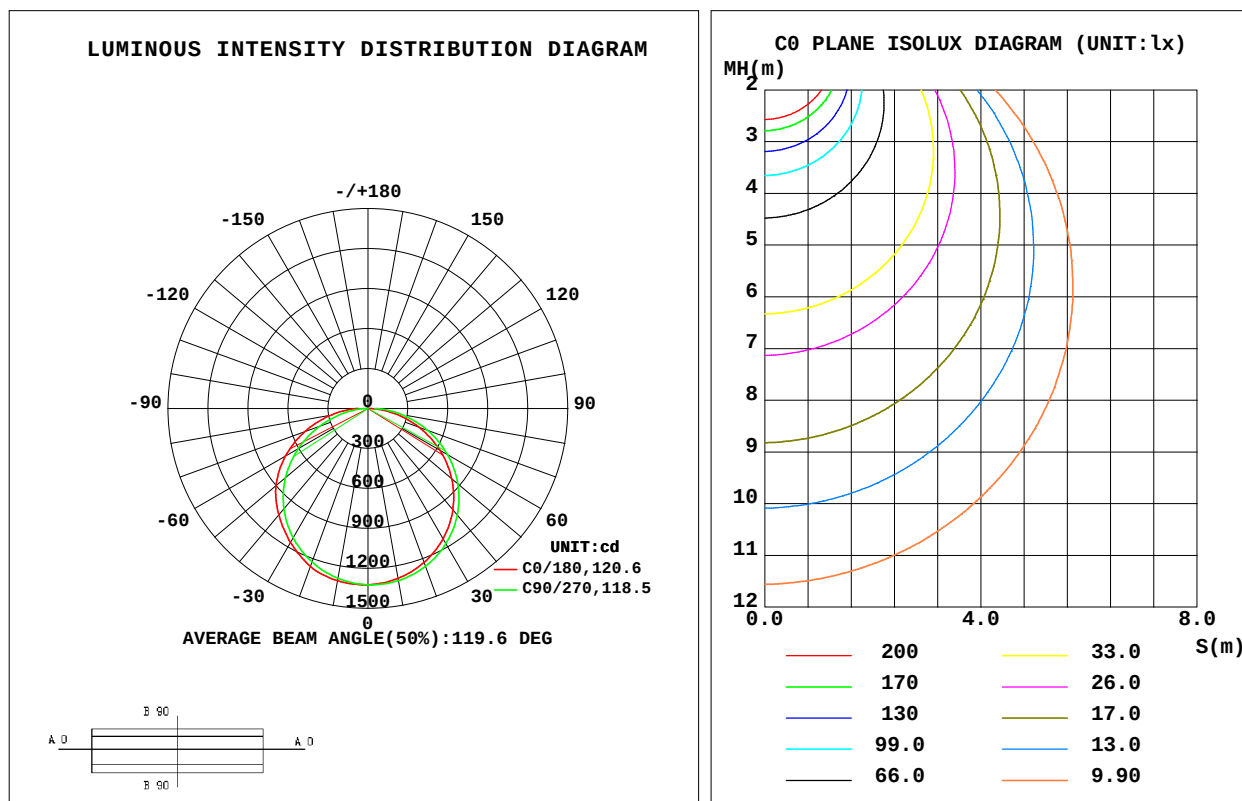


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.32 lm/W			
MODEL		I _{max} (cd)	1324	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)	4140.2	h UP, DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	4140.24	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



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 G0-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
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	1295	1312	1313	1294					0- 10	125.3	125.3	3.03, 3.03
20	1230	1261	1262	1227					10- 20	361.3	486.6	11.8, 11.8
30	1128	1170	1162	1122					20- 30	553.1	1040	25.1, 25.1
40	991.0	1043	1042	981.6					30- 40	678.4	1718	41.5, 41.5
50	820.6	881.0	902.7	808.8					40- 50	723.4	2442	59, 59
60	623.0	688.2	715.0	604.1					50- 60	677.8	3119	75.3, 75.3
70	404.2	471.8	502.4	381.4					60- 70	544.2	3663	88.5, 88.5
80	184.6	248.0	277.8	163.3					70- 80	346.6	4010	96.9, 96.9
90	1.774	51.41	70.27	2.404					80- 90	130.1	4140	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		

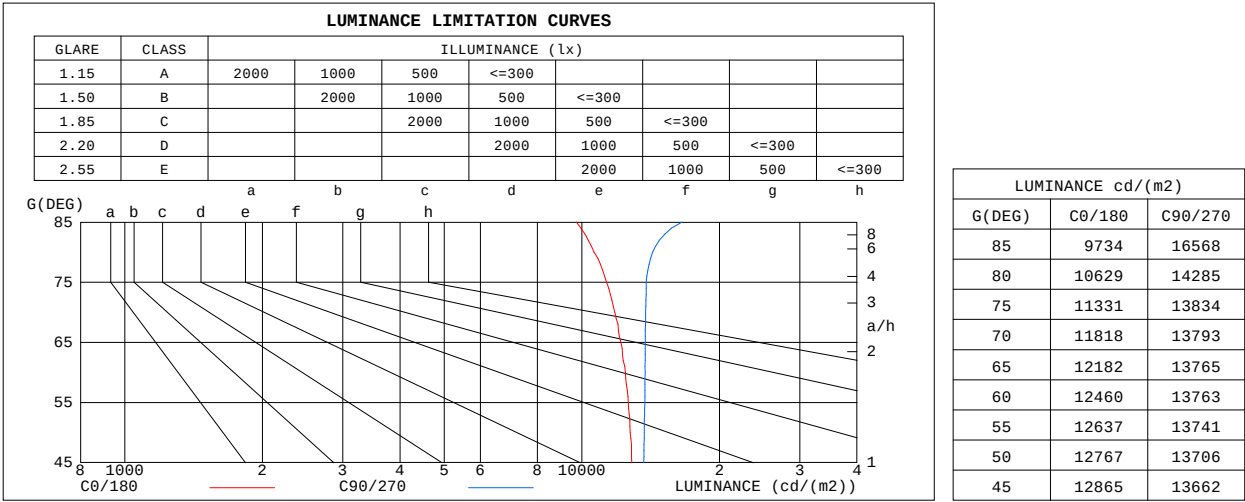
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 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:2024-03-20

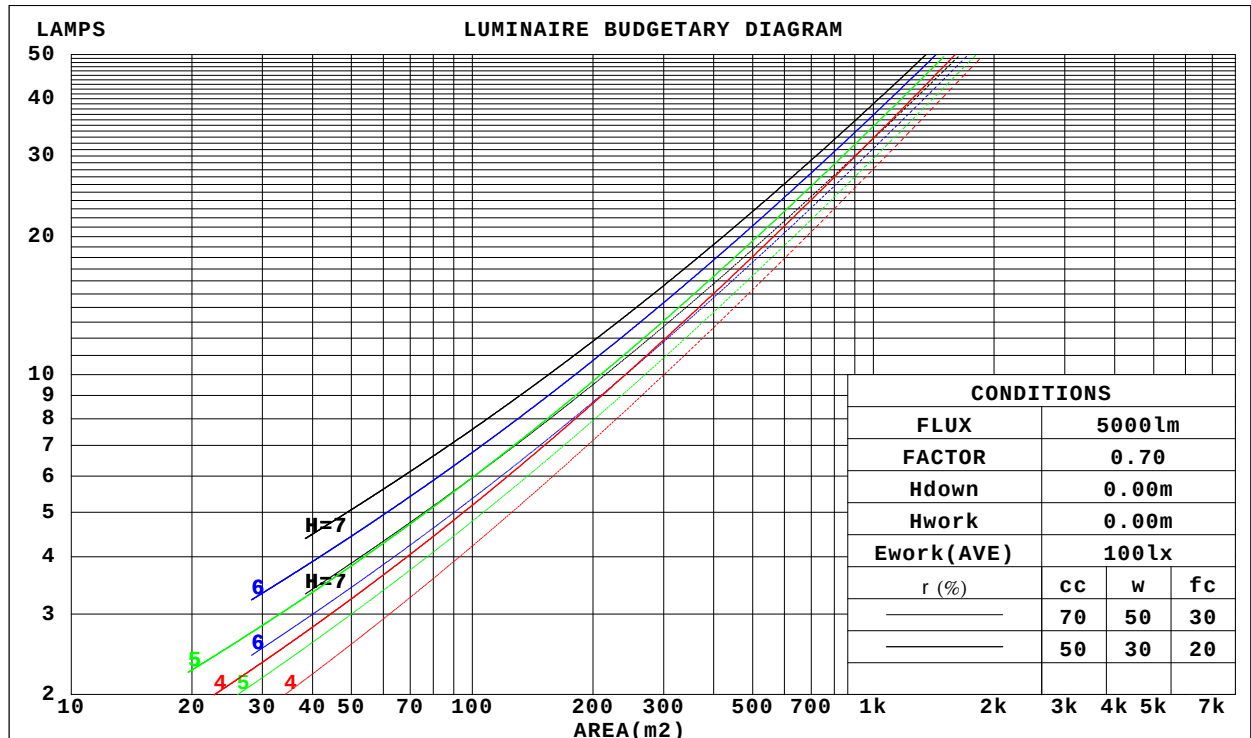
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 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	.69	.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



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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 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	.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	.190	.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	

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
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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 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	21.7	23.3	22.0	23.5	23.7	22.1	23.6	22.3	23.8	24.0	
	3H	23.3	24.8	23.6	25.0	25.3	23.9	25.3	24.2	25.6	25.8
	4H	24.0	25.4	24.3	25.7	25.9	24.7	26.1	25.0	26.3	26.6
	6H	24.5	25.9	24.9	26.1	26.4	25.4	26.7	25.7	26.9	27.2
	8H	24.7	26.0	25.1	26.3	26.6	25.7	26.9	26.0	27.2	27.5
	12H	24.8	26.1	25.2	26.4	26.7	25.9	27.1	26.3	27.4	27.7
4H	2H	22.4	23.8	22.7	24.1	24.3	22.7	24.1	23.0	24.3	24.6
	3H	24.3	25.5	24.6	25.8	26.1	24.7	25.9	25.0	26.2	26.5
	4H	25.1	26.2	25.5	26.5	26.9	25.6	26.8	26.0	27.1	27.4
	6H	25.7	26.7	26.1	27.1	27.5	26.5	27.5	26.9	27.8	28.2
	8H	26.0	26.9	26.4	27.3	27.7	26.8	27.8	27.3	28.1	28.5
	12H	26.2	27.0	26.6	27.4	27.8	27.2	28.0	27.6	28.4	28.8
8H	4H	25.5	26.4	25.9	26.8	27.1	25.9	26.9	26.4	27.2	27.6
	6H	26.3	27.1	26.7	27.5	27.9	27.0	27.7	27.4	28.2	28.6
	8H	26.7	27.4	27.1	27.8	28.2	27.5	28.1	27.9	28.6	29.0
	12H	26.9	27.5	27.4	28.0	28.5	27.9	28.5	28.4	29.0	29.4
12H	4H	25.5	26.4	25.9	26.7	27.2	26.0	26.8	26.4	27.2	27.6
	6H	26.4	27.1	26.9	27.5	28.0	27.0	27.7	27.5	28.2	28.6
	8H	26.8	27.4	27.3	27.9	28.4	27.6	28.2	28.1	28.6	29.1
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, 4140 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.9$)

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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 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	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		

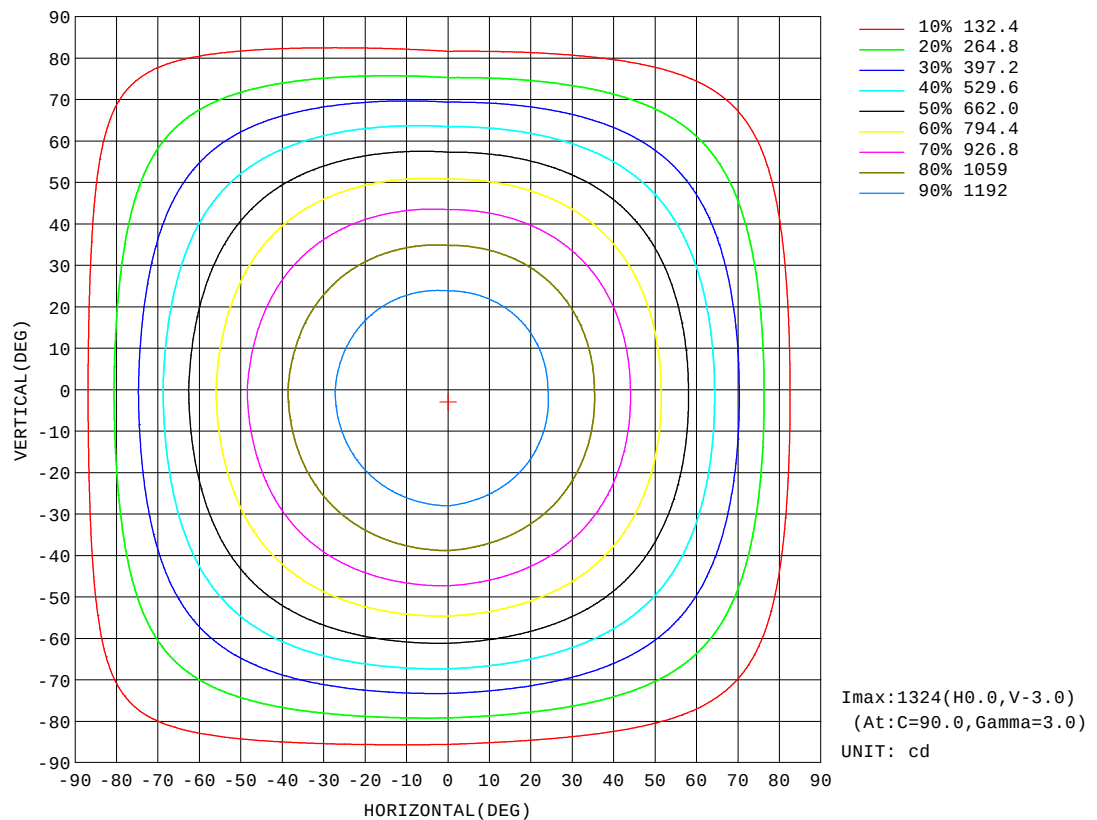
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-20

g Range: 0 - 90DEG
 g Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.400
 Humidity:65.0%
 Test Distance:8.300m [K=1.0964]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



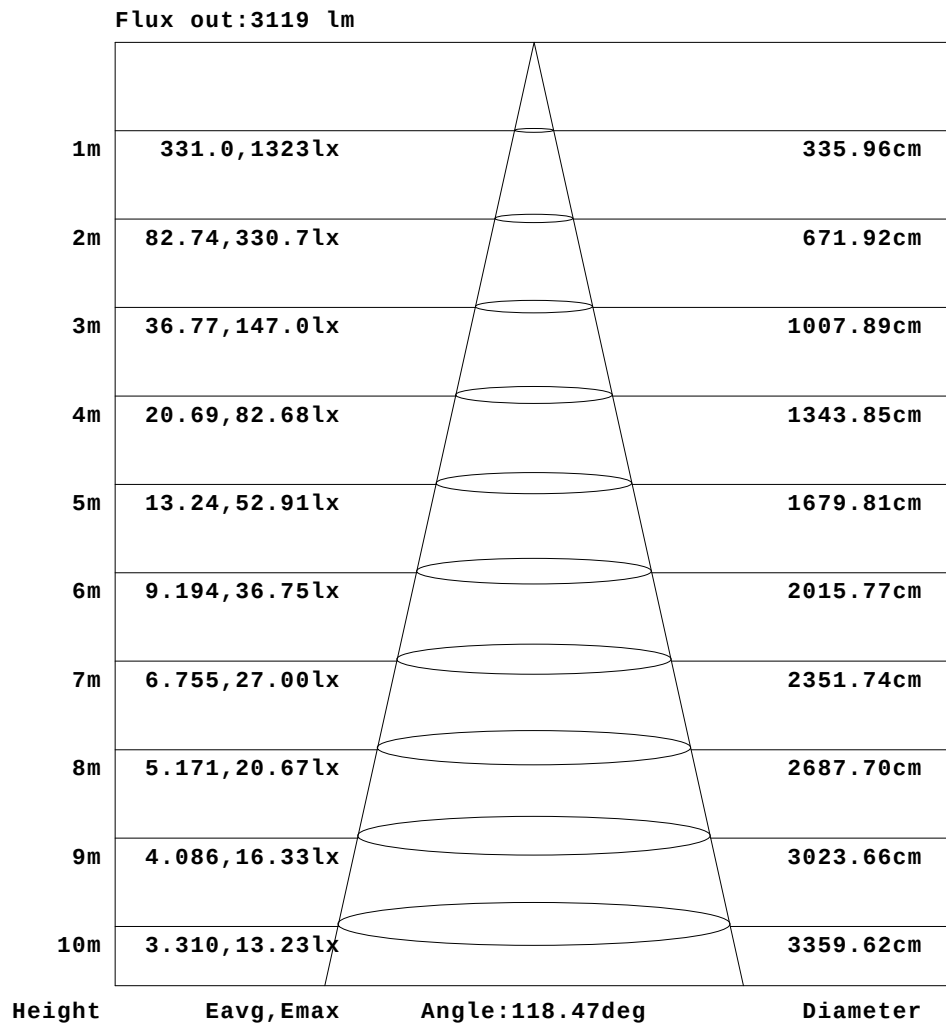
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

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=1.0964]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



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

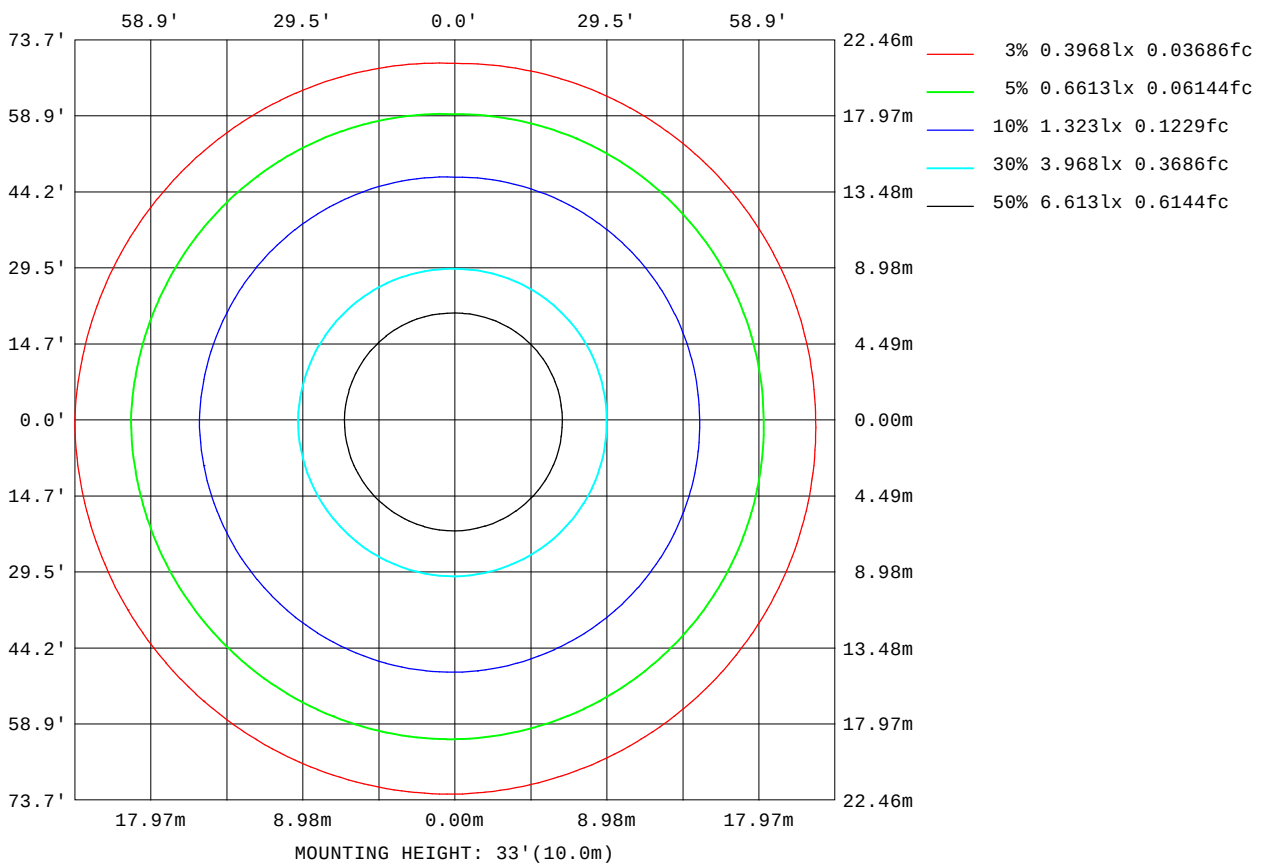
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-20

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=1.0964]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 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: 2024-03-20

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=1.0964]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.31V I:0.2602A P:31.055W PF:0.9922 Freq:59.98Hz Lamp Flux:4140.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

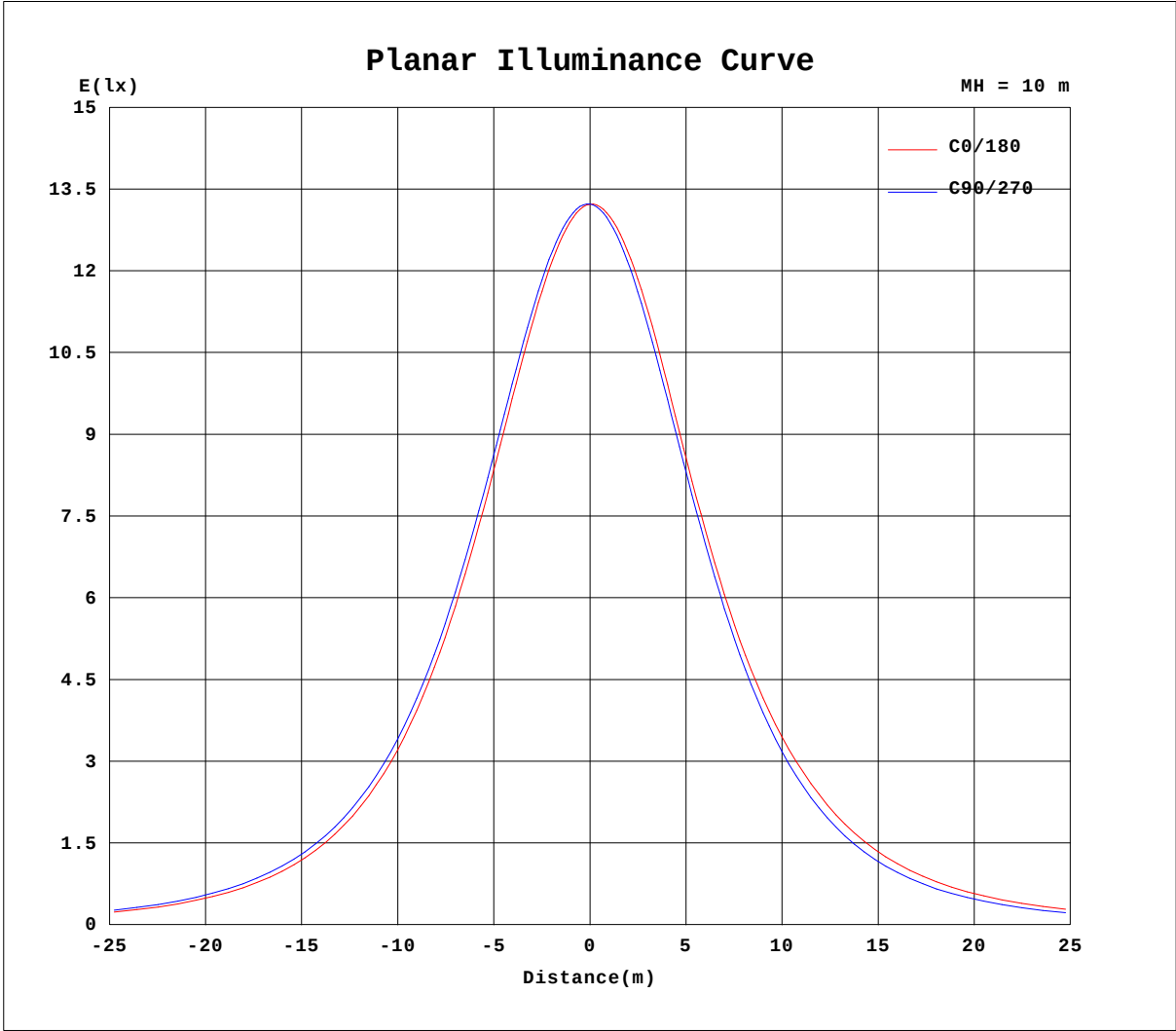
AvgL	cd/m2
L_0~180(65)av	13322
L_0~180(75)av	13212
L_0~180(85)av	14649
L_90~270(65)av	12722
L_90~270(75)av	12131
L_90~270(85)av	12200
L_45(65)av	13018
L_45(75)av	12654
L_45(85)av	13425

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 G0-2000B_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 G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0964]
Remarks:

UNIT: cd

```

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:

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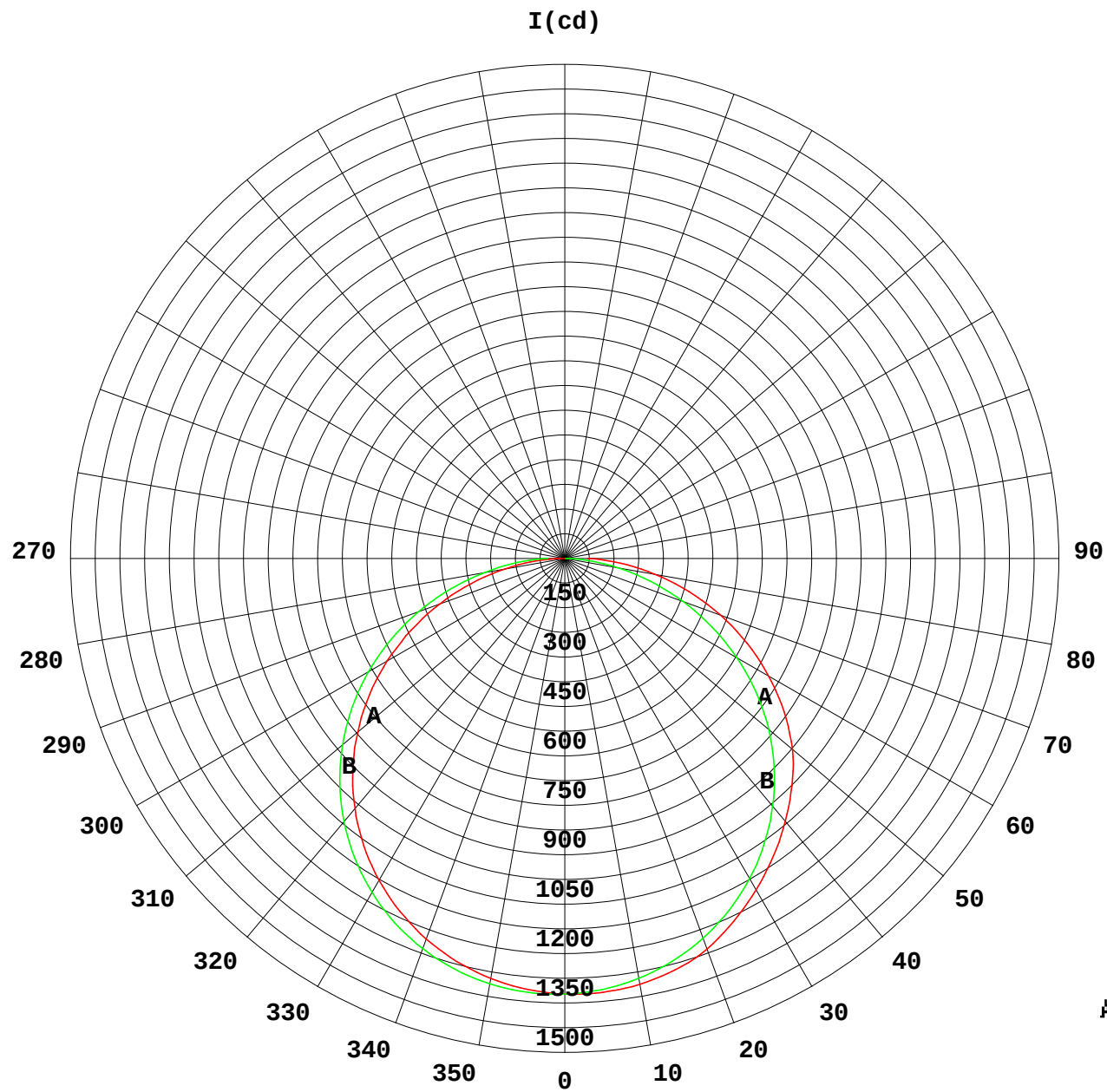
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1323	1323	1323	1323
3.0	1318	1324	1324	1318
6.0	1311	1321	1321	1310
9.0	1299	1314	1316	1299
12.0	1285	1305	1306	1284
15.0	1267	1291	1294	1265
18.0	1245	1274	1277	1244
21.0	1221	1254	1253	1218
24.0	1193	1230	1224	1189
27.0	1162	1202	1194	1157
30.0	1128	1170	1162	1122
33.0	1091	1136	1127	1084
36.0	1050	1098	1092	1042
39.0	1007	1057	1054	997.2
42.0	959.9	1014	1015	949.9
45.0	909.7	966.1	975.4	899.4
48.0	859.0	915.6	933.4	845.8
51.0	802.3	862.8	885.3	789.6
54.0	744.3	806.9	831.2	729.7
57.0	684.7	748.7	774.0	667.2
60.0	623.0	688.2	715.0	604.1
63.0	556.9	625.0	653.3	537.9
66.0	491.2	560.0	589.3	471.1
69.0	426.2	494.3	524.2	404.1
72.0	359.9	426.6	457.9	336.5
75.0	293.3	358.1	390.7	269.9
78.0	228.3	291.9	322.6	205.8
81.0	164.2	226.7	256.0	143.5
84.0	104.1	164.3	191.5	86.13
87.0	48.33	106.0	129.7	35.16
90.0	1.774	51.41	70.27	2.404

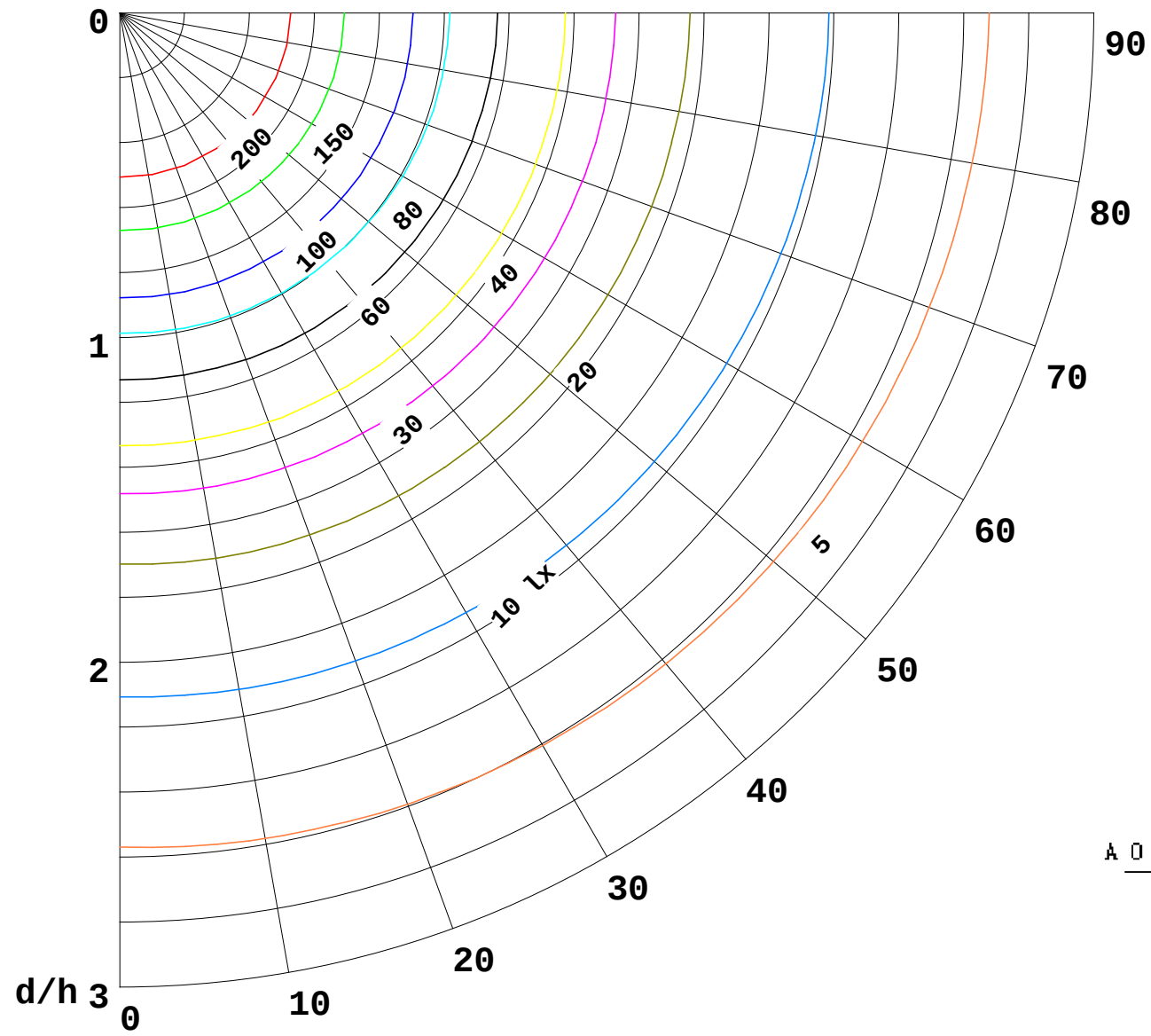
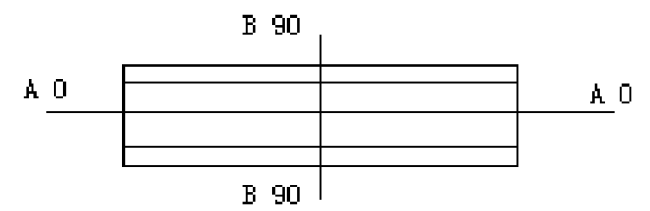
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-03-20

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 8.300m [K=1.0964]
Remarks:



1000 lm

K = 1



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

