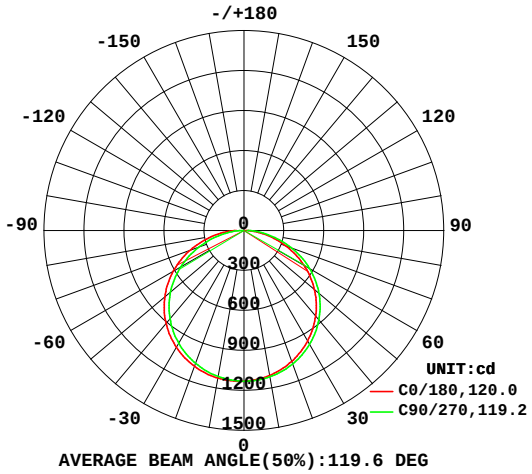
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

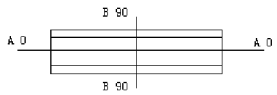
Test:U:120.33V I:0.2173A P:25.769W PF:0.9854 Freq:59.98Hz Lamp Flux:3534.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA		Eff: 137.18 lm/W	
MODEL		Imax(cd)	1133	S/MH(C0/180)	1.33
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	3535.0	h UP,DN(C0-180)	0.0,48.6
NOMINAL FLUX(lm)	3534.99	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,51.4
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

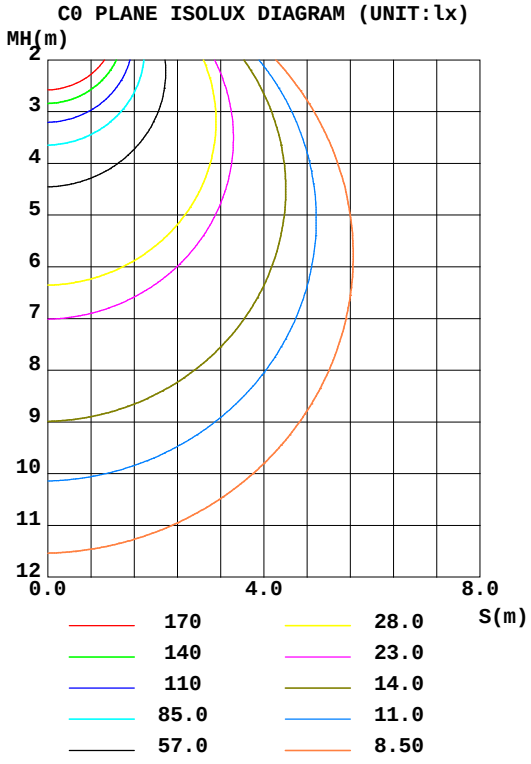
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):119.6 DEG



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

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=1.0723]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	1105	1115	1125	1113					0- 10	107.2	107.2	3.03,3.03
20	1046	1067	1085	1062					10- 20	308.9	416.1	11.8,11.8
30	956.5	985.9	1014	978.5					20- 30	474.2	890.3	25.2,25.2
40	837.3	874.7	910.3	864.4					30- 40	583.0	1473	41.7,41.7
50	691.0	735.6	776.9	721.4					40- 50	620.9	2094	59.2,59.2
60	519.5	567.7	614.2	548.7					50- 60	580.6	2675	75.7,75.7
70	330.7	377.6	428.6	355.1					60- 70	464.2	3139	88.8,88.8
80	144.7	182.9	232.3	160.6					70- 80	290.7	3430	97,97
90	0.3371	24.44	56.56	10.33					80- 90	105.3	3535	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
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Test Speed: HIGH
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Operators:
Test Date:13 March 2024

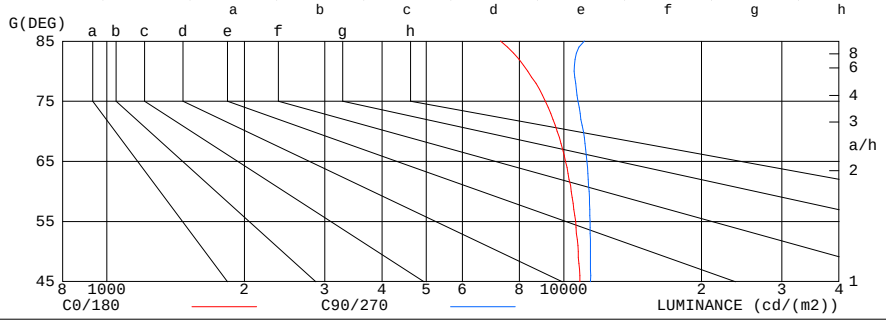
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.33V I:0.2173A P:25.769W PF:0.9854 Freq:59.98Hz Lamp Flux:3534.99x1 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	7268	11089
80	8332	10532
75	9106	10739
70	9670	11042
65	10090	11233
60	10389	11353
55	10610	11419
50	10750	11443
45	10851	11437

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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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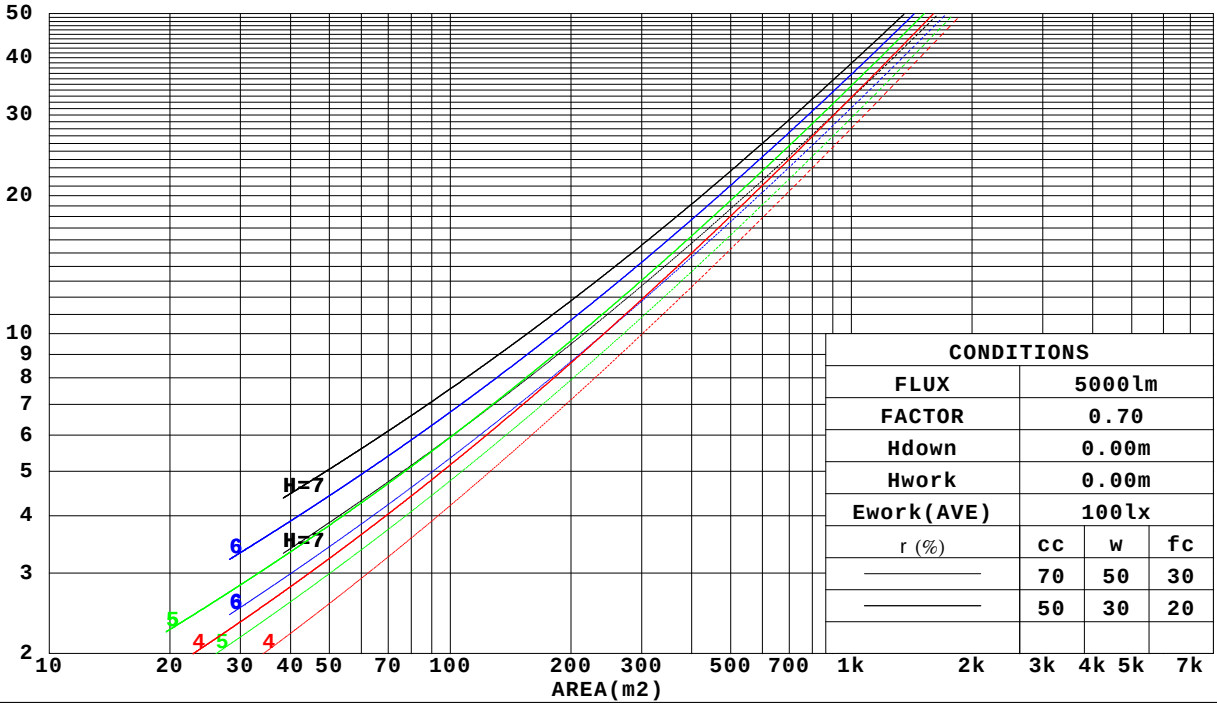
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	1.00
1.0	1.03	.98	.94	1.00	.96	.93	.96	.93	.90	.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	.60	.68	.63	.59	.56
4.0	.69	.59	.52	.67	.59	.52	.65	.57	.51	.62	.56	.51	.60	.55	.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	.43	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.40	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.36	.31	.45	.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	.38	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.29	.25	.36	.29	.24	.35	.29	.24	.23

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



CONDITIONS			
FLUX	5000lm		
FACTOR	0.70		
Hdown	0.00m		
Hwork	0.00m		
Ework(AVE)	100lx		
r (%)	cc	w	fc
———	70	50	30
———	50	30	20

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Remarks:

WEC AND CCEC

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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	.331	.188	.060	.323	.184	.059	.310	.178	.057	.298	.172	.055	.286	.166	.054	
2.0	.306	.168	.051	.300	.165	.051	.288	.160	.050	.277	.155	.049	.267	.151	.048	
3.0	.281	.149	.045	.275	.147	.044	.265	.143	.044	.255	.140	.043	.246	.136	.042	
4.0	.257	.134	.039	.252	.132	.039	.243	.129	.039	.234	.126	.038	.226	.123	.037	
5.0	.237	.121	.035	.232	.119	.035	.224	.117	.034	.217	.114	.034	.209	.112	.034	
6.0	.219	.110	.031	.215	.109	.031	.208	.106	.031	.201	.104	.031	.194	.102	.030	
7.0	.203	.100	.028	.200	.099	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028	
8.0	.189	.092	.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	

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	.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:13 March 2024

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=1.0723]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.33V I:0.2173A P:25.769W PF:0.9854 Freq:59.98Hz Lamp Flux:3534.99x1 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	21.0	22.6	21.3	22.8	23.0	21.3	22.9	21.6	23.1	23.3
	3H	22.6	24.0	22.9	24.3	24.5	23.0	24.5	23.3	24.7	25.0
	4H	23.2	24.6	23.5	24.9	25.1	23.8	25.2	24.1	25.4	25.7
	6H	23.7	25.0	24.0	25.3	25.6	24.4	25.7	24.7	25.9	26.2
	8H	23.9	25.1	24.2	25.4	25.7	24.6	25.9	24.9	26.1	26.4
	12H	24.0	25.2	24.3	25.5	25.8	24.8	26.0	25.1	26.3	26.6
4H	2H	21.7	23.1	22.0	23.3	23.6	21.9	23.3	22.3	23.6	23.8
	3H	23.5	24.7	23.8	25.0	25.3	23.8	25.1	24.2	25.4	25.7
	4H	24.2	25.4	24.6	25.7	26.0	24.7	25.8	25.1	26.1	26.5
	6H	24.8	25.8	25.3	26.2	26.6	25.4	26.4	25.8	26.8	27.2
	8H	25.1	26.0	25.5	26.4	26.7	25.7	26.7	26.2	27.0	27.4
	12H	25.2	26.1	25.6	26.4	26.9	26.0	26.8	26.4	27.2	27.6
8H	4H	24.6	25.5	25.0	25.9	26.3	25.0	25.9	25.4	26.3	26.7
	6H	25.4	26.1	25.8	26.5	27.0	25.9	26.7	26.3	27.1	27.5
	8H	25.7	26.4	26.1	26.8	27.2	26.3	27.0	26.8	27.4	27.9
	12H	25.9	26.5	26.4	26.9	27.4	26.7	27.2	27.1	27.7	28.2
12H	4H	24.6	25.5	25.0	25.9	26.3	25.0	25.9	25.4	26.2	26.7
	6H	25.5	26.1	25.9	26.6	27.0	26.0	26.7	26.4	27.1	27.5
	8H	25.8	26.4	26.3	26.9	27.3	26.4	27.0	26.9	27.5	27.9
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.4					+ 0.1 / - 0.3				

CIE Pub.117, 3535 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.4)

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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=1.0723]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.33V I:0.2173A P:25.769W PF:0.9854 Freq:59.98Hz Lamp Flux:3534.99x1 lm		
NAME:	TYPE:	WEIGHT:
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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	39
1.00	74	63	55	73	62	55	71	64	54	47
1.25	81	70	63	80	70	63	77	68	62	54
1.50	86	76	69	85	75	68	82	73	67	59
2.00	94	85	78	92	83	77	88	81	75	67
2.50	98	89	83	96	88	82	92	85	80	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	97	93	99	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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ISOCANDELA DIAGRAM

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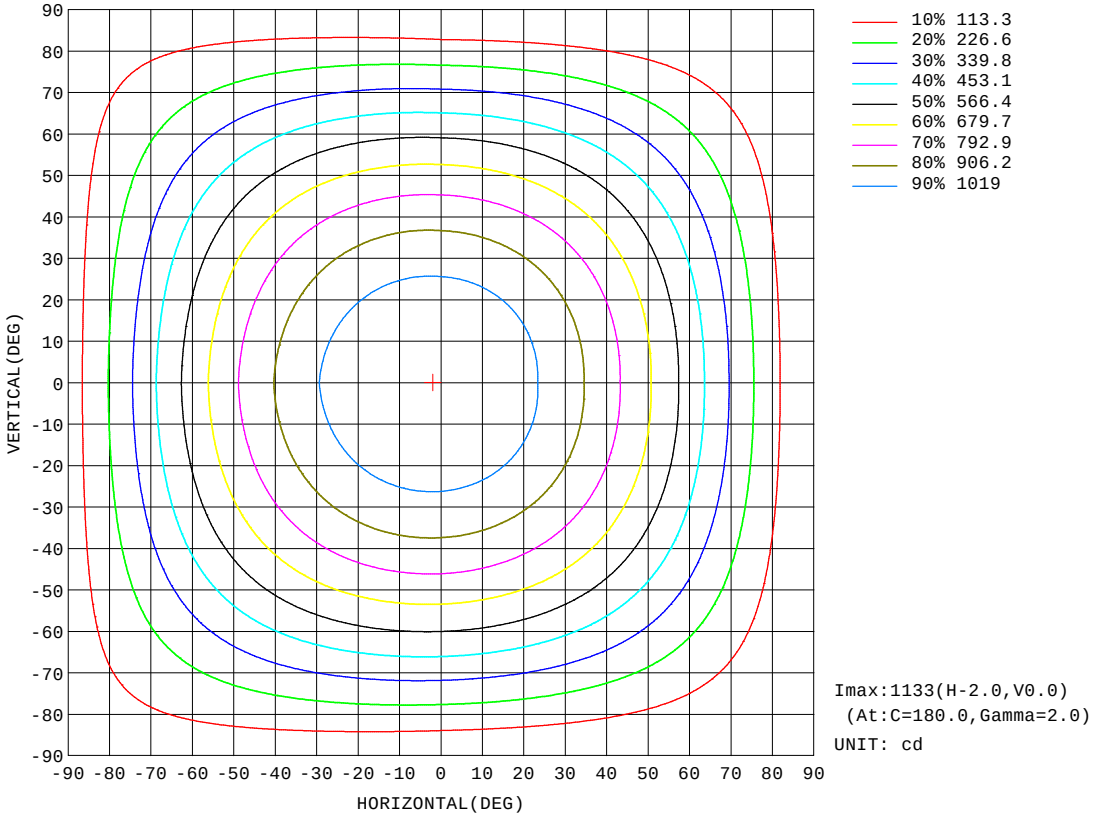

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AAI Figure

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NAME:	TYPE:	WEIGHT:
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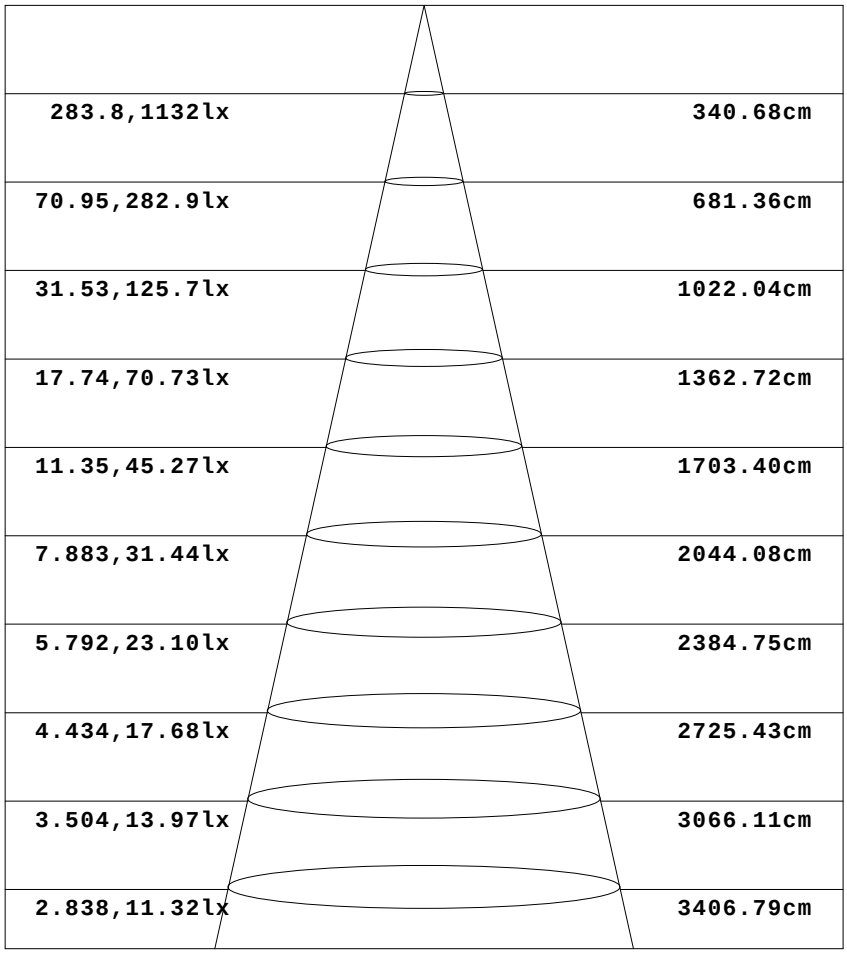
Flux out:2675 lm



Height Eavg,Emax Angle:119.17deg Diameter

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

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ISOLUX DIAGRAM

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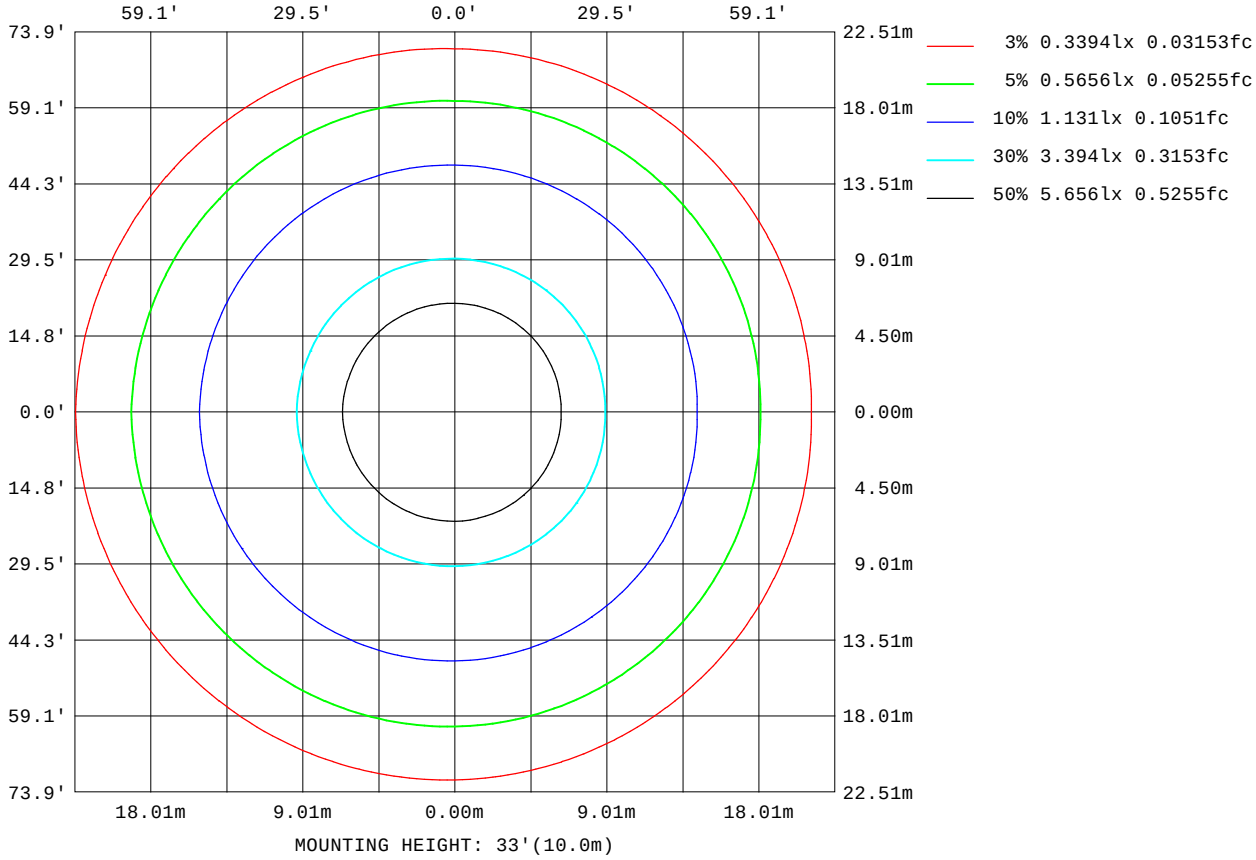

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Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

LED Avg.L Report

Test:U:120.33V I:0.2173A P:25.769W PF:0.9854 Freq:59.98Hz Lamp Flux:3534.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

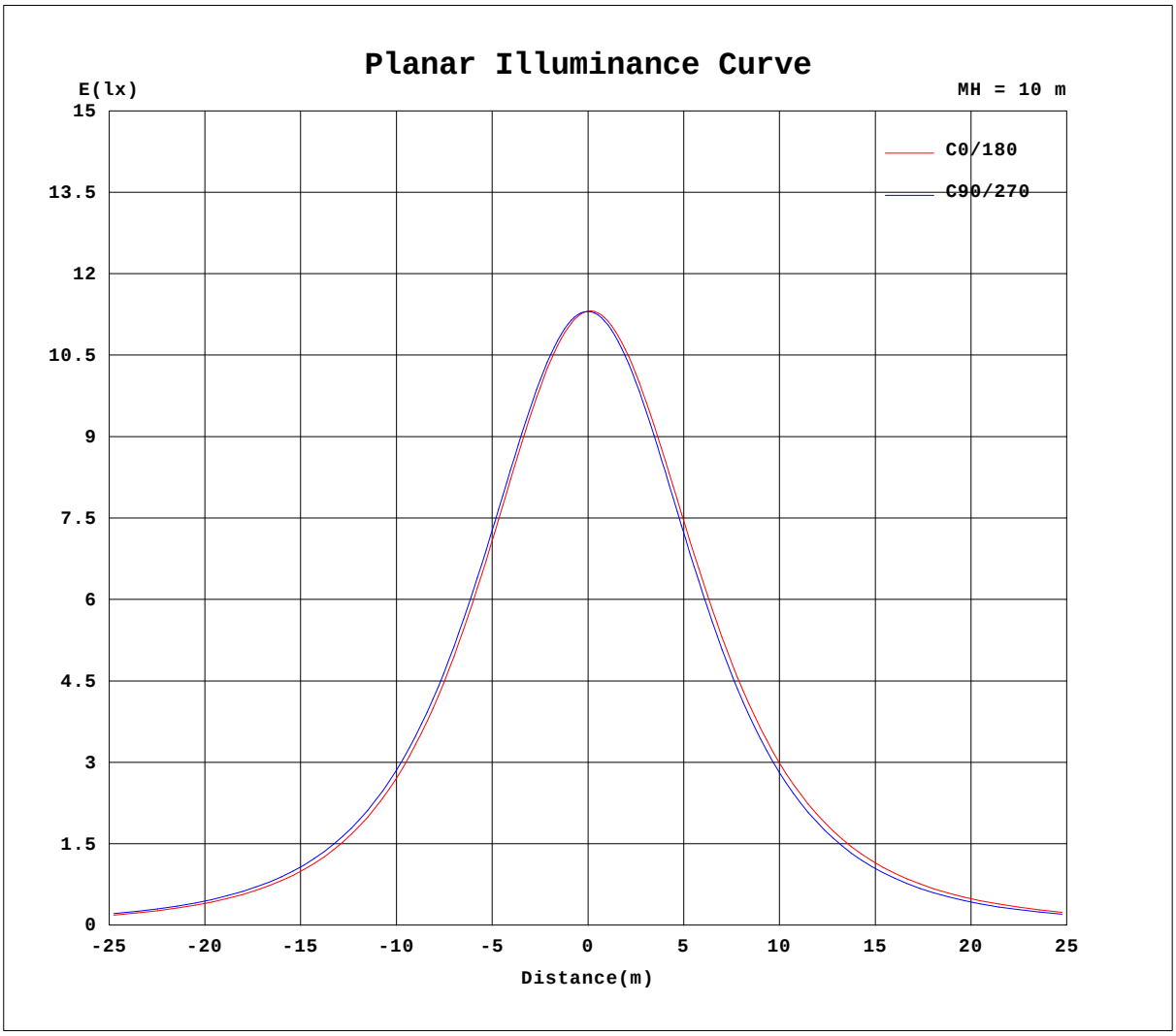
AvgL	cd/m2
L_0~180(65)av	11243
L_0~180(75)av	10913
L_0~180(85)av	11678
L_90~270(65)av	10983
L_90~270(75)av	10315
L_90~270(85)av	9948
L_45(65)av	11152
L_45(75)av	10652
L_45(85)av	10873

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

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=1.0723]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

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=1.0723]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.33V I:0.2173A P:25.769W PF:0.9854 Freq:59.98Hz Lamp Flux:3534.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

g \ C(DEG)	0	90	180	270
0	1131	1131	1131	1131
5	1122	1127	1132	1126
10	1105	1115	1125	1113
15	1079	1095	1109	1091
20	1046	1067	1085	1062
25	1005	1030	1054	1024
30	956	986	1014	978
35	901	934	966	925
40	837	875	910	864
45	767	809	847	796
50	691	736	777	721
55	609	655	699	638
60	519	568	614	549
65	426	475	524	454
70	331	378	429	355
75	236	278	329	256
80	145	183	232	161
85	63.3	96.6	140	76.8
90	0.34	24.4	56.6	10.3

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

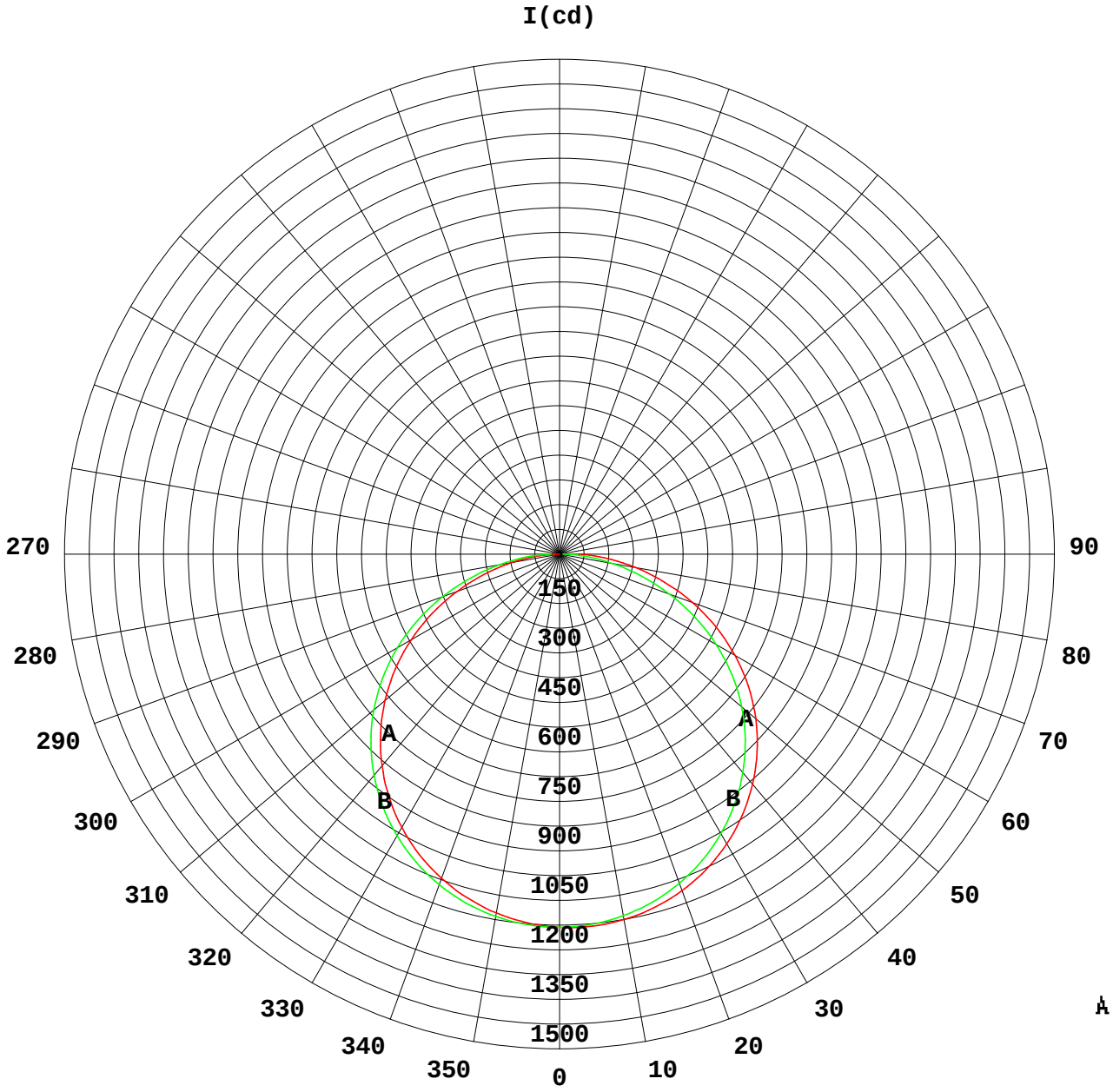
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

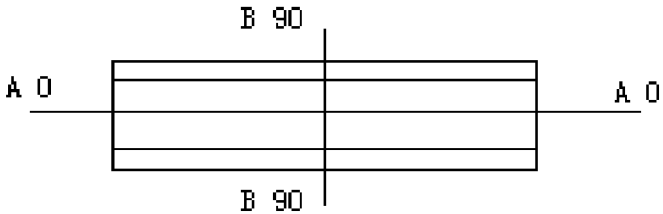
Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1131	1131	1131	1131
3.0	1127	1130	1133	1129
6.0	1119	1126	1132	1124
9.0	1109	1118	1127	1116
12.0	1096	1108	1120	1105
15.0	1079	1095	1109	1091
18.0	1060	1079	1096	1075
21.0	1039	1060	1080	1055
24.0	1014	1038	1061	1033
27.0	986.5	1013	1039	1007
30.0	956.5	985.9	1014	978.5
33.0	924.4	956.1	986.3	947.5
36.0	888.4	923.2	955.7	913.5
39.0	850.3	887.4	921.8	877.0
42.0	811.0	849.5	886.0	838.0
45.0	767.3	808.7	847.2	796.4
48.0	722.3	765.6	805.5	752.0
51.0	675.5	719.9	761.8	705.2
54.0	625.0	671.3	715.0	655.4
57.0	572.7	620.6	665.4	602.9
60.0	519.5	567.7	614.2	548.7
63.0	464.1	512.5	560.4	492.1
66.0	407.3	455.4	504.6	433.9
69.0	350.2	397.6	447.9	375.0
72.0	292.6	336.9	389.6	315.2
75.0	235.7	277.9	329.2	256.0
78.0	180.7	220.6	271.2	198.5
81.0	127.7	165.0	213.6	143.0
84.0	78.70	112.8	158.0	92.47
87.0	34.66	66.07	105.9	47.52
90.0	0.3371	24.44	56.56	10.33

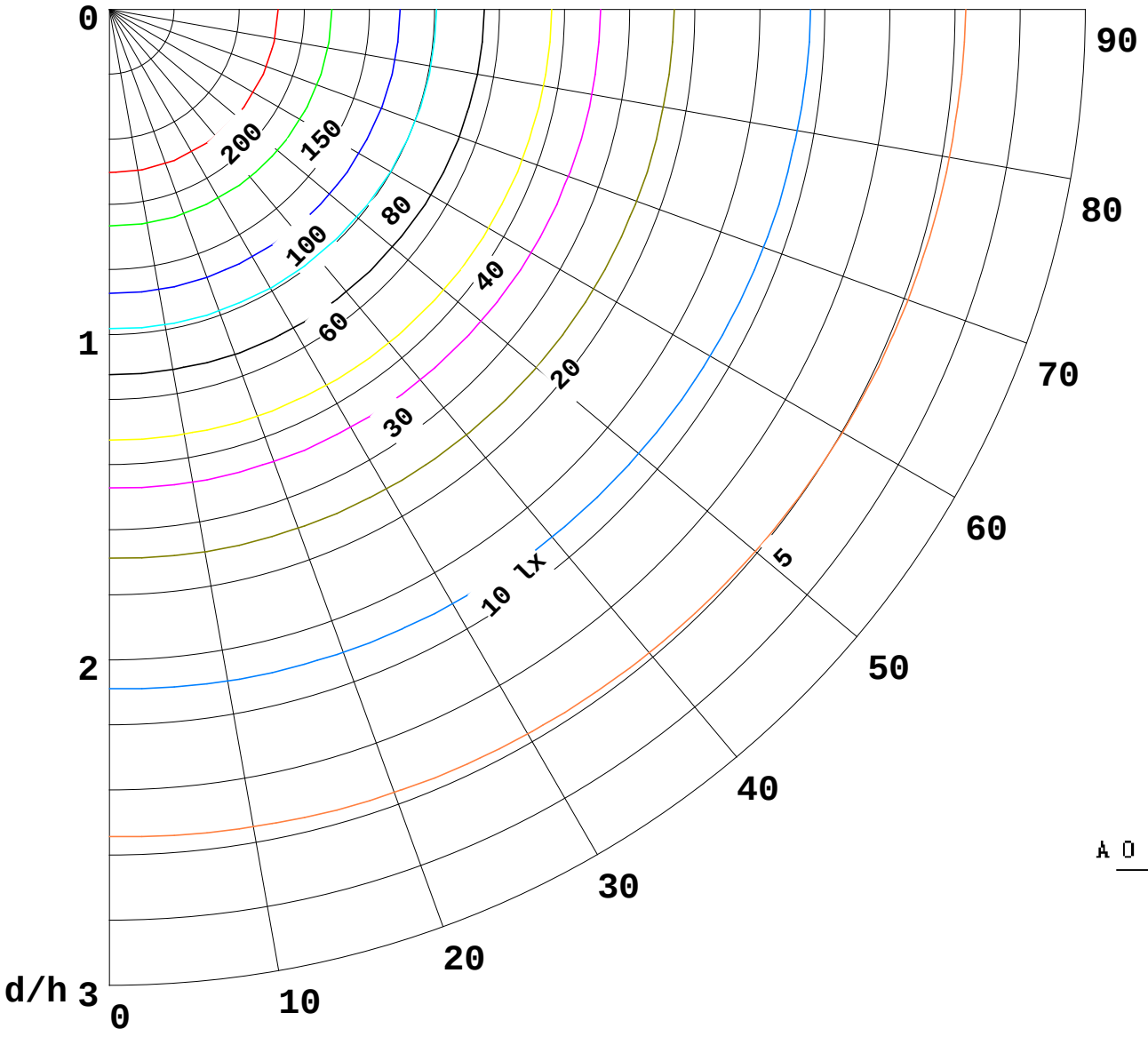
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

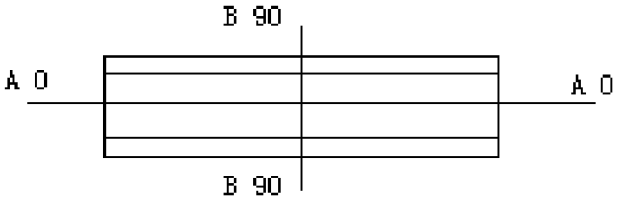
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

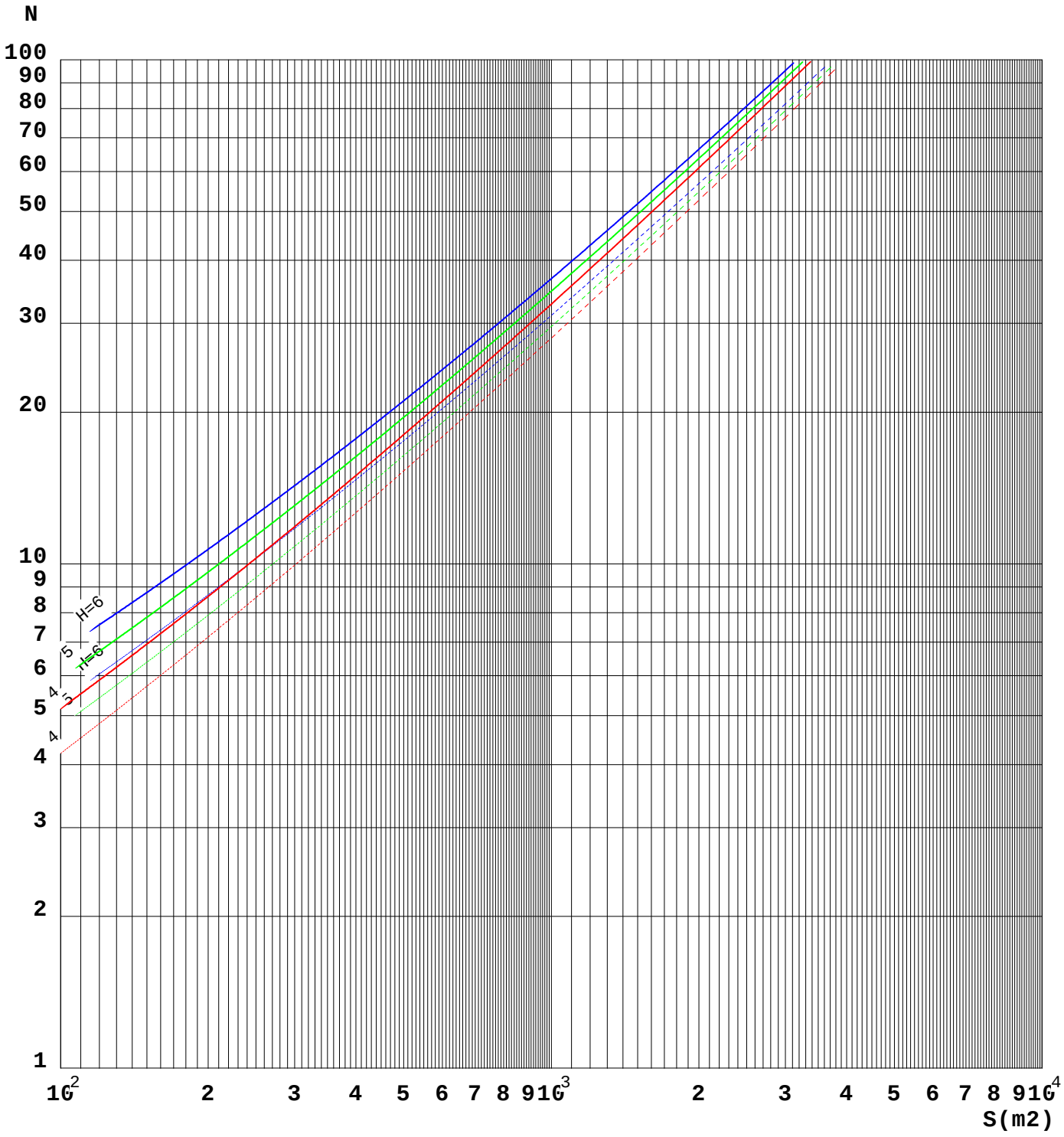

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
150
300
450
600
750
900
1050
1200
1350
1500
A
A
B
B


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