LM-79-19 Test Report

For

LEDVANCE LLC

181 BALLARDVALE STREET, SUITE 203 WILMINGTON, MA 01887

HAZARDOUS FLOODLIGHT

Model Name(s):
HAZFLOODP/200UNVD850/GR

Representative (Tested) Model:
HAZFLOODP/200UNVD850/GR

Model Difference: N/A

Prepared by:

Engineer: Alan Wang
Date: 2025-07-25

Reviewed by:

Technical Lead: Vincent Yuan
Issue Date: 2025-09-05
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 must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

Client Information:

Applicant Name:	LEDVANCE LLC
Brand Name:	LEDVANCE
Applicant Address:	181 BALLARDVALE STREET, SUITE 203 WILMINGTON, MA 01887
Manufacturer Name:	LEDVANCE LLC
Manufacturer Address:	181 BALLARDVALE STREET, SUITE 203 WILMINGTON, MA 01887

Product Information:

Model Number:	HAZFLOODP/200UNVD850/GR
Product Type:	HAZARDOUS FLOODLIGHT
Rating Input:	120-277Vac, 50/60Hz, 200W
Declared CCT:	5000K
Declared Light Output:	30000 lm
LED Manufacturer:	Bridgelux, Inc.
LED Model:	BXEN-50E-21L-3C-00-00-0
LED Quantity:	1120 pcs
LED Driver Manufacturer:	MEAN WELL ENTERPRISES CO., LTD.
LED Driver Model:	ELG-200-48AB

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:	2025-07-14
Quantity of Receipt Samples:	1 pc
Sample Number:	250714017-S1
Test Representation:	N/A

Laboratory Information:

Test Laboratory:	Dongguan New Testing Centre Co., Ltd
Laboratory Address:	3F, No. 1 the 1st 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_TRF_V1.5
Issued Date of Test Report:	2025-09-05
Revised Date of Test Report:	N/A
Test Report No.:	NTCLR25070197
Remark *(If applicable)*:	N/A

Test Specification:	
Date of Test	2025-07-19
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 10. THD and PF
Reference Standard	ANSI/IES LM-79:2019 Optical and Electrical Measurements of Solid-State Lighting Products – Chromaticity Uniformity Measurements 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 15-2018 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 ANSI C82.77-10:2020 Harmonic Emission Limits – Related Power Quality Requirements for Lighting Equipment – Solid State

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 °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° horizonal 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 °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.

3. THD and PF Measurements:

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.

Integrating Sphere Test Results:

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.0	41.4	Face Down	90	10

Electrical Data:

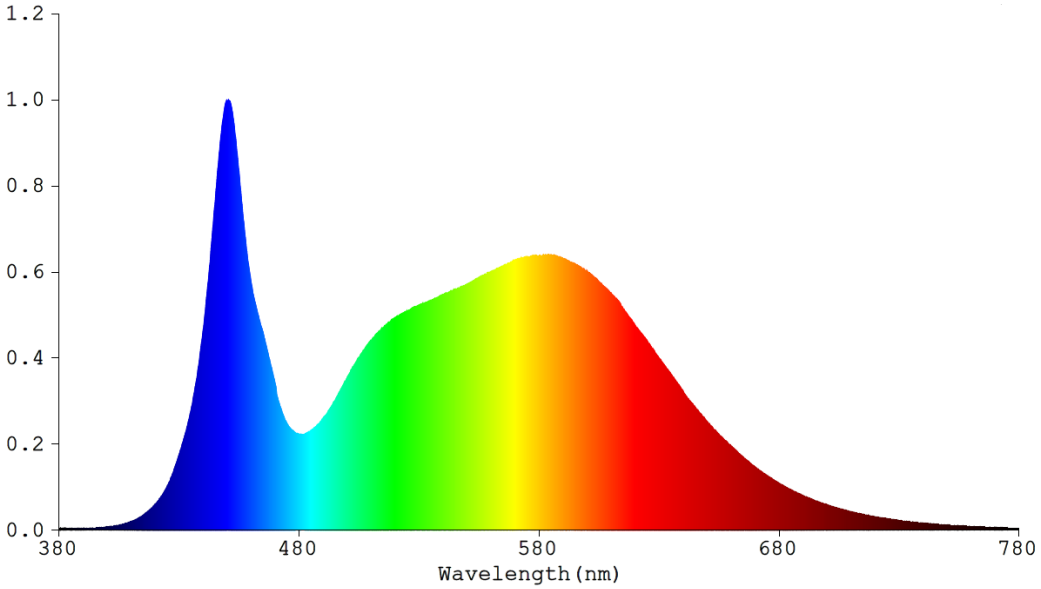
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	1.6694	199.23	0.9945

Color Data:

Parameter		Result
CCT(K)	7 steps: 5029±283	5010
	4 steps: 5029±220	
Ra		80.0
R_f		81
R_g		95
$R_{cs,\ h1}$		-14%
Chromaticity, (x, y)		(0.3452, 0.3554)
Chromaticity, (u', v')		(0.2100, 0.4865)
Duv		0.0019
SDCM		0.3

Specify Color Rendering			
R1	77	R9	-10
R2	86	R10	67
R3	92	R11	79
R4	80	R12	60
R5	79	R13	79
R6	81	R14	96
R7	84	R15	71
R8	61	-	-

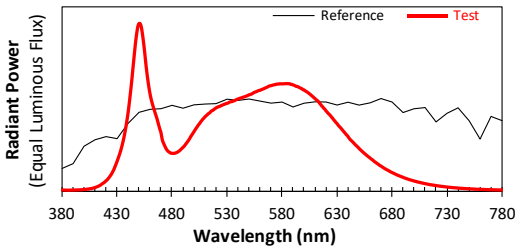
Spectrum Diagram:

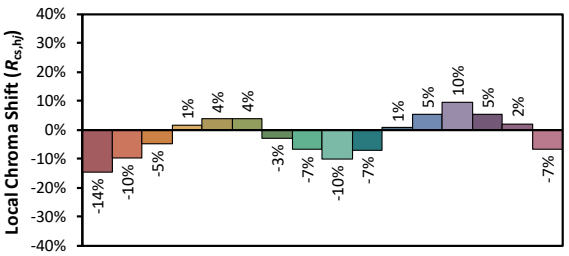


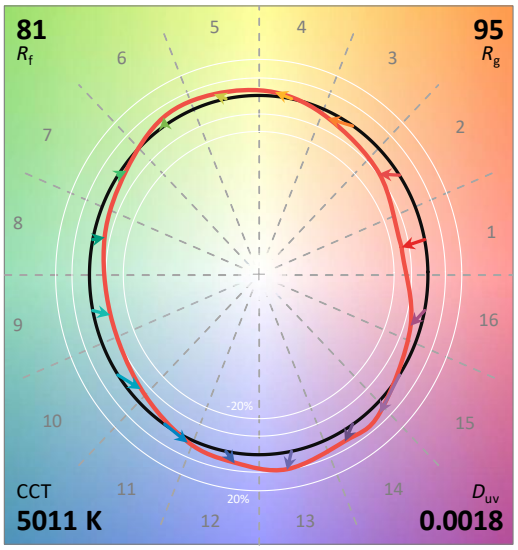
IES TM-30-18 Color Rendition Result:

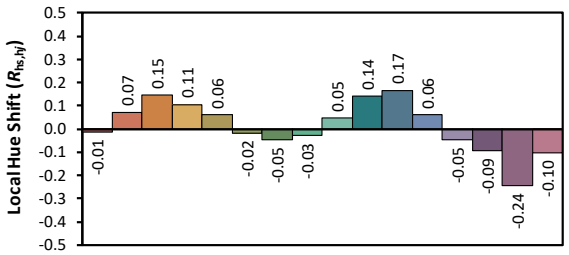
ANSI/IES TM-30-18 Color Rendition Report

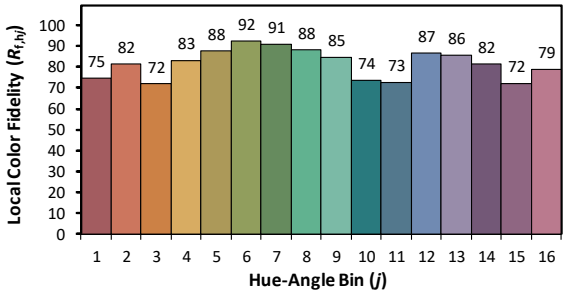
Source:	1 CIE F1	Manufacturer:	LEDVANCE LLC
Date:	2025/7/25	Model:	HAZFLOODP/200UNVD850/GR

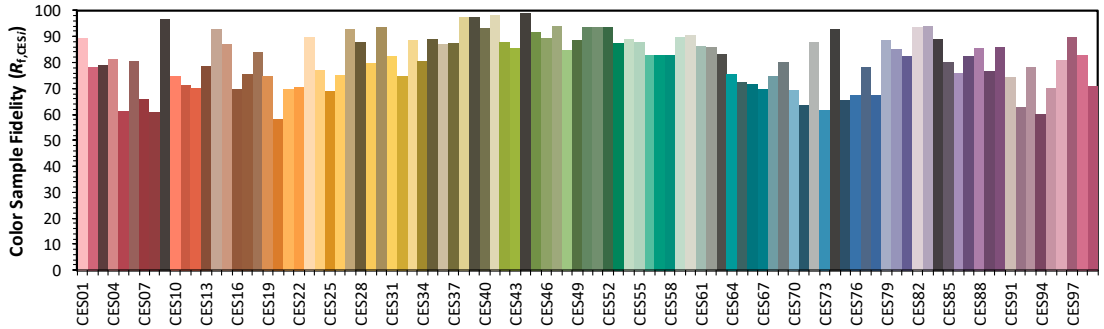












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3451
y	0.3553
u'	0.2100
v'	0.4864

CIE 13.3-1995 (CRI)

R_a	80
R_9	-10

Spectrum Data:

Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	5.60E-06	447	8.96E-04	514	4.64E-04	581	6.38E-04	648	2.66E-04	715	3.65E-05
381	4.90E-06	448	9.45E-04	515	4.71E-04	582	6.39E-04	649	2.60E-04	716	3.55E-05
382	4.60E-06	449	9.83E-04	516	4.77E-04	583	6.39E-04	650	2.53E-04	717	3.44E-05
383	4.20E-06	450	9.98E-04	517	4.80E-04	584	6.40E-04	651	2.46E-04	718	3.34E-05
384	4.40E-06	451	9.96E-04	518	4.85E-04	585	6.39E-04	652	2.40E-04	719	3.24E-05
385	3.80E-06	452	9.78E-04	519	4.90E-04	586	6.39E-04	653	2.34E-04	720	3.13E-05
386	3.30E-06	453	9.38E-04	520	4.95E-04	587	6.38E-04	654	2.28E-04	721	3.03E-05
387	3.70E-06	454	8.88E-04	521	4.98E-04	588	6.35E-04	655	2.22E-04	722	2.94E-05
388	4.80E-06	455	8.31E-04	522	5.01E-04	589	6.34E-04	656	2.17E-04	723	2.82E-05
389	4.00E-06	456	7.68E-04	523	5.03E-04	590	6.31E-04	657	2.11E-04	724	2.76E-05
390	4.50E-06	457	7.09E-04	524	5.06E-04	591	6.29E-04	658	2.06E-04	725	2.65E-05
391	4.60E-06	458	6.60E-04	525	5.09E-04	592	6.26E-04	659	2.01E-04	726	2.59E-05
392	5.00E-06	459	6.15E-04	526	5.12E-04	593	6.23E-04	660	1.96E-04	727	2.52E-05
393	5.20E-06	460	5.76E-04	527	5.15E-04	594	6.22E-04	661	1.90E-04	728	2.41E-05
394	5.40E-06	461	5.46E-04	528	5.17E-04	595	6.18E-04	662	1.85E-04	729	2.35E-05
395	5.50E-06	462	5.21E-04	529	5.20E-04	596	6.15E-04	663	1.80E-04	730	2.25E-05
396	6.10E-06	463	4.98E-04	530	5.22E-04	597	6.12E-04	664	1.74E-04	731	2.19E-05
397	6.20E-06	464	4.77E-04	531	5.24E-04	598	6.09E-04	665	1.70E-04	732	2.14E-05
398	6.60E-06	465	4.56E-04	532	5.28E-04	599	6.03E-04	666	1.65E-04	733	2.05E-05
399	7.30E-06	466	4.36E-04	533	5.30E-04	600	6.02E-04	667	1.61E-04	734	1.99E-05
400	7.80E-06	467	4.13E-04	534	5.32E-04	601	5.96E-04	668	1.56E-04	735	1.92E-05
401	8.10E-06	468	3.88E-04	535	5.33E-04	602	5.92E-04	669	1.51E-04	736	1.86E-05
402	9.20E-06	469	3.66E-04	536	5.37E-04	603	5.89E-04	670	1.47E-04	737	1.82E-05
403	1.00E-05	470	3.44E-04	537	5.38E-04	604	5.83E-04	671	1.43E-04	738	1.76E-05
404	1.07E-05	471	3.07E-04	538	5.42E-04	605	5.78E-04	672	1.39E-04	739	1.72E-05
405	1.20E-05	472	2.88E-04	539	5.45E-04	606	5.73E-04	673	1.34E-04	740	1.65E-05
406	1.29E-05	473	2.73E-04	540	5.48E-04	607	5.67E-04	674	1.30E-04	741	1.60E-05
407	1.43E-05	474	2.59E-04	541	5.50E-04	608	5.62E-04	675	1.26E-04	742	1.54E-05
408	1.57E-05	475	2.47E-04	542	5.53E-04	609	5.55E-04	676	1.23E-04	743	1.49E-05
409	1.80E-05	476	2.38E-04	543	5.54E-04	610	5.50E-04	677	1.20E-04	744	1.48E-05
410	1.98E-05	477	2.33E-04	544	5.56E-04	611	5.44E-04	678	1.16E-04	745	1.42E-05
411	2.24E-05	478	2.28E-04	545	5.59E-04	612	5.38E-04	679	1.12E-04	746	1.37E-05
412	2.46E-05	479	2.25E-04	546	5.61E-04	613	5.32E-04	680	1.09E-04	747	1.32E-05
413	2.76E-05	480	2.24E-04	547	5.64E-04	614	5.23E-04	681	1.06E-04	748	1.29E-05
414	3.10E-05	481	2.23E-04	548	5.66E-04	615	5.16E-04	682	1.03E-04	749	1.24E-05
415	3.47E-05	482	2.23E-04	549	5.69E-04	616	5.07E-04	683	9.96E-05	750	1.21E-05
416	3.93E-05	483	2.26E-04	550	5.73E-04	617	5.00E-04	684	9.65E-05	751	1.19E-05
417	4.42E-05	484	2.28E-04	551	5.74E-04	618	4.92E-04	685	9.34E-05	752	1.12E-05
418	4.83E-05	485	2.31E-04	552	5.76E-04	619	4.86E-04	686	9.11E-05	753	1.11E-05
419	5.37E-05	486	2.35E-04	553	5.80E-04	620	4.76E-04	687	8.83E-05	754	1.07E-05
420	6.01E-05	487	2.40E-04	554	5.84E-04	621	4.69E-04	688	8.56E-05	755	1.05E-05
421	6.59E-05	488	2.47E-04	555	5.88E-04	622	4.61E-04	689	8.30E-05	756	9.90E-06
422	7.35E-05	489	2.53E-04	556	5.90E-04	623	4.56E-04	690	8.06E-05	757	9.50E-06
423	8.19E-05	490	2.60E-04	557	5.92E-04	624	4.48E-04	691	7.77E-05	758	9.30E-06
424	9.12E-05	491	2.66E-04	558	5.96E-04	625	4.40E-04	692	7.53E-05	759	9.00E-06
425	1.01E-04	492	2.75E-04	559	5.98E-04	626	4.32E-04	693	7.32E-05	760	8.80E-06
426	1.14E-04	493	2.84E-04	560	6.00E-04	627	4.23E-04	694	7.06E-05	761	8.70E-06
427	1.26E-04	494	2.93E-04	561	6.03E-04	628	4.16E-04	695	6.86E-05	762	8.30E-06
428	1.42E-04	495	3.02E-04	562	6.05E-04	629	4.07E-04	696	6.63E-05	763	8.20E-06
429	1.58E-04	496	3.12E-04	563	6.08E-04	630	4.01E-04	697	6.47E-05	764	7.90E-06
430	1.76E-04	497	3.24E-04	564	6.11E-04	631	3.92E-04	698	6.25E-05	765	7.40E-06
431	1.94E-04	498	3.33E-04	565	6.14E-04	632	3.84E-04	699	6.07E-05	766	7.40E-06
432	2.13E-04	499	3.44E-04	566	6.17E-04	633	3.78E-04	700	5.87E-05	767	7.20E-06
433	2.34E-04	500	3.54E-04	567	6.20E-04	634	3.70E-04	701	5.69E-05	768	6.90E-06
434	2.57E-04	501	3.64E-04	568	6.24E-04	635	3.62E-04	702	5.56E-05	769	6.70E-06
435	2.83E-04	502	3.74E-04	569	6.26E-04	636	3.54E-04	703	5.32E-05	770	6.50E-06
436	3.11E-04	503	3.84E-04	570	6.27E-04	637	3.47E-04	704	5.20E-05	771	6.50E-06
437	3.44E-04	504	3.93E-04	571	6.29E-04	638	3.38E-04	705	5.04E-05	772	6.10E-06
438	3.80E-04	505	4.01E-04	572	6.31E-04	639	3.31E-04	706	4.91E-05	773	6.20E-06
439	4.21E-04	506	4.11E-04	573	6.33E-04	640	3.24E-04	707	4.69E-05	774	5.80E-06
440	4.66E-04	507	4.19E-04	574	6.34E-04	641	3.13E-04	708	4.60E-05	775	5.60E-06
441	5.18E-04	508	4.27E-04	575	6.36E-04	642	3.06E-04	709	4.42E-05	776	5.50E-06
442	5.76E-04	509	4.34E-04	576	6.36E-04	643	2.99E-04	710	4.29E-05	777	5.20E-06
443	6.35E-04	510	4.42E-04	577	6.37E-04	644	2.93E-04	711	4.14E-05	778	5.30E-06
444	7.02E-04	511	4.48E-04	578	6.38E-04	645	2.86E-04	712	4.03E-05	779	5.40E-06
445	7.69E-04	512	4.54E-04	579	6.38E-04	646	2.79E-04	713	3.89E-05	780	5.40E-06
446	8.35E-04	513	4.60E-04	580	6.37E-04	647	2.72E-04	714	3.73E-05	N/A	N/A

Goniophotometer Test Results:

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.0	40.4	Face Down	90	25

Electrical Data:

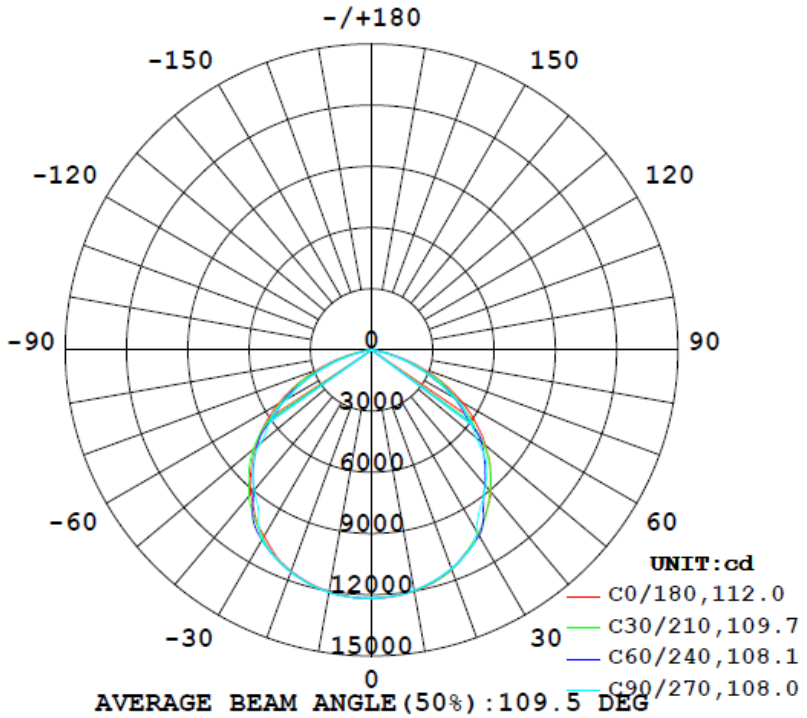
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	1.6694	199.23	0.9945

Goniophotometer Data:

Parameter	Results	
Total Luminous (lm)	32729.8	
Luminous Efficacy (lm/W)	164.28	
Zonal Lumens Distribution (0-90°)	99.9%	
Beam Angle (50%) (°)	Horizontal	Vertical
	112.0	108..4
Field Angle (10%) (°)	Horizontal	Vertical
	154.6	150.0
NEAM Type	7H x 7V	

Luminous Intensity Distribution Diagram:

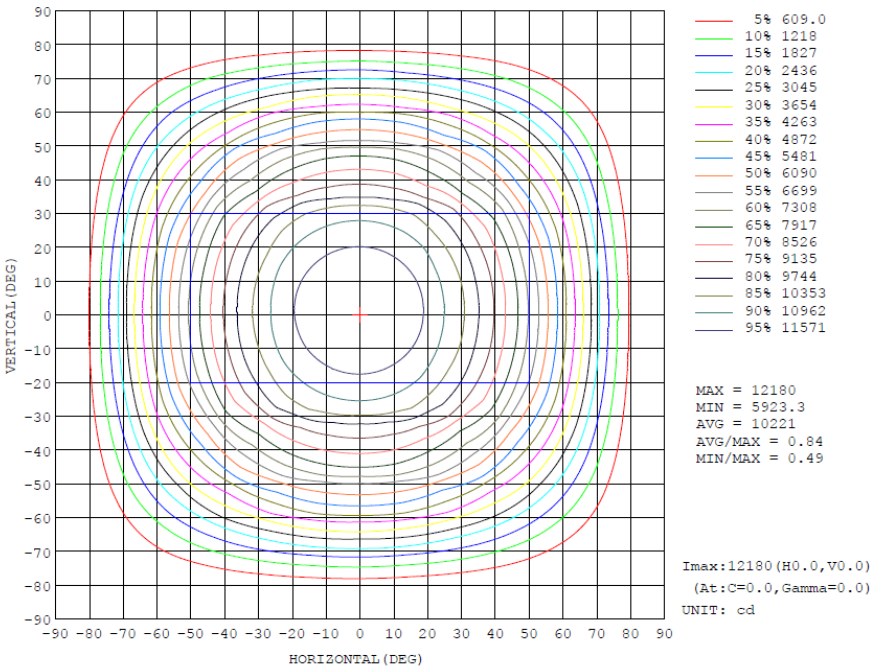
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Zonal Flux Diagram:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1200	1197	1196	1198	1203	1206	1206	1204	0- 10	1154	1154	3.53,3.53
20	1146	1142	1141	1145	1153	1157	1158	1154	10- 20	3332	4487	13.7,13.7
30	1046	1045	1028	1056	1054	1074	1075	1061	20- 30	5110	9596	29.3,29.3
40	906.3	887.5	867.8	896.3	919.7	938.4	895.5	929.4	30- 40	6137	15734	48.1,48.1
50	725.5	693.2	668.1	701.0	745.8	722.0	713.0	711.9	40- 50	6287	22020	67.3,67.3
60	510.8	457.8	468.7	473.9	527.9	503.0	483.8	487.6	50- 60	5431	27451	83.9,83.9
70	266.6	227.9	226.5	238.2	284.1	248.4	242.3	238.6	60- 70	3669	31120	95.1,95.1
80	52.47	39.57	34.48	45.63	63.16	46.09	36.25	42.54	70- 80	1445	32565	99.5,99.5
90	0.6446	0.6937	0.7851	0.3293	0.1762	0.1726	0.1821	0.1914	80- 90	130.7	32696	99.9,99.9
100	0.1508	0.1454	0.1401	0.1436	0.3120	0.2938	0.2920	0.3052	90-100	2.061	32698	99.9,99.9
110	0.2210	0.2181	0.2145	0.2230	0.4022	0.3845	0.3800	0.3963	100-110	2.827	32701	99.9,99.9
120	0.3446	0.3195	0.3291	0.3456	0.5103	0.4943	0.4866	0.4999	110-120	3.489	32704	99.9,99.9
130	0.5301	0.4870	0.4840	0.5105	0.7328	0.7344	0.7274	0.6961	120-130	4.544	32709	99.9,99.9
140	0.6793	0.6555	0.6522	0.6659	0.9191	0.9832	0.9706	0.9356	130-140	5.492	32714	100,100
150	0.7848	0.7849	0.7940	0.7764	1.154	1.233	1.259	1.212	140-150	5.669	32720	100,100
160	0.9674	0.9505	0.8905	0.9488	1.399	1.434	1.399	1.381	150-160	5.045	32725	100,100
170	1.098	1.132	1.006	1.049	1.418	1.437	1.383	1.350	160-170	3.450	32729	100,100
180	1.287	1.323	1.263	1.250	1.294	1.327	1.272	1.239	170-180	1.192	32730	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Isocandela Diagram:



Luminous Distribution Intensity Data:

Table--1 UNIT: ×10cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1218	1218	1218	1218	1218	1218	1218	1217	1217	1217	1217	1217	1218	1218	1218	1218	1218	1218	1218
5	1213	1212	1211	1211	1211	1211	1211	1211	1212	1212	1212	1213	1214	1215	1215	1215	1216	1216	1216
10	1200	1199	1198	1197	1197	1196	1196	1197	1197	1198	1199	1200	1203	1204	1205	1206	1206	1206	1206
15	1179	1177	1176	1174	1173	1172	1173	1173	1174	1176	1178	1179	1182	1184	1185	1186	1186	1186	1186
20	1146	1146	1145	1142	1141	1140	1141	1141	1143	1145	1148	1150	1153	1155	1157	1157	1158	1158	1158
25	1095	1093	1096	1101	1100	1100	1100	1101	1103	1105	1108	1111	1112	1117	1119	1120	1122	1122	1122
30	1046	1044	1040	1045	1050	1039	1028	1042	1054	1056	1053	1051	1054	1058	1066	1074	1075	1076	1075
35	976	974	979	979	954	933	932	935	958	994	989	994	995	1001	1003	1013	1014	980	967
40	906	906	903	888	863	867	868	870	872	896	919	916	920	924	934	938	899	896	895
45	822	818	822	776	783	794	794	796	796	792	835	835	836	843	851	822	821	824	823
50	725	723	716	693	701	676	668	679	707	701	730	742	746	750	755	722	732	733	713
55	621	621	589	594	564	577	578	579	575	606	604	639	643	647	629	626	605	606	605
60	511	511	482	458	467	478	469	482	474	474	497	529	528	536	510	503	496	503	484
65	390	391	372	351	337	345	351	352	347	365	384	407	408	412	395	379	362	372	371
70	267	256	239	228	218	227	227	230	226	238	252	273	284	285	260	248	238	244	242
75	148	141	130	122	118	113	117	117	124	132	145	153	164	157	147	138	131	124	124
80	52.5	48.6	45.0	39.6	35.7	33.7	34.5	35.3	39.9	45.6	52.9	56.9	63.2	58.5	54.3	46.1	40.0	36.8	36.3
85	8.51	8.49	7.62	6.94	6.36	5.27	5.21	6.14	7.21	7.93	9.74	9.40	9.73	9.15	7.64	5.45	5.13	5.08	4.91
90	0.64	0.62	0.61	0.69	0.74	0.73	0.79	0.86	0.94	0.33	0.48	0.58	0.18	0.17	0.17	0.17	0.18	0.18	0.18
95	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.24	0.23	0.23	0.23	0.23	0.23	0.23
100	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.31	0.31	0.30	0.29	0.29	0.29	0.29
105	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.37	0.37	0.36	0.35	0.35	0.35	0.35
110	0.22	0.22	0.21	0.22	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.40	0.40	0.39	0.38	0.38	0.38	0.38
115	0.27	0.27	0.26	0.26	0.26	0.26	0.26	0.27	0.28	0.28	0.28	0.27	0.43	0.43	0.42	0.43	0.42	0.42	0.42
120	0.34	0.34	0.32	0.32	0.32	0.33	0.33	0.33	0.34	0.35	0.34	0.34	0.51	0.50	0.49	0.49	0.48	0.48	0.49
125	0.43	0.42	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.42	0.42	0.41	0.62	0.61	0.60	0.61	0.60	0.59	0.60
130	0.53	0.52	0.50	0.49	0.51	0.48	0.48	0.49	0.50	0.51	0.51	0.51	0.73	0.73	0.73	0.73	0.73	0.73	0.73
135	0.61	0.61	0.59	0.58	0.59	0.57	0.58	0.59	0.59	0.59	0.60	0.60	0.83	0.83	0.84	0.85	0.85	0.86	0.86
140	0.68	0.69	0.67	0.66	0.66	0.66	0.65	0.66	0.65	0.67	0.64	0.66	0.92	0.93	0.94	0.98	0.97	0.99	0.97
145	0.74	0.76	0.74	0.72	0.76	0.76	0.74	0.74	0.74	0.72	0.69	0.72	1.03	1.04	1.06	1.11	1.13	1.13	1.11
150	0.78	0.81	0.81	0.78	0.79	0.81	0.79	0.80	0.79	0.78	0.74	0.76	1.15	1.16	1.17	1.23	1.25	1.27	1.26
155	0.87	0.92	0.93	0.87	0.88	0.90	0.87	0.89	0.88	0.86	0.87	0.83	1.27	1.26	1.32	1.33	1.35	1.37	1.34
160	0.97	1.00	1.01	0.95	0.93	0.94	0.89	0.96	0.95	0.95	0.95	0.93	1.40	1.39	1.41	1.43	1.43	1.44	1.40
165	1.03	1.07	1.08	1.04	1.01	0.99	0.95	1.00	1.02	1.03	1.00	1.01	1.42	1.42	1.43	1.46	1.48	1.46	1.42
170	1.10	1.14	1.15	1.13	1.05	1.03	1.01	1.03	1.05	1.05	1.05	1.07	1.42	1.42	1.43	1.44	1.45	1.44	1.38
175	1.22	1.24	1.24	1.23	1.16	1.13	1.09	1.12	1.15	1.16	1.17	1.19	1.40	1.40	1.41	1.42	1.40	1.39	1.33
180	1.29	1.32	1.33	1.32	1.29	1.27	1.26	1.22	1.23	1.25	1.24	1.26	1.29	1.29	1.32	1.33	1.32	1.29	1.27

Table--2 UNIT: ×10cd

γ (DEG) \ C (DEG)	285	300	315	330	345
0	1217	1217	1217	1217	1217
5	1215	1215	1214	1214	1213
10	1205	1205	1204	1203	1201
15	1185	1184	1183	1182	1180
20	1157	1156	1154	1153	1150
25	1120	1119	1116	1106	1098
30	1074	1071	1061	1052	1050
35	978	1009	999	991	980
40	894	888	929	917	913
45	821	808	805	835	825
50	729	725	712	742	730
55	603	593	612	614	627
60	497	488	488	495	517
65	365	353	366	382	397
70	240	231	239	247	268
75	121	126	131	136	144
80	37.1	37.8	42.5	47.9	50.6
85	5.03	5.04	4.94	6.23	6.77
90	0.19	0.19	0.19	0.19	0.18
95	0.23	0.23	0.24	0.25	0.25
100	0.29	0.30	0.31	0.31	0.32
105	0.35	0.36	0.36	0.37	0.38
110	0.38	0.39	0.40	0.41	0.41
115	0.42	0.43	0.43	0.44	0.44
120	0.49	0.49	0.50	0.50	0.52
125	0.59	0.59	0.60	0.59	0.62
130	0.71	0.71	0.70	0.70	0.72
135	0.85	0.82	0.81	0.82	0.83
140	0.95	0.92	0.94	0.93	0.94
145	1.09	1.10	1.08	1.06	1.07
150	1.23	1.22	1.21	1.18	1.18
155	1.33	1.31	1.30	1.33	1.32
160	1.38	1.40	1.38	1.42	1.42
165	1.37	1.42	1.41	1.43	1.45
170	1.37	1.37	1.35	1.39	1.42
175	1.30	1.32	1.30	1.36	1.37
180	1.26	1.22	1.24	1.25	1.25

THD and PF Measurement Test Results:

Electrical Measurement:

Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor	iTHD(%)
120.0	60	1.6694	199.23	0.9945	9.64
277.0	60	0.7248	193.10	0.9618	10.98

Photo of Sample:

Equipment List:

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2024-11-07	2025-11-06
NTC-F01-006	2.0 meter Integrating Sphere	2024-11-07	2025-11-06
NTC-F01-012	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-013	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-031	Digital Power Meter	2024-08-06	2025-08-05
NTC-F01-020	Temperature & Humidity Meter	2024-10-29	2025-10-28

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