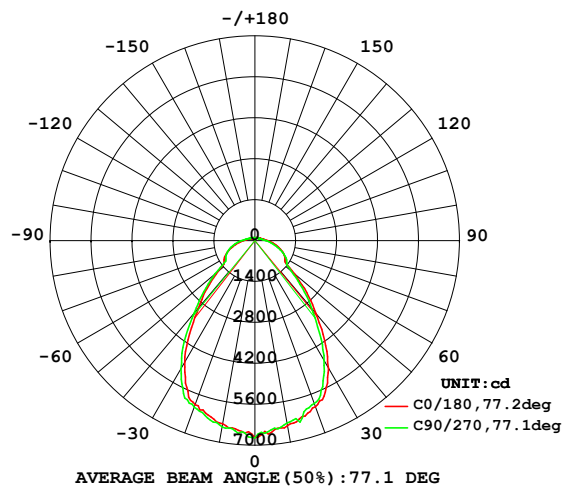


## LUMINAIRE PHOTOMETRIC TEST REPORT

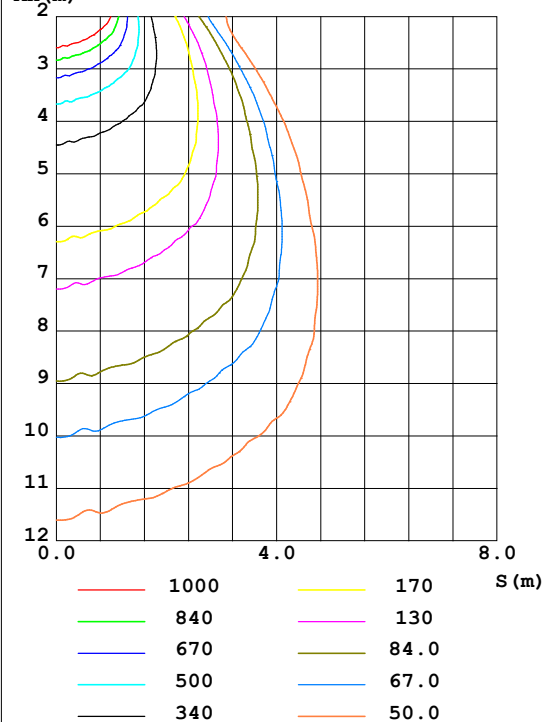
Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.04 lm/W			
MODEL	SMD3030 (757G P20D41)	I <sub>max</sub> (cd)	6743	S/MH(C0/180)	1.09
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.12
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	14191	η UP,DN(C0-180)	4.2,45.5
NOMINAL FLUX(lm)	14191.1	CIE CLASS	DIRECT	η UP,DN(C180-360)	4.4,45.9
LAMPS INSIDE	1	η up(%)	8.6	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	277	η down(%)	91.4	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



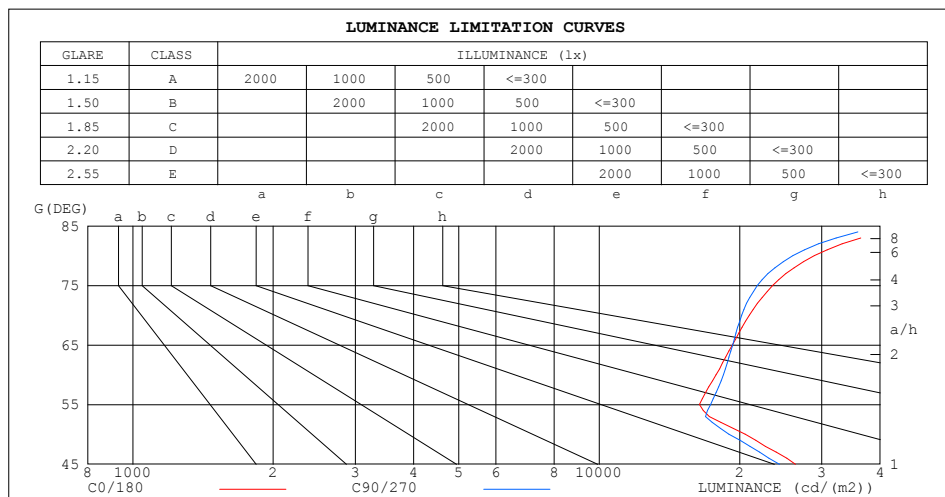
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators: guanlingao  
 Test Date: 2017-12-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0000]  
 Remarks: 0-180°

## ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	6429	6374	6340	6343	6362	6389	6466	6442	0- 10	619.3	619.3	4.36, 4.36
20	6048	5981	5925	5939	5977	6009	6074	6039	10- 20	1753	2372	16.7, 16.7
30	5049	4872	4728	4764	4792	4908	5069	5053	20- 30	2559	4932	34.8, 34.8
40	3264	3098	3019	3009	3006	3155	3249	3227	30- 40	2503	7435	52.4, 52.4
50	1776	1714	1639	1664	1644	1672	1785	1752	40- 50	1845	9279	65.4, 65.4
60	1198	1229	1242	1246	1211	1177	1161	1157	50- 60	1202	10481	73.9, 73.9
70	965.1	953.3	929.9	932.8	934.0	943.7	957.9	952.3	60- 70	1073	11554	81.4, 81.4
80	675.4	642.7	607.7	610.2	628.2	659.7	691.4	684.1	70- 80	840.8	12395	87.3, 87.3
90	437.8	410.1	384.0	385.8	401.2	429.8	458.0	451.8	80- 90	574.5	12970	91.4, 91.4
100	298.8	278.1	261.4	262.1	272.6	294.5	312.4	310.0	90-100	378.9	13349	94.1, 94.1
110	216.6	203.1	192.0	193.3	199.5	214.1	225.2	223.9	100-110	258.1	13607	95.9, 95.9
120	169.5	161.5	154.6	155.4	158.6	166.9	174.6	173.2	110-120	183.0	13790	97.2, 97.2
130	143.7	138.7	134.3	134.7	135.9	141.0	145.9	144.8	120-130	135.7	13925	98.1, 98.1
140	128.7	125.2	122.4	122.5	122.6	126.0	128.8	128.5	130-140	102.6	14028	98.9, 98.9
150	118.1	115.6	113.4	113.5	113.0	115.3	116.9	116.6	140-150	75.68	14104	99.4, 99.4
160	106.8	104.9	103.1	103.6	102.4	103.6	105.5	105.1	150-160	51.15	14155	99.7, 99.7
170	91.69	89.69	88.55	89.50	87.99	88.97	91.00	90.92	160-170	27.79	14183	99.9, 99.9
180	93.44	93.07	93.10	93.10	93.53	93.05	93.12	93.09	170-180	8.579	14191	100, 100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 207.6 %								UNIT:lm			



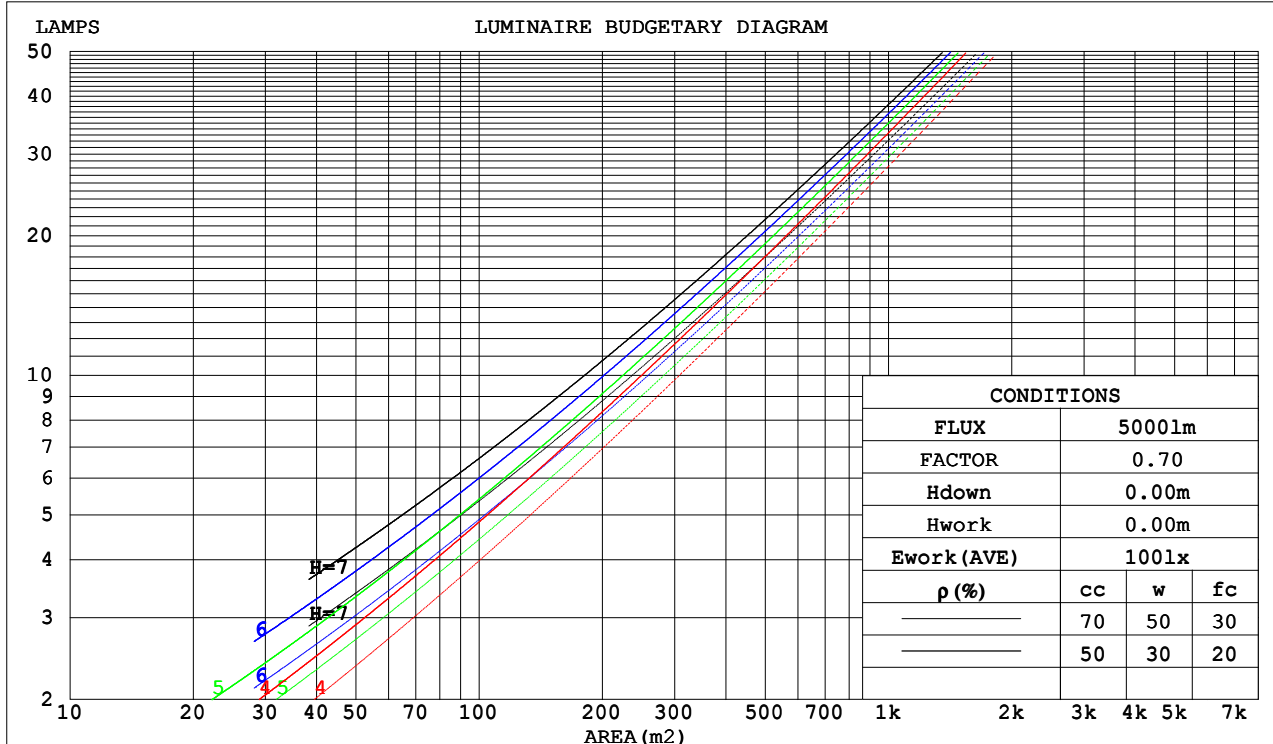
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators: guanlingao  
 Test Date: 2017-12-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0000]  
 Remarks: 0-180°

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION 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						Coefficients of Utilization(CU)									
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	.00	.00	.00	.94	.94	.94	.91
1.0	1.02	.98	.94	.99	.95	.92	.93	.90	.87	.88	.85	.83	.83	.81	.79	.76
2.0	.90	.84	.78	.88	.82	.77	.83	.78	.74	.78	.74	.71	.74	.71	.68	.66
3.0	.81	.73	.67	.78	.71	.66	.74	.68	.64	.70	.66	.61	.67	.63	.59	.57
4.0	.73	.64	.58	.71	.63	.57	.67	.61	.56	.64	.58	.54	.61	.56	.52	.50
5.0	.66	.57	.51	.64	.56	.51	.61	.54	.49	.58	.53	.48	.56	.51	.47	.45
6.0	.60	.52	.46	.59	.51	.45	.56	.49	.44	.54	.48	.43	.51	.46	.42	.40
7.0	.55	.47	.41	.54	.46	.41	.52	.45	.40	.49	.43	.39	.47	.42	.38	.36
8.0	.51	.43	.37	.50	.42	.37	.48	.41	.36	.46	.40	.36	.44	.39	.35	.33
9.0	.47	.39	.34	.46	.39	.34	.44	.38	.33	.43	.37	.33	.41	.36	.32	.30
10.0	.44	.36	.31	.43	.36	.31	.41	.35	.30	.40	.34	.30	.38	.33	.29	.28



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators: guanlingao  
 Test Date: 2017-12-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0000]  
 Remarks: 0-180°

### WEC AND CCEC

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm								
NAME: LM-100W			TYPE:Glass+80°PC cover			WEIGHT:4.888kg		
SPEC.:5000k R80 264L			DIM.: D414mm*385mm			SERIAL No.:		
MFR.:			SUR.:0.207m*0.207m*3.14			PROTECTION 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	.304	.173	.055	.295	.168	.053	.277	.159	.051	.260	.150	.048	.245	.142	.046	
2.0	.273	.150	.046	.265	.146	.045	.249	.138	.043	.234	.131	.041	.220	.125	.039	
3.0	.249	.132	.040	.241	.129	.039	.227	.123	.037	.214	.117	.036	.201	.111	.034	
4.0	.228	.119	.035	.221	.116	.034	.209	.111	.033	.197	.106	.032	.186	.101	.031	
5.0	.211	.107	.031	.205	.105	.031	.193	.101	.030	.182	.096	.029	.172	.092	.028	
6.0	.196	.098	.028	.190	.096	.028	.180	.092	.027	.170	.088	.026	.161	.085	.025	
7.0	.183	.090	.026	.178	.088	.025	.168	.085	.024	.159	.082	.024	.151	.078	.023	
8.0	.171	.084	.023	.167	.082	.023	.158	.079	.023	.150	.076	.022	.142	.073	.021	
9.0	.161	.078	.022	.157	.076	.021	.149	.074	.021	.141	.071	.020	.134	.068	.020	
10.0	.152	.073	.020	.148	.071	.020	.141	.069	.019	.134	.067	.019	.128	.064	.018	

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	.256	.256	.256	.219	.219	.219	.149	.149	.149	.086	.086	.086	.027	.027	.027	
1.0	.246	.222	.201	.211	.191	.173	.144	.131	.120	.083	.076	.070	.027	.024	.022	
2.0	.236	.199	.167	.202	.171	.144	.139	.118	.101	.080	.069	.059	.026	.022	.019	
3.0	.227	.181	.144	.195	.156	.125	.134	.109	.088	.077	.063	.052	.025	.021	.017	
4.0	.219	.168	.129	.188	.145	.112	.129	.101	.079	.075	.059	.047	.024	.019	.015	
5.0	.211	.157	.118	.181	.136	.102	.125	.095	.072	.072	.056	.043	.023	.018	.014	
6.0	.204	.149	.109	.175	.129	.095	.121	.090	.067	.070	.053	.040	.023	.017	.013	
7.0	.197	.142	.103	.170	.123	.090	.117	.086	.064	.068	.051	.038	.022	.017	.013	
8.0	.191	.136	.099	.164	.118	.086	.114	.083	.061	.066	.049	.036	.021	.016	.012	
9.0	.185	.131	.095	.159	.114	.083	.110	.080	.059	.064	.047	.035	.021	.016	.012	
10.0	.180	.127	.092	.155	.110	.080	.107	.078	.057	.063	.046	.034	.020	.015	.011	

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: DEG  
Operators: guanlingao  
Test Date: 2017-12-29

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks: 0-180°

UGR(Unified Glare Rating) Table

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm										
NAME: LM-100W					TYPE:Glass+80°PC cover			WEIGHT:4.888kg		
SPEC.:5000k R80 264L					DIM.: D414mm*385mm			SERIAL No.:		
MFR.:					SUR.:0.207m*0.207m*3.14			PROTECTION 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	21.5	22.8	21.9	23.1	23.5	21.5	22.8	21.9	23.1	23.5
3H	23.3	24.5	23.7	24.9	25.3	23.2	24.4	23.6	24.8	25.2
4H	24.3	25.4	24.7	25.8	26.2	24.1	25.3	24.6	25.7	26.1
6H	25.3	26.4	25.8	26.8	27.3	25.1	26.1	25.5	26.5	27.0
8H	25.9	26.9	26.4	27.4	27.8	25.6	26.6	26.0	27.0	27.5
12H	26.6	27.5	27.0	28.0	28.4	26.1	27.1	26.6	27.5	28.0
4H 2H	22.1	23.2	22.5	23.6	24.0	22.1	23.2	22.5	23.6	24.0
3H	24.2	25.1	24.6	25.6	26.0	24.1	25.1	24.6	25.5	26.0
4H	25.3	26.2	25.8	26.7	27.2	25.2	26.1	25.7	26.5	27.0
6H	26.6	27.4	27.1	27.9	28.4	26.3	27.1	26.8	27.6	28.1
8H	27.2	28.0	27.8	28.5	29.1	26.9	27.6	27.4	28.1	28.7
12H	28.0	28.7	28.5	29.2	29.8	27.6	28.3	28.1	28.8	29.4
8H 4H	25.8	26.5	26.3	27.0	27.6	25.6	26.4	26.2	26.9	27.4
6H	27.2	27.9	27.8	28.4	29.0	27.0	27.6	27.6	28.2	28.8
8H	28.1	28.6	28.7	29.2	29.8	27.8	28.3	28.4	28.9	29.5
12H	29.1	29.6	29.7	30.1	30.8	28.7	29.2	29.3	29.7	30.4
12H 4H	25.8	26.5	26.4	27.0	27.6	25.7	26.4	26.3	26.9	27.5
6H	27.4	28.0	28.0	28.5	29.2	27.2	27.8	27.8	28.3	29.0
8H	28.4	28.8	29.0	29.4	30.1	28.1	28.6	28.7	29.1	29.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
2.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				

CIE Pub.117 Corrected 14191 lm Total Lamp Luminous Flux. (8log(F/F0) = 9.2)

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: DEG  
Operators: guanlingao  
Test Date: 2017-12-29

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks: 0-180°

## UTILIZATION FACTORS TABLE

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION ANGLE:

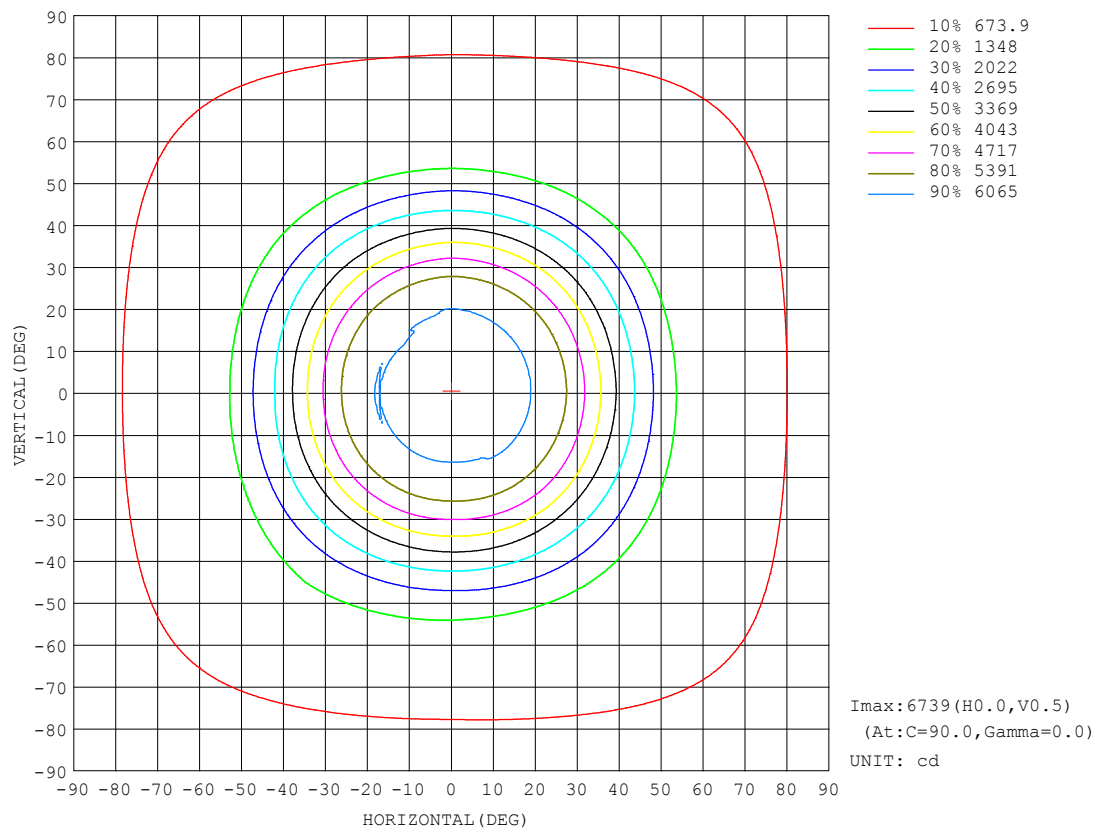
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	62	52	46	61	52	46	60	51	45	40
0.80	71	61	54	70	60	54	68	59	53	47
1.00	78	68	61	77	67	61	74	68	60	53
1.25	84	74	68	82	73	67	79	72	66	59
1.50	88	79	73	86	78	72	83	76	70	62
2.00	94	86	80	92	84	79	88	81	76	68
2.50	98	90	84	95	88	83	90	85	80	70
3.00	101	94	88	98	92	87	93	88	84	73
4.00	104	98	94	101	96	92	96	92	88	77
5.00	107	101	97	103	99	95	98	94	91	79
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators: guanlingao  
 Test Date: 2017-12-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0000]  
 Remarks: 0-180°

## ISOCANDELA DIAGRAM

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION ANGLE:

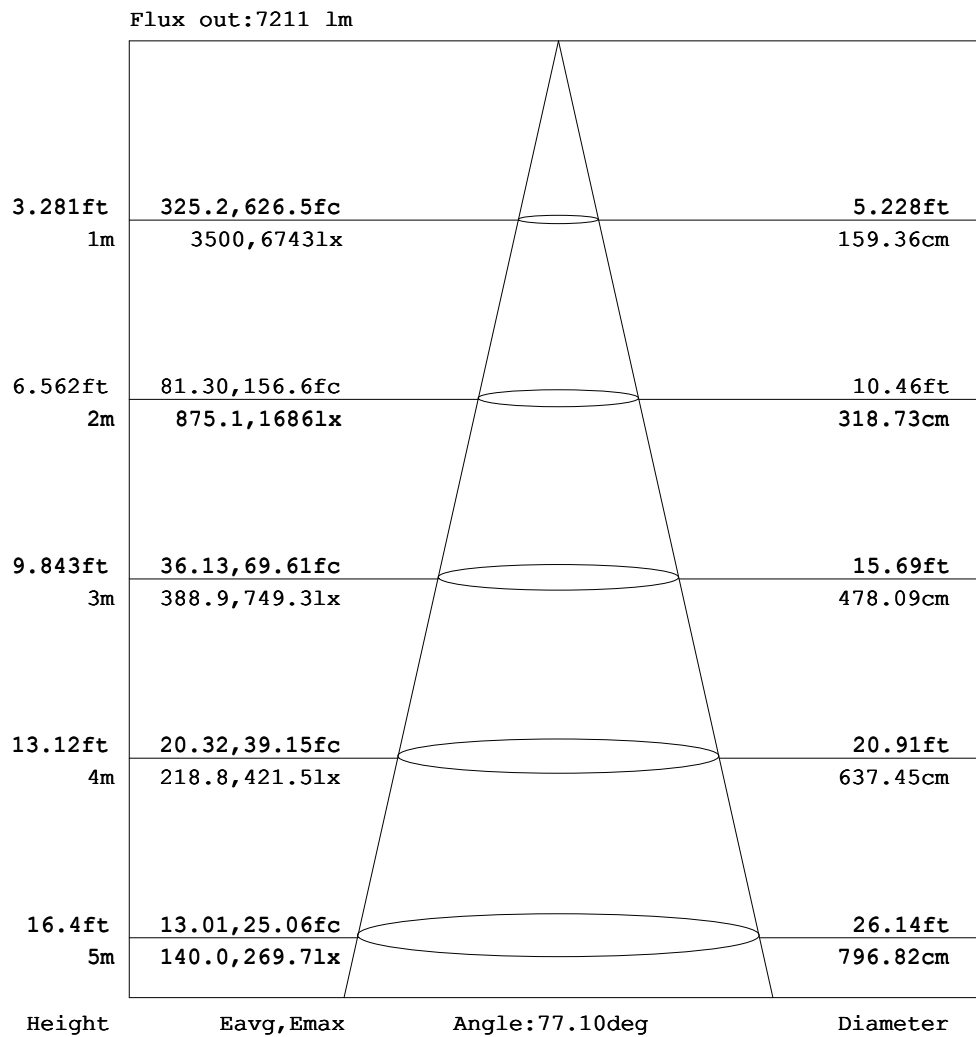


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: DEG  
Operators: guanlingao  
Test Date: 2017-12-29

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks: 0-180°

### AAI Figure

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION ANGLE:



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

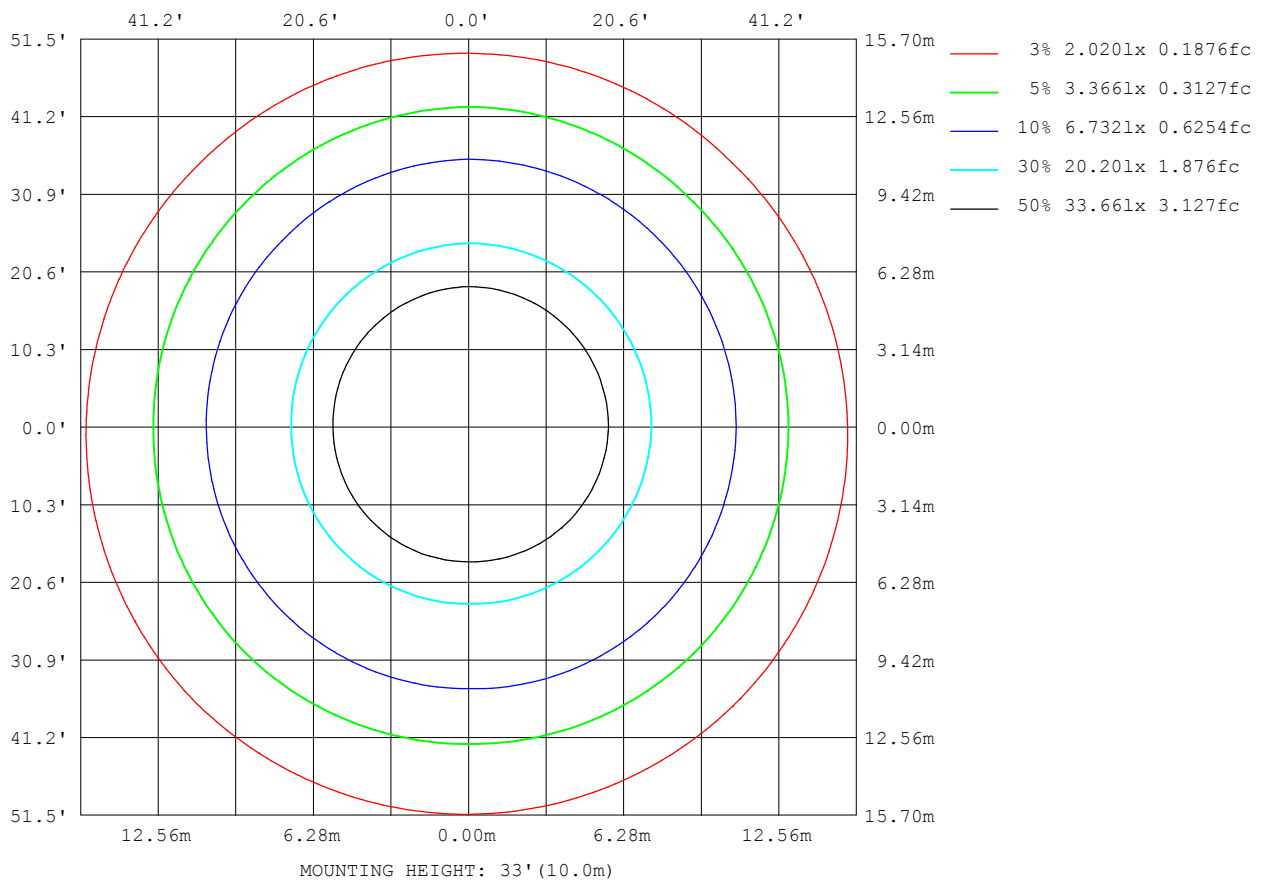
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: DEG  
Operators: guanlingao  
Test Date: 2017-12-29

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks: 0-180°



# ISOLUX DIAGRAM

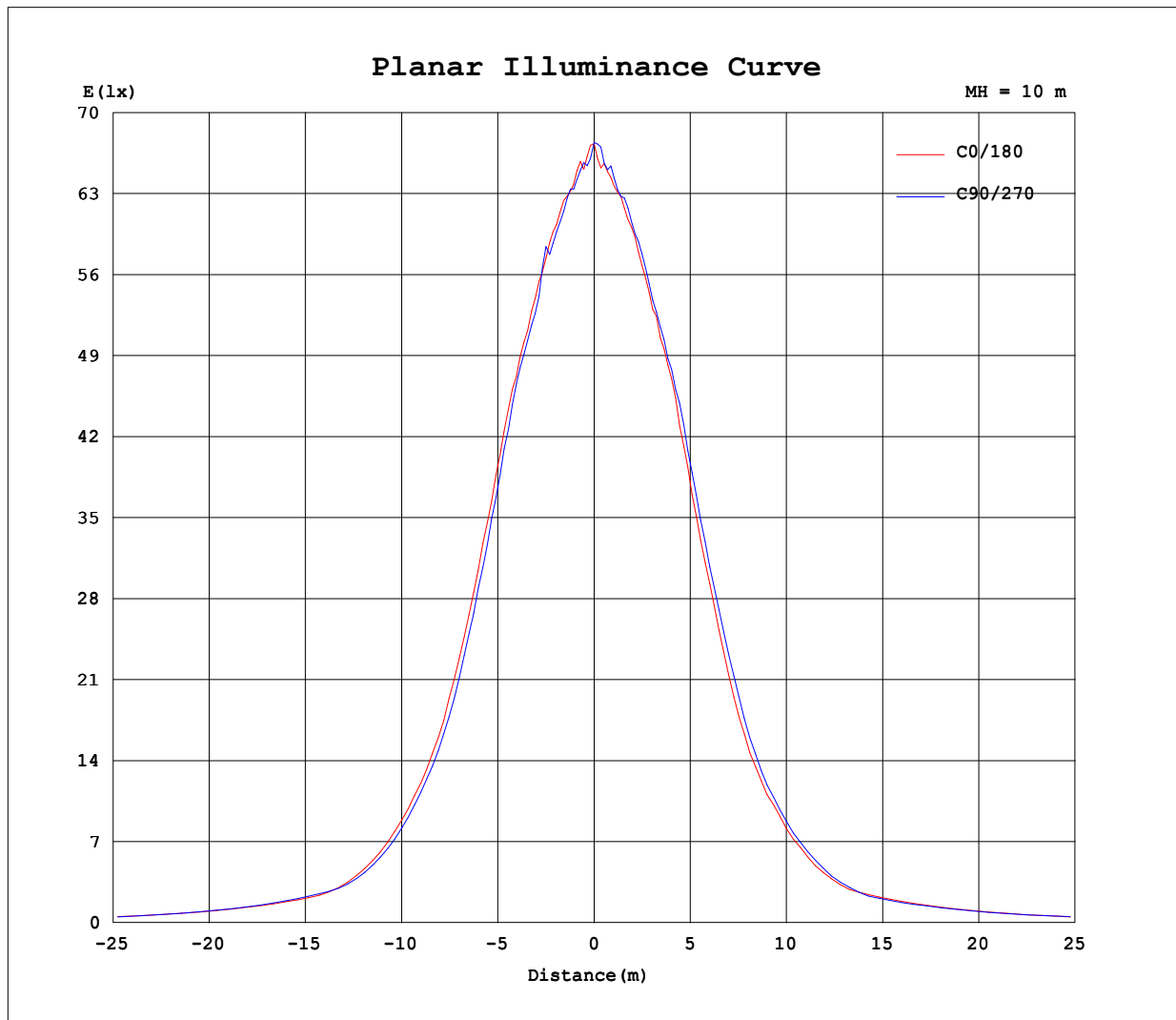
Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: DEG  
Operators: guanlingao  
Test Date: 2017-12-29

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks: 0-180°

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: DEG  
Operators: guanlingao  
Test Date: 2017-12-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks: 0-180°

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.2V I:0.3757A P:101.3W PF:0.9732 Lamp Flux:14191.1x1 lm		
NAME: LM-100W	TYPE:Glass+80°PC cover	WEIGHT:4.888kg
SPEC.:5000k R80 264L	DIM.: D414mm*385mm	SERIAL No.:
MFR.:	SUR.:0.207m*0.207m*3.14	PROTECTION ANGLE:

Table--1

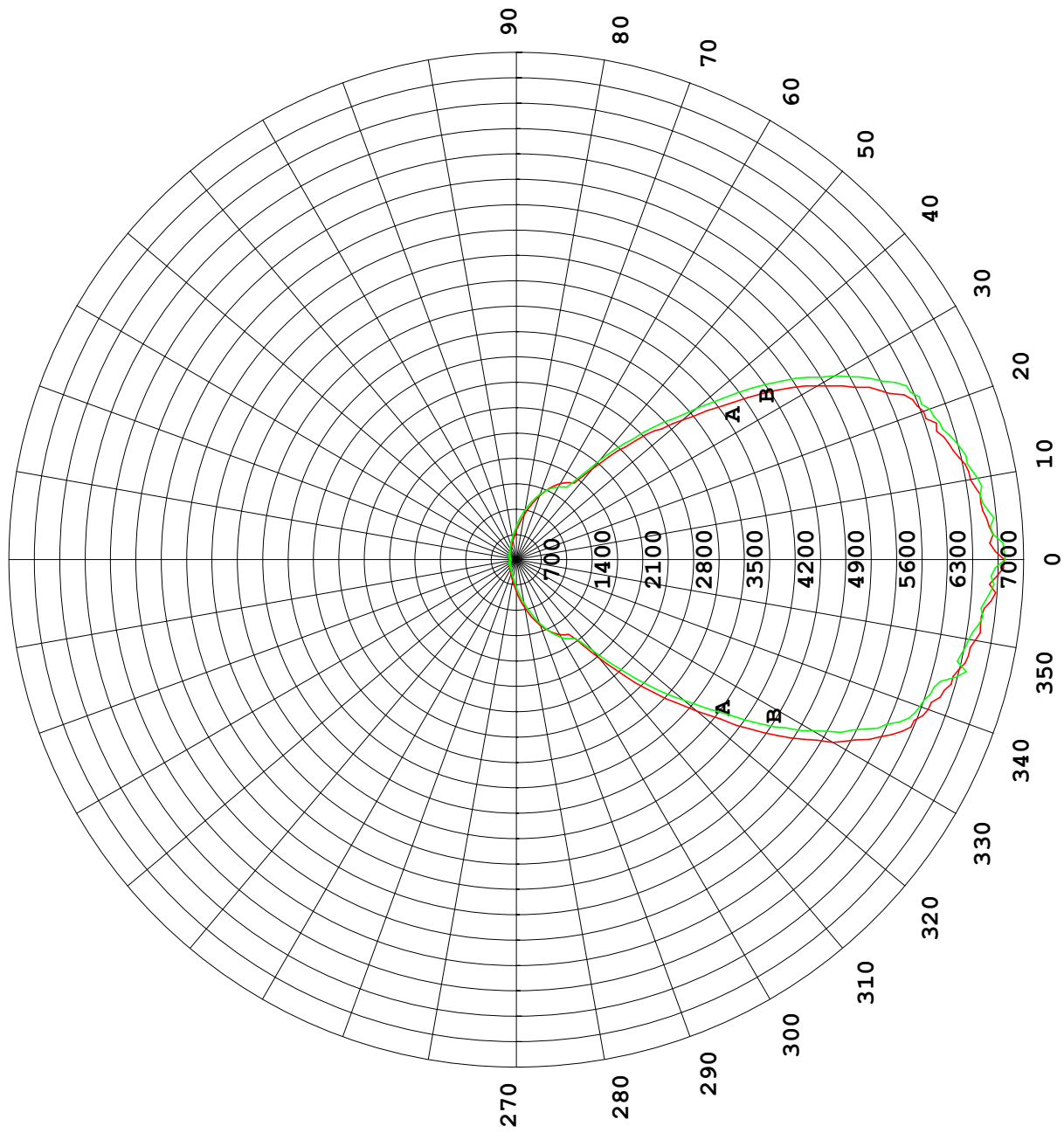
UNIT: cd

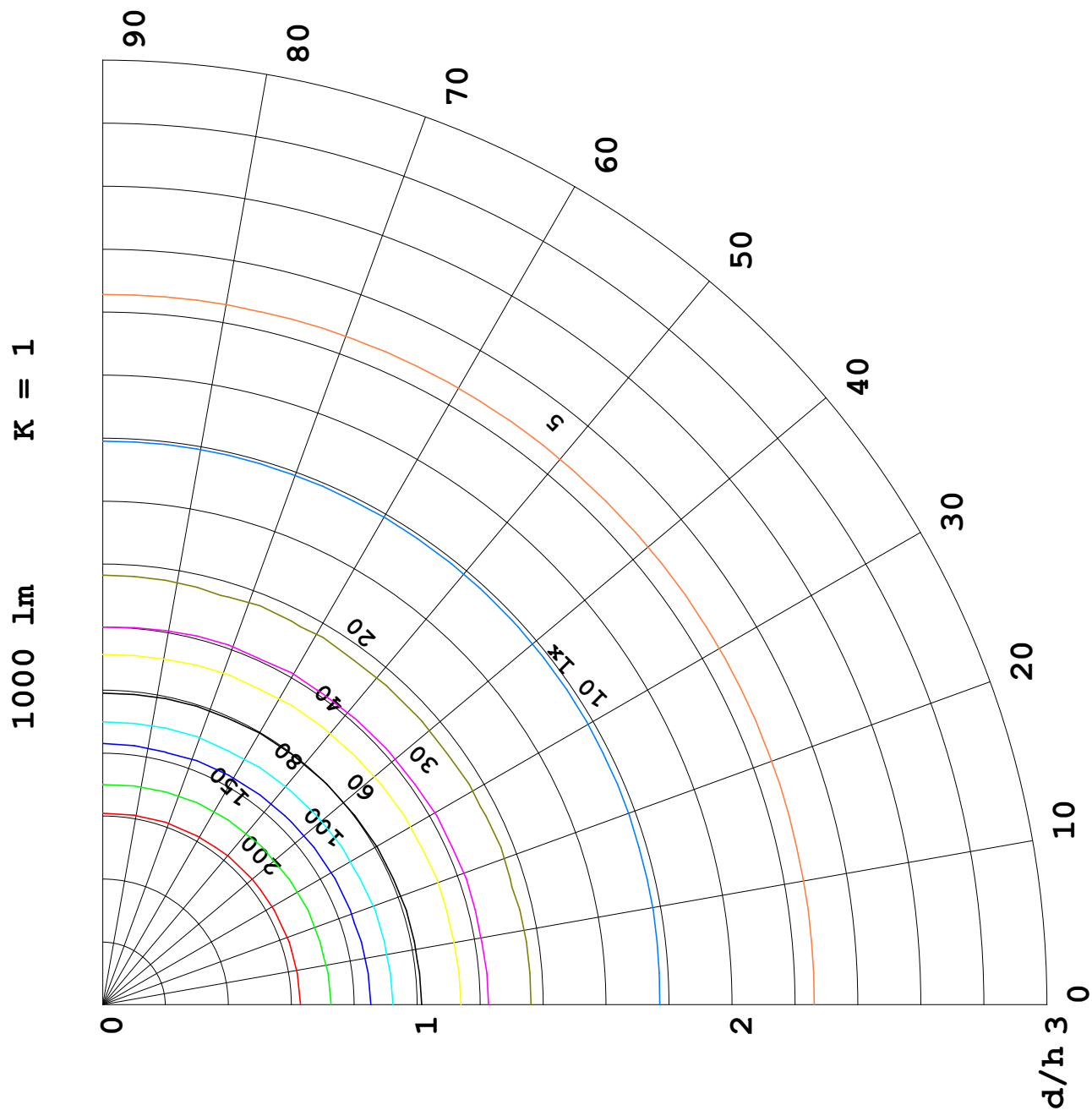
C (DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	6732	6723	6743	6733	6732	6723	6743	6733										
5	6577	6509	6499	6505	6514	6520	6616	6580										
10	6429	6374	6340	6343	6362	6389	6466	6442										
15	6239	6215	6274	6153	6179	6128	6274	6264										
20	6048	5981	5925	5939	5977	6009	6074	6039										
25	5714	5581	5506	5495	5529	5617	5779	5749										
30	5049	4872	4728	4764	4792	4908	5069	5053										
35	4167	4034	3861	3878	3898	4048	4220	4217										
40	3264	3098	3019	3009	3006	3155	3249	3227										
45	2507	2398	2315	2315	2310	2372	2489	2490										
50	1776	1714	1639	1664	1644	1672	1785	1752										
55	1265	1307	1337	1342	1295	1243	1223	1220										
60	1198	1229	1242	1246	1211	1177	1161	1157										
65	1096	1105	1098	1102	1086	1074	1073	1068										
70	965	953	930	933	934	944	958	952										
75	819	793	760	763	776	800	827	820										
80	675	643	608	610	628	660	691	684										
85	546	513	481	483	501	534	566	559										
90	438	410	384	386	401	430	458	452										
95	360	335	314	315	328	354	376	373										
100	299	278	261	262	273	294	312	310										
105	252	235	222	223	231	249	263	261										
110	217	203	192	193	200	214	225	224										
115	189	179	170	171	176	187	196	195										
120	169	162	155	155	159	167	175	173										
125	155	148	143	144	146	152	158	157										
130	144	139	134	135	136	141	146	145										
135	135	131	128	128	129	133	136	136										
140	129	125	122	122	123	126	129	129										
145	123	120	118	118	118	120	122	122										
150	118	116	113	113	113	115	117	117										
155	113	111	109	109	108	110	112	111										
160	107	105	103	104	102	104	105	105										
165	99.7	97.7	96.1	96.9	95.4	96.5	98.5	98.2										
170	91.7	89.7	88.5	89.5	88.0	89.0	91.0	90.9										
175	91.3	90.5	90.4	90.9	90.5	90.4	91.2	91.1										
180	93.4	93.1	93.1	93.1	93.5	93.0	93.1	93.1										

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: DEG  
 Operators: guanlingao  
 Test Date: 2017-12-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0000]  
 Remarks: 0-180°

I (cd)





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

