

## Product Specification

Control number : A09366A0600101A-006

Date of issue : 21,February, 2020

Product name : High Power LED Spot Illumination

Model name : IMM-MCEP-C□8-070-3  
□:R (Red), G (Green), B (Blue), W (White)

Product No. : A09366

|          |   |                 |                     |
|----------|---|-----------------|---------------------|
| Appendix | : | Outline drawing | A09366A0102101*-### |
|          |   |                 | A09366A0102201*-### |
|          |   |                 | A09366A0102301*-### |
|          |   |                 | A09366A0102401*-### |

\* : Compatibility    # : Revision

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– Revision history –

[illegible]

## 1. Application

This specification shall apply to LED illumination “MCEP” manufactured for standard product by MORITEX Corporation.

## 2. Feature

This product is Coaxial Illumination which has a tip of dia. 8mm .

## 3. Connection

### 3.1. Power Supply Connections

You can use by connecting the LED controller “MLEP-A070series” mounted on this product. For details about specifications of LED controller, please refer to delivery specifications.

### 3.2. Connector

#### 3.2.1. Type

|           | Illumination side                  | Power supply side                   |
|-----------|------------------------------------|-------------------------------------|
| Connector | SMR-03-B (JST Mfg. Co., Ltd.)      | SMP-03V-BC (JST Mfg. Co., Ltd.)     |
| Contact   | SYM-001T-P0.6 (JST Mfg. Co., Ltd.) | SHF-001T-0.8BS (JST Mfg. Co., Ltd.) |

#### 3.2.2. Pin assignment

Refer to Outline drawing.

## 4. Specification

### 4.1. Product specification

|                                   |                                                                                                               |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------|
| Maximum rating / Wattage          | 0.70 [A] / 3 [W]                                                                                              |
| Operating temperature / Humidity  | 0~45 [°C] / 20~80 [%RH] (with no condensation)                                                                |
| Storage temperature / Humidity    | -20~60 [°C] / 20~85 [%RH]<br>(with no condensation)                                                           |
| Mounting screw                    | Refer to Outline drawing                                                                                      |
| Weight                            | 45 [g]                                                                                                        |
| Applicable environmental criteria | RoHS *1                                                                                                       |
| International Protection          | IP2X(IEC 60529 / JIS C0920) *2                                                                                |
| EU Directive                      | RoHS Directive (2011/65/EU, (EU)2015/863)<br>Compliance                                                       |
| Environmental initiatives         | RoHS Directive (2011/65/EU, (EU)2015/863)<br>Conformity<br>REACH Regulation ((EC) No 1907/2006)<br>Compliance |

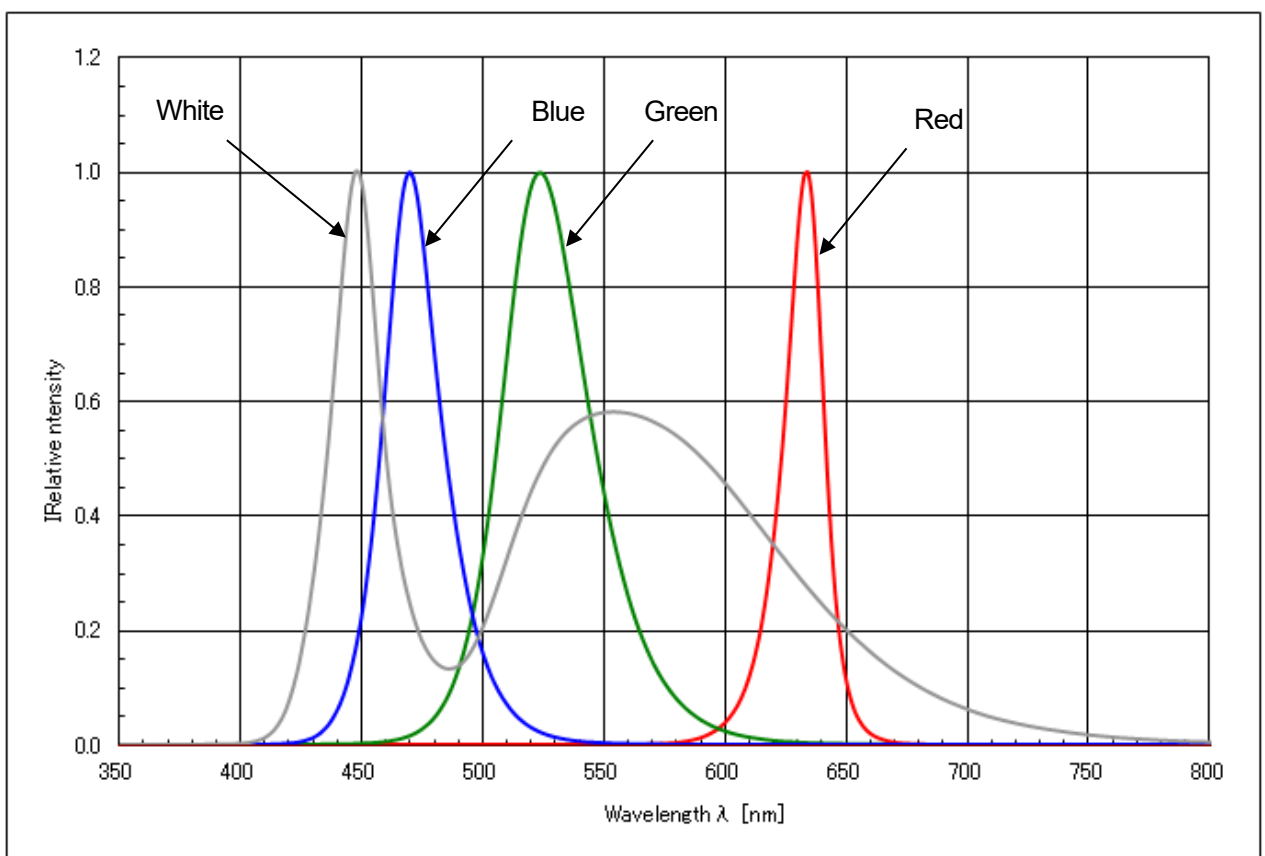
#### 4.2. Characteristics (Single LED)

\*From specification sheet of LED manufacture

Optical Characteristics ( $T_a = 25 [^{\circ}\text{C}]$ )

| Color | Specification |          |          | Condition / Remark                            |
|-------|---------------|----------|----------|-----------------------------------------------|
|       | MIN           | TYP      | MAX      |                                               |
| Red   | 620[nm]       | 627[nm]  | 645[nm]  | Dominant wavelength / $I_F = 350 [\text{mA}]$ |
| Green | 520[nm]       | 530 [nm] | 550[nm]  |                                               |
| Blue  | 460[nm]       | 470[nm]  | 490[nm]  |                                               |
| White | 5000[K]       | 5500[K]  | 10000[K] | Color temperature / $I_F = 350 [\text{mA}]$   |

#### 4.3. Wavelength characteristics(reference)



#### 4.4. External appearance

Refer to Outline drawing.

#### 4.5. Protection

##### 4.5.1. International Protection

This product is based on IP2X.

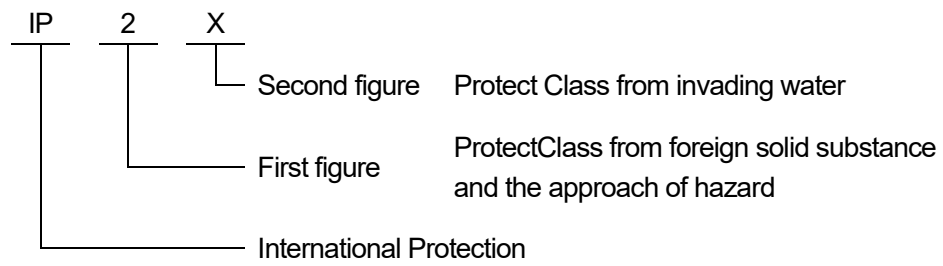
##### 4.5.2. Protection in detail

Protected the approach of hazard(battery equipment) touching by fingers .

Protected the suffering foreign solid substance up to dia. 12.5mm.

No protected from invading water.

#### 4.5.3. IP code information



#### 4.6. Optional extra

| Product name    | Model Name | Remark |
|-----------------|------------|--------|
| Extension Cable | M-RCB301L  | 1m     |
|                 | M-RCB302L  | 2m     |
|                 | M-RCB303L  | 3m     |

## 5. Reliability

### 5.1. Test items

| Test                         | Reference standard            | Condition                                                                                                                                                 |
|------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vibration                    | JIS C 0040<br>(IEC 60068-2-6) | Amplitude $\pm 0.35\text{mm}$<br>Acceleration 7G<br>Frequency 10~150Hz<br>Direction 3 axis (X, Y, Z)<br>Cycle 20 times for each axis<br>Sweep 1octave/min |
| Temperature Cycle            | JEITA ED-4701 100             | Temperature -5 to 50°C<br>Cycles 10<br>Current Max                                                                                                        |
| Temperature Humidity Storage | JEITA ED-4701 100             | Temperature 65°C<br>Humidity 85%<br>Times 1000h                                                                                                           |
| Low Temperature Storage      | JEITA ED-4701 200             | Temperature -25°C<br>Times 1000h                                                                                                                          |
| Cold Start                   | -                             | Temperature -5°C<br>Cycle 10<br>Current Max                                                                                                               |
| Hot Start                    | -                             | Temperature 50°C<br>Cycle 10<br>Current Max                                                                                                               |

### Acceptance criteria

| Item                        | Acceptance criteria       | Measurement condition             |
|-----------------------------|---------------------------|-----------------------------------|
| Non-lighting LED            | No defects                | Vol.min of dedicated power supply |
| Light intensity             | No decrease more than 5 % | Vol.max of dedicated power supply |
| Breakage / Deformation      | No defects                | Visual confirmation               |
| Cable pull-out              | No defects                | Visual confirmation               |
| Screw missing,<br>loosening | No defects                | Visual confirmation               |

## 6. Packing

### 6.1. Packing

The product shall be packed in Bubble sheet bag that be labeled.

### 6.2. Attachment

Nothing.

## 7. Warranty

### 7.1. Warranty period

The warranty period of the product shall be 2 years from shipment date from MORITEX. However, the warranty doesn't apply to illumination decrease or non-lighting due to deterioration of LED element.

### 7.2. Scope of the warranty

Should the product causes any failure attributable to the Company during the period of aforementioned warranty. On condition that you return the product, the Company shall repair or replace faulty parts without charge; provided, however, that this Warranty Clause shall not apply in the event of any of the following events:

- The failure could not be predicted by the technical level available at the time of shipment.
- The failure results from causes other than the product.
- The failure results from modification or repair made by any party other than the Company.
- The failure results from use other than the original use of the product.
- The failure results from improper handling such as a drop or an impact.
- The failure is not attributable to the Company such as natural disaster or pollution.
- The Company has no opportunity to prove the phenomenon of the failure.

The Company shall not be liable for any direct or indirect damage associated with the product. In addition, the scope of the warranty shall not exceed the unit price of the product.

### 7.3. The scope of our liability

For any reason attribute to MORITEX Corporation, MORITEX Corporation shall be liable for any damage (\*2) or loss arising in connection with the product.

However, in any cases, the total amount paid for the damage shall not exceed the product purchase price.

\*2 General damage and loss that actually occurs except lost profit.

Note: The following events are out of the scope of warranty.

- Any cost related to installation/removal of the product for repair, adjustment or replacement.
- Travel expenses (\*3) to repair, adjust or replace the product.
- Overseas logistic cost to repair, adjust or replace the product.
- Shipping costs beyond the range of domestic parcel delivery service.
- Any damages to business or operation due to malfunction of the user's equipment.

\*3 Including travel expense, daily allowance and other expense in both international and domestic transportation

#### 7.4. Revision

The specification of this product (accessory items, option items) may change without prior notice by improvement or other reason.

### 8. Others

#### 8.1. Caution

- If you use the product in conjunction with other equipment, please make sure of compatibility with the equipment combined by yourself.
- If you use the product in conjunction with other equipment, please make sure of specifications, laws, and regulations that should be complied by yourself.
- If you use the product in conjunction with other equipment, please make sure in yourself that the product has been properly arranged power distribution, installation, and usage for intended purpose in the system.
- If it has not been followed reliable safety measures as whole system, do not use the product to the equipment that could cause the serious danger to life or property.
- We construe your use of the product as your agreement to contents of this specification.

#### 8.2. Maintenance

- Should any foreign particle deposits on the LED light system, completely wipe it off the product.
- It is recommended to replace the periodic inspection and regular maintenance parts.
- Should the product cause any failure, do not disassemble it, and request your MORITEX representative or Company to repair it.

#### 8.3. Disposal

To dispose of the product, dispose of it as industrial waste under laws and regulations applicable in the relevant region.

#### 8.4. Prohibit

##### 8.4.1. Do not disassemble or make any modification to the product

Doing so will result in a malfunction or a fire, etc. If it needs to be disassembled or modified, contact your MORITEX representative or our sales agent.

##### 8.4.2. Avoid exposure to water and intrusion of foreign objects

Intrusion of water and/or foreign objects may cause failure and/or fire. In the event of such a case, switch off the power immediately and disconnect all the cables from the lighting system, and contact your MORITEX representative or our sales agent.

##### 8.4.3. Do not touch the illumination or cable with wet hand

This may result in an electric shock.

##### 8.4.4. Do not look straight at illuminated light

This may affect your eyes. If exceedingly high light intensity is used or light passes through an optical system, pay utmost attention to look at the light.

##### 8.4.5. Use relevant power supply units and cables

Using any power supply units or cables other than those specified will result in a malfunction or a fire. To avoid that, be sure to use power supply units and cables dedicated to the MORITEX LED Lighting

System. To separately provide power supply units or cables, contact your MORITEX representative or our sales agent.

8.4.6. Do not cause damage to cable

This may result in a malfunction or cause fire. To avoid that, pay utmost attention to install the product or mount it to moving parts. Should any cable cause damage or a broken wire in it, contact your MORITEX representative or our sales agent for repair or replacement of the cable.

8.4.7. Do not touch in operation or immediately after operation

Some of the product generate much intense during illumination. Please pay extra attention not to touch the system, for direct skin contact during illumination or right after switch-off may result in skin burn.

8.5. Others

- Expiration date of this specification shall be extended automatically unless offer from both companies.
- If you have any questions, please contact us at any time.