



## Report of Test

**LLIA001367-001A**

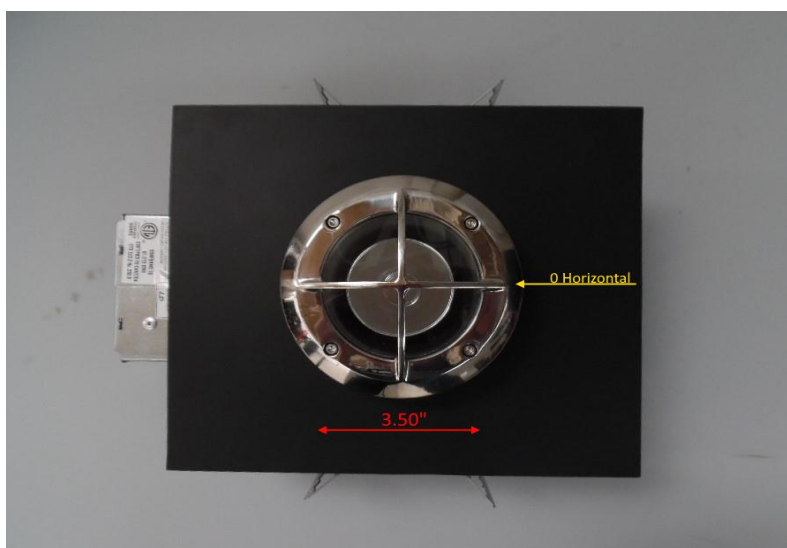
Indoor Distribution Photometry Test Report

Catalog Number: RXT-L25RW454PNCMDMX0

Recessed mounted, formed steel housing, spun semi-specular  
aluminum reflector with clear glass enclosure and decorative steel grill.

One Lumenetix-Araya CTM1C19 16-80K 1500L 26W 24V RGBW LED with semi-specular aluminum reflector

One EFORE Strato RSLP035-24 LED driver



Prepared For:  
Designplan Lighting, Inc  
79 Trenton Avenue  
Frenchtown, NJ 08825, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	769.8 Lumens
Input Current	0.2261 A	Total Efficacy	29.1 Lm/W
Input Power	26.46 W	Downward Flux	769.7 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.976		
Current THD	14.5 %		

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 12/15/2020

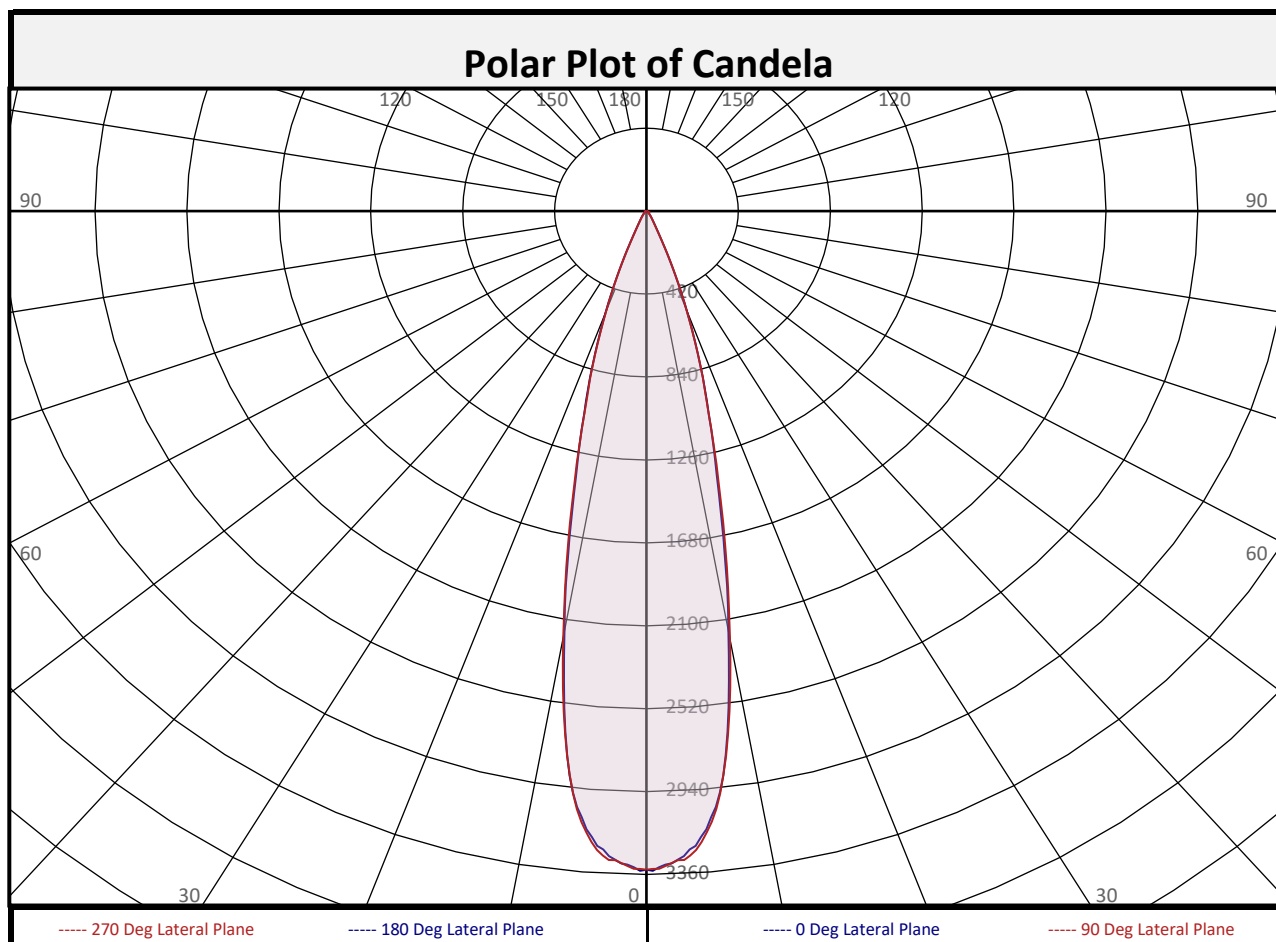
Report date: 12/18/2020

Signed: \_\_\_\_\_



## Report of Test

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Zonal Flux Summary											
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total	
0-10	272.4	35.4%		90-100	0.1	0.0%		0-20	612.2	79.5%	
10-20	339.7	44.1%		100-110	0.0	0.0%		0-30	718.8	93.4%	
20-30	106.6	13.8%		110-120	0.0	0.0%		0-40	743.2	96.5%	
30-40	24.4	3.2%		120-130	0.0	0.0%		0-60	761.7	99.0%	
40-50	11.5	1.5%		130-140	0.0	0.0%		0-80	768.6	99.8%	
50-60	7.0	0.9%		140-150	0.0	0.0%		10-90	497.3	64.6%	
60-70	4.3	0.6%		150-160	0.0	0.0%		20-50	142.6	18.5%	
70-80	2.5	0.3%		160-170	0.0	0.0%		40-90	26.5	3.4%	
80-90	1.1	0.1%		170-180	0.0	0.0%		60-90	8.0	1.0%	
0-90	769.7	100.0%		90-180	0.1	0.0%		0-180	769.8	100.0%	



## Report of Test

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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles									
Vertical (Gamma) Angles		0	22.5	45	67.5	90	112.5	135	157.5	180
	0	3336	3336	3336	3336	3336	3336	3336	3336	3336
	2.5	3288	3283	3295	3284	3291	3284	3295	3283	3288
	5	3143	3148	3165	3165	3159	3165	3165	3148	3143
	7.5	2776	2819	2857	2817	2783	2817	2857	2819	2776
	10	2156	2228	2288	2247	2194	2247	2288	2228	2156
	12.5	1576	1665	1686	1678	1618	1678	1686	1665	1576
	15	1142	1239	1201	1224	1144	1224	1201	1239	1142
	17.5	815	911	916	908	818	908	916	911	815
	20	541	627	644	627	539	627	644	627	541
	22.5	318	382	396	388	325	388	396	382	318
	25	166	198	206	200	168	200	206	198	166
	27.5	95	106	111	106	96	106	111	106	95
	30	65	69	70	67	64	67	70	69	65
	32.5	49	50	50	49	47	49	50	50	49
	35	37	39	38	38	36	38	38	39	37
	37.5	29	29	29	28	27	28	29	29	29
	40	22	22	22	22	22	22	22	22	22
	42.5	18	18	18	17	17	17	18	18	18
	45	15	15	15	14	14	14	15	15	15
	47.5	13	12	12	12	12	12	12	12	13
	50	11	11	10	10	11	10	10	11	11
	52.5	9	9	9	9	9	9	9	9	9
	55	8	8	7	7	8	7	7	8	8
	57.5	7	7	6	6	7	6	6	7	7
	60	7	6	5	6	6	6	5	6	7
	62.5	6	5	5	5	6	5	5	5	6
	65	5	4	4	4	5	4	4	4	5
	67.5	5	4	3	3	4	3	3	4	5
	70	4	3	3	3	4	3	3	3	4
	72.5	3	2	2	2	3	2	2	2	3
	75	3	2	2	2	3	2	2	2	3
	77.5	3	2	2	2	3	2	2	2	3
	80	3	2	2	2	2	2	2	2	3
	82.5	2	1	1	1	2	1	1	1	2
	85	2	1	1	1	2	1	1	1	2
	87.5	1	1	0	1	1	1	0	1	1
90	1	0	0	0	1	0	0	0	1	



## Report of Test

**LLIA001367-001A**

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles										
		0	22.5	45	67.5	90	112.5	135	157.5	180	
	90	1	0	0	0	0	1	0	0	0	1
Vertical (Gamma) Angles	92.5	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0
	167.5	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	



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#### Coefficients of Utilization/Room Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80					70					50				30				10			0
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10	0
RCR																						
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102	100
1	115	113	111	109		112	110	109	107		106	105	104		103	102	101		99	99	98	96
2	111	107	104	101		109	105	103	100		102	100	98		99	98	96		97	95	94	93
3	107	102	99	96		105	101	98	95		99	96	94		96	94	92		94	92	91	89
4	104	98	94	91		102	97	94	91		95	92	90		93	91	89		92	89	88	86
5	101	95	90	87		99	94	90	87		92	89	86		91	88	86		89	87	85	84
6	98	91	87	84		97	91	87	84		89	86	83		88	85	83		87	84	82	81
7	95	88	84	81		94	88	84	81		87	83	81		86	83	80		85	82	80	79
8	92	86	81	79		91	85	81	78		84	81	78		83	80	78		83	80	78	77
9	90	83	79	76		89	83	79	76		82	78	76		81	78	76		81	78	75	75
10	88	81	77	74		87	81	77	74		80	76	74		79	76	74		79	76	74	73

For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

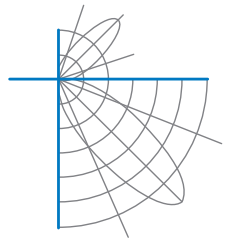
#### Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Ground-level distance to half-of-nadir illuminance (ft)	
		0-180 deg	90-270 deg
6.0	92.7	2.47	2.50
8.0	52.1	3.29	3.33
10.0	33.4	4.12	4.17
12.0	23.2	4.94	5.00
14.0	17.0	5.76	5.84
16.0	13.0	6.58	6.67

Average Luminance (cd/m <sup>2</sup> )			
	0 deg Plane	45 deg Plane	90 deg Plane
0	537418	537418	537418
45	3392	3337	3289
55	2285	2044	2211
65	1998	1461	1922
75	1875	1193	1770
85	2949	1296	2835

#### Spacing Criterion

0 degree plane:	0.4
90 degree plane:	0.4
180 degree plane:	0.4
270 degree plane:	0.4



## Report of Test

### LLIA001367-001A

#### UGR TABLE - CORRECTED

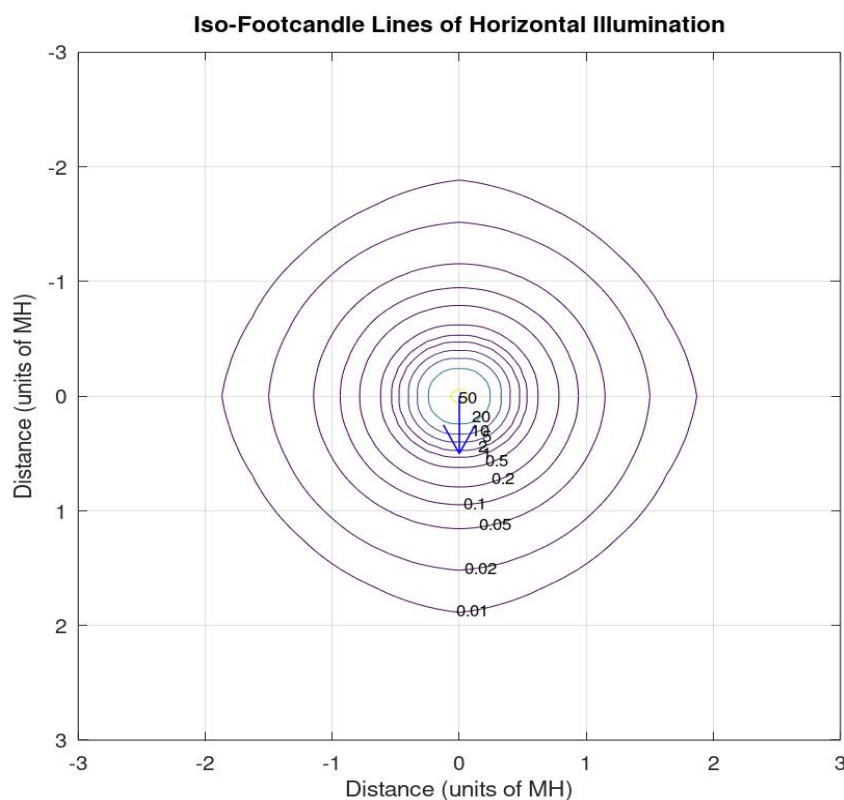
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	4.8	5.7	5.2	6.0	6.3	3.9	4.8	4.3	5.2	5.5
	3H	5.9	6.7	6.3	7.1	7.5	5.4	6.2	5.8	6.5	6.9
	4H	6.5	7.3	6.9	7.6	8.0	6.0	6.8	6.5	7.2	7.5
	6H	7.5	8.2	8.0	8.6	9.0	7.0	7.6	7.4	8.0	8.4
	8H	7.9	8.5	8.3	8.9	9.3	7.3	8.0	7.8	8.4	8.8
	12H	8.3	9.0	8.8	9.3	9.8	7.9	8.5	8.3	8.9	9.3
4H	2H	5.0	5.7	5.4	6.1	6.5	4.2	5.0	4.6	5.3	5.7
	3H	6.3	6.9	6.7	7.3	7.7	5.8	6.4	6.3	6.9	7.3
	4H	6.9	7.5	7.4	7.9	8.4	6.6	7.1	7.0	7.6	8.0
	6H	8.2	8.7	8.7	9.1	9.6	7.7	8.2	8.2	8.6	9.1
	8H	8.6	9.1	9.1	9.5	10.0	8.1	8.5	8.6	9.0	9.5
	12H	9.2	9.6	9.7	10.1	10.6	8.8	9.2	9.3	9.7	10.1
8H	4H	7.1	7.5	7.6	8.0	8.5	6.8	7.2	7.2	7.7	8.1
	6H	8.5	8.9	9.0	9.4	9.8	8.1	8.4	8.6	8.9	9.4
	8H	9.0	9.3	9.5	9.8	10.3	8.5	8.8	9.1	9.4	9.9
	12H	9.7	10.0	10.2	10.5	11.1	9.3	9.6	9.9	10.1	10.7
12H	4H	7.1	7.5	7.6	8.0	8.5	6.8	7.2	7.3	7.7	8.2
	6H	8.5	8.8	9.1	9.3	9.9	8.1	8.4	8.7	8.9	9.4
	8H	9.1	9.3	9.6	9.8	10.4	8.6	8.9	9.2	9.4	10.0

Maximum UGR = 11.1



## Report of Test LLIA001367-001A

### Iso-Illuminance Plot



The isofootcandle values shown in the plot above are based on a mounting height of  $h = 8.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.

## Report of Test

### LLIA001367-001A

Test Distance                      9.5 m  
Ambient Temperature          25.0 °C

#### Notes

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.

Tested in accordance with the applicable sections of IES LM-79-19. Format of reports and angular increments based on IES LM-41-14 and LM-46-04.

The luminous intensity values, 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.

Photometric intensity values are reported using the CIE C-Gamma coordinate system as defined in CIE publication number 121.

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.





## Report of Test

**LLIA001367-001B**

Integrating Sphere Report

Catalog Number: RXT-L25RW454PNCMDX0

Recessed mounted, formed steel housing, spun semi-specular  
aluminum reflector with clear glass enclosure and decorative steel grill.

One Lumenetix-Araya CTM1C19 16-80K 1500L 26W 24V RGBW LED with semi-specular aluminum reflector

One EFORE Strato RSLP035-24 LED driver



### Performance Summary

Voltage	120.0 Vac
Current	0.2245 A
Power	26.42 W
Frequency	59.99 Hz
Power Factor	0.981
Current THD	14.5 %
Total Luminous Flux	780.5 lm
Efficacy	29.5 lm/W
Chromaticity (x,y)	(0.4482, 0.4073)
(u',v')	(0.2565, 0.5243)
Duv	-0.0001
CCT	2844 K
CRI (Ra)	93
R9	71
TM-30: Rf	94
TM-30: Rg	104
TM-30: Rcs,h1	2

Prepared For:

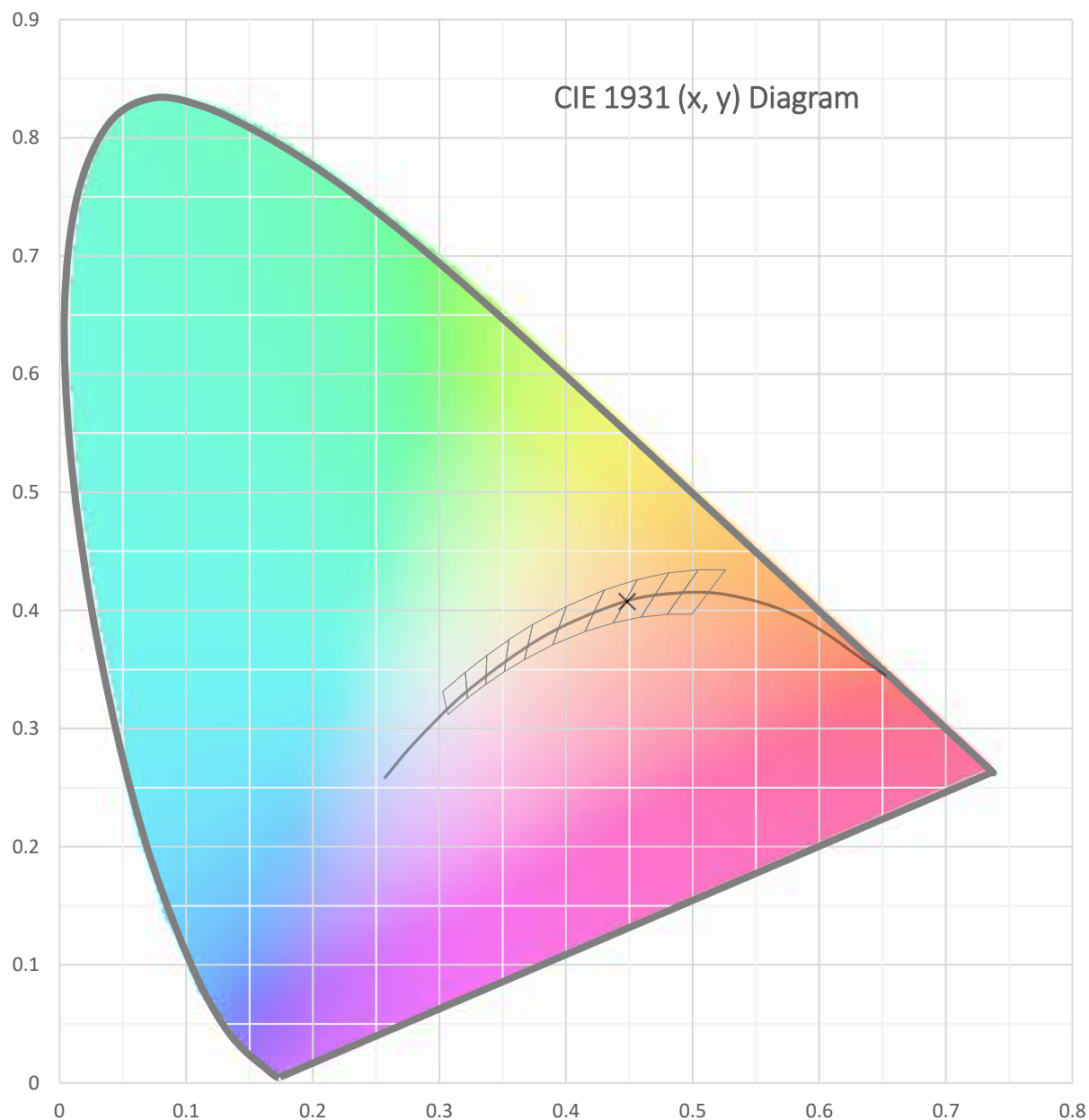
Designplan Lighting, Inc  
79 Trenton Avenue  
Frenchtown, NJ 08825, USA

Test date: 12/15/2020

Report date: 12/18/2020

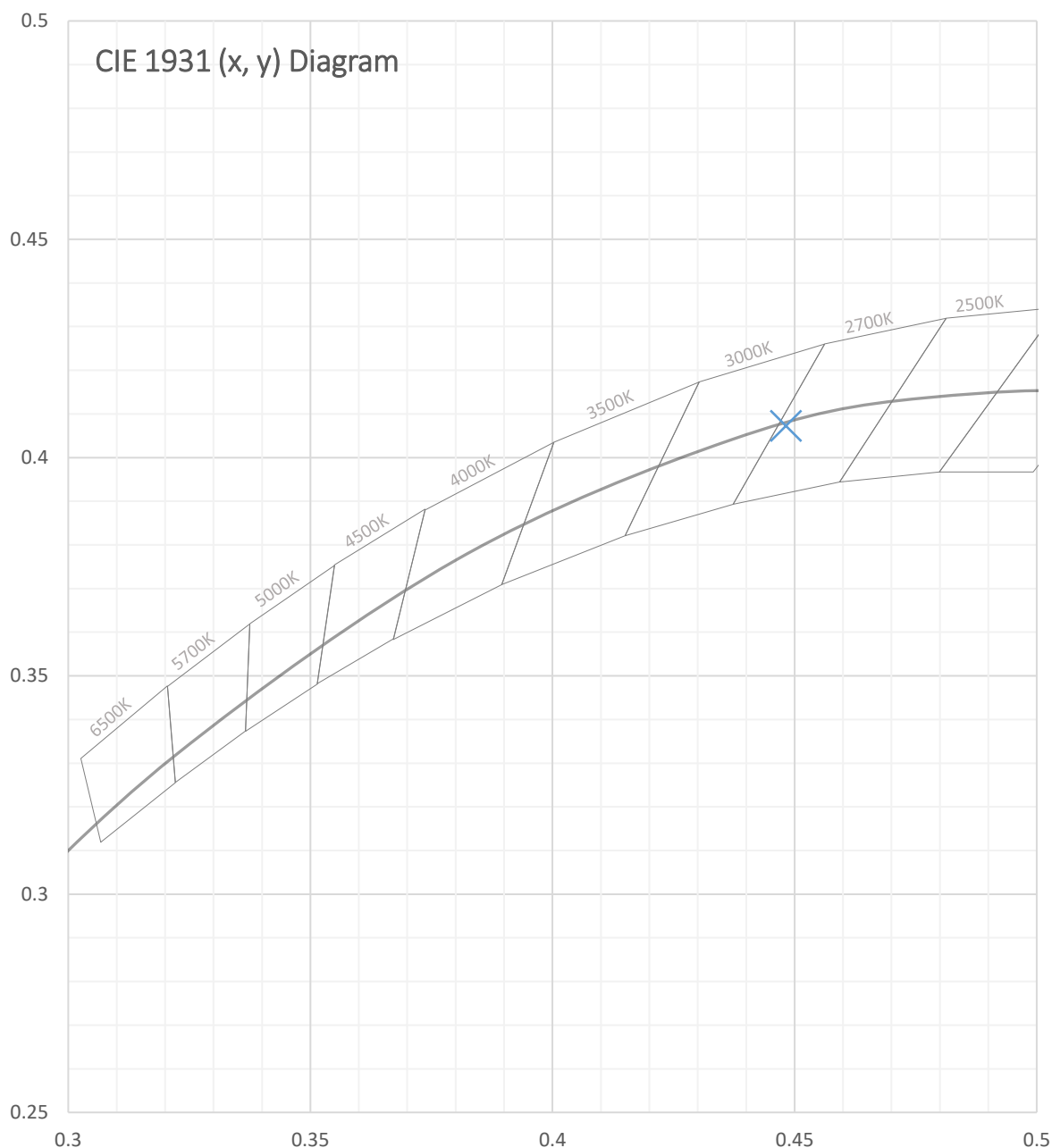


Test Report Number: LLIA001367-001B





Test Report Number: LLIA001367-001B





**Test Report Number: LLIA001367-001B**

Total Radiant Flux	2.542 W
Total Luminous Flux	780.5 Lm
Chromaticity CIE 1931 (x, y)	(0.4482, 0.4073)
Chromaticity CIE 1976 (u', v')	(0.2565, 0.5243)
Correlated Color Temperature (CCT)	2844 K
Color Rendering Index (Ra)	93
R1	93
R2	99
R3	92
R4	90
R5	93
R6	97
R7	94
R8	85
R9	71
R10	99
R11	86
R12	95
R13	95
R14	94
TM-30: Rf	94
TM-30: Rg	104
TM-30: Rcs,h1	2
Distance from Planckian Locus (Duv)	-0.0001
Scotopic/Photopic Ratio $\frac{V(\lambda)}{V_m(\lambda)}$	1.416

**Electrical Data**

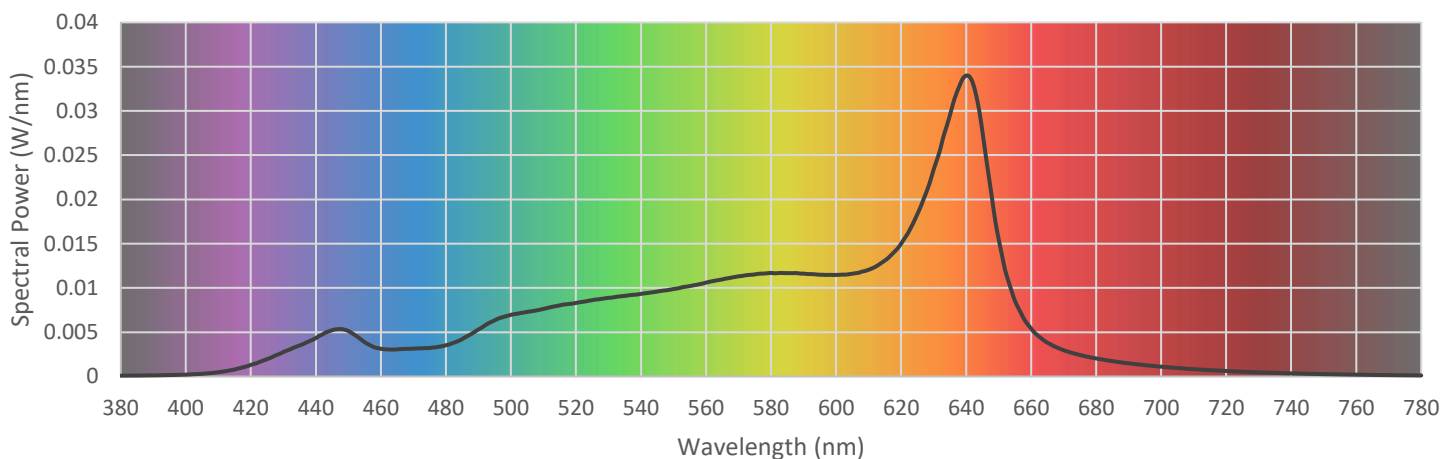
Voltage	120.0 Vac
Current	0.2245 A
Power	26.42 W
Frequency	59.99 Hz
Power Factor	0.981
Current THD	14.5 %



Test Report Number: LLIA001367-001B

Summary Spectral Power Distribution (wavelength - nm, spectral power - W/nm)

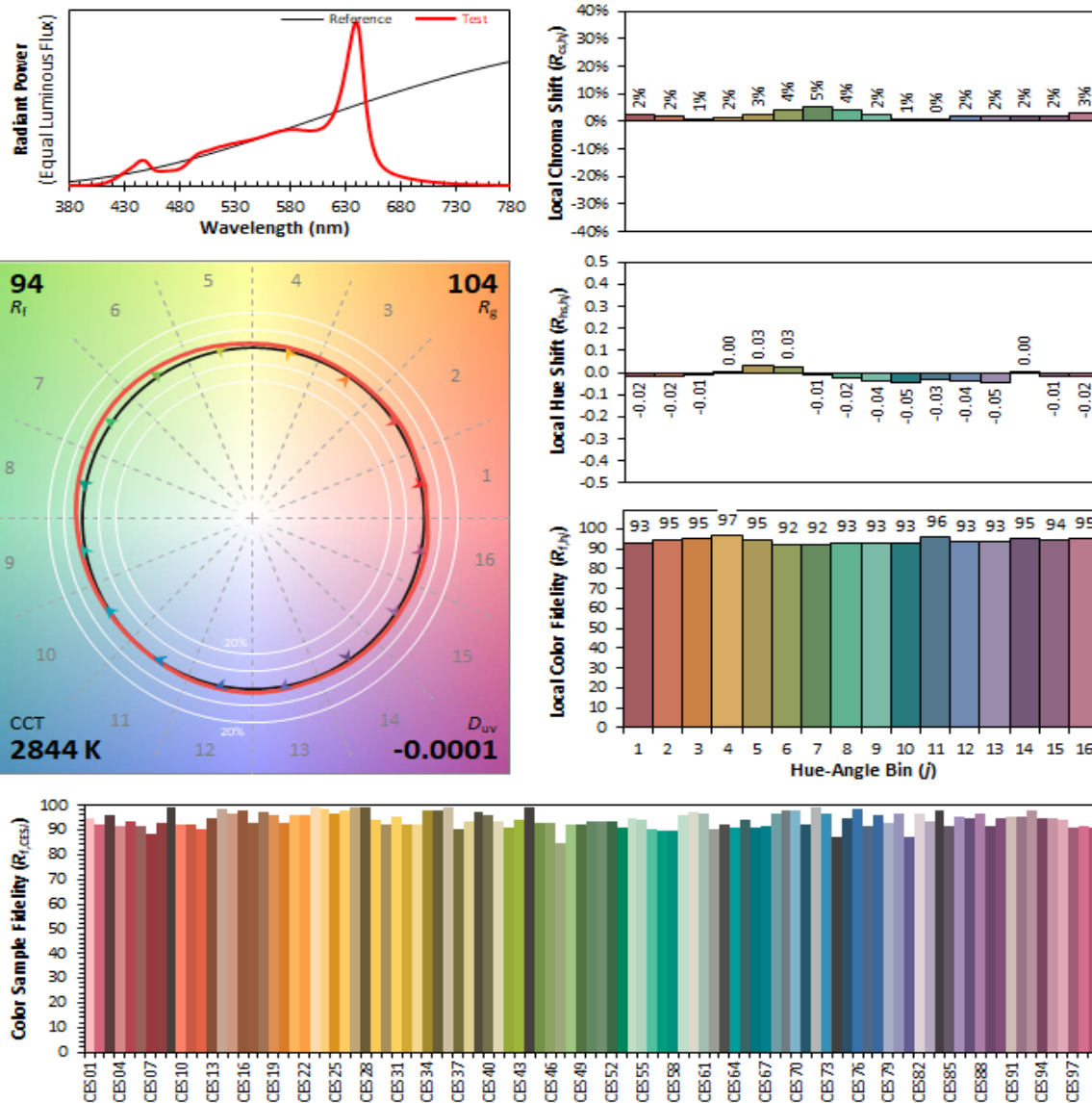
380	0.000087	480	0.003526	580	0.011696	680	0.002037
385	0.000102	485	0.004225	585	0.011677	685	0.001732
390	0.000126	490	0.005309	590	0.011617	690	0.001487
395	0.000159	495	0.006346	595	0.011494	695	0.001275
400	0.000207	500	0.006965	600	0.011470	700	0.001109
405	0.000301	505	0.007297	605	0.011606	705	0.000956
410	0.000481	510	0.007634	610	0.012051	710	0.000824
415	0.000791	515	0.008031	615	0.013093	715	0.000715
420	0.001305	520	0.008309	620	0.014992	720	0.000621
425	0.001962	525	0.008623	625	0.018331	725	0.000539
430	0.002763	530	0.008880	630	0.023349	730	0.000468
435	0.003506	535	0.009103	635	0.029471	735	0.000405
440	0.004339	540	0.009336	640	0.033981	740	0.000349
445	0.005222	545	0.009594	645	0.027739	745	0.000305
450	0.005131	550	0.009877	650	0.015548	750	0.000265
455	0.003872	555	0.010211	655	0.008556	755	0.000231
460	0.003128	560	0.010598	660	0.005423	760	0.000203
465	0.003059	565	0.010962	665	0.003824	765	0.000176
470	0.003141	570	0.011312	670	0.002969	770	0.000155
475	0.003218	575	0.011525	675	0.002429	775	0.000135
						780	0.000117





Test Report Number: LLIA001367-001B

### IES TM-30 Details



Notes:

$x$  0.4482  
 $y$  0.4072  
 $u'$  0.2565  
 $v'$  0.5243

CIE 13.3-1995  
(CRI)

$R_a$  93  
 $R_g$  71

## Test Report Number: LLIA001367-001B

**Test Equipment Configuration:** LightLab International Allentown 2m Integrating Sphere  
Measurements acquired using a Labsphere CDS 2600 spectroradiometer  
Testing was performed using  $4\pi$  geometry

**Test Temperature:** 25.3 °C

**Test Procedure:** Tested in accordance with the applicable sections of:  
LM-79-19, LM-78-07, LM-58-13, ANSI/ANSI C78.377-2017, TM-30-18

**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.

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