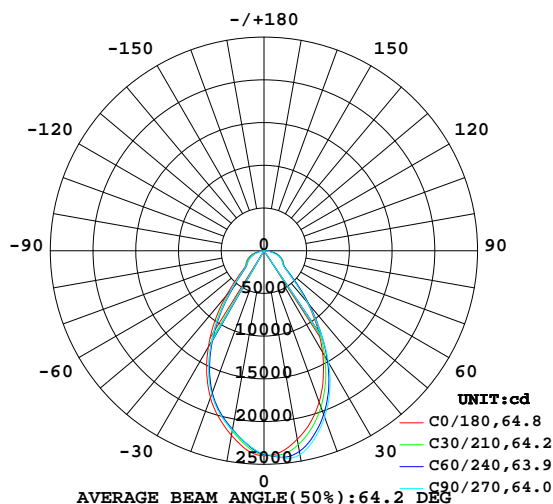


## LUMINAIRE PHOTOMETRIC TEST REPORT

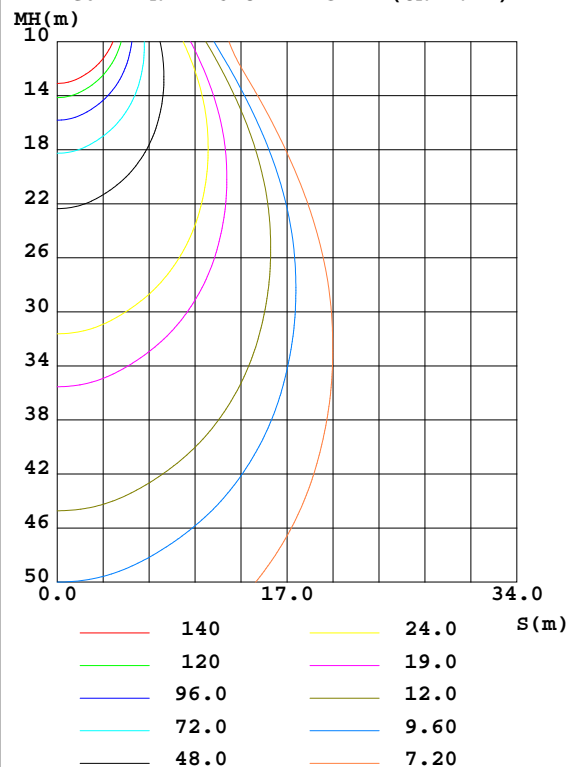
NAME: LED灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA      Eff: 130.62 lm/W			
MODEL	ZGSM-GCD240H5	Imax(cd)	24469	S/MH(C0/180)	0.92
NOMINAL POWER(W)	240	LOR(%)	100.5	S/MH(C90/270)	0.91
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	31349	$\eta$ UP,DN(C0-180)	0.0,53.7
NOMINAL FLUX(lm)	31200	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,46.8
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220.1	$\eta$ down(%)	100.5	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

$\gamma$  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	2242	2346	2423	2277	2194	2125	2130	2160	0- 10	2198	2198	7.01,7.05
20	1886	1997	2073	1953	1832	1767	1790	1821	10- 20	5834	8033	25.6,25.7
30	1370	1460	1510	1400	1304	1207	1228	1267	20- 30	7467	15500	49.4,49.7
40	786.6	827.6	796.4	738.1	687.8	571.6	586.1	650.0	30- 40	6333	21833	69.6,70
50	329.5	349.6	333.8	299.4	290.9	270.0	272.8	292.0	40- 50	3565	25397	81,81.4
60	260.0	254.7	246.8	228.8	230.5	215.5	201.6	232.6	50- 60	2334	27732	88.5,88.9
70	196.1	197.4	185.1	168.7	163.5	137.9	120.1	157.9	60- 70	1981	29713	94.8,95.2
80	89.38	108.1	70.33	82.28	62.12	51.20	22.75	65.06	70- 80	1274	30987	98.8,99.3
90	7.954	12.08	3.029	4.442	3.332	2.206	0.7235	3.463	80- 90	362.5	31349	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 23925 lm

%lum = 76.3%

%lamp = 76.7%

Conical surface Flux(120deg): 27732 lm

%lum = 88.5%

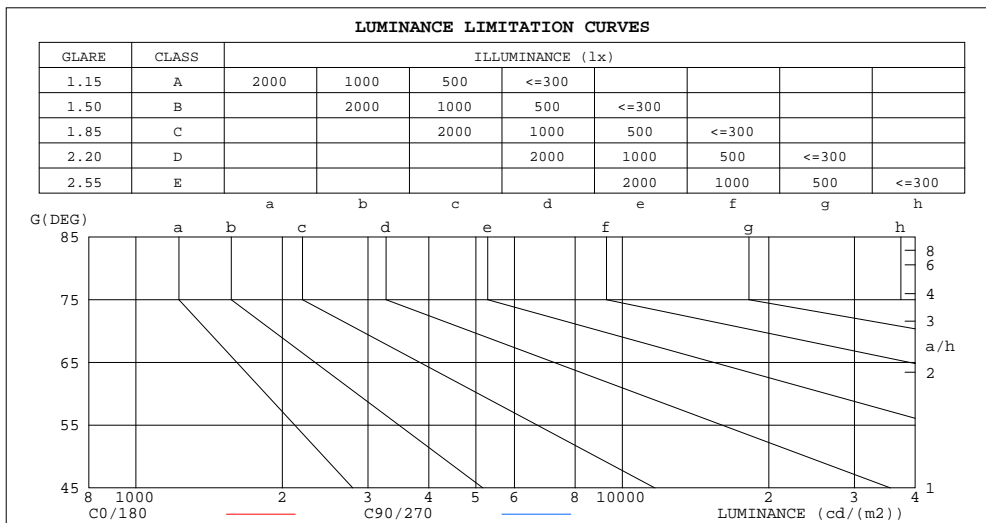
%lamp = 88.9%

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	135142	52678
80	153191	120533
75	178891	148887
70	170672	161093
65	163867	156757
60	154761	146912
55	147085	140122
50	152569	154554
45	214375	211671

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	.248	.141	.045	.241	.137	.044	.228	.131	.042	.216	.125	.040	.205	.119	.038		
2.0	.234	.128	.039	.228	.125	.039	.216	.120	.037	.206	.116	.036	.196	.111	.035		
3.0	.218	.116	.035	.213	.114	.034	.203	.110	.033	.194	.106	.033	.186	.103	.032		
4.0	.203	.106	.031	.199	.104	.031	.190	.101	.030	.182	.098	.030	.175	.095	.029		
5.0	.190	.097	.028	.186	.095	.028	.178	.093	.027	.171	.090	.027	.165	.088	.026		
6.0	.178	.089	.026	.174	.088	.025	.168	.086	.025	.162	.084	.025	.156	.082	.024		
7.0	.167	.083	.023	.164	.082	.023	.158	.080	.023	.153	.078	.023	.148	.077	.023		
8.0	.158	.077	.022	.155	.076	.022	.150	.075	.021	.145	.073	.021	.140	.072	.021		
9.0	.149	.072	.020	.147	.072	.020	.142	.070	.020	.138	.069	.020	.133	.068	.020		
10.0	.142	.068	.019	.140	.067	.019	.135	.066	.019	.131	.065	.019	.127	.064	.018		

ρcc	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						Ceiling Cavity Exitance Coefficients(CCEC)										
0.0	.191	.191	.191	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021		
1.0	.177	.157	.140	.151	.135	.121	.103	.093	.083	.060	.054	.048	.019	.017	.016		
2.0	.165	.133	.106	.141	.114	.091	.097	.079	.064	.056	.046	.037	.018	.015	.012		
3.0	.155	.114	.082	.133	.099	.071	.091	.069	.050	.053	.040	.029	.017	.013	.010		
4.0	.146	.100	.066	.125	.087	.057	.086	.060	.040	.050	.035	.024	.016	.012	.008		
5.0	.138	.089	.054	.118	.077	.047	.082	.054	.033	.047	.032	.020	.015	.010	.006		
6.0	.131	.080	.045	.112	.070	.039	.077	.049	.027	.045	.029	.016	.014	.009	.005		
7.0	.124	.073	.038	.107	.063	.033	.074	.045	.023	.043	.026	.014	.014	.009	.005		
8.0	.118	.067	.032	.101	.058	.028	.070	.041	.020	.041	.024	.012	.013	.008	.004		
9.0	.112	.062	.028	.097	.054	.025	.067	.038	.018	.039	.022	.010	.013	.007	.003		
10.0	.107	.058	.025	.092	.050	.022	.064	.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					17.4	18.6	17.7	18.8	19.0	17.3	18.5	17.5	18.7	18.9
3H					19.0	20.2	19.3	20.4	20.6	18.8	19.9	19.1	20.1	20.3
4H					19.9	20.9	20.2	21.2	21.4	19.5	20.5	19.8	20.8	21.0
6H					20.5	21.5	20.8	21.8	22.1	19.9	21.0	20.3	21.2	21.5
8H					20.7	21.7	21.0	21.9	22.2	20.0	21.0	20.4	21.3	21.6
12H					20.8	21.7	21.1	22.0	22.3	20.1	21.0	20.4	21.3	21.6
4H 2H					17.9	19.0	18.2	19.2	19.5	17.8	18.9	18.1	19.1	19.4
3H					19.9	20.8	20.2	21.1	21.4	19.6	20.6	19.9	20.8	21.1
4H					20.9	21.7	21.2	22.0	22.4	20.5	21.3	20.8	21.7	22.0
6H					21.7	22.5	22.1	22.8	23.2	21.1	21.9	21.5	22.2	22.6
8H					22.0	22.7	22.4	23.0	23.4	21.3	22.0	21.7	22.4	22.8
12H					22.1	22.8	22.6	23.2	23.6	21.4	22.0	21.8	22.4	22.8
8H 4H					21.2	22.0	21.7	22.3	22.7	20.9	21.6	21.3	22.0	22.4
6H					22.3	22.9	22.7	23.3	23.7	21.8	22.4	22.2	22.8	23.2
8H					22.7	23.2	23.1	23.6	24.1	22.1	22.6	22.5	23.0	23.5
12H					23.0	23.4	23.5	23.9	24.4	22.3	22.7	22.7	23.2	23.6
12H 4H					21.3	21.9	21.7	22.3	22.7	21.0	21.6	21.4	22.0	22.4
6H					22.4	22.9	22.8	23.3	23.8	21.9	22.4	22.4	22.8	23.3
8H					22.8	23.3	23.3	23.7	24.2	22.3	22.7	22.7	23.2	23.6
Variations with the observer position at spacings:														
S = 1.0H					+ 0.3 / - 0.3					+ 0.3 / - 0.4				
1.5H					+ 0.4 / - 0.4					+ 0.5 / - 0.4				
2.0H					+ 0.3 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117, 31200 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.0)

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:

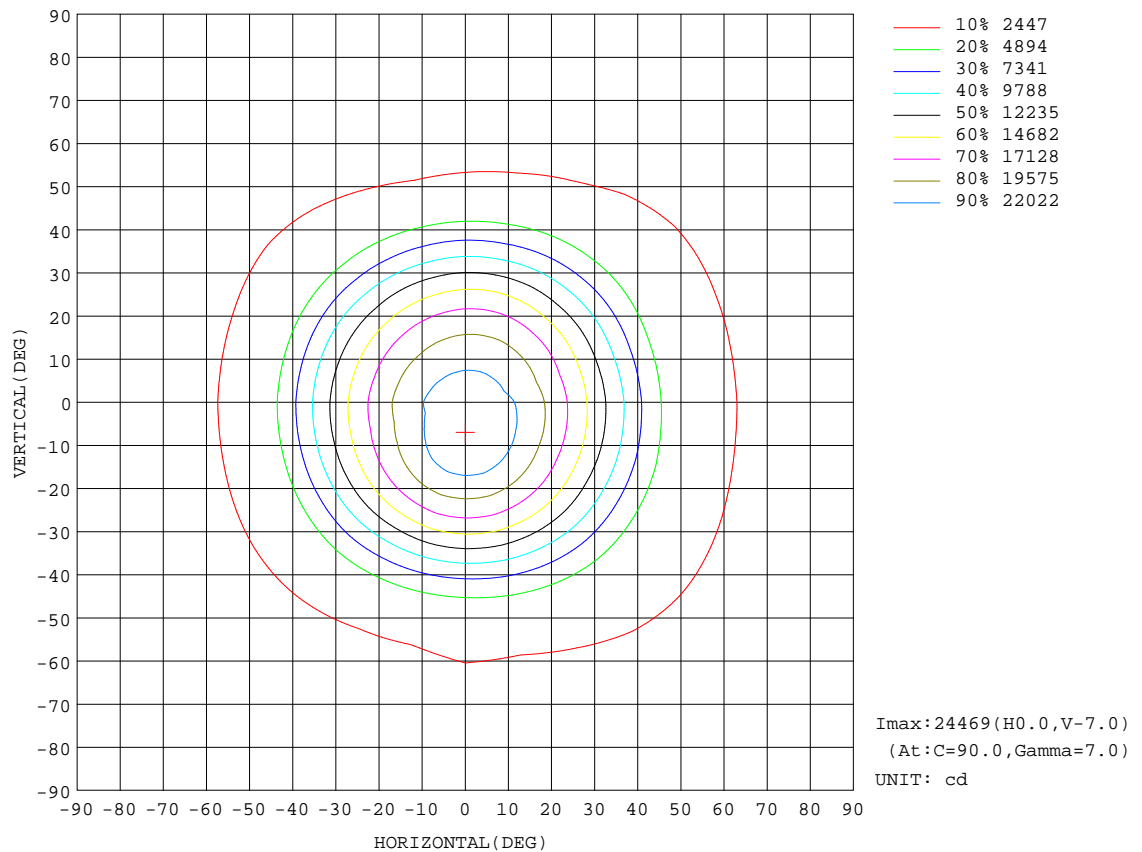
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	73	64	59	73	64	59	72	64	59	54
0.80	82	73	68	81	73	68	80	72	67	62
1.00	88	80	75	87	79	74	85	80	74	68
1.25	94	86	81	93	85	80	90	84	79	74
1.50	98	90	85	96	89	85	93	88	84	77
2.00	102	96	91	101	95	90	98	93	89	82
2.50	105	99	95	103	98	94	100	95	92	85
3.00	107	102	98	105	101	97	102	98	95	87
4.00	111	106	103	108	105	101	104	101	99	91
5.00	112	109	106	110	107	104	106	103	101	93
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

$\gamma$  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:



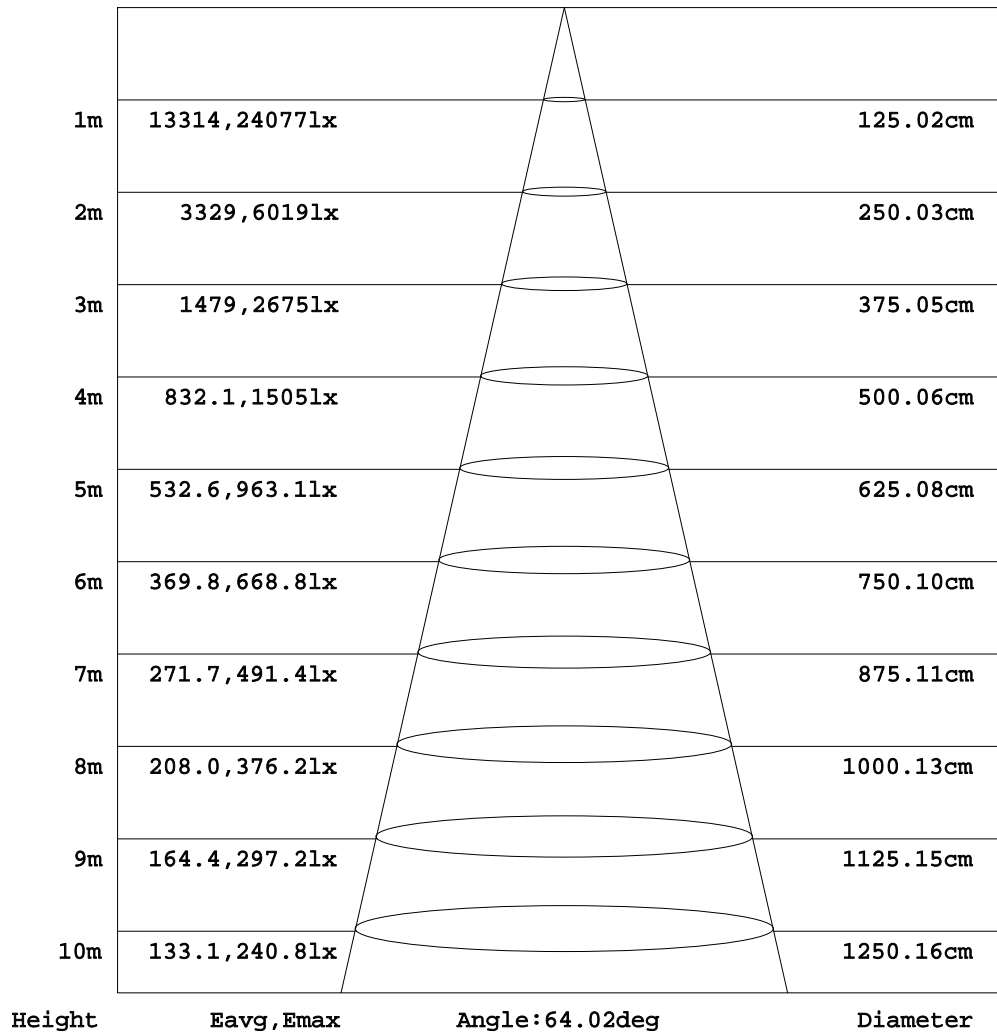
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2017

$\gamma$  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:17640 lm



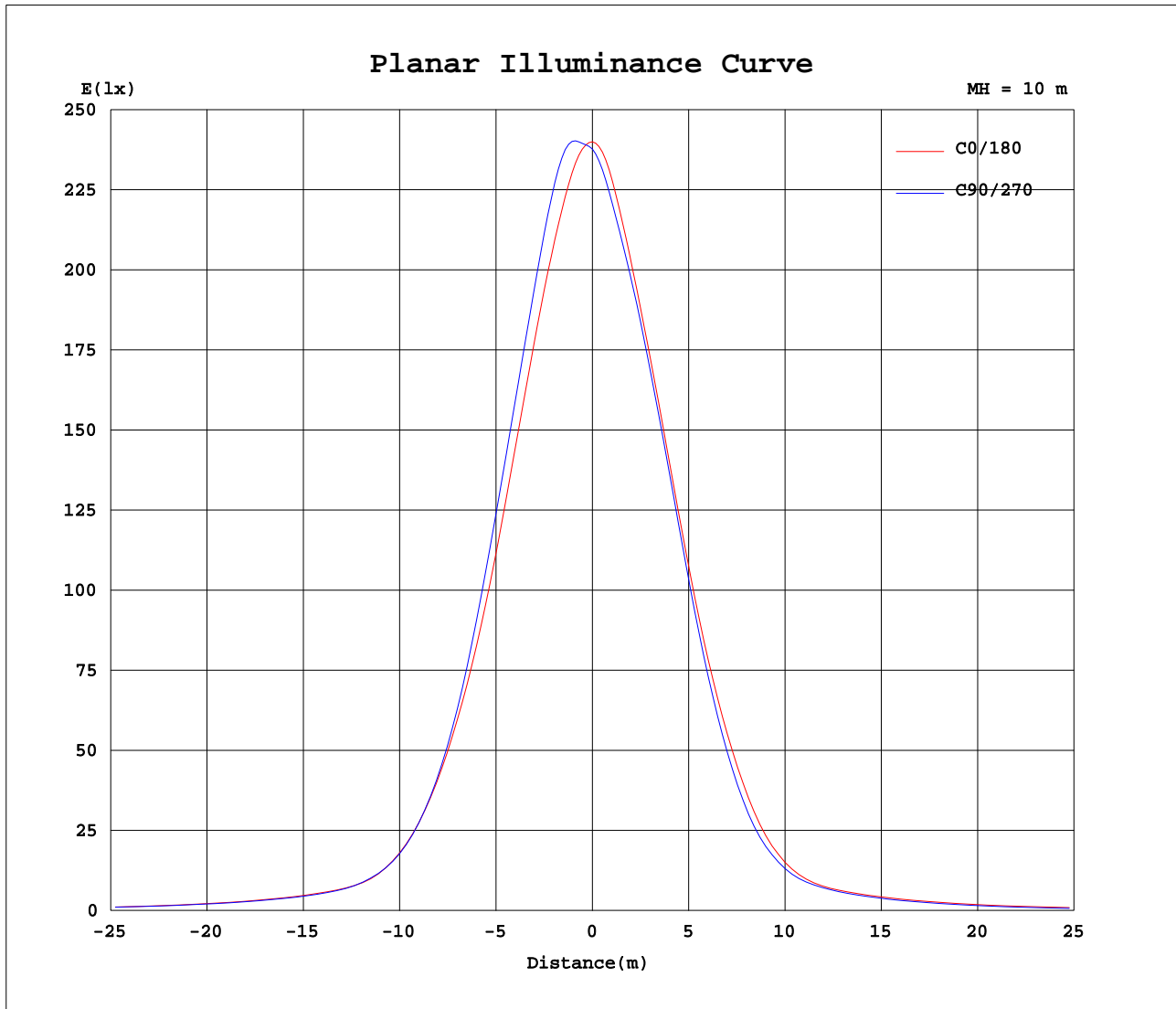
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:



