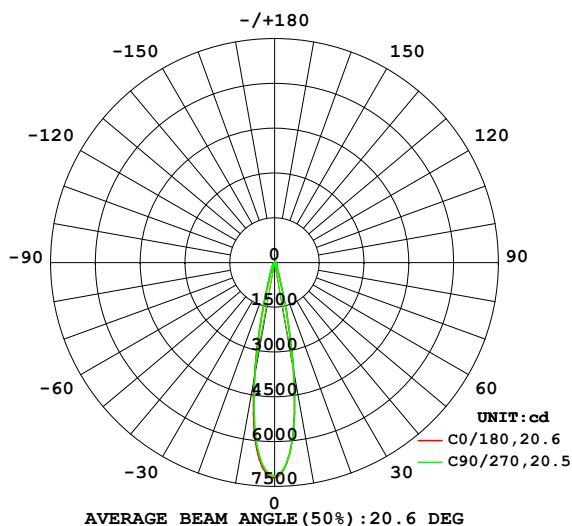


## LUMINAIRE PHOTOMETRIC TEST REPORT

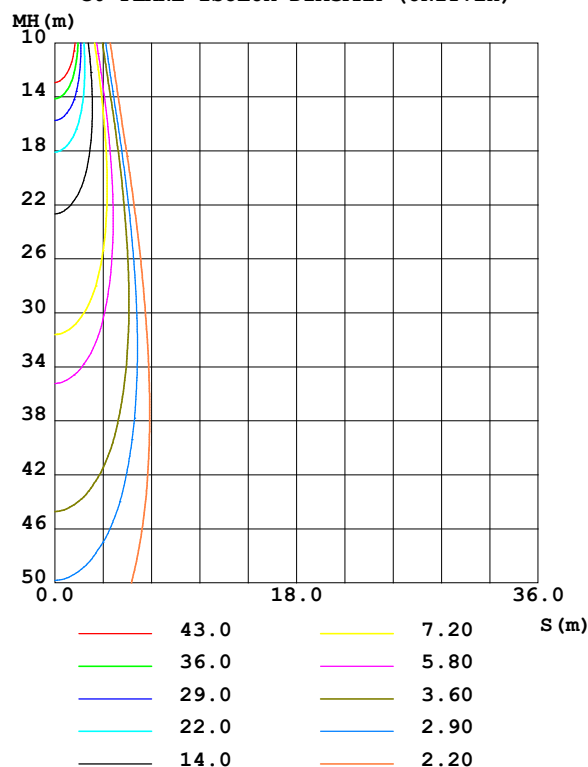
NAME: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 80.43 lm/W
MODEL	4000K CRI90	I <sub>max</sub> (cd)	7204	S/MH(C0/180)	0.34	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.34	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1158.2	η UP,DN(C0-180)	0.0,48.1	
NOMINAL FLUX(lm)	1158.23	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.9	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	225	η down (%)	100.0	CIBSE SHR MAX	0.30	

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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	3662	3623	3656	3741	3930	3878	3825	3795	0- 10	518.6	518.6	44.8,44.8
20	400.2	391.0	400.2	420.4	476.2	488.8	480.7	459.5	10- 20	393.8	912.4	78.8,78.8
30	120.8	119.2	121.0	124.1	152.9	155.4	153.4	147.1	20- 30	109.4	1022	88.2,88.2
40	47.65	48.00	49.02	50.77	67.88	68.23	66.39	63.56	30- 40	55.57	1077	93,93
50	25.09	25.32	25.84	27.13	37.42	37.11	36.05	34.88	40- 50	32.45	1110	95.8,95.8
60	15.18	15.14	15.17	15.68	22.73	22.39	21.97	21.44	50- 60	21.74	1132	97.7,97.7
70	9.073	9.073	9.025	9.157	13.26	13.10	12.85	12.68	60- 70	14.41	1146	98.9,98.9
80	4.337	4.421	4.369	4.327	6.726	6.573	6.456	6.419	70- 80	8.537	1155	99.7,99.7
90	1.670	1.649	1.633	1.622	2.816	2.790	2.779	2.748	80- 90	3.691	1158	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): 1095.4 lm

%lum = 94.6%

%lamp = 94.6%

Conical surface Flux(120deg): 1131.6 lm

%lum = 97.7%

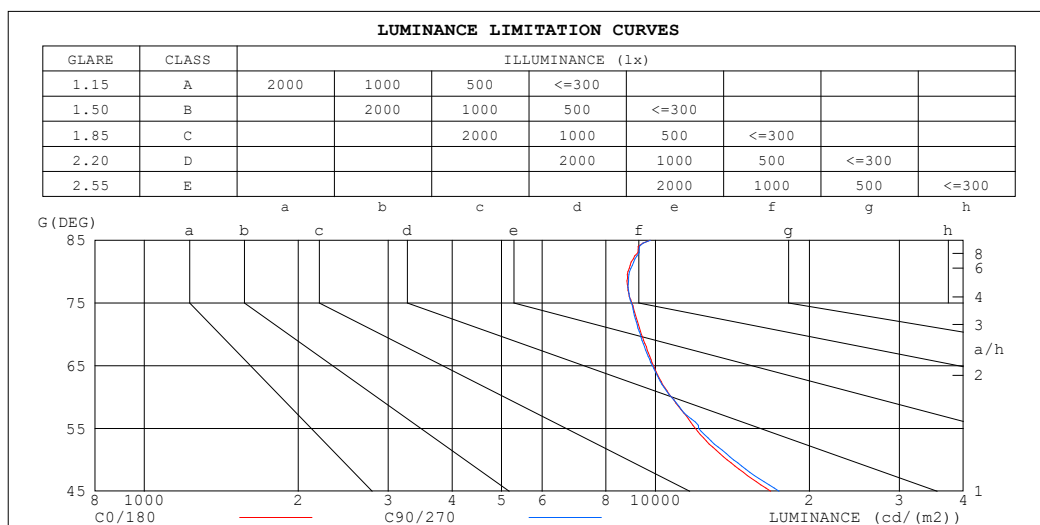
%lamp = 97.7%

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:

## LUMINANCE LIMITATION CURVES

NAME: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9755	9776
80	8838	8903
75	8988	8973
70	9387	9337
65	9916	9871
60	10742	10738
55	11973	12156
50	13812	14223
45	16814	17454

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: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	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	.146	.083	.026	.140	.080	.025	.127	.073	.023	.116	.067	.021	.105	.061	.020		
2.0	.135	.074	.023	.129	.071	.022	.119	.066	.021	.109	.061	.019	.101	.057	.018		
3.0	.124	.066	.020	.120	.064	.019	.111	.060	.018	.103	.057	.017	.096	.053	.016		
4.0	.116	.060	.018	.112	.058	.017	.104	.055	.017	.098	.052	.016	.092	.050	.015		
5.0	.108	.055	.016	.105	.054	.016	.098	.051	.015	.093	.049	.015	.087	.047	.014		
6.0	.101	.051	.015	.098	.050	.014	.093	.048	.014	.088	.046	.013	.083	.044	.013		
7.0	.095	.047	.013	.093	.046	.013	.088	.045	.013	.084	.043	.013	.080	.042	.012		
8.0	.090	.044	.012	.088	.043	.012	.084	.042	.012	.080	.041	.012	.077	.039	.011		
9.0	.085	.041	.012	.084	.041	.011	.080	.040	.011	.077	.038	.011	.074	.037	.011		
10.0	.081	.039	.011	.080	.038	.011	.077	.037	.011	.074	.037	.010	.071	.036	.010		

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.065	.097	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.104	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.068	.047	.083	.059	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.090	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.084	.055	.036	.072	.048	.031	.050	.034	.022	.029	.020	.013	.009	.007	.004	
10.0	.078	.050	.031	.068	.044	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004	

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: TL45-15G40-24-S					TYPE:					WEIGHT:				
SPEC.: 36V&350mA					DIM.: D80*H40					SERIAL No.:				
MFR.: EVERFINE					SUR.: D58					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					13.9	14.6	14.1	14.8	14.9	14.0	14.7	14.2	14.8	15.0
3H					14.9	15.5	15.1	15.7	15.9	14.9	15.6	15.2	15.7	15.9
4H					15.4	16.0	15.6	16.2	16.4	15.4	16.0	15.6	16.2	16.4
6H					15.7	16.3	16.0	16.5	16.8	15.8	16.3	16.0	16.6	16.8
8H					15.9	16.5	16.2	16.7	17.0	15.9	16.5	16.2	16.7	17.0
12H					16.0	16.6	16.3	16.8	17.1	16.1	16.6	16.4	16.9	17.1
4H 2H					14.3	14.9	14.6	15.1	15.3	14.4	15.0	14.6	15.2	15.4
3H					15.5	16.0	15.8	16.3	16.5	15.5	16.0	15.8	16.3	16.6
4H					16.1	16.6	16.4	16.8	17.1	16.1	16.6	16.4	16.9	17.2
6H					16.6	17.0	17.0	17.3	17.7	16.6	17.0	17.0	17.4	17.7
8H					16.8	17.2	17.2	17.6	17.9	16.8	17.2	17.2	17.6	17.9
12H					17.0	17.4	17.4	17.7	18.1	17.0	17.4	17.4	17.8	18.1
8H 4H					16.3	16.7	16.6	17.0	17.4	16.3	16.7	16.7	17.0	17.4
6H					16.9	17.3	17.4	17.7	18.1	16.9	17.3	17.4	17.7	18.1
8H					17.3	17.6	17.7	18.0	18.4	17.3	17.6	17.7	18.0	18.4
12H					17.5	17.8	18.0	18.2	18.7	17.5	17.8	18.0	18.2	18.7
12H 4H					16.3	16.6	16.7	17.0	17.4	16.3	16.7	16.7	17.0	17.4
6H					17.0	17.3	17.4	17.7	18.1	17.0	17.3	17.4	17.7	18.1
8H					17.4	17.6	17.8	18.1	18.5	17.4	17.6	17.8	18.1	18.5
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 0.4 / - 0.5					+ 0.4 / - 0.5				
1.5H					+ 0.5 / - 0.4					+ 0.5 / - 0.3				
2.0H					+ 0.6 / - 0.4					+ 0.6 / - 0.4				

CIE Pub.117, 1158 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.5)  
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: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	Shielding Angle:

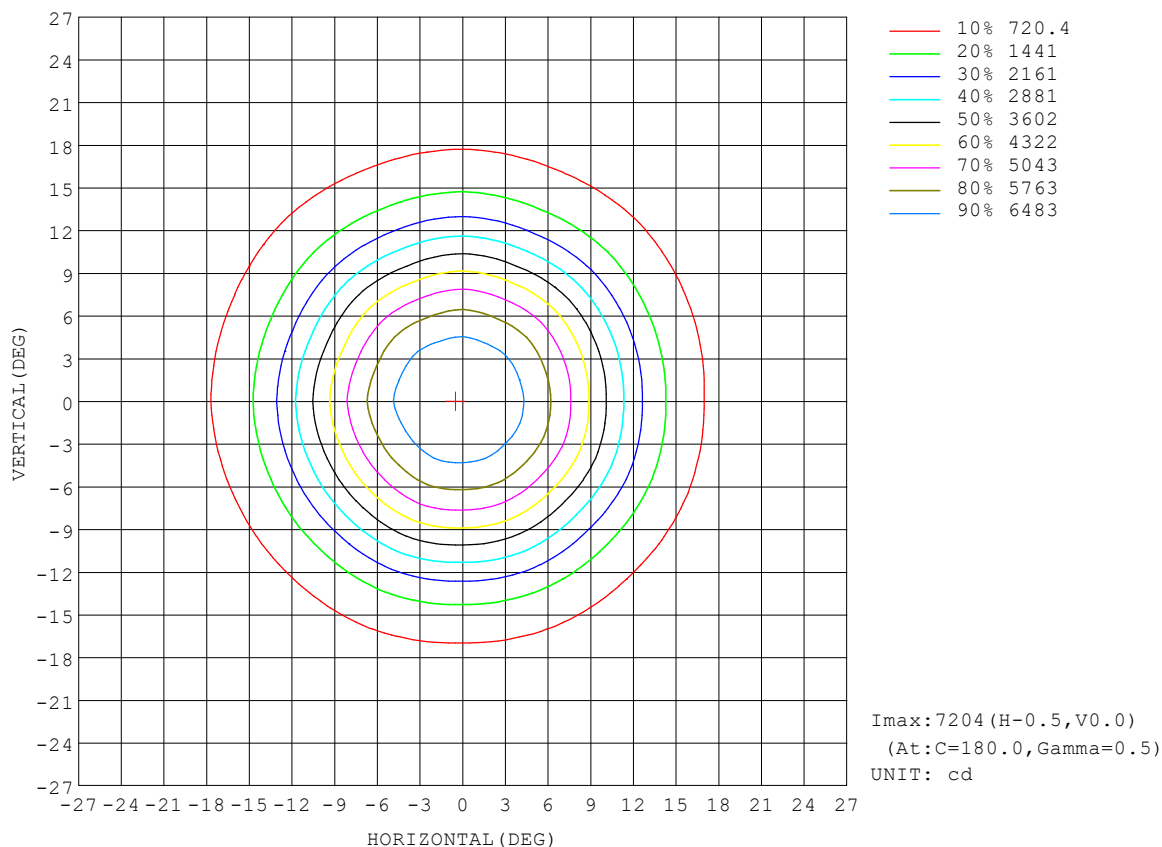
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	81	77	86	80	77	73
0.80	95	89	85	94	88	85	93	88	84	81
1.00	99	93	90	98	93	89	96	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	107	104	106	104	102	95
4.00	114	111	108	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	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: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	Shielding Angle:

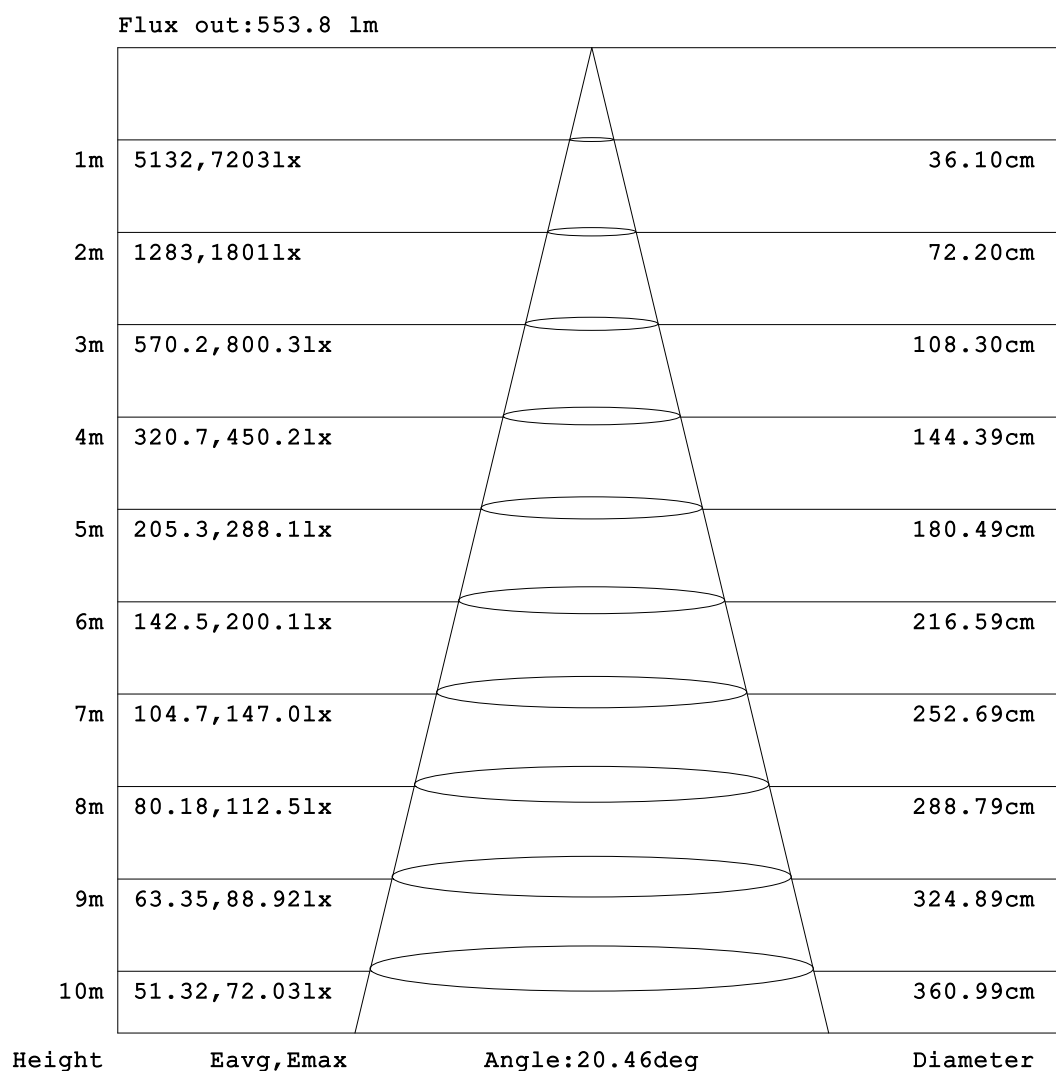


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-03-16

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: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	Shielding Angle:



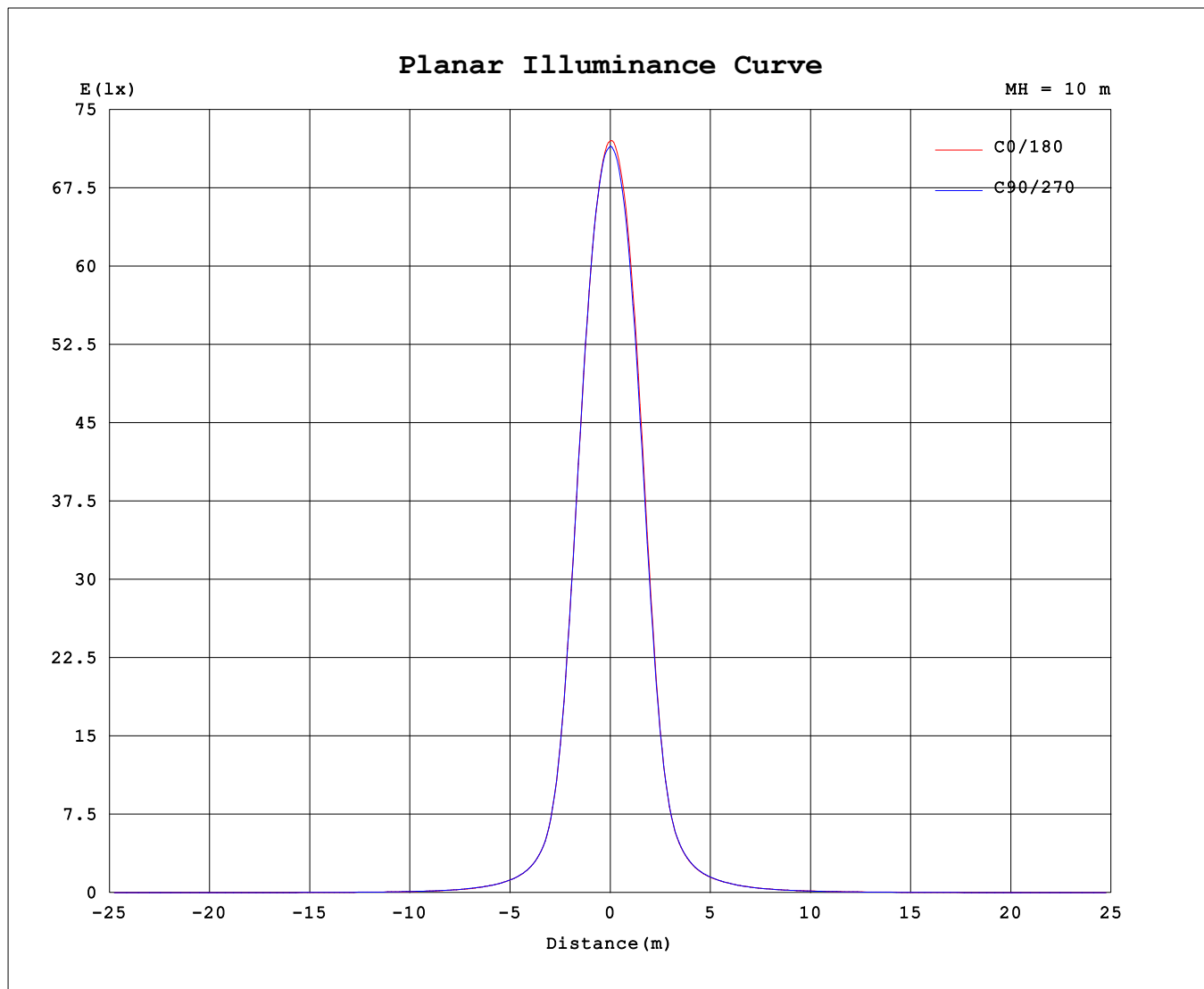
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: TL45-15G40-24-S	TYPE:	WEIGHT:
SPEC.: 36V&350mA	DIM.: D80*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D58	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:

```