

**LCBU 25W 12V phase-cut SR (89800290), 230V/50Hz****Values for dimmers at full load**

| Product name                           | Article number | Dimmer type <sup>1</sup> | Control gear per dimmer | Noise rating <sup>2</sup> | Flicker rating <sup>3</sup> | Other issues <sup>4</sup> | Rating summary <sup>5</sup> |
|--|----------------|--------------------------|-------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|
| Amacher<br>03 5012 60- 600w            | 435 HAN        | leading                  | 1-12                    | 4                         | 1                           |                           | adviseable                  |
| B-Ticino<br>Magic SM9350S              | SM9350S        | leading                  | 1-6                     | 3                         | 1                           |                           | adviseable                  |
| Bull<br>B6 GD100                       | G07D101        | leading                  | 1-10                    | 4                         | 1                           |                           | adviseable                  |
| Busch & Jaeger<br>2247 U 500w/VA       | 2247-500       | leading                  | 1-10                    | 3                         | 1                           |                           | adviseable                  |
| Busch & Jaeger<br>6513U-102 40-420w/VA | 6513 U-102     | trailing                 | 1-8                     | 2                         | 1                           | Poor dim depth            | not good                    |
| Busch-Jaeger<br>6523U                  | 6512-0-0306    | leading                  | 1-2                     | 3                         | 1                           |                           | adviseable                  |
| Busch-Jaeger<br>6524U                  | 6512-0-0311    | leading                  | 1-2                     | 2                         | 1                           |                           | average                     |
| CHINT<br>NEW 7-C30510                  | 121227E7       | leading                  | 1-10                    | 3                         | 1                           |                           | adviseable                  |
| CLIPSAL<br>32E 450 UDM                 | 32E450UDM      | trailing                 | 1-9                     | 2                         | 1                           |                           | average                     |
| CLIPSAL<br>32E 450CFLDM                | 32E450CFLDM    | trailing                 | 1-9                     | 2                         | 1                           |                           | adviseable                  |
| CLIPSAL<br>32E 450LM                   | 32E450LM       | leading                  | 1-9                     | 3                         | 1                           |                           | adviseable                  |
| CLIPSAL<br>32E 450TM                   | 32E450TM       | trailing                 | 1-9                     | 2                         | 1                           |                           | adviseable                  |
| CLIPSAL<br>60TDM<br>SaturnOneTouch     | 4061TD         | trailing                 | 1-7                     |                           | 1                           | No operation              | not useful                  |

|  |             |          |                    |   |   |   |            |
|--|-------------|----------|--------------------|---|---|---|------------|
| CLIPSAL<br>C Bus 2 L5508D1A              | 10871212    | leading  | 1-4 x 8<br>channel | 4 | 2 | Flicker at<br>100 mA,<br>removed by<br>using<br>ZSL-UP <sup>4</sup> | average    |
| Crabtree<br>CRO-1w20 60-250w             | CRO-1       | leading  | 1-5                | 3 | 1 |   | adviseable |
| D & C<br>XHB 15w-150w                    |             | leading  | 1-3                | 3 | 1 |   | average    |
| DUEWI<br>D16601160-300w                  | D1 66011    | leading  | 1-6                | 4 | 1 |   | adviseable |
| DUEWI<br>ET1 53850 20-300w               | ET153850    | trailing | 1-6                | 2 | 1 |   | average    |
| Elko<br>40 315 VA (315LE)                | 1471444     | trailing | 1-6                | 2 | 1 |   | adviseable |
| Elko<br>400 GL1                          | 1471450     | leading  | 1-8                | 3 | 1 |   | adviseable |
| Feller<br>30583 40 - 500w                | 30583       | leading  | 1-10               | 3 | 1 |   | adviseable |
| Feller<br>40600-Rc-FMI 61<br>20-300VA    | 548 290 000 | trailing | 1-6                | 2 | 1 |   | average    |
| Feller<br>40600-RC-FMI 61<br>20-600VA    | 548 270 000 | trailing | 1-12               | 2 | 1 |   | average    |
| Feller<br>40600-RL-FMI-61<br>40-600 VA   | 548 260 000 | leading  | 1-12               | 3 | 1 |   | adviseable |
| FUJIYAMA<br>600w                         | FJ159       | leading  | 1-12               | 3 | 1 |   | adviseable |
| GET<br>60w-400w                          | 08-07-17    | leading  | 1-8                | 3 | 1 |   | adviseable |
| GET<br>Transformer 60-400VA              | 07-07-26    | leading  | 1-8                | 3 | 1 |   | adviseable |
| JUNG<br>225 TDE Tronic<br>Dimmer 20-525w | 225 TDE     | trailing | 1-10               | 2 | 1 |   | average    |

|   |                   |           |      |   |   |                  |            |
|---|-------------------|-----------|------|---|---|------------------|------------|
| KLEIN<br>K513/UX20325w                      | K513/UX           | trailing  | 1-6  | 2 | 1 | Poor dim depth   | not good   |
| KOPP<br>80.33 40w-400w                      | 059413051         | leading   | 1-8  | 3 | 1 |                  | adviseable |
| KOPP<br>80.7820-275w                        | 807813081         | trailing  | 1-5  | 2 | 1 |                  | average    |
| Legrand<br>ADW-ETL4                         | 775903            | trailing  | 1-8  | 2 | 1 |                  | adviseable |
| Legrand<br>HPM 400L                         | 21901B            | leading   | 1-8  | 3 | 1 | Low output power | not good   |
| Legrand<br>HPM 400T                         | 21903B            | trailing  | 1-8  | 2 | 1 |                  | adviseable |
| Legrand<br>V8051                            | V8051             | leading   | 1-12 | 3 | 1 |                  | adviseable |
| Lumic<br>LM600                              | LM600             | leading   | 1-12 | 3 | 1 |                  | adviseable |
| OPUS-852-095-20-315w                        | 852-095           | trailing  | 1-6  | 2 | 1 |                  | adviseable |
| Panasonic<br>Max 300                        | WEG 57813         | leading   | 1-6  | 3 | 1 | Low output power | not good   |
| PEHA<br>433 HAB<br>Tronic-Dimmer<br>20-315w | D 433 HAB<br>O.A. | trailing  | 1-6  | 2 | 1 |                  | adviseable |
| RICHMOND<br>10w-600w                        | MP600TE           | trailing  | 1-12 | 2 | 1 | Poor dim depth   | not good   |
| SIEMENS<br>5TC8 28420.600w<br>20-525VA      | 5TC8284           | trailing  | 1-10 | 2 | 1 |                  | adviseable |
| Simon<br>45E101                             | 52120342          | leading   | 1-10 | 3 | 1 |                  | adviseable |
| TCL<br>L2.0 (Legrand)                       |                   | leading   | 1-12 | 3 | 1 |                  | adviseable |
| Tridonic<br>DALI-PCD 300 One4all            | 86458303          | universal | 1-6  | 2 | 1 |                  | adviseable |
| WICKES<br>60-400W                           | 070619            | leading   | 1-8  | 3 | 1 |                  | adviseable |

**Explanation:**

1. Dimmer types: leading, trailing, universal
2. Noise evaluation: 1 (very little noise) → 4 (strong noise).  
Noise evaluation was only carried out for full load. Values for minimum load are less critical. For reference refer to full load.
3. Flicker evaluation: 1 (no flicker) → 4 (strong flicker)
4. Other issues: description of the issue.  
ZSL-UP is an additional circuit that can improve the dimming behavior of specific lamps.
5. Rating summary: 1 (adviseable) → 2 (average) → 3 (not good) → 4 (not useful)

**LCBU 25W 12V phase-cut SR (89800290), 230V/50Hz****Values for dimmers at minimum load**

| Product name                           | Article number | Dimmer type <sup>1</sup> | Control gear per dimmer | Noise rating <sup>2</sup> | Flicker rating <sup>3</sup> | Other issues <sup>4</sup>                               | Rating summary <sup>5</sup> |
|--|----------------|--------------------------|-------------------------|---------------------------|-----------------------------|---|-----------------------------|
| Amacher<br>03 5012 60- 600w            | 435 HAN        | leading                  | 1-12                    |                           | 1                           |   | average                     |
| Bull<br>B6 GD100                       | G07D101        | leading                  | 1-10                    |                           | 1                           |   | adviseable                  |
| Busch & Jaeger<br>2247 U 500w/VA       | 2247-500       | leading                  | 1-10                    |                           | 1                           |   | adviseable                  |
| Busch & Jaeger<br>6513U-102 40-420w/VA | 6513 U-102     | trailing                 | 1-8                     |                           | 1                           | Poor dim depth  | not good                    |
| Busch-Jaeger<br>6523U                  | 6512-0-0306    | leading                  | 1-2                     |                           | 1                           |   | adviseable                  |
| Busch-Jaeger<br>6524U                  | 6512-0-0311    | leading                  | 1-2                     |                           | 1                           |   | average                     |
| CHiNT<br>NEW 7-C30510                  | 121227E7       | leading                  | 1-10                    |                           | 1                           |   | adviseable                  |
| CLIPSAL<br>32E 450 UDM                 | 32E450UDM      | trailing                 | 1-9                     |                           | 1                           |   | average                     |
| CLIPSAL<br>32E 450CFLDM                | 32E450CFLDM    | trailing                 | 1-9                     |                           | 1                           |   | adviseable                  |
| CLIPSAL<br>32E 450LM                   | 32E450LM       | leading                  | 1-9                     |                           | 1                           |   | adviseable                  |
| CLIPSAL<br>32E 450TM                   | 32E450TM       | trailing                 | 1-9                     |                           | 1                           |   | adviseable                  |
| CLIPSAL<br>60TDM<br>SaturnOneTouch     | 4061TD         | trailing                 | 1-7                     |                           | 1                           | No operation  | not useful                  |
| CLIPSAL<br>C Bus 2                     | 10871212       | leading                  | 1-4 x 8 channel         |                           | 2                           | Flicker at 140 mA, removed by using ZSL-UP <sup>4</sup> | average                     |

|  |             |          |      |  |   |                |            |
|--|-------------|----------|------|--|---|----------------|------------|
| Crabtree<br>CRO-1w20 60-250w             | CRO-1       | leading  | 1-5  |  | 1 |                | adviseable |
| D & C<br>XHB 15w-150w                    |             | leading  | 1-3  |  | 1 | Poor dim depth | not good   |
| DUEWI<br>D16601160-300w                  | D1 66011    | leading  | 1-6  |  | 1 |                | adviseable |
| DUEWI<br>ET1 53850 20-300w               | ET153850    | trailing | 1-6  |  | 1 | Poor dim depth | not good   |
| Elko<br>40 315 VA (315LE)                | 1471444     | trailing | 1-6  |  | 1 |                | adviseable |
| Elko<br>400 GL1                          | 1471450     | leading  | 1-8  |  | 1 |                | adviseable |
| Feller<br>30583 40 - 500w                | 30583       | leading  | 1-10 |  | 1 |                | adviseable |
| Feller<br>40600-Rc-FMI 61<br>20-300VA    | 548 290 000 | trailing | 1-6  |  | 1 |                | average    |
| Feller<br>40600-RC-FMI 61<br>20-600VA    | 548 270 000 | trailing | 1-12 |  | 1 |                | average    |
| Feller<br>40600-RL-FMI-61<br>40-600 VA   | 548 260 000 | leading  | 1-12 |  | 1 |                | adviseable |
| FUJIYAMA<br>600w                         | FJ159       | leading  | 1-12 |  | 1 |                | adviseable |
| GET<br>60w-400w                          | 08-07-17    | leading  | 1-8  |  | 1 |                | adviseable |
| GET<br>Transformer 60-400VA              | 07-07-26    | leading  | 1-8  |  | 1 |                | adviseable |
| HPM<br>400L                              |             | leading  | 1-8  |  | 1 |                | adviseable |
| HPM<br>400T                              |             | trailing | 1-8  |  | 1 |                | average    |
| JUNG<br>225 TDE Tronic<br>Dimmer 20-525w | 225 TDE     | trailing | 1-10 |  | 1 | Poor dim depth | not good   |

|   |                   |           |      |  |   |                |            |
|---|-------------------|-----------|------|--|---|----------------|------------|
| KLEIN<br>K513/UX20325w                      | K513/UX           | trailing  | 1-6  |  | 1 | Poor dim depth | not good   |
| KOPP<br>80.33 40w-400w                      | 059413051         | leading   | 1-8  |  | 1 |                | adviseable |
| KOPP<br>80.7820-275w                        | 807813081         | trailing  | 1-5  |  | 1 | Poor dim depth | not good   |
| Legrand<br>ADW-ETL4                         | 775903            | trailing  | 1-8  |  | 1 |                | adviseable |
| Legrand<br>V8051                            | V8051             | leading   | 1-12 |  | 1 |                | adviseable |
| Lumic<br>LM600                              | LM600             | leading   | 1-12 |  | 1 |                | adviseable |
| Magic<br>M9350S                             |                   | leading   | 1-6  |  | 1 |                | adviseable |
| OPUS-852-095-20-315w<br>???                 | 852-095           | trailing  | 1-6  |  | 1 |                | average    |
| Panasonic<br>Max 300                        | WEG 57813         | leading   | 1-6  |  | 1 |                | adviseable |
| PEHA<br>433 HAB<br>Tronic-Dimmer<br>20-315w | D 433 HAB<br>O.A. | trailing  | 1-6  |  | 1 |                | average    |
| RICHMOND<br>10w-600w                        | MP600TE           | trailing  | 1-12 |  | 1 | Poor dim depth | not good   |
| SIEMENS<br>5TC8 28420.600w<br>20-525VA      | 5TC8284           | trailing  | 1-10 |  | 1 |                | average    |
| Simon<br>45E101                             | 52120342          | leading   | 1-10 |  | 1 |                | adviseable |
| TCL<br>L2.0 (Legrand)                       |                   | leading   | 1-12 |  | 1 |                | adviseable |
| Tridonic<br>DALI-PCD 300 One4all            | 86458303          | universal | 1-6  |  | 1 |                | adviseable |
| WICKES<br>60-400W                           | 070619            | leading   | 1-8  |  | 1 |                | adviseable |

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