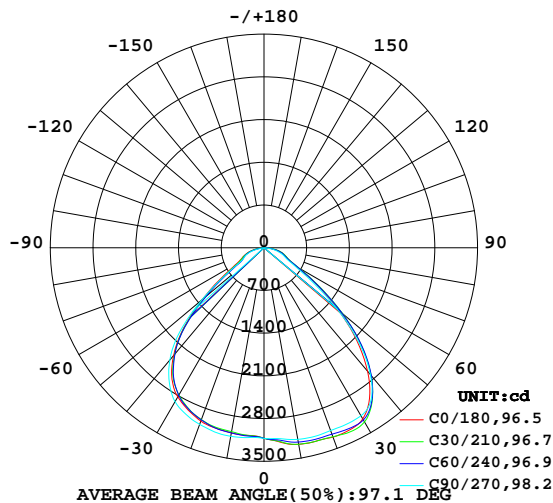


LUMINAIRE PHOTOMETRIC TEST REPORT

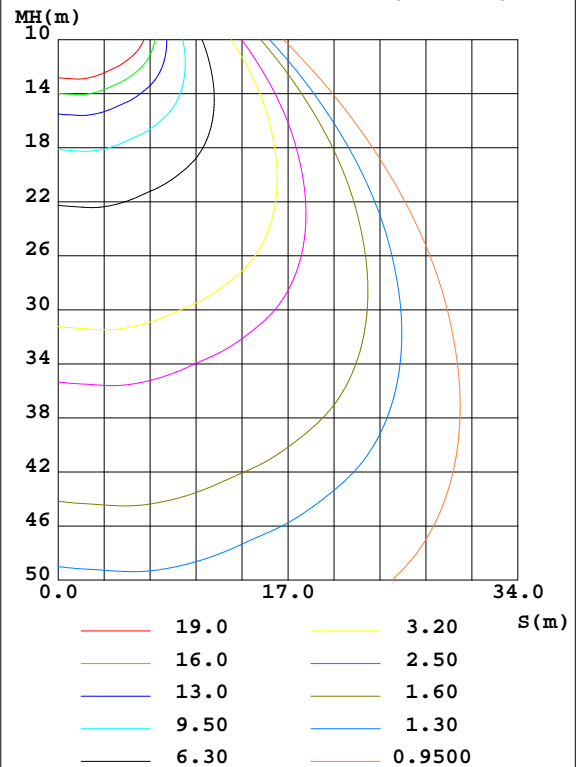
NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 125.02 lm/W
MODEL	ZGSM-GCD60H6	Imax(cd)	3332	S/MH(C0/180)	1.33	
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	1.35	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	7502.1	η UP,DN(C0-180)	0.0,52.3	
NOMINAL FLUX(lm)	7500	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	3271	3254	3187	3108	3078	3063	3138	3225	0- 10	300.7	300.7	4.01,4.01
20	3303	3272	3188	3097	3024	2988	3081	3214	10- 20	896.0	1197	16,16
30	3237	3280	3179	3005	2824	2777	2914	3097	20- 30	1437	2634	35.1,35.1
40	2641	2747	2716	2509	2304	2262	2402	2494	30- 40	1768	4402	58.7,58.7
50	1596	1697	1569	1408	1319	1246	1332	1435	40- 50	1551	5952	79.3,79.4
60	629.2	657.3	555.6	504.2	508.4	436.8	425.0	512.3	50- 60	822.6	6775	90.3,90.3
70	362.9	366.2	321.5	329.6	324.2	307.1	284.1	328.3	60- 70	403.1	7178	95.7,95.7
80	176.9	201.2	150.6	153.0	128.1	122.3	24.31	159.7	70- 80	256.7	7435	99.1,99.1
90	13.85	15.29	3.442	7.189	6.683	4.818	1.453	8.346	80- 90	67.18	7502	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): 5247.2 lm

%lum = 69.9%

%lamp = 70.0%

Conical surface Flux(120deg): 6775 lm

%lum = 90.3%

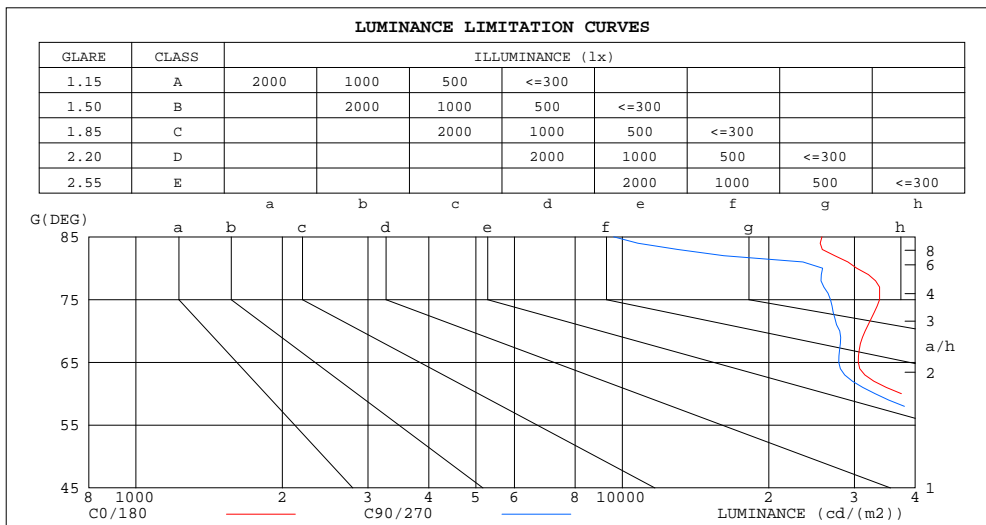
%lamp = 90.3%

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	25722	9601
80	30317	25812
75	33789	26782
70	31575	27977
65	30545	27850
60	37452	33073
55	54832	49317
50	73883	72655
45	90610	92708

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	.122	.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	.193	.097	.028	.189	.095	.027	.182	.093	.027	.176	.091	.027	.170	.089	.027	
7.0	.181	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.083	.025	
8.0	.171	.084	.024	.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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.177	.157	.139	.151	.134	.119	.103	.092	.083	.060	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.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	.078	.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	.027	.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	21.9	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	21.4
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	23.2	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	21.7	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, 7500 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 7.0$)

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:

UTILIZATION FACTORS TABLE

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

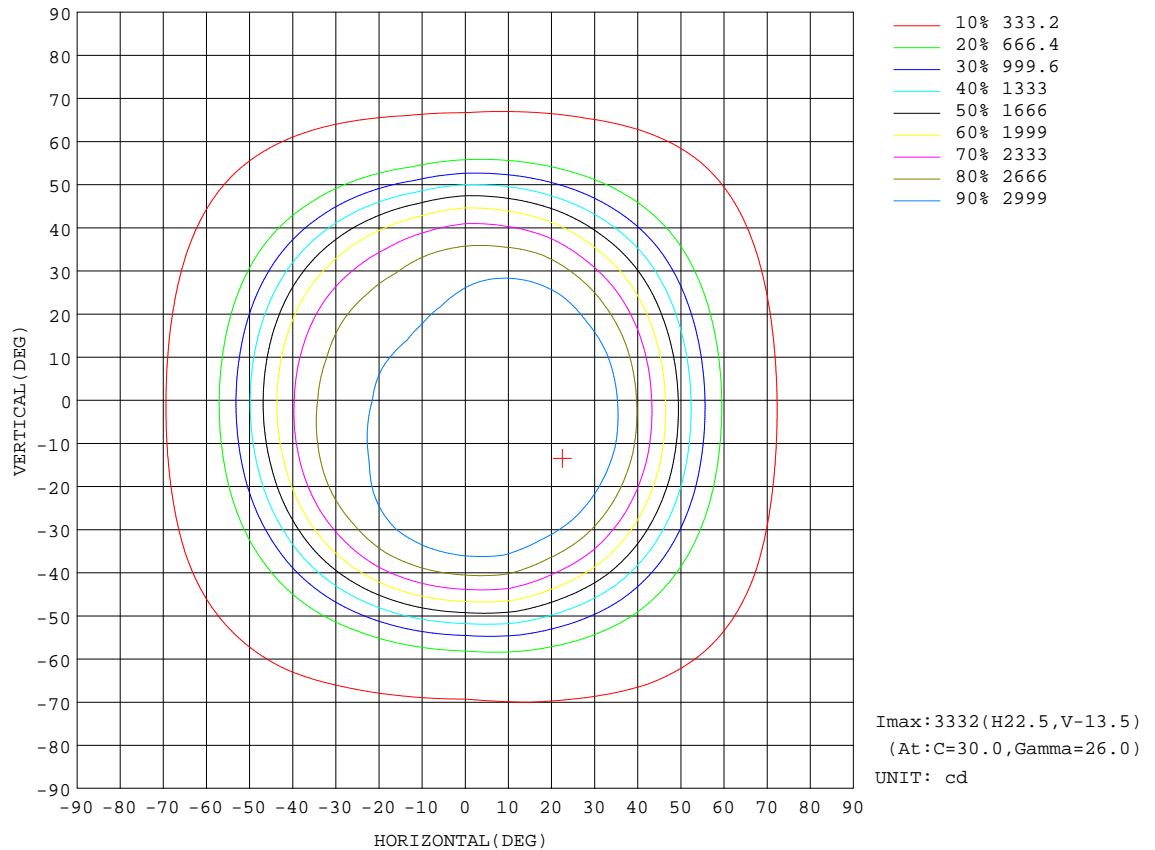
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	66	55	49	65	55	49	64	55	49	43
0.80	76	66	59	75	65	59	73	65	59	53
1.00	84	74	68	83	74	68	81	75	68	61
1.25	90	82	76	89	81	75	87	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	97	88
5.00	111	107	104	109	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:



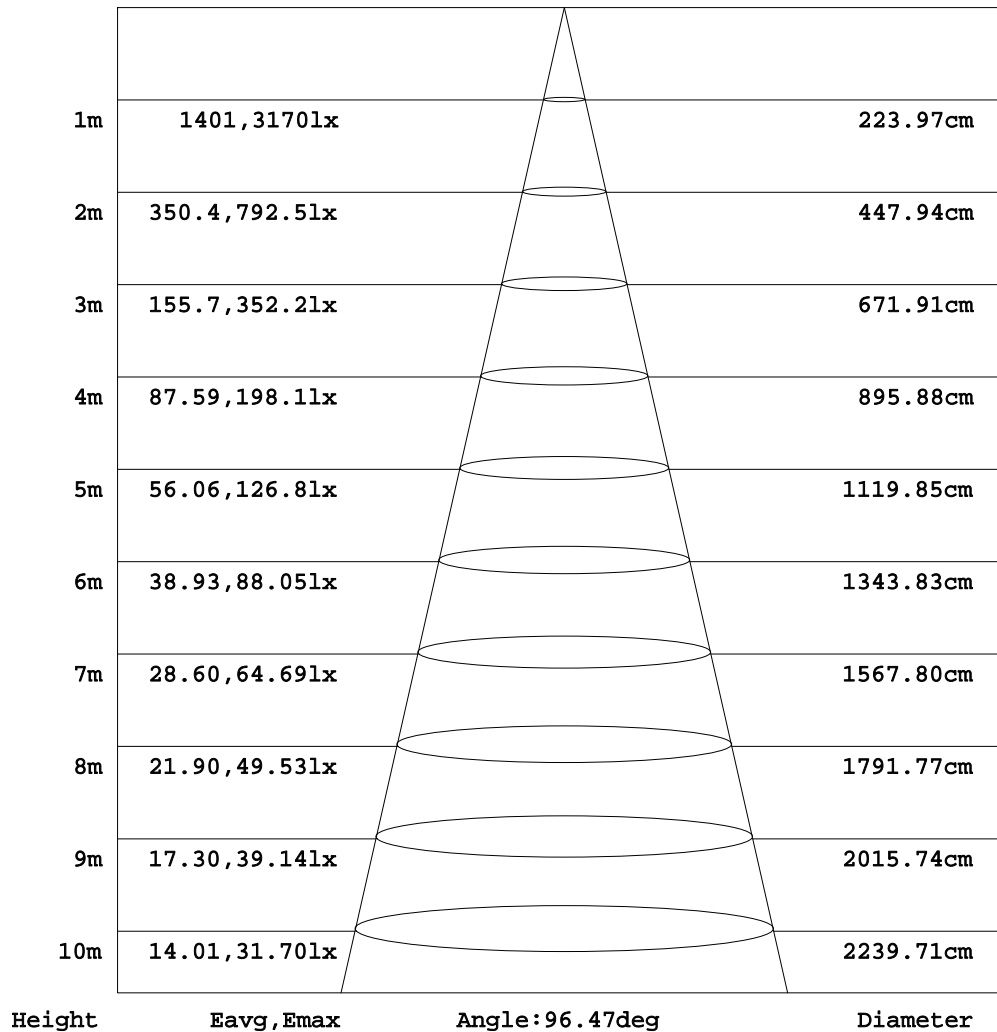
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017

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:5826 lm

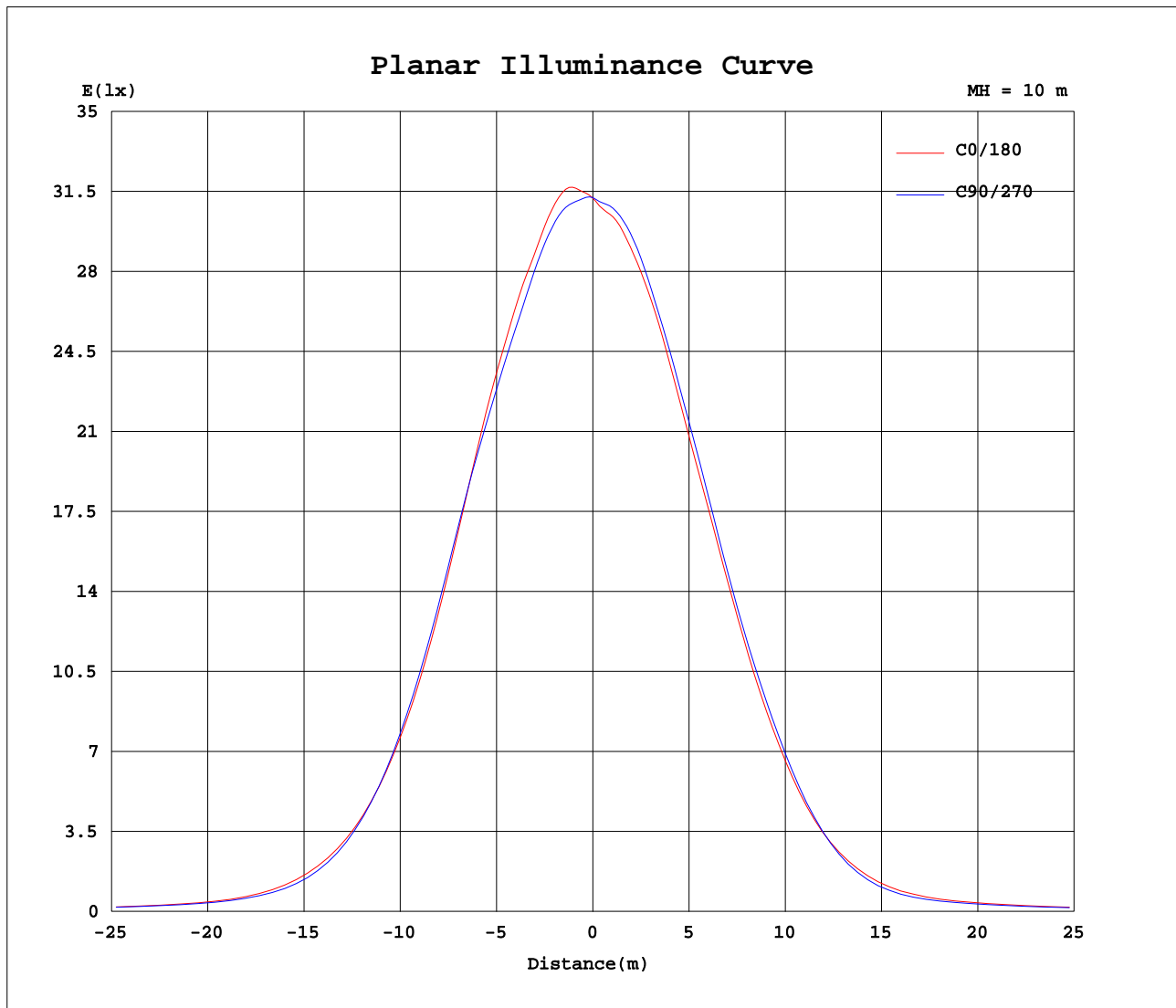


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

