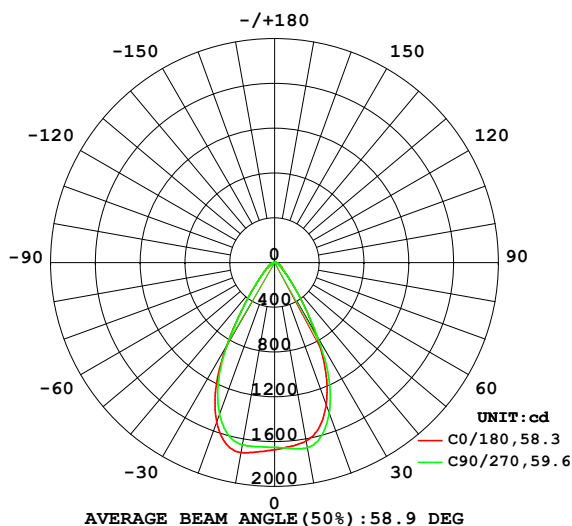


LUMINAIRE PHOTOMETRIC TEST REPORT

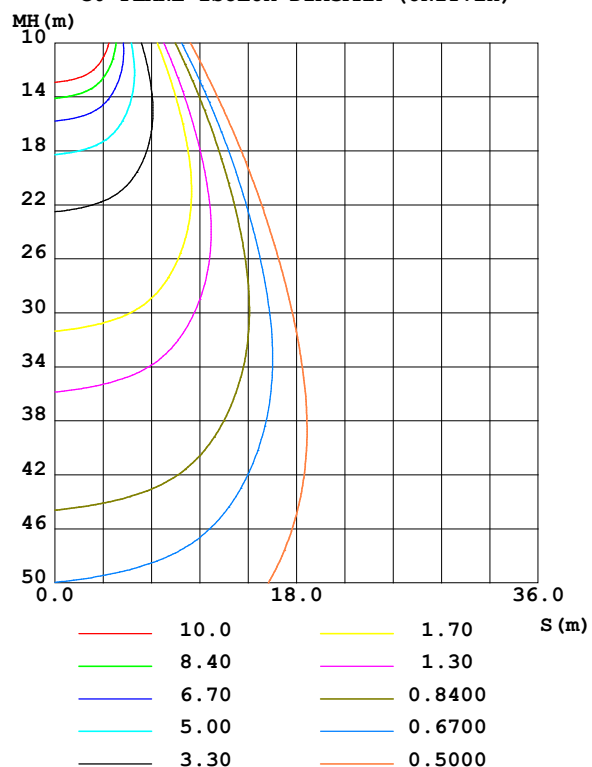
NAME: TL45-20G30-60-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 86.37 lm/W
MODEL	3000K CRI90	I _{max} (cd)	1723	S/MH(C0/180)	0.89	
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	0.89	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1684.1	η UP,DN(C0-180)	0.0,48.5	
NOMINAL FLUX(lm)	1684.14	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.5	
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: 8.402m [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	1618	1645	1679	1687	1723	1701	1653	1602	0- 10	158.5	158.5	9.41,9.41
20	1348	1371	1428	1456	1513	1481	1438	1375	10- 20	443.5	602.1	35.7,35.7
30	741.5	748.3	770.7	812.6	862.1	857.4	843.8	797.5	20- 30	521.6	1124	66.7,66.7
40	250.5	239.3	243.8	252.7	277.6	281.0	281.6	278.8	30- 40	301.8	1426	84.6,84.6
50	96.68	93.93	95.70	97.67	113.1	114.2	114.3	112.2	40- 50	127.0	1552	92.2,92.2
60	50.11	49.18	50.13	50.79	61.68	61.74	61.78	60.46	50- 60	68.20	1621	96.2,96.2
70	26.29	25.41	25.45	25.79	33.82	34.45	34.56	33.72	60- 70	41.64	1662	98.7,98.7
80	4.728	4.385	4.370	4.591	9.617	9.850	9.813	9.376	70- 80	16.87	1679	99.7,99.7
90	3.009	2.957	2.941	2.946	5.202	5.133	5.091	5.043	80- 90	4.936	1684	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): 1500.8 lm

%lum = 89.1%

%lamp = 89.1%

Conical surface Flux(120deg): 1620.7 lm

%lum = 96.2%

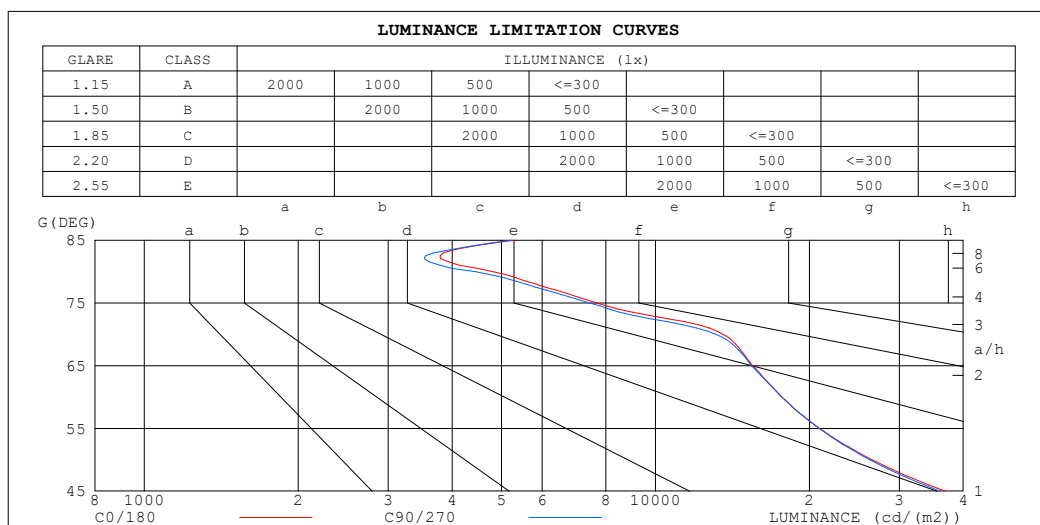
%lamp = 96.2%

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: TL45-20G30-60-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	5279	5228
80	4802	4438
75	7664	7427
70	13558	13124
65	15505	15413
60	17674	17682
55	20942	20897
50	26526	26257
45	36850	36026

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:

WEC AND CCEC

NAME: TL45-20G30-60-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	.197	.112	.035	.190	.109	.034	.178	.102	.033	.166	.096	.031	.155	.090	.029		
2.0	.188	.103	.032	.183	.101	.031	.172	.096	.030	.162	.091	.028	.153	.086	.027		
3.0	.178	.095	.028	.173	.093	.028	.164	.089	.027	.156	.085	.026	.148	.082	.025		
4.0	.169	.088	.026	.165	.086	.025	.157	.083	.025	.149	.080	.024	.142	.077	.024		
5.0	.160	.081	.024	.156	.080	.023	.149	.078	.023	.143	.075	.022	.137	.073	.022		
6.0	.152	.076	.022	.148	.075	.022	.142	.073	.021	.136	.071	.021	.131	.069	.020		
7.0	.144	.071	.020	.141	.070	.020	.136	.069	.020	.131	.067	.019	.126	.065	.019		
8.0	.137	.067	.019	.135	.066	.019	.130	.065	.019	.125	.063	.018	.121	.062	.018		
9.0	.131	.063	.018	.129	.063	.018	.124	.061	.017	.120	.060	.017	.116	.059	.017		
10.0	.125	.060	.017	.123	.059	.017	.119	.058	.016	.115	.057	.016	.112	.056	.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	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016		
2.0	.158	.132	.111	.136	.114	.096	.093	.079	.067	.054	.046	.039	.017	.015	.013		
3.0	.147	.114	.087	.126	.098	.076	.086	.068	.053	.050	.040	.031	.016	.013	.010		
4.0	.137	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008		
5.0	.129	.088	.058	.110	.076	.050	.076	.053	.035	.044	.031	.021	.014	.010	.007		
6.0	.121	.079	.048	.104	.068	.042	.072	.048	.030	.042	.028	.018	.013	.009	.006		
7.0	.115	.071	.041	.099	.062	.035	.068	.043	.025	.040	.025	.015	.013	.008	.005		
8.0	.109	.065	.035	.094	.056	.030	.065	.040	.022	.038	.023	.013	.012	.008	.004		
9.0	.104	.060	.030	.089	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004		
10.0	.099	.056	.027	.085	.048	.023	.059	.034	.016	.035	.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:8.402m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: TL45-20G30-60-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	19.0	20.0	19.2	20.2	20.4	19.0	20.0	19.2	20.2	20.3
	3H	19.4	20.3	19.7	20.6	20.8	19.3	20.3	19.6	20.5	20.7
	4H	19.4	20.3	19.7	20.6	20.8	19.4	20.3	19.7	20.5	20.7
	6H	19.4	20.2	19.7	20.5	20.7	19.3	20.2	19.6	20.4	20.7
	8H	19.4	20.2	19.7	20.4	20.7	19.3	20.1	19.6	20.4	20.6
	12H	19.3	20.1	19.7	20.4	20.7	19.3	20.0	19.6	20.3	20.6
4H	2H	19.1	20.0	19.4	20.2	20.4	19.0	19.9	19.3	20.2	20.4
	3H	19.6	20.4	19.9	20.6	20.9	19.5	20.3	19.9	20.6	20.9
	4H	19.7	20.4	20.0	20.7	21.0	19.6	20.3	20.0	20.6	20.9
	6H	19.7	20.3	20.0	20.6	21.0	19.6	20.2	20.0	20.5	20.9
	8H	19.6	20.2	20.0	20.6	20.9	19.6	20.1	20.0	20.5	20.9
	12H	19.6	20.1	20.0	20.5	20.9	19.5	20.1	19.9	20.4	20.8
8H	4H	19.6	20.2	20.0	20.6	20.9	19.6	20.1	20.0	20.5	20.9
	6H	19.6	20.1	20.1	20.5	20.9	19.6	20.0	20.0	20.4	20.8
	8H	19.6	20.0	20.1	20.4	20.9	19.5	20.0	20.0	20.4	20.8
	12H	19.6	20.0	20.1	20.4	20.9	19.5	19.9	20.0	20.3	20.8
12H	4H	19.6	20.1	20.0	20.5	20.9	19.5	20.0	19.9	20.4	20.8
	6H	19.6	20.0	20.0	20.4	20.9	19.5	19.9	20.0	20.4	20.8
	8H	19.6	19.9	20.0	20.4	20.8	19.5	19.9	20.0	20.3	20.8
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 1.5 / - 1.8					+ 1.5 / - 1.8				
1.5H		+ 2.5 / - 1.4					+ 2.6 / - 1.4				
2.0H		+ 2.0 / - 1.2					+ 1.9 / - 1.1				

CIE Pub.117, 1684 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.8)
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: TL45-20G30-60-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

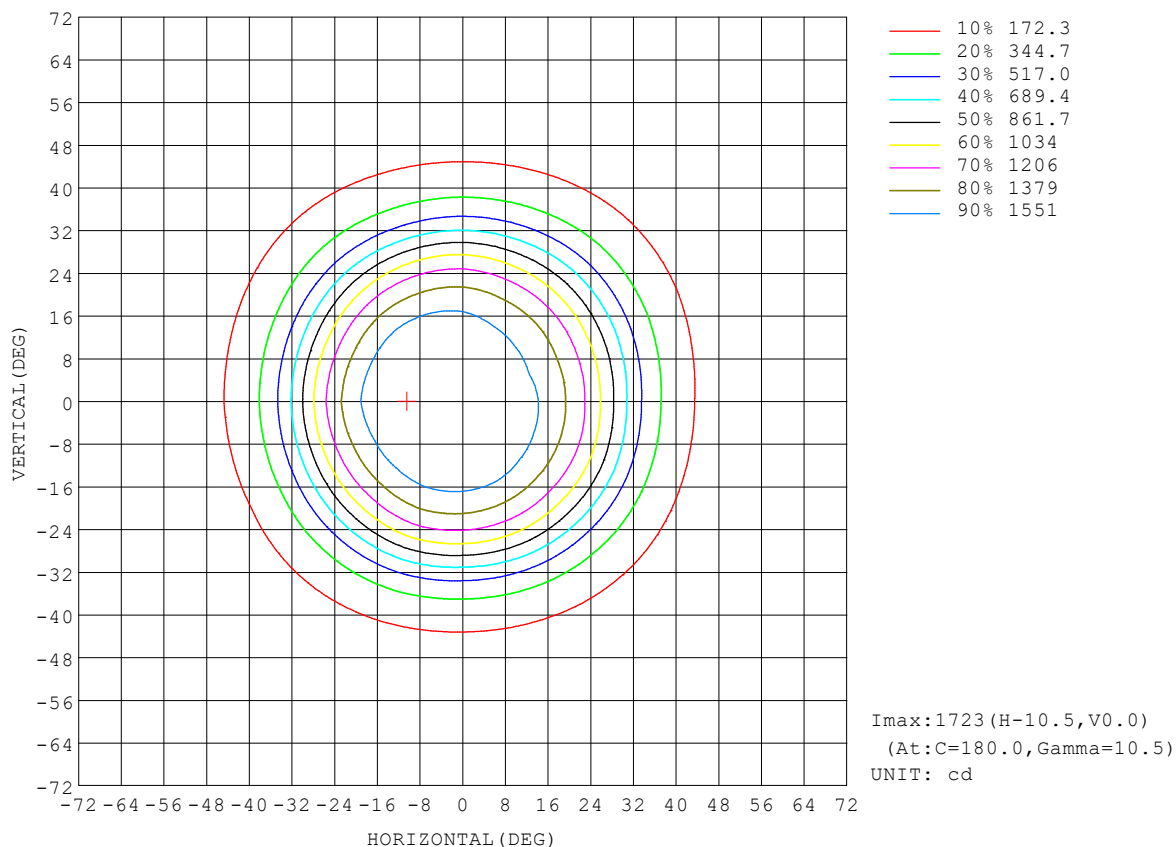
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	70	81	74	70	81	74	70	66
0.80	90	83	79	89	83	79	88	82	78	74
1.00	95	89	84	94	88	84	93	88	84	79
1.25	100	94	90	99	93	89	97	92	88	84
1.50	103	97	93	102	97	93	99	95	92	87
2.00	106	102	98	105	100	97	102	98	96	90
2.50	108	104	101	107	103	100	104	100	98	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	113	109	107	110	108	105	107	105	103	95
5.00	114	111	109	112	109	108	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

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:

ISOCANDELA DIAGRAM

NAME: TL45-20G30-60-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

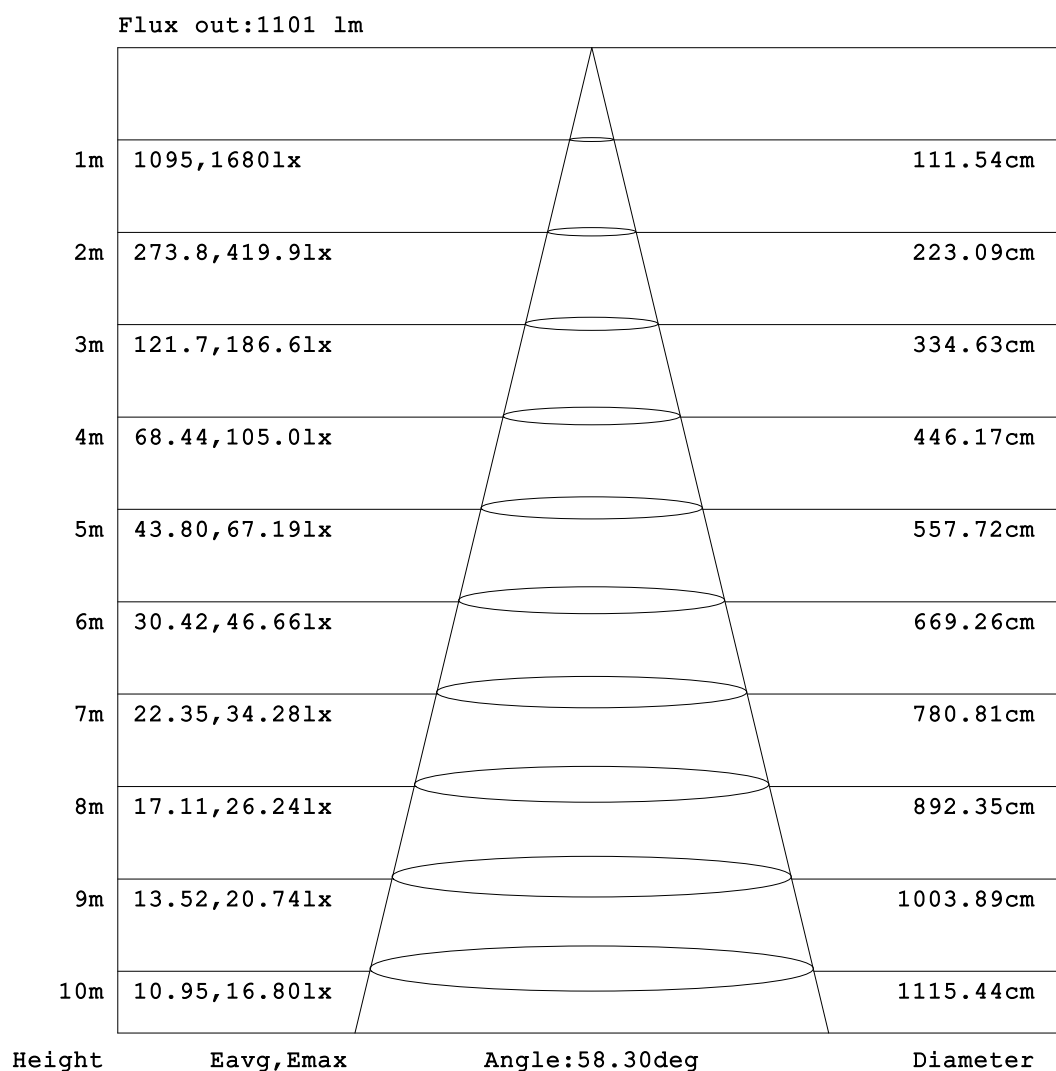


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-16

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: TL45-20G30-60-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

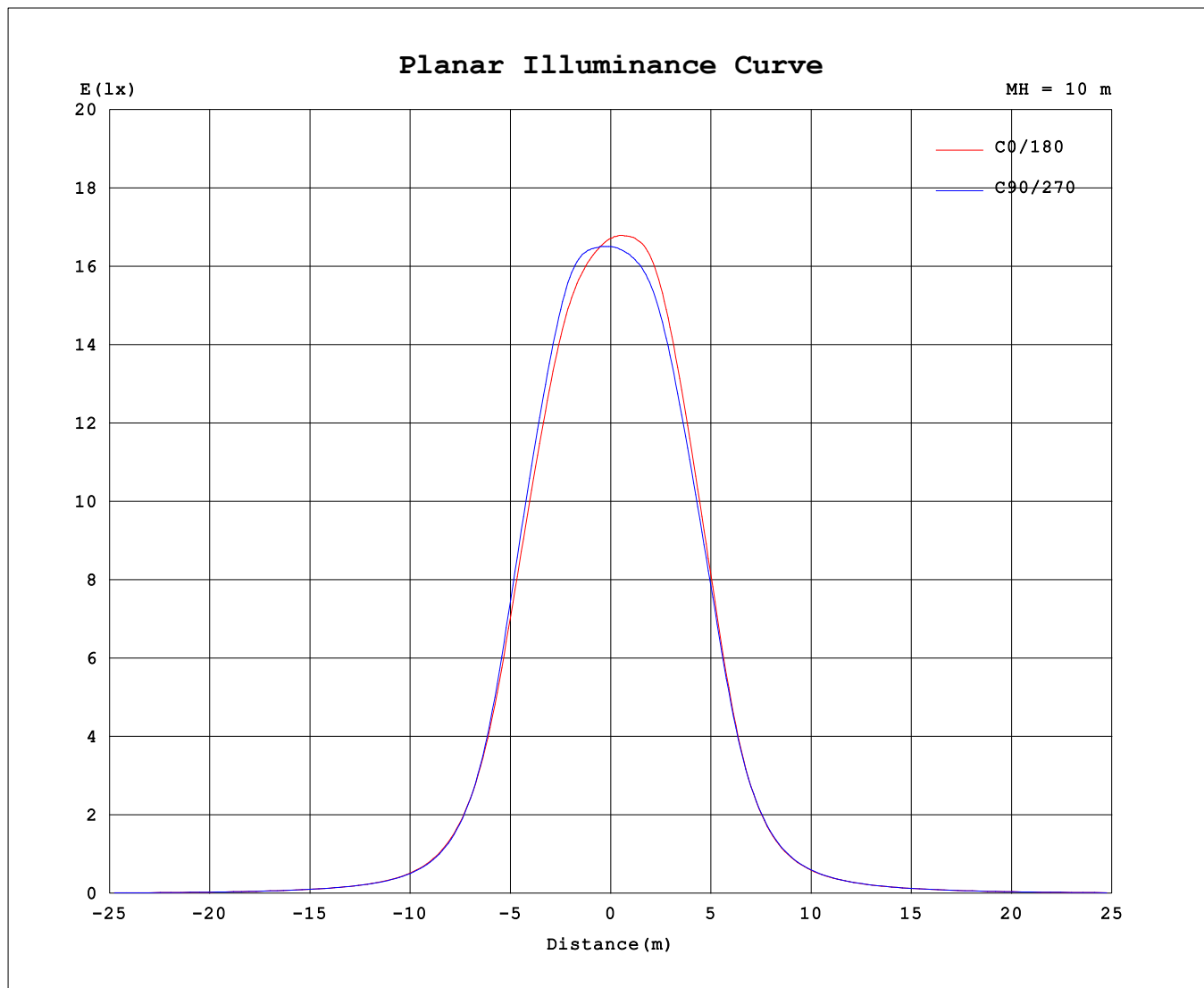


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:

NAME: TL45-20G30-60-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	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

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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:

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