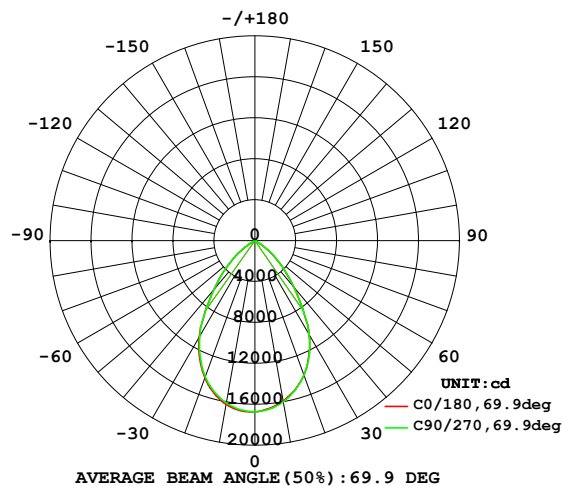


LUMINAIRE PHOTOMETRIC TEST REPORT

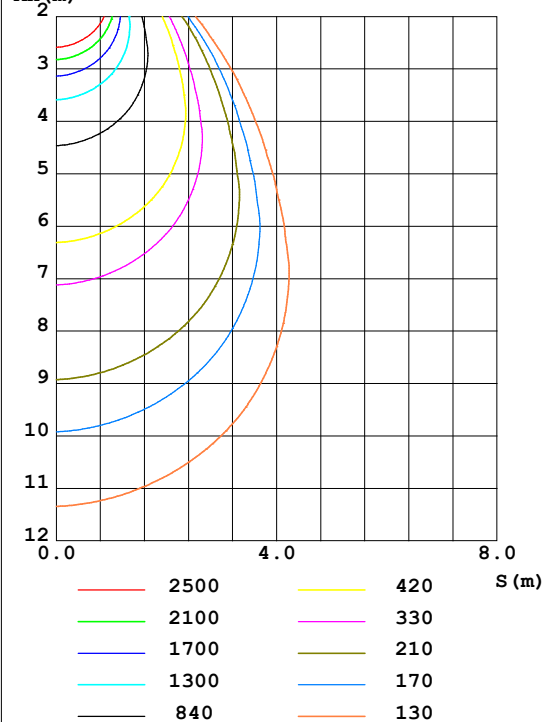
Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm		
NAME: LM-150W	TYPE:glass+70°AL cover	WEIGHT:5.466kg
SPEC.:5000k R80 360L	DIM.: D430mm*329mm	SERIAL No.:
MFR.:	SUR.:0.215m*0.215m*3.14	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 142.87 lm/W			
MODEL	SMD3030 (757G P20D41)	I _{max} (cd)	16750	S/MH(C0/180)	1.04
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.03
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	21416	η UP,DN(C0-180)	0.0,49.6
NOMINAL FLUX(lm)	21416.1	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	277	η down(%)	100.0	CIBSE SHR MAX	1.05

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



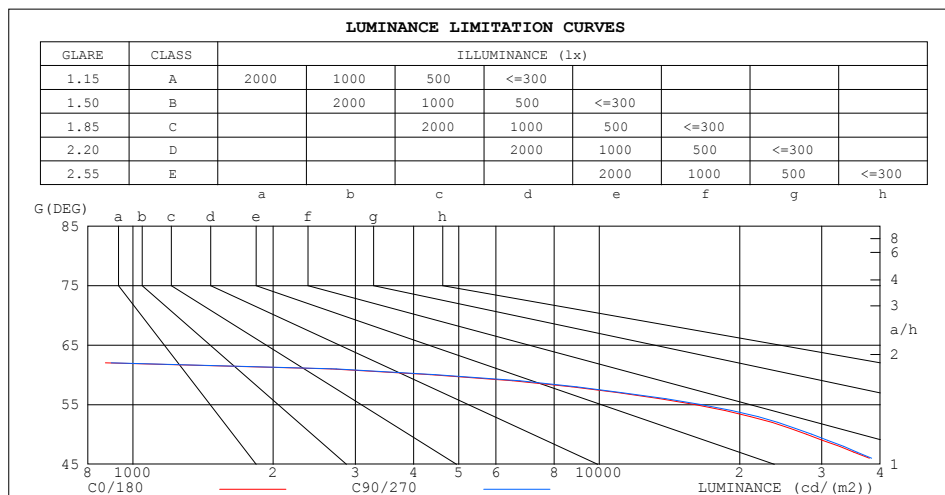
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: DEG
 Operators: guanlingao
 Test Date: 2017-12-29

γ Range: 0 - 90DEG
 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: 0-90°

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	1591	1593	1600	1617	1624	1618	1610	1592	0- 10	1564	1564	7.3,7.3
20	1400	1399	1401	1427	1429	1417	1416	1391	10- 20	4276	5840	27.3,27.3
30	1062	1062	1062	1083	1090	1075	1080	1051	20- 30	5751	11591	54.1,54.1
40	590.1	591.7	591.7	613.5	621.6	618.2	619.5	590.0	30- 40	5183	16774	78.3,78.3
50	259.5	260.5	266.5	277.1	281.2	282.7	279.6	260.2	40- 50	3293	20067	93.7,93.7
60	31.56	31.17	32.36	38.63	38.10	34.78	39.71	30.09	50- 60	1275	21342	99.7,99.7
70	1.477	1.544	1.677	1.392	1.457	1.737	1.661	1.444	60- 70	60.70	21403	99.9,99.9
80	0.4905	0.5219	0.5976	0.4997	0.4768	0.5353	0.5855	0.4974	70- 80	10.12	21413	100,100
90	0.0620	0.0593	0.0711	0.0463	0.0515	0.0659	0.0587	0.0626	80- 90	2.874	21416	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: $\times 10\text{cd}$ $\text{MAX} (I_i - I_{\text{avg}})/I_{\text{avg}} (0-135) = 157.4 \%$									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 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity: 65.0%
 Test Distance: 9.390m [K=1.0000]
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γ Range: 0 - 90DEG
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: 0-90°

```

WEC AND CCEC

Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm														
NAME: LM-150W					TYPE:glass+70°AL cover					WEIGHT:5.466kg				
SPEC.:5000k R80 360L					DIM.: D430mm*329mm					SERIAL No.:				
MFR.:					SUR.:0.215m*0.215m*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	.198	.113	.036	.192	.109	.035	.179	.103	.033	.167	.096	.031	.156	.091	.029	
2.0	.193	.106	.033	.188	.103	.032	.177	.098	.031	.167	.094	.029	.158	.089	.028	
3.0	.186	.099	.030	.181	.097	.029	.172	.093	.028	.163	.089	.027	.155	.086	.027	
4.0	.178	.092	.027	.174	.091	.027	.165	.088	.026	.158	.085	.026	.151	.082	.025	
5.0	.170	.086	.025	.166	.085	.025	.159	.083	.024	.152	.080	.024	.146	.078	.023	
6.0	.162	.081	.023	.158	.080	.023	.152	.078	.023	.146	.076	.022	.141	.074	.022	
7.0	.154	.076	.022	.151	.075	.021	.146	.074	.021	.140	.072	.021	.135	.070	.021	
8.0	.147	.072	.020	.144	.071	.020	.139	.070	.020	.135	.068	.020	.130	.067	.019	
9.0	.140	.068	.019	.138	.067	.019	.133	.066	.019	.129	.065	.019	.125	.064	.018	
10.0	.134	.064	.018	.132	.064	.018	.128	.063	.018	.124	.062	.018	.120	.061	.017	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.086	.127	.098	.075	.087	.068	.052	.050	.040	.031	.016	.013	.010	
4.0	.139	.099	.069	.120	.086	.060	.082	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.132	.088	.056	.113	.076	.049	.078	.053	.035	.045	.031	.020	.015	.010	.007	
6.0	.125	.079	.047	.107	.069	.041	.074	.048	.029	.043	.028	.017	.014	.009	.006	
7.0	.119	.072	.039	.102	.062	.034	.070	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.113	.066	.034	.097	.057	.029	.067	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.108	.061	.029	.093	.053	.025	.064	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.009	.012	.007	.003	

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

γ Range: 0 - 90DEG
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: 0-90°

UGR(Unified Glare Rating) Table

Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm										
NAME: LM-150W					TYPE:glass+70°AL cover			WEIGHT:5.466kg		
SPEC.:5000k R80 360L					DIM.: D430mm*329mm			SERIAL No.:		
MFR.:					SUR.:0.215m*0.215m*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	21.6	22.7	21.9	22.9	23.1	21.7	22.8	21.9	23.0	23.1
3H	21.4	22.5	21.7	22.7	22.9	21.5	22.5	21.8	22.7	22.9
4H	21.3	22.3	21.6	22.5	22.8	21.4	22.4	21.7	22.6	22.8
6H	21.3	22.1	21.6	22.4	22.7	21.3	22.2	21.6	22.5	22.7
8H	21.2	22.1	21.5	22.3	22.6	21.3	22.1	21.6	22.4	22.7
12H	21.2	22.0	21.5	22.3	22.5	21.2	22.0	21.5	22.3	22.6
4H 2H	21.4	22.4	21.7	22.6	22.8	21.5	22.4	21.8	22.6	22.9
3H	21.2	22.0	21.6	22.3	22.6	21.3	22.1	21.6	22.4	22.7
4H	21.1	21.9	21.5	22.2	22.5	21.2	21.9	21.5	22.2	22.5
6H	21.0	21.7	21.4	22.0	22.4	21.1	21.7	21.5	22.1	22.4
8H	21.0	21.6	21.4	21.9	22.3	21.0	21.6	21.4	22.0	22.4
12H	20.9	21.5	21.4	21.9	22.3	21.0	21.5	21.4	21.9	22.3
8H 4H	21.0	21.6	21.4	21.9	22.3	21.0	21.6	21.4	22.0	22.4
6H	20.9	21.4	21.3	21.8	22.2	21.0	21.4	21.4	21.8	22.3
8H	20.9	21.3	21.3	21.7	22.1	20.9	21.3	21.4	21.7	22.2
12H	20.8	21.2	21.3	21.6	22.1	20.9	21.2	21.3	21.7	22.1
12H 4H	20.9	21.5	21.4	21.9	22.3	21.0	21.5	21.4	21.9	22.3
6H	20.9	21.3	21.3	21.7	22.1	20.9	21.3	21.4	21.7	22.2
8H	20.8	21.2	21.3	21.6	22.1	20.9	21.2	21.3	21.7	22.1
Variations with the observer position at spacings:										
S = 1.0H	+ 2.2 / - 6.4					+ 2.2 / - 6.3				
1.5H	+ 2.0 / - 3.6					+ 2.0 / - 3.6				
2.0H	+ 4.6 / -22.5					+ 4.6 / -22.3				

CIE Pub.117 Corrected 21416 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.6)

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

γ Range: 0 - 90DEG
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: 0-90°

UTILIZATION FACTORS TABLE

Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm		
NAME: LM-150W	TYPE:glass+70°AL cover	WEIGHT:5.466kg
SPEC.:5000k R80 360L	DIM.: D430mm*329mm	SERIAL No.:
MFR.:	SUR.:0.215m*0.215m*3.14	PROTECTION ANGLE:

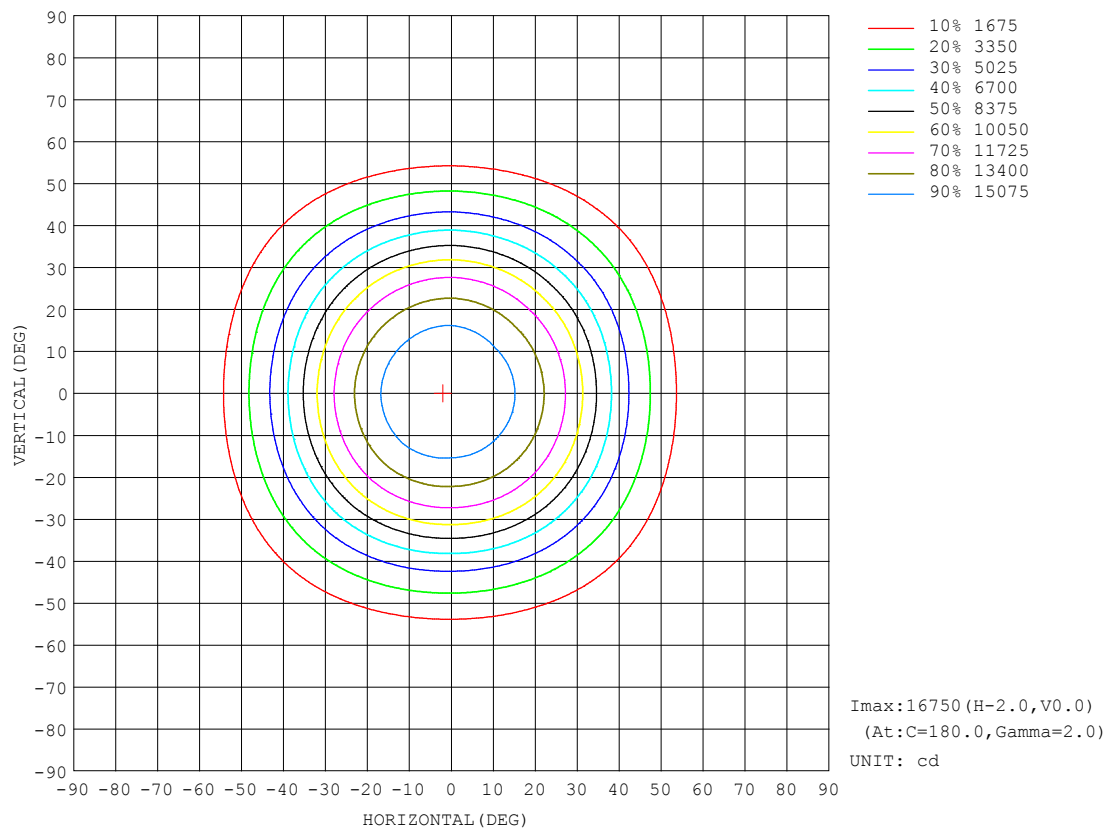
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	77	69	64	77	69	64	76	69	64	60
0.80	87	79	74	86	79	74	84	78	74	69
1.00	93	86	82	92	86	81	91	86	81	76
1.25	99	92	88	97	92	87	95	90	87	82
1.50	102	96	92	101	95	92	98	94	90	85
2.00	106	101	97	105	100	96	102	98	95	89
2.50	108	103	100	106	102	99	103	100	97	91
3.00	110	106	103	108	104	102	105	102	99	93
4.00	112	109	106	110	107	105	106	104	102	95
5.00	114	111	108	111	109	107	107	105	104	96
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 - 90DEG
 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: 0-90°

ISOCANDELA DIAGRAM

Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm		
NAME: LM-150W	TYPE:glass+70°AL cover	WEIGHT:5.466kg
SPEC.:5000k R80 360L	DIM.: D430mm*329mm	SERIAL No.:
MFR.:	SUR.:0.215m*0.215m*3.14	PROTECTION ANGLE:

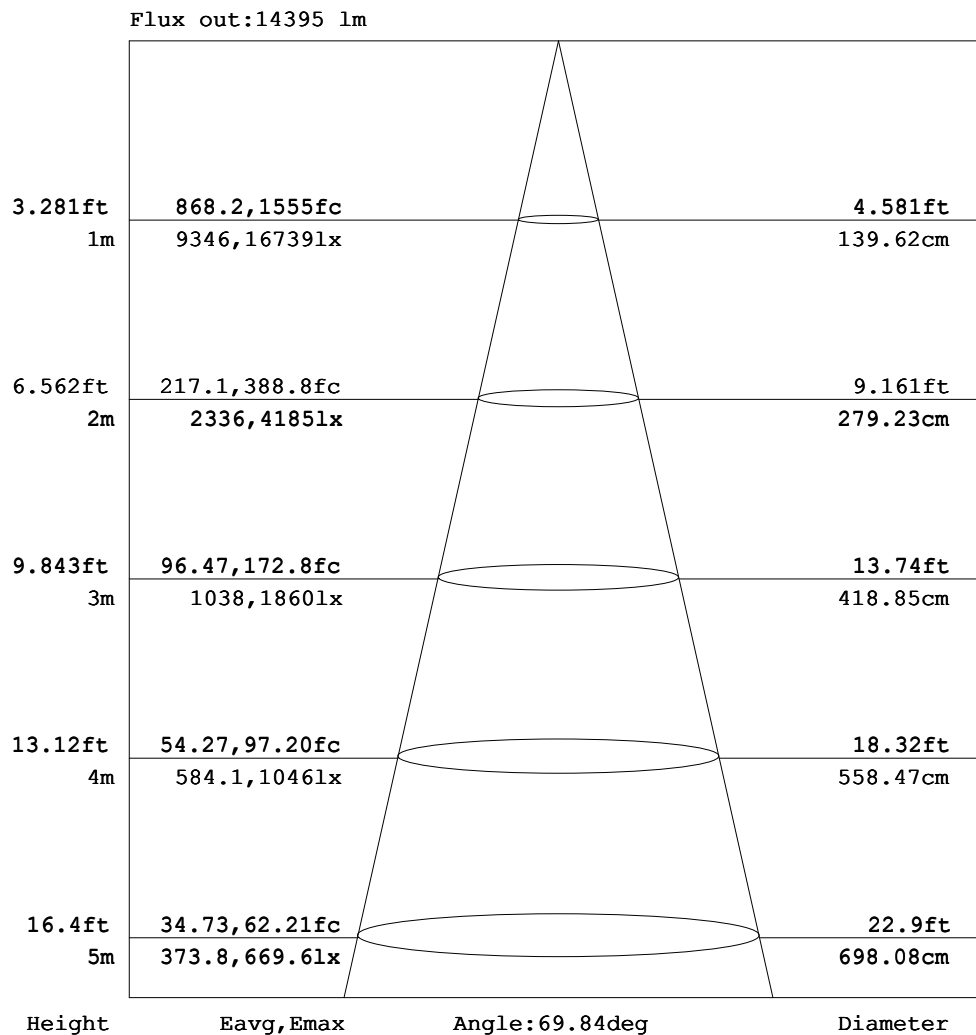


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:DEG
Operators:guanlingao
Test Date:2017-12-29

γ Range: 0 - 90DEG
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: 0-90°

AAI Figure

Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm		
NAME: LM-150W	TYPE:glass+70°AL cover	WEIGHT:5.466kg
SPEC.:5000k R80 360L	DIM.: D430mm*329mm	SERIAL No.:
MFR.:	SUR.:0.215m*0.215m*3.14	PROTECTION ANGLE:



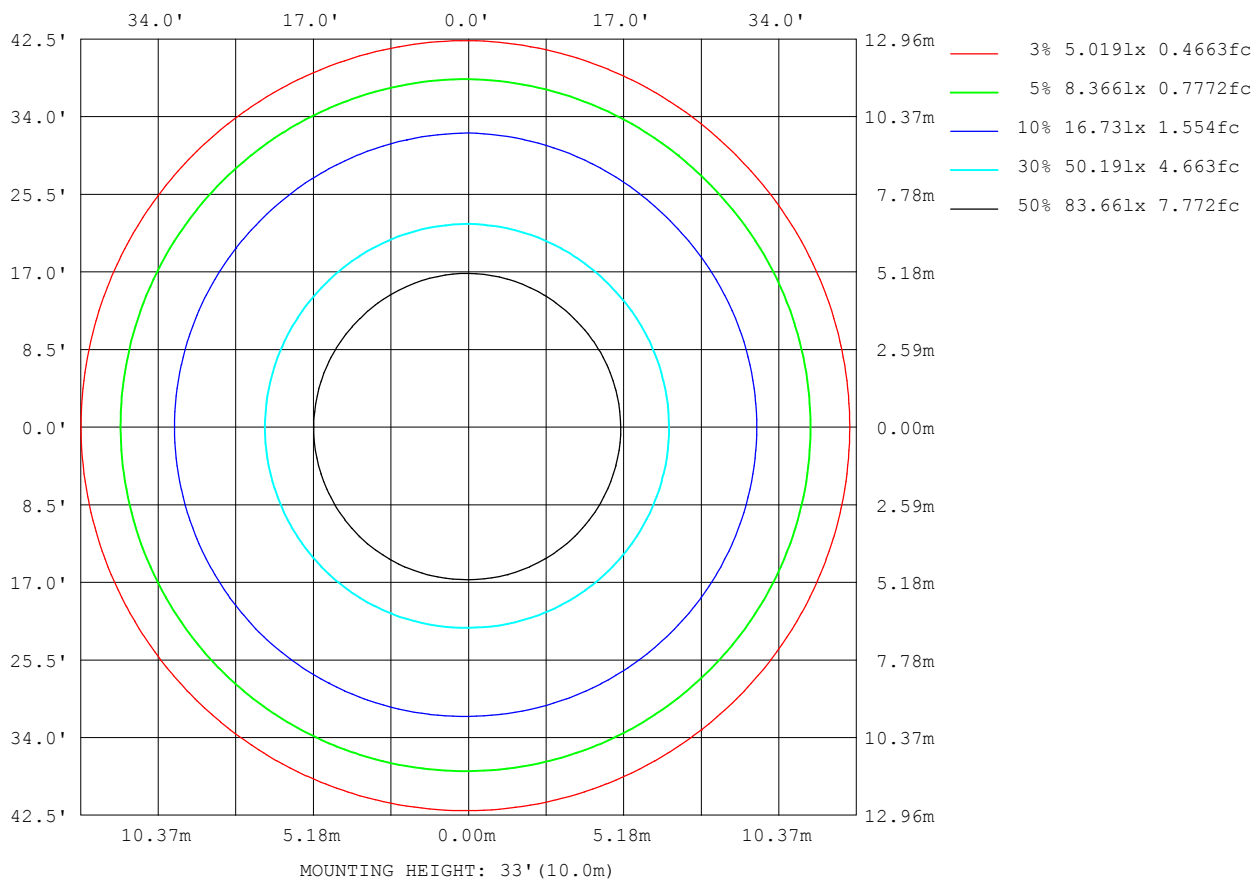
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

γ Range: 0 - 90DEG
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: 0-90°

ISOLUX DIAGRAM

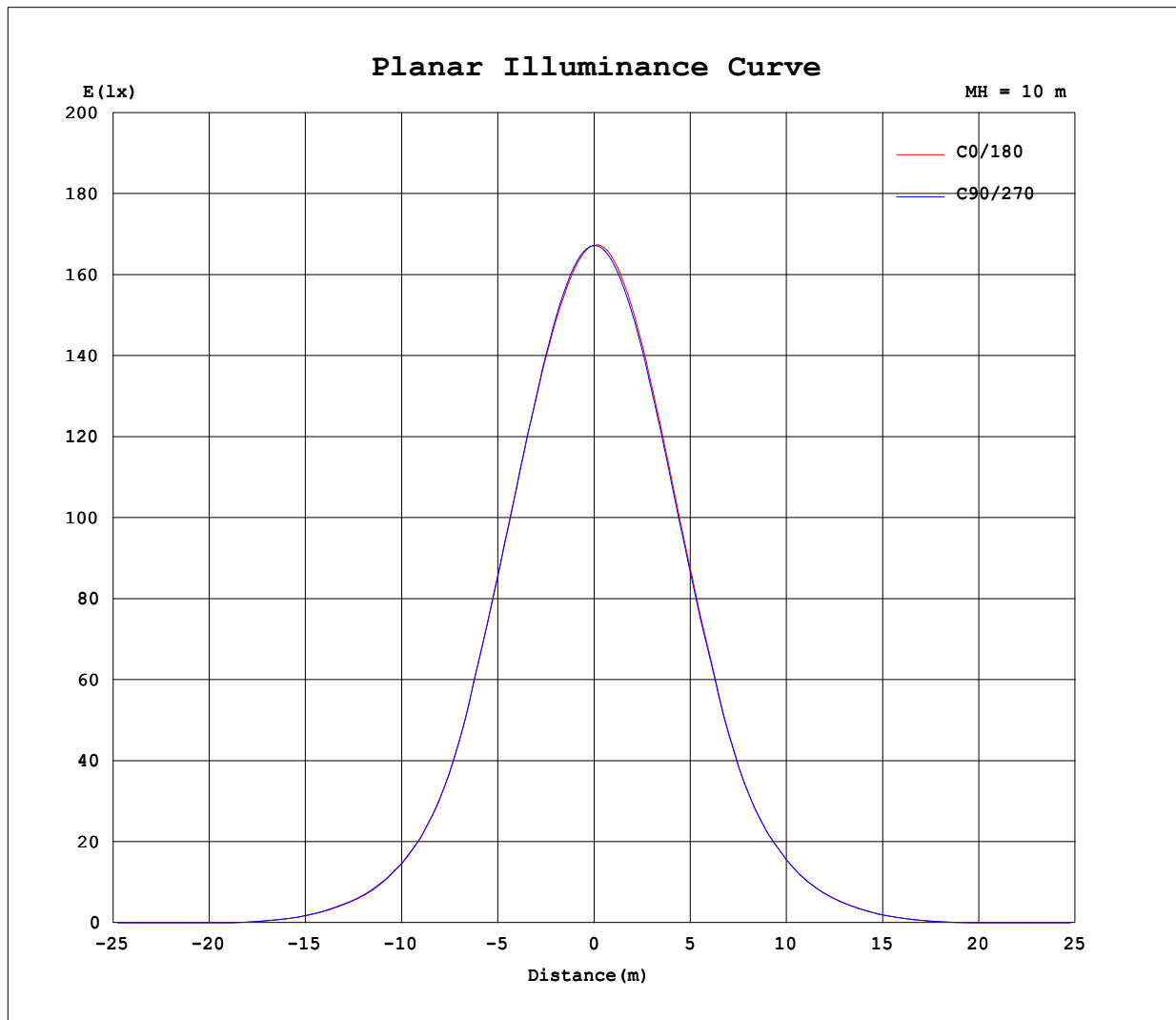
Test:U:277.1V I:0.5700A P:149.9W PF:0.9489 Lamp Flux:21416.1x1 lm		
NAME: LM-150W	TYPE:glass+70°AL cover	WEIGHT:5.466kg
SPEC.:5000k R80 360L	DIM.: D430mm*329mm	SERIAL No.:
MFR.:	SUR.:0.215m*0.215m*3.14	PROTECTION ANGLE:



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

γ Range: 0 - 90DEG
 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: 0-90°

Planar Illuminance Curve



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

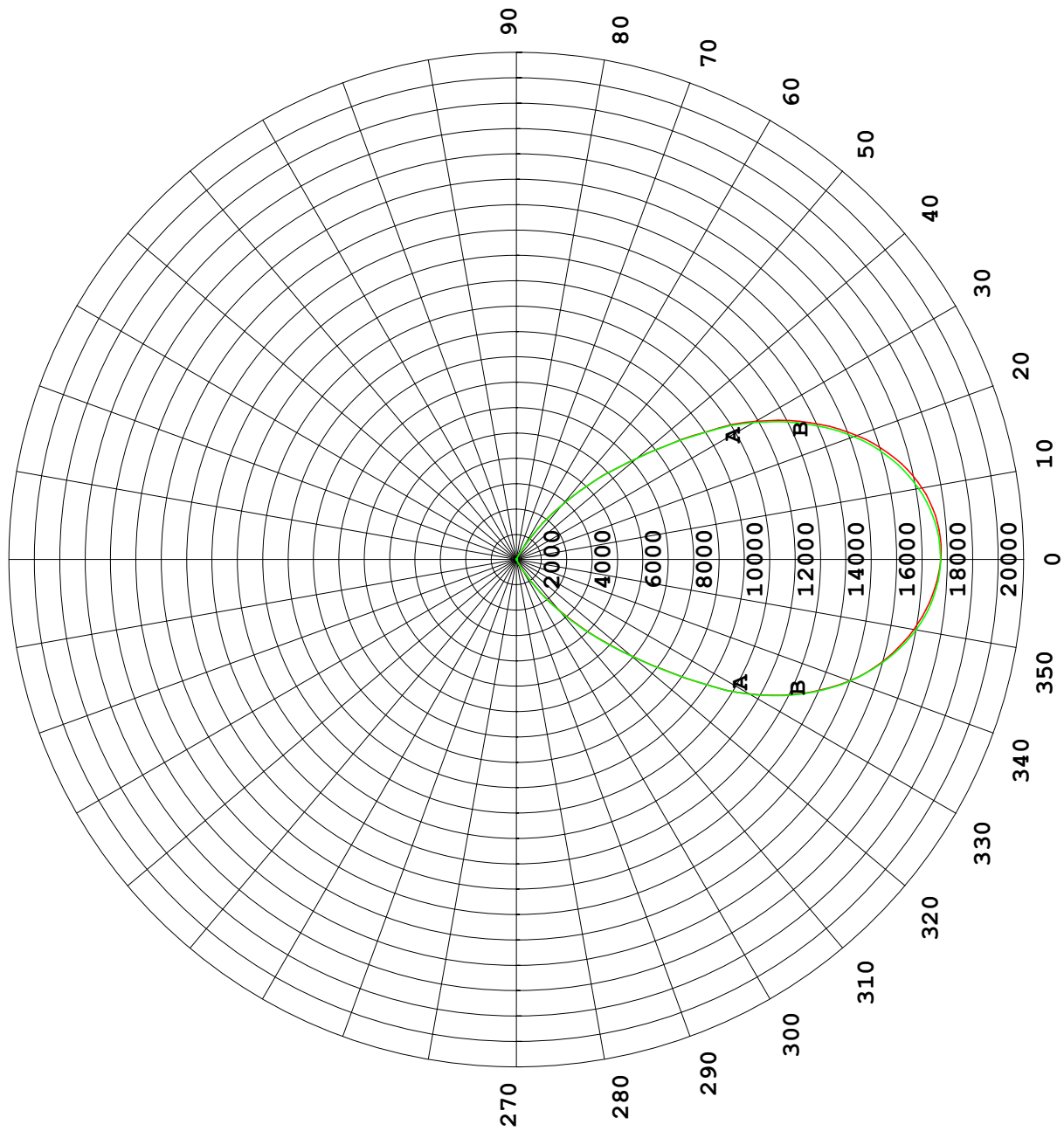
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
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γ Range: 0 - 90DEG
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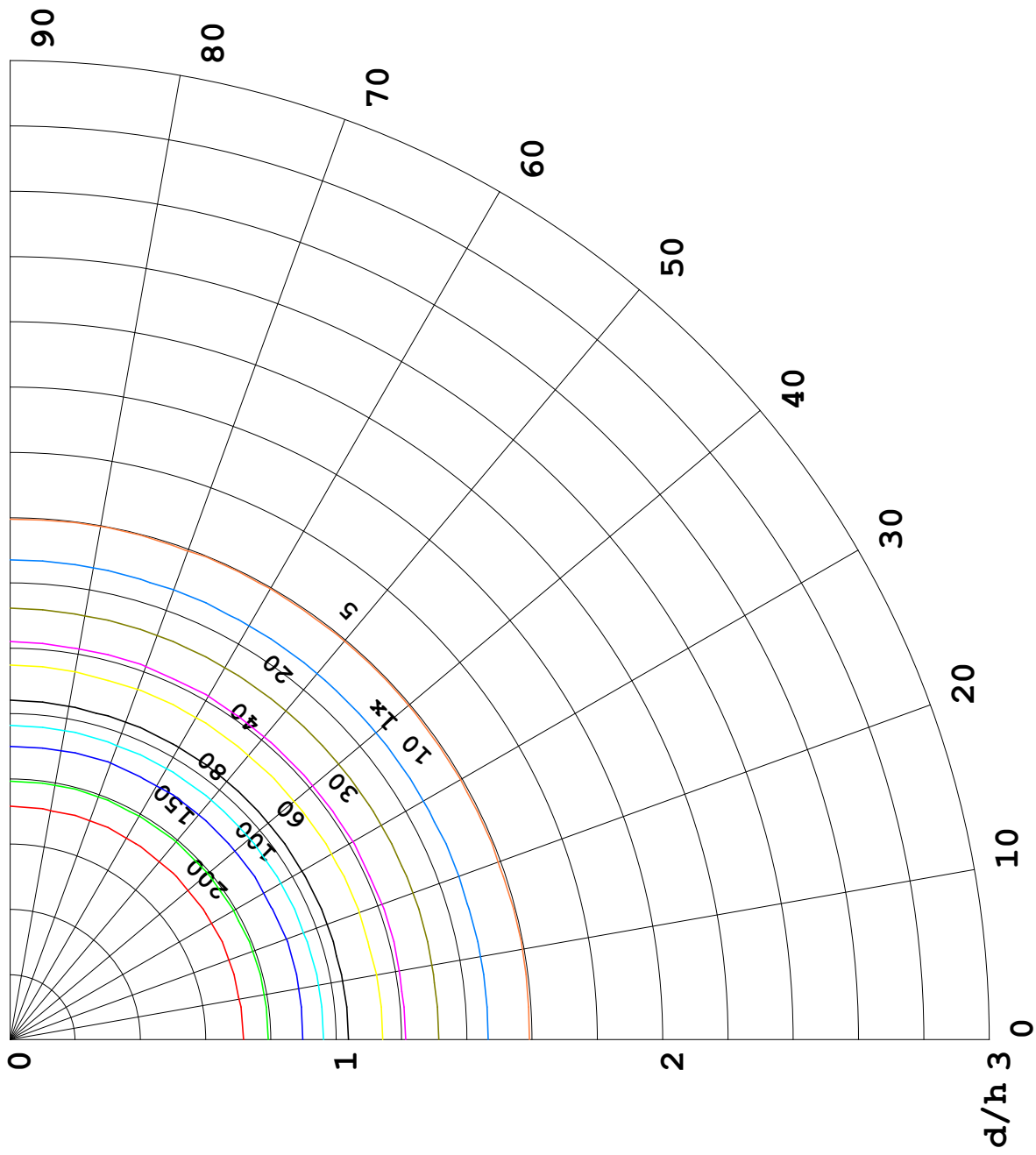
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I (cd)



$\kappa = 1$

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

