

SORAA®

ELECTRICAL COMPATIBILITY
VIVID 230V MR16-GU10 9W LAMPS
INTERNATIONAL



GENERAL COMPATIBILITY GUIDELINES

SCOPE

This document provides the basic guidelines regards electrical compatibility of SORAA Vivid 230V MR16 GU10 9W lamps and compatibility tables.

DIMMER COMPATIBILITY

SORAA 230V MR16 9W GU10 lamps are made to work with trailing edge and leading edge phase-cut dimmers. However, the use of leading edge dimmers is not recommended, as the lamps may emit a low level of audible noise when used with some leading edge dimmers. Testing with the intended dimmer is recommended to ensure acceptable audible levels at the application site.

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.

The number of tested lamps stated on the compatibility charts is not necessarily the maximum amount

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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 11 lamps 9W.

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/transformers, please find specs on the manufacturer's website.

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Dimmer Manufacturer	Dimmer Family	Dimmer Model	Dimming Phase	Number of Lamps Per Dimmer Tested	Dim (%)	Comments
Berker		nr. 296110	Trailing	1-9	1.6%	Select RC mode Limited by dimmer travel
Casambi		CBU-TED 150W	Trailing	3	0%	(*)
DINUY		RE PLA LE1	Trailing	1-10	0%	Select mode "LED2"
iLight		SCI dimmer	Leading	1,5 (max estimated 35)	0%	Tested by dimmer manufacturer
iLight		SCMA dimmer	Trailing	1,5 (max estimated 40)	0%	Tested by dimmer manufacturer
iolloi		ID-EU20FW03	Trailing	10	0.14%	Limited by dimmer travel
iolloi	Wifi dimmer	ID-D688-WF	Trailing	10	0%	Select RC mode
Jung		1730DD	Trailing (auto)	10	3%	Limited by dimmer travel
Lunatone	DALI to trailing edge	Art.Nr.: 86458619	Trailing	1-2 (max)	1%	Limited by dimmer travel
Lunatone	DALI to trailing edge	Art.NR.:86458619-300	Trailing	10	1%	Limited by dimmer travel
Lunatone	DALI to trailing edge	4Ch PD Art. Nr. 8641975-HS	Trailing	1	NC	(*)
Lutron	Homeworks QS/ Engergi Savr Node QS	LQSE-4A-D (Gen 2) QSNE-4A-D (Gen 2)	Trailing	1-26 max per zone	2%	Tested by dimmer manufacturer
Lutron	Homeworks QS	HQRK-R25NE-240 HQRM-R25NE-240 HQRQR25NE-240 HQRN-R25NE-240	Trailing	1-15 max	2%	Tested by dimmer manufacturer
Lutron	HomeworksQS/ myRoom	LQSE-4A1-D MQSE-4A1-D MQSE-3A1 MQSE-2A1-D	Trailing	1-16 max per zone	1%	Tested by dimmer manufacturer
Lutron	Homeworks	HQRx-P20-240y	Trailing	1-15 max	2%	Tested by dimmer manufacturer
Lutron	Energi Savr Node DIN Rail (240 V PRO LED+ Phase Adaptive)	QSNE-4A5-230-D	Trailing	Zone 1: 1-42 Zone 2 4: 1-26 per zone, max	1%	Tested by dimmer manufacturer

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Lutron	HomeWorks DIN Rail Power Module (240 V PRO LED+ Phase Adaptive	LQSE-4A5-230-D	Trailing	Zone 1: 1-42 Zone 2 4: 1-26 per zone, max	1%	Tested by dimmer manufacturers
Lutron	Grafik Eye QS	QSGR-6PCE	Leading	4	NC	Buzzing noise
Lutron	RA2 select	RRK-R25NE-240 RRM-R25NE-240 RRQ-R25NE-240 RRN-R25NE-240	Trailing	1-15 (max)	2%	Tested by dimmer manufacturer
Lutron	RA select	RRx-P20-240y	Trailing	1-15 max	2%	Tested by dimmer manufacturer
Lutron	Vive	RMKS-250NE RMMS-250NE RMQS-250NE RMNS-250NE	Trailing	1-15 max	2%	Tested by dimmer manufacturer
OSRAM Halotronic	DALI to trailing edge	HTI Dali 315/230-240 DIM	Trailing	10	4%	(*)
Skydance	DALI to trailing edge	DT-8	Trailing	1-6	0%	(*)
Skydance	DALI to trailing edge	DT	Trailing	1-6	0.3%	(*) Limited by dimmer travel
Skydance	DMX to trailing edge	S1-D	Trailing	1-6	0%	(*)

NOTES:

- Compatibility tests are conducted by Soraa (unless stated otherwise) 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 dimmer manufacturer.
- Regards compatibility tests conducted by dimmer manufacturer, please contact Soraa or the manufacturer for more details and/or reports.
- (*) Test results with this dimmer added to the compatibility list as of this Revision.

--%	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