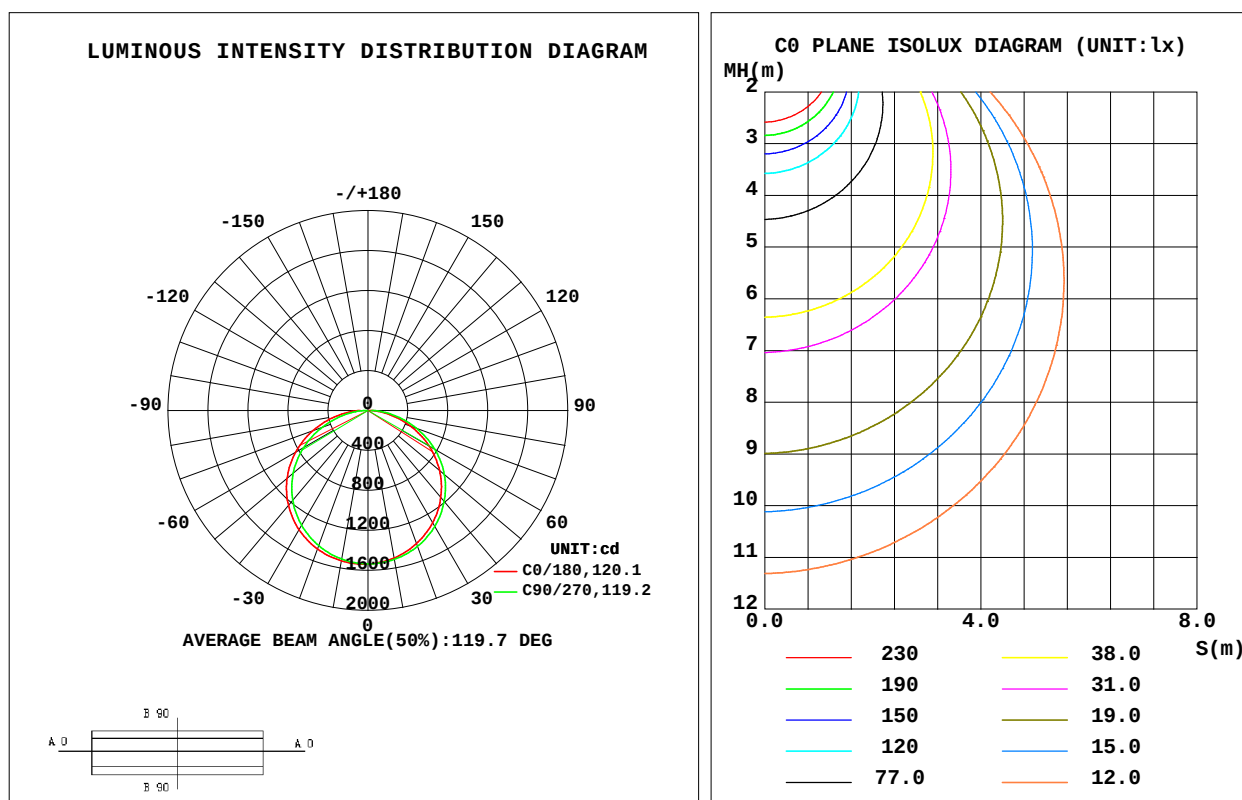


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.17 lm/W			
MODEL		I _{max} (cd)	1538	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)	4802.6	h UP, DN(C0-180)	0.0,48.6
NOMINAL FLUX(lm)	4802.56	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	1499	1513	1528	1510					0- 10	145.5	145.5	3.03, 3.03
20	1418	1447	1475	1440					10- 20	419.2	564.7	11.8, 11.8
30	1297	1338	1379	1327					20- 30	643.6	1208	25.2, 25.2
40	1135	1187	1239	1172					30- 40	791.2	1999	41.6, 41.6
50	936.7	998.3	1058	979.0					40- 50	843.0	2842	59.2, 59.2
60	703.6	770.6	836.5	745.3					50- 60	788.6	3631	75.6, 75.6
70	448.7	512.5	584.2	482.8					60- 70	630.8	4262	88.7, 88.7
80	198.5	248.9	317.1	220.7					70- 80	396.2	4658	97, 97
90	2.034	34.29	77.67	15.85					80- 90	144.6	4803	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		

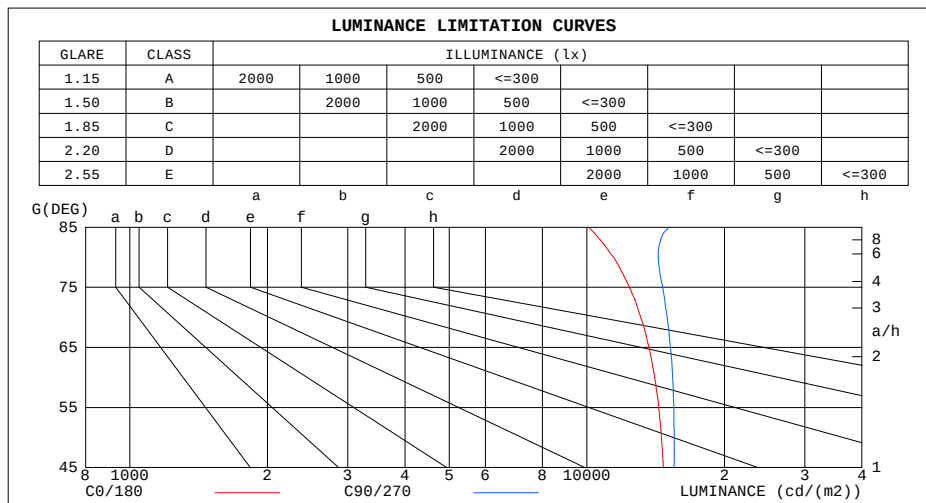
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 13 March 2024

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:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	10091	15146
80	11432	14332
75	12387	14654
70	13119	14984
65	13683	15247
60	14072	15412
55	14364	15499
50	14572	15531
45	14712	15520

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

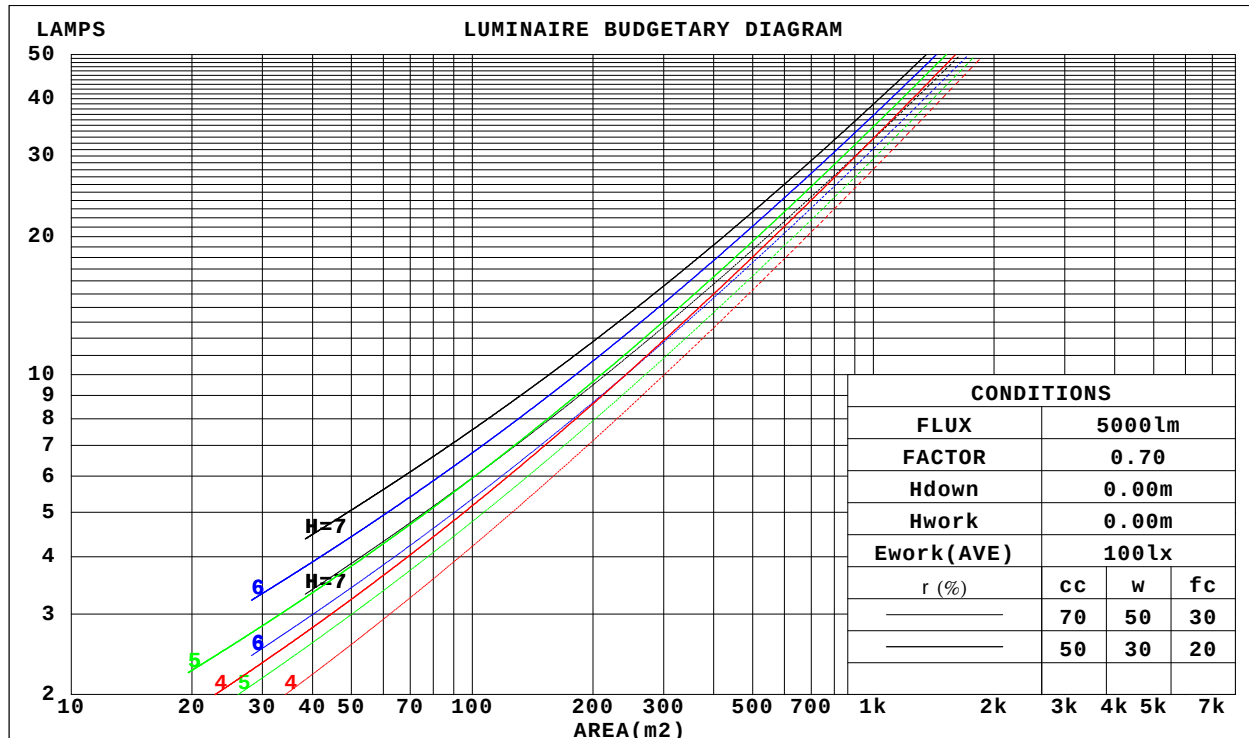
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0723]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 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	.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	.58	.56
4.0	.69	.59	.52	.67	.59	.52	.65	.57	.51	.62	.56	.51	.60	.54	.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	.39	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.36	.30	.44	.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



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:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:100-277v		DIM.:		SERIAL No.:	
MFR.:		SUR.:		Shielding Angle:	

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 Wall Exitance Coefficients(WEC)															
0.0																
1.0	.331	.188	.060	.324	.185	.059	.311	.178	.057	.298	.172	.055	.287	.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	.253	.132	.039	.243	.129	.039	.235	.126	.038	.227	.123	.037	
5.0	.237	.121	.035	.233	.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	.100	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028	
8.0	.189	.093	.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
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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 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	22.1	23.6	22.3	23.8	24.0	22.4	23.9	22.7	24.1	24.4	
	3H	23.6	25.1	23.9	25.3	25.6	24.1	25.6	24.4	25.8	26.0
	4H	24.3	25.7	24.6	25.9	26.2	24.8	26.2	25.2	26.5	26.7
	6H	24.8	26.1	25.1	26.3	26.6	25.4	26.7	25.8	27.0	27.3
	8H	24.9	26.2	25.3	26.5	26.8	25.7	26.9	26.0	27.2	27.5
	12H	25.0	26.2	25.4	26.5	26.8	25.8	27.1	26.2	27.4	27.7
4H	2H	22.7	24.1	23.1	24.4	24.6	23.0	24.4	23.3	24.6	24.9
	3H	24.5	25.7	24.9	26.0	26.3	24.9	26.1	25.3	26.4	26.7
	4H	25.3	26.4	25.7	26.7	27.1	25.8	26.9	26.2	27.2	27.5
	6H	25.9	26.9	26.3	27.3	27.6	26.5	27.5	26.9	27.9	28.2
	8H	26.1	27.1	26.5	27.4	27.8	26.8	27.7	27.2	28.1	28.5
	12H	26.3	27.1	26.7	27.5	27.9	27.1	27.9	27.5	28.3	28.7
8H	4H	25.6	26.6	26.1	26.9	27.3	26.1	27.0	26.5	27.4	27.7
	6H	26.4	27.2	26.9	27.6	28.0	27.0	27.7	27.4	28.1	28.6
	8H	26.7	27.4	27.2	27.9	28.3	27.4	28.1	27.8	28.5	28.9
	12H	27.0	27.6	27.5	28.0	28.5	27.7	28.3	28.2	28.8	29.2
12H	4H	25.7	26.5	26.1	26.9	27.3	26.1	26.9	26.5	27.3	27.7
	6H	26.5	27.2	27.0	27.6	28.1	27.0	27.7	27.5	28.2	28.6
	8H	26.9	27.5	27.4	27.9	28.4	27.5	28.1	28.0	28.5	29.0
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, 4803 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 5.5$)

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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 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	84	78	92	83	77	88	81	75	67
2.50	98	89	83	95	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		

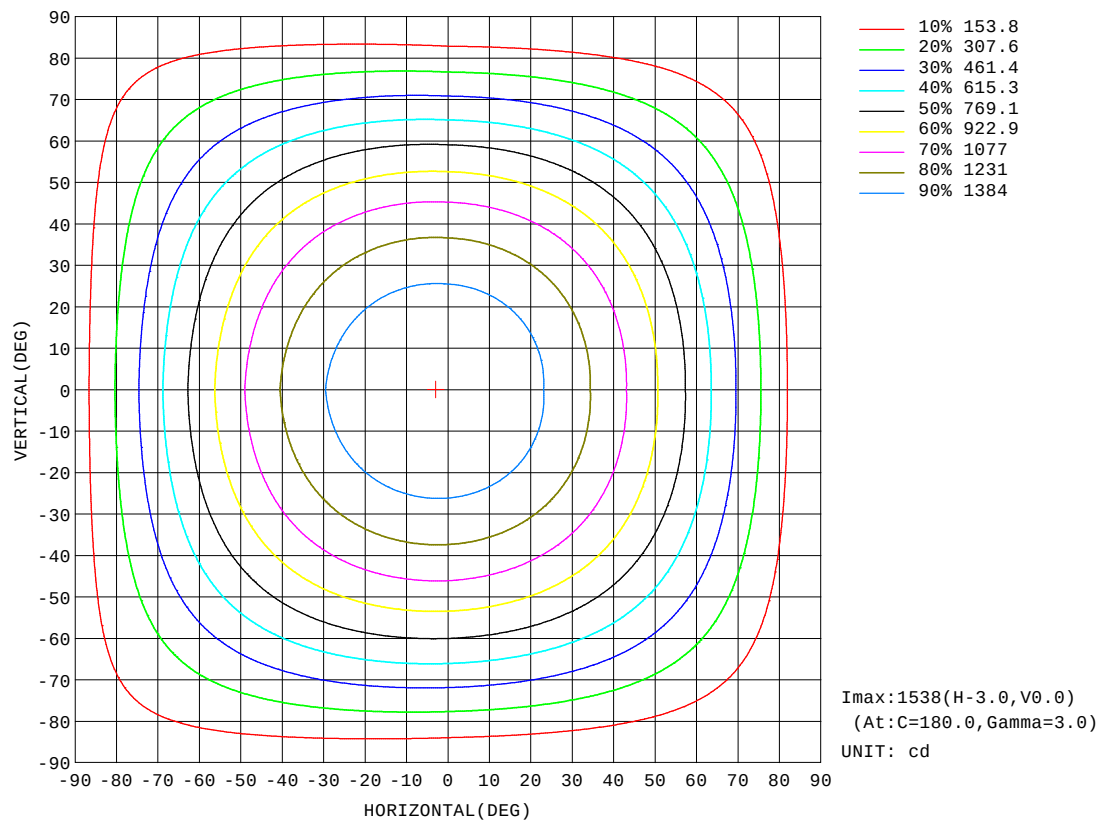
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:13 March 2024

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:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



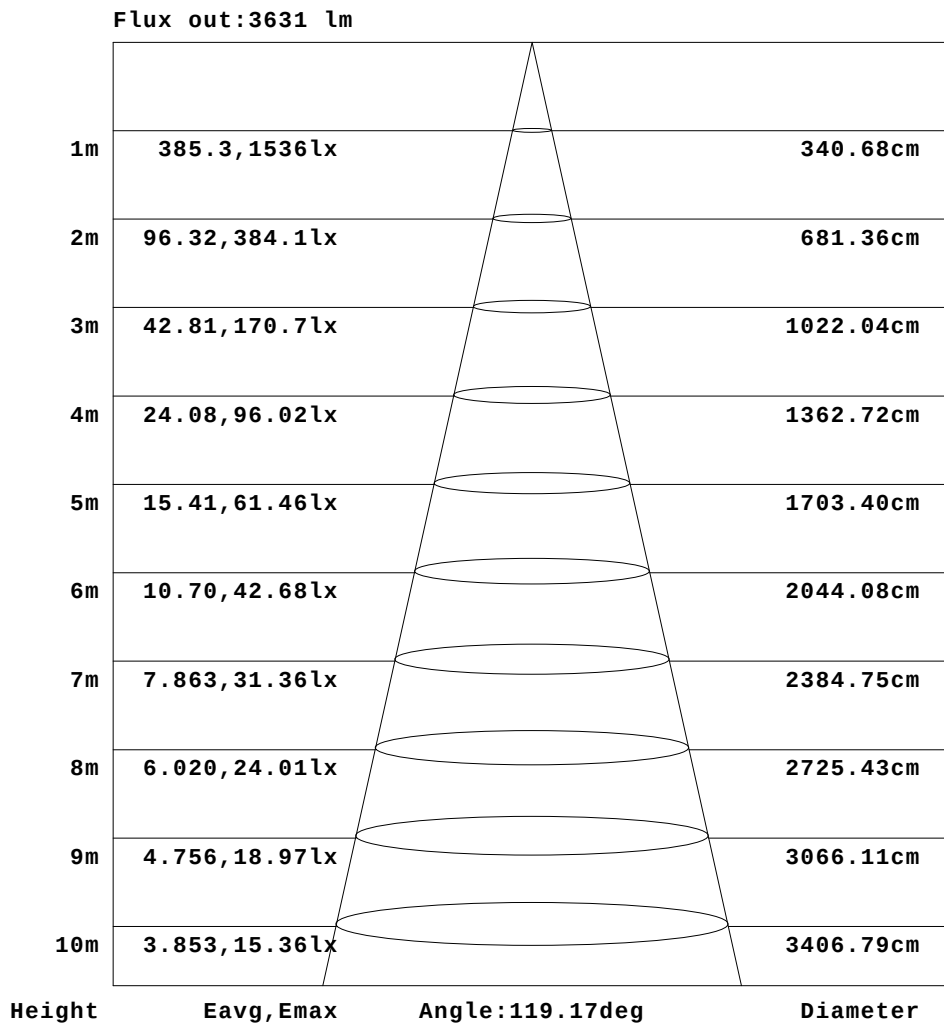
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:13 March 2024

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:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 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.

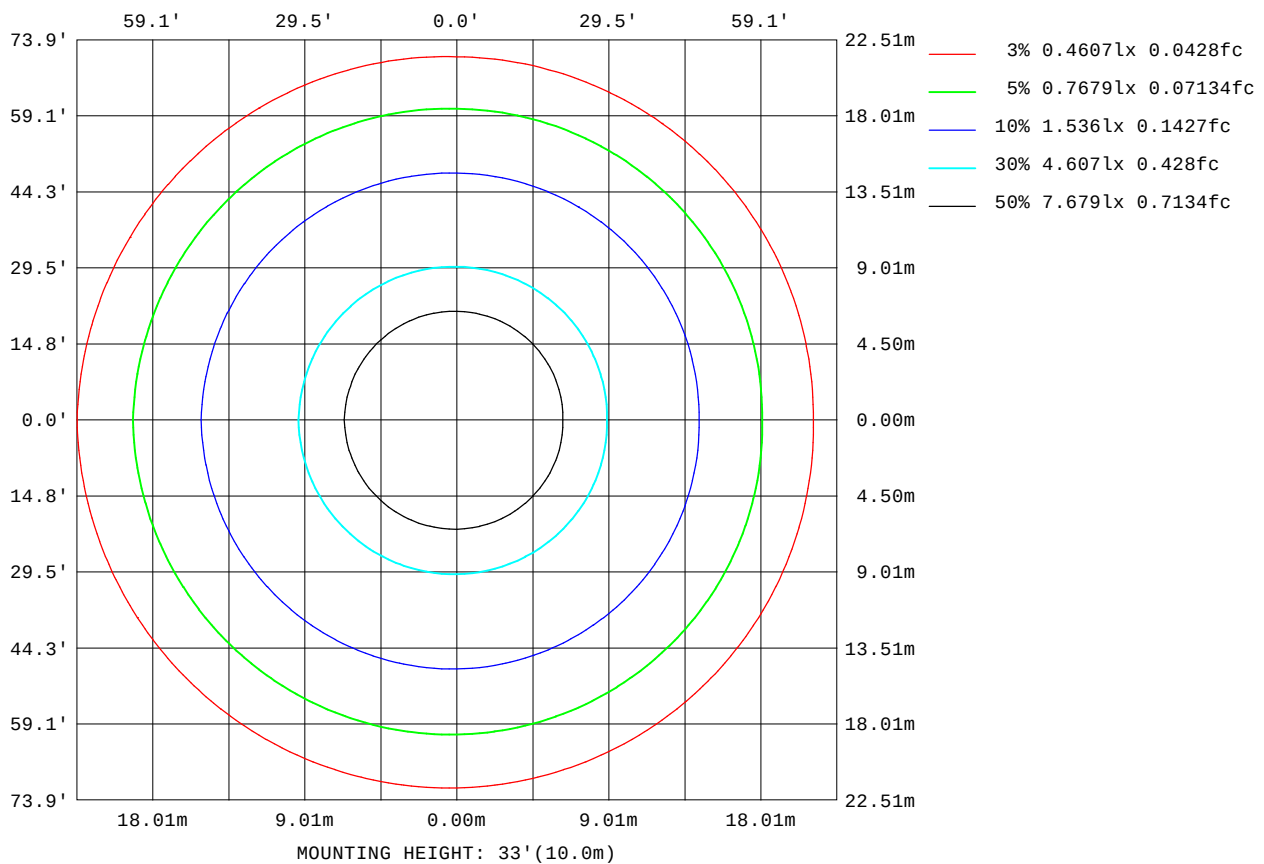
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:13 March 2024

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:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 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:120.31V I:0.3256A P:38.991W PF:0.9955 Freq:59.98Hz Lamp Flux:4802.56x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

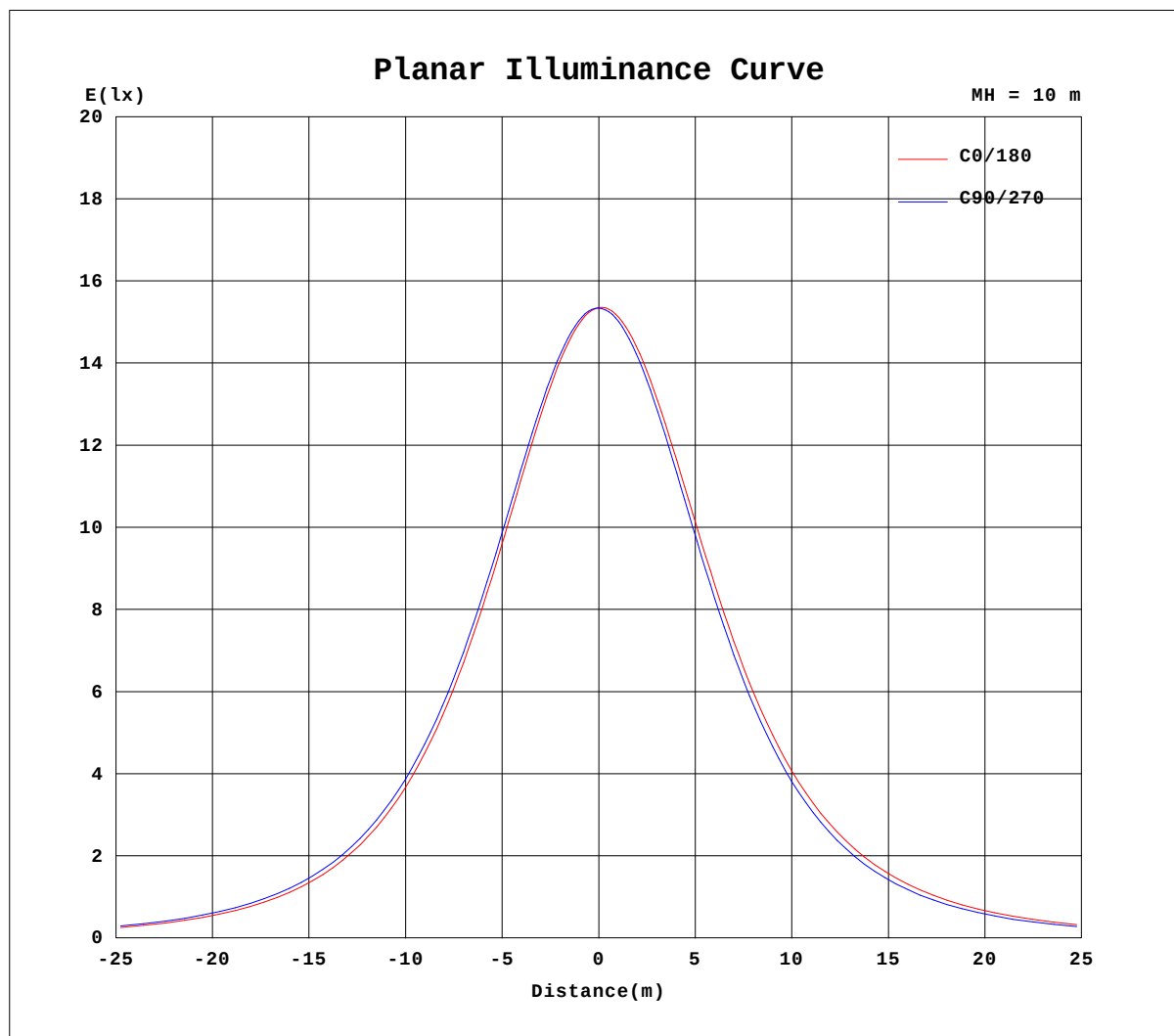
AvgL	cd/m2
L_0~180(65)av	15287
L_0~180(75)av	14899
L_0~180(85)av	16038
L_90~270(65)av	14912
L_90~270(75)av	14063
L_90~270(85)av	13657
L_45(65)av	15153
L_45(75)av	14534
L_45(85)av	14922

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:

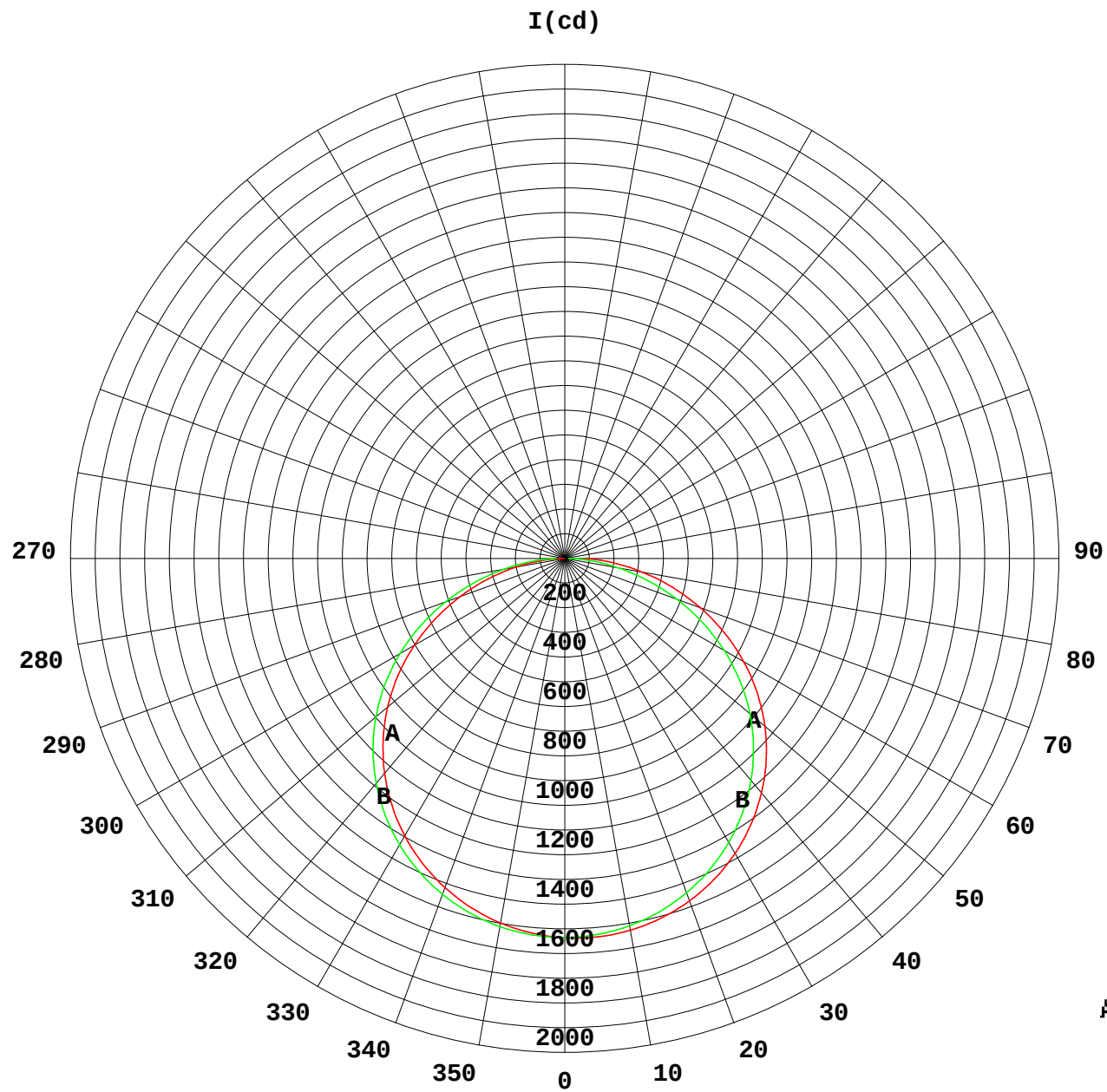
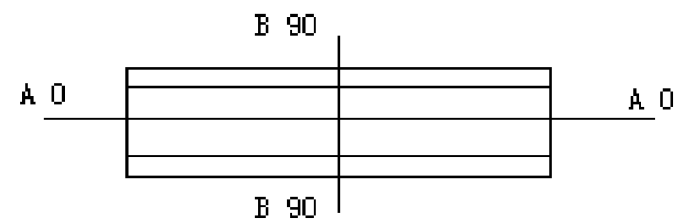
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1536	1535	1536	1535
3.0	1530	1533	1538	1532
6.0	1519	1527	1537	1526
9.0	1504	1518	1531	1514
12.0	1486	1504	1521	1500
15.0	1464	1486	1507	1481
18.0	1437	1464	1490	1458
21.0	1408	1438	1468	1431
24.0	1374	1409	1442	1401
27.0	1337	1375	1413	1366
30.0	1297	1338	1379	1327
33.0	1253	1297	1341	1285
36.0	1204	1253	1301	1239
39.0	1152	1204	1255	1190
42.0	1098	1153	1206	1137
45.0	1040	1097	1153	1080
48.0	978.8	1039	1097	1020
51.0	914.7	977.1	1038	957.3
54.0	847.3	911.3	973.4	889.6
57.0	776.5	842.1	906.6	818.4
60.0	703.6	770.6	836.5	745.3
63.0	629.2	695.8	763.7	668.2
66.0	552.1	618.1	687.9	589.6
69.0	475.1	539.3	610.4	509.9
72.0	397.4	459.1	531.1	428.8
75.0	320.6	379.3	450.7	348.7
78.0	246.5	299.9	371.9	270.8
81.0	174.8	224.4	291.5	196.7
84.0	108.6	153.8	215.9	127.3
87.0	49.15	90.54	145.0	66.39
90.0	2.034	34.29	77.67	15.85

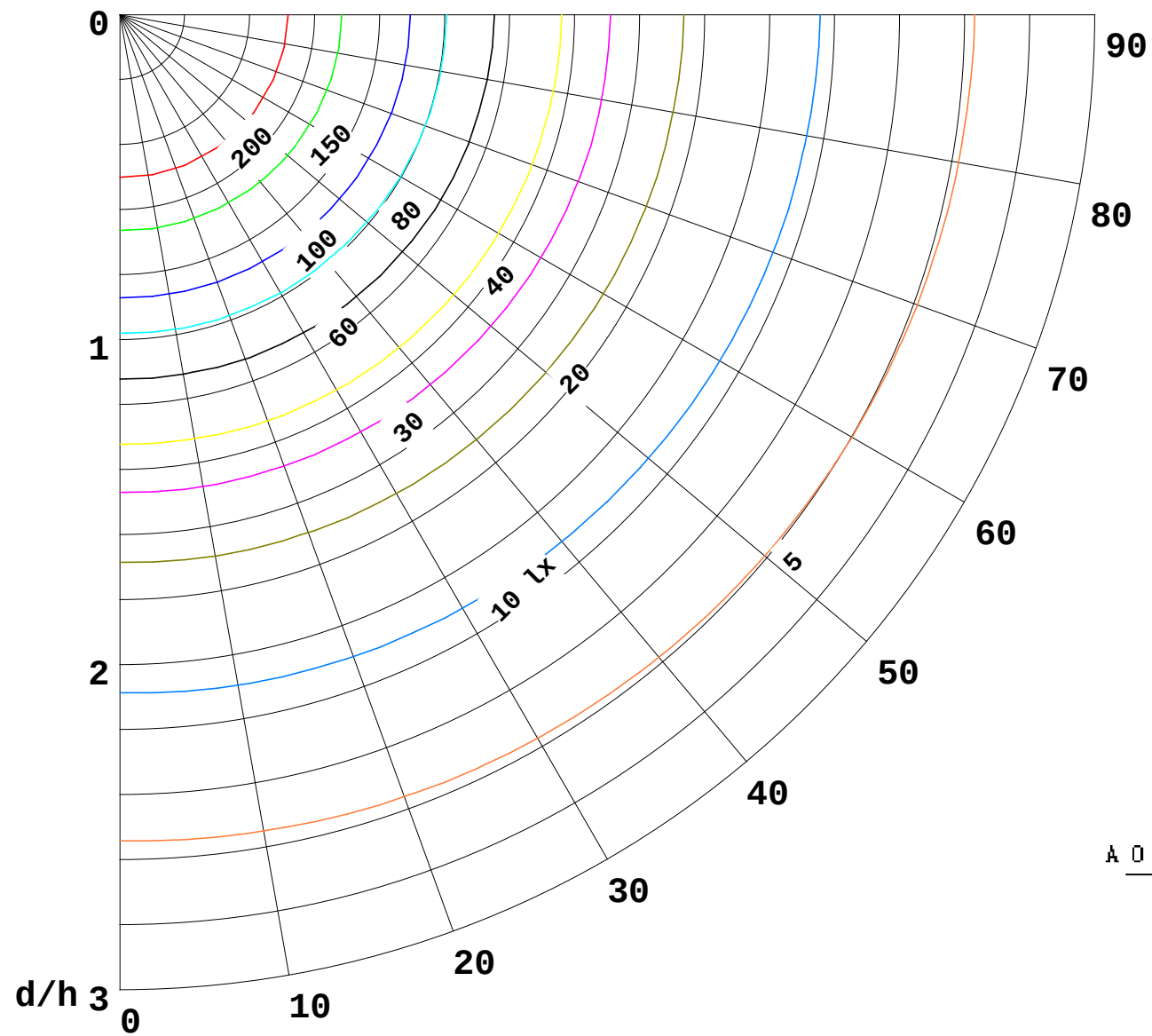
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 13 March 2024

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

K

=

0.7

Hcc

=

0.0 m

Hfc

=

0.0 m

Eave

=

100 lx

Pcc

70

Pw

50

Pfc

30

Pcc

50

Pw

30

Pfc

20

