

**M-135: PRODUCT PERFORMANCE REQUIREMENTS****7.7.1: Lighting (Internal & External)**

PERFORMANCE REQUIREMENTS	
<b>Description</b>	Lighting for internal and external use, comprising lighting with IP20 (internal) and IP44 (external and bathroom) options, from a surface mounted fitting.
<b>Risk-rating</b>	Moderate risk/moderate complexity.
<b>Performance Requirements</b>	<p>In addition to demonstrating compliance with the Building Regulations (1992) Kāinga Ora also requires that:</p> <ol style="list-style-type: none"> <li>1. Shall comply with all legislative and standards-based requirements, as well as those set by the relevant local authority.</li> <li>2. Lighting for internal and external use, comprising lighting with IP20 (internal) and IP44 (external and bathroom) options, from a surface mounted fitting.</li> <li>3. Be Class II (as defined by AS/NZS 60598.1 or IEC 60598-1).</li> <li>4. Have AS/NZS or IEC Certification.</li> <li>5. Be rated at 35,000 hours 'luminaire lifespan'.</li> <li>6. Have 2700k colour temperature.</li> <li>7. Have uniform light distribution.</li> <li>8. Have CRI of &gt;85.</li> <li>9. Have luminaire efficiency greater than 90lm/W.</li> <li>10. Have luminaire lumen output between 1100-2500 lumens.</li> <li>11. Lamps shall be provided in both BC and ES configurations</li> <li>12. LED, be tested to TM21 and LM79.</li> </ol>

LEGISLATIVE REQUIREMENTS	
The following clauses from Schedule 1 of the <i>Building Regulations</i> (1992) apply:	
<ul style="list-style-type: none"> <li>• B2.3.1 (c)</li> <li>• F2.3.1, F2.3.3 (b)</li> <li>• H1.3.5</li> <li>• G9</li> </ul>	

ADDITIONAL REQUIREMENTS	
<b>Warranty</b>	Provide an average expected life-span for the product. This should be based on the products typical use under normal conditions.
<b>Homestar® Requirements</b>	<p>Kāinga Ora – Homes and Communities' properties are designed to meet the requirements needed to achieve a 6-Homestar®.</p> <p>This component falls within EHC-6 Lighting. Requirements include:</p> <ul style="list-style-type: none"> <li>• All lights are LED.</li> <li>• Lighting Power Density of installed fixed interior lighting is no</li> </ul>

more than 5W/m<sup>2</sup>.

- 6-Homestar® requires a minimum efficacy of 40lm/W for outdoor lighting however the specific performance requirements above require luminaire efficacy to be greater than 90 lm/W.
- All fixed external lights have motion sensors with daylight cut off, integrated photovoltaic cells or a Lighting Power Density of no more than 1.5W/m<sup>2</sup>.

Released under the Official Information Act