

# LM-79-08 Test Report

For

## Beyond LED Technology

### HAND10 AREA LIGHT

Model Name(s):

BLT-XALH150W50KT3PADP

Representative (Tested) Model:

BLT-XALH150W50KT3PADP

#### Model Difference:

1. Product is wattage tunable product, can be tunable from 80W, 100W, 120W and 150W;
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: 2022-03-10

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.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd
3. This report d not imply product certification, approval, or endorsement by NVLAP, or any agency of the Federal Government.

**Client Information:**

Applicant Name:	Beyond LED Technology
Brand Name:	Beyond LED Technology
Manufacturer Name:	Beyond LED Technology

**Product Information:**

Model Number:	BLT-XALH150W50KT3PADP
Product Type:	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires
Rating Input:	277-480Vac, 50/60Hz, 80W/100W/120W/150W
Declared CCT:	5000K
Declared Light Output:	22500 lm
LED Manufacturer:	Beyond LED Technology
LED Model:	EMC3030
LED Quantity:	216 pcs
LED Driver Model:	SS-150M-56BH

**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:	220117008-S1
Test Representation:	N/A

**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:**

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.:	NTCLR22020137
Remark (If applicable):	N/A

<b>Test Specification:</b>	
Date of Test	2022-01-17
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>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 <math>25\text{ }^{\circ}\text{C} \pm 1^{\circ}\text{C}</math>, 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 <math>1^{\circ}</math> vertical intervals and <math>15^{\circ}</math> 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 <math>25\text{ }^{\circ}\text{C} \pm 1^{\circ}\text{C}</math>. 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, 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:**

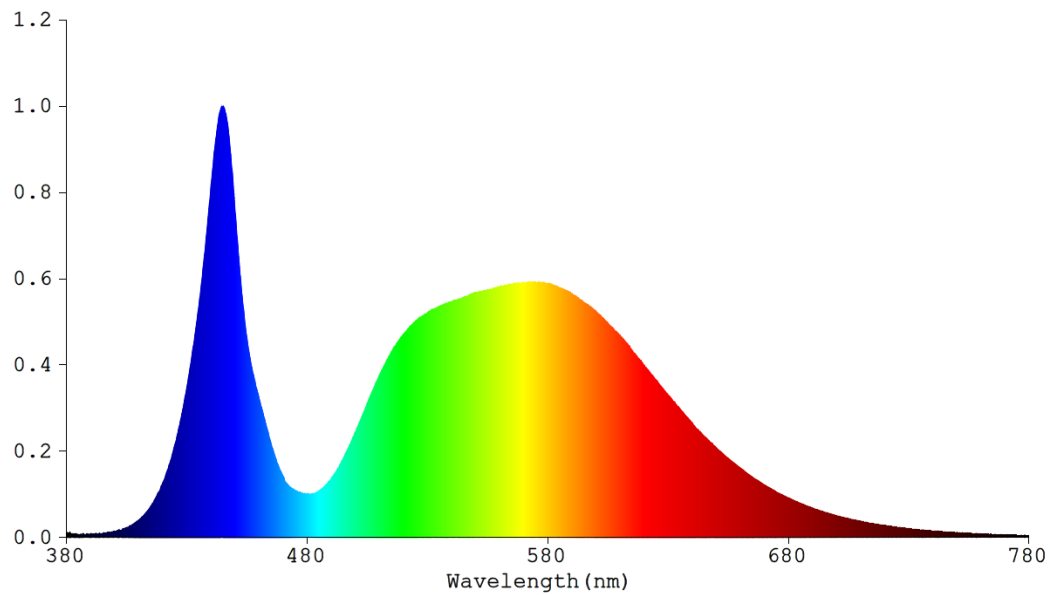
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
277.0	60	0.5257	145.40	0.9985

**Color Data:**

Parameter	Result
CCT(K)	5125
R <sub>a</sub>	71.7
R <sub>f</sub>	73
R <sub>g</sub>	96
R <sub>cs, hl</sub>	-17%
Chromaticity, (x, y)	(0.3424, 0.3558)
Chromaticity, (u', v')	(0.2080, 0.4863)
Duv	0.0032

Specify Color Rendering			
R1	70	R9	-32
R2	75	R10	42
R3	80	R11	73
R4	74	R12	48
R5	71	R13	70
R6	68	R14	89
R7	79	R15	63
R8	56	-	-

**Spectrum Diagram:**

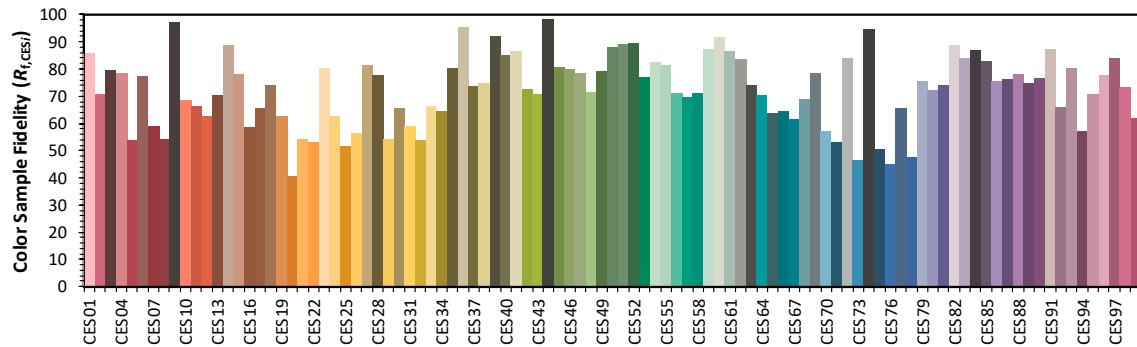
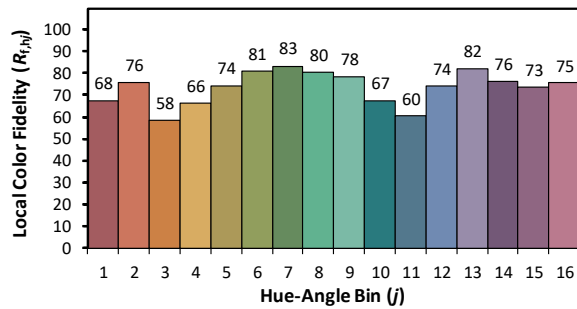
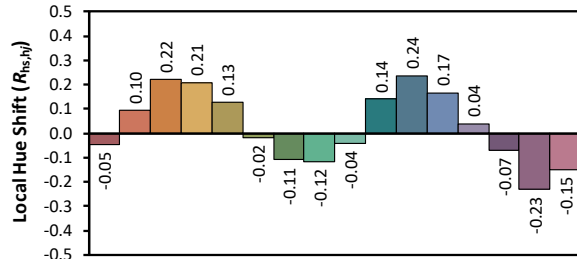
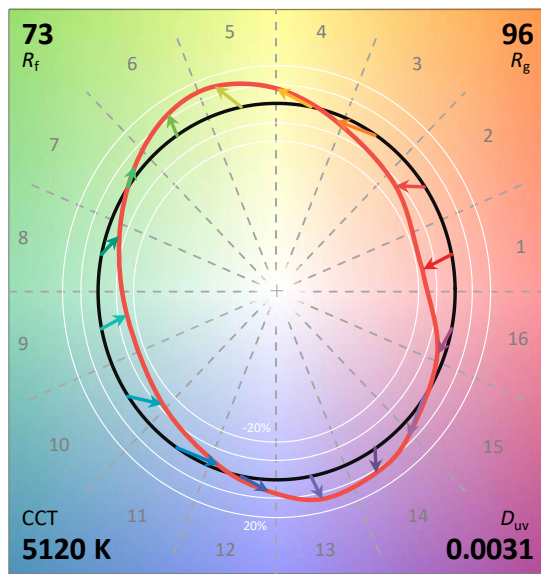
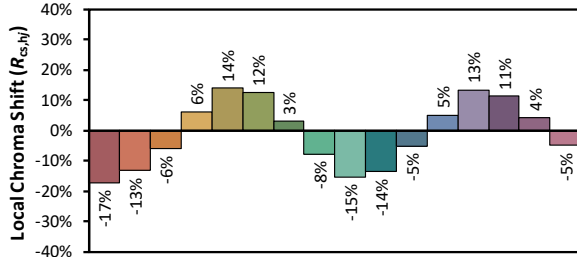
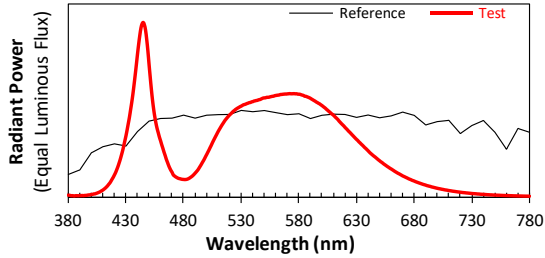


**IES TM-30-18 Color Rendition Result:**

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

Source: 1 CIE F1  
Date: 2022/3/10

Manufacturer: Beyond LED Technology  
Model: BLT-XALH150W50KT3PADP



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

$x$  0.3423  
 $y$  0.3556  
 $u'$  0.2080  
 $v'$  0.4862

CIE 13.3-1995  
(CRI)  
 $R_a$  72  
 $R_g$  -32

**Spectrum Data:**

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0107	447	0.9554	514	0.4199	581	0.5883	648	0.2184	715	0.0322
381	0.0102	448	0.9016	515	0.4301	582	0.5857	649	0.2128	716	0.0312
382	0.0083	449	0.8374	516	0.4400	583	0.5837	650	0.2077	717	0.0302
383	0.0076	450	0.7610	517	0.4480	584	0.5817	651	0.2022	718	0.0293
384	0.0078	451	0.6886	518	0.4563	585	0.5775	652	0.1981	719	0.0285
385	0.0058	452	0.6185	519	0.4639	586	0.5769	653	0.1925	720	0.0276
386	0.0073	453	0.5564	520	0.4710	587	0.5742	654	0.1874	721	0.0267
387	0.0078	454	0.5034	521	0.4770	588	0.5716	655	0.1830	722	0.0259
388	0.0075	455	0.4597	522	0.4838	589	0.5688	656	0.1782	723	0.0252
389	0.0073	456	0.4230	523	0.4906	590	0.5653	657	0.1736	724	0.0246
390	0.0083	457	0.3926	524	0.4956	591	0.5610	658	0.1694	725	0.0236
391	0.0078	458	0.3682	525	0.5014	592	0.5572	659	0.1646	726	0.0232
392	0.0089	459	0.3431	526	0.5058	593	0.5530	660	0.1609	727	0.0224
393	0.0079	460	0.3224	527	0.5101	594	0.5494	661	0.1566	728	0.0218
394	0.0090	461	0.2997	528	0.5137	595	0.5446	662	0.1522	729	0.0210
395	0.0094	462	0.2792	529	0.5179	596	0.5411	663	0.1477	730	0.0203
396	0.0100	463	0.2572	530	0.5209	597	0.5369	664	0.1437	731	0.0197
397	0.0114	464	0.2377	531	0.5250	598	0.5335	665	0.1398	732	0.0193
398	0.0122	465	0.2162	532	0.5286	599	0.5284	666	0.1358	733	0.0188
399	0.0129	466	0.1989	533	0.5303	600	0.5241	667	0.1327	734	0.0183
400	0.0146	467	0.1807	534	0.5328	601	0.5186	668	0.1287	735	0.0174
401	0.0153	468	0.1654	535	0.5358	602	0.5136	669	0.1251	736	0.0173
402	0.0176	469	0.1522	536	0.5379	603	0.5083	670	0.1210	737	0.0165
403	0.0180	470	0.1414	537	0.5408	604	0.5019	671	0.1181	738	0.0159
404	0.0205	471	0.1272	538	0.5417	605	0.4965	672	0.1150	739	0.0156
405	0.0228	472	0.1212	539	0.5451	606	0.4903	673	0.1117	740	0.0152
406	0.0256	473	0.1160	540	0.5465	607	0.4851	674	0.1087	741	0.0148
407	0.0284	474	0.1121	541	0.5496	608	0.4787	675	0.1051	742	0.0143
408	0.0320	475	0.1084	542	0.5510	609	0.4738	676	0.1023	743	0.0137
409	0.0364	476	0.1061	543	0.5529	610	0.4685	677	0.0997	744	0.0134
410	0.0402	477	0.1045	544	0.5539	611	0.4618	678	0.0964	745	0.0130
411	0.0454	478	0.1025	545	0.5569	612	0.4551	679	0.0940	746	0.0125
412	0.0508	479	0.1013	546	0.5581	613	0.4491	680	0.0915	747	0.0123
413	0.0572	480	0.1008	547	0.5608	614	0.4421	681	0.0885	748	0.0118
414	0.0641	481	0.1002	548	0.5642	615	0.4336	682	0.0860	749	0.0114
415	0.0726	482	0.1007	549	0.5669	616	0.4268	683	0.0836	750	0.0114
416	0.0805	483	0.1020	550	0.5679	617	0.4196	684	0.0812	751	0.0110
417	0.0910	484	0.1046	551	0.5685	618	0.4132	685	0.0789	752	0.0106
418	0.1027	485	0.1082	552	0.5709	619	0.4066	686	0.0765	753	0.0104
419	0.1137	486	0.1128	553	0.5712	620	0.3989	687	0.0742	754	0.0102
420	0.1268	487	0.1173	554	0.5718	621	0.3922	688	0.0720	755	0.0097
421	0.1403	488	0.1229	555	0.5739	622	0.3854	689	0.0702	756	0.0095
422	0.1568	489	0.1297	556	0.5754	623	0.3777	690	0.0681	757	0.0091
423	0.1741	490	0.1369	557	0.5770	624	0.3715	691	0.0656	758	0.0089
424	0.1940	491	0.1445	558	0.5777	625	0.3646	692	0.0640	759	0.0087
425	0.2150	492	0.1522	559	0.5804	626	0.3574	693	0.0621	760	0.0085
426	0.2386	493	0.1616	560	0.5817	627	0.3506	694	0.0607	761	0.0083
427	0.2632	494	0.1727	561	0.5829	628	0.3435	695	0.0582	762	0.0080
428	0.2913	495	0.1831	562	0.5837	629	0.3366	696	0.0568	763	0.0078
429	0.3213	496	0.1951	563	0.5849	630	0.3299	697	0.0551	764	0.0076
430	0.3509	497	0.2061	564	0.5873	631	0.3240	698	0.0535	765	0.0074
431	0.3847	498	0.2179	565	0.5876	632	0.3163	699	0.0517	766	0.0070
432	0.4208	499	0.2313	566	0.5887	633	0.3104	700	0.0502	767	0.0069
433	0.4569	500	0.2437	567	0.5893	634	0.3035	701	0.0487	768	0.0068
434	0.4995	501	0.2568	568	0.5901	635	0.2974	702	0.0474	769	0.0064
435	0.5419	502	0.2698	569	0.5900	636	0.2909	703	0.0461	770	0.0063
436	0.5895	503	0.2836	570	0.5909	637	0.2838	704	0.0446	771	0.0061
437	0.6430	504	0.2968	571	0.5915	638	0.2781	705	0.0435	772	0.0060
438	0.6992	505	0.3114	572	0.5923	639	0.2714	706	0.0420	773	0.0058
439	0.7578	506	0.3247	573	0.5915	640	0.2650	707	0.0406	774	0.0056
440	0.8189	507	0.3378	574	0.5915	641	0.2578	708	0.0399	775	0.0054
441	0.8755	508	0.3505	575	0.5919	642	0.2514	709	0.0385	776	0.0053
442	0.9262	509	0.3632	576	0.5921	643	0.2457	710	0.0373	777	0.0051
443	0.9683	510	0.3760	577	0.5912	644	0.2400	711	0.0362	778	0.0051
444	0.9924	511	0.3874	578	0.5914	645	0.2345	712	0.0353	779	0.0049
445	1.0000	512	0.3986	579	0.5894	646	0.2296	713	0.0340	780	0.0049
446	0.9856	513	0.4098	580	0.5891	647	0.2240	714	0.0331	N/A	N/A

**Goniophotometer Test Results:**

**Test Condition:**

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.0	47.8	Face Down	90	25

**Electrical Data:**

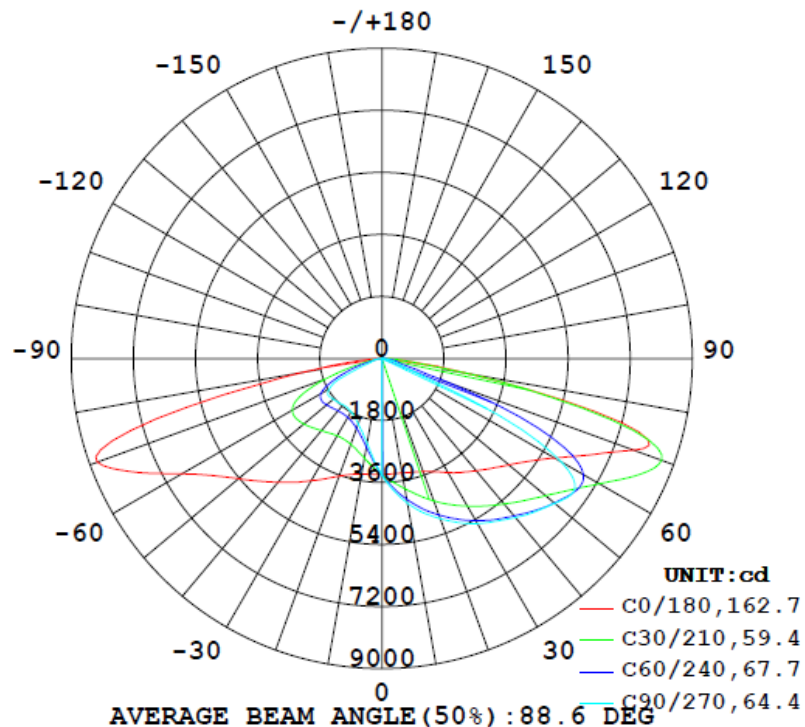
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
277.0	60	0.5257	145.40	0.9985

**Goniophotometer Data:**

Parameter	Results
Total Luminous (lm)	20580.6
Luminous Efficacy (lm/W)	141.54
Zonal Lumens Distribution (0-90°)	99.9%
Zonal Lumens Distribution (80-90°)	1.6%
Beam Angle (°)	88.6
BUG	B3-U2-G3

**Luminous Intensity Distribution Diagram:**

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

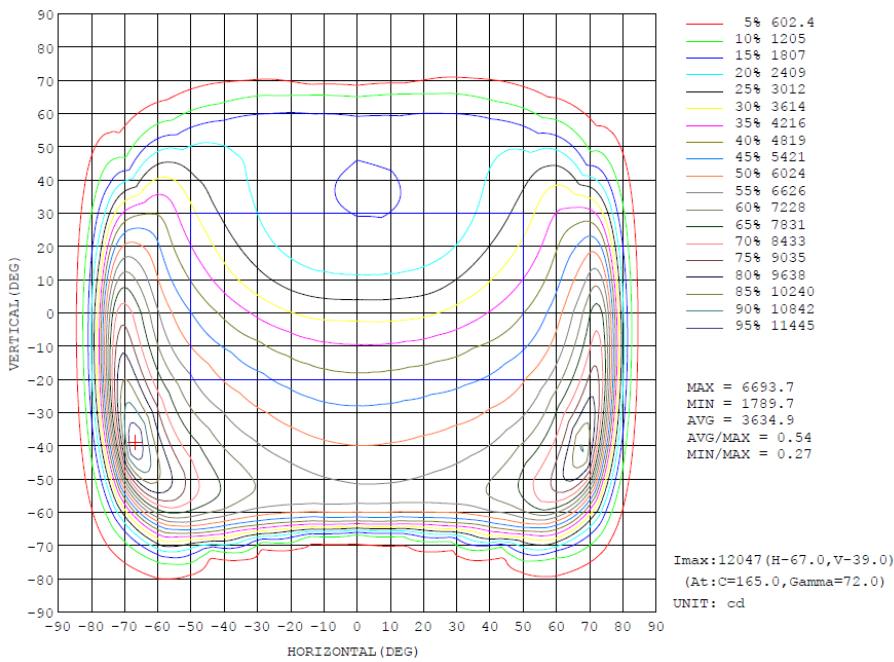


### Zonal Flux Diagram:

ZONAL FLUX DIAGRAM:

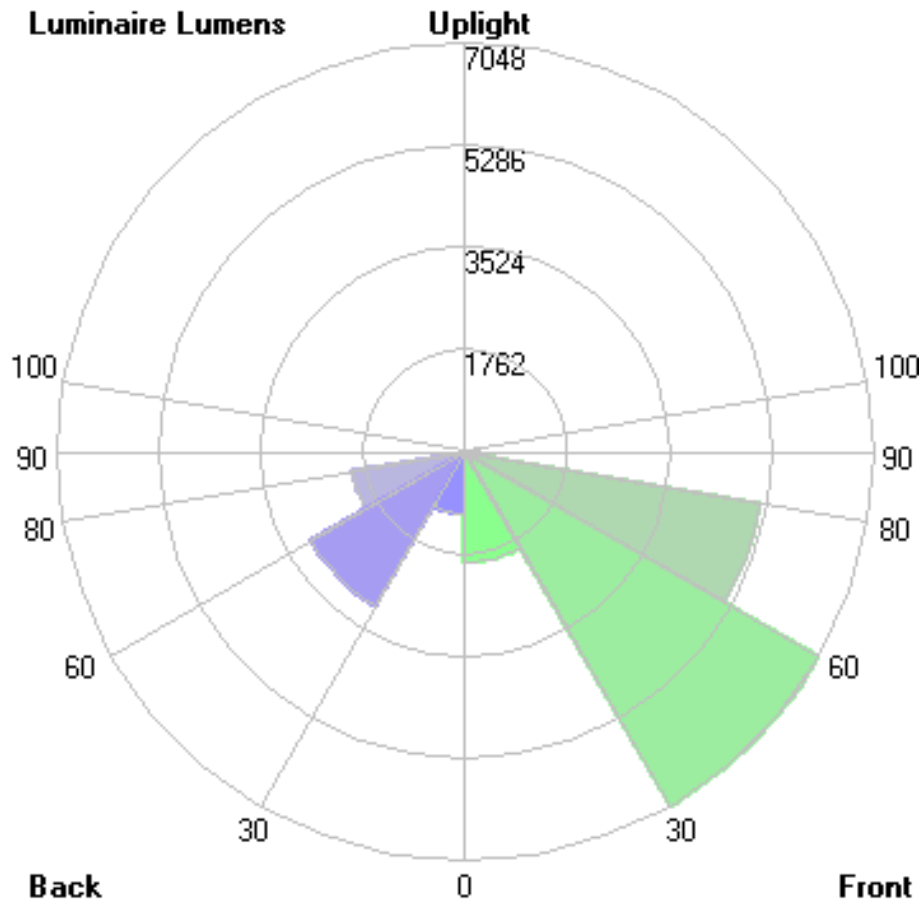
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\phi$ zone	$\phi$ total	$\$lum, lamp$
10	337.4	401.5	425.8	404.6	340.8	274.6	249.8	272.8	0- 10	322.4	322.4	1.57,1.57
20	349.2	467.2	494.6	473.6	363.3	234.5	201.9	227.6	10- 20	977.1	1300	6.31,6.31
30	382.3	525.9	552.9	540.0	409.4	220.9	179.2	208.2	20- 30	1685	2985	14.5,14.5
40	425.2	582.1	602.8	605.7	469.2	225.3	175.6	207.0	30- 40	2474	5459	26.5,26.5
50	480.5	642.7	653.5	681.1	542.9	239.4	184.1	217.5	40- 50	3351	8810	42.8,42.8
60	577.6	715.2	600.5	759.8	669.3	232.9	176.7	219.0	50- 60	4288	13098	63.6,63.6
70	777.4	569.6	53.19	614.9	878.3	121.9	42.32	130.7	60- 70	4464	17562	85.3,85.3
80	254.2	42.73	19.63	40.11	241.0	23.06	16.94	23.09	70- 80	2676	20238	98.3,98.3
90	3.803	2.447	0.5319	0.3211	0.4596	0.3194	0.0962	0.3590	80- 90	319.3	20558	99.9,99.9
100	0.2759	0.0831	0.0590	0.1155	0.5410	0.4952	0.2730	0.5833	90-100	3.438	20561	99.9,99.9
110	0.3175	0.1053	0.0815	0.1694	0.4882	0.5384	0.4206	0.6005	100-110	3.482	20565	99.9,99.9
120	0.4057	0.1360	0.1060	0.2008	0.4841	0.5463	0.4641	0.5604	110-120	3.419	20568	99.9,99.9
130	0.4502	0.1727	0.1311	0.2288	0.5121	0.5915	0.5757	0.5679	120-130	3.439	20571	100,100
140	0.3746	0.2139	0.1745	0.2559	0.4475	0.6093	0.6147	0.5876	130-140	3.221	20575	100,100
150	0.3134	0.2409	0.2123	0.2710	0.4201	0.5362	0.5899	0.5526	140-150	2.532	20577	100,100
160	0.3391	0.2989	0.2613	0.3360	0.4499	0.4944	0.5206	0.4986	150-160	1.846	20579	100,100
170	0.3754	0.3730	0.3463	0.3855	0.4611	0.4582	0.4314	0.4184	160-170	1.165	20580	100,100
180	0.4554	0.4359	0.3965	0.3844	0.4519	0.4477	0.4021	0.3929	170-180	0.3967	20581	100,100
DEG	LUMINOUS INTENSITY: $\times 10cd$								UNIT:lm			

### Isocandela Diagram:





**BUG Rating:**



<b>LCS Zone</b>	<b>Lumens</b>	<b>%Lamp</b>	<b>%Lum</b>
FL (0-30)	1909.4	N.A.	9.3
FM (30-60)	7048.4	N.A.	34.2
FH (60-80)	5168.7	N.A.	25.1
FVH (80-90)	243.4	N.A.	1.2
BL (0-30)	1075.6	N.A.	5.2
BM (30-60)	3064.7	N.A.	14.9
BH (60-80)	1971.5	N.A.	9.6
BVH (80-90)	75.8	N.A.	0.4
UL (90-100)	3.4	N.A.	0.0
UH (100-180)	19.5	N.A.	0.1
<b>Total</b>	<b>20580.4</b>	<b>N.A.</b>	<b>100.0</b>
<b>BUG Rating</b>	<b>B3-U2-G3</b>		

### Luminous Distribution Intensity Data:

Table--1 UNIT: \*10cd

C (DBG) \ y (DBG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	337	337	337	338	338	338	338	338	339	339	338	338	337	337	337	338	338	338	338
5	336	348	360	369	377	382	384	382	378	371	362	351	338	326	315	305	297	293	291
10	337	362	384	402	415	423	426	424	417	405	387	366	341	316	294	275	261	253	250
15	342	379	411	435	450	460	463	460	453	439	417	387	349	311	276	251	234	225	221
20	349	399	440	467	483	492	495	493	486	474	451	414	363	310	265	234	216	206	202
25	363	423	468	497	514	523	525	524	518	507	485	446	385	316	259	225	204	193	188
30	382	448	495	526	543	551	553	552	549	540	520	479	409	327	259	221	198	186	179
35	403	475	522	555	571	575	577	578	578	573	554	511	439	344	265	221	196	183	175
40	425	503	551	582	596	601	603	606	609	606	598	547	469	365	273	225	198	184	176
45	451	532	583	610	625	627	628	635	642	642	628	587	503	389	284	232	203	188	180
50	480	568	619	643	653	652	654	663	674	681	676	634	543	416	296	239	210	193	184
55	520	617	666	679	678	675	677	685	700	723	732	695	593	444	304	243	214	197	189
60	578	688	727	715	675	624	600	623	690	760	803	787	669	481	300	233	205	185	177
65	662	802	807	714	544	361	279	374	565	760	891	939	782	489	264	194	163	142	120
70	777	980	862	570	201	75.9	53.2	62.2	240	615	937	1149	878	370	175	122	100	51.2	42.3
75	718	1048	687	203	52.7	41.1	37.2	38.5	47.5	260	711	1069	677	159	78.2	58.6	35.4	26.2	26.8
80	254	444	251	42.7	37.3	22.5	19.6	22.1	34.8	40.1	287	364	241	51.1	16.4	23.1	17.4	17.2	16.9
85	47.7	62.4	52.0	23.7	12.7	7.84	7.31	8.19	14.8	24.3	59.3	60.3	48.0	6.77	6.06	6.56	5.91	5.27	4.54
90	3.80	0.84	6.40	2.45	0.85	0.61	0.53	0.69	2.21	0.32	0.30	0.72	0.46	0.52	0.46	0.32	0.18	0.11	0.10
95	0.25	0.20	0.11	0.07	0.05	0.05	0.05	0.05	0.06	0.09	0.15	0.20	0.53	0.58	0.54	0.42	0.28	0.20	0.18
100	0.28	0.23	0.14	0.08	0.07	0.06	0.06	0.06	0.08	0.12	0.19	0.24	0.54	0.57	0.57	0.50	0.38	0.30	0.27
105	0.29	0.26	0.16	0.10	0.08	0.07	0.07	0.08	0.10	0.14	0.23	0.28	0.51	0.52	0.55	0.54	0.47	0.39	0.37
110	0.32	0.27	0.17	0.11	0.09	0.08	0.08	0.09	0.11	0.17	0.25	0.31	0.49	0.48	0.52	0.54	0.48	0.43	0.42
115	0.36	0.30	0.18	0.12	0.10	0.09	0.09	0.10	0.13	0.19	0.26	0.34	0.47	0.46	0.51	0.54	0.49	0.44	0.44
120	0.41	0.32	0.20	0.14	0.12	0.11	0.11	0.12	0.15	0.20	0.27	0.36	0.48	0.49	0.52	0.55	0.51	0.47	0.46
125	0.45	0.34	0.22	0.16	0.13	0.12	0.12	0.14	0.17	0.22	0.28	0.38	0.50	0.54	0.54	0.57	0.55	0.53	0.52
130	0.45	0.33	0.23	0.17	0.15	0.13	0.13	0.15	0.19	0.23	0.29	0.37	0.51	0.57	0.58	0.59	0.59	0.58	0.58
135	0.43	0.33	0.25	0.19	0.17	0.15	0.15	0.18	0.21	0.24	0.29	0.36	0.49	0.56	0.60	0.62	0.62	0.62	0.63
140	0.37	0.32	0.25	0.21	0.19	0.18	0.17	0.19	0.23	0.26	0.29	0.34	0.45	0.51	0.56	0.61	0.62	0.62	0.61
145	0.33	0.30	0.26	0.22	0.21	0.20	0.20	0.21	0.24	0.26	0.28	0.31	0.43	0.47	0.51	0.57	0.61	0.61	0.61
150	0.31	0.30	0.27	0.24	0.22	0.21	0.21	0.23	0.26	0.27	0.28	0.30	0.42	0.45	0.48	0.54	0.57	0.59	0.59
155	0.32	0.32	0.30	0.27	0.25	0.24	0.24	0.26	0.30	0.30	0.31	0.32	0.43	0.44	0.48	0.50	0.53	0.55	0.56
160	0.34	0.34	0.32	0.30	0.28	0.27	0.26	0.30	0.33	0.34	0.34	0.34	0.45	0.45	0.46	0.49	0.50	0.52	0.52
165	0.35	0.36	0.35	0.34	0.32	0.31	0.31	0.34	0.38	0.37	0.36	0.37	0.45	0.46	0.46	0.47	0.48	0.48	0.48
170	0.38	0.38	0.38	0.37	0.34	0.34	0.35	0.36	0.40	0.39	0.38	0.38	0.46	0.46	0.46	0.46	0.45	0.45	0.43
175	0.41	0.42	0.42	0.41	0.38	0.37	0.38	0.38	0.42	0.42	0.41	0.42	0.46	0.46	0.47	0.46	0.45	0.44	0.42
180	0.46	0.46	0.45	0.44	0.42	0.40	0.40	0.38	0.39	0.38	0.39	0.41	0.45	0.45	0.46	0.45	0.43	0.41	0.40

Table--2 UNIT: \*10cd

C (DBG) \ y (DBG)	285	300	315	330	345														
0	338	339	339	338	338														
5	293	297	304	314	325														
10	252	260	273	291	314														
15	223	232	247	272	305														
20	204	212	228	256	299														
25	189	198	215	247	299														
30	180	189	208	243	307														
35	176	186	206	244	319														
40	177	187	207	248	335														
45	182	191	211	255	352														
50	188	198	217	263	369														
55	191	202	223	271	390														
60	181	198	219	271	419														
65	145	167	195	250	435														
70	56.9	107	131	181	368														
75	25.8	42.3	64.8	85.8	189														
80	16.9	18.2	23.1	16.1	62.9														
85	5.39	5.96	6.00	5.75	8.55														
90	0.12	0.21	0.36	0.51	0.55														
95	0.21	0.31	0.48	0.62	0.63														
100	0.31	0.42	0.58	0.67	0.63														
105	0.41	0.51	0.63	0.67	0.59														
110	0.45	0.52	0.60	0.62	0.53														
115	0.46	0.51	0.57	0.57	0.51														
120	0.48	0.51	0.56	0.57	0.53														
125	0.52	0.54	0.57	0.58	0.57														
130	0.56	0.57	0.57	0.59	0.61														
135	0.60	0.58	0.58	0.62	0.62														
140	0.59	0.59	0.59	0.58	0.57														
145	0.59	0.60	0.56	0.54	0.53														
150	0.58	0.56	0.55	0.53	0.51														
155	0.56	0.54	0.52	0.53	0.51														
160	0.52	0.53	0.50	0.53	0.52														
165	0.49	0.49	0.47	0.50	0.50														
170	0.45	0.45	0.42	0.46	0.47														
175	0.42	0.43	0.40	0.45	0.45														
180	0.40	0.39	0.39	0.40	0.40														

### THD and PF Measurement Test Results:

#### Electrical Measurement:

Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor	iTHD(%)
277.0	60	0.5257	145.40	0.9985	1.91
347.0	60	0.4107	141.33	0.9916	1.51
480.0	60	0.3034	140.68	0.9661	1.95

**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**\*\*\*\*\*