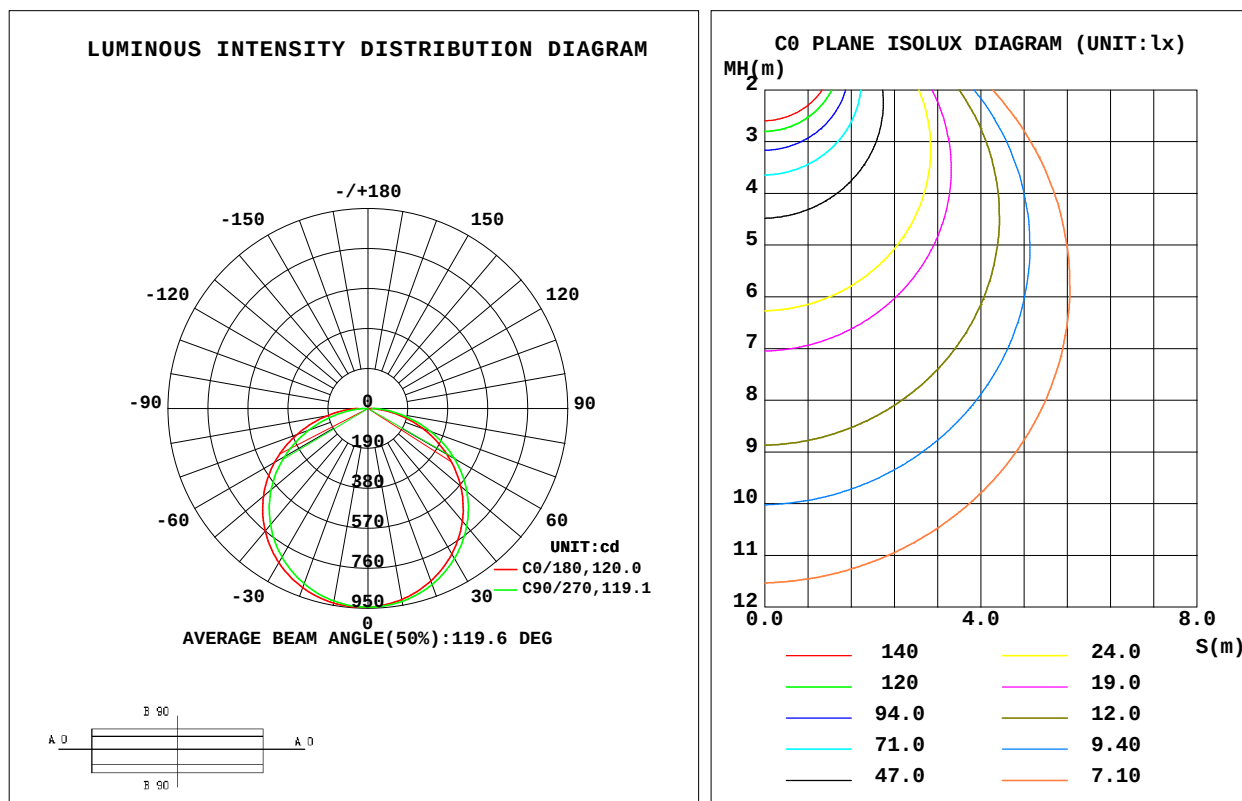


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 150.96 lm/W			
MODEL		I _{max} (cd)	945.3	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)	2948.2	h UP, DN(C0-180)	0.0,48.6
NOMINAL FLUX(lm)	2948.16	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



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 G0-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C90	C180	C270					g	F zone	F total	%lum, lamp
10	921.5	931.0	939.1	929.1					0- 10	89.45	89.45	3.03, 3.03
20	872.5	890.4	906.4	886.3					10- 20	257.8	347.3	11.8, 11.8
30	797.6	823.0	846.5	816.6					20- 30	395.7	743.0	25.2, 25.2
40	697.8	730.1	760.2	721.2					30- 40	486.5	1229	41.7, 41.7
50	574.7	613.6	648.7	601.6					40- 50	518.1	1748	59.3, 59.3
60	432.9	473.5	512.9	457.8					50- 60	484.3	2232	75.7, 75.7
70	275.5	313.5	357.2	296.1					60- 70	387.0	2619	88.8, 88.8
80	120.2	152.1	193.5	133.7					70- 80	242.0	2861	97, 97
90	0	19.68	46.57	8.089					80- 90	87.32	2948	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		

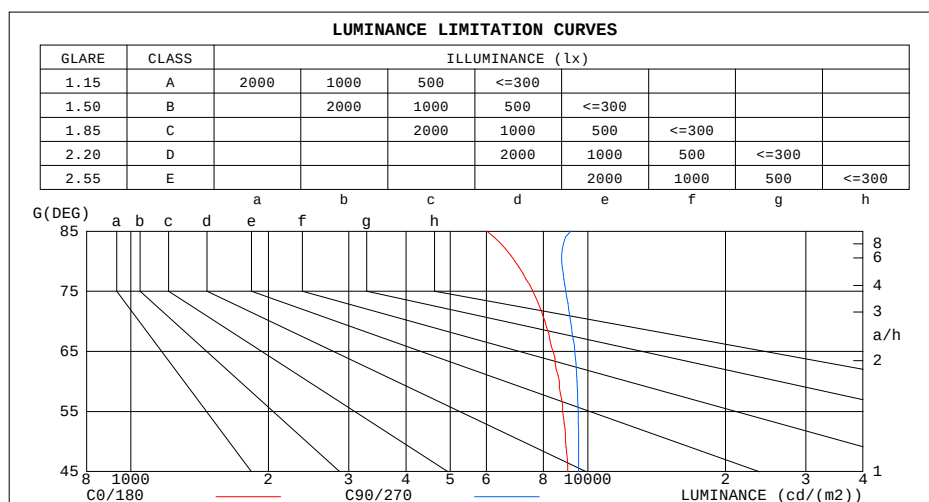
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 13 March 2024

g Range: 0 - 90DEG
 g Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.400
 Humidity: 65.0%
 Test Distance: 8.300m [K=1.0723]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	6010	9181
80	6920	8758
75	7581	8944
70	8055	9166
65	8389	9370
60	8659	9471
55	8814	9525
50	8941	9545
45	9038	9546

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

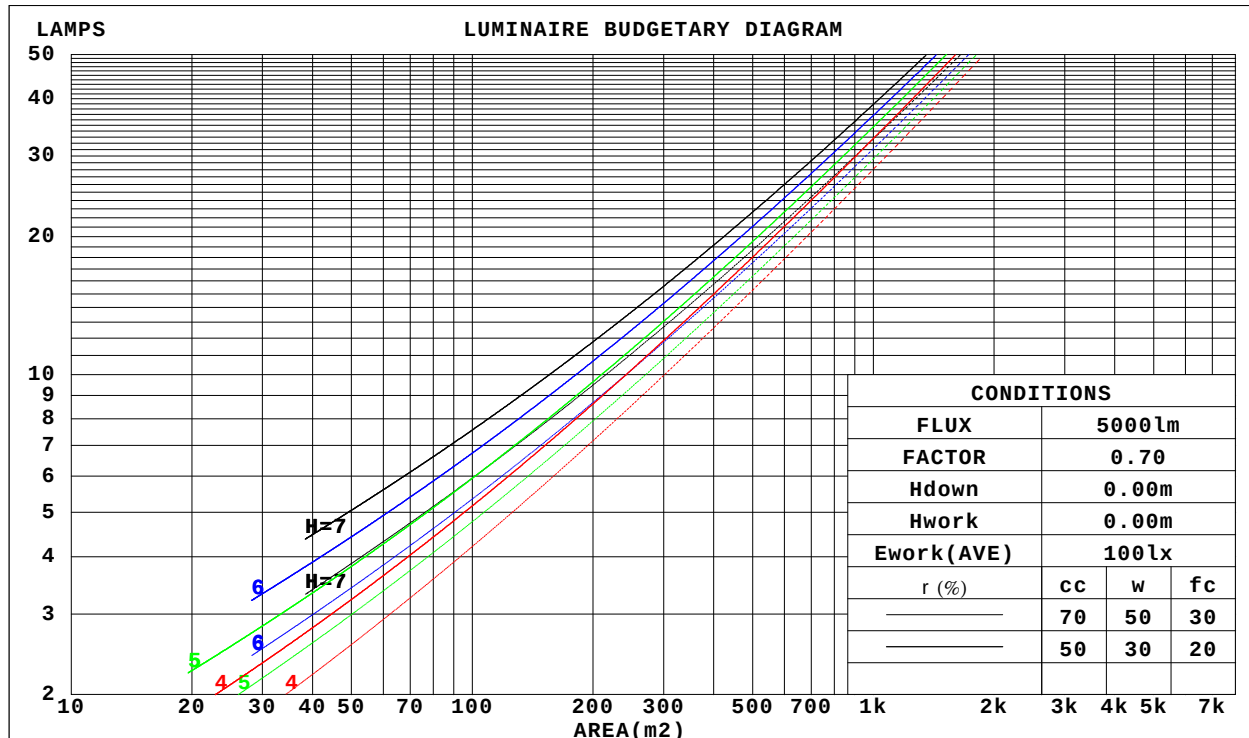
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0723]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 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



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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 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 Wall Exitance Coefficients(WEC)															
0.0																
1.0	.330	.188	.060	.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	.155	.077	.022	.150	.076	.022	

r c c	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 f c	20%			20%			20%			20%			20%			0
R C R	R C R:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(C C E C)															
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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 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	20.4	21.9	20.6	22.1	22.3	20.7	22.3	21.0	22.5	22.7	
	3H	21.9	23.4	22.2	23.6	23.9	22.4	23.9	22.7	24.1	24.3
	4H	22.6	24.0	22.9	24.2	24.5	23.1	24.5	23.5	24.8	25.0
	6H	23.1	24.4	23.4	24.6	24.9	23.7	25.0	24.1	25.3	25.6
	8H	23.2	24.5	23.6	24.8	25.1	24.0	25.2	24.3	25.5	25.8
	12H	23.3	24.5	23.7	24.8	25.1	24.1	25.3	24.5	25.6	25.9
4H	2H	21.1	22.4	21.4	22.7	22.9	21.3	22.7	21.6	22.9	23.2
	3H	22.8	24.0	23.2	24.3	24.6	23.2	24.4	23.6	24.7	25.0
	4H	23.6	24.7	24.0	25.0	25.4	24.1	25.2	24.4	25.5	25.8
	6H	24.2	25.2	24.6	25.5	25.9	24.8	25.8	25.2	26.1	26.5
	8H	24.4	25.3	24.8	25.7	26.1	25.1	26.0	25.5	26.4	26.8
	12H	24.6	25.4	25.0	25.8	26.2	25.3	26.2	25.8	26.6	27.0
8H	4H	23.9	24.9	24.4	25.2	25.6	24.4	25.3	24.8	25.6	26.0
	6H	24.7	25.5	25.2	25.9	26.3	25.3	26.0	25.7	26.4	26.9
	8H	25.0	25.7	25.5	26.1	26.6	25.6	26.3	26.1	26.8	27.2
	12H	25.3	25.8	25.7	26.3	26.8	26.0	26.6	26.5	27.0	27.5
12H	4H	24.0	24.8	24.4	25.2	25.6	24.4	25.2	24.8	25.6	26.0
	6H	24.8	25.5	25.3	25.9	26.4	25.3	26.0	25.8	26.4	26.9
	8H	25.2	25.8	25.6	26.2	26.7	25.8	26.4	26.2	26.8	27.3
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	+ 0.1 / - 0.4					+ 0.1 / - 0.3					

CIE Pub.117, 2948 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.8$)

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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 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) $k(RI) \times RCR = 5$									
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		

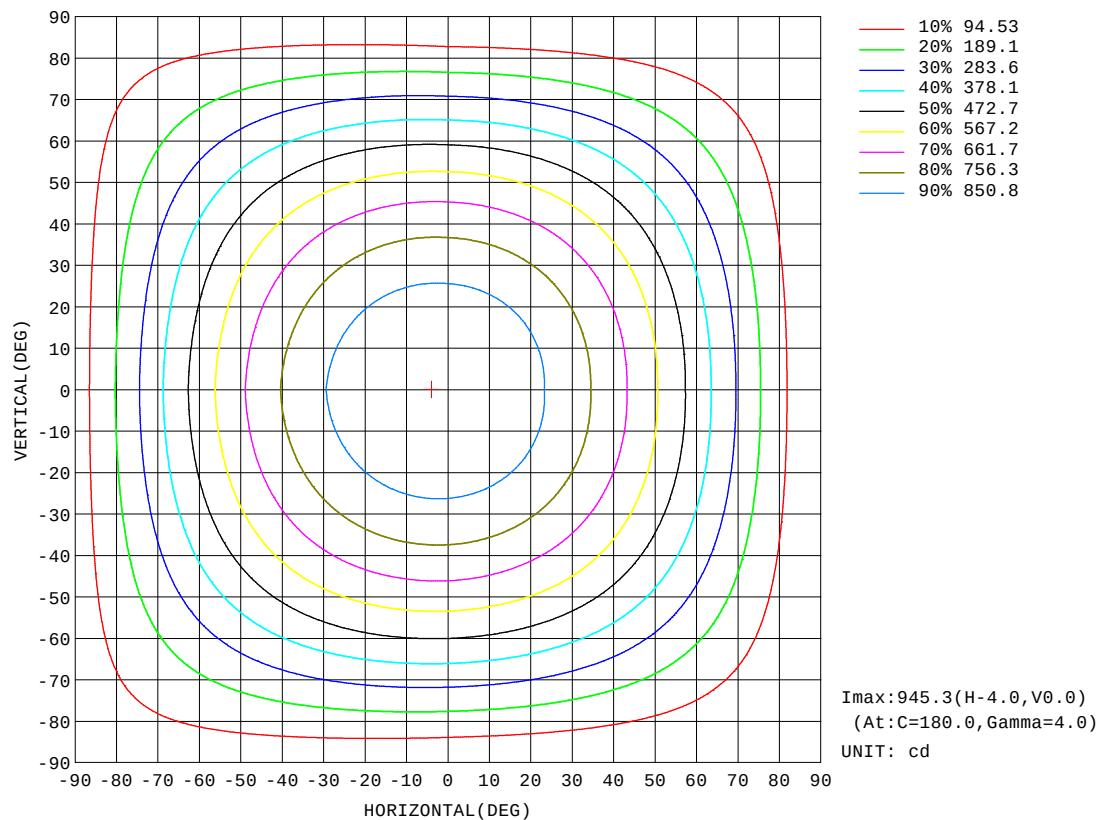
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:13 March 2024

g Range: 0 - 90DEG
 g Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.400
 Humidity:65.0%
 Test Distance:8.300m [K=1.0723]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 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

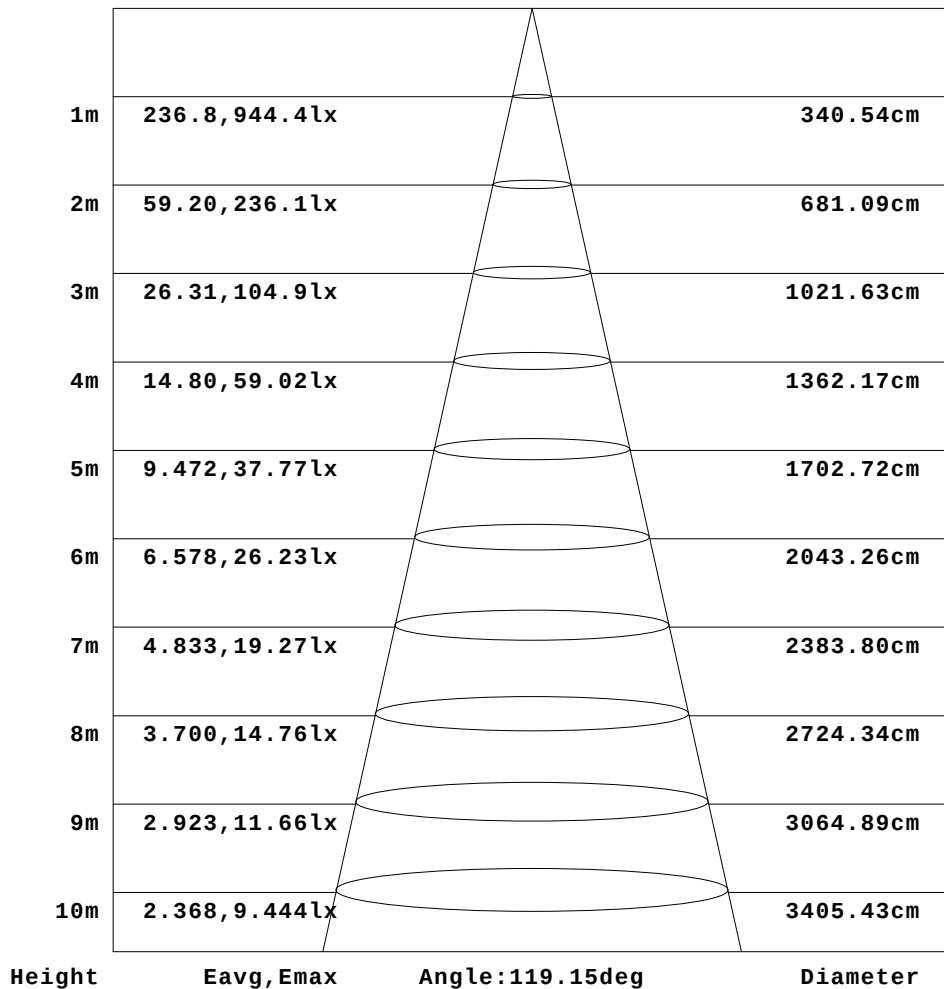
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0723]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:2232 lm



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

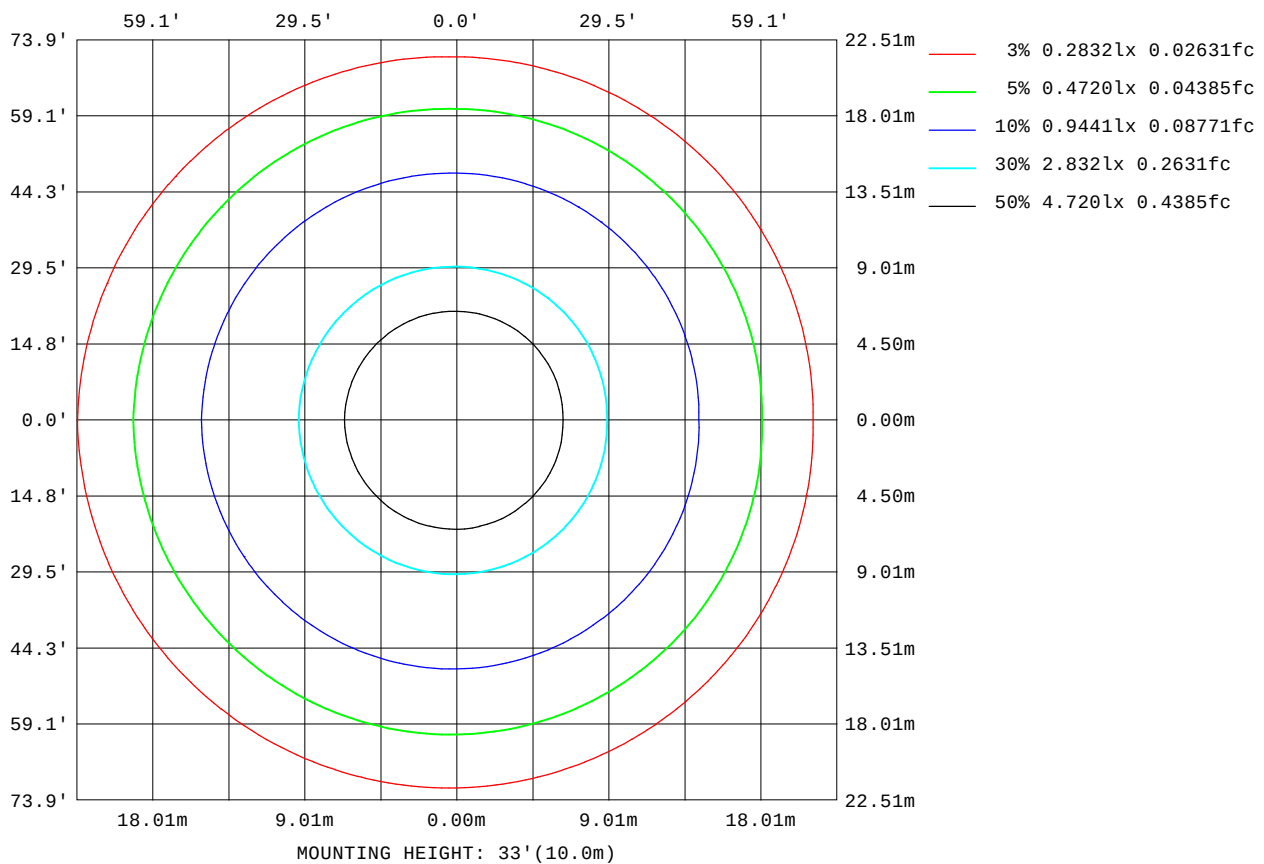
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:13 March 2024

g Range: 0 - 90DEG
 g Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.400
 Humidity:65.0%
 Test Distance:8.300m [K=1.0723]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 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 G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0723]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.33V I:0.1651A P:19.529W PF:0.9828 Freq:59.98Hz Lamp Flux:2948.16x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

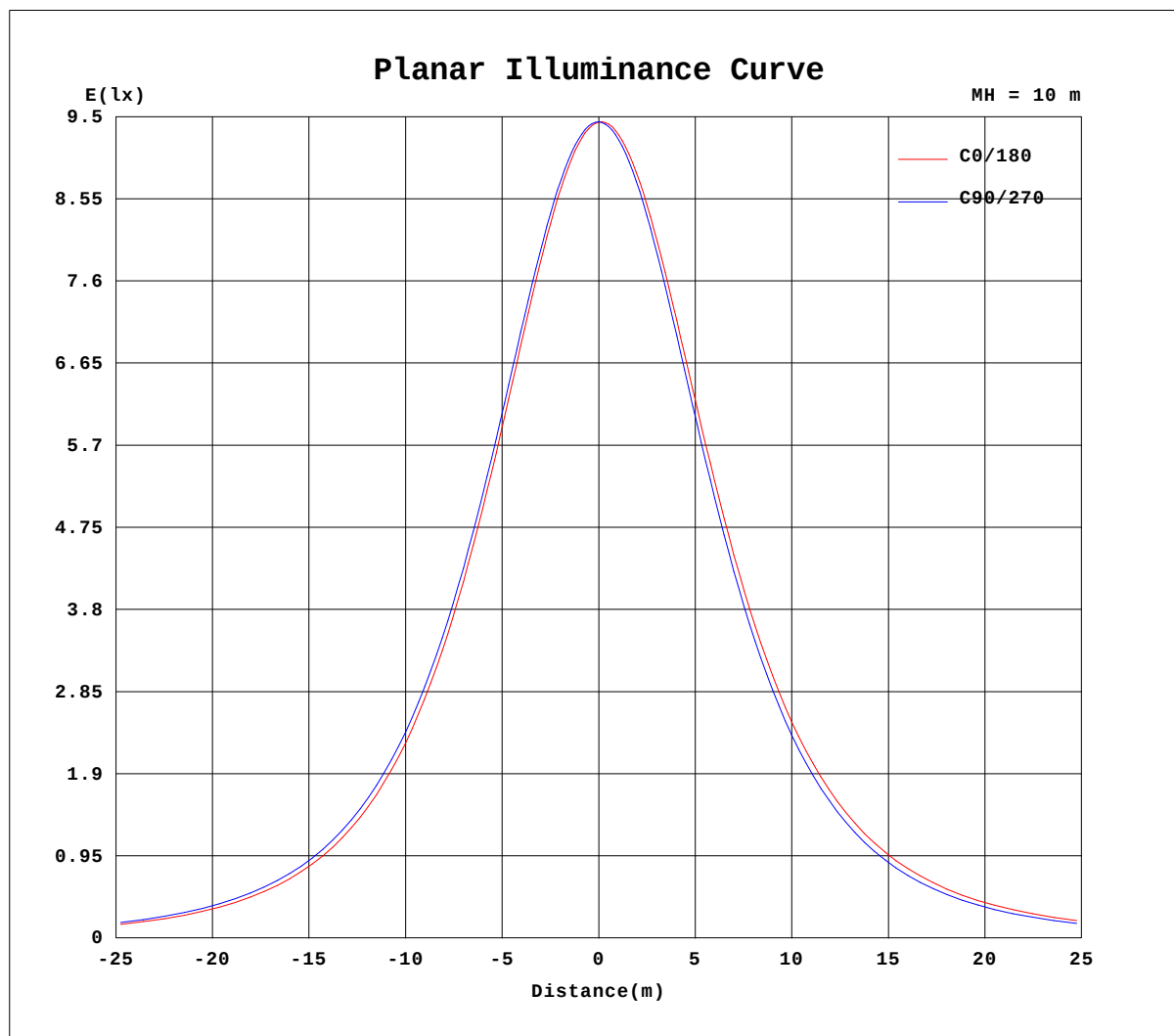
AvgL	cd/m2
L_0~180(65)av	9369
L_0~180(75)av	9098
L_0~180(85)av	9690
L_90~270(65)av	9160
L_90~270(75)av	8594
L_90~270(85)av	8244
L_45(65)av	9300
L_45(75)av	8878
L_45(85)av	9016

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 G0-2000B_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 G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0723]
Remarks:

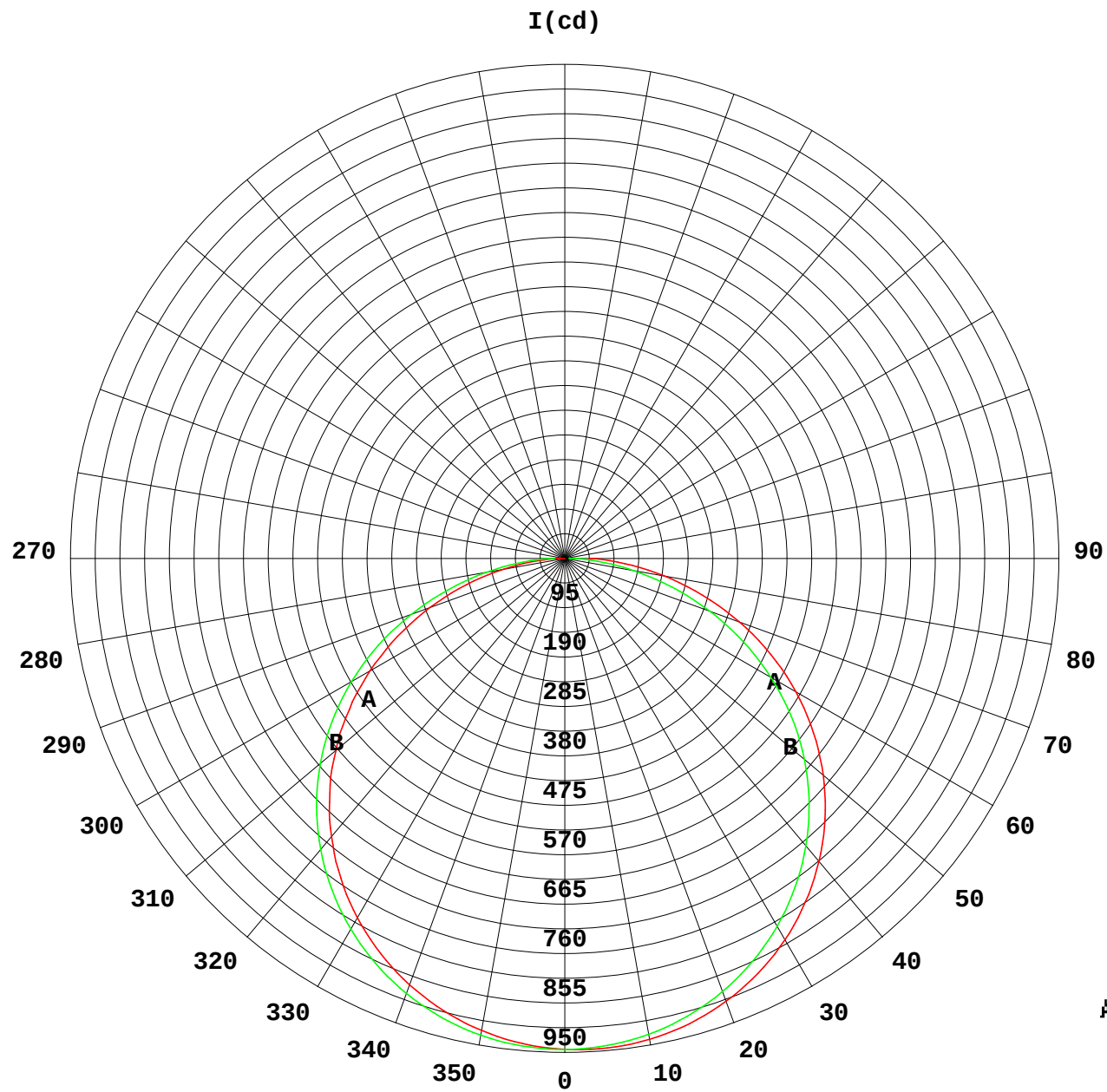
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	944.1	944.2	944.1	944.2
3.0	940.1	943.1	945.2	942.6
6.0	933.8	939.5	944.4	938.5
9.0	925.0	933.6	940.7	931.8
12.0	914.1	925.0	934.5	922.8
15.0	900.4	914.1	926.3	911.2
18.0	884.2	900.5	915.2	897.2
21.0	866.5	884.8	901.7	880.6
24.0	845.5	866.6	885.7	861.6
27.0	822.5	845.7	867.4	840.3
30.0	797.6	823.0	846.5	816.6
33.0	770.6	797.9	823.7	790.7
36.0	740.8	770.3	798.2	762.3
39.0	708.7	740.7	769.8	731.7
42.0	675.8	709.0	740.1	699.4
45.0	639.1	675.0	707.6	664.5
48.0	602.1	638.8	672.6	627.4
51.0	562.1	600.6	636.0	588.5
54.0	520.0	560.2	597.1	547.0
57.0	477.6	517.7	555.8	502.9
60.0	432.9	473.5	512.9	457.8
63.0	385.5	427.5	467.8	410.6
66.0	338.1	379.9	421.5	362.0
69.0	291.3	330.3	374.2	312.7
72.0	243.7	280.7	324.0	262.9
75.0	196.2	231.5	274.7	213.4
78.0	149.9	183.6	226.1	164.7
81.0	106.1	137.0	177.9	119.0
84.0	65.20	93.46	131.5	76.73
87.0	28.41	54.46	87.88	39.16
90.0	0	19.68	46.57	8.089

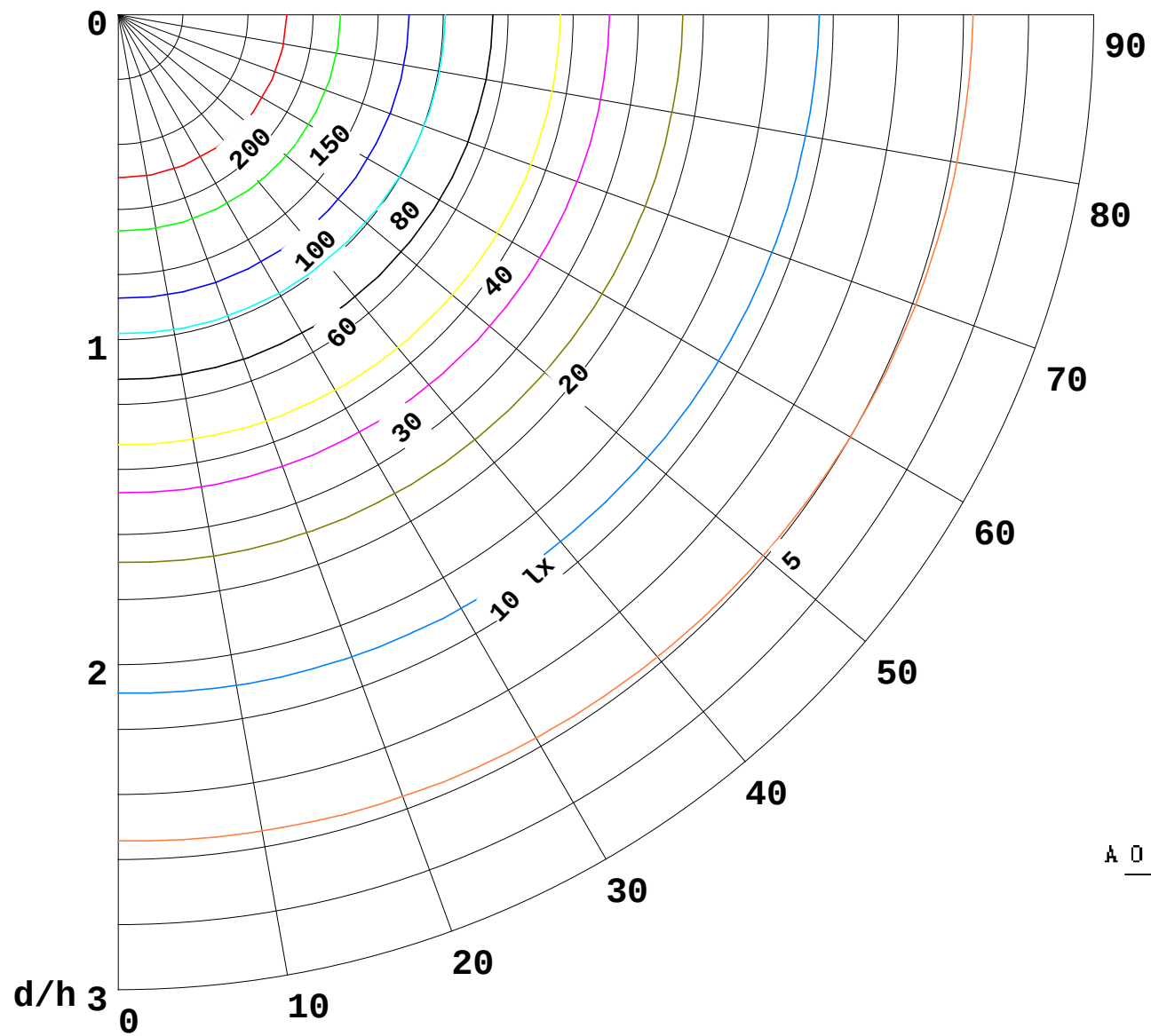
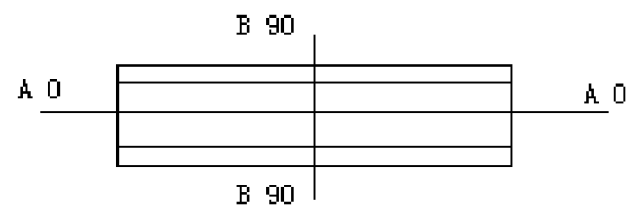
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 13 March 2024

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0723]
Remarks:



1000 lm

K = 1



F	=	5000	lm			Pcc	Pw	Pfc
K	=	0.7		_____		70	50	30
Hcc	=	0.0	m	_____		50	30	20
Hfc	=	0.0	m					
Eave	=	100	lx					

