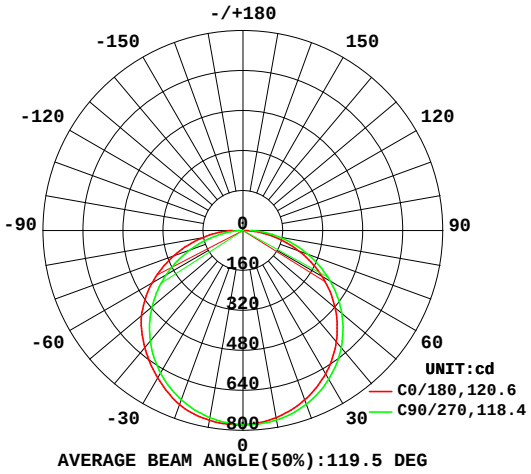
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

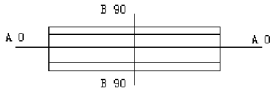
Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.41 lm/W			
MODEL		Imax(cd)	777.7	S/MH(C0/180)	1.31
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	2427.7	h UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	2427.68	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,50.1
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	h down(%)	100.0	CIBSE SHR MAX	1.50

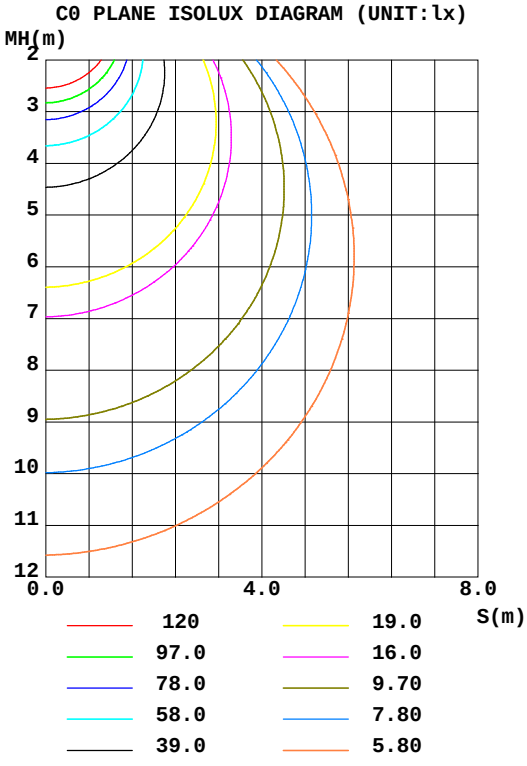
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):119.5 DEG



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

α Range: 0 - 90DEG
α Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	760.4	770.3	771.4	760.7					0- 10	73.63	73.63	3.03,3.03
20	721.9	740.4	742.1	721.0					10- 20	212.2	285.8	11.8,11.8
30	662.2	687.1	682.4	659.5					20- 30	324.9	610.7	25.2,25.2
40	581.3	611.9	611.6	577.0					30- 40	398.3	1009	41.6,41.6
50	482.2	516.8	530.6	475.6					40- 50	424.8	1434	59.1,59.1
60	364.7	403.2	420.2	355.0					50- 60	398.0	1832	75.5,75.5
70	236.2	274.5	293.6	224.2					60- 70	318.7	2151	88.6,88.6
80	107.2	143.9	162.2	95.51					70- 80	202.1	2353	96.9,96.9
90	0	28.29	39.89	0.1258					80- 90	75.07	2428	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:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

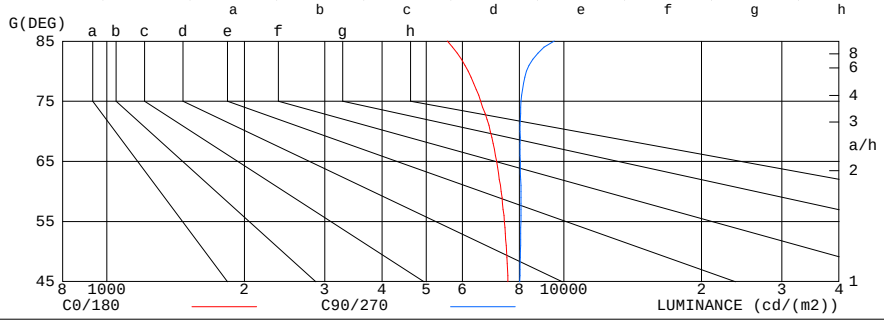
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	**TYPE:**	**WEIGHT:**
SPEC.:100-277v	**DIM.:**	**SERIAL No.:**
MFR.:	**SUR.:**	**Shielding Angle:**

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	5560	9529
80	6174	8286
75	6573	8060
70	6905	8027
65	7135	8028
60	7295	8064
55	7415	8056
50	7501	8040
45	7548	8012

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Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

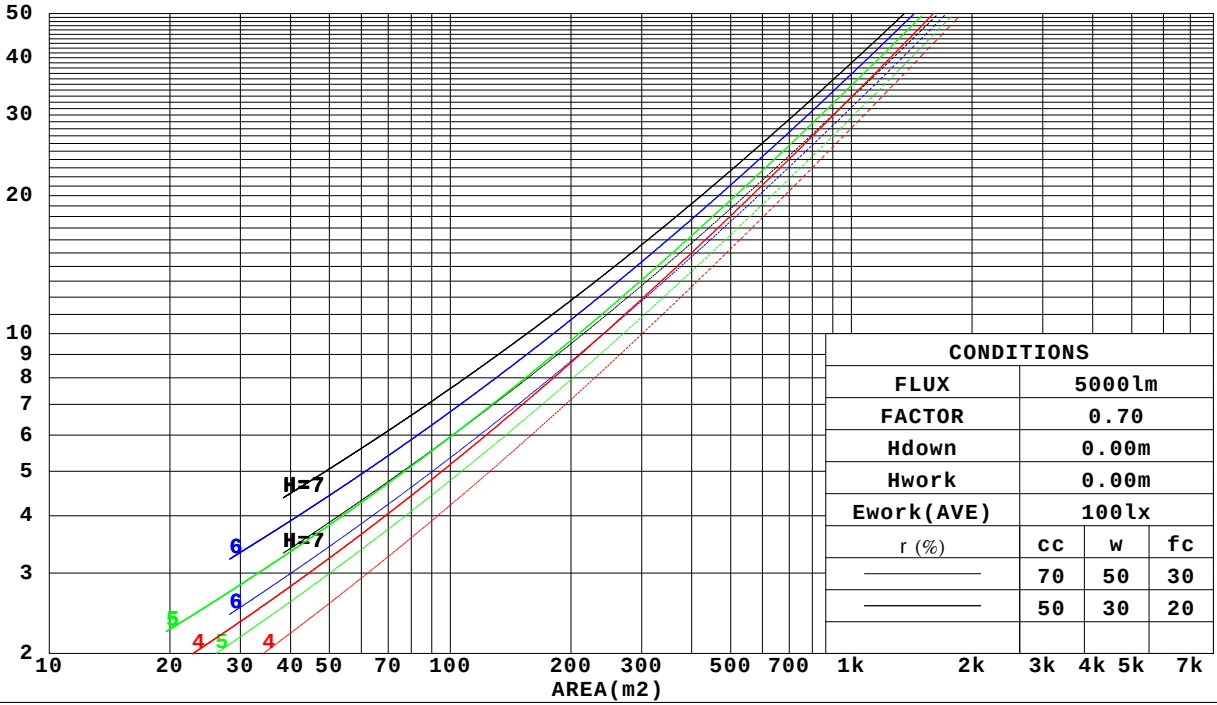
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r 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	.00
1.0	1.03	.98	.94	1.00	.96	.92	.96	.93	.89	.92	.89	.87	.89	.86	.84	.82
2.0	.89	.82	.76	.87	.80	.75	.83	.78	.73	.80	.75	.71	.77	.73	.70	.67
3.0	.78	.69	.62	.76	.68	.62	.73	.66	.61	.70	.64	.59	.68	.63	.58	.56
4.0	.68	.59	.52	.67	.59	.52	.65	.57	.51	.62	.56	.50	.60	.54	.50	.48
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.49	.42	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.39	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.36	.30	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.34	.30	.28
9.0	.41	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.29	.25	.36	.29	.24	.35	.29	.24	.22

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



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C Interval: 90.0DEG
Test Speed: HIGH
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Test Date:2024-03-20

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g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

WEC AND CCEC

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.332	.189	.060	.325	.185	.059	.312	.179	.057	.299	.173	.055	.288	.167	.054	
2.0	.307	.168	.052	.301	.166	.051	.289	.161	.050	.278	.156	.049	.268	.151	.048	
3.0	.281	.150	.045	.276	.148	.044	.265	.144	.044	.255	.140	.043	.246	.136	.042	
4.0	.258	.134	.039	.253	.132	.039	.244	.129	.039	.235	.126	.038	.227	.123	.038	
5.0	.237	.121	.035	.233	.119	.035	.224	.117	.034	.217	.114	.034	.210	.112	.034	
6.0	.219	.110	.031	.215	.109	.031	.208	.107	.031	.201	.104	.031	.195	.102	.030	
7.0	.203	.101	.028	.200	.100	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028	
8.0	.189	.093	.026	.186	.092	.026	.180	.090	.026	.175	.089	.026	.170	.087	.025	
9.0	.177	.086	.024	.174	.085	.024	.169	.084	.024	.164	.082	.024	.159	.081	.023	
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.150	.076	.022	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	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	.182	.156	.133	.156	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.174	.132	.096	.149	.113	.083	.102	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.167	.114	.073	.143	.099	.063	.098	.069	.044	.057	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.136	.087	.050	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.083	.038	.124	.071	.033	.085	.050	.024	.050	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	19.8	21.4	20.1	21.6	21.8	20.2	21.8	20.5	22.0	22.2
	3H	21.5	22.9	21.8	23.2	23.4	22.0	23.4	22.3	23.7	23.9
	4H	22.2	23.5	22.5	23.8	24.1	22.8	24.2	23.1	24.4	24.7
	6H	22.7	24.0	23.0	24.2	24.5	23.5	24.8	23.8	25.1	25.3
	8H	22.8	24.1	23.2	24.4	24.7	23.8	25.0	24.1	25.3	25.6
	12H	23.0	24.2	23.3	24.5	24.8	24.0	25.2	24.4	25.5	25.8
4H	2H	20.6	21.9	20.9	22.2	22.5	20.8	22.2	21.1	22.5	22.7
	3H	22.4	23.6	22.7	23.9	24.2	22.8	24.0	23.2	24.3	24.6
	4H	23.2	24.3	23.6	24.6	25.0	23.7	24.9	24.1	25.2	25.5
	6H	23.8	24.8	24.3	25.2	25.6	24.6	25.6	25.0	25.9	26.3
	8H	24.1	25.0	24.5	25.4	25.8	24.9	25.9	25.4	26.2	26.6
	12H	24.3	25.1	24.7	25.5	25.9	25.3	26.1	25.7	26.5	26.9
8H	4H	23.6	24.5	24.0	24.9	25.3	24.0	25.0	24.5	25.3	25.7
	6H	24.4	25.2	24.9	25.6	26.0	25.1	25.8	25.5	26.3	26.7
	8H	24.8	25.4	25.2	25.9	26.3	25.5	26.2	26.0	26.7	27.1
	12H	25.0	25.6	25.5	26.1	26.5	26.0	26.6	26.5	27.0	27.5
12H	4H	23.6	24.5	24.0	24.9	25.3	24.1	24.9	24.5	25.3	25.7
	6H	24.5	25.2	25.0	25.6	26.1	25.1	25.8	25.6	26.3	26.7
	8H	24.9	25.5	25.4	26.0	26.5	25.7	26.3	26.2	26.7	27.2
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.1 / - 0.4					+ 0.1 / - 0.3				

CIE Pub.117, 2428 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
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Temperature:25.3DEG
Operators:
Test Date:2024-03-20

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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) x RCR = 5									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	65	53	46	63	53	46	38
1.00	74	63	55	73	62	55	71	64	54	47
1.25	81	70	63	80	70	62	77	68	62	54
1.50	86	76	69	85	75	68	82	73	67	59
2.00	93	84	78	92	83	77	88	81	75	67
2.50	98	89	83	95	88	82	91	85	80	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	98	105	101	97	101	97	94	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

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g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

ISOCANDELA DIAGRAM

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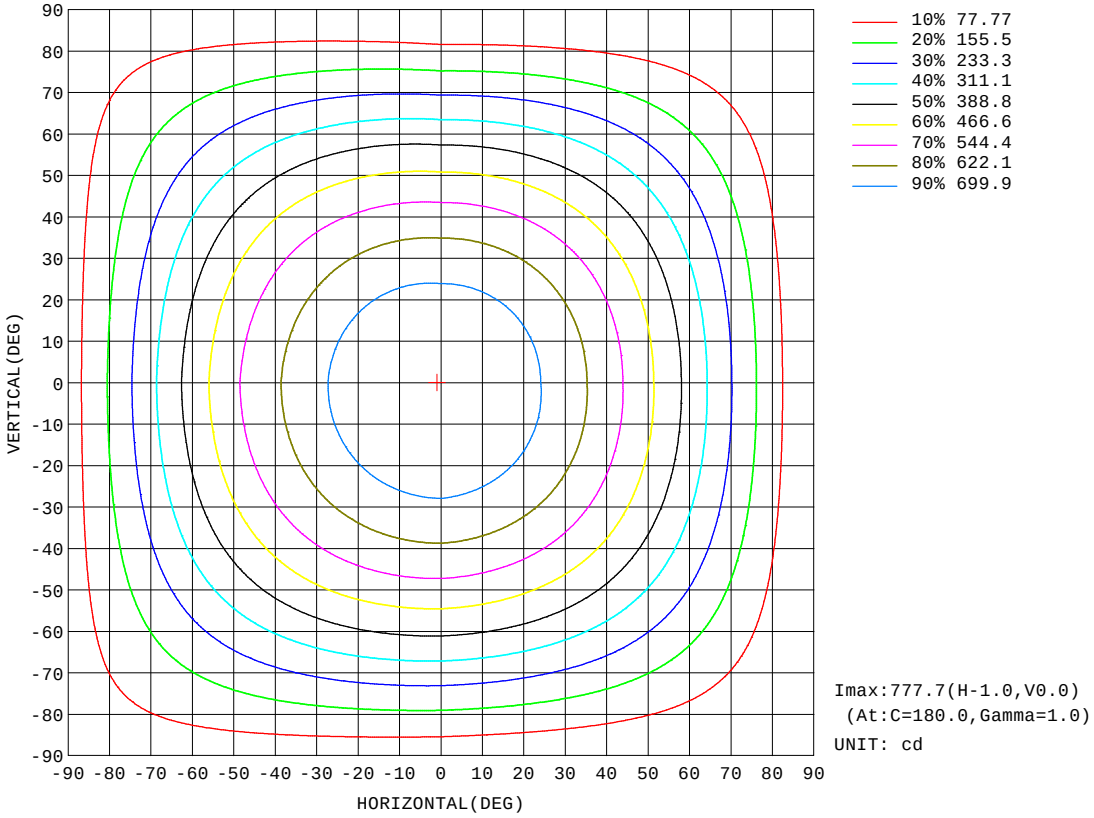

C Range: 0 - 360DEG
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Test Speed: HIGH
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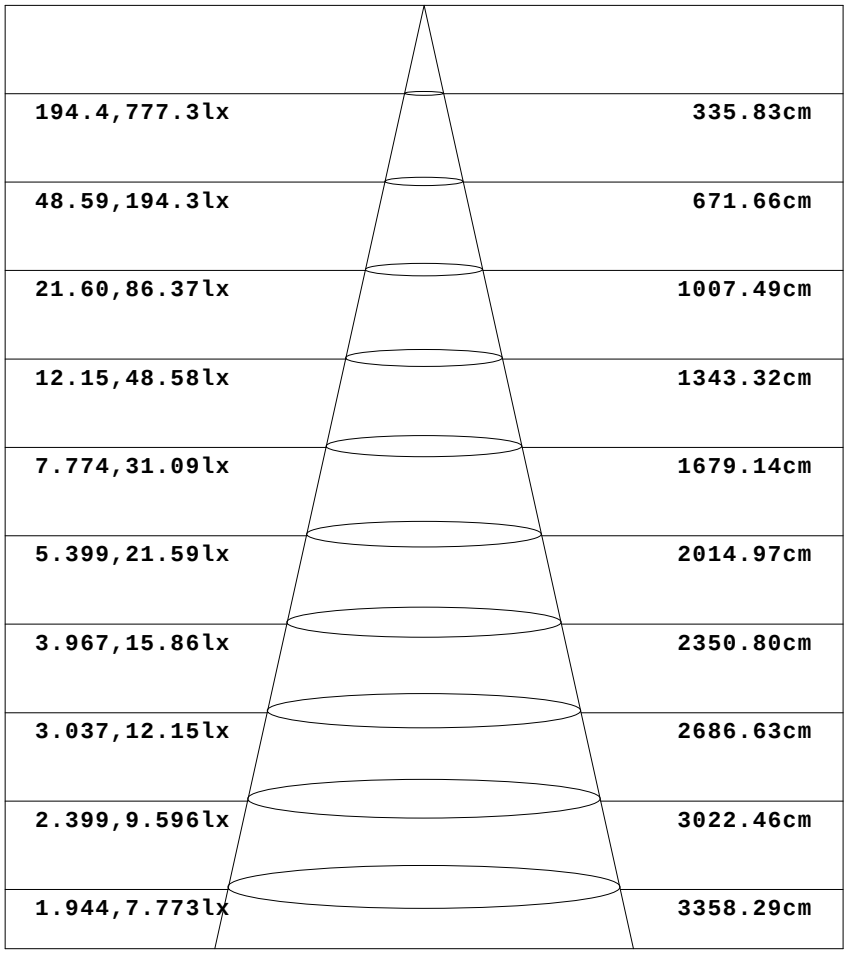
Operators:
Test Date:2024-03-20

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

AAI Figure

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1832 lm



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

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C Interval: 90.0DEG
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Operators:
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ISOLUX DIAGRAM

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SPEC.:100-277v	DIM.:	SERIAL No.:
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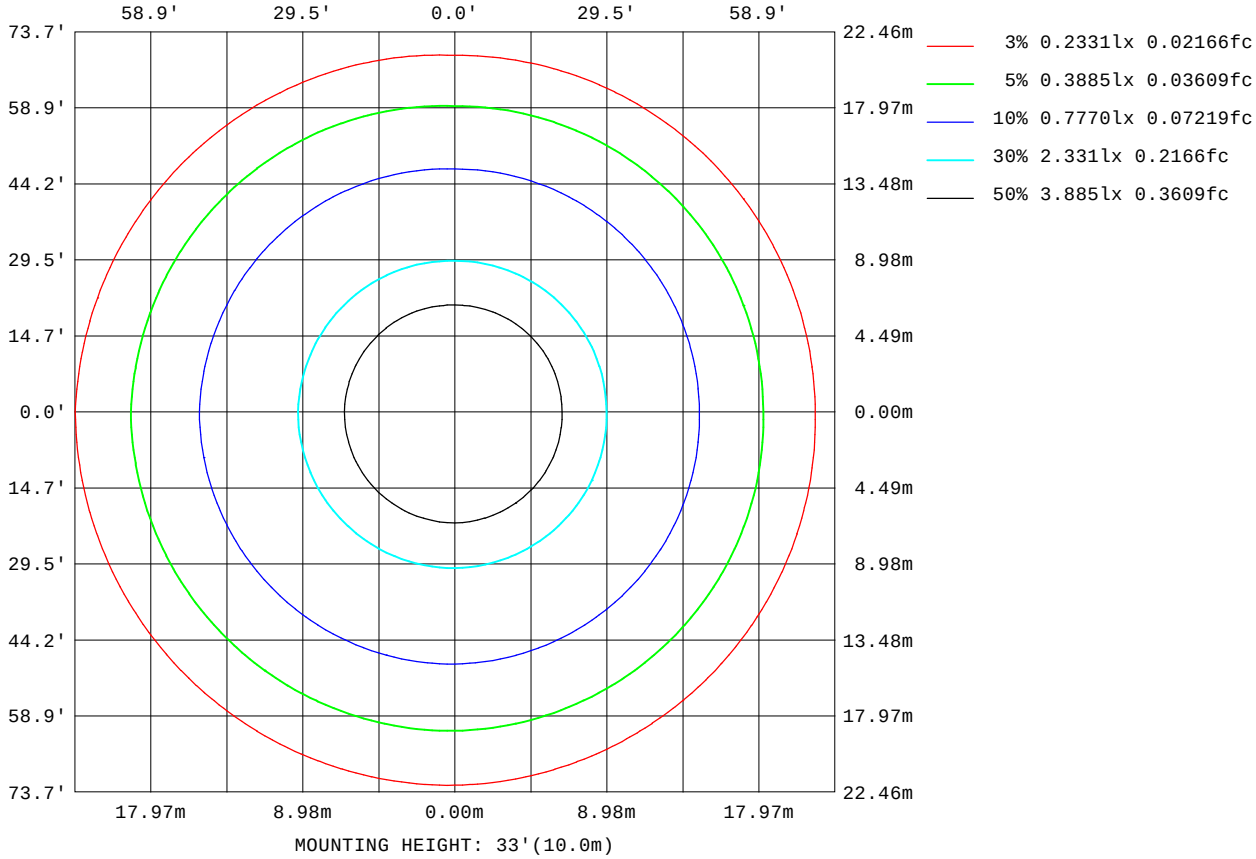

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Remarks:

LED Avg.L Report

Test:U:120.34V I:0.1318A P:15.521W PF:0.9784 Freq:59.98Hz Lamp Flux:2427.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

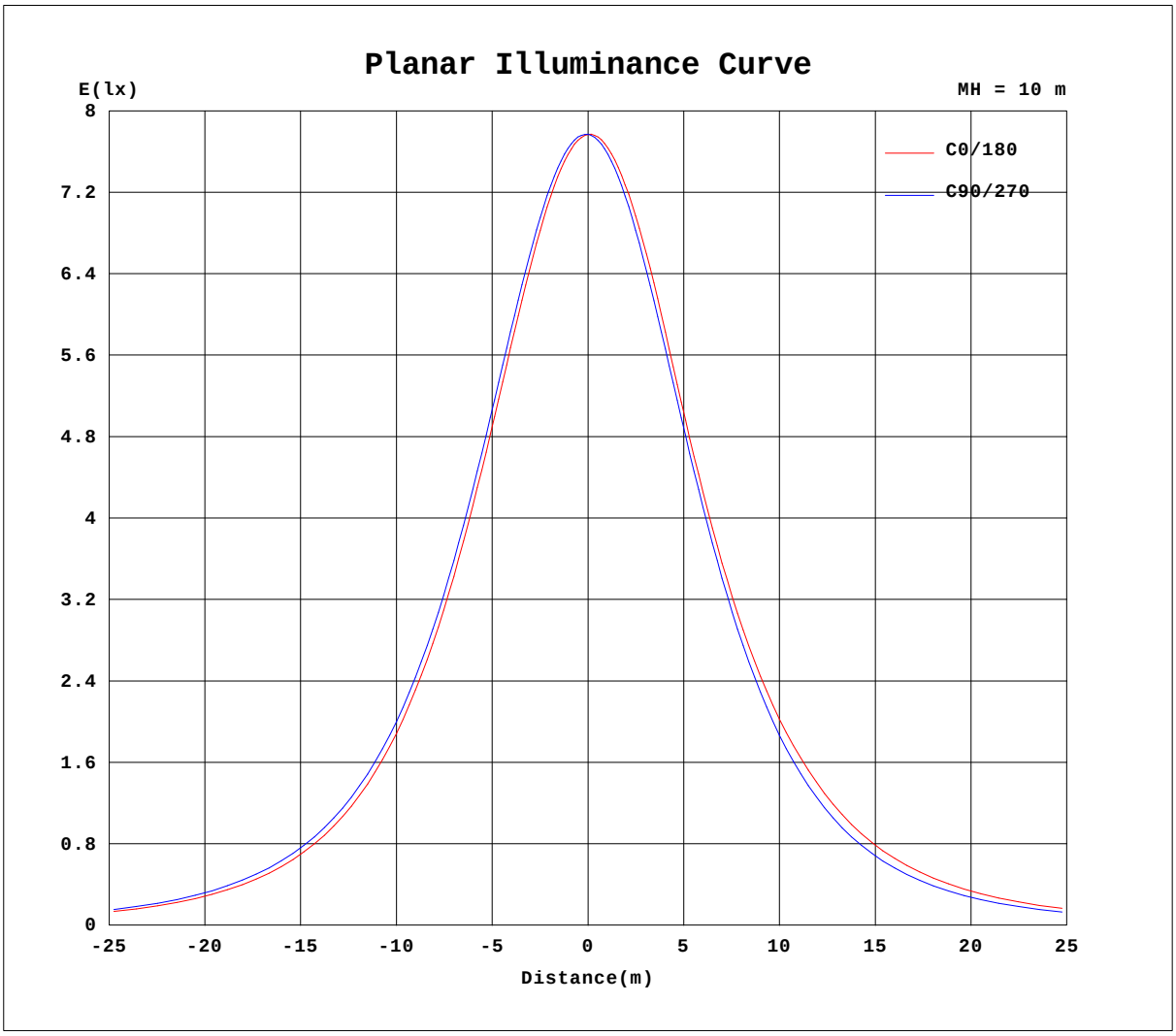
AvgL	cd/m2
L_0~180(65)av	7797
L_0~180(75)av	7688
L_0~180(85)av	8462
L_90~270(65)av	7445
L_90~270(75)av	7075
L_90~270(85)av	7029
L_45(65)av	7618
L_45(75)av	7375
L_45(85)av	7747

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

Planar Illuminance Curve



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LUMINOUS DISTRIBUTION INTENSITY DATA

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SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

g \ C(DEG)	0	90	180	270
0	777	777	777	777
5	771	777	777	772
10	760	770	771	761
15	744	758	760	744
20	722	740	742	721
25	695	717	714	693
30	662	687	682	660
35	624	652	648	621
40	581	612	612	577
45	534	567	573	529
50	482	517	531	476
55	425	462	478	417
60	365	403	420	355
65	302	339	357	290
70	236	275	294	224
75	170	209	228	158
80	107	144	162	95.5
85	48.5	83.1	99.0	39.5
90	0.00	28.3	39.9	0.13

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Remarks:

Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	777.0	777.2	777.0	777.2
3.0	774.5	777.6	777.6	774.5
6.0	769.7	775.8	776.3	770.1
9.0	763.2	772.2	773.0	763.3
12.0	754.4	766.2	767.5	754.5
15.0	743.7	758.1	760.1	743.6
18.0	731.1	748.1	750.7	730.7
21.0	717.1	736.0	736.9	716.0
24.0	700.3	722.1	719.9	699.0
27.0	682.0	705.5	701.6	680.3
30.0	662.2	687.1	682.4	659.5
33.0	640.3	666.8	662.0	636.8
36.0	616.1	644.7	641.1	612.6
39.0	590.4	620.5	618.9	586.2
42.0	563.5	594.5	596.5	558.4
45.0	533.7	566.5	573.4	528.7
48.0	503.0	537.0	549.0	497.1
51.0	470.8	506.1	520.7	463.9
54.0	437.0	473.1	488.6	429.0
57.0	401.3	438.8	454.9	392.4
60.0	364.7	403.2	420.2	355.0
63.0	326.9	364.5	384.3	316.0
66.0	288.3	326.2	344.7	276.9
69.0	249.5	287.8	306.6	237.6
72.0	210.0	248.2	267.5	197.2
75.0	170.1	208.6	227.8	157.6
78.0	132.1	169.7	188.6	120.0
81.0	95.07	131.4	149.5	83.82
84.0	59.68	94.68	111.4	49.99
87.0	26.98	60.38	75.08	19.84
90.0	0	28.29	39.89	0.1258

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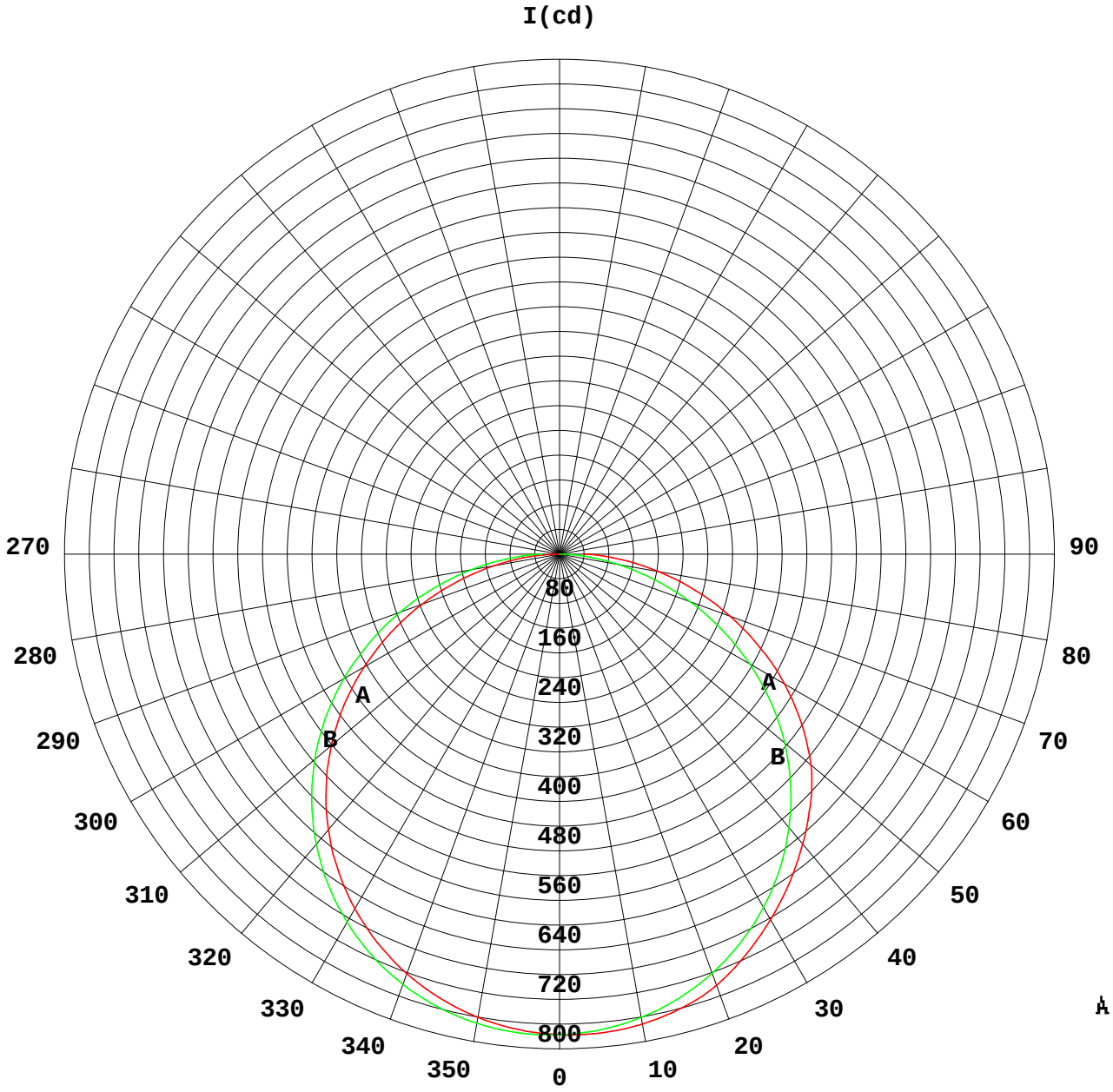
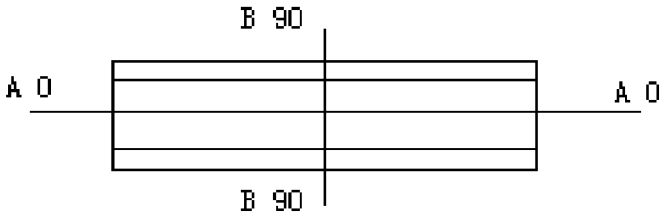
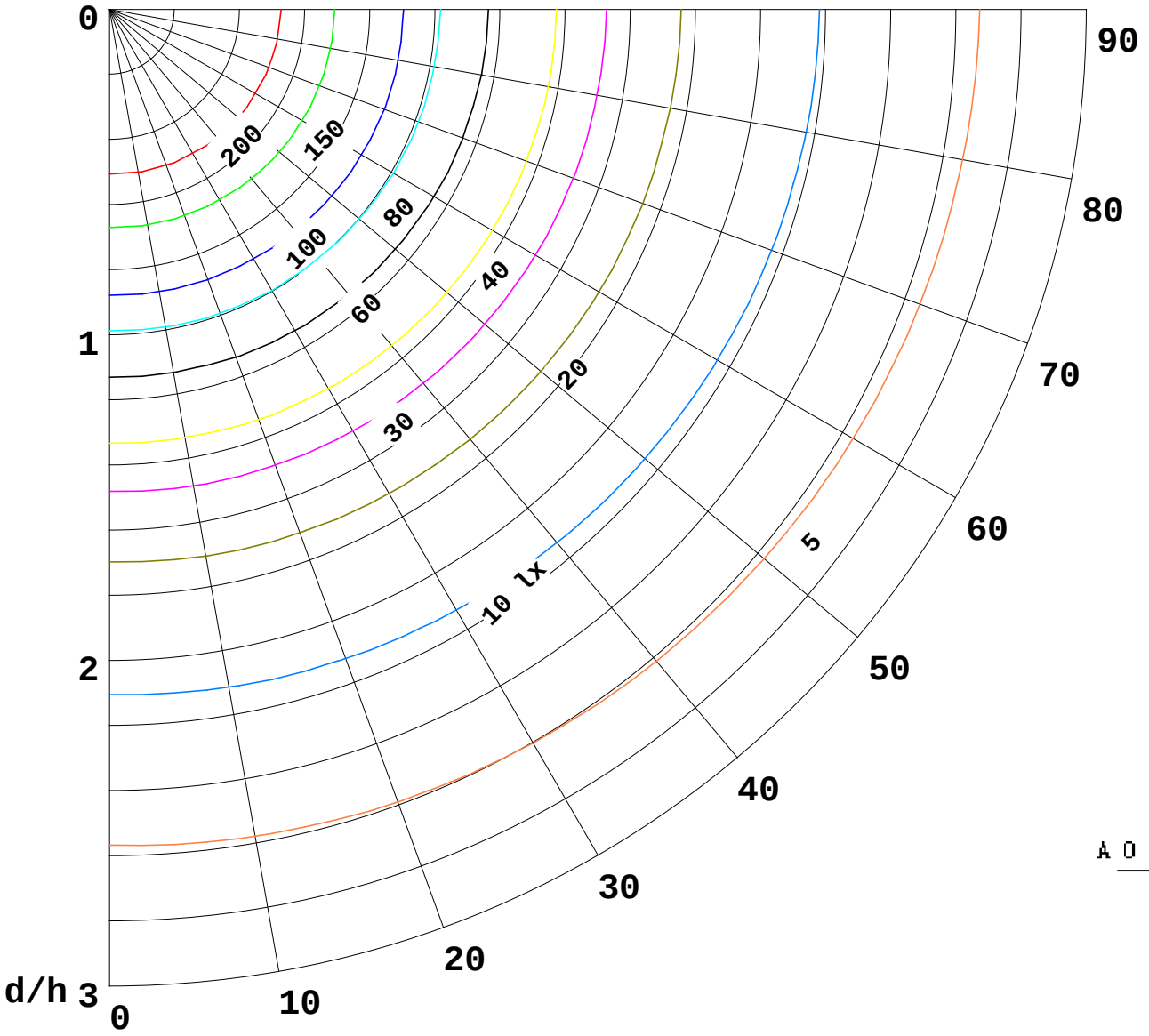
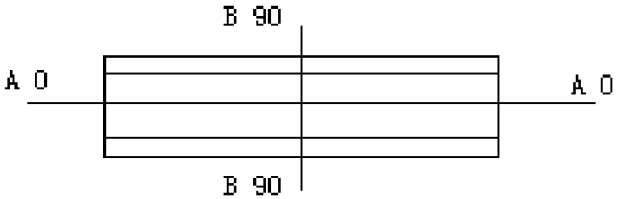
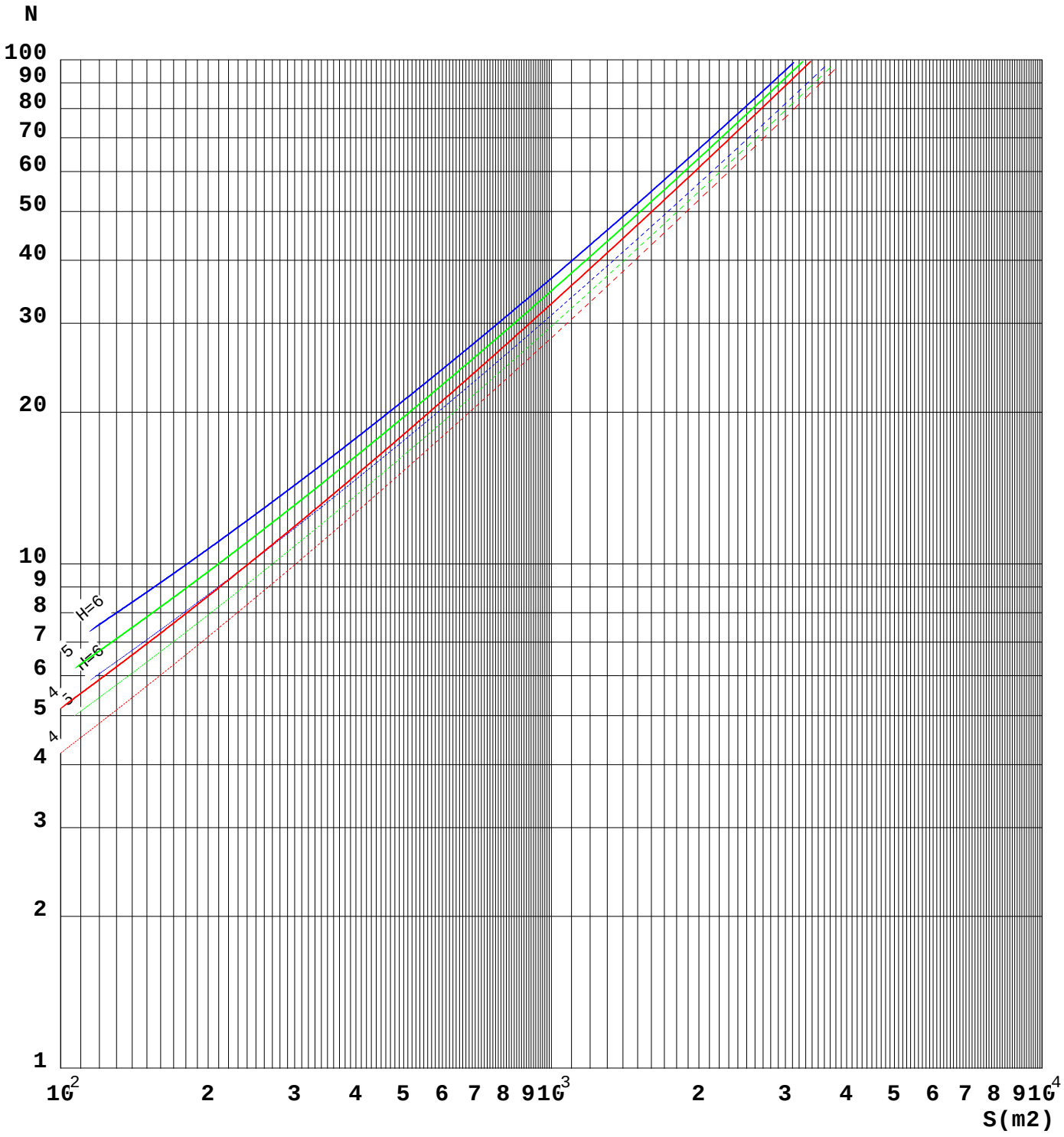

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
80
160
240
320
400
480
560
640
720
800
A
B
A
B


B 90
A 0
A 0
B 90

1000 lm K = 1


0
90
80
70
60
50
40
30
20
10
0
1
2
3
d/h
200
150
100
80
60
40
30
20
10 lx
5


B 90
A 0
A 0
B 90

F = 5000 lm
K = 0.7
Hcc = 0.0 m
Hfc = 0.0 m
Eave = 100 lx

	Pcc	Pw	Pfc
———	70	50	30
———	50	30	20