ILLUMINATION

PB120 LUXEON Z Product Brief ©2017 Lumileds Holding B.V. All rights reserved.

LUXEON Z
Industry’s smallest high power emitter for use in close-packed applications requiring an undomed solution

LUXEON Z is a high power 1.3mm x 1.7mm LED that enables never before seen color consistency, luminance, flux density and design flexibility for lighting solutions. LUXEON Z is undomed, a feature that provides unmatched optical flexibility for precise beam angle control. Tested and binned at application conditions 85°C and available in 3- and 5-step MacAdam ellipse color bins. LUXEON Z emitters are an ideal choice for indoor and outdoor light sources requiring superior beam angles, higher efficacy and lower costs.

FEATURES AND BENEFITS

- 1.3mm x 1.7mm micro footprint enables a high degree of design flexibility
- Undomed design allows precise optical control
- 1A max drive current allows for more flux per LED
- 3- and 5-step MacAdam ellipse color binning for superior Quality of Light

PRIMARY APPLICATIONS

- Architectural
- Downlights
- Indoor Area Lighting
- Lamps
- Outdoor
- Specialty Lighting
- Spotlights
### LUXEON Z product performance at 500mA and 700mA, $T_j=85^\circ C$

<table>
<thead>
<tr>
<th>NOMINAL CCT</th>
<th>MINIMUM\n[\text{CRI}^{[1,2]}]</th>
<th>LUMINOUS FLUX(^{(1)}) (Im)</th>
<th>TYPICAL LUMINOUS EFFICACY (lm/W)</th>
<th>TYPICAL LUMINOUS FLUX (lm)</th>
<th>TYPICAL LUMINOUS EFFICACY (lm/W)</th>
<th>PART NUMBER</th>
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<tr>
<td></td>
<td></td>
<td>MINIMUM</td>
<td>TYPICAL</td>
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<tr>
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<td>140</td>
<td>154</td>
<td>110</td>
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<tr>
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<td>120</td>
<td>134</td>
<td>96</td>
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<tr>
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<td>120</td>
<td>130</td>
<td>93</td>
<td>166</td>
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</tr>
</tbody>
</table>

**Notes:**
1. Lumileds maintains a tolerance of ±2 on CRI and ±6.5% on luminous flux measurements.
2. Typical CRI is approximately 2 points higher than the minimum CRI specified, but this is not guaranteed.

### Mechanical Dimensions

- **Notes:**
  1. Drawings are not scale.
  2. All dimensions are in millimeters.