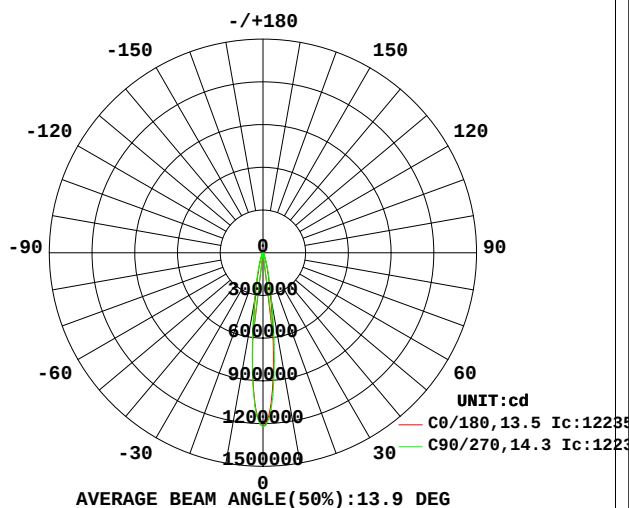


LUMINAIRE PHOTOMETRIC TEST REPORT

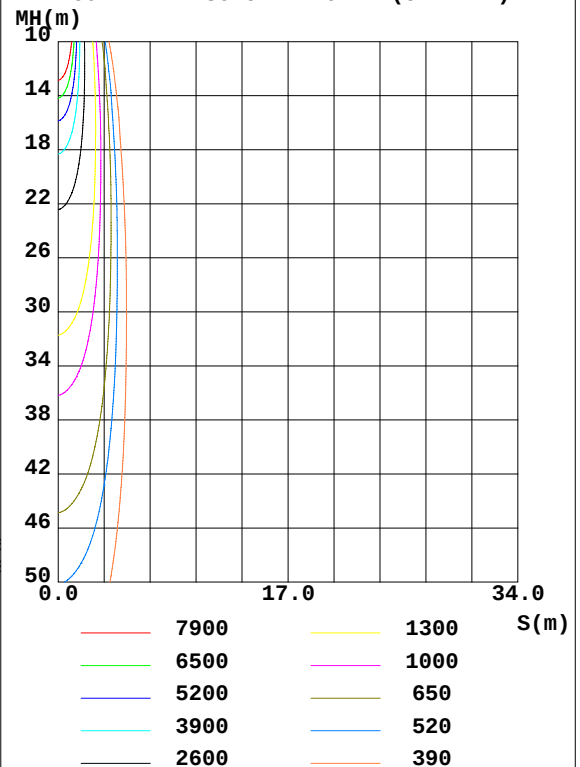
Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm					
NAME: AOK-960W0FS			TYPE:LED V2灯珠		WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P			DIM.: 0.54*0.540*0.2M		SERIAL No.:
MFR.: AOK			SUR.:0.52*0.52m		Shielding Angle:15度

DATA OF LAMP		PHOTOMETRIC DATA Eff: 132.16 lm/W			
MODEL	3535	Imax(cd)	1223511	S/MH(C0/180)	0.23
NOMINAL POWER(W)	960	LOR(%)	100.0	S/MH(C90/270)	0.24
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	121280	η UP, DN(C0-180)	0.0, 53.6
NOMINAL FLUX(lm)	121280	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 46.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.684m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	313.0	320.7	361.2	320.7	313.0	287.4	338.6	287.4	0- 10	60268	60268	49.7, 49.7
20	49.59	55.30	60.55	55.30	49.59	48.64	54.12	48.64	10- 20	37883	98151	80.9, 80.9
30	8.224	10.32	10.56	10.32	8.224	9.650	8.902	9.650	20- 30	10738	108888	89.8, 89.8
40	3.895	4.221	4.419	4.221	3.895	4.634	4.215	4.634	30- 40	3644	112533	92.8, 92.8
50	3.567	3.811	4.007	3.811	3.567	4.158	3.852	4.158	40- 50	3206	115739	95.4, 95.4
60	2.314	2.412	2.558	2.412	2.314	2.551	2.449	2.551	50- 60	2862	118601	97.8, 97.8
70	1.172	1.197	1.252	1.197	1.172	1.247	1.214	1.247	60- 70	1800	120401	99.3, 99.3
80	0.3222	0.3108	0.3524	0.3108	0.3222	0.2936	0.3293	0.2936	70- 80	774.8	121176	99.9, 99.9
90	0	0	0	0	0	0	0	0	80- 90	103.5	121280	100, 100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY: $\times 1000$ cd									UNIT: lm		

Conical surface Flux(90deg): 1.1409e+005 lm

%lum = 94.1%

%lamp = 94.1%

Conical surface Flux(120deg): 1.186e+005 lm

%lum = 97.8%

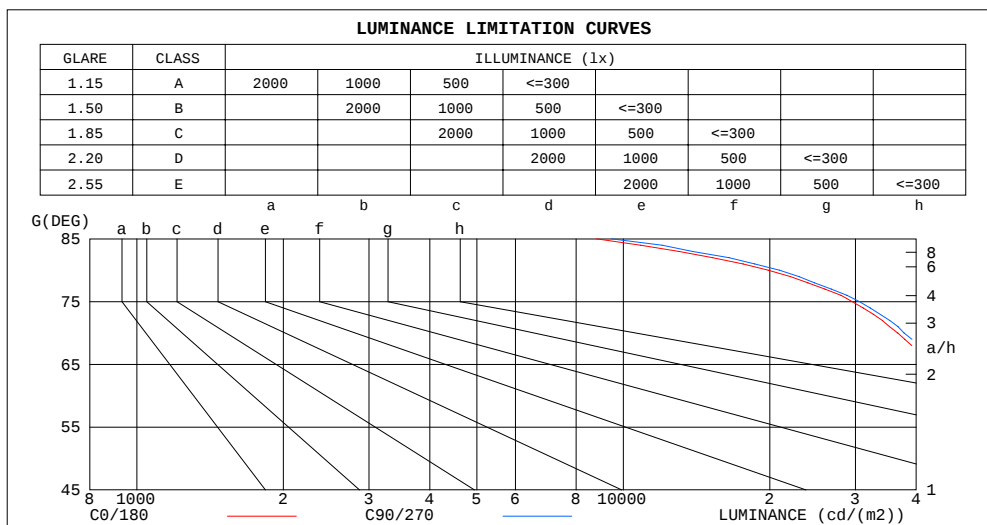
%lamp = 97.8%

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.684m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	8808	9445
80	19847	20931
75	29539	30566
70	36643	37755
65	42412	44353
60	49493	52777
55	54292	58720
50	59348	64297
45	55361	59958

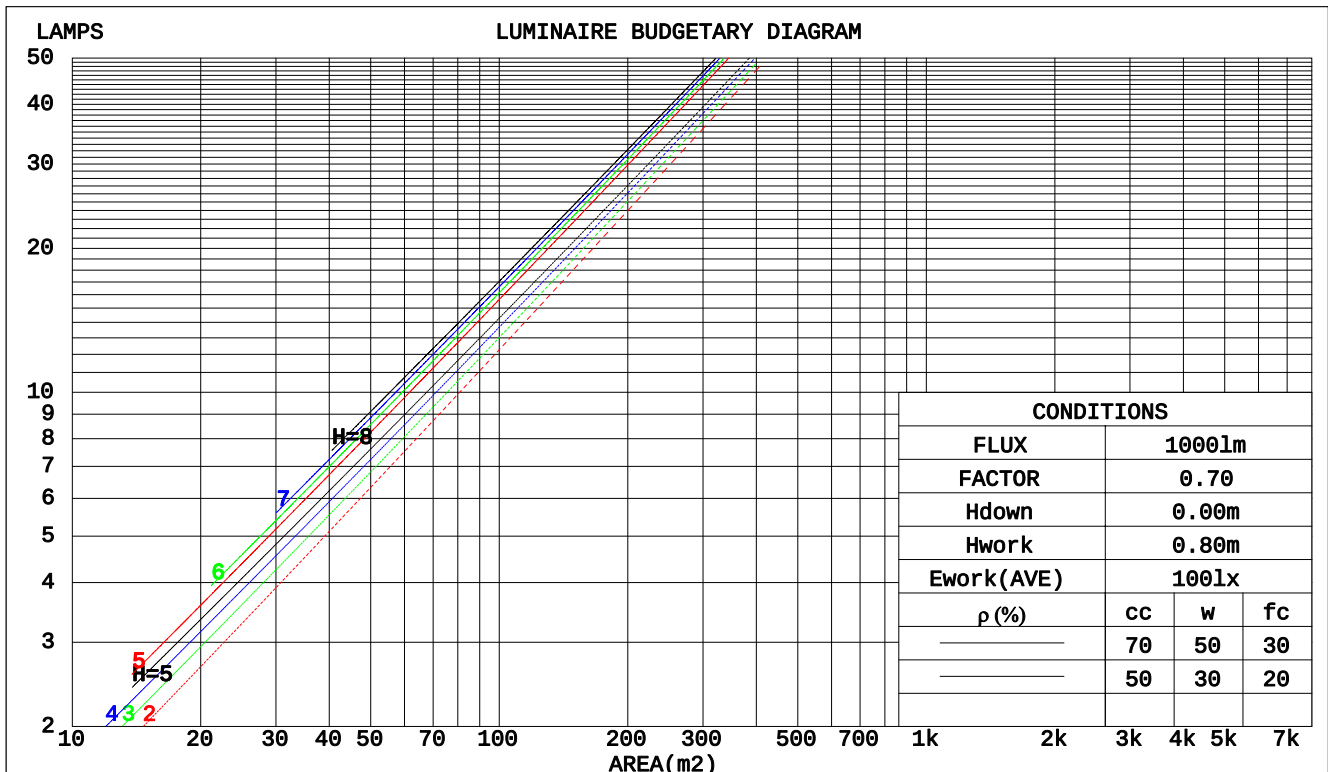
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.02	1.06	1.03	1.01	1.03	1.00	.98	.99	.98	.96	.97	.96	.94	.93
3.0	1.03	.99	.96	1.01	.98	.95	.99	.96	.94	.97	.94	.93	.95	.93	.91	.90
4.0	.99	.95	.92	.98	.94	.91	.96	.93	.90	.94	.91	.89	.92	.90	.88	.87
5.0	.96	.91	.88	.95	.91	.88	.93	.90	.87	.92	.89	.87	.90	.88	.86	.85
6.0	.93	.89	.86	.92	.88	.85	.91	.87	.85	.89	.86	.84	.88	.86	.84	.83
7.0	.90	.86	.83	.89	.86	.83	.88	.85	.83	.87	.84	.82	.86	.84	.82	.81
8.0	.88	.84	.81	.87	.84	.81	.86	.83	.81	.86	.83	.80	.85	.82	.80	.79
9.0	.86	.82	.79	.85	.82	.79	.85	.81	.79	.84	.81	.79	.83	.80	.78	.78
10.0	.84	.80	.78	.83	.80	.77	.83	.80	.77	.82	.79	.77	.82	.79	.77	.76



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm					
NAME: AOK-960W0FS			TYPE:LED V2灯珠		WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P			DIM.: 0.54*0.540*0.2M		SERIAL No.:
MFR.: AOK			SUR.:0.52*0.52m		Shielding Angle:15度

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.140	.080	.025	.134	.076	.024	.121	.070	.022	.110	.063	.020	.099	.058	.019	
2.0	.130	.071	.022	.124	.069	.021	.114	.064	.020	.105	.059	.018	.096	.054	.017	
3.0	.120	.064	.019	.116	.062	.019	.107	.058	.018	.099	.054	.017	.092	.051	.016	
4.0	.111	.058	.017	.108	.056	.017	.100	.053	.016	.094	.050	.015	.088	.048	.014	
5.0	.104	.053	.015	.101	.052	.015	.094	.049	.014	.089	.047	.014	.083	.045	.013	
6.0	.097	.049	.014	.094	.048	.014	.089	.046	.013	.084	.044	.013	.080	.042	.012	
7.0	.091	.045	.013	.089	.044	.013	.084	.043	.012	.080	.041	.012	.076	.040	.012	
8.0	.086	.042	.012	.084	.041	.012	.080	.040	.011	.076	.039	.011	.073	.037	.011	
9.0	.082	.039	.011	.080	.039	.011	.076	.038	.011	.073	.037	.010	.070	.036	.010	
10.0	.078	.037	.010	.076	.037	.010	.073	.036	.010	.070	.035	.010	.067	.034	.010	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.118	.129	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.136	.113	.095	.116	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.105	.085	.068	.073	.059	.048	.042	.035	.029	.013	.011	.009	
5.0	.112	.086	.066	.096	.074	.057	.066	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.103	.075	.056	.088	.065	.049	.061	.046	.034	.035	.027	.020	.011	.009	.007	
7.0	.095	.067	.048	.082	.058	.042	.056	.041	.030	.033	.024	.018	.011	.008	.006	
8.0	.088	.060	.041	.076	.052	.036	.052	.037	.026	.030	.022	.015	.010	.007	.005	
9.0	.082	.055	.036	.071	.047	.031	.049	.033	.022	.028	.020	.013	.009	.006	.004	
10.0	.077	.050	.032	.066	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm											
NAME: AOK-960W0FS					TYPE:LED V2灯珠			WEIGHT:26KG			
SPEC.:AOK-960WoFS-NV-V2-00-5070-15D-P					DIM.: 0.54*0.540*0.2M			SERIAL No.:			
MFR.: AOK					SUR.:0.52*0.52m			Shielding Angle:15度			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		Viewed crosswise				Viewed endwise					
x = 2H y = 2H		3.4	4.1	3.6	4.2	4.4	3.7	4.3	3.9	4.5	4.6
3H		4.5	5.1	4.7	5.2	5.4	4.7	5.3	5.0	5.5	5.7
4H		4.8	5.4	5.0	5.6	5.8	5.0	5.6	5.3	5.8	6.0
6H		4.9	5.5	5.2	5.7	5.9	5.2	5.7	5.4	5.9	6.2
8H		4.9	5.4	5.2	5.7	5.9	5.2	5.7	5.5	5.9	6.2
12H		4.9	5.4	5.2	5.7	5.9	5.1	5.6	5.4	5.9	6.2
4H	2H	4.0	4.6	4.2	4.8	5.0	4.2	4.8	4.5	5.0	5.2
	3H	5.1	5.6	5.4	5.9	6.2	5.3	5.8	5.6	6.1	6.4
	4H	5.5	6.0	5.8	6.3	6.6	5.7	6.2	6.0	6.5	6.8
	6H	5.7	6.1	6.1	6.4	6.8	5.9	6.3	6.2	6.6	6.9
	8H	5.7	6.1	6.1	6.4	6.8	5.9	6.3	6.3	6.6	7.0
	12H	5.7	6.0	6.1	6.4	6.8	5.8	6.2	6.2	6.6	7.0
8H	4H	5.6	6.0	6.0	6.3	6.7	5.8	6.1	6.1	6.5	6.9
	6H	5.8	6.1	6.2	6.5	6.9	6.0	6.3	6.4	6.7	7.1
	8H	5.8	6.1	6.3	6.5	7.0	6.0	6.3	6.4	6.7	7.1
	12H	5.8	6.1	6.3	6.5	7.0	6.0	6.2	6.4	6.6	7.1
12H	4H	5.5	5.9	6.0	6.3	6.7	5.7	6.1	6.1	6.4	6.8
	6H	5.8	6.1	6.2	6.5	6.9	5.9	6.2	6.4	6.6	7.1
	8H	5.8	6.1	6.3	6.5	7.0	6.0	6.2	6.4	6.7	7.1
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.3				+ 0.2 / - 0.3					
1.5H		+ 0.3 / - 0.6				+ 0.4 / - 0.5					
2.0H		+ 0.6 / - 0.5				+ 0.7 / - 0.6					

CIE Pub.117, 121280 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 16.7$)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度

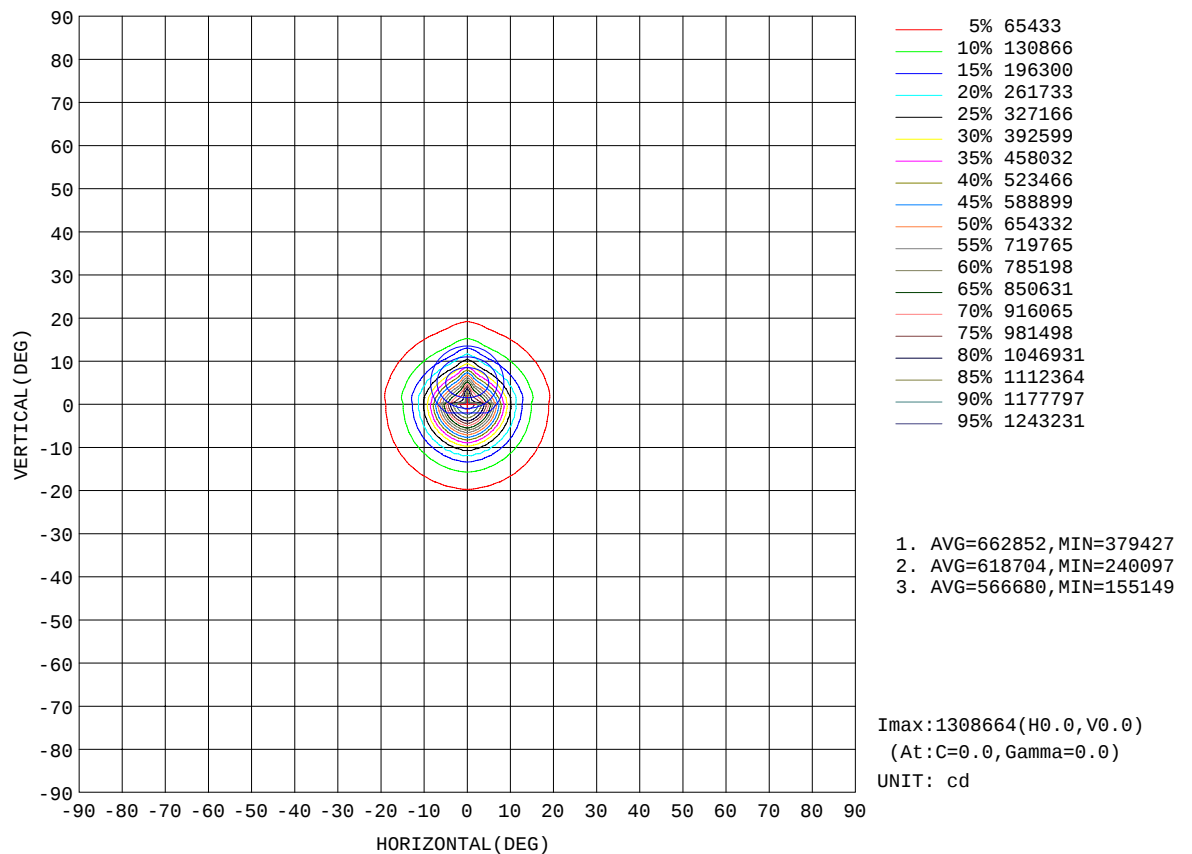
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	81	77	86	80	77	73
0.80	94	88	85	94	88	85	93	88	84	80
1.00	99	93	89	98	93	89	96	93	89	85
1.25	103	97	94	102	97	94	100	96	93	88
1.50	105	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度

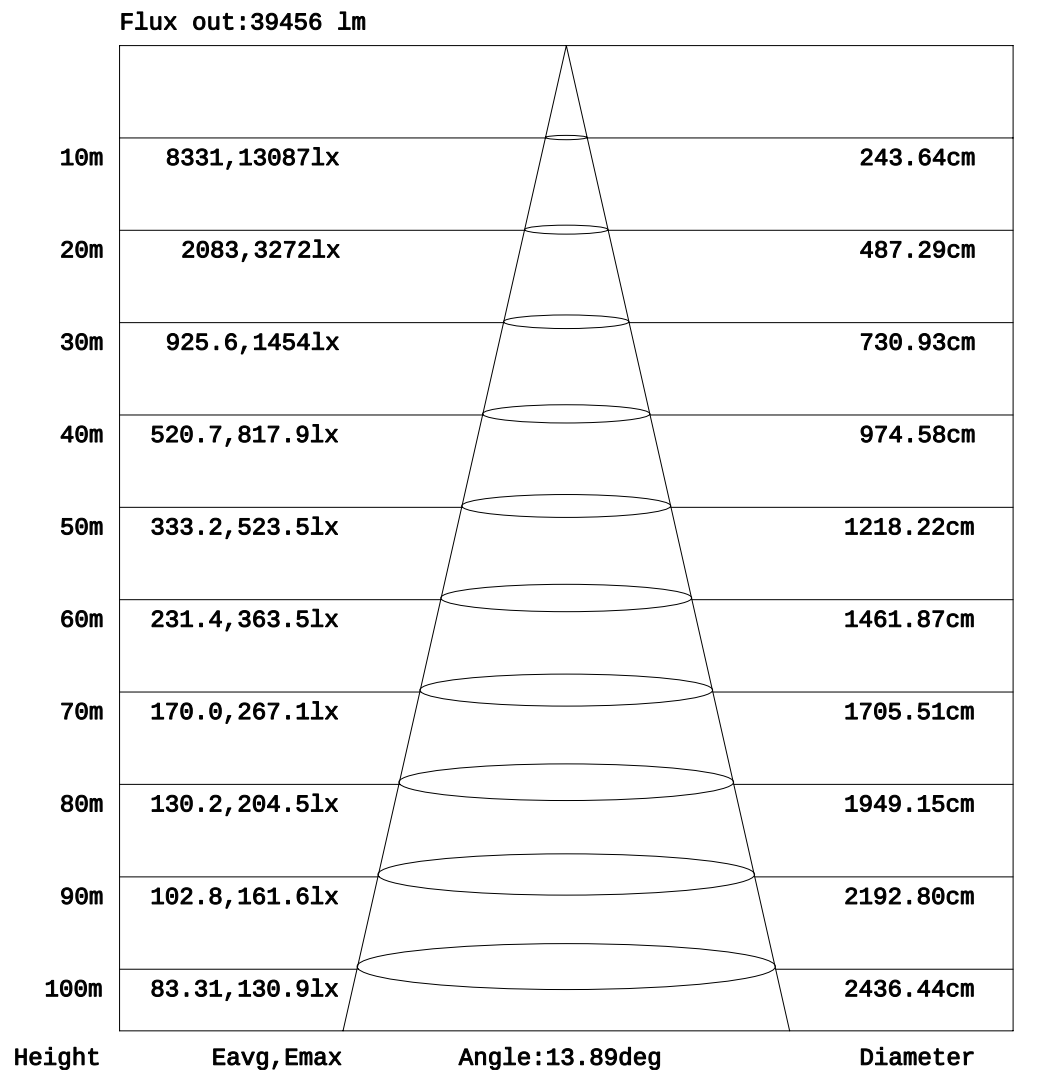


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

AAI Figure

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度



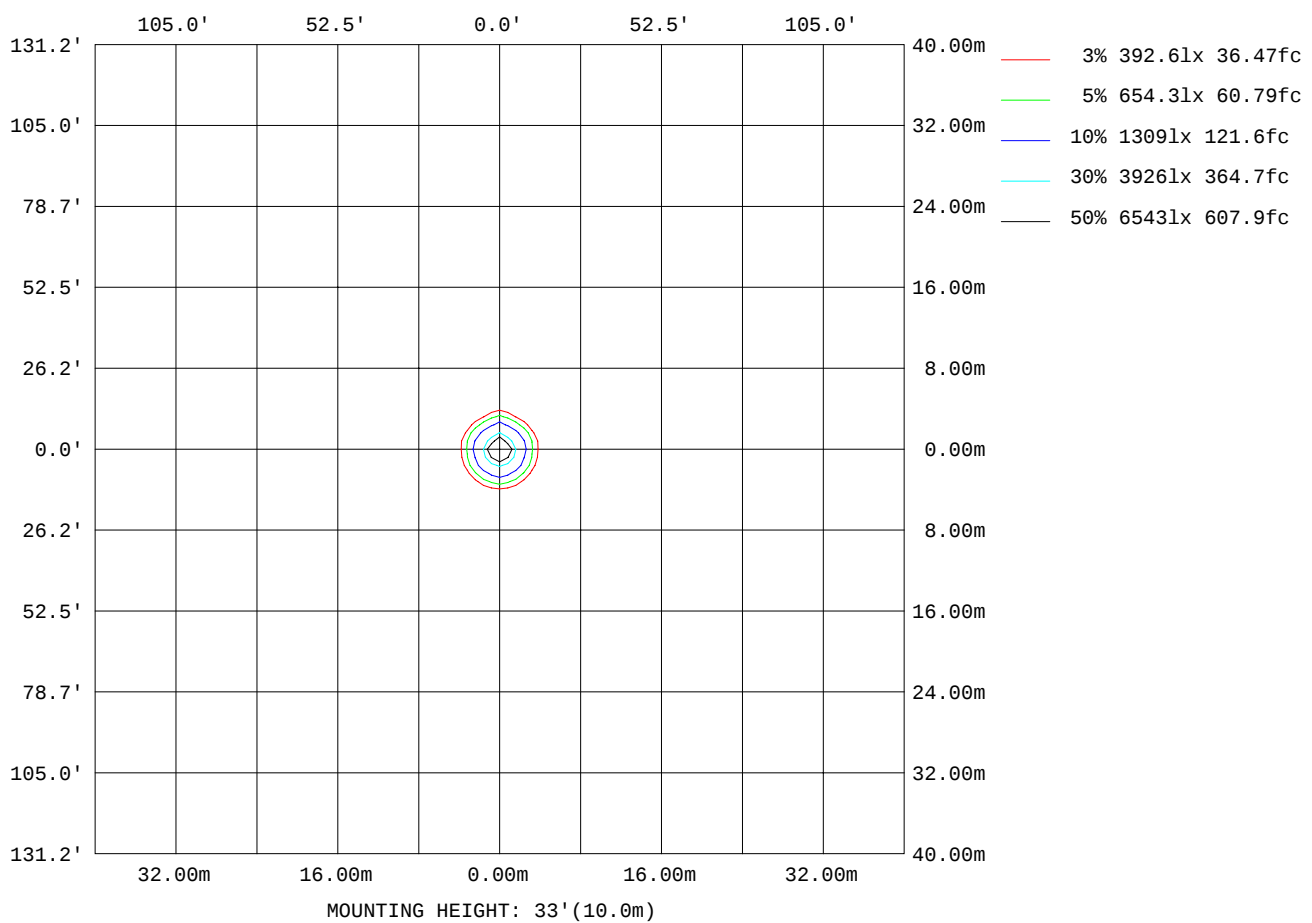
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960W0FS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-05-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:218.8V I:4.265A P:917.7W PF:0.9833 Freq:49.99Hz Lamp Flux:121280x1 lm		
NAME: AOK-960W0FS	TYPE:LED V2灯珠	WEIGHT:26KG
SPEC.:AOK-960WoFS-NV-V2-00-5070-15D-P	DIM.: 0.54*0.540*0.2M	SERIAL No.:
MFR.: AOK	SUR.:0.52*0.52m	Shielding Angle:15度

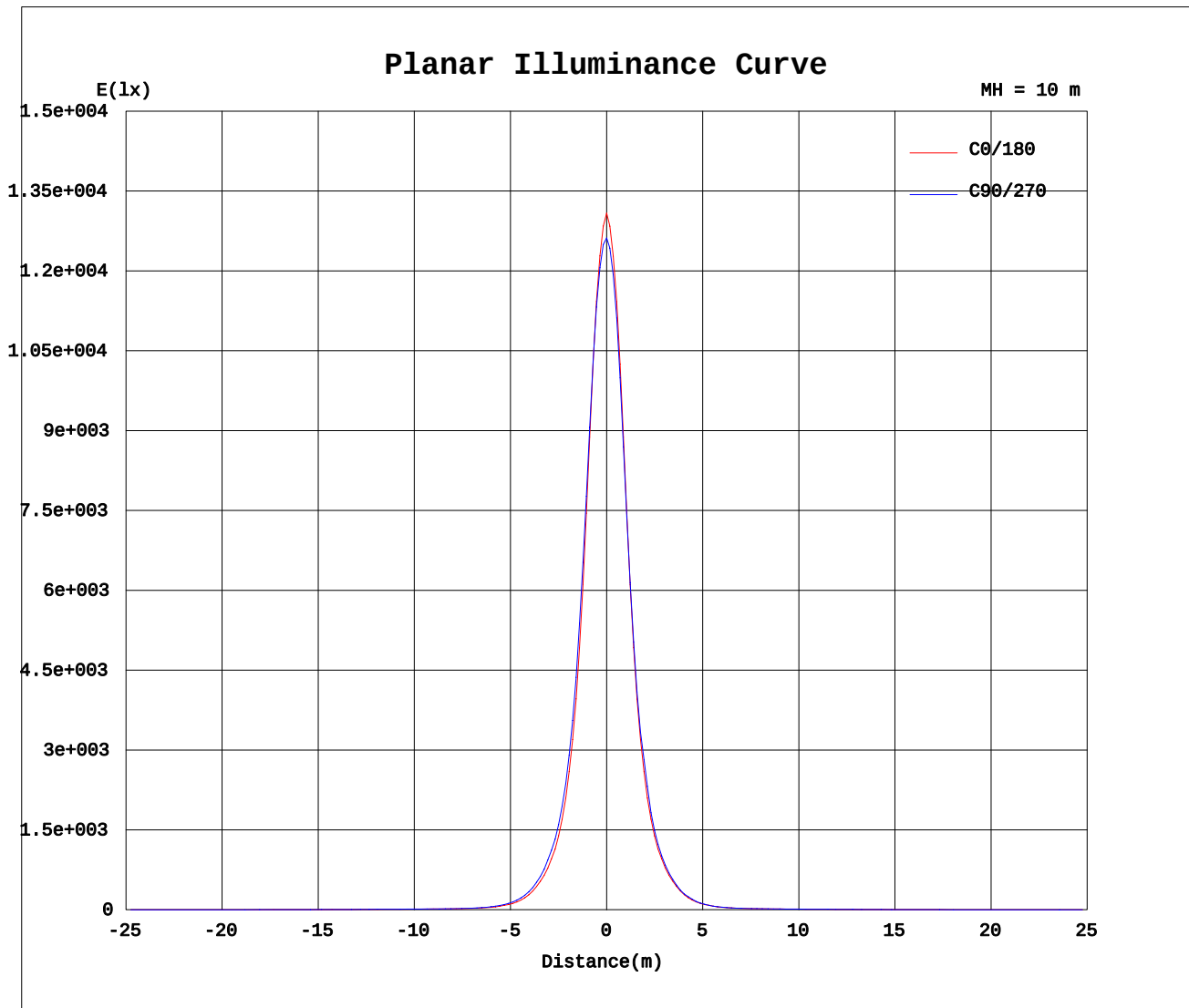
AvgL	cd/m2
L_0~180(65)av	39652
L_0~180(75)av	27616
L_0~180(85)av	8235
L_90~270(65)av	42258
L_90~270(75)av	29051
L_90~270(85)av	8619
L_45(65)av	41720
L_45(75)av	27932
L_45(85)av	6025

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.684m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2019-05-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.684m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.684m [K=1.0000]
Remarks:

```