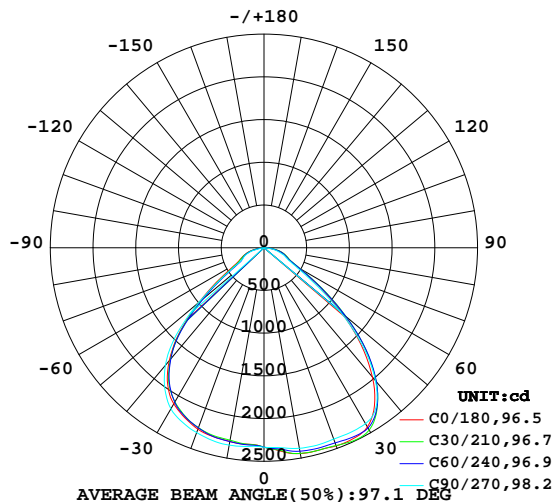


## LUMINAIRE PHOTOMETRIC TEST REPORT

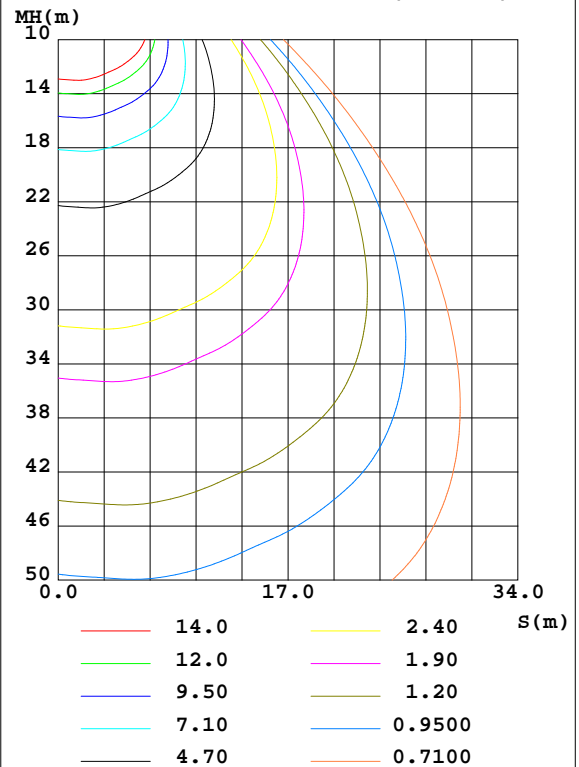
NAME: LED灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.22 lm/W			
MODEL	ZGSM-GCD40H4	Imax(cd)	2491	S/MH(C0/180)	1.33
NOMINAL POWER(W)	40	LOR(%)	100.2	S/MH(C90/270)	1.35
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	5608.8	$\eta$ UP,DN(C0-180)	0.0,52.4
NOMINAL FLUX(lm)	5600	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,47.8
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.1	$\eta$ down(%)	100.2	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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2446	2433	2383	2324	2302	2290	2346	2411	0- 10	224.8	224.8	4.01,4.01
20	2469	2447	2383	2315	2261	2234	2304	2403	10- 20	669.9	894.7	16,16
30	2420	2452	2377	2246	2112	2076	2178	2316	20- 30	1074	1969	35.1,35.2
40	1975	2054	2030	1876	1723	1691	1796	1864	30- 40	1322	3291	58.7,58.8
50	1193	1269	1173	1053	985.8	931.8	996.0	1073	40- 50	1159	4450	79.3,79.5
60	470.4	491.4	415.4	376.9	380.1	326.6	317.7	383.0	50- 60	615.0	5065	90.3,90.5
70	271.3	273.8	240.4	246.4	242.4	229.6	212.4	245.5	60- 70	301.4	5367	95.7,95.8
80	132.2	150.4	112.6	114.4	95.79	91.43	18.18	119.4	70- 80	191.9	5559	99.1,99.3
90	10.36	11.43	2.573	5.375	4.996	3.602	1.087	6.240	80- 90	50.23	5609	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): 3922.9 lm

%lum = 69.9%

%lamp = 70.1%

Conical surface Flux(120deg): 5065.2 lm

%lum = 90.3%

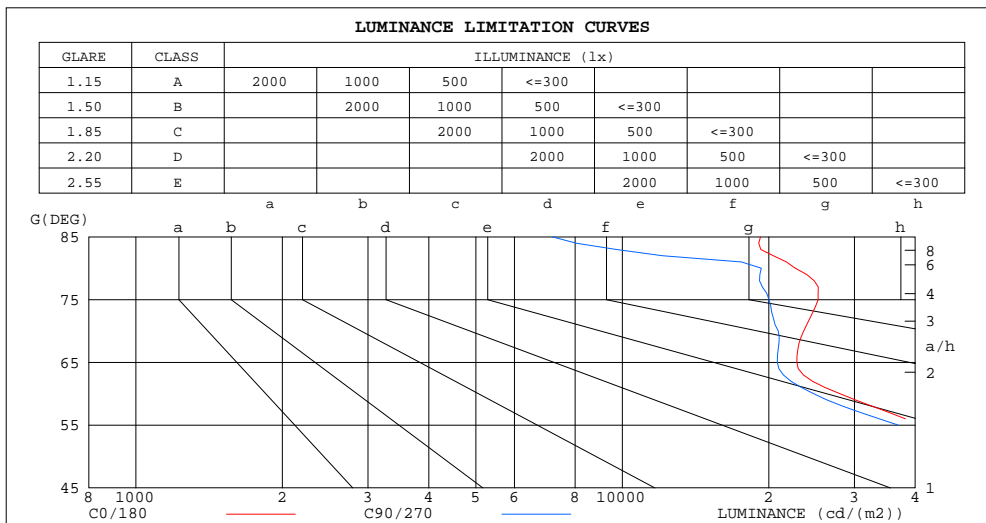
%lamp = 90.5%

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G( DEG)	C0/180	C90/270
85	19231	7178
80	22666	19297
75	25262	20023
70	23606	20917
65	22836	20821
60	28000	24726
55	40994	36871
50	55237	54319
45	67743	69311

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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灯	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	.143	.045	.237	.136	.043	.225	.130	.042	.214	.124	.040		
2.0	.246	.135	.041	.240	.132	.041	.229	.127	.040	.219	.123	.038	.209	.118	.037		
3.0	.232	.124	.037	.227	.122	.037	.217	.118	.036	.208	.114	.035	.200	.111	.034		
4.0	.218	.113	.033	.214	.112	.033	.205	.109	.032	.197	.106	.032	.189	.103	.031		
5.0	.205	.104	.030	.201	.103	.030	.193	.101	.030	.186	.098	.029	.179	.096	.029		
6.0	.193	.097	.028	.189	.096	.027	.182	.093	.027	.176	.091	.027	.170	.089	.027		
7.0	.182	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.084	.025		
8.0	.171	.084	.024	.168	.083	.023	.163	.081	.023	.158	.080	.023	.153	.078	.023		
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.150	.075	.021	.145	.074	.021		
10.0	.153	.074	.020	.151	.073	.020	.147	.072	.020	.142	.071	.020	.138	.070	.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	.135	.119	.104	.093	.083	.060	.054	.048	.019	.017	.016		
2.0	.166	.132	.104	.143	.114	.090	.098	.079	.063	.056	.046	.037	.018	.015	.012		
3.0	.157	.114	.080	.135	.099	.069	.093	.068	.049	.054	.040	.029	.017	.013	.009		
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008		
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	.047	.029	.015	.015	.009	.005		
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004		
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.025	.011	.014	.008	.004		
9.0	.118	.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灯					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	21.1	20.0	21.2	21.4	19.6	20.9	19.8	21.1	21.3
3H					20.2	21.4	20.5	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					21.0	22.0	21.3	22.3	22.5	20.4	21.4	20.8	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	22.7	23.0	21.0	21.8	21.4	22.2	22.6
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	21.6	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	23.1
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, 5600 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 6.0$ )

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

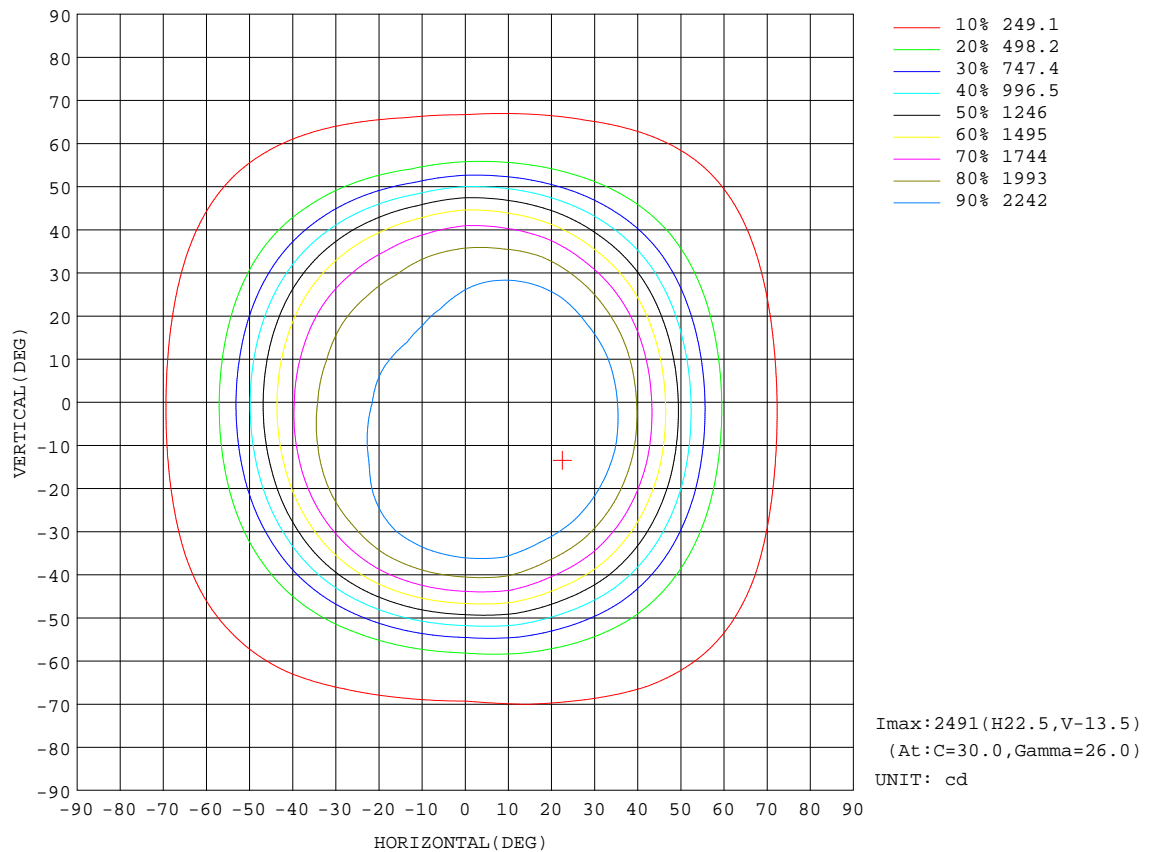
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	66	55	49	65	55	49	64	55	49	43
0.80	76	66	60	75	65	59	73	65	59	53
1.00	84	75	68	83	74	68	81	75	68	62
1.25	90	82	76	89	81	75	87	80	75	68
1.50	95	87	81	93	86	81	90	84	79	73
2.00	100	94	88	99	92	88	96	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	105	101	107	103	99	103	99	97	88
5.00	111	107	104	109	105	102	104	102	99	90
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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:



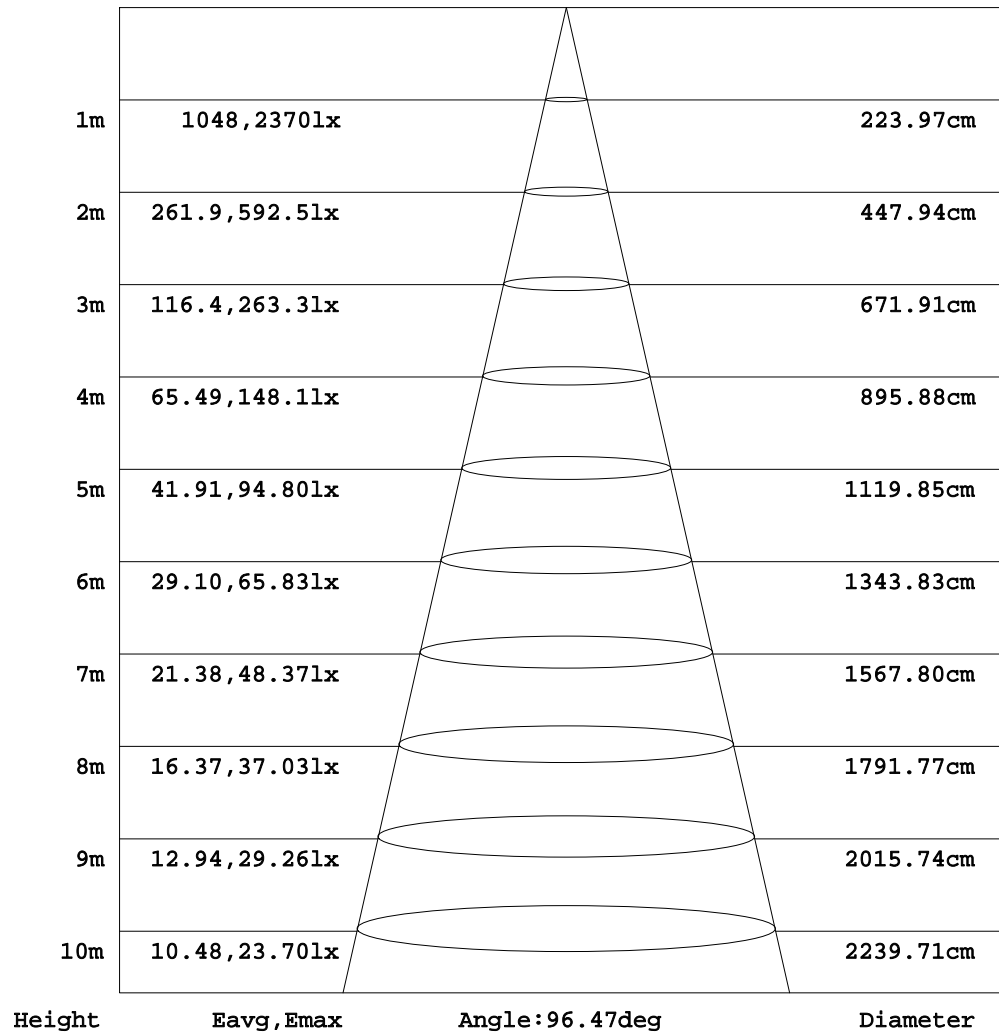
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2017

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

Flux out:4356 lm



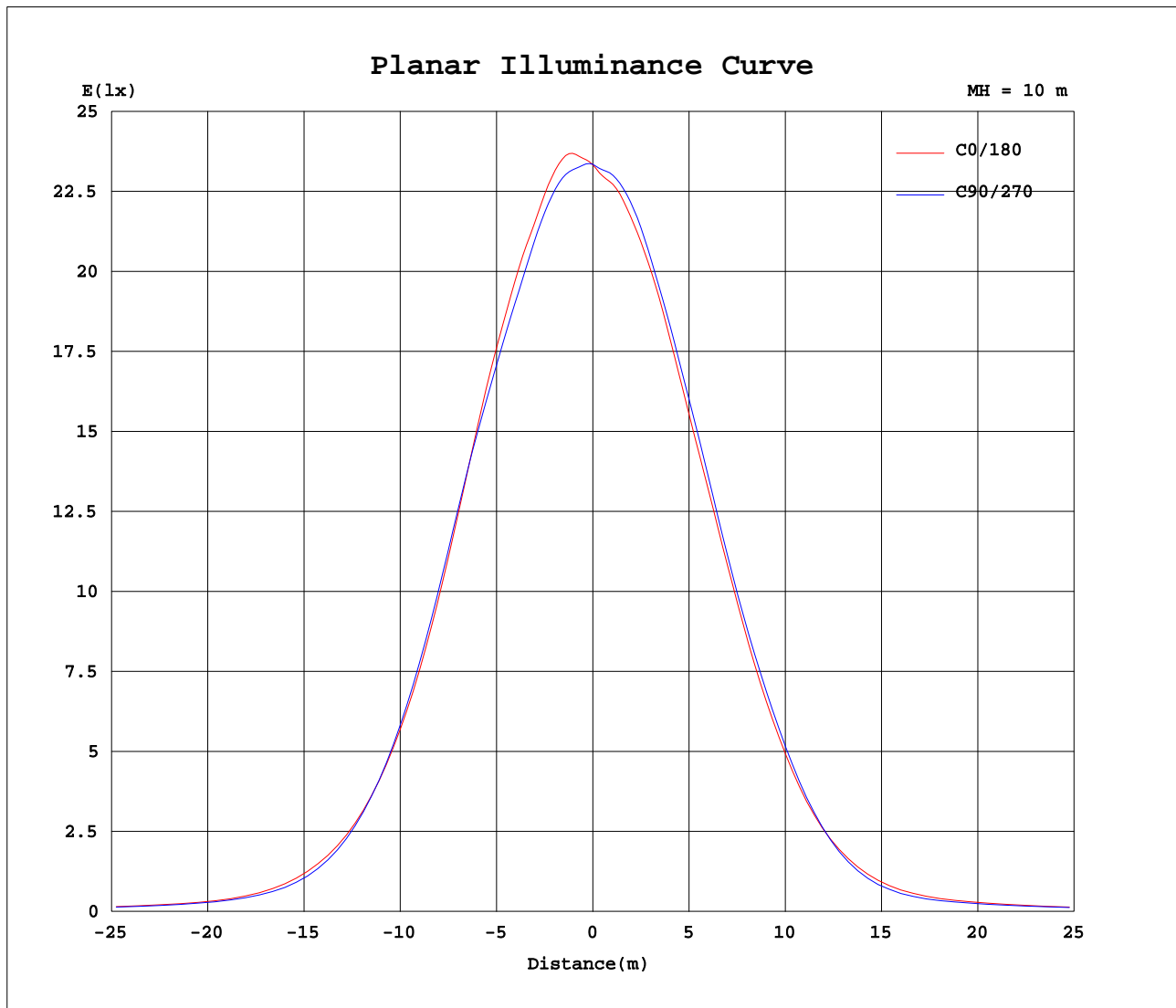
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 10.480m [K=1.0000]  
Remarks:



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

UNIT: cd

[illegible]

```

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:

```