|  |  |
| --- | --- |
| **Model code** | **PW [ nm ]** |
| L430R-33a | 426 |
| L450-R33a | 4461 |
| NSPB310Bb | 4621 |
| OSB56A3131Ac | 4691 |
| L490-33a | 489 |
| L505-33a | 506 |
| L505-33a | 5132 |
| OSG58A3131Ac | 5261 |
| L545-33va | 5431 |
| L570-33a | 5731 |
| OSYL3131Pc | 593 |
| OS5YAA3131Pc | 6002 |
| L605-33va | 606 |
| L610-33a | 6102 |
| L625-33a | 626 |
| OS5RKA3131Ac | 6301 |
| L645-33a | 6461 |
| SRK3-3A80-LEd | 660 |
| L680-33AUa | 680 |
| L700-33Ua | 700 |
| L720-33AUa | 717 |
| L735-33AUa | 730 |
| L750-33AUa | 743 |
| L770-33AUa | 763 |
| L790-33AUa | 780 |
| L810-33AUa | 806 |
| L830-33AUa | 826 |
| NFSW757G-V3b, \* | (453, 627)2 |
| NSDW510GS-K1b, \* | (449, 562)2 |
| NFSW757G-V3b, \* | (455, 531, 610)2 |

**Additional file 5: Table S3.** Model codes and peak wavelengths (PWs) of LEDs of 30 types installed on the LED module of the modified LED-artificial sunlight source system.

aEpitex Inc., Kyoto, Japan; bNichia Corp., Tokushima, Japan; cOptoSupply Ltd., Hong Kong, China; dToricon Co., Shimane, Japan. \*Phosphor-converted white LEDs. 1PWs of the exchanged LEDs that were the same as or similar to those of the LEDs installed on the original LED module; 2PWs of the exchanged LEDs differed from those of the LEDs installed on the original LED module (see relative spectral photon-flux-density distributions of the LEDs in Figure 7).

a Epitex Inc., Kyoto, Japan; b Nichia Corp., Tokushima, Japan; c OptoSupply Ltd., Hong Kong, China; d Toricon Co., Shimane, Japan. \* Phosphor-converted white LEDs. 1 PWs that were same or similar to that of the LEDs installed on the previous LED module; 2 PWs that were different from that of any LEDs installed on the previous LED module (also see the relative spectral photon-flux-density distributions of the LEDs in Additional file 2: Figure S2).