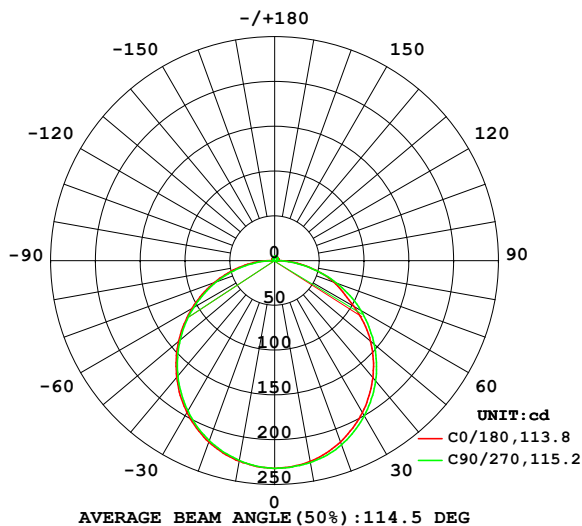


## LUMINAIRE PHOTOMETRIC TEST REPORT

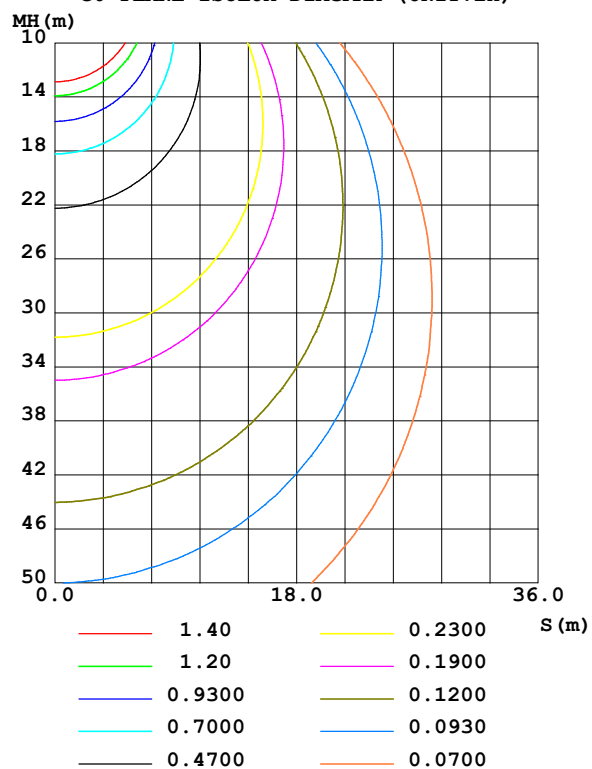
Test:U:101.40V I:0.1790A P:16.000W PF:0.8830 Freq:50.00Hz Lamp Flux:712.096x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 44.51 lm/W
MODEL	80015-27MP	I <sub>max</sub> (cd)	231.8	S/MH(C0/180)	1.26	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	1.28	
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	712.10	η UP,DN(C0-180)	1.4,48.1	
NOMINAL FLUX(lm)	712.096	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.6,48.9	
LAMPS INSIDE	1	η up (%)	3.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	100	η down (%)	97.0	CIBSE SHR MAX	1.35	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:02 January 2025

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity:65.0%  
Test Distance:8.186m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	227.3	226.6	227.7	228.9					0- 10	21.92	21.92	3.08,3.08
20	215.4	213.7	215.2	218.7					10- 20	62.85	84.77	11.9,11.9
30	195.9	193.6	195.9	200.2					20- 30	95.37	180.1	25.3,25.3
40	170.4	168.3	170.6	175.4					30- 40	115.4	295.6	41.5,41.5
50	139.9	137.7	139.8	145.3					40- 50	120.7	416.3	58.5,58.5
60	106.5	104.3	102.0	111.2					50- 60	110.6	526.9	74,74
70	71.65	68.79	70.68	73.72					60- 70	87.53	614.4	86.3,86.3
80	37.13	33.04	36.18	34.66					70- 80	56.12	670.5	94.2,94.2
90	6.847	2.188	6.452	3.059					80- 90	20.06	690.6	97,97
100	3.022	1.771	3.798	2.301					90-100	3.179	693.8	97.4,97.4
110	3.079	2.195	3.894	2.725					100-110	3.006	696.8	97.8,97.8
120	3.223	2.610	4.070	3.189					110-120	3.097	699.9	98.3,98.3
130	3.486	3.057	4.109	3.564					120-130	3.061	702.9	98.7,98.7
140	3.780	3.556	4.298	3.834					130-140	2.872	705.8	99.1,99.1
150	4.043	4.006	4.548	4.205					140-150	2.535	708.3	99.5,99.5
160	4.368	4.444	4.719	4.474					150-160	2.017	710.3	99.8,99.8
170	4.613	4.744	4.671	4.677					160-170	1.300	711.6	99.9,99.9
180	4.750	4.920	4.767	4.912					170-180	0.4496	712.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 356.21 lm

%lum = 50.0%

%lamp = 50.0%

Conical surface Flux(130deg): 574.04 lm

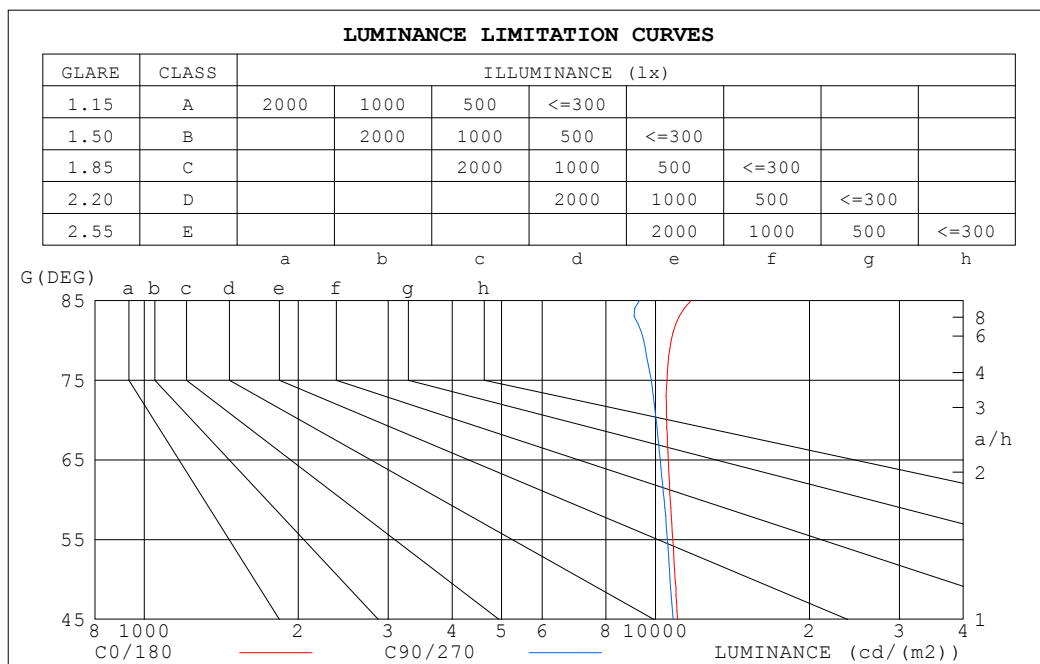
%lum = 80.6%

%lamp = 80.6%

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:02 January 2025

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
 Humidity:65.0%  
 Test Distance:8.186m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES



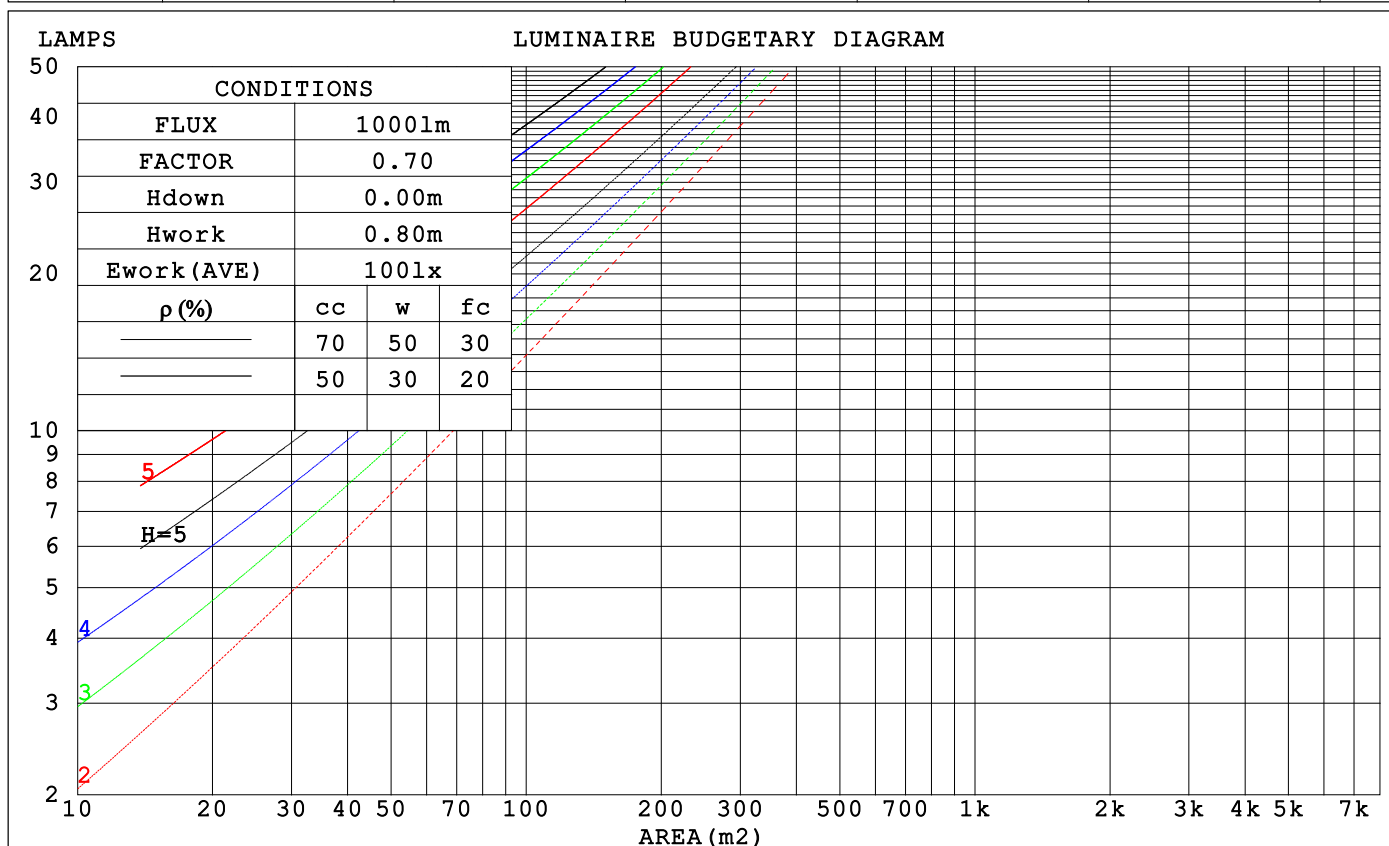
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11739	9304
80	10729	9480
75	10527	9807
70	10512	10021
65	10594	10211
60	10690	10392
55	10813	10539
50	10923	10675
45	11037	10818

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 02 January 2025

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity: 65.0%  
Test Distance: 8.186m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.02	.98	.94	.90	.96	.92	.95	.92	.88	.90	.88	.85	.86	.84	.82	.80
2.0	.89	.82	.76	.87	.80	.75	.83	.77	.72	.79	.74	.70	.75	.72	.68	.66
3.0	.78	.69	.63	.76	.68	.62	.72	.66	.60	.69	.64	.59	.66	.62	.57	.55
4.0	.69	.60	.53	.67	.59	.52	.64	.57	.51	.61	.55	.50	.59	.54	.49	.47
5.0	.61	.52	.45	.60	.51	.45	.57	.50	.44	.55	.49	.43	.53	.47	.43	.40
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.39	.50	.43	.38	.48	.42	.37	.35
7.0	.50	.41	.35	.49	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.40	.34	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.32	.27	.38	.32	.27	.37	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.35	.29	.24	.34	.28	.24	.22



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 02 January 2025

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
 Humidity: 65.0%  
 Test Distance: 8.186m [K=1.0000]  
 Remarks:

### WEC AND CCEC

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.325	.185	.059	.317	.181	.057	.302	.173	.055	.288	.166	.053	.275	.160	.051		
2.0	.301	.165	.051	.294	.162	.050	.280	.156	.048	.268	.150	.047	.257	.145	.046		
3.0	.276	.147	.044	.270	.144	.043	.258	.140	.042	.247	.135	.041	.237	.131	.041		
4.0	.253	.132	.039	.248	.130	.038	.237	.126	.038	.227	.122	.037	.218	.119	.036		
5.0	.233	.119	.034	.228	.117	.034	.219	.114	.034	.210	.111	.033	.202	.108	.032		
6.0	.216	.108	.031	.211	.107	.031	.203	.104	.030	.195	.101	.030	.187	.099	.029		
7.0	.200	.099	.028	.196	.098	.028	.189	.095	.027	.182	.093	.027	.175	.091	.027		
8.0	.187	.091	.026	.183	.090	.026	.176	.088	.025	.170	.086	.025	.164	.084	.025		
9.0	.175	.085	.024	.172	.084	.023	.165	.082	.023	.160	.080	.023	.154	.078	.023		
10.0	.164	.079	.022	.161	.078	.022	.156	.076	.021	.150	.075	.021	.145	.073	.021		

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)										
0.0	.213	.213	.213	.182	.182	.182	.125	.125	.125	.072	.072	.072	.023	.023	.023		
1.0	.205	.179	.156	.175	.154	.135	.120	.106	.093	.069	.061	.054	.022	.020	.018		
2.0	.197	.155	.120	.169	.134	.104	.116	.092	.073	.067	.054	.043	.021	.017	.014		
3.0	.189	.138	.097	.162	.119	.084	.111	.083	.059	.064	.048	.035	.021	.016	.011		
4.0	.182	.125	.081	.156	.108	.071	.107	.075	.050	.062	.044	.029	.020	.014	.010		
5.0	.174	.114	.070	.149	.099	.061	.103	.069	.043	.060	.041	.026	.019	.013	.008		
6.0	.167	.106	.063	.143	.092	.054	.099	.064	.039	.057	.038	.023	.019	.012	.008		
7.0	.160	.099	.057	.138	.086	.049	.095	.060	.035	.055	.036	.021	.018	.012	.007		
8.0	.153	.093	.052	.132	.081	.046	.091	.057	.032	.053	.034	.019	.017	.011	.006		
9.0	.147	.089	.049	.127	.077	.043	.088	.054	.030	.051	.032	.018	.017	.010	.006		
10.0	.141	.084	.046	.122	.073	.040	.085	.052	.029	.049	.030	.017	.016	.010	.006		

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 02 January 2025

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
 Humidity: 65.0%  
 Test Distance: 8.186m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

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	20.9	22.5	21.3	22.7	23.0	20.8	22.3	21.2	22.6	22.9
3H	22.7	24.1	23.0	24.3	24.6	22.5	23.9	22.8	24.2	24.5
4H	23.4	24.7	23.8	25.1	25.4	23.2	24.5	23.6	24.8	25.2
6H	24.1	25.3	24.5	25.6	26.0	23.8	25.0	24.2	25.4	25.7
8H	24.3	25.5	24.7	25.9	26.2	24.0	25.2	24.4	25.5	25.9
12H	24.5	25.7	24.9	26.1	26.4	24.1	25.3	24.5	25.6	26.0
4H 2H	21.6	22.9	21.9	23.2	23.5	21.5	22.8	21.9	23.1	23.4
3H	23.5	24.6	23.9	25.0	25.4	23.4	24.5	23.8	24.9	25.2
4H	24.4	25.4	24.8	25.8	26.2	24.2	25.3	24.6	25.6	26.0
6H	25.2	26.1	25.6	26.5	27.0	24.9	25.9	25.4	26.3	26.7
8H	25.5	26.4	26.0	26.8	27.3	25.2	26.1	25.7	26.5	26.9
12H	25.8	26.6	26.3	27.1	27.5	25.4	26.2	25.9	26.6	27.1
8H 4H	24.7	25.6	25.2	26.0	26.5	24.6	25.4	25.0	25.9	26.3
6H	25.7	26.4	26.2	26.9	27.4	25.5	26.2	25.9	26.6	27.1
8H	26.1	26.8	26.6	27.3	27.8	25.8	26.5	26.3	27.0	27.5
12H	26.5	27.1	27.1	27.6	28.2	26.1	26.7	26.7	27.2	27.7
12H 4H	24.7	25.5	25.2	26.0	26.5	24.6	25.4	25.1	25.8	26.3
6H	25.8	26.4	26.3	26.9	27.4	25.5	26.2	26.1	26.7	27.2
8H	26.3	26.8	26.8	27.3	27.9	26.0	26.5	26.5	27.0	27.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 712.1 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = -1.2$ )  
Area: 0.02 m2

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:02 January 2025

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity:65.0%  
Test Distance:8.186m [K=1.0000]  
Remarks:

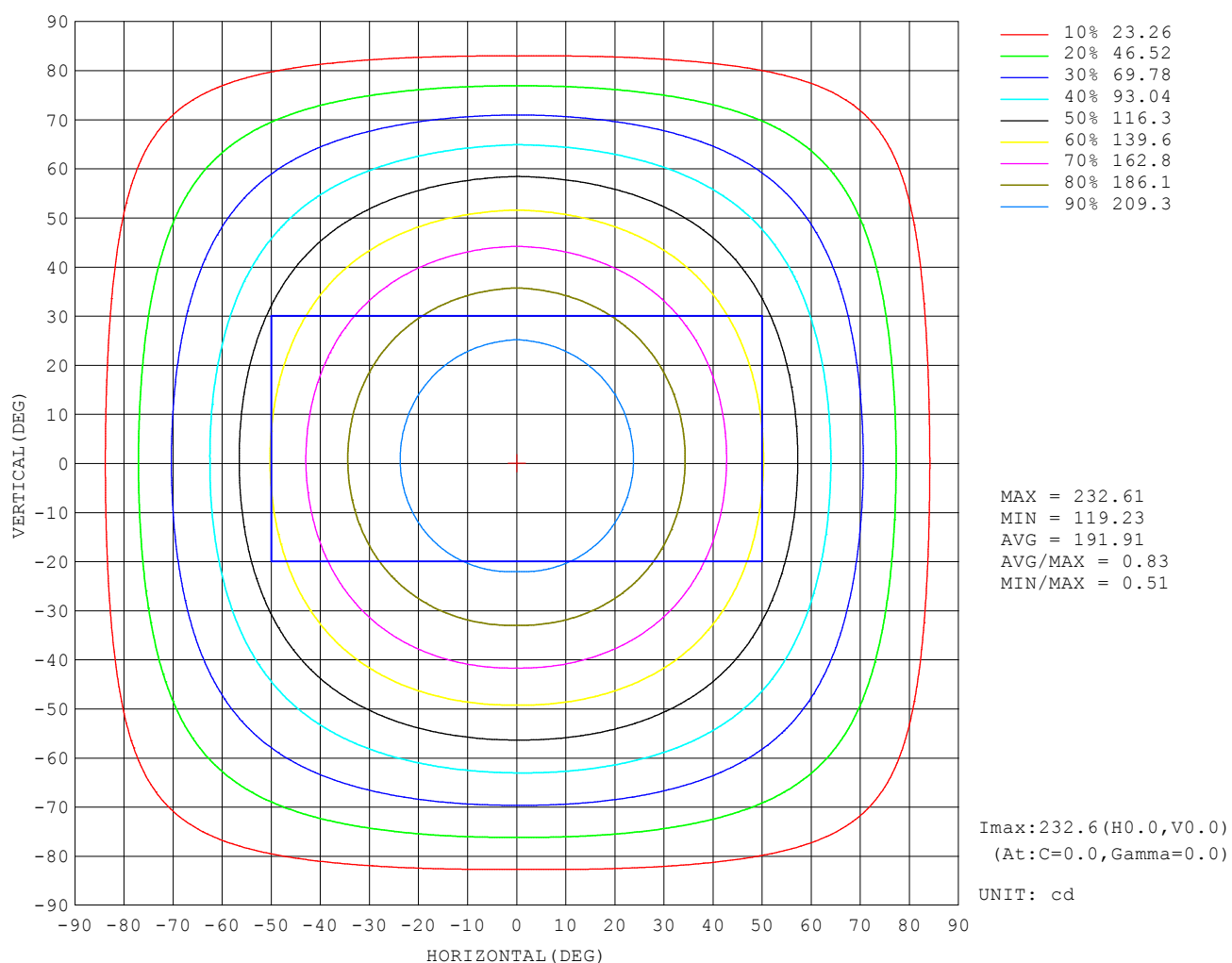
### UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	64	53	46	62	52	45	38
1.00	74	62	55	73	62	55	70	63	54	46
1.25	81	70	63	79	69	62	76	68	61	53
1.50	86	76	68	84	75	68	81	73	66	58
2.00	93	84	77	91	83	76	87	80	74	66
2.50	97	89	82	95	87	81	90	84	79	70
3.00	100	93	87	98	91	86	93	88	84	74
4.00	105	99	94	102	97	92	97	93	89	79
5.00	107	102	98	104	100	96	99	96	92	82
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: DAMIN  
Test Date: 02 January 2025

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity: 65.0%  
Test Distance: 8.186m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

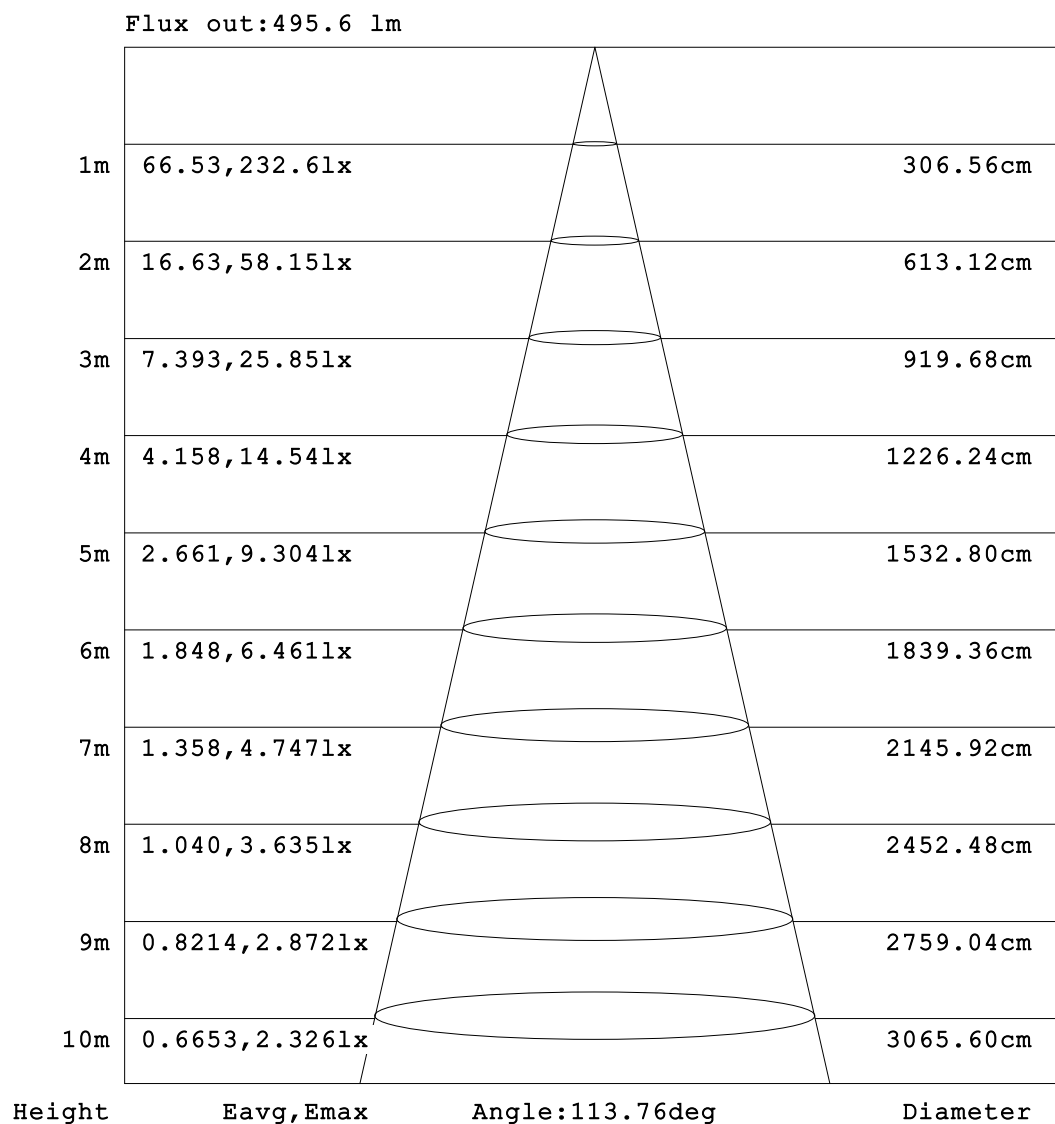


C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 02 January 2025

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity: 65.0%  
Test Distance: 8.186m [K=1.0000]  
Remarks:



### AAI Figure

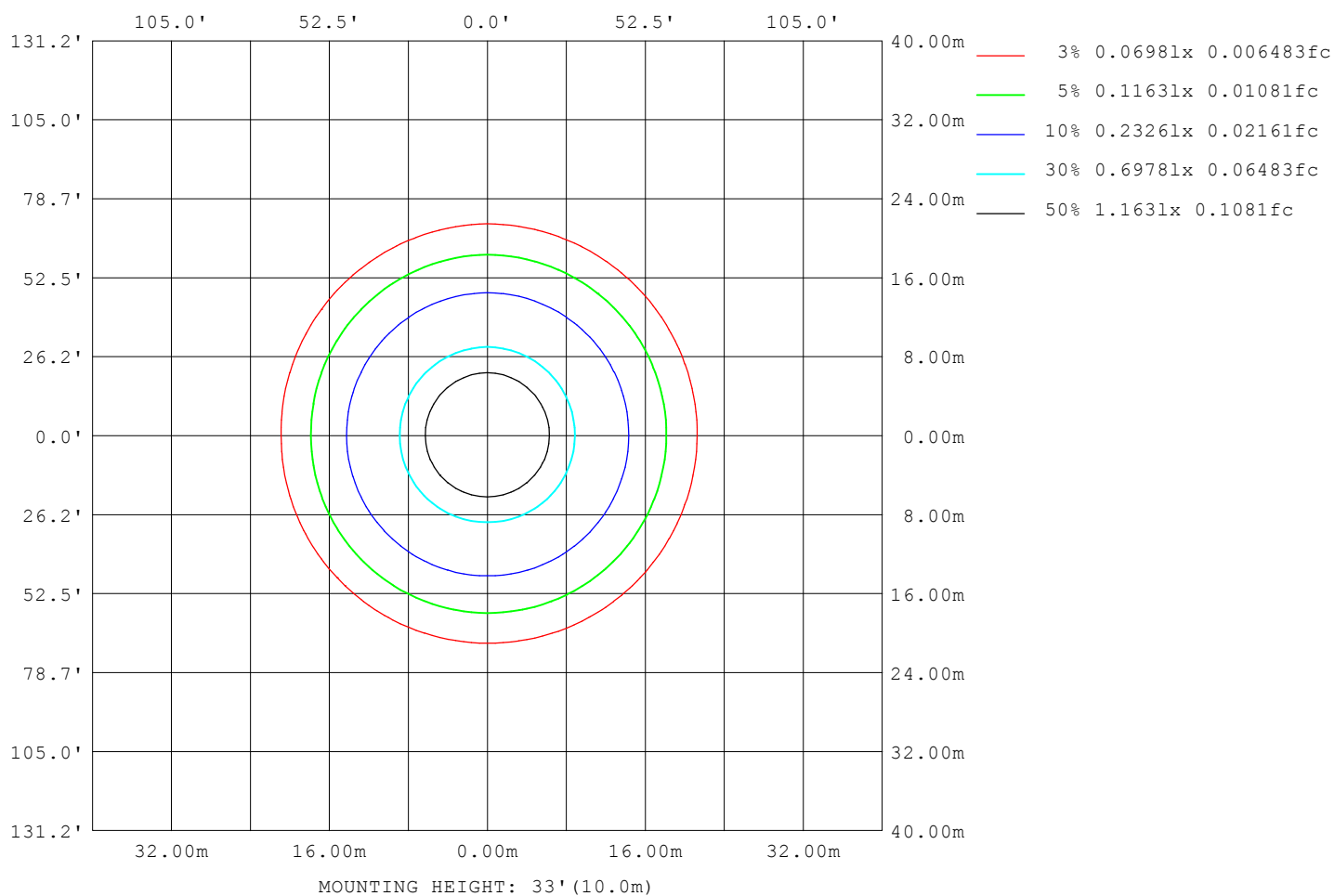


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 02 January 2025

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
 Humidity: 65.0%  
 Test Distance: 8.186m [K=1.0000]  
 Remarks:

# ISOLUX DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 02 January 2025

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
 Humidity: 65.0%  
 Test Distance: 8.186m [K=1.0000]  
 Remarks:

### LED Avg.L Report

Test:U:101.40V I:0.1790A P:16.000W PF:0.8830 Freq:50.00Hz Lamp Flux:712.096x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

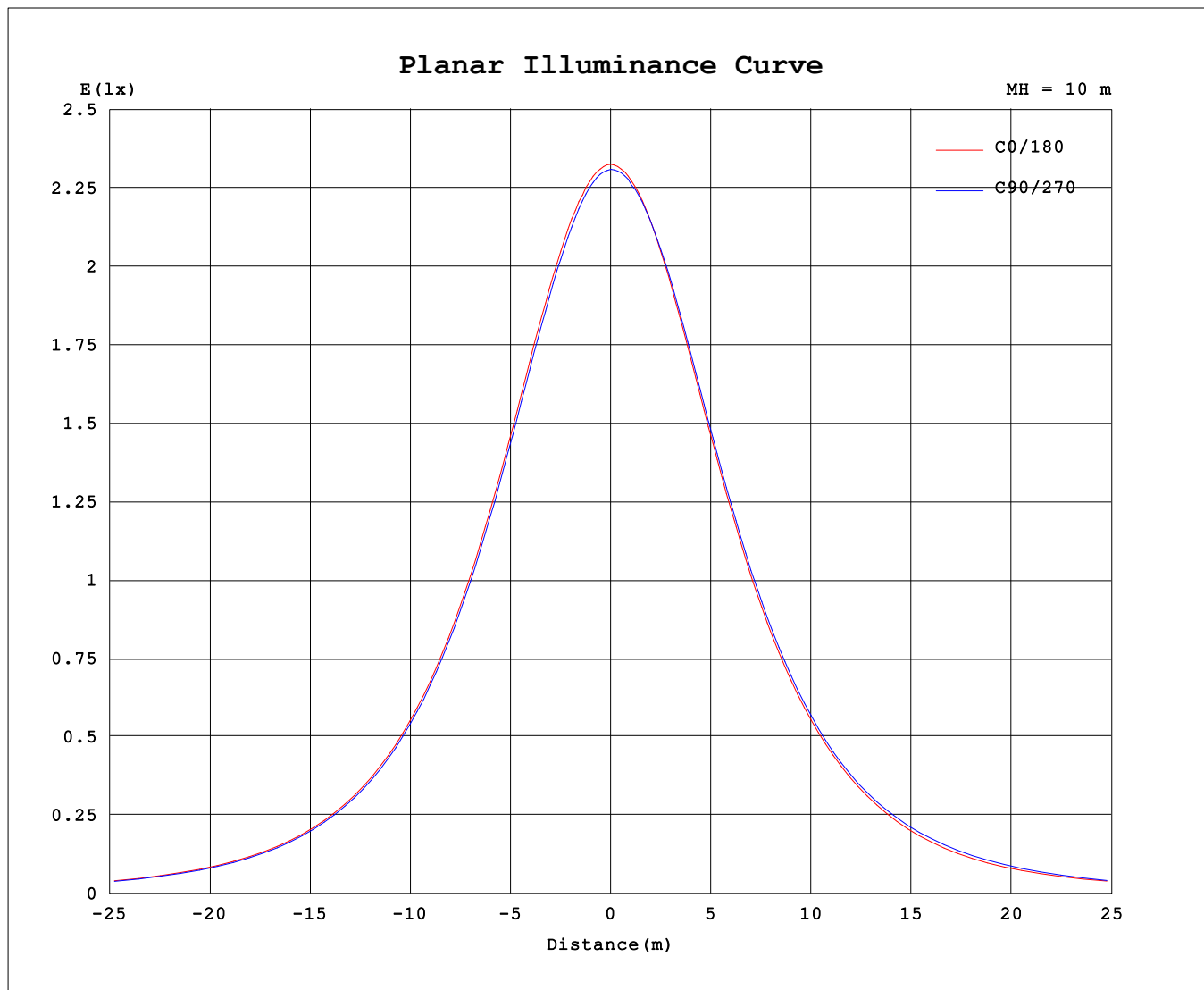
AvgL	cd/m2
L_0~180 (65) av	10273
L_0~180 (75) av	10410
L_0~180 (85) av	11329
L_90~270 (65) av	10617
L_90~270 (75) av	10131
L_90~270 (85) av	9177
L_45 (65) av	10470
L_45 (75) av	10231
L_45 (85) av	9964

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:02 January 2025

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity:65.0%  
Test Distance:8.186m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 02 January 2025

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.459  
Humidity: 65.0%  
Test Distance: 8.186m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	232	232	232	232															
5	231	230	231	231															
10	227	227	228	229															
15	222	221	223	225															
20	215	214	215	219															
25	206	205	206	210															
30	196	194	196	200															
35	184	182	184	188															
40	170	168	171	175															
45	156	154	156	161															
50	140	138	140	145															
55	124	121	122	129															
60	107	104	102	111															
65	89.2	86.6	84.4	92.9															
70	71.7	68.8	70.7	73.7															
75	54.3	50.9	53.5	53.9															
80	37.1	33.0	36.2	34.7															
85	20.4	16.3	19.1	15.7															
90	6.85	2.19	6.45	3.06															
95	3.07	1.60	3.69	1.97															
100	3.02	1.77	3.80	2.30															
105	3.05	1.97	3.87	2.50															
110	3.08	2.20	3.89	2.72															
115	3.13	2.43	3.99	2.95															
120	3.22	2.61	4.07	3.19															
125	3.36	2.82	4.10	3.39															
130	3.49	3.06	4.11	3.56															
135	3.63	3.31	4.21	3.70															
140	3.78	3.56	4.30	3.83															
145	3.91	3.80	4.46	4.04															
150	4.04	4.01	4.55	4.20															
155	4.21	4.27	4.68	4.35															
160	4.37	4.44	4.72	4.47															
165	4.49	4.62	4.71	4.60															
170	4.61	4.74	4.67	4.68															
175	4.70	4.86	4.60	4.70															
180	4.75	4.92	4.77	4.91															

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:02 January 2025

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.459

Humidity:65.0%

Test Distance:8.186m [K=1.0000]

Remarks: