

Approved Document for Maldives Building Code **Natural Light** Clause G7

Prepared by the Construction Industry Development Section of the ministry of Construction and Public Infrastructure based on the Approved Document prepared by the Building Industry Authority of New Zealand.

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Maldives Building Code

Clause G7 Natural Light

This Clause has been extracted from the Maldives Building Code.

Clause G7—NATURAL LIGHT	
Provisions	Limits on application
<p>OBJECTIVE</p> <p>G7.1 The objective of this provision is to safeguard people from illness or loss of <i>amenity</i> due to isolation from natural light and the outside environment.</p> <p>FUNCTIONAL REQUIREMENT</p> <p>G7.2 <i>Habitable spaces</i> shall provide <i>adequate</i> openings for natural</p> <p>PERFORMANCE</p> <p>G7.3.1 Natural light shall provide an <i>illuminance</i> of no less than 30 lux at floor level.</p>	<p>Requirement G7.2 shall apply only to <i>Housing</i>.</p>

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References

For the purpose of Maldives Code compliance, referenced documents shall be deemed to include any amendments issued prior to the date of the Approved Document as displayed at the foot of the page on which the references are listed.

Standards Association of New Zealand

NZS 6703:1984 Code of practice for interior lighting design

Where quoted

VM1 1.01,
AS1 Table 2

Definitions

This is an abbreviated list of definitions for words or terms particularly relevant to this Approved Document

Adequate Adequate to achieve the objectives of the building code.

Amenity An attribute of a building which contributes to the health, physical independence, and well being of the building's users but which is not associated with disease or a specific illness.

Building has the meaning ascribed to it by the Maldivian Building Code

Illuminance The luminous flux falling onto unit area of surface.

Habitable space A space used for activities

normally associated with domestic living, but excludes any bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, clothes-drying room, or other space of a specialized nature occupied neither frequently nor for extended periods.

Reflectance The ratio of the flux reflected from a surface to the flux incident on it.

Standard year For the purposes of determining natural lighting, the hours between 8 am and 5 pm each day with an allowance being made for daylight saving.

Verification Method G7/VM1

No specific test methods have been adopted for verifying compliance with the Performance of Maldives Building Code G7.

Acceptable Solution G7/AS1

1.0 Vertical Windows in External Walls

1.0.1 Vertical windows in external walls shall have:

a) A window area of no less than 10% of the floor area,

COMMENT:
10% window area to floor area equates to approximately 33 lux at floor level for 75% of the standard year.

b) A glazing transmittance of no less than 0.7, and

c) A head height of at least:

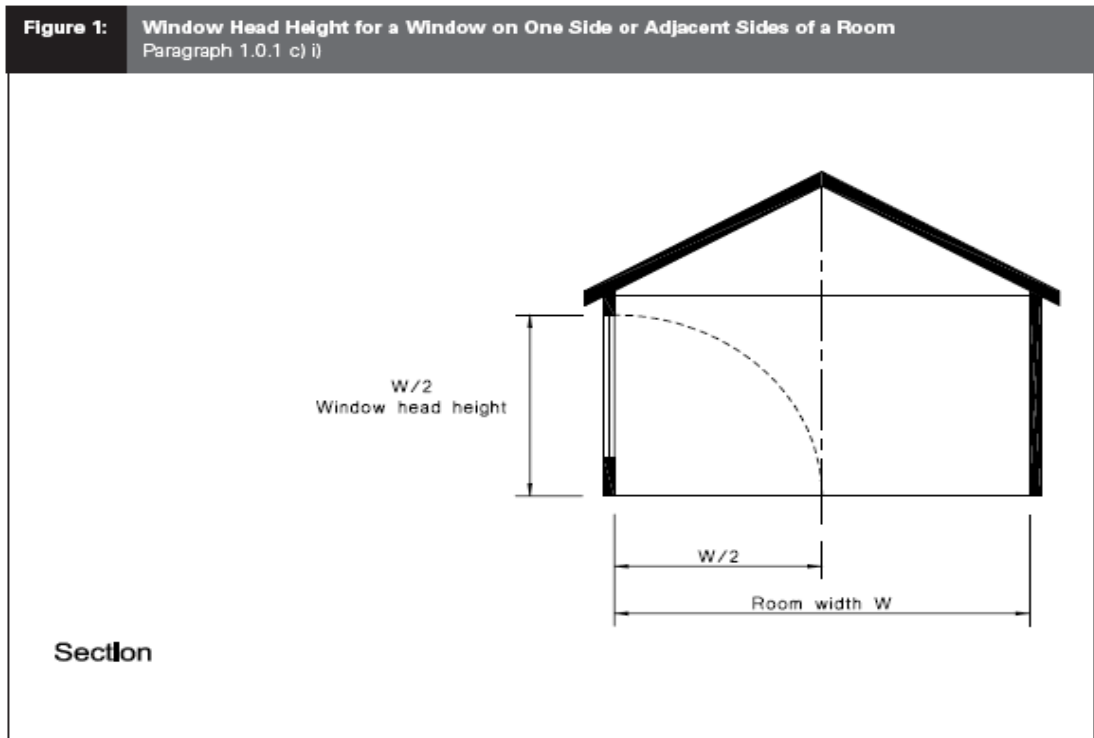
i) half the room width for windows on the same side or adjacent sides of a room (see Figure 1), and

ii) one quarter the room width for windows on opposite sides of the room (see Figure 2).

COMMENT:
In large rooms where the suggested head height is impractical, a window area in excess of 10% of floor area may be necessary.

1.0.2 Where the natural light entering a *building* is restricted by other structures or natural land features, either the total window area shall be increased or interior surfaces of suitable *reflectance*, shall be provided.

Comment:
I. Figure 3 shows the situation where parts of the floor fall beyond the no-sky line. In these cases and where only the minimum window area (see Paragraph 1.0.1 a)) is provided, high *reflectance* surfaces are required. In other cases with minimum window areas, medium *reflectance* surfaces are acceptable.
II. Reflectances of interior surfaces shall comply with Table 1. Table 2 gives approximate *reflectances* for some surface finishes as a guideline.



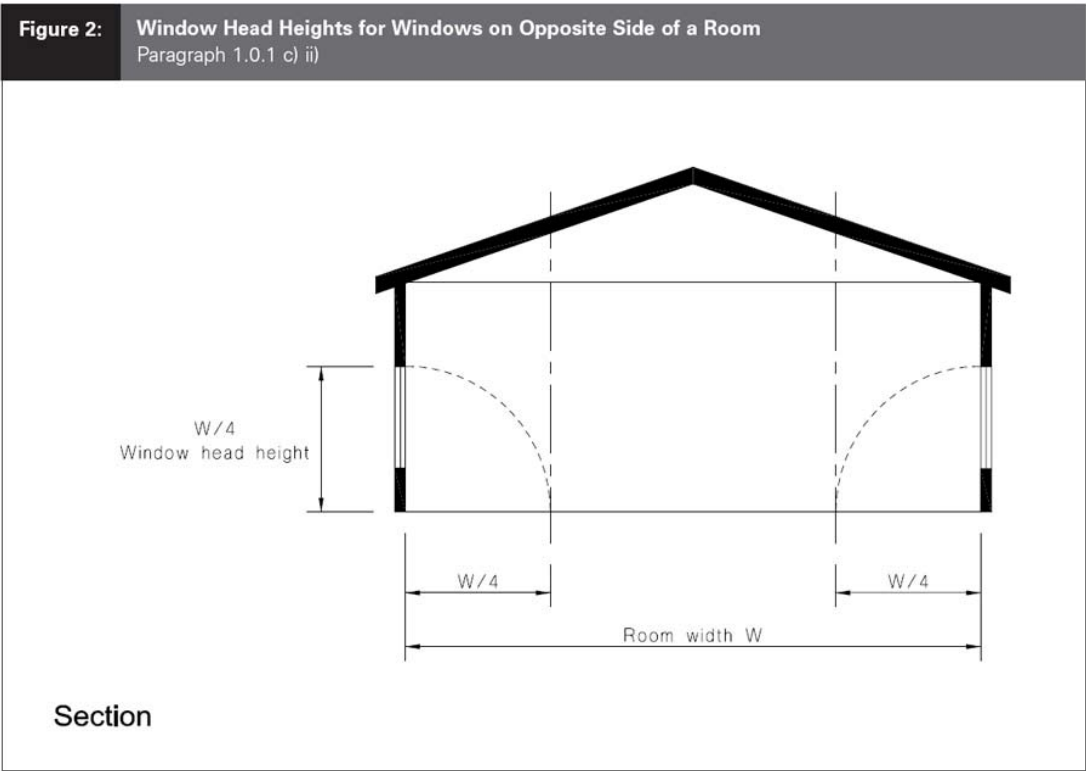


Table 2: Approximate Reflectances of Typical Maldives Building Finishes
Paragraph 1.0.4

Building finish	Approximate reflectance	Building finish	Approximate reflectance
White emulsion paint on plain plaster surface	0.8		
White glazed tiles			