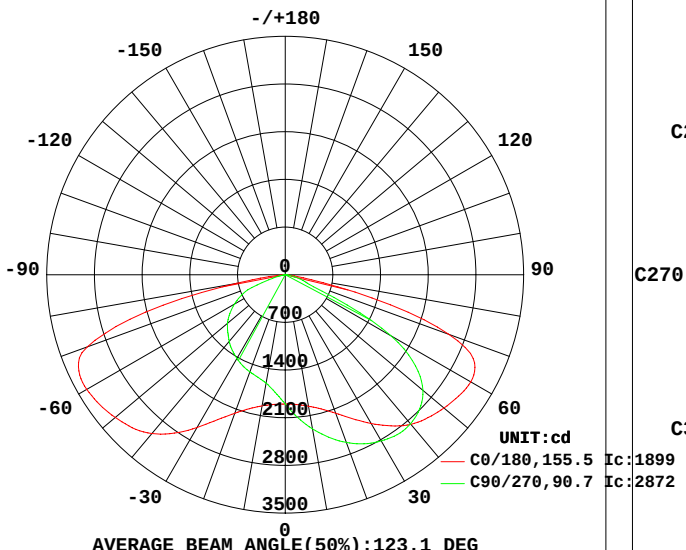
STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:27.44V I:1.850A P:50.77W PF:1.000 Freq:49.99Hz Lamp Flux:10027.2x1 lm		
NAME: AoK SAF	TYPE:LED STREET LIGHT	WEIGHT:4.2KG
SPEC.:AoK-50WSAF-DC-A5-00-4070-T312-P	DIM.: 560*240*200mm	SERIAL No.:
MFR.:	SUR.:180*180mm	Shielding Angle:

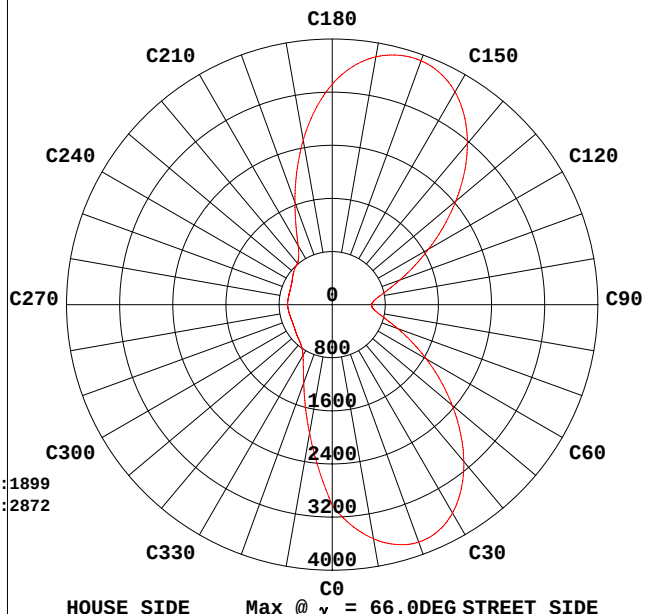
DATA OF LAMP		PHOTOMETRIC DATA Eff: 197.51 lm/W			
MODEL	5050	Imax(cd)	3888	η street_up(%)	0.0
NOMINAL POWER(W)	50	LOR(%)	100.0	η street_down(%)	66.2
RATED VOLTAGE(V)		TOTAL FLUX(lm)	10027	η house_up(%)	0.0
NOMINAL FLUX(lm)	10027.2	MAXIMUM @(C,γ)	165,66.0	η house_down(%)	33.8
LAMPS INSIDE	1	η up(%)	0.0	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)		η down(%)	100.0	SLI	19.580

INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



AVERAGE BEAM ANGLE(50%):123.1 DEG

MAX INTENSITY CONE SURFACE
DISTRIBUTION DIAGRAM



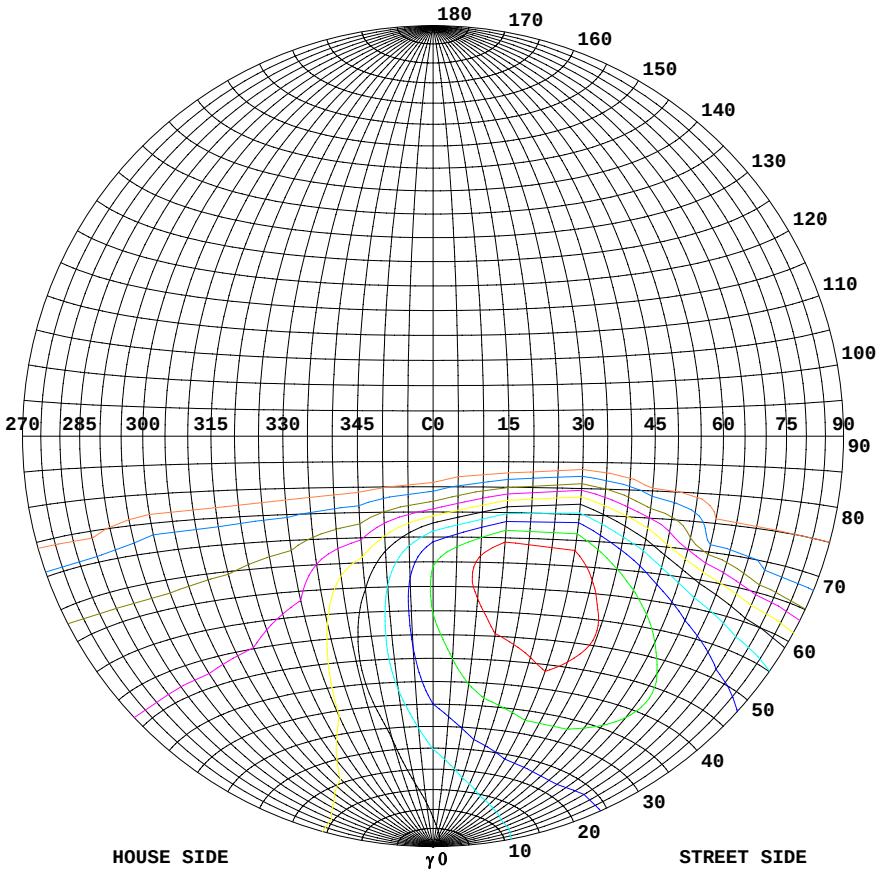
HOUSE SIDE Max @ γ = 66.0DEG STREET SIDE

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:yanyonggeng
Test Date:2025-8-8

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.363T
Humidity:65.0%
Test Distance:7.682m [K=1.0000]
Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:27.44V I:1.850A P:50.77W PF:1.000 Freq:49.99Hz Lamp Flux:10027.2x1 lm		
NAME: AoK SAF	TYPE:LED STREET LIGHT	WEIGHT:4.2KG
SPEC.:AoK-50WSAF-DC-A5-00-4070-T312-P	DIM.: 560*240*200mm	SERIAL No.:
MFR.:	SUR.:180*180mm	Shielding Angle:



Classification:

IES:Type III - Short
CIE:Average - Intermediate
IES:Semi cut-off
CIE:Non-cut-off
Max.At80:161.5cd/klm
Max.At90:0cd/klm
Max.80-90:161.5cd/klm
NRB 5101:Semi limited[26.7%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	3888
90%	3499
80%	3111
70%	2722
60%	2333
50%	1944
40%	1555
30%	1166
20%	778
10%	389
5%	194

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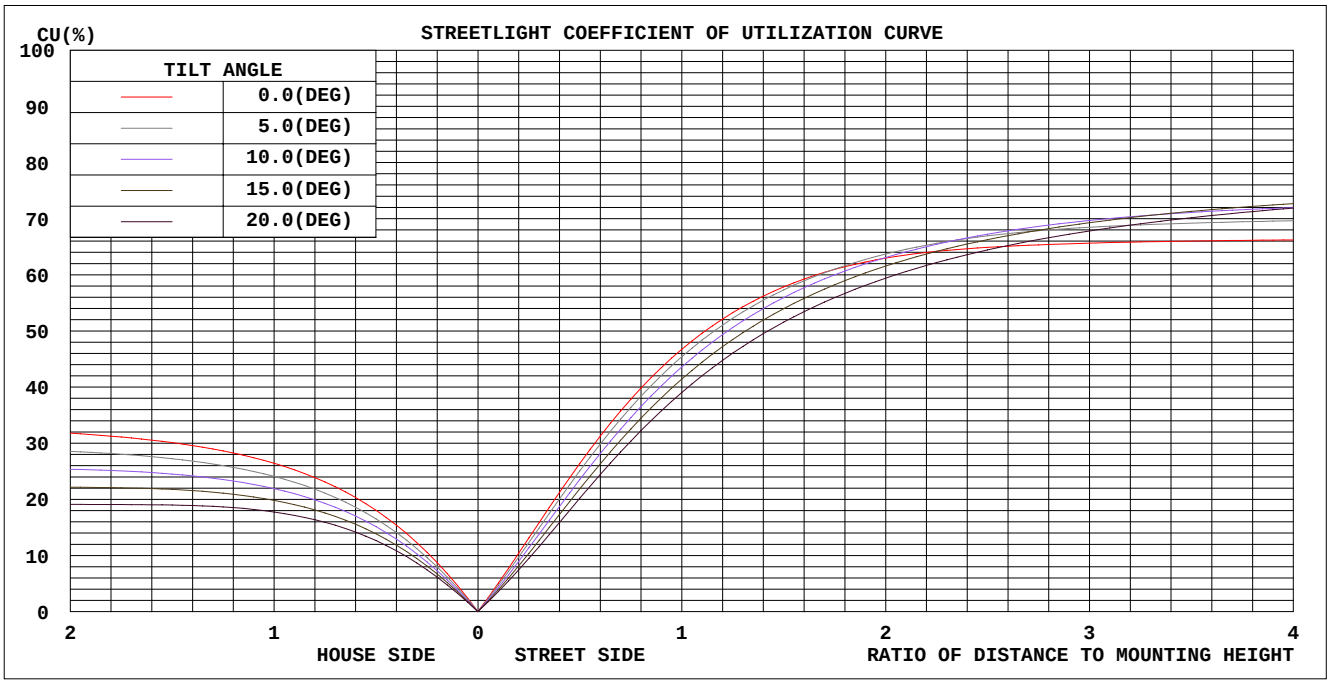
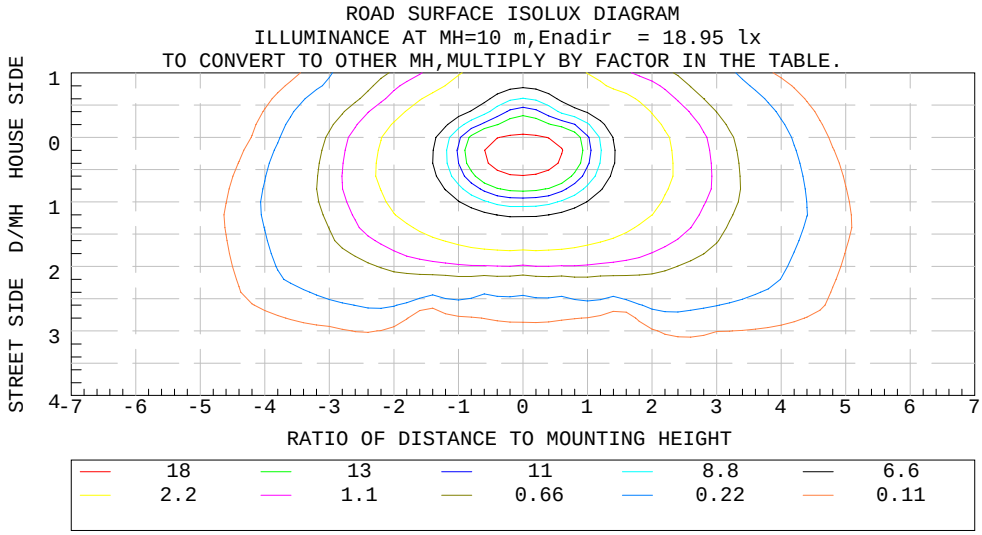
Remarks:

COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM





According to LB/T001-2008:
U = Emin/Eavg = 0.417
Eavg = 22.19 lx

HEIGHT	FACTOR
5 m	4.000
6 m	2.778
7 m	2.041
8 m	1.563
9 m	1.235
10 m	1.000
11 m	0.826
12 m	0.694
13 m	0.592
14 m	0.510
15 m	0.444
16 m	0.391

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ZONAL FLUX DIAGRAM

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MFR.:	SUR.:180*180mm	Shielding Angle:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1960	2229	2296	2215	1955	1699	1617	1695	0- 10	184.2	184.2	1.84,1.84
20	2164	2612	2619	2592	2163	1580	1518	1569	10- 20	576.4	760.5	7.58,7.58
30	2521	3011	2818	3011	2588	1499	1420	1482	20- 30	1016	1776	17.7,17.7
40	2868	3314	2858	3350	3043	1380	1280	1354	30- 40	1477	3253	32.4,32.4
50	3043	3416	2638	3444	3259	1215	1108	1175	40- 50	1865	5118	51,51
60	3144	3194	1785	3264	3365	990.0	860.8	932.5	50- 60	2058	7176	71.6,71.6
70	2550	2155	322.7	2269	3091	627.6	442.1	551.9	60- 70	1824	9000	89.8,89.8
80	270.2	257.1	80.59	311.1	724.9	126.7	47.47	78.48	70- 80	931.6	9932	99,99
90	0	0	0	0	0	0	0	0	80- 90	95.40	10027	100,100
100	0	0	0	0	0	0	0	0	90-100	0	10027	100,100
110	0	0	0	0	0	0	0	0	100-110	0	10027	100,100
120	0	0	0	0	0	0	0	0	110-120	0	10027	100,100
130	0	0	0	0	0	0	0	0	120-130	0	10027	100,100
140	0	0	0	0	0	0	0	0	130-140	0	10027	100,100
150	0	0	0	0	0	0	0	0	140-150	0	10027	100,100
160	0	0	0	0	0	0	0	0	150-160	0	10027	100,100
170	0	0	0	0	0	0	0	0	160-170	0	10027	100,100
180	0	0	0	0	0	0	0	0	170-180	0	10027	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

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γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.363T
Humidity:65.0%
Test Distance:7.682m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

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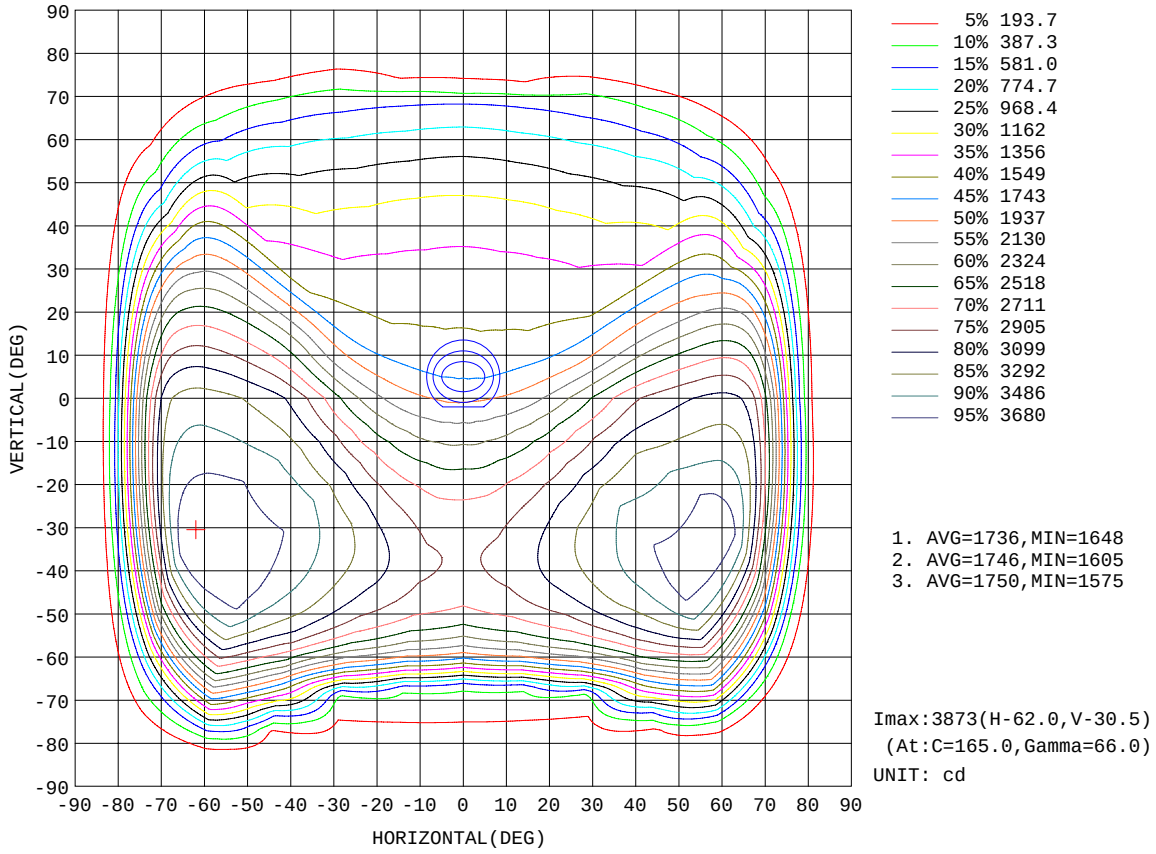

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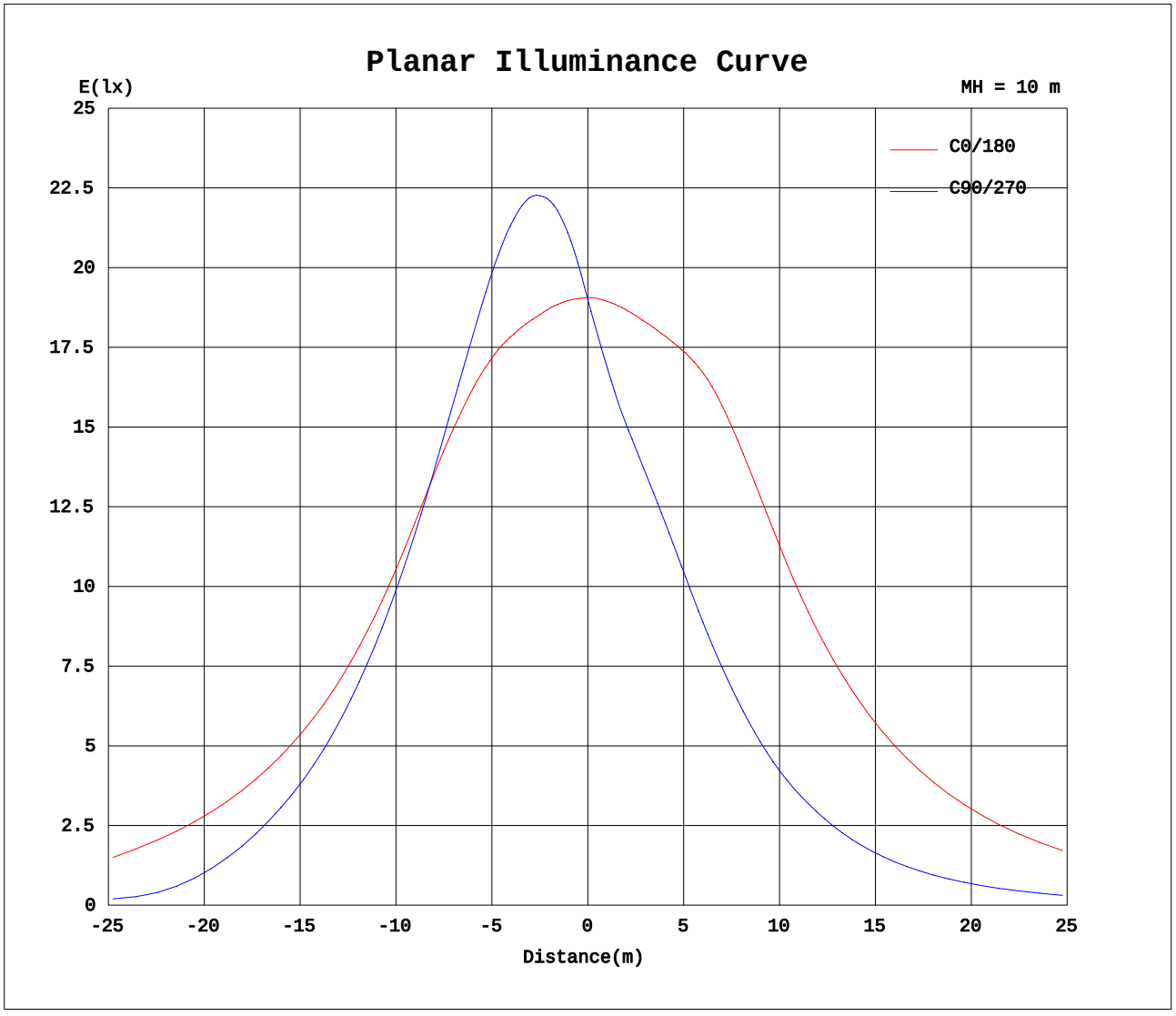
Remarks:

Planar Illuminance Curve



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Remarks:

LCS REPORT

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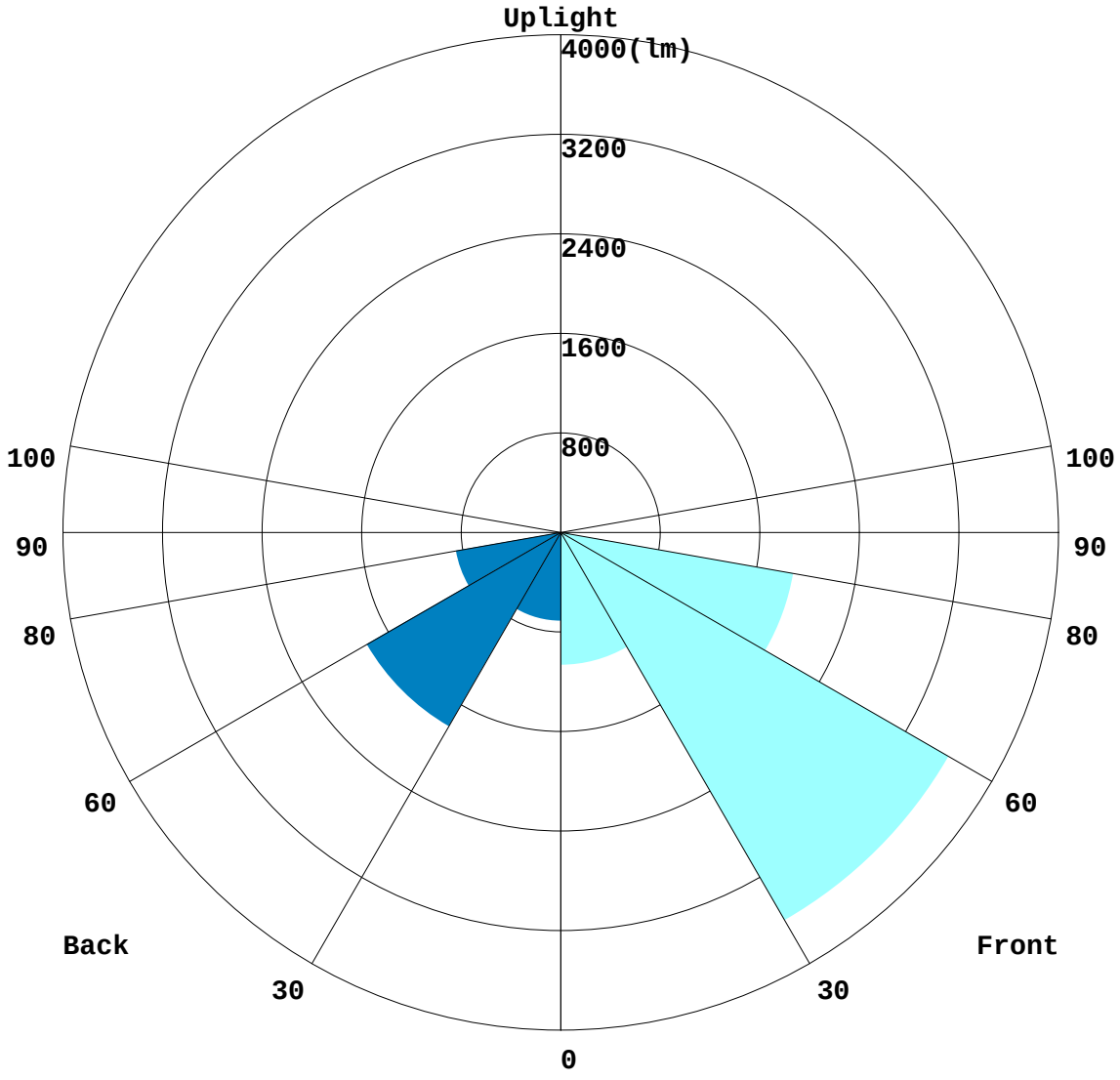
SPEC.:AoK-50WSAF-DC-A5-00-4070-T312-P	DIM.: 560*240*200mm	SERIAL No.:
MFR.:	SUR.:180*180mm	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



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Remarks:

BUG REPORT

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MFR.:	SUR.:180*180mm	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1065.5	10.6
FM - Front-Medium(30-60)	3601	35.9
FH - Front-High(60-80)	1899.5	18.9
FVH - Front-Very High(80-90)	73.303	0.7
Total Forward Light	6639.4	66.2
BL - Back-Low(0-30)	710.76	7.1
BM - Back-Medium(30-60)	1799.1	17.9
BH - Back-High(60-80)	855.8	8.5
BVH - Back-Very High(80-90)	22.093	0.2
Total Back Light	3387.8	33.8
UL - Uplight-Low(90-100)	0	0.0
UH - Uplight-High(100-180)	0	0.0
Total Up Light	0	0.0

BUG(Back,Up,Glare) Rating	B2-U0-G2

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	3387.8	0	3387.8
Street Side	6639.4	0	6639.4

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Humidity:65.0%
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Remarks:

ROAD ISOCANDELA REPORT

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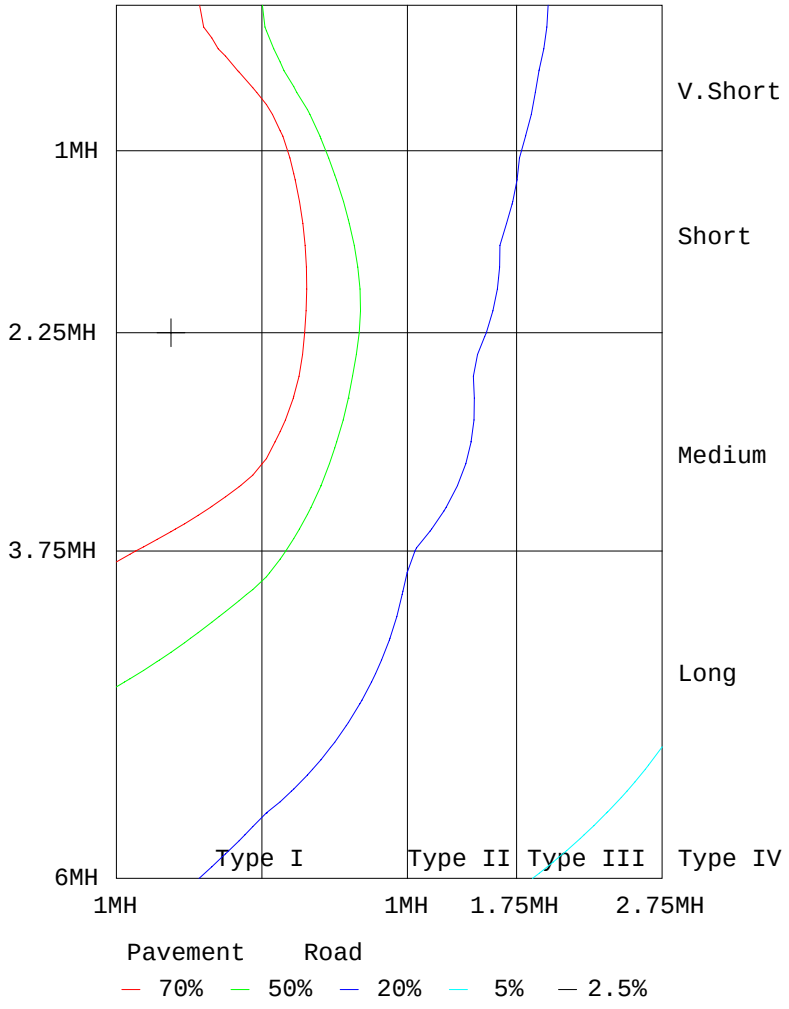
SPEC.:AoK-50WSAF-DC-A5-00-4070-T312-P	DIM.: 560*240*200mm	SERIAL No.:
MFR.:	SUR.:180*180mm	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



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Humidity:65.0%
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Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

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MFR.:	SUR.:180*180mm	Shielding Angle:

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	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
5	1913	1963	2014	2052	2083	2097	2105	2096	2080	2049	2010	1961	1911	1862	1817	1780	1753	1738	1731
10	1960	2067	2164	2229	2272	2290	2296	2286	2261	2215	2151	2060	1955	1854	1764	1699	1650	1627	1617
15	2039	2210	2341	2415	2456	2468	2469	2460	2439	2396	2324	2200	2036	1873	1732	1629	1582	1567	1559
20	2164	2395	2543	2612	2635	2630	2619	2617	2615	2592	2527	2388	2163	1912	1690	1580	1539	1525	1518
25	2332	2612	2758	2815	2799	2766	2738	2750	2781	2803	2761	2626	2347	1969	1648	1539	1497	1483	1475
30	2521	2827	2974	3011	2940	2869	2818	2847	2928	3011	3007	2888	2588	2058	1621	1499	1446	1428	1420
35	2708	3031	3186	3182	3051	2934	2866	2919	3049	3198	3234	3125	2839	2205	1598	1447	1385	1364	1356
40	2868	3236	3383	3314	3123	2954	2858	2942	3135	3350	3446	3343	3043	2367	1566	1380	1312	1290	1280
45	2966	3365	3517	3393	3132	2911	2790	2894	3142	3427	3600	3503	3176	2451	1515	1303	1227	1207	1193
50	3043	3477	3615	3416	3047	2789	2638	2767	3056	3444	3682	3618	3259	2468	1453	1215	1130	1114	1108
55	3107	3600	3686	3369	2862	2532	2335	2518	2884	3407	3744	3722	3325	2444	1370	1112	1018	997	994
60	3144	3725	3729	3194	2528	2040	1785	2038	2552	3264	3778	3823	3365	2357	1244	990	889	860	861
65	3066	3761	3667	2845	1835	1077	793	1102	1869	2932	3722	3885	3343	2138	1071	829	734	704	706
70	2550	3369	3272	2155	661	331	323	344	695	2269	3434	3761	3091	1662	816	628	551	510	442
75	1319	2265	2389	1179	210	199	195	211	228	1329	2757	2920	2121	870	488	384	344	180	171
80	270	746	1056	257	105	85.7	80.6	93.6	122	311	1620	1445	725	269	192	127	107	54.0	47.5
85	27.2	49.3	93.9	36.1	21.5	16.8	14.0	18.7	32.0	59.0	268	256	70.8	43.7	36.8	21.2	8.26	2.68	2.02
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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C Interval: 15.0DEG
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Test:U:27.44V I:1.850A P:50.77W PF:1.000 Freq:49.99Hz Lamp Flux:10027.2x1 lm		
NAME: AoK SAF	TYPE:LED STREET LIGHT	WEIGHT:4.2KG
SPEC.:AoK-50WSAF-DC-A5-00-4070-T312-P	DIM.: 560*240*200mm	SERIAL No.:
MFR.:	SUR.:180*180mm	Shielding Angle:

Table--2 UNIT: cd

C(DEG) / γ (DEG)	285	300	315	330	345														
0	1898	1898	1898	1898	1898														
5	1736	1751	1778	1815	1861														
10	1624	1646	1695	1761	1852														
15	1564	1576	1621	1723	1868														
20	1521	1532	1569	1667	1897														
25	1478	1488	1526	1619	1931														
30	1424	1438	1482	1583	1974														
35	1359	1376	1426	1547	2041														
40	1284	1301	1354	1500	2103														
45	1200	1214	1270	1437	2133														
50	1105	1112	1175	1354	2116														
55	987	993	1064	1251	2057														
60	850	856	932	1114	1935														
65	691	701	761	927	1660														
70	465	514	552	661	1117														
75	162	283	307	355	521														
80	45.0	59.1	78.5	95.0	143														
85	1.51	2.88	7.77	14.8	18.4														
90	0.00	0.00	0.00	0.00	0.00														
95	0.00	0.00	0.00	0.00	0.00														
100	0.00	0.00	0.00	0.00	0.00														
105	0.00	0.00	0.00	0.00	0.00														
110	0.00	0.00	0.00	0.00	0.00														
115	0.00	0.00	0.00	0.00	0.00														
120	0.00	0.00	0.00	0.00	0.00														
125	0.00	0.00	0.00	0.00	0.00														
130	0.00	0.00	0.00	0.00	0.00														
135	0.00	0.00	0.00	0.00	0.00														
140	0.00	0.00	0.00	0.00	0.00														
145	0.00	0.00	0.00	0.00	0.00														
150	0.00	0.00	0.00	0.00	0.00														
155	0.00	0.00	0.00	0.00	0.00														
160	0.00	0.00	0.00	0.00	0.00														
165	0.00	0.00	0.00	0.00	0.00														
170	0.00	0.00	0.00	0.00	0.00														
175	0.00	0.00	0.00	0.00	0.00														
180	0.00	0.00	0.00	0.00	0.00														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:yanyonggeng
Test Date:2025-8-8

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.363T
Humidity:65.0%
Test Distance:7.682m [K=1.0000]
Remarks: