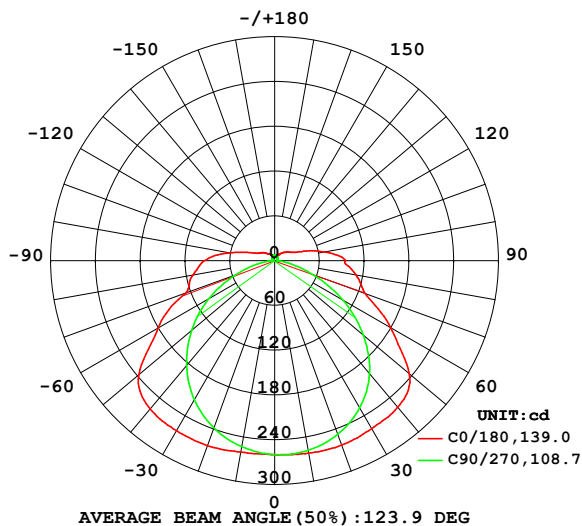


LUMINAIRE PHOTOMETRIC TEST REPORT

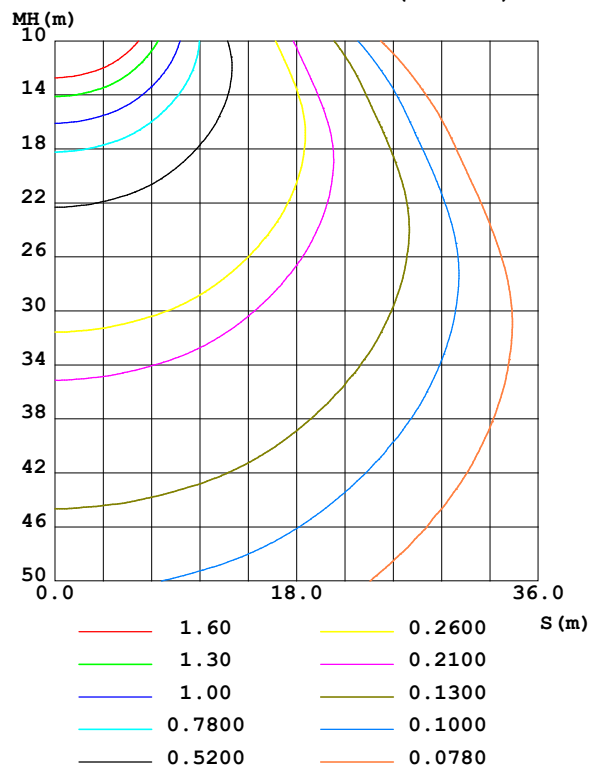
Test:U:101.50V I:0.1480A P:13.600W PF:0.9090 Freq:50.00Hz Lamp Flux:1044.75x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Everfine	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 76.82 lm/W
MODEL	FR100 1M透明4000K	I _{max} (cd)	263.9	S/MH(C0/180)	1.53	
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH(C90/270)	1.30	
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	1044.8	η UP,DN(C0-180)	5.4,44.1	
NOMINAL FLUX(lm)	1044.75	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	5.8,44.6	
LAMPS INSIDE	1	η up (%)	11.3	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	100	η down (%)	88.7	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°C
Operators: DAMIN
Test Date: 18 April 2024

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	260.5	253.2	261.9	258.1					0- 10	24.74	24.74	2.37,2.37
20	263.7	238.4	262.8	247.6					10- 20	72.56	97.30	9.31,9.31
30	263.0	215.3	259.9	227.9					20- 30	114.5	211.8	20.3,20.3
40	259.5	183.5	256.6	197.9					30- 40	146.5	358.4	34.3,34.3
50	237.6	145.2	235.3	155.1					40- 50	162.8	521.2	49.9,49.9
60	180.5	101.5	179.4	105.4					50- 60	149.3	670.5	64.2,64.2
70	126.6	55.79	128.7	54.00					60- 70	115.4	785.9	75.2,75.2
80	111.2	19.82	110.6	16.80					70- 80	81.26	867.1	83,83
90	94.04	2.476	95.14	4.071					80- 90	59.94	927.1	88.7,88.7
100	61.52	2.957	67.72	3.461					90-100	46.10	973.2	93.1,93.1
110	31.16	3.413	35.45	3.641					100-110	27.31	1000	95.8,95.8
120	21.27	3.909	23.20	4.137					110-120	14.90	1015	97.2,97.2
130	16.15	4.675	17.59	4.613					120-130	10.70	1026	98.2,98.2
140	11.99	5.675	12.61	5.070					130-140	7.501	1034	98.9,98.9
150	9.044	6.499	8.577	5.608					140-150	5.073	1039	99.4,99.4
160	7.123	7.208	6.964	7.327					150-160	3.367	1042	99.7,99.7
170	6.774	7.684	6.558	7.722					160-170	2.031	1044	99.9,99.9
180	6.917	7.893	6.922	7.993					170-180	0.6929	1045	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 439.15 lm

%lum = 42.0%

%lamp = 42.0%

Conical surface Flux(130deg): 733.38 lm

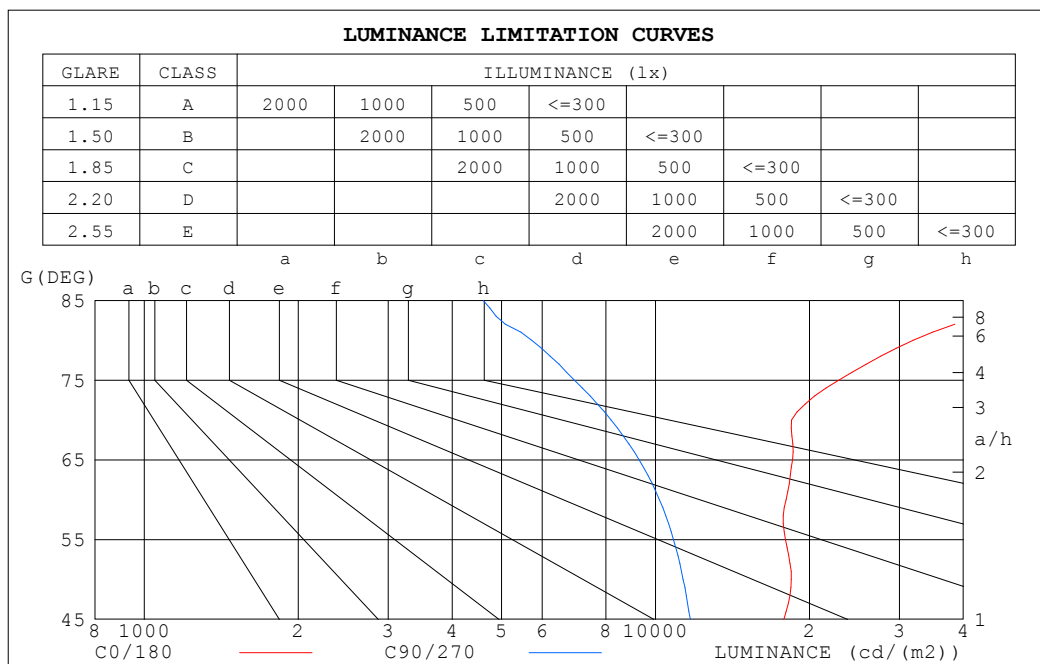
%lum = 70.2%

%lamp = 70.2%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:18 April 2024

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



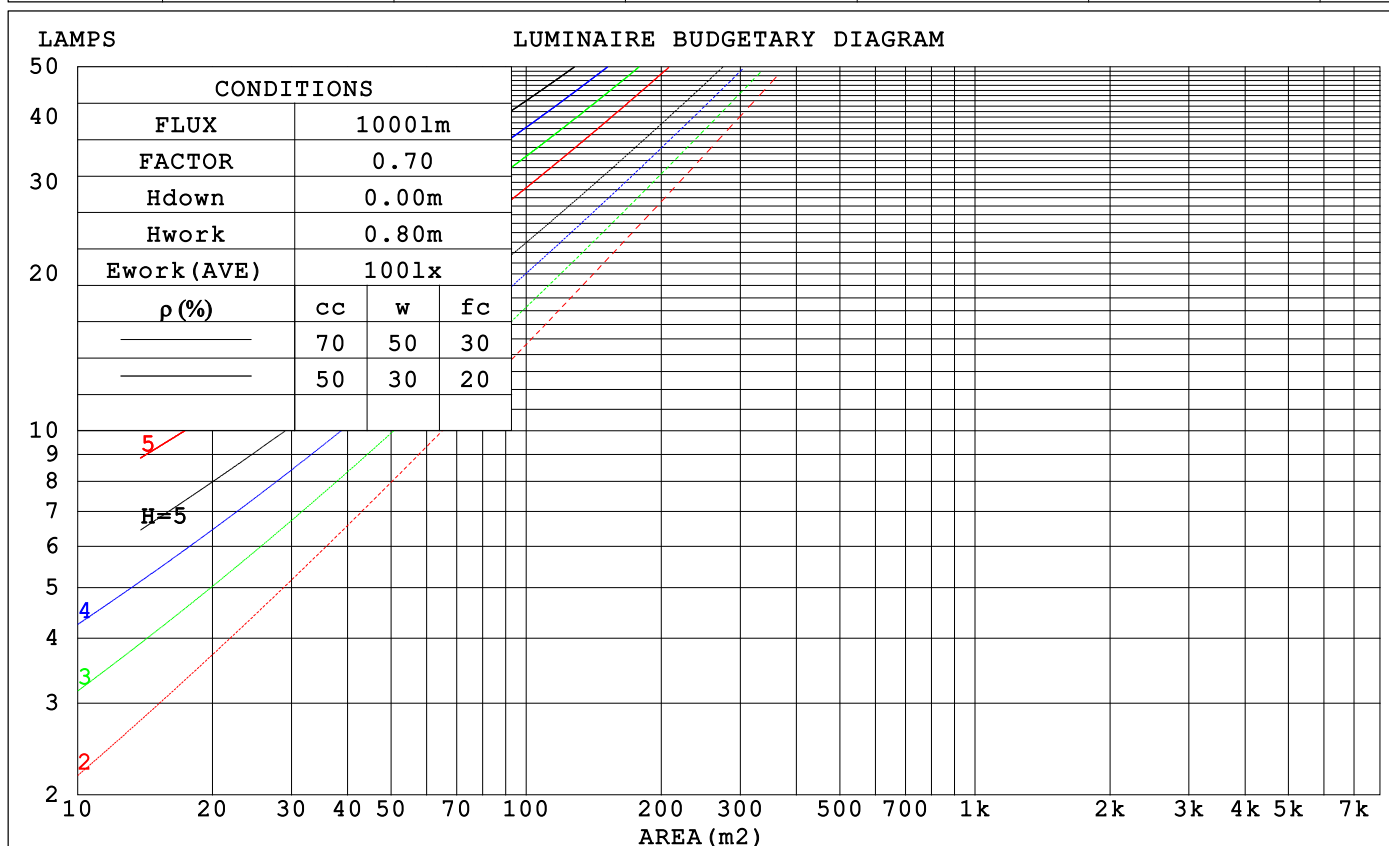
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	58806	4602
80	31934	5721
75	22810	6945
70	18452	8179
65	18521	9284
60	18003	10179
55	17965	10842
50	18431	11325
45	17831	11703

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 18 April 2024

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	1.16	1.16	1.16	1.12	1.12	1.12	1.05	1.05	1.05	.98	.98	.98	.92	.92	.92	.89
1.0	.99	.94	.89	.95	.91	.87	.89	.85	.82	.83	.80	.77	.78	.75	.73	.70
2.0	.85	.78	.71	.82	.75	.70	.77	.71	.66	.72	.67	.63	.67	.63	.60	.57
3.0	.74	.66	.59	.72	.64	.57	.67	.60	.55	.63	.57	.52	.59	.54	.50	.47
4.0	.65	.56	.49	.63	.55	.48	.59	.52	.46	.56	.49	.44	.52	.47	.43	.40
5.0	.58	.49	.42	.56	.48	.41	.53	.45	.40	.50	.43	.38	.47	.41	.37	.34
6.0	.52	.43	.36	.50	.42	.36	.48	.40	.34	.45	.38	.33	.42	.36	.32	.30
7.0	.47	.38	.32	.46	.37	.31	.43	.36	.30	.41	.34	.29	.38	.33	.28	.26
8.0	.43	.34	.28	.42	.33	.28	.39	.32	.27	.37	.31	.26	.35	.29	.25	.23
9.0	.39	.31	.25	.38	.30	.25	.36	.29	.24	.34	.28	.23	.32	.27	.23	.21
10.0	.36	.28	.23	.35	.27	.22	.33	.26	.22	.32	.25	.21	.30	.24	.20	.19



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:18 April 2024

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	.357	.203	.064	.346	.197	.063	.326	.187	.060	.308	.178	.057	.291	.169	.054	
2.0	.317	.173	.053	.307	.169	.052	.289	.161	.050	.273	.153	.048	.258	.146	.046	
3.0	.285	.152	.045	.277	.148	.045	.261	.141	.043	.246	.135	.041	.232	.129	.040	
4.0	.260	.135	.040	.252	.132	.039	.237	.126	.038	.224	.120	.036	.211	.115	.035	
5.0	.238	.121	.035	.231	.118	.034	.218	.113	.033	.205	.108	.032	.194	.104	.031	
6.0	.219	.110	.031	.213	.107	.031	.201	.103	.030	.190	.099	.029	.179	.094	.028	
7.0	.203	.100	.028	.197	.098	.028	.186	.094	.027	.176	.090	.026	.167	.087	.025	
8.0	.189	.092	.026	.183	.090	.026	.174	.087	.025	.164	.083	.024	.156	.080	.023	
9.0	.176	.085	.024	.171	.084	.023	.162	.080	.023	.154	.077	.022	.146	.074	.021	
10.0	.165	.079	.022	.161	.078	.022	.153	.075	.021	.145	.072	.020	.137	.069	.020	

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	.276	.276	.276	.236	.236	.236	.161	.161	.161	.093	.093	.093	.030	.030	.030	
1.0	.270	.242	.217	.231	.208	.187	.158	.143	.129	.091	.083	.075	.029	.027	.024	
2.0	.263	.219	.182	.225	.188	.157	.154	.130	.110	.089	.076	.064	.029	.025	.021	
3.0	.255	.202	.160	.219	.174	.138	.150	.121	.097	.087	.071	.057	.028	.023	.019	
4.0	.247	.189	.145	.212	.163	.126	.146	.114	.089	.084	.067	.052	.027	.022	.017	
5.0	.240	.179	.134	.206	.155	.117	.142	.108	.083	.082	.064	.049	.026	.021	.016	
6.0	.233	.171	.127	.200	.148	.111	.138	.104	.078	.080	.061	.046	.026	.020	.015	
7.0	.226	.164	.121	.194	.142	.106	.134	.100	.075	.078	.059	.045	.025	.019	.015	
8.0	.219	.159	.117	.189	.138	.102	.130	.097	.073	.076	.057	.043	.025	.019	.014	
9.0	.213	.154	.114	.183	.134	.099	.127	.094	.071	.074	.055	.042	.024	.018	.014	
10.0	.207	.150	.111	.179	.130	.097	.124	.091	.069	.072	.054	.041	.023	.018	.014	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 18 April 2024

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	2H	22.4	23.9	22.9	24.3	24.7	20.3	21.8	20.8	22.2	22.6
	3H	24.4	25.7	24.8	26.1	26.6	21.5	22.8	22.0	23.3	23.7
	4H	25.5	26.7	26.0	27.2	27.7	21.9	23.2	22.4	23.6	24.1
	6H	26.9	28.1	27.4	28.6	29.1	22.2	23.4	22.7	23.9	24.4
	8H	27.8	28.9	28.3	29.4	29.9	22.3	23.4	22.8	23.9	24.4
	12H	28.8	29.9	29.3	30.4	30.9	22.3	23.4	22.8	23.9	24.5
4H	2H	22.8	24.1	23.3	24.5	25.0	21.2	22.5	21.7	22.9	23.4
	3H	24.9	26.0	25.5	26.5	27.1	22.6	23.7	23.1	24.2	24.8
	4H	26.3	27.3	26.8	27.8	28.4	23.2	24.2	23.8	24.7	25.3
	6H	28.0	28.8	28.5	29.4	30.0	23.7	24.6	24.3	25.1	25.8
	8H	28.9	29.8	29.5	30.3	31.0	23.9	24.7	24.4	25.3	25.9
	12H	30.1	30.9	30.7	31.5	32.1	24.0	24.7	24.6	25.3	26.0
8H	4H	26.5	27.3	27.1	27.9	28.5	23.9	24.8	24.5	25.3	26.0
	6H	28.4	29.1	29.0	29.7	30.4	24.8	25.5	25.4	26.0	26.7
	8H	29.6	30.3	30.3	30.9	31.6	25.1	25.7	25.7	26.3	27.0
	12H	31.1	31.6	31.7	32.3	33.0	25.4	25.9	26.0	26.6	27.3
12H	4H	26.5	27.3	27.1	27.8	28.5	24.2	24.9	24.8	25.5	26.2
	6H	28.5	29.2	29.1	29.8	30.5	25.2	25.8	25.8	26.4	27.1
	8H	29.8	30.3	30.4	31.0	31.7	25.7	26.2	26.3	26.9	27.6
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.1 / - 0.1					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.2					+ 0.2 / - 0.4				
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.5				

CIE Pub.117, 1045 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.2$)
Area: 0.02 m²

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:18 April 2024

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:

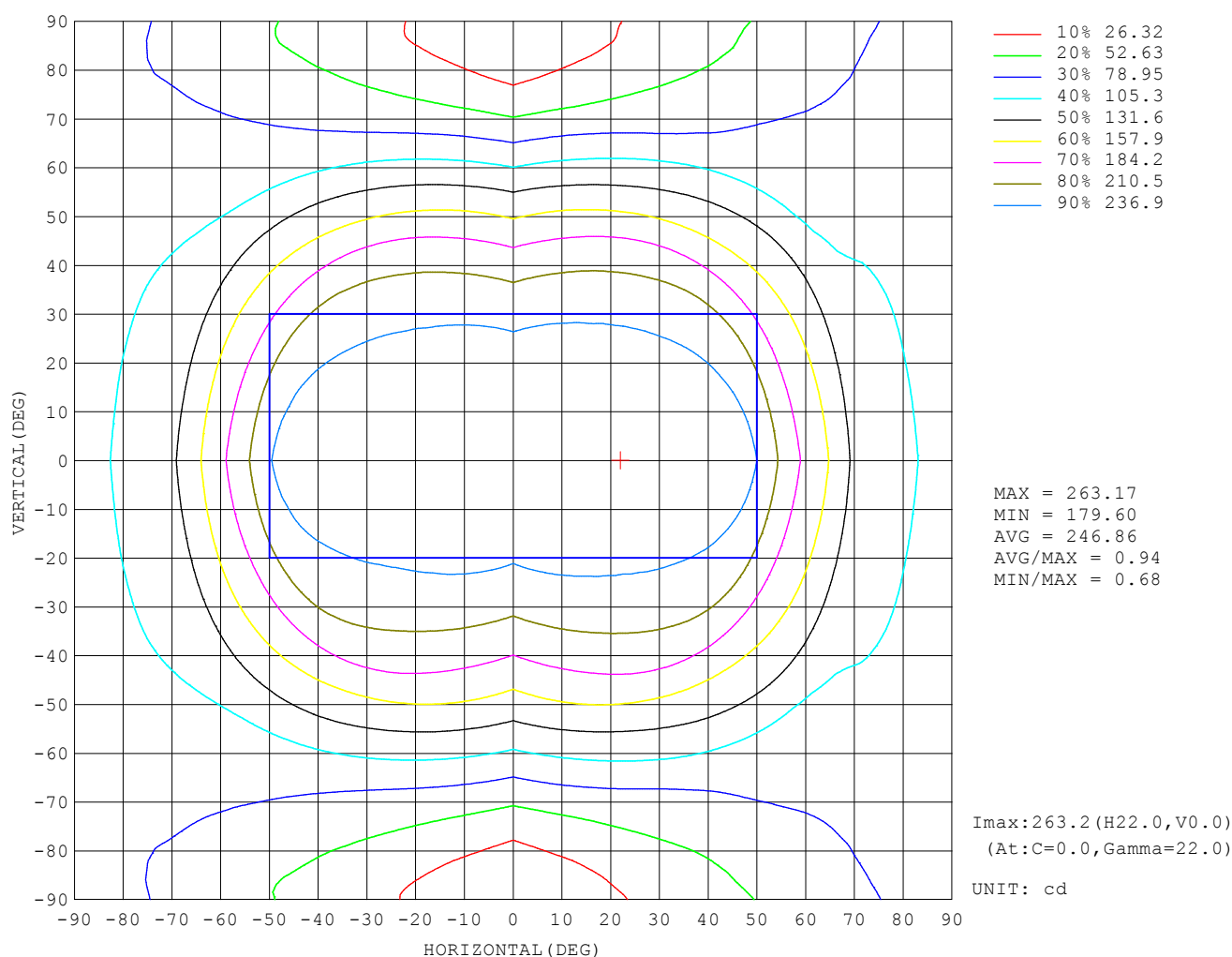
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	51	39	32	50	38	31	48	38	31	24
0.80	61	48	40	59	47	40	57	46	39	32
1.00	69	57	49	67	56	48	64	57	47	39
1.25	76	64	56	74	63	55	70	61	54	45
1.50	81	70	62	79	68	61	75	66	59	50
2.00	88	78	70	86	76	69	81	73	67	57
2.50	92	83	76	89	81	74	84	77	72	61
3.00	96	87	81	93	85	79	87	81	76	64
4.00	100	93	87	97	91	85	91	86	81	69
5.00	103	97	91	100	94	89	93	89	85	72
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: 18 April 2024

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:

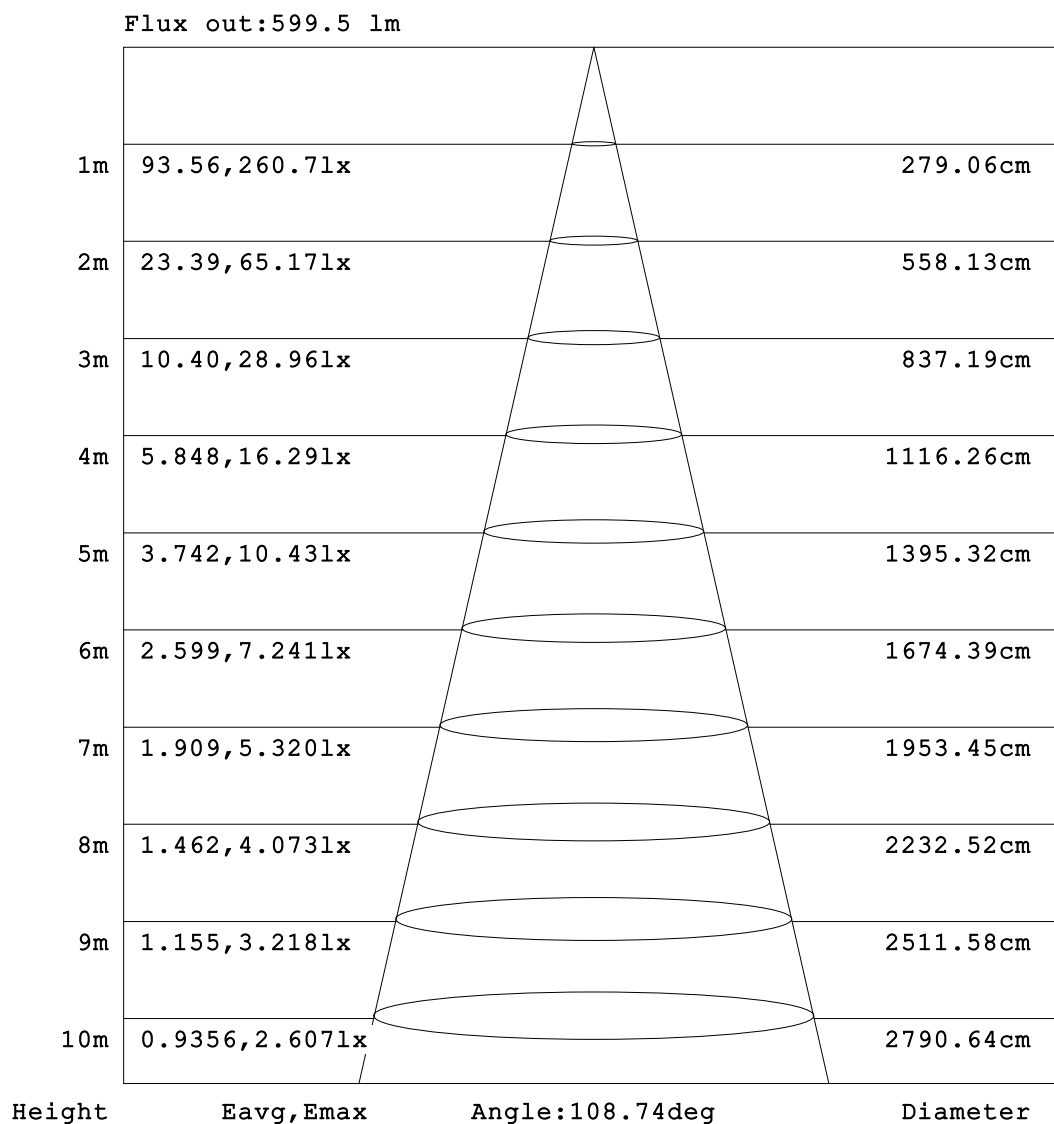
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 18 April 2024

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

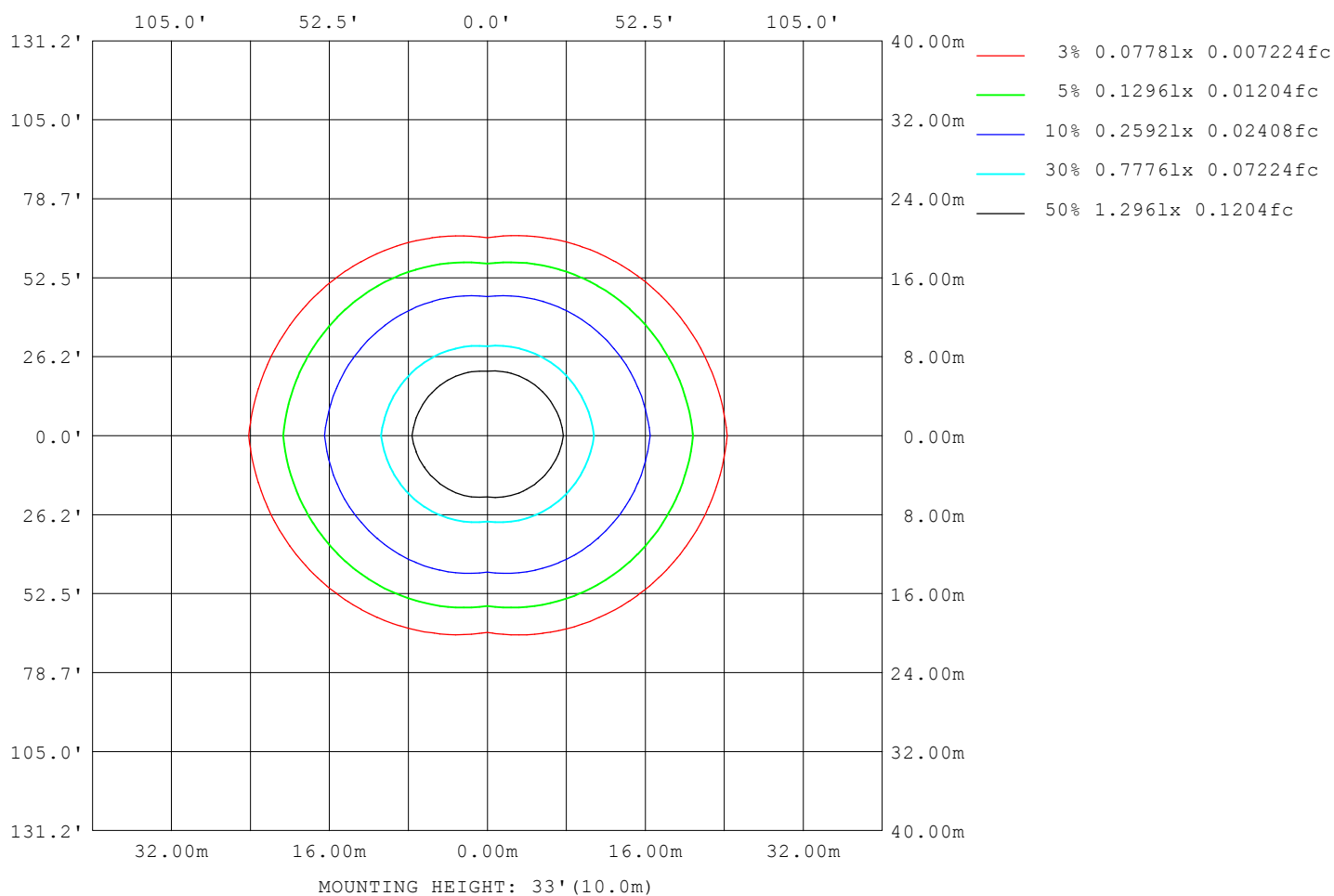


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:18 April 2024

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: 18 April 2024

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:101.50V I:0.1480A P:13.600W PF:0.9090 Freq:50.00Hz Lamp Flux:1044.75x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Everfine	SUR.:	Shielding Angle:

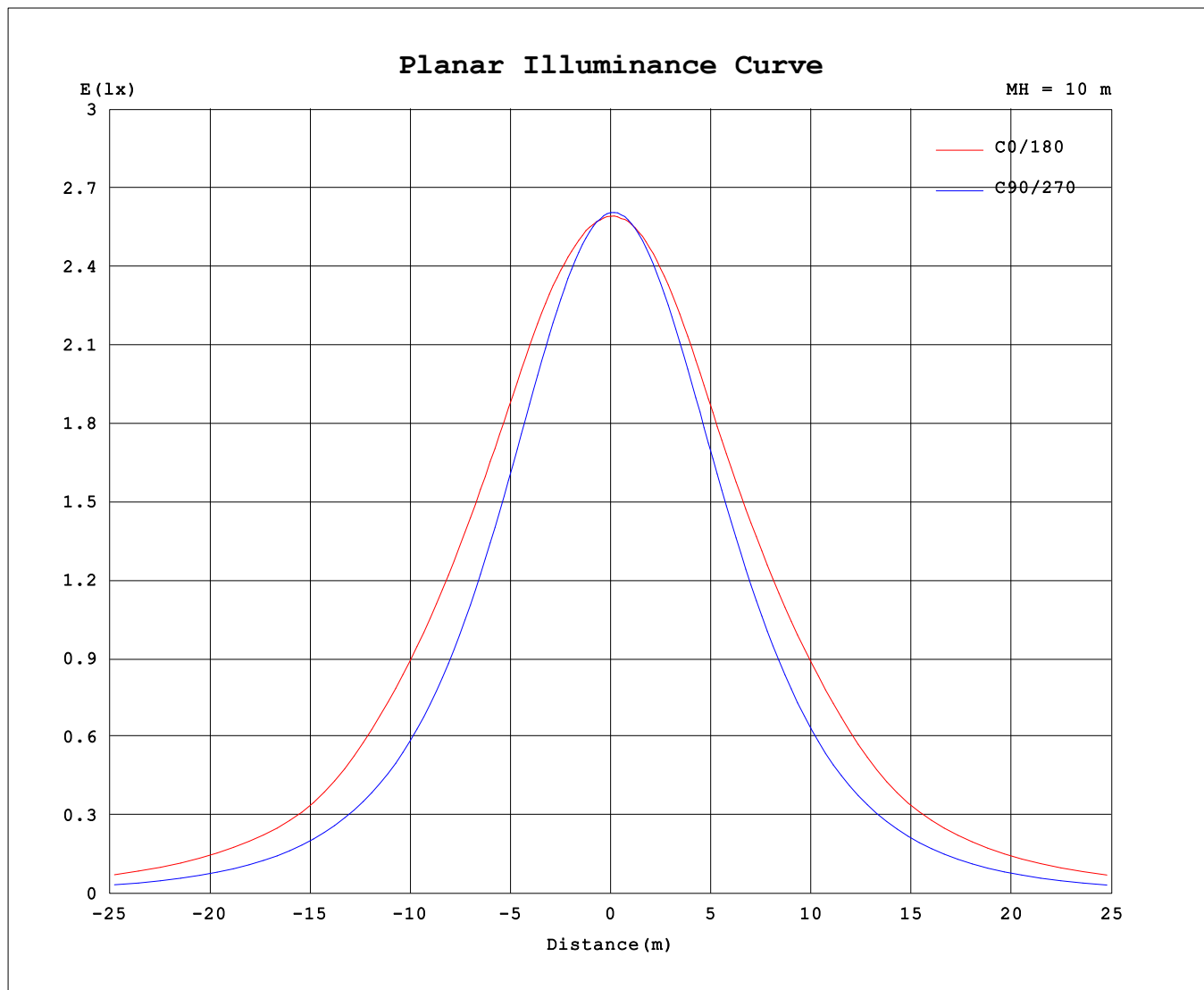
AvgL	cd/m2
L_0~180 (65) av	18354
L_0~180 (75) av	22976
L_0~180 (85) av	58410
L_90~270 (65) av	9315
L_90~270 (75) av	6645
L_90~270 (85) av	4009
L_45 (65) av	12680
L_45 (75) av	12756
L_45 (85) av	24310

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:18 April 2024

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: 18 April 2024

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	260	260	260	260															
5	260	258	261	260															
10	260	253	262	258															
15	262	247	263	254															
20	264	238	263	248															
25	264	228	262	239															
30	263	215	260	228															
35	263	201	259	214															
40	260	184	257	198															
45	253	165	251	178															
50	238	145	235	155															
55	207	124	205	131															
60	181	102	179	105															
65	157	78.3	153	79.2															
70	127	55.8	129	54.0															
75	118	35.9	119	32.9															
80	111	19.8	111	16.8															
85	103	8.00	101	5.98															
90	94.0	2.48	95.1	4.07															
95	80.5	2.64	84.6	3.74															
100	61.5	2.96	67.7	3.46															
105	44.2	3.18	52.2	3.41															
110	31.2	3.41	35.5	3.64															
115	24.2	3.66	26.8	3.92															
120	21.3	3.91	23.2	4.14															
125	18.9	4.29	20.3	4.42															
130	16.1	4.68	17.6	4.61															
135	13.3	5.14	15.2	4.81															
140	12.0	5.68	12.6	5.07															
145	10.4	6.08	10.4	5.28															
150	9.04	6.50	8.58	5.61															
155	8.12	6.86	7.50	6.51															
160	7.12	7.21	6.96	7.33															
165	7.07	7.46	6.54	7.59															
170	6.77	7.68	6.56	7.72															
175	6.83	7.83	6.68	7.82															
180	6.92	7.89	6.92	7.99															

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:18 April 2024

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: