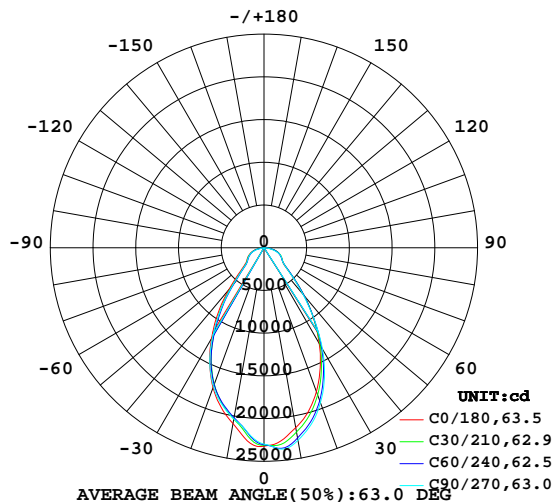


LUMINAIRE PHOTOMETRIC TEST REPORT

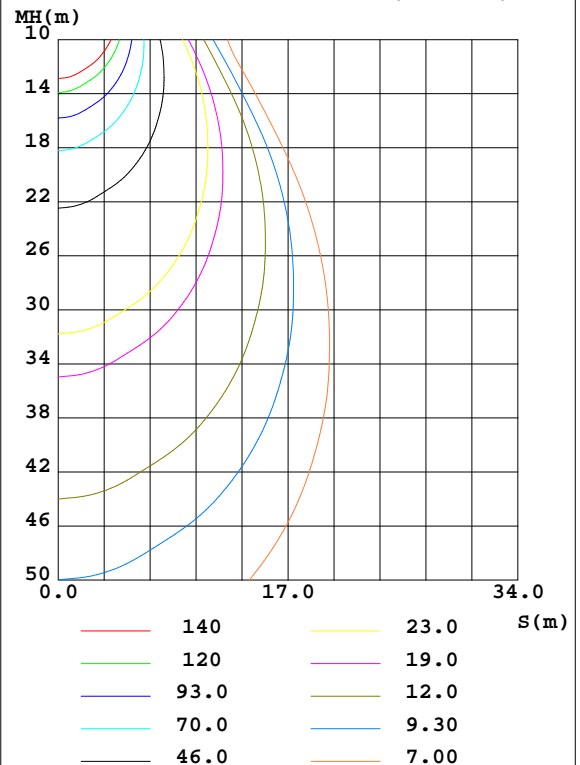
NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 123.89 lm/W
MODEL	ZGSM-GCD240H6	Imax(cd)	23689	S/MH(C0/180)	0.91	
NOMINAL POWER(W)	240	LOR(%)	99.1	S/MH(C90/270)	0.92	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	29734	η UP,DN(C0-180)	0.0,52.1	
NOMINAL FLUX(lm)	30000	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,47.0	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00	
TEST VOLTAGE(V)	220.1	η down(%)	99.1	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	2137	2227	2289	2188	2091	2022	2033	2073	0- 10	2111	2111	7.1, 7.04
20	1794	1872	1932	1851	1745	1696	1730	1755	10- 20	5557	7668	25.8, 25.6
30	1296	1337	1370	1298	1232	1160	1205	1230	20- 30	7078	14747	49.6, 49.2
40	731.5	737.5	710.6	675.7	643.7	545.8	566.7	623.3	30- 40	5935	20681	69.6, 68.9
50	304.7	320.3	314.5	289.0	278.2	257.9	261.2	272.5	40- 50	3288	23969	80.6, 79.9
60	240.2	240.5	239.2	218.9	217.5	206.8	207.2	216.9	50- 60	2224	26193	88.1, 87.3
70	181.5	185.6	176.5	162.9	156.4	146.0	139.9	161.6	60- 70	1919	28113	94.5, 93.7
80	82.39	100.6	74.92	79.27	59.59	63.44	11.07	78.05	70- 80	1271	29384	98.8, 97.9
90	6.854	11.36	1.657	3.251	2.741	1.826	0.6486	3.359	80- 90	350.3	29734	100, 99.1
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: $\times 10\text{cd}$									UNIT: lm		

Conical surface Flux(90deg): 22604 lm

%lum = 76.0%

%lamp = 75.3%

Conical surface Flux(120deg): 26193 lm

%lum = 88.1%

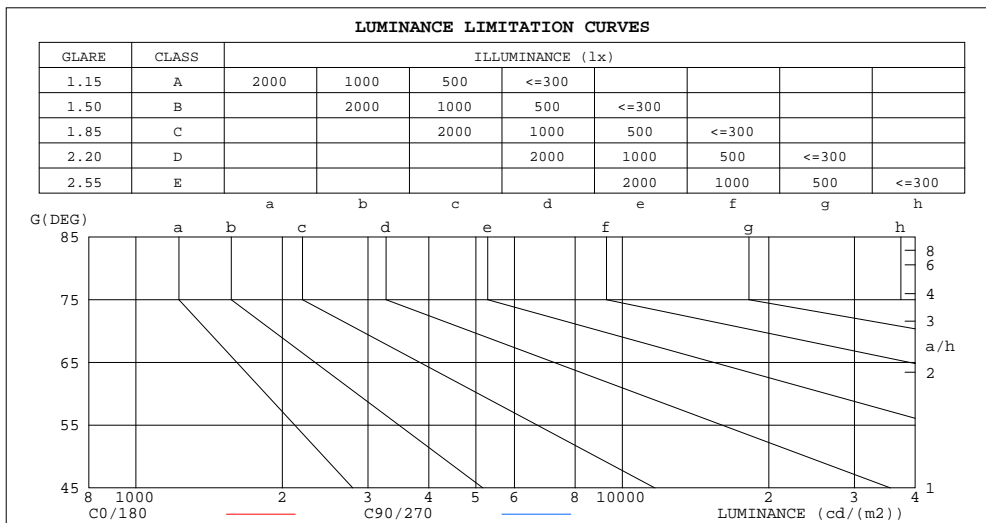
%lamp = 87.3%

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	127928	46366
80	141202	128412
75	165709	141276
70	157910	153613
65	151304	151180
60	142983	142385
55	137128	136331
50	141089	145638
45	193335	191957

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	.246	.140	.044	.239	.136	.043	.226	.130	.041	.214	.124	.040	.204	.118	.038		
2.0	.231	.127	.039	.225	.124	.038	.214	.119	.037	.204	.115	.036	.195	.110	.035		
3.0	.216	.115	.034	.210	.113	.034	.201	.109	.033	.192	.105	.032	.184	.102	.031		
4.0	.201	.104	.031	.196	.103	.030	.188	.100	.030	.180	.097	.029	.173	.094	.029		
5.0	.188	.096	.028	.184	.094	.027	.176	.092	.027	.169	.089	.027	.163	.087	.026		
6.0	.176	.088	.025	.172	.087	.025	.166	.085	.025	.160	.083	.024	.154	.081	.024		
7.0	.165	.082	.023	.162	.081	.023	.156	.079	.023	.151	.077	.023	.146	.076	.022		
8.0	.156	.076	.021	.153	.075	.021	.148	.074	.021	.143	.072	.021	.138	.071	.021		
9.0	.147	.071	.020	.145	.071	.020	.140	.069	.020	.136	.068	.019	.132	.067	.019		
10.0	.140	.067	.019	.138	.066	.019	.133	.065	.018	.129	.064	.018	.126	.063	.018		

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	.189	.189	.189	.161	.161	.161	.110	.110	.110	.063	.063	.063	.020	.020	.020		
1.0	.174	.155	.138	.149	.133	.119	.102	.092	.082	.059	.053	.048	.019	.017	.015		
2.0	.163	.131	.104	.140	.113	.090	.096	.078	.063	.055	.045	.037	.018	.015	.012		
3.0	.153	.113	.081	.131	.097	.070	.090	.068	.049	.052	.040	.029	.017	.013	.010		
4.0	.144	.099	.065	.124	.086	.056	.085	.060	.040	.049	.035	.023	.016	.011	.008		
5.0	.136	.088	.053	.117	.076	.046	.080	.053	.032	.047	.031	.019	.015	.010	.006		
6.0	.129	.079	.044	.111	.069	.038	.076	.048	.027	.044	.028	.016	.014	.009	.005		
7.0	.122	.072	.037	.105	.063	.032	.073	.044	.023	.042	.026	.014	.014	.008	.005		
8.0	.116	.066	.032	.100	.058	.028	.069	.040	.020	.040	.024	.012	.013	.008	.004		
9.0	.111	.061	.028	.095	.053	.024	.066	.037	.017	.038	.022	.010	.012	.007	.003		
10.0	.106	.057	.025	.091	.049	.022	.063	.035	.015	.037	.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	18.4	17.4	18.6	18.8	17.1	18.3	17.3	18.5	18.7
3H		18.8	19.9	19.1	20.2	20.4	18.6	19.8	18.9	20.0	20.2
4H		19.6	20.7	19.9	21.0	21.2	19.3	20.4	19.6	20.7	20.9
6H		20.3	21.3	20.6	21.6	21.8	19.9	20.9	20.2	21.1	21.4
8H		20.5	21.5	20.8	21.7	22.0	19.9	20.9	20.3	21.2	21.5
12H		20.6	21.5	20.9	21.8	22.1	19.9	20.9	20.3	21.2	21.5
4H 2H		17.7	18.8	18.0	19.0	19.3	17.6	18.7	17.9	19.0	19.2
3H		19.7	20.6	20.0	20.9	21.2	19.5	20.4	19.8	20.7	21.0
4H		20.7	21.5	21.0	21.8	22.2	20.4	21.2	20.7	21.5	21.9
6H		21.5	22.3	21.9	22.6	23.0	21.0	21.8	21.4	22.1	22.5
8H		21.8	22.5	22.2	22.8	23.2	21.2	21.9	21.6	22.3	22.6
12H		21.9	22.6	22.4	23.0	23.4	21.3	21.9	21.7	22.3	22.7
8H 4H		21.1	21.8	21.5	22.1	22.5	20.8	21.5	21.2	21.9	22.3
6H		22.1	22.7	22.5	23.1	23.5	21.7	22.3	22.1	22.7	23.1
8H		22.5	23.0	22.9	23.4	23.9	21.9	22.5	22.4	22.9	23.3
12H		22.8	23.2	23.3	23.7	24.2	22.1	22.6	22.6	23.0	23.5
12H 4H		21.1	21.7	21.5	22.1	22.5	20.9	21.5	21.3	21.9	22.3
6H		22.2	22.7	22.6	23.1	23.6	21.8	22.3	22.2	22.7	23.2
8H		22.6	23.1	23.1	23.5	24.0	22.1	22.6	22.6	23.0	23.5
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, 30000 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 11.8$)

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:

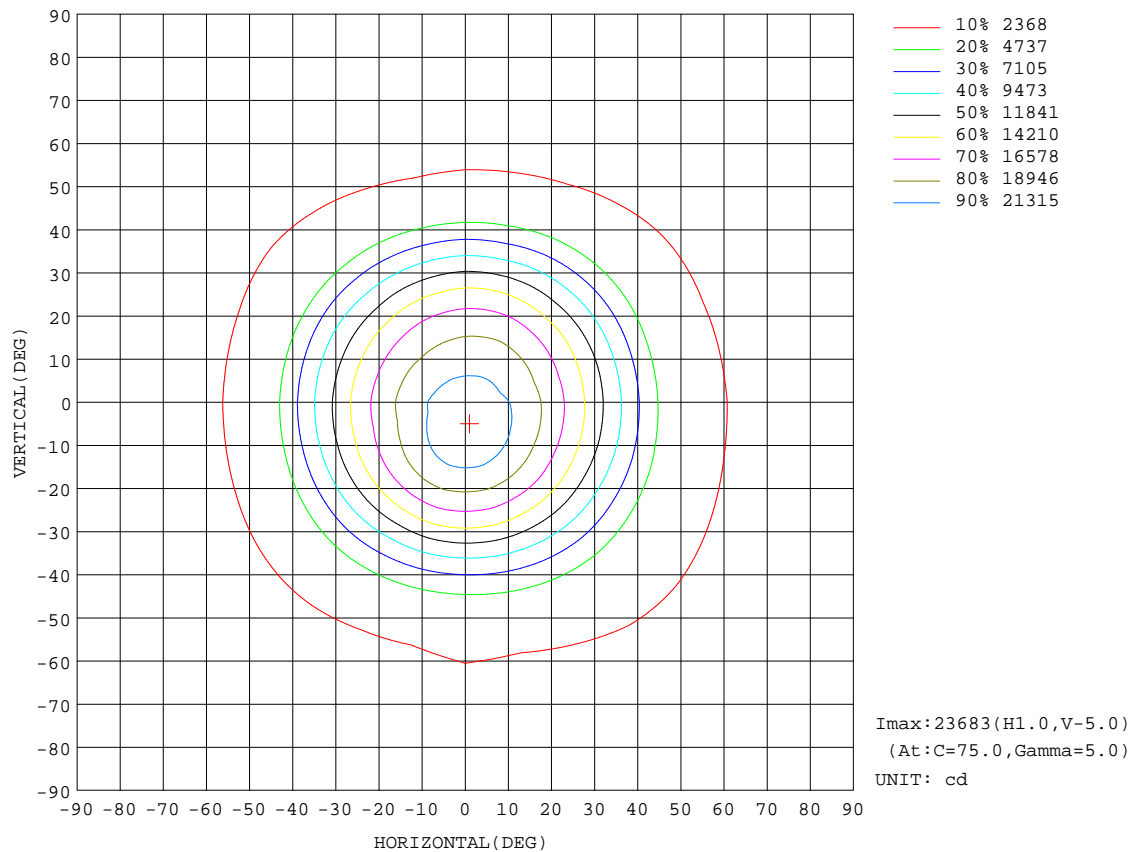
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	72	64	58	72	63	58	71	63	58	53
0.80	81	72	67	80	72	67	79	71	66	61
1.00	87	79	73	86	78	73	84	79	73	67
1.25	92	85	79	91	84	79	89	83	78	72
1.50	96	89	84	95	88	83	92	86	82	76
2.00	101	94	90	99	93	89	96	91	87	81
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	104	99	96	100	97	93	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	107	104	109	105	103	104	102	100	91
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:



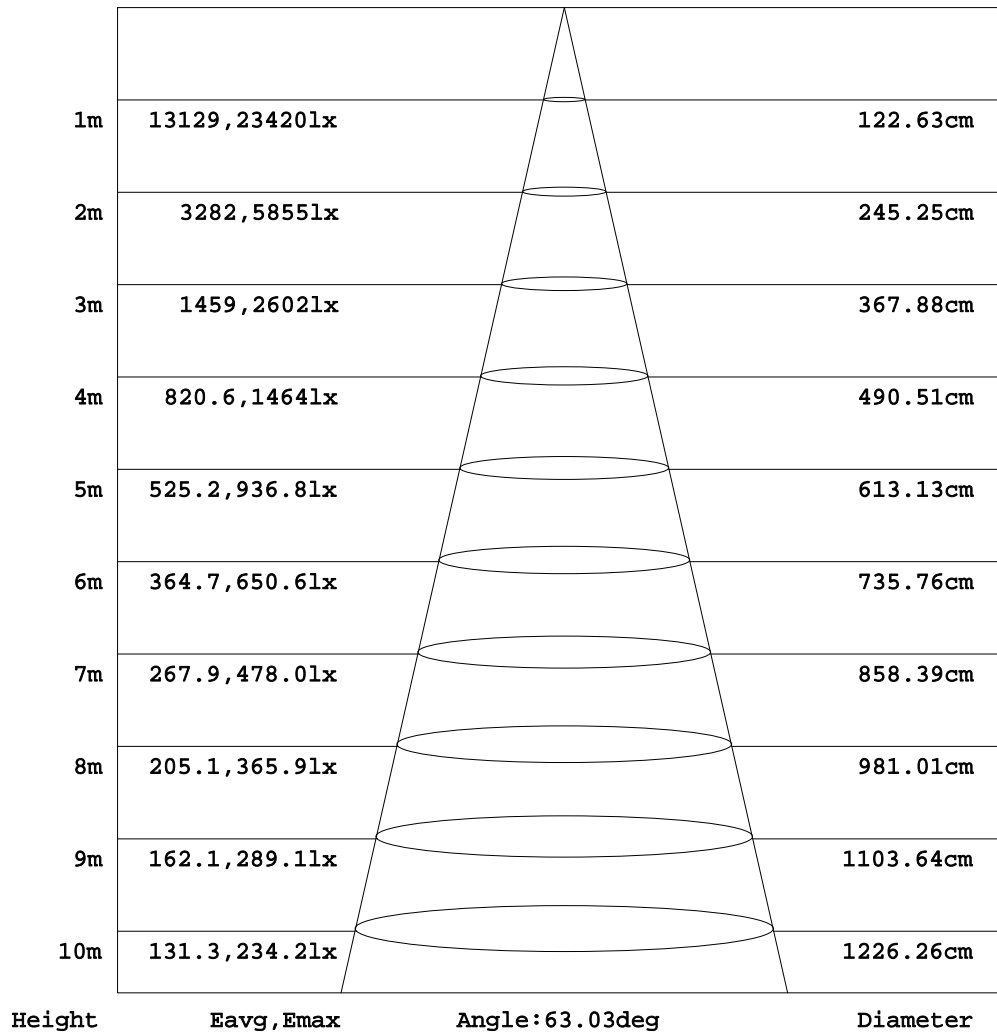
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017

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:16105 lm

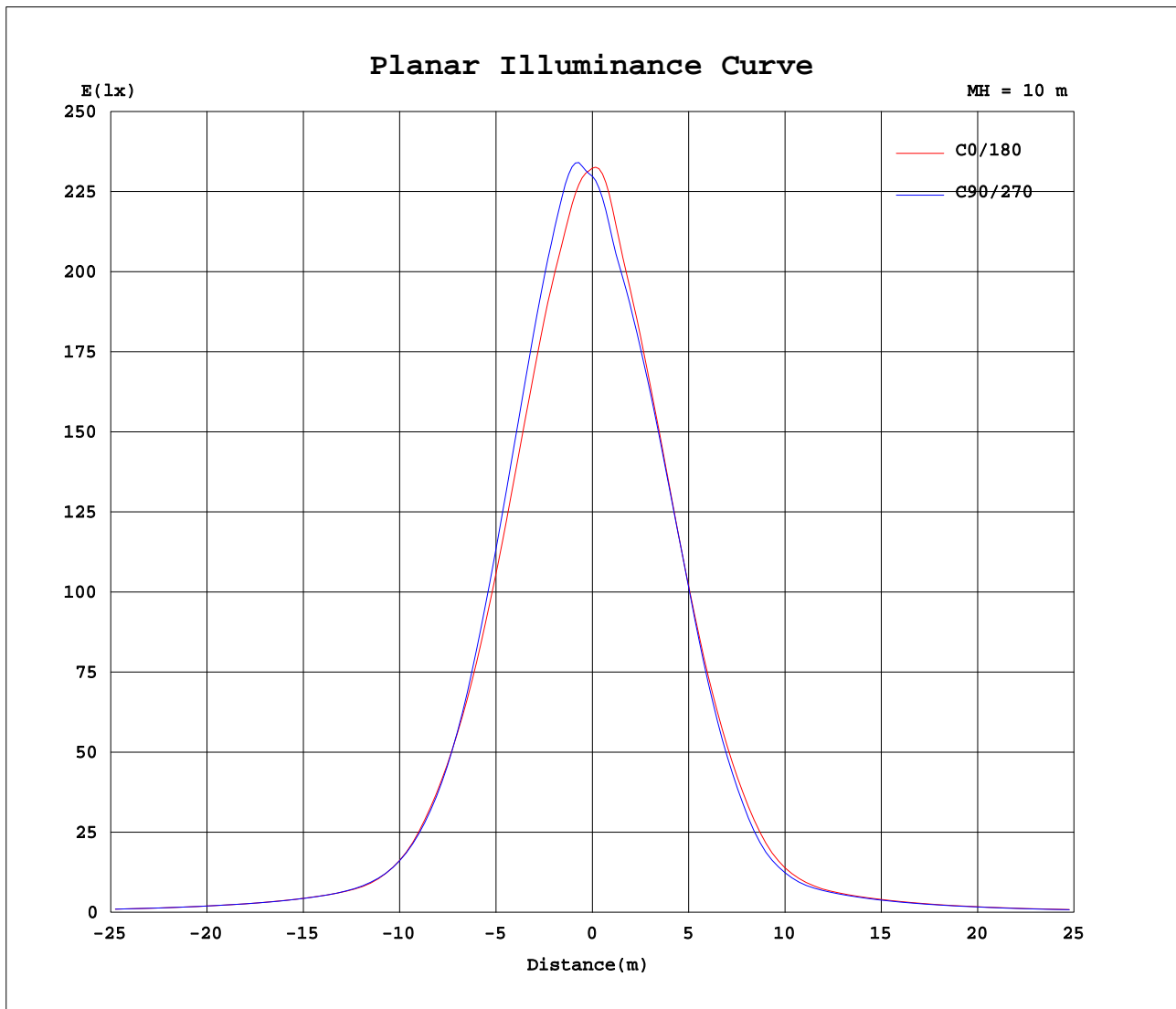


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

