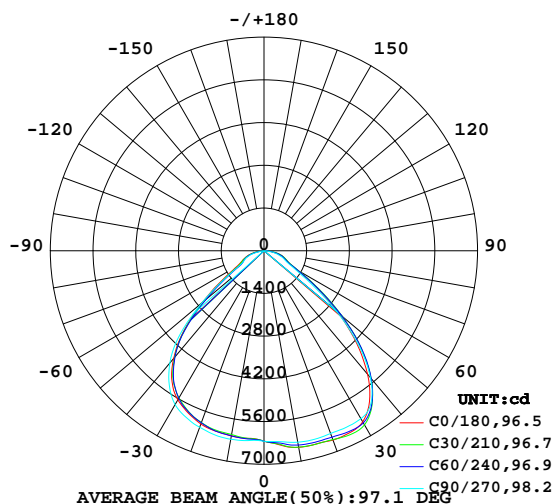


LUMINAIRE PHOTOMETRIC TEST REPORT

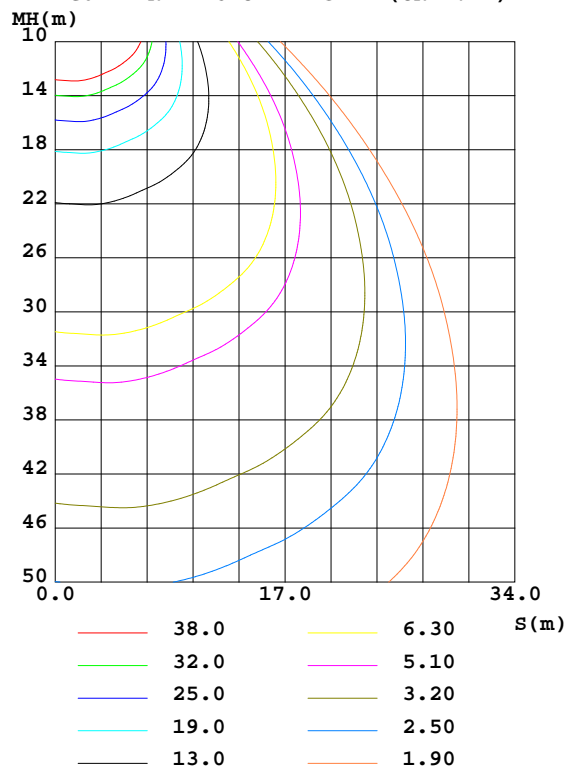
NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 124.98 lm/W
MODEL	ZGSM-GCD120H6	Imax(cd)	6662	S/MH(C0/180)	1.33	
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.35	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	14998	η UP,DN(C0-180)	0.0,52.3	
NOMINAL FLUX(lm)	15000	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,47.7	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	220.1	η down(%)	100.0	CIBSE SHR MAX	1.35	

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	6540	6506	6372	6214	6154	6123	6273	6448	0- 10	601.1	601.1	4.01,4.01
20	6602	6542	6373	6191	6045	5974	6160	6426	10- 20	1791	2392	16,15.9
30	6472	6557	6355	6007	5646	5552	5825	6192	20- 30	2873	5266	35.1,35.1
40	5280	5492	5429	5015	4607	4522	4802	4985	30- 40	3534	8799	58.7,58.7
50	3190	3393	3137	2815	2636	2492	2663	2868	40- 50	3100	11900	79.3,79.3
60	1258	1314	1111	1008	1016	873.3	849.6	1024	50- 60	1645	13544	90.3,90.3
70	725.4	732.0	642.8	659.0	648.2	613.9	567.9	656.4	60- 70	805.9	14350	95.7,95.7
80	353.6	402.2	301.1	305.8	256.1	244.5	48.61	319.2	70- 80	513.3	14864	99.1,99.1
90	27.69	30.56	6.881	14.37	13.36	9.633	2.906	16.69	80- 90	134.3	14998	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:cd									UNIT:lm		

Conical surface Flux(90deg): 10490 lm

%lum = 69.9%

%lamp = 69.9%

Conical surface Flux(120deg): 13544 lm

%lum = 90.3%

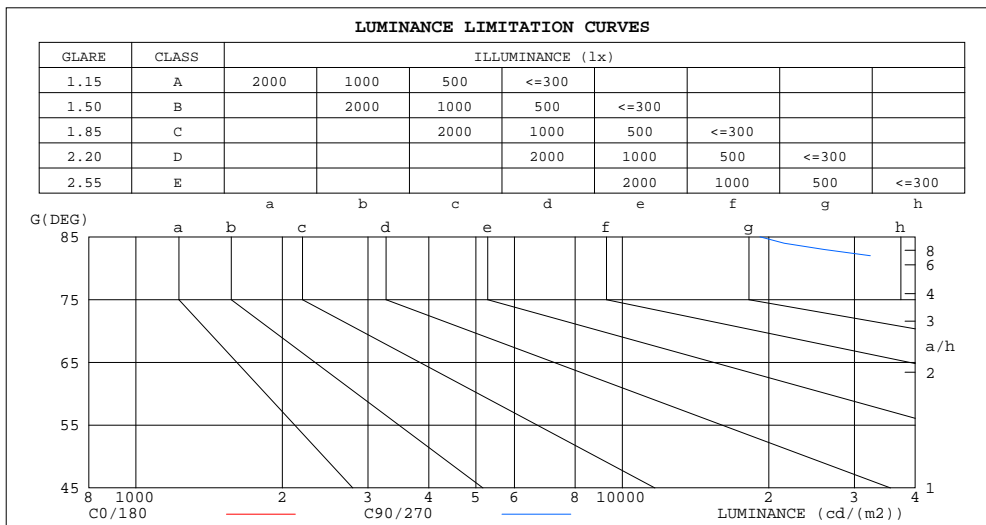
%lamp = 90.3%

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	51423	19195
80	60609	51602
75	67550	53542
70	63123	55931
65	61065	55676
60	74873	66118
55	109619	98593
50	147704	145250
45	181146	185339

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	.257	.146	.046	.250	.142	.045	.237	.136	.043	.225	.130	.042	.214	.124	.040		
2.0	.246	.135	.041	.240	.132	.041	.229	.127	.040	.218	.123	.038	.209	.118	.037		
3.0	.232	.124	.037	.227	.121	.037	.217	.118	.036	.208	.114	.035	.199	.110	.034		
4.0	.218	.113	.033	.213	.112	.033	.205	.109	.032	.197	.106	.032	.189	.103	.031		
5.0	.205	.104	.030	.201	.103	.030	.193	.100	.030	.186	.098	.029	.179	.096	.029		
6.0	.192	.096	.028	.189	.095	.027	.182	.093	.027	.175	.091	.027	.169	.089	.026		
7.0	.181	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.083	.025		
8.0	.171	.084	.023	.168	.083	.023	.163	.081	.023	.157	.080	.023	.153	.078	.023		
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.149	.075	.021	.145	.074	.021		
10.0	.153	.073	.020	.151	.073	.020	.146	.072	.020	.142	.071	.020	.138	.069	.020		

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	.177	.157	.139	.151	.134	.119	.103	.092	.082	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.089	.098	.079	.062	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.135	.098	.069	.093	.068	.048	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.077	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.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					19.7	21.0	20.0	21.2	21.4	19.6	20.9	19.8	21.1	21.3
3H					20.2	21.4	20.4	21.6	21.8	20.0	21.2	20.3	21.4	21.7
4H					20.5	21.7	20.8	21.9	22.2	20.2	21.4	20.5	21.6	21.9
6H					20.8	21.9	21.1	22.2	22.4	20.4	21.5	20.7	21.8	22.0
8H					20.9	22.0	21.2	22.2	22.5	20.4	21.5	20.8	21.8	22.0
12H					20.9	22.0	21.3	22.2	22.5	20.4	21.4	20.7	21.7	22.0
4H 2H					19.8	21.0	20.1	21.2	21.4	19.7	20.9	20.0	21.1	21.3
3H					20.5	21.5	20.8	21.8	22.1	20.3	21.3	20.6	21.6	21.9
4H					21.0	21.9	21.4	22.2	22.6	20.7	21.6	21.1	21.9	22.3
6H					21.5	22.3	21.9	22.6	23.0	21.0	21.8	21.4	22.2	22.5
8H					21.7	22.4	22.1	22.8	23.1	21.1	21.9	21.5	22.2	22.6
12H					21.8	22.5	22.2	22.8	23.2	21.1	21.8	21.5	22.2	22.6
8H 4H					21.2	21.9	21.6	22.3	22.7	20.9	21.6	21.3	22.0	22.4
6H					21.8	22.5	22.3	22.9	23.3	21.4	22.0	21.8	22.4	22.8
8H					22.1	22.7	22.6	23.1	23.5	21.5	22.1	22.0	22.5	23.0
12H					22.3	22.8	22.8	23.2	23.7	21.6	22.1	22.1	22.6	23.0
12H 4H					21.2	21.9	21.6	22.2	22.6	20.9	21.6	21.3	22.0	22.4
6H					21.9	22.4	22.3	22.9	23.3	21.5	22.0	21.9	22.4	22.9
8H					22.2	22.7	22.7	23.1	23.6	21.7	22.1	22.1	22.6	23.0
Variations with the observer position at spacings:														
S = 1.0H					+ 0.6 / - 0.7					+ 0.7 / - 0.9				
1.5H					+ 0.3 / - 0.4					+ 0.5 / - 0.6				
2.0H					+ 1.5 / - 1.3					+ 1.9 / - 1.6				

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:

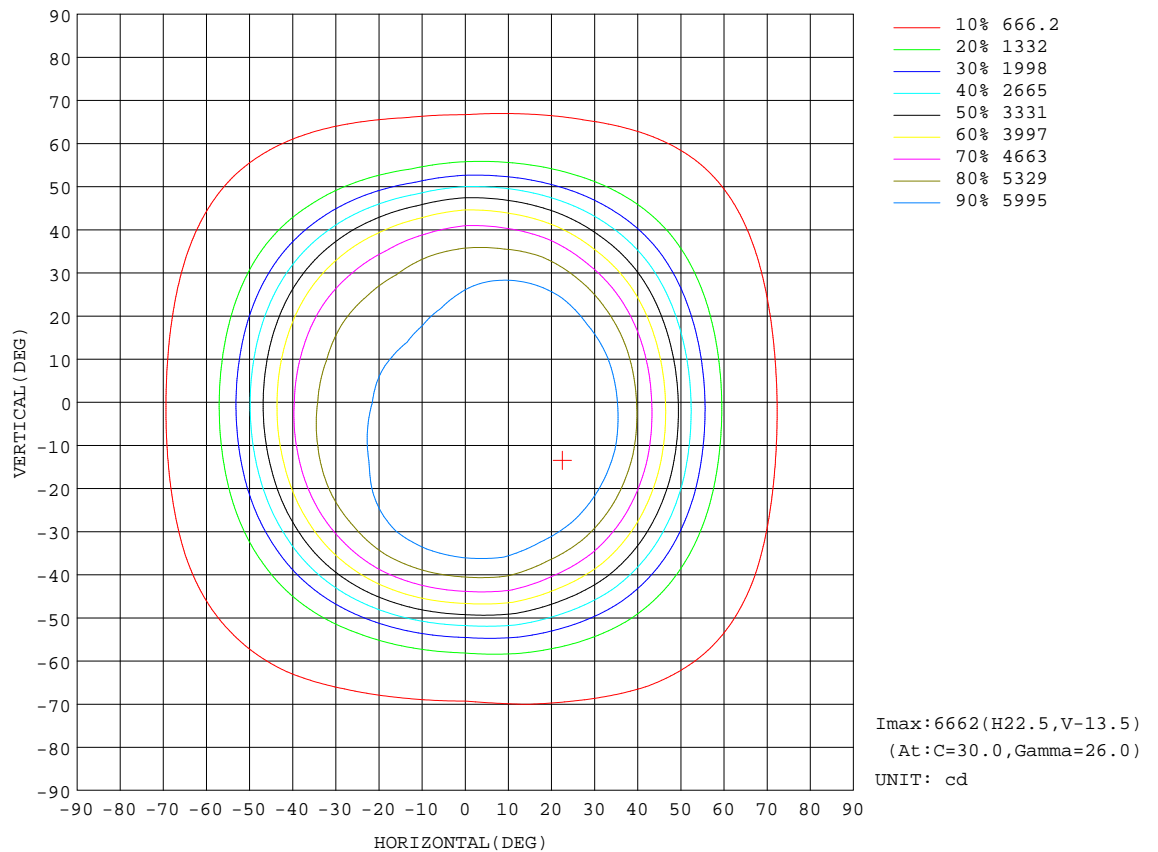
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	55	49	65	55	49	64	55	49	43
0.80	76	66	59	75	65	59	73	65	59	53
1.00	84	74	68	83	74	68	81	75	68	61
1.25	90	82	76	89	81	75	86	80	75	68
1.50	95	87	81	93	86	80	90	84	79	73
2.00	100	93	88	99	92	87	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	104	101	107	103	99	103	99	96	88
5.00	111	107	104	108	105	102	104	101	99	90
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:



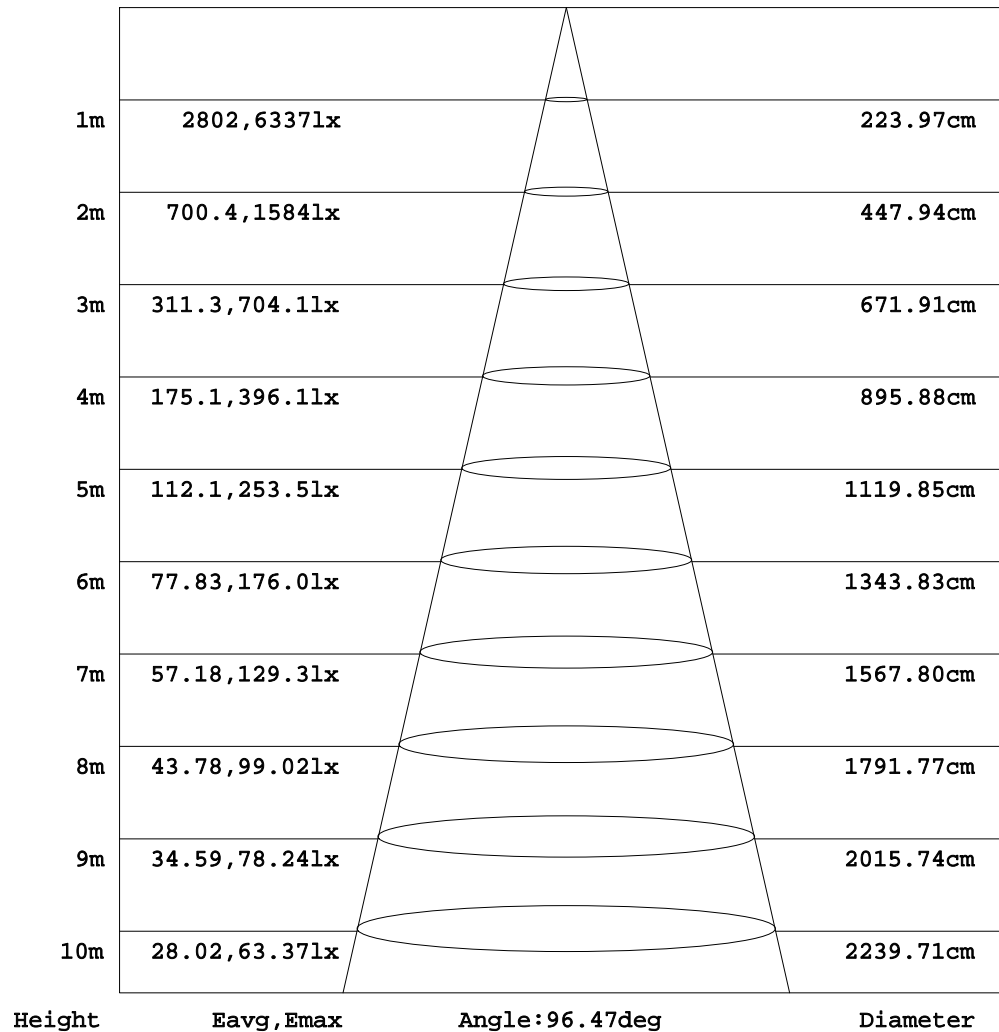
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

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:11648 lm

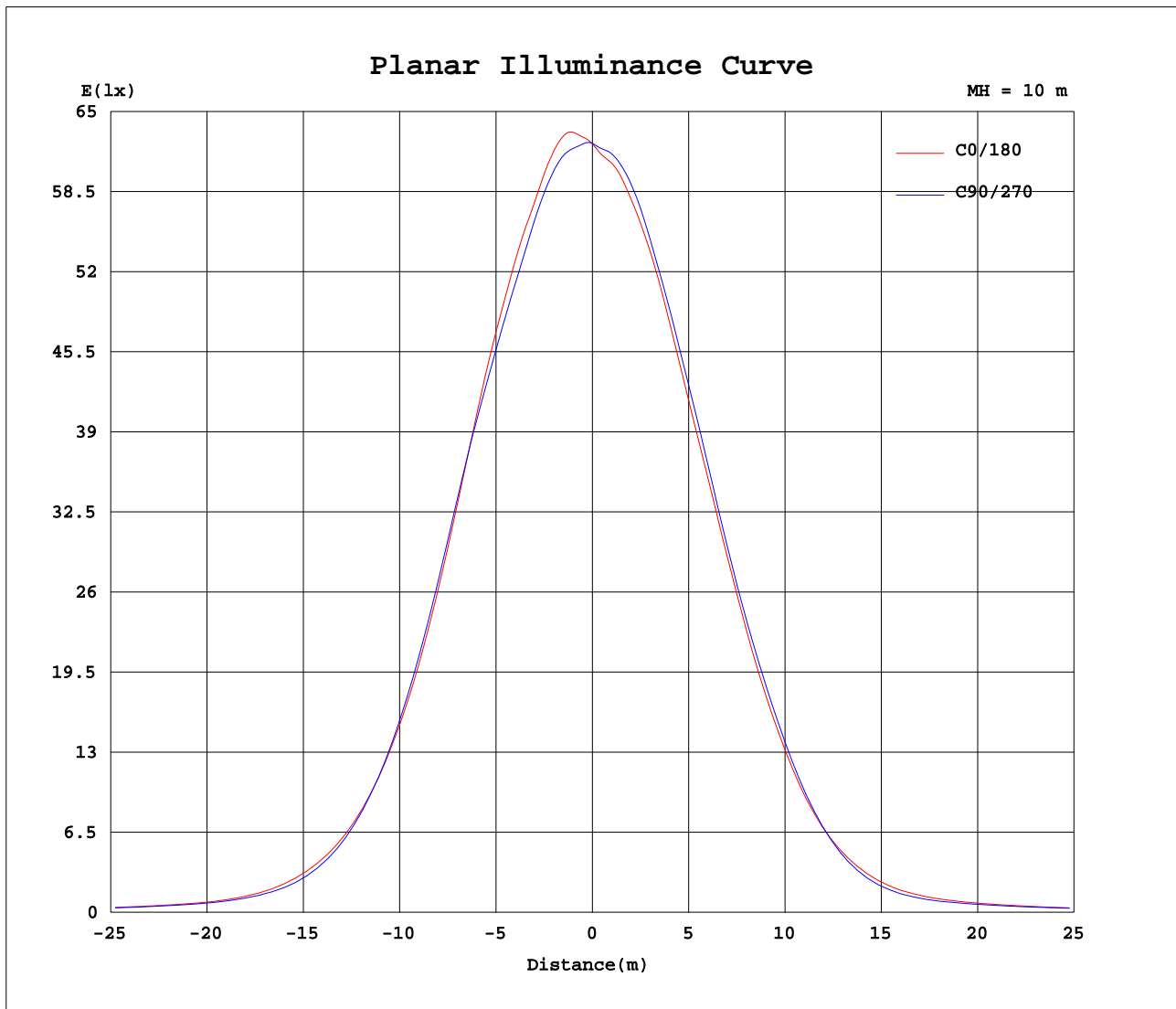


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

