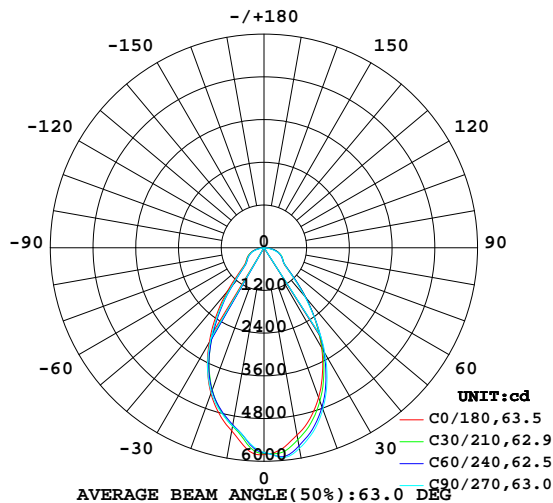


LUMINAIRE PHOTOMETRIC TEST REPORT

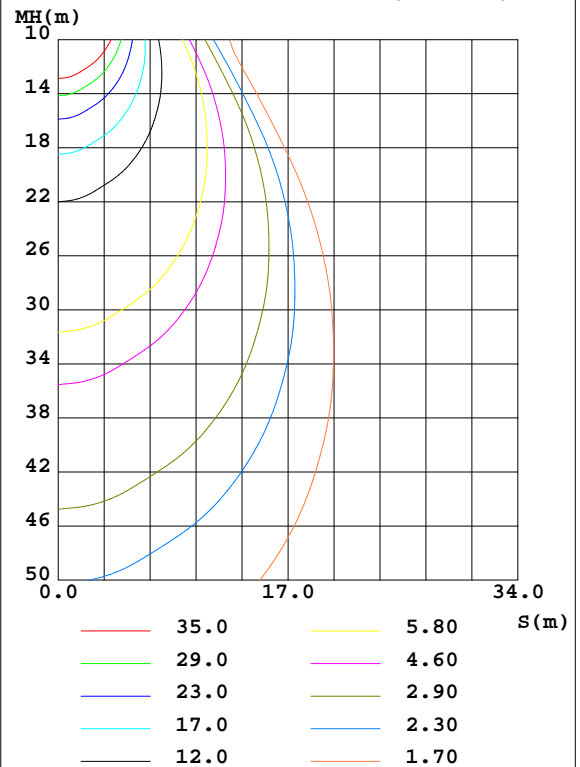
NAME: LED LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 123.89 lm/W
MODEL	ZGSM-GCD60H6	Imax(cd)	5922	S/MH(C0/180)	0.91	
NOMINAL POWER(W)	60	LOR(%)	99.1	S/MH(C90/270)	0.92	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	7433.5	η UP,DN(C0-180)	0.0,52.1	
NOMINAL FLUX(lm)	7500	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	5344	5568	5722	5470	5228	5055	5083	5183	0- 10	527.8	527.8	7.1,7.04
20	4485	4681	4831	4626	4361	4240	4325	4389	10- 20	1389	1917	25.8,25.6
30	3239	3342	3424	3244	3079	2900	3012	3075	20- 30	1770	3687	49.6,49.2
40	1829	1844	1777	1689	1609	1365	1417	1558	30- 40	1484	5170	69.6,68.9
50	761.8	800.7	786.4	722.4	695.6	644.8	653.0	681.3	40- 50	822.0	5992	80.6,79.9
60	600.5	601.3	598.0	547.2	543.8	517.1	518.0	542.1	50- 60	556.0	6548	88.1,87.3
70	453.7	464.1	441.3	407.4	391.0	365.0	349.7	403.9	60- 70	479.8	7028	94.5,93.7
80	206.0	251.6	187.3	198.2	149.0	158.6	27.69	195.1	70- 80	317.8	7346	98.8,97.9
90	17.13	28.39	4.143	8.127	6.852	4.565	1.622	8.398	80- 90	87.57	7434	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:cd									UNIT:lm		

Conical surface Flux(90deg): 5650.9 lm

%lum = 76.0%

%lamp = 75.3%

Conical surface Flux(120deg): 6548.3 lm

%lum = 88.1%

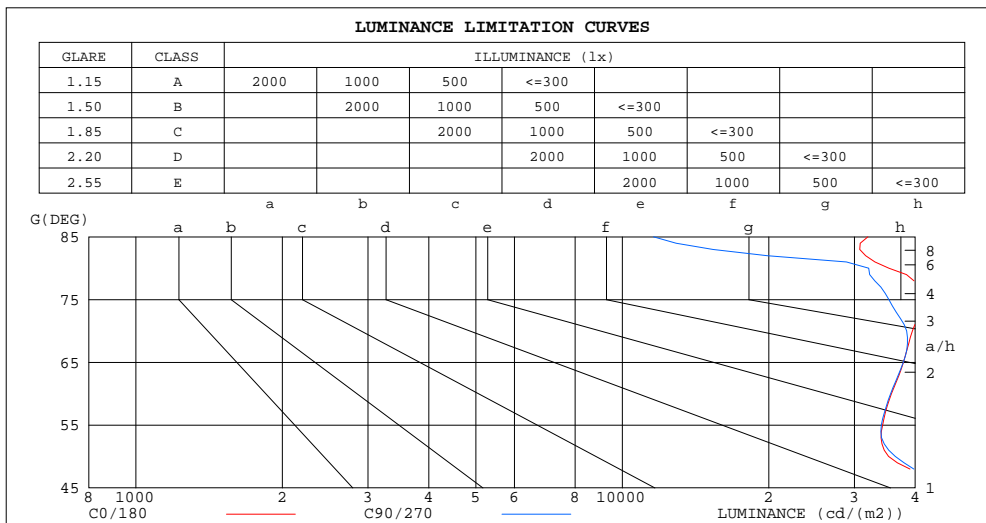
%lamp = 87.3%

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	31982	11592
80	35300	32103
75	41427	35319
70	39478	38403
65	37826	37795
60	35746	35596
55	34282	34083
50	35272	36410
45	48334	47989

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	

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	.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, 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:

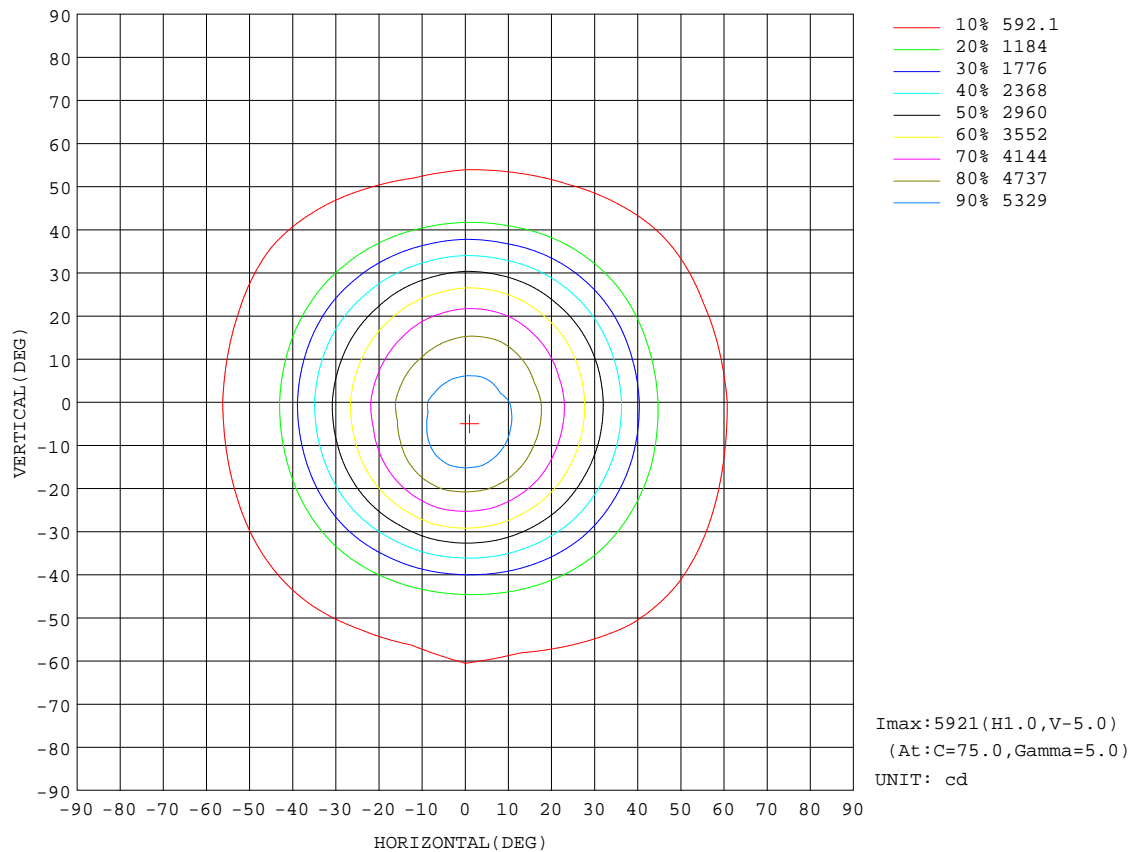
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	72	64	58	72	63	58	71	63	58	53
0.80	81	72	67	80	72	67	79	71	66	61
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:

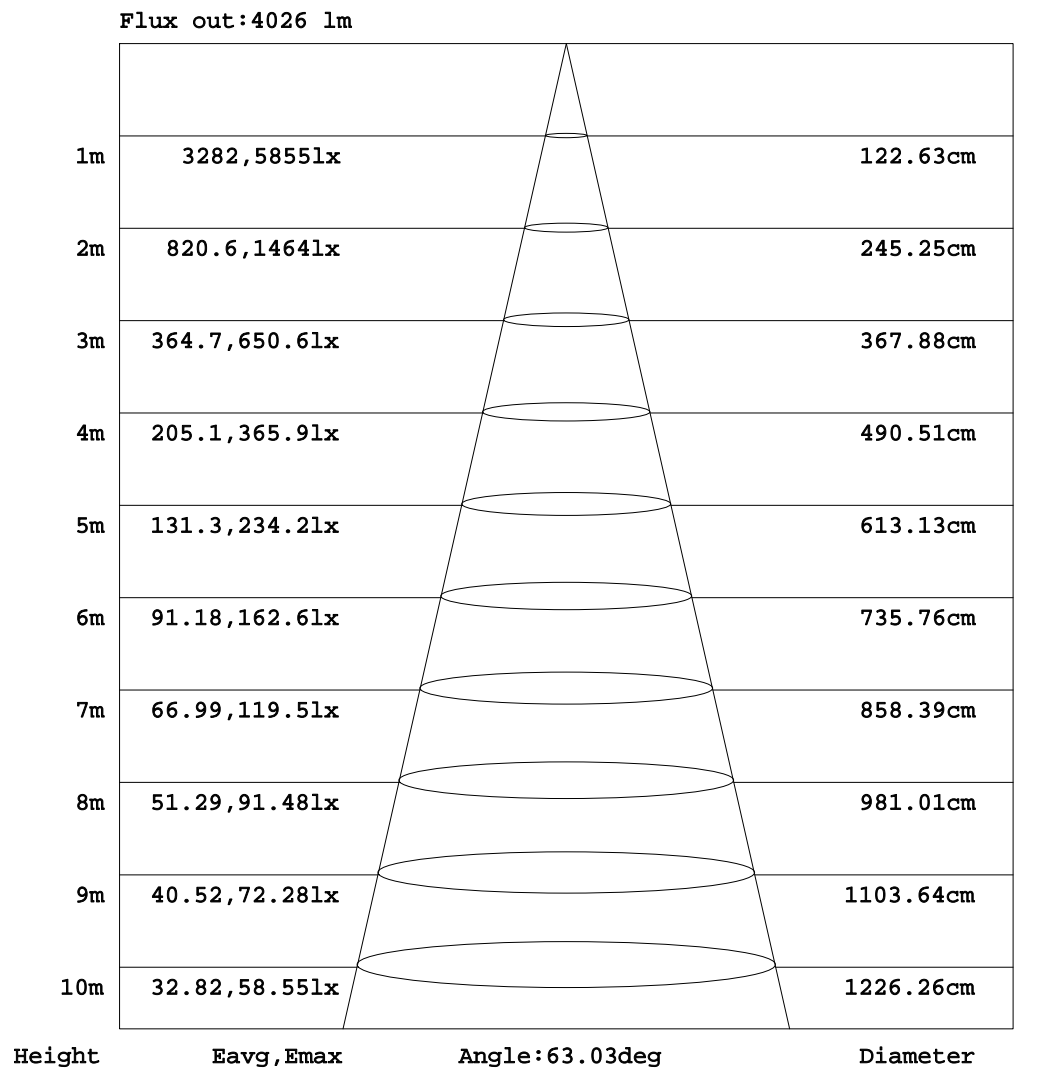


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017

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:

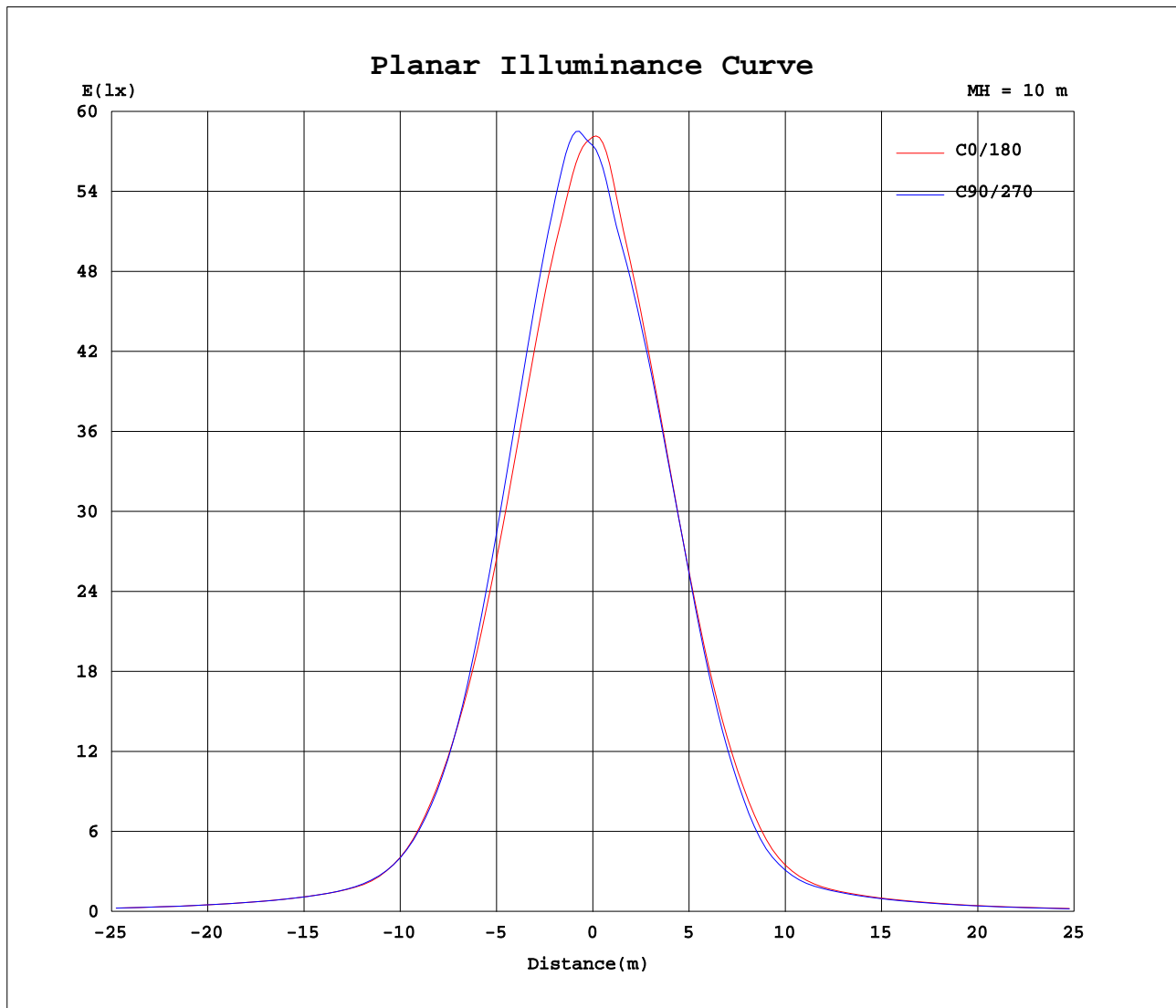


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

