

LM-79-08 Test Report

For

ETI Solid State Lighting (Zhuhai) Ltd

No.1, Zhongzhu Road South, Science & Technology Innovation Coast, High Tech District, Zhuhai City,
Guangdong Prov., China 519085

LED Ceiling Light

Model Name(s):

568011##

Representative (Tested) Model:

56801141

Model Difference: ## can be 41-50 or 91-99 indicated 4000K.

Prepare by:

Review by:

Engineer: Alan Wang

Date: 2020-06-01

Technical Lead: Vincent Yuan

Issue Date: 2020-06-

Revised Date: N/A

Note:

1. The results contained in this report pertain only to the tested samples.
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Laboratory: Dongguan New Testing Centre Co., Ltd

Address: 3F, No. 1 the 1st North Industry Road, Songshan Lake Science & Technology Park, Dongguan,
Guangdong, China

Tel: 86-769-22212079

Website: <http://www.ntc-cert.com>

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Client Information:

Applicant Name:	ETI Solid State Lighting (Zhuhai) Ltd
Brand Name:	Commercial Electric
Factory 1 Name:	ETI Solid State Lighting (Zhuhai) Ltd
Factory 1 Address:	No.1, Zhongzhu Road South, Science & Technology Innovation Coast, High tech District, Zhuhai City, Guangdong Prov., China 519085
Factory 2 Name:	NVC VIETNAM TECHNOLOGY AND LIGHTING COMPANY LIMITED
Factory 2 Address:	Lot CN23-1, Yen Phong Industrial park, Dong Phong commune, Yen Phong district, Bac Ninh province, Vietnam

Product Information:

Model Number:	568011##(##=41-50 or 91-99)
Product Type:	Indoor, Inseparable SSL Luminaire
Rating Input:	120Vac, 60Hz, 42W
Declared CCT:	4000K
Declared Light Output:	3200 lm
LED Manufacturer:	Samsung
LED Model:	SPMWH1228MD5WAT0XX
LED Quantity:	230 pcs

Test Information:

Standard Lamp:	Total Spectral Radiant Flux Standard Lamp, trace to NIST. 1. D908S for Gonio 2. D215S for Integrating Sphere
Date of Receipt Samples:	2020-05-13
Quantity of Receipt Samples:	3 pcs
Sample Number:	200513002-S1~S3

Laboratory Information:

Test Laboratory:	Dongguan New Testing Centre Co., Ltd
Laboratory Address:	3F, No. 1 the 1 st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China
Laboratory Contact Name:	Neil Zhong
Laboratory Contact E-mail:	Neil_zhong@ntc-cert.com

Report Information:

Issued Date of Test Report:	2020-06-
Revised Date of Test Report:	N/A
Test Report No.:	NTCLR20050055
Remark (If applicable):	N/A

Test Specification:	
Date of Test	2020-05-13
Test Item	1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Fidelity Index 8. Gamut Index 9. Local Chroma Shift
Reference Standard	IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products ANSI C78.377-2017 Specifications for the Chromaticity of Solid State Lighting Products CIE 13.3-1995 Method of Measuring and Specifying Color Rendering Properties of Light Sources CIE 15-2004 Technical Report Colorimetry ANSI IES TM-30-18 IES Method for Evaluating Light Source Color Rendition ANSI C78.77-10-2014 Harmonic Emission Limits – Related Power Quality Requirements IES TM-15-11 Luminaire Classification System for Outdoor Luminaires Addendum A for IES TM-15-11 Backlight, Uplight, and Glare (BUG) Ratings

Test Methods:
1. Photometric and Electrical Measurements – Light Distribution Method: Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25\text{ }^{\circ}\text{C} \pm 1^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at required Voltage and Frequency. It was stabilized before measurement was made. Luminous Flux, Luminaire Efficacy and Zonal Lumen were calculated from the software taken at 1° vertical intervals and 15° horizontal intervals.
2. Photometric and Electrical Measurements – Integrating Sphere Method: Photometric parameters were measured using an integrating sphere, as spectroradiometer and software. The ambient temperature condition inside the sphere was measured at $25\text{ }^{\circ}\text{C} \pm 1^{\circ}\text{C}$. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at require Voltage and Frequency. It was stabilized before measurement was made. Chromaticity Coordinates, Correlated Color Temperature and Color Rendering Index were calculated from the spectral radiant flux measurements taken at least 1 nm intervals over the rage of 380 to 780 nm.

Integrating Sphere Test Results:

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.4	41.0	Face Down	90	10

Electrical Data:

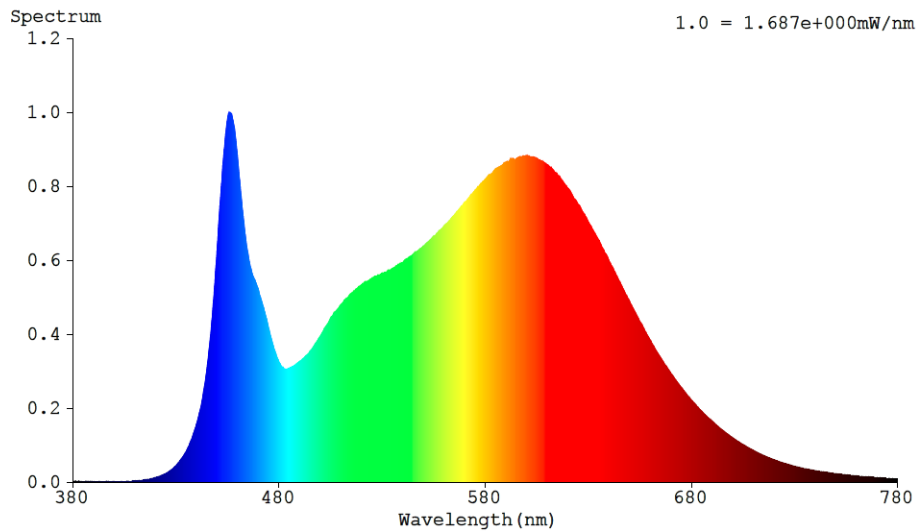
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	0.3901	41.12	0.8760

Color Data:

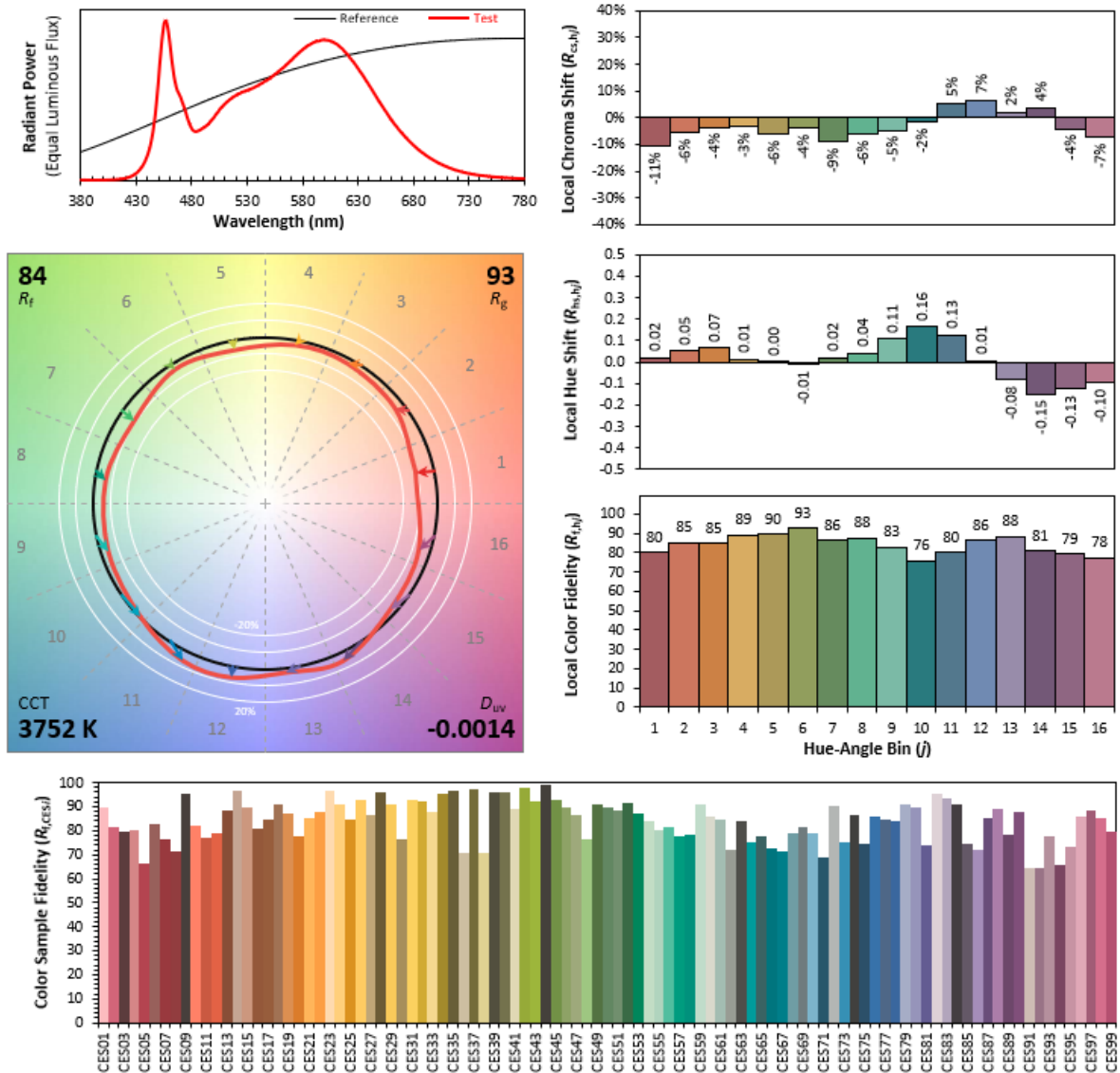
Parameter	Result
CCT(K)	3753
R _a	85.7
R _f	84
R _g	93
R _{cs, hl}	-11%
Chromaticity, (x, y)	(0.3908, 0.3799)
Chromaticity, (u', v')	(0.2306, 0.5045)
Duv	-0.0014

Specify Color Rendering			
R1	86	R9	22
R2	95	R10	88
R3	94	R11	82
R4	82	R12	66
R5	85	R13	89
R6	92	R14	98
R7	84	R15	80
R8	66	-	-

Spectrum Diagram:



IES TM-30-18 Color Rendition Result:



Spectrum Data:

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0028	447	0.4127	514	0.5046	581	0.8259	648	0.5088	715	0.0719
381	0.0019	448	0.4792	515	0.5106	582	0.8320	649	0.4988	716	0.0695
382	0.0017	449	0.5552	516	0.5152	583	0.8343	650	0.4886	717	0.0669
383	0.0024	450	0.6347	517	0.5202	584	0.8410	651	0.4771	718	0.0647
384	0.0017	451	0.7239	518	0.5245	585	0.8474	652	0.4665	719	0.0626
385	0.0014	452	0.8005	519	0.5298	586	0.8503	653	0.4559	720	0.0605
386	0.0015	453	0.8767	520	0.5337	587	0.8533	654	0.4450	721	0.0585
387	0.0017	454	0.9363	521	0.5380	588	0.8565	655	0.4338	722	0.0563
388	0.0012	455	0.9845	522	0.5431	589	0.8626	656	0.4254	723	0.0545
389	0.0009	456	0.9995	523	0.5442	590	0.8658	657	0.4138	724	0.0528
390	0.0011	457	0.9967	524	0.5475	591	0.8675	658	0.4034	725	0.0508
391	0.0015	458	0.9696	525	0.5513	592	0.8723	659	0.3930	726	0.0491
392	0.0014	459	0.9274	526	0.5554	593	0.8752	660	0.3837	727	0.0475
393	0.0017	460	0.8728	527	0.5569	594	0.8738	661	0.3737	728	0.0460
394	0.0015	461	0.8116	528	0.5600	595	0.8747	662	0.3639	729	0.0443
395	0.0016	462	0.7530	529	0.5614	596	0.8786	663	0.3540	730	0.0426
396	0.0012	463	0.7000	530	0.5655	597	0.8801	664	0.3454	731	0.0414
397	0.0017	464	0.6516	531	0.5669	598	0.8816	665	0.3367	732	0.0399
398	0.0016	465	0.6163	532	0.5684	599	0.8829	666	0.3278	733	0.0387
399	0.0017	466	0.5852	533	0.5736	600	0.8840	667	0.3185	734	0.0376
400	0.0017	467	0.5633	534	0.5748	601	0.8808	668	0.3113	735	0.0364
401	0.0017	468	0.5492	535	0.5787	602	0.8801	669	0.3030	736	0.0351
402	0.0019	469	0.5351	536	0.5805	603	0.8795	670	0.2942	737	0.0340
403	0.0022	470	0.5198	537	0.5857	604	0.8784	671	0.2868	738	0.0331
404	0.0023	471	0.4988	538	0.5891	605	0.8758	672	0.2788	739	0.0320
405	0.0023	472	0.4801	539	0.5929	606	0.8716	673	0.2708	740	0.0311
406	0.0027	473	0.4606	540	0.5941	607	0.8696	674	0.2636	741	0.0301
407	0.0027	474	0.4399	541	0.6007	608	0.8679	675	0.2563	742	0.0293
408	0.0030	475	0.4163	542	0.6045	609	0.8627	676	0.2486	743	0.0285
409	0.0033	476	0.3926	543	0.6086	610	0.8584	677	0.2420	744	0.0277
410	0.0035	477	0.3719	544	0.6118	611	0.8542	678	0.2348	745	0.0267
411	0.0040	478	0.3540	545	0.6164	612	0.8510	679	0.2287	746	0.0261
412	0.0045	479	0.3373	546	0.6221	613	0.8436	680	0.2212	747	0.0251
413	0.0049	480	0.3245	547	0.6242	614	0.8374	681	0.2153	748	0.0246
414	0.0056	481	0.3143	548	0.6289	615	0.8319	682	0.2093	749	0.0237
415	0.0065	482	0.3099	549	0.6331	616	0.8269	683	0.2030	750	0.0230
416	0.0073	483	0.3059	550	0.6382	617	0.8180	684	0.1966	751	0.0222
417	0.0080	484	0.3059	551	0.6431	618	0.8101	685	0.1911	752	0.0217
418	0.0096	485	0.3083	552	0.6486	619	0.8024	686	0.1852	753	0.0210
419	0.0109	486	0.3110	553	0.6535	620	0.7952	687	0.1801	754	0.0204
420	0.0121	487	0.3136	554	0.6590	621	0.7889	688	0.1749	755	0.0200
421	0.0139	488	0.3180	555	0.6653	622	0.7782	689	0.1700	756	0.0194
422	0.0159	489	0.3221	556	0.6684	623	0.7677	690	0.1651	757	0.0187
423	0.0179	490	0.3273	557	0.6755	624	0.7617	691	0.1600	758	0.0181
424	0.0205	491	0.3308	558	0.6816	625	0.7515	692	0.1546	759	0.0176
425	0.0229	492	0.3356	559	0.6857	626	0.7446	693	0.1497	760	0.0169
426	0.0262	493	0.3416	560	0.6924	627	0.7330	694	0.1449	761	0.0164
427	0.0301	494	0.3459	561	0.6984	628	0.7246	695	0.1406	762	0.0160
428	0.0341	495	0.3537	562	0.7033	629	0.7153	696	0.1363	763	0.0156
429	0.0392	496	0.3603	563	0.7091	630	0.7034	697	0.1315	764	0.0149
430	0.0444	497	0.3693	564	0.7169	631	0.6942	698	0.1280	765	0.0147
431	0.0509	498	0.3775	565	0.7219	632	0.6839	699	0.1235	766	0.0143
432	0.0577	499	0.3864	566	0.7298	633	0.6738	700	0.1198	767	0.0137
433	0.0654	500	0.3946	567	0.7355	634	0.6639	701	0.1159	768	0.0134
434	0.0740	501	0.4043	568	0.7428	635	0.6545	702	0.1120	769	0.0127
435	0.0836	502	0.4151	569	0.7485	636	0.6431	703	0.1084	770	0.0125
436	0.0947	503	0.4234	570	0.7569	637	0.6317	704	0.1048	771	0.0121
437	0.1080	504	0.4314	571	0.7613	638	0.6202	705	0.1012	772	0.0117
438	0.1217	505	0.4436	572	0.7685	639	0.6116	706	0.0983	773	0.0113
439	0.1394	506	0.4505	573	0.7772	640	0.5990	707	0.0945	774	0.0110
440	0.1565	507	0.4599	574	0.7819	641	0.5880	708	0.0916	775	0.0106
441	0.1792	508	0.4649	575	0.7893	642	0.5781	709	0.0885	776	0.0104
442	0.2012	509	0.4724	576	0.7954	643	0.5661	710	0.0859	777	0.0101
443	0.2323	510	0.4801	577	0.8012	644	0.5549	711	0.0829	778	0.0098
444	0.2670	511	0.4860	578	0.8081	645	0.5433	712	0.0800	779	0.0097
445	0.3073	512	0.4936	579	0.8134	646	0.5325	713	0.0771	780	0.0098
446	0.3574	513	0.4980	580	0.8193	647	0.5209	714	0.0744		N/A

Goniophotometer Test Results:

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
24.9	51.6	Face Down	90	25

Electrical Data:

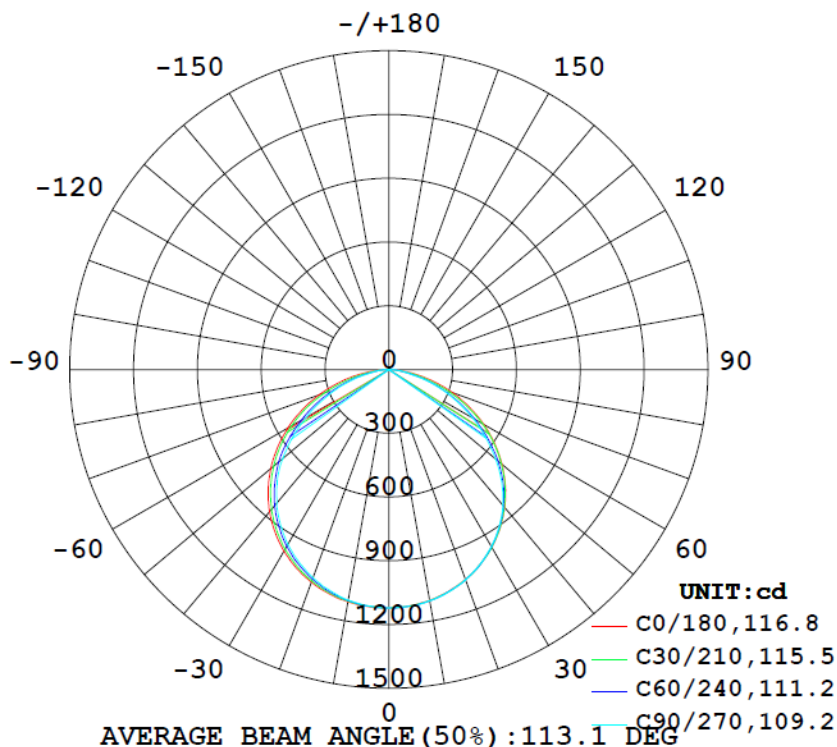
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	0.3901	41.12	0.8760

Goniophotometer Data:

Parameter	Results
Total Luminous (lm)	3208.4
Luminous Efficacy (lm/w)	78.03
Zonal Lumens Distribution (0-60°)	80.1%
Beam Angle (°)	113.1

Luminous Intensity Distribution Diagram:

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

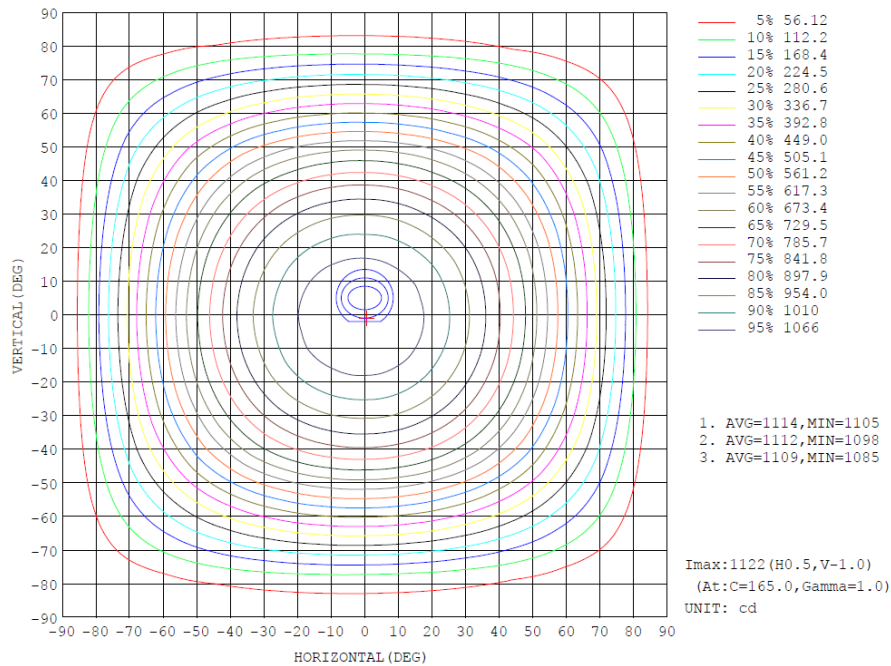


Zonal Flux Diagram:

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	φ zone	φ total	%lum, lamp
10	1102	1105	1105	1110	1110	1106	1102	1101	0- 10	106.3	106.3	3.31,3.31
20	1051	1054	1053	1062	1065	1055	1043	1046	10- 20	305.9	412.2	12.8,12.8
30	966.0	966.1	962.9	980.2	986.8	968.3	949.8	956.0	20- 30	467.6	879.8	27.4,27.4
40	846.6	842.4	834.6	860.0	872.7	848.0	820.7	831.9	30- 40	569.1	1449	45.2,45.2
50	694.0	683.3	655.0	704.9	725.1	693.4	652.4	675.8	40- 50	592.8	2042	63.6,63.6
60	513.6	483.5	453.1	506.3	547.5	504.0	448.7	485.3	50- 60	528.3	2570	80.1,80.1
70	317.1	273.6	253.0	294.2	349.9	291.7	252.6	274.5	60- 70	387.1	2957	92.2,92.2
80	125.0	87.00	81.82	99.70	151.6	102.9	81.36	88.83	70- 80	202.6	3160	98.5,98.5
90	0.0960	0	0	0.1609	0.5533	0.1470	0.0626	0.0818	80- 90	44.65	3204	99.9,99.9
100	0.0832	0.2805	0.5931	0.2584	0.2532	0.4713	1.103	0.4548	90-100	0.6267	3205	99.9,99.9
110	0.1539	0.2576	0.6668	0.2792	0.3010	0.4718	0.8676	0.4592	100-110	0.4757	3206	99.9,99.9
120	0.2915	0.5791	0.7340	0.4857	0.3800	0.6606	0.8716	0.6832	110-120	0.5291	3206	99.9,99.9
130	0.4348	0.6626	0.7615	0.5980	0.5241	0.7968	0.9512	0.7890	120-130	0.5580	3207	99.9,99.9
140	0.5470	0.6923	0.7845	0.6506	0.6272	0.8830	1.020	0.8725	130-140	0.5511	3207	100,100
150	0.5531	0.6855	0.7317	0.7100	0.8266	1.005	1.070	1.007	140-150	0.4918	3208	100,100
160	0.7112	0.6589	0.7047	0.6581	0.9712	1.087	1.213	1.127	150-160	0.3990	3208	100,100
170	0.8442	0.7999	0.7319	0.7476	0.9617	1.076	1.045	1.010	160-170	0.2528	3208	100,100
180	0.9690	0.9706	0.9644	0.9289	0.9711	0.9868	0.9337	0.9244	170-180	0.0886	3208	100,100
DEG	LUMINOUS INTENSITY:cd Less than 35% Percent = 12.4 %									UNIT:lm		

Isocandela Diagram:



Luminous Distribution Intensity Data:

Table--1

UNIT: cd

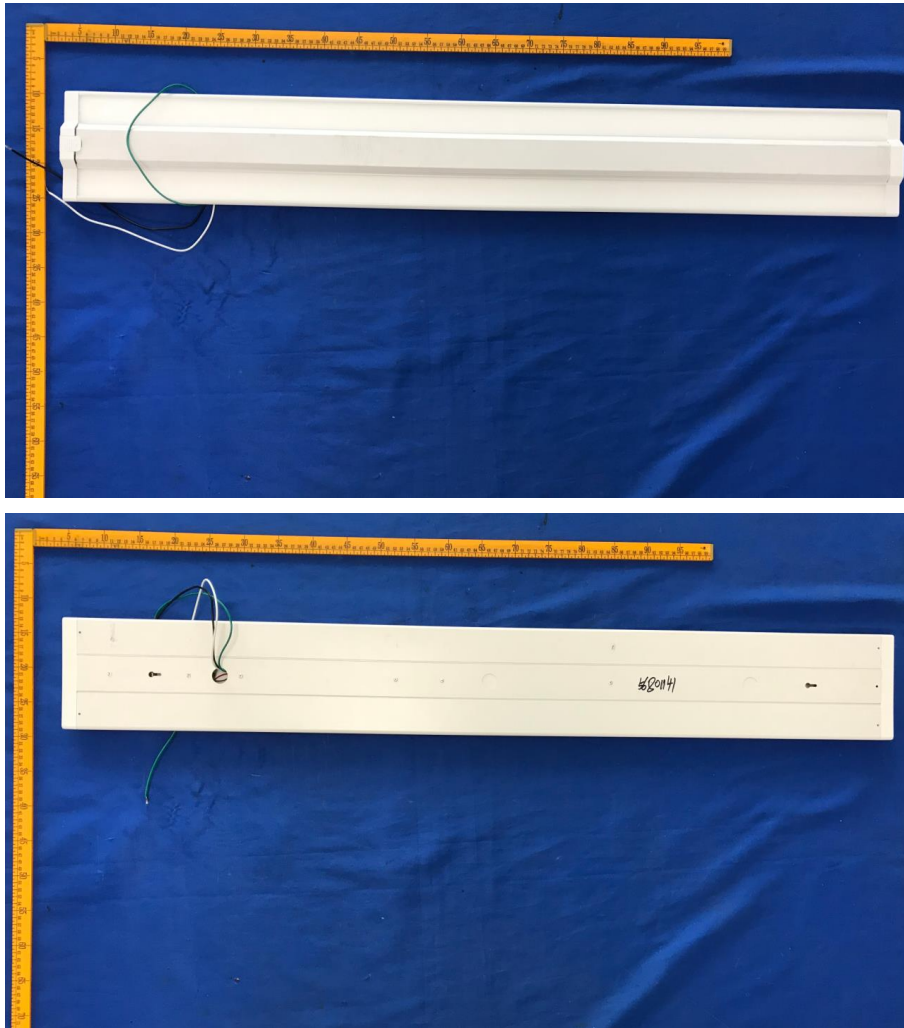
C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
y (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122
5	1116	1115	1117	1117	1117	1118	1118	1118	1119	1119	1120	1119	1120	1119	1117	1118	1117	1116	1116
10	1102	1103	1104	1105	1105	1106	1105	1106	1109	1110	1110	1108	1110	1108	1106	1106	1104	1102	1102
15	1081	1082	1082	1083	1083	1084	1084	1085	1088	1091	1091	1090	1092	1090	1087	1086	1081	1078	1076
20	1051	1052	1052	1054	1053	1053	1053	1054	1059	1062	1065	1063	1065	1062	1059	1055	1049	1045	1043
25	1013	1014	1013	1015	1014	1013	1012	1014	1020	1026	1029	1028	1031	1026	1022	1016	1009	1004	1000
30	966	967	967	966	964	963	963	965	973	980	983	984	987	981	976	968	961	954	950
35	911	911	910	909	905	904	904	907	916	924	929	932	934	928	922	912	902	894	890
40	847	847	845	842	837	835	835	838	850	860	865	870	873	867	858	848	836	826	821
45	774	775	771	767	760	753	751	757	773	788	794	802	803	797	787	774	759	748	743
50	694	695	690	683	669	658	655	663	684	705	715	723	725	719	707	693	676	660	652
55	607	607	601	588	568	556	554	564	583	611	628	637	640	633	621	603	579	559	551
60	514	514	507	484	465	454	453	461	479	506	533	544	548	541	527	504	475	457	449
65	416	417	402	377	361	352	351	360	376	399	429	446	450	444	429	396	371	356	349
70	317	317	294	274	260	253	253	260	274	294	320	346	350	344	321	292	271	258	253
75	219	216	192	176	164	158	158	164	176	194	215	242	250	244	215	192	176	165	160
80	125	115	99.3	87.0	80.4	79.8	81.8	82.3	87.2	99.7	118	138	152	141	119	103	85.1	81.7	81.4
85	42.9	32.8	28.0	32.0	35.7	38.6	40.2	41.0	40.3	38.2	35.7	48.4	64.6	52.3	37.9	39.8	41.2	41.6	35.0
90	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	3.90	3.38	0.55	1.15	0.45	0.15	0.09	0.07	0.06
95	0.04	0.18	0.27	0.93	1.79	1.08	0.70	0.98	1.75	1.25	0.38	0.19	0.19	0.39	0.67	1.43	1.32	1.23	1.64
100	0.08	0.14	0.24	0.28	0.29	0.62	0.59	0.59	0.27	0.26	0.23	0.14	0.25	0.36	0.46	0.47	0.48	1.02	1.10
105	0.12	0.15	0.22	0.27	0.31	0.72	0.62	0.63	0.42	0.26	0.21	0.15	0.30	0.36	0.44	0.49	0.51	0.86	0.83
110	0.15	0.17	0.22	0.26	0.69	0.78	0.67	0.66	0.61	0.28	0.23	0.18	0.30	0.34	0.41	0.47	0.77	0.89	0.87
115	0.22	0.21	0.25	0.34	0.79	0.80	0.71	0.69	0.66	0.37	0.27	0.22	0.31	0.33	0.40	0.46	0.84	0.88	0.88
120	0.29	0.28	0.29	0.58	0.79	0.80	0.73	0.70	0.66	0.49	0.31	0.28	0.38	0.38	0.42	0.66	0.84	0.86	0.87
125	0.36	0.36	0.34	0.62	0.76	0.78	0.74	0.71	0.66	0.56	0.41	0.35	0.41	0.46	0.49	0.72	0.85	0.88	0.90
130	0.43	0.42	0.40	0.66	0.75	0.80	0.76	0.73	0.68	0.60	0.47	0.42	0.52	0.53	0.56	0.80	0.89	0.93	0.95
135	0.49	0.48	0.47	0.67	0.75	0.80	0.77	0.75	0.72	0.63	0.53	0.45	0.59	0.59	0.64	0.85	0.95	0.98	0.99
140	0.55	0.53	0.51	0.69	0.75	0.81	0.78	0.76	0.75	0.65	0.57	0.48	0.63	0.64	0.71	0.88	1.00	1.02	1.02
145	0.56	0.56	0.58	0.70	0.73	0.78	0.77	0.76	0.74	0.67	0.58	0.55	0.75	0.74	0.79	0.96	1.00	1.04	1.06
150	0.55	0.57	0.58	0.69	0.72	0.76	0.73	0.73	0.73	0.71	0.59	0.59	0.83	0.80	0.83	1.00	1.06	1.06	1.07
155	0.64	0.66	0.64	0.68	0.71	0.76	0.74	0.75	0.76	0.69	0.61	0.62	0.91	0.91	0.95	1.04	1.17	1.18	1.18
160	0.71	0.73	0.70	0.66	0.67	0.72	0.70	0.73	0.71	0.66	0.63	0.66	0.97	0.98	0.98	1.09	1.11	1.18	1.21
165	0.76	0.78	0.76	0.75	0.63	0.67	0.66	0.68	0.69	0.68	0.70	0.71	0.96	1.00	1.05	1.04	1.10	1.07	1.09
170	0.84	0.86	0.83	0.80	0.71	0.73	0.73	0.69	0.72	0.75	0.76	0.77	0.96	0.97	1.03	1.08	1.05	1.06	1.04
175	0.92	0.95	0.94	0.93	0.85	0.84	0.79	0.78	0.86	0.85	0.89	0.91	1.04	1.04	1.08	1.06	1.07	1.05	0.97
180	0.97	0.99	0.98	0.97	0.93	0.94	0.96	0.90	0.91	0.93	0.92	0.96	0.97	0.97	0.99	0.99	0.98	0.93	0.93

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
y (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1122	1122	1122	1122	1122														
5	1115	1116	1116	1116	1114														
10	1101	1101	1101	1100	1103														
15	1076	1077	1078	1080	1079														
20	1043	1045	1046	1049	1049														
25	1001	1003	1006	1009	1011														
30	950	953	956	961	964														
35	890	893	898	904	910														
40	820	825	832	839	846														
45	742	748	757	766	774														
50	654	665	676	686	694														
55	552	567	586	598	607														
60	451	463	485	504	514														
65	350	360	378	406	418														
70	253	260	274	298	319														
75	161	166	177	194	219														
80	79.6	78.3	88.8	101	118														
85	33.5	31.3	32.0	28.6	36.2														
90	0.06	0.07	0.08	0.10	0.10														
95	2.58	2.54	1.52	0.50	0.35														
100	1.02	0.45	0.45	0.43	0.34														
105	0.92	0.62	0.47	0.43	0.35														
110	0.94	0.85	0.46	0.41	0.35														
115	0.92	0.91	0.56	0.40	0.35														
120	0.91	0.89	0.68	0.43	0.39														
125	0.92	0.88	0.74	0.50	0.47														
130	0.97	0.90	0.79	0.58	0.54														
135	1.00	0.92	0.83	0.69	0.61														
140	1.02	0.97	0.87	0.76	0.69														
145	1.04	1.01	0.93	0.82	0.75														
150	1.06	1.02	1.01	0.86	0.82														
155	1.18	1.19	1.09	0.99	0.97														
160	1.24	1.21	1.13	1.07	1.01														
165	1.09	1.12	1.09	1.10	1.08														
170	1.08	1.09	1.01	1.08	1.04														
175	0.98	1.03	1.00	1.06	1.05														
180	0.94	0.91	0.92	0.93	0.93														

Photo of Sample:



Equipment List:

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2019-11-13	2020-11-12
NTC-F01-006	2.0 meter Integrating Sphere	2019-11-13	2020-11-12
NTC-F01-012	Standard Lamp	2019-11-13	2020-11-12
NTC-F01-013	Standard Lamp	2019-11-13	2020-11-12
NTC-F01-031	Digital Power Meter	2019-08-22	2020-08-21
NTC-F01-019	Temperature & Humidity Meter	2019-11-15	2020-11-14

*******End of Report*******