UL LLC
1075 W Lambert Rd Suite B
Brea, CA 92821

Photometric Test Report

Relevant Standards
IES LM-58-2013, ANSI C82.77-10-2014,

Prepared For

Grower's Choice

1500 S. Milliken Ave., Ontario, CA 91761
United States

Catalog Number

ROI-E200

Order Number
13553891
Test Number
13553891.01

Test Date

2020-10-27

Prepared By

William Escobar, Technician

Approved By

Eric Gaudreau, Engineering Leader

Luminaire Description:	Black rectangular metal housing with gold linear metal LED bars
Lamp:	864 White LEDs
Mounting:	Pendant
Ballast/Driver:	Two (2) Horti Right HR 100-54B
Test Configuration:	9X9

Luminaire

Test Conditions

Test Temperature:	24.0	°C
Voltage:	120.0	VAC
Current:	1.736	A
Power:	207.5	W

Horticultural Lighting - PPFD [µmol/sec/m^2]

Test Configuration: 9X9

Mounting Height: 12"

The luminaire was tested with the long axis of the luminaire oriented along the y-axis of the plot.

30.3	72.8	161.9	275.5	334.9	287.1	158.6	67.2	46.4	**2FT**
45.8	108.7	259.6	452.0	533.7	470.0	250.8	104.9	66.3	**1.5**
58.7	137.6	305.2	542.7	650.0	557.2	313.4	131.0	72.3	**1**
70.7	154.7	318.5	537.2	626.0	539.6	309.1	134.6	73.8	**0.5**
74.2	152.3	307.7	501.7	589.2	512.7	292.5	133.9	63.4	**0**
73.3	161.9	340.3	532.0	626.7	523.8	296.2	128.7	59.4	**0.5**
68.9	142.3	316.7	525.8	622.7	525.1	290.0	116.4	52.2	**1**
45.7	122.6	269.8	443.1	506.4	418.7	225.9	94.8	40.4	**1.5**
32.3	74.4	155.1	257.1	297.7	244.9	145.7	67.0	23.7	**2FT**
2FT	**1.5**	**1**	**0.5**	**0**	**0.5**	**1**	**1.5**	**2FT**	

X-Axis

Y-Axis

Maximum PPFD: 650.0 µmol/sec/m^2

Minimum PPFD: 23.7 µmol/sec/m^2

Average PPFD: 256.2 µmol/sec/m^2

Uniformity (min/max): 0.04

Uniformity (min/ave): 1.00

Max DLI: 56.2 mol/m^2/day

Power: 207.5 W

Relative Spectral Power Distribution of Center Measurement

Wavelength Bands			PPF%	Radiometric Flux%
UV	250	400	NA	0.5%
Violet/Blue	400	500	25.9%	29.9%
Green/Yellow	500	580	35.2%	34.3%
Orange/Red	580	700	38.9%	33.1%
Far Red	700	780	NA	1.6%
IR	780	850	NA	0.6%

Horticultural Lighting - Nadir Spectral Photon Irradiance

Photon Irradiance Summary versus Wavelength Bands

	Wavelength Range [nm]	Photon Irradiance [µmol/s/m^2]	Band Photon Irradiance/ % of Total
UV	250 - 259	0.1437	1.71 µmol/sec/ m^2 0.28%
	260 - 269	0.1794	
	270 - 279	0.1204	
	280 - 289	0.1420	
	290 - 299	0.0980	
	300 - 309	0.1232	
	310 - 319	0.1022	
	320 - 329	0.1153	
	330 - 339	0.1087	
	340 - 349	0.0981	
	350 - 359	0.1108	
	360 - 369	0.0998	
	370 - 379	0.0903	
	380 - 389	0.0822	
	390 - 399	0.0992	
Blue	400 - 409	0.1550	151.12 µmol/sec/ m^2 24.76%
	410 - 419	0.5501	
	420 - 429	2.7700	
	430 - 439	11.6972	
	440 - 449	33.3483	
	450 - 459	44.1317	
	460 - 469	21.0137	
	470 - 479	11.5971	
	480 - 489	10.9871	
	490 - 499	14.8733	
Green	500 - 509	19.0499	269.37 µmol/sec/ m^2 44.14%
	510 - 519	22.0979	
	520 - 529	24.2408	
	530 - 539	25.4539	
	540 - 549	26.4154	
	550 - 559	27.9623	
	560 - 569	29.6189	
	570 - 579	31.3635	
	580 - 589	32.1455	
	590 - 599	31.0197	

	Wavelength Range [nm]	Photon Irradiance [µmol/s/m^2]	Band Photon Irradiance/ % of Total
Red	600 - 609	30.7389	168.86 µmol/sec/ m^2 27.67%
	610 - 619	29.1204	
	620 - 629	25.6005	
	630 - 639	21.4377	
	640 - 649	17.4775	
	650 - 659	14.0128	
	660 - 669	10.9065	
	670 - 679	8.4533	
	680 - 689	6.3807	
	690 - 699	4.7295	
Far Red	700 -709	3.5573	15 µmol/sec/ m^2 2.46%
	710 - 719	2.6153	
	720 - 729	1.9877	
	730 - 739	1.5142	
	740 - 749	1.2264	
	750 - 759	0.9653	
	760 - 769	0.8323	
	770 - 779	0.6391	
	780 - 789	0.8067	
	790 - 799	0.8542	
IR	800 - 809	0.7960	27.63 µmol/sec/ m^2 4.53%
	810 - 819	0.8489	
	820 - 829	0.9371	
	830 - 839	0.6467	
	840 - 849	0.8424	
	850 - 859	0.7450	
	860 - 869	0.8468	
	870 - 879	1.6269	
	880 - 889	2.1030	
	890 - 899	1.8294	
	900 - 909	1.4345	
	910 - 919	2.8532	
	920 - 929	3.5368	
	930 - 939	2.9397	
	940 - 950	5.6417	