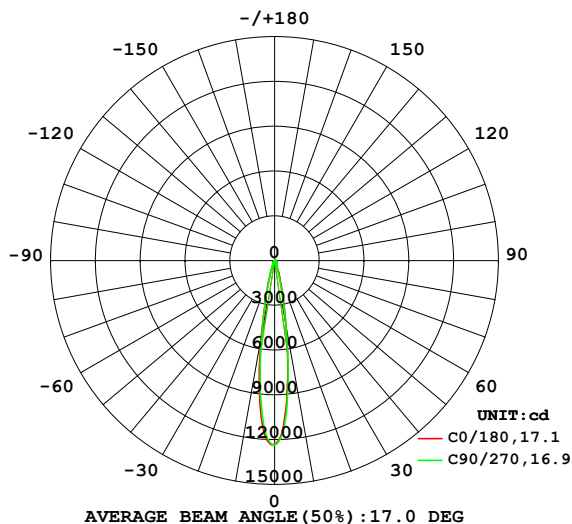


LUMINAIRE PHOTOMETRIC TEST REPORT

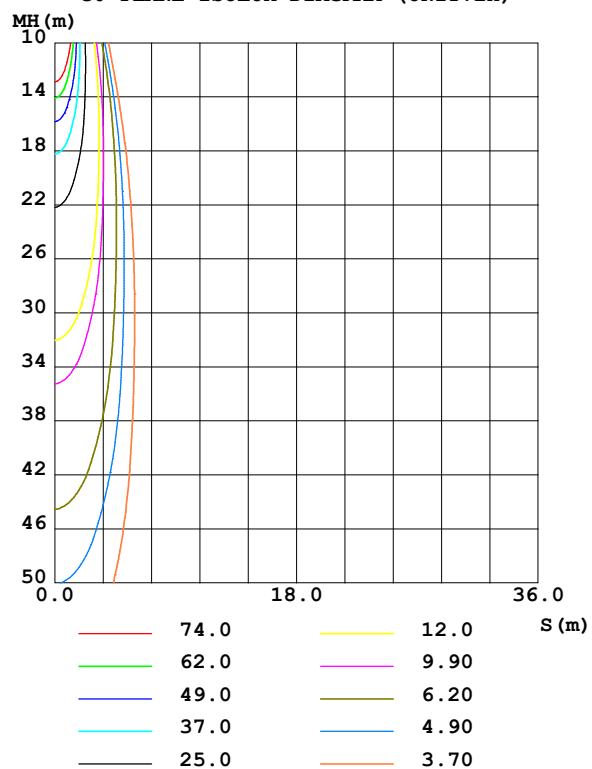
NAME: TL45-20G30-12-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 86.67 lm/W
MODEL	3000K CRI90	I _{max} (cd)	12352	S/MH (C0/180)	0.31	
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	0.30	
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1690.0	η UP, DN (C0-180)	0.0, 47.2	
NOMINAL FLUX (lm)	1690.02	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.8	
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: 8.402m [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	436.9	425.9	435.4	465.3	521.0	514.3	493.0	471.6	0- 10	765.8	765.8	45.3,45.3
20	64.54	54.90	50.56	52.41	65.41	68.29	73.20	73.80	10- 20	522.6	1288	76.2,76.2
30	17.94	17.77	16.96	17.37	21.37	21.02	20.37	20.57	20- 30	147.5	1436	85,85
40	9.400	9.733	9.708	9.782	12.15	11.62	11.20	11.08	30- 40	88.42	1524	90.2,90.2
50	6.084	6.551	6.417	6.713	8.412	7.660	7.000	6.930	40- 50	65.61	1590	94.1,94.1
60	4.003	4.075	4.216	4.374	5.320	4.972	4.649	4.669	50- 60	49.77	1640	97,97
70	1.968	1.930	1.889	1.930	2.600	2.608	2.517	2.494	60- 70	31.49	1671	98.9,98.9
80	0.3506	0.3531	0.3722	0.4130	0.8347	0.8204	0.7610	0.7206	70- 80	14.25	1685	99.7,99.7
90	0.2856	0.2867	0.2867	0.2830	0.4632	0.4632	0.4590	0.4569	80- 90	4.584	1690	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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 1559 lm

%lum = 92.2%

%lamp = 92.2%

Conical surface Flux(120deg): 1639.7 lm

%lum = 97.0%

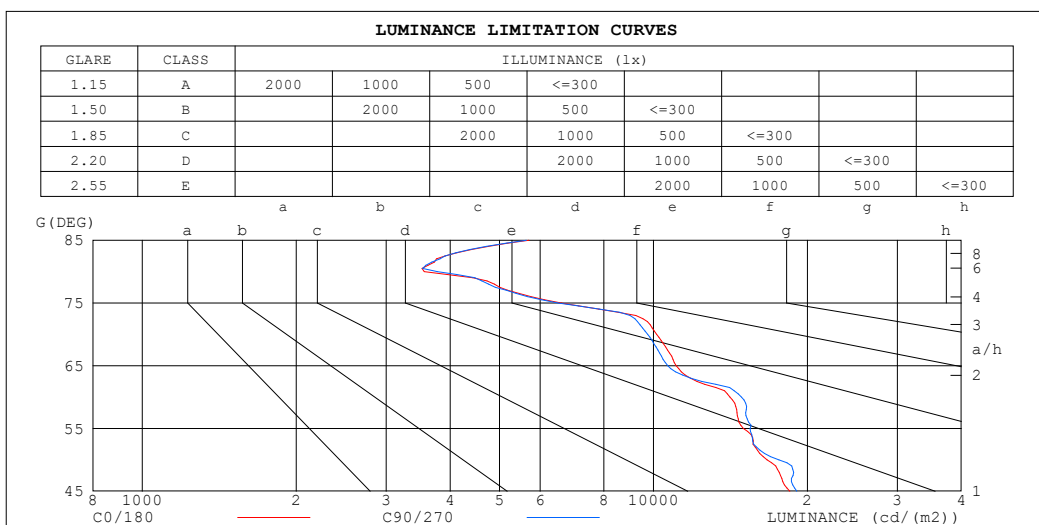
%lamp = 97.0%

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: TL45-20G30-12-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	5705	5642
80	3561	3780
75	6598	6509
70	10149	9739
65	11077	10676
60	14121	14870
55	15000	15453
50	16692	17607
45	18486	19068

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: TL45-20G30-12-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	.151	.086	.027	.145	.082	.026	.132	.076	.024	.121	.070	.022	.110	.064	.021		
2.0	.140	.077	.024	.135	.074	.023	.124	.069	.021	.115	.064	.020	.106	.060	.019		
3.0	.130	.069	.021	.125	.067	.020	.116	.063	.019	.108	.059	.018	.101	.056	.017		
4.0	.120	.063	.018	.117	.061	.018	.109	.058	.017	.102	.055	.017	.096	.052	.016		
5.0	.112	.057	.017	.109	.056	.016	.103	.054	.016	.097	.051	.015	.092	.049	.015		
6.0	.105	.053	.015	.102	.052	.015	.097	.050	.014	.092	.048	.014	.087	.046	.014		
7.0	.099	.049	.014	.096	.048	.014	.092	.046	.013	.087	.045	.013	.083	.043	.013		
8.0	.093	.046	.013	.091	.045	.013	.087	.044	.012	.083	.042	.012	.080	.041	.012		
9.0	.088	.043	.012	.086	.042	.012	.083	.041	.012	.079	.040	.011	.076	.039	.011		
10.0	.084	.040	.011	.082	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011		

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	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.137	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.125	.098	.077	.107	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.115	.086	.065	.098	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.106	.076	.055	.091	.066	.048	.063	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.040	.078	.053	.035	.054	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.085	.055	.035	.073	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.080	.050	.031	.069	.044	.027	.048	.031	.019	.028	.018	.011	.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:8.402m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: TL45-20G30-12-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					14.7	15.4	14.9	15.5	15.7	14.8	15.5	15.0	15.7	15.8
3H					15.6	16.2	15.8	16.4	16.6	15.6	16.2	15.8	16.4	16.6
4H					15.8	16.4	16.1	16.7	16.9	15.8	16.4	16.1	16.7	16.9
6H					15.8	16.4	16.1	16.7	16.9	15.8	16.4	16.1	16.7	16.9
8H					15.8	16.4	16.1	16.7	16.9	15.8	16.4	16.1	16.7	16.9
12H					15.8	16.4	16.1	16.6	16.9	15.8	16.4	16.1	16.7	16.9
4H 2H					15.1	15.7	15.4	15.9	16.2	15.2	15.8	15.5	16.0	16.2
3H					16.1	16.7	16.4	17.0	17.2	16.1	16.7	16.4	17.0	17.2
4H					16.4	16.9	16.8	17.2	17.5	16.4	16.9	16.7	17.2	17.5
6H					16.5	16.9	16.8	17.3	17.6	16.5	16.9	16.8	17.2	17.6
8H					16.5	16.9	16.8	17.2	17.6	16.4	16.9	16.8	17.2	17.6
12H					16.5	16.9	16.9	17.2	17.6	16.5	16.9	16.9	17.2	17.6
8H 4H					16.4	16.9	16.8	17.2	17.6	16.4	16.9	16.8	17.2	17.6
6H					16.5	16.9	16.9	17.3	17.7	16.5	16.9	16.9	17.2	17.7
8H					16.5	16.8	17.0	17.3	17.7	16.5	16.8	17.0	17.2	17.7
12H					16.6	16.9	17.1	17.3	17.8	16.6	16.8	17.0	17.3	17.7
12H 4H					16.4	16.8	16.8	17.2	17.5	16.4	16.8	16.8	17.1	17.5
6H					16.5	16.8	16.9	17.2	17.6	16.5	16.8	16.9	17.2	17.6
8H					16.5	16.8	17.0	17.2	17.7	16.5	16.8	17.0	17.2	17.7
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 0.5 / - 0.5					+ 0.5 / - 0.5				
1.5H					+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H					+ 0.6 / - 1.2					+ 0.5 / - 1.3				

CIE Pub.117, 1690 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: TL45-20G30-12-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

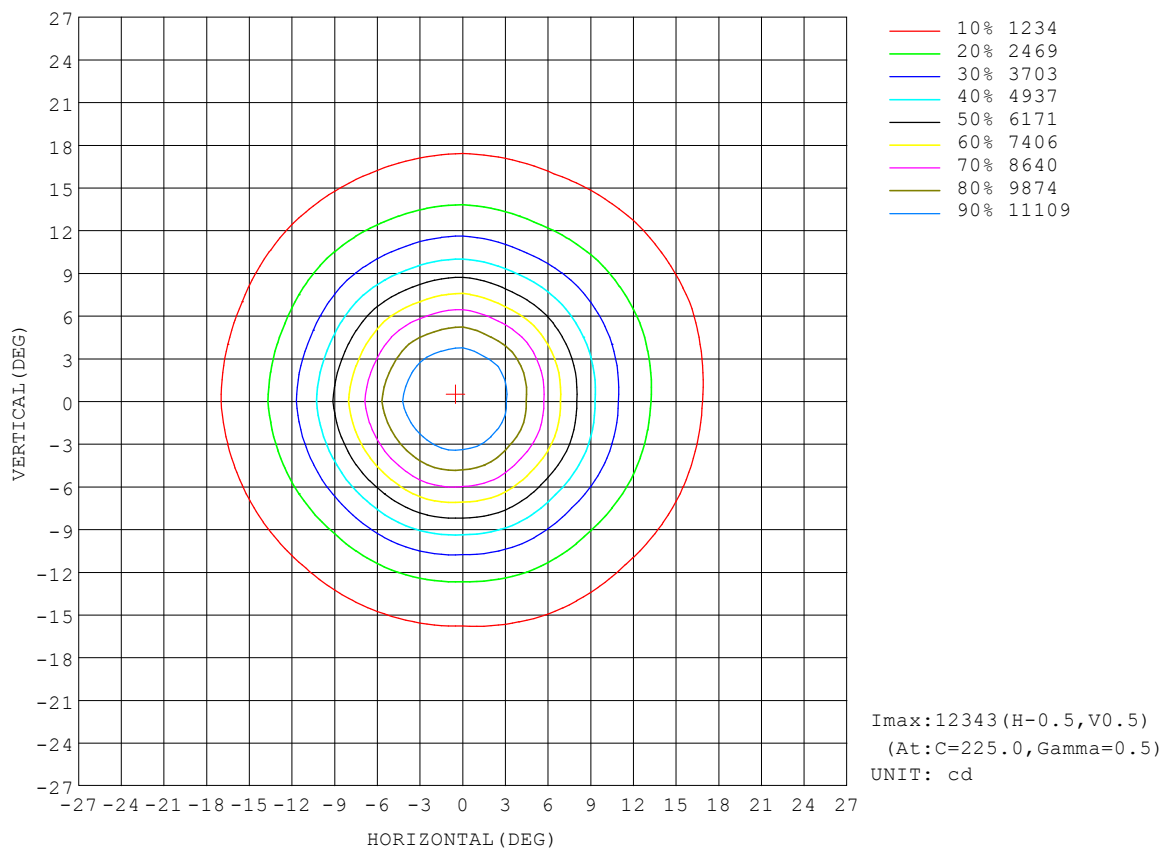
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	86	83	91	86	82	78
1.00	98	92	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	107	108	105	104	97
5.00	115	112	110	112	110	109	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

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: TL45-20G30-12-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

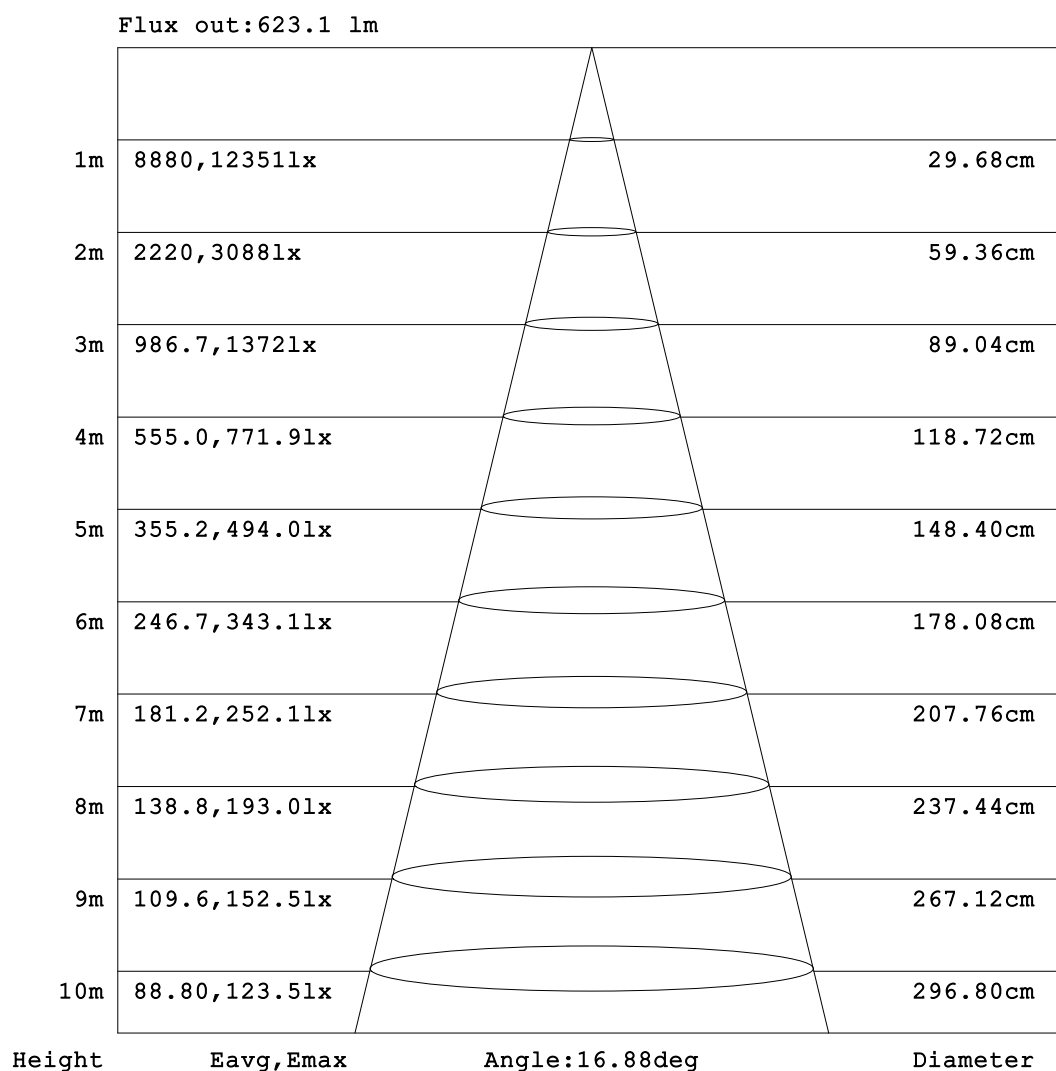


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-16

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: TL45-20G30-12-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

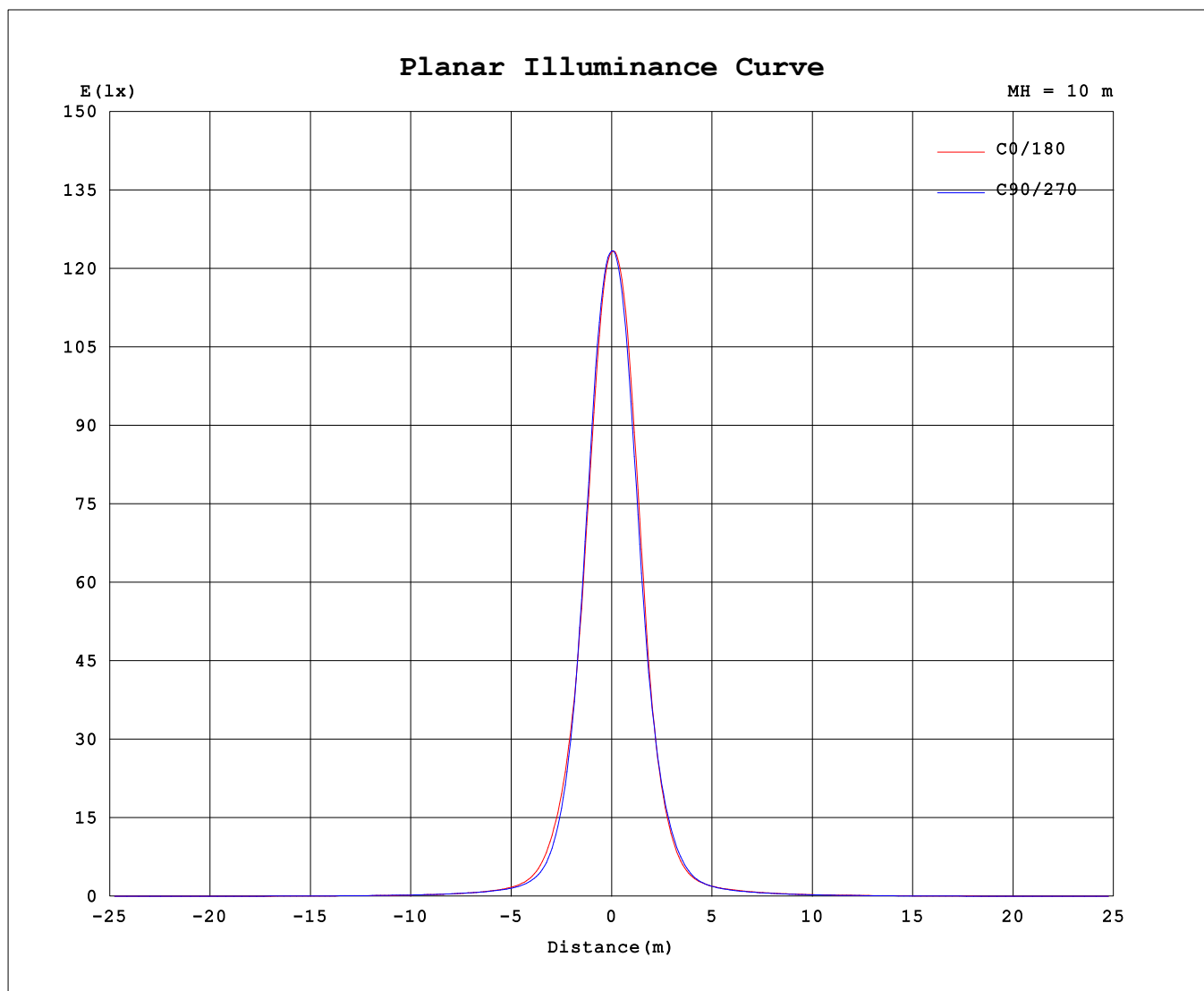


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: TL45-20G30-12-M	TYPE:	WEIGHT:
SPEC.: 36V&500mA	DIM.: D90*H40	SERIAL No.:
MFR.: EVERFINE	SUR.: D85	Shielding Angle:

UNIT: X10cd

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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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