



LM-79-08 Test Report

for

GREEN CREATIVE LTD

756 North Zhongshan Rd., Unit B301 Zhabei District, Shanghai

LED Tube System

Model: 9.5T5HE/2F/835/EXT/A4

(LED tube model: 9.5T5HE/2F/835/EXT 4pcs and LED driver model: 15T8T5HEDRIVER/4CH 1pcs)

Laboratory: Leading Testing Laboratories

NVLAP CODE: 200960-0

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Report No.: HZ18080024q

The laboratory that conducted the testing detailed in this report has been accredited for SSL by NVLAP.

Review by:

Engineer: April Zou
Aug. 28, 2018

Approved by:



Manager: Jim Zhang
Aug. 28, 2018

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Test Summary

Sample Tested: **9.5T5HE/2F/835/EXT/A4**

Luminous Efficacy (Lumens /Watt)	Luminous Flux per lamp (Lumens)	Power (Watts)/4	Power Factor
126.7	1415.0	11.17	0.9961
CCT (K)	CRI	Stabilization Time (Light & Power)	
3302	82.4	60	

Table 1: Executive Data Summary

Note: The above results are recorded/ derived from measurements made using an Integrating Sphere.

Test specifications:

Date of Receipt : Jul. 30, 2018

Date of Test : Aug. 02, 2018

Test item : Total Luminous Flux, Luminous Distribution Intensity, Luminous Efficacy, Correlated Color Temperature, Color Rendering Index, Chromaticity Coordinate, Electrical parameters

Reference Standard : IESNA LM-79-2008 Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products

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Sample Photos

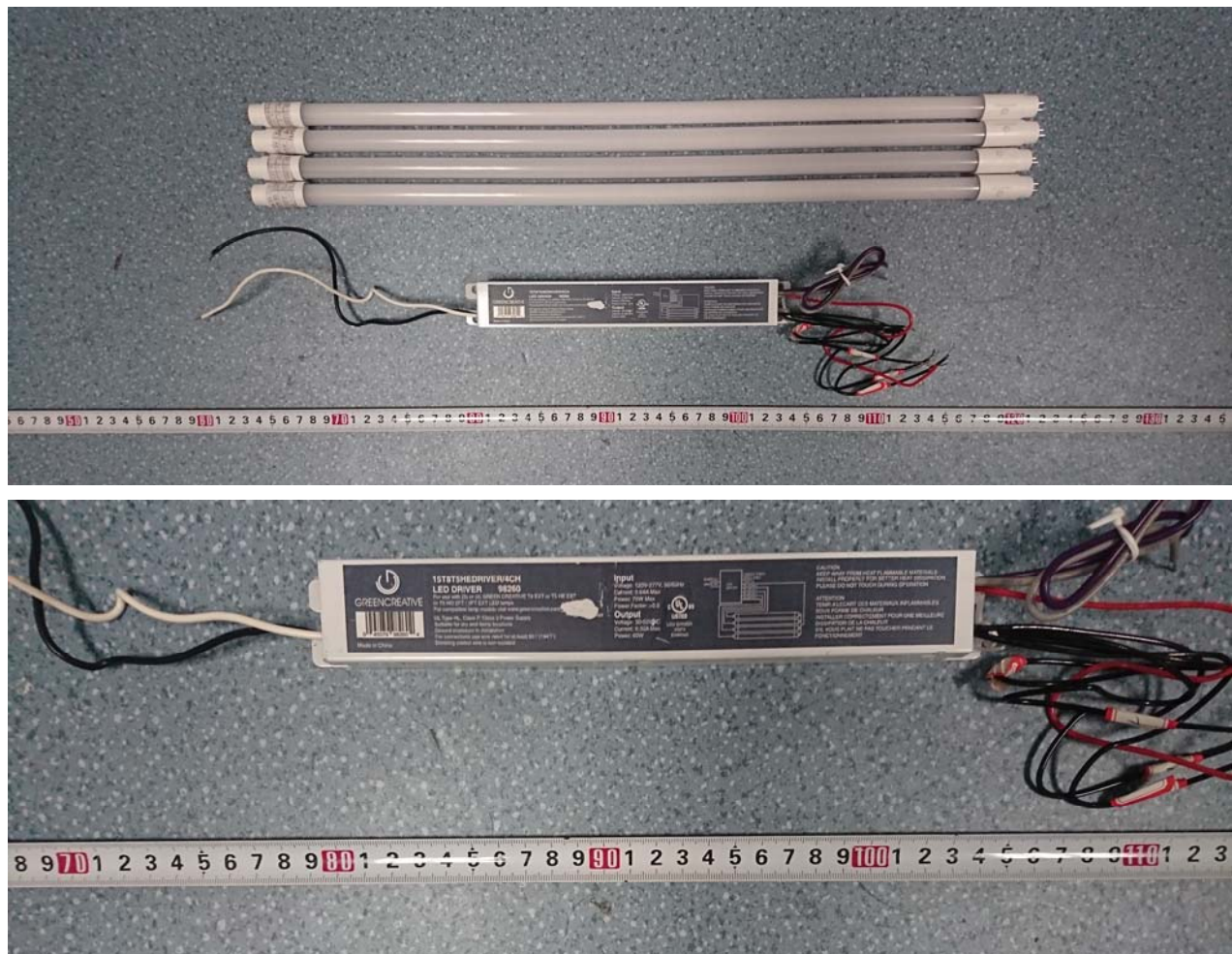


Figure 1- Overview of the sample

Equipment Under Test (EUT)

Name	: LED Tube System
Model	: 9.5T5HE/2F/835/EXT/A4
Electrical Ratings	: 120-277V, 50/60Hz
Product Description	: 3500K LED tube model: 9.5T5HE/2F/835/EXT 4 LED tubes supplied by a LED driver: 15T8T5HEDRIVER/4CH
Manufacturer	: GREEN CREATIVE LTD
Address	: 756 North Zhongshan Rd., Unit B301 Zhabei District, Shanghai

TEST RESULTS

Test ambient temperature was 25.0°C.

Base orientation was light down. Test was conducted without a dimmer in the circuit.

The stabilization time of the sample was 60 minutes, and the total operating time including stabilization was 70 minutes.

Sphere-Spectroradiometer Method

Parameter	Result	
Test Voltage (V)	120.0	277.0
Voltage frequency (Hz)	60	60
Test Current (A)	0.374	0.170
Power Factor	0.9961	0.9472
Test Power (W)/4	11.17	11.12
THD A%	3.78	7.34
Luminous Efficacy (lm/W)	126.7	127.3
Luminous Flux per lamp (lm)	1415.0	1415.0
Color Rendering Index (CRI)	82.4	
R9	2.2	
Correlated Color Temperature (CCT)(K)	3302	
Chromaticity Chroma x	0.4164	
Chromaticity Chroma y	0.3951	
Chromaticity Chroma u	0.2411	
Chromaticity Chroma v	0.3431	
Duv	0.0004	
Chromaticity Chroma u'	0.2411	
Chromaticity Chroma v'	0.5147	

Special Color Rendering Indices	
R1	81.2
R2	91.9
R3	95.3
R4	79.9
R5	81.5
R6	89.7
R7	81.9
R8	57.8
R9	2.2
R10	81.1
R11	79.4
R12	69.3
R13	84.1
R14	98.1
Rf	82
Rg	94

Table 2: Test data per Sphere-Spectroradiometer Method

Note: According to CIE 1976 (u',v') diagram, $u' = u = 4x/(-2x+12y+3)$, $v' = 3v/2 = 9y/(-2x+12y+3)$.

Goniophotometer Method

Test ambient temperature was 25.0°C.

The photometric distance is 30m.

Luminous data was taken at 0.5°vertical intervals and 10°horizontal intervals.

Parameter	Result
Test Voltage (V)	120.0
Voltage frequency (Hz)	60
Test Current (A)	0.374
Power Factor	0.9962
Test Power (W)/4	11.18
Luminous Efficacy (lm/W)	124.9
Luminous Flux per lamp (lm)	1396.1
Beam Angle (°)	116.5
Center Beam Candle Power (cd)	394
Spacing Criteria	1.20 (0°-180°)/ 1.32 (90°-270°)
Zonal Lumens in the 0°-60°Zone	64.04%
Zonal Lumens in the 60°-90°Zone	25.72%
Zonal Lumens in the 90°-120°Zone	7.76%
Zonal Lumens in the 120°-180°Zone	2.49%

Table 3: Test data per Goniophotometer Method

Spectral Power Distribution - Sphere Spectroradiometer Method

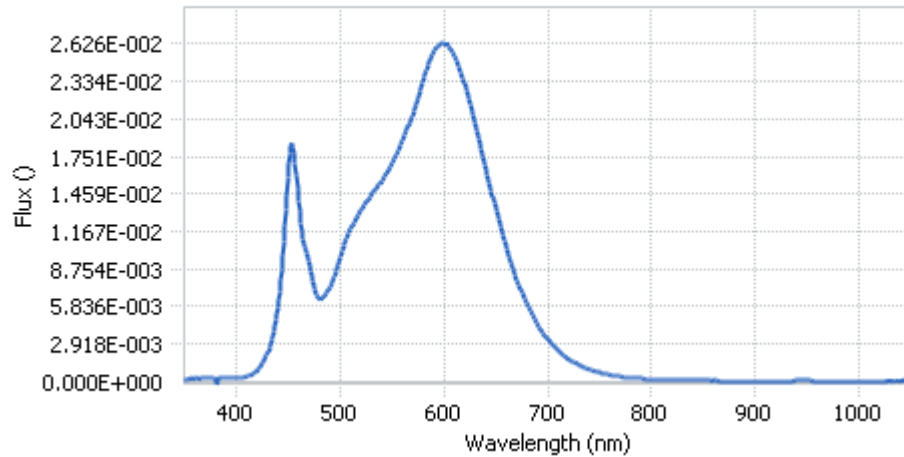


Chart 1: Spectral Power Distribution

Spectral Distribution over Visible Wavelength							
WL(nm)	Radiant(Watts)	WL(nm)	Radiant(Watts)	WL(nm)	Radiant(Watts)	WL(nm)	Radiant(Watts)
380	1.83E-04	485	6.67E-03	590	2.55E-02	695	3.83E-03
385	2.23E-04	490	7.35E-03	595	2.62E-02	700	3.29E-03
390	2.23E-04	495	8.31E-03	600	2.63E-02	705	2.81E-03
395	2.35E-04	500	9.57E-03	605	2.60E-02	710	2.39E-03
400	2.68E-04	505	1.08E-02	610	2.53E-02	715	2.04E-03
405	3.05E-04	510	1.18E-02	615	2.44E-02	720	1.74E-03
410	3.80E-04	515	1.27E-02	620	2.32E-02	725	1.50E-03
415	5.24E-04	520	1.34E-02	625	2.17E-02	730	1.28E-03
420	8.11E-04	525	1.39E-02	630	2.01E-02	735	1.09E-03
425	1.32E-03	530	1.44E-02	635	1.85E-02	740	9.24E-04
430	2.15E-03	535	1.50E-02	640	1.68E-02	745	7.92E-04
435	3.51E-03	540	1.55E-02	645	1.51E-02	750	6.74E-04
440	5.78E-03	545	1.62E-02	650	1.35E-02	755	5.79E-04
445	9.75E-03	550	1.70E-02	655	1.19E-02	760	5.02E-04
450	1.58E-02	555	1.77E-02	660	1.05E-02	765	4.31E-04
455	1.82E-02	560	1.86E-02	665	9.21E-03	770	3.71E-04
460	1.40E-02	565	1.97E-02	670	7.99E-03	775	3.14E-04
465	1.08E-02	570	2.08E-02	675	6.96E-03	780	2.76E-04
470	9.28E-03	575	2.20E-02	680	6.03E-03		
475	7.45E-03	580	2.34E-02	685	5.21E-03		
480	6.44E-03	585	2.47E-02	690	4.47E-03		

Table 4: Spectral Power Distribution Numerical Data per Sphere - Spectroradiometer Method

Chromaticity Diagram - Sphere Spectroradiometer Method

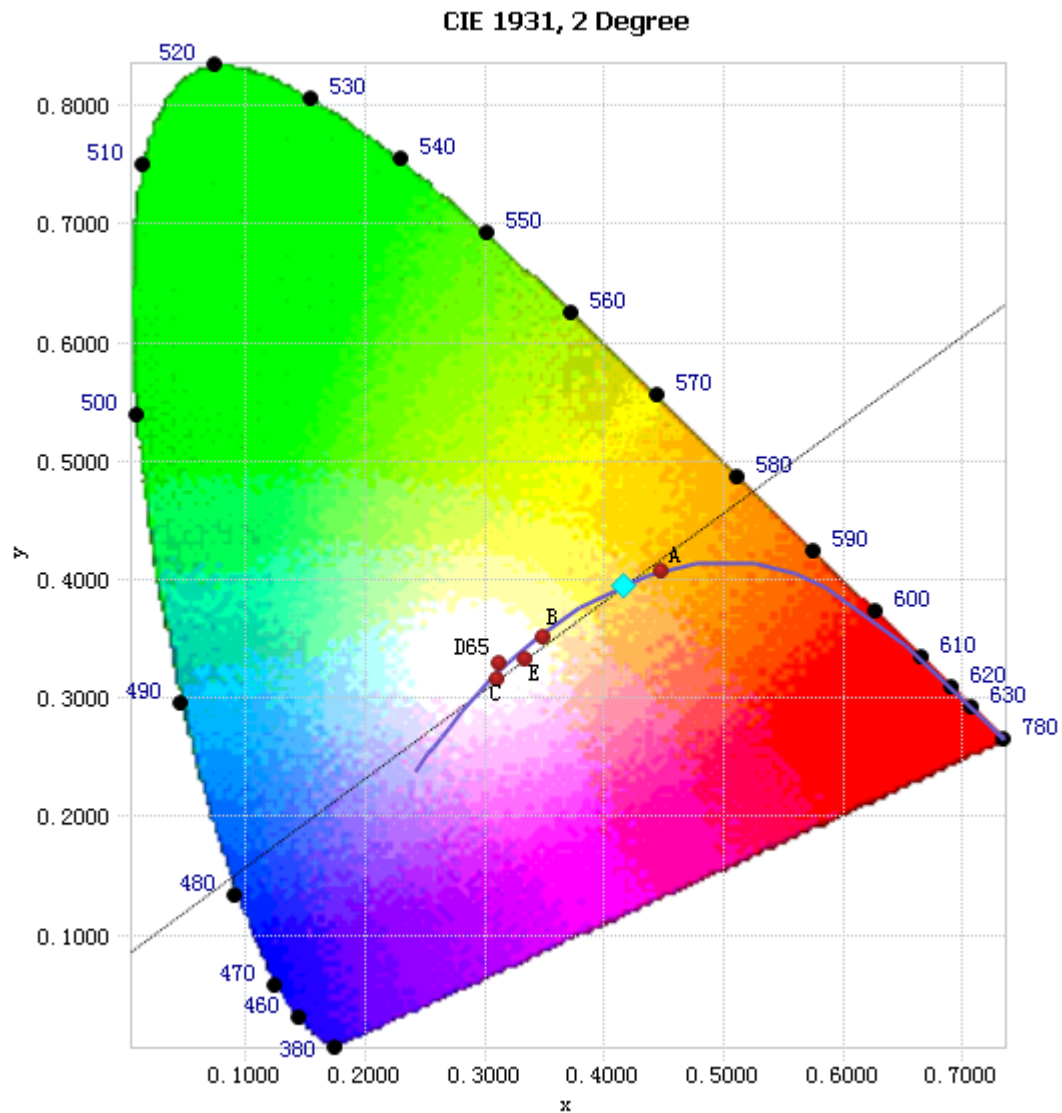


Chart 2: Chromaticity Diagram per Sphere - Spectroradiometer Method

Note: The location on the diagram of the tristimulus coordinates are indicated by the blue diamond.

Nominal CCT Quadrangles – Sphere Spectroradiometer Method

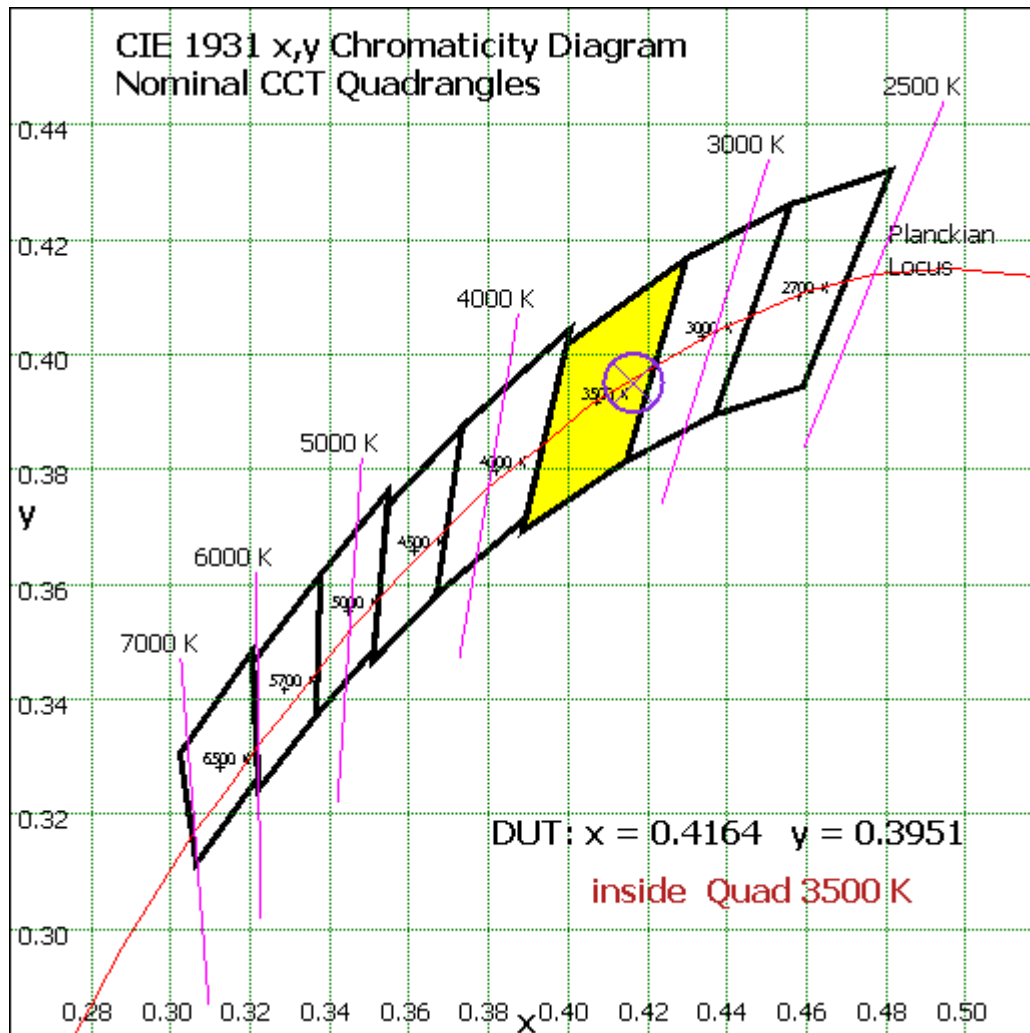


Chart 3: Plot of Lamp x/y coordinates on CIE 1931 Chromaticity Diagram

Zonal Lumen Tabulation- Goniophotometer Method

$\gamma(^{\circ})$	Lumens	% Total
0- 10	37.245	2.67%
10- 20	106.605	7.64%
20- 30	161.399	11.56%
30- 40	194.772	13.95%
40- 50	203.849	14.60%
50- 60	190.118	13.62%
60- 70	159.101	11.40%
70- 80	119.195	8.54%
80- 90	80.785	5.79%
90-100	52.979	3.79%
100-110	34.097	2.44%
110-120	21.24	1.52%
120-130	13.888	0.99%
130-140	9.175	0.66%
140-150	5.838	0.42%
150-160	3.503	0.25%
160-170	1.809	0.13%
170-180	0.49	0.04%
Total	1396.1	100%

$\gamma(^{\circ})$	Lumens	% Total
0- 60	893.988	64.04%
60- 90	359.081	25.72%
0-90	1253.069	89.76%
90- 180	143.019	10.24%
0- 180	1396.1	100%

Table 5: Zonal Lumen Data

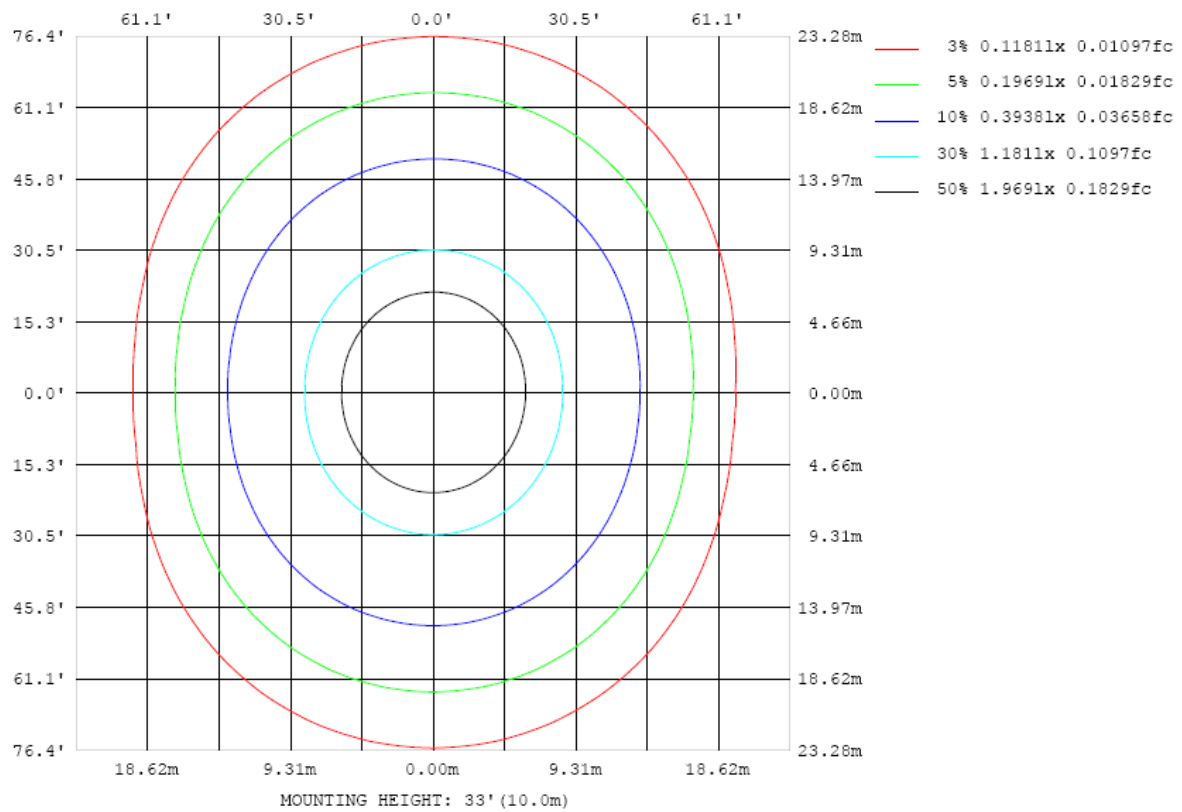


Chart 4: Illuminance Plot (Footcandles)

Luminous Intensity Distribution Plots- Goniophotometer Method

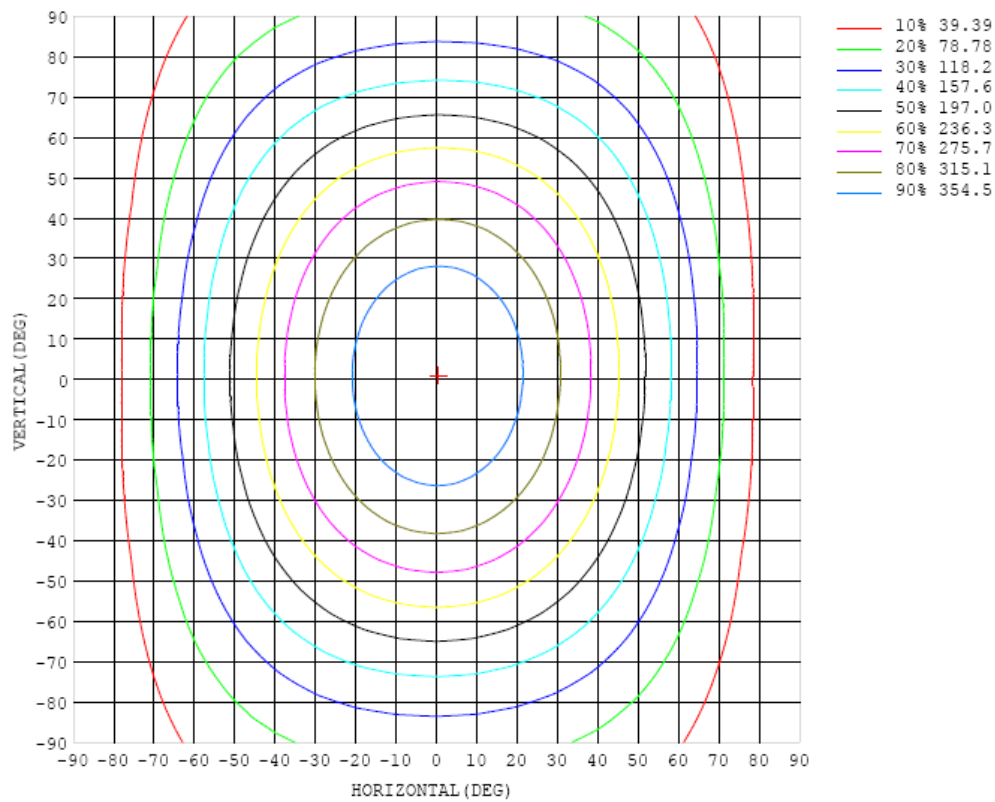


Chart 5: Isocandela Plot

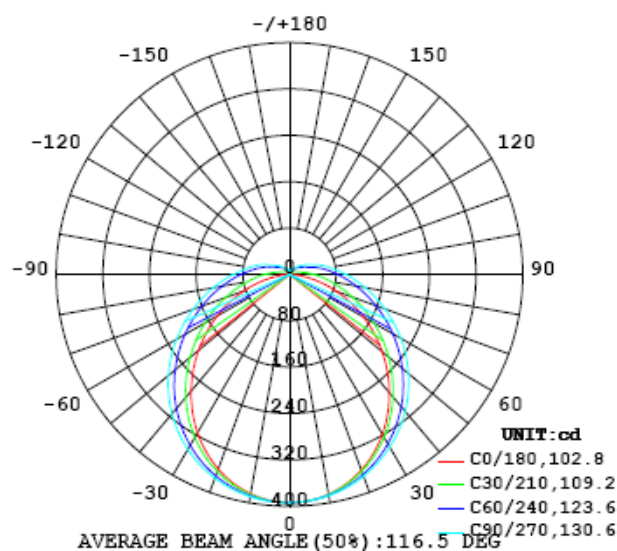


Chart 6: Polar Candela Distribution

Luminous Intensity Data- Goniophotometer Method

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394
5	392	392	392	392	392	392	392	392	392	392	392	392	392	392	391	391	391	391	391
10	385	385	385	386	386	386	387	387	388	388	387	387	387	386	385	385	384	384	384
15	374	374	375	376	377	378	379	380	380	380	380	379	378	377	376	375	374	373	373
20	359	359	360	362	364	366	368	369	371	371	370	369	367	365	363	360	359	358	357
25	341	341	342	344	348	351	354	356	358	358	358	356	353	350	346	343	341	339	338
30	318	318	321	324	328	333	337	341	343	344	343	341	337	332	327	323	319	316	316
35	293	294	297	301	307	313	318	323	326	327	326	323	318	312	306	300	294	291	290
40	266	267	270	276	283	291	298	304	307	309	307	304	298	290	282	275	268	264	263
45	237	238	242	249	258	267	276	283	287	288	287	283	276	267	257	248	240	235	234
50	207	208	213	222	232	243	252	260	265	266	265	260	253	243	232	221	212	205	204
55	177	178	184	194	206	218	228	237	242	244	242	237	229	218	206	193	183	175	173
60	146	148	155	167	180	193	204	213	219	220	219	214	205	194	180	167	154	145	143
65	115	118	127	140	155	169	181	189	195	197	195	190	181	170	156	140	126	116	113
70	85.7	88.7	99.9	115	131	145	158	167	172	174	172	167	159	147	132	116	100	87.4	83.1
75	57.6	61.7	75.1	92.1	109	124	136	145	150	152	150	146	137	125	111	93.8	76.3	61.5	54.9
80	31.6	37.5	54.0	72.1	89.2	104	116	125	130	132	130	126	117	106	91.2	74.2	56.2	38.5	29.4
85	11.2	18.9	36.5	55.4	72.1	86.7	98.2	107	111	113	112	107	99.6	88.5	74.5	58.0	39.4	21.0	9.74
90	0.78	7.91	23.9	41.7	58.2	71.8	82.6	90.5	95.2	96.7	95.5	91.4	84.1	73.5	60.5	44.5	26.9	10.3	0.33
95	0.38	2.96	15.2	31.0	46.3	59.5	69.5	76.6	81.0	82.5	81.3	77.5	70.6	61.3	48.7	33.8	18.0	5.02	0.41
100	0.52	2.10	9.56	22.2	36.0	48.4	58.0	65.0	69.0	70.1	69.3	65.9	59.4	50.1	38.3	24.7	12.2	3.41	0.56
105	0.86	1.74	7.29	16.2	26.9	37.7	46.8	53.5	57.6	59.0	57.9	54.4	48.2	39.5	29.3	18.9	9.29	2.86	0.86
110	1.31	2.09	5.98	13.1	21.5	29.7	37.0	42.7	46.3	47.6	46.7	43.6	38.6	31.8	23.7	15.1	7.76	2.84	1.29
115	1.76	2.53	5.27	10.8	17.8	24.7	30.6	35.2	38.1	39.2	38.6	36.2	32.0	26.2	19.5	12.7	6.92	3.15	1.73
120	2.25	2.85	5.02	9.38	14.9	20.6	25.7	29.5	32.0	32.9	32.3	30.3	26.8	22.0	16.5	10.8	6.09	3.29	2.18
125	2.76	3.11	4.88	8.26	12.8	17.4	21.6	24.8	26.9	27.7	27.2	25.4	22.5	18.5	14.1	9.57	5.71	3.53	2.56
130	3.28	3.62	4.96	7.32	11.1	14.9	18.3	21.0	22.7	23.4	23.0	21.5	19.0	15.8	12.2	8.49	5.45	3.73	2.97
135	3.82	3.99	5.11	6.92	9.61	12.7	15.7	17.8	19.2	19.8	19.4	18.2	16.3	13.6	10.5	7.42	5.53	3.97	3.48
140	4.34	4.33	5.11	6.28	8.61	10.7	13.2	15.1	16.3	16.7	16.4	15.5	13.7	11.4	9.10	6.93	5.45	4.10	3.96
145	4.80	4.57	4.95	5.34	7.74	9.33	10.9	11.9	13.2	13.8	13.4	12.2	11.3	9.75	7.88	6.40	5.29	4.07	4.39
150	5.27	4.46	5.46	5.34	5.61	8.05	9.27	10.3	10.6	10.8	10.8	10.6	9.70	8.38	7.04	6.05	5.33	4.07	4.87
155	5.68	4.35	5.25	5.39	5.79	6.16	8.20	8.84	9.25	9.64	9.54	8.95	8.39	6.65	5.87	5.71	4.78	3.98	5.32
160	6.12	4.83	4.83	5.39	5.88	6.54	7.06	7.58	7.82	7.78	7.48	6.62	5.81	5.89	5.85	4.83	4.17	4.13	5.35
165	6.33	5.32	4.23	4.61	5.06	5.84	6.71	7.01	7.08	6.87	6.67	6.69	6.16	4.96	4.37	3.76	3.71	3.77	5.34
170	5.96	4.87	4.29	4.06	4.11	4.11	4.07	5.01	6.33	6.81	4.47	3.68	3.68	3.62	3.60	3.66	3.67	3.93	4.62
175	5.58	4.47	4.00	3.96	3.97	3.97	4.17	4.66	4.72	1.61	4.77	4.54	4.09	3.55	3.43	3.46	3.57	3.62	3.77
180	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34

Table 6: Luminous Intensity Data

Table--2

UNIT: cd

C (DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394		
5	391	392	392	392	392	392	393	393	393	393	393	393	393	392	392	392	392		
10	385	385	386	386	387	388	388	389	389	389	389	389	388	388	387	386	386		
15	373	375	376	377	379	381	382	383	383	383	383	382	380	379	378	376	375		
20	358	360	362	365	367	370	372	373	374	374	373	371	369	367	365	362	360		
25	340	342	345	349	353	357	360	362	363	362	361	358	355	352	348	345	342		
30	317	320	325	330	336	341	345	347	349	348	346	343	338	333	328	324	320		
35	292	296	302	309	316	322	327	331	333	332	329	325	319	313	306	300	296		
40	265	270	277	285	294	302	308	312	314	313	310	305	298	290	282	274	269		
45	236	242	250	260	270	280	287	291	293	293	289	283	274	265	255	247	241		
50	206	213	223	234	246	256	264	269	271	270	266	260	250	239	228	218	211		
55	176	184	195	208	221	232	240	246	248	247	243	235	225	213	201	190	181		
60	147	156	168	182	195	207	216	222	224	223	218	211	200	187	173	161	152		
65	117	127	142	157	171	183	192	197	200	199	194	186	175	162	148	133	122		
70	88.0	101	117	133	148	160	168	174	176	175	170	163	152	138	122	106	93.1		
75	61.0	75.9	93.6	111	126	138	147	152	154	153	149	141	130	116	99.1	81.6	66.1		
80	37.4	54.5	73.3	90.7	106	117	126	131	133	132	128	120	109	95.4	78.6	60.0	42.3		
85	19.2	37.4	56.3	73.4	87.9	99.1	107	112	114	113	109	102	91.3	77.7	61.1	42.3	23.6		
90	8.37	24.8	42.6	58.9	72.6	83.2	90.6	95.0	96.6	95.8	92.2	85.5	75.6	62.7	46.8	29.0	11.5		
95	3.50	16.2	32.1	47.0	59.7	69.6	76.6	80.6	82.1	81.4	77.9	71.7	62.5	50.4	35.7	19.7	5.32		
100	2.39	10.4	23.4	37.2	49.1	58.3	64.7	68.5	69.9	69.2	65.9	60.1	51.5	40.3	26.7	12.6	3.28		
105	2.41	7.79	17.1	27.9	39.3	48.3	54.5	58.1	59.4	58.7	55.6	50.1	41.7	30.8	19.2	9.12	2.87		
110	2.62	6.52	13.5	22.0	30.4	37.7	44.0	47.9	49.3	48.5	45.2	39.4	31.9	23.5	14.8	7.17	2.90		
115	2.93	6.05	11.4	18.1	24.8	30.6	35.0	37.8	38.8	38.1	35.6	31.5	25.8	19.2	12.2	6.39	3.14		
120	3.29	5.83	9.99	15.3	20.7	25.5	29.1	31.3	32.2	31.6	29.6	26.2	21.5	16.1	10.3	6.09	3.50		
125	3.60	5.69	9.00	13.1	17.5	21.4	24.5	26.4	27.1	26.7	25.0	22.1	18.2	13.6	9.23	5.99	3.88		
130	3.94	5.63	8.23	11.5	15.0	18.3	20.8	22.4	23.0	22.6	21.2	18.8	15.6	11.9	8.60	6.01	4.28		
135	4.38	5.76	7.81	10.4	13.1	15.8	17.8	19.1	19.6	19.3	18.1	16.2	13.5	10.7	8.19	6.11	4.70		
140	4.83	5.94	7.52	9.50	11.6	13.6	15.3	16.3	16.7	16.5	15.5	13.9	11.9	9.83	7.85	6.24	5.12		
145	5.26	6.13	7.32	8.81	10.4	11.9	13.1	13.9	14.2	14.0	13.3	12.1	10.6	9.07	7.58	6.39	5.54		
150	5.52	6.12	7.04	8.23	9.41	10.5	11.4	12.0	12.2	12.0	11.5	10.7	9.60	8.47	7.41	6.54	5.92		
155	5.75	6.25	6.82	7.69	8.60	9.34	9.95	10.4	10.6	10.4	10.1	9.50	8.78	8.01	7.29	6.70	6.26		
160	6.04	6.38	6.75	6.96	7.76	8.43	8.80	9.09	9.21	9.17	8.95	8.59	8.14	7.66	7.21	6.84	6.58		
165	6.35	6.49	6.72	6.88	6.87	7.41	7.92	8.10	8.18	8.18	8.08	7.90	7.66	7.40	7.16	6.96	6.77		
170	5.43	5.90	6.52	6.80	6.83	6.69	6.70	7.06	7.45	7.50	7.45	7.39	7.29	7.18	7.07	6.98	6.93		
175	4.10	4.47	4.90	5.55	6.27	6.54	6.52	6.40	6.33	6.51	6.71	6.86	7.02	7.02	6.97	6.94	6.55		
180	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34		

Table 7: Luminous Intensity Data

EQUIPMENT LIST

Test Equipment	Model	Equipment No.	Calibration Date	Calibration Due date
Goniophotometer system	GO-R5000	HZTE011-01	Aug. 23, 2017	Aug. 22, 2018
Digital Power Meter	PF2010A	HZTE028-01	Aug. 10, 2017	Aug. 09, 2018
AC Power Supply	DPS1060	HZTE001-06	Aug. 10, 2017	Aug. 09, 2018
DC Power Supply	WY12010	HZTE004-03	Aug. 10, 2017	Aug. 09, 2018
Temperature recorder	JM624U	HZTE018-08	Aug. 17, 2017	Aug. 16, 2018
Temperature and humidity recorder	JR900	HZTE018-01	Aug. 16, 2017	Aug. 15, 2018
Standard source	D908	HZTE012-01	Aug. 20, 2017	Aug. 19, 2018
Integrate Sphere system	2M	HZTE015-01	Aug. 23, 2017	Aug. 22, 2018
Digital Power Meter	WT210	HZTE008-01	Aug. 10, 2017	Aug. 09, 2018
AC Power Supply	PCR 500L	HZTE001-07	Aug. 10, 2017	Aug. 09, 2018
DC Power Supply	IT6154	HZTE004-04	Aug. 10, 2017	Aug. 09, 2018
Standard source	SCL-1400	HZTE012-02	Aug. 20, 2017	Aug. 19, 2018
Temperature and humidity recorder	JR900	HZTE018-02	Aug. 16, 2017	Aug. 15, 2018
Temperature Meter	TES1310	HZTE017-01	Aug. 17, 2017	Aug. 16, 2018

Table 8: Test Equipment List

TEST METHODS

Seasoning of SSL Product

For the purpose of rating new SSL products, SSL products shall be tested with no seasoning. Therefore, no seasoning was performed.

Sphere-Spectroradiometer Method- Photometric and Electrical Measurements

A Labsphere Model CDS 2100 Spectroradiometer and Two Meter Sphere was used to measure correlated color temperature, chromaticity coordinates, and the color rendering index for each SSL unit. The coating reflectance of each sphere is 98%. The measure geometry is 4π . Self-absorption correction is conducted in testing. Bandwidth of spectroradiometer is 350nm-1050nm.

Ambient temperature was measured at a position inside the sphere. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation.

The stabilization time typically ranges from 30 min (small integrated LED lamps) to 2 or more hours for large SSL luminaires). It can be judged that stability is reached when the variation (maximum – minimum) of at least 3 readings of the light output and electrical power over a period of 30 min, taken 15 minutes apart, is less than 0.5 %.

Electrical measurements including voltage, current, and power were measured using the Yokogawa Power Analyzer.

The standard reference of the integrated sphere system is halogen incandescent lamp, the intensity distribution type is omni-directional, and is traceable to the National Institute of Standards and Technology.

The uncertainty of integrating sphere system reported in this document is expanded uncertainty is 2.1% with a coverage factor $k=2$.

Goniophotometer Method

Photometric and Electrical Measurements

An EVERFINE Type C Model GO-R5000 Goniophotometer was used to measure the intensity at each angle of distribution for each sample. The photometric distance is 2.475m for near-field measurement or 30m for far-field measurement. Bandwidth of spectroradiometer is 380nm-780nm.

Ambient temperature was measured at the same height of the sample mounted on the Goniophotometer equipment. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation.

The stabilization time typically ranges from 30 min (small integrated LED lamps) to 2 or more hours for large SSL luminaires). It can be judged that stability is reached when the variation (maximum – minimum) of at least 3 readings of the light output and electrical power over a period of 30 min, taken 15 minutes apart, is less than 0.5 %.

Electrical measurements including voltage, current, and power were measured using the Everfine Digital Power Meter.

Some graphics were created with Photometric Plus software.

The standard reference of the Goniophotometer system is halogen incandescent lamp, the intensity distribution type is omni-directional, and is traceable to the National Institute of Metrology P.R. China.

The uncertainty of goniophotometer system reported in this document is expanded uncertainty is 2.3% with a coverage factor $k=2$.

Color Characteristics Measurements

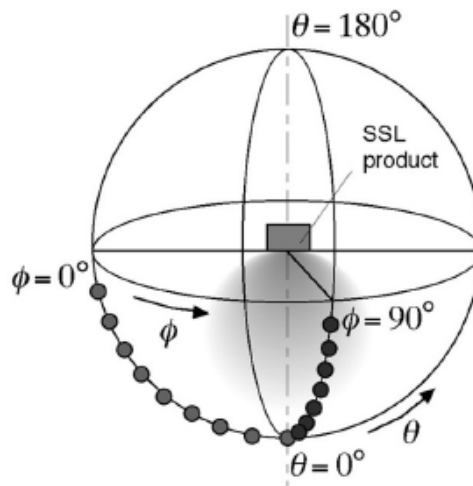
The color characteristics of SSL products include chromaticity coordinates, correlated color temperature, and color rendering index. These characteristics of SSL products may be spatially non-uniform, and thus, in order that they can be specified accurately, the color quantities shall be measured as values that are spatially average, weighted to intensity, over the angular range where light is intentionally emitted from the SSL product. The color characteristics measurements are using gonio-spectroradiometer.

Color Spatial Uniformity

The characteristics of SSL products may be spatially non-uniform, the chromaticity coordinate shall be measured at two vertical planes ($C=0^\circ/180^\circ$ and $C=90^\circ/270^\circ$) and at 10° or less intervals for vertical angle until the light output dropped to below 10% of the peak intensity. The averaged weighted chromaticity coordinate

was calculated from these points. The data was then analyzed to check for delta color differences of the u' , v' chromaticity coordinates. The spatial non-uniformity of chromaticity, $\Delta u'v'$, is determined as the maximum deviation (distance on the CIE (u' , v') diagram) among all measured points from the spatially averaged chromaticity coordinate.

The geometry for the chromaticity measurement using gonio-spectroradiometer is shown as following.



*** End of Report ***

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