

SORAA

Electrical compatibility – Brilliant HL MR16-GU10 7.5W 230V lamps – International

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General compatibility guidelines

Scope

This document provides the basic guidelines regards electrical compatibility of SORAA 230V Brilliant HL MR16 GU10 7.5W lamps and compatibility tables.

Dimmer Compatibility

SORAA 230V MR16 GU10 lamps are made to work with trailing edge (reverse phase) and leading edge (forward phase) phase cut dimmers. The percentages for each dimmer combination are the percentage of light output that we were able to dim down to without seeing any problems like flicker/shimmer. Anything 30% or above is considered not compatible and you will see a "NC" in a grey cell.

There might be a minimum wattage load on the dimmer. If this minimum load is not met, there might be compatibility issues.

--%	Dims to < 20% (of the measured light output)
--%	Dims to 20-30% (of the measured light output)
NC	Not compatible (or dims to >30%)
Blank cell	Not tested

Maximum number of lamps on a dimmer

The following need to be considered when determining the amount of lamps on a dimmer.

1. SORAA tests have been carried out with 1 lamp unless stated otherwise.
2. There is a repetitive, very brief current spike the LED lamp will see twice per cycle. This current spike has to be provided by the dimmer, and will affect the recommended lamp load on each dimmer.
3. Ultimately the dimmer manufacturer is the only one with authority to rate their product, but SORAA can give an Engineering estimate.
4. We recommend to use a 5.0 de-rating factor for halogen/incandescent dimmers loaded with our 230V lamps.

For example for a 500W dimmer it would mean $500/5 = 100W$ of LED, so an estimated maximum of 13 lamps 7.5W.

Disclaimer

Compatibility tests are conducted by Soraa only as guidance for the user.

All tests are conducted under bench conditions; results may differ from test results depending on conditions at the application site.

Results may vary due to variability in component choices and manufacturing processes by the transformer and dimmer manufacturers.

For more information on the dimmers, please find specs on the manufacturer's website.

SORAA BRILLIANT HL GU10 120V 7.5W - DIMMER COMPATIBILITY LIST - International

Dimmer Manufacturer	Dimmer family	Dimmer Model	Dimming phase	Number of lamps per dimmer tested	Dim (%)	Comments
Aurora		AU-DSP400X	leading	3	20%	
CLIPSAL		L5504D2U	trailing	3	NC	
Helvar	Digidim	452	trailing	3	16%	
Helvar	Digidim	454	trailing	3	8%	
Honeywell	Inncomm	H454.F.CE	trailing	3	30%	
Jung		1224 LED UDE	trailing	3	9%	
Lutron	Energi Savr Node QS	QSNE-4A-D	trailing	3	NC	
Lutron	Grafik Eye QS	QSGR-6PCE	leading	3	NC	
Lutron	RA2 select	RRK-R25NE-240	trailing	3	28%	
Lutron	Remote Power Modules	LP-RPM-4A-230	trailing	3	12%	
RVE		RV LED 250	leading	3	19%	
Varilight	V-PRO	JQP401W	trailing	3	10%	

SORAA Brilliant HL GU10 230V 7.5W - DIMMER COMPATIBILITY - International

Notes:

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All tests are conducted under bench conditions; results may differ from test results depending on conditions at the application site

Results may vary due to variability in component choices and manufacturing processes by the dimmer manufacturer

Regards compatibility tests conducted by dimmer manufacturer, please contact the manufacturer for more details and/or reports.

This lamp may emit a low level of audible noise when used with some leading edge dimmers. If using leading edge dimmers, testing with the intended dimmer is recommended to ensure acceptable audible levels at the application site.

(*) Test results with this dimmer added to the compatibility list as of this Revision