



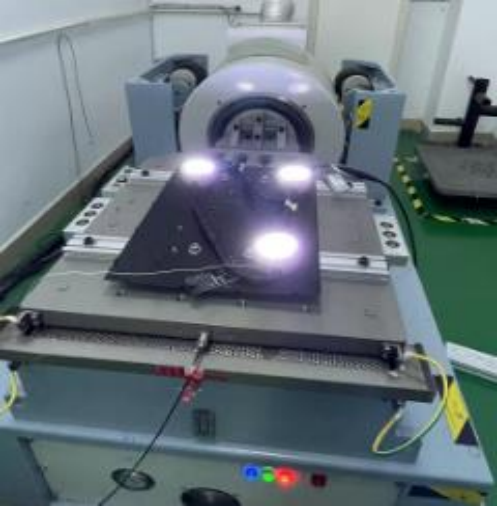
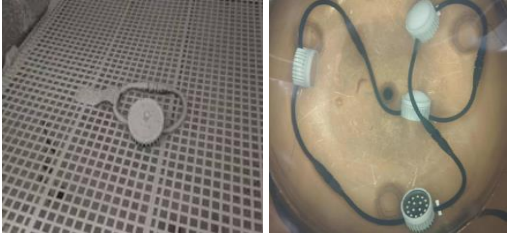

# Product Verification and Reliability Report




Product: Exterior Dot-HP Pro

Date: 2024-9-2


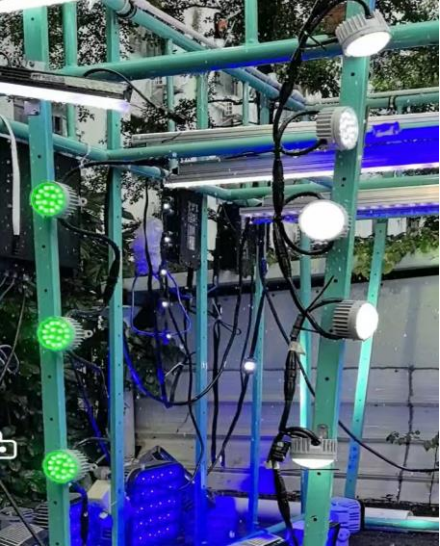


Test performed	Condition	Duration	Test lab	Result
<p><b>Solar Radiation and Moist Test</b> – Method for exposing fixture or components to UV light in the presence of moisture to reproduce the weathering effects (temperature, humidity and/or wetting)</p> 	<p>ISO 4892-2, cyclic no. 1, 102 mins. dry, 18 mins. water spray.</p>	<p>3000 hours</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>IK Class Test</b> -Verification of protection against external mechanical impacts</p> 	<p>EN62262, IK-08</p>	<p>N/A</p>	<p>Martin Professional</p>	<p>Pass</p>

<p><b>Application Vibration Test</b> -Verification of protection against transportation and installation vibration</p> 	<p>Sinusoidal vibration test acc. to IEC 60068-2-6</p> <p>Random vibration acc. to IEC 60068-2-64.</p> <p>ANSI C136-31 ((Bridge &amp; Overpass Applications 3g)</p> <p>Fixture powered during the test.</p>	<p>3 x 30 mins.</p> <p>3 x 30 mins.</p> <p>3 x 30 mins.</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>IP Class Test</b> - Verification of protection against intrusion of dust and water</p> 	<p>IP67 according to IEC/EN60529</p>	<p>8h /30 mins.</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>Salt Mist Test</b> – Verification of corrosion resistance of materials and surface coatings</p> 	<p>Neutral Salt Spray test, 5%, 35°C, ASTM B117/ ISO 9227, EN 12944-6, C5-H</p>	<p>1440 hours</p>	<p>Martin Professional</p>	<p>Pass</p>

<p><b>Cable Pull Test</b> - Verification of cable mechanical robustness in a product level</p> 	<p>Power on ,20kg</p>	<p>1 hour</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>Surge / Transient Test</b> -Surge immunity from power switches and lightning.</p> 	<p>EN61000-4-5 / Class 4, 4kV</p>	<p>N/A</p>	<p>NTEK</p>	<p>Pass</p>
<p><b>Packing drop Test</b> - Verification of products and packing strength</p> 	<p>ISTA 3A, 9+8 drops</p>	<p>N/A</p>	<p>Martin Professional</p>	<p>Pass</p>

<p><b>Wind load Test - Wind load simulation.</b></p> 	<p>Tested according to EN60598-2-5</p> <p>Static load simulating 60 m/sec. (216 km/h) wind force without causing failure or permanent set to mount bracket</p>	<p>10 mins.</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>Operation Temperature Test - -30 °C to +55 °C during operation</b></p> 	<p>Tested to ambient temperature Ta (min/max): -30 °C to +55 °C (Above specified temperature range, the fixture regulates output to protect from overheating)</p>	<p>N/A</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>Chlorine Test- Verification of product robustness toward high levels of chloride environment</b></p> 	<p>Accelerated test based on IEC68-2-60 test regime</p>	<p>106 hours</p>	<p>Danfoss</p>	<p>Pass</p>

<p><b>Cyclic Temperature Test</b> - - Verification of robustness against rapid ambient temperature changes</p> 	<p>-30 °C to +55 °C</p>	<p>30 Cycles</p>	<p>Martin Professional</p>	<p>Pass</p>
<p><b>Outdoor Lifetime Test</b> - Verification of product lifetime in the outdoor environment</p> 	<p>Power on 24h/7d in the outdoor weathering with permanent</p>	<p>10000 hours</p>	<p>Martin Professional</p>	<p>Ongoing</p>

*Justin*

Report prepared and verified by:

Justin XU, Principal Test Engineer

Department:

Martin Professional, R&D, Test and Validation

Date:

2024-9-2

Revision:

A