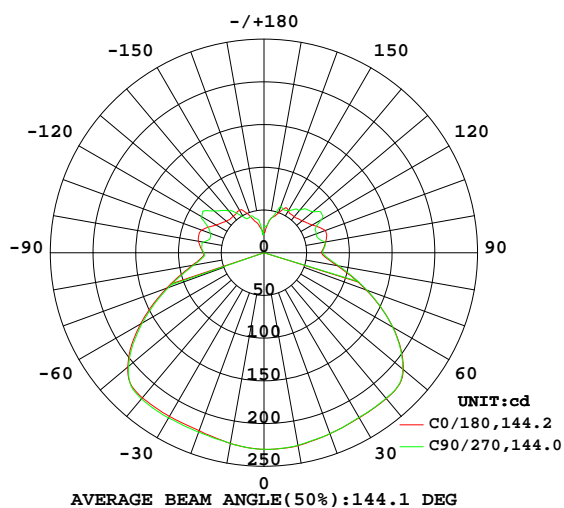


## LUMINAIRE PHOTOMETRIC TEST REPORT

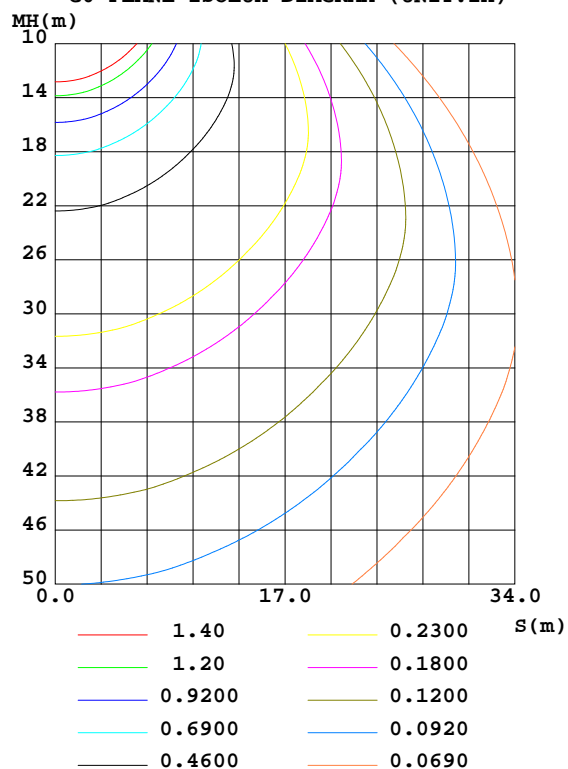
Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 132.59 lm/W			
MODEL	14280	Imax(cd)	230.3	S/MH(C0/180)	1.48
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.50
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1421.7	$\eta$ UP,DN(C0-180)	14.7,35.7
NOMINAL FLUX(lm)	1421.72	CIE CLASS	SEMI-D.	$\eta$ UP,DN(C180-360)	14.6,35.0
LAMPS INSIDE	1	$\eta$ up(%)	29.3	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	230	$\eta$ down(%)	70.7	CIBSE SHR MAX	1.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.9DEG  
Operators:Zero huang  
Test Date:2025-01-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:60%  
Test Distance:26.000m [K=1.5559]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	229.3	229.2	228.9	228.6	226.5	226.5	226.5	227.5	0- 10	21.86	21.86	1.54,1.54
20	225.5	225.0	225.5	225.2	221.7	221.9	223.4	223.9	10- 20	63.92	85.78	6.03,6.03
30	223.0	221.8	222.5	222.6	221.2	221.4	223.2	223.7	20- 30	103.2	189.0	13.3,13.3
40	222.7	221.7	222.3	222.3	221.5	221.7	223.2	223.7	30- 40	139.7	328.7	23.1,23.1
50	212.7	214.2	211.9	207.3	208.2	207.3	207.0	208.7	40- 50	169.3	498.0	35,35
60	174.2	177.3	173.8	167.7	166.8	165.1	164.4	167.1	50- 60	170.7	668.7	47,47
70	127.1	130.2	128.3	123.5	121.3	119.2	118.9	121.4	60- 70	145.0	813.7	57.2,57.2
80	87.03	88.69	88.86	87.06	85.12	83.44	83.49	84.15	70- 80	109.5	923.2	64.9,64.9
90	67.67	66.68	69.00	70.81	70.80	70.64	70.57	68.89	80- 90	81.80	1005	70.7,70.7
100	73.35	71.98	72.58	76.02	77.85	76.59	71.98	74.93	90-100	78.43	1083	76.2,76.2
110	76.20	67.85	65.28	68.33	77.53	67.94	66.97	66.21	100-110	75.56	1159	81.5,81.5
120	65.21	65.28	77.48	70.71	64.91	69.26	84.30	68.25	110-120	67.82	1227	86.3,86.3
130	58.32	70.89	74.88	77.50	57.67	73.92	76.39	72.03	120-130	63.14	1290	90.7,90.7
140	55.26	71.44	65.18	82.00	55.93	74.29	63.76	73.28	130-140	52.47	1342	94.4,94.4
150	57.29	64.58	57.06	65.58	57.37	62.32	48.46	61.53	140-150	39.40	1382	97.2,97.2
160	49.56	49.32	57.78	46.25	44.37	46.32	45.75	46.17	150-160	24.82	1407	98.9,98.9
170	38.83	34.94	39.34	34.35	31.90	34.00	39.48	40.06	160-170	12.12	1419	99.8,99.8
180	23.66	26.94	32.89	23.33	23.75	24.09	29.83	27.81	170-180	2.919	1422	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 410.79 lm

%lum = 28.9%

%lamp = 28.9%

Conical surface Flux(120deg): 668.7 lm

%lum = 47.0%

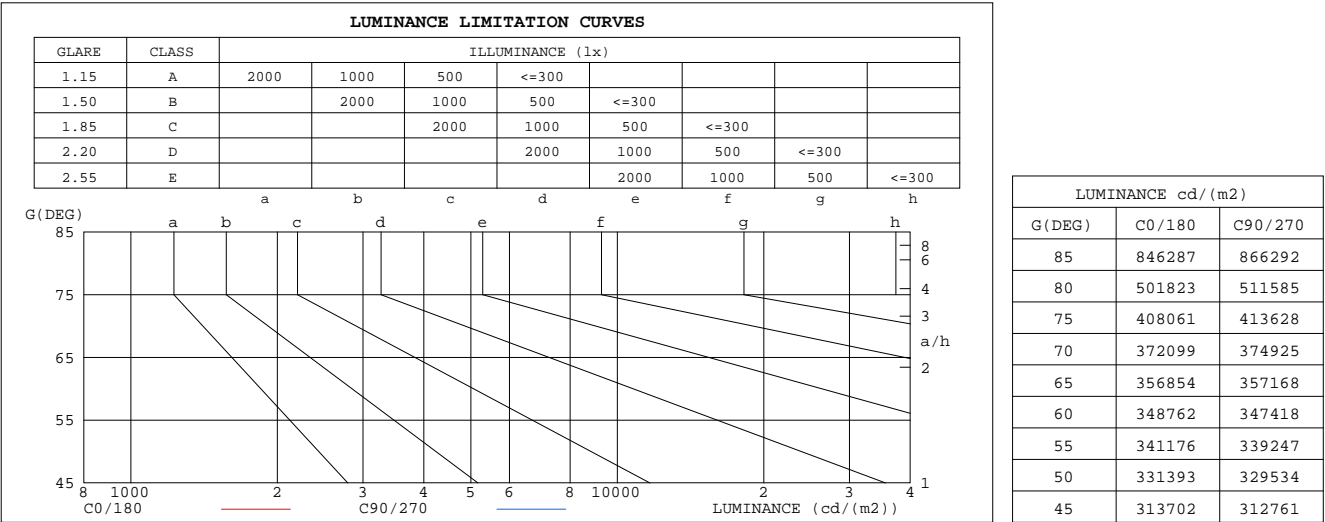
%lamp = 47.0%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2025-01-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.5559]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.9DEG  
Operators:Zero huang  
Test Date:2025-01-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:60%  
Test Distance:26.000m [K=1.5559]  
Remarks:

## WEC AND CCEC

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm								
NAME:			TYPE:LED			WEIGHT:N/A		
SPEC.:N/A			DIM.:			SERIAL No.:N/A		
MFR.:			SUR.:			Shielding Angle:N/A		

pcc	80%			70%			50%			30%			10%			0	
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.362	.206	.065	.346	.197	.063	.316	.181	.058	.288	.166	.053	.262	.152	.049		
2.0	.318	.174	.054	.304	.167	.052	.276	.154	.048	.251	.141	.044	.228	.129	.041		
3.0	.286	.152	.046	.272	.146	.044	.247	.134	.041	.224	.123	.038	.203	.112	.035		
4.0	.259	.134	.040	.247	.129	.038	.224	.119	.035	.203	.109	.033	.183	.100	.030		
5.0	.236	.120	.035	.225	.116	.034	.204	.106	.031	.185	.098	.029	.167	.089	.027		
6.0	.217	.109	.031	.207	.105	.030	.188	.096	.028	.170	.088	.026	.153	.081	.024		
7.0	.201	.099	.028	.191	.095	.027	.174	.088	.025	.157	.081	.023	.142	.074	.022		
8.0	.186	.091	.026	.178	.088	.025	.162	.081	.023	.146	.074	.021	.132	.068	.020		
9.0	.174	.084	.023	.166	.081	.023	.151	.075	.021	.137	.069	.020	.123	.063	.018		
10.0	.163	.078	.022	.156	.075	.021	.142	.069	.020	.128	.064	.018	.116	.058	.017		

pcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.414	.414	.414	.354	.354	.354	.241	.241	.241	.139	.139	.139	.044	.044	.044	
1.0	.409	.381	.355	.350	.327	.306	.239	.225	.212	.138	.130	.123	.044	.042	.040	
2.0	.402	.358	.321	.345	.309	.278	.236	.213	.194	.136	.124	.114	.044	.040	.037	
3.0	.395	.342	.300	.339	.295	.260	.233	.205	.182	.134	.120	.108	.043	.039	.035	
4.0	.388	.330	.286	.333	.285	.248	.229	.199	.175	.132	.116	.103	.043	.038	.034	
5.0	.381	.321	.276	.327	.277	.240	.225	.194	.170	.131	.114	.101	.042	.037	.033	
6.0	.374	.313	.269	.321	.271	.234	.222	.190	.166	.129	.112	.099	.041	.036	.033	
7.0	.367	.306	.264	.316	.266	.230	.218	.186	.163	.127	.110	.097	.041	.036	.032	
8.0	.361	.301	.260	.310	.261	.227	.215	.183	.161	.125	.108	.096	.040	.035	.032	
9.0	.355	.296	.257	.305	.257	.224	.212	.181	.159	.123	.107	.095	.040	.035	.031	
10.0	.349	.292	.255	.301	.254	.222	.209	.179	.158	.122	.106	.094	.039	.035	.031	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2025-01-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.5559]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm											
NAME:					TYPE:LED			WEIGHT:N/A			
SPEC.:N/A					DIM.:			SERIAL No.:N/A			
MFR.:					SUR.:			Shielding Angle:N/A			
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		31.7	32.9	32.3	33.6	34.3	31.7	32.9	32.3	33.6	34.3
	3H	33.7	34.8	34.3	35.5	36.3	33.7	34.8	34.3	35.5	36.3
	4H	34.6	35.7	35.3	36.4	37.2	34.7	35.7	35.3	36.4	37.3
	6H	35.6	36.6	36.4	37.4	38.2	35.7	36.7	36.4	37.4	38.3
	8H	36.2	37.2	36.9	37.9	38.8	36.3	37.2	37.0	38.0	38.8
	12H	36.9	37.8	37.6	38.5	39.4	36.9	37.9	37.7	38.6	39.5
4H	2H	32.4	33.4	33.0	34.1	35.0	32.3	33.4	33.0	34.1	34.9
	3H	34.5	35.4	35.2	36.2	37.1	34.5	35.5	35.3	36.2	37.1
	4H	35.6	36.5	36.4	37.2	38.2	35.7	36.5	36.4	37.3	38.2
	6H	36.8	37.6	37.6	38.4	39.3	36.9	37.6	37.7	38.4	39.4
	8H	37.5	38.2	38.3	39.0	39.9	37.6	38.3	38.3	39.0	40.0
	12H	38.3	38.9	39.1	39.7	40.7	38.3	39.0	39.1	39.8	40.8
8H	4H	36.1	36.8	36.8	37.5	38.5	36.1	36.8	36.9	37.6	38.5
	6H	37.5	38.1	38.3	38.9	39.9	37.6	38.1	38.4	39.0	40.0
	8H	38.3	38.9	39.2	39.7	40.7	38.4	38.9	39.2	39.8	40.8
	12H	39.3	39.8	40.2	40.6	41.7	39.4	39.9	40.3	40.7	41.8
12H	4H	36.1	36.8	36.9	37.6	38.6	36.1	36.8	36.9	37.6	38.6
	6H	37.7	38.2	38.5	39.0	40.1	37.7	38.2	38.6	39.1	40.1
	8H	38.6	39.1	39.5	39.9	41.0	38.7	39.1	39.5	40.0	41.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.4					

CIE Pub.117, 1422 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 1.2$ )

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2025-01-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.5559]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

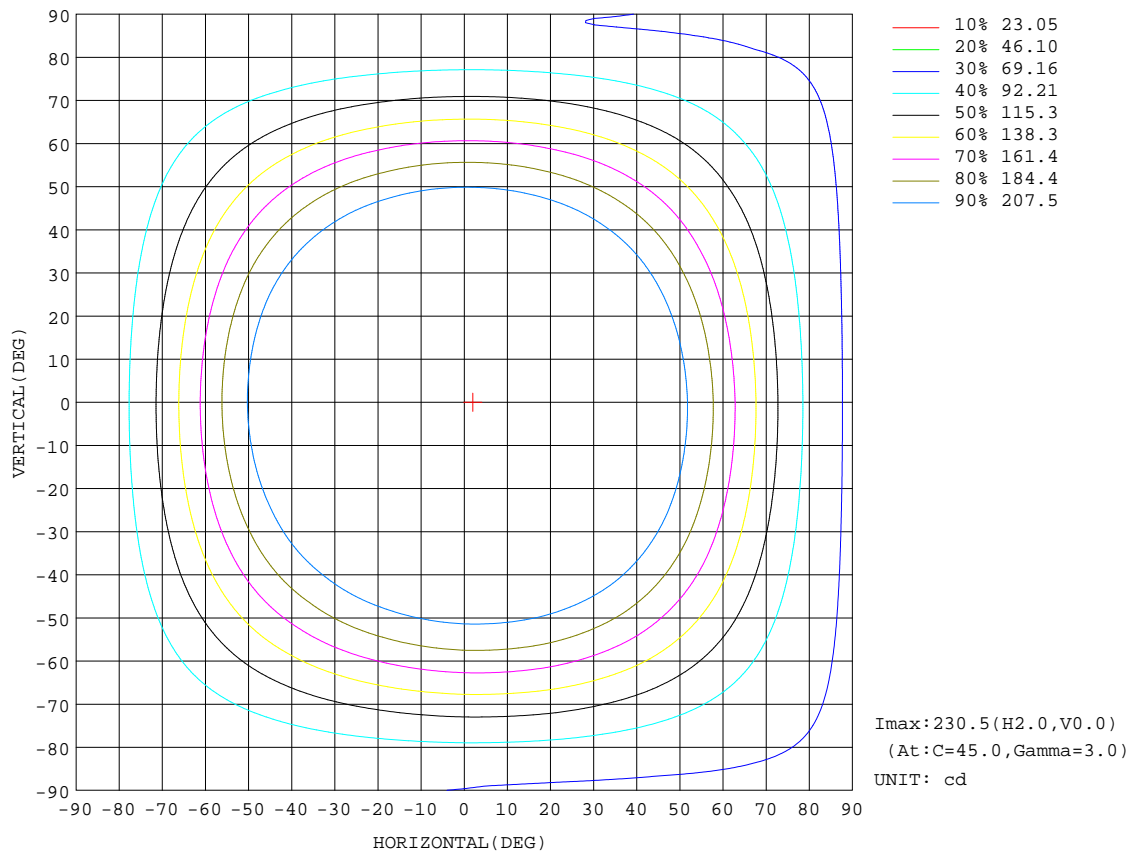
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	44	32	25	43	31	24	40	30	23	16
0.80	53	40	32	51	39	32	48	37	30	22
1.00	61	48	40	59	47	39	54	46	37	27
1.25	69	56	47	66	54	46	60	50	44	32
1.50	74	62	53	70	59	51	64	55	48	36
2.00	81	70	62	77	67	60	70	62	56	42
2.50	86	76	68	82	73	65	74	66	61	45
3.00	90	81	73	85	77	70	77	70	65	49
4.00	95	87	80	90	83	77	81	75	70	53
5.00	98	91	85	92	86	81	83	78	74	55
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: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2025-01-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.5559]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

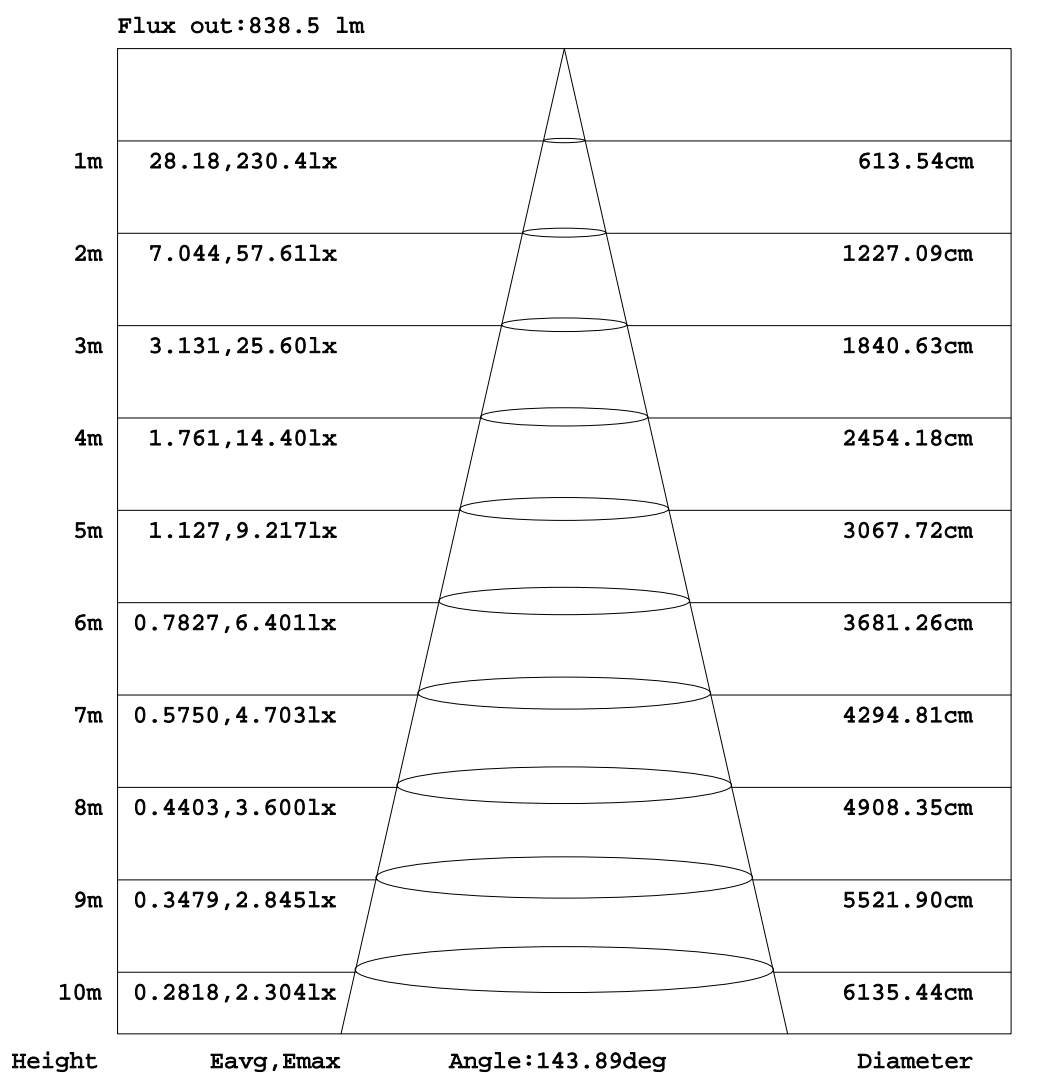


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.9DEG  
Operators:Zero huang  
Test Date:2025-01-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:60%  
Test Distance:26.000m [K=1.5559]  
Remarks:

### AAI Figure

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



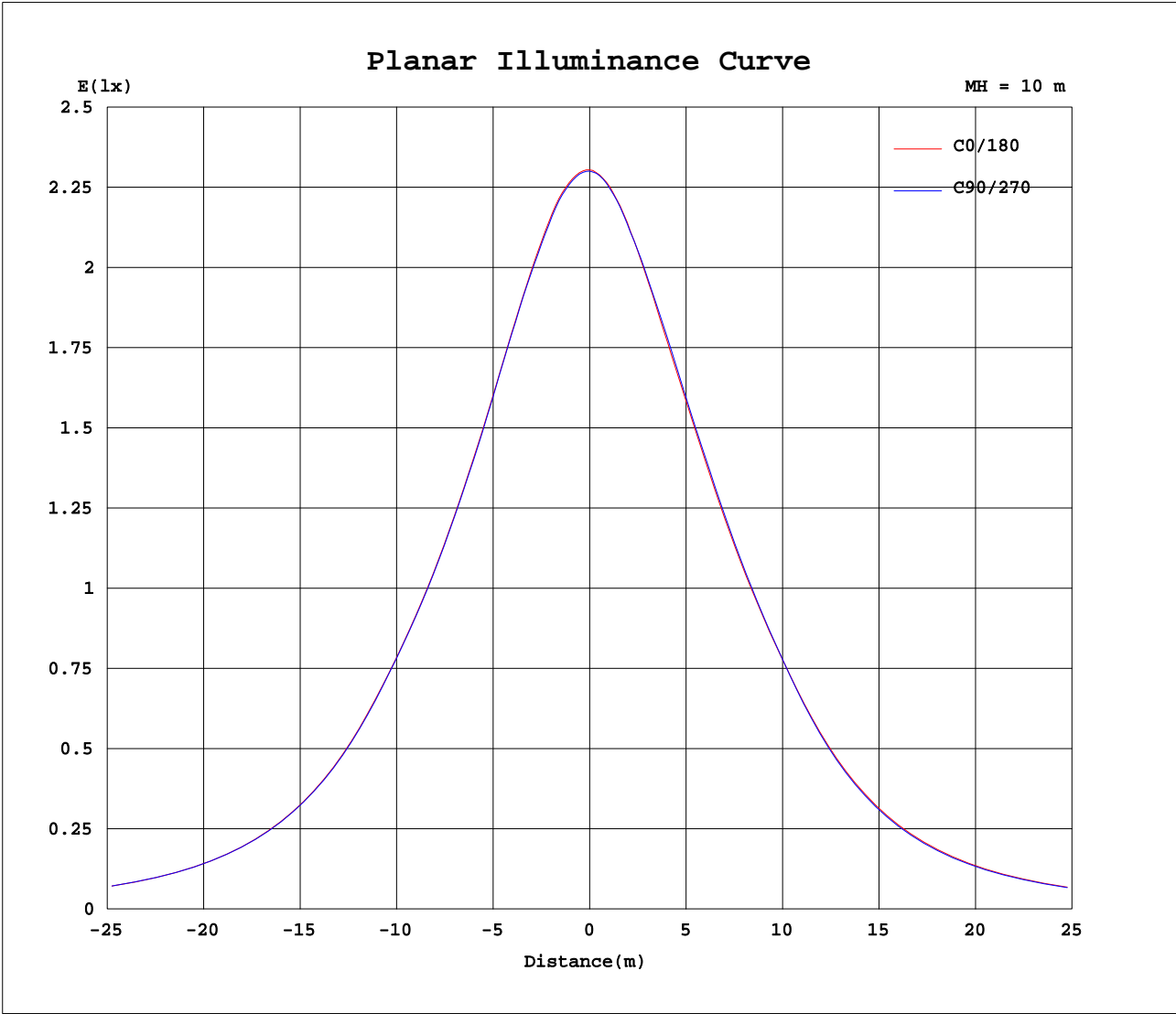
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2025-01-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.5559]  
 Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: 22.5DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Temperature:24.9DEG	Humidity:60%
Operators:Zero huang	Test Distance:26.000m [K=1.5559]
Test Date:2025-01-20	Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.09V I:0.0933A P:10.723W PF:0.4995 Freq:50.01Hz Lamp Flux:1421.72x1 lm																	
NAME:									TYPE:LED						WEIGHT:N/A		
SPEC.:N/A									DIM.:						SERIAL No.:N/A		
MFR.:									SUR.:						Shielding Angle:N/A		

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230			
5	230	230	230	230	230	230	230	230	229	229	229	229	229	229	229	229			
10	229	229	229	229	229	229	229	228	227	227	227	226	227	227	227	227			
15	227	227	227	227	227	227	227	226	224	224	224	224	225	225	225	225			
20	226	225	225	225	225	225	225	224	222	222	222	222	223	224	224	224			
25	224	223	224	223	224	224	223	223	221	221	221	222	223	224	224	223			
30	223	222	222	222	223	223	223	222	221	221	221	222	223	224	224	223			
35	223	222	222	222	223	223	222	222	221	221	222	222	224	224	224	223			
40	223	222	222	222	222	223	222	221	221	221	222	222	223	224	224	223			
45	222	221	221	221	221	221	220	220	220	219	220	220	220	220	221	221			
50	213	214	214	214	212	209	207	207	208	208	207	207	207	207	209	210			
55	195	197	198	197	195	191	189	188	189	189	188	187	187	188	190	192			
60	174	176	177	176	174	170	168	167	167	166	165	164	164	165	167	170			
65	151	153	154	153	151	148	145	144	143	143	142	141	141	142	144	146			
70	127	129	130	130	128	125	123	122	121	120	119	119	119	120	121	123			
75	105	107	108	108	107	105	104	102	101	100	99.3	99.0	99.4	99.9	101	102			
80	87.0	88.0	88.7	89.1	88.9	88.0	87.1	86.1	85.1	84.2	83.4	83.2	83.5	83.7	84.2	85.0			
85	73.7	73.9	74.3	74.9	75.5	75.7	75.5	75.0	73.9	73.0	72.3	72.3	72.6	72.5	72.3	72.3			
90	67.7	66.7	66.7	67.7	69.0	70.0	70.8	70.8	70.8	70.6	70.6	70.7	70.6	69.9	68.9	67.5			
95	70.4	69.1	68.8	69.2	70.7	72.1	73.5	73.9	74.6	74.3	74.1	73.0	73.2	72.8	72.3	71.0			
100	73.3	72.2	72.0	70.3	72.6	71.9	76.0	77.2	77.8	77.5	76.6	71.0	72.0	69.3	74.9	74.1			
105	76.2	75.1	73.1	64.4	65.9	64.2	73.0	79.3	79.1	78.6	74.0	64.9	65.4	63.0	71.9	75.2			
110	76.2	74.6	67.9	63.1	65.3	60.1	68.3	76.3	77.5	75.7	67.9	63.8	67.0	60.3	66.2	73.3			
115	70.9	69.7	65.3	63.7	66.1	59.9	68.2	72.1	71.5	69.7	67.4	65.0	72.8	61.8	65.8	68.1			
120	65.2	65.2	65.3	73.3	77.5	72.6	70.7	68.3	64.9	64.8	69.3	74.8	84.3	72.5	68.3	63.2			
125	61.4	61.3	69.2	78.9	81.8	76.3	74.4	65.5	60.9	60.4	73.1	77.0	85.6	76.9	71.8	58.7			
130	58.3	57.9	70.9	83.4	74.9	76.0	77.5	63.2	57.7	57.5	73.9	75.7	76.4	76.6	72.0	56.1			
135	56.5	55.5	71.1	79.5	71.7	75.1	79.7	59.8	56.0	57.0	74.4	74.6	70.1	75.7	72.3	55.1			
140	55.3	54.3	71.4	75.0	65.2	73.4	82.0	58.2	55.9	57.1	74.3	69.2	63.8	71.8	73.3	55.3			
145	55.2	54.3	72.1	68.9	62.1	63.5	73.7	58.6	56.5	58.5	70.3	62.7	57.0	64.4	68.6	57.4			
150	57.3	57.1	64.6	63.2	57.1	54.0	65.6	59.0	57.4	58.7	62.3	56.7	48.5	51.7	61.5	59.3			
155	57.5	56.2	56.9	57.0	55.6	50.2	56.9	51.0	52.9	52.0	53.7	51.9	44.6	47.1	54.2	54.6			
160	49.6	50.2	49.3	51.6	57.8	50.3	46.2	44.7	44.4	43.8	46.3	45.7	45.8	49.0	46.2	49.7			
165	43.7	44.3	43.7	42.3	45.2	41.9	38.1	39.3	37.5	37.8	41.6	40.6	42.0	46.1	41.4	46.0			
170	38.8	35.1	34.9	36.8	39.3	37.8	34.4	31.2	31.9	32.1	34.0	38.0	39.5	41.3	40.1	37.8			
175	29.2	28.4	29.1	30.5	31.2	32.1	30.5	25.1	26.7	26.7	27.6	26.7	24.1	21.5	19.7	21.7			
180	23.7	24.1	26.9	30.3	32.9	29.6	23.3	21.7	23.7	23.8	24.1	27.0	29.8	32.0	27.8	22.9			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2025-01-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.5559]  
 Remarks: