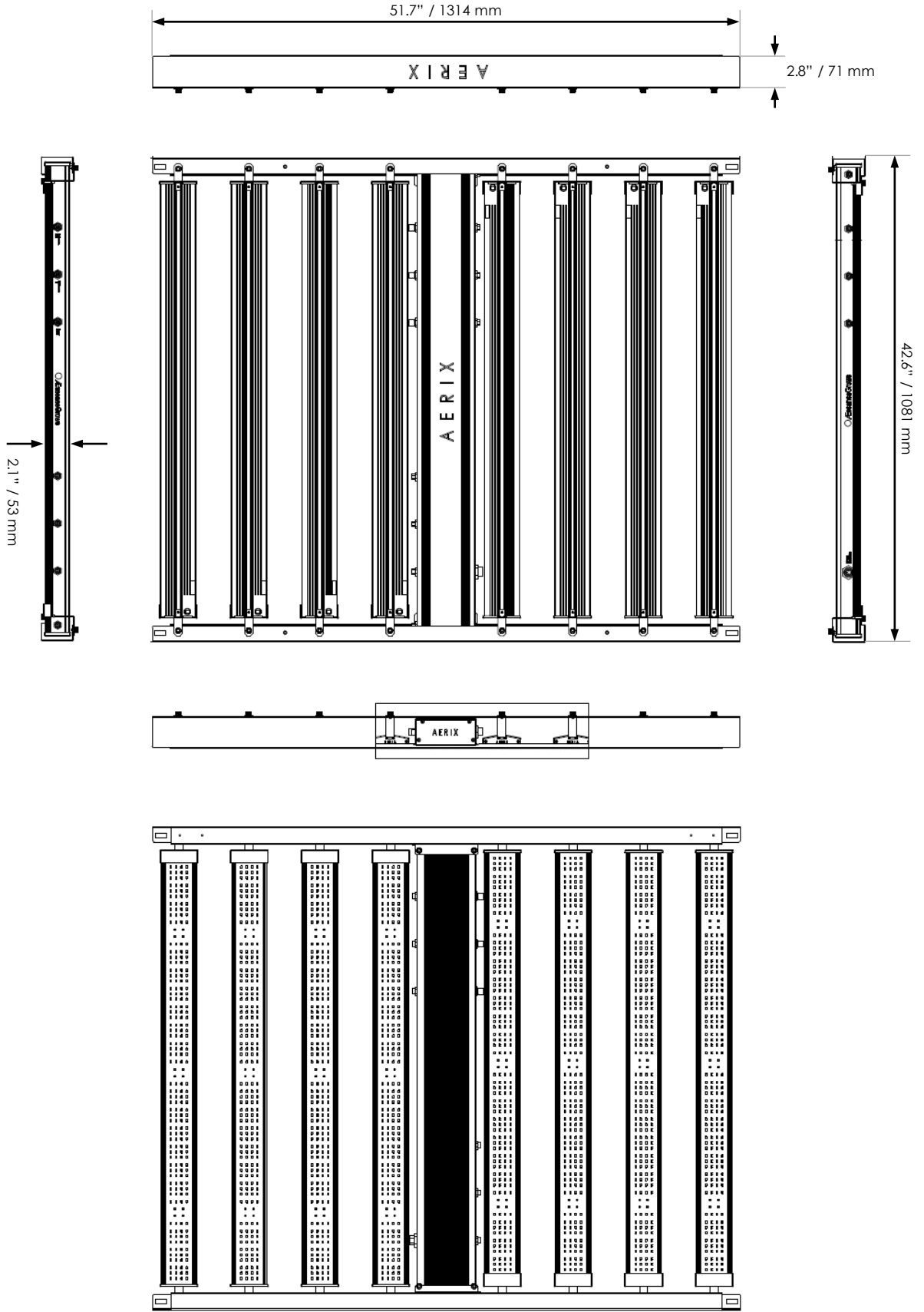




# Aerix

Grow Light, 120V/208V/230V/277V, 690W

## Data Sheet



# LBR003 Specifications

|                            | Min                 | Max                 |
|----------------------------|---------------------|---------------------|
| Input Voltage              | 100 V <sub>AC</sub> | 277 V <sub>AC</sub> |
| Input Frequency            | 50 Hz               | 60 Hz               |
| AC Power Draw <sup>1</sup> | 680 W               | 730 W               |
| Heat Output <sup>1</sup>   | 2,320 BTU/h         | 2,455 BTU/h         |
| Operating Temperature      | -4 °F<br>(-20 °C)   | 104 °F<br>(40 °C)   |
| Storage Temperature        | -40 °F<br>(-40 °C)  | 140 °F<br>(60 °C)   |
| Power factor               | 0.95                | –                   |
| Dimming                    | 0% / 20%            | 100%                |
| PPF                        | 0 μmol/s            | 1,550 μmol/s        |

|  | Value   |
|--|---|
| Avg. grouped PPF at 12" <sup>1,2</sup>     | 1,130 μmol/s/m <sup>2</sup>   |
| Avg. grouped PPF at 20" <sup>1,2</sup>     | 950 μmol/s/m <sup>2</sup>   |
| Avg. single PPF at 6" <sup>1,3</sup>       | 800 μmol/s/m <sup>2</sup>   |
| Avg. single PPF at 12" <sup>1,3</sup>      | 530 μmol/s/m <sup>2</sup>   |
| Light Uniformity at 20" <sup>1,4</sup>     | 0.87  |
| Light Variation (CV) at 20" <sup>1,5</sup> | 4%  |
| Comm. Interface                            | AES Link <sup>6</sup>   |
| Dimensions (L x W x H)                     | 52" x 42" x 2.5"<br>(1328 mm x 1083 mm x 64 mm)   |
| Weight                                     | 46 lbs<br>(21 kg)   |
| Ingress Protection                         | IP65  |
| L70 Rating <sup>7</sup>                    | 180,000 hrs   |
| L90 Rating <sup>8</sup>                    | 58,000 hrs  |
| UL 1598 Location Rating                    | Damp  |
| ETL Certification <sup>9</sup>             | UL 1598, UL 8750, UL 8800<br>CSA C22.2 No. 250.0-08<br>CSA C22.2 No. 250.13-14<br>IEC 62471 |
| Warranty                                   | 5-year standard   |
| Package Dimensions (L x W x H)             | 55" x 18" x 9"<br>(1400 mm x 460 mm x 230 mm)   |
| Package Weight                             | 56 lbs<br>(25.5 kg)   |

## Compatible Cables

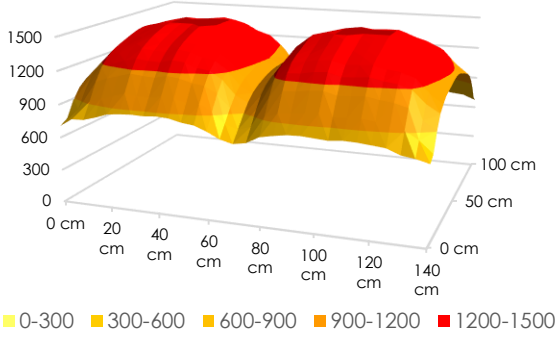
| Part Nr.     | Description  |
|--------------|--|
| 341-00112-01 | 6'-long power cord with NEMA 5-15P plug (120V)                 |
| 341-00112-02 | 15'-long power cord with NEMA 5-15P plug (120V)                |
| 341-00111-01 | 6'-long power cord with NEMA 6-15P plug (208V)                 |
| 341-00111-02 | 15'-long power cord with NEMA 6-15P plug (208V)                |
| 341-00110-01 | 6'-long power cord with NEMA L7-15P plug (277V)                |
| 341-00110-02 | 15'-long power cord with NEMA L7-15P plug (277V)               |
| 341-00147-01 | 26'-long AES Link comm. cable to AEtrium-4 PDU                 |
| 341-92171-01 | 6'-long AES Link comm. cable to the adjacent Aerix grow light  |
| 341-92127-01 | 14'-long AES Link comm. cable to the adjacent Aerix grow light |

- At 100% light intensity
- Average Photosynthetically Active Photon Flux Density (PPFD) over the AEtrium-4 grow tray (40"x50") in a typical large-scale cultivation setup, measured with adjacent grow lights of the same type
- Average Photosynthetically Active Photon Flux Density (PPFD) over the AEtrium-4 grow tray (40"x50") in a typical evaluation setup, measured with no adjacent grow lights, no reflective walls
- Uniformity expressed as the ratio of the lowest PPF value and the average over a 40"x50" grow tray (100% intensity, measured with adjacent lights of the same type)
- Coefficient of Variation over a 40"x50" grow tray (100% intensity, measured with adjacent lights of the same type); lower values represent more uniform light
- Wired communication protocol used in the AEtrium System
- Hours of normal operation before 30% degradation in maximum light intensity
- Hours of normal operation before 10% degradation in maximum light intensity
- ETL Control Number: 5013160

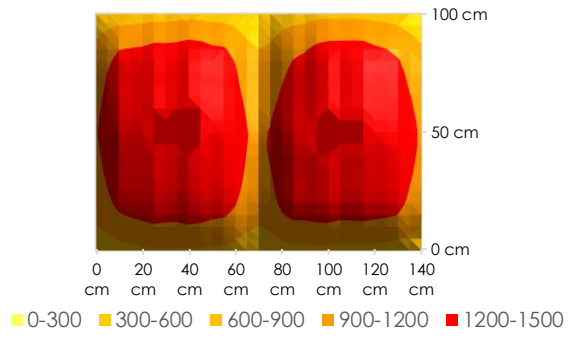
# Grouped Photon Flux Distribution <sup>1</sup>

Measured at 100% light intensity with grow light centrally mounted at pre-determined height above a 40"x50" grow area, with adjacent illuminated grow areas (typical large scale cultivation).

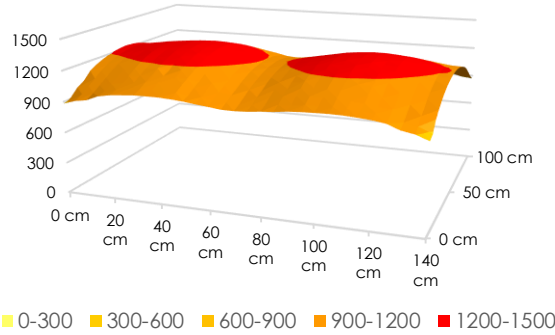
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 6"



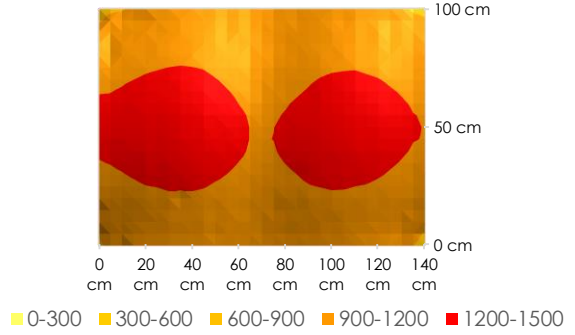
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 6"



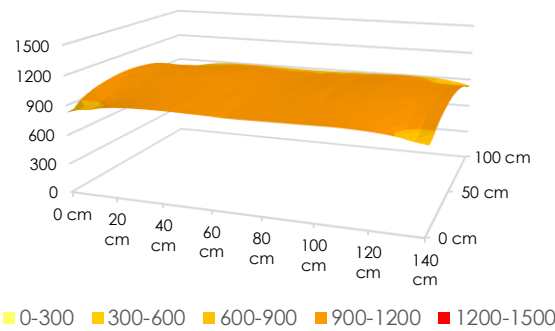
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 12"



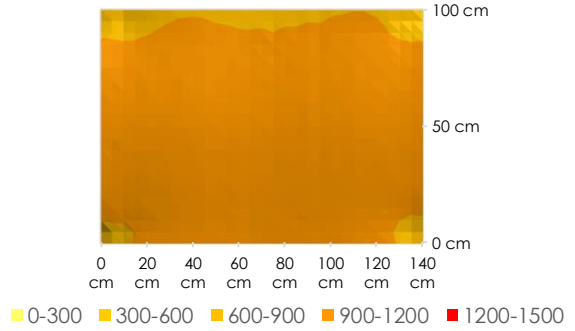
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 12"



PPFD ( $\mu\text{mol/s/m}^2$ ) @ 20"



PPFD ( $\mu\text{mol/s/m}^2$ ) @ 20"

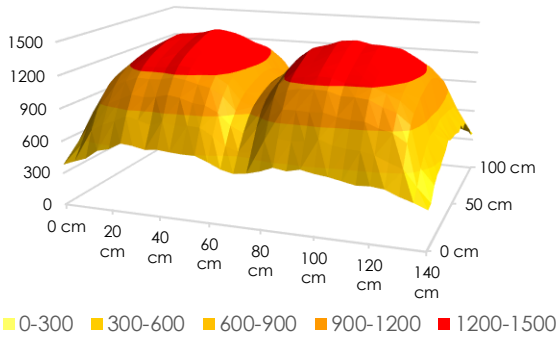


1. Average Photosynthetically Active Photon Flux Density (PPFD)

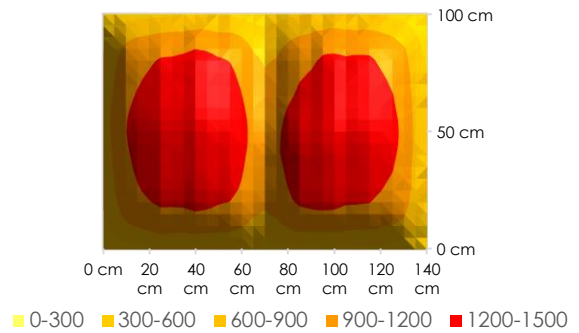
# Stand-Alone Photon Flux Distribution <sup>1</sup>

Measured at 100% light intensity with grow light centrally mounted at pre-determined height above a 40"x50" grow area, in isolation (typical evaluation grow).

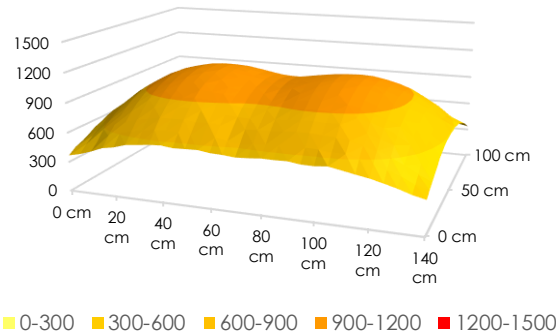
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 6"



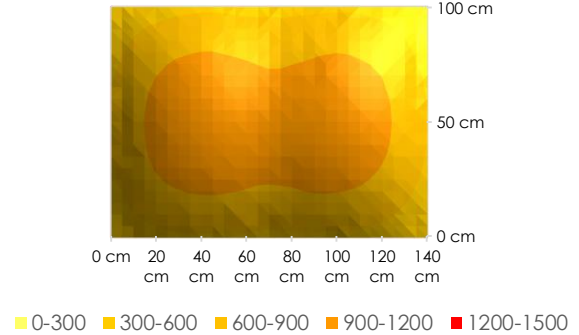
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 6"



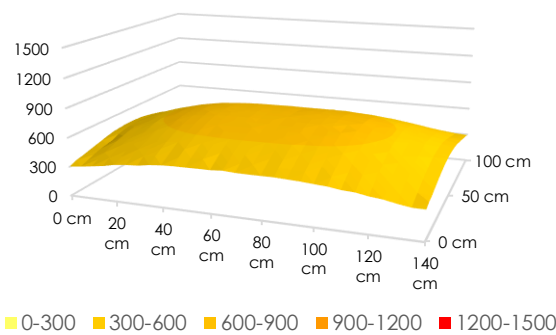
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 12"



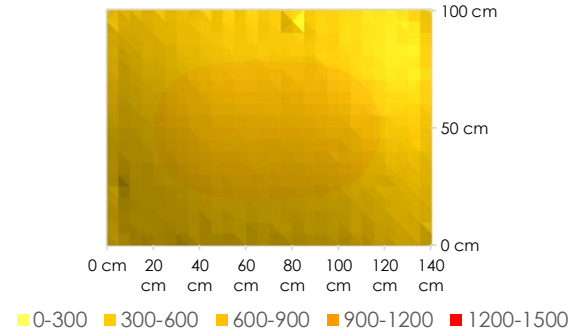
PPFD ( $\mu\text{mol/s/m}^2$ ) @ 12"



PPFD ( $\mu\text{mol/s/m}^2$ ) @ 20"



PPFD ( $\mu\text{mol/s/m}^2$ ) @ 20"

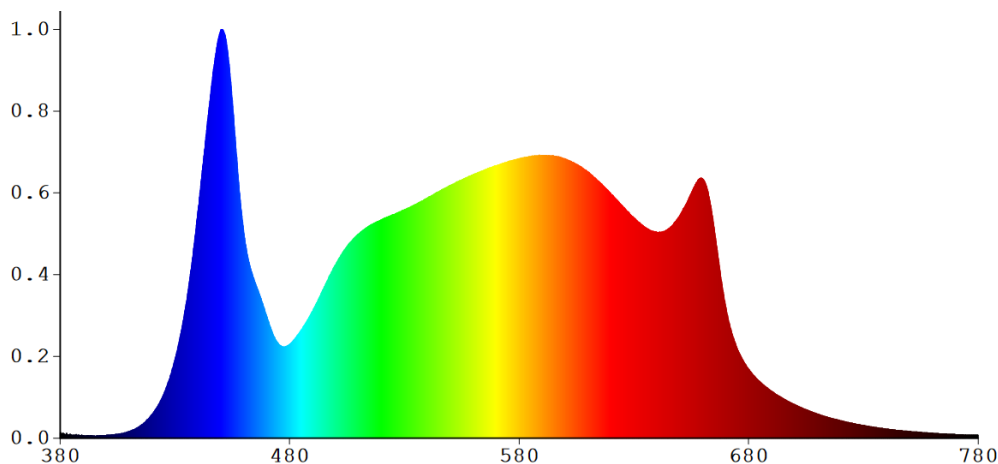


1. Average Photosynthetically Active Photon Flux Density (PPFD)

# Light Intensity Characterization <sup>1</sup>

| Guardian™ Setting <sup>2</sup> | Wattage | Light Output (PPF) | Efficacy    | Light Intensity <sup>3</sup> (PPFD, large grow) | Light Intensity <sup>4</sup> (PPFD, eval. grow) |
|--------------------------------|---------|--------------------|-------------|---|---|
| 0%                             | 10 W    | 0 μmol/s           | NA          | 0 μmol/s/m <sup>2</sup>                         | 0 μmol/s/m <sup>2</sup>                         |
| 20%                            | 110 W   | 268 μmol/s         | 2.44 μmol/J | 195 μmol/s/m <sup>2</sup>                       | 135 μmol/s/m <sup>2</sup>                       |
| 30%                            | 183 W   | 456 μmol/s         | 2.49 μmol/J | 330 μmol/s/m <sup>2</sup>                       | 235 μmol/s/m <sup>2</sup>                       |
| 40%                            | 254 W   | 629 μmol/s         | 2.48 μmol/J | 455 μmol/s/m <sup>2</sup>                       | 320 μmol/s/m <sup>2</sup>                       |
| 50%                            | 325 W   | 787 μmol/s         | 2.42 μmol/J | 570 μmol/s/m <sup>2</sup>                       | 405 μmol/s/m <sup>2</sup>                       |
| 60%                            | 395 W   | 941 μmol/s         | 2.38 μmol/J | 685 μmol/s/m <sup>2</sup>                       | 485 μmol/s/m <sup>2</sup>                       |
| 70%                            | 467 W   | 1,091 μmol/s       | 2.34 μmol/J | 795 μmol/s/m <sup>2</sup>                       | 560 μmol/s/m <sup>2</sup>                       |
| 80%                            | 543 W   | 1,245 μmol/s       | 2.29 μmol/J | 905 μmol/s/m <sup>2</sup>                       | 640 μmol/s/m <sup>2</sup>                       |
| 90%                            | 624 W   | 1,410 μmol/s       | 2.26 μmol/J | 1,025 μmol/s/m <sup>2</sup>                     | 725 μmol/s/m <sup>2</sup>                       |
| 100%                           | 691 W   | 1,550 μmol/s       | 2.24 μmol/J | 1,130 μmol/s/m <sup>2</sup>                     | 800 μmol/s/m <sup>2</sup>                       |

## Spectrum



1. Tested at 230V/50Hz
2. Light Intensity Setting in the Guardian™ Grow Manager
3. Average Photosynthetically Active Photon Flux Density (PPFD) over the plant canopy in the AEtrium-4 grow tray (40"x50") in a typical large-scale cultivation setup, measured at 12" mounting height over the canopy level with adjacent grow lights of the same type
4. Average Photosynthetically Active Photon Flux Density (PPFD) over the plant canopy in the AEtrium-4 grow tray (40"x50") in a typical evaluation grow setup, measured at 6" mounting height over the canopy level with no adjacent grow lights or reflective walls

### L05-A0001-01: LBR003 for the US and Canada



- Plug type: NEMA L7-15P
- Separately orderable plugs: NEMA 5-15P and 6-15P



- 120V/60Hz, 208V/60Hz, and 277V/60Hz



- ETL certified

### L05-A0002-01: LBR003 for China and Australia



- Plug type: Type I
- 230V/50Hz



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