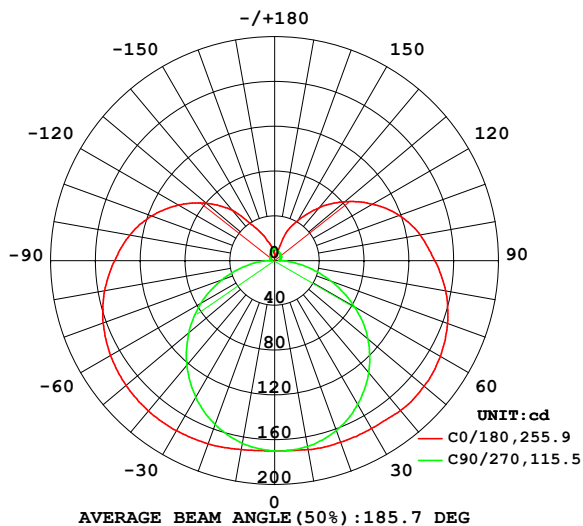


LUMINAIRE PHOTOMETRIC TEST REPORT

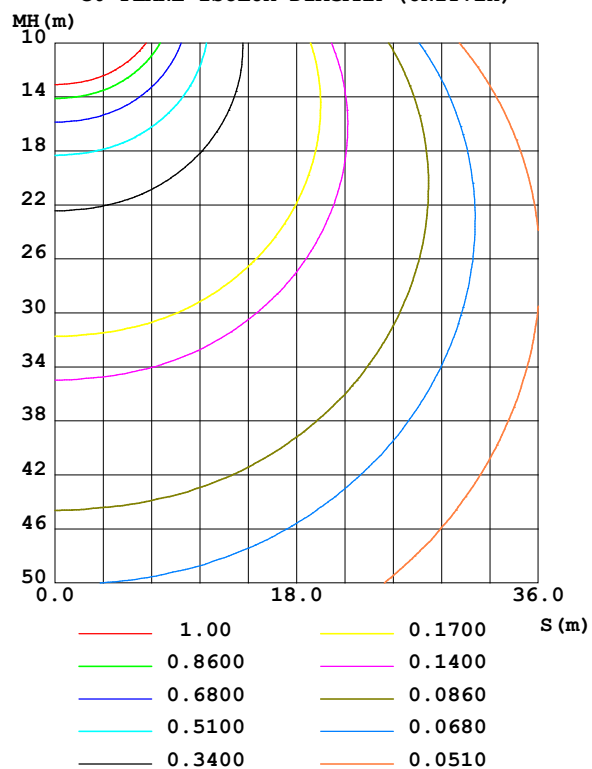
Test:U:101.40V I:0.1720A P:15.400W PF:0.8820 Freq:50.00Hz Lamp Flux:1086.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 70.56 lm/W			
MODEL	80028-30MP	I _{max} (cd)	175.7	S/MH(C0/180)	1.57
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	1086.7	η UP,DN(C0-180)	14.0,35.4
NOMINAL FLUX(lm)	1086.68	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	14.4,36.2
LAMPS INSIDE	1	η up (%)	28.4	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	100	η down (%)	71.6	CIBSE SHR MAX	1.55

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:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	171.2	165.7	171.4	168.7					0- 10	16.19	16.19	1.49,1.49
20	173.9	155.8	172.6	161.4					10- 20	47.56	63.75	5.87,5.87
30	175.4	140.9	173.1	148.4					20- 30	75.36	139.1	12.8,12.8
40	175.4	122.1	174.8	130.8					30- 40	97.49	236.6	21.8,21.8
50	173.4	100.1	174.5	108.8					40- 50	112.5	349.1	32.1,32.1
60	169.3	76.12	170.9	82.32					50- 60	118.7	467.8	43,43
70	163.0	50.13	164.4	53.67					60- 70	115.7	583.5	53.7,53.7
80	154.2	24.89	155.1	26.20					70- 80	105.1	688.6	63.4,63.4
90	142.8	4.443	143.1	6.509					80- 90	89.75	778.3	71.6,71.6
100	131.5	3.707	132.2	4.442					90-100	77.77	856.1	78.8,78.8
110	117.0	4.451	118.5	5.395					100-110	69.05	925.1	85.1,85.1
120	99.45	5.130	101.1	6.287					110-120	57.29	982.4	90.4,90.4
130	79.77	5.617	82.02	7.018					120-130	43.77	1026	94.4,94.4
140	58.60	6.526	61.79	7.670					130-140	30.28	1056	97.2,97.2
150	33.87	7.533	41.50	8.228					140-150	17.68	1074	98.8,98.8
160	18.83	9.307	14.30	8.885					150-160	8.806	1083	99.7,99.7
170	10.44	10.57	4.548	9.882					160-170	2.900	1086	99.9,99.9
180	5.387	10.76	5.422	10.73					170-180	0.8054	1087	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 291.51 lm

%lum = 26.8%

%lamp = 26.8%

Conical surface Flux(130deg): 526.57 lm

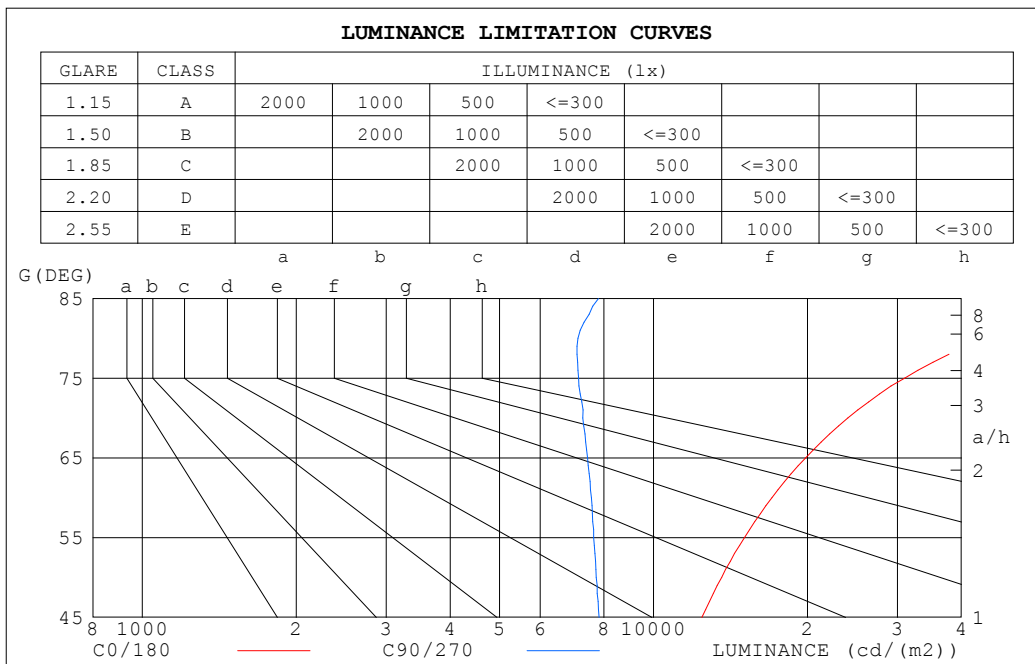
%lum = 48.5%

%lamp = 48.5%

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:

LUMINANCE LIMITATION CURVES



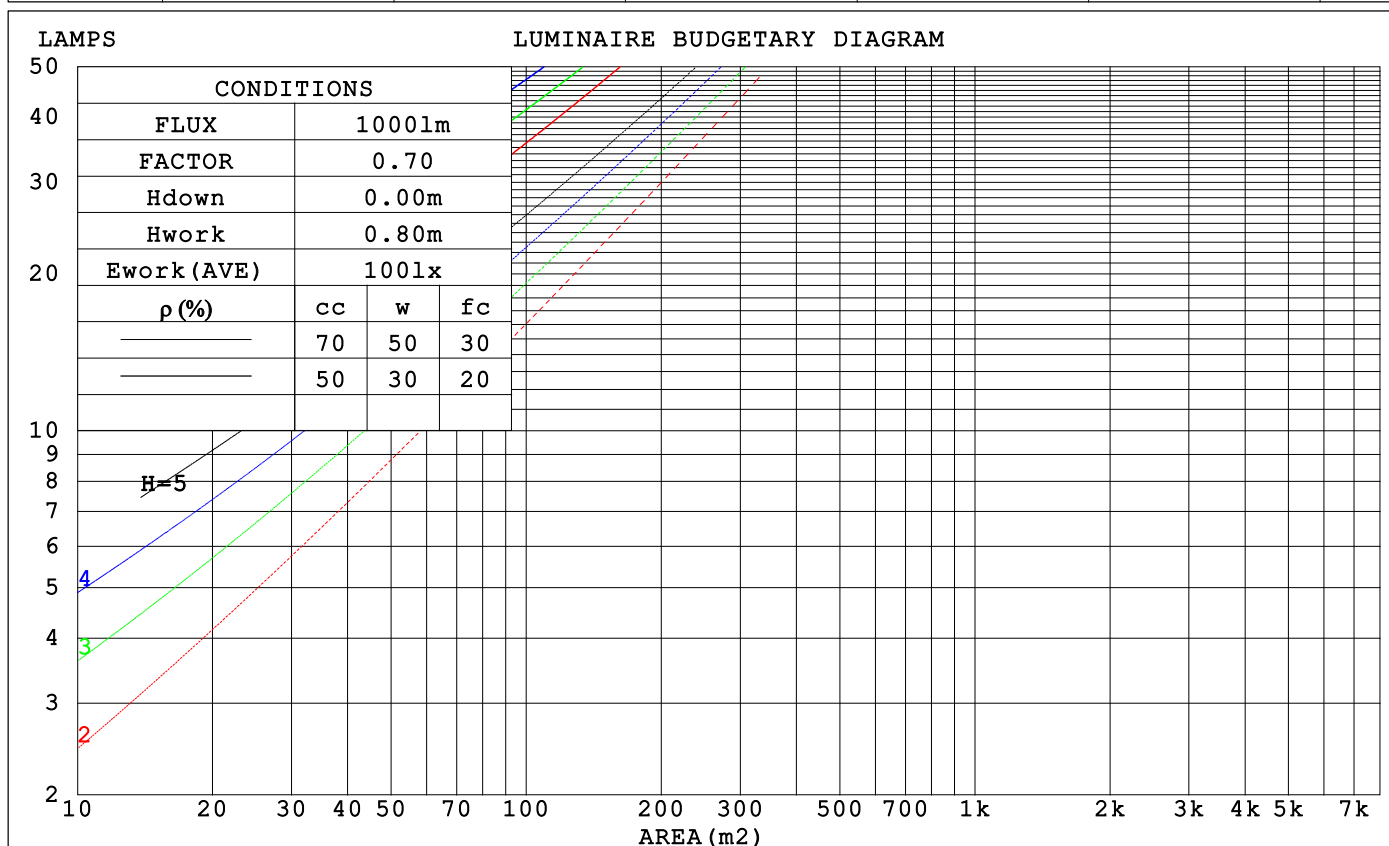
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	85911	7798
80	44727	7114
75	30949	7131
70	24003	7275
65	19823	7431
60	17054	7556
55	15061	7639
50	13585	7727
45	12428	7826

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

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.12	1.12	1.12	1.06	1.06	1.06	.95	.95	.95	.85	.85	.85	.76	.76	.76	.72
1.0	.93	.87	.82	.87	.82	.78	.78	.74	.70	.69	.66	.63	.61	.59	.56	.52
2.0	.79	.71	.64	.74	.67	.61	.66	.60	.55	.58	.54	.50	.51	.48	.45	.41
3.0	.68	.59	.52	.64	.56	.49	.57	.50	.45	.50	.45	.40	.44	.40	.36	.33
4.0	.59	.50	.43	.56	.47	.41	.50	.43	.37	.44	.38	.34	.39	.34	.30	.27
5.0	.53	.43	.36	.50	.41	.34	.44	.37	.31	.39	.33	.29	.35	.30	.26	.23
6.0	.47	.38	.31	.44	.36	.30	.40	.32	.27	.35	.29	.25	.31	.26	.22	.19
7.0	.42	.33	.27	.40	.32	.26	.36	.29	.24	.32	.26	.21	.28	.23	.19	.17
8.0	.38	.29	.24	.36	.28	.23	.33	.26	.21	.29	.23	.19	.26	.21	.17	.15
9.0	.35	.26	.21	.33	.25	.20	.30	.23	.18	.27	.21	.17	.24	.19	.15	.13
10.0	.32	.24	.19	.30	.23	.18	.27	.21	.17	.25	.19	.15	.22	.17	.14	.12



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:

WEC AND CCEC

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.397	.226	.071	.381	.217	.069	.351	.201	.064	.324	.187	.060	.299	.173	.056		
2.0	.339	.186	.057	.325	.179	.055	.298	.165	.051	.273	.153	.048	.250	.141	.045		
3.0	.299	.159	.048	.286	.153	.046	.261	.142	.043	.239	.131	.040	.218	.120	.037		
4.0	.268	.139	.041	.256	.134	.040	.234	.124	.037	.213	.114	.034	.194	.105	.032		
5.0	.243	.124	.036	.232	.119	.035	.212	.110	.032	.192	.102	.030	.175	.093	.028		
6.0	.222	.111	.032	.212	.107	.031	.193	.099	.029	.176	.091	.027	.159	.084	.025		
7.0	.204	.101	.029	.195	.097	.028	.178	.090	.026	.162	.083	.024	.147	.076	.022		
8.0	.189	.092	.026	.181	.089	.025	.165	.082	.024	.150	.076	.022	.136	.070	.020		
9.0	.176	.085	.024	.168	.082	.023	.154	.076	.022	.140	.070	.020	.127	.064	.019		
10.0	.165	.079	.022	.158	.076	.021	.144	.070	.020	.131	.065	.018	.119	.060	.017		

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)										
0.0	.407	.407	.407	.348	.348	.348	.237	.237	.237	.136	.136	.136	.044	.044	.044		
1.0	.404	.373	.345	.346	.320	.297	.237	.220	.206	.136	.128	.120	.044	.041	.039		
2.0	.398	.351	.312	.341	.302	.269	.234	.209	.188	.135	.122	.110	.043	.039	.036		
3.0	.391	.335	.291	.335	.289	.252	.230	.201	.177	.133	.117	.104	.043	.038	.034		
4.0	.383	.323	.277	.329	.279	.241	.226	.195	.170	.131	.114	.100	.042	.037	.033		
5.0	.375	.313	.268	.322	.271	.233	.222	.189	.164	.129	.111	.098	.041	.036	.032		
6.0	.368	.306	.261	.316	.265	.227	.218	.185	.161	.127	.109	.096	.041	.036	.032		
7.0	.361	.299	.256	.311	.259	.223	.215	.182	.158	.125	.107	.094	.040	.035	.031		
8.0	.354	.294	.252	.305	.255	.220	.211	.179	.156	.123	.106	.093	.040	.035	.031		
9.0	.348	.289	.249	.300	.251	.218	.208	.176	.154	.121	.104	.092	.039	.034	.031		
10.0	.342	.285	.247	.295	.248	.216	.205	.174	.153	.119	.103	.091	.039	.034	.030		

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:

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	22.2	21.6	22.9	23.6	18.0	19.3	18.6	19.9	20.7
3H	24.1	25.3	24.7	25.9	26.7	19.7	20.9	20.4	21.6	22.4
4H	25.9	27.0	26.5	27.7	28.5	20.4	21.6	21.1	22.3	23.1
6H	27.8	28.9	28.5	29.6	30.4	21.1	22.1	21.8	22.8	23.7
8H	28.9	29.9	29.6	30.7	31.5	21.3	22.3	22.0	23.0	23.9
12H	30.2	31.2	30.9	31.9	32.8	21.5	22.5	22.2	23.2	24.1
4H 2H	21.4	22.5	22.1	23.2	24.1	19.4	20.5	20.1	21.2	22.0
3H	24.8	25.7	25.5	26.5	27.3	21.4	22.3	22.1	23.1	23.9
4H	26.7	27.6	27.4	28.3	29.2	22.3	23.2	23.1	24.0	24.9
6H	28.9	29.7	29.7	30.5	31.4	23.1	23.9	23.9	24.7	25.6
8H	30.1	30.9	30.9	31.7	32.6	23.5	24.2	24.3	25.0	26.0
12H	31.5	32.2	32.3	33.0	34.0	23.8	24.5	24.6	25.3	26.2
8H 4H	27.0	27.7	27.8	28.5	29.5	23.6	24.3	24.3	25.1	26.1
6H	29.4	30.1	30.2	30.9	31.9	24.8	25.4	25.6	26.2	27.2
8H	30.9	31.4	31.7	32.3	33.3	25.4	26.0	26.2	26.8	27.8
12H	32.5	33.0	33.4	33.9	34.9	25.9	26.4	26.7	27.2	28.3
12H 4H	27.0	27.7	27.8	28.5	29.4	24.0	24.7	24.8	25.5	26.5
6H	29.5	30.1	30.3	30.9	31.9	25.5	26.0	26.3	26.9	27.9
8H	31.0	31.5	31.9	32.4	33.4	26.2	26.7	27.1	27.6	28.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.5				

CIE Pub.117, 1087 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 0.3)
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

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:

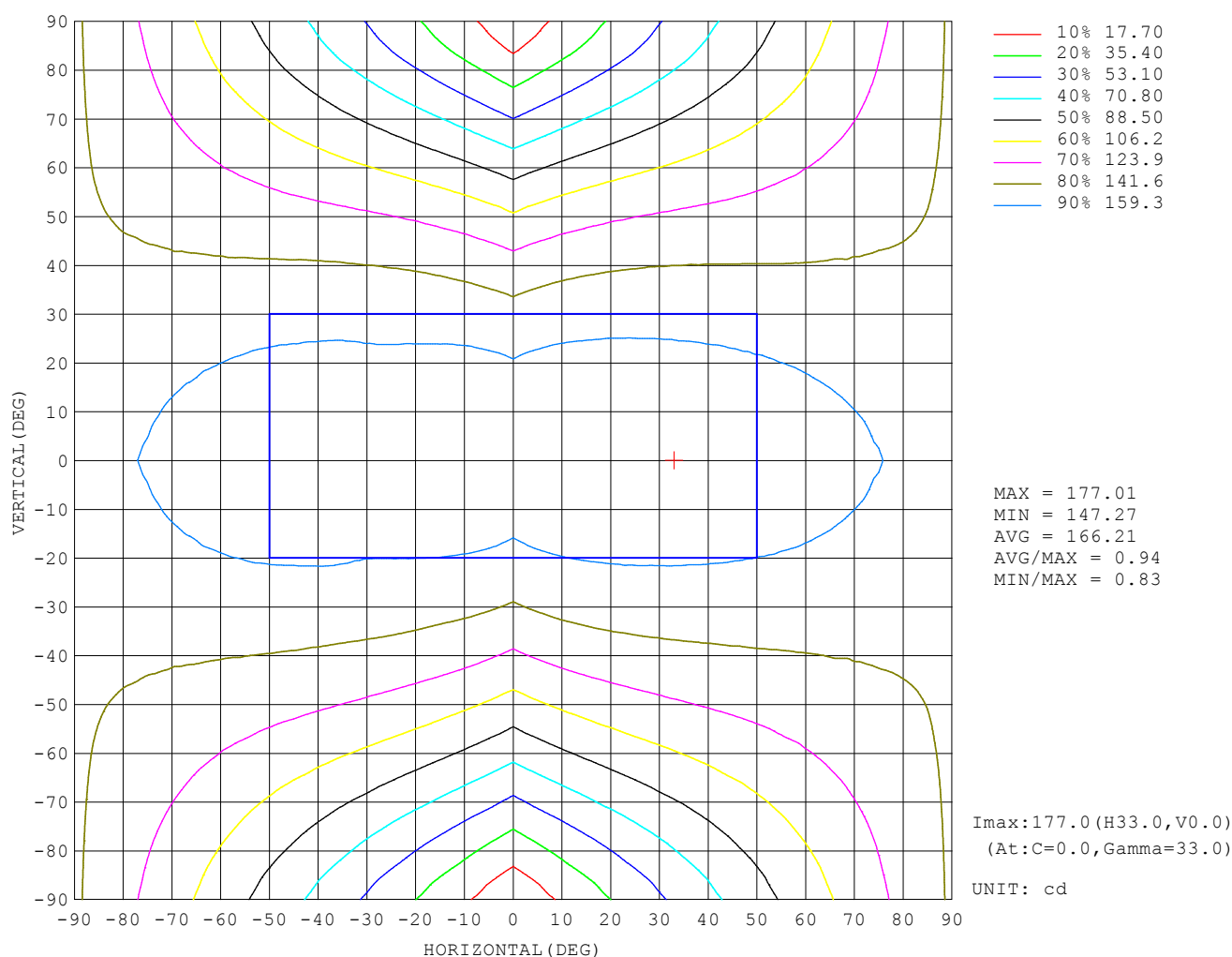
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	43	31	24	42	30	23	40	29	23	16
0.80	52	39	31	50	38	30	47	36	29	21
1.00	60	46	38	58	45	37	53	45	35	26
1.25	67	54	45	64	52	43	59	48	41	30
1.50	72	59	50	69	57	49	63	53	46	34
2.00	80	68	59	76	65	57	69	60	53	39
2.50	84	73	65	80	70	63	72	64	58	43
3.00	88	78	70	84	75	67	75	68	62	46
4.00	93	85	77	88	81	74	79	73	68	51
5.00	96	89	82	91	85	79	82	77	72	54
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

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:

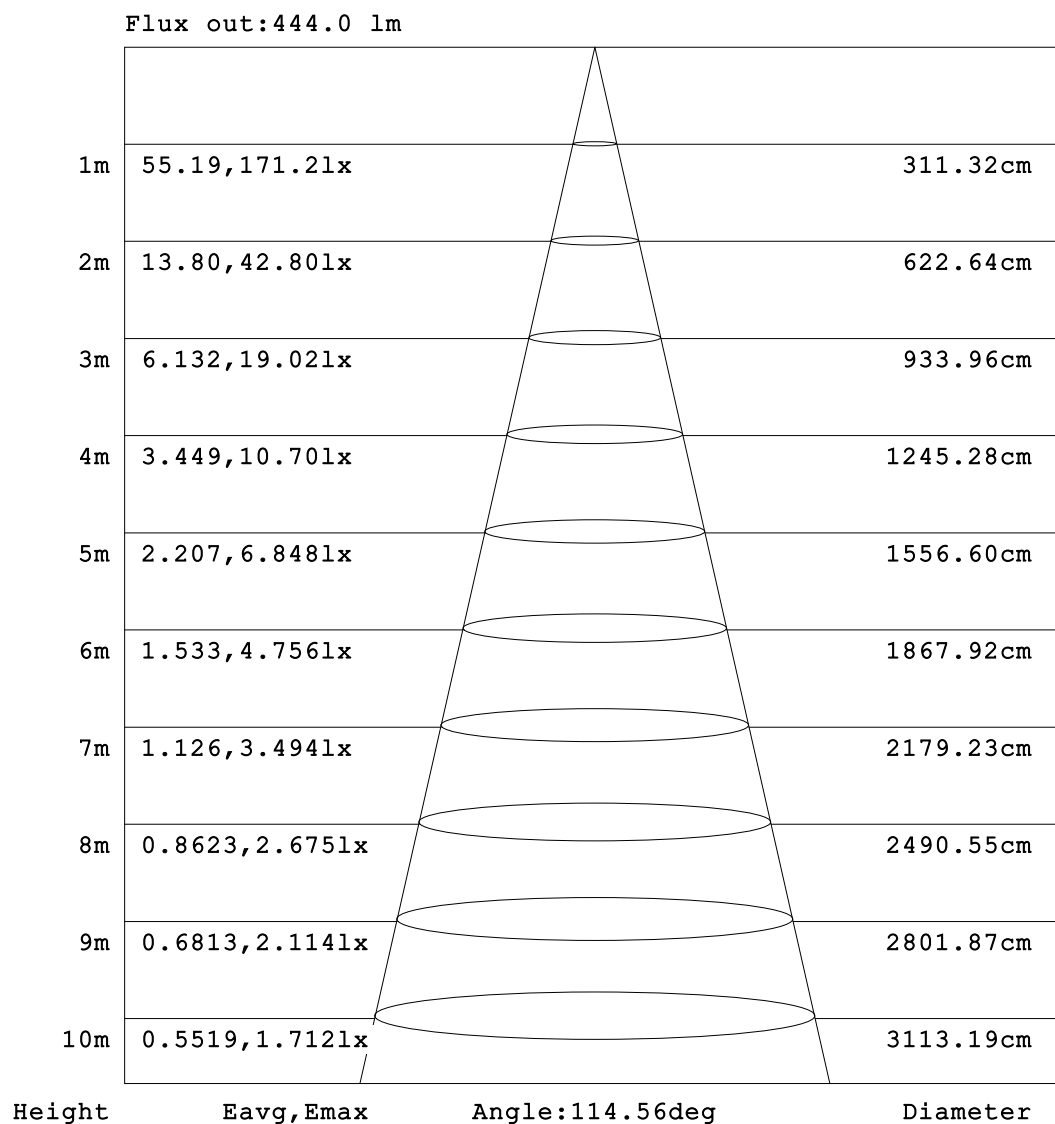
ISOCANDELA DIAGRAM



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

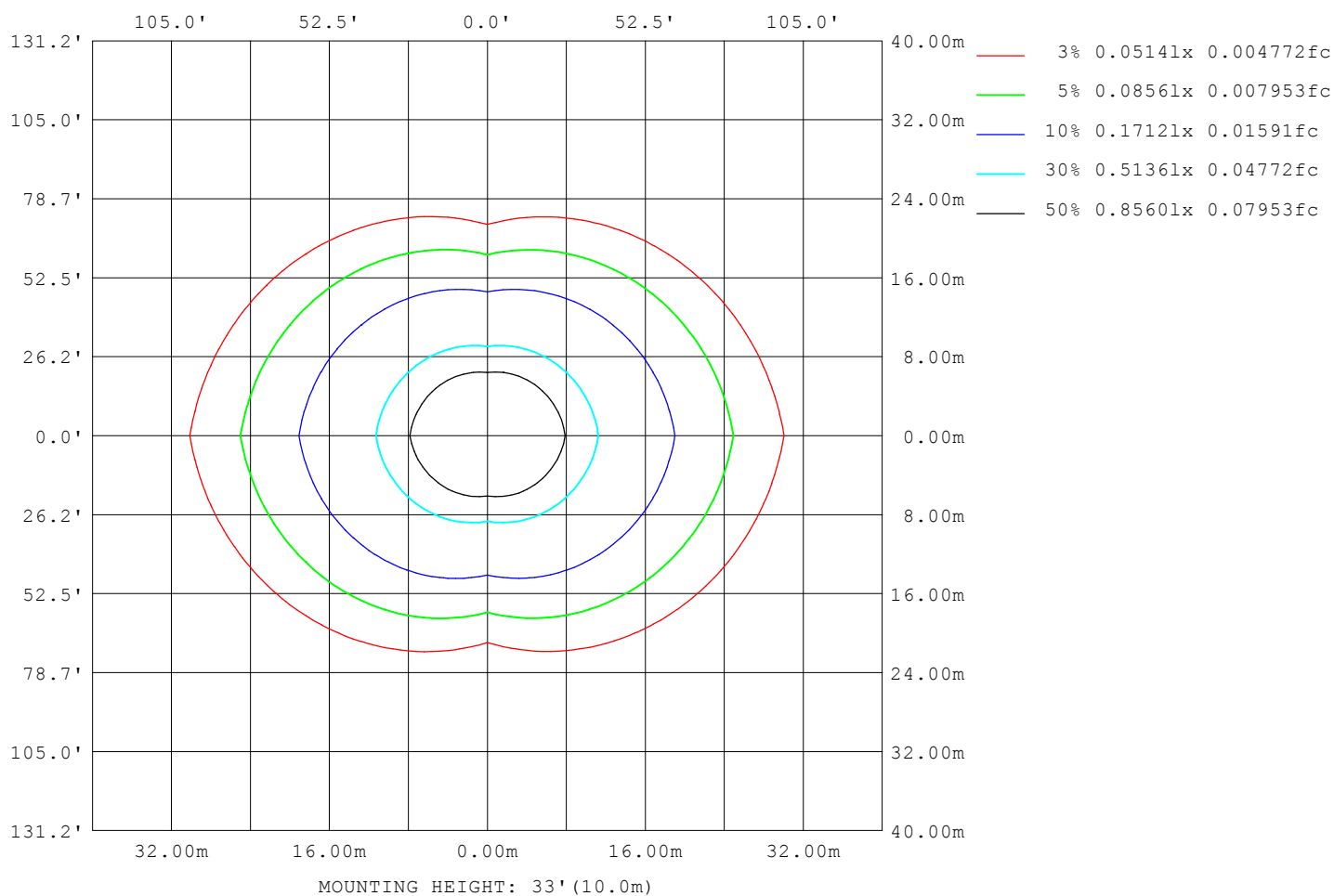


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1720A P:15.400W PF:0.8820 Freq:50.00Hz Lamp Flux:1086.68x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

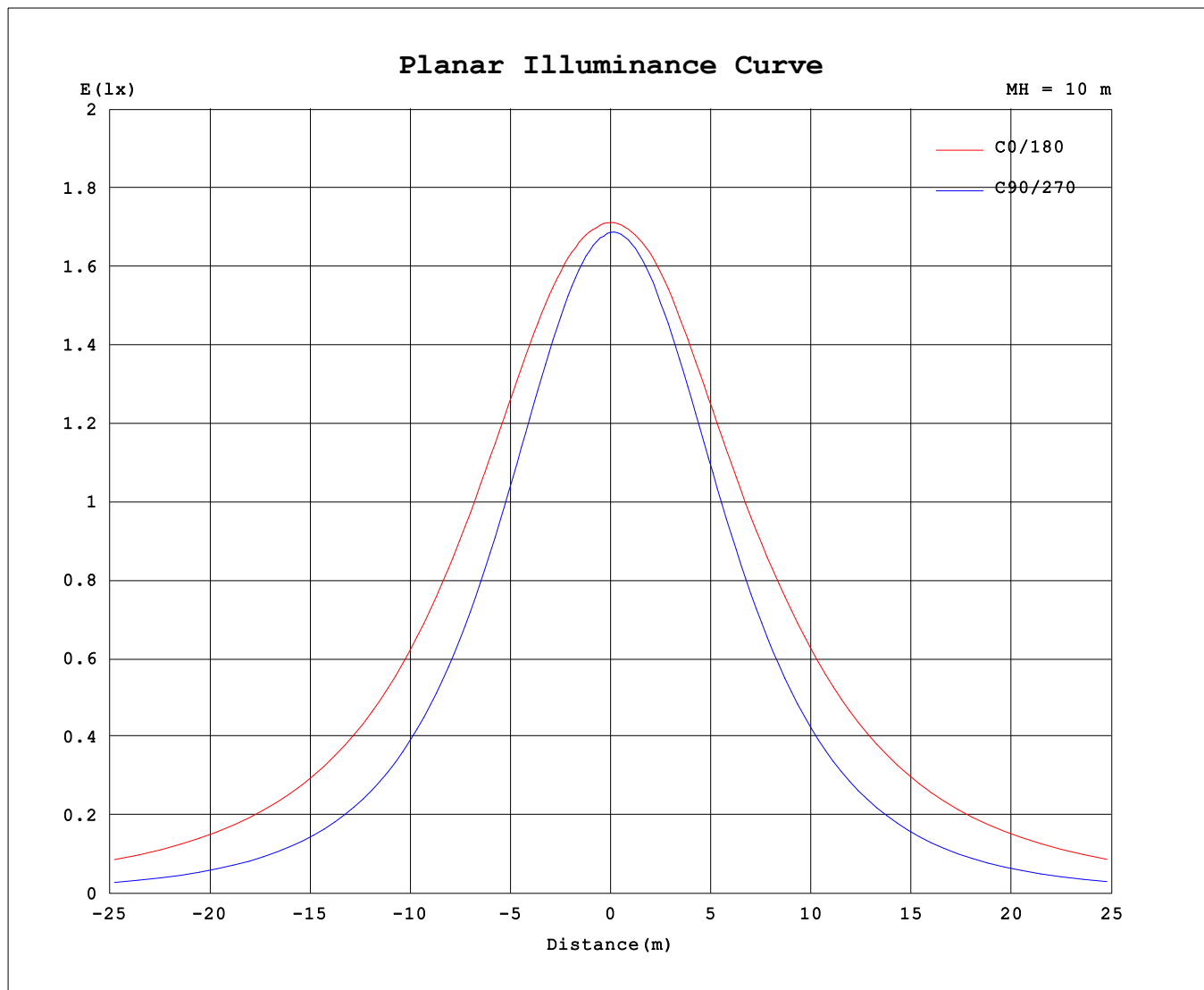
AvgL	cd/m2
L_0~180 (65) av	19783
L_0~180 (75) av	30803
L_0~180 (85) av	85474
L_90~270 (65) av	7757
L_90~270 (75) av	7407
L_90~270 (85) av	8065
L_45 (65) av	12312
L_45 (75) av	16260
L_45 (85) av	37352

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

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	170	170	170	170															
5	170	169	170	170															
10	171	166	171	169															
15	173	161	172	166															
20	174	156	173	161															
25	175	149	173	156															
30	175	141	173	148															
35	176	132	173	140															
40	175	122	175	131															
45	174	111	175	120															
50	173	100	174	109															
55	172	88.3	173	96.3															
60	169	76.1	171	82.3															
65	166	63.3	168	67.9															
70	163	50.1	164	53.7															
75	159	37.2	160	39.5															
80	154	24.9	155	26.2															
85	149	13.7	149	14.4															
90	143	4.44	143	6.51															
95	137	3.43	138	4.16															
100	132	3.71	132	4.44															
105	125	4.06	126	4.84															
110	117	4.45	119	5.39															
115	108	4.81	110	5.86															
120	99.4	5.13	101	6.29															
125	89.9	5.42	91.7	6.67															
130	79.8	5.62	82.0	7.02															
135	69.4	6.02	72.2	7.34															
140	58.6	6.53	61.8	7.67															
145	44.3	6.84	51.1	7.92															
150	33.9	7.53	41.5	8.23															
155	26.1	8.39	32.3	8.50															
160	18.8	9.31	14.3	8.88															
165	15.0	10.07	5.22	9.36															
170	10.4	10.6	4.55	9.88															
175	7.50	10.7	4.46	10.3															
180	5.39	10.8	5.42	10.7															

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: