LM-79-19 Test Report

For

LEDVANCE LLC

181 BALLARDVALE STREET, SUITE 203 WILMINGTON, MA 01887

HAZARDOUS FLOODLIGHT

Model Name(s):
HAZFLOODP/100UNVD850/GR

Representative (Tested) Model:
HAZFLOODP/100UNVD850/GR

Model Difference: N/A

Prepared by:

Alan Wang

Engineer: Alan Wang
Date: 2025-07-25

Reviewed by:

Vincent Yuan

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.

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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/100UNVD850/GR
Product Type:	HAZARDOUS FLOODLIGHT
Rating Input:	120-277Vac, 50/60Hz, 100W
Declared CCT:	5000K
Declared Light Output:	15000 lm
LED Manufacturer:	Bridgelux, Inc.
LED Model:	BXEN-50E-21L-3C-00-00-0
LED Quantity:	544 pcs
LED Driver Manufacturer:	MEAN WELL ENTERPRISES CO., LTD.
LED Driver Model:	XLG-100-H-AB

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:	250714015-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.:	NTCLR25070193
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:

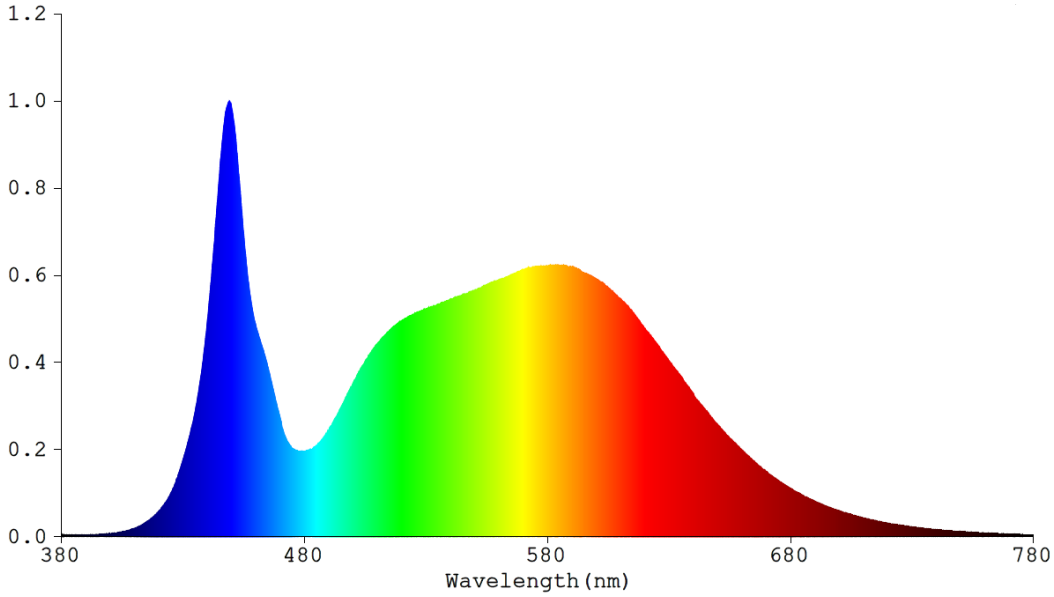
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	0.8346	99.98	0.9983

Color Data:

Parameter		Result
CCT(K)	7 steps: 5029±283	4905
	4 steps: 5029±220	
Ra		80.0
R_f		81
R_g		96
$R_{cs,\ h1}$		-14%
Chromaticity, (x, y)		(0.3486, 0.3602)
Chromaticity, (u', v')		(0.2104, 0.4893)
Duv		0.0029
SDCM		2.5

Specify Color Rendering			
R1	77	R9	-7
R2	85	R10	65
R3	91	R11	78
R4	80	R12	55
R5	78	R13	79
R6	79	R14	95
R7	86	R15	71
R8	63	-	-

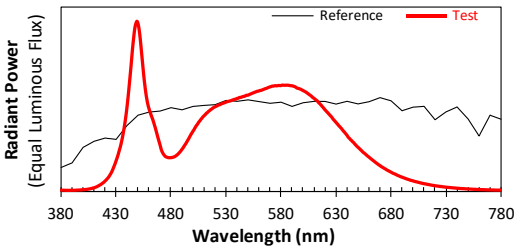
Spectrum Diagram:

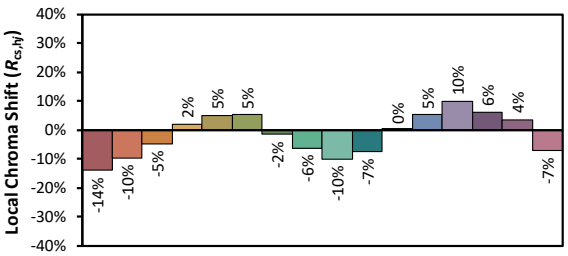


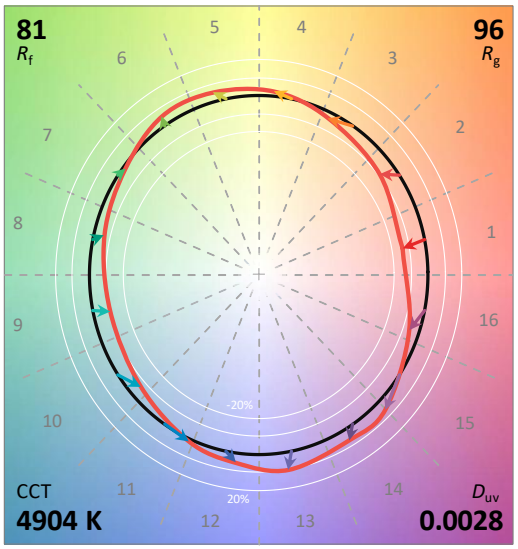
IES TM-30-18 Color Rendition Result:

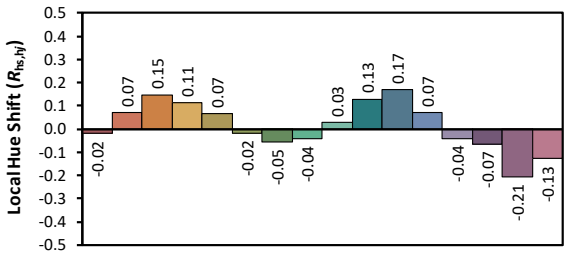
ANSI/IES TM-30-18 Color Rendition Report

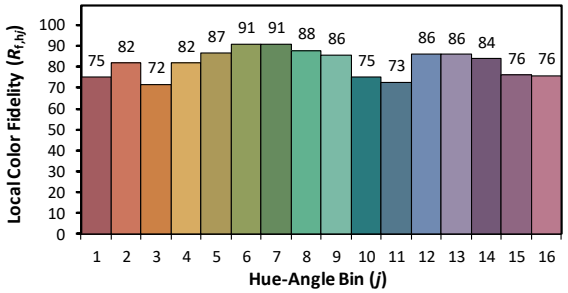
Source:	1 CIE F1	**Manufacturer:**	LEDVANCE LLC
Date:	2025/7/25	**Model:**	HAZFLOODP/100UNVD850/GR

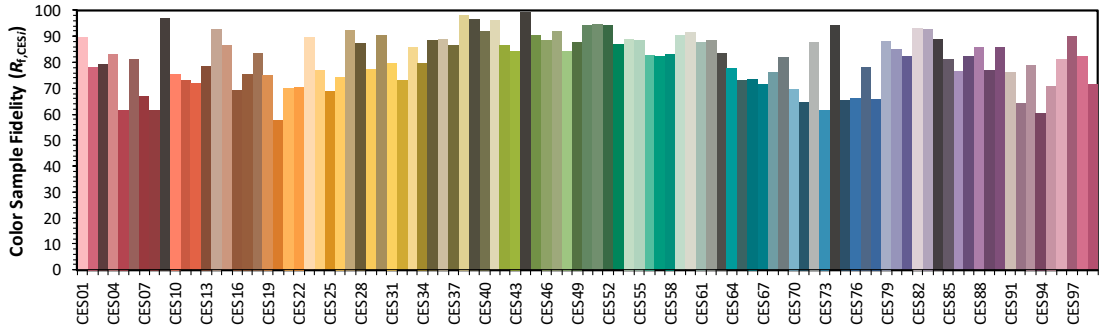












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3485
y	0.3601
u'	0.2105
v'	0.4892

CIE 13.3-1995 (CRI)

R_a	80
R_9	-7

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	4.60E-06	447	9.58E-04	514	4.69E-04	581	6.24E-04	648	2.70E-04	715	3.69E-05
381	4.90E-06	448	9.86E-04	515	4.74E-04	582	6.24E-04	649	2.63E-04	716	3.56E-05
382	4.60E-06	449	1.00E-03	516	4.79E-04	583	6.23E-04	650	2.57E-04	717	3.44E-05
383	4.30E-06	450	9.85E-04	517	4.84E-04	584	6.23E-04	651	2.51E-04	718	3.32E-05
384	4.20E-06	451	9.49E-04	518	4.89E-04	585	6.23E-04	652	2.45E-04	719	3.22E-05
385	3.80E-06	452	8.94E-04	519	4.94E-04	586	6.24E-04	653	2.39E-04	720	3.11E-05
386	4.00E-06	453	8.27E-04	520	4.96E-04	587	6.23E-04	654	2.32E-04	721	3.00E-05
387	3.50E-06	454	7.58E-04	521	5.00E-04	588	6.21E-04	655	2.26E-04	722	2.93E-05
388	4.10E-06	455	6.91E-04	522	5.02E-04	589	6.20E-04	656	2.21E-04	723	2.83E-05
389	4.00E-06	456	6.31E-04	523	5.06E-04	590	6.20E-04	657	2.16E-04	724	2.73E-05
390	4.60E-06	457	5.80E-04	524	5.08E-04	591	6.18E-04	658	2.09E-04	725	2.66E-05
391	4.20E-06	458	5.39E-04	525	5.11E-04	592	6.16E-04	659	2.04E-04	726	2.59E-05
392	4.50E-06	459	5.07E-04	526	5.15E-04	593	6.14E-04	660	1.99E-04	727	2.49E-05
393	4.20E-06	460	4.83E-04	527	5.17E-04	594	6.08E-04	661	1.94E-04	728	2.42E-05
394	5.10E-06	461	4.63E-04	528	5.19E-04	595	6.05E-04	662	1.88E-04	729	2.34E-05
395	5.20E-06	462	4.45E-04	529	5.21E-04	596	6.04E-04	663	1.83E-04	730	2.24E-05
396	5.70E-06	463	4.27E-04	530	5.24E-04	597	6.01E-04	664	1.78E-04	731	2.18E-05
397	5.80E-06	464	4.08E-04	531	5.26E-04	598	5.99E-04	665	1.73E-04	732	2.12E-05
398	6.40E-06	465	3.86E-04	532	5.28E-04	599	5.95E-04	666	1.68E-04	733	2.05E-05
399	6.90E-06	466	3.64E-04	533	5.30E-04	600	5.92E-04	667	1.63E-04	734	2.00E-05
400	7.40E-06	467	3.40E-04	534	5.31E-04	601	5.88E-04	668	1.58E-04	735	1.94E-05
401	8.10E-06	468	3.16E-04	535	5.34E-04	602	5.85E-04	669	1.53E-04	736	1.87E-05
402	8.70E-06	469	2.93E-04	536	5.36E-04	603	5.81E-04	670	1.50E-04	737	1.80E-05
403	9.40E-06	470	2.71E-04	537	5.39E-04	604	5.76E-04	671	1.44E-04	738	1.77E-05
404	1.03E-05	471	2.46E-04	538	5.40E-04	605	5.71E-04	672	1.41E-04	739	1.70E-05
405	1.16E-05	472	2.30E-04	539	5.42E-04	606	5.66E-04	673	1.37E-04	740	1.64E-05
406	1.24E-05	473	2.18E-04	540	5.46E-04	607	5.62E-04	674	1.33E-04	741	1.61E-05
407	1.40E-05	474	2.09E-04	541	5.47E-04	608	5.56E-04	675	1.29E-04	742	1.55E-05
408	1.54E-05	475	2.03E-04	542	5.51E-04	609	5.50E-04	676	1.25E-04	743	1.48E-05
409	1.78E-05	476	2.00E-04	543	5.51E-04	610	5.46E-04	677	1.21E-04	744	1.44E-05
410	1.91E-05	477	1.97E-04	544	5.53E-04	611	5.40E-04	678	1.18E-04	745	1.39E-05
411	2.14E-05	478	1.96E-04	545	5.56E-04	612	5.35E-04	679	1.14E-04	746	1.37E-05
412	2.40E-05	479	1.96E-04	546	5.58E-04	613	5.30E-04	680	1.11E-04	747	1.32E-05
413	2.71E-05	480	1.96E-04	547	5.58E-04	614	5.22E-04	681	1.07E-04	748	1.26E-05
414	3.06E-05	481	1.98E-04	548	5.63E-04	615	5.16E-04	682	1.04E-04	749	1.25E-05
415	3.44E-05	482	2.00E-04	549	5.64E-04	616	5.09E-04	683	1.01E-04	750	1.17E-05
416	3.80E-05	483	2.02E-04	550	5.65E-04	617	5.01E-04	684	9.84E-05	751	1.14E-05
417	4.27E-05	484	2.06E-04	551	5.68E-04	618	4.94E-04	685	9.51E-05	752	1.14E-05
418	4.73E-05	485	2.10E-04	552	5.71E-04	619	4.86E-04	686	9.19E-05	753	1.09E-05
419	5.26E-05	486	2.16E-04	553	5.74E-04	620	4.78E-04	687	8.95E-05	754	1.06E-05
420	5.88E-05	487	2.22E-04	554	5.77E-04	621	4.71E-04	688	8.63E-05	755	1.00E-05
421	6.54E-05	488	2.30E-04	555	5.79E-04	622	4.64E-04	689	8.41E-05	756	1.01E-05
422	7.25E-05	489	2.37E-04	556	5.82E-04	623	4.57E-04	690	8.12E-05	757	9.60E-06
423	8.02E-05	490	2.47E-04	557	5.84E-04	624	4.50E-04	691	7.89E-05	758	9.20E-06
424	8.99E-05	491	2.55E-04	558	5.87E-04	625	4.43E-04	692	7.67E-05	759	9.00E-06
425	1.01E-04	492	2.66E-04	559	5.88E-04	626	4.36E-04	693	7.40E-05	760	8.80E-06
426	1.12E-04	493	2.75E-04	560	5.90E-04	627	4.26E-04	694	7.16E-05	761	8.60E-06
427	1.27E-04	494	2.86E-04	561	5.92E-04	628	4.18E-04	695	6.94E-05	762	8.10E-06
428	1.43E-04	495	2.97E-04	562	5.93E-04	629	4.12E-04	696	6.73E-05	763	8.00E-06
429	1.59E-04	496	3.08E-04	563	5.96E-04	630	4.04E-04	697	6.51E-05	764	7.70E-06
430	1.78E-04	497	3.20E-04	564	5.99E-04	631	3.97E-04	698	6.29E-05	765	7.60E-06
431	1.97E-04	498	3.32E-04	565	6.01E-04	632	3.88E-04	699	6.12E-05	766	7.30E-06
432	2.18E-04	499	3.43E-04	566	6.04E-04	633	3.82E-04	700	5.96E-05	767	7.00E-06
433	2.41E-04	500	3.53E-04	567	6.05E-04	634	3.74E-04	701	5.75E-05	768	6.70E-06
434	2.64E-04	501	3.63E-04	568	6.09E-04	635	3.67E-04	702	5.55E-05	769	6.60E-06
435	2.92E-04	502	3.75E-04	569	6.11E-04	636	3.58E-04	703	5.42E-05	770	6.30E-06
436	3.23E-04	503	3.85E-04	570	6.14E-04	637	3.51E-04	704	5.26E-05	771	6.10E-06
437	3.59E-04	504	3.94E-04	571	6.15E-04	638	3.44E-04	705	5.08E-05	772	6.00E-06
438	4.00E-04	505	4.04E-04	572	6.18E-04	639	3.36E-04	706	4.92E-05	773	5.70E-06
439	4.46E-04	506	4.12E-04	573	6.18E-04	640	3.28E-04	707	4.74E-05	774	5.70E-06
440	4.99E-04	507	4.21E-04	574	6.20E-04	641	3.17E-04	708	4.59E-05	775	5.30E-06
441	5.59E-04	508	4.29E-04	575	6.20E-04	642	3.11E-04	709	4.44E-05	776	5.40E-06
442	6.26E-04	509	4.37E-04	576	6.20E-04	643	3.04E-04	710	4.30E-05	777	5.20E-06
443	6.94E-04	510	4.44E-04	577	6.21E-04	644	2.98E-04	711	4.19E-05	778	5.20E-06
444	7.67E-04	511	4.50E-04	578	6.22E-04	645	2.91E-04	712	4.07E-05	779	5.30E-06
445	8.42E-04	512	4.57E-04	579	6.21E-04	646	2.85E-04	713	3.91E-05	780	5.30E-06
446	9.03E-04	513	4.62E-04	580	6.21E-04	647	2.77E-04	714	3.82E-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:

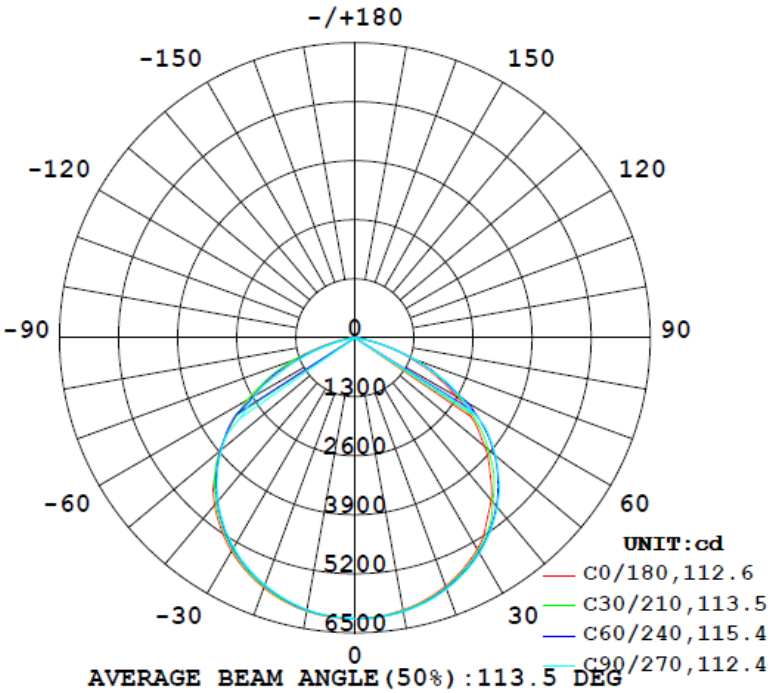
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	0.8346	99.98	0.9983

Goniophotometer Data:

Parameter	Results	
Total Luminous (lm)	17250.1	
Luminous Efficacy (lm/W)	172.54	
Zonal Lumens Distribution (0-90°)	99.9%	
Beam Angle (50%) (°)	Horizontal	Vertical
	112.6	113.1
Field Angle (10%) (°)	Horizontal	Vertical
	153.2	150.7
NEAM Type	7H x 7V	

Luminous Intensity Distribution Diagram:

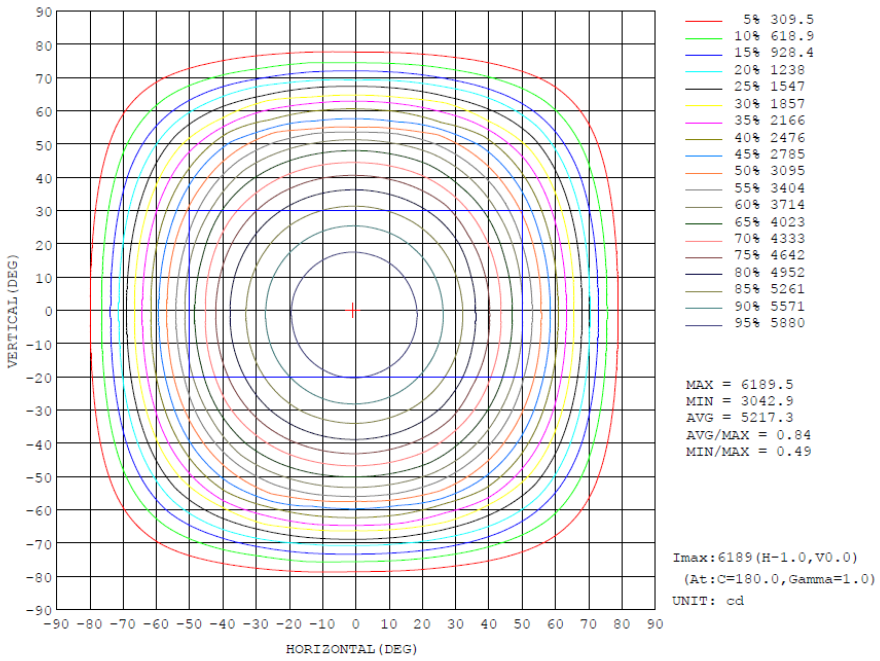
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Zonal Flux Diagram:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	6089	6114	6128	6123	6113	6097	6078	6076	0- 10	586.4	586.4	3.4,3.4
20	5823	5866	5893	5889	5861	5819	5792	5789	10- 20	1693	2279	13.2,13.2
30	5382	5437	5485	5471	5431	5374	5333	5330	20- 30	2603	4883	28.3,28.3
40	4663	4820	4875	4867	4805	4733	4682	4688	30- 40	3196	8079	46.8,46.8
50	3730	3919	4039	4039	3887	3892	3833	3767	40- 50	3355	11433	66.3,66.3
60	2584	2796	2760	2909	2712	2766	2529	2646	50- 60	2967	14400	83.5,83.5
70	1283	1375	1375	1465	1410	1346	1137	1278	60- 70	2004	16404	95.1,95.1
80	228.5	219.8	197.9	278.0	304.8	219.0	144.1	191.8	70- 80	764.9	17168	99.5,99.5
90	0.5620	0.4591	0.4347	4.444	0.8901	0.8860	0.8841	0.9453	80- 90	63.96	17232	99.9,99.9
100	0.7758	0.7402	0.7008	0.7220	1.578	1.660	1.691	1.744	90-100	1.034	17233	99.9,99.9
110	1.146	1.101	1.087	1.122	2.048	2.161	2.248	2.244	100-110	1.529	17235	99.9,99.9
120	1.832	1.650	1.675	1.748	2.646	2.700	2.792	2.768	110-120	1.874	17237	99.9,99.9
130	2.755	2.504	2.445	2.601	3.765	3.908	4.020	3.745	120-130	2.412	17239	99.9,99.9
140	3.513	3.411	3.320	3.399	4.758	5.187	5.169	5.008	130-140	2.886	17242	100,100
150	4.031	4.059	4.023	3.968	5.932	6.421	6.561	6.398	140-150	2.948	17245	100,100
160	4.976	4.895	4.485	4.882	7.219	7.426	7.199	7.143	150-160	2.608	17248	100,100
170	5.648	5.838	5.133	5.410	7.280	7.407	7.039	6.882	160-170	1.772	17249	100,100
180	6.700	6.833	6.496	6.498	6.702	6.887	6.499	6.354	170-180	0.6131	17250	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Isocandela Diagram:



Luminous Distribution Intensity Data:

Table--1 UNIT: cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	6189	6188	6188	6188	6187	6187	6187	6185	6185	6184	6183	6183	6189	6188	6188	6188	6187	6187	6187
5	6161	6163	6165	6170	6172	6175	6177	6177	6176	6174	6171	6168	6172	6166	6162	6159	6157	6155	6152
10	6089	6095	6102	6114	6119	6126	6128	6129	6127	6123	6117	6108	6113	6106	6102	6097	6089	6084	6078
15	5979	5988	6000	6009	6020	6027	6034	6037	6034	6029	6023	6011	6010	5999	5989	5979	5970	5961	5955
20	5823	5838	5852	5866	5873	5883	5893	5896	5893	5889	5882	5869	5861	5850	5833	5819	5806	5800	5792
25	5626	5643	5657	5673	5689	5701	5711	5716	5710	5704	5695	5680	5666	5654	5636	5617	5603	5594	5587
30	5382	5404	5421	5437	5457	5474	5485	5489	5484	5471	5459	5446	5431	5412	5387	5374	5358	5343	5333
35	5030	5077	5131	5157	5175	5190	5206	5205	5208	5196	5177	5161	5142	5124	5097	5079	5059	5042	5031
40	4663	4692	4725	4820	4842	4860	4875	4879	4875	4867	4844	4824	4805	4784	4756	4733	4710	4696	4682
45	4200	4247	4329	4390	4454	4478	4493	4498	4495	4478	4462	4427	4368	4377	4366	4333	4319	4298	4282
50	3730	3789	3829	3919	4011	4021	4039	4050	4053	4039	3971	3912	3887	3862	3864	3892	3866	3847	3833
55	3196	3231	3291	3375	3480	3517	3537	3550	3547	3526	3442	3340	3313	3291	3333	3367	3360	3201	3086
60	2584	2650	2715	2796	2862	2738	2760	2768	2971	2909	2839	2743	2712	2702	2738	2766	2571	2552	2529
65	1941	1988	2065	2147	2076	2152	2123	2183	2183	2256	2177	2122	2068	2073	2094	2007	2002	1830	1802
70	1283	1329	1395	1375	1338	1414	1375	1445	1423	1465	1511	1439	1410	1407	1439	1346	1270	1159	1137
75	679	722	729	718	713	690	709	757	750	787	832	823	790	802	751	679	599	610	529
80	228	248	239	220	220	218	198	230	248	278	302	308	305	303	268	219	190	152	144
85	23.8	27.8	31.2	28.2	28.2	28.3	27.4	30.2	31.8	34.8	54.5	55.1	35.8	36.7	32.7	31.2	25.0	24.0	22.5
90	0.56	0.54	0.53	0.46	0.52	0.43	0.43	0.44	4.32	4.44	4.81	5.23	0.89	0.88	0.89	0.89	0.88	0.88	0.88
95	0.58	0.57	0.56	0.55	0.53	0.51	0.51	0.51	0.52	0.53	0.54	0.54	1.20	1.22	1.24	1.26	1.25	1.25	1.26
100	0.78	0.76	0.75	0.74	0.72	0.70	0.70	0.70	0.71	0.72	0.73	0.73	1.58	1.60	1.63	1.66	1.67	1.68	1.69
105	0.95	0.94	0.92	0.92	0.91	0.89	0.89	0.89	0.91	0.91	0.91	0.91	1.89	1.91	1.94	2.00	2.03	2.04	2.06
110	1.15	1.14	1.08	1.10	1.09	1.08	1.09	1.10	1.13	1.12	1.13	1.11	2.05	2.06	2.08	2.16	2.19	2.21	2.25
115	1.43	1.42	1.32	1.34	1.36	1.35	1.35	1.37	1.41	1.41	1.38	1.37	2.20	2.23	2.27	2.36	2.39	2.42	2.48
120	1.83	1.75	1.66	1.65	1.66	1.68	1.68	1.71	1.73	1.75	1.74	1.74	2.65	2.64	2.63	2.70	2.69	2.74	2.79
125	2.28	2.23	2.07	2.08	2.09	2.05	2.05	2.05	2.08	2.15	2.13	2.15	3.19	3.21	3.17	3.28	3.28	3.33	3.35
130	2.75	2.70	2.60	2.50	2.63	2.45	2.45	2.48	2.56	2.60	2.65	2.63	3.77	3.81	3.83	3.91	3.97	4.02	4.02
135	3.22	3.20	3.12	2.97	3.03	3.00	2.97	3.00	2.98	3.03	3.04	3.10	4.28	4.31	4.41	4.51	4.57	4.69	4.70
140	3.51	3.55	3.46	3.41	3.39	3.42	3.32	3.32	3.34	3.40	3.26	3.42	4.76	4.82	4.93	5.19	5.19	5.22	5.17
145	3.79	3.89	3.80	3.68	3.86	3.85	3.74	3.76	3.78	3.69	3.56	3.68	5.35	5.44	5.53	5.81	5.96	5.93	5.85
150	4.03	4.19	4.20	4.06	4.04	4.09	4.02	4.04	3.98	3.97	3.81	3.91	5.93	5.98	6.08	6.42	6.53	6.65	6.56
155	4.48	4.73	4.81	4.47	4.49	4.59	4.39	4.48	4.47	4.41	4.51	4.27	6.57	6.50	6.83	6.91	6.98	7.06	6.95
160	4.98	5.16	5.18	4.90	4.73	4.77	4.49	4.84	4.83	4.88	4.89	4.82	7.22	7.18	7.27	7.43	7.36	7.40	7.20
165	5.28	5.52	5.54	5.40	5.12	5.06	4.83	5.08	5.23	5.26	5.15	5.20	7.29	7.27	7.38	7.52	7.61	7.46	7.25
170	5.65	5.83	5.90	5.84	5.36	5.29	5.13	5.23	5.37	5.41	5.44	5.54	7.28	7.29	7.34	7.41	7.44	7.38	7.04
175	6.30	6.43	6.43	6.39	5.98	5.81	5.61	5.72	5.94	6.02	6.06	6.18	7.18	7.18	7.28	7.29	7.20	7.14	6.80
180	6.70	6.85	6.89	6.83	6.62	6.50	6.50	6.25	6.34	6.50	6.44	6.59	6.70	6.70	6.87	6.89	6.82	6.63	6.50

Table--2 UNIT: cd

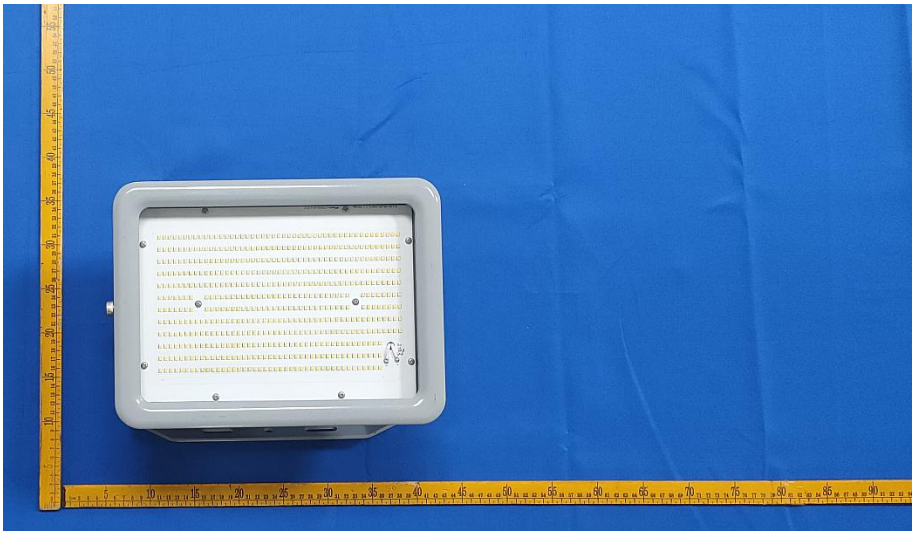
γ (DEG) \ C (DEG)	285	300	315	330	345
0	6185	6185	6184	6183	6183
5	6151	6150	6148	6148	6151
10	6076	6075	6076	6078	6079
15	5949	5951	5953	5957	5963
20	5785	5784	5789	5797	5807
25	5579	5581	5580	5594	5609
30	5325	5326	5330	5345	5359
35	5023	5026	5035	5047	5029
40	4674	4675	4688	4628	4641
45	4275	4276	4236	4234	4193
50	3822	3826	3767	3722	3732
55	3183	3286	3218	3177	3178
60	2527	2486	2646	2601	2597
65	1807	1919	1880	1992	1962
70	1137	1209	1278	1331	1300
75	579	566	617	678	699
80	146	162	192	220	240
85	23.5	24.1	27.2	32.7	26.2
90	0.90	0.92	0.95	0.95	0.93
95	1.29	1.31	1.33	1.32	1.30
100	1.71	1.74	1.74	1.72	1.69
105	2.08	2.10	2.10	2.05	2.01
110	2.26	2.27	2.24	2.22	2.16
115	2.48	2.46	2.43	2.37	2.33
120	2.78	2.76	2.77	2.71	2.73
125	3.30	3.28	3.26	3.16	3.27
130	3.95	3.90	3.74	3.77	3.81
135	4.58	4.35	4.32	4.41	4.41
140	5.03	4.95	5.01	4.98	4.97
145	5.72	5.79	5.70	5.59	5.63
150	6.48	6.40	6.40	6.29	6.20
155	6.93	6.84	6.80	7.00	6.93
160	7.08	7.26	7.14	7.44	7.37
165	7.07	7.27	7.24	7.42	7.47
170	6.97	7.01	6.88	7.17	7.32
175	6.62	6.75	6.65	6.98	7.06
180	6.47	6.24	6.35	6.44	6.44

THD and PF Measurement Test Results:

Electrical Measurement:

Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor	iTHD(%)
120.0	60	0.8346	99.98	0.9983	1.96
277.0	60	0.3715	97.62	0.9487	6.46

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************