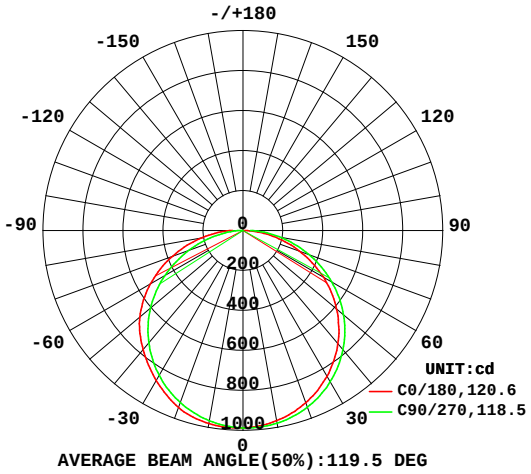
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

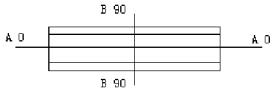
Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 153.99 lm/W			
MODEL		Imax(cd)	988.4	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)	3088.2	h UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	3088.18	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

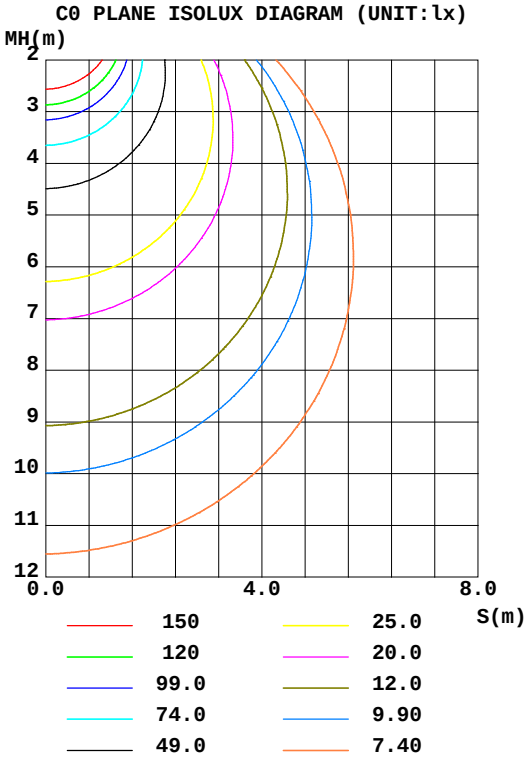
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



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	966.5	979.1	980.3	966.8					0- 10	93.58	93.58	3.03,3.03
20	917.5	941.3	943.2	916.3					10- 20	269.7	363.3	11.8,11.8
30	841.6	873.5	867.3	838.0					20- 30	412.9	776.2	25.1,25.1
40	738.6	778.2	777.3	733.2					30- 40	506.2	1282	41.5,41.5
50	611.2	657.4	674.5	604.0					40- 50	539.9	1822	59,59
60	463.7	513.0	534.4	451.3					50- 60	505.9	2328	75.4,75.4
70	300.7	349.9	374.6	284.8					60- 70	405.9	2734	88.5,88.5
80	136.8	184.1	207.1	121.6					70- 80	257.8	2992	96.9,96.9
90	0.4782	37.17	51.64	0.9753					80- 90	96.31	3088	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

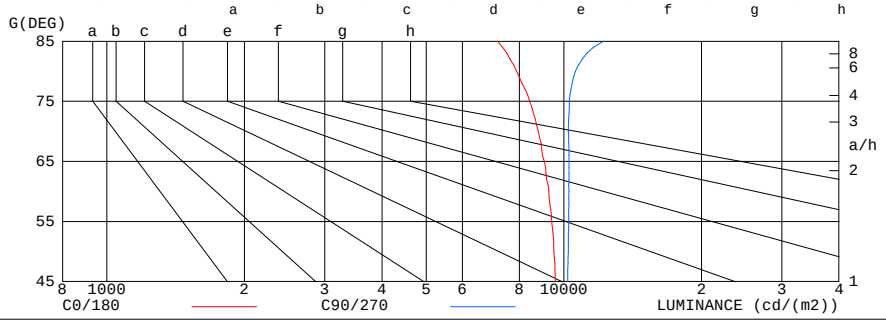
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 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	7157	12246
80	7880	10600
75	8422	10288
70	8793	10231
65	9062	10265
60	9275	10259
55	9409	10251
50	9508	10228
45	9585	10194

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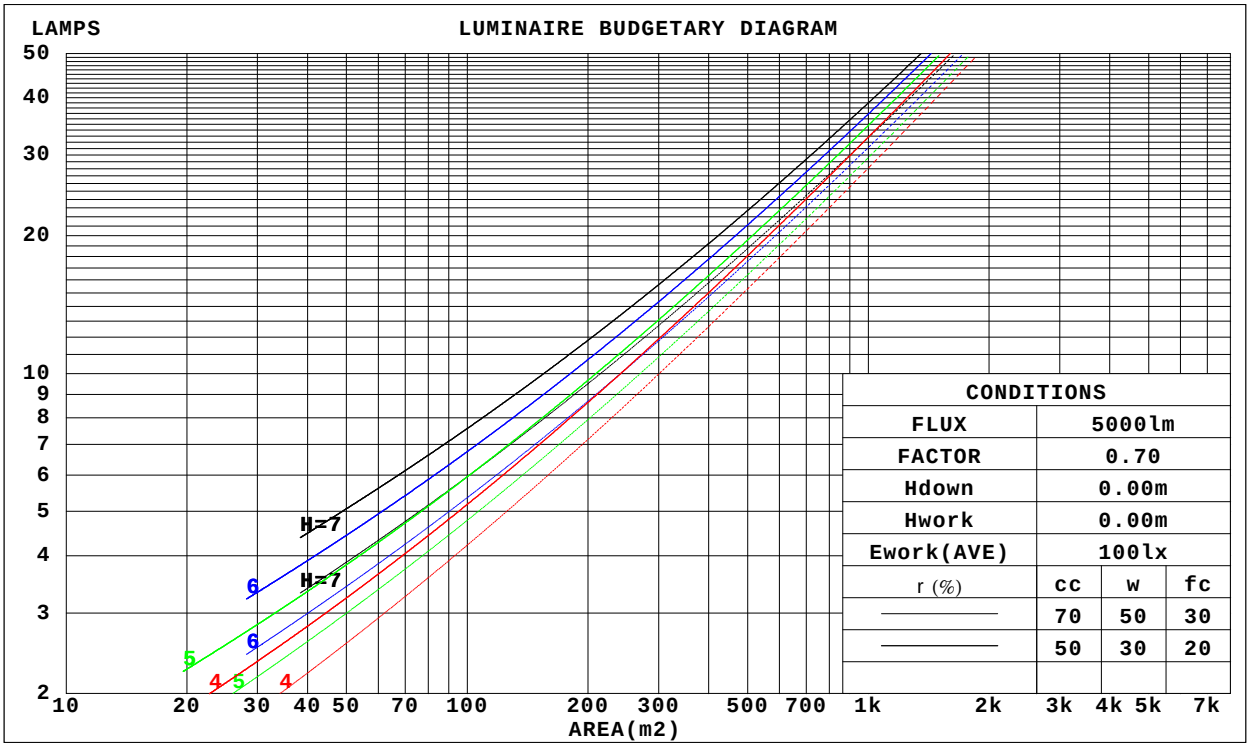
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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			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	.88	.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	.60	.70	.64	.59	.68	.63	.58	.56
4.0	.68	.59	.52	.67	.59	.52	.65	.57	.51	.62	.56	.50	.60	.54	.50	.47
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.43	.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



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C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
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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:

WEC AND CCEC

Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.333	.189	.060	.325	.186	.059	.312	.179	.057	.300	.173	.055	.288	.167	.054	
2.0	.307	.168	.052	.301	.166	.051	.289	.161	.050	.278	.156	.049	.268	.152	.048	
3.0	.281	.150	.045	.276	.148	.044	.265	.144	.044	.256	.140	.043	.247	.137	.042	
4.0	.258	.134	.039	.253	.132	.039	.244	.129	.039	.235	.126	.038	.227	.123	.038	
5.0	.237	.121	.035	.233	.120	.035	.225	.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	.181	.090	.026	.175	.089	.026	.170	.087	.025	
9.0	.177	.086	.024	.174	.085	.024	.169	.084	.024	.164	.082	.024	.160	.081	.023	
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.150	.076	.022	

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	.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	.131	.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:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 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	20.7	22.2	20.9	22.4	22.7	21.0	22.6	21.3	22.8	23.0
	3H	22.3	23.8	22.6	24.0	24.2	22.8	24.3	23.1	24.5	24.8
	4H	23.0	24.4	23.3	24.6	24.9	23.6	25.0	24.0	25.3	25.5
	6H	23.5	24.8	23.8	25.1	25.4	24.3	25.6	24.7	25.9	26.2
	8H	23.7	25.0	24.0	25.2	25.5	24.6	25.9	25.0	26.2	26.5
	12H	23.8	25.0	24.2	25.3	25.6	24.9	26.1	25.2	26.4	26.7
4H	2H	21.4	22.8	21.7	23.0	23.3	21.7	23.1	22.0	23.3	23.6
	3H	23.2	24.4	23.6	24.7	25.0	23.7	24.9	24.0	25.2	25.5
	4H	24.0	25.2	24.4	25.5	25.8	24.6	25.7	25.0	26.0	26.4
	6H	24.7	25.7	25.1	26.0	26.4	25.4	26.4	25.8	26.8	27.2
	8H	24.9	25.9	25.4	26.2	26.6	25.8	26.7	26.2	27.1	27.5
	12H	25.1	26.0	25.5	26.4	26.8	26.1	27.0	26.6	27.4	27.8
8H	4H	24.4	25.3	24.8	25.7	26.1	24.9	25.8	25.3	26.2	26.6
	6H	25.3	26.0	25.7	26.4	26.9	25.9	26.7	26.4	27.1	27.5
	8H	25.6	26.3	26.1	26.7	27.2	26.4	27.1	26.9	27.5	28.0
	12H	25.9	26.5	26.4	26.9	27.4	26.9	27.5	27.3	27.9	28.4
12H	4H	24.5	25.3	24.9	25.7	26.1	24.9	25.8	25.4	26.2	26.6
	6H	25.4	26.1	25.8	26.5	26.9	26.0	26.7	26.5	27.1	27.6
	8H	25.8	26.4	26.3	26.8	27.3	26.5	27.1	27.0	27.6	28.1
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, 3088 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.9)

C Range: 0 - 360DEG
C Interval: 90.0DEG
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:

UTILIZATION FACTORS TABLE

Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 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	36	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	97	89	83	95	88	82	91	85	80	71
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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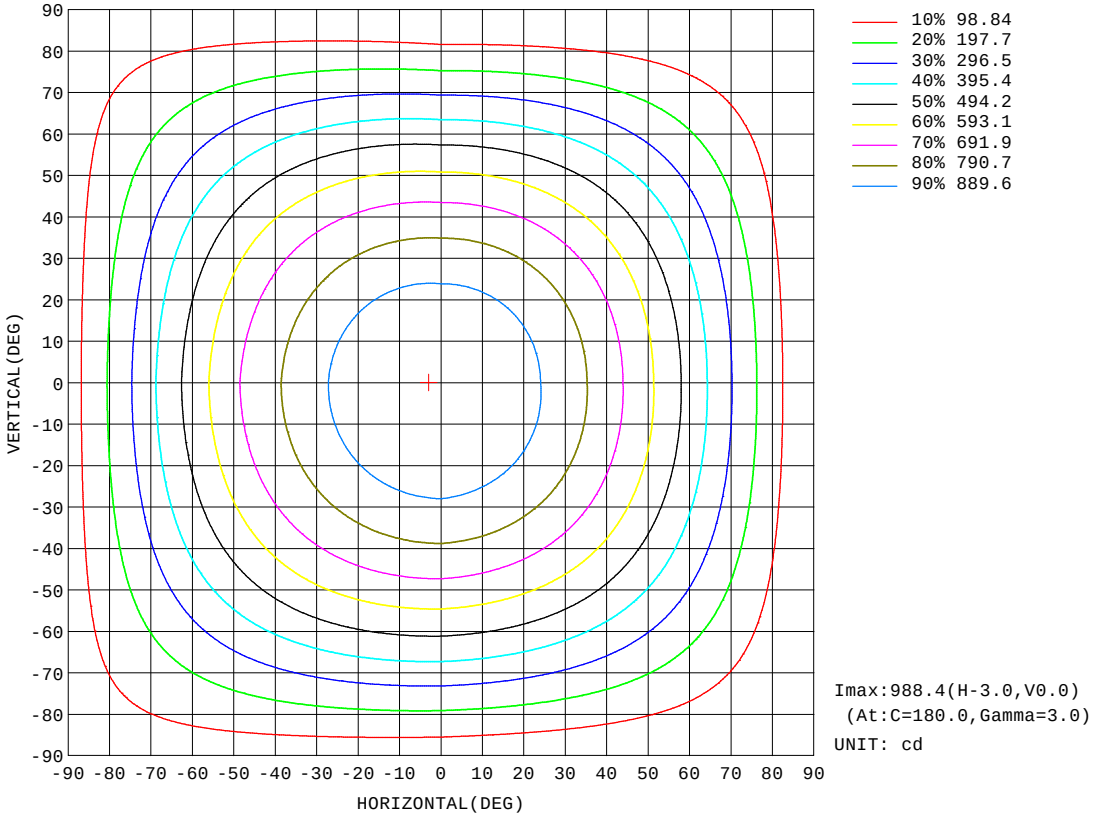


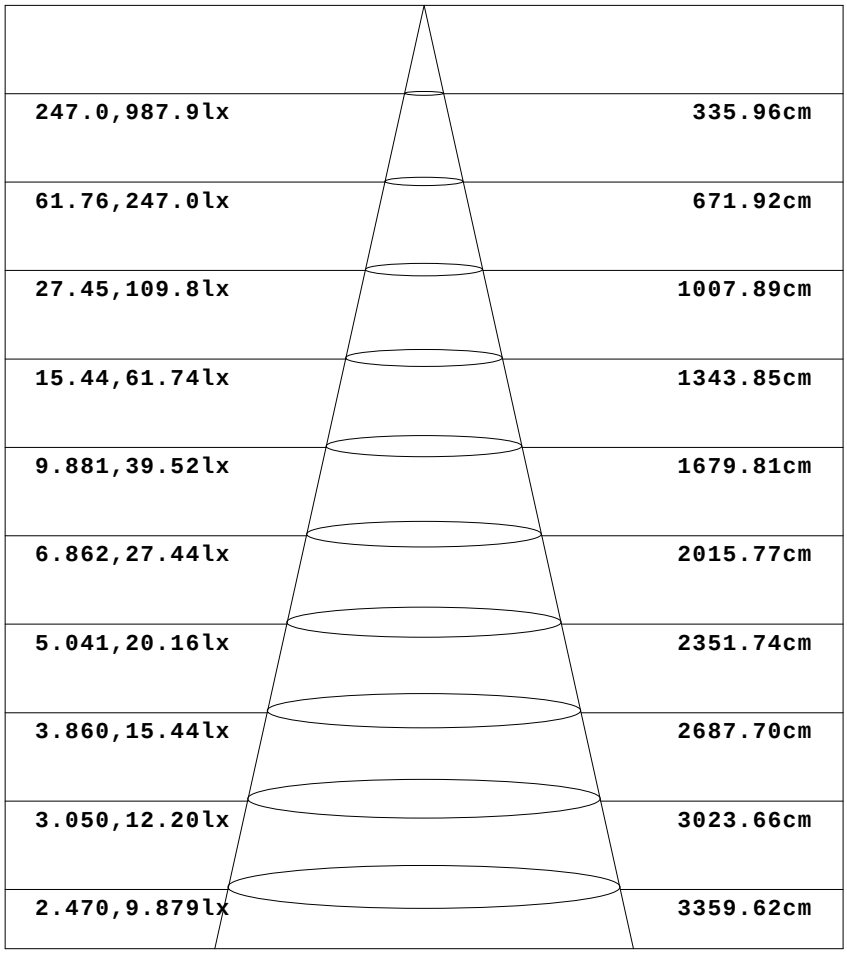
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

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:

AAI Figure

Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:2328 lm



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

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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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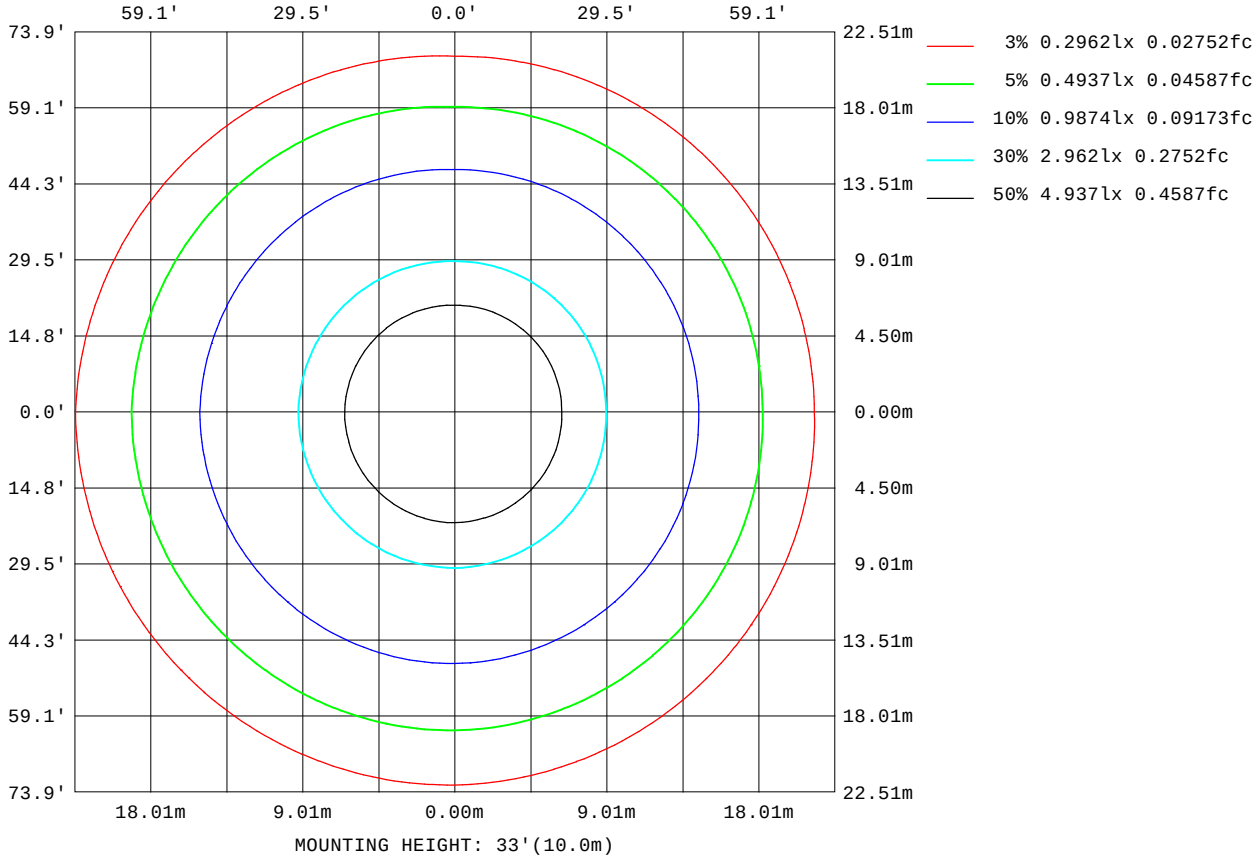

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Remarks:

LED Avg.L Report

Test:U:120.33V I:0.1693A P:20.054W PF:0.9846 Freq:59.98Hz Lamp Flux:3088.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

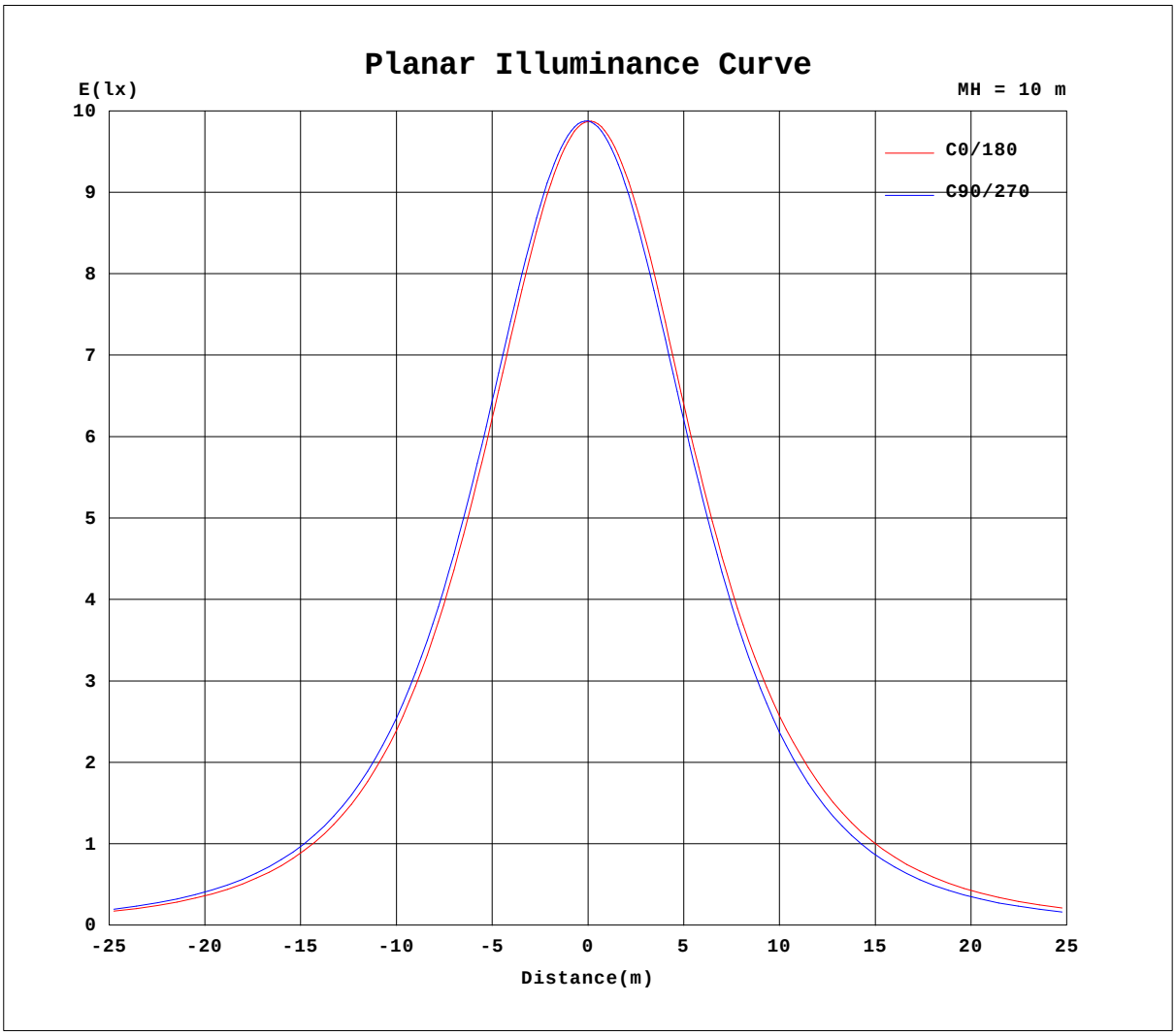
AvgL	cd/m2
L_0~180(65)av	9935
L_0~180(75)av	9818
L_0~180(85)av	10852
L_90~270(65)av	9492
L_90~270(75)av	9036
L_90~270(85)av	9026
L_45(65)av	9713
L_45(75)av	9416
L_45(85)av	9942

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	987	988	987	988															
5	980	987	987	981															
10	967	979	980	967															
15	945	964	966	945															
20	918	941	943	916															
25	883	911	907	881															
30	842	873	867	838															
35	794	829	824	789															
40	739	778	777	733															
45	678	721	729	672															
50	611	657	675	604															
55	540	588	608	530															
60	464	513	534	451															
65	383	434	457	368															
70	301	350	375	285															
75	218	266	290	201															
80	137	184	207	122															
85	62.4	107	127	50.6															
90	0.48	37.2	51.6	0.98															

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Remarks:

Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	987.4	987.9	987.4	987.9
3.0	984.2	988.1	988.4	984.5
6.0	978.2	986.1	986.6	978.4
9.0	969.7	981.4	982.4	970.0
12.0	958.8	974.1	975.6	958.6
15.0	945.4	964.0	966.0	945.0
18.0	929.0	951.1	954.0	928.7
21.0	911.3	935.7	936.6	909.5
24.0	889.9	918.0	914.9	888.2
27.0	866.9	897.0	891.0	864.5
30.0	841.6	873.5	867.3	838.0
33.0	813.3	848.1	841.1	809.3
36.0	782.8	819.5	814.8	778.1
39.0	750.6	789.1	786.5	744.8
42.0	715.7	756.2	758.3	709.6
45.0	677.7	720.8	728.8	671.8
48.0	640.0	683.3	697.6	631.5
51.0	597.6	643.8	661.7	589.6
54.0	554.6	601.9	621.5	545.1
57.0	510.2	558.1	578.7	498.6
60.0	463.7	513.0	534.4	451.3
63.0	414.7	465.9	488.4	401.7
66.0	365.4	417.2	440.5	352.0
69.0	317.0	367.0	392.2	301.8
72.0	267.7	316.4	340.6	251.2
75.0	218.0	266.3	290.3	201.5
78.0	168.5	216.9	240.6	152.6
81.0	121.6	168.2	190.9	106.8
84.0	76.66	121.5	142.5	63.90
87.0	35.11	77.94	96.32	25.76
90.0	0.4782	37.17	51.64	0.9753

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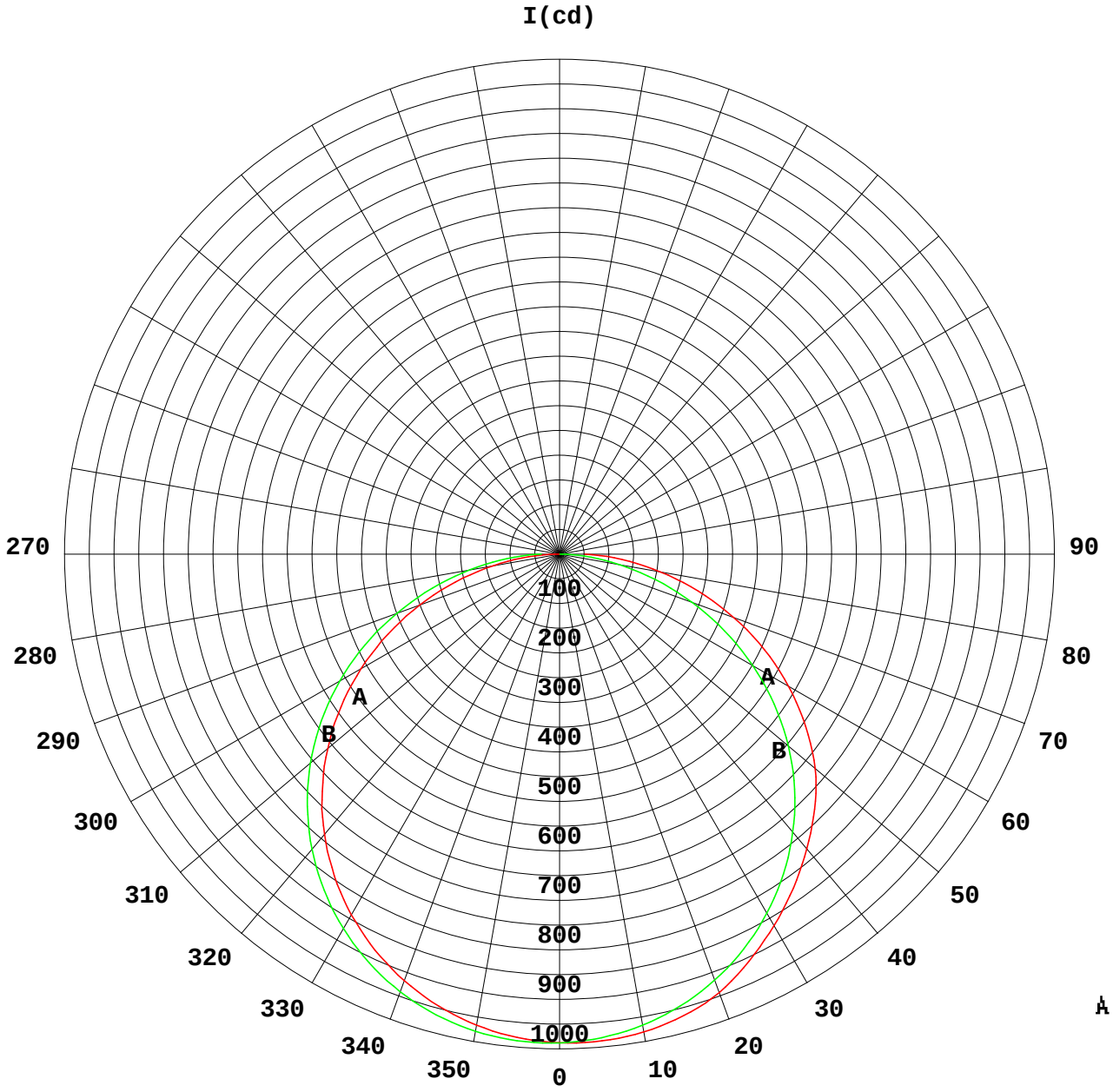
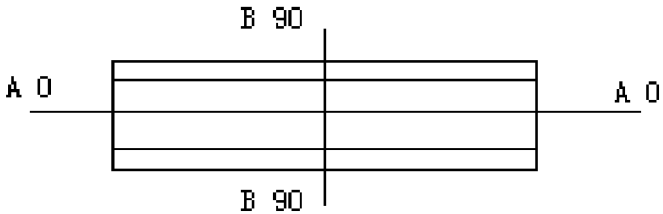
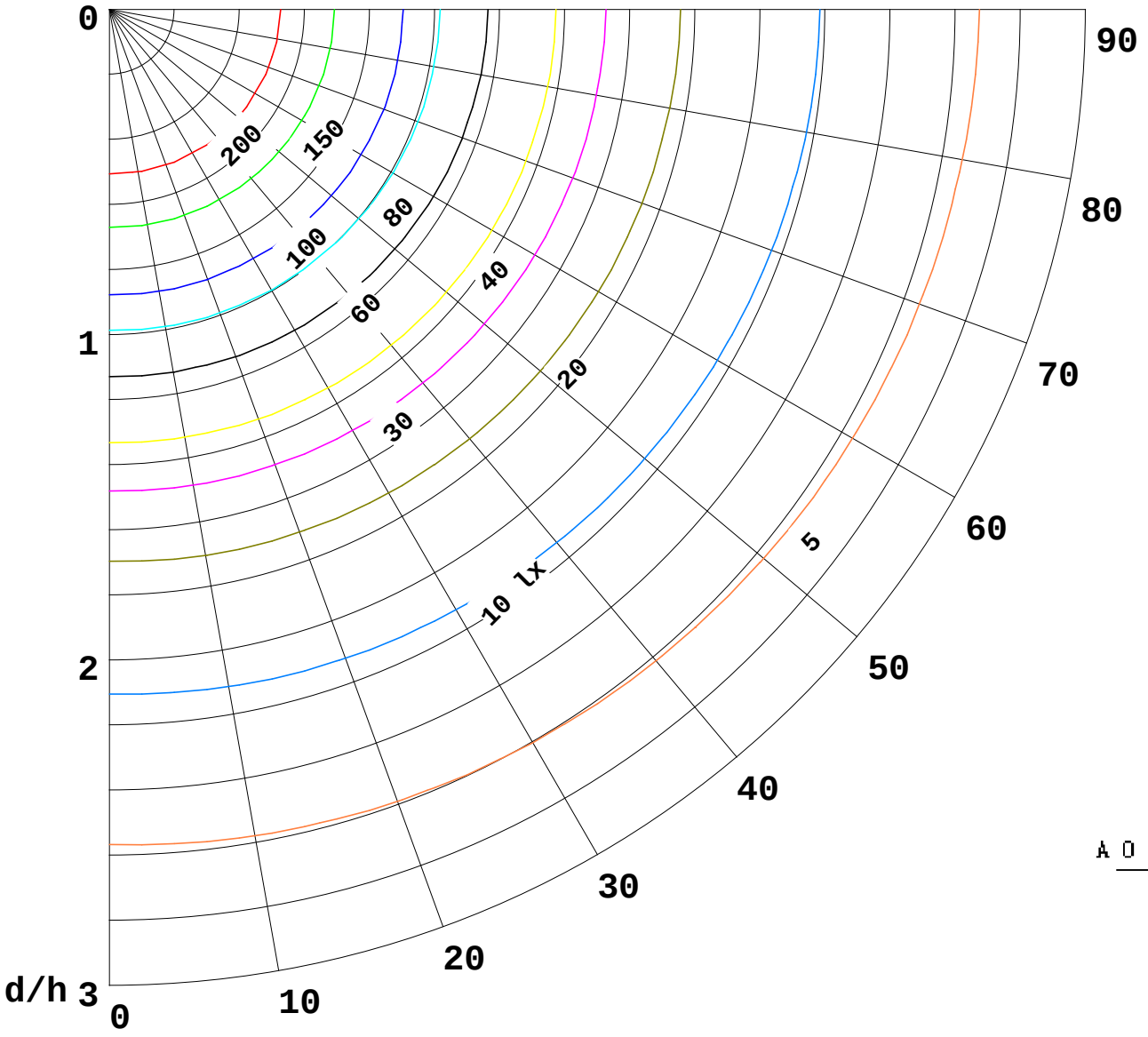
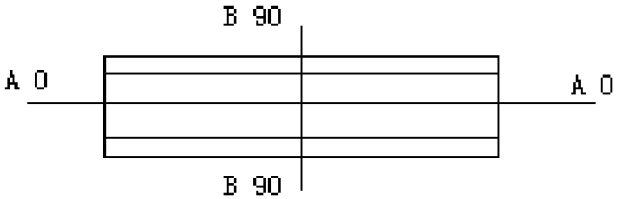
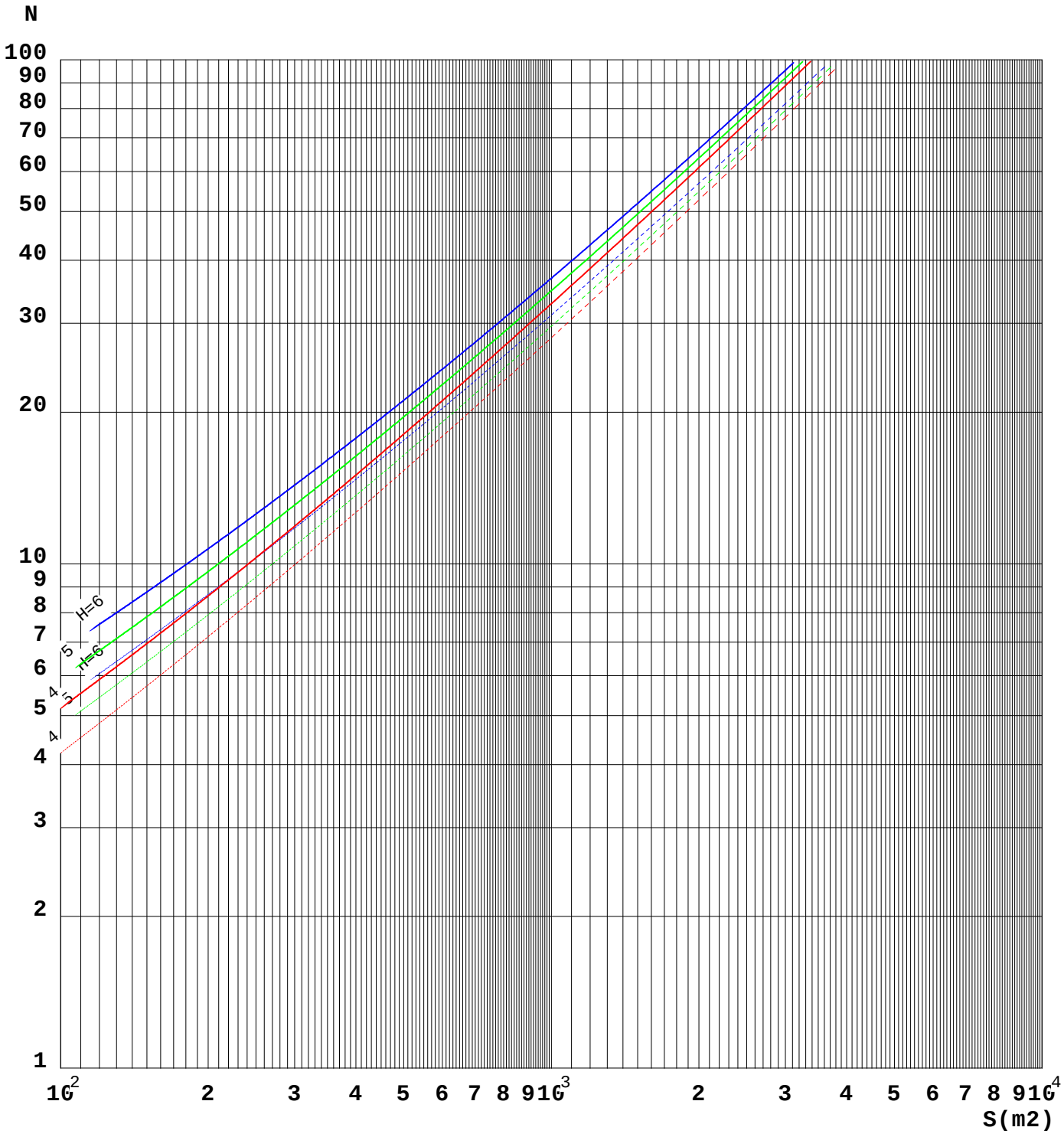

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
100
200
300
400
500
600
700
800
900
1000
A
B
A
B


B 90
A 0
A 0
B 90

1000 lm K = 1


0
1
2
3
d/h
0
10
20
30
40
50
60
70
80
90
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