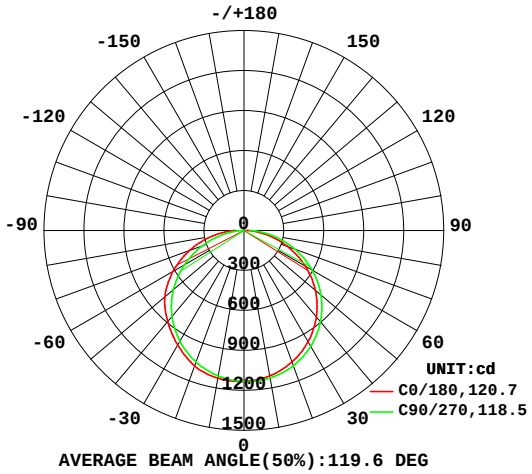
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

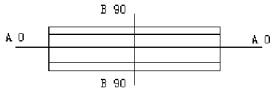
Test:U:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.74 lm/W			
MODEL		Imax(cd)	1134	S/MH(C0/180)	1.30
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	120-277	TOTAL FLUX(lm)	3544.9	h UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	3544.88	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

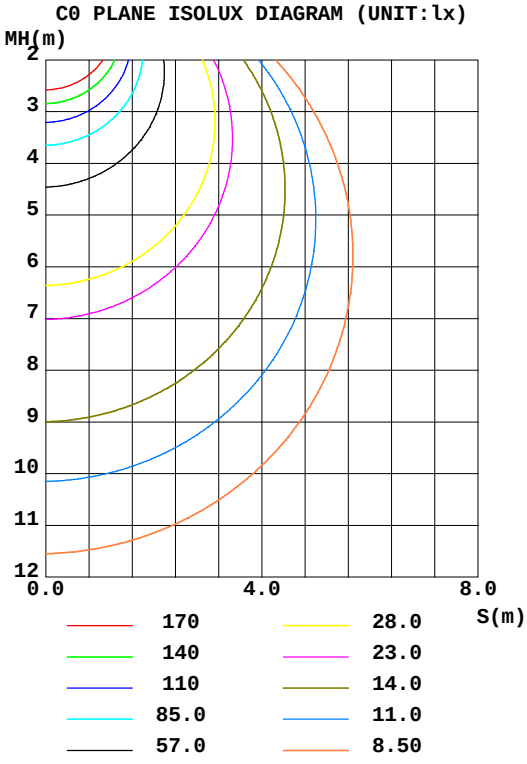
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):119.6 DEG



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date: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	1108	1124	1125	1109					0- 10	107.4	107.4	3.03,3.03
20	1051	1081	1083	1051					10- 20	309.5	416.9	11.8,11.8
30	963.6	1003	993.6	961.2					20- 30	473.5	890.4	25.1,25.1
40	845.5	893.6	891.2	841.0					30- 40	580.4	1471	41.5,41.5
50	700.9	754.7	776.6	692.7					40- 50	619.4	2090	59,59
60	530.4	589.7	615.8	517.3					50- 60	580.8	2671	75.3,75.3
70	343.5	404.4	433.1	326.4					60- 70	466.3	3137	88.5,88.5
80	156.6	212.3	239.5	139.4					70- 80	296.5	3434	96.9,96.9
90	0.8935	43.59	60.31	1.579					80- 90	111.1	3545	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
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Operators:
Test Date:2024-03-20

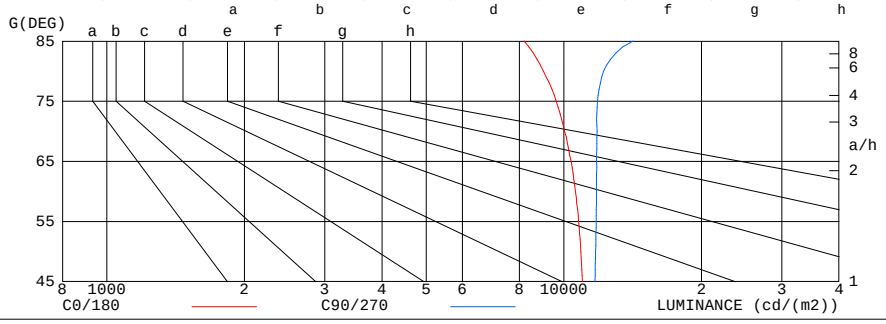
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 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	8193	14169
80	9017	12224
75	9620	11849
70	10043	11823
65	10374	11800
60	10607	11794
55	10779	11775
50	10904	11742
45	10982	11703

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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:

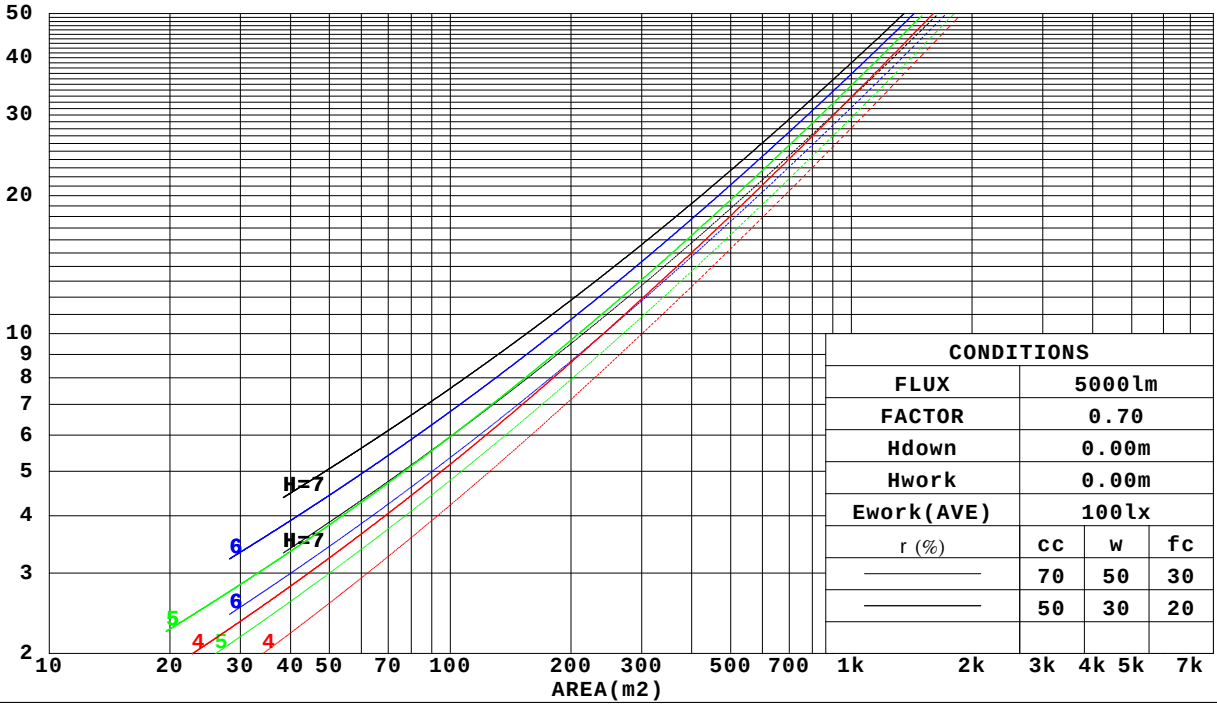
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 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	1.00
1.0	1.03	.98	.94	1.00	.96	.92	.96	.93	.89	.92	.89	.87	.88	.86	.84	.82
2.0	.89	.82	.75	.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	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.41
6.0	.55	.45	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.49	.42	.38	.35
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	.35	.30	.42	.35	.30	.41	.34	.30	.28
9.0	.41	.33	.27	.41	.33	.27	.40	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.29	.24	.36	.29	.24	.35	.29	.24	.22

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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g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
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WEC AND CCEC

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

┌cc	80%			70%			50%			30%			10%			0
┌w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
┌fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.333	.189	.060	.326	.186	.059	.312	.179	.057	.300	.173	.056	.289	.167	.054	
2.0	.307	.168	.052	.301	.166	.051	.289	.161	.050	.278	.156	.049	.268	.152	.048	
3.0	.282	.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	.105	.031	.195	.102	.030	
7.0	.203	.101	.029	.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	

┌cc	80%			70%			50%			30%			10%			0
┌w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
┌fc	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	.082	.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:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 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	21.1	22.7	21.4	22.9	23.1	21.5	23.1	21.8	23.3	23.5
	3H	22.8	24.2	23.1	24.5	24.7	23.3	24.8	23.6	25.0	25.3
	4H	23.5	24.8	23.8	25.1	25.4	24.1	25.5	24.5	25.8	26.0
	6H	24.0	25.3	24.3	25.6	25.8	24.8	26.1	25.2	26.4	26.7
	8H	24.1	25.4	24.5	25.7	26.0	25.1	26.4	25.5	26.7	27.0
	12H	24.3	25.5	24.6	25.8	26.1	25.4	26.6	25.7	26.9	27.2
4H	2H	21.9	23.2	22.2	23.5	23.8	22.1	23.5	22.5	23.8	24.1
	3H	23.7	24.9	24.0	25.2	25.5	24.1	25.4	24.5	25.7	26.0
	4H	24.5	25.6	24.9	25.9	26.3	25.1	26.2	25.5	26.5	26.9
	6H	25.2	26.2	25.6	26.5	26.9	25.9	26.9	26.3	27.3	27.6
	8H	25.4	26.3	25.8	26.7	27.1	26.3	27.2	26.7	27.6	28.0
	12H	25.6	26.4	26.0	26.8	27.2	26.6	27.5	27.1	27.9	28.3
8H	4H	24.9	25.8	25.3	26.2	26.6	25.4	26.3	25.8	26.7	27.1
	6H	25.7	26.5	26.2	26.9	27.3	26.4	27.2	26.9	27.6	28.0
	8H	26.1	26.8	26.5	27.2	27.6	26.9	27.6	27.4	28.0	28.5
	12H	26.4	27.0	26.8	27.4	27.9	27.4	28.0	27.8	28.4	28.9
12H	4H	24.9	25.8	25.4	26.2	26.6	25.4	26.3	25.8	26.7	27.1
	6H	25.8	26.5	26.3	27.0	27.4	26.5	27.2	27.0	27.6	28.1
	8H	26.3	26.9	26.7	27.3	27.8	27.0	27.6	27.5	28.1	28.6
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, 3545 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.4)

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C Interval: 90.0DEG
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Operators:
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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=1.0964]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
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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	36	30
0.80	66	54	46	65	53	46	63	52	46	38
1.00	74	63	55	73	62	55	71	63	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	77	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	84	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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Humidity:65.0%
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Remarks:

ISOCANDELA DIAGRAM

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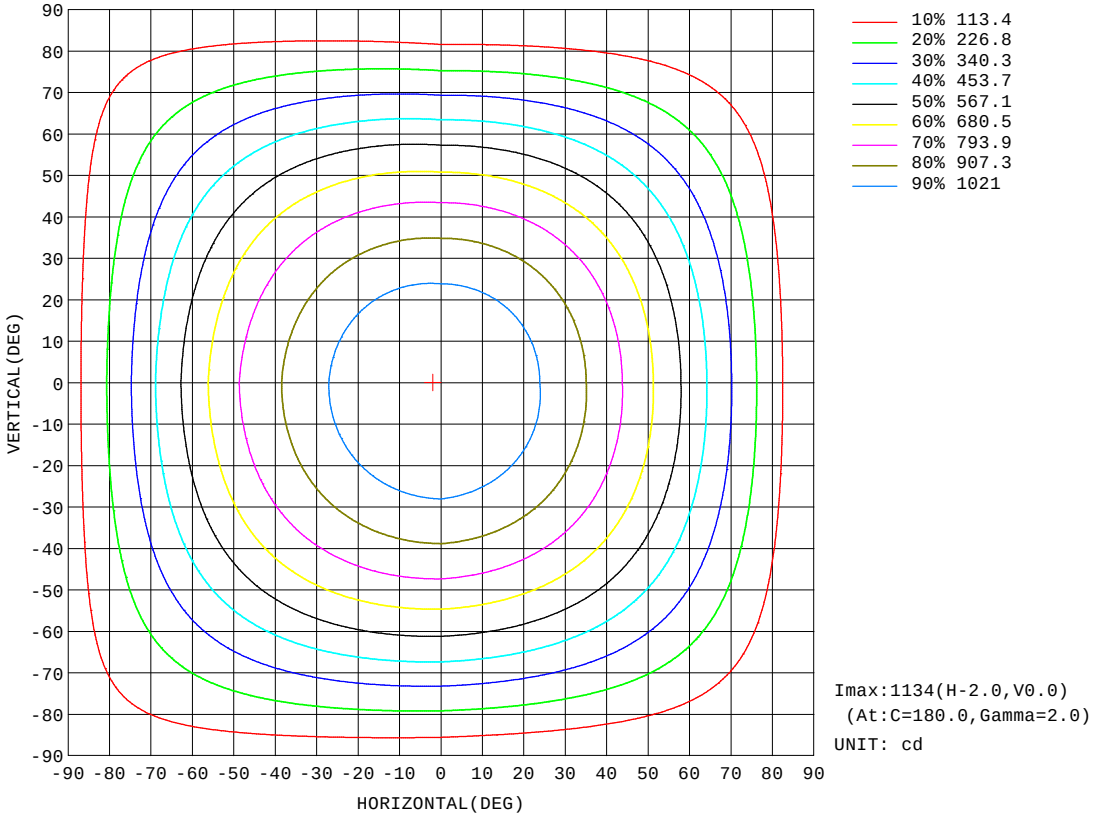

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Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
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Remarks:

AAI Figure

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NAME:	TYPE:	WEIGHT:
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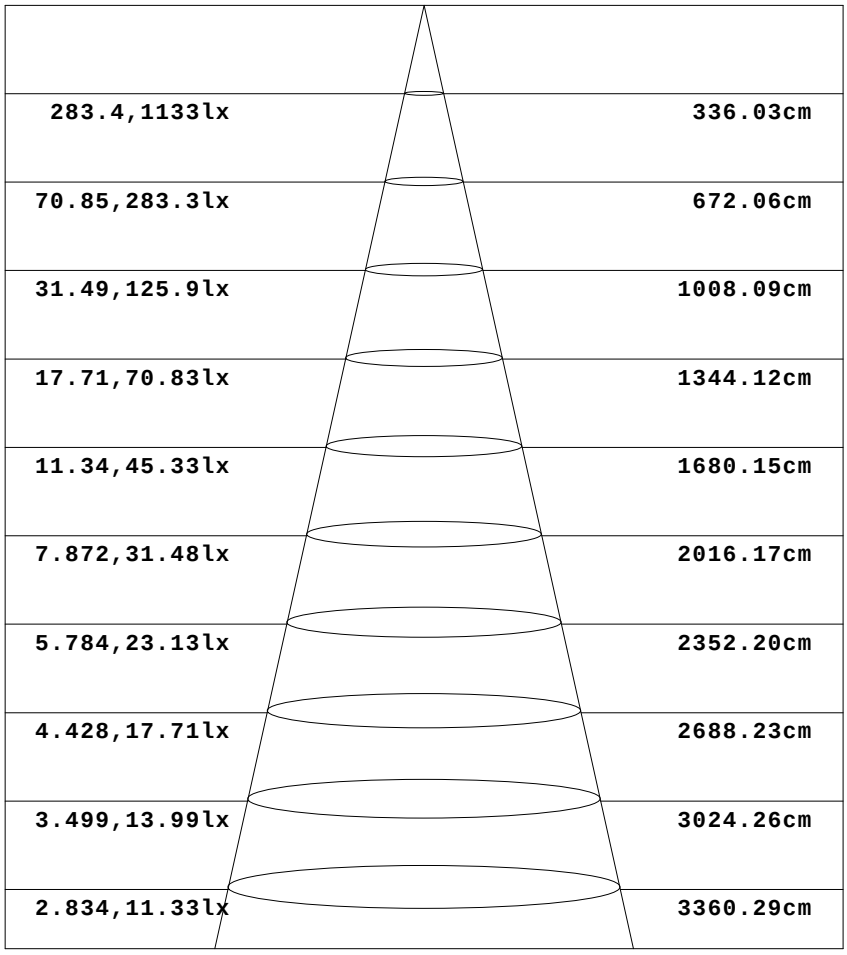
Flux out:2671 lm



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

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Remarks:

ISOLUX DIAGRAM

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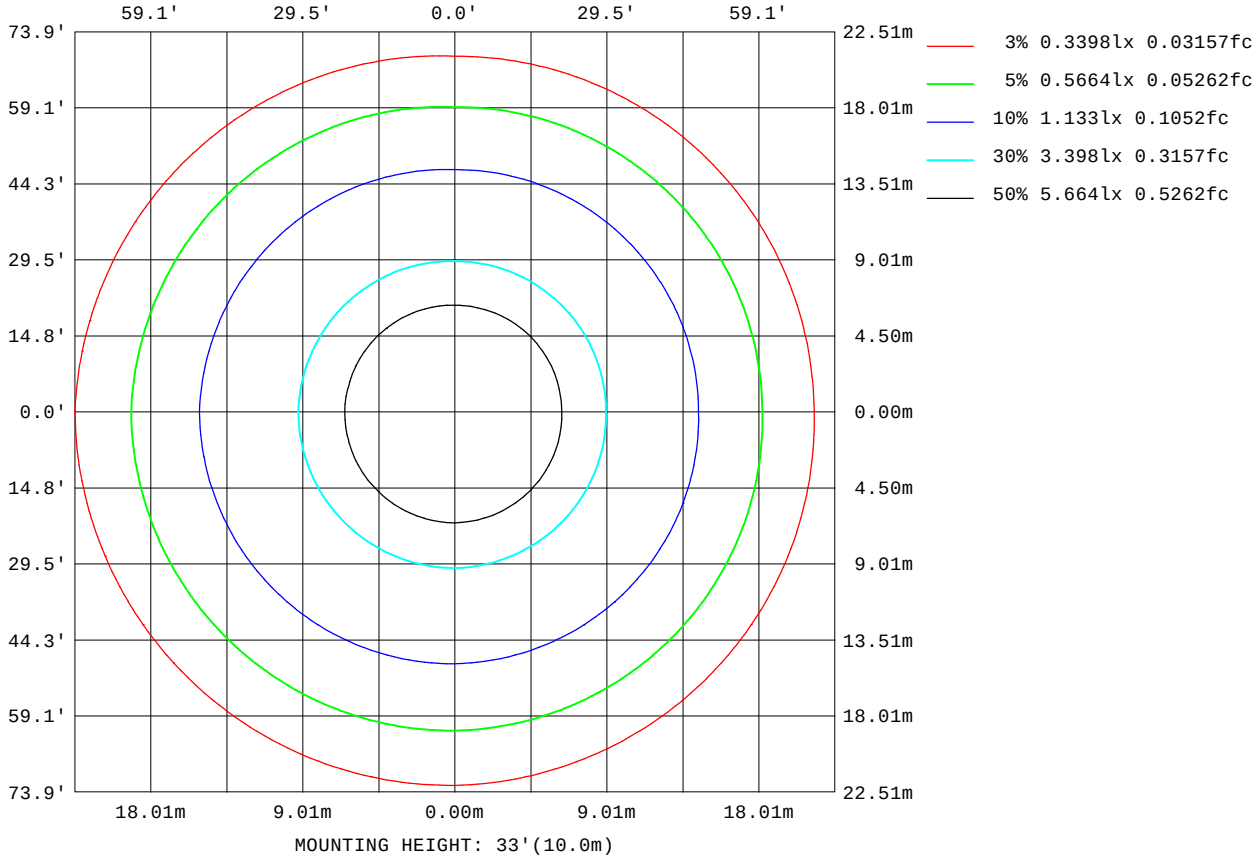

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Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

LED Avg.L Report

Test:U:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

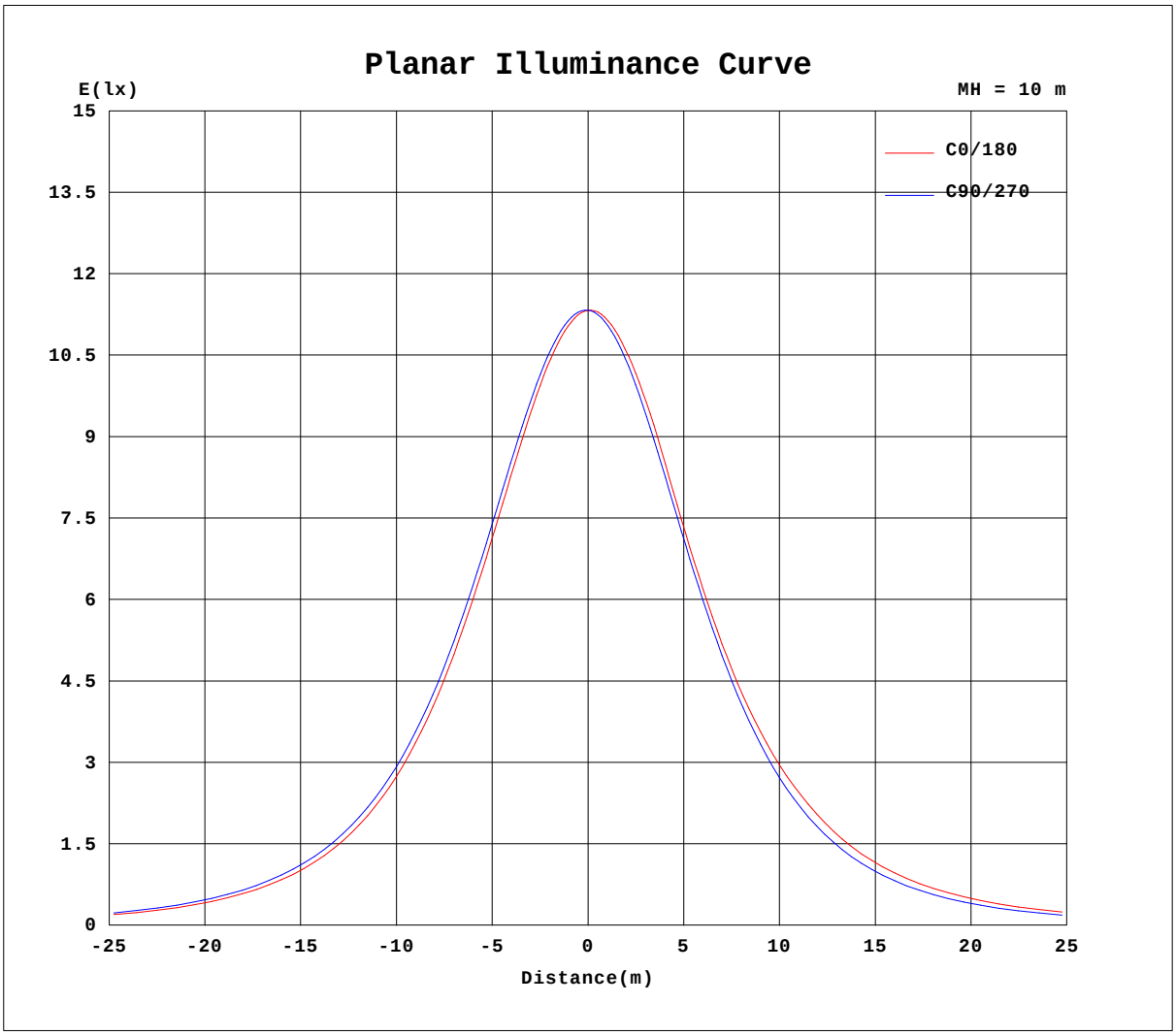
AvgL	cd/m2
L_0~180(65)av	11417
L_0~180(75)av	11287
L_0~180(85)av	12525
L_90~270(65)av	10898
L_90~270(75)av	10384
L_90~270(85)av	10404
L_45(65)av	11157
L_45(75)av	10827
L_45(85)av	11471

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



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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.32V I:0.2201A P:26.115W PF:0.9860 Freq:59.98Hz Lamp Flux:3544.88x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

g (DEG) \ C(DEG)	0	90	180	270
0	1133	1133	1133	1133
5	1124	1133	1133	1125
10	1108	1124	1125	1109
15	1083	1107	1110	1084
20	1051	1081	1083	1051
25	1012	1046	1040	1010
30	964	1003	994	961
35	908	952	944	905
40	846	894	891	841
45	777	828	837	770
50	701	755	777	693
55	618	675	700	607
60	530	590	616	517
65	438	499	527	422
70	343	404	433	326
75	249	307	335	231
80	157	212	239	139
85	71.4	123	147	57.9
90	0.89	43.6	60.3	1.58

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

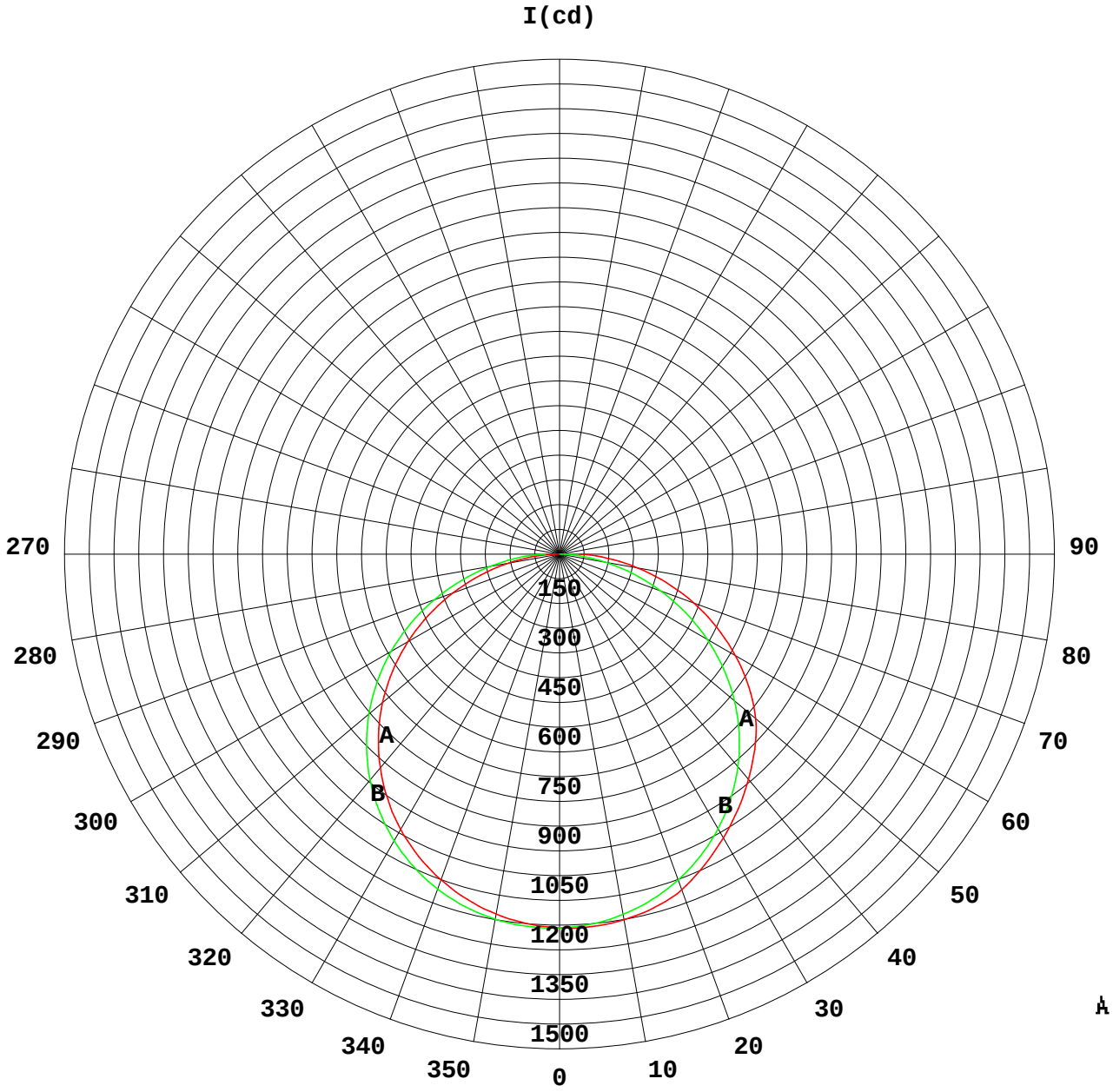
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

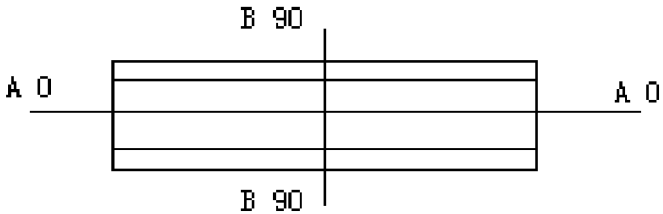
Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1133	1133	1133	1133
3.0	1129	1134	1134	1129
6.0	1122	1132	1132	1123
9.0	1112	1126	1128	1113
12.0	1099	1118	1120	1100
15.0	1083	1107	1110	1084
18.0	1065	1092	1096	1065
21.0	1044	1075	1075	1044
24.0	1020	1054	1049	1019
27.0	992.9	1030	1021	991.5
30.0	963.6	1003	993.6	961.2
33.0	931.9	973.7	963.7	928.2
36.0	896.4	941.3	933.5	892.6
39.0	858.6	905.9	901.5	854.3
42.0	819.4	868.4	869.7	813.8
45.0	776.6	827.5	836.7	770.2
48.0	731.9	784.5	802.3	724.3
51.0	684.8	739.4	762.0	676.0
54.0	635.0	691.5	715.7	624.9
57.0	583.6	641.5	666.4	571.5
60.0	530.4	589.7	615.8	517.3
63.0	475.5	535.6	562.7	460.5
66.0	419.0	479.9	508.0	403.5
69.0	362.9	423.6	451.9	345.8
72.0	305.6	364.6	394.8	287.8
75.0	249.0	306.7	335.3	230.8
78.0	193.3	249.9	278.0	174.9
81.0	139.1	194.1	220.7	122.4
84.0	87.75	140.5	165.0	73.22
87.0	40.30	90.50	111.8	29.46
90.0	0.8935	43.59	60.31	1.579

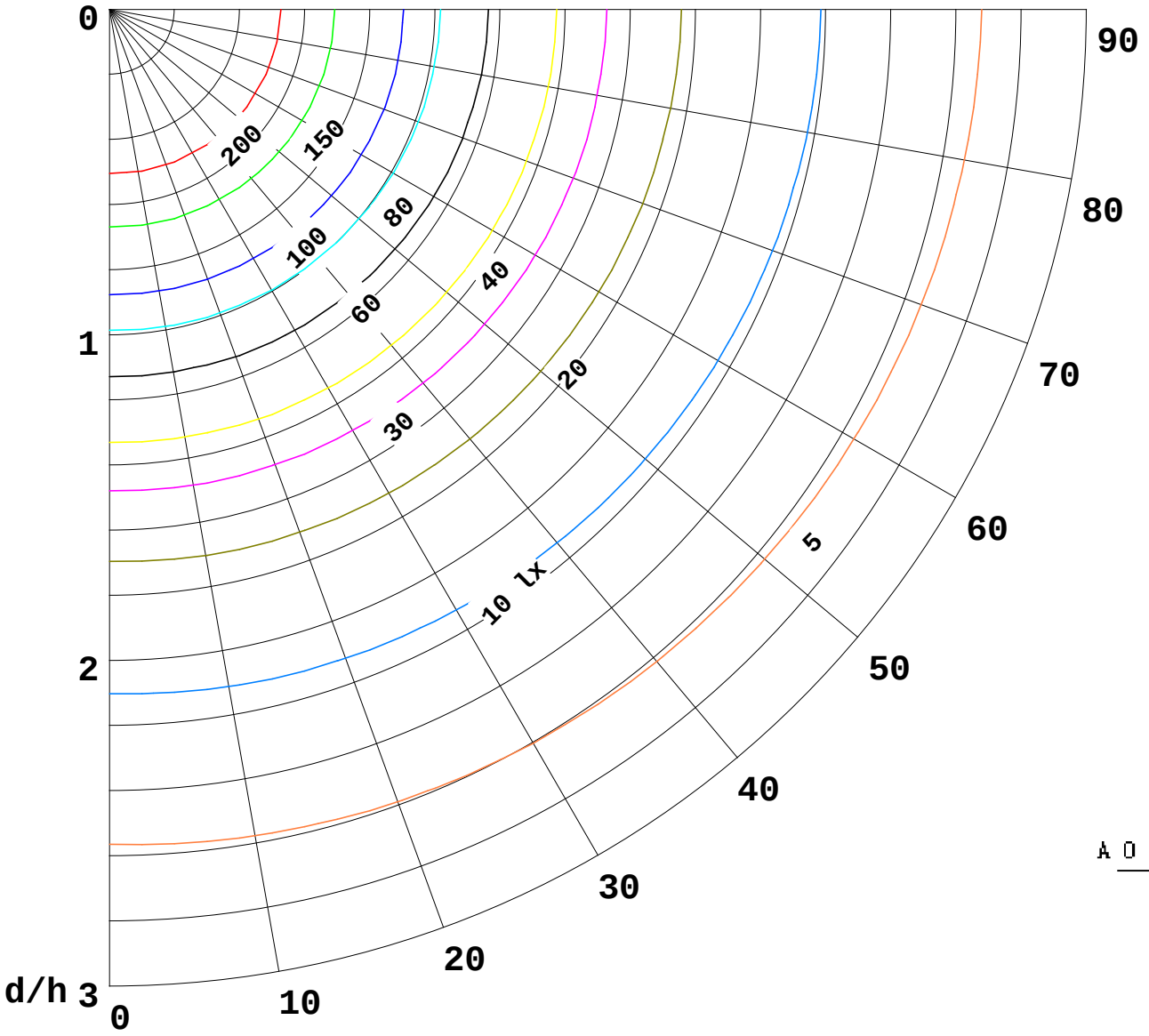
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

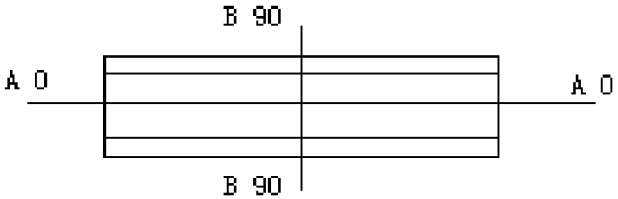
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

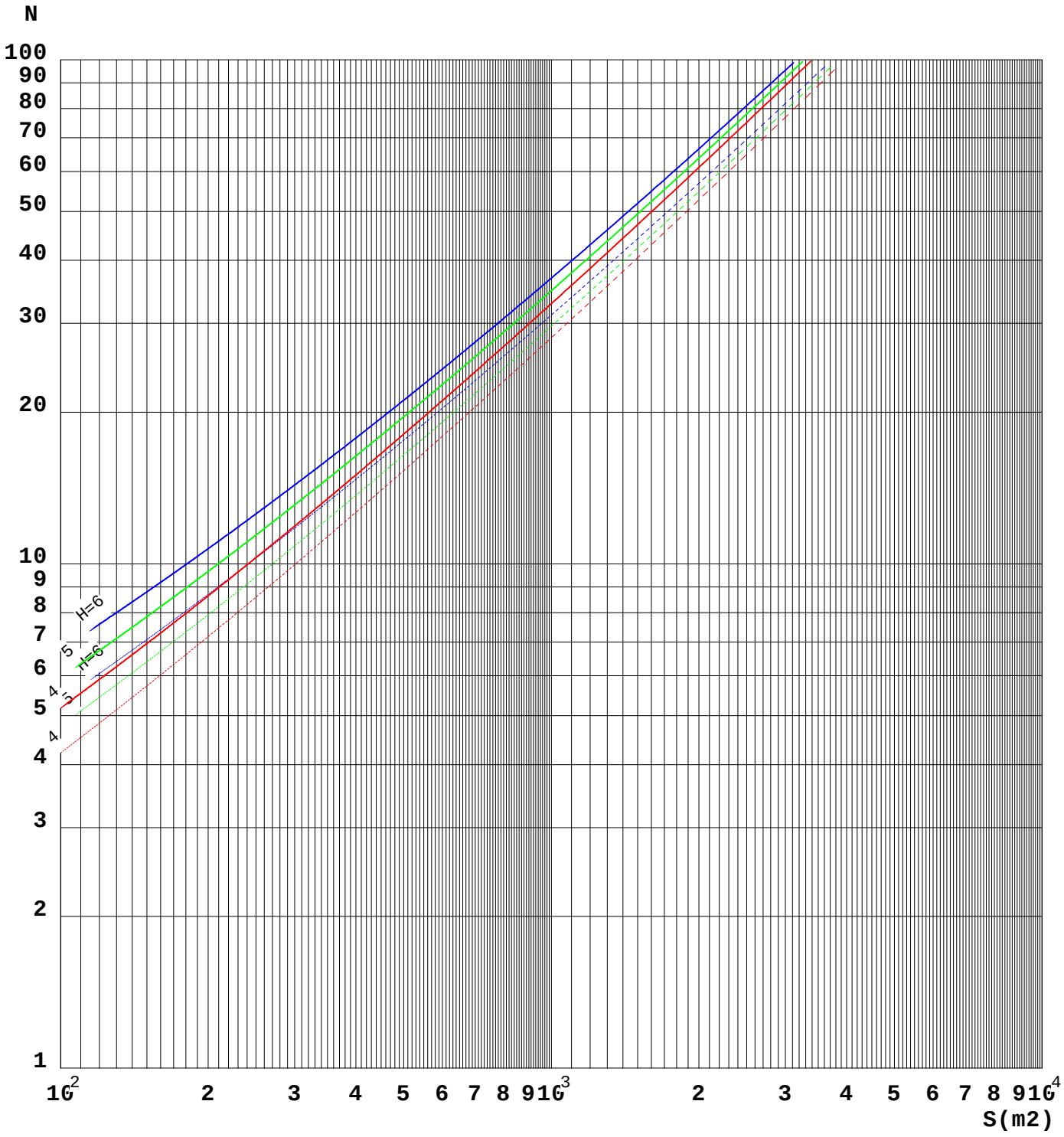

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
150
300
450
600
750
900
1050
1200
1350
1500
A
A
B
B


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