**Description:** ZH Constant Current Linear LED Module – Gen B

- For use in Class 2 lighting systems
- Zhaga-Hybrid Mounting Pattern
- Suitable for DLC 4.0 Applications

### Performance:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Current (Amps)</th>
<th>Initial Lumens (1)</th>
<th>Vf (2) (Volts)</th>
<th>Power (Watts)</th>
<th>Lm/W</th>
<th>CRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>M10CC840D56N2A</td>
<td>1.200</td>
<td>3860</td>
<td>22.1</td>
<td>26.5</td>
<td>146</td>
<td>&gt;82</td>
</tr>
<tr>
<td></td>
<td>1.050</td>
<td>3440</td>
<td>21.7</td>
<td>22.8</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.700</td>
<td>2390</td>
<td>20.7</td>
<td>14.5</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.525</td>
<td>1825</td>
<td>19.6</td>
<td>10.3</td>
<td>177</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.350</td>
<td>1240</td>
<td>19.6</td>
<td>6.9</td>
<td>181</td>
<td></td>
</tr>
</tbody>
</table>

(1) MID Flux Bin Values are shown for CCT of 4000K. Tolerance of ±10% at 45°C
(2) Vf is at Tc of 45°C with max tolerance of +/- 5%.

### General Performance Specifications
- Lumen Maintenance: L85 50Khrs, t_c=75°C
- Color Consistency: <3 SDCM

### Application:
- Min. Ambient Operating Temp.: -22°F, -30°C
- Max. Board Temp. (at t_c): 185°F, 90°C
- Control Range: 100% to 1%
- Maximum Current rating of 1.200 Amps

### Regulatory
- Recognized - UL8750
- CAN/CSA-C22.2 No. 250.13-12
- RoHS Compliant

### Notes:
- Performance data taken at Tc = 45°C.
- Vf increases by 2% at 25°C at initial turn on.
- Vf increases by 10% at -30°C at initial turn on.
- Power consumption and photometric performance are typical values.
- Lumen maintenance value is based on LM80 testing and TM-21 calculation projections.

### Mechanical Dimensions
- Length: 22.00”
- Width: 0.94”
- Height: 0.25”
- Weight: 0.16 lbs

### Part Number Options

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CCT</th>
<th>Lumen Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>M10CC827D56N2A</td>
<td>2700K</td>
<td>93.5%</td>
</tr>
<tr>
<td>M10CC830D56N2A</td>
<td>3000K</td>
<td>95.2%</td>
</tr>
<tr>
<td>M10CC835D56N2A</td>
<td>3500K</td>
<td>96.8%</td>
</tr>
<tr>
<td>M10CC840D56N2A</td>
<td>4000K</td>
<td>100.0%</td>
</tr>
<tr>
<td>M10CC850D56N2A</td>
<td>5000K</td>
<td>103.0%</td>
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<tr>
<td>M10CC851D56N2A</td>
<td>5100K</td>
<td>103.0%</td>
</tr>
</tbody>
</table>

### Ordering Codes

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty/Ctn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry/Indoor Use Only, 4 Connectors</td>
<td>10</td>
</tr>
<tr>
<td>Dry/Indoor Use Only, 1 Connector on each end</td>
<td>10</td>
</tr>
<tr>
<td>Dry/Indoor Use Only, 2 Connectors on one end only</td>
<td>10</td>
</tr>
<tr>
<td>Conformal Coat w/ 4 Connectors</td>
<td>10</td>
</tr>
</tbody>
</table>

Application and operation performance specification information subject to change without notification.
Flux and Voltage vs. Current

**Flux vs Current - M10CC840D56NyA**

**Voltage vs Current - M10CC8xxD56NyA**

**Flux vs Temperature**

Notes:
Typical Values are shown for flux and voltage graphs with Tc=45°C.
Installation & Assembly Guidelines

Mounting:
- This module should be mounted using the mounting holes provided.
- Nylon washers should be used on the top side to prevent the screw-head from making electrical contact with traces.
- Thermal interface material is recommended to transfer heat away from the module to the fixture.
- LEDs should not be contacted during installation to avoid damage.

Wire Connector
- Wire connectors will accept 18AWG solid or bonded stranded wire.
- The connector is located on the top side of the circuit board.
- To remove wire from connector, depress the indent on the top of the terminal with a pointed tool, and pull the wire.

Electrostatic Sensitive Product
- Installation of Universal Everline LED Modules should be in a production environment that incorporate ESD protective measures.
- When servicing LED Luminaires, technicians should be grounded, and should avoid contact with the LEDs.
Application Notes:
1. The standard version of this module without conformal coating is designed for indoor fixtures in dry applications. Damage caused by corrosion due to moisture, condensation and other environmental elements, is not covered by the warranty.
2. Proper heat sinking is required to ensure that the module does not exceed its rated temperature. Damage caused by improper heat sinking is not covered by the warranty.
3. The color is measured at the LED binning condition. The LED module is designed to operate in accordance with ANSI C78 377. Color shift may occur in the system due to deviations in temperature and components that surround or cover the LED in the fixture.

CONDITIONS OF ACCEPTABLE USAGE:
This component has been judged on the basis of the required spacings in the Outline of Investigation for LED Light Sources for Use in Lighting Products, UL 8750.

1. The LED modules are intended for connection to a constant current Class 2 power supply. When the arrays are connected and/or used with power supplies other than class 2, the need for an additional evaluation shall be considered in the end use product investigation.

2. The LED modules shall be installed in compliance with the mounting, spacing, casualty, and the segregation requirements applicable to the ultimate application.

3. The LED modules were not subjected to the Normal Temperature Test. The Temperature Test shall be conducted in the end product with considerations for the following components, their ratings, and LED-to-LED spacing:
   - Printed Wiring Board – 105°C
   - Connectors – 105°C

4. The LED modules are intended for use in dry and damp locations. Use in other than dry and damp locations shall be evaluated to the end use application.

5. All models may be marked with any voltage and current rating that doesn’t exceed the maximum ratings in the ELECTRICAL RATINGS table of this report. All models are to be used within their marked ratings.