VIVID 2
LED MR16 3000K 12V 10-12W

OUTPUT
1250-6000 CBCP, 420-480 Lumens

BEAM
10°, 20°, 25°, 36°

COLOR
CCT: 3000K CRI>95, R9>90

APPLICATION
Halogen replacement for enclosed indoor and outdoor applications

PERFORMANCE
CBCP matches standard halogen lamps
Single light source
Single crisp shadow
Dimmable to 20%
Power Factor: 0.93
12V (10.8 min, 13.2 max)

COLOR
CCT: 3000K
CRI>95, R9>90
White point accuracy within 3 SDCM
Rich saturated color rendering
Excellent color stability

OPTIMIZED FORM
ANSI standard MR16 form factor:
1.96” (50 mm) W x 1.86” (47.4 mm) H
Compatible with standard fixtures
Weight: 40g
Proprietary fanless aluminum design provides superior thermal dissipation

HIGHLY COMPATIBLE
Works with magnetic and electronic transformers and dimmers (see complete list at www.soraa.com)
Rated for use in damp locations
Lightweight, comparable to typical halogen lamps

LONG LIFE, LOW MAINTENANCE
Life of 35,000 hours. Three year warranty

ENERGY EFFICIENT
80% more energy efficient than standard halogen lamps
Typical payback of one year or less

INTENDED USE AND APPLICATIONS
LED retrofit lamp to replace 12V halogen MR16 lamps in recessed downlights, track lighting, and other indoor and outdoor applications. Suitable for enclosed fixtures
North America: This product can be incorporated into emergency lighting fixtures qualified to UL 924.
Outside of North America: This product can be incorporated into emergency lighting fixtures qualified to IEC/EN 60598-2-22
Operating Temperature: Minimum-40°C (ambient); Typical: 80-110°C (base); Maximum: 120°C (base)
Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

CERTIFICATIONS
UL, CUL for 12VNEC Class 1 and Class 2 systems, FCC 47 CFR Part 15 and Part 18 (EMI), RoHS, CE, C-tick

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Soraa’s unique LED technology allows its lamps to operate effectively and efficiently at higher temperatures than other LED lamps, resulting in more light output per diode. Although Soraa’s lamps operate at cooler temperatures than halogen lamps, it is recommended that gloves be worn when handling bare lamps that have been energized.

**PHOTOMETRICS**

### Narrow Spot - 10°

<table>
<thead>
<tr>
<th>Distance to Floor</th>
<th>Beam Dia. (50% CBCP)</th>
<th>Foot-candles on Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>3'</td>
<td>5'</td>
<td>667</td>
</tr>
<tr>
<td>6'</td>
<td>1'</td>
<td>167</td>
</tr>
<tr>
<td>9'</td>
<td>1.8'</td>
<td>74</td>
</tr>
<tr>
<td>12'</td>
<td>2.1'</td>
<td>42</td>
</tr>
<tr>
<td>15'</td>
<td>2.6'</td>
<td>27</td>
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</tbody>
</table>

### Narrow Flood - 20°

<table>
<thead>
<tr>
<th>Distance to Floor</th>
<th>Beam Dia. (50% CBCP)</th>
<th>Foot-candles on Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>3'</td>
<td>1.1'</td>
<td>331</td>
</tr>
<tr>
<td>6'</td>
<td>2.1'</td>
<td>183</td>
</tr>
<tr>
<td>9'</td>
<td>3.2'</td>
<td>106</td>
</tr>
<tr>
<td>12'</td>
<td>4.2'</td>
<td>59</td>
</tr>
<tr>
<td>15'</td>
<td>5.3'</td>
<td>13</td>
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### Narrow Flood - 25°

<table>
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<th>Beam Dia. (50% CBCP)</th>
<th>Foot-candles on Floor</th>
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</thead>
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<tr>
<td>3'</td>
<td>1.3'</td>
<td>306</td>
</tr>
<tr>
<td>6'</td>
<td>2.7'</td>
<td>158</td>
</tr>
<tr>
<td>9'</td>
<td>4'</td>
<td>76</td>
</tr>
<tr>
<td>12'</td>
<td>5.3'</td>
<td>34</td>
</tr>
<tr>
<td>15'</td>
<td>6.7'</td>
<td>19</td>
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</table>

### Flood - 36°

<table>
<thead>
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<th>Distance to Floor</th>
<th>Beam Dia. (50% CBCP)</th>
<th>Foot-candles on Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>3'</td>
<td>1.9'</td>
<td>140</td>
</tr>
<tr>
<td>6'</td>
<td>3.9'</td>
<td>35</td>
</tr>
<tr>
<td>9'</td>
<td>5.8'</td>
<td>15</td>
</tr>
<tr>
<td>12'</td>
<td>7.8'</td>
<td>9</td>
</tr>
<tr>
<td>15'</td>
<td>9.7'</td>
<td>5</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

1.96” (50 mm)

1.86” (47.4 mm)

Base Temperature Measured Here

**COLOR RENDERING**

CRIs - Relative R Values

<table>
<thead>
<tr>
<th>R1</th>
<th>R2</th>
<th>R3</th>
<th>R4</th>
<th>R5</th>
<th>R6</th>
<th>R7</th>
<th>R8</th>
<th>R9</th>
<th>R10</th>
<th>R11</th>
<th>R12</th>
<th>R13</th>
<th>R14</th>
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<tbody>
<tr>
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<td>60</td>
<td>40</td>
<td>20</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**SAFETY NOTE ON HEAT**

Soraa’s unique LED technology allows its lamps to operate effectively and efficiently at higher temperatures than other LED lamps, resulting in more light output per diode. Although Soraa’s lamps operate at cooler temperatures than halogen lamps, it is recommended that gloves be worn when handling bare lamps that have been energized.

**TRANSFORMER/DIMMER COMPATIBILITY**

Dimmable to 20% or lower, depending on dimmer. Complete transformer and dimmer compatibility information available at www.soraa.com.

Information and specifications subject to change. Rev Q 02.18.14  D-110132

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