

DesignLights Consortium



Model Number	GMLL1500W6I2A16A2
Product Name	Tarantula Borg
Product ID	H-Y5U1TL
QPL	Horticultural
Manufacturer	GML Solutions Ltd.
Brand Name	Grand Master LEDs
Listing Status	Listed
Date Qualified	2023-10-31

PRODUCT INFORMATION VIEW DETAILS

Qualified Product List	Horticultural
Product ID	H-Y5U1TL
Manufacturer	GML Solutions Ltd.
Brand	Grand Master LEDs
Product Name	Tarantula Borg
Model Number	GMLL1500W6I2A16A2
Technical Requirements Version	3.0
Parent	Yes
Input Power Type	AC
Fixture Maximum Ambient Temp	40 °C
Width	45.67 in
Height	4.15 in
Length	45.6 in
Actively Cooling Presence	No

PRODUCT CATEGORIZATION VIEW DETAILS

Controlled Environment	Indoor (Non-stacked), Indoor (Stacked)
Lighting Scheme (Position)	Top light
Lighting Scheme (Use Case)	Sole-Source
Category	Horticultural Lighting Fixture

CONTROL FEATURES VIEW DETAILS

Spectrally Tunable	Yes
Dimmable	Yes
Dimming and Control Method to the Product	0-10V IEC60929 Annex E, knob
Integral Control Capability	Dim to Off, Manual Dimming
Connector or Transmission Hardware	RJ-45
Fan Presence	No

REPORTED PHOTOMETRIC PERFORMANCE VIEW DETAILS

Reported Photosynthetic Photon Efficacy (400-700nm)	2.65 $\mu\text{mol}/\text{J}$
Reported Photosynthetic Photon Flux (400-700nm)	4058 $\mu\text{mol}/\text{s}$
Reported Minimum Photosynthetic Photon Flux	0 $\mu\text{mol}/\text{s}$
Reported Default Photosynthetic Photon Flux	4058 $\mu\text{mol}/\text{s}$
Reported Photon Flux Blue (400-500nm)	776 $\mu\text{mol}/\text{s}$
Reported Photon Flux Green (500-600nm)	1401 $\mu\text{mol}/\text{s}$
Reported Photon Flux Red (600-700nm)	1881 $\mu\text{mol}/\text{s}$
Reported Photon Flux Far Red (700-800nm)	354 $\mu\text{mol}/\text{s}$

REPORTED ELECTRICAL PERFORMANCE VIEW DETAILS

Reported Input Wattage	1529 W
Reported Default Input Wattage	1529 W
Reported Minimum Input Wattage	0 W
Reported Power Factor	0.998
Voltage Range	100 - 277 V
Reported Total Harmonic Distortion	6 %

TESTED PHOTOMETRIC PERFORMANCE VIEW DETAILS

Tested Photosynthetic Photon Efficacy (400-700nm)	2.65 $\mu\text{mol}/\text{J}$
Tested Photosynthetic Photon Flux (400-700nm)	4058 $\mu\text{mol}/\text{s}$
Tested Photon Flux Blue (400-500nm)	776 $\mu\text{mol}/\text{s}$
Tested Photon Flux Green (500-600nm)	1401 $\mu\text{mol}/\text{s}$
Tested Photon Flux Red (600-700nm)	1881 $\mu\text{mol}/\text{s}$
Tested Photon Flux Far Red (700-800nm)	354 $\mu\text{mol}/\text{s}$

TESTED ELECTRICAL PERFORMANCE VIEW DETAILS

Tested Input Wattage	1529 W
Tested Voltage	120
Tested Power Factor	0.998
Tested Total Harmonic Distortion	5.9 %

SPECTRAL TUNING PERFORMANCE VIEW DETAILS

Spectral Channel Name 1	White1+White2+Blue LEDs 100% ON & White3 LEDs-660nm LEDs-730nm LEDs OFF
Reported Photosynthetic Photon Flux (400-700nm) Channel 1	1795 $\mu\text{mol}/\text{s}$
Reported Photon Flux Blue (400-500nm) Channel 1	656 $\mu\text{mol}/\text{s}$
Reported Photon Flux Green (500-600nm) Channel 1	828 $\mu\text{mol}/\text{s}$

Reported Photon Flux Red (600-700nm) Channel 1	311 $\mu\text{mol/s}$
Reported Photon Flux Far Red (700-800nm) Channel 1	20 $\mu\text{mol/s}$
Tested Photosynthetic Photon Flux (400-700nm) Channel 1	1795 $\mu\text{mol/s}$
Tested Photon Flux Blue (400-500nm) Channel 1	656 $\mu\text{mol/s}$
Tested Photon Flux Green (500-600nm) Channel 1	828 $\mu\text{mol/s}$
Tested Photon Flux Red (600-700nm) Channel 1	311 $\mu\text{mol/s}$
Tested Photon Flux Far Red (700-800nm) Channel 1	20 $\mu\text{mol/s}$
Spectral Channel Name 2	White3 LEDs 100% ON & White1+White2+Blue LEDs-660nm LEDs-730nm LEDs OFF
Reported Photosynthetic Photon Flux (400-700nm) Channel 2	1525 $\mu\text{mol/s}$
Reported Photon Flux Blue (400-500nm) Channel 2	89 $\mu\text{mol/s}$
Reported Photon Flux Green (500-600nm) Channel 2	576 $\mu\text{mol/s}$
Reported Photon Flux Red (600-700nm) Channel 2	860 $\mu\text{mol/s}$
Reported Photon Flux Far Red (700-800nm) Channel 2	82 $\mu\text{mol/s}$
Tested Photosynthetic Photon Flux (400-700nm) Channel 2	1525 $\mu\text{mol/s}$
Tested Photon Flux Blue (400-500nm) Channel 2	89 $\mu\text{mol/s}$
Tested Photon Flux Green (500-600nm) Channel 2	576 $\mu\text{mol/s}$
Tested Photon Flux Red (600-700nm) Channel 2	860 $\mu\text{mol/s}$
Tested Photon Flux Far Red (700-800nm) Channel 2	82 $\mu\text{mol/s}$
Spectral Channel Name 3	660nm LEDs 100% ON & White1+White2+Blue LEDs-White3 LEDs-730nm LEDs OFF
Reported Photosynthetic Photon Flux (400-700nm) Channel 3	742 $\mu\text{mol/s}$
Reported Photon Flux Blue (400-500nm) Channel 3	0 $\mu\text{mol/s}$
Reported Photon Flux Green (500-600nm) Channel 3	1 $\mu\text{mol/s}$
Reported Photon Flux Red (600-700nm) Channel 3	740 $\mu\text{mol/s}$
Reported Photon Flux Far Red (700-800nm) Channel 3	2 $\mu\text{mol/s}$
Tested Photon Flux Blue (400-500nm) Channel 3	0 $\mu\text{mol/s}$
Tested Photosynthetic Photon Flux (400-700nm) Channel 3	742 $\mu\text{mol/s}$
Tested Photon Flux Green (500-600nm) Channel 3	1 $\mu\text{mol/s}$
Tested Photon Flux Red (600-700nm) Channel 3	740 $\mu\text{mol/s}$
Tested Photon Flux Far Red (700-800nm) Channel 3	2 $\mu\text{mol/s}$

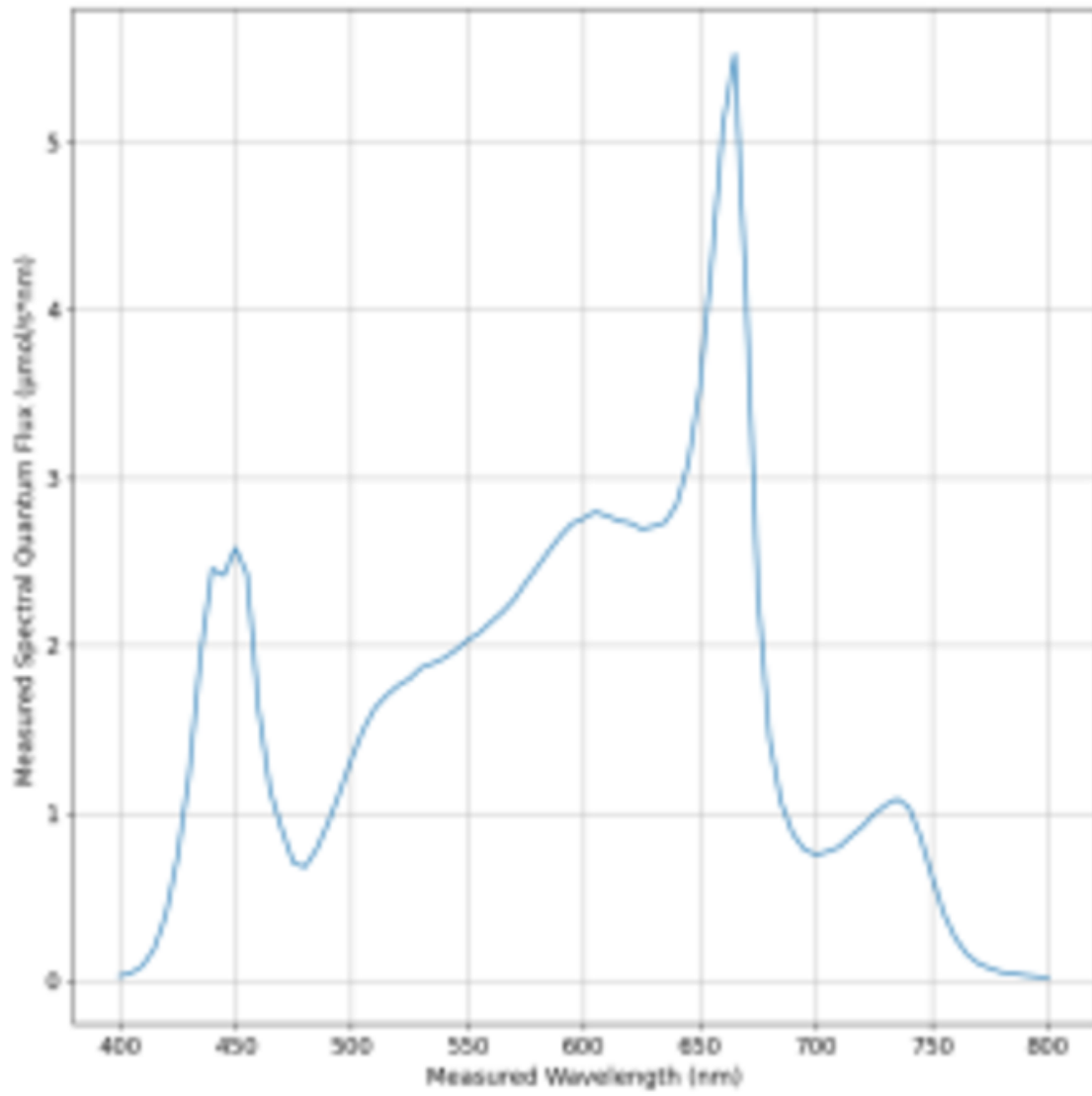
Spectral Channel Name 4	730nm LEDs 100% ON & White1+White2+Blue LEDs-White3 LEDs-660nm LEDs OFF
Reported Photosynthetic Photon Flux (400-700nm) Channel 4	23 $\mu\text{mol/s}$
Reported Photon Flux Red (600-700nm) Channel 4	23 $\mu\text{mol/s}$
Reported Photon Flux Far Red (700-800nm) Channel 4	208 $\mu\text{mol/s}$
Tested Photosynthetic Photon Flux (400-700nm) Channel 4	23 $\mu\text{mol/s}$
Tested Photon Flux Blue (400-500nm) Channel 4	0 $\mu\text{mol/s}$
Tested Photon Flux Green (500-600nm) Channel 4	0 $\mu\text{mol/s}$
Tested Photon Flux Red (600-700nm) Channel 4	22 $\mu\text{mol/s}$
Tested Photon Flux Far Red (700-800nm) Channel 4	208 $\mu\text{mol/s}$
Reported Photosynthetic Photon Flux (400-700nm) Channel 5	0 $\mu\text{mol/s}$
Reported Photon Flux Blue (400-500nm) Channel 5	0 $\mu\text{mol/s}$
Reported Photon Flux Green (500-600nm) Channel 5	0 $\mu\text{mol/s}$
Reported Photon Flux Red (600-700nm) Channel 5	0 $\mu\text{mol/s}$
Reported Photon Flux Far Red (700-800nm) Channel 5	0 $\mu\text{mol/s}$

SQD/PPID VIEW DETAILS

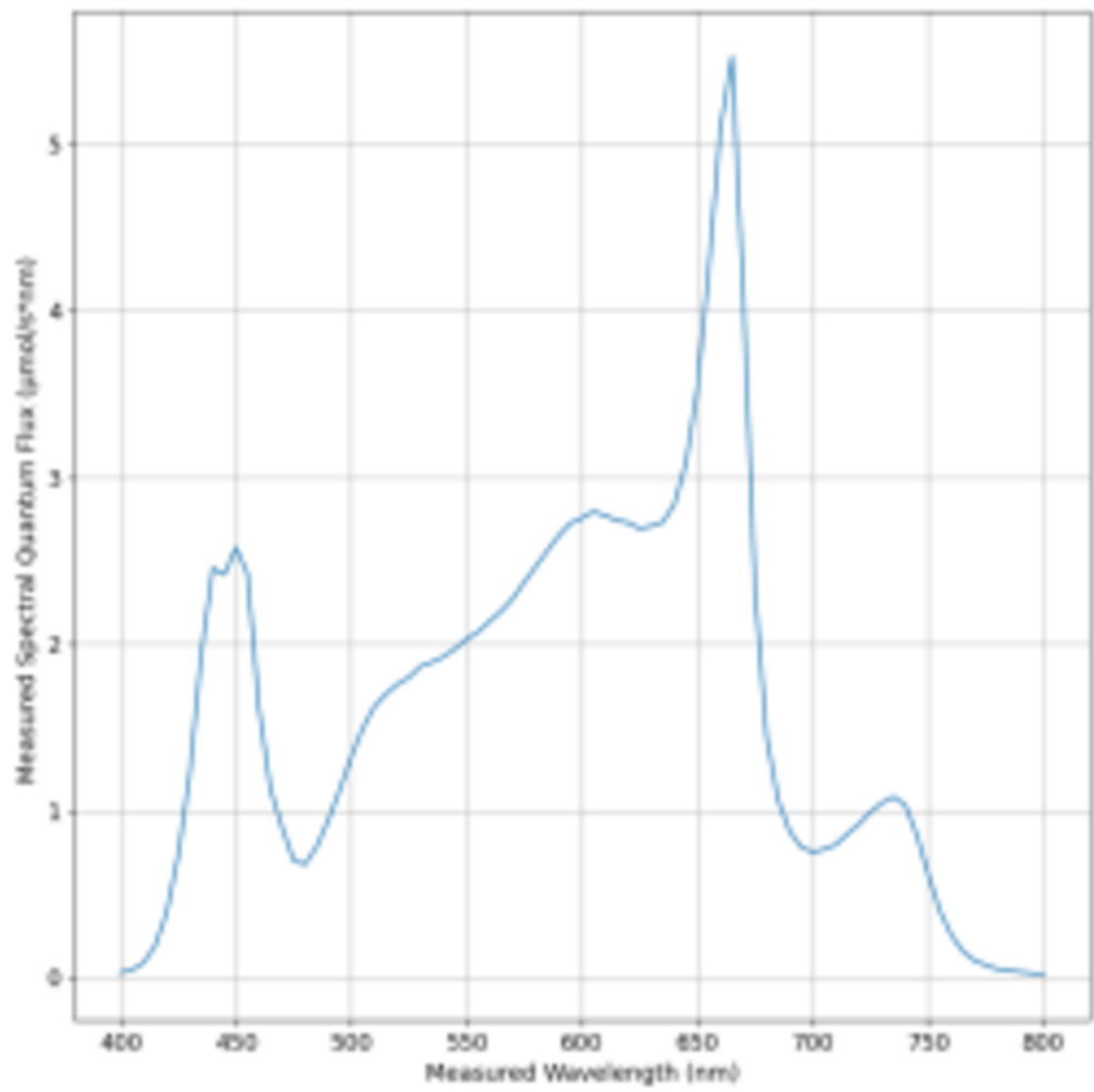
SQD

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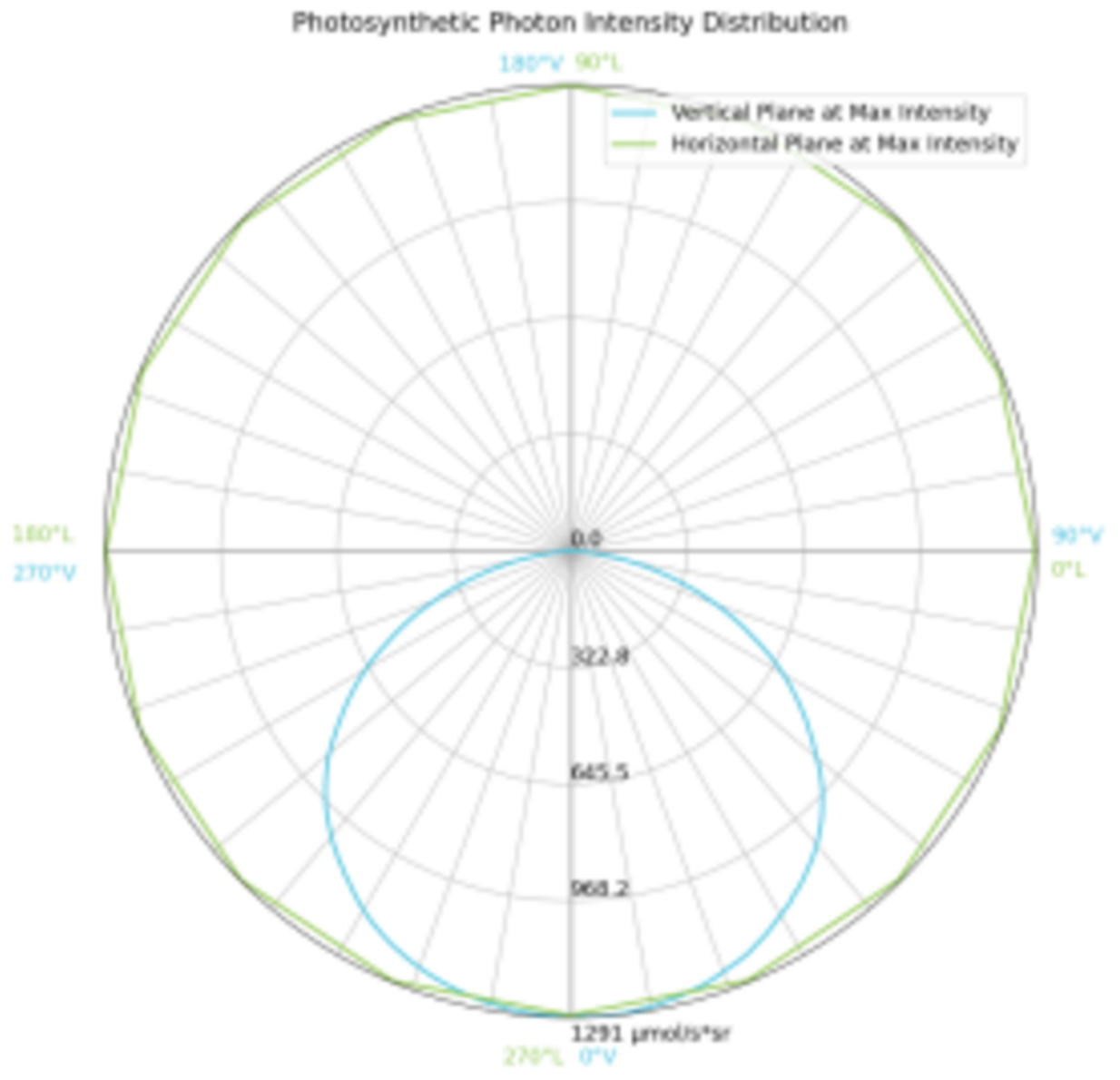
Spectral Quantum Distribution



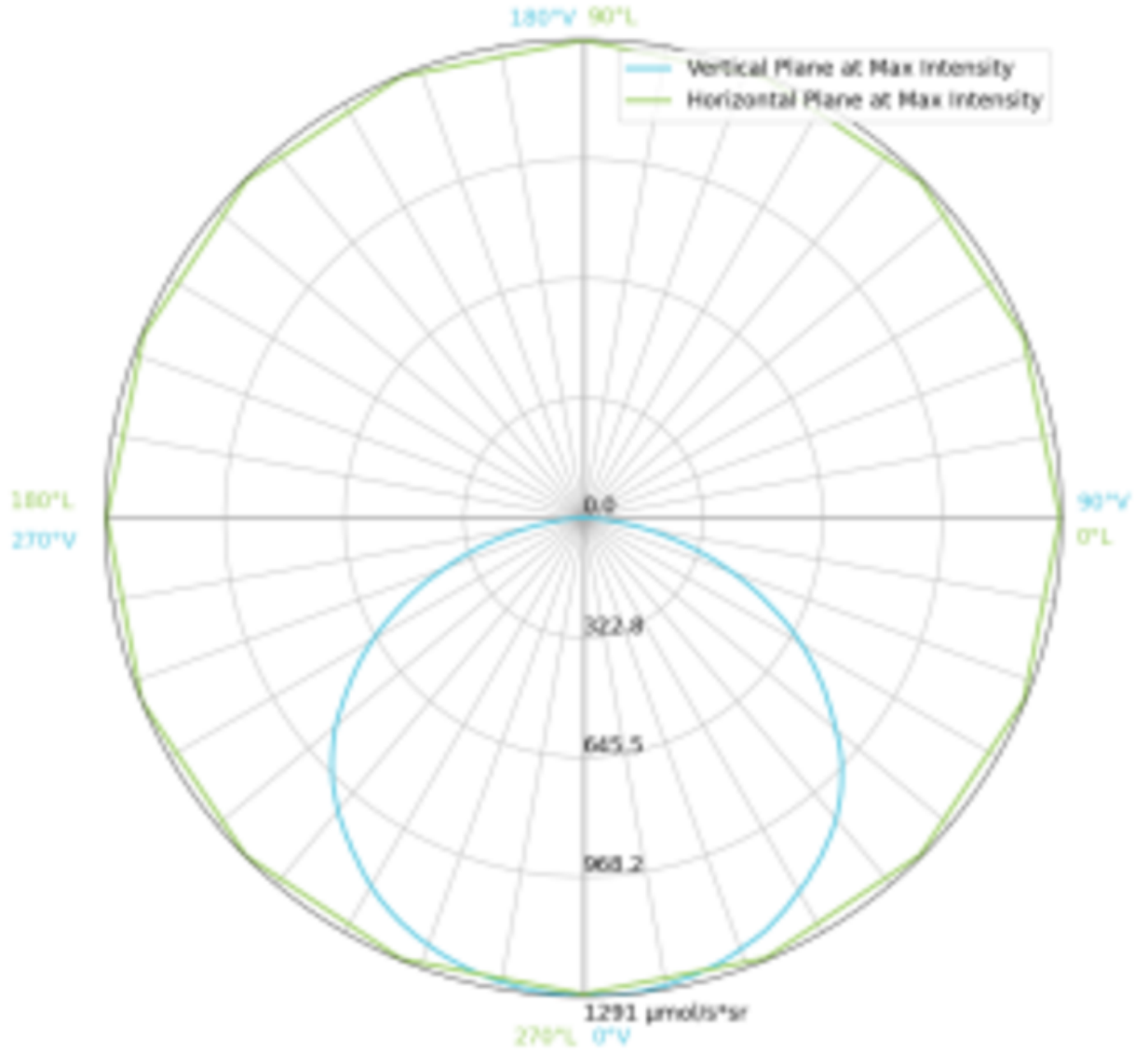
Spectral Quantum Distribution



PPID
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Photosynthetic Photon Intensity Distribution



VERSION HISTORY VIEW DETAILS

2023-10-31	Listed	3.0
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