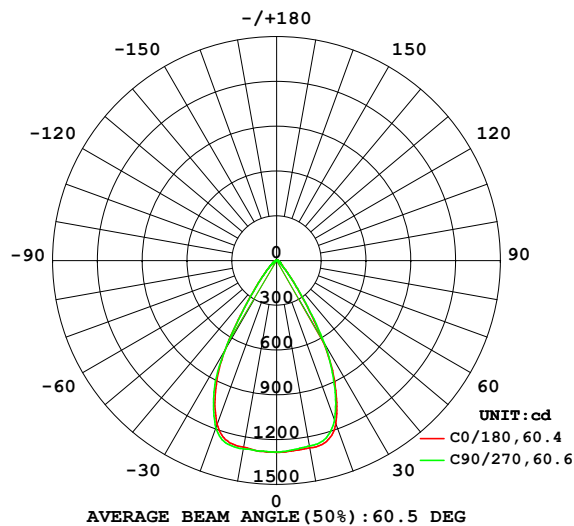


**LUMINAIRE PHOTOMETRIC TEST REPORT**

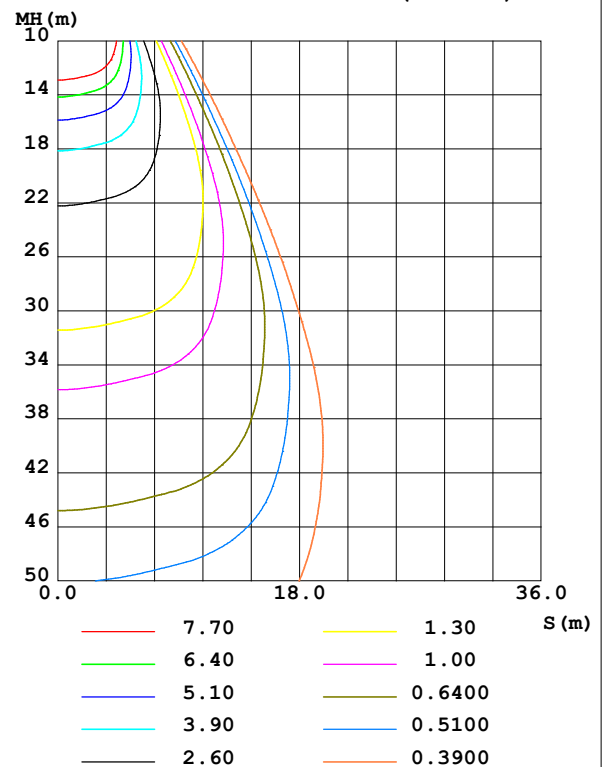
NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 86.79 lm/W
MODEL	4000K CRI90	I <sub>max</sub> (cd)	1284	S/MH(C0/180)	0.89	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.89	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1249.8	η UP,DN(C0-180)	0.0,48.3	
NOMINAL FLUX(lm)	1249.85	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	225	η down (%)	100.0	CIBSE SHR MAX	0.90	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-03-16

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
 Humidity:65.0%  
 Test Distance:8.413m [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	1274	1270	1262	1255	1269	1277	1280	1276	0- 10	121.6	121.6	9.73,9.73
20	1162	1137	1135	1134	1166	1187	1191	1184	10- 20	350.9	472.5	37.8,37.8
30	620.9	620.8	639.4	650.7	694.1	696.7	693.7	672.3	20- 30	428.6	901.1	72.1,72.1
40	141.7	139.8	145.9	155.7	172.9	173.3	170.7	162.6	30- 40	219.1	1120	89.6,89.6
50	40.82	40.40	40.82	44.26	55.89	57.25	56.14	53.17	40- 50	68.26	1188	95.1,95.1
60	19.07	18.97	18.84	19.87	27.68	28.85	28.14	27.21	50- 60	29.89	1218	97.5,97.5
70	10.00	10.15	10.19	10.49	15.76	15.99	15.50	15.23	60- 70	17.54	1236	98.9,98.9
80	4.369	4.507	4.581	4.613	7.866	7.828	7.591	7.480	70- 80	9.775	1246	99.7,99.7
90	1.860	1.849	1.844	1.834	3.403	3.403	3.398	3.371	80- 90	4.169	1250	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): 1162.9 lm

%lum = 93.0%

%lamp = 93.0%

Conical surface Flux(120deg): 1218.4 lm

%lum = 97.5%

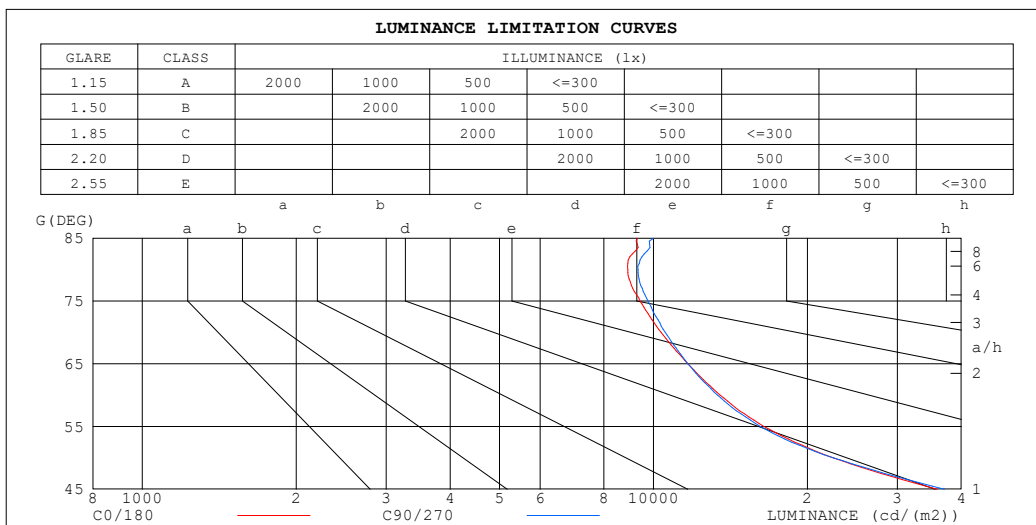
%lamp = 97.5%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-03-16

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
Humidity:65.0%  
Test Distance:8.413m [K=1.0000]  
Remarks:

### LUMINANCE LIMITATION CURVES

NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9289	9995
80	8903	9334
75	9415	9755
70	10351	10542
65	11679	11675
60	13497	13336
55	16440	16182
50	22470	22472
45	35899	37069

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-03-16

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
 Humidity: 65.0%  
 Test Distance: 8.413m [K=1.0000]  
 Remarks:

### WEC AND CCEC

NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:

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						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.188	.107	.034	.182	.104	.033	.169	.097	.031	.157	.091	.029	.147	.085	.027		
2.0	.179	.098	.030	.173	.095	.029	.163	.090	.028	.153	.086	.027	.144	.081	.026		
3.0	.170	.090	.027	.165	.088	.027	.156	.084	.026	.147	.081	.025	.139	.077	.024		
4.0	.161	.083	.025	.156	.082	.024	.149	.079	.024	.141	.076	.023	.134	.073	.022		
5.0	.152	.078	.023	.149	.076	.022	.142	.074	.022	.136	.072	.021	.130	.069	.021		
6.0	.145	.073	.021	.142	.072	.021	.136	.070	.020	.130	.068	.020	.125	.066	.020		
7.0	.138	.068	.019	.135	.067	.019	.130	.066	.019	.125	.064	.019	.120	.062	.018		
8.0	.132	.065	.018	.129	.064	.018	.125	.062	.018	.120	.061	.018	.116	.060	.017		
9.0	.126	.061	.017	.124	.060	.017	.120	.059	.017	.116	.058	.017	.112	.057	.016		
10.0	.121	.058	.016	.119	.057	.016	.115	.056	.016	.111	.055	.016	.108	.054	.016		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016		
2.0	.157	.132	.112	.135	.114	.097	.092	.079	.067	.053	.046	.039	.017	.015	.013		
3.0	.145	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010		
4.0	.135	.099	.072	.116	.086	.062	.080	.060	.044	.046	.035	.026	.015	.011	.009		
5.0	.126	.087	.059	.109	.076	.051	.075	.053	.036	.043	.031	.021	.014	.010	.007		
6.0	.119	.078	.049	.102	.068	.043	.071	.047	.030	.041	.028	.018	.013	.009	.006		
7.0	.113	.071	.041	.097	.061	.036	.067	.043	.026	.039	.025	.015	.013	.008	.005		
8.0	.107	.065	.036	.092	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004		
9.0	.102	.059	.031	.088	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004		
10.0	.097	.055	.027	.084	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-03-16

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
Humidity:65.0%  
Test Distance:8.413m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

NAME: TL45-15G40-60-S					TYPE:					WEIGHT:				
SPEC.: 36V&350mA					DIM.: D80*H40					SERIAL No.:				
MFR.: EVERFINE					SUR.: D60					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					19.8	20.7	20.0	20.9	21.1	19.9	20.8	20.1	21.0	21.2
3H					19.8	20.7	20.1	20.9	21.1	19.9	20.8	20.2	21.0	21.2
4H					19.9	20.7	20.2	21.0	21.2	20.0	20.8	20.3	21.1	21.3
6H					19.9	20.7	20.2	21.0	21.2	20.0	20.8	20.3	21.1	21.3
8H					19.9	20.7	20.2	20.9	21.2	20.0	20.8	20.3	21.0	21.3
12H					19.9	20.7	20.2	20.9	21.2	20.0	20.8	20.3	21.0	21.3
4H 2H					19.6	20.5	19.9	20.7	20.9	19.7	20.6	20.0	20.8	21.0
3H					19.8	20.6	20.1	20.8	21.1	19.9	20.6	20.2	20.9	21.2
4H					19.9	20.6	20.3	20.9	21.2	20.0	20.7	20.4	21.0	21.3
6H					20.0	20.6	20.4	20.9	21.3	20.1	20.7	20.5	21.0	21.4
8H					20.1	20.6	20.4	21.0	21.3	20.2	20.7	20.5	21.1	21.4
12H					20.1	20.6	20.5	21.0	21.4	20.2	20.7	20.6	21.1	21.5
8H 4H					19.9	20.4	20.3	20.8	21.2	20.0	20.5	20.4	20.9	21.2
6H					20.0	20.5	20.5	20.9	21.3	20.1	20.6	20.6	21.0	21.4
8H					20.1	20.5	20.6	20.9	21.4	20.2	20.6	20.7	21.0	21.5
12H					20.2	20.6	20.7	21.0	21.5	20.3	20.7	20.8	21.1	21.6
12H 4H					19.9	20.4	20.3	20.7	21.1	19.9	20.4	20.4	20.8	21.2
6H					20.0	20.4	20.5	20.9	21.3	20.1	20.5	20.6	20.9	21.4
8H					20.1	20.5	20.6	20.9	21.4	20.2	20.6	20.7	21.0	21.5
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 2.0 / - 2.5					+ 2.2 / - 2.6				
1.5H					+ 3.6 / - 2.2					+ 3.8 / - 2.3				
2.0H					+ 2.3 / - 1.1					+ 2.5 / - 1.1				

CIE Pub.117, 1250 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.8)  
Area: 0.002826 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-03-16

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
Humidity:65.0%  
Test Distance:8.413m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:

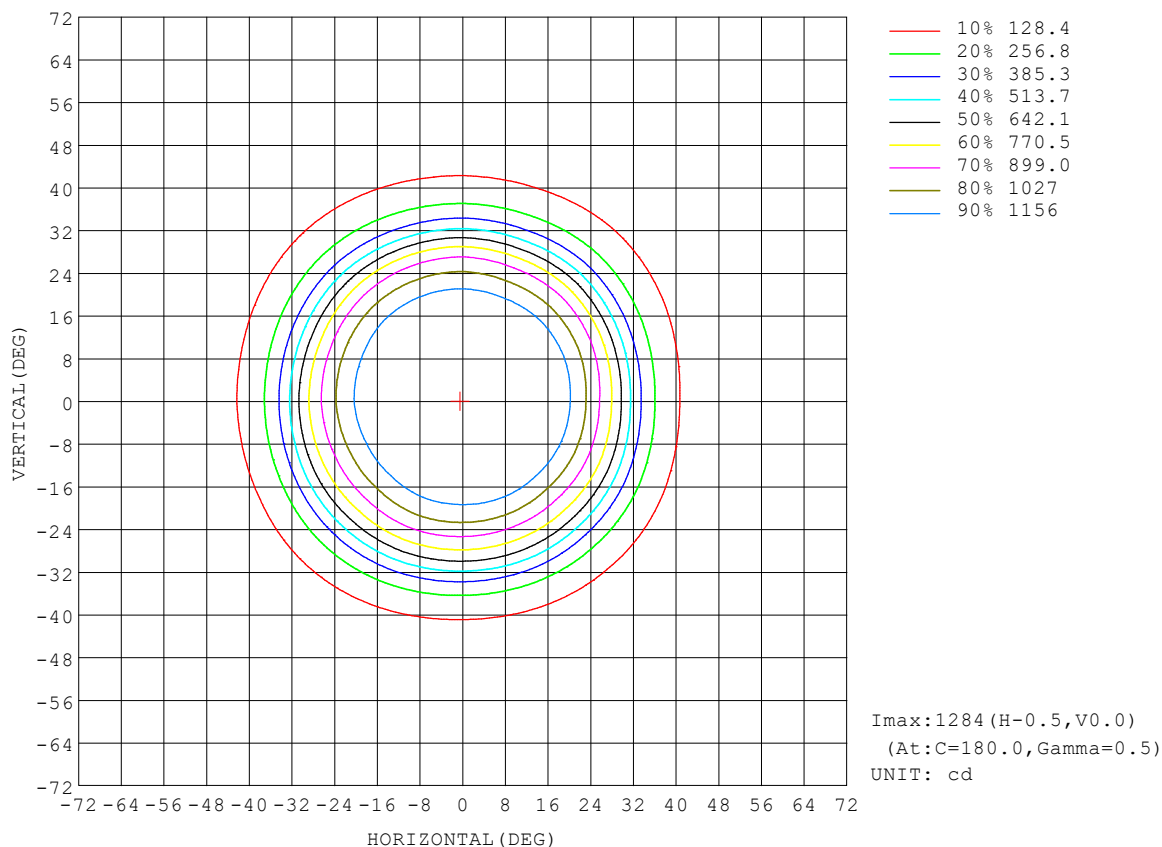
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	85	78	74	84	78	74	70
0.80	93	86	82	92	86	82	91	86	82	78
1.00	97	91	88	97	91	87	95	91	87	83
1.25	102	96	92	101	96	92	99	94	91	87
1.50	105	99	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	104	109	106	103	106	103	101	95
4.00	113	110	108	111	109	106	107	105	104	96
5.00	115	112	110	112	110	108	108	107	105	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-03-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
Humidity: 65.0%  
Test Distance: 8.413m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:

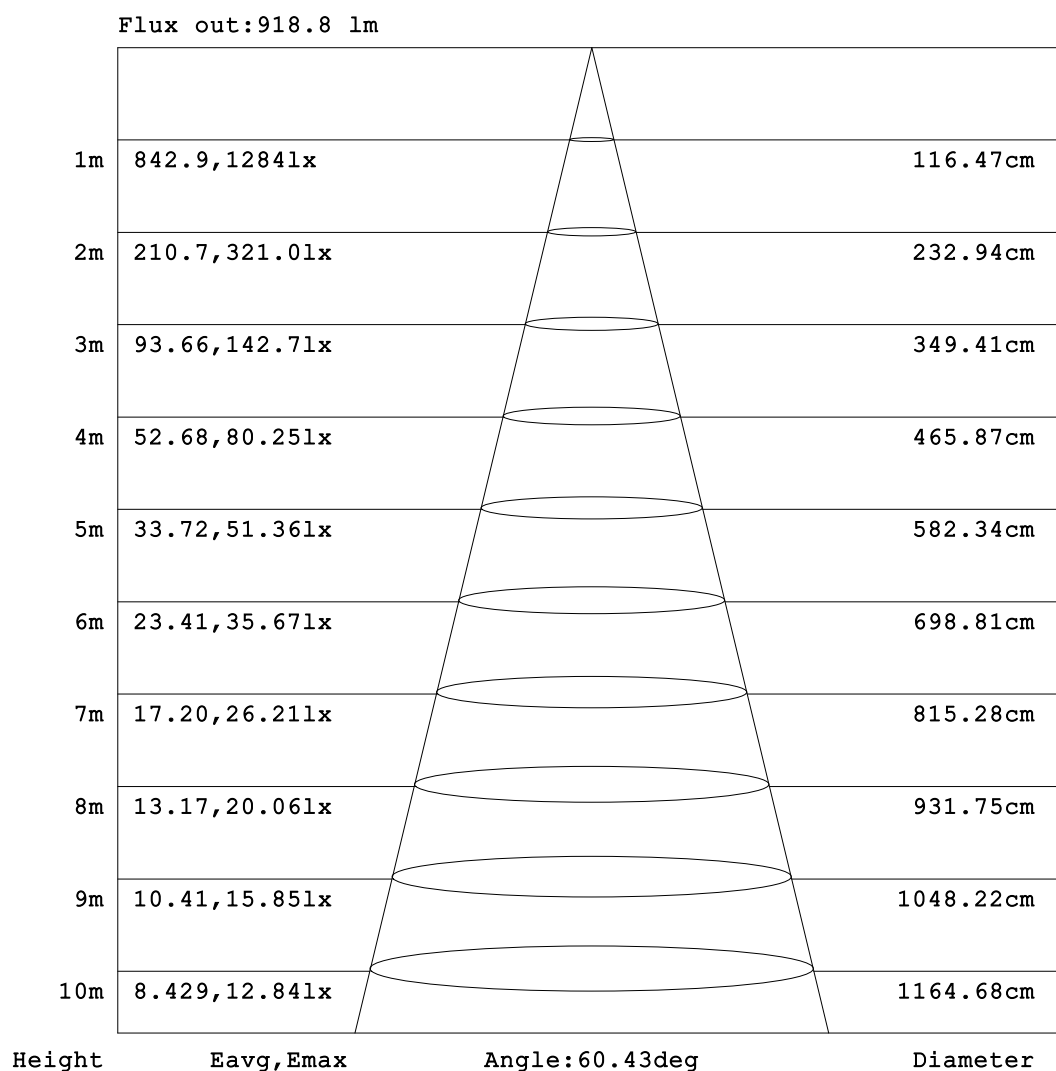


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-03-16

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
 Humidity:65.0%  
 Test Distance:8.413m [K=1.0000]  
 Remarks:

**AAI Figure**

NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:



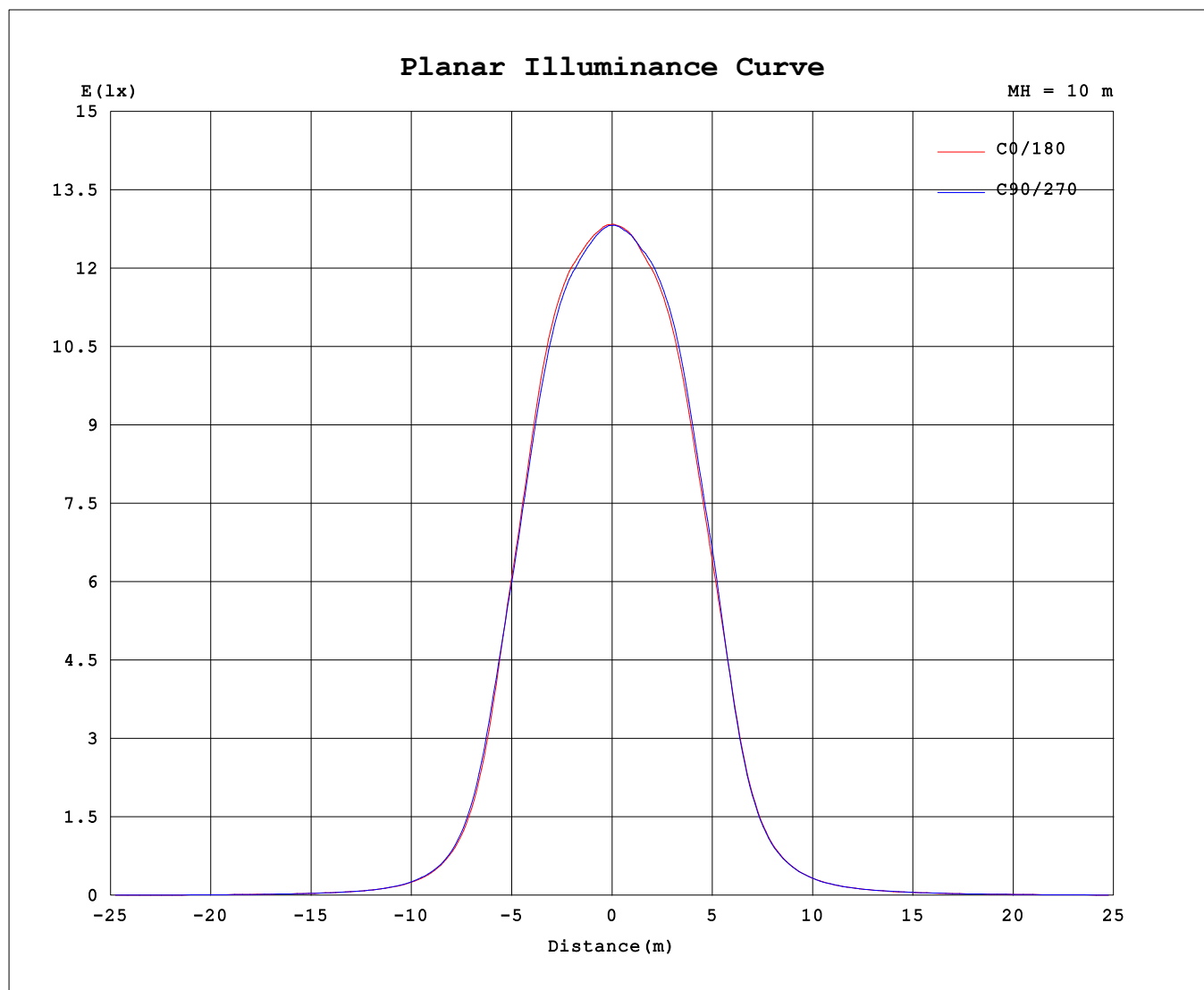
**Note:** The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-03-16

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
 Humidity: 65.0%  
 Test Distance: 8.413m [K=1.0000]  
 Remarks:



## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-03-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
Humidity: 65.0%  
Test Distance: 8.413m [K=1.0000]  
Remarks:

NAME: TL45-15G40-60-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D60	Shielding Angle:

UNIT: cd

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-03-16

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.454
Humidity:65.0%
Test Distance:8.413m [K=1.0000]
Remarks:

```