

**LM-79-08 Test Report**  
For  
**Beyond LED Technology**  
(Brand Name: Beyond LED Technology)

**LED Flood Light**

Model Name(s):

BLT-FLE240W-50KSVP-S

Representative (Tested) Model:

BLT-FLE240W-50KSVP-S

**Model Difference:**

1. **XXK** represents CCT, can be 30K for 3000K, 40K for 4000K, 50K for 5000K or 57K for 5700K;
2. **X** represents photocell, can be blank for without photocell or **P** for with photocell
3. **M=** represents Mounting mean, can be blank for Trunnion, **S** for Shipfitter, **Y** for Yoke or **K** for Knuckle;
4. All is the same construction, except CCT, mounting mean and function.

Prepare by :



Engineer: Alan Wang

Date: 2021-01-18

Review by:



Technical Lead: Vincent Yuan

Issue Date: 2021-01-31

Revised Date: N/A

- Note:
1. The results contained in this report pertain only to the tested samples.
  2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd
  3. This report does not imply product certification, approval, or endorsement by NVLAP, or any agency of the Federal Government.

**Client Information:**


**Product Information:**

Model Number:	BLT-FLE240W-50KSVP-S
Product Type:	Architectural Flood and Spot Luminaires
Rating Input:	120-277Vac, 50/60Hz, 240W
Declared CCT:	5700K
Declared Light Output:	36000 lm
LED Manufacturer:	Guangdong Elite Optoelectronic Technology Co., Ltd.
LED Model:	SMD2835
LED Quantity:	308 pcs
Driver Manufacturer:	SOSEN
Driver Model:	SS-240NL-260B

**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:	2021-01-07
Quantity of Receipt Samples:	1 pc
Sample Number:	210107016-S1

**Laboratory Information:**

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

**Report Information:**

Issued Date of Test Report:	2021-01-31
Revised Date of Test Report:	N/A
Test Report No.:	NTCLR21010082
Remark (If applicable):	N/A

<b>Test Specification:</b>	
Date of Test	2021-01-12
Test Item	<ol style="list-style-type: none"> <li>1. Total Luminous Flux</li> <li>2. Luminous Distribution Intensity</li> <li>3. Luminous Efficacy</li> <li>4. Correlated Color Temperature</li> <li>5. Color Rendering Index</li> <li>6. Chromaticity Coordinate</li> <li>7. Fidelity Index</li> <li>8. Gamut Index</li> <li>9. Local Chroma Shift</li> <li>10. THD and PF</li> </ol>
Reference Standard	<p>IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products</p> <p>ANSI C78.377-2017 Specifications for the Chromaticity of Solid State Lighting Products</p> <p>CIE 13.3-1995 Method of Measuring and Specifying Color Rendering Properties of Light Sources</p> <p>CIE 15-2004 Technical Report Colorimetry</p> <p>ANSI IES TM-30-18 IES Method for Evaluating Light Source Color Rendition</p> <p>ANSI C78.77-10-2014 Harmonic Emission Limits – Related Power Quality Requirements</p> <p>IES TM-15-11 Luminaire Classification System for Outdoor Luminaires</p> <p>Addendum A for IES TM-15-11 Backlight, Uplight, and Glare (BUG) Ratings</p>

<b>Test Methods:</b>
<p><b>1. Photometric and Electrical Measurements – Light Distribution Method:</b></p> <p>Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25 °C ± 1°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.</p>
<p><b>2. Photometric and Electrical Measurements – Integrating Sphere Method:</b></p> <p>Photometric parameters were measured using an integrating sphere, as spectroradiometer and software. The ambient temperature condition inside the sphere was measured at 25 °C± 1°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.</p>
<p><b>3. THD and PF Measurements:</b></p> <p>The sample was tested according to the ANSI C82.77-2002, the sample was operated at requirement Voltage and Frequency, and was stabilized before measurement. The Total Harmonic Distortion was calculated from the Digital Power Meter.</p>

**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:**

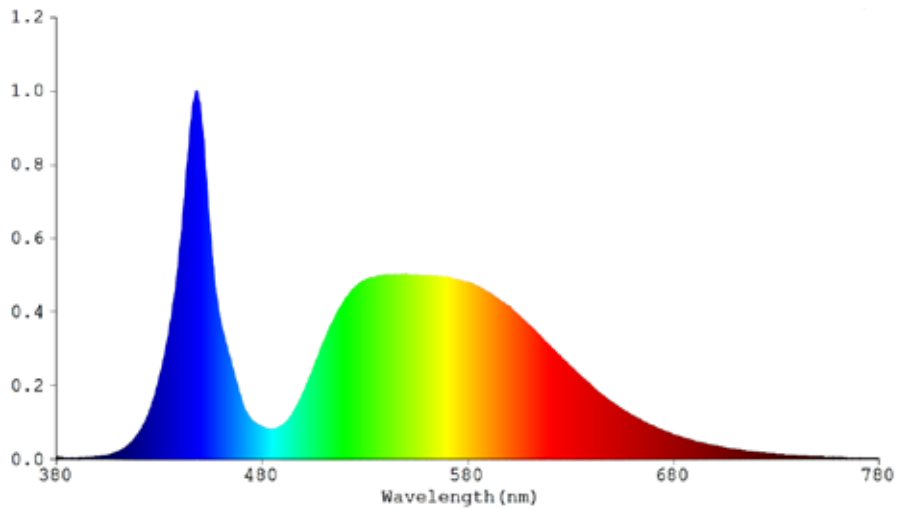
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	1.9981	238.50	0.9930

**Color Data:**

Parameter	Result
CCT(K)	5712
R <sub>a</sub>	70.6
R <sub>r</sub>	72
R <sub>g</sub>	94
R <sub>cs, h1</sub>	-18%
Chromaticity, (x, y)	(0.3270, 0.3481)
Chromaticity, (u', v')	(0.2005, 0.4803)
Duv	0.0060

Specify Color Rendering			
R1	68	R9	-37
R2	74	R10	38
R3	78	R11	70
R4	72	R12	40
R5	70	R13	69
R6	66	R14	88
R7	80	R15	62
R8	57	-	-

**Spectrum Diagram:**

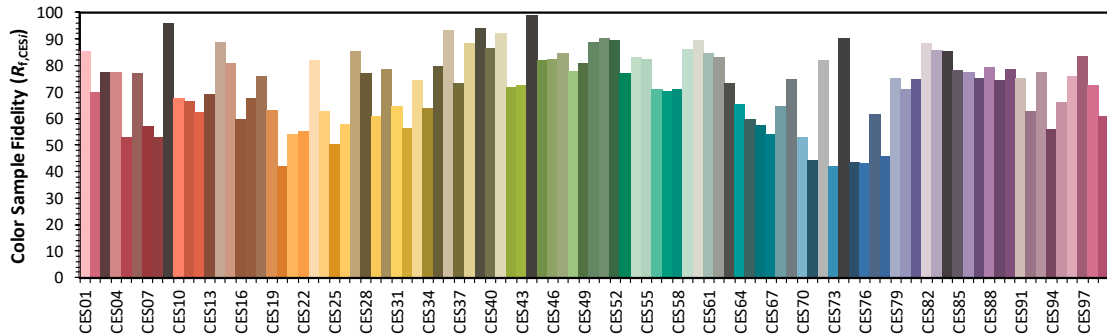
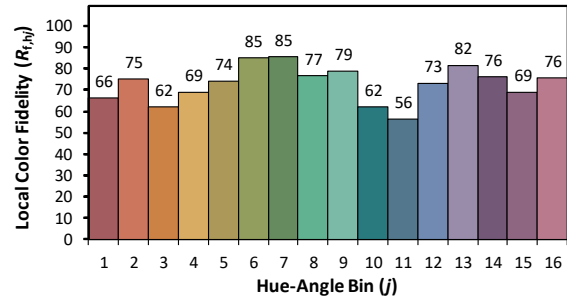
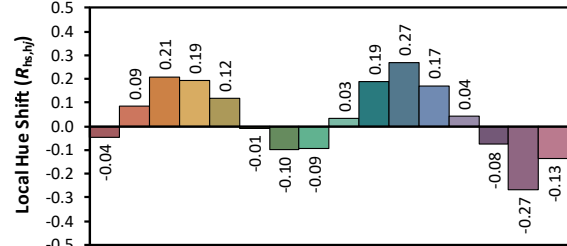
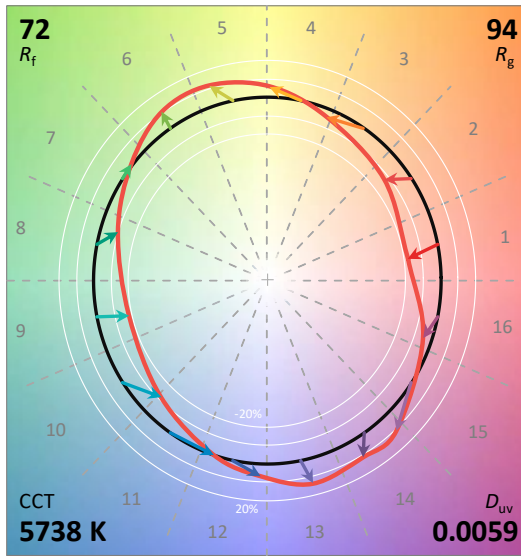
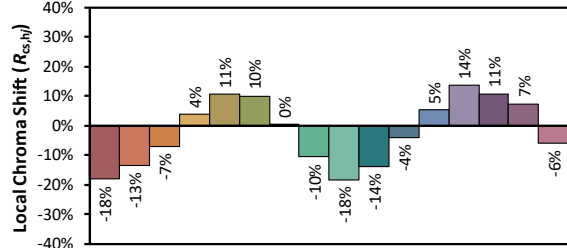
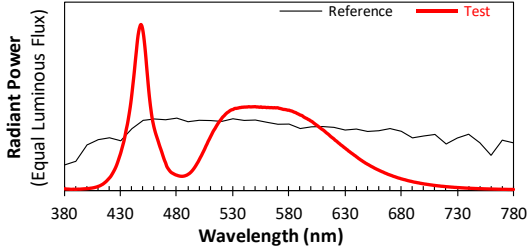


**IES TM-30-18 Color Rendition Result:**

**ANSI/IES TM-30-18 Color Rendition Report**

Source: 1 CIE F1  
Date: 2021/1/18

Manufacturer: Beyond LED Technology  
Model: BLT-FLE240W-50KSVP-S



**Notes:** This is a recommended method for displaying ANSI/IES TM-30-18 information.

$x$  0.3269  
 $y$  0.3479  
 $u'$  0.2005  
 $v'$  0.4802

CIE 13.3-1995  
(CRI)  
 $R_a$  71  
 $R_9$  -37

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

**Spectrum Data:**

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0078	447	0.9845	514	0.3709	581	0.4792	648	0.1632	715	0.0236
381	0.0069	448	0.9995	515	0.3830	582	0.4778	649	0.1595	716	0.0229
382	0.0059	449	0.9871	516	0.3942	583	0.4755	650	0.1555	717	0.0226
383	0.0059	450	0.9526	517	0.4051	584	0.4721	651	0.1520	718	0.0219
384	0.0054	451	0.8989	518	0.4142	585	0.4693	652	0.1479	719	0.0211
385	0.0047	452	0.8328	519	0.4230	586	0.4674	653	0.1440	720	0.0203
386	0.0043	453	0.7537	520	0.4324	587	0.4629	654	0.1404	721	0.0199
387	0.0046	454	0.6759	521	0.4414	588	0.4601	655	0.1370	722	0.0194
388	0.0051	455	0.6008	522	0.4473	589	0.4565	656	0.1329	723	0.0187
389	0.0045	456	0.5360	523	0.4551	590	0.4528	657	0.1295	724	0.0183
390	0.0045	457	0.4823	524	0.4618	591	0.4510	658	0.1262	725	0.0175
391	0.0047	458	0.4344	525	0.4678	592	0.4475	659	0.1229	726	0.0173
392	0.0056	459	0.3998	526	0.4719	593	0.4417	660	0.1199	727	0.0164
393	0.0053	460	0.3701	527	0.4773	594	0.4377	661	0.1165	728	0.0160
394	0.0056	461	0.3452	528	0.4818	595	0.4341	662	0.1135	729	0.0158
395	0.0061	462	0.3235	529	0.4848	596	0.4313	663	0.1104	730	0.0150
396	0.0066	463	0.3032	530	0.4861	597	0.4264	664	0.1079	731	0.0148
397	0.0071	464	0.2816	531	0.4903	598	0.4238	665	0.1042	732	0.0143
398	0.0075	465	0.2603	532	0.4930	599	0.4186	666	0.1016	733	0.0139
399	0.0079	466	0.2416	533	0.4929	600	0.4153	667	0.0988	734	0.0133
400	0.0085	467	0.2207	534	0.4944	601	0.4107	668	0.0956	735	0.0131
401	0.0092	468	0.1997	535	0.4956	602	0.4048	669	0.0932	736	0.0125
402	0.0098	469	0.1800	536	0.4978	603	0.3995	670	0.0907	737	0.0122
403	0.0111	470	0.1641	537	0.4982	604	0.3946	671	0.0884	738	0.0118
404	0.0118	471	0.1440	538	0.4999	605	0.3898	672	0.0859	739	0.0116
405	0.0129	472	0.1318	539	0.4999	606	0.3846	673	0.0829	740	0.0112
406	0.0142	473	0.1221	540	0.5010	607	0.3788	674	0.0811	741	0.0110
407	0.0159	474	0.1134	541	0.5009	608	0.3739	675	0.0787	742	0.0105
408	0.0176	475	0.1065	542	0.5015	609	0.3685	676	0.0762	743	0.0102
409	0.0197	476	0.1024	543	0.5015	610	0.3642	677	0.0738	744	0.0099
410	0.0223	477	0.0986	544	0.5031	611	0.3593	678	0.0719	745	0.0097
411	0.0245	478	0.0949	545	0.5024	612	0.3534	679	0.0702	746	0.0092
412	0.0278	479	0.0916	546	0.5020	613	0.3473	680	0.0675	747	0.0092
413	0.0316	480	0.0896	547	0.5024	614	0.3418	681	0.0661	748	0.0088
414	0.0353	481	0.0870	548	0.5028	615	0.3369	682	0.0639	749	0.0084
415	0.0404	482	0.0852	549	0.5030	616	0.3306	683	0.0626	750	0.0083
416	0.0459	483	0.0838	550	0.5034	617	0.3241	684	0.0606	751	0.0082
417	0.0516	484	0.0832	551	0.5015	618	0.3187	685	0.0587	752	0.0079
418	0.0586	485	0.0831	552	0.5020	619	0.3136	686	0.0567	753	0.0076
419	0.0660	486	0.0841	553	0.5007	620	0.3085	687	0.0552	754	0.0073
420	0.0734	487	0.0854	554	0.5001	621	0.3013	688	0.0536	755	0.0071
421	0.0814	488	0.0879	555	0.5024	622	0.2967	689	0.0524	756	0.0069
422	0.0920	489	0.0905	556	0.4988	623	0.2911	690	0.0505	757	0.0068
423	0.1036	490	0.0948	557	0.4997	624	0.2848	691	0.0488	758	0.0065
424	0.1159	491	0.0991	558	0.4997	625	0.2799	692	0.0474	759	0.0064
425	0.1292	492	0.1047	559	0.4994	626	0.2735	693	0.0464	760	0.0062
426	0.1444	493	0.1114	560	0.4976	627	0.2688	694	0.0449	761	0.0061
427	0.1622	494	0.1192	561	0.4989	628	0.2636	695	0.0437	762	0.0058
428	0.1822	495	0.1279	562	0.4980	629	0.2576	696	0.0426	763	0.0056
429	0.2029	496	0.1377	563	0.4973	630	0.2530	697	0.0408	764	0.0056
430	0.2236	497	0.1482	564	0.4978	631	0.2470	698	0.0399	765	0.0053
431	0.2487	498	0.1596	565	0.4972	632	0.2423	699	0.0385	766	0.0051
432	0.2734	499	0.1708	566	0.4964	633	0.2359	700	0.0373	767	0.0050
433	0.2993	500	0.1836	567	0.4973	634	0.2314	701	0.0362	768	0.0050
434	0.3325	501	0.1967	568	0.4962	635	0.2259	702	0.0355	769	0.0047
435	0.3675	502	0.2091	569	0.4966	636	0.2211	703	0.0343	770	0.0045
436	0.3984	503	0.2231	570	0.4966	637	0.2164	704	0.0335	771	0.0045
437	0.4377	504	0.2364	571	0.4939	638	0.2110	705	0.0324	772	0.0043
438	0.4794	505	0.2507	572	0.4926	639	0.2067	706	0.0314	773	0.0043
439	0.5266	506	0.2661	573	0.4909	640	0.2012	707	0.0305	774	0.0041
440	0.5829	507	0.2797	574	0.4889	641	0.1962	708	0.0295	775	0.0039
441	0.6440	508	0.2951	575	0.4869	642	0.1906	709	0.0284	776	0.0038
442	0.7060	509	0.3077	576	0.4866	643	0.1862	710	0.0277	777	0.0038
443	0.7759	510	0.3217	577	0.4855	644	0.1812	711	0.0268	778	0.0037
444	0.8417	511	0.3348	578	0.4840	645	0.1770	712	0.0261	779	0.0036
445	0.9082	512	0.3490	579	0.4820	646	0.1720	713	0.0252	780	0.0036
446	0.9553	513	0.3609	580	0.4823	647	0.1680	714	0.0248	N/A	N/A

**Goniophotometer Test Results:**

**Test Condition:**

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
24.1	41.5	Face Down	90	25

**Electrical Data:**

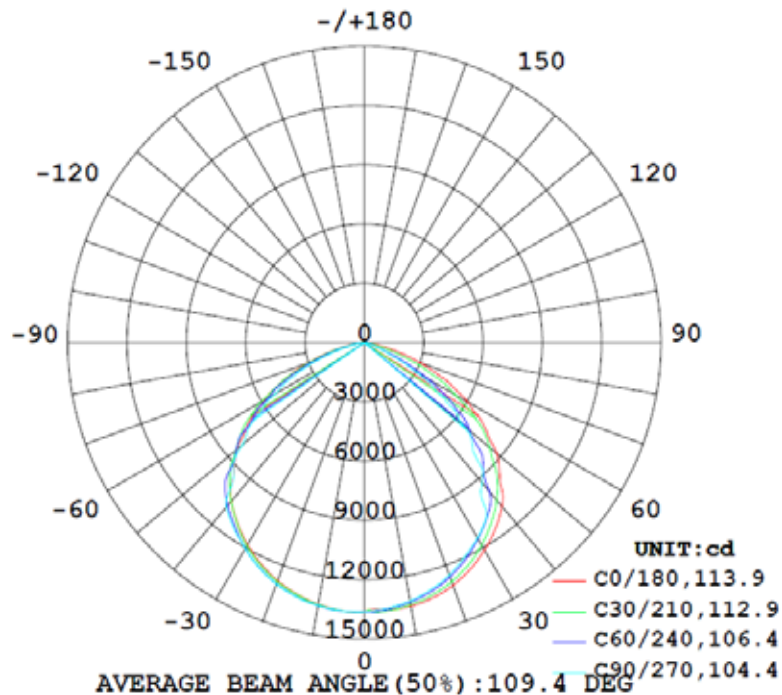
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	1.9981	238.50	0.9930
277.0	60	0.8948	235.60	0.9502

**Goniophotometer Data:**

Parameter	Results			
	120V		277V	
Total Luminous (lm)	35860.8		35694.7	
Luminous Efficacy (lm/w)	150.36		151.51	
Zonal Lumens Distribution (0-90°)	99.9%		99.9%	
Beam Angle (50%) (°)	0-180°	90-270°	0-180°	90-270°
	104.0	113.4	104.4	112.8
Field Angle (10%) (°)	0-180°	90-270°	0-180°	90-270°
	138.9	153.9	139.4	153.4
NEMA Type	7H x 7V		7H x 7V	

**Luminous Intensity Distribution Diagram (120V):**

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

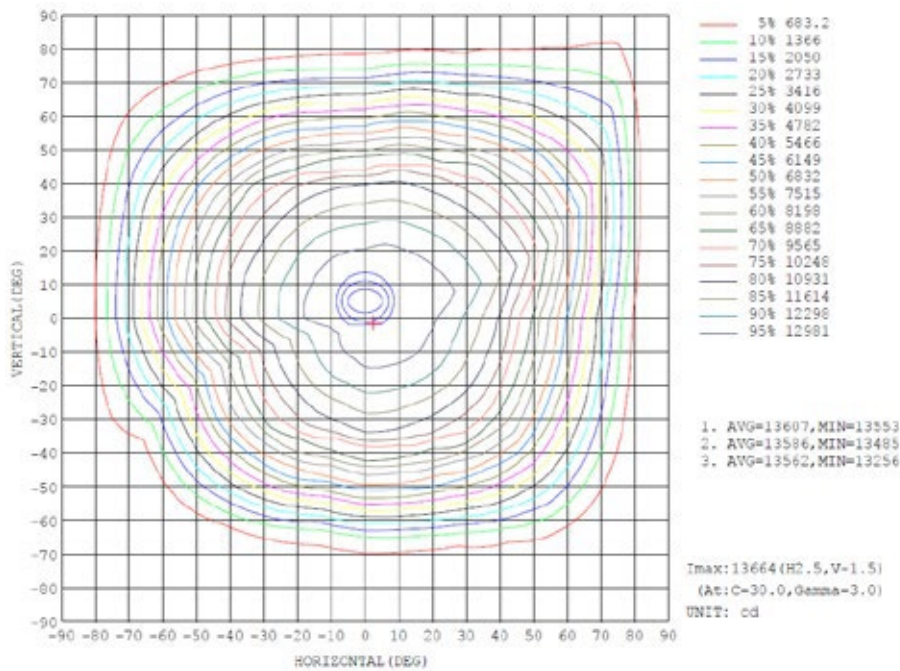


**Zonal Flux Diagram (120V):**

ZONAL FLUX DIAGRAM:

y	c0	c45	c90	c135	c180	c225	c270	c315	y	zone	total	lum.lamp
10	1355	1343	1328	1302	1245	1350	1351	1359	0- 10	1288	1288	3.59,3.59
20	1359	1277	1252	1235	1283	1294	1301	1324	10- 20	3712	5000	13.9,13.9
30	1214	1144	1142	1083	1182	1194	1205	1252	20- 30	5484	10687	29.8,29.8
40	1082	1019	926.6	927.5	1047	1056	1088	1132	30- 40	6943	17630	49.2,49.2
50	874.2	770.8	643.0	450.1	843.4	887.3	803.9	875.5	40- 50	7099	24729	64.69
60	601.7	453.8	321.1	328.4	586.8	570.2	522.4	707.7	50- 60	5994	20432	55.4,55.4
70	302.4	129.5	66.58	53.70	309.1	283.2	230.8	397.3	60- 70	3589	34222	95.4,95.4
80	53.93	11.27	3.849	0.7091	47.93	52.46	55.89	114.5	70- 80	1359	35981	99.2,99.2
90	0.0960	0.0864	0.0732	0.1118	0.2043	2.399	3.569	11.45	80- 90	239.1	35020	99.9,99.9
100	0.1565	0.1552	0.1458	0.1978	0.3387	0.2472	0.1770	0.1925	90-100	10.14	35830	99.9,99.9
110	0.2389	0.2292	0.2345	0.3103	0.4241	0.3789	0.3171	0.3509	100-110	2.704	35822	99.9,99.9
120	0.3845	0.3536	0.3471	0.4677	0.5470	0.4769	0.4241	0.4239	110-120	3.647	35837	99.9,99.9
130	0.5544	0.5144	0.5419	0.4370	0.7743	0.7104	0.6453	0.5610	120-130	4.421	35841	99.9,99.9
140	0.4891	0.4727	0.7083	0.7417	0.9492	0.9746	0.8943	0.7941	130-140	5.320	35847	100,100
150	0.7570	0.7496	0.7637	0.8431	1.061	1.085	1.064	0.9774	140-150	5.377	35852	100,100
160	0.8829	0.8888	0.8400	1.034	1.198	1.177	1.099	1.073	150-160	4.441	35857	100,100
170	1.022	1.045	1.318	1.139	1.243	1.234	1.194	1.142	160-170	3.045	35860	100,100
180	1.114	1.114	1.114	1.114	1.140	1.140	1.140	1.140	170-180	1.118	35861	100,100
DEG										LUMINOUS INTENSITY=10cd		UNIT:lm

**Isocandela Diagram (120V):**





**Luminous Distribution Intensity Data (120V):**

Table-1  
UNIT: \*100cd

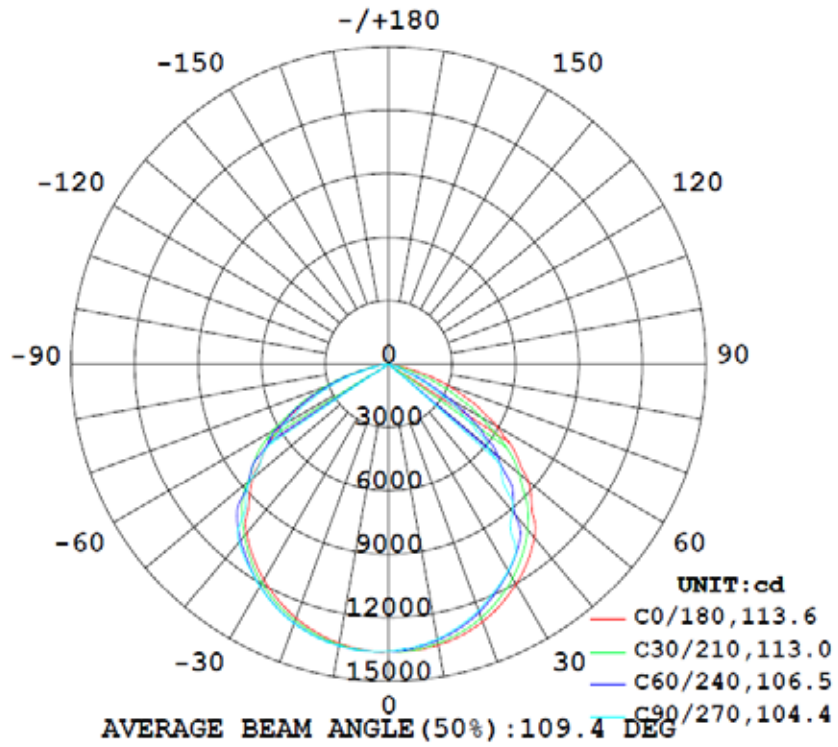
C (DEG)																					
T (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270		
	0	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361	1361
5	1356	1364	1362	1360	1355	1351	1350	1361	1336	1328	1320	1349	1362	1361	1362	1362	1363	1362	1362	1362	
10	1355	1351	1347	1343	1335	1331	1338	1334	1310	1302	1291	1308	1365	1347	1347	1350	1352	1351	1351	1351	
15	1337	1327	1323	1316	1308	1299	1294	1278	1274	1264	1252	1257	1319	1320	1322	1327	1331	1331	1331	1332	
20	1308	1293	1289	1277	1263	1257	1252	1230	1227	1215	1202	1203	1263	1288	1288	1294	1303	1303	1303	1301	
25	1267	1248	1242	1228	1210	1203	1197	1173	1168	1156	1141	1139	1237	1243	1244	1250	1257	1258	1258	1260	
30	1214	1192	1185	1166	1147	1146	1142	1113	1104	1085	1072	1066	1162	1190	1189	1196	1204	1204	1204	1205	
35	1153	1129	1117	1094	1081	1081	1078	1024	1035	1010	993	975	1119	1127	1122	1131	1141	1141	1141	1150	
40	1082	1053	1041	1018	983	930	927	892	890	828	804	868	1047	1056	1049	1056	1076	1084	1088	1088	
45	969	936	948	930	848	834	777	743	792	778	781	741	935	903	965	980	997	933	937	937	
50	874	836	826	771	694	683	643	601	647	658	658	618	844	856	848	887	847	837	834	834	
55	780	703	703	689	546	501	493	433	492	502	496	479	710	732	745	728	700	696	679	679	
60	692	561	533	454	370	323	321	258	302	328	342	338	587	607	605	570	562	549	523	523	
65	457	410	360	291	190	156	155	103	130	172	200	197	453	469	451	420	419	389	302	302	
70	392	262	221	129	71.7	67.6	66.6	52.5	56.0	53.7	76.6	79.6	389	334	297	263	270	244	231	231	
75	160	125	98.9	43.2	31.2	28.5	27.7	17.4	20.3	18.7	17.3	15.1	177	196	164	151	144	112	109	109	
80	53.3	29.3	19.8	11.3	5.32	4.13	3.87	0.67	0.80	0.71	0.81	0.84	67.9	80.1	66.4	52.5	57.2	56.7	55.9	55.9	
85	7.35	2.07	1.43	0.45	0.07	0.06	0.06	0.06	0.07	0.00	0.09	0.30	0.03	14.5	14.0	19.2	24.5	23.9	23.2	23.2	
90	0.09	0.09	0.09	0.09	0.00	0.00	0.00	0.09	0.10	0.13	0.13	0.15	0.20	0.46	0.51	2.40	4.20	3.49	3.54	3.54	
95	0.12	0.12	0.12	0.12	0.13	0.11	0.12	0.13	0.15	0.17	0.18	0.26	0.29	0.25	0.17	0.14	0.12	0.12	0.12	0.12	
100	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.17	0.19	0.20	0.23	0.23	0.24	0.32	0.29	0.25	0.20	0.19	0.19	0.19	
105	0.19	0.20	0.19	0.19	0.19	0.19	0.19	0.21	0.22	0.25	0.27	0.29	0.41	0.39	0.37	0.33	0.29	0.26	0.25	0.25	
110	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.27	0.29	0.31	0.33	0.36	0.43	0.42	0.41	0.38	0.34	0.32	0.32	0.32	
115	0.30	0.29	0.28	0.28	0.29	0.29	0.29	0.34	0.35	0.38	0.41	0.45	0.47	0.45	0.44	0.42	0.39	0.37	0.36	0.36	
120	0.38	0.38	0.35	0.35	0.37	0.36	0.37	0.41	0.43	0.47	0.50	0.54	0.55	0.52	0.50	0.48	0.44	0.43	0.42	0.42	
125	0.47	0.47	0.43	0.43	0.46	0.44	0.44	0.49	0.52	0.55	0.59	0.63	0.65	0.62	0.60	0.57	0.54	0.53	0.52	0.52	
130	0.55	0.54	0.54	0.51	0.55	0.55	0.54	0.59	0.60	0.64	0.66	0.70	0.77	0.75	0.74	0.71	0.69	0.67	0.67	0.67	
135	0.64	0.65	0.62	0.61	0.63	0.64	0.63	0.67	0.68	0.71	0.71	0.73	0.88	0.88	0.88	0.86	0.83	0.82	0.81	0.81	
140	0.69	0.70	0.68	0.67	0.70	0.71	0.71	0.73	0.74	0.74	0.74	0.76	0.95	0.96	0.97	0.97	0.94	0.91	0.89	0.89	
145	0.72	0.74	0.72	0.70	0.72	0.74	0.75	0.76	0.76	0.78	0.79	0.80	1.02	1.03	1.03	1.04	1.02	0.99	0.98	0.98	
150	0.74	0.78	0.77	0.75	0.75	0.76	0.74	0.80	0.81	0.84	0.87	0.88	1.08	1.09	1.08	1.09	1.08	1.06	1.04	1.04	
155	0.81	0.84	0.84	0.80	0.80	0.82	0.78	0.85	0.88	0.92	0.93	0.94	1.12	1.11	1.13	1.13	1.12	1.10	1.07	1.07	
160	0.88	0.90	0.89	0.89	0.87	0.87	0.84	0.95	0.99	1.01	1.00	1.01	1.20	1.20	1.18	1.18	1.16	1.14	1.10	1.10	
165	0.95	0.98	0.98	0.98	0.97	0.97	0.97	1.01	1.04	1.04	1.03	1.07	1.20	1.19	1.20	1.20	1.21	1.19	1.14	1.14	
170	1.02	1.04	1.05	1.04	1.02	1.03	1.01	1.06	1.10	1.14	1.16	1.17	1.24	1.23	1.24	1.25	1.26	1.26	1.19	1.19	
175	1.18	1.20	1.20	1.19	1.17	1.15	1.13	1.13	1.15	1.16	1.16	1.17	1.25	1.25	1.25	1.26	1.26	1.25	1.19	1.19	
180	1.13	1.13	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	

Table-2  
UNIT: \*100cd

C (DEG)																					
T (DEG)	205	300	315	330	345																
	0	1361	1361	1361	1361	1361															
5	1362	1361	1360	1359	1356																
10	1356	1350	1359	1359	1355																
15	1342	1344	1340	1351	1354																
20	1316	1310	1326	1333	1341																
25	1278	1204	1294	1304	1316																
30	1230	1216	1252	1265	1282																
35	1173	1139	1197	1215	1233																
40	1114	1115	1132	1154	1181																
45	1022	1044	1057	1084	1120																
50	899	895	975	1003	1045																
55	780	794	875	886	927																
60	595	646	708	779	830																
65	455	493	562	646	696																
70	332	324	397	474	556																
75	172	190	245	310	412																
80	69.2	70.0	117	174	265																
85	34.4	34.7	41.3	68.9	120																
90	0.84	0.14	11.6	16.0	36.1																
95	0.13	0.14	0.25	1.44	4.63																
100	0.16	0.18	0.19	0.21	0.20																
105	0.23	0.26	0.27	0.29	0.27																
110	0.31	0.33	0.35	0.37	0.35																
115	0.35	0.37	0.39	0.40	0.40																
120	0.40	0.42	0.42	0.42	0.42																
125	0.48	0.49	0.48	0.47	0.46																
130	0.59	0.58	0.54	0.54	0.54																
135	0.74	0.72	0.68	0.67	0.64																
140	0.88	0.82	0.80	0.80	0.77																
145	0.91	0.92	0.91	0.89	0.86																
150	1.00	1.00	0.90	0.96	0.93																
155	1.05	1.04	1.04	1.02	0.99																
160	1.09	1.09	1.07	1.09	1.04																
165	1.12	1.11	1.11	1.15	1.00																
170	1.17	1.16	1.16	1.18	1.11																
175	1.18	1.16	1.18	1.20	1.16																
180	1.16	1.16	1.16	1.16	1.16																

**Luminous Intensity Distribution Diagram (277V):**

**LUMINOUS INTENSITY DISTRIBUTION DIAGRAM**

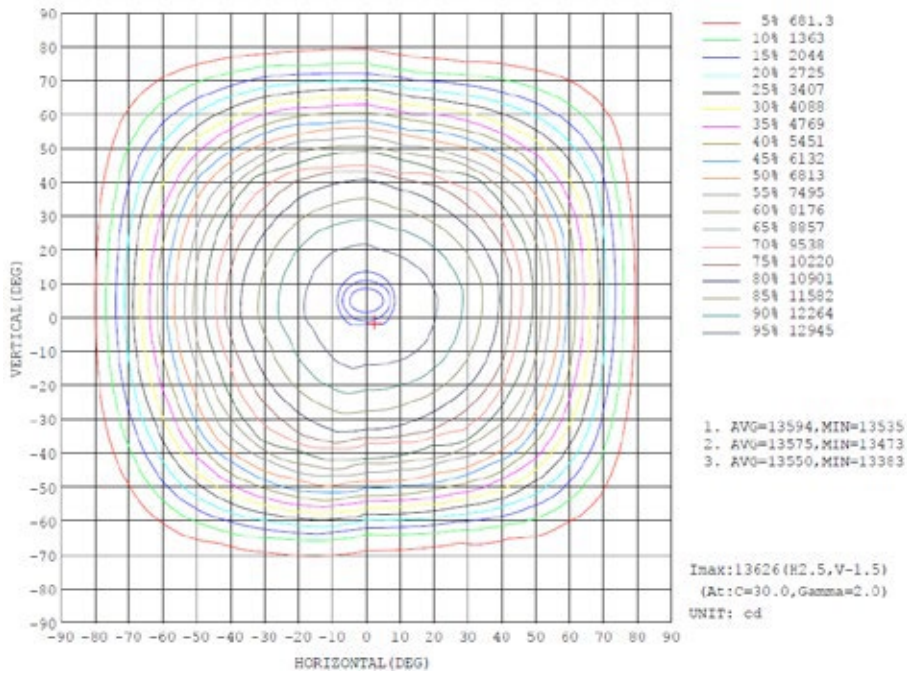


**Zonal Flux Diagram (277V):**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	%sum, lamp
10	1351	1336	1321	1307	1292	1277	1262	1247	0= 10	1290	1290	3.61, 3.61
20	1290	1266	1241	1216	1191	1166	1141	1116	10= 20	3717	5006	14.14
30	1208	1150	1092	1034	976	918	860	802	20= 30	5685	10760	30.30
40	1072	999.7	926.9	854.1	781.2	708.4	635.6	562.8	30= 40	6557	17657	49.5, 49.5
50	862.4	747.6	632.8	518.0	403.2	288.4	173.6	62.8	40= 50	7123	24779	69.4, 69.4
60	552.2	423.6	295.0	166.4	37.8	9.2	0.6	0.1	50= 60	5519	30690	86.96
70	286.1	167.7	58.14	18.4	2.7	0.4	0.0	0.0	60= 70	3568	34266	94.96
80	51.41	7.681	0.4954	0.144	0.043	0.013	0.003	0.001	70= 80	1239	35505	99.9, 99.9
90	0.1352	0.1389	0.1272	0.1213	0.2352	4.521	6.245	0.9869	80= 90	157.3	35459	99.9, 99.9
100	0.2014	0.2066	0.1971	0.2077	0.3694	0.2654	0.1957	0.2080	90=100	3.903	35442	99.9, 99.9
110	0.2823	0.2820	0.2868	0.3022	0.4537	0.4069	0.3354	0.4158	100=110	3.143	35463	99.9, 99.9
120	0.4255	0.4109	0.4231	0.4388	0.3788	0.4869	0.4388	0.4940	110=120	3.958	35469	99.9, 99.9
130	0.5912	0.5683	0.4148	0.4004	0.7904	0.7069	0.4619	0.4894	120=130	4.927	35476	99.9, 99.9
140	0.7262	0.7119	0.7921	0.7524	0.9567	0.9643	0.8923	0.9550	130=140	5.931	35480	100, 100
150	0.7928	0.7866	0.8231	0.8336	1.089	1.593	1.044	1.055	140=150	5.975	35484	100, 100
160	0.9226	0.9565	0.9199	0.9915	1.227	1.193	1.117	1.231	150=160	4.999	35490	100, 100
170	1.044	1.115	1.068	1.084	1.288	1.294	1.236	1.218	160=170	3.143	35496	100, 100
180	1.049	1.049	1.089	1.069	1.192	1.192	1.192	1.192	170=180	1.150	35495	100, 100
DEP										SCHEMATIC INTENSITY: *10cd		UNIT: lm

**Isocandela Diagram (277V):**



**Luminous Distribution Intensity Data (277V):**

Table--1 UNIT: \*10cd

C (DMM)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	
0	1359	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
5	1360	1361	1369	1365	1350	1347	1344	1340	1340	1347	1347	1354	1350	1350	1360	1361	1361	1361	1361	1361
10	1351	1347	1342	1336	1320	1324	1321	1320	1320	1327	1326	1331	1342	1345	1340	1351	1352	1352	1352	1352
15	1300	1320	1315	1305	1295	1290	1286	1290	1290	1297	1296	1300	1315	1321	1325	1330	1334	1335	1336	1336
20	1290	1289	1279	1266	1252	1245	1241	1250	1257	1256	1256	1260	1260	1266	1290	1299	1305	1306	1308	1308
25	1256	1244	1230	1214	1195	1190	1166	1205	1206	1205	1206	1210	1234	1242	1250	1259	1265	1265	1268	1268
30	1203	1189	1171	1150	1133	1132	1129	1140	1143	1144	1145	1150	1170	1189	1190	1206	1214	1215	1216	1216
35	1143	1125	1102	1077	1065	1061	1047	1085	1078	1072	1075	1083	1116	1126	1134	1143	1153	1156	1160	1160
40	1072	1050	1023	1000	931	912	910	940	1003	996	997	1006	1044	1055	1061	1070	1089	1096	1100	1100
45	950	933	924	904	820	765	760	852	854	810	809	800	833	860	900	904	1014	960	954	954
50	862	824	806	740	674	630	625	705	709	756	706	700	841	855	871	906	863	860	854	854
55	730	701	673	580	521	471	443	549	574	611	661	664	716	731	764	751	734	719	719	719
60	592	558	503	424	334	286	260	367	413	463	499	520	565	600	636	601	603	576	571	571
65	449	408	342	253	167	121	110	193	233	296	345	363	452	460	473	452	440	426	404	404
70	296	261	192	100	62.9	59.1	50.1	70.2	99.3	141	201	245	309	335	326	308	306	290	259	259
75	156	124	67.8	35.5	24.3	22.0	21.4	36.4	40.8	46.4	77.4	112	177	196	185	176	163	139	135	135
80	51.0	29.1	14.4	7.60	2.09	1.25	0.50	0.19	10.1	13.5	17.7	25.9	60.2	60.7	70.0	67.2	63.7	64.0	63.6	63.6
85	4.44	2.67	0.93	0.15	0.12	0.11	0.10	0.10	0.14	0.26	0.09	1.92	0.12	14.7	29.9	25.3	30.7	29.0	29.1	29.1
90	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.12	0.12	0.13	0.15	0.15	0.24	0.49	1.07	4.03	6.36	7.34	6.36	6.36
95	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.15	0.15	0.17	0.10	0.10	0.29	0.26	0.20	0.20	0.10	0.15	0.14	0.14
100	0.20	0.21	0.21	0.21	0.21	0.20	0.20	0.10	0.19	0.21	0.22	0.22	0.37	0.35	0.31	0.27	0.23	0.21	0.20	0.20
105	0.24	0.24	0.24	0.24	0.25	0.24	0.24	0.23	0.24	0.25	0.26	0.26	0.44	0.42	0.39	0.35	0.31	0.26	0.27	0.27
110	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.46	0.45	0.43	0.41	0.37	0.35	0.34	0.34
115	0.35	0.34	0.34	0.34	0.36	0.35	0.35	0.33	0.35	0.37	0.30	0.30	0.49	0.40	0.46	0.44	0.41	0.39	0.38	0.38
120	0.43	0.42	0.41	0.41	0.44	0.43	0.42	0.41	0.42	0.44	0.46	0.46	0.57	0.55	0.52	0.49	0.47	0.45	0.44	0.44
125	0.51	0.50	0.49	0.49	0.53	0.54	0.50	0.49	0.49	0.52	0.54	0.55	0.67	0.64	0.60	0.58	0.55	0.53	0.52	0.52
130	0.59	0.59	0.59	0.57	0.61	0.67	0.61	0.57	0.59	0.60	0.63	0.64	0.79	0.77	0.73	0.70	0.67	0.67	0.66	0.66
135	0.49	0.46	0.47	0.47	0.69	0.73	0.72	0.66	0.67	0.69	0.70	0.72	0.89	0.89	0.87	0.85	0.82	0.81	0.80	0.80
140	0.73	0.74	0.72	0.71	0.75	0.77	0.79	0.74	0.74	0.75	0.75	0.76	0.96	0.97	0.96	0.96	0.93	0.91	0.91	0.91
145	0.75	0.77	0.77	0.75	0.76	0.79	0.80	0.79	0.70	0.79	0.79	0.79	1.03	1.05	1.03	1.04	1.01	0.99	0.97	0.97
150	0.79	0.82	0.82	0.80	0.80	0.83	0.82	0.82	0.82	0.83	0.83	0.82	1.10	1.11	1.09	1.09	1.09	1.07	1.06	1.06
155	0.84	0.86	0.89	0.85	0.85	0.86	0.83	0.80	0.80	0.80	0.91	0.89	1.14	1.14	1.14	1.14	1.14	1.11	1.09	1.09
160	0.92	0.95	0.95	0.96	0.94	0.93	0.92	0.96	0.97	0.99	0.97	0.95	1.23	1.21	1.20	1.19	1.17	1.15	1.12	1.12
165	0.99	1.03	1.05	1.05	1.02	1.03	1.03	1.05	1.00	1.07	1.04	1.03	1.23	1.23	1.23	1.24	1.23	1.21	1.16	1.16
170	1.07	1.09	1.11	1.12	1.09	1.09	1.07	1.05	1.09	1.09	1.09	1.00	1.29	1.20	1.20	1.30	1.31	1.30	1.24	1.24
175	1.23	1.26	1.27	1.26	1.23	1.22	1.19	1.16	1.19	1.21	1.21	1.21	1.30	1.30	1.30	1.35	1.32	1.30	1.24	1.24
180	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19

Table--2 UNIT: \*10cd

C (DMM)	285	300	315	330	345																
0	1350	1350	1350	1350	1350																
5	1360	1360	1360	1360	1360																
10	1349	1350	1351	1352	1352																
15	1300	1300	1302	1304	1305																
20	1296	1299	1302	1305	1306																
25	1252	1256	1262	1266	1269																
30	1198	1203	1210	1216	1219																
35	1140	1140	1146	1155	1162																
40	1076	1074	1072	1084	1094																
45	923	900	895	1003	1013																
50	791	830	903	887	895																
55	644	686	735	779	772																
60	507	541	578	645	647																
65	344	394	416	474	500																
70	218	210	273	310	354																
75	91.2	114	143	173	215																
80	48.7	48.4	49.5	66.1	85.2																
85	17.7	17.4	16.0	16.0	16.3																
90	0.64	0.79	0.90	1.16	0.63																
95	0.16	0.18	0.21	0.25	0.26																
100	0.23	0.25	0.29	0.33	0.34																
105	0.31	0.34	0.37	0.43	0.41																
110	0.36	0.39	0.42	0.44	0.44																
115	0.41	0.44	0.45	0.46	0.46																
120	0.47	0.49	0.50	0.53	0.52																
125	0.57	0.56	0.57	0.57	0.59																
130	0.70	0.69	0.60	0.69	0.71																
135	0.82	0.80	0.70	0.82	0.82																
140	0.90	0.89	0.91	0.93	0.91																
145	0.97	0.99	0.90	0.97	0.97																
150	1.06	1.05	1.05	1.05	1.04																
155	1.09	1.09	1.10	1.12	1.00																
160	1.14	1.14	1.13	1.15	1.13																
165	1.10	1.10	1.20	1.23	1.16																
170	1.23	1.22	1.22	1.26	1.19																
175	1.22	1.21	1.23	1.25	1.21																
180	1.19	1.19	1.19	1.19	1.19																

**THD and PF Measurement Test Results:**

**Electrical Measurement:**

Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor	iTHD(%)
277.0	60	0.894			

**Photo of Sample:**



**Equipment List:**

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2020-11-12	2021-11-11
NTC-F01-006	2.0 meter Integrating Sphere	2020-11-12	2021-11-11
NTC-F01-012	Standard Lamp	2020-11-12	2021-11-11
NTC-F01-013	Standard Lamp	2020-11-12	2021-11-11
NTC-F01-031	Digital Power Meter	2020-08-22	2021-08-21
NTC-F01-019	Temperature & Humidity Meter	2020-11-13	2021-11-12

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