

**SHUTTLE DIMMERS CONTROL GEAR COMPATIBILITY – Version: JULY 2024**

**Shuttle Phase Cut Universal Dimmers (Live In and Load Out, No Neutral required )**

**Bell-Press dimmer models: 125W, 250W, 500W & 800W. Rotary dimmer models: 225W, 500W & 800W**

NO	BRAND	MODEL	OUTPUT	DIMMING MODE (recommended)	COMPATIBLE DIMMER				
					125W	225W	250W	500W	800W
<b>“Halogen” Electronic Transformers (unregulated constant RMS voltage output)</b>									
1	Actec	Mini 60 Series 2	AC (>20kHz)	Trailing Edge	•	•	•	•	•
2	ART Electronics	ART-T3560i-E	AC (>20kHz)	Trailing Edge	•	•	•	•	•
3	ART Electronics	Track T16E	AC (>20kHz)	Trailing Edge	•	•	•	•	•
4	Eurolux	ET60T	AC (>20kHz)	Trailing Edge	•	•	•	•	•
5	Eurolux	CO79	AC (>20kHz)	Trailing Edge	•	•	•	•	•
6	Flash	ET2160	AC (>20kHz)	Trailing Edge	•	•	•	•	•
7	Gitronica	GET 200IN/V1	AC (>20kHz)	Trailing Edge	•	•	•	•	•
8	Lightech	Pro60VA	AC (>20kHz)	Trailing Edge	•	•	•	•	•
9	Lightech	9978 60VA	AC (>20kHz)	Trailing Edge	•	•	•	•	•
10	NVC	Same as Actec	AC (>20kHz)	Trailing Edge	•	•	•	•	•
11	Osram	ET-P 60	AC (>20kHz)	Trailing Edge	•	•	•	•	•
12	Osram	ET-Parrot 70	AC (>20kHz)	Trailing Edge	•	•	•	•	•
13	Osram	Halotronic HTM 70	AC (>20kHz)	Trailing Edge	•	•	•	•	•
14	Osram	Halotronic HTM 105	AC (>20kHz)	Trailing Edge	•	•	•	•	•
15	Osram	Halotronic HTM 150	AC (>20kHz)	Trailing Edge	•	•	•	•	•
16	Paragon/Belmax	ET60	AC (>20kHz)	Trailing Edge	•	•	•	•	•
17	Pharox	60W	AC (>20kHz)	Trailing Edge	•	•	•	•	•
18	Philips	Primaline 70	AC (>20kHz)	Trailing Edge	•	•	•	•	•
19	Philips	Primaline 105	AC (>20kHz)	Trailing Edge	•	•	•	•	•
20	Philips	Primaline 150	AC (>20kHz)	Trailing Edge	•	•	•	•	•
21	Radiant Lighting	XE060 03	AC (>20kHz)	Trailing Edge	•	•	•	•	•
22	Relco	Micro Plus 60 FPS	AC (>20kHz)	Trailing Edge	•	•	•	•	•
23	Relco	Minihole RN1670	AC (>20kHz)	Trailing Edge	•	•	•	•	•
24	Seal	70D	AC (>20kHz)	Trailing Edge	•	•	•	•	•

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25	Spectrum	1001 ET60-3	AC (>20kHz)	Trailing Edge	•	•	•	•	•
26	Toroidal Technologies	Rhino 60	AC (>20kHz)	Trailing Edge	•	•	•	•	•
27	Toroidal Technologies	SET60LV	AC (>20kHz)	Trailing Edge	•	•	•	•	•
28	Verbatim	LW70 (no minimum load requirement)	AC (>20kHz)	Trailing Edge	•	•	•	•	•
29	Waco Industries	ET60	AC (>20kHz)	Trailing Edge	•	•	•	•	•

### Constant Current Output LED Drivers

30	Actec	D2309NT-N3 230mA	DC CC	Trailing Edge	•	•	•	•	•
31	Actec	D3501U 350mA	DC CC	Trailing Edge	•	•	•	•	•
32	Actec	D50022U 500mA	DC CC	Trailing Edge	•	•	•	•	•
33	Actec	D70040NT 700mA	DC CC	Trailing Edge	•	•	•	•	•
34	Actec	DIM300mA	DC CC	Trailing Edge	•	•	•	•	•
35	AL TSA	300mA driver	DC CC	Trailing Edge	•	•	•	•	•
36	AL TSA	750mA driver	DC CC	Trailing Edge	•	•	•	•	•
37	Aurora/Enlite	AU-ALDD4015	DC CC	Trailing Edge	•	•	•	•	•
38	Aurora/Enlite	AU-ALDD4019	DC CC	Trailing Edge	•	•	•	•	•
39	Aurora/Enlite	EN-DDL413	DC CC	Trailing Edge	•	•	•	•	•
40	Aurora/Enlite	EN-DDLH413	DC CC	Trailing Edge	•	•	•	•	•
41	Aurora/Enlite	EN-DDL618	DC CC	Trailing Edge	•	•	•	•	•
42	Aurora/Enlite	EN-DDLH618	DC CC	Trailing Edge	•	•	•	•	•
43	Aurora/Enlite	EN-DDL818	DC CC	Trailing Edge	•	•	•	•	•
44	Aurora/Enlite	EN-DDLH818	DC CC	Trailing Edge	•	•	•	•	•
45	Aurora/Enlite	EN-DDLH825	DC CC	Trailing Edge	•	•	•	•	•
46	Aurora/Enlite	EN-DDLH825	DC CC	Trailing Edge	•	•	•	•	•
47	Aurora/Enlite	EN-DDL840	DC CC	Trailing Edge	•	•	•	•	•
48	Aurora/Enlite	EN-DDLH840	DC CC	Trailing Edge	•	•	•	•	•
49	Aurora/Enlite	EN-DDLH1045	DC CC	Trailing Edge	•	•	•	•	•
50	Aurora/Enlite	EN-DLB071D	DC CC	Trailing Edge	•	•	•	•	•

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NO	BRAND	MODEL	OUTPUT	DIMMING MODE (recommended)	COMPATIBLE DIMMER				
					125W	225W	250W	500W	800W
51	Aurora/Enlite	EN-DLB071D	DC CC	Trailing Edge	•	•	•	•	•
52	Aurora/Enlite	EN-DLB072D	DC CC	Trailing Edge	•	•	•	•	•
53	Aurora/Enlite	EN-DLB101D	DC CC	Trailing Edge	•	•	•	•	•
54	Aurora/Enlite	EN-DLB101D	DC CC	Trailing Edge	•	•	•	•	•
55	Aurora/Enlite	EN-DLB102D	DC CC	Trailing Edge	•	•	•	•	•
56	Aurora/Enlite	EN-DDLCX10	DC CC	Trailing Edge	•	•	•	•	•
57	Aurora/Enlite	EN-PLDD06B	DC CC	Trailing Edge	•	•	•	•	•
58	Aurora/Enlite	EN-PLDD09B	DC CC	Trailing Edge	•	•	•	•	•
59	Aurora/Enlite	EN-PLDD12B	DC CC	Trailing Edge	•	•	•	•	•
60	Dimtronic	260mA driver	DC CC	Trailing Edge	•	•	•	•	•
61	Eagle Lighting	Eagle 6W dimmable driver	DC CC	Trailing Edge	•	•	•	•	•
62	Eagle Rise	EIP040C1400LH	DC CC	Trailing Edge	•	•	•	•	•
63	InterEnergy	K50	DC CC	Trailing Edge	•	•	•	•	•
64	InterEnergy	G50	DC CC	Trailing Edge	•	•	•	•	•
65	InterEnergy	B80	DC CC	Trailing Edge	•	•	•	•	•
66	KOE	KLP8-120D 120mA	DC CC	Trailing Edge	•	•	•	•	•
67	KOE	KLP500x6D 500mA	DC CC	Trailing Edge	•	•	•	•	•
68	KOE	KLP500-10D 500mA	DC CC	Trailing Edge	•	•	•	•	•
69	Ledionopto	350mA driver	DC CC	Trailing Edge	•	•	•	•	•
70	Ledionopto	700mA driver	DC CC	Trailing Edge	•	•	•	•	•
71	Ledionopto	700mA driver	DC CC	Trailing Edge	•	•	•	•	•
72	Li Zhau	4W Driver	DC CC	Trailing Edge	•	•	•	•	•
73	Li Zhau	7W Driver	DC CC	Trailing Edge	•	•	•	•	•
74	Li Zhau	15W Driver	DC CC	Trailing Edge	•	•	•	•	•
75	Lumax	BT-DL6901W6	DC CC	Trailing Edge	•	•	•	•	•
76	Lumax	BT-DL6901W6	DC CC	Trailing Edge	•	•	•	•	•
77	Luminence	K50-R7	DC CC	Trailing Edge	•	•	•	•	•
78	Lumotech	Minidim 12VA	DC CC	Trailing Edge	•	•	•	•	•

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NO	BRAND	MODEL	OUTPUT	DIMMING MODE (recommended)	COMPATIBLE DIMMER				
					125W	225W	250W	500W	800W
79	Major Tech	MLD-10W	DC CC	Trailing Edge	•	•	•	•	•
80	Mezmerize	LED-09VATDR 300mA	DC CC	Trailing Edge	•	•	•	•	•
81	Mezmerize	LED-09VATDR 300mA	DC CC	Trailing Edge	•	•	•	•	•
82	Mezmerize	LED-18VATDR 300mA	DC CC	Trailing Edge	•	•	•	•	•
83	Mezmerize	LED-24VATDR 300mA	DC CC	Trailing Edge	•	•	•	•	•
84	Mezmerize	LPDD-6W (PE294B0730)	DC CC	Trailing Edge	•	•	•	•	•
85	Mezmerize	LPDD-12W (PE294B1230)	DC CC	Trailing Edge	•	•	•	•	•
86	Mezmerize	LPDD-18W (PE296B1830)	DC CC	Trailing Edge	•	•	•	•	•
87	Mezmerize	LPDD-24W (PF-292B)	DC CC	Trailing Edge	•	•	•	•	•
88	O-Lite	Mini D26004NT	DC CC	Trailing Edge	•	•	•	•	•
89	O-Lite	D26009NT	DC CC	Trailing Edge	•	•	•	•	•
90	O-Lite	D26012NT	DC CC	Trailing Edge	•	•	•	•	•
91	O-Lite	D26020NT	DC CC	Trailing Edge	•	•	•	•	•
92	Osram	OTE 13 350mA	DC CC	Trailing Edge	•	•	•	•	•
93	PioLed Lighting	S-72-24	DC CC	Trailing Edge	•	•	•	•	•
94	PioLed Lighting	PIO-CL-6W (300mA)	DC CC	Trailing Edge	•	•	•	•	•
95	PioLed Lighting	PIO-PS-10W-CC 250mA	DC CC	Trailing Edge	•	•	•	•	•
96	PioLed Lighting	PIO-PS-15W-CC 350mA	DC CC	Trailing Edge	•	•	•	•	•
97	PioLed Lighting	PIO-PS-40W-DIM 1000mA	DC CC	Trailing Edge	•	•	•	•	•
98	PioLed Lighting	PIO-PS-60W-DIM 1500mA	DC CC	Trailing Edge	•	•	•	•	•
99	PioLed Lighting	PIO S-48-24	DC CC	Trailing Edge	•	•	•	•	•
100	PioLed Lighting	PIO S-72-24	DC CC	Trailing Edge	•	•	•	•	•
101	PioLed Lighting	S-CV-240-PL (300mA)	DC CC	Trailing Edge	•	•	•	•	•
102	Radiant	D700040NT	DC CC	Trailing Edge	•	•	•	•	•
103	Radiant	350mA driver	DC CC	Trailing Edge	•	•	•	•	•
104	Radiant	700mA driver	DC CC	Trailing Edge	•	•	•	•	•
105	Robus	R10LED200DB	DC CC	Trailing Edge	•	•	•	•	•
106	Spazio Lighting	7317.350.18.D	DC CC	Trailing Edge	•	•	•	•	•

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					125W	225W	250W	500W	800W
107	Tridonic	LCA 15W	DC CC	Trailing Edge	●	●	●	●	●
108	Tridonic	LCBI 14W	DC CC	Trailing Edge	●	●	●	●	●
109	Tridonic	LCA 15W	DC CC	Trailing Edge	●	●	●	●	●
110	Tridonic	LCA 21W 300-500mA (Art No 87500603)	DC CC	Trailing Edge	●	●	●	●	●
111	Tridonic	LCBI 25W	DC CC	Trailing Edge	●	●	●	●	●
112	Tridonic	LC 10/500/20 (Art No 28003349)	DC CC	Trailing Edge	●	●	●	●	●
113	Tridonic	LC 14/700/20 (Art No 28003350)	DC CC	Trailing Edge	●	●	●	●	●
114	Verbatim	#52900	DC CC	Trailing Edge	●	●	●	●	●
115	Visionary	Phoenix P-220MA-D VF 1000 (V3) 220mA	DC CC	Trailing Edge	●	●	●	●	●

### Constant Voltage Output LED Drivers (PWM output when dimming)

116	Enlite	LM-150-24	DC CV/PWM	Trailing Edge	●	●	●	●	●
117	Lite-Lighting	LS-60W-24V-D	DC CV/PWM	Leading Edge	●	●	●	●	●
118	Lite-Lighting	LS-100W-24V-D	DC CV/PWM	Leading Edge	●	●	●	●	●
119	Ltech	LM-75-24-G1T2	DC CV/PWM	Trailing Edge	●	●	●	●	●
120	Ltech	TD-150-24-E1M1	DC CV/PWM	Trailing Edge	●	●	●	●	●

**NOTES**

- 1 All Shuttle universal dimmers are factory default in trailing edge mode since trailing edge dimming is recommended for most dimmable LED's and drivers
- 2 Maximum quantity of control gear per dimmer depends on the load rating
- 3 If the LED or dimmer supplier does not provide measured data, calculate the maximum number of LED's per dimmer as follows:

$$\text{Max. number of LED's per dimmer} = \frac{\text{Dimmer Max. rating (W/VA)}}{\text{LED's equivalent GLS/Halogen wattage}}$$

- 4 All measurements are conducted at 230VAC 50Hz
- 5 Maximum quantity of control gear per dimmer depends on the load rating
- 6 Lamp and control gear compatibility may influence dimming performance – consult with suppliers for recommended or approved combinations
- 7 Most AC output electronic transformers have minimum load requirements – consult with suppliers for MR16 LED lamp compatibility and number of lamps per transformer
- 8 Ensure that the output voltage range of a dimmable constant current driver is at least 10% above and 10% below the LED lamp requirements
- 9 Use only PWM output voltage dimmable drivers for 12/24V LED tape or strip lamps
- 10 Flicker at low light intensity is sometimes unavoidable – please set the dimmer minimum dim to avoid flicker (refer to relevant dimmer data sheet)
- 11 Some LED's dim to a completely off state – please set the dimmer minimum level to avoid this condition (refer to relevant dimmer data sheet)
- 12 Some Low voltage lamps and transformer combinations might exhibit flicker at various light intensities or might not turn on – please set the dimmer in “MR16 compatibility mode”

**Shuttle Lighting Control Systems (Pty) Ltd - Lamp/driver dimmer compatibility testing Disclaimer**

Compatibility tests are conducted by Shuttle as guidance, without responsibility for the performance of the lamps and drivers.

The results shown are based on measurements in our test laboratory. Field 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 lamp and driver manufacturers.

Please refer to the lamp and driver manufacturers website for specifications, installation and operating instructions