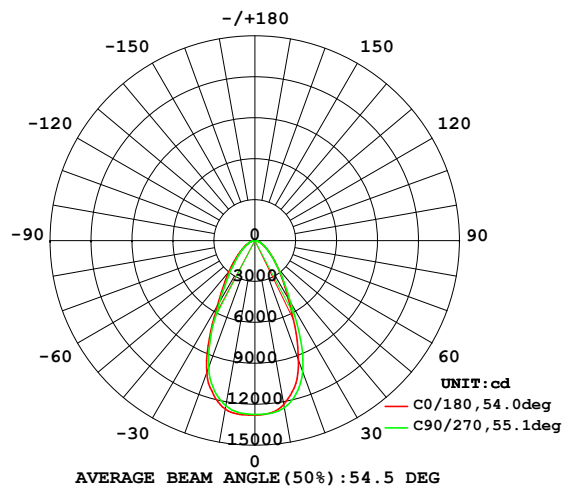


LUMINAIRE PHOTOMETRIC TEST REPORT

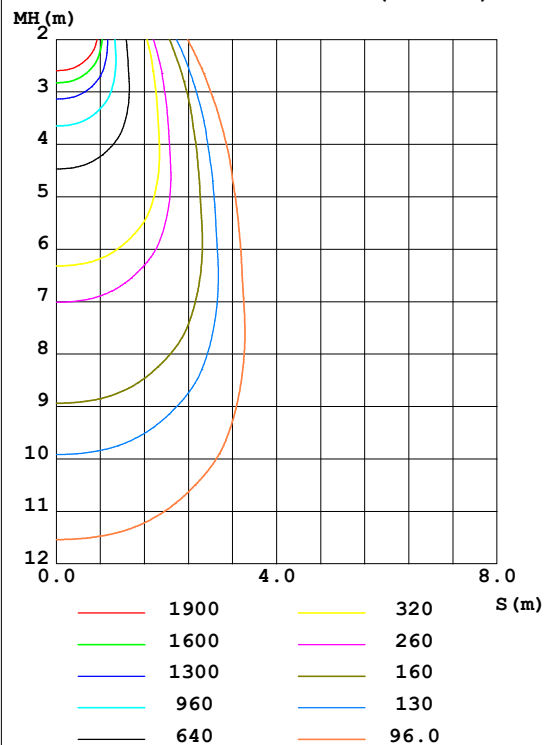
Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE:60°Lens	WEIGHT:3.849kg
SPEC.:5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.:0.12m*0.12m*3.14	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.01 lm/W			
MODEL	SMD3030 (757G P20D41)	I _{max} (cd)	12786	S/MH(C0/180)	0.86
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	0.84
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	13702	η UP,DN(C0-180)	0.2,49.7
NOMINAL FLUX(lm)	13702.4	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.2,49.8
LAMPS INSIDE	1	η up(%)	0.4	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	277	η down(%)	99.6	CIBSE SHR MAX	0.85

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



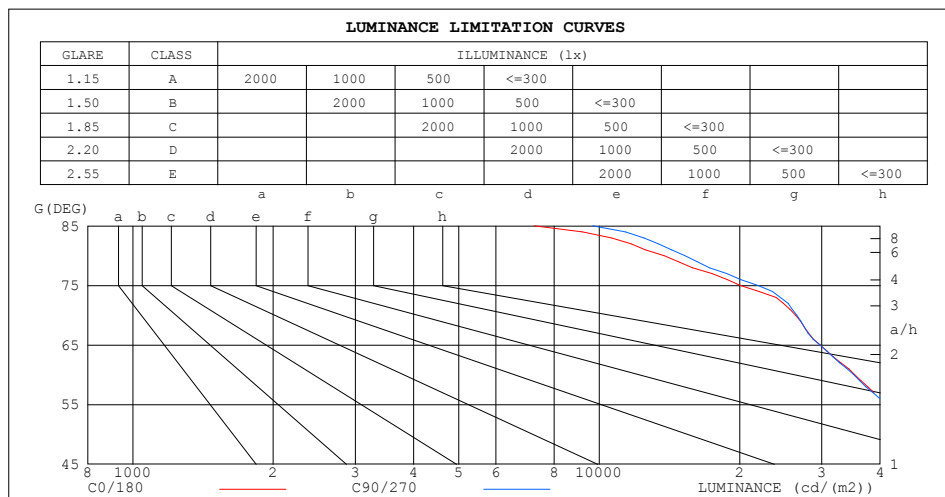
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:DEG
 Operators:guanlingao
 Test Date:2017-12-29

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:

ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1220	1233	1243	1250	1254	1242	1230	1213	0- 10	1202	1202	8.77,8.77
20	935.4	979.7	1025	1043	1035	1013	990.4	938.2	10- 20	3188	4390	32,32
30	491.4	500.8	525.7	563.5	550.8	533.5	517.2	487.7	20- 30	3434	7824	57.1,57.1
40	268.2	265.6	269.5	290.5	295.8	280.3	265.4	260.1	30- 40	2373	10198	74.4,74.4
50	144.5	142.6	143.4	153.3	159.1	148.0	142.1	139.6	40- 50	1564	11761	85.8,85.8
60	79.76	78.27	79.32	83.69	86.88	81.49	78.32	76.72	50- 60	983.4	12745	93,93
70	40.71	40.29	40.98	43.49	44.78	41.86	40.33	39.29	60- 70	582.0	13327	97.3,97.3
80	10.79	11.21	11.98	13.33	13.15	12.39	11.68	10.24	70- 80	271.0	13598	99.2,99.2
90	0.0991	0.0926	0.0965	0.1049	0.0879	0.0798	0.0737	0.0770	80- 90	48.10	13646	99.6,99.6
100	0.1701	0.1625	0.1584	0.1520	0.1175	0.1167	0.1194	0.1258	90-100	1.161	13647	99.6,99.6
110	0.3102	0.2943	0.2855	0.2780	0.2193	0.2197	0.2225	0.2359	100-110	2.049	13649	99.6,99.6
120	0.5533	0.5265	0.5110	0.4946	0.3883	0.3891	0.3954	0.4230	110-120	3.460	13652	99.6,99.6
130	0.9867	0.9482	0.9202	0.8816	0.6781	0.6916	0.7049	0.7580	120-130	5.549	13658	99.7,99.7
140	1.687	1.638	1.593	1.531	1.174	1.196	1.241	1.304	130-140	8.470	13666	99.7,99.7
150	2.550	2.497	2.435	2.360	1.871	1.919	1.961	2.035	140-150	11.23	13678	99.8,99.8
160	3.346	3.289	3.234	3.175	2.629	2.637	2.697	2.755	150-160	11.91	13690	99.9,99.9
170	3.920	3.888	3.849	3.820	3.335	3.357	3.393	3.425	160-170	9.258	13699	100,100
180	4.103	4.099	4.103	4.108	4.106	4.096	4.105	4.107	170-180	3.658	13702	100,100
DEG	LUMINOUS INTENSITY:×10cd MAX (Ii - Iavg)/Iavg (0-135) = 333.5 %									UNIT:lm		



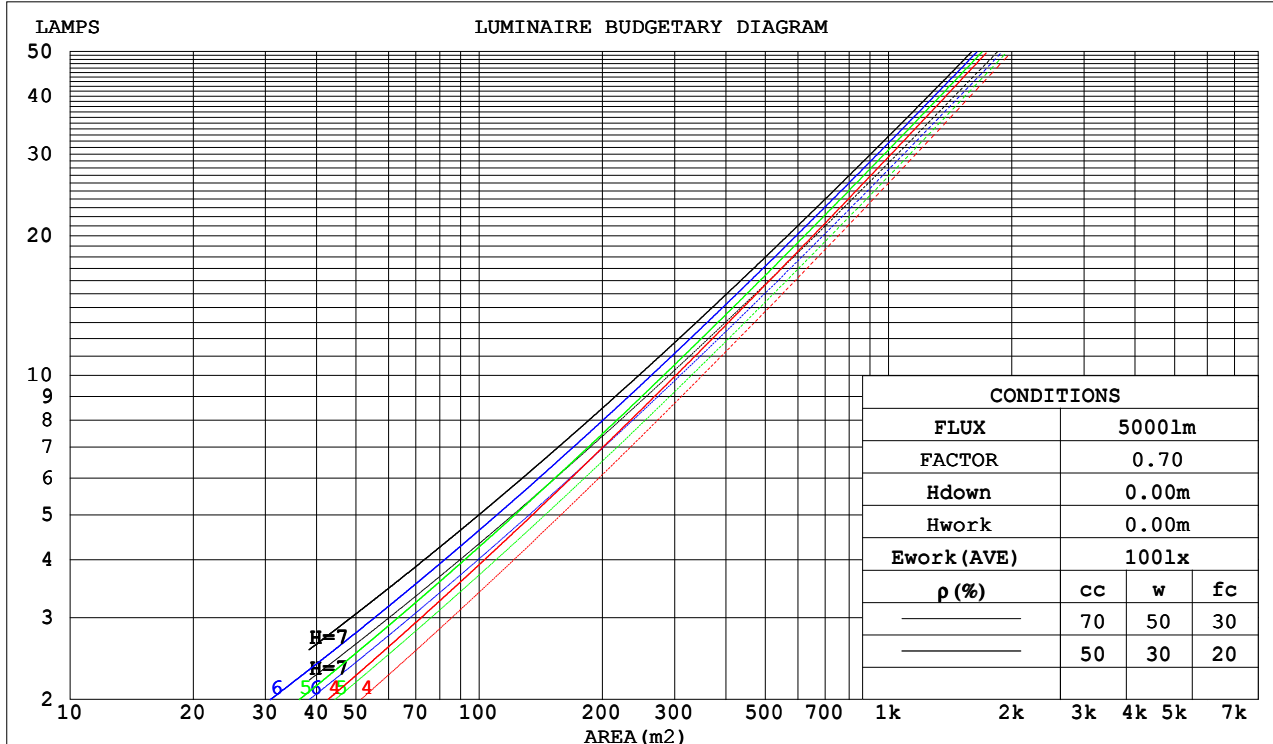
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: DEG
 Operators: guanlingao
 Test Date: 2017-12-29

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE:60° Lens	WEIGHT:3.849kg
SPEC.:5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.:0.12m*0.12m*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	1.19	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	1.09	1.06	1.03	1.06	1.04	1.01	1.02	.00	.98	.98	.97	.95	.95	.93	.92	.90
2.0	.99	.94	.90	.97	.93	.89	.94	.90	.87	.91	.88	.85	.88	.85	.83	.81
3.0	.91	.85	.80	.89	.84	.79	.86	.82	.78	.84	.80	.77	.81	.78	.75	.74
4.0	.83	.77	.72	.82	.76	.71	.80	.75	.70	.78	.73	.70	.76	.72	.69	.67
5.0	.77	.70	.65	.76	.70	.65	.74	.69	.64	.72	.67	.64	.71	.66	.63	.61
6.0	.72	.65	.60	.71	.64	.60	.69	.63	.59	.68	.62	.59	.66	.62	.58	.56
7.0	.67	.60	.55	.66	.60	.55	.65	.59	.55	.63	.58	.54	.62	.57	.54	.52
8.0	.62	.56	.51	.62	.55	.51	.61	.55	.51	.59	.54	.50	.58	.54	.50	.49
9.0	.59	.52	.48	.58	.52	.47	.57	.51	.47	.56	.51	.47	.55	.50	.47	.45
10.0	.55	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.52	.47	.44	.42



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:

WEC AND CCEC

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm														
NAME: LM-100W					TYPE: 60° Lens					WEIGHT: 3.849kg				
SPEC.: 5000k R80 264L					DIM.: D280mm*167mm					SERIAL No.:				
MFR.:					SUR.: 0.12m*0.12m*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															

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	.194	.194	.194	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.177	.160	.145	.151	.137	.125	.104	.095	.086	.060	.055	.050	.019	.018	.016	
2.0	.164	.136	.111	.141	.117	.096	.096	.081	.067	.056	.047	.039	.018	.015	.013	
3.0	.154	.117	.088	.132	.101	.076	.090	.070	.053	.052	.041	.032	.017	.013	.010	
4.0	.144	.103	.071	.124	.089	.062	.085	.062	.043	.049	.036	.026	.016	.012	.008	
5.0	.136	.092	.059	.117	.079	.051	.081	.055	.036	.047	.033	.021	.015	.011	.007	
6.0	.129	.083	.049	.111	.072	.043	.076	.050	.030	.044	.029	.018	.014	.010	.006	
7.0	.122	.075	.042	.105	.065	.037	.073	.046	.026	.042	.027	.016	.014	.009	.005	
8.0	.116	.069	.037	.100	.060	.032	.069	.042	.023	.040	.025	.014	.013	.008	.004	
9.0	.111	.064	.033	.096	.056	.028	.066	.039	.020	.039	.023	.012	.012	.008	.004	
10.0	.106	.060	.029	.091	.052	.025	.063	.037	.018	.037	.022	.011	.012	.007	.004	

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:

UGR(Unified Glare Rating) Table

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm										
NAME: LM-100W					TYPE:60°Lens			WEIGHT:3.849kg		
SPEC.:5000k R80 264L					DIM.: D280mm*167mm			SERIAL No.:		
MFR.:					SUR.:0.12m*0.12m*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	23.7	24.8	24.0	25.0	25.2	23.7	24.9	24.0	25.0	25.2
3H	24.4	25.4	24.7	25.6	25.9	24.4	25.4	24.7	25.7	25.9
4H	24.6	25.6	24.9	25.8	26.1	24.6	25.6	24.9	25.9	26.1
6H	24.7	25.6	25.0	25.9	26.1	24.7	25.7	25.1	25.9	26.2
8H	24.7	25.6	25.0	25.8	26.1	24.7	25.6	25.1	25.9	26.2
12H	24.6	25.5	25.0	25.8	26.1	24.7	25.6	25.1	25.9	26.2
4H 2H	24.0	24.9	24.3	25.2	25.4	24.0	25.0	24.3	25.2	25.4
3H	24.8	25.7	25.1	25.9	26.2	24.8	25.7	25.2	26.0	26.3
4H	25.1	25.9	25.5	26.2	26.5	25.1	25.9	25.5	26.2	26.6
6H	25.2	25.9	25.6	26.3	26.6	25.3	26.0	25.7	26.3	26.7
8H	25.2	25.9	25.6	26.2	26.6	25.3	26.0	25.7	26.3	26.7
12H	25.2	25.8	25.6	26.2	26.6	25.3	25.9	25.7	26.3	26.7
8H 4H	25.2	25.8	25.6	26.2	26.5	25.2	25.8	25.6	26.2	26.6
6H	25.3	25.9	25.8	26.3	26.7	25.4	25.9	25.8	26.3	26.8
8H	25.4	25.8	25.8	26.3	26.7	25.5	25.9	25.9	26.4	26.8
12H	25.4	25.8	25.9	26.2	26.7	25.5	25.9	26.0	26.3	26.8
12H 4H	25.1	25.7	25.5	26.1	26.5	25.2	25.7	25.6	26.1	26.5
6H	25.3	25.8	25.8	26.2	26.7	25.4	25.9	25.8	26.3	26.7
8H	25.4	25.8	25.9	26.2	26.7	25.5	25.9	25.9	26.3	26.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.6 / - 0.8					+ 0.6 / - 0.8				
1.5H	+ 0.6 / - 0.5					+ 0.7 / - 0.5				
2.0H	+ 1.2 / - 1.0					+ 1.2 / - 0.9				

CIE Pub.117 Corrected 13702 lm Total Lamp Luminous Flux. (8log(F/F0) = 9.1)

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:

UTILIZATION FACTORS TABLE

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE: 60° Lens	WEIGHT: 3.849kg
SPEC.: 5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.: 0.12m*0.12m*3.14	PROTECTION ANGLE:

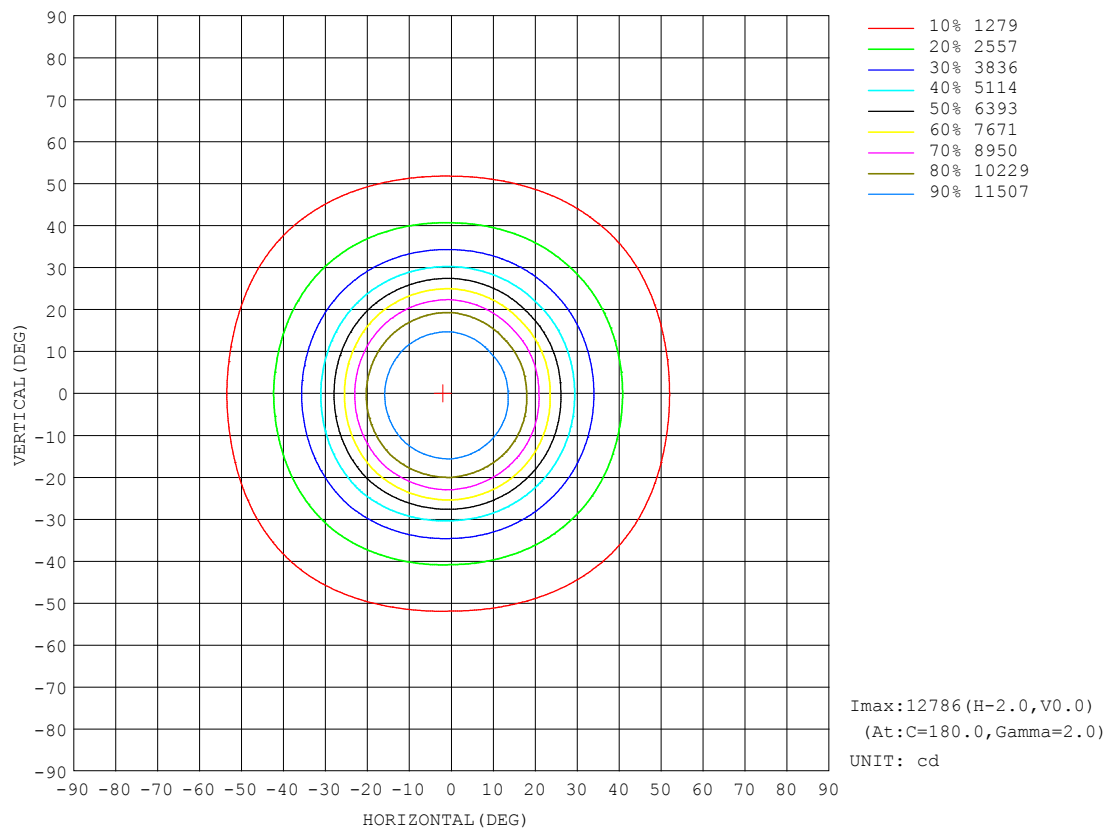
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	76	67	62	75	67	62	74	66	62	57
0.80	84	76	71	83	76	71	82	75	71	66
1.00	91	83	78	90	82	78	88	83	77	72
1.25	96	89	84	95	88	84	92	87	83	77
1.50	99	93	88	98	92	88	95	90	87	81
2.00	104	98	94	102	97	93	99	95	91	85
2.50	106	101	97	104	100	96	101	97	94	87
3.00	108	104	100	106	102	99	103	100	97	90
4.00	111	107	104	109	106	103	105	102	100	92
5.00	113	110	107	110	108	105	106	104	102	94
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:

ISOCANDELA DIAGRAM

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE:60°Lens	WEIGHT:3.849kg
SPEC.:5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.:0.12m*0.12m*3.14	PROTECTION ANGLE:

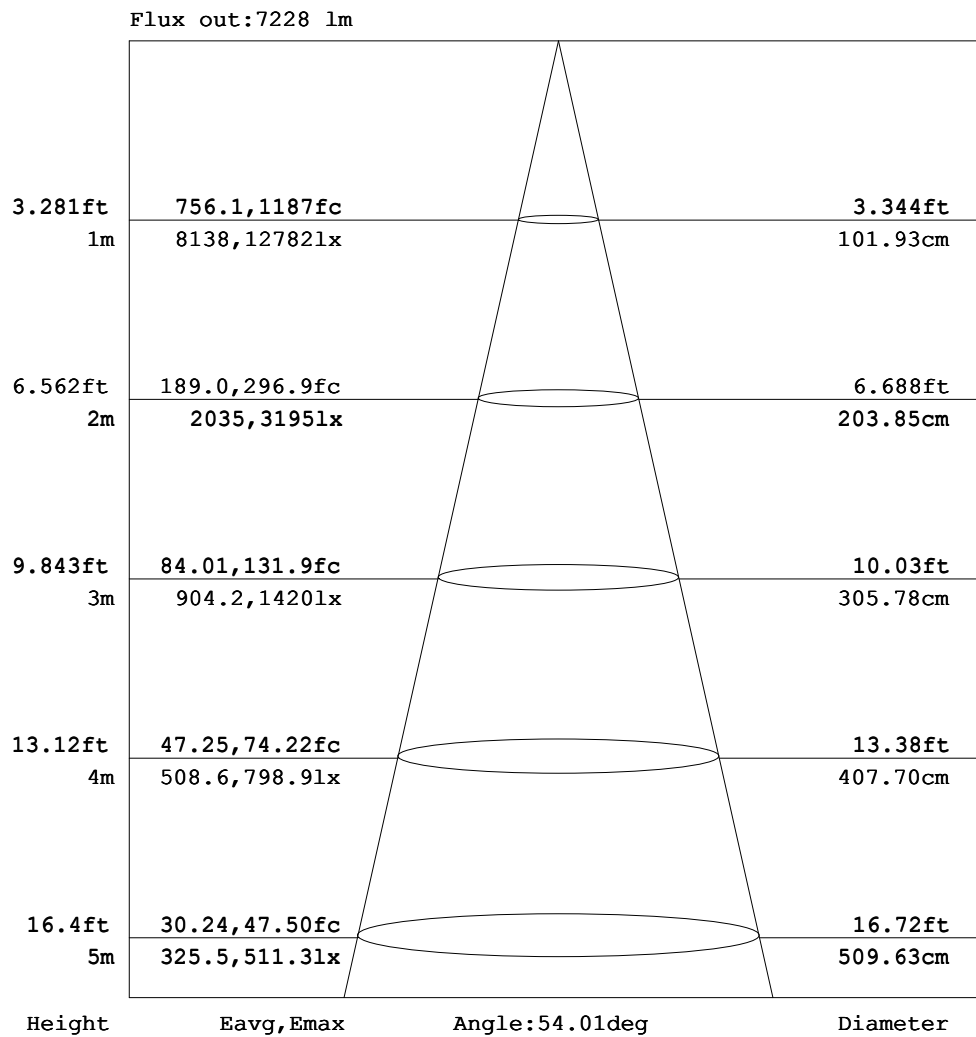


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: DEG
Operators: guanlingao
Test Date: 2017-12-29

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:

AAI Figure

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE: 60° Lens	WEIGHT: 3.849kg
SPEC.: 5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.: 0.12m*0.12m*3.14	PROTECTION ANGLE:



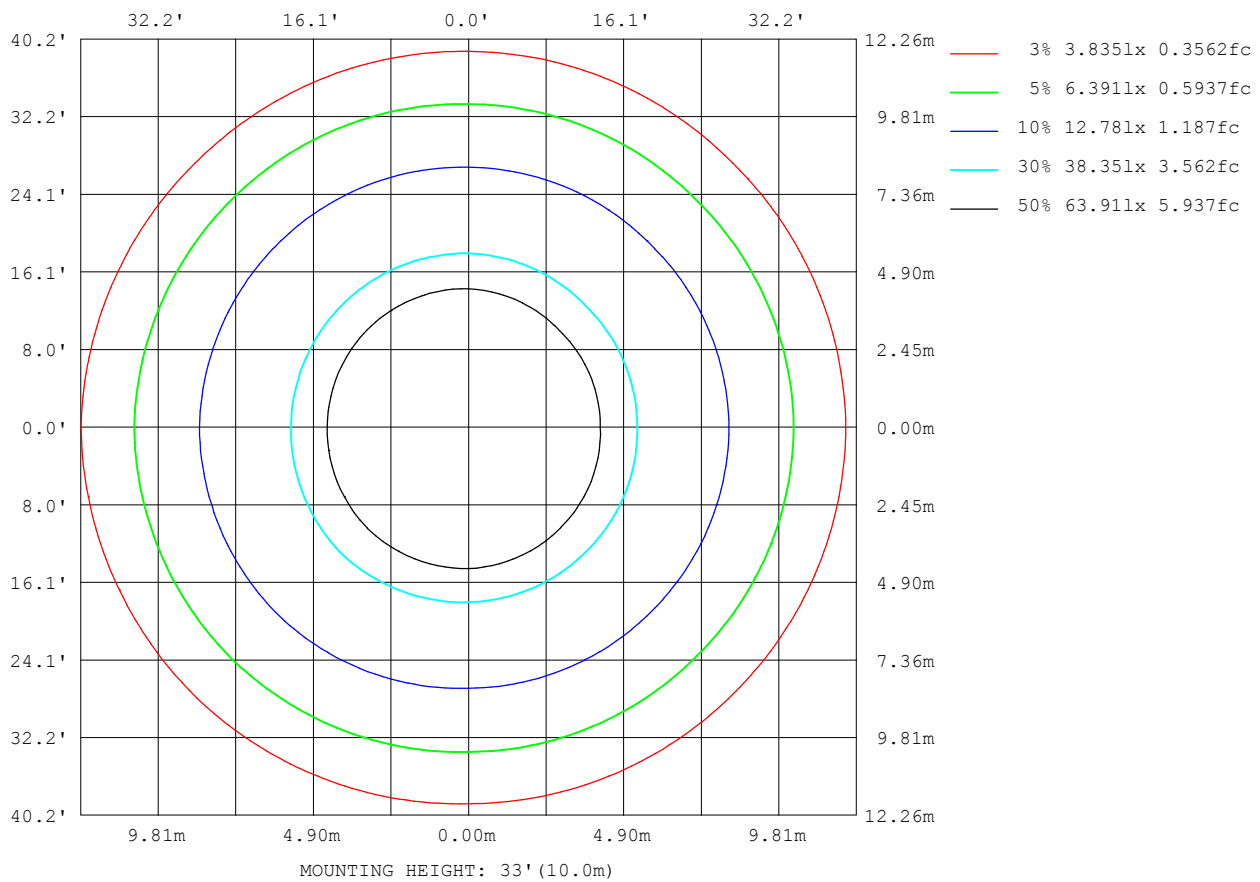
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

ISOLUX DIAGRAM

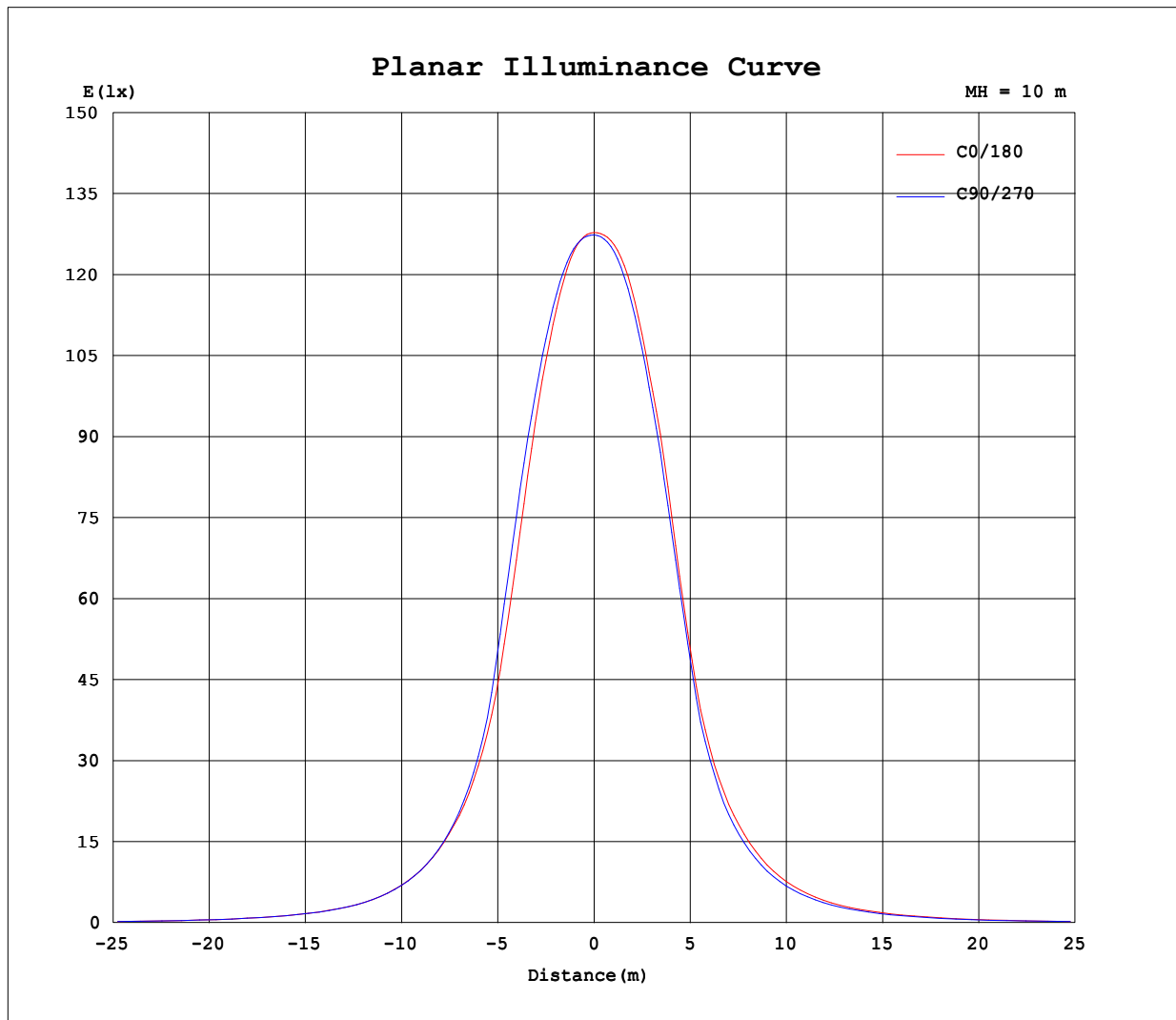
Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE:60°Lens	WEIGHT:3.849kg
SPEC.:5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.:0.12m*0.12m*3.14	PROTECTION ANGLE:



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:

Planar Illuminance Curve



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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.1V I:0.3762A P:101.5W PF:0.9735 Lamp Flux:13702.4x1 lm		
NAME: LM-100W	TYPE: 60° Lens	WEIGHT: 3.849kg
SPEC.: 5000k R80 264L	DIM.: D280mm*167mm	SERIAL No.:
MFR.:	SUR.: 0.12m*0.12m*3.14	PROTECTION ANGLE:

Table--1

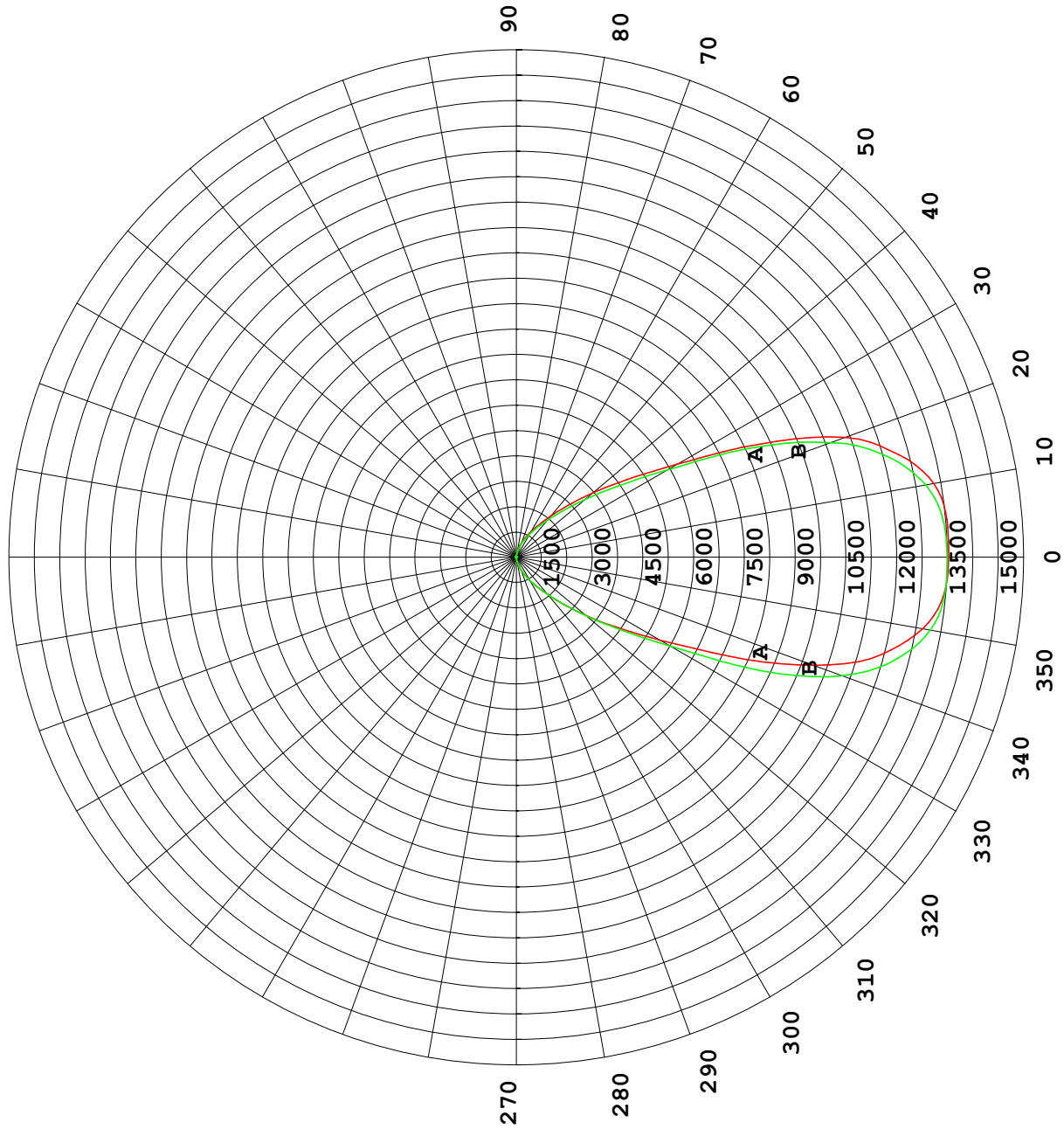
UNIT: ×10cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	1278	1276	1274	1272	1278	1276	1274	1272										
5	1269	1271	1271	1272	1278	1272	1267	1262										
10	1220	1233	1243	1250	1254	1242	1230	1213										
15	1116	1140	1164	1173	1171	1158	1141	1112										
20	935	980	1025	1043	1035	1013	990	938										
25	694	737	793	810	790	784	761	701										
30	491	501	526	564	551	533	517	488										
35	361	360	374	398	399	381	365	352										
40	268	266	270	290	296	280	265	260										
45	198	194	197	210	216	204	193	190										
50	144	143	143	153	159	148	142	140										
55	108	106	107	113	117	110	106	103										
60	79.8	78.3	79.3	83.7	86.9	81.5	78.3	76.7										
65	56.8	56.0	56.8	60.5	62.2	58.3	56.2	54.6										
70	40.7	40.3	41.0	43.5	44.8	41.9	40.3	39.3										
75	23.4	23.6	25.6	27.7	28.5	26.0	24.7	22.2										
80	10.8	11.2	12.0	13.3	13.2	12.4	11.7	10.2										
85	2.86	3.39	3.82	4.82	5.07	4.14	3.66	2.75										
90	0.10	0.09	0.10	0.10	0.09	0.08	0.07	0.08										
95	0.12	0.12	0.12	0.11	0.09	0.09	0.09	0.09										
100	0.17	0.16	0.16	0.15	0.12	0.12	0.12	0.13										
105	0.23	0.22	0.21	0.21	0.16	0.16	0.16	0.17										
110	0.31	0.29	0.29	0.28	0.22	0.22	0.22	0.24										
115	0.42	0.39	0.38	0.37	0.29	0.29	0.30	0.32										
120	0.55	0.53	0.51	0.49	0.39	0.39	0.40	0.42										
125	0.74	0.71	0.68	0.66	0.51	0.52	0.53	0.56										
130	0.99	0.95	0.92	0.88	0.68	0.69	0.70	0.76										
135	1.31	1.26	1.23	1.17	0.90	0.92	0.95	1.01										
140	1.69	1.64	1.59	1.53	1.17	1.20	1.24	1.30										
145	2.11	2.06	2.00	1.93	1.51	1.55	1.59	1.66										
150	2.55	2.50	2.44	2.36	1.87	1.92	1.96	2.04										
155	2.97	2.92	2.85	2.78	2.26	2.29	2.33	2.41										
160	3.35	3.29	3.23	3.18	2.63	2.64	2.70	2.75										
165	3.67	3.62	3.58	3.53	2.95	2.99	3.02	3.07										
170	3.92	3.89	3.85	3.82	3.34	3.36	3.39	3.42										
175	4.05	4.03	4.01	4.00	3.85	3.86	3.89	3.91										
180	4.10	4.10	4.10	4.11	4.11	4.10	4.10	4.11										

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

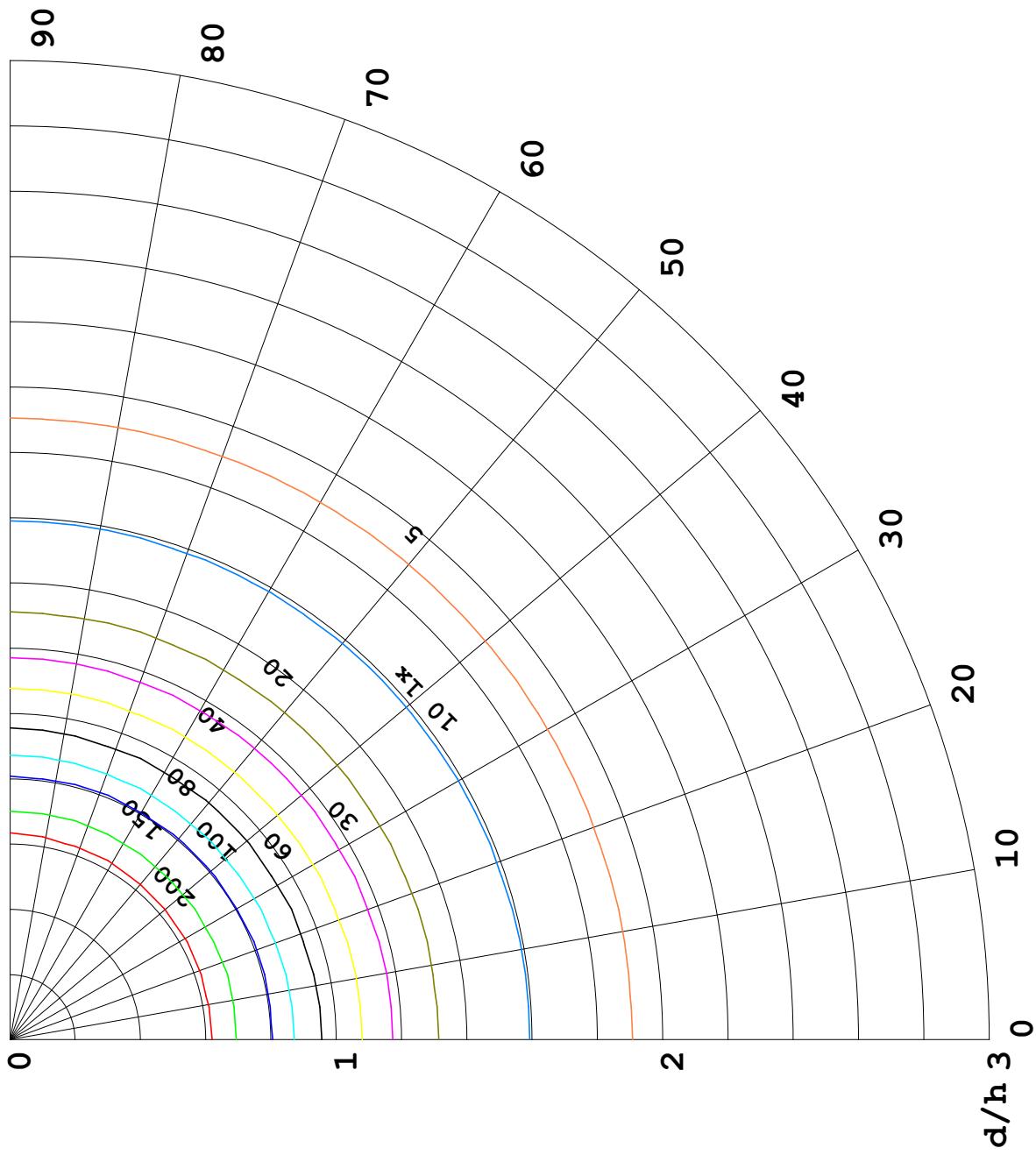
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.390m [K=1.0000]
Remarks:

I (cd)



$\kappa = 1$

1000 lm



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

