LightLab INTERNATIONAL ALLENTOWN LLC

Radiant Flux Test Report

LLIA003053-002A-R01*

Catalog Number: Pro G5
Portable, formed white steel housing, two aluminum heatsink panels with 4 cooling fans behind LEDs.
288 dual chip LEDs, 72 "630nm", 72 "650nm", 72 "660nm", 72 "670nm", 72 "810nm",
72 "830nm", 108 "850nm", and 36 "1060nm" LEDs with conical plastic optic in front.
Two MeanWell LOP-300-48 LED drivers and one Mean Well GSM25B12 power supply



Performance Summary

Total Radiometric (350-1700nm)		
Total Radiant Flux	167.95	W
Radiant Efficiency	34.9	% (W_r/W_e)
Radiometric Range: 570-1100nm		
Radiant Flux (570-1100nm)	167.18	W
Red/Total Red Ratio*	85.1	%
Deep Red/Total Red Ratio*	14.9	%
NIR/Total NIR Ratio*	94.7	%
Deep NIR/Total NIR Ratio*	5.3	%

*Note: In this report, Red spans the wavelength range 600-700nm, Deep Red spans 700-780nm, Total Red spans 600-780nm, NIR spans 780-900nm, Deep NIR spans 900-1100nm, and Total NIR spans 780-1100nm.

Peak Wavelength(s)	635, 656, 813, 838, 854, 1071	nm
Luminous Flux	2508.7	Lumens
Luminous Efficacy	5.2	Lm/W

Prepared For:
Rouge Light Therapy
6000 Boul Rome
Suite 410
Brossard, QC 32746, USA
*This test report supersedes test report LLIA003053-002A

Test date: 09/19/2026
Report date: 10/23/2026

Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2026.10.23 12:45:14 -04'00'

North America (issuing laboratory)
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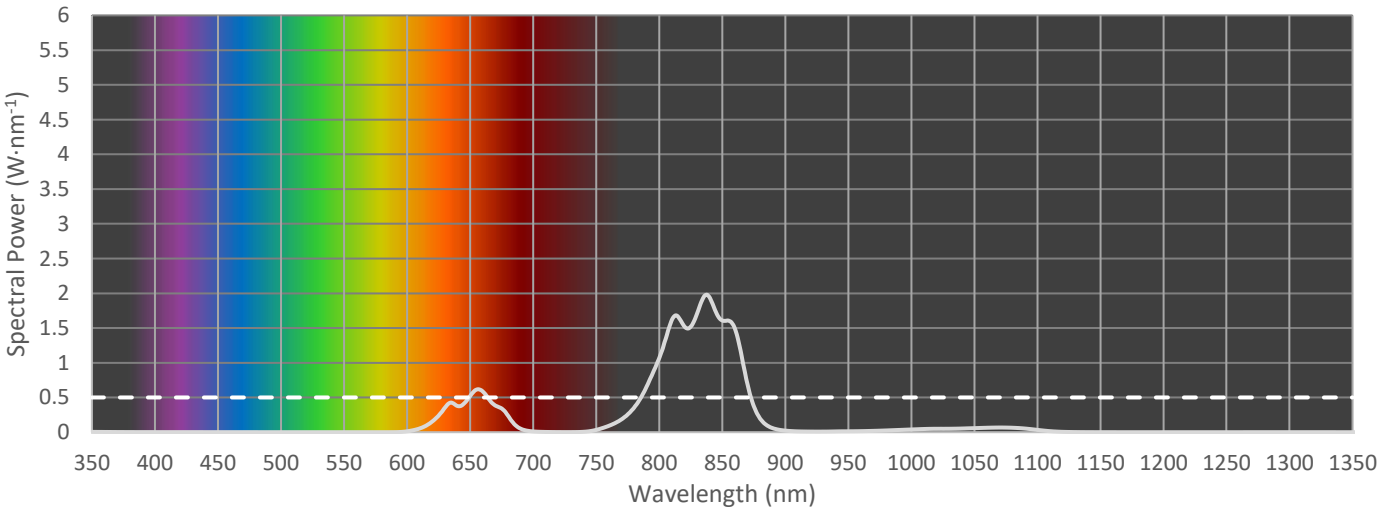
Test Report Number: LLIA003053-002A-R01*

Radiant Flux Tabulation			
Waveband (nm)	Radiant Flux (W_r)	Percent of Total	Efficiency (W_r/W_e)
350-500	0.20	0.1%	0.000
500-570	0.02	0.0%	0.000
Amber 570-600	0.06	0.0%	0.000
Red 600-700	27.50	16.4%	0.057
Deep Red 700-780	4.83	2.9%	0.010
NIR 780-900	127.63	76.0%	0.265
Deep NIR 900-1100	7.17	4.3%	0.015
570-1100	167.18	99.5%	0.348
Total 350-1700	167.95	100.0%	0.349



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Test Report Number: LLIA003053-002A-R01*

Electrical Data

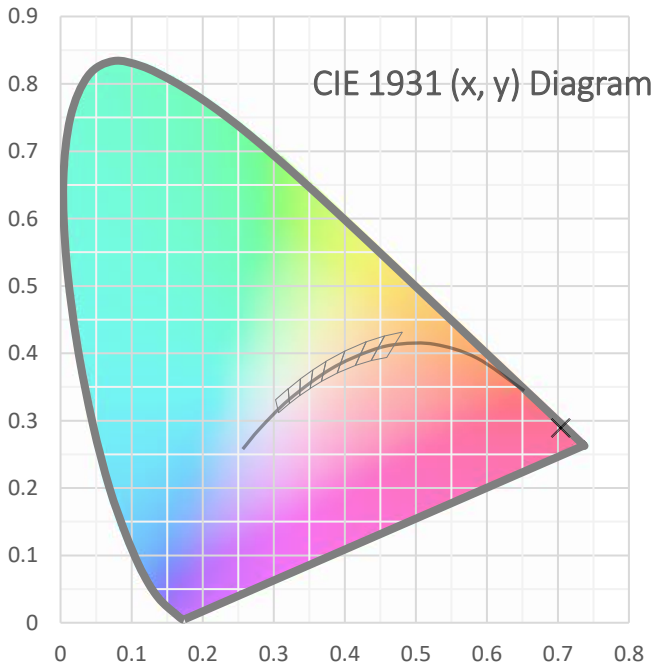
Voltage	120.0	Vac
Current	4.020	A
Power	481.1	W
Frequency	60.00	Hz
Power Factor	0.997	
Current THD	5.3	%

Spectral Power of Select Wavelengths

Wavelength (nm)	Spectral Power ($W \cdot nm^{-1}$)
590	0.0010
630	0.3524
660	0.5870
810	1.6141
830	1.7057
850	1.6093
1064	0.0657

Photometric (Human Vision) Data

Total Luminous Flux		2508.7	lm
Luminous Efficacy		5.2	lm/W
Chromaticity	(x,y)	(0.7041, 0.2893)	
	(u',v')	(0.5562, 0.5142)	
Duv		n/a	
CCT		n/a	K
CRI (Ra)		n/a	
R9		n/a	
TM-30: Rf		n/a	
TM-30: Rg		n/a	



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LightLab INTERNATIONAL ALLENTOWN LLC

Test Report Number: LLIA003053-002A-R01*

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:	25.1 °C
Test Procedure:	Tested in accordance with the applicable sections of: LM-79-24, LM-78-20, LM-58-20, ANSI_ANSLG C78.377-2017, TM-30-24
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 This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ǂ are not covered.

Revisions:

R01 - 10/22/2026 - Modified scale of SPD plot and added 0.5 W/nm line

LightLab
INTERNATIONAL
ALLENTOWN LLC

Radiant Flux Stabilization Report

LLIA003053-002B-R01*

Catalog Number: Pro G5

Portable, formed white steel housing, two aluminum heatsink panels with 4 cooling fans behind LEDs.
288 dual chip LEDs, 72 "630nm", 72 "650nm", 72 "660nm", 72 "670nm", 72 "810nm",
72 "830nm", 108 "850nm", and 36 "1060nm" LEDs with conical plastic optic in front.
Two MeanWell LOP-300-48 LED drivers and one Mean Well GSM25B12 power supply



Test Equipment:

Irradiance measurements were acquired with LightLab asset A108-Gigahertz-Optik BTS2048-VL-TEC and A114-Gigahertz-Optik BTS2048-NIR Spectral Irradiance Meters using LightLab's Application Distance Measurement Grid in the LightLab goniometer room with stray light reduction. Spectral irradiance was recorded in one-minute intervals during stabilization.

Prepared For:
Rouge Light Therapy
6000 Boul Rome
Suite 410
Brossard, QC 32746, USA

*This test report supersedes test report LLIA003053-002B

Test date: 09/22/2026
Report date: 10/23/2026

LightLab INTERNATIONAL ALLENTOWN LLC

Test Report Number: LLIA003053-002B-R01*

Spectral Irradiance measurements taken 12" above the center of the panel.

Time (minutes)	Irradiance (570-1100nm) (mW/cm2)	Irradiance (600-780nm) (mW/cm2)	Irradiance (780-1100nm) (mW/cm2)
0.5	67.1	15.9	51.2
1.5	65.9	15.9	49.9
2.5	65.2	15.9	49.2
3.5	64.7	16.0	48.7
4.5	64.3	15.9	48.3
5.5	64.0	16.0	48.0
6.5	63.9	16.0	47.9
7.5	63.7	16.0	47.7
8.5	63.7	16.0	47.7
9.5	63.6	16.0	47.6
10.5	63.5	16.0	47.5
11.5	63.4	16.0	47.4
12.5	63.4	16.0	47.4
13.5	63.4	16.0	47.3
14.5	63.3	16.0	47.3
15.5	63.3	16.0	47.3
16.5	63.3	16.0	47.3
17.5	63.3	16.0	47.3
18.5	63.3	16.0	47.2
19.5	63.3	16.0	47.2

15 Minute 570-1100nm Irradiance Retention
94.3%

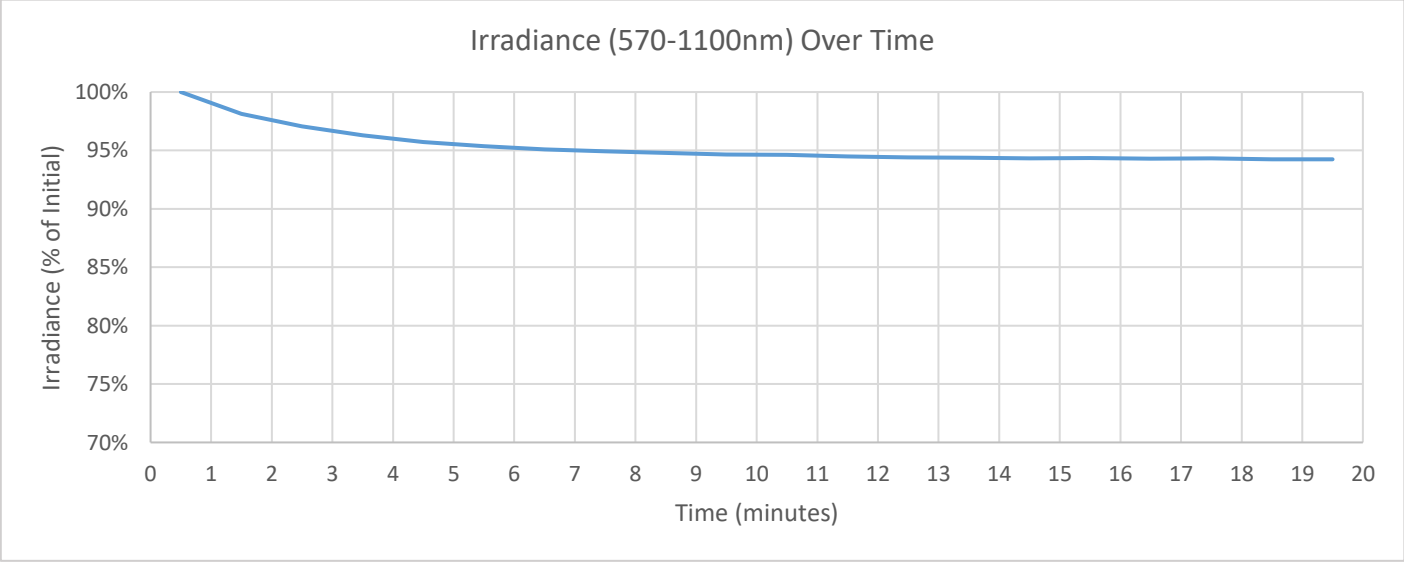
20 Minute 570-1100nm Irradiance Retention
94.3%

15 Minute 600-780nm Irradiance Retention
100.8%

20 Minute 600-780nm Irradiance Retention
100.9%

15 Minute 780-1100nm Irradiance Retention
92.4%

20 Minute 780-1100nm Irradiance Retention
92.2%

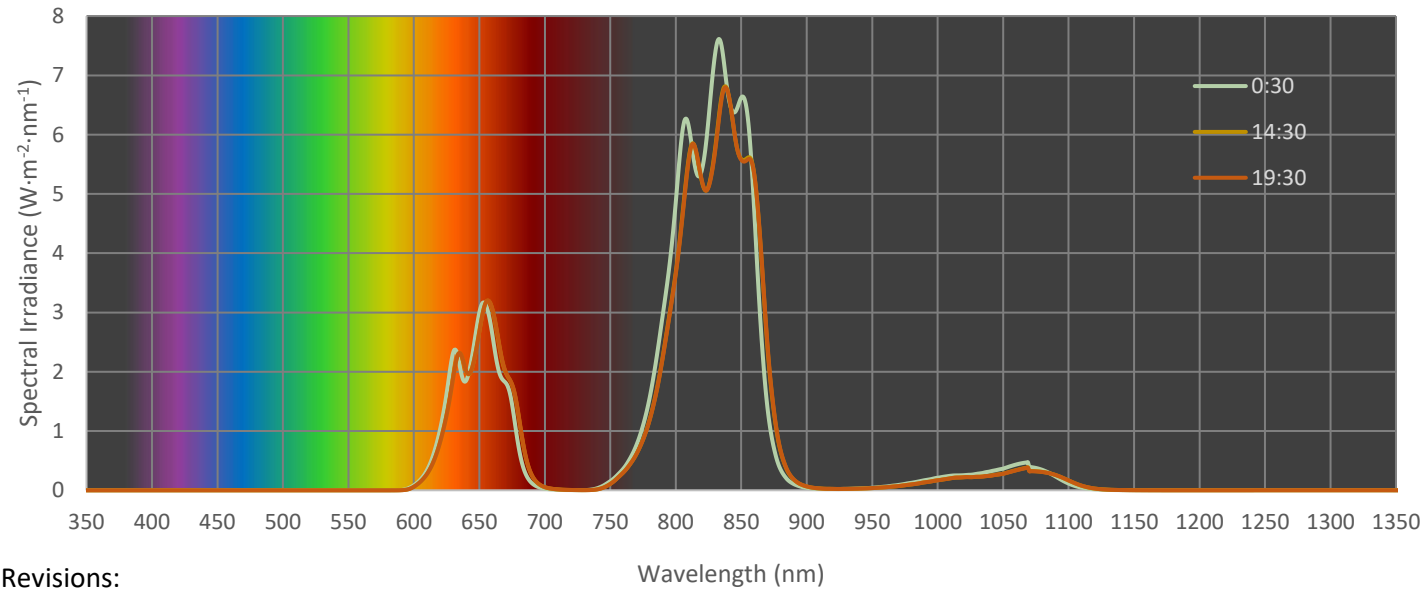


LightLab INTERNATIONAL ALLENTOWN LLC

Test Report Number: LLIA003053-002B-R01*

Spectral Irradiance measurements taken 12" above the center of the panel.

Local Peak Number	0.5 min peak wavelength (nm)	14.5 min peak wavelength (nm)	19.5 min peak wavelength (nm)
1	631	635	635
2	653	656	657
3	808	813	813
4	833	838	838
5	851	856	856
6	1069	1069	1069



Revisions:

R01 - 10/22/2026 - Modified scale of Irrad retention plot. Fixed typo on "full spectral range" irrad retention labels.

LightLab INTERNATIONAL ALLENTOWN LLC

Grid Application Distance Measurement Test Report

Test Report Number: LLIA003053-002C-R01*

Catalog Number: Pro G5

Portable, formed white steel housing, two aluminum heatsink panels with 4 cooling fans behind LEDs.
288 dual chip LEDs, 72 "630nm", 72 "650nm", 72 "660nm", 72 "670nm", 72 "810nm",
72 "830nm", 108 "850nm", and 36 "1060nm" LEDs with conical plastic optic in front.
Two MeanWell LOP-300-48 LED drivers and one Mean Well GSM25B12 power supply



Performance Summary

Electrical		
Voltage	120.0	Vac
Current	4.081	A
Power	487.5	W
Frequency	60.00	Hz
Power Factor	0.995	
Current THD	5.5	%
Ambient Temperature	24.4	°C
Grid Dimensions		
Test Plane Distance	12	inches
X Axis minimum	-12	inches
X Axis maximum	12	inches
X Axis increments	2	inches
Y Axis minimum	-30	inches
Y Axis maximum	30	inches
Y Axis increments	2	inches
Number of measurement points	403	

Test Equipment:

Irradiance measurements were acquired with LightLab asset A108-Gigahertz-Optik BTS2048-VL-TEC and A114-Gigahertz-Optik BTS2048-NIR Spectral Irradiance Meters using LightLab's Application Distance Measurement Grid in the LightLab goniometer room with stray light reduction. The test subject was allowed to reach stabilization according to IES LM-79-24 criteria prior to measurements.

Prepared For:
Rouge Light Therapy
6000 Boul Rome
Suite 410
Brossard, QC 32746, USA

*This test report supersedes test report LLIA003053-002C

Test date: 09/22/2026
Report date: 10/23/2026

LightLab INTERNATIONAL ALLENTOWN LLC

Test Report Number: LLIA003053-002C-R01*

Full Body Target Area
Total Irradiance (570-1100nm) in mW/cm^2
Test Distance = 12 inches

X Axis Distance (inches)

Y Axis Distance (inches)	-12	-10	-8	-6	-4	-2	0	2	4	6	8	10	12
30	0.21	0.25	0.28	0.31	0.34	0.36	0.36	0.35	0.33	0.30	0.26	0.23	0.20
28	0.28	0.33	0.39	0.44	0.48	0.51	0.51	0.50	0.46	0.42	0.36	0.31	0.26
26	0.37	0.45	0.53	0.62	0.69	0.74	0.76	0.73	0.67	0.59	0.50	0.42	0.34
24	0.48	0.59	0.73	0.88	1.04	1.14	1.17	1.13	1.01	0.85	0.69	0.56	0.44
22	0.61	0.79	1.01	1.30	1.69	2.22	2.24	2.13	1.86	1.39	0.98	0.74	0.57
20	0.78	1.04	1.47	2.45	5.19	6.38	6.66	6.59	5.07	2.67	1.64	0.99	0.72
18	0.96	1.37	2.29	6.17	15.47	21.33	20.87	21.03	17.50	7.41	2.62	1.31	0.88
16	1.15	1.91	3.95	14.55	47.04	58.25	56.74	50.46	41.13	13.89	4.46	1.65	1.06
14	1.33	2.09	4.80	19.76	54.15	70.45	73.09	65.95	51.77	17.68	5.14	1.98	1.22
12	1.48	2.33	5.25	19.00	51.08	68.96	71.96	66.94	49.17	17.00	4.96	2.18	1.35
10	1.60	2.49	5.46	19.66	55.29	69.85	72.39	67.49	50.14	17.66	5.54	2.29	1.46
8	1.69	2.57	5.36	21.91	51.91	70.11	70.79	64.16	48.50	18.16	5.74	2.40	1.55
6	1.76	2.63	5.68	21.21	54.41	69.17	72.76	65.97	51.10	18.06	5.85	2.48	1.62
4	1.81	2.70	5.58	21.02	55.62	74.95	75.01	66.32	51.43	18.35	5.77	2.57	1.67
2	1.84	2.76	5.74	22.70	55.31	72.55	73.70	67.74	55.59	20.28	6.26	2.64	1.71
0	1.87	2.84	6.00	23.24	50.79	64.85	62.81	59.23	49.36	18.54	6.54	2.64	1.73
-2	1.88	2.99	5.97	23.54	56.50	69.09	71.99	66.12	54.87	18.51	6.26	2.64	1.73
-4	1.81	2.71	5.58	23.08	53.10	73.09	72.03	65.46	52.73	18.11	6.23	2.68	1.71
-6	1.76	2.67	5.45	23.35	54.57	68.35	67.39	63.05	50.49	18.59	5.97	2.63	1.67
-8	1.69	2.58	5.23	21.51	51.93	67.79	69.02	65.15	45.76	17.33	5.53	2.48	1.59
-10	1.59	2.42	5.21	23.41	57.10	65.98	68.09	65.99	49.53	17.45	5.08	2.39	1.49
-12	1.47	2.24	5.52	21.93	52.19	69.85	65.94	67.69	50.41	17.04	5.16	2.16	1.38
-14	1.32	2.03	4.82	21.02	51.17	63.75	67.21	64.46	47.03	16.47	4.60	1.98	1.25
-16	1.15	1.75	4.04	20.10	47.60	54.91	55.41	57.48	45.41	13.86	4.26	1.77	1.09
-18	0.97	1.41	2.68	11.23	21.89	24.99	27.47	25.93	20.81	7.63	2.73	1.36	0.94
-20	0.78	1.06	1.55	3.18	6.10	7.23	8.05	7.89	5.81	3.06	1.60	1.05	0.78
-22	0.63	0.80	1.05	1.53	2.04	2.34	2.52	2.41	2.15	1.38	1.06	0.81	0.63
-24	0.50	0.62	0.76	0.96	1.13	1.24	1.28	1.23	1.11	0.93	0.76	0.62	0.50
-26	0.39	0.47	0.57	0.67	0.76	0.82	0.84	0.81	0.75	0.66	0.56	0.47	0.39
-28	0.30	0.35	0.42	0.48	0.54	0.57	0.58	0.56	0.53	0.47	0.42	0.36	0.30
-30	0.23	0.27	0.31	0.35	0.38	0.40	0.41	0.40	0.37	0.34	0.31	0.27	0.23

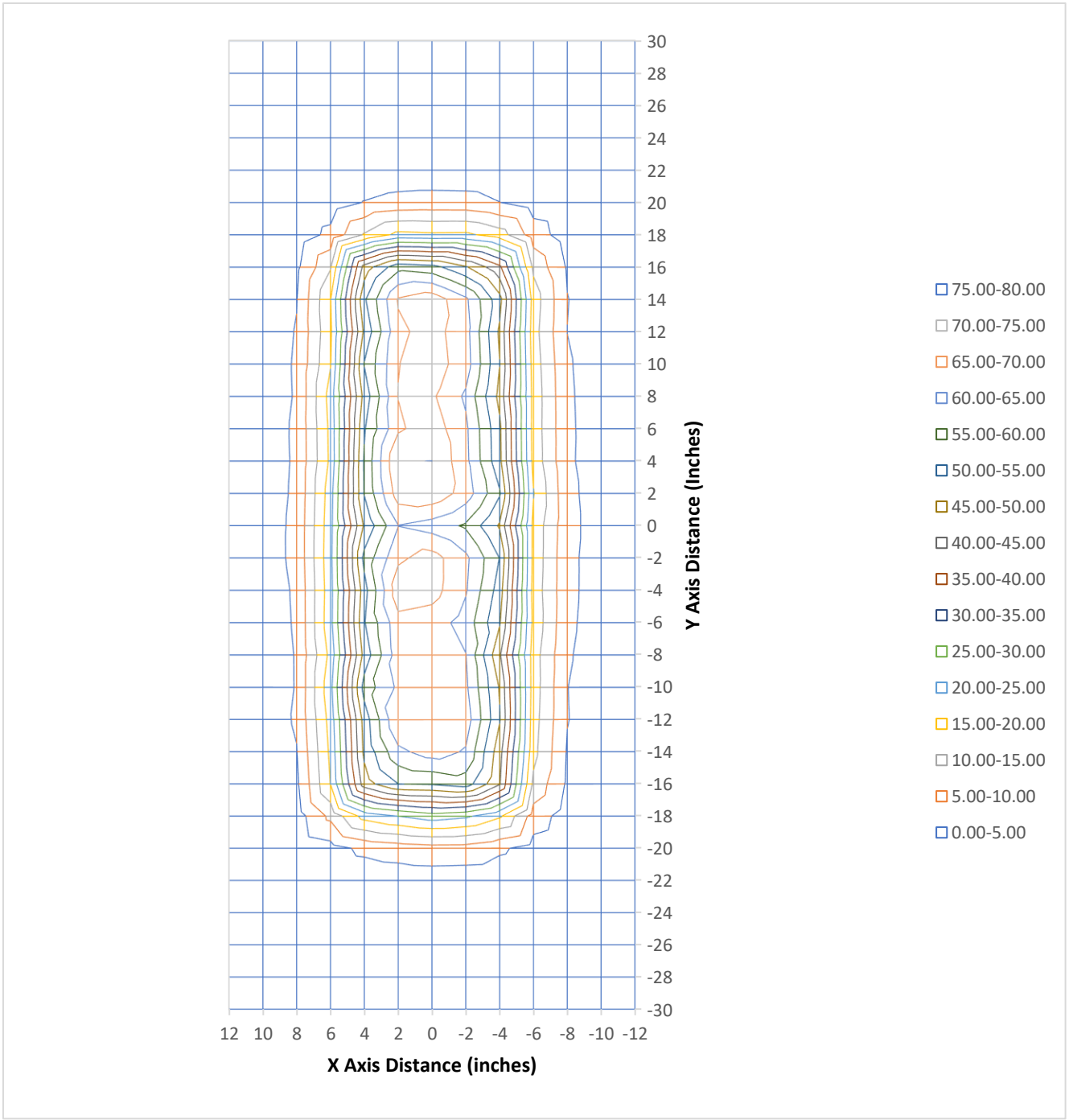
Center Point Irradiance	62.81	mW/cm^2	
Maximum Irradiance	75.01	mW/cm^2	
Minimum Irradiance	0.20	mW/cm^2	
Standard Deviation	24.00	mW/cm^2	
Coefficient of Variation	147.0	%	
Target Area Radiant Power	168.8	W	
Average Irradiance	18.17	mW/cm^2	
Percent area over 20mW/cm^2	28.8	%	
Percent area over 30mW/cm^2	24.9	%	
Percent area over 40mW/cm^2	21.3	%	

LightLab INTERNATIONAL ALLENTOWN LLC

Report of Test

Test Report Number: LLIA003053-002C-R01*

Total Irradiance (570-1100nm) in mW/cm^2
Test Distance = 12 inches



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Test Report Number: LLIA003053-002C-R01*

Half Body Target Area
Total Irradiance (570-1100nm) in mW/cm^2
Test Distance = 12 inches

X Axis Distance (inches)

Y Axis Distance (inches)	-12	-10	-8	-6	-4	-2	0	2	4	6	8	10	12
14	1.33	2.09	4.80	19.76	54.15	70.45	73.09	65.95	51.77	17.68	5.14	1.98	1.22
12	1.48	2.33	5.25	19.00	51.08	68.96	71.96	66.94	49.17	17.00	4.96	2.18	1.35
10	1.60	2.49	5.46	19.66	55.29	69.85	72.39	67.49	50.14	17.66	5.54	2.29	1.46
8	1.69	2.57	5.36	21.91	51.91	70.11	70.79	64.16	48.50	18.16	5.74	2.40	1.55
6	1.76	2.63	5.68	21.21	54.41	69.17	72.76	65.97	51.10	18.06	5.85	2.48	1.62
4	1.81	2.70	5.58	21.02	55.62	74.95	75.01	66.32	51.43	18.35	5.77	2.57	1.67
2	1.84	2.76	5.74	22.70	55.31	72.55	73.70	67.74	55.59	20.28	6.26	2.64	1.71
0	1.87	2.84	6.00	23.24	50.79	64.85	62.81	59.23	49.36	18.54	6.54	2.64	1.73
-2	1.88	2.99	5.97	23.54	56.50	69.09	71.99	66.12	54.87	18.51	6.26	2.64	1.73
-4	1.81	2.71	5.58	23.08	53.10	73.09	72.03	65.46	52.73	18.11	6.23	2.68	1.71
-6	1.76	2.67	5.45	23.35	54.57	68.35	67.39	63.05	50.49	18.59	5.97	2.63	1.67
-8	1.69	2.58	5.23	21.51	51.93	67.79	69.02	65.15	45.76	17.33	5.53	2.48	1.59
-10	1.59	2.42	5.21	23.41	57.10	65.98	68.09	65.99	49.53	17.45	5.08	2.39	1.49
-12	1.47	2.24	5.52	21.93	52.19	69.85	65.94	67.69	50.41	17.04	5.16	2.16	1.38
-14	1.32	2.03	4.82	21.02	51.17	63.75	67.21	64.46	47.03	16.47	4.60	1.98	1.25

Center Point Irradiance	62.81 mW/cm^2		Target Area Radiant Power	141.5 W
Maximum Irradiance	75.01 mW/cm^2		Average Irradiance	30.47 mW/cm^2
Minimum Irradiance	1.22 mW/cm^2		Percent area over 20mW/cm^2	48.6 %
Standard Deviation	27.72 mW/cm^2		Percent area over 30mW/cm^2	43.8 %
Coefficient of Variation	97.9 %		Percent area over 40mW/cm^2	38.6 %

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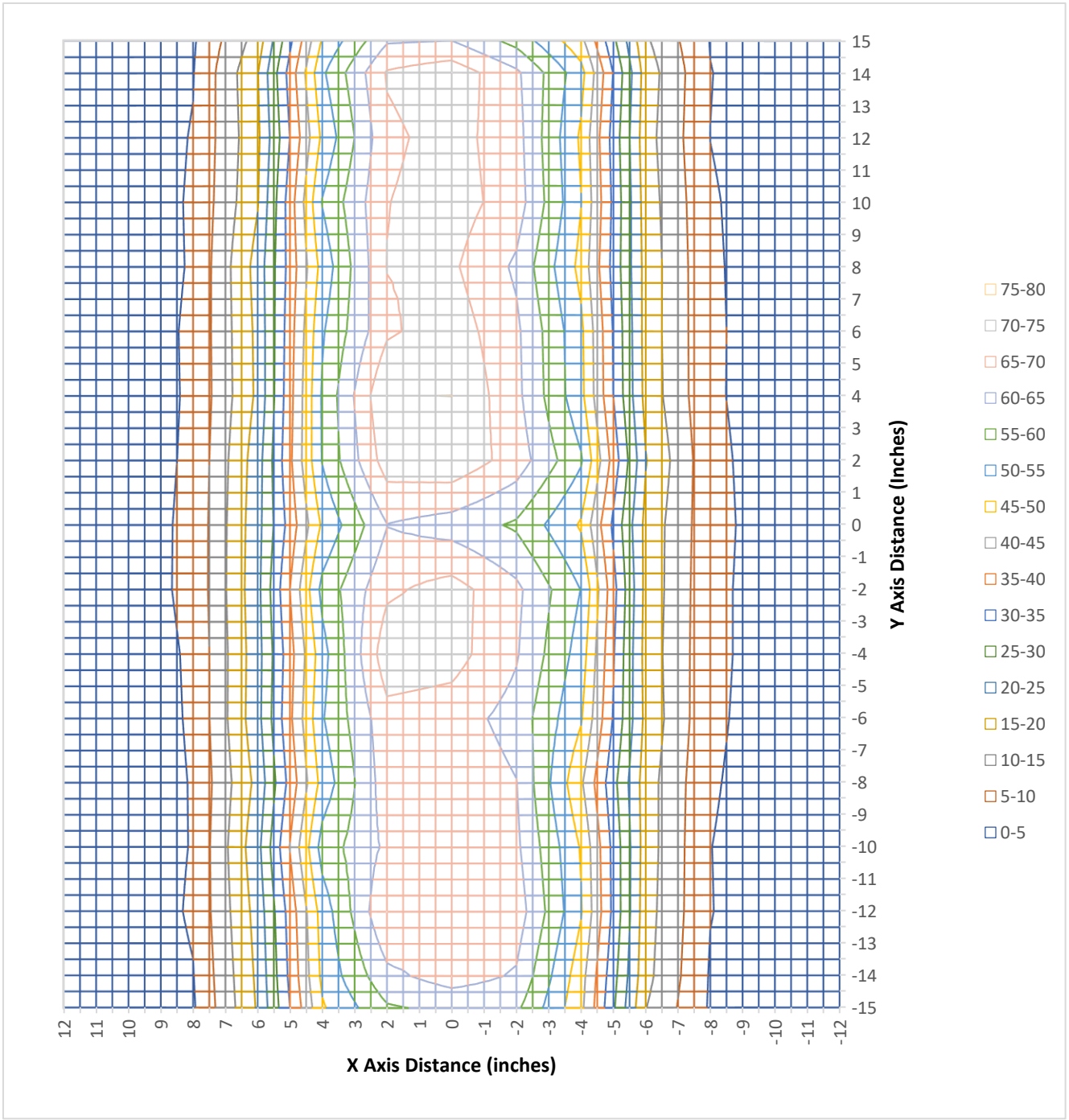
LightLab INTERNATIONAL ALLENTOWN LLC

Report of Test

Test Report Number: LLIA003053-002C-R01*

Total Irradiance (570-1100nm) in mW/cm^2
Test Distance = 12 inches



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Test Report Number: LLIA003053-002C-R01*

Face Target Area
Total Irradiance (570-1100nm) in mW/cm^2
Test Distance = 12 inches

Y Axis Distance (inches) \ X Axis Distance (inches)	-2	0	2
4	74.95	75.01	66.32
2	72.55	73.70	67.74
0	64.85	62.81	59.23
-2	69.09	71.99	66.12
-4	73.09	72.03	65.46

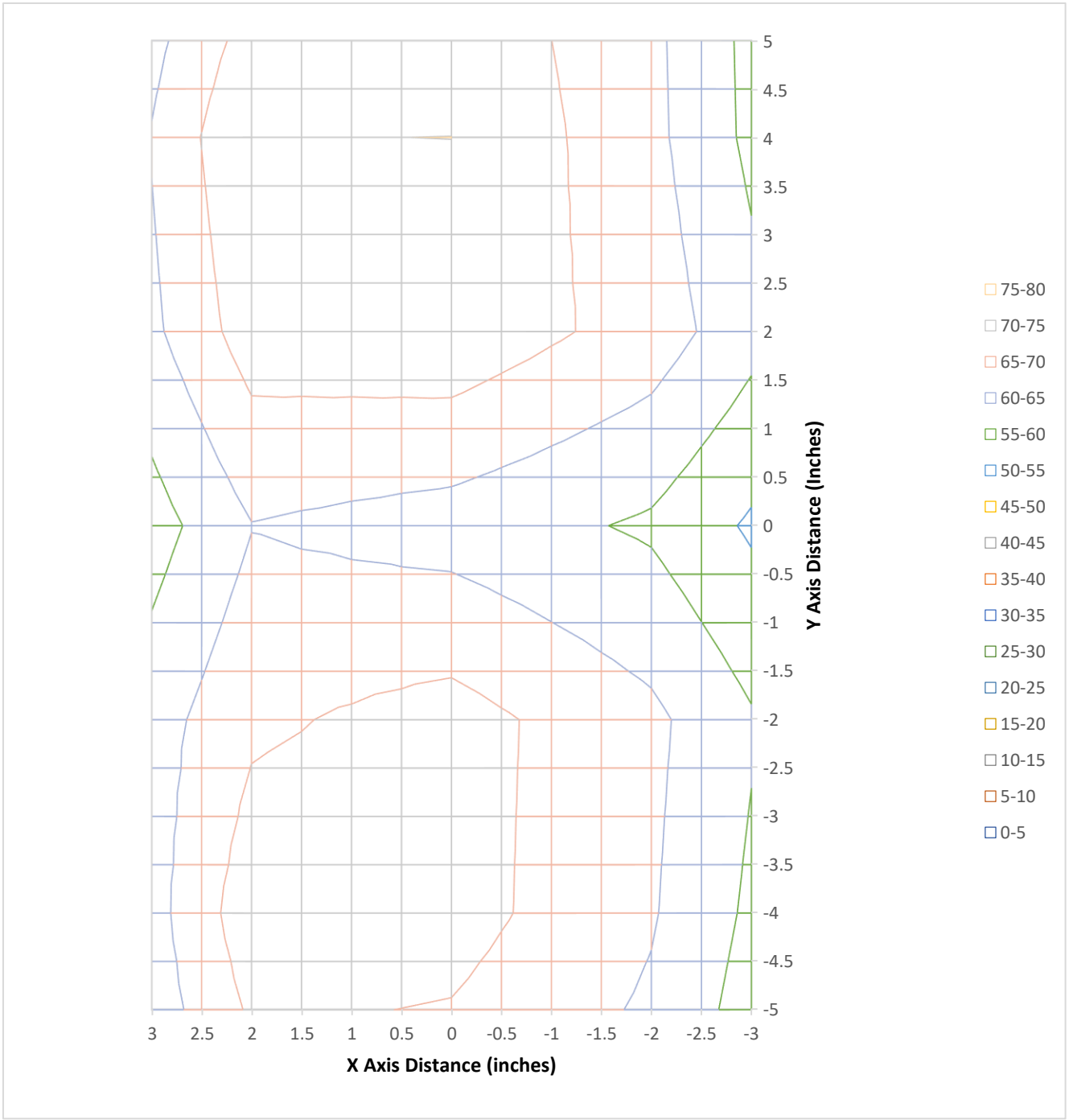
Center Point Irradiance	62.81	mW/cm^2	Target Area Radiant Power	26.2	W
Maximum Irradiance	75.01	mW/cm^2	Average Irradiance	67.64	mW/cm^2
Minimum Irradiance	59.23	mW/cm^2	Percent area over 20mW/cm^2	100.0	%
Standard Deviation	4.79	mW/cm^2	Percent area over 30mW/cm^2	100.0	%
Coefficient of Variation	6.9	%	Percent area over 40mW/cm^2	100.0	%

LightLab INTERNATIONAL ALLENTOWN LLC

Report of Test

Test Report Number: LLIA003053-002C-R01*

Total Irradiance (570-1100nm) in mW/cm^2
Test Distance = 12 inches



LightLab INTERNATIONAL ALLENTOWN LLC

Test Report Number: LLIA003053-002C-R01*

Test Equipment Configuration:	LightLab International Allentown Application Distance Measurement Grid Measurements acquired using spectral irradiance meters (350-1700nm) The rectangular scan method was employed using cartesian coordinates. No symmetry was applied to the results.
Test Procedure:	Tested in accordance with the applicable sections of: LM-91-22, LM-79-24, LM-58-20
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 This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Revision History: R01 - 10/22/2026 - Corrected typo on front page Xmin and Xmax values.

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