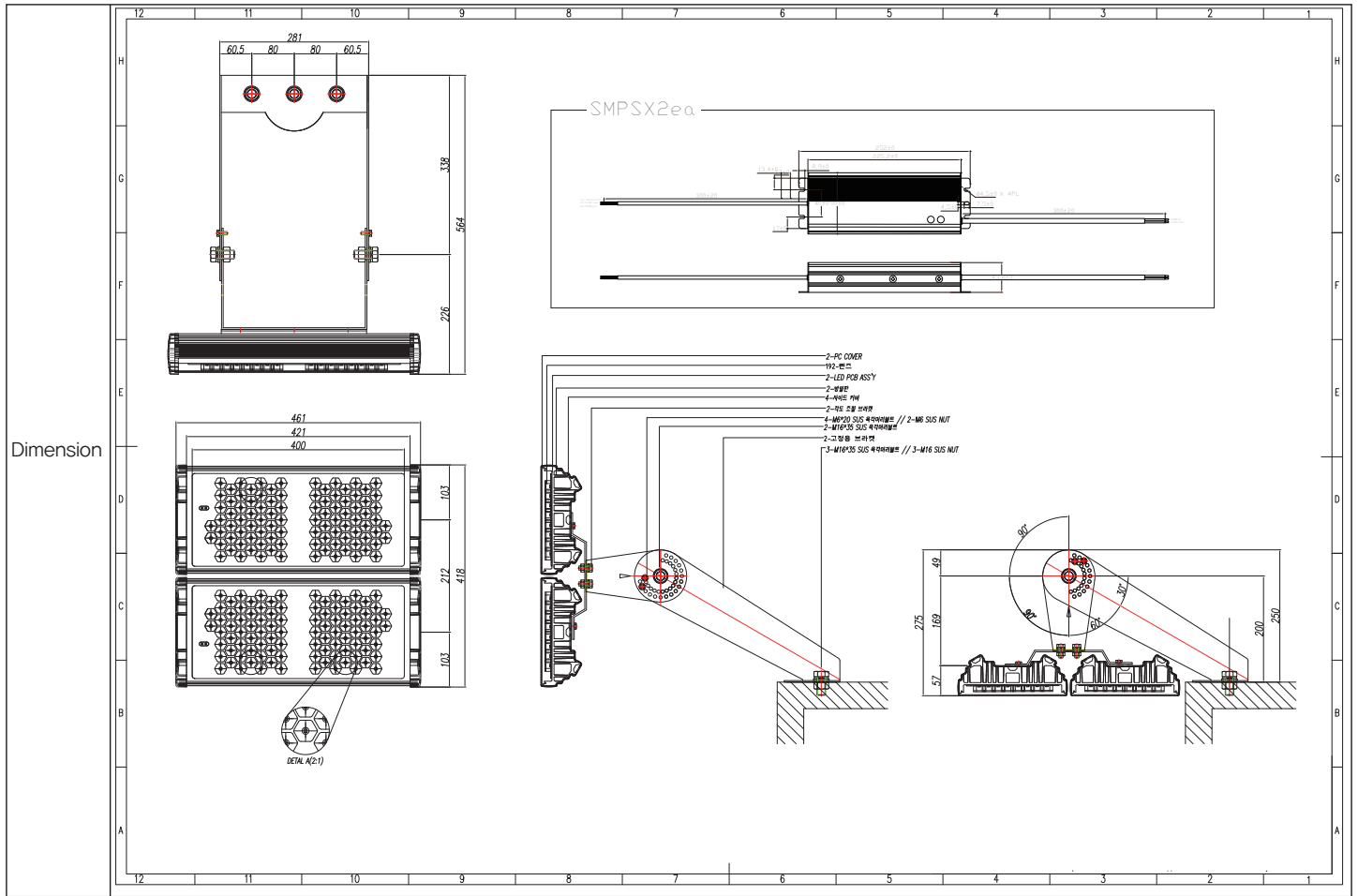
| Converter | Input voltage          | Power consumption | PF        | Converter efficiency |
|-----------|------------------------|-------------------|-----------|----------------------|
| Mean well | AC 90V~305V<br>50/60Hz | 600W              | Over 0.95 | 90%                  |

| IP level | IK level | Weight                           | Working temperature | Heatsink material | Cover material |
|----------|----------|----------------------------------|---------------------|-------------------|----------------|
| IP68     | IK10     | Lighting 13kg<br>Converter 1.5kg | -40~50°C            | AL 6063           | Poly Carbonate |

## LED Flood lighting 300W Dimension

| Product name | Details name of product | Name of item                          | Purpose   |
|--------------|-------------------------|---------------------------------------|---|
| Light        | Flood light             | PL220V300WCS2-CW (One side 20 degree) | Indoor & Outdoor lighting tower<br><br>Leisure & Sports lighting<br><br>High ceiling factory<br><br>Large ware house etc. |
|              |                         | PL220V300WC20-CW (20 degree)          |   |
|              |                         | PL220V300WC40-CW (40 degree)          |   |
|              |                         | PL220V300WC60-CW (60 degree)          |   |
|              |                         | PL220V300WNA-CW (120 degree)          |   |

# LED Flood lighting 600W Dimension



## Installation Height Wire Specification Table

-In case of DC(Product Wire Specification Table according to Pole Height(300w,600w))

| Height    | Wire standard (AWG) | Cross section (mm <sup>2</sup> ) | Shape |
|-----------|---------------------|----------------------------------|-------|
| Under 12m | 15                  | 1.5                              |       |
| 13~21m    | 13                  | 2.5                              |       |
| 22~34m    | 11                  | 4                                |       |

※ Ex) For 21m pole height, wire should be 13 AWG (cross-sectional 2.5mm)





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[www.stellon.net](http://www.stellon.net)