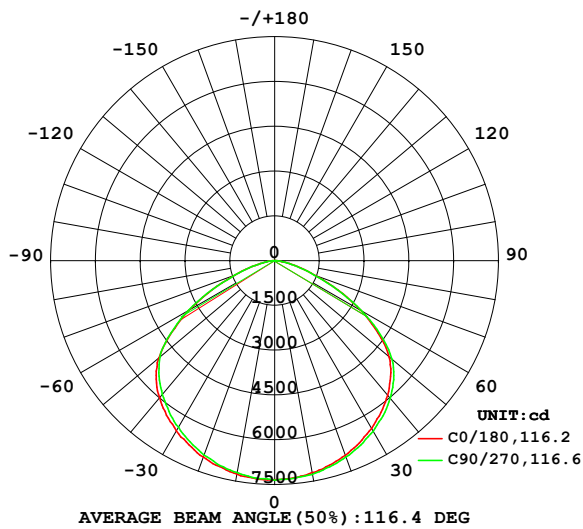


LUMINAIRE PHOTOMETRIC TEST REPORT

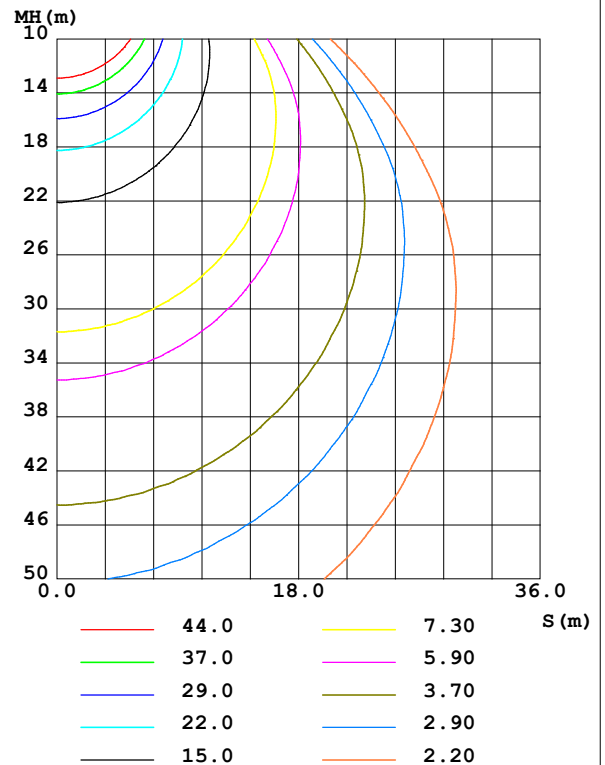
Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME: 0017160051 5000K 150W 22500lm	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 150.00 lm/W			
MODEL		Imax (cd)	7352	S/MH(C0/180)	1.34
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.31
RATED VOLTAGE(V)		TOTAL FLUX(lm)	22500	η UP,DN(C0-180)	0.0,50.1
NOMINAL FLUX(lm)	22500	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)		η down (%)	100.0	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:Testing Room
Test Date:2025-03-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity:25%
Test Distance:11.050m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	7213	7272	7266	7209					0- 10	695.8	695.8	3.3,3.3
20	6936	6992	7000	6925					10- 20	2012	2708	12.8,12.8
30	6493	6601	6583	6445					20- 30	3121	5829	27.6,27.6
40	5888	6024	5989	5853					30- 40	3918	9747	46.2,46.2
50	5003	5120	5054	5019					40- 50	4279	14026	66.4,66.4
60	3317	3359	3295	3335					50- 60	3789	17814	84.4,84.4
70	1443	1411	1418	1404					60- 70	2307	20121	95.3,95.3
80	353.1	352.6	336.1	342.4					70- 80	864.0	20985	99.4,99.4
90	10.66	10.19	8.395	8.684					80- 90	130.4	21115	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): 11877 lm

%lum = 56.2%

%lamp = 56.2%

Conical surface Flux(120deg): 17814 lm

%lum = 84.4%

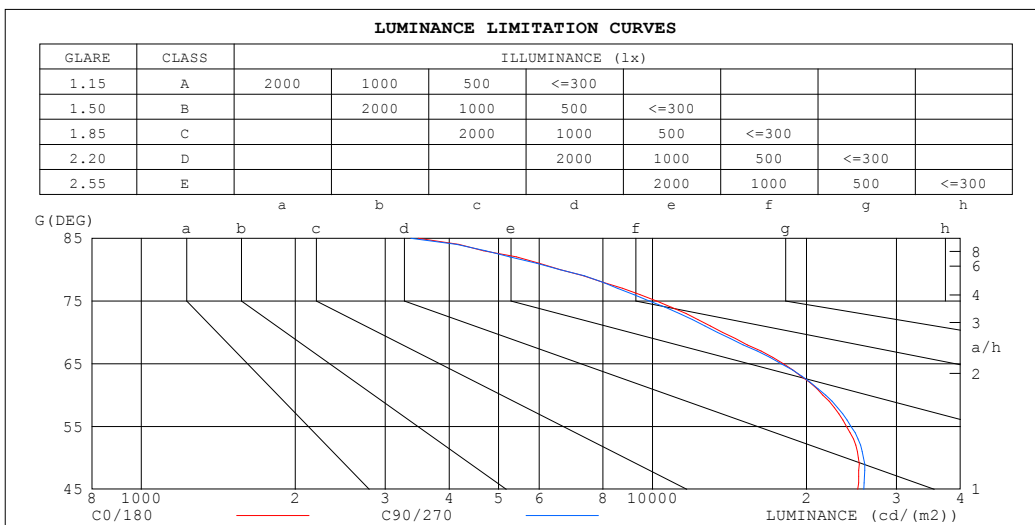
%lamp = 84.4%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2025-03-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3478	3367
80	6601	6592
75	10186	9851
70	13702	13397
65	18024	17845
60	21541	21812
55	23951	24454
50	25271	25859
45	25199	25888

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:Testing Room
Test Date:2025-03-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity:25%
Test Distance:11.050m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	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	.281	.160	.051	.274	.157	.050	.261	.150	.048	.249	.144	.046	.238	.138	.044		
2.0	.273	.150	.046	.267	.147	.045	.255	.142	.044	.244	.137	.043	.235	.133	.042		
3.0	.257	.137	.041	.252	.135	.041	.241	.131	.040	.232	.127	.039	.223	.124	.038		
4.0	.240	.125	.037	.235	.123	.036	.226	.120	.036	.218	.117	.035	.210	.114	.035		
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032		
6.0	.209	.105	.030	.205	.104	.030	.198	.102	.030	.191	.099	.029	.185	.097	.029		
7.0	.196	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027		
8.0	.183	.090	.025	.180	.089	.025	.174	.087	.025	.169	.086	.025	.164	.084	.025		
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.159	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021		

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	.178	.156	.137	.153	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015		
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.060	.057	.046	.035	.018	.015	.012		
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009		
4.0	.155	.101	.060	.133	.087	.052	.091	.061	.036	.053	.036	.022	.017	.012	.007		
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.016	.010	.006		
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005		
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004		
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004		
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003		
10.0	.117	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:Testing Room

Test Date:2025-03-19

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471

Humidity:25%

Test Distance:11.050m [K=1.0000]

Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.: TOSPO					SUR.:			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	24.0	25.5	24.3	25.7	25.9	24.1	25.6	24.3	25.8	26.0	
3H	24.8	26.2	25.1	26.4	26.7	24.9	26.2	25.1	26.5	26.7	
4H	25.0	26.3	25.3	26.6	26.8	25.0	26.3	25.3	26.6	26.8	
6H	25.1	26.3	25.4	26.5	26.8	25.1	26.3	25.4	26.6	26.8	
8H	25.0	26.2	25.4	26.5	26.8	25.1	26.2	25.4	26.5	26.8	
12H	25.0	26.1	25.4	26.4	26.7	25.0	26.1	25.4	26.4	26.7	
4H 2H	24.4	25.7	24.7	26.0	26.2	24.5	25.8	24.8	26.0	26.3	
3H	25.4	26.5	25.7	26.8	27.1	25.4	26.5	25.7	26.8	27.1	
4H	25.6	26.6	26.0	27.0	27.3	25.6	26.6	26.0	27.0	27.3	
6H	25.7	26.6	26.1	27.0	27.3	25.7	26.6	26.1	27.0	27.3	
8H	25.7	26.6	26.1	26.9	27.3	25.7	26.6	26.1	26.9	27.3	
12H	25.7	26.5	26.1	26.9	27.3	25.7	26.5	26.1	26.9	27.3	
8H 4H	25.7	26.5	26.1	26.9	27.3	25.7	26.5	26.1	26.9	27.3	
6H	25.8	26.5	26.3	26.9	27.3	25.8	26.5	26.3	26.9	27.3	
8H	25.9	26.5	26.3	26.9	27.3	25.9	26.5	26.3	26.9	27.3	
12H	25.9	26.4	26.3	26.8	27.3	25.9	26.4	26.3	26.8	27.3	
12H 4H	25.6	26.4	26.1	26.8	27.2	25.6	26.4	26.1	26.8	27.2	
6H	25.8	26.4	26.3	26.8	27.3	25.8	26.4	26.3	26.8	27.3	
8H	25.9	26.4	26.3	26.8	27.3	25.9	26.4	26.3	26.8	27.3	
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					
1.5H	+ 0.4 / - 0.7					+ 0.4 / - 0.7					
2.0H	+ 0.6 / - 0.5					+ 0.6 / - 0.5					

CIE Pub.117, 21115 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 10.6$)
Area: 0.308 m²

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:Testing Room

Test Date:2025-03-19

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471

Humidity:25%

Test Distance:11.050m [K=1.0000]

Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	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) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	33
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	67	60	76	66	59	74	67	59	52
1.25	85	75	68	83	74	68	81	73	67	60
1.50	90	80	74	88	80	73	85	78	72	65
2.00	97	89	83	95	88	82	92	85	80	73
2.50	100	93	88	98	92	87	95	89	85	77
3.00	104	97	92	102	96	91	98	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

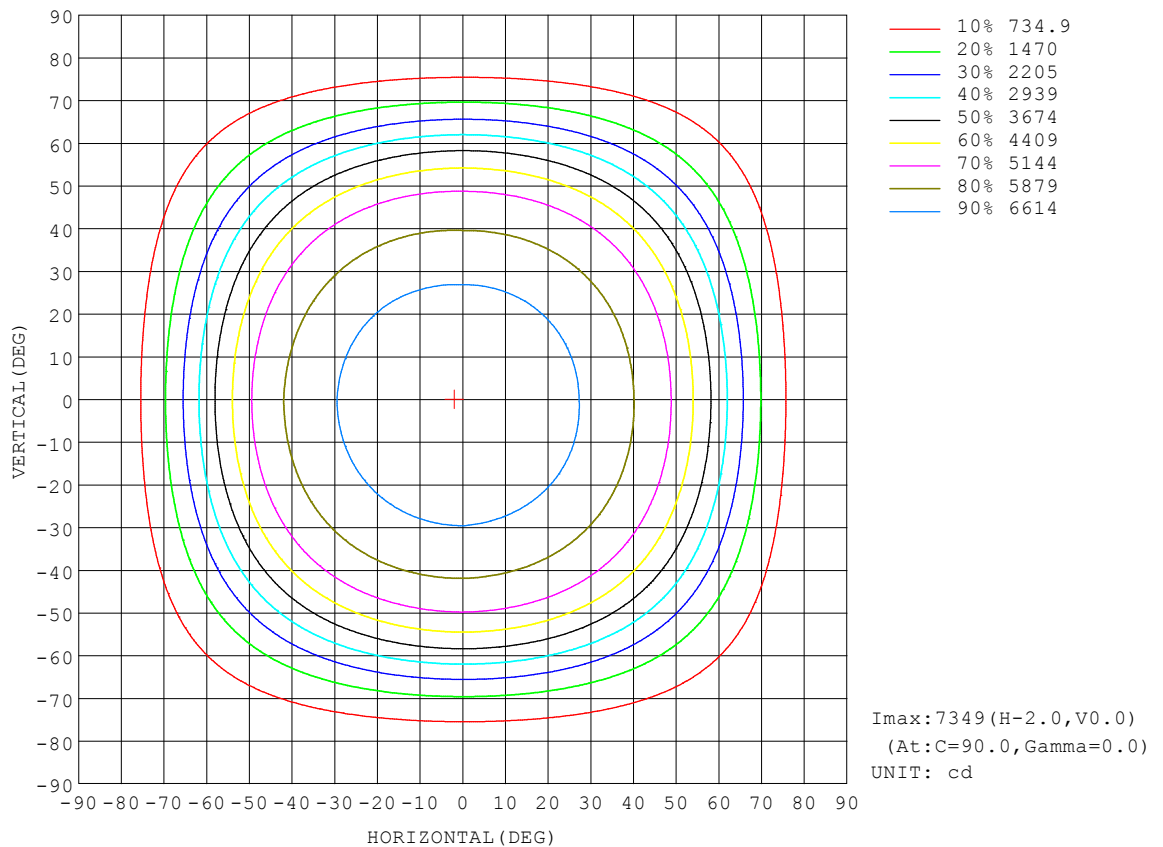
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:Testing Room
Test Date:2025-03-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity:25%
Test Distance:11.050m [K=1.0000]
Remarks:



ISOCANDELA DIAGRAM

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	Shielding Angle:

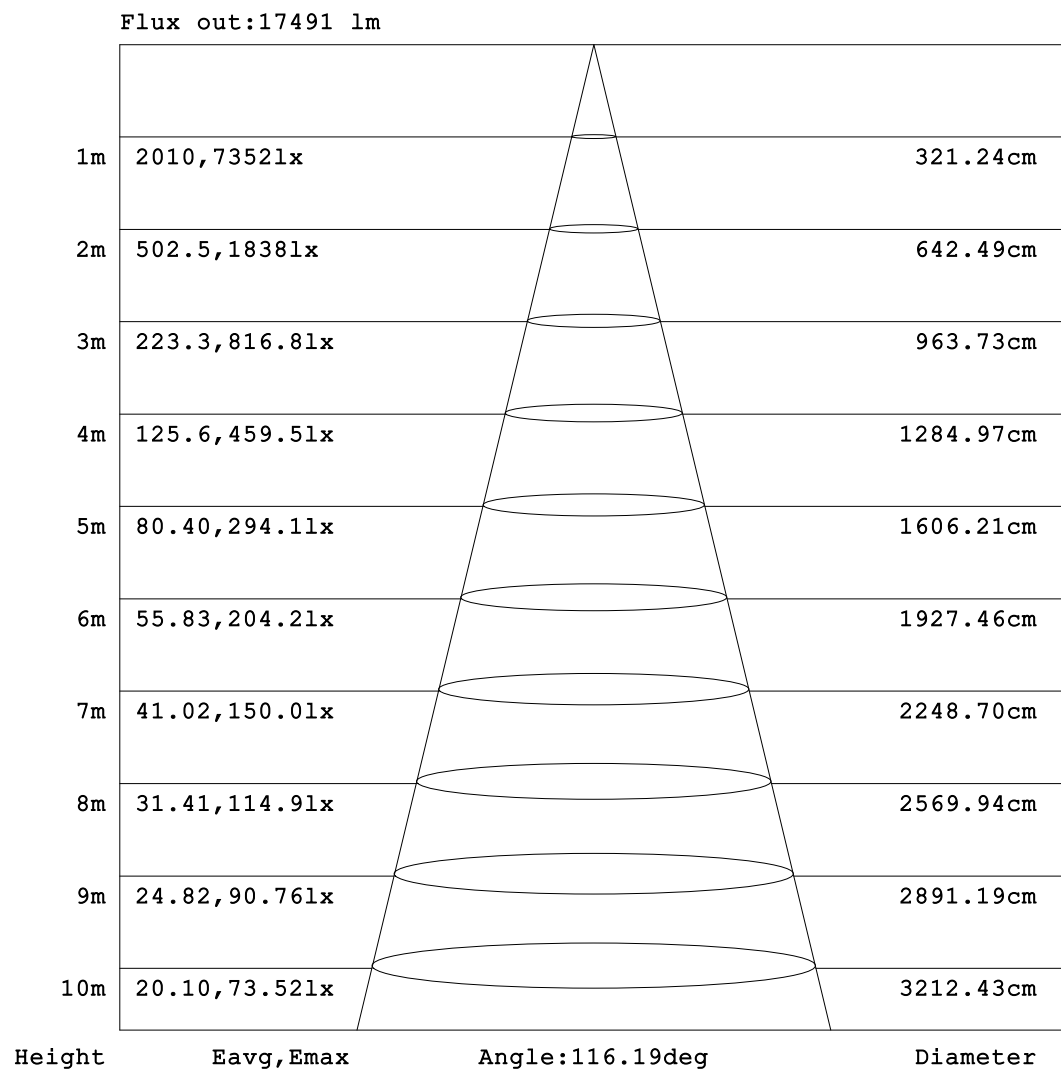


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:Testing Room
Test Date:2025-03-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity:25%
Test Distance:11.050m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	Shielding Angle:

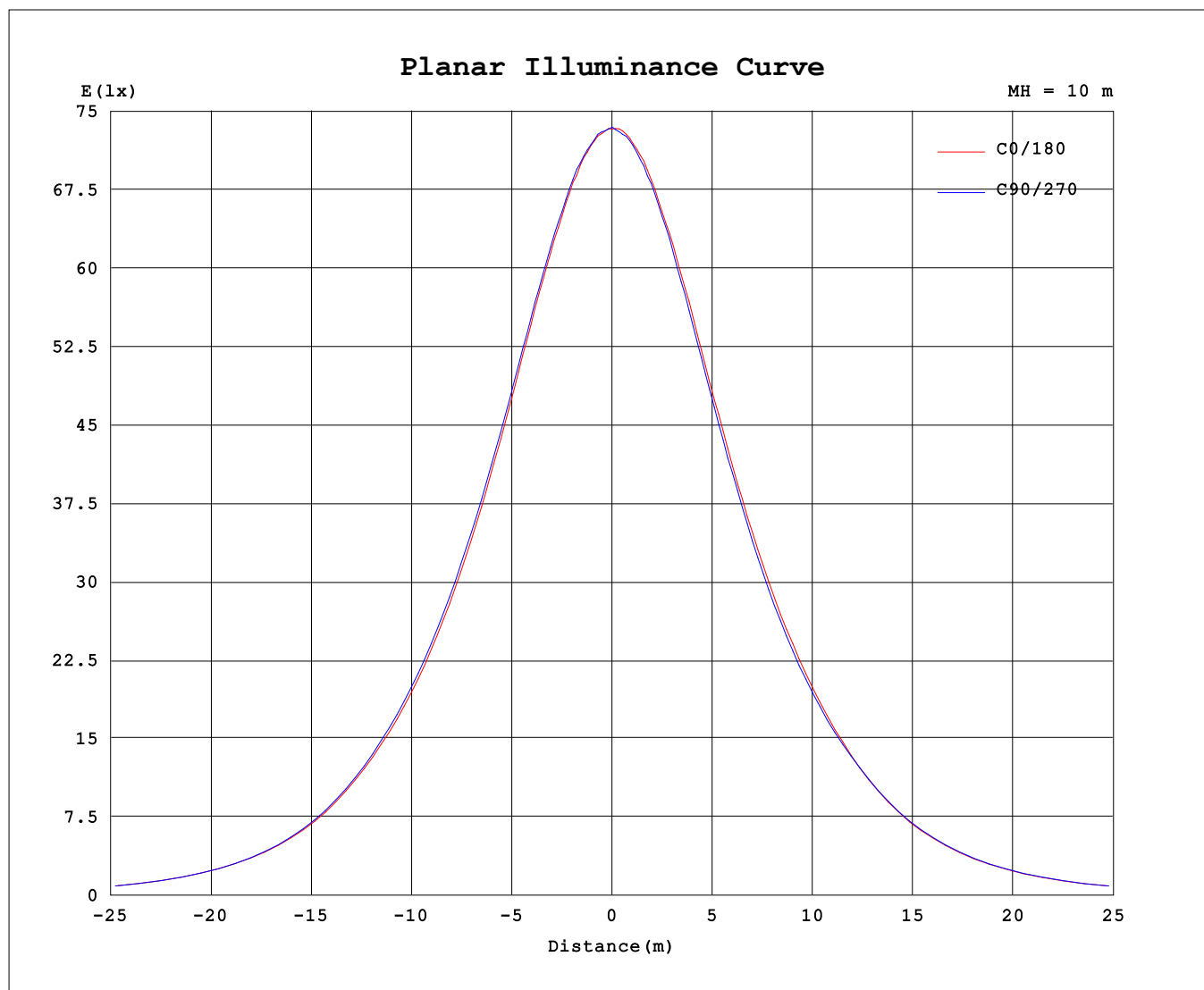


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:Testing Room
Test Date:2025-03-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity:25%
Test Distance:11.050m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: Testing Room
Test Date: 2025-03-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity: 25%
Test Distance: 11.050m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.19V I:0.6431A P:150W PF:0.9922 Freq:49.98Hz Lamp Flux:21115.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: TOSPO	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: Testing Room
Test Date: 2025-03-19

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
Humidity:25%
Test Distance:11.050m [K=1.0000]
Remarks:

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