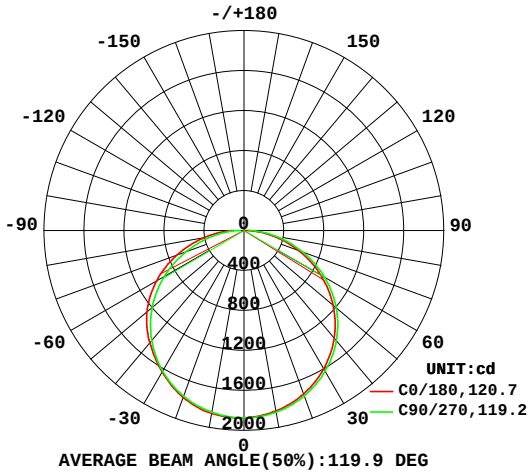
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

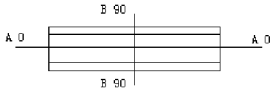
Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 124.43 lm/W			
MODEL		Imax(cd)	1875	S/MH(C0/180)	1.30
NOMINAL POWER(W)	50w	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	120-277v	TOTAL FLUX(lm)	5892.4	h UP,DN(C0-180)	0.0,48.8
NOMINAL FLUX(lm)	5892.4	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,51.2
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

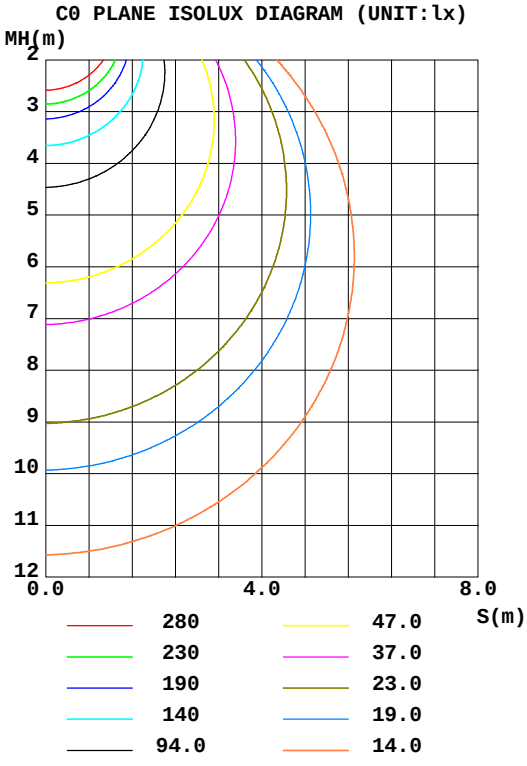
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):119.9 DEG



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

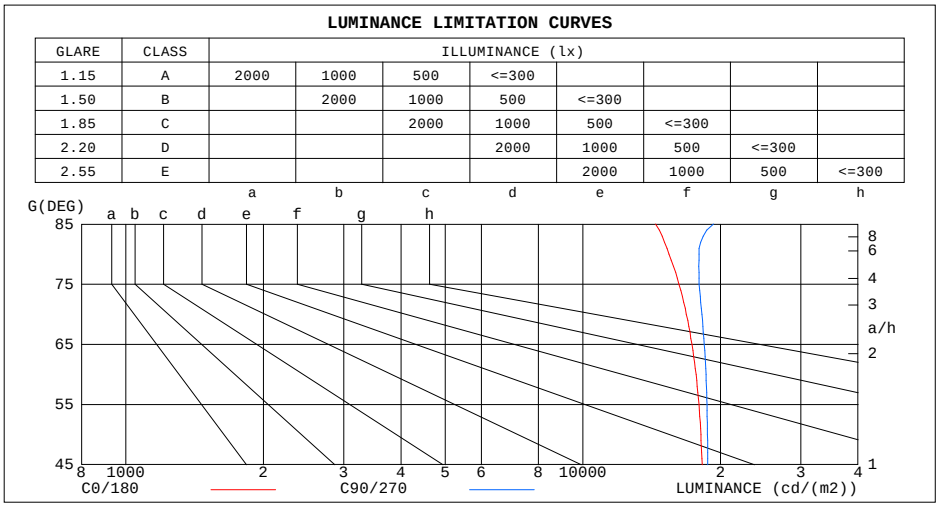
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	1834	1847	1859	1848					0- 10	177.6	177.6	3.01,3.01
20	1743	1763	1778	1764					10- 20	511.5	689.1	11.7,11.7
30	1598	1625	1637	1627					20- 30	782.9	1472	25,25
40	1404	1438	1466	1437					30- 40	960.3	2432	41.3,41.3
50	1166	1205	1268	1200					40- 50	1025	3457	58.7,58.7
60	884.5	929.8	1012	920.6					50- 60	963.3	4421	75,75
70	576.0	622.9	710.8	613.0					60- 70	777.6	5198	88.2,88.2
80	268.2	311.8	394.7	304.6					70- 80	500.6	5699	96.7,96.7
90	6.559	45.25	99.31	40.50					80- 90	193.7	5892	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:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	14424	19307
80	15442	17955
75	16223	17972
70	16841	18211
65	17348	18441
60	17690	18596
55	17955	18690
50	18137	18743
45	18253	18770

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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=1.0000]
Remarks:

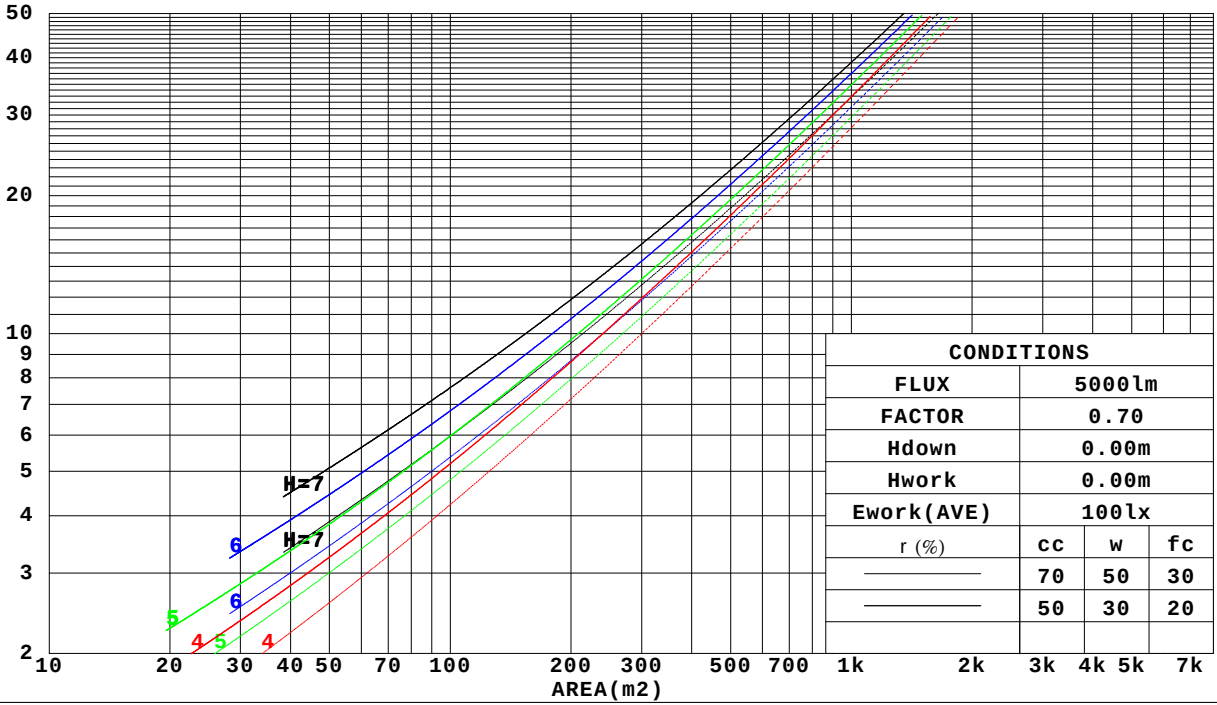
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	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			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	.92	.89	.92	.89	.86	.88	.86	.84	.82
2.0	.89	.81	.75	.87	.80	.74	.83	.77	.73	.80	.75	.71	.77	.73	.69	.67
3.0	.77	.69	.62	.76	.68	.61	.73	.66	.60	.70	.64	.59	.67	.62	.58	.56
4.0	.68	.59	.52	.67	.58	.52	.64	.57	.51	.62	.55	.50	.60	.54	.50	.47
5.0	.61	.51	.45	.60	.51	.44	.57	.50	.44	.55	.49	.43	.54	.48	.43	.41
6.0	.55	.45	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.48	.42	.37	.35
7.0	.49	.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	.40	.34	.30	.28
9.0	.41	.33	.27	.41	.33	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.37	.30	.24	.36	.29	.24	.36	.29	.24	.35	.29	.24	.22

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



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C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	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	.335	.191	.060	.328	.187	.059	.315	.181	.058	.302	.174	.056	.291	.169	.054	
2.0	.309	.169	.052	.302	.167	.051	.291	.162	.050	.280	.157	.049	.270	.152	.048	
3.0	.283	.150	.045	.277	.148	.045	.266	.144	.044	.257	.141	.043	.248	.137	.042	
4.0	.259	.134	.040	.254	.133	.039	.244	.130	.039	.236	.127	.038	.228	.124	.038	
5.0	.238	.121	.035	.233	.120	.035	.225	.117	.035	.217	.115	.034	.210	.112	.034	
6.0	.220	.110	.032	.216	.109	.031	.208	.107	.031	.202	.105	.031	.195	.103	.030	
7.0	.204	.101	.029	.200	.100	.028	.194	.098	.028	.188	.096	.028	.182	.094	.028	
8.0	.190	.093	.026	.187	.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	.167	.080	.022	.164	.079	.022	.159	.078	.022	.155	.077	.022	.151	.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	.132	.156	.134	.114	.107	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.175	.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	.137	.087	.049	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.152	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.083	.038	.124	.072	.033	.086	.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	.119	.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:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	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	22.8	24.4	23.1	24.6	24.8	23.0	24.6	23.3	24.8	25.0
	3H	24.5	26.0	24.8	26.2	26.4	24.8	26.2	25.1	26.5	26.7
	4H	25.2	26.6	25.5	26.8	27.1	25.5	26.9	25.8	27.2	27.4
	6H	25.7	27.0	26.1	27.3	27.6	26.1	27.4	26.5	27.7	28.0
	8H	25.9	27.2	26.3	27.5	27.8	26.4	27.6	26.7	27.9	28.2
	12H	26.0	27.3	26.4	27.6	27.9	26.6	27.8	26.9	28.1	28.4
4H	2H	23.5	24.9	23.8	25.2	25.4	23.7	25.1	24.0	25.3	25.6
	3H	25.4	26.6	25.7	26.9	27.2	25.6	26.8	25.9	27.1	27.4
	4H	26.2	27.3	26.6	27.6	28.0	26.5	27.6	26.9	27.9	28.3
	6H	26.9	27.9	27.3	28.2	28.6	27.2	28.2	27.6	28.6	29.0
	8H	27.1	28.1	27.5	28.4	28.8	27.6	28.5	28.0	28.9	29.3
	12H	27.3	28.2	27.7	28.6	29.0	27.8	28.7	28.3	29.1	29.5
8H	4H	26.5	27.5	27.0	27.9	28.2	26.8	27.7	27.2	28.1	28.5
	6H	27.4	28.2	27.8	28.6	29.0	27.7	28.5	28.2	28.9	29.4
	8H	27.8	28.5	28.2	28.9	29.3	28.2	28.9	28.6	29.3	29.7
	12H	28.1	28.7	28.5	29.1	29.6	28.5	29.2	29.0	29.6	30.1
12H	4H	26.6	27.4	27.0	27.8	28.2	26.8	27.7	27.2	28.1	28.5
	6H	27.5	28.2	28.0	28.6	29.1	27.8	28.5	28.3	28.9	29.4
	8H	27.9	28.5	28.4	29.0	29.4	28.3	28.9	28.8	29.4	29.8
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 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 5892 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 6.2)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	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	36	54	43	36	30
0.80	66	54	46	65	53	46	63	52	45	38
1.00	74	62	55	73	62	54	70	63	54	47
1.25	81	70	63	80	69	62	77	68	61	54
1.50	86	76	68	84	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	93	88	99	92	86	94	89	84	76
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	102	98	105	100	96	101	97	93	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=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
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SPEC.:50w 3500k	DIM.:	SERIAL No.:
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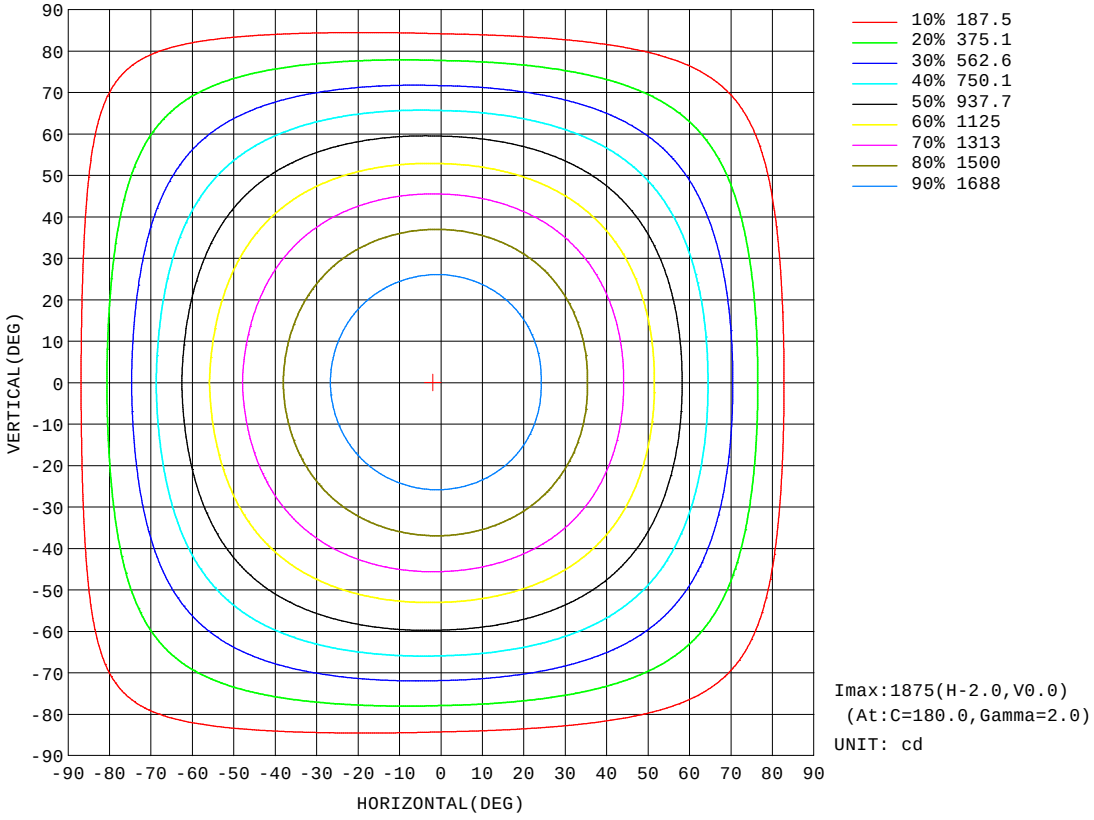

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

AAI Figure

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	DIM.:	SERIAL No.:
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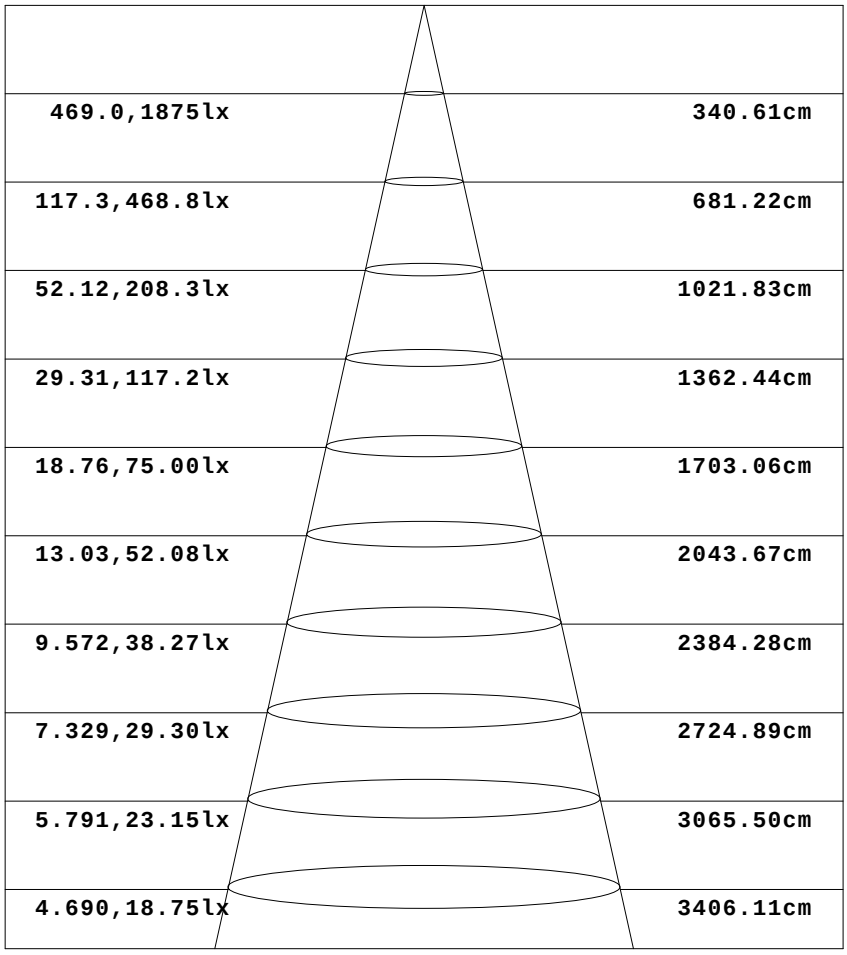
Flux out:4421 lm



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:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
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SPEC.:50w 3500k	DIM.:	SERIAL No.:
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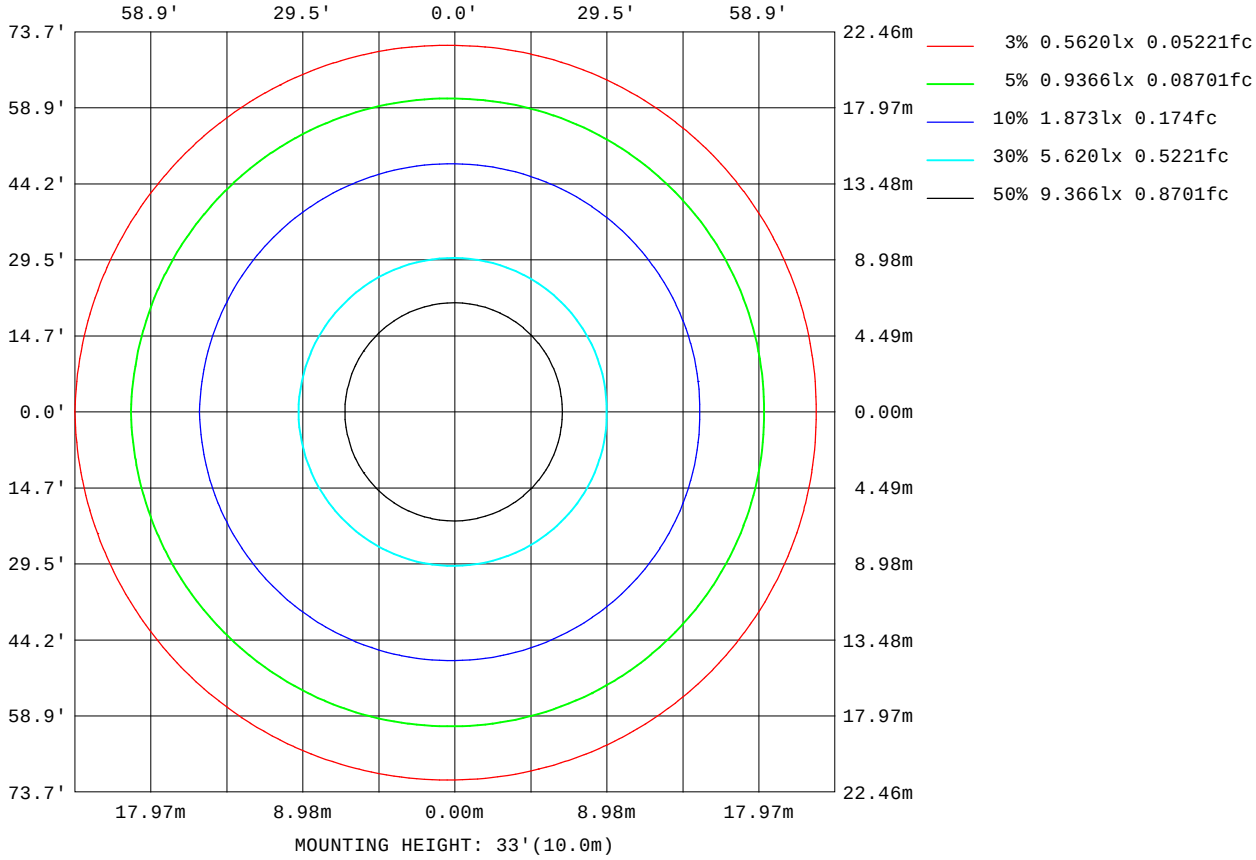

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Humidity:65.0%
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Remarks:

LED Avg.L Report

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

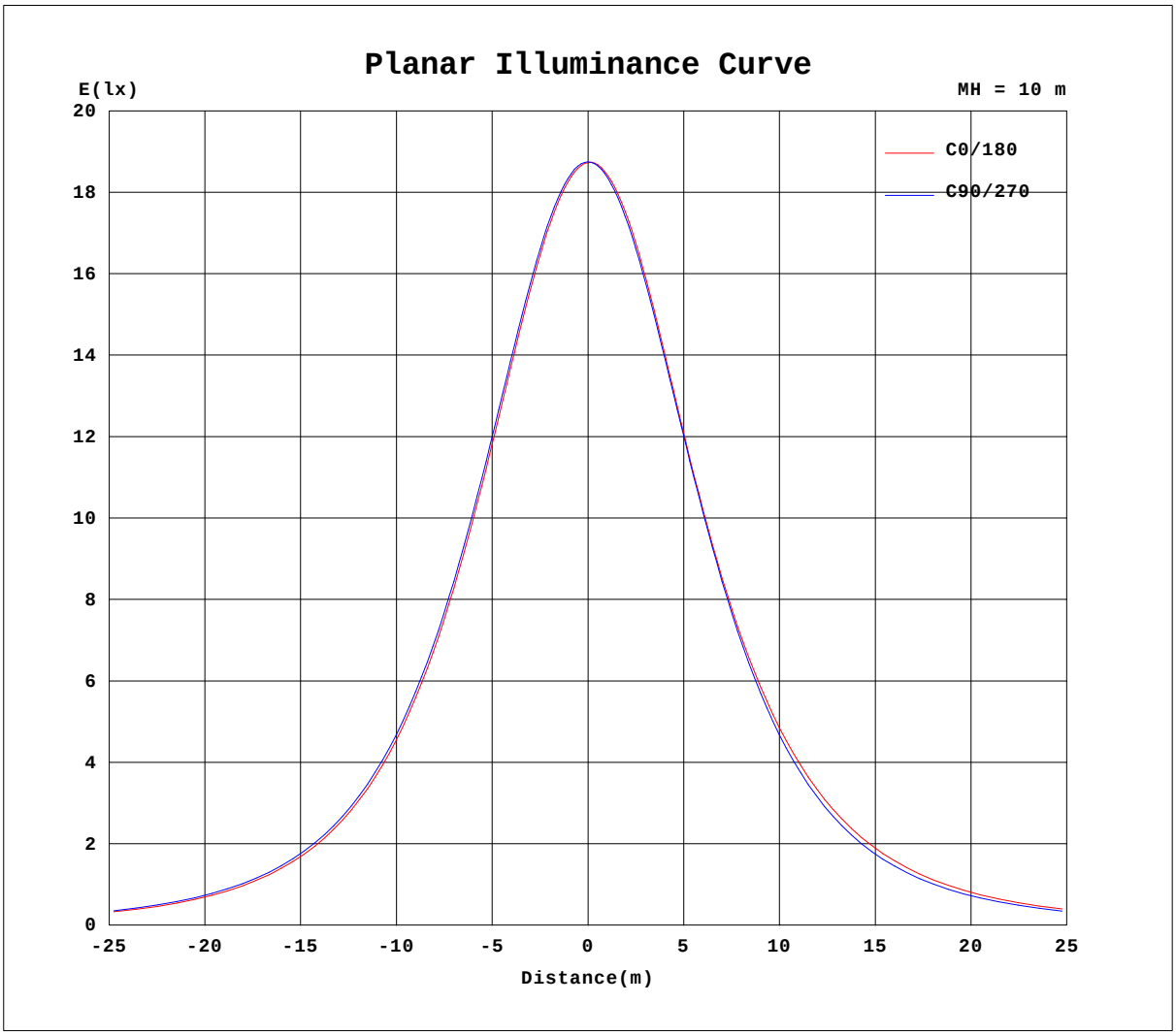
AvgL	cd/m2
L_0~180(65)av	18904
L_0~180(75)av	18779
L_0~180(85)av	21055
L_90~270(65)av	18315
L_90~270(75)av	17807
L_90~270(85)av	19048
L_45(65)av	18633
L_45(75)av	18331
L_45(85)av	20216

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

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=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.23V I:0.3956A P:47.354W PF:0.9957 Freq:59.98Hz Lamp Flux:5892.4x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:50w 3500k	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

g (DEG) \ C(DEG)	0	90	180	270
0	1873	1875	1873	1875
5	1861	1868	1873	1868
10	1834	1847	1859	1848
15	1794	1811	1828	1813
20	1743	1763	1778	1764
25	1676	1701	1713	1702
30	1598	1625	1637	1627
35	1507	1538	1554	1538
40	1404	1438	1466	1437
45	1291	1327	1373	1324
50	1166	1205	1268	1200
55	1030	1072	1147	1065
60	884	930	1012	921
65	733	779	865	769
70	576	623	711	613
75	420	465	552	457
80	268	312	395	305
85	126	168	241	164
90	6.56	45.2	99.3	40.5

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

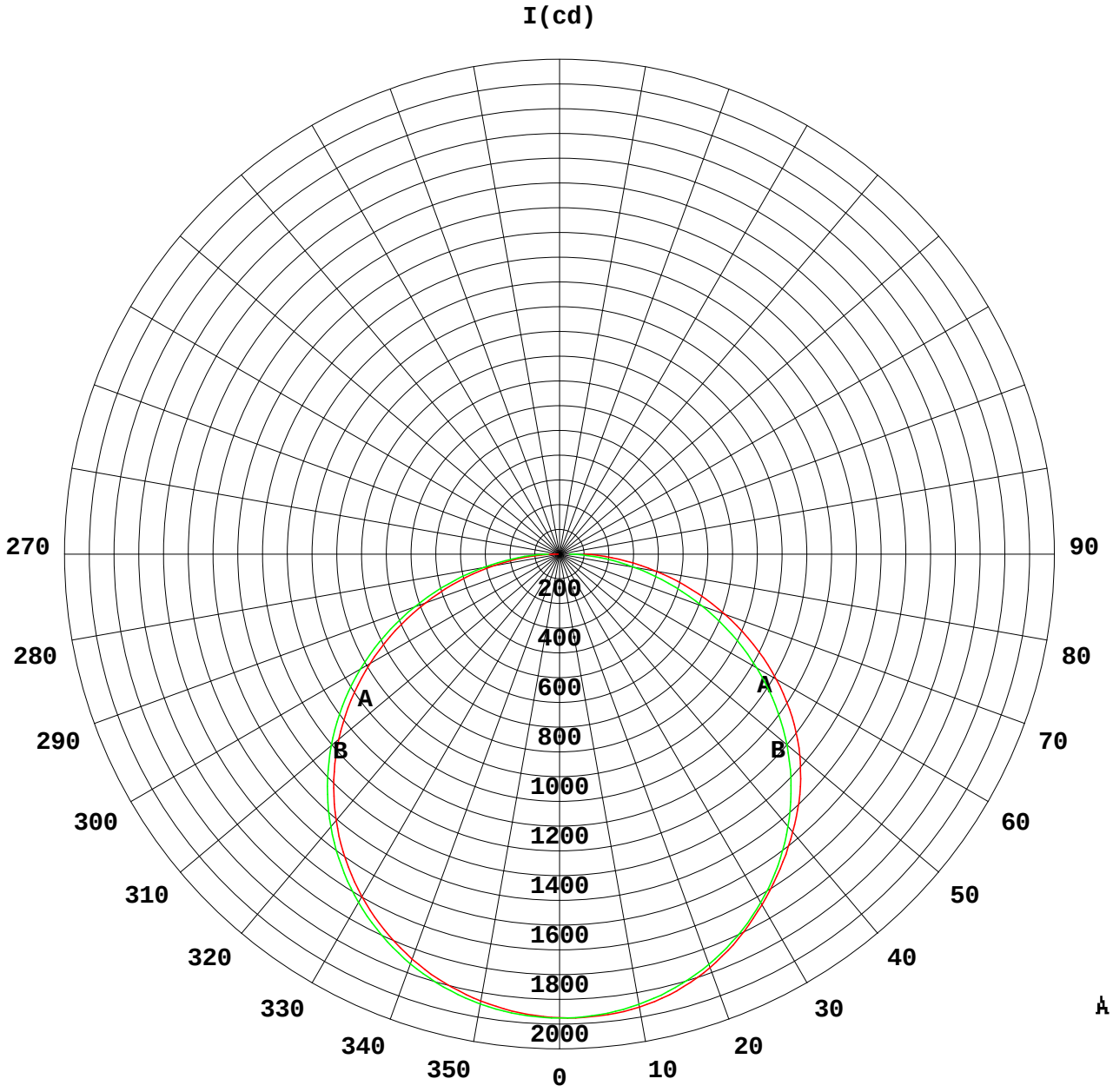
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0000]
Remarks:

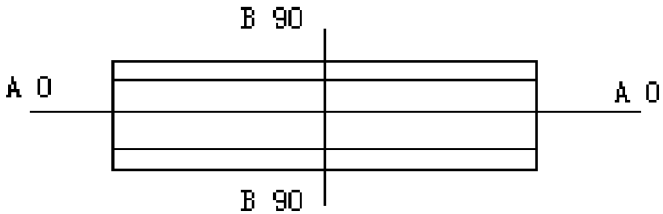
Photometric Data Table [cd]

G/C	0.0	90.0	180.0	270.0
0.0	1873	1875	1873	1875
3.0	1867	1872	1875	1873
6.0	1856	1864	1872	1865
9.0	1840	1852	1863	1853
12.0	1820	1834	1849	1835
15.0	1794	1811	1828	1813
18.0	1764	1783	1800	1785
21.0	1729	1751	1767	1753
24.0	1690	1714	1728	1715
27.0	1647	1672	1683	1673
30.0	1598	1625	1637	1627
33.0	1545	1575	1587	1575
36.0	1488	1519	1537	1519
39.0	1426	1460	1484	1458
42.0	1361	1396	1430	1393
45.0	1291	1327	1373	1324
48.0	1216	1255	1311	1250
51.0	1139	1179	1245	1174
54.0	1057	1099	1172	1093
57.0	972.4	1016	1094	1007
60.0	884.5	929.8	1012	920.6
63.0	794.0	840.2	924.4	829.9
66.0	700.8	748.1	833.9	737.7
69.0	608.6	654.8	741.8	644.6
72.0	513.6	559.6	647.8	550.2
75.0	419.9	465.1	552.2	456.6
78.0	328.1	373.1	458.2	365.0
81.0	239.0	281.1	363.9	275.7
84.0	153.7	195.3	271.0	190.7
87.0	74.17	116.4	183.7	111.2
90.0	6.559	45.25	99.31	40.50

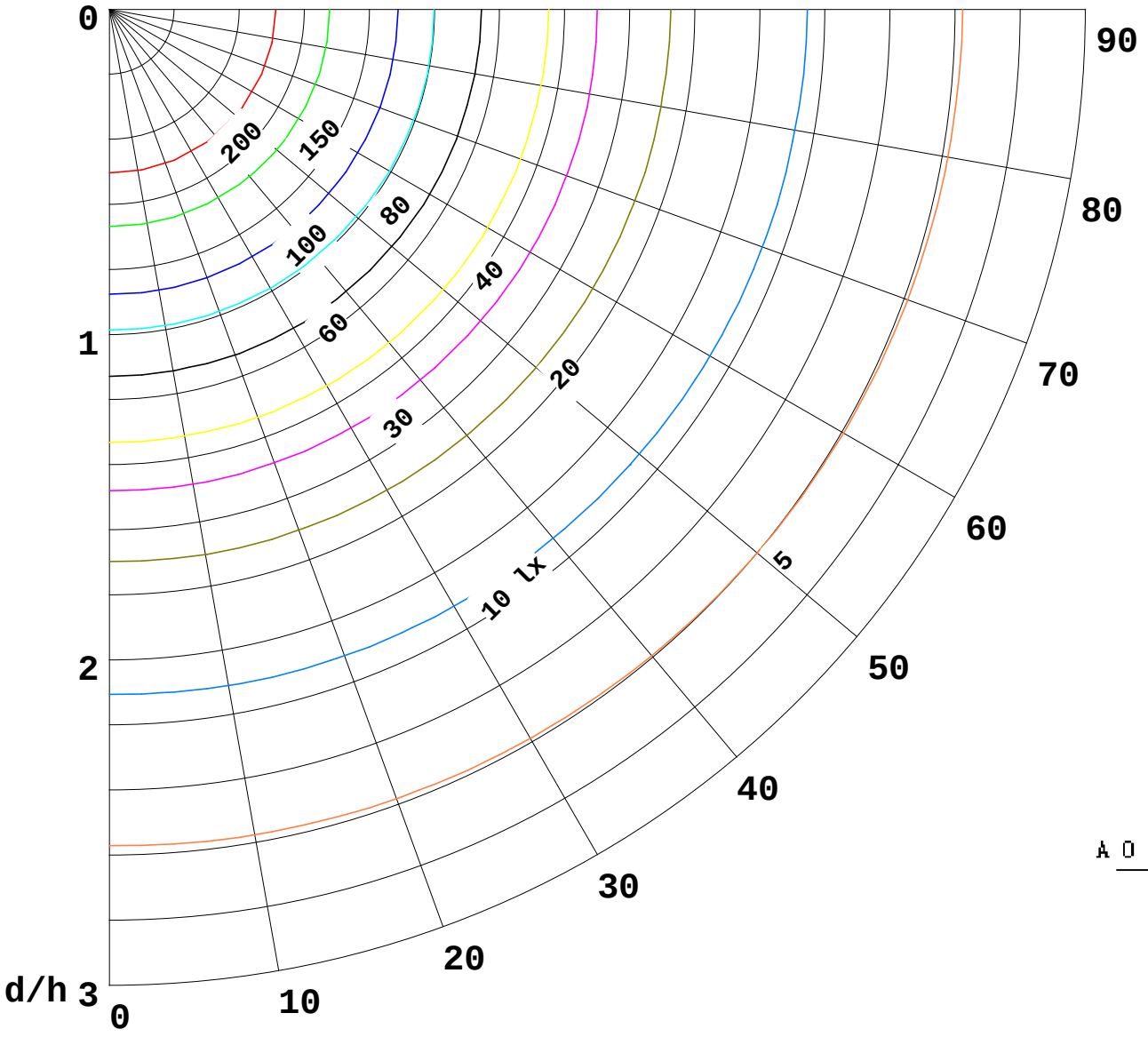
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:赢
Test Date:2024-03-30

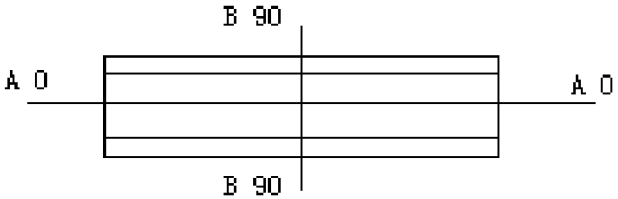
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:8.300m [K=1.0000]
Remarks:

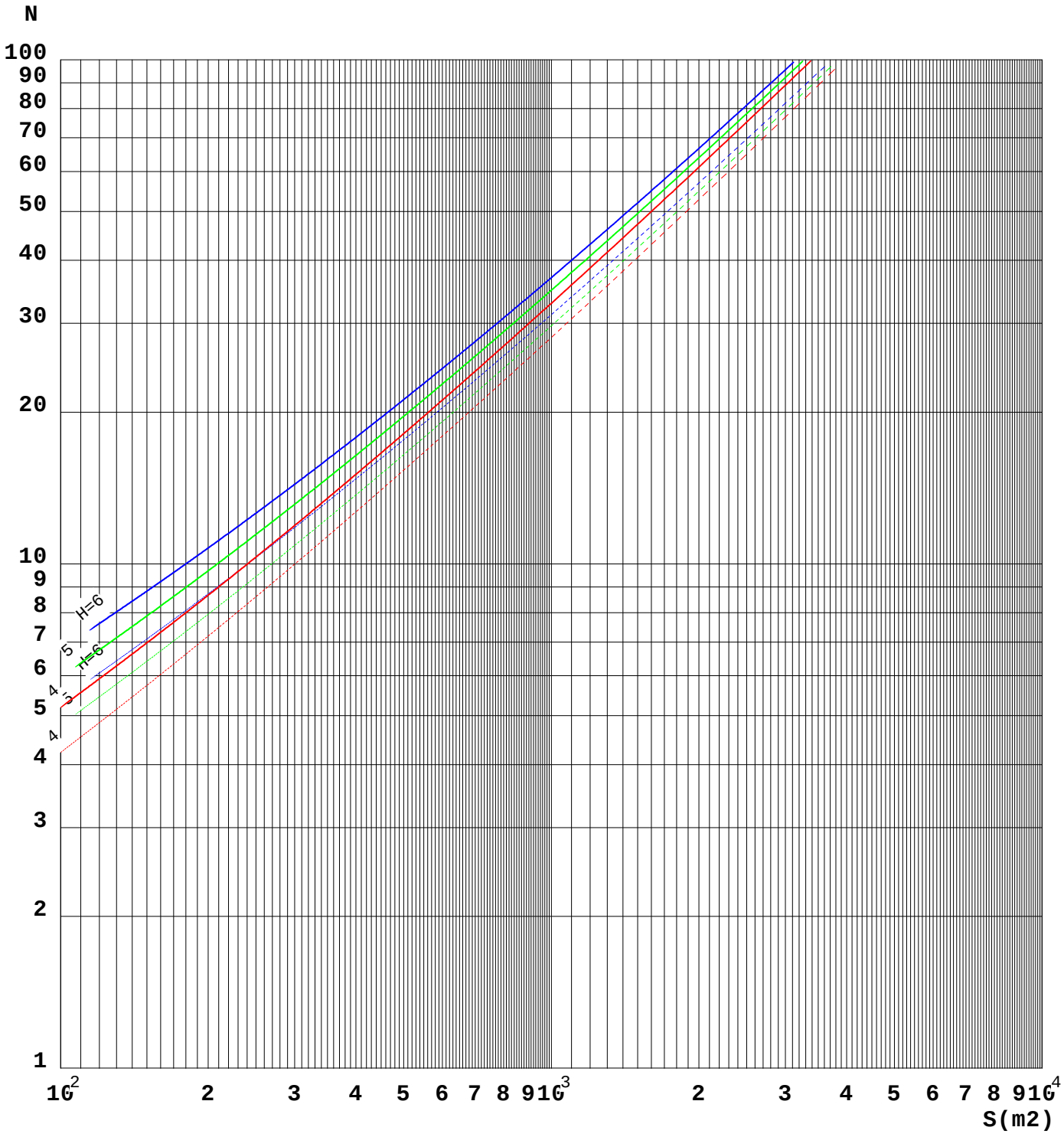

I(cd)
270
90
280
80
290
70
300
60
310
50
320
40
330
30
340
20
350
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
A
A
B
B


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