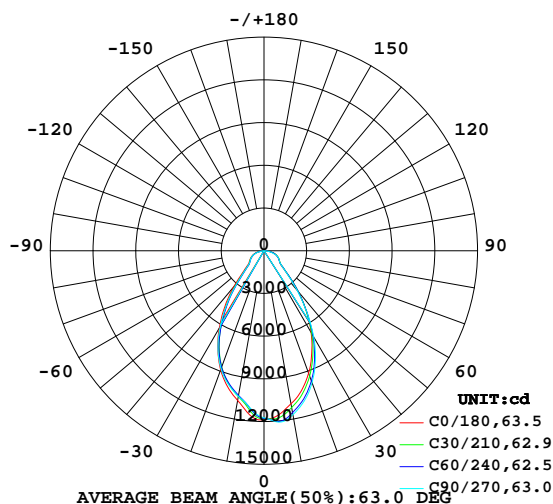


LUMINAIRE PHOTOMETRIC TEST REPORT

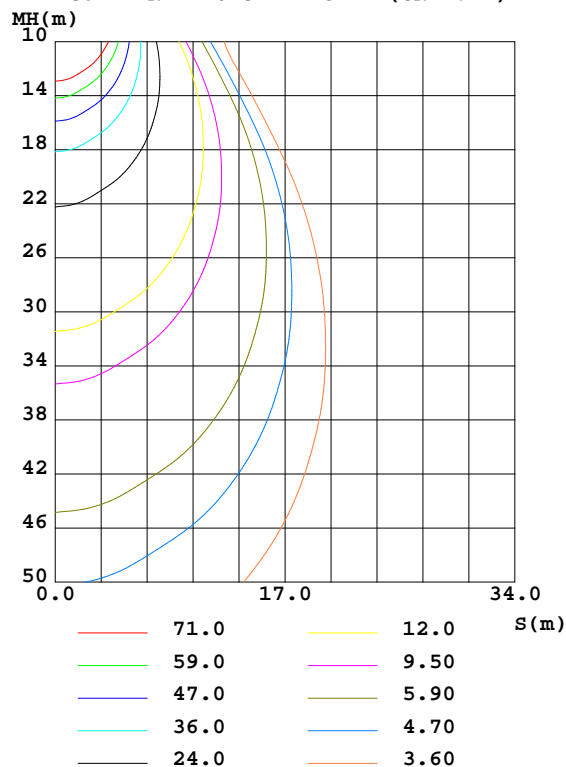
NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 126.53 lm/W
MODEL	ZGSM-GCD120H6	Imax(cd)	12097	S/MH(C0/180)	0.91	
NOMINAL POWER(W)	120	LOR(%)	101.2	S/MH(C90/270)	0.92	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	15183	η UP,DN(C0-180)	0.0,53.3	
NOMINAL FLUX(lm)	15000	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.0	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00	
TEST VOLTAGE(V)	220.1	η down(%)	101.2	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	1091	1137	1169	1117	1068	1032	1038	1059	0- 10	1078	1078	7.1,7.19
20	916.1	956.2	986.7	945.0	890.8	866.0	883.5	896.4	10- 20	2838	3916	25.8,26.1
30	661.6	682.7	699.4	662.7	628.9	592.3	615.2	628.2	20- 30	3614	7530	49.6,50.2
40	373.5	376.6	362.9	345.0	328.7	278.7	289.4	318.3	30- 40	3030	10561	69.6,70.4
50	155.6	163.5	160.6	147.6	142.1	131.7	133.4	139.2	40- 50	1679	12240	80.6,81.6
60	122.7	122.8	122.1	111.8	111.1	105.6	105.8	110.7	50- 60	1136	13375	88.1,89.2
70	92.66	94.79	90.14	83.20	79.86	74.55	71.42	82.50	60- 70	980.1	14355	94.5,95.7
80	42.07	51.38	38.26	40.48	30.43	32.39	5.655	39.86	70- 80	649.2	15005	98.8,100
90	3.500	5.799	0.8462	1.660	1.400	0.9324	0.3312	1.715	80- 90	178.9	15183	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): 11542 lm

%lum = 76.0%

%lamp = 76.9%

Conical surface Flux(120deg): 13375 lm

%lum = 88.1%

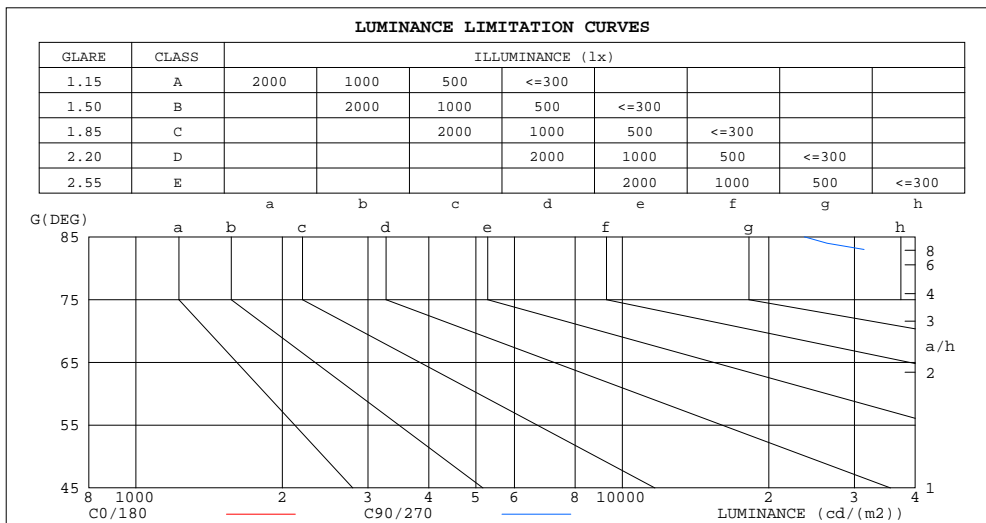
%lamp = 89.2%

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	65325	23676
80	72103	65572
75	84617	72141
70	80635	78441
65	77262	77198
60	73013	72707
55	70023	69616
50	72045	74368
45	98724	98021

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	.133	.042	.219	.126	.041	.208	.121	.039		
2.0	.236	.130	.040	.230	.127	.039	.219	.122	.038	.209	.117	.037	.199	.113	.035		
3.0	.220	.117	.035	.215	.115	.035	.205	.111	.034	.196	.107	.033	.188	.104	.032		
4.0	.205	.107	.031	.201	.105	.031	.192	.102	.030	.184	.099	.030	.176	.096	.029		
5.0	.192	.098	.028	.188	.096	.028	.180	.094	.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	.169	.083	.024	.166	.083	.024	.160	.081	.023	.154	.079	.023	.149	.077	.023		
8.0	.159	.078	.022	.156	.077	.022	.151	.075	.022	.146	.074	.021	.141	.073	.021		
9.0	.151	.073	.020	.148	.072	.020	.143	.071	.020	.139	.070	.020	.134	.068	.020		
10.0	.143	.068	.019	.140	.068	.019	.136	.067	.019	.132	.066	.019	.128	.065	.019		

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	.193	.193	.193	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.178	.159	.141	.152	.136	.121	.104	.094	.084	.060	.054	.049	.019	.017	.016	
2.0	.166	.134	.106	.143	.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	.132	.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	.119	.068	.033	.102	.059	.029	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.113	.063	.029	.097	.054	.025	.067	.038	.018	.039	.023	.011	.013	.007	.003	
10.0	.108	.058	.025	.093	.051	.022	.064	.036	.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	20.5	18.7	19.9	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	20.4	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	21.0	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	22.6	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	21.8	22.4	22.8
8H 4H		21.1	21.8	21.5	22.2	22.6	20.9	21.6	21.3	22.0	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	24.0	22.0	22.5	22.5	23.0	23.4
12H		22.9	23.3	23.3	23.8	24.2	22.2	22.7	22.7	23.1	23.6
12H 4H		21.2	21.8	21.6	22.2	22.6	20.9	21.6	21.4	22.0	22.4
6H		22.3	22.8	22.7	23.2	23.7	21.9	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, 15000 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 9.4$)

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:

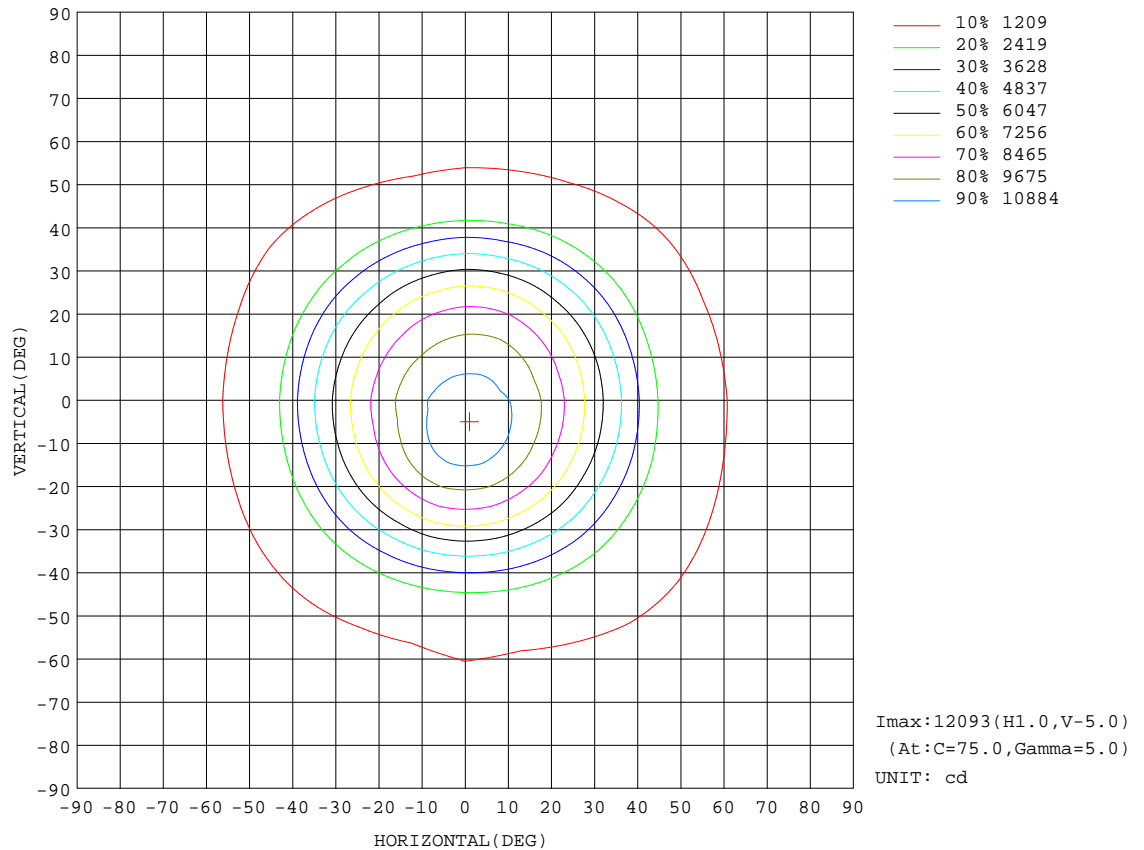
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	74	65	60	73	65	59	72	64	59	54
0.80	83	74	68	82	73	68	80	73	68	62
1.00	89	80	75	88	80	75	86	81	74	69
1.25	94	86	81	93	86	81	91	84	80	74
1.50	98	91	86	97	90	85	94	88	84	78
2.00	103	96	92	101	95	91	98	93	89	83
2.50	106	100	95	104	99	94	100	96	92	85
3.00	108	103	99	106	101	98	102	99	95	88
4.00	111	107	103	109	105	102	105	102	99	91
5.00	113	110	107	111	108	105	107	104	102	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNM = 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:



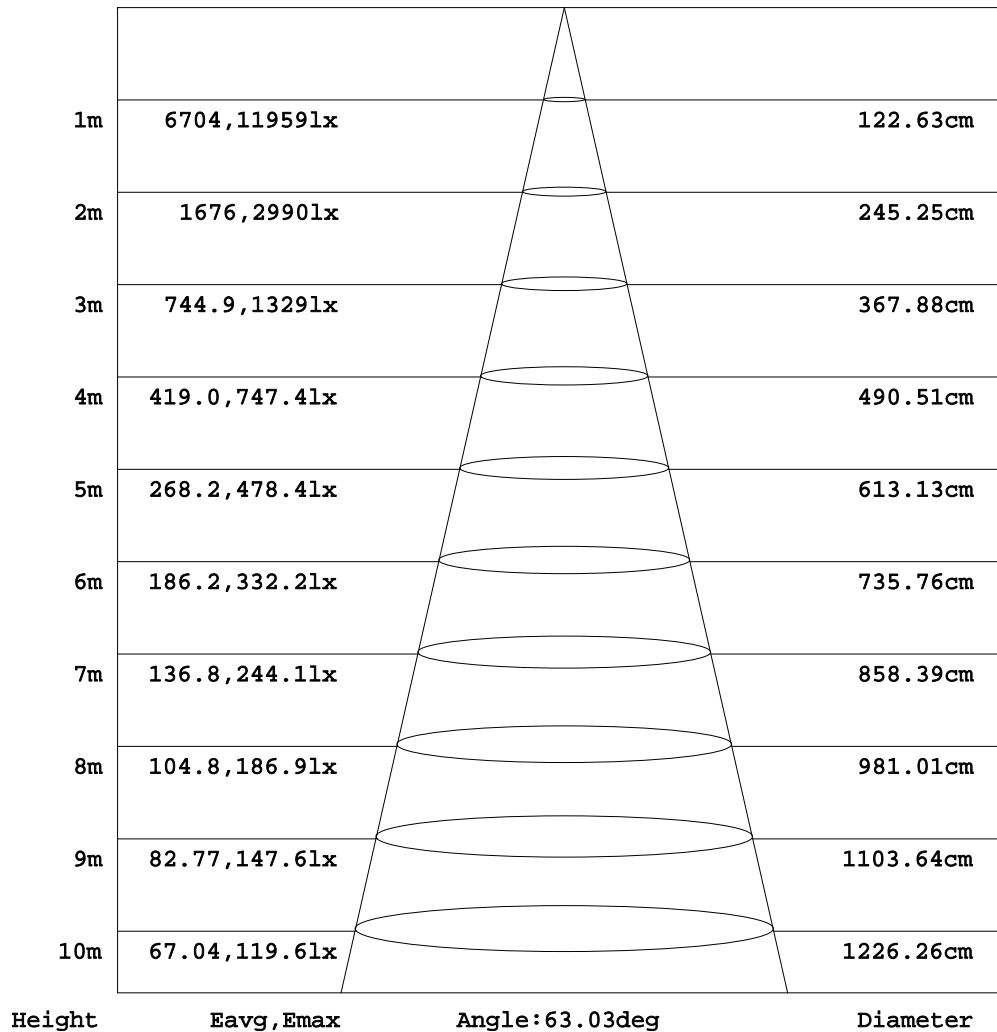
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

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:8224 lm

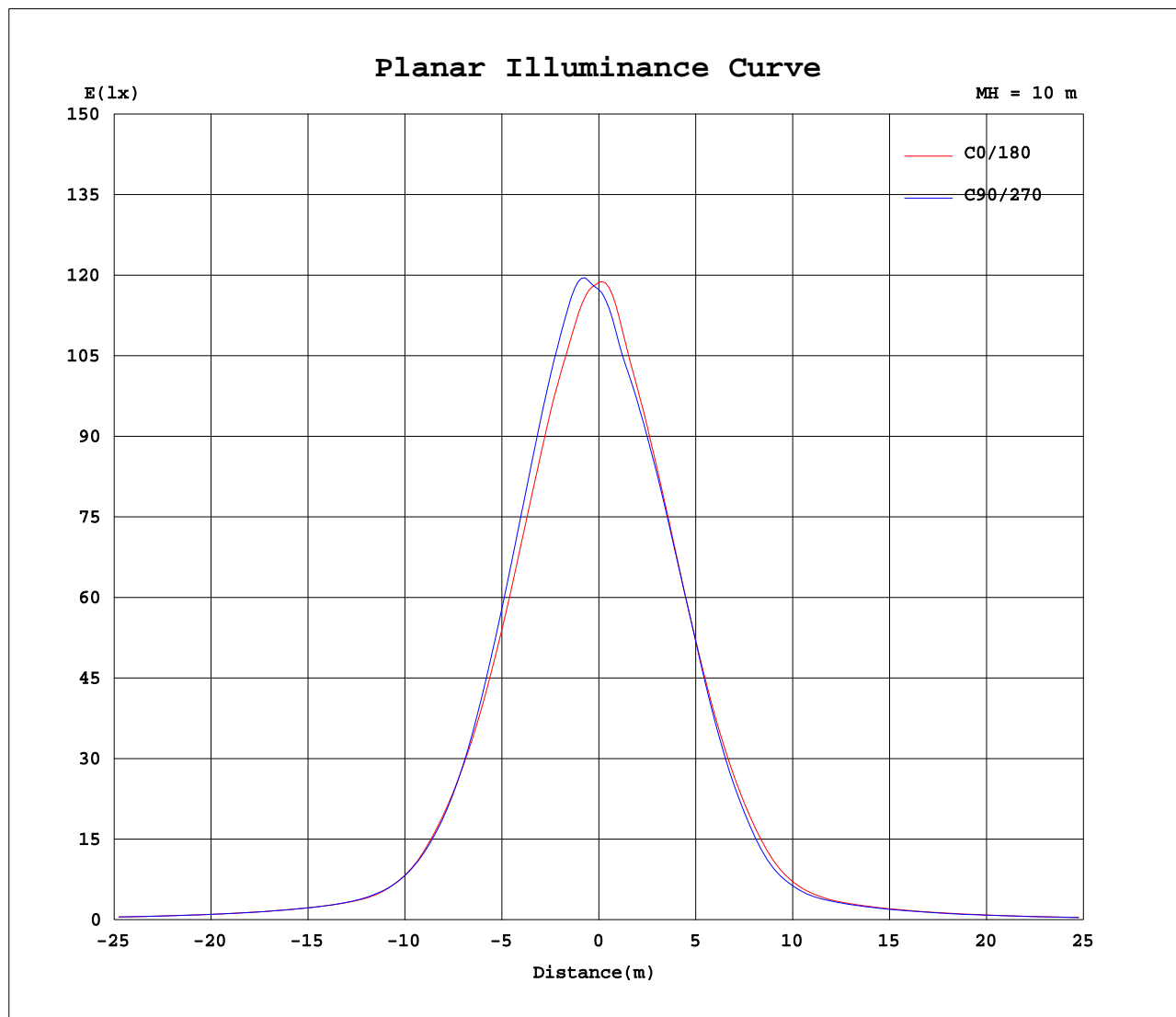


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

