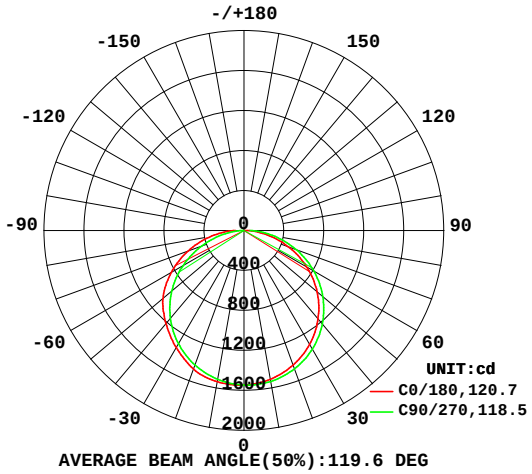
LUMINAIRE PHOTOMETRIC TEST REPORT

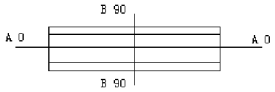
Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA		Eff: 122.72 lm/W	
MODEL		Imax(cd)	1548	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)	4841.6	h UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	4841.64	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

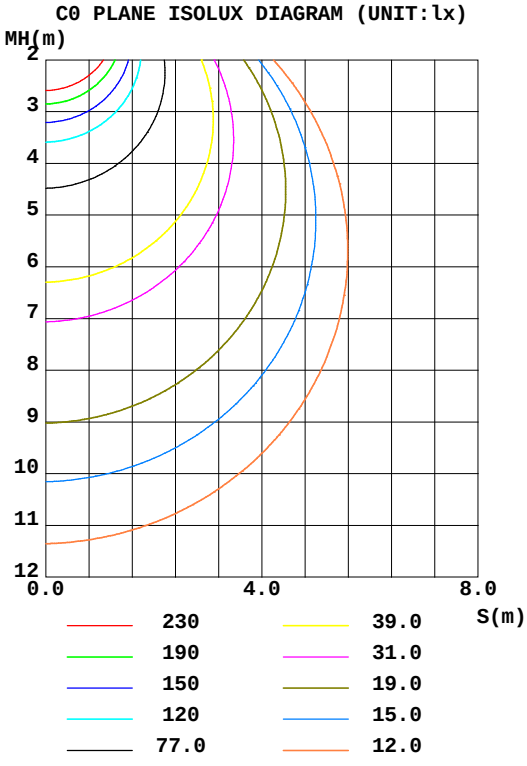
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



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	1512	1534	1537	1513					0- 10	146.5	146.5	3.03,3.03
20	1434	1475	1477	1433					10- 20	422.3	568.9	11.7,11.7
30	1315	1370	1355	1311					20- 30	646.0	1215	25.1,25.1
40	1154	1221	1215	1146					30- 40	791.9	2007	41.4,41.4
50	955.6	1032	1061	944.6					40- 50	845.3	2852	58.9,58.9
60	723.8	806.5	841.8	705.1					50- 60	793.0	3645	75.3,75.3
70	469.3	553.7	592.3	444.9					60- 70	637.0	4282	88.4,88.4
80	215.4	292.1	328.4	191.0					70- 80	406.3	4688	96.8,96.8
90	2.404	62.05	84.11	3.668					80- 90	153.2	4842	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

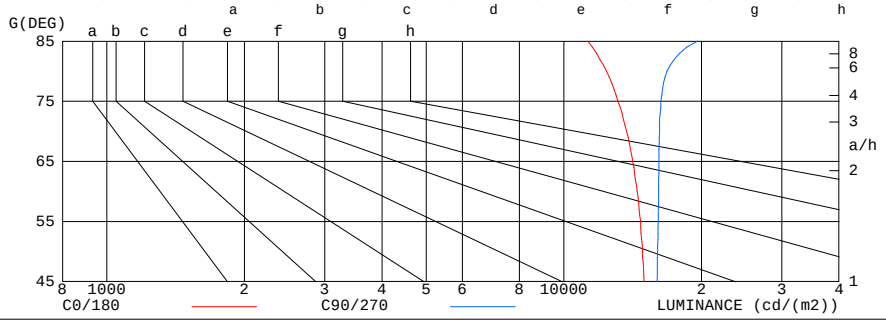
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 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	11293	19615
80	12402	16819
75	13145	16314
70	13721	16189
65	14151	16152
60	14476	16130
55	14725	16098
50	14867	16049
45	14981	15991

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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:

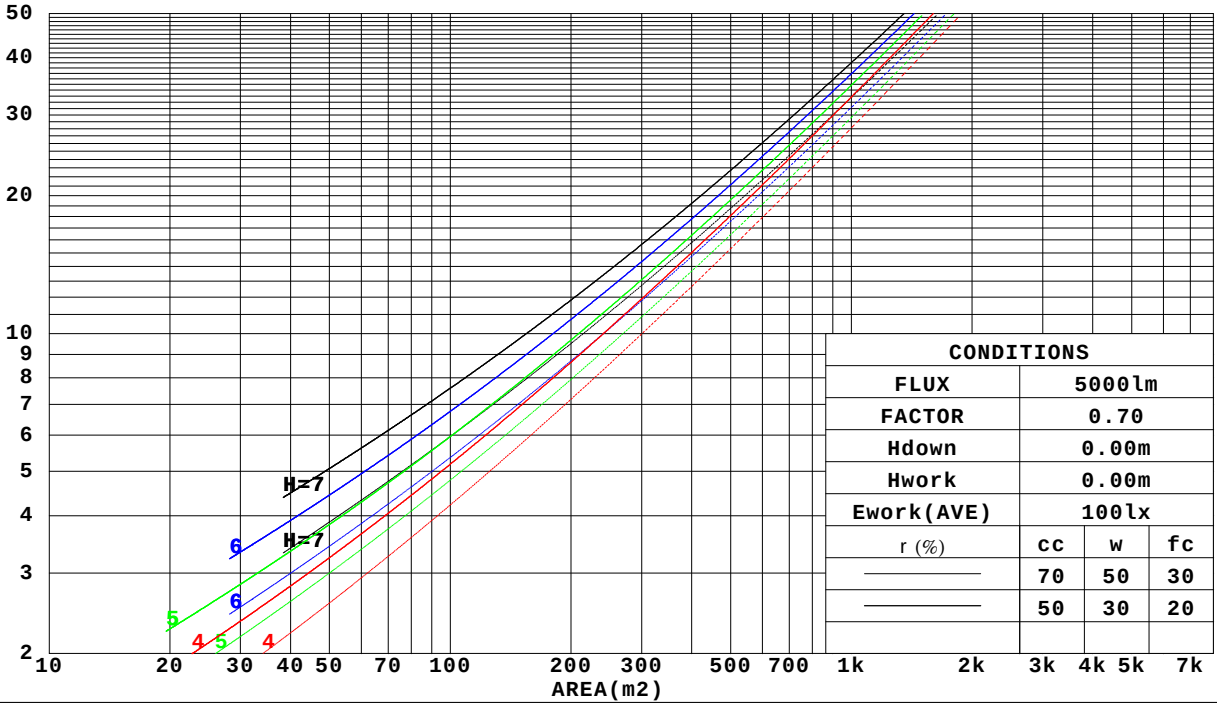
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 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	.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	.67	.63	.58	.56
4.0	.68	.59	.52	.67	.58	.52	.64	.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	.40	.34	.49	.40	.34	.47	.39	.34	.46	.39	.33	.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



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:

WEC AND CCEC

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.333	.190	.060	.326	.186	.059	.313	.179	.057	.301	.173	.056	.289	.168	.054	
2.0	.308	.169	.052	.301	.166	.051	.289	.161	.050	.279	.156	.049	.268	.152	.048	
3.0	.282	.150	.045	.276	.148	.045	.266	.144	.044	.256	.140	.043	.247	.137	.042	
4.0	.258	.134	.039	.253	.133	.039	.244	.129	.039	.235	.126	.038	.227	.123	.038	
5.0	.237	.121	.035	.233	.120	.035	.225	.117	.034	.217	.115	.034	.210	.112	.034	
6.0	.219	.110	.031	.215	.109	.031	.208	.107	.031	.201	.105	.031	.195	.103	.030	
7.0	.203	.101	.029	.200	.100	.028	.193	.098	.028	.187	.096	.028	.182	.094	.028	
8.0	.190	.093	.026	.186	.092	.026	.181	.090	.026	.175	.089	.026	.170	.087	.025	
9.0	.177	.086	.024	.175	.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	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	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:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 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	22.2	23.8	22.5	24.0	24.2	22.6	24.2	22.9	24.4	24.6
3H	23.9	25.3	24.2	25.5	25.8	24.4	25.9	24.7	26.1	26.4
4H	24.5	25.9	24.9	26.2	26.4	25.2	26.6	25.6	26.9	27.1
6H	25.1	26.4	25.4	26.6	26.9	25.9	27.2	26.3	27.5	27.8
8H	25.2	26.5	25.6	26.8	27.1	26.2	27.5	26.6	27.8	28.1
12H	25.4	26.6	25.7	26.9	27.2	26.5	27.7	26.8	28.0	28.3
4H 2H	22.9	24.3	23.3	24.6	24.8	23.2	24.6	23.6	24.9	25.1
3H	24.8	26.0	25.1	26.3	26.6	25.2	26.5	25.6	26.8	27.1
4H	25.6	26.7	26.0	27.0	27.4	26.2	27.3	26.6	27.6	28.0
6H	26.3	27.3	26.7	27.6	28.0	27.0	28.0	27.4	28.4	28.8
8H	26.5	27.4	26.9	27.8	28.2	27.4	28.3	27.8	28.7	29.1
12H	26.7	27.5	27.1	27.9	28.3	27.7	28.6	28.2	29.0	29.4
8H 4H	26.0	26.9	26.4	27.3	27.7	26.5	27.4	26.9	27.8	28.2
6H	26.8	27.6	27.3	28.0	28.4	27.5	28.3	28.0	28.7	29.1
8H	27.2	27.9	27.6	28.3	28.8	28.0	28.7	28.5	29.1	29.6
12H	27.5	28.1	27.9	28.5	29.0	28.5	29.1	29.0	29.5	30.0
12H 4H	26.0	26.9	26.5	27.3	27.7	26.5	27.4	26.9	27.8	28.2
6H	26.9	27.6	27.4	28.1	28.5	27.6	28.3	28.1	28.7	29.2
8H	27.4	28.0	27.8	28.4	28.9	28.2	28.8	28.6	29.2	29.7
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, 4842 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 5.5)

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:

UTILIZATION FACTORS TABLE

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 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	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	81	73	67	59
2.00	93	84	77	91	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	93	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
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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:

ISOCANDELA DIAGRAM

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
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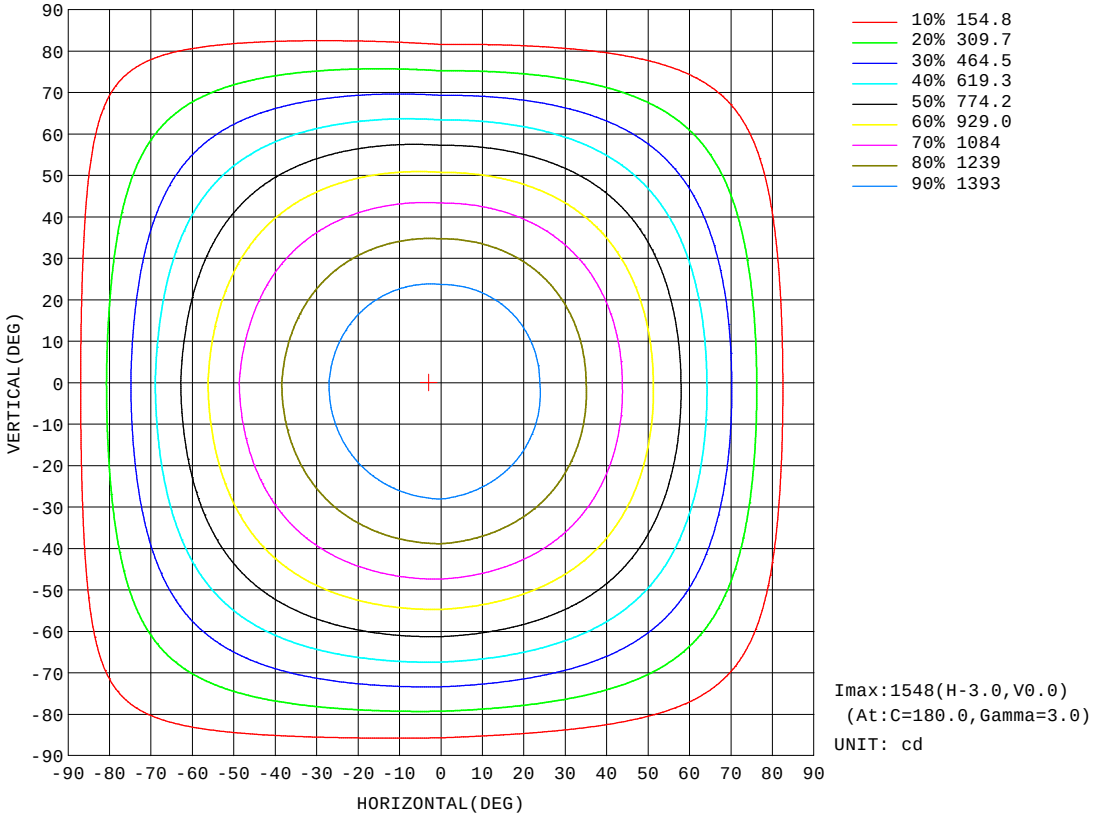
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



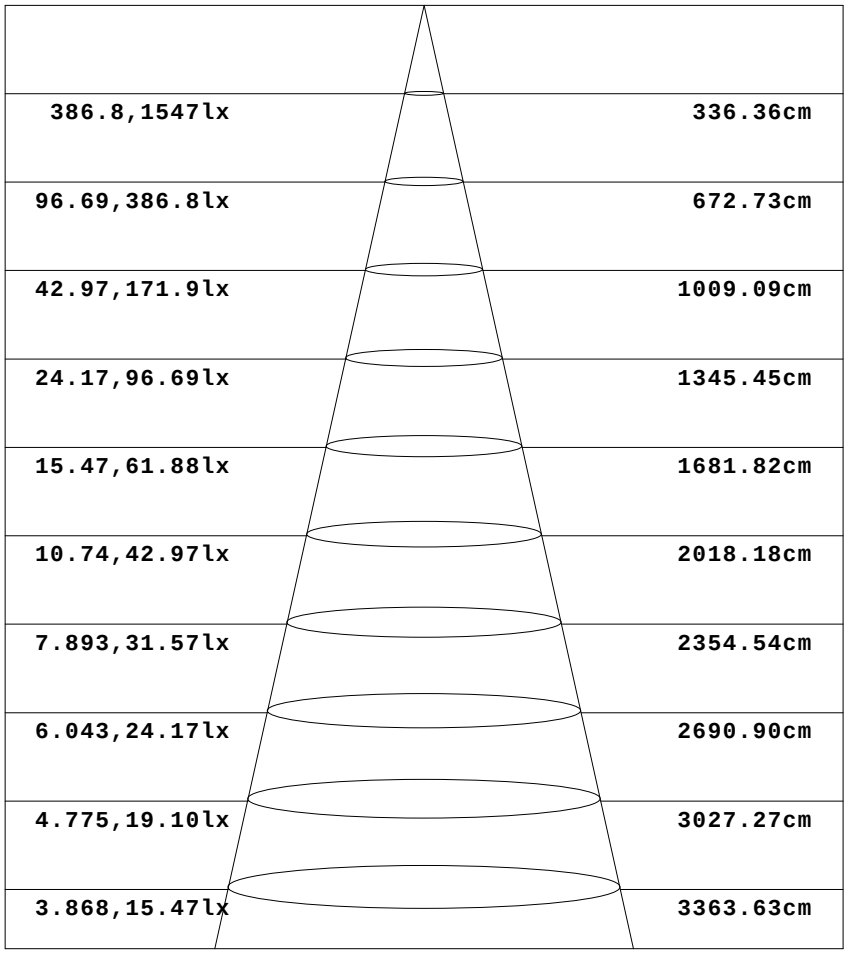
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

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

AAI Figure

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:3645 lm



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

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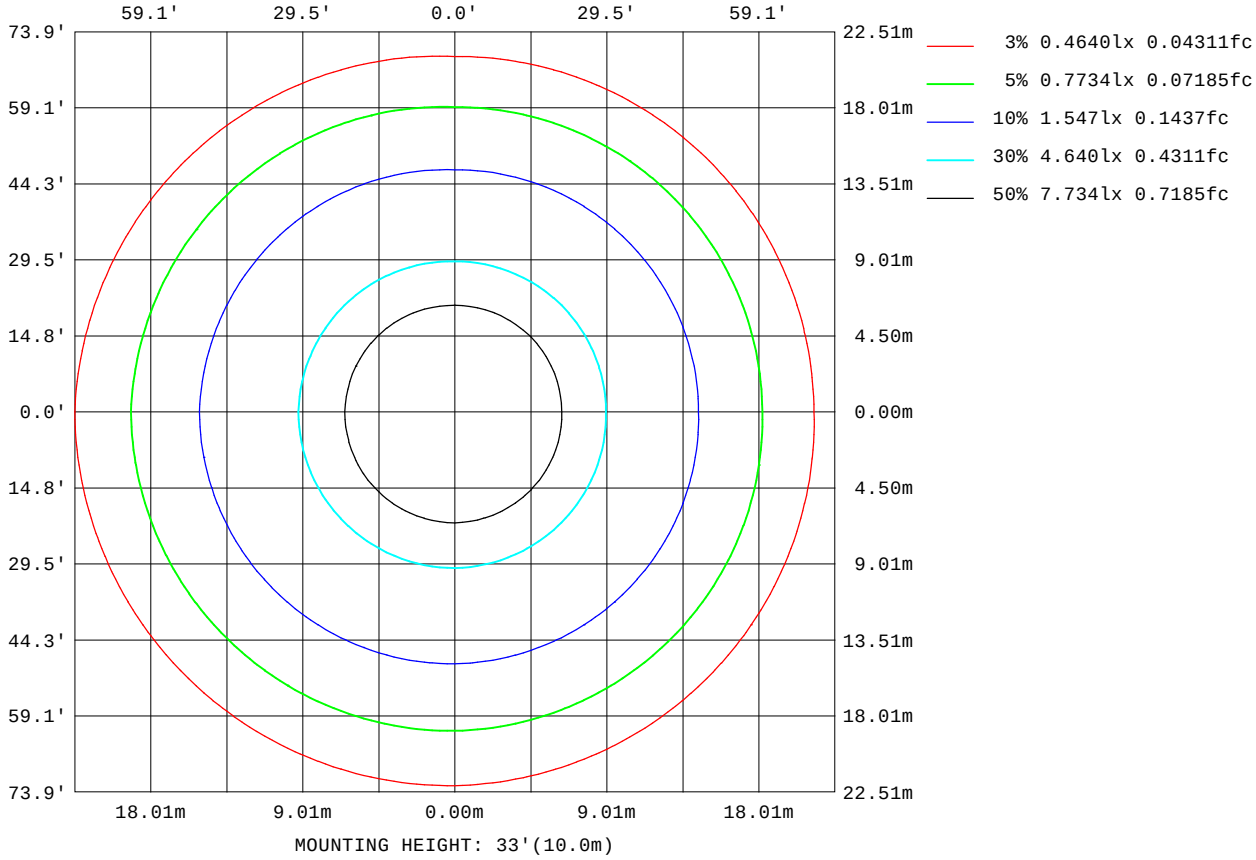
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

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:

ISOLUX DIAGRAM

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



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g Interval: 1.0DEG
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Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

LED Avg.L Report

Test:U:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

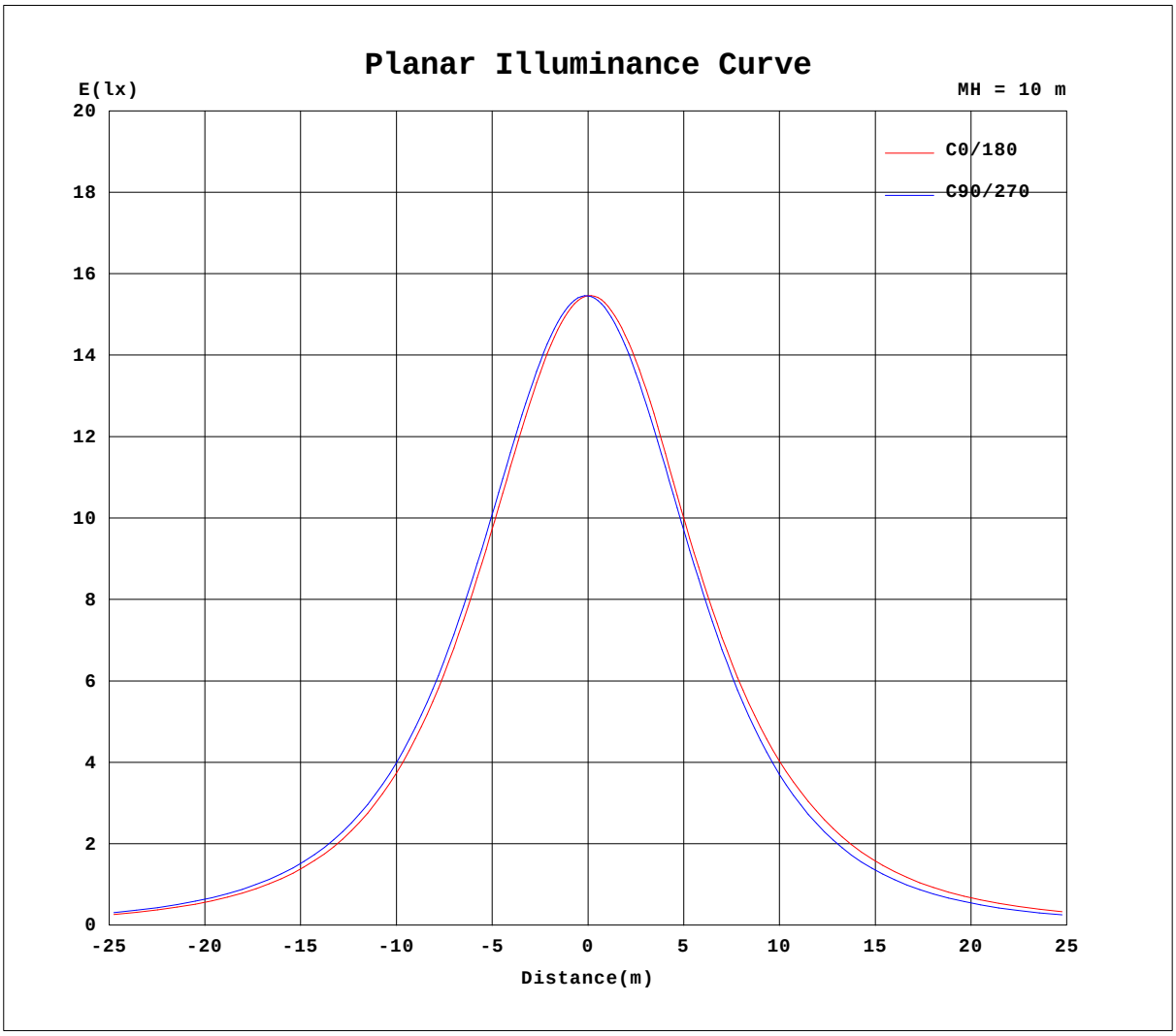
AvgL	cd/m2
L_0~180(65)av	15594
L_0~180(75)av	15472
L_0~180(85)av	17243
L_90~270(65)av	14888
L_90~270(75)av	14228
L_90~270(85)av	14360
L_45(65)av	15243
L_45(75)av	14840
L_45(85)av	15813

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:120.30V I:0.3293A P:39.452W PF:0.9960 Freq:59.98Hz Lamp Flux:4841.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:100-277v	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	90	180	270
0	1547	1546	1547	1546
5	1535	1546	1547	1536
10	1512	1534	1537	1513
15	1479	1510	1515	1479
20	1434	1475	1477	1433
25	1380	1428	1418	1377
30	1315	1370	1355	1311
35	1239	1300	1287	1233
40	1154	1221	1215	1146
45	1059	1131	1141	1050
50	956	1032	1061	945
55	845	923	957	828
60	724	807	842	705
65	598	683	720	576
70	469	554	592	445
75	340	422	461	314
80	215	292	328	191
85	98.4	171	202	79.4
90	2.40	62.0	84.1	3.67

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

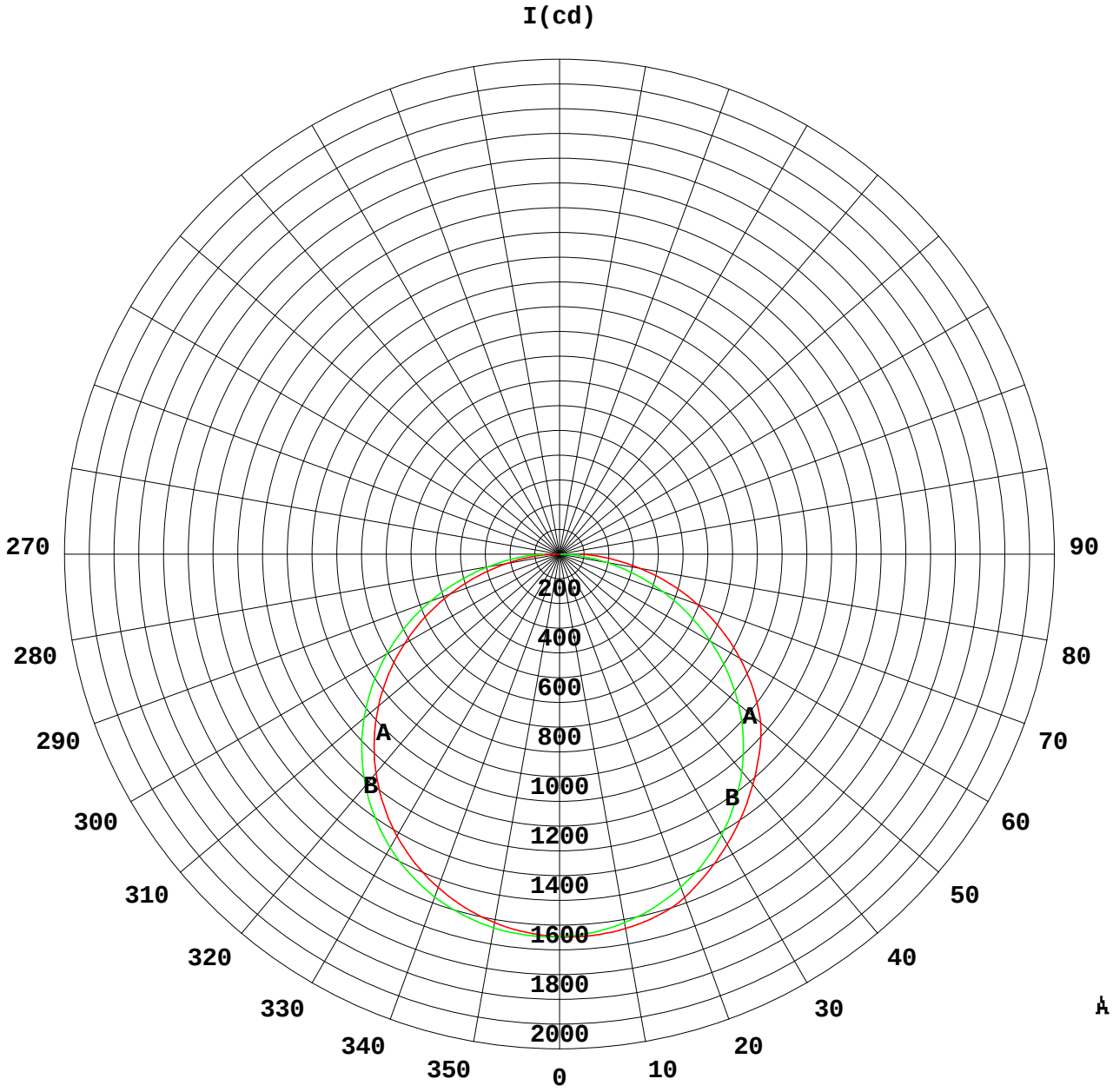
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

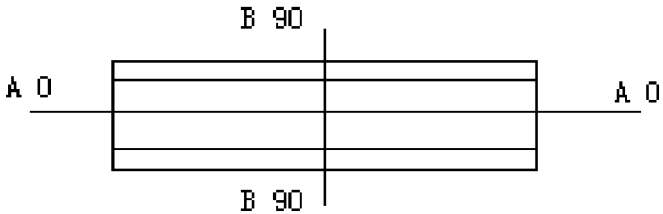
Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1547	1546	1547	1546
3.0	1541	1548	1548	1541
6.0	1531	1544	1546	1531
9.0	1518	1537	1540	1518
12.0	1501	1526	1529	1500
15.0	1479	1510	1515	1479
18.0	1453	1490	1496	1453
21.0	1425	1467	1466	1423
24.0	1392	1439	1431	1390
27.0	1355	1406	1394	1352
30.0	1315	1370	1355	1311
33.0	1272	1330	1315	1266
36.0	1223	1286	1273	1217
39.0	1172	1237	1230	1164
42.0	1119	1186	1187	1109
45.0	1059	1131	1141	1050
48.0	998.4	1072	1095	987.8
51.0	934.8	1011	1041	921.6
54.0	866.5	945.3	978.0	852.0
57.0	795.8	877.0	910.9	779.2
60.0	723.8	806.5	841.8	705.1
63.0	648.8	732.8	769.6	627.6
66.0	572.7	656.9	694.7	549.8
69.0	495.4	580.0	618.2	471.3
72.0	417.5	501.0	540.2	392.2
75.0	340.2	422.2	460.7	314.2
78.0	264.9	343.5	381.5	239.8
81.0	191.1	267.3	302.8	167.1
84.0	120.7	194.2	226.9	100.2
87.0	56.02	126.0	154.3	40.74
90.0	2.404	62.05	84.11	3.668

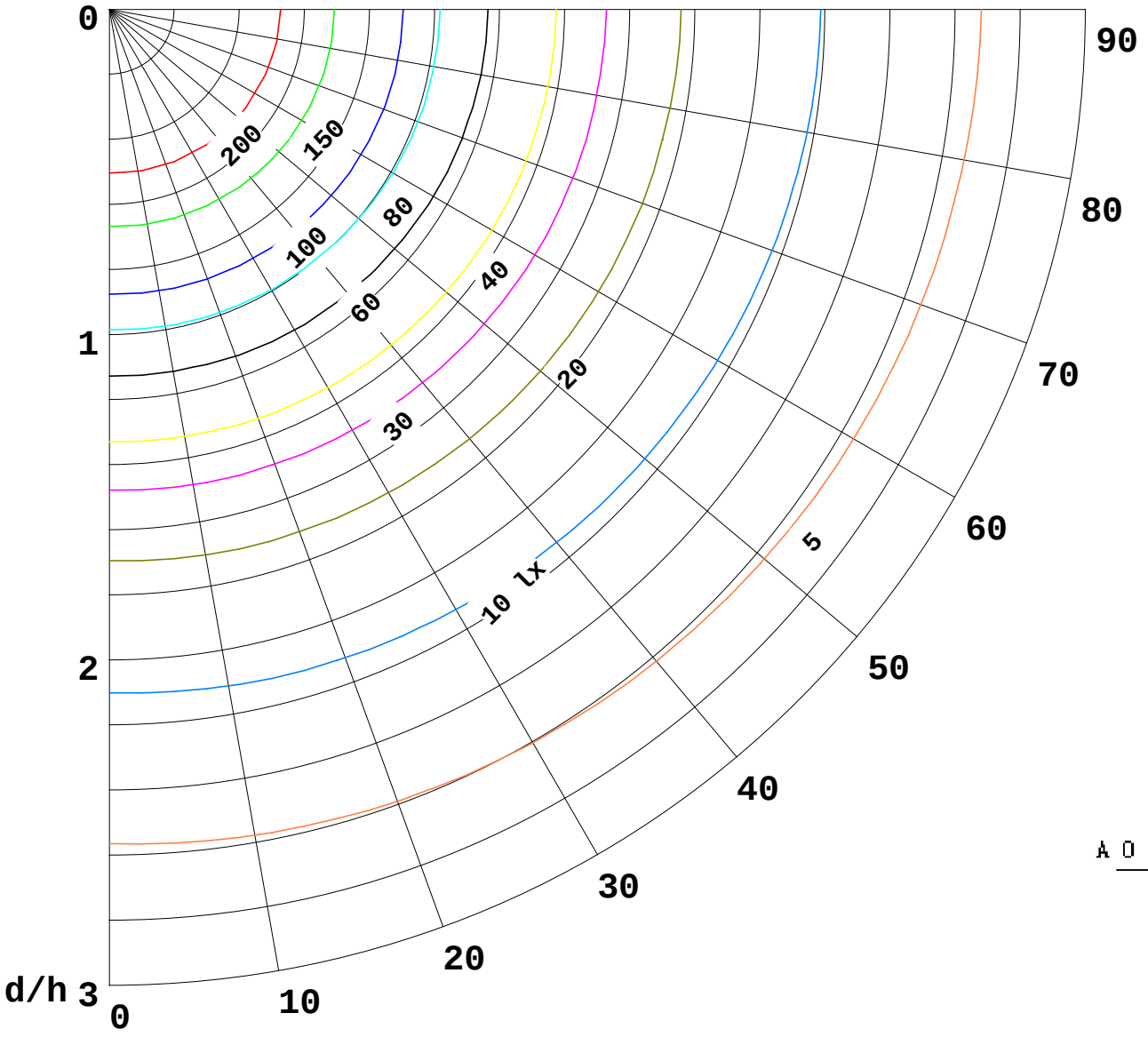
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-20

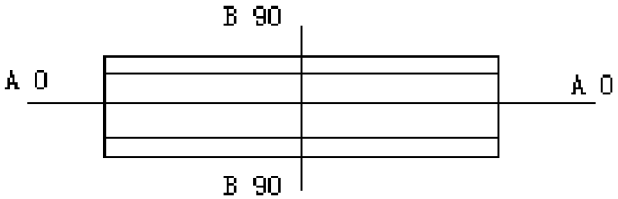
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0964]
Remarks:

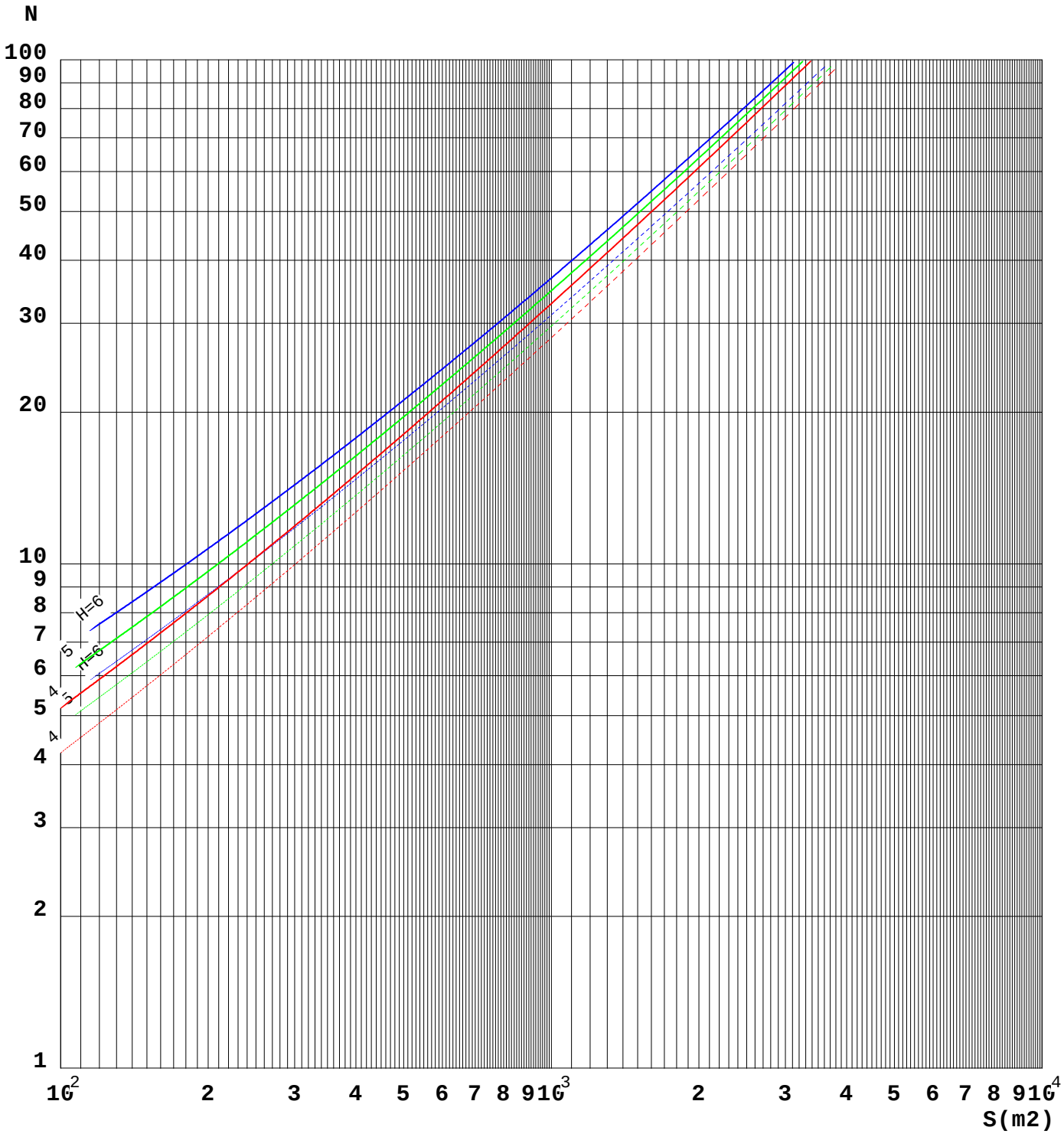

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
A
B
A
B


B 90
A 0
A 0
B 90

1000 lm K = 1


0
90
80
70
60
50
40
30
20
10
0
1
2
3
d/h
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