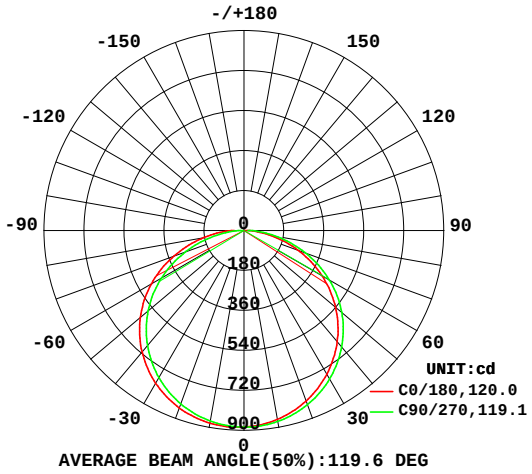
LUMINAIRE PHOTOMETRIC TEST REPORT

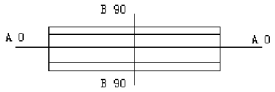
Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA		Eff: 140.21 lm/W	
MODEL		Imax(cd)	886.5	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)	2764.2	h UP,DN(C0-180)	0.0,48.5
NOMINAL FLUX(lm)	2764.18	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,51.5
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

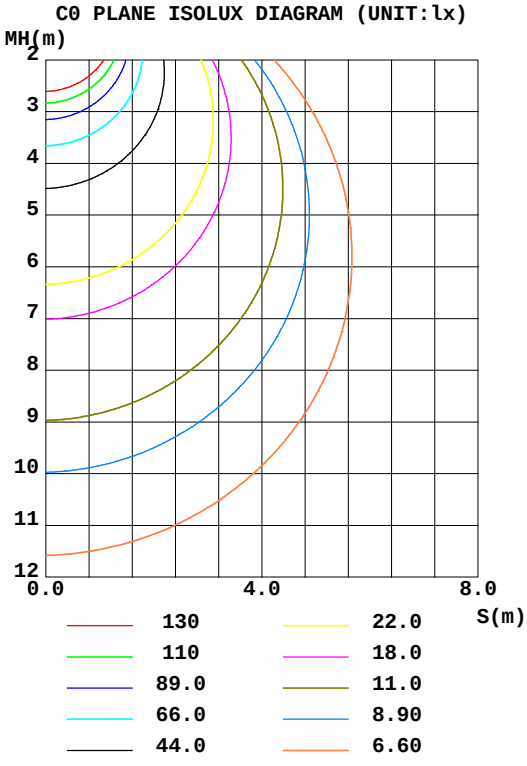
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



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	863.7	872.9	880.7	871.1					0- 10	83.88	83.88	3.03,3.03
20	817.2	834.9	850.6	831.1					10- 20	241.7	325.6	11.8,11.8
30	746.8	771.6	795.0	765.8					20- 30	371.0	696.6	25.2,25.2
40	653.1	684.6	713.8	676.2					30- 40	456.1	1153	41.7,41.7
50	539.0	575.3	609.5	564.6					40- 50	485.8	1639	59.3,59.3
60	405.0	443.8	481.9	429.6					50- 60	454.2	2093	75.7,75.7
70	257.5	293.7	335.1	277.8					60- 70	362.8	2456	88.8,88.8
80	112.5	142.2	181.8	125.6					70- 80	226.8	2682	97,97
90	0	18.19	43.56	7.620					80- 90	81.78	2764	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:13 March 2024

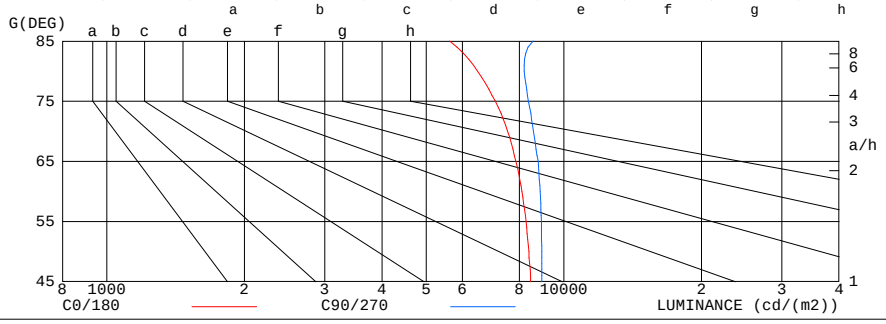
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 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	5628	8564
80	6476	8187
75	7081	8370
70	7530	8587
65	7859	8787
60	8100	8877
55	8263	8930
50	8385	8950
45	8464	8949

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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=1.0723]
Remarks:

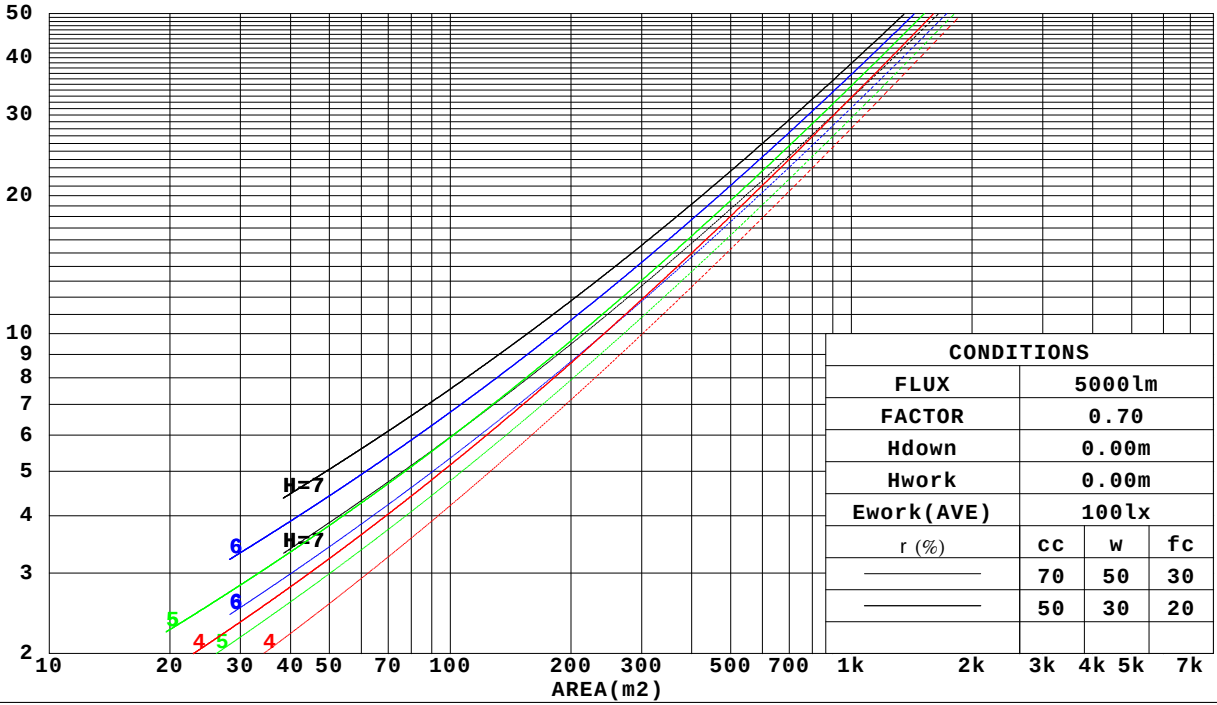
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 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	1.01	.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	.37	.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	.30	.25	.36	.29	.24	.35	.29	.24	.23

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



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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:

WEC AND CCEC

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 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	.330	.188	.059	.323	.184	.059	.310	.178	.057	.297	.172	.055	.286	.166	.053	
2.0	.306	.168	.051	.299	.165	.051	.288	.160	.050	.277	.155	.049	.267	.151	.048	
3.0	.280	.149	.045	.275	.147	.044	.264	.143	.044	.255	.140	.043	.246	.136	.042	
4.0	.257	.134	.039	.252	.132	.039	.243	.129	.038	.234	.126	.038	.226	.123	.037	
5.0	.237	.121	.035	.232	.119	.035	.224	.117	.034	.216	.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	.154	.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	.155	.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	.166	.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:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 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	20.1	21.7	20.4	21.9	22.1	20.5	22.0	20.7	22.2	22.4
	3H	21.7	23.2	22.0	23.4	23.6	22.2	23.6	22.5	23.9	24.1
	4H	22.4	23.7	22.7	24.0	24.3	22.9	24.3	23.2	24.5	24.8
	6H	22.8	24.1	23.2	24.4	24.7	23.5	24.8	23.8	25.1	25.4
	8H	23.0	24.2	23.3	24.5	24.8	23.7	25.0	24.1	25.3	25.6
	12H	23.1	24.3	23.4	24.6	24.9	23.9	25.1	24.2	25.4	25.7
4H	2H	20.8	22.2	21.1	22.5	22.7	21.1	22.5	21.4	22.7	23.0
	3H	22.6	23.8	22.9	24.1	24.4	23.0	24.2	23.3	24.5	24.8
	4H	23.4	24.5	23.7	24.8	25.1	23.8	25.0	24.2	25.3	25.6
	6H	24.0	25.0	24.4	25.3	25.7	24.6	25.6	25.0	25.9	26.3
	8H	24.2	25.1	24.6	25.5	25.9	24.9	25.8	25.3	26.2	26.5
	12H	24.3	25.2	24.7	25.6	26.0	25.1	26.0	25.5	26.3	26.7
8H	4H	23.7	24.6	24.1	25.0	25.4	24.1	25.0	24.5	25.4	25.8
	6H	24.5	25.2	24.9	25.7	26.1	25.0	25.8	25.5	26.2	26.6
	8H	24.8	25.5	25.2	25.9	26.4	25.4	26.1	25.9	26.5	27.0
	12H	25.0	25.6	25.5	26.1	26.5	25.8	26.4	26.2	26.8	27.3
12H	4H	23.7	24.6	24.2	25.0	25.4	24.1	25.0	24.6	25.4	25.8
	6H	24.6	25.3	25.0	25.7	26.1	25.1	25.8	25.5	26.2	26.7
	8H	24.9	25.5	25.4	26.0	26.4	25.5	26.1	26.0	26.6	27.1
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, 2764 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.5)

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:

UTILIZATION FACTORS TABLE

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 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	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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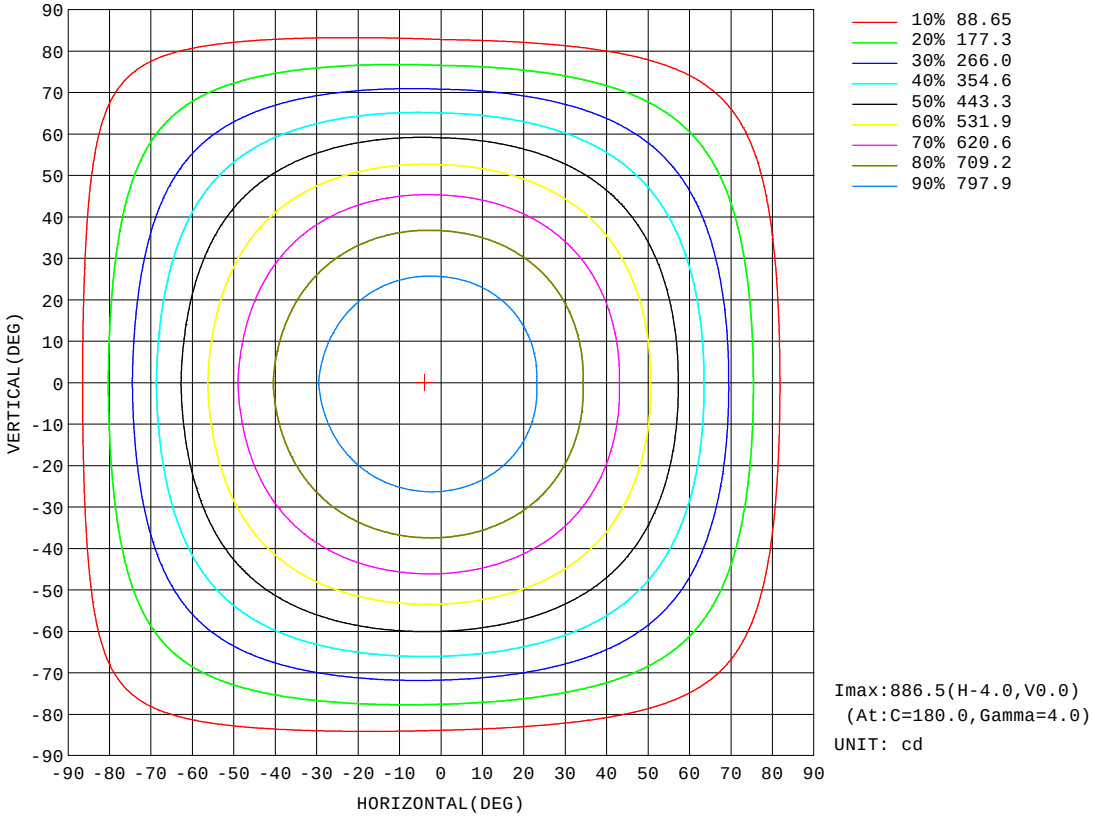
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



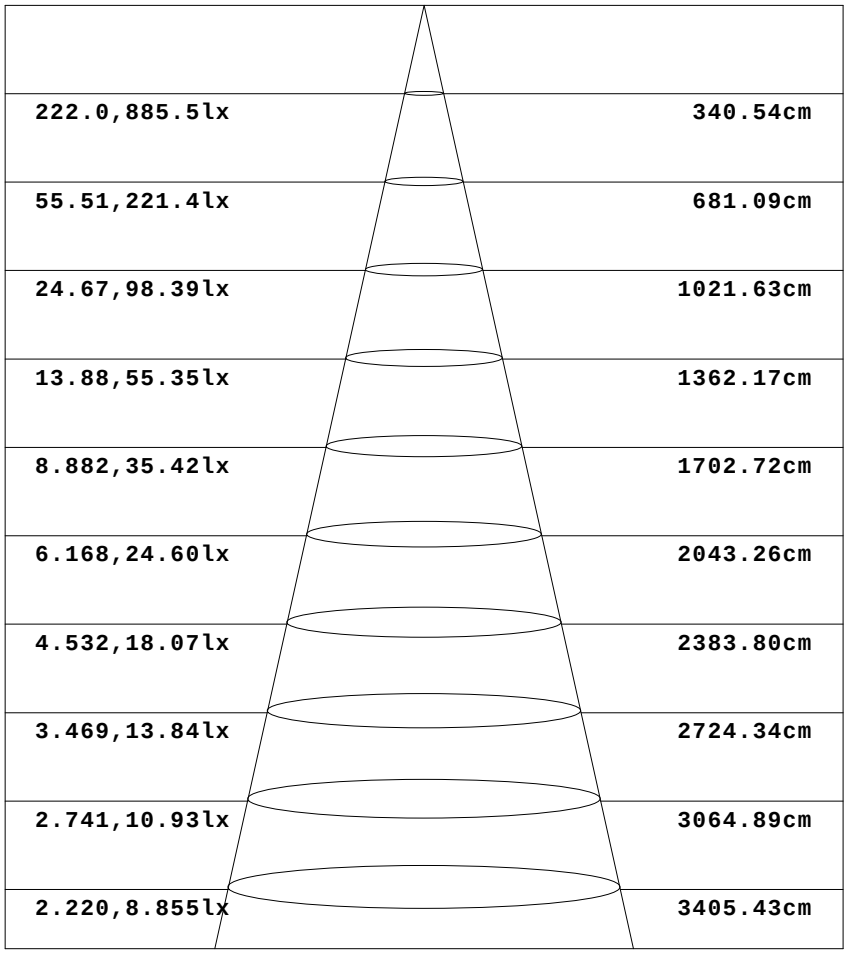
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

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:

AAI Figure

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:2093 lm



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

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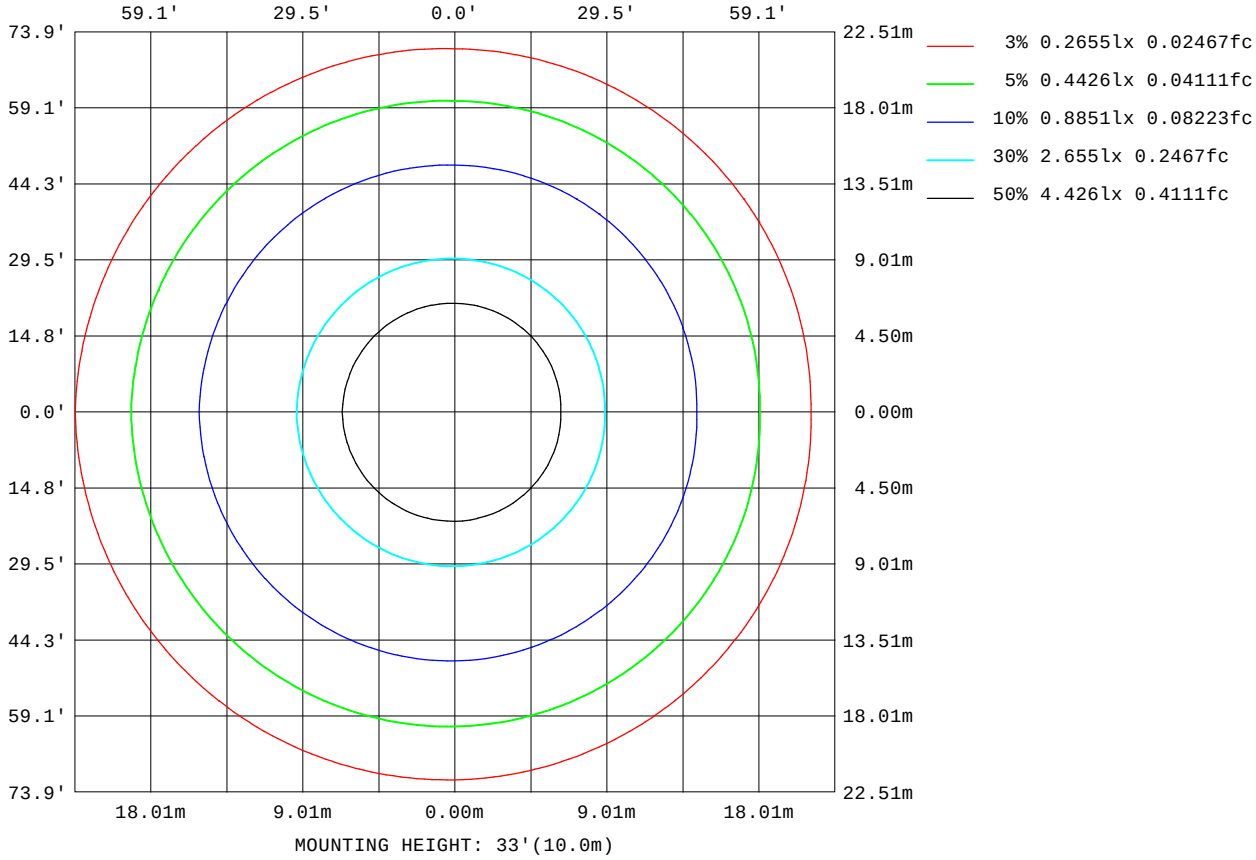
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

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:

ISOLUX DIAGRAM

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



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Humidity:65.0%
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Remarks:

LED Avg.L Report

Test:U:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

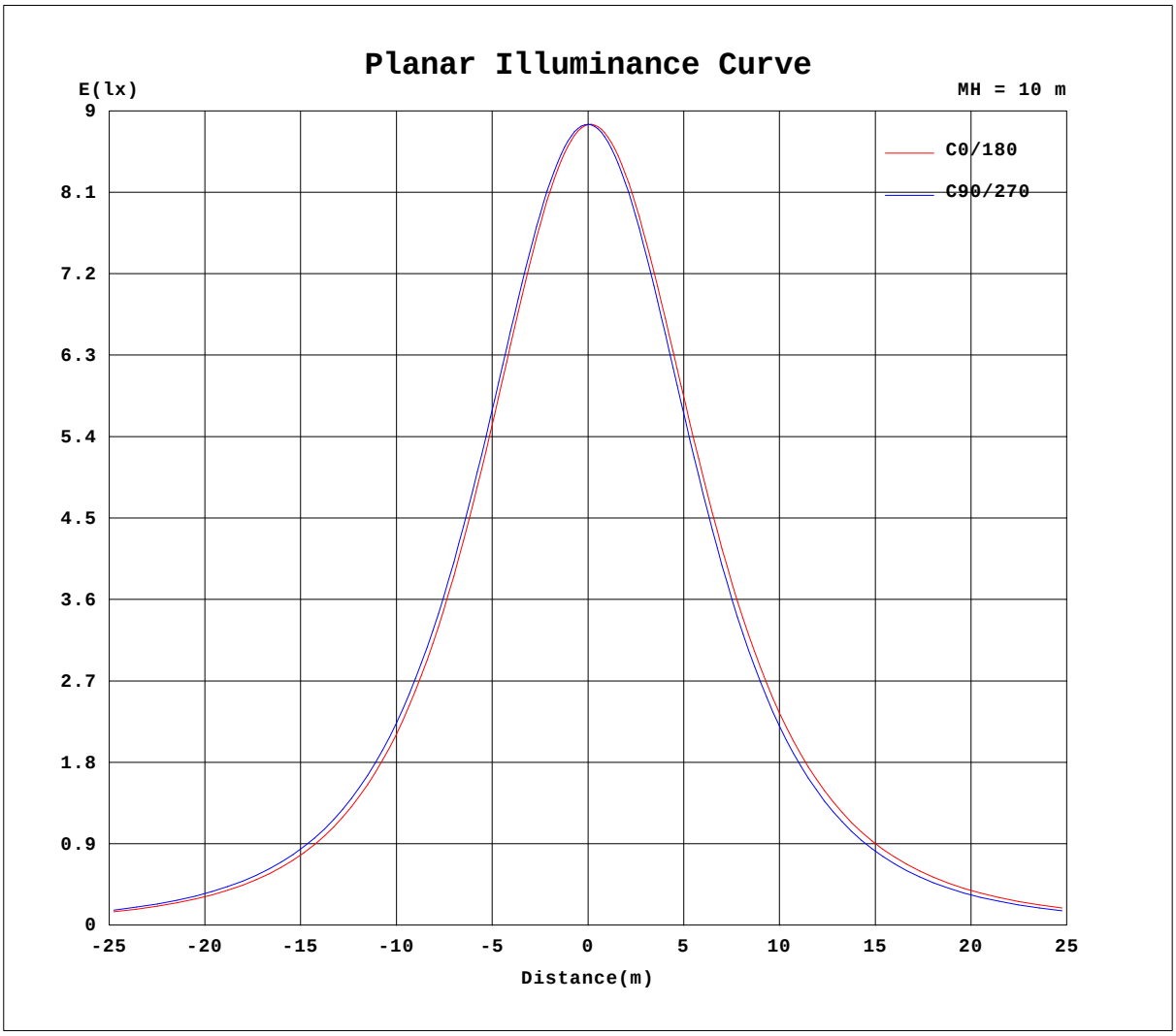
AvgL	cd/m2
L_0~180(65)av	8792
L_0~180(75)av	8524
L_0~180(85)av	9084
L_90~270(65)av	8591
L_90~270(75)av	8052
L_90~270(85)av	7710
L_45(65)av	8725
L_45(75)av	8319
L_45(85)av	8441

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:120.35V I:0.1666A P:19.714W PF:0.9830 Freq:59.98Hz Lamp Flux:2764.18x1 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	885	885	885	885
5	878	882	886	882
10	864	873	881	871
15	843	857	869	854
20	817	835	851	831
25	785	806	826	801
30	747	772	795	766
35	703	731	757	724
40	653	685	714	676
45	599	633	665	623
50	539	575	609	565
55	474	512	549	499
60	405	444	482	430
65	332	371	411	355
70	258	294	335	278
75	183	217	258	200
80	112	142	182	126
85	49.1	74.6	109	59.8
90	0.00	18.2	43.6	7.62

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

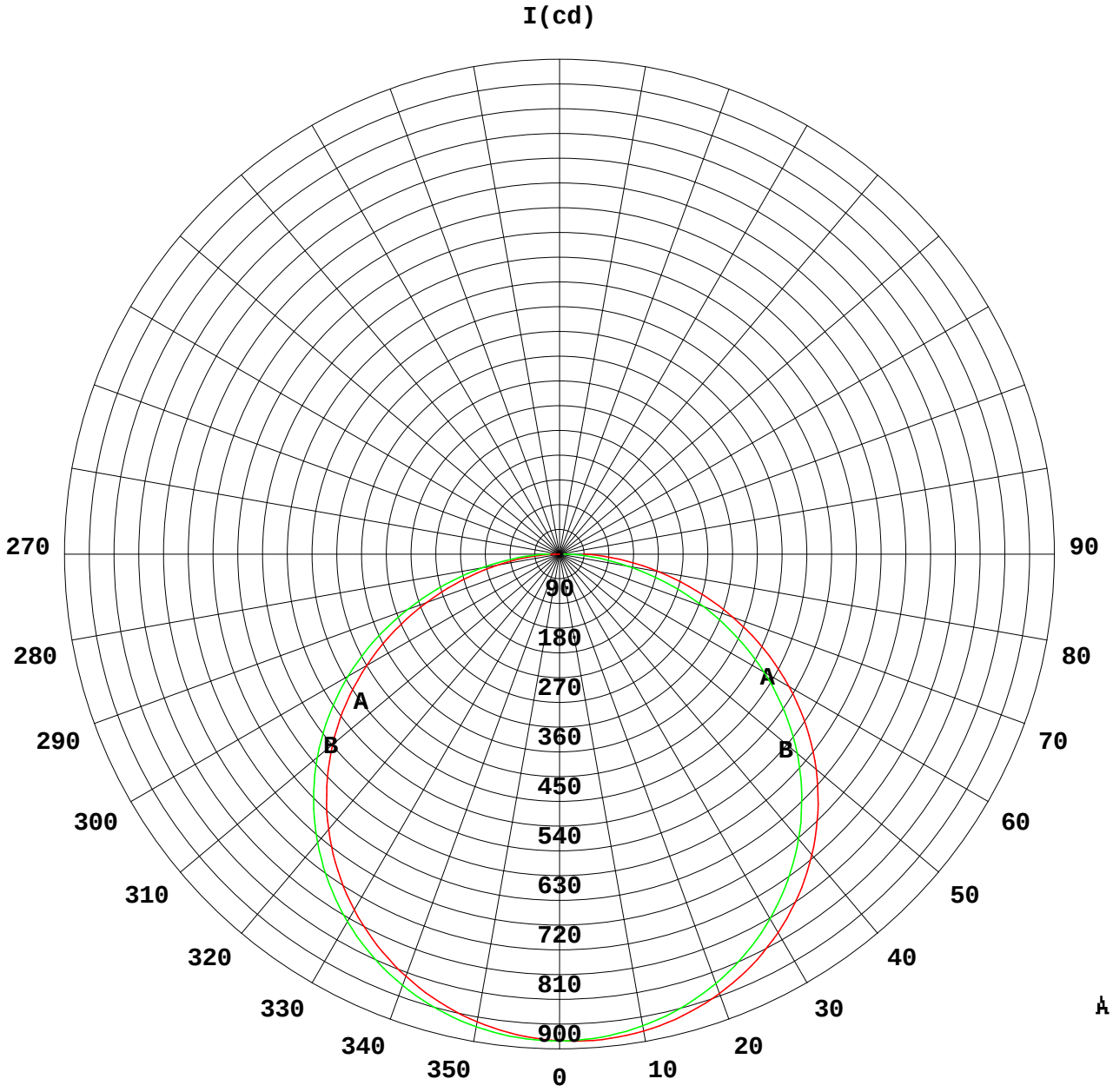
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

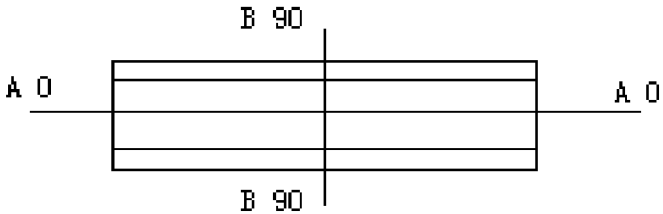
Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	885.1	885.4	885.1	885.4
3.0	881.4	884.3	886.4	883.9
6.0	875.2	881.1	885.6	880.1
9.0	867.0	875.3	882.5	873.8
12.0	856.5	867.6	876.7	865.3
15.0	843.4	857.1	868.9	854.4
18.0	828.3	844.5	858.6	841.1
21.0	811.4	829.4	845.9	825.6
24.0	791.9	812.6	831.4	807.8
27.0	770.2	793.1	814.2	787.9
30.0	746.8	771.6	795.0	765.8
33.0	721.5	748.2	772.8	741.5
36.0	693.5	722.4	749.5	714.8
39.0	663.7	694.4	722.9	686.3
42.0	632.8	664.8	695.1	655.9
45.0	598.5	632.8	664.6	623.1
48.0	563.3	598.8	631.9	588.3
51.0	526.7	563.1	597.7	551.8
54.0	487.6	525.3	560.9	513.0
57.0	446.9	485.3	522.2	471.7
60.0	405.0	443.8	481.9	429.6
63.0	361.5	400.6	439.6	385.0
66.0	317.1	355.5	395.9	339.5
69.0	272.8	309.3	349.8	293.4
72.0	227.8	262.9	304.3	246.6
75.0	183.3	216.6	258.0	200.2
78.0	140.1	171.7	212.4	154.5
81.0	99.23	128.1	166.9	111.7
84.0	61.00	87.31	123.3	72.04
87.0	26.62	50.69	82.33	36.81
90.0	0	18.19	43.56	7.620

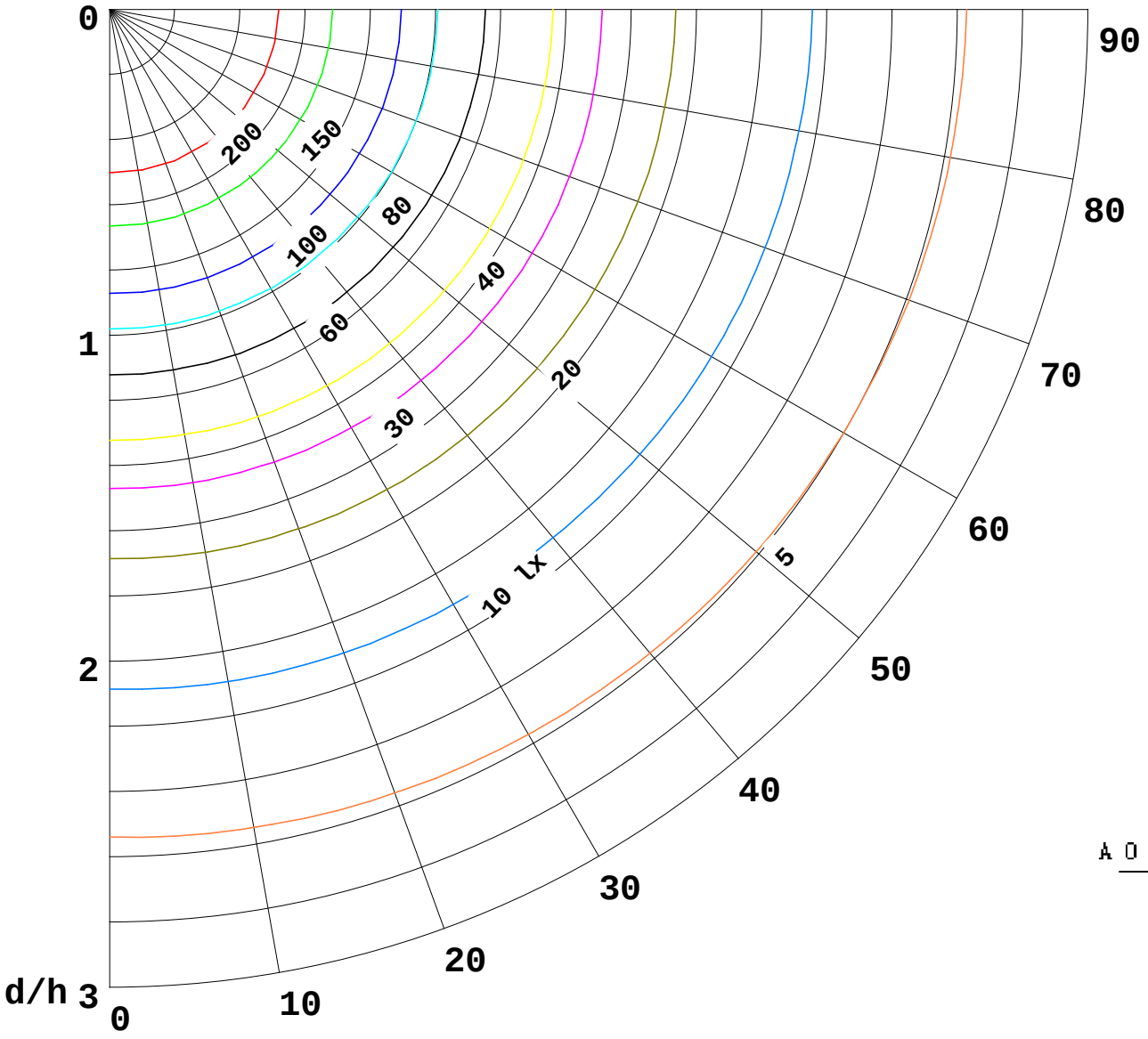
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

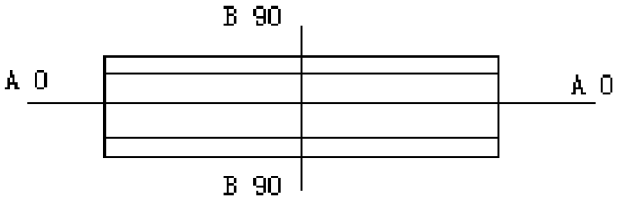
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

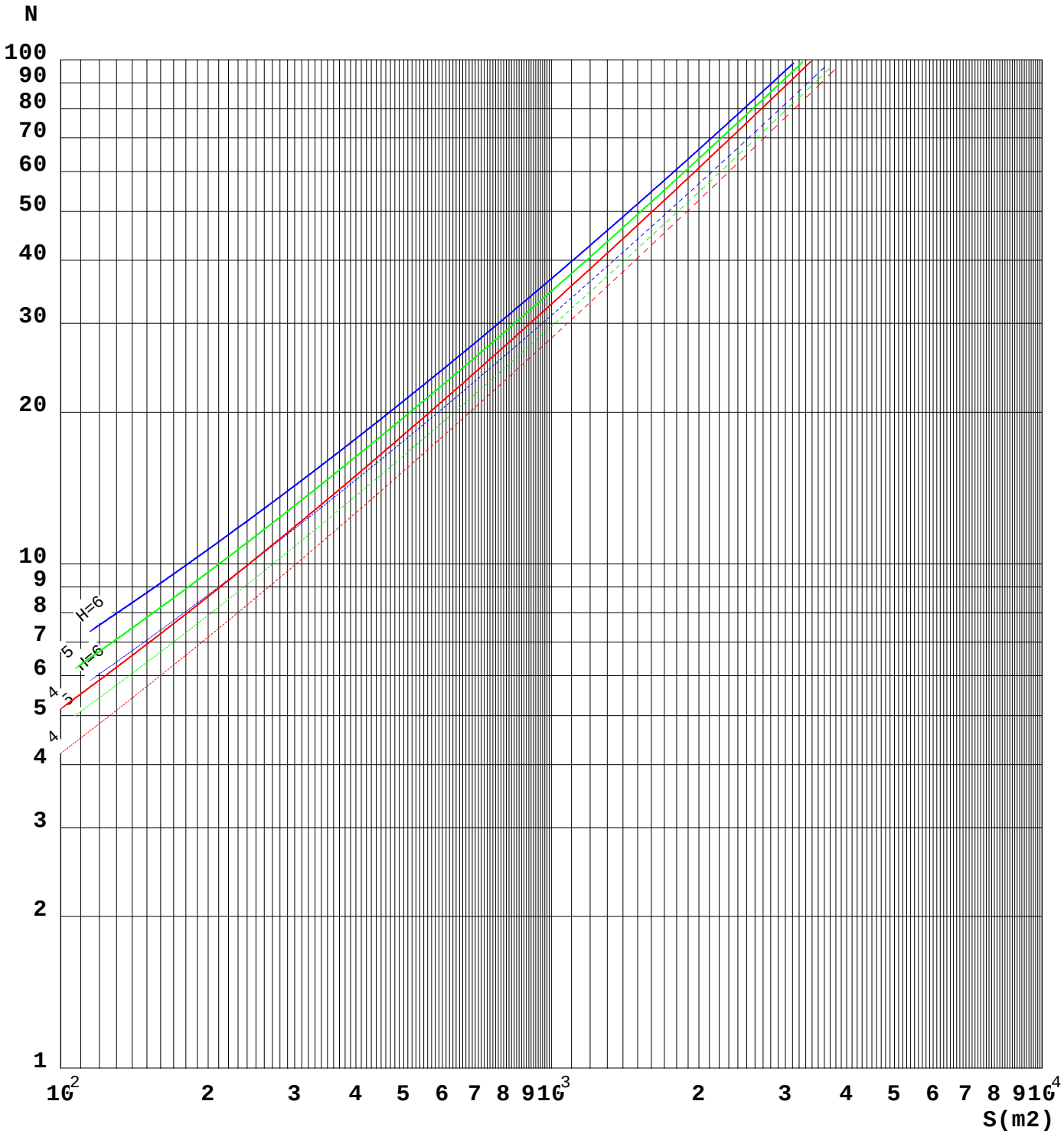

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
90
180
270
360
450
540
630
720
810
900
A
B
A
B


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