

SORAA

Electrical compatibility – ARC Pendant, Adjustable Recessed and Semi-recessed, and Recessed Downlights 230V - International

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General compatibility guidelines

Scope

This document provides the basic guidelines regards electrical compatibility of SORAA 120V ARC Pendant and Adjustable recessed and semi-recessed fixtures.

Dimmer Compatibility

SORAA 120V ARC Pendant and Adjustable recessed and semi-recessed fixtures are made to work with reverse phase and forward phase phase cut dimmers. However, the use of reverse phase dimmers is preferred and will show in general better behavior .

Dimmer compatibility tables are on pages **3-6**

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.

Maximum number of Pendants on a dimmer

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

1. SORAA tests have been carried out with 1 fixture unless stated otherwise.
2. There is a repetitive, very brief current spike the LED will see twice per cycle. This current spike has to be provided by the dimmer, and will affect the recommended fixture 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 incandescent/halogen dimmers loaded with our 230V fixtures.

For example for a 500W dimmer it would mean $500/5 = 100W$ of LED, so an estimated maximum of 5 fixtures of 18.5W.

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 dimmer manufacturers.

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

SORAA ARC Pendant, Adjustable (Recessed and Semi-recessed), Recessed Downlights 230V - DIMMER COMPATIBILITY LIST - International

Manufacturer	Model	MD #	Edge Trigger	Number of fixtures tested	50mm (11W)	50mm (18W)	100mm (20W)	Comments
Aurora		DSP400X	LE	1, 2	9%	9%	8%	
Busch		6523 U	LE	1, 2	13%	12%	13%	
Busch		2247 U	LE	1, 2	5%	9%	8%	
CABAC		HNS630DT	Trailing edge	1, 2	NC	NC	NC	(*)
Casambi		CBU-TED (Bluetooth)	TE	1, 2	3%	3%	3%	
Clipsal		L5504D2U	adaptive -TE	1, 2	NC	NC	NC	
Clipsal		32ELEDM	TE	1, 2	NC	NC	NC	
Clipsal		32E450UDM	TE	1, 2	6%	10%	10%	Need min. 2 fixtures
DeltaDore		Tyxia 4840	adaptive	1, 2	3%	3%	3%	
DeltaDore		Tyxia 4940	TE	1, 2	3%	3%	3%	
Diginet		DGLCDM400 (MEDM)	Trailing edge	1, 2	7%	6%	4%	(*)
Eltako		EUD61NPN-UC	TE	1, 2	6%	4%	9%	
Feller		3314.12.FMI.61	TE	1, 2	9%	3%	3%	
Feller		40200.LED.FMI.61	TE	1, 2	8%	5%	5%	
GIRA		030700 / I02		1, 2	NC	NC	NC	
GIRA		Gira 238500	adaptive -TE	1, 2	4%	3%	3%	
Hager		EVN002	TE	1, 2	10%	10%	9%	
Hager		TYA663A		1, 2	NC	NC	NC	
Helvar	Digidim	452	TE	1, 2	9%	9%	9%	
Helvar	Digidim	454	TE	1, 2	8%	9%	7%	

SORAA ARC Pendant, Adjustable (Recessed and Semi-recessed), Recessed Downlights 230V - DIMMER COMPATIBILITY LIST - International

Manufacturer	Model	MD #	Edge Trigger	Number of fixtures tested	50mm (11W)	50mm (18W)	100mm (20W)	Comments
Legrand	HPM	450P	Trailing edge	1, 2	NC	NC	NC	(*)
Lumex	Load Smart Gen2	LT1D450LS	Leading edge	1, 2	NC	NC	NC	(*)
Lutron	Energi Svr Node QS	QSNE-4A-D	TE	1, 2, 5, 7	4%	4%	4%	
Lutron	LCP panel	LP-RPM-4A-230	adaptive -TE	1, 2	8%	8%	8%	
Lutron	Grafik Eye QS	QSGR	LE	1, 2	NC	NC	NC	
Lutron	Grafik Eye QS	QSGR +ELVI module	TE	1, 2	8%	8%	14%	
MK		K1526	LE	1, 2	9%	7%	6%	
Panasonic		WEG 57813 300W	LE	1, 2	3%	3%	3%	
Philips Dynalite		DGLEDM401	TE	1, 2	6%	10%	10%	
Philips Dynalite		DGTM402	TE	1, 2	16%	16%	16%	
Rako		RMT500	TE	1, 2	7%	6%	5%	
RVE		RV5	LE	1, 2	3%	2%	2%	
RVE		RVLED 250	TE	1, 2	3%	2%	2%	
Shuttle		SDIM-T-LED-125W	Trailing edge	1, 2	7%	7%	6%	(*)
Tridonic		DALI-PCD 1-300 one4all	TE					
Varilight	V-PRO	JQP401W	TE	1, 2	3%	2%	1%	
Vossloh Schwabe		Dim One	TE	1, 2	7%	5%	5%	
Vossloh-Schwabe		number. 553962	Trailing edge	1, 2	3%	3%	3%	(*)
Vossloh Schwabe		number: 554591	TE	1, 2	10%	1%	1%	
Yokis		MTV500E	adaptive-TE	1, 2	4%	8%	7%	

SORAA ARC Pendant, Adjustable (Recessed and Semi-recessed), Recessed Downlights 230V - DIMMER COMPATIBILITY LIST - International

Manufacturer	Model	MD #	Edge Trigger	Number of fixtures tested	50mm (11W)	50mm (18W)	100mm (20W)	Comments
DALI			DALI		2%	2%	2%	
0-10V			0-10V		4%	4%	4%	

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 the dimmer manufacturer or Soraa 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