

Operation of LED-Retrofit Lamps LED Star RaLEDina with various Dimmers



Legend: green dimmability very good (dimming range >80%, under 25% light)
yellow dimmable (under 40% light and/or dimming range <80%)
orange dimmable (dimming range >80%, under 40% light and/or noise possible)
red dimmability critical (flickering and/or noise possible, dimming range <80% and/or only more than 40% light)
white not tested

					RAL35		RAL60		RAL120	
					43714953 RL-RAL2 ... 43714955 RL-RAL1 ...		43714954 RL-RAL2 ... 43714956 RL-RAL1 ...		43714957 RL-RAL2 ...	
Manufacturer	Dimmer-Type, Model	Mains/Power	Load Range [W]	Dimming Method	1 Lamp	4 Lamps	1 Lamp	4 Lamps	1 Lamp	4 Lamps
ABB	STD 50-3	230V / 50Hz	60-500	L	167% - 59%	134% - 32%	144% - 38%	122% - 21%	129% - 25%	116% - 17%
Altenburger Electronic	50.30	230V / 50Hz	15-350	T	118% - 42%	111% - 17%	113% - 29%	105% - 10%	88% - 15%	93% - 8%
AURORA(Core No.9)	DSP 400	230V / 50Hz	400	L	176% - 0%	133% - 0%	148% - 0%	119% - 0%	124% - 0%	117% - 0%
Berker	2861	230V / 50Hz	50-420	T	147% - 42%	0% - 0%	121% - 19%	0% - 0%	0% - 0%	0% - 0%
bticino	NT4402N	230V / 50Hz	500	L	95% - 46%	116% - 33%	88% - 29%	105% - 21%	75% - 20%	119% - 11%
Busch-Jaeger	6513U-102	230V / 50Hz	40-420	T	134% - 49%	119% - 20%	72% - 18%	99% - 8%	116% - 20%	111% - 8%
Busch-Jaeger	6523U-102	230V / 50Hz	2-100	L	141% - 49%	127% - 98%	110% - 28%	103% - 18%	122% - 26%	118% - 17%
Busch-Jaeger	2250 U	230V / 50Hz	60-600	L	111% - 10%	128% - 4%	58% - 4%	103% - 4%	120% - 7%	108% - 1%
Busch-Jaeger	6526 U	230V / 50Hz	40-420	T	0% - 0%	0% - 0%	0% - 0%	0% - 0%	0% - 0%	0% - 0%
CENTURY CONTROL	MULTI DIMMER	230V / 50Hz	60-600	L	160% - 29%	129% - 10%	142% - 19%	118% - 6%	125% - 10%	108% - 5%
DimMax	420SL	230V / 50Hz	200	L/T	131% - 10%	123% - 11%	106% - 4%	100% - 5%	116% - 9%	114% - 7%
DINUY	RE EL1 LE1	230V / 50Hz	400	L/T	176% - 72%	134% - 19%	138% - 27%	119% - 12%	125% - 15%	118% - 9%
ELKO	420GLE/I	230V / 50Hz	40-420	T	127% - 33%	112% - 14%	124% - 0%	109% - 9%	114% - 13%	111% - 6%
Eltako	EUD61NPN-UC	230V / 50Hz	5-400	L/T	118% - 33%	130% - 7%	135% - 6%	117% - 11%	116% - 8%	114% - 8%
Feller	40600 RLC	230V / 50Hz	20-600	L	114% - 0%	111% - 0%	119% - 0%	108% - 0%	109% - 0%	110% - 3%
Gira	030700	230V / 50Hz	20-525	T	127% - 39%	123% - 16%	106% - 18%	73% - 6%	101% - 12%	107% - 7%
Gira	117600	230V / 50Hz	50-420	U	0% - 0%	0% - 0%	0% - 0%	0% - 0%	0% - 0%	0% - 0%
Gira	217400	230V / 50Hz	4X20-250	T	137% - 72%	126% - 16%	123% - 0%	118% - 45%	116% - 11%	117% - 39%
Hager	WUD87	230V / 50Hz	400	T	121% - 36%	115% - 27%	111% - 0%	114% - 17%	114% - 19%	115% - 16%
Hamilton	KP1X40	230V / 50Hz	400	L	154% - 154%	126% - 126%	135% - 135%	113% - 113%	123% - 123%	110% - 110%
Jung	225 NVDE	230V / 50Hz	20-500	L	147% - 10%	116% - 19%	116% - 15%	106% - 1%	118% - 14%	121% - 1%
Jung	1224 LEDUDE	230V / 50Hz	50-420	T	118% - 118%	126% - 126%	112% - 112%	0% - 0%	112% - 112%	107% - 107%
Legrand	665114	230V / 50Hz	75	L	137% - 23%	116% - 16%	112% - 9%	77% - 4%	113% - 10%	114% - 4%
Legrand	099314 L 300	230V / 50Hz	3-75	L	147% - 147%	121% - 121%	129% - 129%	113% - 113%	119% - 119%	112% - 112%
Legrand	770062 T 400	230V / 50Hz	5-60W	T	147% - 16%	123% - 7%	131% - 0%	112% - 8%	119% - 9%	112% - 7%
MASTER	DM-DGL	230V / 50Hz	1000	L	206% - 163%	138% - 108%	173% - 133%	123% - 89%	134% - 96%	120% - 77%
MASTER	DM-2500	230V / 50Hz	2500	L	193% - 49%	143% - 15%	165% - 25%	125% - 10%	139% - 14%	120% - 7%
merten	ELKO 315GLE	230V / 50Hz	20-315	T	134% - 56%	103% - 16%	109% - 25%	74% - 7%	111% - 17%	108% - 6%
Merten	MEG5134-0000	230V / 50Hz	20-525	T	118% - 26%	82% - 14%	84% - 19%	59% - 7%	71% - 12%	0% - 0%
merten	MEG 5133	230V / 50Hz	40-600	L	131% - 26%	119% - 9%	87% - 58%	100% - 4%	115% - 10%	110% - 3%
merten	MEG 5137	230V / 50Hz	20-630	T	121% - 78%	124% - 17%	106% - 19%	87% - 8%	117% - 14%	94% - 9%
Merten	MEG 5170-0300	230V / 50Hz	10-200	T	114% - 114%	16% - 16%	112% - 19%	11% - 11%	12% - 12%	11% - 11%
Merten	MEG 5131	230V / 50Hz	40-400	L	114% - 0%	112% - 0%	117% - 0%	109% - 0%	110% - 0%	108% - 0%
Merten	MEG 5140	230V / 50Hz	9-100	L	127% - 0%	116% - 0%	127% - 0%	110% - 0%	113% - 0%	109% - 0%
Merten	MEG 5135	230V / 50Hz	60-1000	L	157% - 39%	133% - 10%	140% - 25%	121% - 6%	126% - 12%	119% - 3%
MK	K4501	230V / 50Hz	180	L	154% - 36%	121% - 22%	131% - 23%	115% - 14%	117% - 17%	109% - 12%
NEXUS	881P-01	230V / 50Hz	400	L	144% - 0%	125% - 0%	133% - 0%	115% - 0%	120% - 0%	109% - 0%
NIKO	310-01900 / 01901	230V / 50Hz	5-200	L/T	147% - 16%	130% - 8%	131% - 25%	118% - 9%	123% - 7%	117% - 12%
NIKO	330-00700 / 00701	230V / 50Hz	5-200	L/T	124% - 29%	128% - 12%	213% - 15%	128% - 8%	121% - 9%	110% - 9%
Osram	Hii DALI 315 DIM	230V / 50Hz	20-315	DALI T	118% - 20%	45% - 16%	113% - 13%	101% - 6%	118% - 12%	113% - 8%
PEHA	435 HAN	230V / 50Hz	60-600	L	141% - 65%	118% - 34%	132% - 31%	112% - 21%	117% - 28%	110% - 18%
Schneider	ELKO 400GLI	230V / 50Hz	400	/	141% - 23%	133% - 7%	107% - 13%	105% - 3%	118% - 9%	125% - 2%
Shuttle	SDIM-T-LED-500W	230V / 50Hz	2-500	T	141% - 29%	129% - 14%	131% - 0%	121% - 8%	123% - 11%	114% - 7%
Siemens	5TC8 284	230V / 50Hz	20-525	T	134% - 72%	115% - 23%	112% - 33%	97% - 10%	80% - 57%	87% - 8%
Siemens	5WG1-527-1AB31	230V / 50Hz	20-500	T	147% - 39%	129% - 7%	129% - 17%	118% - 6%	116% - 9%	118% - 3%
theben	DIMAX 544 plus P	230V / 50Hz	250	T	127% - 26%	126% - 15%	121% - 13%	116% - 9%	116% - 10%	117% - 8%
theben	DIMAX 534 plus	230V / 50Hz	400	T	0% - 0%	0% - 0%	0% - 0%	117% - 7%	117% - 9%	112% - 3%
VADSBO	LD 220	230V / 50Hz	1-200	T	157% - 20%	133% - 11%	144% - 0%	119% - 6%	123% - 8%	114% - 3%
VARILIGHT	HQ3W	230V / 50Hz	400	L	134% - 26%	98% - 15%	119% - 0%	110% - 9%	125% - 12%	76% - 8%
VARILIGHT	JQP401W	230V / 50Hz	400	T	98% - 20%	139% - 23%	129% - 0%	123% - 14%	127% - 7%	121% - 14%
Vimar	20135	230V / 50Hz	3 - 100	L/T	131% - 20%	116% - 8%	123% - 13%	118% - 9%	114% - 8%	117% - 8%
ZANO	WH401	230V / 50Hz	400	L	160% - 0%	137% - 0%	140% - 0%	122% - 0%	128% - 0%	121% - 0%
ZANO	WH251	230V / 50Hz	250	L	225% - 0%	137% - 0%	163% - 0%	122% - 0%	129% - 0%	121% - 0%
ZANO	Z GRID 500	230/50Hz	500		147% - 0%	125% - 0%	133% - 0%	117% - 0%	118% - 0%	113% - 0%

Typical values. Test performed with regarded lamps named. The test results reflect the measurement of the individual devices that were used in tests. Radium does not take over any responsibility, warranty or liability that this results can also be achieved by using the devices under other conditions or when using successor models of the tested devices or different models of the same manufacturer. The test results were achieved by using the above mentioned LED-lamp types.

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Due to the big number of electronic components and many other influence factors noise can emerge in unfavourable conditons, which may be well audible in the case of resonance.

Generally speaking, employment of trailing edge dimmers is recommended. They require the neutral wire for installation.

Changes, errors and omissions excepted.