

LM-79-08 Test Report

For

Beyond LED Technology

1939 Parker Court, Stone Mountain, GA 30087

Model Name(s):

BLT-XALH310W50KT3PADP

Representative (Tested) Model:

XALH(240/260/280/310)W50KT3PAD

Model Difference:

1. Product is wattage tunable product, can be tunable from 240W, 260W, 280W and 310W;
2. XX represents Input Voltage, can be blank for 120-277V, HL for 120-347V or HV for 277-480V;
3. YYK represents CCT, can be 30K for 3000K, 40K for 4000K or 50K for 5000K;
4. TN represents Distribution Type, can be T3 for Type III, T4 for Type IV or T5 for Type V;
5. ZZ represents Mounting Mean, can be SF for Slipfitter Mount, PA for Square and Round Pole Mount Arm, TR for Trunnion Mount or AA for Adjustable Square and Round Pole Mount Arm;
6. # represents Finish Color, can be D for Dark Bronze, B for Black, W for White or SG for Silver Gray;
7. & represents Photocontrol, can be blank for without Photocontrol or P for with Photocontrol;
8. * represents Motion Sensor, can be blank for without Motion Sensor or S for with Motion Sensor
9. All is the same construction, except Distribution Type, CCT, Finish Color, Function and Model Design.

Prepared by:

Alan Wang

Engineer: Alan Wang

Date: 2022-03-02

Reviewed by:

Vincent Yuan

Technical Lead: Vincent Yuan

Issue Date: 2022-03-27

Revised Date: N/A

Note:

1. The results contained in this report pertain only to the tested samples.
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3. This report d not imply product certification, approval, or endorsement by NVLAP, or any agency of the Federal Government.

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>

Client Information:

Applicant Name:	Beyond LED Technology
Brand Name:	Beyond LED Technology
Manufacturer Name:	Beyond LED Technology
Manufacturer Address:	1939 Parker Court, Stone Mountain, GA 30087

Product Information:

Model Number:	BLT-XALH310W50KT3PADP
Product Type:	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires
Rating Input:	120-277Vac, 50/60Hz, 240W/260W/280W/310W
Declared CCT:	5000K
Declared Light Output:	46500 lm
LED Manufacturer:	LUMILEDS
LED Model:	L128-5070RC35001E1
LED Quantity:	432 pcs
LED Driver Manufacturer:	SOSEN
LED Driver Model:	SS-150NL-56B, 2 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:	2022-01-17
Quantity of Receipt Samples:	1 pc
Sample Number:	220117050-S1
Test Representation:	N/A

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:

Test Report Form:	LM-79-08_TRF_V1.5
Issued Date of Test Report:	2022-03-27
Revised Date of Test Report:	N/A
Test Report No.:	NTCLR22020186
Remark (If applicable):	N/A

Test Specification:	
Date of Test	2022-01-20
Test Item	<ol style="list-style-type: none"> 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 10. THD and PF
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 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:
<p>1. Photometric and Electrical Measurements – Light Distribution Method:</p> <p>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.</p>
<p>2. Photometric and Electrical Measurements – Integrating Sphere Method:</p> <p>Photometric parameters were measured using an integrating sphere, as spectroradiometer and software. The ambient temperature condition inside the sphere was measured at $25\text{ }^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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.</p>
<p>3. THD and PF Measurements:</p> <p>The sample was tested according to the ANSI C82.77, 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:

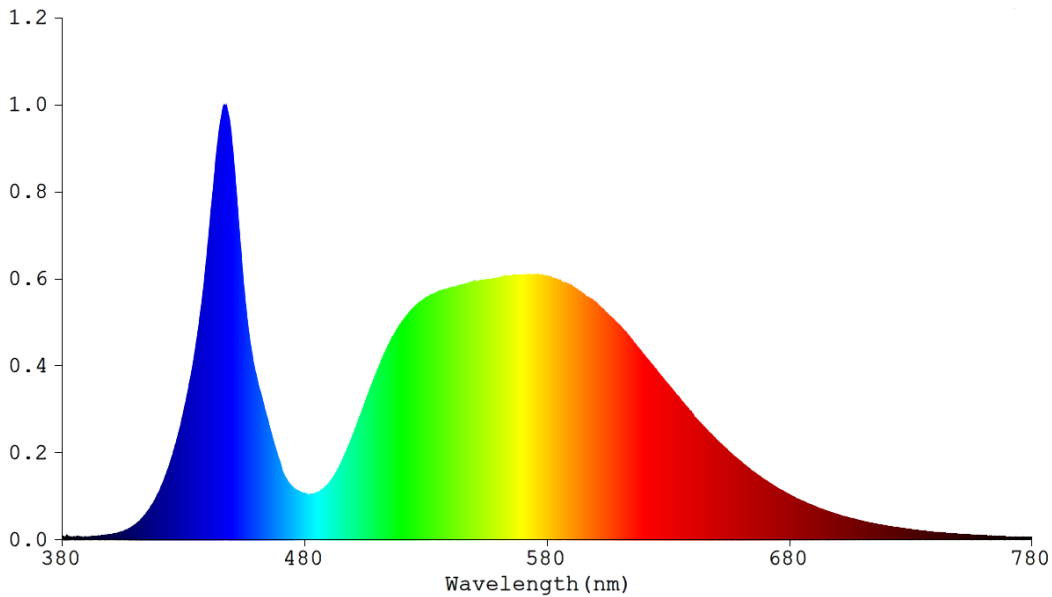
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	2.5476	305.34	0.9988

Color Data:

Parameter	Result
CCT(K)	5055
R _a	72.6
R _f	74
R _g	96
R _{cs, hl}	-16%
Chromaticity, (x, y)	(0.3444, 0.3601)
Chromaticity, (u', v')	(0.2077, 0.4887)
Duv	0.0045

Specify Color Rendering			
R1	70	R9	-27
R2	76	R10	44
R3	81	R11	73
R4	74	R12	46
R5	72	R13	71
R6	69	R14	89
R7	80	R15	64
R8	58	-	-

Spectrum Diagram:

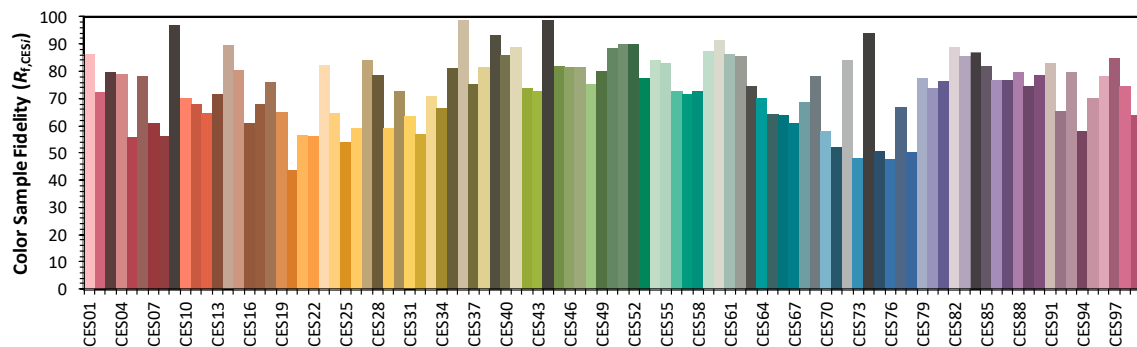
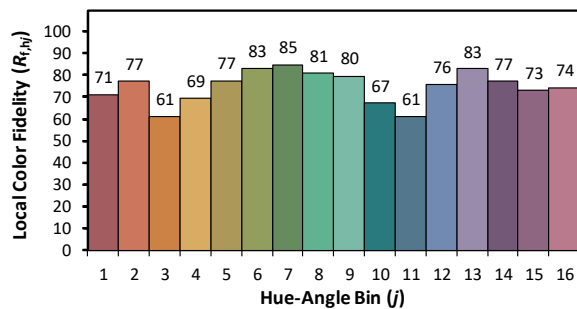
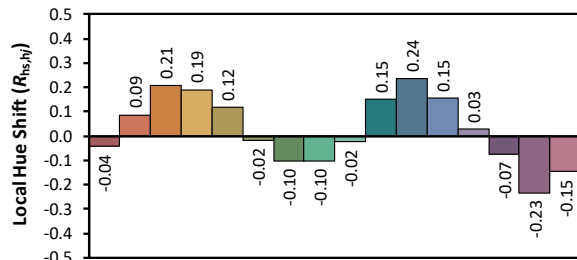
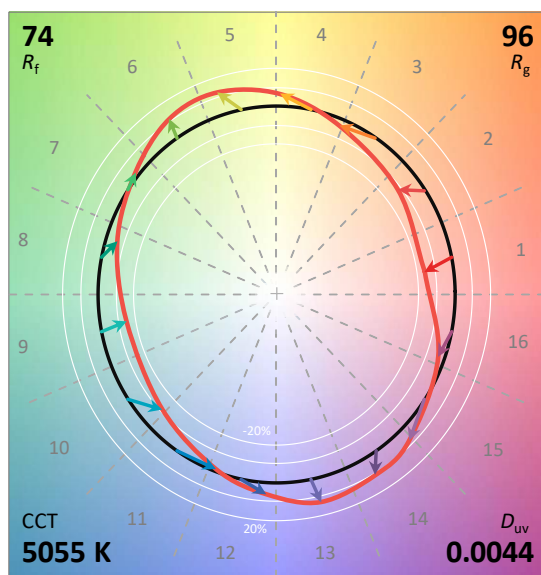
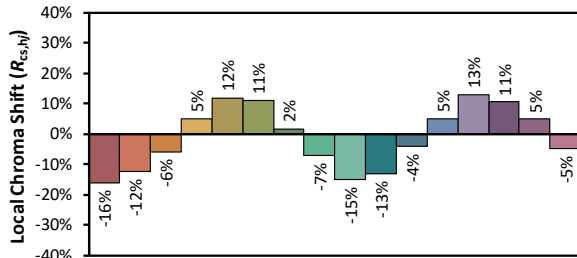
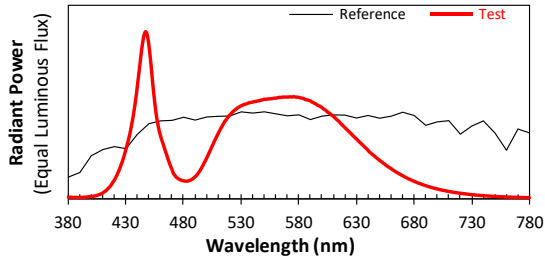


IES TM-30-18 Color Rendition Result:

ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1
Date: 2022/3/2

Manufacturer: Shenzhen XinShengYang Opto-
Model: XALH (240/260/280/310) W50KT3PAD



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

x 0.3443
 y 0.3599
 u' 0.2077
 v' 0.4886

CIE 13.3-1995
(CRI)
 R_a 73
 R_g -27

Spectrum Data:

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0086	447	1.0000	514	0.4418	581	0.6043	648	0.2404	715	0.0369
381	0.0055	448	0.9904	515	0.4534	582	0.6026	649	0.2345	716	0.0358
382	0.0095	449	0.9613	516	0.4652	583	0.6012	650	0.2289	717	0.0349
383	0.0064	450	0.9116	517	0.4731	584	0.5990	651	0.2232	718	0.0339
384	0.0067	451	0.8500	518	0.4833	585	0.5957	652	0.2189	719	0.0327
385	0.0066	452	0.7810	519	0.4924	586	0.5928	653	0.2131	720	0.0318
386	0.0080	453	0.7056	520	0.5007	587	0.5916	654	0.2087	721	0.0311
387	0.0073	454	0.6358	521	0.5076	588	0.5898	655	0.2024	722	0.0300
388	0.0065	455	0.5721	522	0.5150	589	0.5873	656	0.1979	723	0.0292
389	0.0069	456	0.5165	523	0.5223	590	0.5853	657	0.1922	724	0.0285
390	0.0069	457	0.4712	524	0.5286	591	0.5797	658	0.1882	725	0.0274
391	0.0070	458	0.4334	525	0.5340	592	0.5767	659	0.1834	726	0.0266
392	0.0080	459	0.4008	526	0.5391	593	0.5726	660	0.1792	727	0.0259
393	0.0078	460	0.3763	527	0.5447	594	0.5696	661	0.1737	728	0.0250
394	0.0084	461	0.3518	528	0.5482	595	0.5653	662	0.1698	729	0.0244
395	0.0087	462	0.3321	529	0.5524	596	0.5599	663	0.1650	730	0.0236
396	0.0099	463	0.3096	530	0.5566	597	0.5573	664	0.1602	731	0.0229
397	0.0094	464	0.2881	531	0.5591	598	0.5538	665	0.1564	732	0.0224
398	0.0111	465	0.2683	532	0.5631	599	0.5495	666	0.1525	733	0.0216
399	0.0117	466	0.2464	533	0.5642	600	0.5457	667	0.1485	734	0.0205
400	0.0126	467	0.2259	534	0.5668	601	0.5390	668	0.1445	735	0.0203
401	0.0132	468	0.2071	535	0.5692	602	0.5345	669	0.1403	736	0.0199
402	0.0147	469	0.1889	536	0.5725	603	0.5306	670	0.1371	737	0.0189
403	0.0159	470	0.1732	537	0.5745	604	0.5235	671	0.1330	738	0.0186
404	0.0175	471	0.1533	538	0.5755	605	0.5179	672	0.1290	739	0.0179
405	0.0192	472	0.1428	539	0.5771	606	0.5137	673	0.1259	740	0.0176
406	0.0221	473	0.1335	540	0.5784	607	0.5081	674	0.1223	741	0.0170
407	0.0240	474	0.1264	541	0.5810	608	0.5028	675	0.1186	742	0.0163
408	0.0271	475	0.1207	542	0.5813	609	0.4974	676	0.1153	743	0.0161
409	0.0310	476	0.1166	543	0.5826	610	0.4927	677	0.1126	744	0.0154
410	0.0345	477	0.1131	544	0.5848	611	0.4857	678	0.1093	745	0.0150
411	0.0399	478	0.1103	545	0.5859	612	0.4795	679	0.1064	746	0.0145
412	0.0440	479	0.1080	546	0.5874	613	0.4729	680	0.1035	747	0.0142
413	0.0500	480	0.1065	547	0.5898	614	0.4665	681	0.1001	748	0.0138
414	0.0566	481	0.1047	548	0.5911	615	0.4599	682	0.0976	749	0.0135
415	0.0643	482	0.1047	549	0.5932	616	0.4519	683	0.0941	750	0.0129
416	0.0709	483	0.1043	550	0.5957	617	0.4447	684	0.0920	751	0.0126
417	0.0803	484	0.1057	551	0.5939	618	0.4383	685	0.0898	752	0.0121
418	0.0900	485	0.1085	552	0.5957	619	0.4314	686	0.0871	753	0.0119
419	0.1014	486	0.1105	553	0.5968	620	0.4249	687	0.0841	754	0.0115
420	0.1115	487	0.1148	554	0.5968	621	0.4173	688	0.0819	755	0.0110
421	0.1252	488	0.1187	555	0.5981	622	0.4112	689	0.0798	756	0.0109
422	0.1386	489	0.1249	556	0.5980	623	0.4040	690	0.0773	757	0.0105
423	0.1543	490	0.1307	557	0.5991	624	0.3971	691	0.0754	758	0.0105
424	0.1693	491	0.1376	558	0.6007	625	0.3913	692	0.0730	759	0.0102
425	0.1875	492	0.1461	559	0.6016	626	0.3831	693	0.0705	760	0.0096
426	0.2061	493	0.1556	560	0.6025	627	0.3765	694	0.0688	761	0.0095
427	0.2257	494	0.1654	561	0.6030	628	0.3699	695	0.0666	762	0.0092
428	0.2472	495	0.1774	562	0.6054	629	0.3627	696	0.0644	763	0.0091
429	0.2710	496	0.1899	563	0.6063	630	0.3570	697	0.0629	764	0.0088
430	0.2960	497	0.2020	564	0.6067	631	0.3497	698	0.0611	765	0.0083
431	0.3210	498	0.2160	565	0.6065	632	0.3427	699	0.0591	766	0.0082
432	0.3484	499	0.2286	566	0.6082	633	0.3355	700	0.0576	767	0.0079
433	0.3767	500	0.2430	567	0.6085	634	0.3295	701	0.0560	768	0.0078
434	0.4100	501	0.2575	568	0.6082	635	0.3227	702	0.0541	769	0.0075
435	0.4457	502	0.2728	569	0.6088	636	0.3159	703	0.0526	770	0.0072
436	0.4831	503	0.2872	570	0.6084	637	0.3090	704	0.0511	771	0.0070
437	0.5264	504	0.3030	571	0.6089	638	0.3030	705	0.0496	772	0.0068
438	0.5717	505	0.3179	572	0.6093	639	0.2961	706	0.0484	773	0.0067
439	0.6240	506	0.3330	573	0.6097	640	0.2892	707	0.0468	774	0.0065
440	0.6815	507	0.3483	574	0.6087	641	0.2804	708	0.0456	775	0.0064
441	0.7407	508	0.3622	575	0.6099	642	0.2749	709	0.0440	776	0.0059
442	0.7985	509	0.3766	576	0.6102	643	0.2692	710	0.0431	777	0.0060
443	0.8585	510	0.3905	577	0.6083	644	0.2632	711	0.0415	778	0.0059
444	0.9120	511	0.4036	578	0.6082	645	0.2578	712	0.0403	779	0.0059
445	0.9570	512	0.4173	579	0.6068	646	0.2519	713	0.0388	780	0.0059
446	0.9871	513	0.4295	580	0.6066	647	0.2456	714	0.0377	N/A	N/A

Goniophotometer Test Results:

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.1	44.3	Face Down	90	25

Electrical Data:

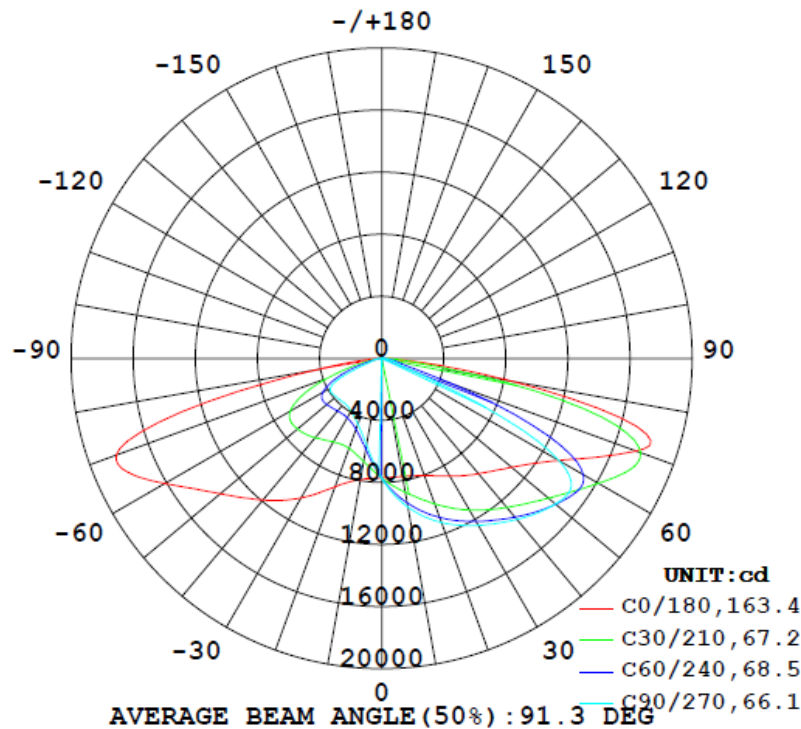
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	2.5476	305.34	0.9988

Goniophotometer Data:

Parameter	Results
Total Luminous (lm)	46689.2
Luminous Efficacy (lm/W)	152.91
Zonal Lumens Distribution (0-90°)	99.9%
Zonal Lumens Distribution (80-90°)	1.7%
Beam Angle (°)	91.3
BUG	B4-U2-G4

Luminous Intensity Distribution Diagram:

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

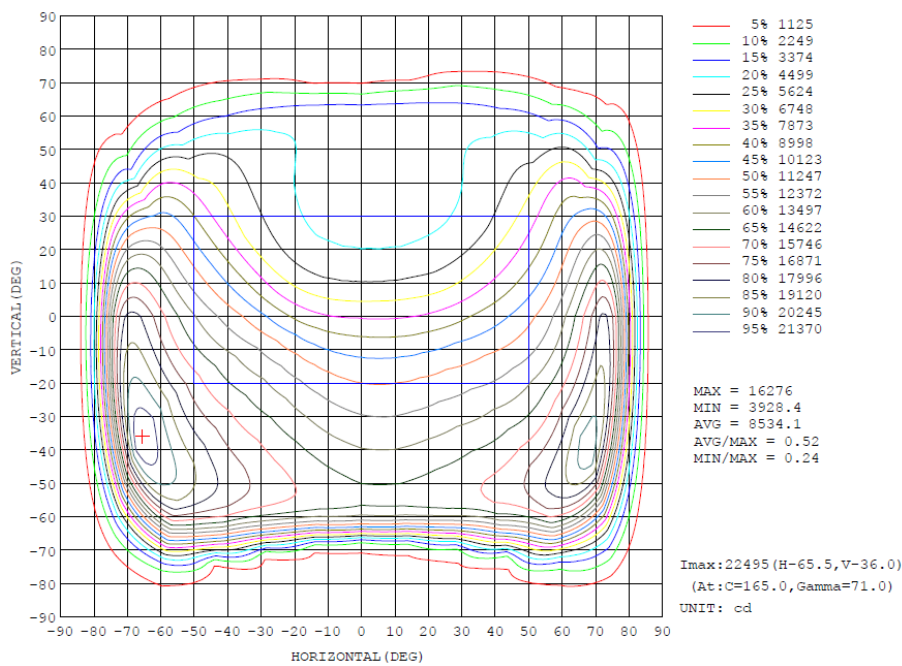


Zonal Flux Diagram:

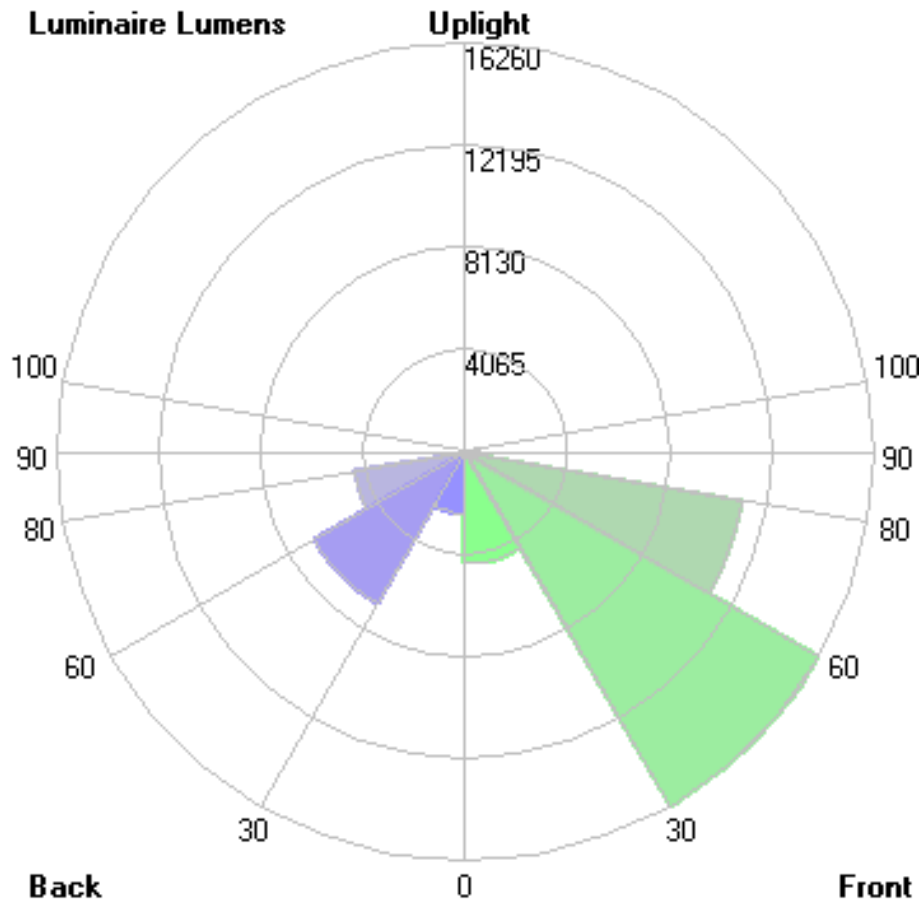
ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	φ zone	φ total	%lum, lamp
10	772.9	915.9	973.0	939.1	793.1	628.0	566.9	622.4	0- 10	738.8	738.8	1.58,1.58
20	803.7	1055	1125	1123	880.4	535.7	451.6	517.5	10- 20	2248	2987	6.4,6.4
30	876.3	1186	1243	1301	1038	506.6	394.5	464.3	20- 30	3904	6891	14.8,14.8
40	970.8	1315	1355	1465	1191	522.7	376.4	449.5	30- 40	5745	12636	27.1,27.1
50	1093	1458	1461	1622	1357	545.9	385.6	462.6	40- 50	7743	20379	43.6,43.6
60	1317	1591	1321	1740	1613	508.0	382.5	464.1	50- 60	9750	30129	64.5,64.5
70	1745	1221	123.6	1384	1819	267.0	105.5	327.2	60- 70	9914	40043	85.8,85.8
80	850.6	111.4	40.99	98.00	440.9	47.92	38.67	60.85	70- 80	5788	45831	98.2,98.2
90	0.5041	4.822	0.3266	0.4910	1.018	0.6872	0.2127	0.8321	80- 90	802.5	46633	99.9,99.9
100	0.6149	0.1739	0.1275	0.2737	1.246	1.061	0.6144	1.241	90-100	7.468	46641	99.9,99.9
110	0.7839	0.2466	0.1944	0.3955	1.180	1.182	0.9385	1.239	100-110	7.831	46649	99.9,99.9
120	0.9224	0.3387	0.2737	0.4487	1.101	1.211	1.132	1.276	110-120	7.938	46657	99.9,99.9
130	1.115	0.4516	0.3755	0.5190	1.204	1.434	1.446	1.590	120-130	8.388	46665	99.9,99.9
140	1.023	0.5523	0.4811	0.6034	1.134	1.474	1.631	1.609	130-140	8.232	46673	100,100
150	0.8559	0.6302	0.5868	0.6426	1.109	1.400	1.640	1.492	140-150	6.638	46680	100,100
160	0.8999	0.7876	0.8152	0.8177	1.157	1.317	1.549	1.491	150-160	4.968	46685	100,100
170	1.006	0.9898	1.072	1.014	1.201	1.224	1.307	1.365	160-170	3.192	46688	100,100
180	1.275	1.183	1.167	1.124	1.271	1.199	1.171	1.164	170-180	1.112	46689	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Isocandela Diagram:



BUG Rating:



LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	4420.5	N.A.	9.5
FM (30-60)	16260.2	N.A.	34.8
FH (60-80)	11222.2	N.A.	24.0
FVH (80-90)	601.4	N.A.	1.3
BL (0-30)	2470.8	N.A.	5.3
BM (30-60)	6977.7	N.A.	14.9
BH (60-80)	4479.5	N.A.	9.6
BVH (80-90)	201.1	N.A.	0.4
UL (90-100)	7.5	N.A.	0.0
UH (100-180)	48.3	N.A.	0.1
Total	46689.2	N.A.	100.0
BUG Rating	B4-U2-G4		

Luminous Distribution Intensity Data:

Table--1 UNIT: *10cd

C (DEG) \ y (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	771	771	771	772	772	772	773	774	774	775	775	775	771	771	771	772	772	772	773
5	770	798	823	845	862	873	879	877	869	855	835	810	777	748	720	696	678	667	662
10	773	828	876	916	945	964	973	973	962	939	904	855	793	732	675	628	594	574	567
15	784	865	934	985	1021	1043	1055	1059	1051	1030	987	920	825	728	639	574	531	507	498
20	804	913	998	1055	1091	1111	1125	1135	1137	1123	1082	1005	880	740	618	536	488	461	452
25	835	968	1064	1123	1154	1171	1187	1203	1217	1215	1181	1099	956	774	612	514	459	430	418
30	876	1026	1129	1186	1214	1227	1243	1267	1291	1301	1274	1193	1038	825	622	507	444	409	395
35	922	1084	1192	1250	1273	1281	1297	1329	1365	1384	1362	1278	1116	885	643	511	439	399	380
40	971	1142	1254	1315	1335	1338	1355	1393	1438	1465	1445	1362	1191	941	668	523	443	398	376
45	1024	1205	1322	1385	1401	1397	1412	1455	1508	1545	1531	1450	1270	994	692	536	453	405	381
50	1093	1281	1401	1458	1463	1451	1462	1505	1569	1622	1629	1554	1357	1044	709	546	463	413	386
55	1183	1383	1497	1529	1517	1488	1483	1527	1607	1691	1736	1684	1467	1091	714	545	467	419	392
60	1317	1530	1612	1591	1500	1374	1321	1399	1572	1740	1855	1859	1613	1120	680	508	439	398	382
65	1510	1743	1736	1558	1189	814	684	875	1303	1695	1963	2078	1772	1050	564	413	353	313	285
70	1745	2010	1773	1221	480	158	124	155	640	1384	1947	2249	1819	761	371	267	222	124	106
75	1702	2041	1470	478	124	87.8	79.0	84.0	111	657	1528	1829	1340	334	173	129	74.8	56.1	57.6
80	851	1193	607	111	71.8	45.0	41.0	45.9	73.6	98.0	639	741	441	97.1	36.6	47.9	37.6	38.4	38.7
85	167	266	120	48.4	23.3	15.7	14.8	16.1	28.2	45.1	125	102	66.7	14.0	13.4	14.5	14.0	12.2	11.3
90	0.50	9.11	6.42	4.82	0.80	0.41	0.33	0.33	0.37	0.49	0.66	4.60	1.02	1.13	0.98	0.69	0.40	0.25	0.21
95	0.52	0.39	0.22	0.13	0.11	0.10	0.10	0.11	0.13	0.20	0.33	0.44	1.18	1.27	1.15	0.91	0.62	0.44	0.39
100	0.61	0.49	0.29	0.17	0.14	0.13	0.13	0.14	0.17	0.27	0.44	0.55	1.25	1.30	1.22	1.06	0.85	0.66	0.61
105	0.70	0.56	0.35	0.21	0.17	0.16	0.16	0.18	0.22	0.34	0.53	0.65	1.24	1.27	1.22	1.16	1.04	0.87	0.83
110	0.78	0.62	0.39	0.25	0.20	0.19	0.19	0.21	0.26	0.40	0.58	0.72	1.18	1.20	1.19	1.18	1.12	0.99	0.94
115	0.86	0.66	0.41	0.28	0.23	0.23	0.23	0.25	0.31	0.43	0.60	0.77	1.12	1.17	1.19	1.17	1.15	1.07	1.02
120	0.92	0.72	0.48	0.34	0.28	0.27	0.27	0.30	0.36	0.45	0.63	0.85	1.10	1.18	1.22	1.21	1.23	1.16	1.13
125	1.05	0.79	0.54	0.40	0.33	0.32	0.32	0.35	0.41	0.47	0.68	0.91	1.14	1.26	1.30	1.34	1.34	1.29	1.29
130	1.12	0.83	0.59	0.45	0.38	0.36	0.38	0.40	0.46	0.52	0.70	0.94	1.20	1.35	1.39	1.43	1.43	1.43	1.45
135	1.11	0.86	0.64	0.51	0.44	0.42	0.43	0.46	0.50	0.57	0.69	0.92	1.20	1.35	1.43	1.49	1.49	1.52	1.57
140	1.02	0.85	0.67	0.55	0.48	0.46	0.48	0.51	0.55	0.60	0.67	0.87	1.13	1.27	1.39	1.47	1.52	1.56	1.63
145	0.93	0.82	0.69	0.59	0.53	0.50	0.53	0.55	0.59	0.62	0.65	0.80	1.11	1.22	1.34	1.44	1.51	1.57	1.66
150	0.86	0.79	0.71	0.63	0.57	0.56	0.59	0.62	0.64	0.64	0.67	0.75	1.11	1.20	1.31	1.40	1.47	1.55	1.64
155	0.87	0.82	0.77	0.71	0.67	0.66	0.70	0.73	0.74	0.73	0.73	0.78	1.12	1.19	1.27	1.36	1.43	1.51	1.60
160	0.90	0.87	0.83	0.79	0.77	0.78	0.82	0.85	0.85	0.82	0.78	0.81	1.16	1.18	1.24	1.32	1.38	1.45	1.55
165	0.93	0.93	0.91	0.90	0.89	0.91	0.95	0.98	0.96	0.93	0.89	0.86	1.18	1.19	1.21	1.25	1.29	1.34	1.42
170	1.01	1.00	1.00	0.99	0.99	1.02	1.07	1.09	1.06	1.01	0.97	0.91	1.20	1.20	1.20	1.22	1.23	1.25	1.31
175	1.11	1.13	1.10	1.09	1.10	1.13	1.19	1.20	1.17	1.13	1.09	1.04	1.23	1.23	1.24	1.23	1.22	1.22	1.25
180	1.28	1.23	1.20	1.18	1.17	1.17	1.17	1.16	1.14	1.12	1.10	1.11	1.27	1.27	1.23	1.20	1.18	1.17	1.17

Table--2 UNIT: *10cd

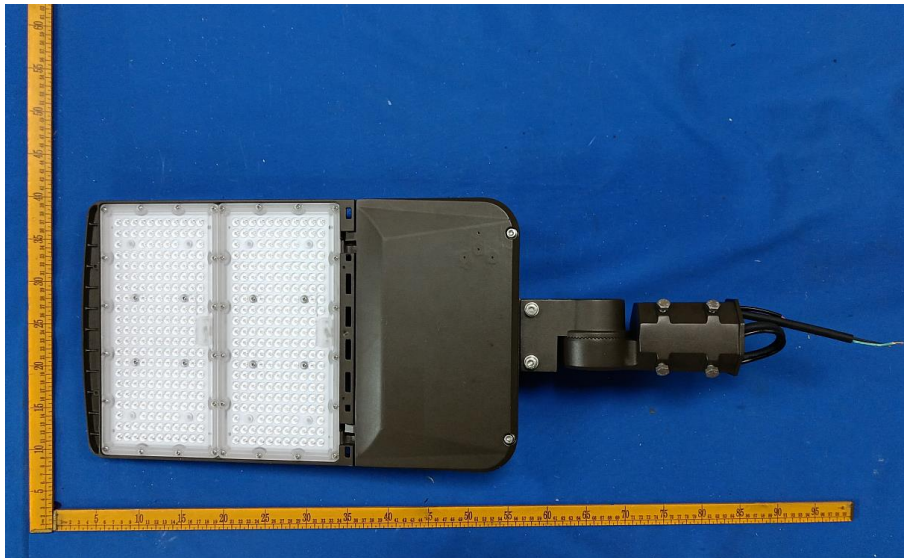
C (DEG) \ y (DEG)	285	300	315	330	345														
0	774	774	775	775	775														
5	667	677	695	718	745														
10	572	590	622	666	720														
15	504	524	563	623	701														
20	456	477	517	588	690														
25	421	442	485	562	687														
30	396	417	464	549	699														
35	382	403	452	545	723														
40	378	399	449	550	753														
45	382	403	454	563	789														
50	389	412	463	578	829														
55	395	421	470	591	875														
60	386	416	464	592	935														
65	329	372	424	552	983														
70	160	272	327	439	902														
75	56.3	124	188	259	566														
80	38.3	45.3	60.8	71.4	218														
85	14.1	16.8	16.2	14.3	51.4														
90	0.28	0.48	0.83	2.56	2.96														
95	0.48	0.72	1.05	1.30	1.31														
100	0.72	0.96	1.24	1.43	1.41														
105	0.93	1.11	1.29	1.42	1.39														
110	1.01	1.11	1.24	1.33	1.30														
115	1.04	1.11	1.22	1.28	1.27														
120	1.13	1.18	1.28	1.33	1.30														
125	1.30	1.34	1.42	1.48	1.42														
130	1.46	1.51	1.59	1.66	1.58														
135	1.57	1.59	1.66	1.72	1.62														
140	1.63	1.60	1.61	1.62	1.52														
145	1.65	1.58	1.54	1.51	1.41														
150	1.64	1.57	1.49	1.44	1.35														
155	1.63	1.57	1.47	1.41	1.32														
160	1.60	1.57	1.49	1.41	1.33														
165	1.49	1.50	1.44	1.37	1.30														
170	1.38	1.40	1.37	1.31	1.27														
175	1.31	1.34	1.32	1.28	1.24														
180	1.18	1.18	1.16	1.15	1.12														

THD and PF Measurement Test Results:

Electrical Measurement:

Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor	iTHD(%)
120.0	60	2.5476	305.34	0.9988	5.62
277.0	60	1.1247	296.00	0.9501	9.05

Photo of Sample:



Equipment List:

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2021-11-10	2022-11-09
NTC-F01-006	2.0 meter Integrating Sphere	2021-11-10	2022-11-09
NTC-F01-012	Standard Lamp	2021-11-10	2022-11-09
NTC-F01-013	Standard Lamp	2021-11-10	2022-11-09
NTC-F01-031	Digital Power Meter	2021-08-22	2022-08-21
NTC-F01-020	Temperature & Humidity Meter	2021-11-15	2022-11-14

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