

Table G - Residential Lighting Limits

Lighting Application	LZ 0	LZ 1	LZ 2	LZ 3	LZ 4
Row 1 Maximum Allowed Luminaire Lumens* for Unshielded Luminaires at one entry only	Not allowed	600 420 lumens	900 630 lumens	900 630 lumens	900 630 lumens
Row 2 Maximum Allowed Luminaire Lumens* for each Fully Shielded Luminaire	900 630 lumens	1,800 1,260 lumens	1,800 1,260 lumens	1,800 1,260 lumens	1,800 1,260 lumens
Row 3 Maximum Allowed Luminaire Lumens* for each Unshielded Luminaire excluding main entry	Not allowed	450 315 lumens	450 315 lumens	450 315 lumens	450 315 lumens
Row 4 Maximum Allowed Luminaire Lumens* for each Landscape Lighting	Not allowed	Not allowed	1,500 1,050 lumens	3,000 2,100 lumens	3,000 2,100 lumens
Row 5 Maximum Allowed Luminaire Lumens* for each Shielded Directional Flood Lighting	Not allowed	Not allowed	1,800 1,260 lumens	3,000 2,100 lumens	3,000 2,100 lumens
Row 6 Maximum Allowed Luminaire Lumens* for each Low Voltage Landscape Lighting	Not allowed	Not allowed	750 525 lumens	750 525 lumens	750 525 lumens

* Luminaire lumens equals Initial Lamp Lumens for a lamp, multiplied by the number of lamps in the luminaire, multiplied by the luminaire efficiency. If the Luminaire Efficiency is not known, multiply by 0.7.

#38 - All limits fo light amounts given in the tables are much larger than those needed according to the physiology of human vision. Full moonlight is enough for some situations, being 0.1 lx usually, 0.3 lx in extreme cases. Ten times that much is enough in most cases, hundred times that much enables comfortable reading of newspapers. The old technology, HID lamps, was not good in offering low illuminances, the new LED one offers them easily. Amber LED light at 0.3 lx to 10 lx levels suffice for almost all purposes.

BUG rating is far too complicated and even so it is not satisfying. It cannot ensure that illuminance of residential windows will be lower than moonlight. The wonderfully simple rules of zero candela per kilolumen and 10 lx at ground at most in the evening (several times less late at night) are enough. If anything should be added, then the right of any citizen to ask luminaire/billboard owner to hide it from his/her view and a obligation of the light pollution producer to obey such wish within a month or so.

RESPONSE: Rejected. The lumen levels proposed for residential applications will greatly reduce the outdoor lighting levels of most if not all residential projects. This MLO is Step 1. If further reductions in lumen levels are warranted as new technologies come to market, such as LED or OLED, then these limits will be revised downward in a future edition of the MLO.

#25 - A.3 on page 19 permits “low voltage” landscape lighting in the strengths indicated in Row 4 of Table G. However, there is no reference to “low voltage” in the table. If that's what's intended, Table G should specify “low voltage.” But if that's what's intended, and if “low voltage” is defined as 750 lumens or less, why does Table G permit up to 3000 lumens? Much clarification needed!

RESPONSE: Accepted. A new Row 6 has been added to Table G to make the 750 lumen limit consistent with the 750 lumen limit contained in the Definitions section for Low Voltage Lighting.