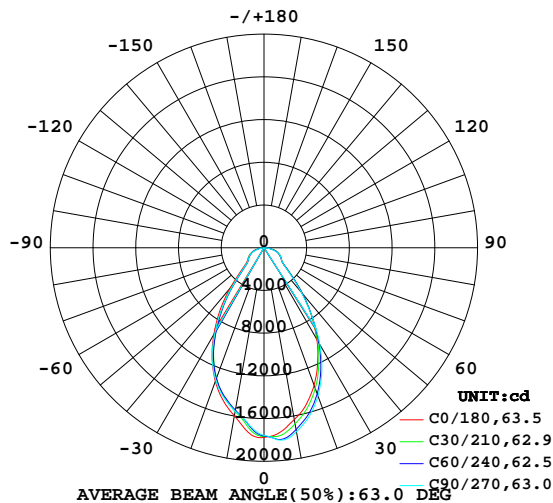


LUMINAIRE PHOTOMETRIC TEST REPORT

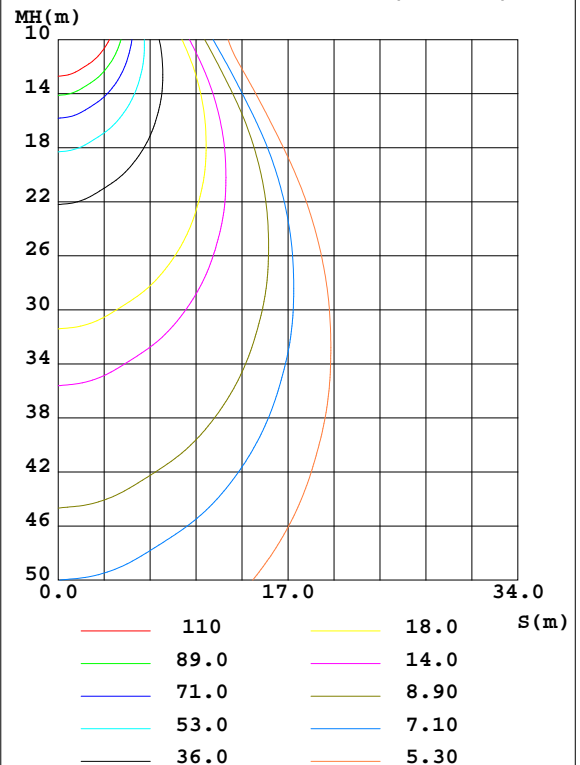
NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 126.26 lm/W
MODEL	ZGSM-GCD180H6	Imax(cd)	18107	S/MH(C0/180)	0.91	
NOMINAL POWER(W)	180	LOR(%)	101.0	S/MH(C90/270)	0.92	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	22727	η UP,DN(C0-180)	0.0,53.1	
NOMINAL FLUX(lm)	22500	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,47.9	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00	
TEST VOLTAGE(V)	220.1	η down(%)	101.0	CIBSE SHR MAX	1.00	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.480m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1634	1702	1750	1672	1598	1545	1554	1585	0- 10	1614	1614	7.1,7.17
20	1371	1431	1477	1414	1333	1296	1322	1342	10- 20	4247	5861	25.8,26
30	990.4	1022	1047	991.9	941.4	886.5	920.9	940.3	20- 30	5410	11271	49.6,50.1
40	559.1	563.7	543.2	516.4	492.0	417.2	433.1	476.4	30- 40	4536	15807	69.6,70.3
50	232.9	244.8	240.4	220.9	212.7	197.2	199.6	208.3	40- 50	2513	18320	80.6,81.4
60	183.6	183.8	182.8	167.3	166.3	158.1	158.4	165.8	50- 60	1700	20020	88.1,89
70	138.7	141.9	134.9	124.5	119.5	111.6	106.9	123.5	60- 70	1467	21487	94.5,95.5
80	62.97	76.91	57.27	60.59	45.54	48.49	8.465	59.66	70- 80	971.7	22459	98.8,99.8
90	5.239	8.680	1.267	2.485	2.095	1.396	0.4958	2.568	80- 90	267.7	22727	100,101
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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 17277 lm

%lum = 76.0%

%lamp = 76.8%

Conical surface Flux(120deg): 20020 lm

%lum = 88.1%

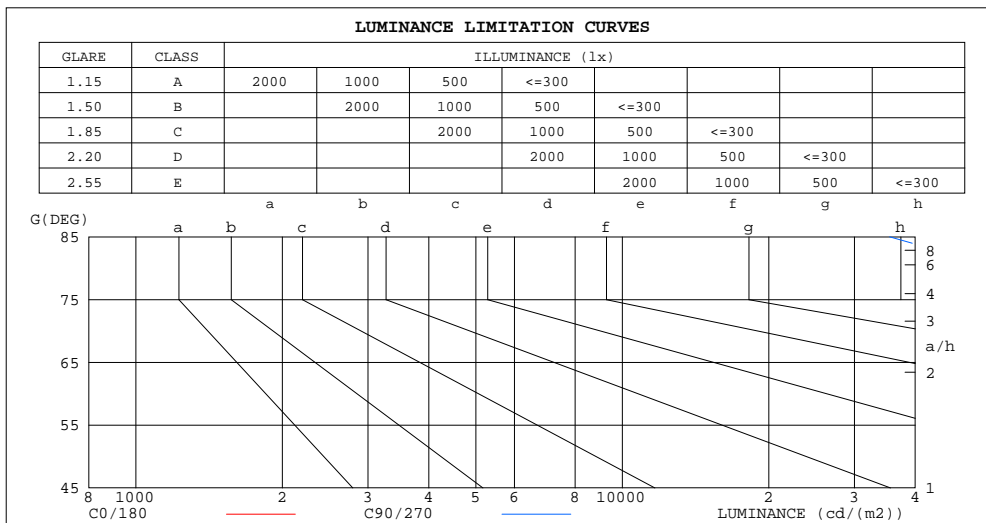
%lamp = 89.0%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.480m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	97779	35439
80	107925	98149
75	126656	107982
70	120696	117411
65	115646	115551
60	109286	108829
55	104812	104202
50	107839	111316
45	147772	146719

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

pcc	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 Coefficients(WEC)									
0.0																
1.0	.251	.143	.045	.244	.139	.044	.231	.132	.042	.219	.126	.040	.207	.120	.039	
2.0	.236	.129	.040	.230	.127	.039	.219	.122	.038	.208	.117	.037	.198	.112	.035	
3.0	.220	.117	.035	.214	.115	.035	.205	.111	.034	.196	.107	.033	.187	.104	.032	
4.0	.205	.106	.031	.200	.105	.031	.191	.102	.030	.184	.099	.030	.176	.096	.029	
5.0	.191	.097	.028	.187	.096	.028	.180	.093	.028	.173	.091	.027	.166	.089	.027	
6.0	.179	.090	.026	.176	.089	.026	.169	.087	.025	.163	.085	.025	.157	.083	.025	
7.0	.168	.083	.024	.165	.082	.023	.159	.081	.023	.154	.079	.023	.148	.077	.023	
8.0	.159	.078	.022	.156	.077	.022	.151	.075	.021	.146	.074	.021	.141	.072	.021	
9.0	.150	.073	.020	.148	.072	.020	.143	.071	.020	.138	.069	.020	.134	.068	.020	
10.0	.142	.068	.019	.140	.068	.019	.136	.067	.019	.132	.065	.019	.128	.064	.018	

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	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.178	.158	.141	.152	.136	.121	.104	.093	.084	.060	.054	.049	.019	.017	.016	
2.0	.166	.134	.106	.142	.115	.092	.098	.080	.064	.056	.046	.038	.018	.015	.012	
3.0	.156	.115	.083	.134	.099	.072	.092	.069	.050	.053	.040	.030	.017	.013	.010	
4.0	.147	.101	.066	.126	.087	.057	.087	.061	.040	.050	.036	.024	.016	.012	.008	
5.0	.139	.090	.054	.119	.078	.047	.082	.054	.033	.048	.032	.020	.015	.010	.006	
6.0	.131	.081	.045	.113	.070	.039	.078	.049	.028	.045	.029	.016	.015	.009	.005	
7.0	.125	.074	.038	.107	.064	.033	.074	.045	.023	.043	.026	.014	.014	.009	.005	
8.0	.118	.068	.033	.102	.059	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.113	.062	.028	.097	.054	.025	.067	.038	.018	.039	.023	.011	.013	.007	.003	
10.0	.108	.058	.025	.093	.050	.022	.064	.035	.016	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: LED LIGHT					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: EVERFINE					SUR.:21cm*16cm					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					17.2	18.5	17.5	18.7	18.8	17.2	18.4	17.4	18.6	18.8
3H					18.9	20.0	19.2	20.2	20.4	18.7	19.8	19.0	20.1	20.3
4H					19.7	20.8	20.0	21.0	21.3	19.4	20.5	19.7	20.7	21.0
6H					20.4	21.4	20.7	21.6	21.9	19.9	20.9	20.2	21.2	21.5
8H					20.5	21.5	20.9	21.8	22.1	20.0	21.0	20.3	21.3	21.5
12H					20.7	21.6	21.0	21.9	22.2	20.0	21.0	20.3	21.2	21.5
4H 2H					17.8	18.9	18.1	19.1	19.3	17.7	18.8	18.0	19.0	19.3
3H					19.7	20.7	20.1	20.9	21.2	19.6	20.5	19.9	20.8	21.1
4H					20.7	21.6	21.1	21.9	22.2	20.4	21.3	20.8	21.6	21.9
6H					21.6	22.3	22.0	22.7	23.0	21.1	21.9	21.5	22.2	22.6
8H					21.8	22.5	22.2	22.9	23.3	21.3	22.0	21.7	22.3	22.7
12H					22.0	22.7	22.4	23.0	23.4	21.3	22.0	21.7	22.4	22.8
8H 4H					21.1	21.8	21.5	22.2	22.6	20.9	21.6	21.3	21.9	22.3
6H					22.2	22.8	22.6	23.2	23.6	21.7	22.3	22.2	22.7	23.1
8H					22.6	23.1	23.0	23.5	23.9	22.0	22.5	22.5	23.0	23.4
12H					22.9	23.3	23.3	23.8	24.2	22.2	22.6	22.7	23.1	23.6
12H 4H					21.2	21.8	21.6	22.2	22.6	20.9	21.6	21.3	22.0	22.4
6H					22.3	22.8	22.7	23.2	23.7	21.8	22.4	22.3	22.8	23.2
8H					22.7	23.2	23.2	23.6	24.1	22.2	22.6	22.7	23.1	23.6
Variations with the observer position at spacings:														
S = 1.0H					+ 0.3 / - 0.3					+ 0.3 / - 0.3				
1.5H					+ 0.4 / - 0.3					+ 0.4 / - 0.3				
2.0H					+ 0.2 / - 0.3					+ 0.3 / - 0.2				

CIE Pub.117, 22500 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 10.8)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

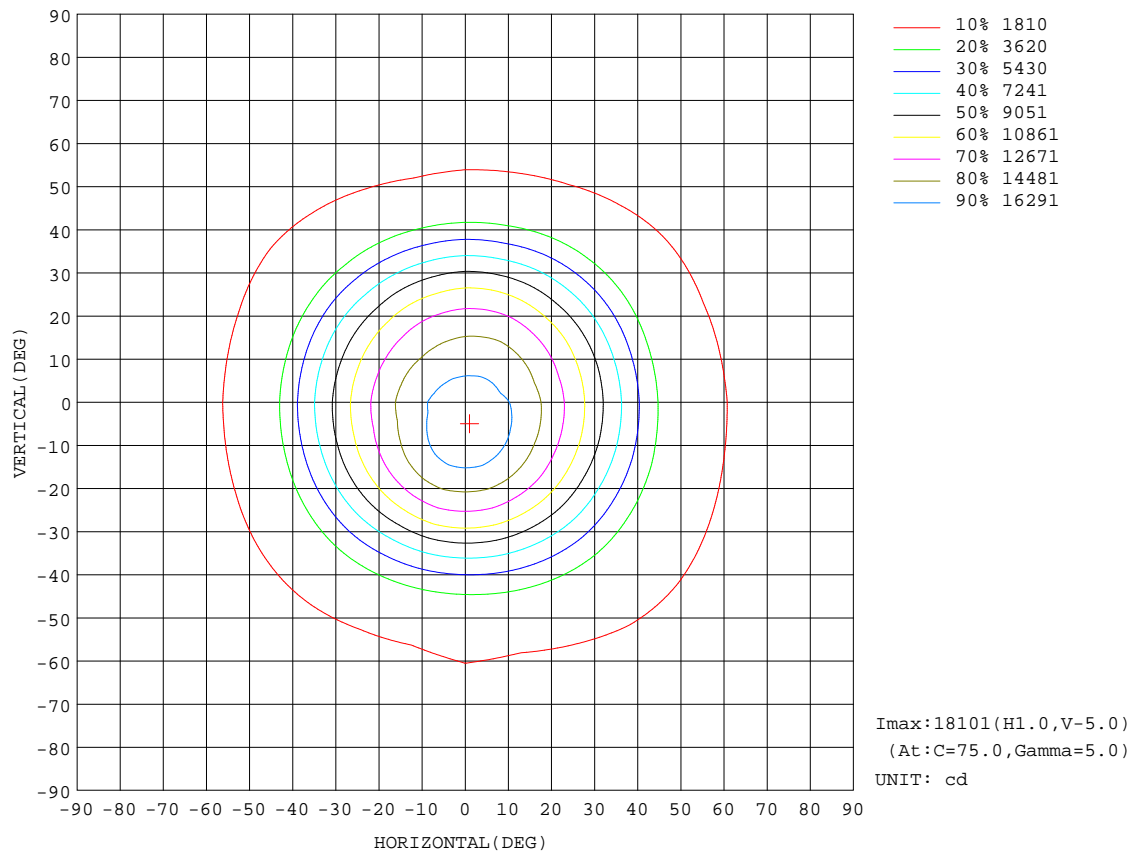
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	74	65	59	73	65	59	72	64	59	54
0.80	82	74	68	82	73	68	80	73	68	62
1.00	89	80	75	88	80	74	86	80	74	68
1.25	94	86	81	93	86	80	91	84	80	74
1.50	98	91	85	97	90	85	94	88	84	78
2.00	103	96	91	101	95	91	98	93	89	82
2.50	106	100	95	104	98	94	100	96	92	85
3.00	108	103	99	106	101	97	102	98	95	88
4.00	111	107	103	109	105	102	105	102	99	91
5.00	113	109	106	111	107	105	106	104	102	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:



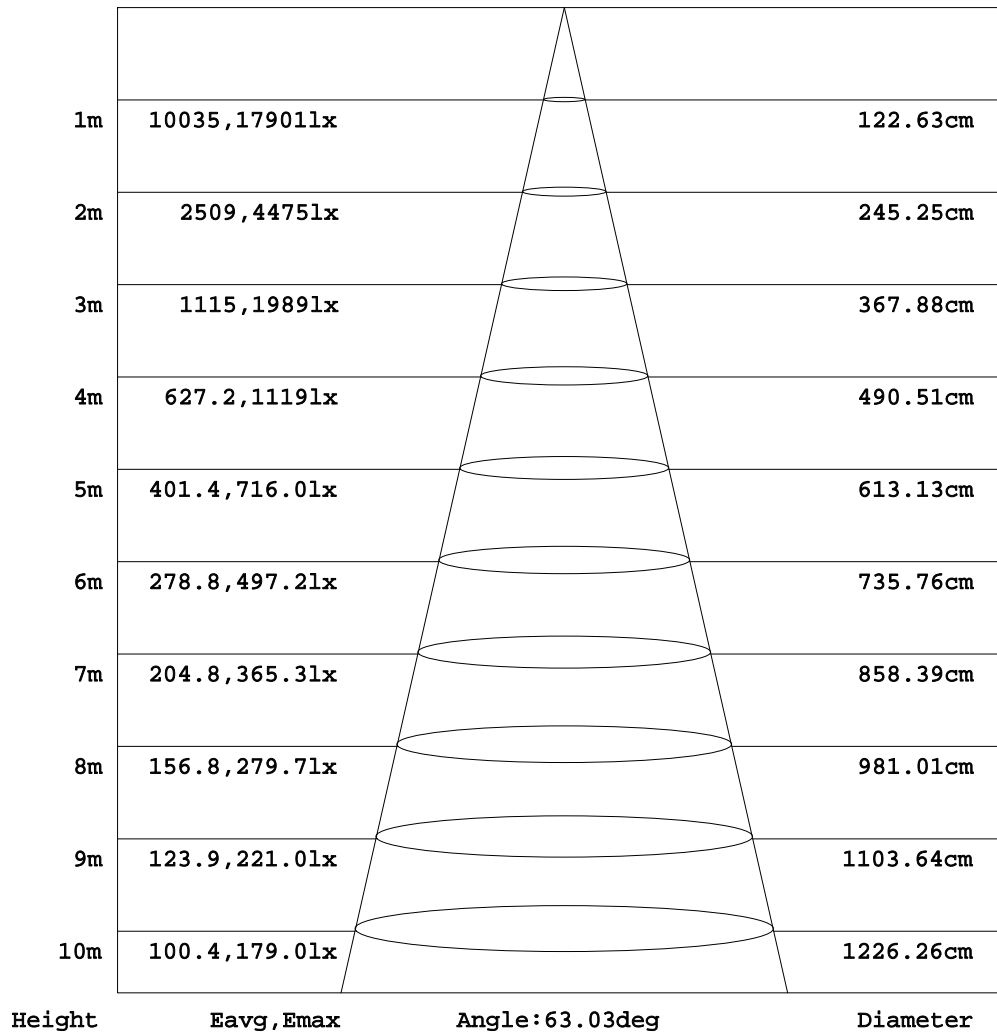
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

AAI Figure

NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

Flux out:12310 lm

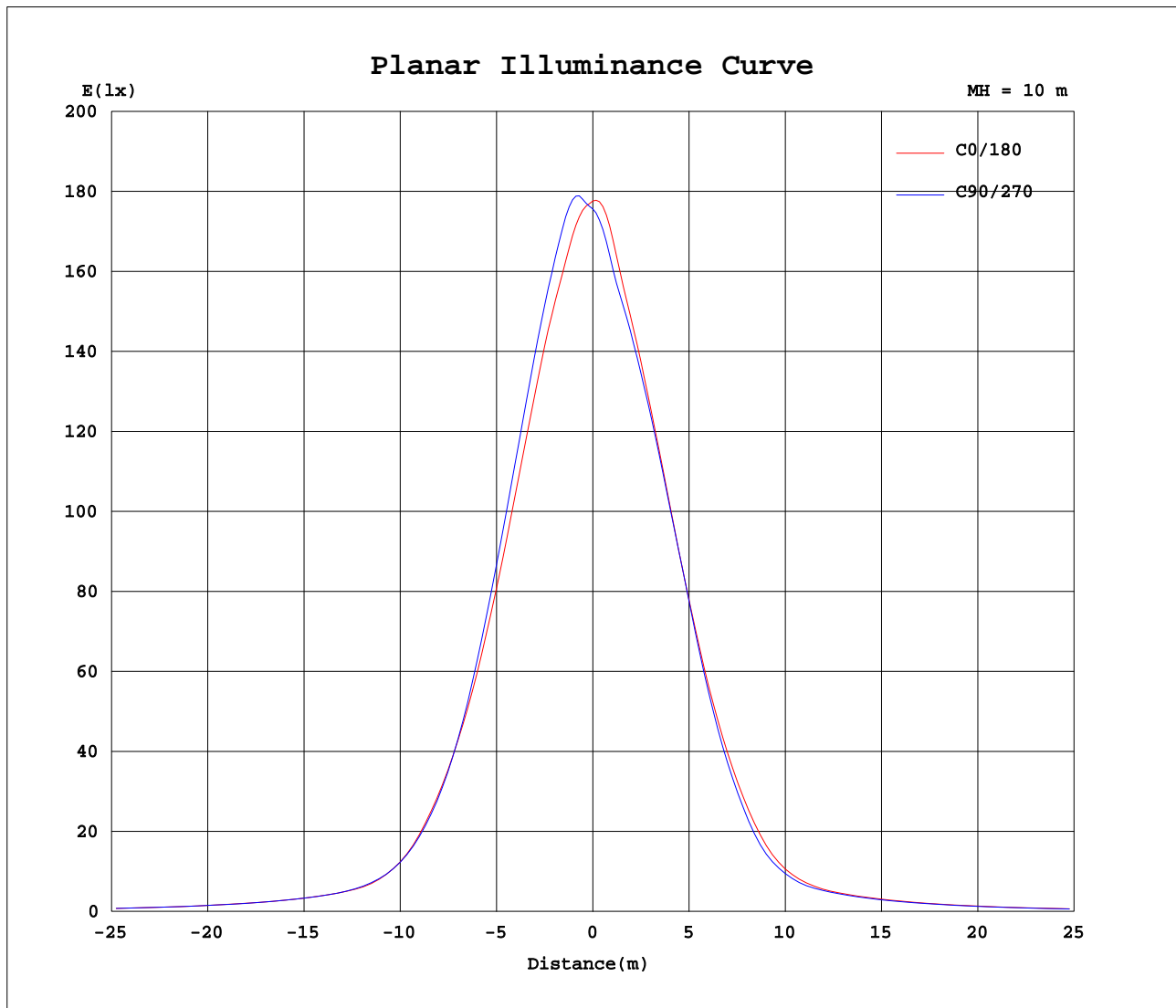


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.480m [K=1.0000]
Remarks:

