



Horticultural Lighting Test Report

LLIA002337-010

Catalog Number: PXL-125 - LEDs and Xenon On
Pendant/highbay mounted, formed aluminum housing,
formed aluminum LED bars, no enclosure.

448 white LEDs with clear plastic enclosures over each. One pulsed xenon lamp
One Neotek NL-96W-24T LED driver and one Tomar model GSPS-120 power supply

Performance Summary

Electrical

| | |
|-----------|-----------|
| Voltage | 120.0 Vac |
| Frequency | 60.00 Hz |

| | |
|-----------------------------|------|
| Peak to Time-Averaged Ratio | 45.6 |
|-----------------------------|------|

Radiometric and Quantum

| | |
|--------------------------|---|
| Total Radiant Flux | 45.55 W |
| Peak Radiant Flux (Inst) | 2074.9 W |
| Total Photon Flux | 205.94 $\mu\text{mol}\cdot\text{s}^{-1}$ |
| Peak Photon Flux (Inst) | 9381.09 $\mu\text{mol}\cdot\text{s}^{-1}$ |

Horticultural

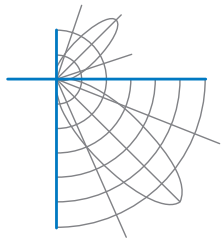
| | |
|--------------------------|---|
| PPF (time averaged) | 200.89 $\mu\text{mol}\cdot\text{s}^{-1}$ |
| Peak PPF (Instantaneous) | 9151.05 $\mu\text{mol}\cdot\text{s}^{-1}$ |
| Far-Red Photon Flux | 4.708 $\mu\text{mol}\cdot\text{s}^{-1}$ |
| PPFD Conversion Factor | 14.20 $\mu\text{mol}\cdot\text{s}^{-1}\cdot\text{m}^{-2}\cdot\text{klx}^{-1}$ |



Prepared For:
Neotek, Inc.
1030 Dividend Road
Midlothian, TX 76065, USA

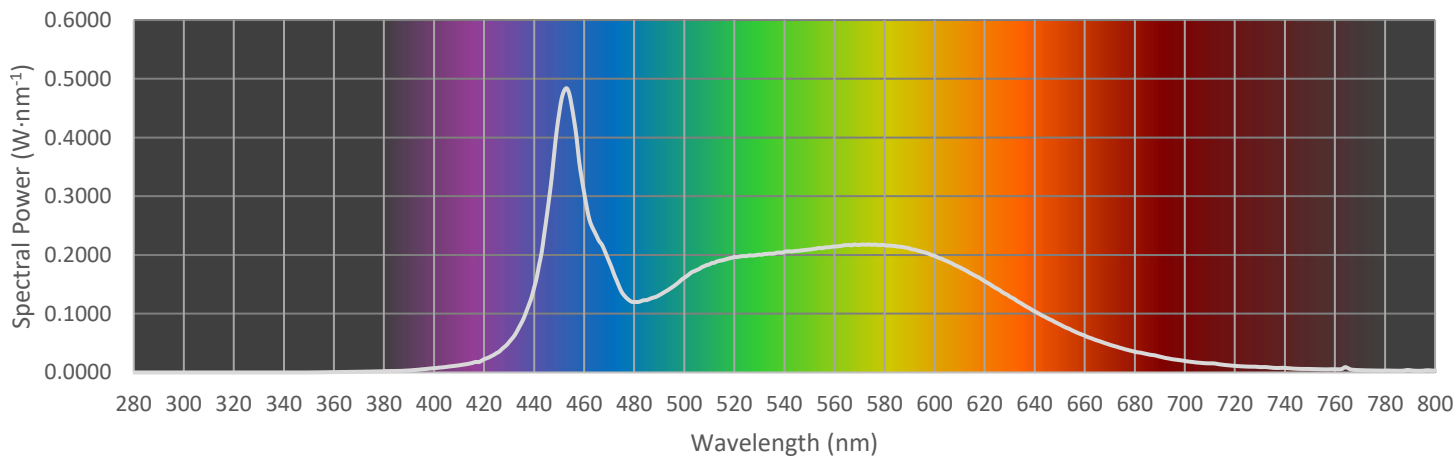
Test date: 03/12/2024
Report date: 03/22/2024

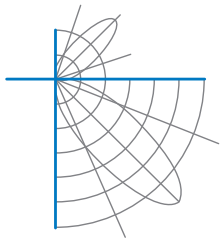
Signed: _____



Test Report Number: LLIA002337-010

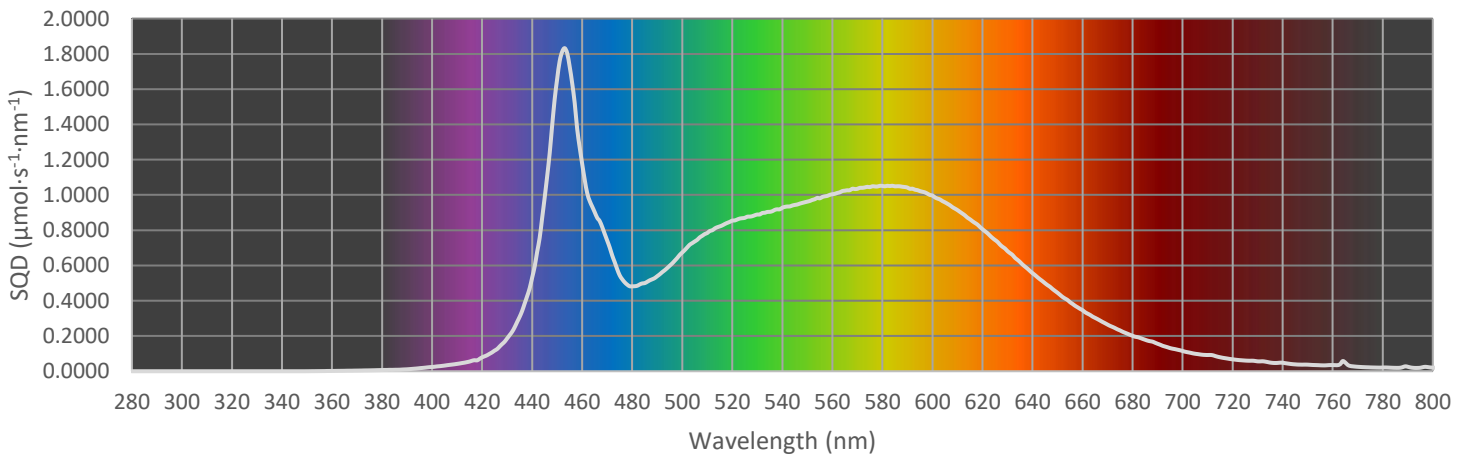
| Radiant Flux Tabulation | | | |
|-------------------------|------------------------|------------------|------------------------------------|
| Waveband (nm) | Radiant Flux (W_r) | Percent of Total | Peak Radiant Flux (Inst) (W_r) |
| UV-B 280-315 | 0.00 | 0.0% | 0.0 |
| UV-A 315-400 | 0.11 | 0.2% | 5.0 |
| 400-500 | 14.99 | 32.9% | 682.8 |
| 500-600 | 20.38 | 44.7% | 928.4 |
| 600-700 | 9.30 | 20.4% | 423.6 |
| Far-Red 700-800 | 0.77 | 1.7% | 35.1 |
| Total 280-800 | 45.55 | 100.0% | 2074.9 |
| PAR 400-700 | 44.68 | 98.1% | 2035.3 |

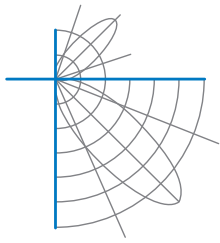




Test Report Number: LLIA002337-010

| Photon Flux Tabulation | | | |
|------------------------|---|----------------------|---|
| Waveband (nm) | Photon Flux ($\mu\text{mol}\cdot\text{s}^{-1}$) | Percent of Total (%) | Peak Photon Flux (Inst) ($\mu\text{mol}\cdot\text{s}^{-1}$) |
| UV-B 280-315 | 0.00 | 0.0% | 0.0 |
| UV-A 315-400 | 0.35 | 0.2% | 15.9 |
| 400-500 | 57.70 | 28.0% | 2628.4 |
| 500-575 | 68.03 | 33.0% | 3098.9 |
| 575-610 | 35.50 | 17.2% | 1617.1 |
| 610-700 | 39.66 | 19.3% | 1806.6 |
| Far-Red 700-800 | 4.71 | 2.3% | 214.6 |
| Total 280-800 | 205.9 | 100.0% | 9379.3 |
| PAR 400-700 | 200.9 | 97.6% | 9151.5 |





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Photosynthetically Active Radiation (PAR) Metrics (400-700nm)

Photosynthetic Photon Flux (PPF) 200.89 $\mu\text{mol}\cdot\text{s}^{-1}$
Peak Photosynthetic Photon Flux (Inst) 9151.05 $\mu\text{mol}\cdot\text{s}^{-1}$

PPFD Conversion Factor 14.20 $\mu\text{mol}\cdot\text{s}^{-1}\cdot\text{m}^{-2}\cdot\text{klx}^{-1}$

Photobiologically Active Radiation (PBAR) Metrics (280-800nm)

PBAR Flux 205.94 $\mu\text{mol}\cdot\text{s}^{-1}$
Peak PBAR Flux (Inst) 9381.09 $\mu\text{mol}\cdot\text{s}^{-1}$

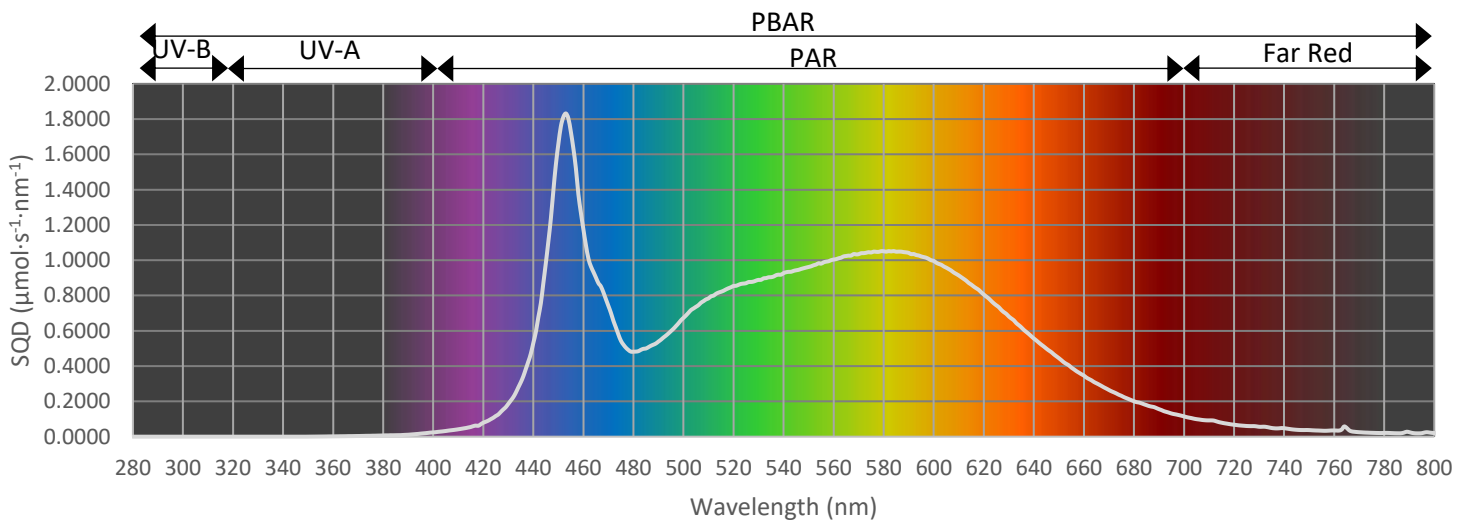
Yield Photon Flux (YPF) Metrics (Weighted 350-725nm)

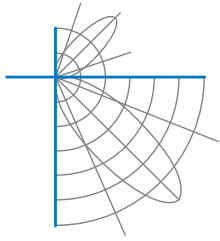
YPF 170.97 $\mu\text{mol}\cdot\text{s}^{-1}$
Yield Efficiency (YPF/PPF) 85.1 %

Red and Far-Red Flux Metrics (700-800nm)

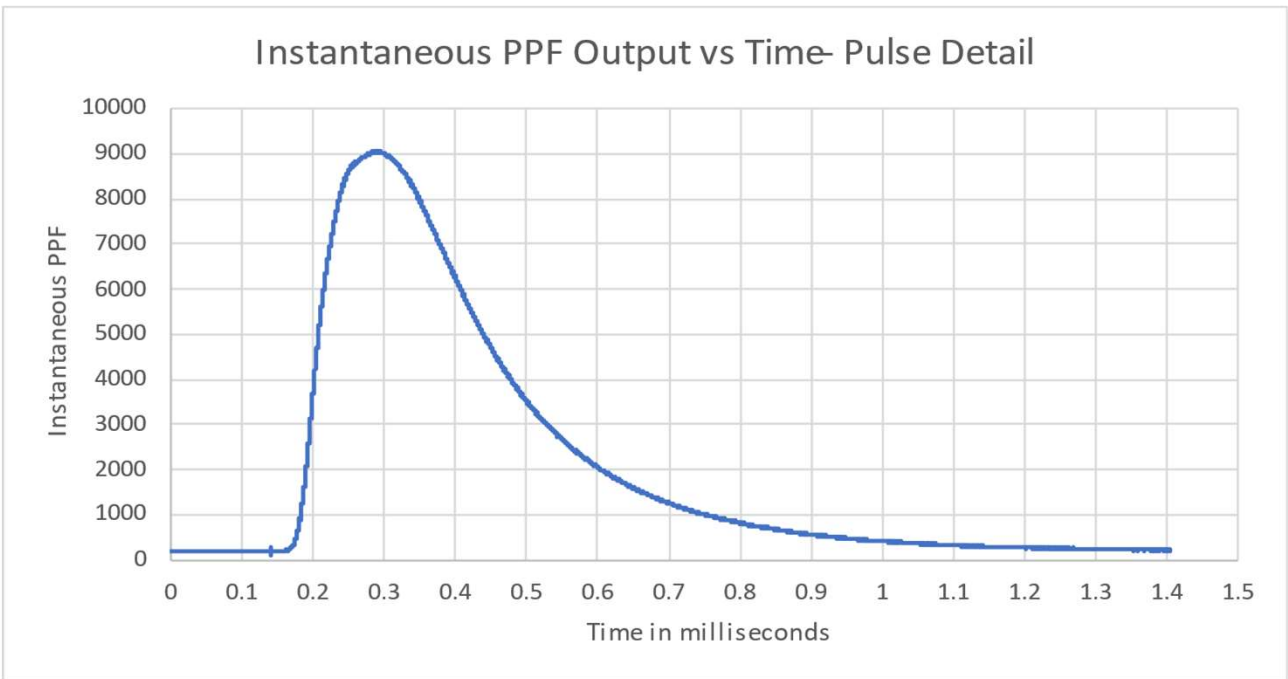
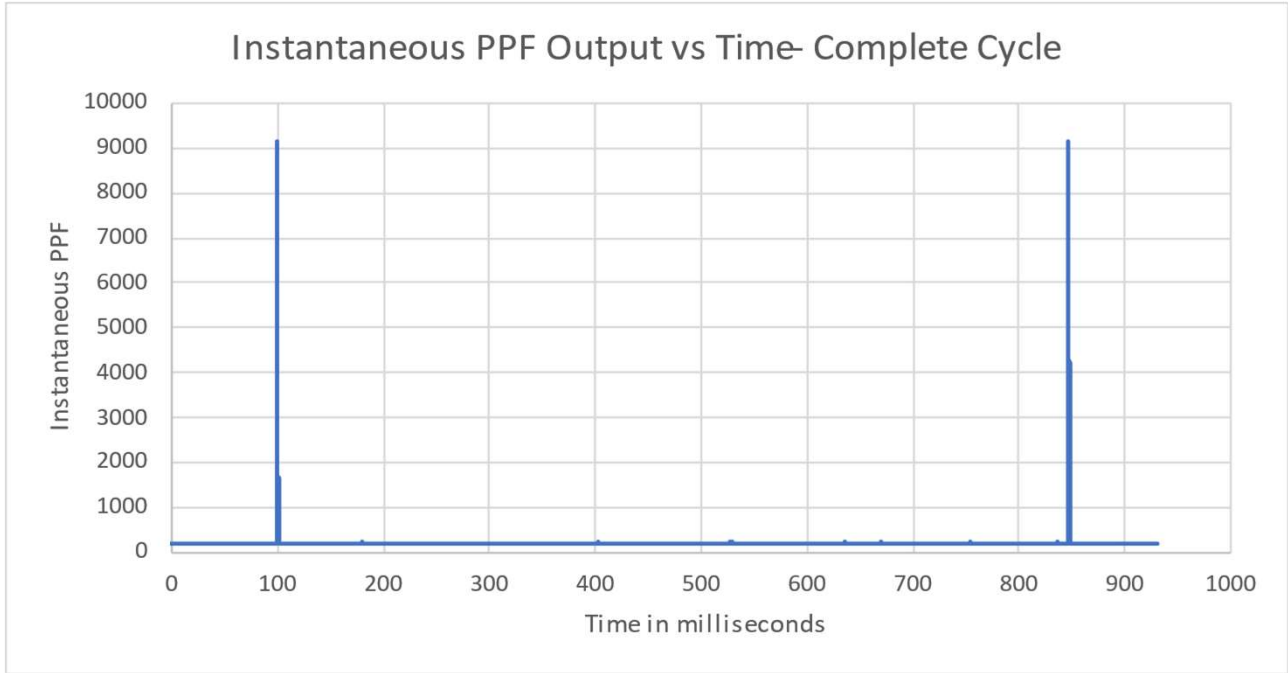
Far-Red Photon Flux 4.708 $\mu\text{mol}\cdot\text{s}^{-1}$
Red/Far-Red Ratio (R/FR Ratio) 6.122

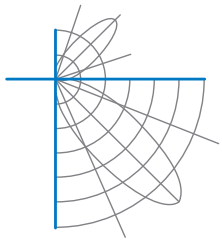
Note: for R/FR Ratio, Red Range=640-680nm, Far-Red Range=710-750nm





Test Report Number: LLIA002337-010





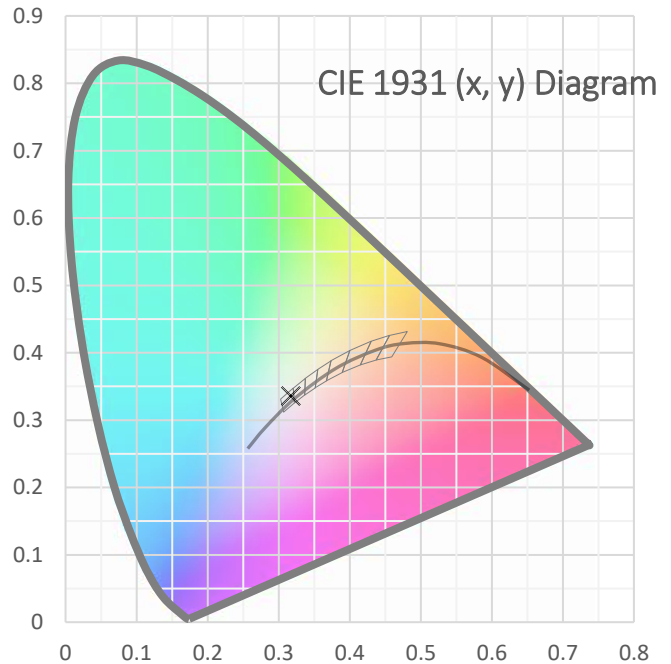
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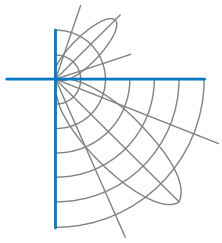
Electrical Data

| | |
|-----------|-----------|
| Voltage | 120.0 Vac |
| Frequency | 60.00 Hz |

Photometric (Human Vision) Data

| | |
|---------------------|------------------|
| Total Luminous Flux | 14149.5 lm |
| Chromaticity (x,y) | (0.3173, 0.3357) |
| (u',v') | (0.1985, 0.4725) |
| Duv | 0.0043 |
| CCT | 6221 K |
| CRI (Ra) | 84 |
| R9 | 3 |
| TM-30: Rf | 84 |
| TM-30: Rg | 93 |





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Test Equipment Configuration: Measurements acquired using the LightLab International Allentown, LLC Labsphere 2m Integrating Sphere system with spectroradiometer.
Testing was performed using 4π geometry

Test Temperature: 25.8 °C

Test Procedure: Tested in accordance with the applicable sections of:
LM-79-19, LM-78-20, LM-58-20, ANSI_ANSI C78.377-2017, TM-30-20

Significance: The laboratory has not participated in the selection of samples to be tested.
All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Notes: The measurements and other derived quantities contained in this report are based on the absolute data as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections