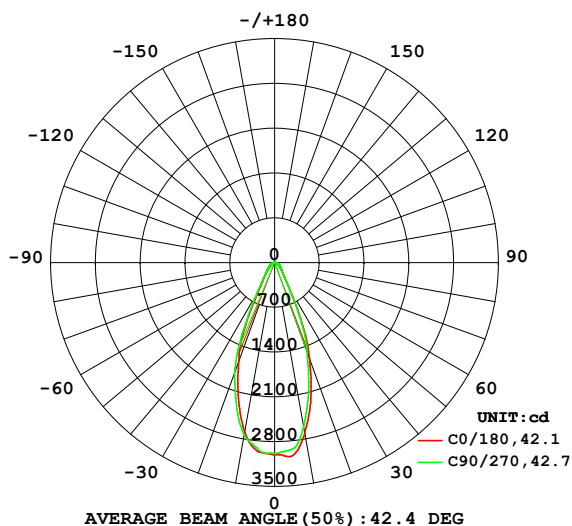


## LUMINAIRE PHOTOMETRIC TEST REPORT

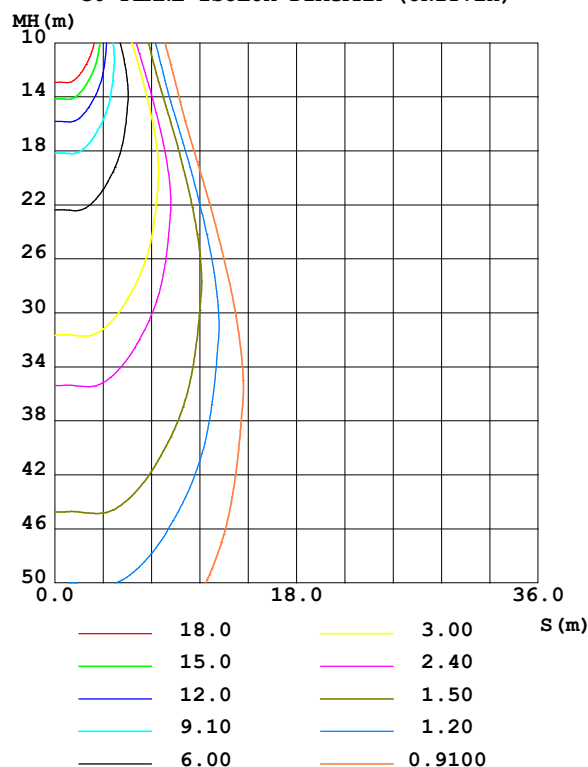
NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 93.14 lm/W
MODEL	4000K CRI90	I <sub>max</sub> (cd)	3044	S/MH(C0/180)	0.67	
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	0.68	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1807.0	η UP,DN(C0-180)	0.0,47.3	
NOMINAL FLUX(lm)	1807	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	225	η down (%)	100.0	CIBSE SHR MAX	0.65	

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: 8.402m [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	2713	2669	2616	2629	2691	2763	2733	2771	0- 10	274.7	274.7	15.2,15.2
20	1594	1528	1495	1508	1642	1816	1829	1807	10- 20	602.9	877.6	48.6,48.6
30	450.6	444.3	434.4	433.1	484.3	524.4	564.8	522.1	20- 30	462.9	1341	74.2,74.2
40	188.5	184.7	184.7	184.8	204.8	213.3	220.1	213.5	30- 40	185.6	1526	84.5,84.5
50	106.7	105.4	105.8	105.0	119.9	123.6	127.1	123.6	40- 50	115.8	1642	90.9,90.9
60	68.78	67.98	68.65	67.97	78.07	80.11	81.73	79.90	50- 60	82.54	1724	95.4,95.4
70	35.02	33.62	33.80	34.05	42.38	44.24	45.14	43.79	60- 70	55.96	1780	98.5,98.5
80	5.352	4.978	4.883	5.230	9.881	10.33	10.42	9.928	70- 80	21.22	1802	99.7,99.7
90	3.194	3.204	3.194	3.204	5.407	5.460	5.470	5.433	80- 90	5.359	1807	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): 1589.5 lm

%lum = 88.0%

%lamp = 88.0%

Conical surface Flux(120deg): 1724.5 lm

%lum = 95.4%

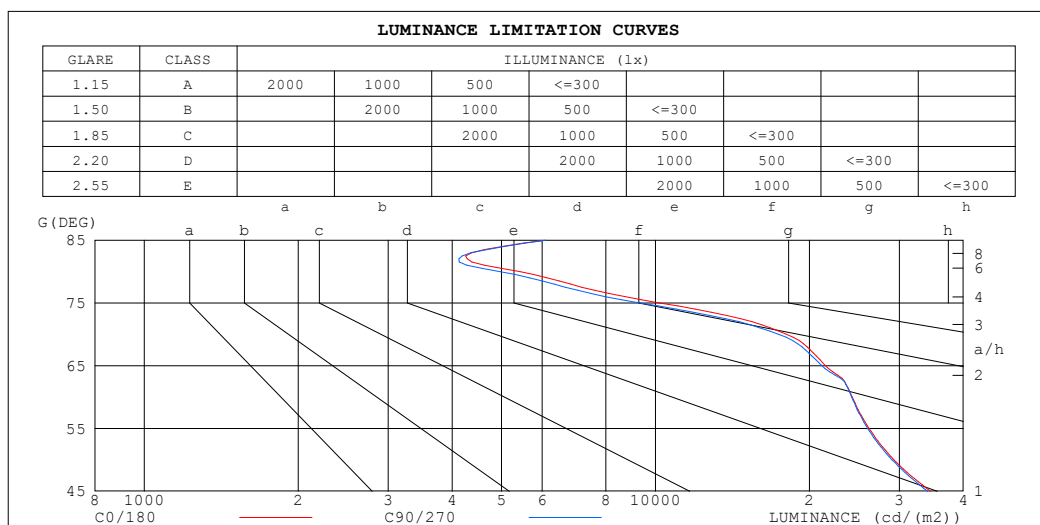
%lamp = 95.4%

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:8.402m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6079	6102
80	5436	4959
75	10185	9328
70	18060	17430
65	21508	21154
60	24262	24214
55	26161	25997
50	29270	29020
45	34527	34060

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: 8.402m [K=1.0000]  
Remarks:

# WEC AND CCEC

NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	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	.189	.107	.034	.182	.104	.033	.170	.097	.031	.158	.091	.029	.147	.085	.028		
2.0	.179	.098	.030	.173	.096	.029	.163	.091	.028	.153	.086	.027	.144	.081	.026		
3.0	.169	.090	.027	.164	.088	.026	.155	.084	.025	.146	.080	.025	.138	.077	.024		
4.0	.159	.082	.024	.154	.081	.024	.147	.078	.023	.139	.075	.023	.132	.072	.022		
5.0	.149	.076	.022	.146	.075	.022	.139	.072	.021	.133	.070	.021	.127	.068	.020		
6.0	.141	.071	.020	.138	.070	.020	.132	.068	.020	.126	.066	.019	.121	.064	.019		
7.0	.134	.066	.019	.131	.065	.019	.126	.064	.018	.121	.062	.018	.116	.060	.018		
8.0	.127	.062	.017	.125	.061	.017	.120	.060	.017	.115	.058	.017	.111	.057	.017		
9.0	.121	.058	.016	.119	.058	.016	.115	.057	.016	.111	.055	.016	.107	.054	.016		
10.0	.115	.055	.015	.113	.055	.015	.110	.054	.015	.106	.053	.015	.103	.052	.015		

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	.115	.086	.062	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.126	.087	.059	.108	.076	.051	.074	.053	.036	.043	.031	.022	.014	.010	.007	
6.0	.118	.078	.050	.101	.068	.043	.070	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.111	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.090	.056	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.031	.086	.051	.027	.059	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.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:8.402m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

NAME: TL45-20G40-38-M					TYPE:					WEIGHT:				
SPEC.: 36V&500mA					DIM.: D90*H40					SERIAL No.:				
MFR.: EVERFINE					SUR.: D85					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					18.3	19.2	18.5	19.4	19.5	18.2	19.2	18.5	19.4	19.5
3H					19.1	20.0	19.4	20.2	20.4	19.1	20.0	19.3	20.2	20.4
4H					19.3	20.1	19.6	20.3	20.6	19.2	20.0	19.5	20.3	20.5
6H					19.3	20.0	19.6	20.3	20.5	19.2	20.0	19.5	20.2	20.5
8H					19.2	20.0	19.5	20.2	20.5	19.1	19.9	19.5	20.2	20.4
12H					19.2	19.9	19.5	20.2	20.5	19.1	19.8	19.4	20.1	20.4
4H 2H					18.6	19.5	18.9	19.7	19.9	18.6	19.5	18.9	19.7	19.9
3H					19.6	20.4	20.0	20.6	20.9	19.6	20.3	19.9	20.6	20.9
4H					19.8	20.5	20.2	20.8	21.1	19.7	20.4	20.1	20.7	21.0
6H					19.8	20.4	20.2	20.7	21.1	19.7	20.3	20.1	20.7	21.0
8H					19.8	20.3	20.2	20.7	21.1	19.7	20.3	20.1	20.6	21.0
12H					19.8	20.3	20.2	20.6	21.0	19.7	20.2	20.1	20.6	20.9
8H 4H					19.8	20.3	20.2	20.7	21.1	19.7	20.3	20.1	20.6	21.0
6H					19.8	20.3	20.2	20.7	21.1	19.7	20.2	20.2	20.6	21.0
8H					19.8	20.2	20.2	20.6	21.1	19.7	20.1	20.2	20.5	21.0
12H					19.8	20.1	20.3	20.6	21.0	19.7	20.1	20.2	20.5	21.0
12H 4H					19.8	20.3	20.2	20.6	21.0	19.7	20.2	20.1	20.6	21.0
6H					19.8	20.2	20.2	20.6	21.0	19.7	20.1	20.1	20.5	21.0
8H					19.8	20.1	20.2	20.5	21.0	19.7	20.0	20.2	20.5	20.9
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 0.5 / - 0.7					+ 0.5 / - 0.7				
1.5H					+ 0.6 / - 0.4					+ 0.6 / - 0.4				
2.0H					+ 0.8 / - 0.6					+ 0.7 / - 0.6				

CIE Pub.117, 1807 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.1)  
Area: 0.00567 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:8.402m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

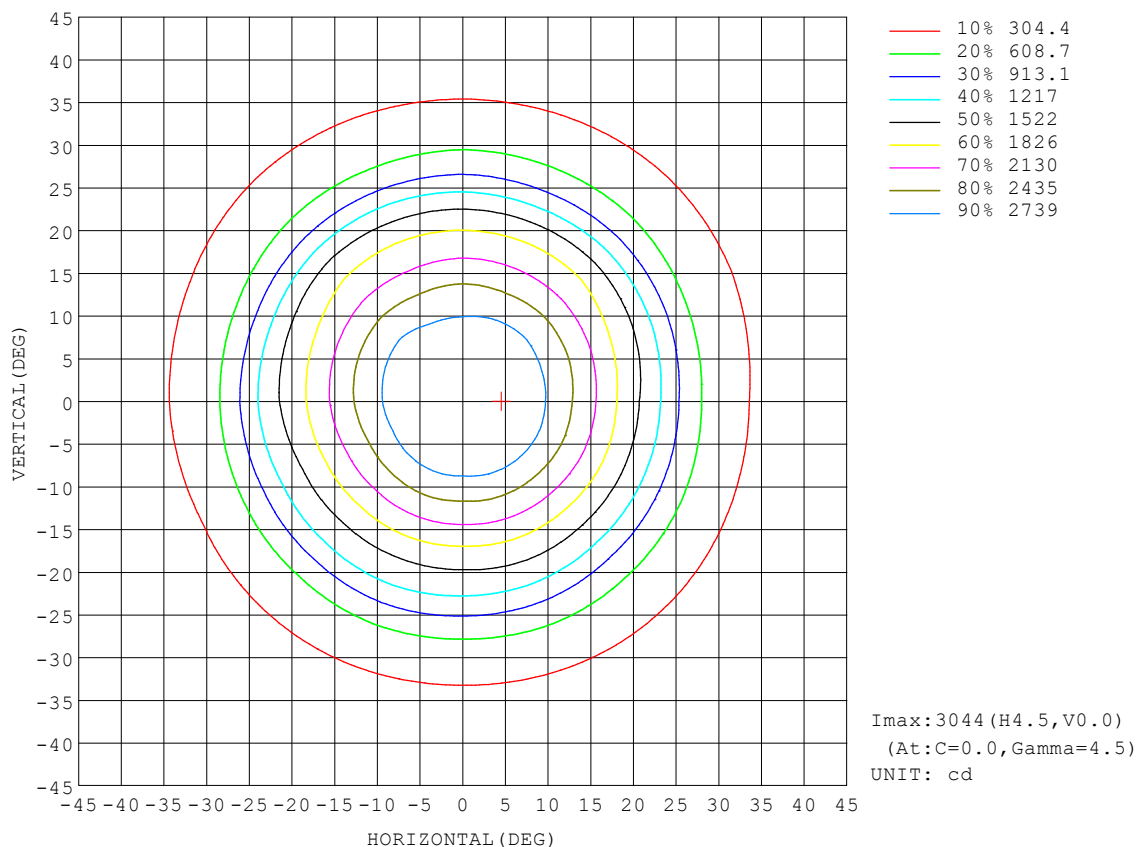
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	70	81	74	70	80	74	70	66
0.80	90	83	79	89	83	78	88	82	78	74
1.00	95	88	84	94	88	84	92	88	83	79
1.25	100	93	89	98	93	89	96	92	88	83
1.50	103	97	93	101	96	93	99	95	91	86
2.00	106	101	97	105	100	97	102	98	95	90
2.50	108	104	100	107	102	99	103	100	97	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	113	109	107	110	108	105	107	104	103	95
5.00	114	111	109	112	109	107	108	106	104	97
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: 8.402m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

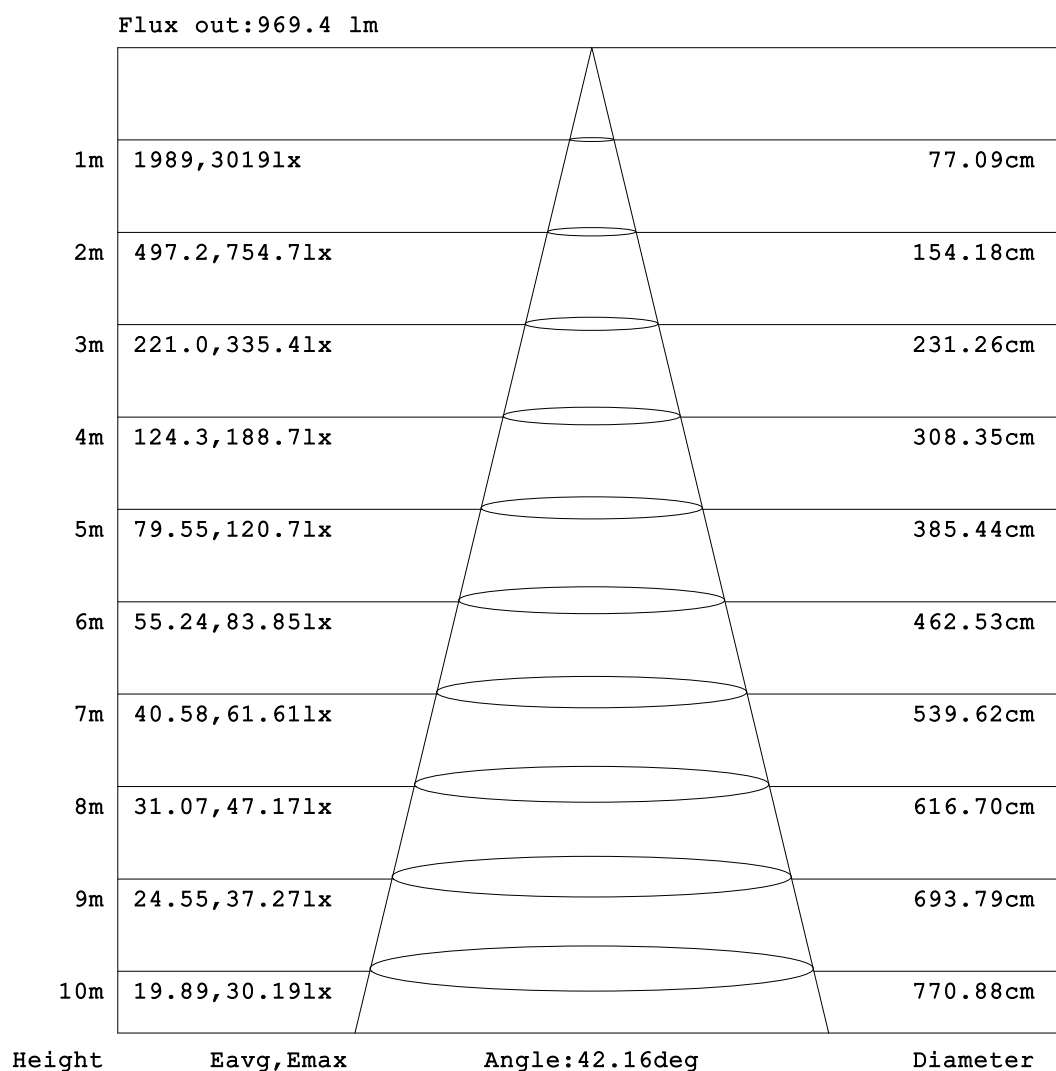


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2021-03-16

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.454  
 Humidity: 65.0%  
 Test Distance: 8.402m [K=1.0000]  
 Remarks:

**AAI Figure**

NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:



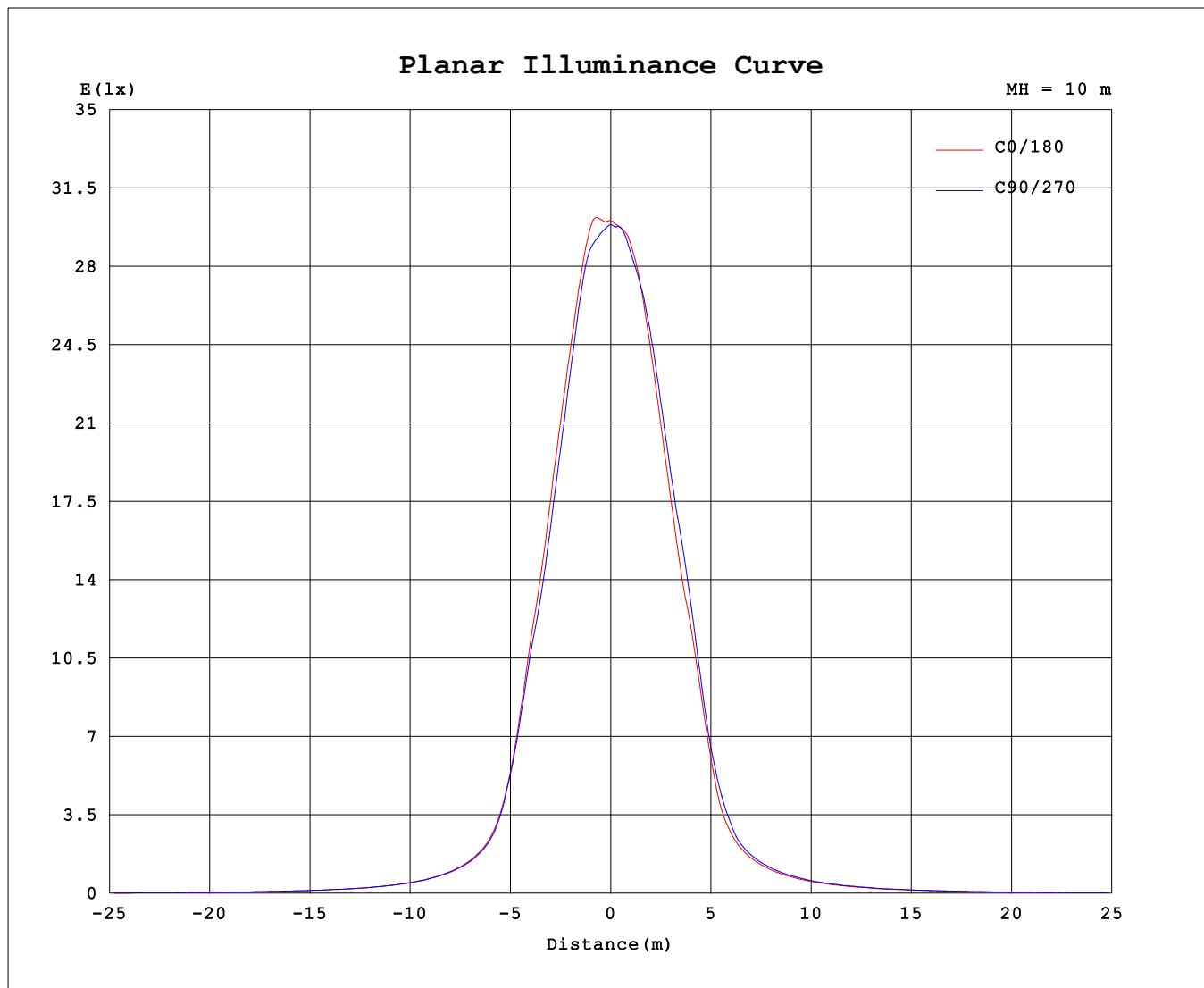
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:8.402m [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: 8.402m [K=1.0000]  
 Remarks:

NAME: TL45-20G40-38-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

UNIT: cd

[illegible]

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.454
Humidity:65.0%
Test Distance:8.402m [K=1.0000]
Remarks:

```