

# HYUNDAI


LED Slim Panel

Technical Specification

**Fixture Product Specification**

|                      |                                 |
|----------------------|---------------------------------|
| Product Description: | 15W Square Recessed Panel Light |
|----------------------|---------------------------------|

**A、 Appearance Description**

|  | Component NO | Component Name                  | Material Technics | Color Effect          | Remark |
|---|--------------|---------------------------------|-------------------|-----------------------|--------|
|   | 1            | Front rail                      | PC                | white                 |        |
|   | 2            | Heat dissipating aluminum parts | 1060              | silvery               |        |
|   | 3            | Light guide plate               | PS                | transparent           |        |
|   | 4            | Diffuser                        | PP                | white semitransparent |        |
|   | 5            | Reflective paper                | PET               | white                 |        |
|   | 6            | Back board                      | PC                | white                 |        |
|   | 7            | EVA foam                        | EVA               | white                 |        |

**B、 Structure**

| Parameter                                     | Units                        | Min             | Rating | Max  | Remark                    |
|---|------------------------------|-----------------|--------|------|---------------------------|
| Light guide plate material& Surface Treatment | -                            | PS, PS clear    |        |      |                           |
| Driver  | -                            | <b>External</b> |        |      | Operating Tep: -20°C-45°C |
| Wire way                                      | 0.5*2mm <sup>2</sup> PVC 105 |                 |        |      |                           |
| Installation Method                           | Recessed                     |                 |        |      |                           |
| Diameter                                      | Mm                           | 165             | 170    | 175  |                           |
| Height  | Mm                           | 6.8             | 9.8    | 12.8 |                           |
| Weight  | g                            | 220             | 250    | 280  |                           |

### C、Product Certification

|                  |  |   |   |
|------------------|--|---|---|
| <b>Standards</b> | <input checked="" type="checkbox"/> IEC 60598 Series | <input type="checkbox"/> EMC            | <input checked="" type="checkbox"/> LVD |
|                  | <input type="checkbox"/> IEC 61347 Series            | <input type="checkbox"/> UL1310         | <input type="checkbox"/> GB19510        |
|                  | <input type="checkbox"/> IEC62031                    | <input type="checkbox"/> FCC 47 part 15 | <input type="checkbox"/> GB/T20145      |
|                  | <input type="checkbox"/> IEC 62471                   | <input type="checkbox"/> CISPR15        | <input type="checkbox"/> ROHS           |
|                  | <input type="checkbox"/> IEC 61000- 3- 2/ 3          | <input type="checkbox"/> IEC 61547      |   |

### D、Electronic Data

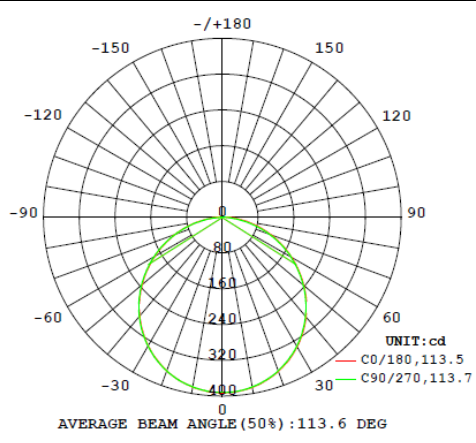
| Parameter                    | Units | Min         | Rating         | Max         | Remark               |
|------------------------------|-------|-------------|----------------|-------------|----------------------|
| Supply Voltage               | V     | <b>85</b>   | <b>110-240</b> | <b>330</b>  |                      |
| Supply Frequency             | Hz    |             | <b>50/60</b>   |             |                      |
| Supply Current               | mA    | <b>55.8</b> | <b>62</b>      | <b>68.2</b> |                      |
| Power Consumption            | W     | <b>13.5</b> | <b>15</b>      | <b>16.5</b> |                      |
| Power Factor                 | -     | <b>0.92</b> |                |             |                      |
| THD                          |       |             | <b>&lt;20%</b> |             |                      |
| Surge                        | KV    |             | <b>2.5KV</b>   |             |                      |
| Thermal Efficiency           |       |             | <b>&gt;85%</b> |             |                      |
| Luminaire Efficiency         |       |             | <b>&gt;88%</b> |             |                      |
| LED Driver Current           | mA    | <b>216</b>  | <b>240</b>     | <b>264</b>  |                      |
| LED Driving Power            | V     | <b>12.2</b> | <b>13.5</b>    | <b>14.9</b> |                      |
| LED Driver Efficiency        | %     | <b>85</b>   |                |             | <b>Noise≤24dB/1m</b> |
| LED Driver Lifetime          |       |             | <b>25000</b>   |             |                      |
| Driver Luminaire TC          |       |             | <b>85°C</b>    |             |                      |
| Overload shortcut protection |       |             |                |             | <b>Yes</b>           |

## Fixture Product Specification

### E、Light Source Data

|                    |              |             |
|--------------------|--------------|-------------|
| LED Specifications | <b>Units</b> |             |
| LED Qty. (pcs)     | <b>pcs</b>   | <b>76</b>   |
| LED Size           | <b>mm</b>    | <b>4014</b> |
| LM80 Report        |              | <b>Y</b>    |

### F、Optical Data

| Parameter               | Units | Min   | Rating                   | Max         | Remark  |
|-------------------------|-------|---|--------------------------|-------------|---|
| Luminous Flux           | Lm    | <b>1215</b>   |                          | <b>1350</b> |   |
| Beam Angle              | °     | <b>100</b>  |                          | <b>110</b>  |  <p>UNIT: cd<br/>           C0/180, 113.5<br/>           C90/270, 113.7<br/>           AVERAGE BEAM ANGLE (50%) : 113.6 DEG</p> |
| Luminous Efficacy       | lm/W  | <b>85</b>   |                          | <b>90</b>   |   |
| Ra                      | -     | <b>80</b>   |                          |             |   |
| Chromaticity Coordinate |       | <input checked="" type="checkbox"/> CIE standard <input type="checkbox"/> ANSI standard <input type="checkbox"/> JIS standard |                          |             |   |
| Color Temperature       | K     |   | <b>3000k/4000K/6500k</b> |             |   |
| UGR                     |       |   | <b>&lt;19</b>            |             |   |

### G、Reliability Data

| Parameter                          | Units | Rating/Working Condition | Remark |
|------------------------------------|-------|--------------------------|--------|
| Life                               | hrs   | <b>25000</b>             |        |
| Number of Switching Cycles         | Times | <b>15000</b>             |        |
| Starting Time                      | s     | <b>0.55</b>              |        |
| Ability Test                       | -     | <b>PASS</b>              |        |
| High-low Temperature Cycle Test    | -     | <b>PASS</b>              |        |
| High Temperature and Humidity Test | -     | <b>PASS</b>              |        |

### H、Spectroscopic Data

| Parameter | Data | RA=81.9 |
|-----------|------|---------|
| R1        | 79   |         |
| R2        | 87   |         |
| R3        | 92   |         |
| R4        | 80   |         |
| R5        | 80   |         |
| R6        | 82   |         |
| R7        | 88   |         |
| R8        | 67   |         |
| R9        | 0    |         |
| R10       | 69   |         |
| R11       | 79   |         |
| R12       | 57   |         |
| R13       | 81   |         |
| R14       | 96   |         |
| R15       | 73   |         |

### I、CIE Color Date

| Parameter               | Rating/Working Condition   | Remark |
|-------------------------|--|--------|
| Chromaticity Coordinate | $x = 0.3203$ $y = 0.3447$ / $u' = 0.1972$ $v' = 0.4776$ ( $Duv=7.38e-03$ ) |        |
| Dominate Wavelength     | $\lambda_d=503.4nm$ Color Purity=4.0%                                      |        |
| Peak Wavelength         | $\lambda_p=453nm$  |        |
| FWHM                    | 25nm   |        |
| Color index             | R=13.4% G=81.2% B=5.4%   |        |