TEST REPORT

Of IES LM-79-08

Kunde: *Client:*	AOK INDUSTRIAL COMPANY LIMITED
Adresse: *Address:*	1# Building, Sans Souci Technology Industrial Park, Shajin street, Shenzhen city, Guangdong Provice, China.
Hersteller: *Manufacturer:*	AOK INDUSTRIAL COMPANY LIMITED
Adresse: *Address:*	1# Building, Sans Souci Technology Industrial Park, Shajin street, Shenzhen city, Guangdong Provice, China.
Name der Marke: *Brand Name:*	AOK
Beschreibungdes Produkts: *Product Description:*	LED Flood Light (Sport Light)
Modelle: *Models:*	AOK-580WiNS-NV-L5-00-4080-60-B
Bewertung: *Rating:*	100-277Vac, 50/60Hz, 580W, 4000K
Verfahren: *Method:*	IES LM-79-08: Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products
Prüfergebnis*: *Test result*:*	N/A

Datum der Prüfung: *Date of Test:*	**Datum der Emission:** *Date of Issue:*	**Klassifizierung:** *Classification:*	**Gegenstand der Prüfung:** *Test item:*
2020-12-30 - 2021-01-05	2021-01-05	Commission Test	IES LM-79-08

Prüflabor (Testlabor) / Testing Laboratory:
Shenzhen Southern LCS Compliance Testing Laboratory Ltd.

Test von/Test by:	**Check von/**Check by:	**Genehmigt von/**Approved by:
William Lian	Ian Luo	Jesse
William Lian/ Project Engineer	Ian Luo/ Director	Jesse Liu/ Manager

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

Remark: The duplication of this report or parts of it and its use for advertising purposes is only allowed with permission of the testing laboratory.This report contains the result of examination of the product sample submitted by the appliance. A general statement concerning the quality of the products from the series manufacturer cannot be derived therefore.

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1. Test Method

Test Item.....:	Integrating Sphere Test
Ambient Condition .....:	25.1℃
Stabilization time .....(h):	0.5h
Orientation(burning position) of SSL product during test .....:	down
Test Method .....:	The sample was tested according to the IES LM-79-2008. 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 rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.
Test Item.....:	Goniophotometer Test
Ambient Condition.....:	25.1℃
Total operated time of the product for measurements including stabilization..... (h):	1.0h
Orientation(burning position) of SSL product during test .....:	down
Test Method.....:	The sample was tested according to the IES LM-79-2008. Photometric paramters were measured using a type C goniophotometer and software. The sample reference plane was located at the center of the sample goniometer at a test distance of 26m from the detectors. The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, Luminous efficacy, zonal flux were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals.

2. Product Information

Product description.....:	LED Flood Light (Sport Light)
Model Number.....:	AOK-580WiNS-NV-L5-00-4080-60-B
Rated Inputs.....:	100-277Vac,50/60Hz
Rated Power.....:	580W
Declared CCT.....:	4000K
LED Manufacturer.....:	LUMILEDS
LED Model.....:	L150-4080502400000
Forward current of the LED chip.....:	200mA
LED Driver.....:	INVENTRONICS (EUD-600S740DV)
LED Driver Set Current.....:	5.6A
SPD.....:	SHENZHEN ZHONGYUAN TECHNOLOGY (ZYS-S20WLED)
Number of LEDs.....:	472 LEDs
LED package current.....:	48mA
Date of Receipt Samples.....:	December 29, 2020
Quantity of Receipt Samples.....:	1 unit

3. Test equipment list

Manufacturer	Description	Equipment ID	Model	Calibration Date	Calibration Due Date
EVERFINE	Full-field Speed Goniophotometer	SLCS-S-112	GO-R5000	2020/07/02	2021/07/01
EVERFINE	Digital Power Meter	SLCS-S-103	PF2010	2020/06/24	2021/06/23
EVERFINE	AC Testing Power Source	SLCS-S-115	DPS1060	2020/06/24	2021/06/23
EVERFINE	Total Spectral Radiant Flux Standard Lamp	SLCS-S-143	D908S	2020/07/02	2021/07/01
SENSING	2 Meter Integrating Sphere	SLCS-S-038	SPR-3000	2020/07/02	2021/07/01
YOKOGAWA	Digital Power Meter	SLCS-S-058	WT310	2020/06/24	2021/06/23
ALL POWER ELECTRONIC	AC Testing Power Source	SLCS-S-111	APW-105N	2020/06/24	2021/06/23
SENSING	Standard Lamp	SLCS-S-118	S11010017	2020/07/02	2021/07/01

4. Integrating Sphere Test Results

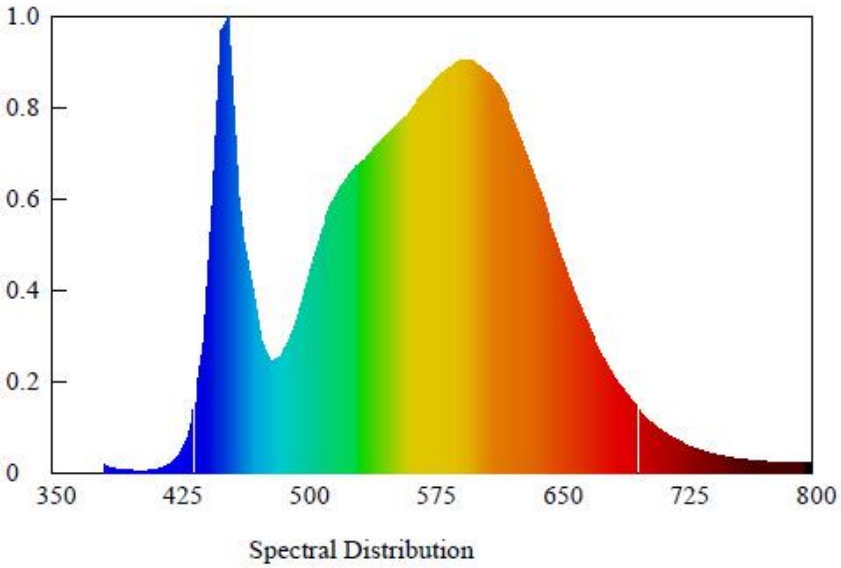
4.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	220.02	60.0	2.6831	0.9973	588.75

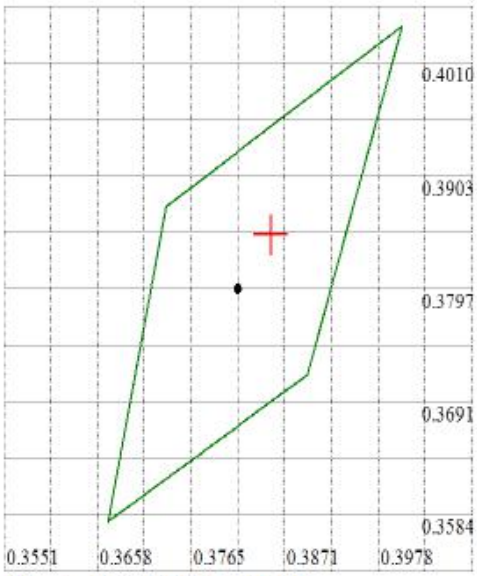
Test type	CCT (K)	CRI	Duv	Luminous flux (lm)	Luminous efficacy(lm/W)
Output	3923	83.4	0.00224	90597.68	153.9

4.2 Spectrum

Spectroradiometric Parameters



Spectral Distribution



Nominal CCT:LED_4000K
x0=0.3818 y0=0.3797

Chromaticity Coordinates: x=0.3856 y=0.3848 u'=0.2253 v'=0.5058

Correlated Color Temperature: 3923 K

Dominant Wavelength: 577.0 nm(E)

Colour Fidelity Index: Rf=82

Gamut Index: Rg=95

Luminous Flux: 90597.68 lm

Purity: 0.3122

Chromaticity Difference: +0.00224Duv

Peak Wavelength: 455.0 nm

Color Ratio: Kr=38.1% Kg=52.8% Kb=9.2%

Bandwidth: 26.3nm

Radiant Flux: 255.93 W

Photosynthetically Active Radiation(PAR): 248.61W

Photosynthetic Photon Flux(PPF):1177.60μmol/s

Rendering Index: Ra=83.4

R1=82	R2=89	R3=94	R4=82	R5=81	R6=84	R7=87	R8=67
R9=14	R10=74	R11=81	R12=57	R13=84	R14=97	R15=76	Re=77

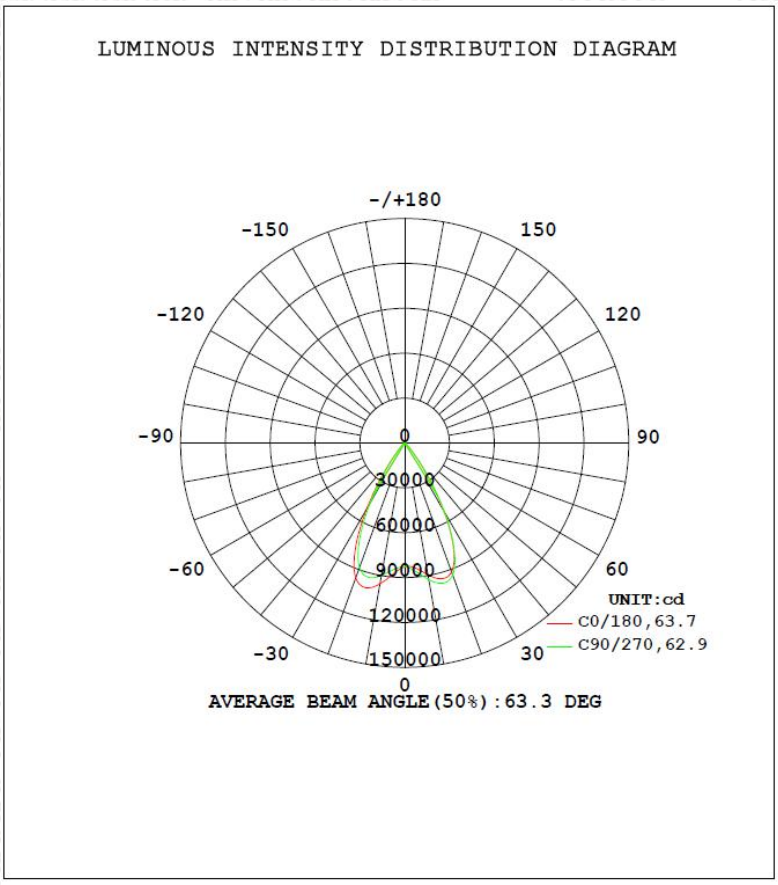
5. Goniophotometer Test results

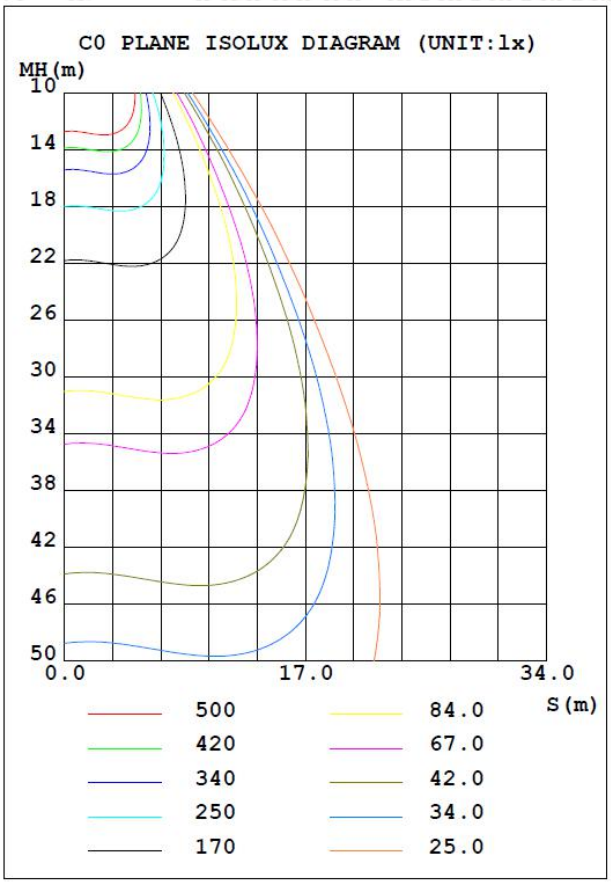
5.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	219.97	60.01	2.6840	0.9972	588.72

Test type	Total Flux (lm)	Luminous efficacy(lm/W)	Imax (cd)	Spacing Criteria (0~180°)	Spacing Criteria (90~270°)
Output	90639.6	153.96	100210	0.91	0.89

5.2 Luminous Intensity Distribution Diagram and C0 Plane Isolux Diagram (Unit : lx)

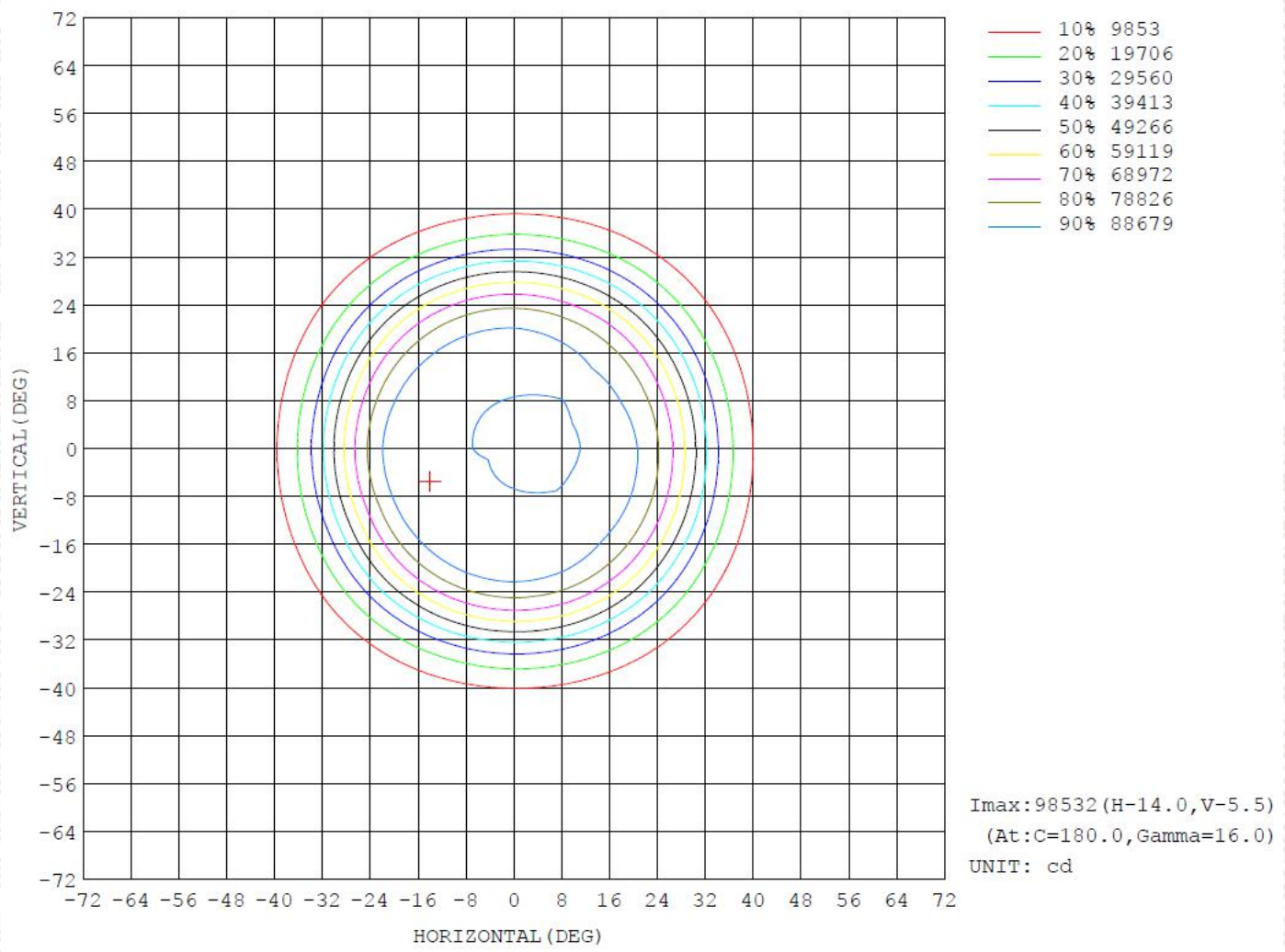




5.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	893.8	895.0	927.4	928.2	955.9	921.2	898.4	863.9	0- 10	8343	8343	9.21,9.21
20	918.5	914.4	938.7	918.8	959.3	911.6	886.1	856.6	10- 20	26435	34779	38.4,38.4
30	527.0	543.2	528.4	505.4	510.7	482.6	464.9	476.8	20- 30	33651	68430	75.5,75.5
40	100.4	103.1	100.8	90.66	92.47	82.14	82.03	86.99	30- 40	16065	84495	93.2,93.2
50	19.15	18.66	18.89	17.72	18.93	17.41	17.74	17.51	40- 50	3001	87496	96.5,96.5
60	12.53	11.94	12.39	11.35	12.33	11.21	11.73	11.29	50- 60	1303	88799	98,98
70	7.492	6.977	7.346	6.679	7.383	6.640	7.023	6.624	60- 70	873.1	89673	98.9,98.9
80	3.800	3.498	3.653	3.225	3.552	3.114	3.296	3.260	70- 80	552.5	90225	99.5,99.5
90	0.0326	0.0382	0.0373	0.0288	0.0885	0.0866	0.0255	0.0658	80- 90	143.4	90369	99.7,99.7
100	0.0260	0.0255	0.0242	0.0226	0.0263	0.0314	0.0270	0.0259	90-100	3.589	90372	99.7,99.7
110	0.0256	0.0262	0.0249	0.0237	0.0348	0.0343	0.0360	0.0334	100-110	2.886	90375	99.7,99.7
120	0.0462	0.0373	0.0322	0.0332	0.0588	0.0633	0.0616	0.0625	110-120	3.567	90379	99.7,99.7
130	0.2391	0.1995	0.1764	0.1414	0.2498	0.2629	0.1780	0.2731	120-130	9.781	90388	99.7,99.7
140	0.7228	0.5278	0.5346	0.5206	0.7520	0.7066	0.7461	0.7676	130-140	33.12	90421	99.8,99.8
150	1.451	1.309	1.245	1.263	1.307	1.325	1.307	1.352	140-150	61.91	90483	99.8,99.8
160	1.855	1.837	1.752	1.726	1.869	1.896	1.934	1.969	150-160	73.78	90557	99.9,99.9
170	2.447	2.503	2.366	2.337	2.231	2.393	2.378	2.429	160-170	58.04	90615	100,100
180	2.870	2.832	2.638	2.710	2.856	2.907	2.585	2.648	170-180	24.46	90640	100,100
DEG	LUMINOUS INTENSITY:×100cd									UNIT:lm		

5.4 Isocandela Diagram

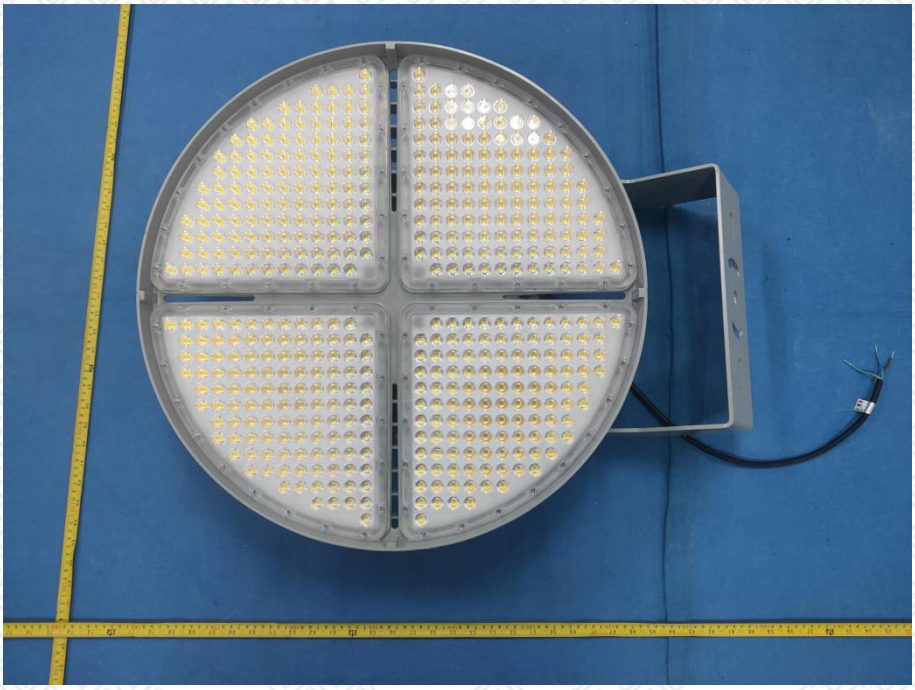
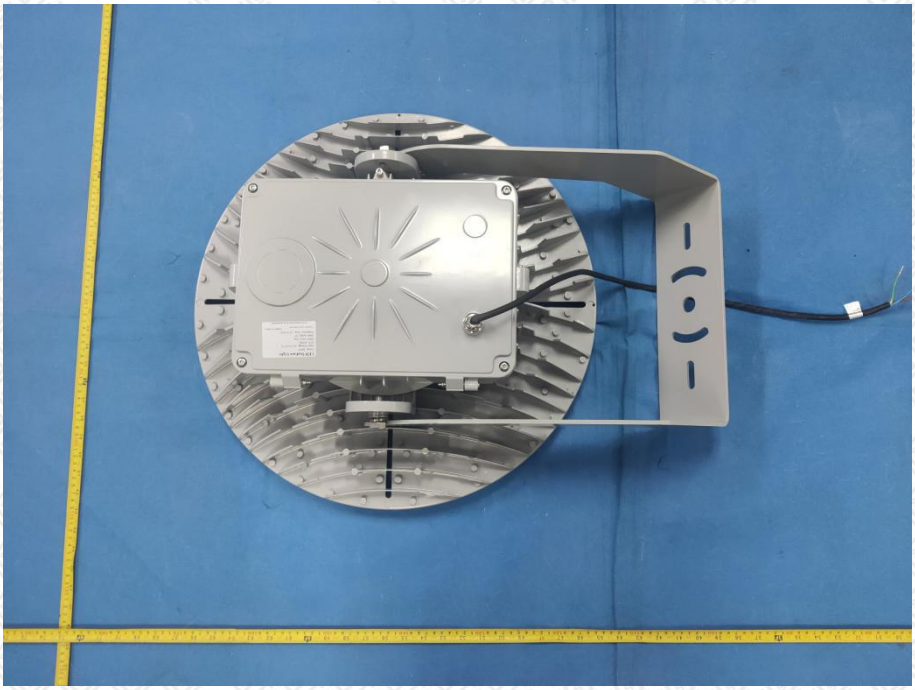


5.5 Luminous Distribution Intensity Data

Table--1 UNIT: ×100cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827			
5	839	843	847	855	862	867	871	873	878	872	864	857	849	840	834	831			
10	894	898	895	914	927	929	928	936	956	936	921	910	898	881	864	864			
15	939	940	930	955	970	965	957	965	1002	972	951	939	930	908	886	890			
20	918	919	914	932	939	930	919	916	959	932	912	897	886	870	857	861			
25	776	782	786	789	784	775	763	745	786	765	750	735	722	717	719	726			
30	527	535	543	540	528	518	505	484	511	495	483	471	465	468	477	486			
35	265	269	272	271	266	256	246	235	253	239	229	225	224	226	231	240			
40	100	103	103	103	101	95.9	90.7	85.7	92.5	86.8	82.1	80.5	82.0	84.0	87.0	90.7			
45	34.7	35.0	34.5	33.6	33.1	31.8	30.4	29.1	31.8	30.0	29.2	28.6	29.8	30.3	31.3	32.2			
50	19.2	18.8	18.7	18.3	18.9	18.1	17.7	17.4	18.9	17.9	17.4	17.0	17.7	17.5	17.5	17.7			
55	14.8	14.7	14.5	14.6	15.0	14.7	14.4	14.5	15.3	14.7	14.2	14.1	14.3	14.0	13.8	14.0			
60	12.5	12.2	11.9	12.1	12.4	11.8	11.4	11.3	12.3	11.6	11.2	11.3	11.7	11.4	11.3	11.6			
65	9.25	8.80	8.44	8.58	9.08	8.48	8.11	8.18	9.13	8.50	8.14	8.21	8.71	8.32	8.08	8.32			
70	7.49	7.04	6.98	6.90	7.35	6.80	6.68	6.60	7.38	6.79	6.64	6.56	7.02	6.60	6.62	6.69			
75	5.76	5.51	5.30	5.36	5.62	5.29	5.03	5.08	5.62	5.23	4.97	5.02	5.31	5.09	5.01	5.21			
80	3.80	3.71	3.50	3.58	3.65	3.45	3.22	3.24	3.55	3.33	3.11	3.16	3.30	3.28	3.26	3.50			
85	1.28	1.34	1.34	1.28	1.20	1.15	1.06	0.99	1.07	1.00	0.95	0.96	1.00	1.08	1.19	1.29			
90	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.09	0.04	0.09	0.02	0.03	0.03	0.07	0.07			
95	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.04	0.05			
100	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03			
105	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03			
110	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03			
115	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04			
120	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06			
125	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.08	0.11	0.13	0.12	0.08	0.11	0.09	0.13	0.12			
130	0.24	0.24	0.20	0.19	0.18	0.15	0.14	0.19	0.25	0.30	0.26	0.23	0.18	0.23	0.27	0.28			
135	0.45	0.40	0.34	0.38	0.34	0.29	0.24	0.35	0.47	0.53	0.45	0.50	0.51	0.53	0.49	0.52			
140	0.72	0.66	0.53	0.64	0.53	0.52	0.52	0.58	0.75	0.79	0.71	0.81	0.75	0.89	0.77	0.79			
145	1.06	1.04	0.84	0.94	0.86	0.87	0.87	0.89	1.02	1.06	1.02	1.09	1.05	1.05	1.08	1.08			
150	1.45	1.47	1.31	1.28	1.25	1.25	1.26	1.24	1.31	1.37	1.33	1.36	1.31	1.39	1.35	1.40			
155	1.70	1.71	1.65	1.53	1.53	1.57	1.56	1.49	1.60	1.67	1.68	1.70	1.55	1.69	1.60	1.71			
160	1.85	1.85	1.84	1.75	1.75	1.80	1.73	1.68	1.87	1.88	1.90	1.98	1.93	1.83	1.97	1.94			
165	2.05	2.04	2.08	1.96	2.00	1.97	1.94	1.94	2.02	2.02	2.09	2.16	2.16	2.19	2.18	2.15			
170	2.45	2.46	2.50	2.39	2.37	2.40	2.34	2.38	2.23	2.23	2.39	2.41	2.38	2.32	2.43	2.39			
175	2.83	2.85	2.77	2.65	2.60	2.65	2.65	2.75	2.65	2.63	2.68	2.63	2.56	2.51	2.54	2.60			
180	2.87	2.94	2.83	2.59	2.64	2.68	2.71	2.80	2.86	2.83	2.91	2.80	2.58	2.61	2.65	2.69			

6. Photo of sample

Photo document



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