

# Consumer LED Mains Voltage range

Recommended **dimmer** compatibility list for **Mains Voltage** Lamps



**KEY**

|        |  |
|--------|--|
| x - y  | Excellent dimming with X-Y lamps, however external factors can negatively influence the deep dimming performance |
| x - y  | Dimming performance: These dimmers require more than 5 lamps as minimum load                                     |
|        | Unexpected performance behavior, not in line with good dimming perception  |
| N.A.   | Dimmer lamp combination not applicable   |
| t.b.d. | Dimmer lamp combination not tested   |

This document is for information purposes and must be treated as recommendation. Philips attempted to provide best results, results are generated in lab conditions and might contain faults

| Brand               | Type                         | Type     | Load                                | LED spot            |         |                     |                          |         |                     |                         |         |                     | LED capsule          |         |        |                       |         |        |
|---------------------|------------------------------|----------|-------------------------------------|---------------------|---------|---------------------|--------------------------|---------|---------------------|-------------------------|---------|---------------------|----------------------|---------|--------|-----------------------|---------|--------|
|                     |                              |          |                                     | R50 5-60 W Dimmable |         |                     | PAR30S 8.5-75 W Dimmable |         |                     | PAR38 13-100 W Dimmable |         |                     | G9 2.5-25 W Dimmable |         |        | R7S 14-100 W Dimmable |         |        |
|                     |                              |          |                                     | NEW                 | NEW     | NEW                 | NEW                      | NEW     | NEW                 | NEW                     | NEW     | NEW                 | NEW                  | NEW     | NEW    | NEW                   | NEW     |        |
| Dimming Performance | Dimming Range                | Glowing  | Dimming Performance                 | Dimming Range       | Glowing | Dimming Performance | Dimming Range            | Glowing | Dimming Performance | Dimming Range           | Glowing | Dimming Performance | Dimming Range        | Glowing |        |                       |         |        |
| Berker   INSTA      | 286710                       | [RC ]    | 20 – 360 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-8                      | 92%-9%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 86%-23% |        | 1                     | 89%-8%  |        |
| Berker   INSTA      | 283010                       | [R ]     | 60 – 400 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 95%-10% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | t.b.d.               | t.b.d.  | t.b.d. | 1                     | 94%-3%  |        |
| Bticino             | L4407                        | [ ]      | 60 – 250 W                          |                     | N.A.    | N.A.                |                          | N.A.    | N.A.                | 1-8                     | 59%-3%  |                     |                      | N.A.    | N.A.   | t.b.d.                | t.b.d.  | t.b.d. |
| Busch Jaeger   ABB  | 2200 U - 503                 | [R ]     | 60 – 400 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 2-5                      | 95%-18% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 85%-33% |        | 1                     | 91%-23% |        |
| Busch Jaeger   ABB  | 2247 U                       | [R ]     | 60 – 400 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-12                     | 94%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 83%-9%  |        | 1                     | 93%-3%  |        |
| Busch Jaeger   ABB  | 2250 U                       | [RL ]    | 20 – 500 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-10                     | 98%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 87%-6%  |        | 1                     | 96%-3%  |        |
| Busch Jaeger   ABB  | 6513 U - 102                 | [R ]     | 40 – 420 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-10                     | 94%-8%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 98%-24% |        | 1                     | 93%-7%  |        |
| Busch Jaeger   ABB  | 6523 U                       | [LED]    | 2 – 100 VA-LED - Turn               | t.b.d.              | t.b.d.  | t.b.d.              | 1-20                     | 95%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 92%-3%  |        | 1                     | 88%-3%  |        |
| Busch Jaeger   ABB  | 6526 U                       | [LED]    | 2 – 100 VA-LED - Push (2wire)       | 1-16                | 95%-20% |                     | 2-12                     | 95%-9%  |                     | 1-8                     | 97%-6%  |                     | 3-20                 | 97%-23% | < 7    | t.b.d.                | t.b.d.  | t.b.d. |
| ELKO   Schneider    | SBD200LED (CCTELI0501)       | [LED/RC] | 4 – 200 W(RC) 4 – 400 W(RL)         | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 93%-12% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-30% |        | 1                     | 89%-3%  |        |
| ELKO   Schneider    | SBD315RC (315 GLE )          | [RC ]    | 315 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 92%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 95%-9%  |        | 1                     | 88%-10% |        |
| ELKO   Schneider    | SBD420RCRL (CCTELI3011)      | [RLC ]   | 315 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-10                     | 94%-4%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | t.b.d.               | t.b.d.  | t.b.d. | t.b.d.                | t.b.d.  | t.b.d. |
| Eltako              | EVD6INPN-UC                  |          | 400 W 3-wire Push Module            | 1-16                | 97%-12% | < 17                | 2-9                      | 98%-4%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 99%-15% |        | t.b.d.                | t.b.d.  | t.b.d. |
| Feller   Schneider  | 40200 (SBD200LED CCTCH10601) | [LED/RC] | 4 – 200 W(RC) 4 – 400 W(RL)         | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 93%-12% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-30% |        | 1                     | 89%-3%  |        |
| GIRA                | 1176-00/01                   | [RLC ]   | 50 – 420 W                          | 1-16                | 94%-30% |                     | 2-10                     | 95%-15% |                     |                         | N.A.    | N.A.                | 3-20                 | 96%-39% | < 12   | t.b.d.                | t.b.d.  | t.b.d. |
| GIRA                | 2390 00/ 100                 | [LED]    | 7 – 100 W - Push (3wire)            | t.b.d.              | t.b.d.  | t.b.d.              | 1-12                     | 95%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-18                 | 91%-15% |        | 1                     | 89%-4%  |        |
| Hager               | EVN 011                      | [RC ]    |                                     | 1-12                | 97%-14% | < 13                | 2-7                      | 97%-6%  |                     | 1-5                     | 100%-3% |                     | 3-20                 | 98%-18% | < 14   | t.b.d.                | t.b.d.  | t.b.d. |
| Hager               | EVN 012                      | [RC ]    | 300 W                               | 1-12                | 96%-15% | < 13                | 2-7                      | 96%-6%  |                     | 1-5                     | 100%-3% |                     | 3-20                 | 99%-28% | < 14   | t.b.d.                | t.b.d.  | t.b.d. |
| Hager               | EVN 004                      | [RL ]    |                                     | 1-16                | 97%-15% | < 3                 | 2-12                     | 97%-6%  |                     | 1-8                     | 100%-3% |                     | 3-20                 | 99%-28% | < 15   | t.b.d.                | t.b.d.  | t.b.d. |
| Jung                | 225 TDE                      | [RC ]    | 20 – 525 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 2-12                     | 93%-11% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-33% |        | 1                     | 90%-10% |        |
| Jung                | 1271LEDDE                    | [LED]    | 3 – 100 W - Push (3wire)            | t.b.d.              | t.b.d.  | t.b.d.              | 1-12                     | 95%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 94%-3%  |        | 1                     | 90%-3%  |        |
| Klik aan Klik uit   | AWMD-250                     | [LED]    | 3 – 24 W                            | 1-5                 | 79%-31% |                     | 2-3                      | 90%-19% |                     | 1-2                     | 100%-6% |                     | 3-10                 | 86%-3%  | < 11   | t.b.d.                | t.b.d.  | t.b.d. |
| Klik aan Klik uit   | ACM 300                      |          | 300 W - 3-wire Push LED Dimmer      | 1-12                | 97%-12% |                     | 2-7                      | 75%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 33%-3%  | < 10   | t.b.d.                | t.b.d.  | t.b.d. |
| Legrand             | 774161                       | [RL ]    | 40 – 400 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 97%-7%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              |                      | N.A.    | N.A.   |                       | N.A.    | N.A.   |
| Legrand             | 78401                        | [RLC ]   | 40 – 500 W                          | 1-16                | 95%-14% |                     | 2-9                      | 93%-5%  |                     | 1-6                     | 98%-3%  |                     | 3-20                 | 97%-3%  | < 13   | t.b.d.                | t.b.d.  | t.b.d. |
| Legrand             | 67081                        | [RL ]    | 40 – 400 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 98%-7%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              |                      | N.A.    | N.A.   |                       | N.A.    | N.A.   |
| Legrand             | 67082                        | [RL ]    | 40 – 600 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-2                      | 97%-7%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              |                      | N.A.    | N.A.   |                       | N.A.    | N.A.   |
| Legrand             | 67083                        | [RLC ]   | 3 – 400 W                           | 2-16                | 90%-12% |                     | 2-9                      | 92%-3%  |                     | 2-6                     | 100%-3% |                     |                      | N.A.    | N.A.   | t.b.d.                | t.b.d.  | t.b.d. |
| Legrand             | 67084                        | [RLC ]   | 8 – 300 VA - Push LED (3wire)       | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 94%-5%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 97%-23% |        | 1                     | 93%-3%  |        |
| Legrand             | 67085 (078406)               | [RLC ]   | 8 – 300 VA - Push LED (3wire)       | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 98%-2%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 99%-4%  |        | 1                     | 98%-3%  |        |
| Legrand             | L4402N                       | [R ]     | 60 – 500 W                          | 2-16                | 91%-28% |                     |                          | N.A.    | N.A.                |                         | N.A.    | N.A.                |                      | N.A.    | N.A.   | t.b.d.                | t.b.d.  | t.b.d. |
| Merten   Schneider  | SBD200LED (MEG5134-0000)     | [LED/RC] | 4 – 200 W(RC) 4 – 400 W(RL)         | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 93%-12% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-30% |        | 1                     | 89%-3%  |        |
| Merten   Schneider  | SBD315RC (MEG5136-0000)      | [RC ]    | 315 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 92%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 95%-9%  |        | 1                     | 88%-10% |        |
| Merten   Schneider  | SBD420RCRL (MEG5138-0000)    | [RLC ]   | 20 – 420 VA                         | t.b.d.              | t.b.d.  | t.b.d.              | 1-10                     | 94%-4%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | t.b.d.               | t.b.d.  | t.b.d. | t.b.d.                | t.b.d.  | t.b.d. |
| MK - Electric       | K1535                        | [R ]     | 65 – 450 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-11                     | 80%-8%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 72%-19% |        | 1                     | 82%-10% |        |
| MK - Electric       | K1501 WHILV                  | [R ]     | 60 – 500 W - Turn                   | t.b.d.              | t.b.d.  | t.b.d.              | 1-12                     | 92%-7%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-10                 | 82%-17% |        | 1                     | 88%-6%  |        |
| MK - Electric       | K4501 WHILV                  | [RLC ]   |                                     | 1-14                | 88%-27% |                     | 2-5                      | 99%-28% |                     | 1-3                     | 98%-3%  |                     |                      | N.A.    | N.A.   | t.b.d.                | t.b.d.  | t.b.d. |
| MK - Electric       | K4500 WHILV                  | [RLC ]   |                                     | 1-16                | 89%-18% |                     | 2-9                      | 99%-28% |                     | 1-5                     | 98%-3%  |                     |                      | N.A.    | N.A.   | t.b.d.                | t.b.d.  | t.b.d. |
| NIKO                | 310-0280X                    | [LED]    | 2 – 100 VA                          | 1-4                 | 96%-6%  |                     | t.b.d.                   | t.b.d.  | t.b.d.              | 1-2                     | 97%-3%  |                     | 3-9                  | 98%-8%  |        | t.b.d.                | t.b.d.  | t.b.d. |
| PEHA                | 431HAN                       | [RL ]    | 6 – 120W [LED] 6 – 60W              | 1-5                 | 99%7%   |                     | 2-3                      | 92%-3%  |                     |                         | N.A.    | N.A.                | 3-10                 | 76%-4%  |        | t.b.d.                | t.b.d.  | t.b.d. |
| Philips             | UID8670                      | [LED]    | 2 – 100 VA-LED - Push (3wire)       | t.b.d.              | t.b.d.  | t.b.d.              | 1-20                     | 95%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 92%-3%  |        | 1                     | 88%-3%  |        |
| Schneider           | SBD315RC (SBD 315, SDD 315)  | [RC ]    | 315 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 92%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 95%-9%  |        | 1                     | 88%-10% |        |
| Schneider           | SBD315RC (ATD315)(CCTO11533) | [RC ]    | 315 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 92%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 95%-9%  |        | t.b.d.                | t.b.d.  | t.b.d. |
| Schneider           | SBD200 (WDE 002299)          | [ ]      | 4 – 400 VA - Turn Universal (2wire) | t.b.d.              | t.b.d.  | t.b.d.              | 1-9                      | 93%-12% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-30% |        | 1                     | 89%-3%  |        |
| Schneider           | SBD315RC (SBD 315)           | [RC ]    | 315 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 92%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 95%-9%  |        | 1                     | 88%-10% |        |
| VADSBO              | ED 350                       | [RC ]    | 50 – 350 W                          | 1-14                | 88%-27% |                     | 2-8                      | 90%-13% |                     | 1-5                     | 94%-3%  |                     | 5-20                 | 93%-34% |        | t.b.d.                | t.b.d.  | t.b.d. |
| VADSBO              | DRS 315                      | [RC ]    | 50 – 315 W                          | 2-13                | 95%-19% | < 14                | 2-7                      | 94%-9%  |                     | 1-5                     | 100%-3% |                     |                      | N.A.    | N.A.   | t.b.d.                | t.b.d.  | t.b.d. |
| VADSBO              | DU 250                       | [RC ]    | 20 – 250 W                          | 1 - 10              | 85%-9%  | < 11                | 2-6                      | 82%-3%  |                     | 1-5                     | 80%-20% |                     | 3-20                 | 92%-14% | < 21   | t.b.d.                | t.b.d.  | t.b.d. |
| Varilight           | HQ3W                         | [R ]     |                                     | t.b.d.              | t.b.d.  | t.b.d.              | 2-9                      | 97%-6%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 85%-14% |        | 1                     | 93%-3%  |        |
| Varilight           | ICT401 M                     | [RC ]    |                                     | 1-16                | 89%-6%  |                     | 2-9                      | 93%-10% |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 85%-14% | < 11   | t.b.d.                | t.b.d.  | t.b.d. |
| Vimar               | 20148                        | [RL ]    | 500 W                               | t.b.d.              | t.b.d.  | t.b.d.              | 1-12                     | 95%-3%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              |                      | N.A.    | N.A.   | 1                     | 94%-4%  |        |
| Vimar               | 20162                        | [RL ]    | 40 – 300 W                          | t.b.d.              | t.b.d.  | t.b.d.              | 1-7                      | 92%-4%  |                     | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-18% | < 21   | t.b.d.                | t.b.d.  | t.b.d. |
| IKEA                | E0902 - Dim                  | [R ]     | 25 – 150 W                          | t.b.d.              | t.b.d.  | t.b.d.              | t.b.d.                   | t.b.d.  | t.b.d.              | t.b.d.                  | t.b.d.  | t.b.d.              | 3-20                 | 96%-6%  |        | 1                     | 93%-9%  |        |

**Note :**  
 #1) Unexpected behaviour can occur outside the range of specified number of lamps. The mentioned numbers are tested. In some cases the dimmers can be loaded with more lamps than is specified in this document (most dimmers can be loaded with LED lamps to 20% of specified power; LED dimmers can be loaded to specified power)  
 #2) Occupancy sensors can act like dimmers, therefore Philips recommends to use dimmable lamps in combination with it.  
 #3) Glowing means: a switched off dimmer still having the possibility that a small light output is visible. This status can occur when a low quantity of lamps is connected.  
 #4) Yellow cells indication: Sometimes flickering is observed due to low dimmer loads, best visible at deep dimming  
 #4a) Yellow cells indication: Dimming performance: LED's have much lower load (wattage) than traditional light sources. (e.g. flickering where "active loads" can reduce your problems)  
 #4b) Yellow cells indication: Dimming range, minimum dim level with the indicated dimmer will be somewhere between 10%-30%  
 #5) Various dimmer suppliers offer "active loads" (e.g. Busch Jaeger Kompensator 6596) to optimize dimming performance in case of lamp-dimmer system issues. Using double pole switches will prevent glowing issues.  
 #7) This list is based on measurements in a lab environment with nominal voltage, a different voltage will result in a different dimming range. Therefore we indicated 3% as minimum light level as lab condition.  
 #8) Dimmer manufacturers may change the technical design of the dimmer without informing LED lamp suppliers. These changes can influence the performance of LED products.  
 Philips cannot be held responsible for inaccuracies in the compatibility lists due to technical changes in dimmers

**Disclaimer:**  
 Philips will not accept claims for any damage caused by implementing the recommendations in this document.

