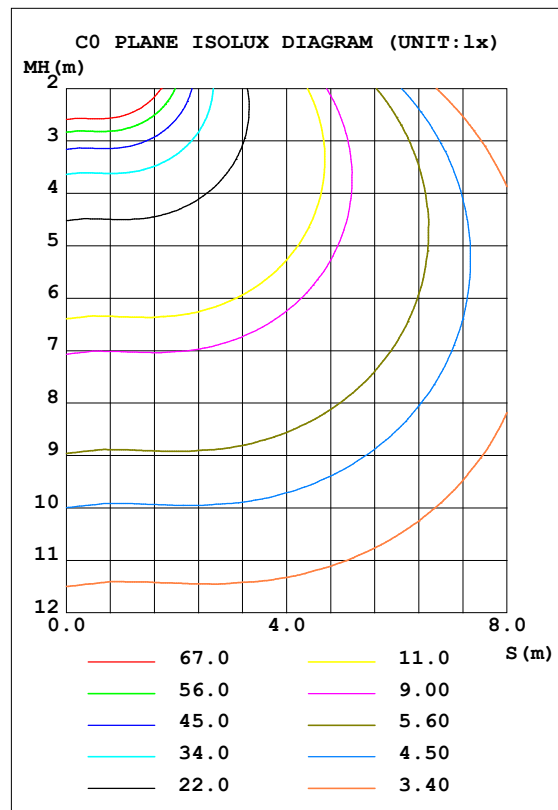
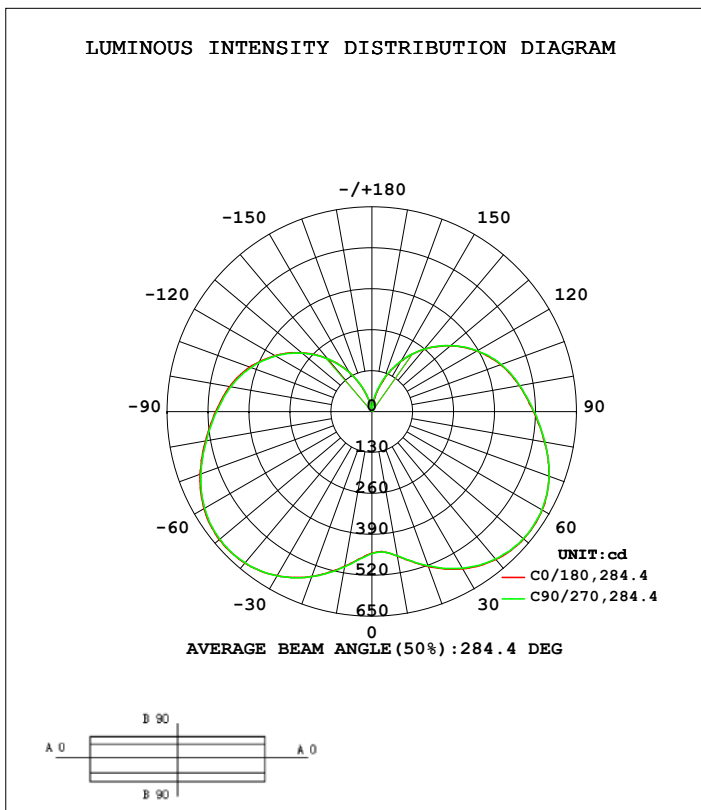


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 154.31 lm/W			
MODEL	3030NICHIA	I _{max} (cd)	633.4	S/MH (C0/180)	1.98
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	1.97
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	5776.5	η UP, DN (C0-180)	19.2, 31.7
NOMINAL FLUX (lm)	5776.46	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	17.6, 31.6
LAMPS INSIDE	1	η up (%)	36.7	CIBSE SHR NOM	2.00
TEST VOLTAGE (V)	220	η down (%)	63.3	CIBSE SHR MAX	2.00



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: DEG
 Operators:
 Test Date: 2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 9.351m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	465.4	465.4	498.3	500.8					0- 10	44.60	44.60	0.77,0.77
20	523.5	521.1	557.1	557.4					10- 20	145.7	190.3	3.29,3.29
30	576.0	574.4	601.5	602.2					20- 30	262.4	452.7	7.84,7.84
40	613.0	611.1	627.3	627.0					30- 40	380.9	833.6	14.4,14.4
50	629.2	627.5	632.7	630.6					40- 50	485.4	1319	22.8,22.8
60	624.4	623.4	615.8	613.4					50- 60	561.8	1881	32.6,32.6
70	598.9	599.4	580.5	577.9					60- 70	600.8	2482	43,43
80	557.0	558.1	536.0	533.3					70- 80	600.7	3082	53.4,53.4
90	513.6	515.7	496.1	493.2					80- 90	572.7	3655	63.3,63.3
100	475.5	477.1	458.6	455.6					90-100	529.8	4185	72.4,72.4
110	435.4	437.3	413.5	409.6					100-110	472.2	4657	80.6,80.6
120	385.9	386.0	355.6	353.8					110-120	395.2	5052	87.5,87.5
130	325.4	326.7	291.3	289.9					120-130	305.6	5358	92.8,92.8
140	258.5	259.5	219.8	219.3					130-140	213.2	5571	96.4,96.4
150	184.2	185.8	144.6	143.4					140-150	127.9	5699	98.7,98.7
160	104.8	110.4	69.66	69.39					150-160	59.62	5759	99.7,99.7
170	33.88	41.38	12.75	13.50					160-170	16.46	5775	100,100
180	3.536	3.489	3.556	3.475					170-180	1.354	5776	100,100
DEG	LUMINOUS INTENSITY:cd Less than 35% Percent = 96.2 %									UNIT:lm		

Conical surface Flux(90deg): 1064.7 lm

%lum = 18.4%
%lamp = 18.4%

Conical surface Flux(120deg): 1880.8 lm

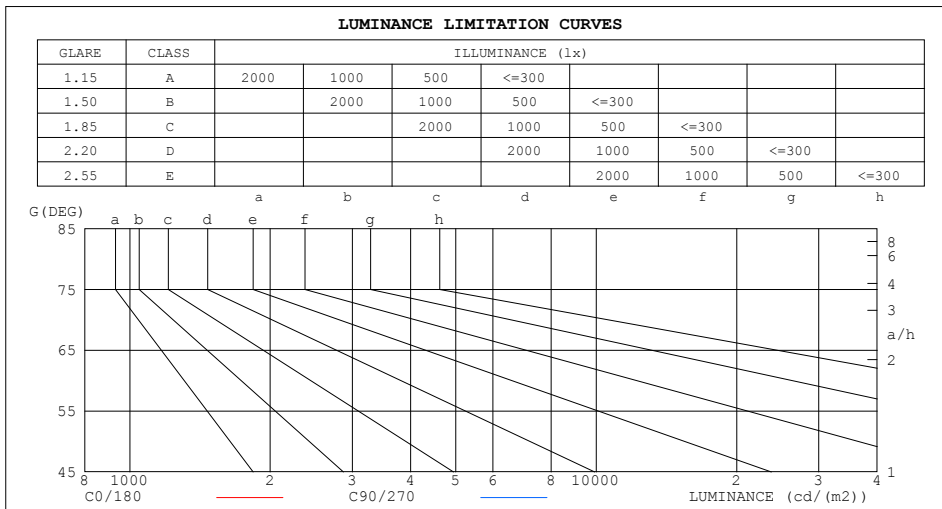
%lum = 32.6%
%lamp = 32.6%

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:DEG
Operators:
Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:9.351m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1795027	1800135
80	938101	940067
75	654826	655162
70	512117	512568
65	425177	424786
60	365238	364659
55	320938	320257
50	286312	285511
45	257973	257649

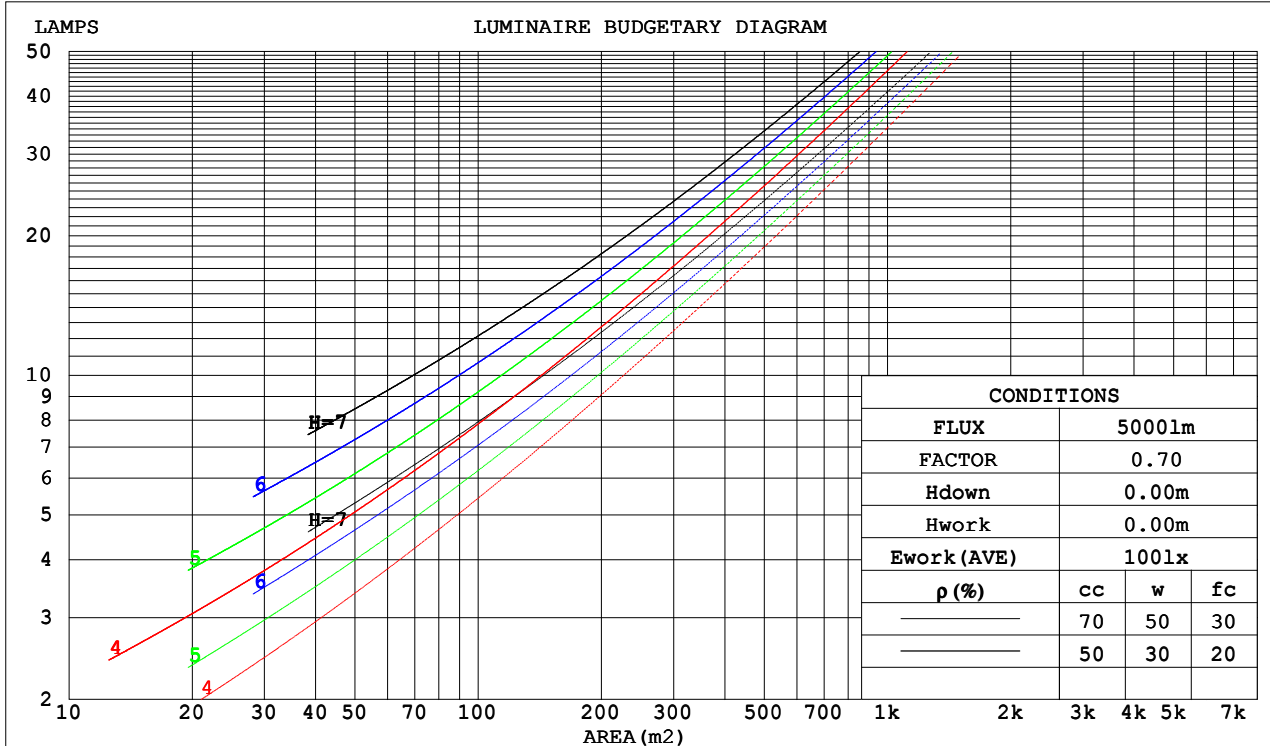
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pf _c	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization (CU)									
0.0	1.10	1.10	1.10	1.03	1.03	1.03	.91	.91	.91	.79	.79	.79	.68	.68	.68	.63
1.0	.89	.83	.78	.83	.78	.73	.72	.68	.64	.62	.59	.56	.53	.50	.48	.43
2.0	.75	.67	.60	.70	.63	.56	.60	.54	.49	.52	.47	.43	.43	.40	.37	.32
3.0	.64	.55	.48	.60	.52	.45	.52	.45	.39	.44	.39	.34	.37	.33	.29	.25
4.0	.56	.46	.39	.52	.43	.37	.45	.38	.32	.38	.32	.28	.32	.27	.24	.20
5.0	.49	.40	.32	.46	.37	.31	.40	.32	.27	.34	.28	.23	.28	.24	.20	.16
6.0	.44	.34	.27	.41	.32	.26	.35	.28	.23	.30	.24	.20	.25	.20	.17	.14
7.0	.39	.30	.24	.37	.28	.22	.32	.25	.20	.27	.21	.17	.23	.18	.14	.12
8.0	.35	.27	.21	.33	.25	.19	.29	.22	.17	.25	.19	.15	.21	.16	.13	.10
9.0	.32	.24	.18	.30	.22	.17	.26	.20	.15	.23	.17	.13	.19	.14	.11	.09
10.0	.29	.21	.16	.28	.20	.15	.24	.18	.13	.21	.15	.12	.18	.13	.10	.08



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: DEG
 Operators:
 Test Date: 2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 9.351m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.421	.240	.076	.403	.230	.073	.368	.211	.067	.337	.194	.062	.307	.178	.057	
2.0	.353	.194	.059	.336	.185	.057	.305	.170	.053	.276	.155	.048	.249	.141	.044	
3.0	.308	.164	.049	.293	.157	.047	.264	.143	.044	.238	.130	.040	.213	.118	.036	
4.0	.274	.143	.042	.261	.136	.040	.234	.124	.037	.210	.113	.034	.187	.102	.031	
5.0	.247	.126	.037	.235	.121	.035	.211	.110	.032	.188	.099	.030	.167	.089	.027	
6.0	.225	.113	.032	.214	.108	.031	.192	.098	.029	.171	.089	.026	.151	.080	.024	
7.0	.207	.102	.029	.196	.098	.028	.176	.089	.026	.156	.080	.023	.138	.072	.021	
8.0	.191	.093	.026	.181	.089	.025	.162	.081	.023	.144	.073	.021	.128	.066	.019	
9.0	.178	.086	.024	.168	.082	.023	.151	.075	.021	.134	.067	.019	.119	.060	.017	
10.0	.166	.079	.022	.157	.076	.021	.141	.069	.019	.125	.062	.018	.111	.056	.016	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.470	.470	.470	.402	.402	.402	.274	.274	.274	.158	.158	.158	.050	.050	.050	
1.0	.470	.437	.408	.402	.375	.351	.275	.258	.243	.158	.149	.141	.051	.048	.046	
2.0	.464	.416	.375	.398	.358	.324	.273	.248	.226	.157	.144	.132	.050	.047	.043	
3.0	.457	.400	.354	.392	.345	.307	.269	.240	.216	.155	.140	.127	.050	.045	.042	
4.0	.450	.388	.341	.386	.336	.297	.265	.234	.209	.154	.137	.124	.049	.045	.041	
5.0	.442	.379	.332	.380	.328	.289	.262	.229	.204	.152	.135	.121	.049	.044	.040	
6.0	.435	.372	.326	.374	.322	.284	.258	.225	.201	.150	.132	.119	.048	.043	.039	
7.0	.428	.365	.321	.368	.317	.280	.254	.222	.199	.148	.131	.118	.048	.043	.039	
8.0	.421	.360	.318	.363	.312	.277	.251	.219	.197	.146	.129	.117	.047	.042	.039	
9.0	.415	.355	.315	.357	.308	.275	.248	.217	.195	.144	.128	.116	.047	.042	.039	
10.0	.409	.351	.313	.353	.305	.273	.245	.215	.194	.143	.127	.116	.046	.042	.038	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm										
NAME: CFB-40W					TYPE:Frosted pc			WEIGHT:0.428kg		
SPEC.:3000K RA70 E27					DIM.: 68m*178mm			SERIAL No.:		
MFR.:					SUR.:0.033m*0.033m*3.14			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	30.9	32.1	31.6	32.9	33.8	30.9	32.1	31.6	32.8	33.8
3H	33.9	35.0	34.6	35.8	36.8	33.9	35.0	34.6	35.8	36.8
4H	35.6	36.6	36.3	37.4	38.4	35.6	36.6	36.3	37.4	38.4
6H	37.4	38.4	38.2	39.2	40.2	37.4	38.4	38.2	39.2	40.2
8H	38.4	39.4	39.2	40.2	41.2	38.4	39.4	39.2	40.2	41.2
12H	39.6	40.5	40.4	41.4	42.4	39.6	40.5	40.4	41.4	42.4
4H 2H	31.8	32.9	32.6	33.7	34.7	31.8	32.9	32.6	33.7	34.7
3H	35.0	35.9	35.8	36.7	37.8	35.0	35.9	35.8	36.7	37.8
4H	36.8	37.6	37.6	38.5	39.6	36.8	37.6	37.6	38.5	39.6
6H	38.8	39.6	39.6	40.4	41.5	38.8	39.6	39.6	40.4	41.5
8H	39.9	40.6	40.8	41.5	42.6	39.9	40.6	40.8	41.5	42.6
12H	41.2	41.8	42.0	42.7	43.8	41.2	41.8	42.0	42.7	43.8
8H 4H	37.5	38.2	38.3	39.1	40.2	37.5	38.2	38.3	39.1	40.2
6H	39.7	40.3	40.6	41.2	42.4	39.7	40.3	40.6	41.2	42.4
8H	41.0	41.6	41.9	42.5	43.6	41.0	41.6	41.9	42.5	43.6
12H	42.5	43.0	43.4	43.9	45.1	42.5	43.0	43.4	43.9	45.1
12H 4H	37.6	38.3	38.5	39.2	40.3	37.6	38.3	38.5	39.2	40.3
6H	40.0	40.6	40.9	41.5	42.6	40.0	40.6	40.9	41.5	42.6
8H	41.4	41.9	42.3	42.8	44.0	41.4	41.9	42.3	42.8	44.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 5776 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 6.1)
 Area: 0.003419 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

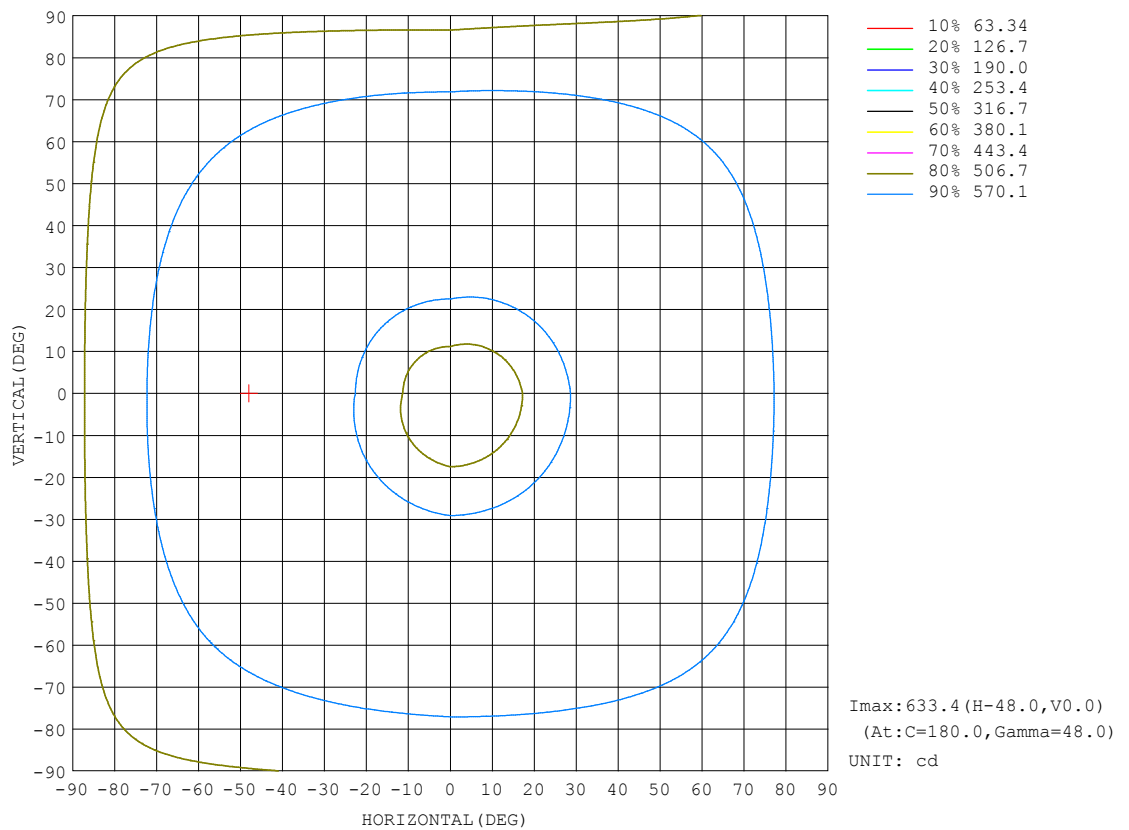
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	39	26	19	37	25	18	35	24	17	10
0.80	48	34	25	45	32	24	41	30	23	14
1.00	55	41	32	52	39	31	47	38	29	18
1.25	62	48	38	59	46	37	52	42	34	22
1.50	67	53	44	63	51	42	56	46	39	25
2.00	75	62	53	71	59	50	62	53	46	30
2.50	80	68	59	75	65	56	66	58	51	34
3.00	84	73	64	79	69	61	69	62	55	37
4.00	89	80	72	84	75	68	73	67	61	41
5.00	93	84	77	87	80	73	76	70	65	44
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: DEG
 Operators:
 Test Date: 2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 9.351m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

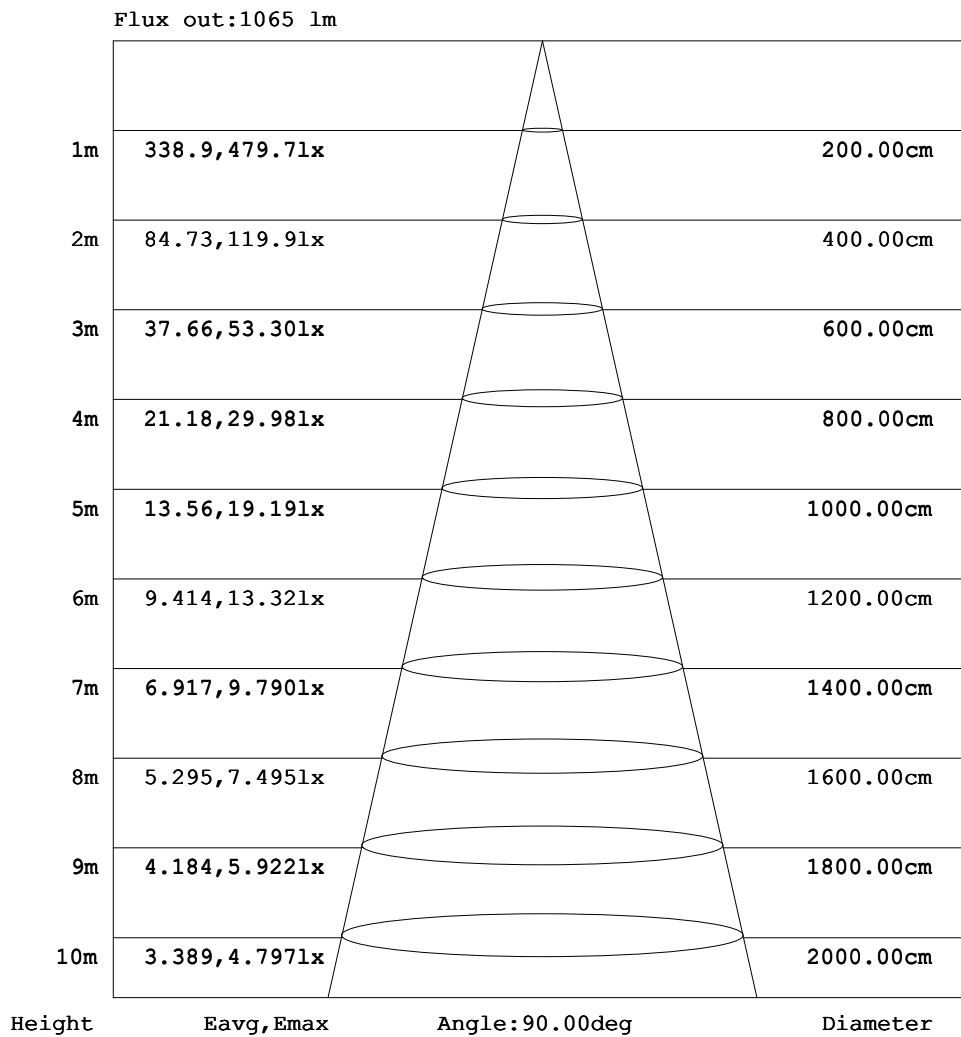


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: DEG
 Operators:
 Test Date: 2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 9.351m [K=1.0000]
 Remarks:

AAI Figure

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:



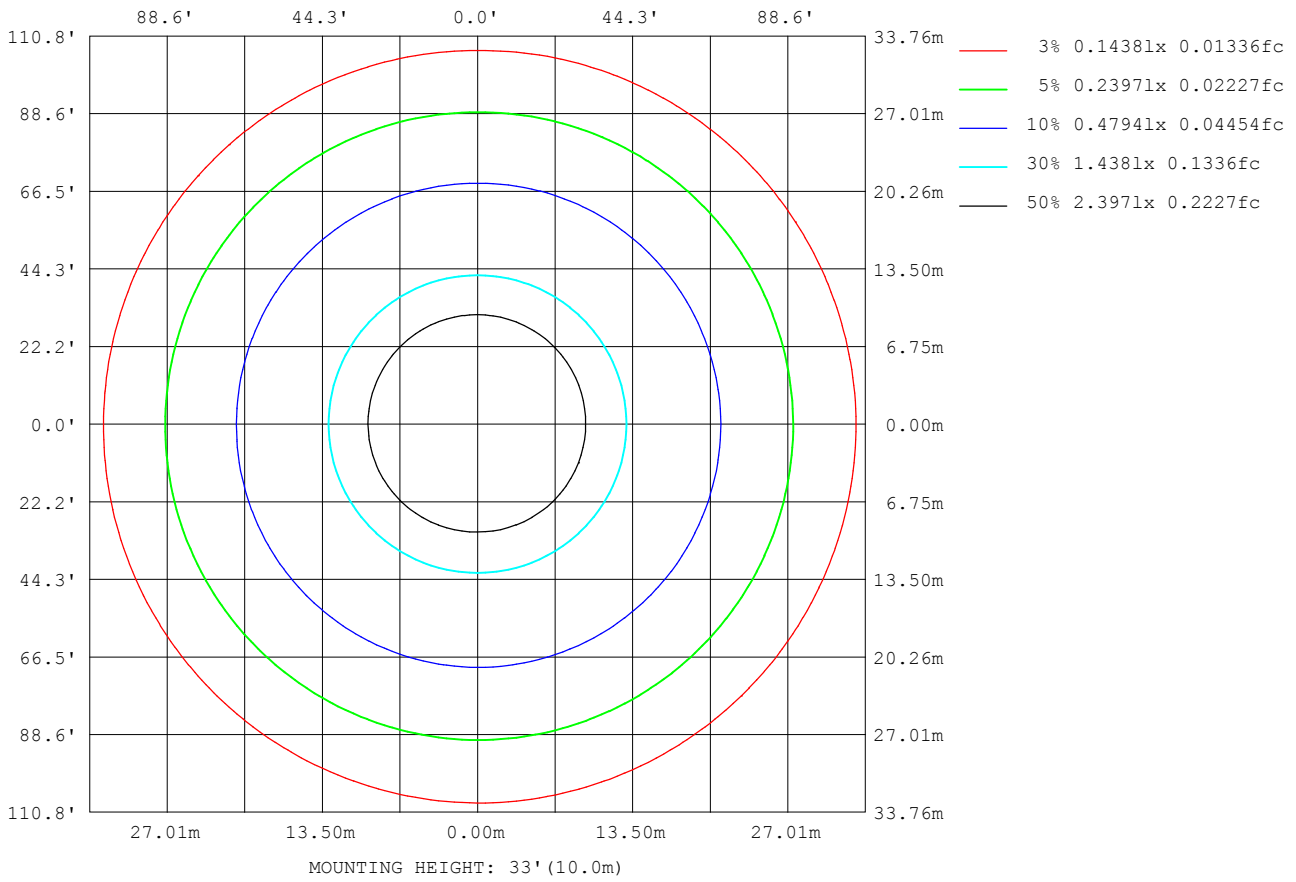
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

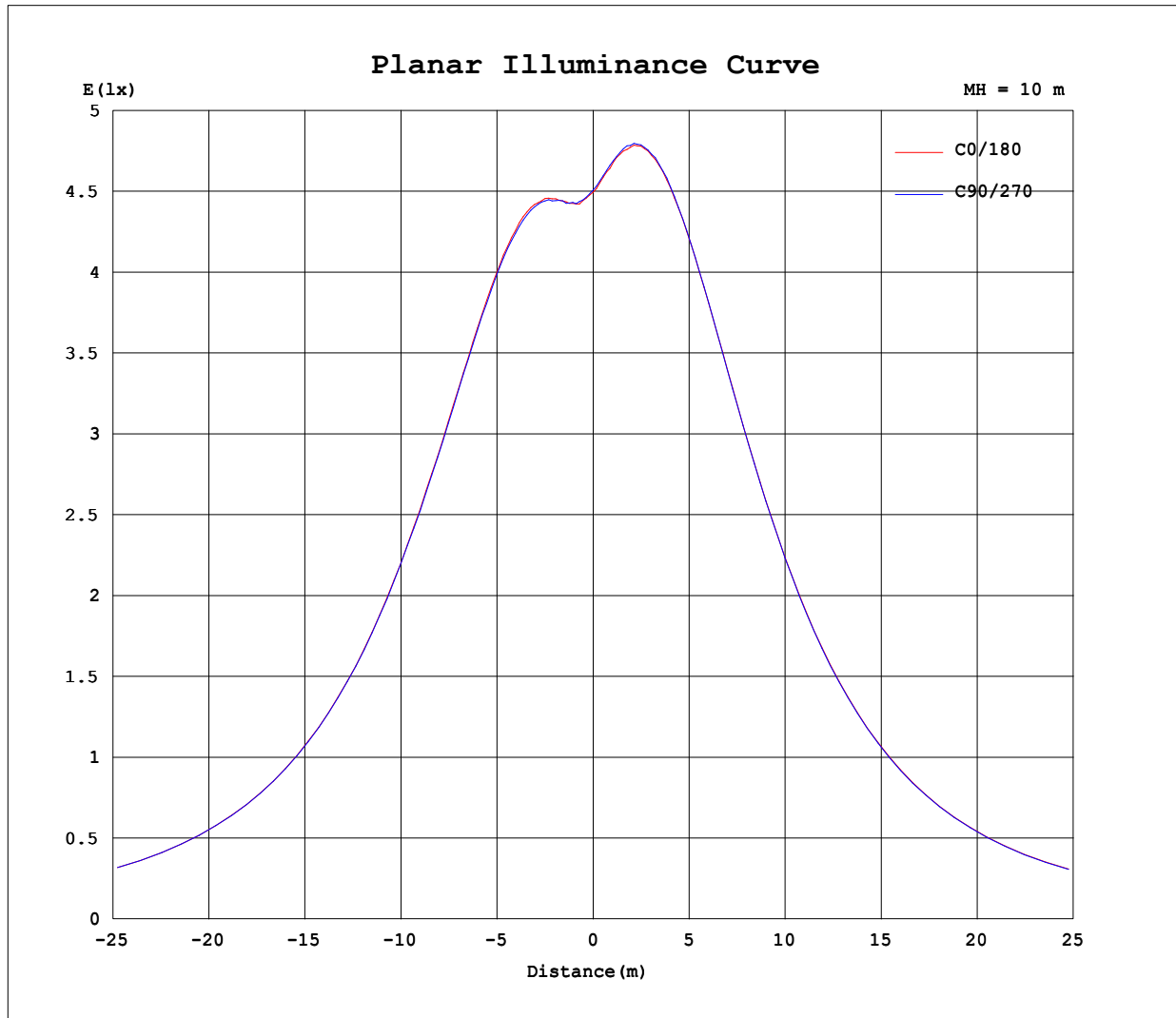
AvgL	cd/m2
L_0~180 (65) av	420426
L_0~180 (75) av	642850
L_0~180 (85) av	1762049
L_90~270 (65) av	419109
L_90~270 (75) av	641608
L_90~270 (85) av	1760161
L_45 (65) av	419306
L_45 (75) av	641326
L_45 (85) av	1758807

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: DEG
 Operators:
 Test Date: 2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 9.351m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.05V I:0.1849A P:37.434W PF:0.9203 Freq:59.98Hz Lamp Flux:5776.46x1 lm		
NAME: CFB-40W	TYPE:Frosted pc	WEIGHT:0.428kg
SPEC.:3000K RA70 E27	DIM.: 68m*178mm	SERIAL No.:
MFR.:	SUR.:0.033m*0.033m*3.14	Shielding Angle:

Table--1

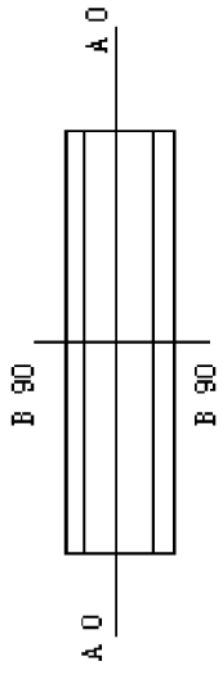
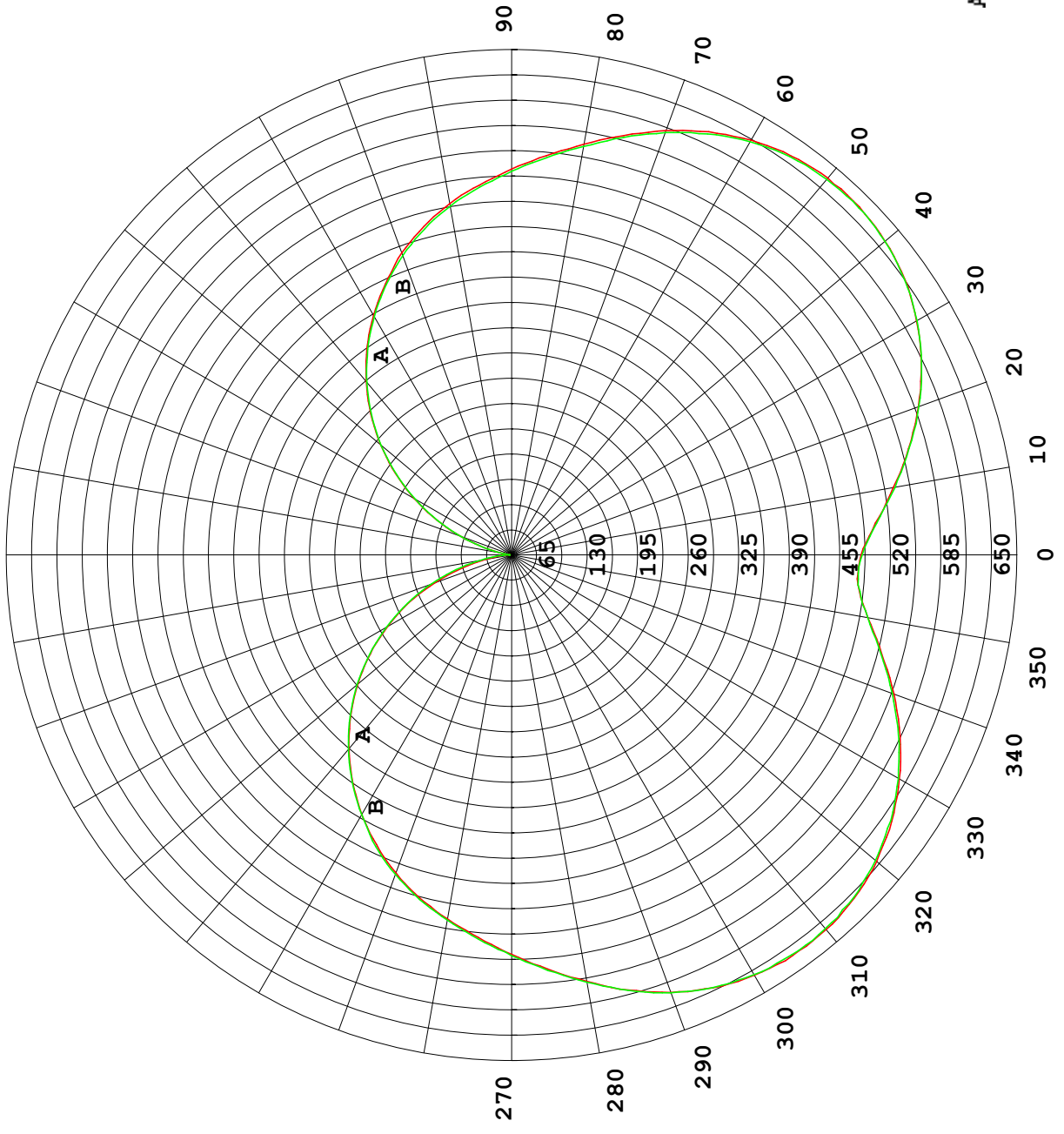
UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270														
0	450	451	450	451														
5	447	447	470	471														
10	465	465	498	501														
15	493	492	529	529														
20	523	521	557	557														
25	552	549	581	582														
30	576	574	602	602														
35	597	596	618	617														
40	613	611	627	627														
45	624	623	633	631														
50	629	627	633	631														
55	629	628	626	625														
60	624	623	616	613														
65	614	614	601	597														
70	599	599	580	578														
75	579	580	558	556														
80	557	558	536	533														
85	535	536	515	513														
90	514	516	496	493														
95	494	496	477	475														
100	476	477	459	456														
105	457	459	437	434														
110	435	437	414	410														
115	411	414	385	383														
120	386	386	356	354														
125	357	358	325	323														
130	325	327	291	290														
135	293	294	256	255														
140	258	259	220	219														
145	222	223	182	181														
150	184	186	145	143														
155	146	148	106	106														
160	105	110	69.7	69.4														
165	65.9	74.2	36.9	37.1														
170	33.9	41.4	12.7	13.5														
175	12.3	15.9	3.52	3.60														
180	3.54	3.49	3.56	3.48														

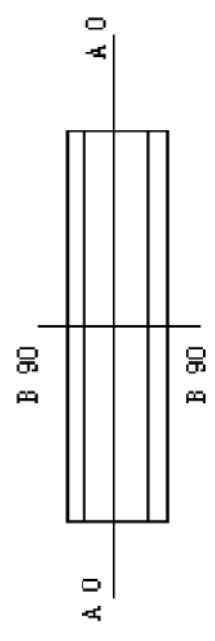
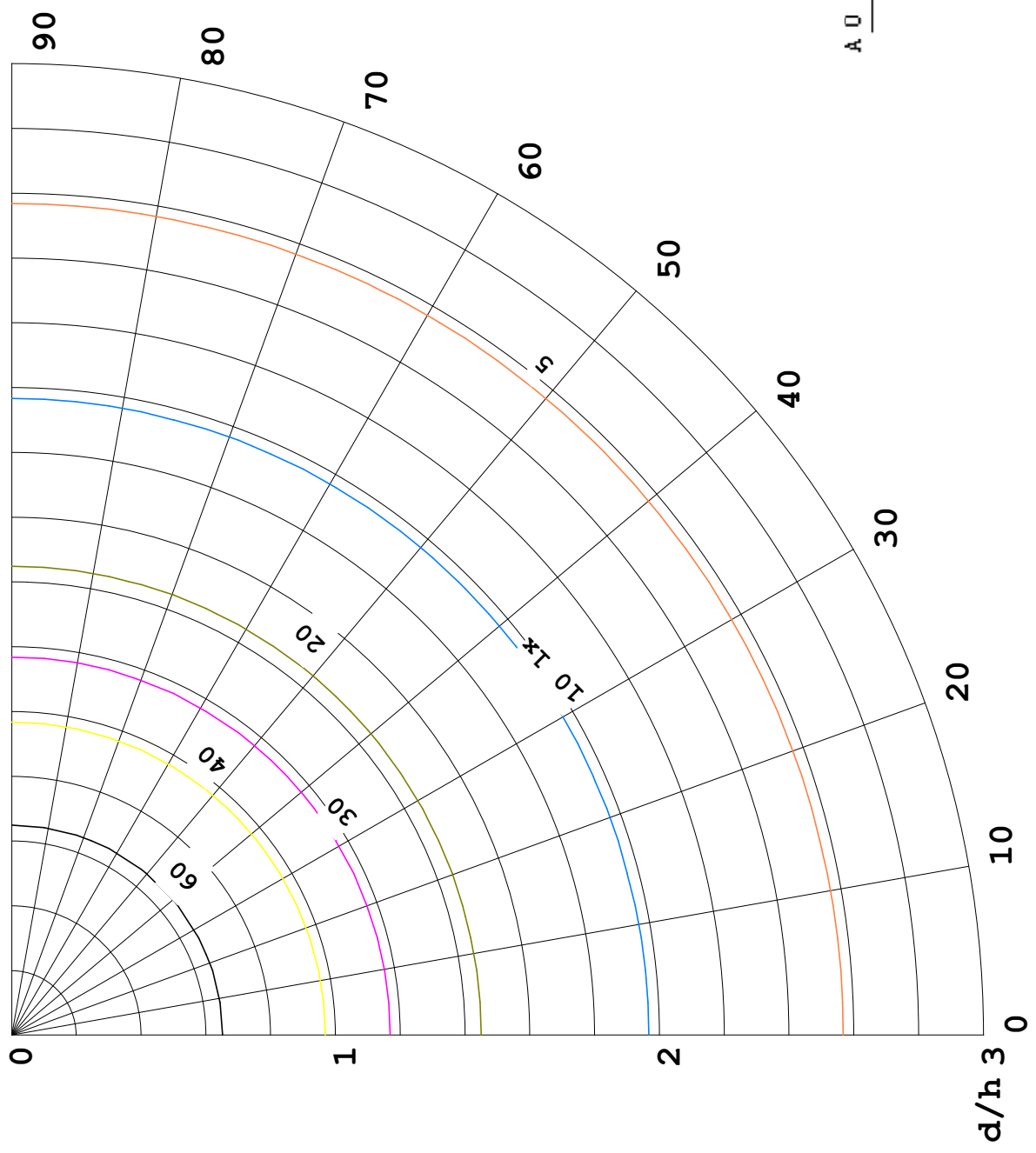
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:
 Test Date:2020-3-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:9.351m [K=1.0000]
 Remarks:

I (cd)



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

