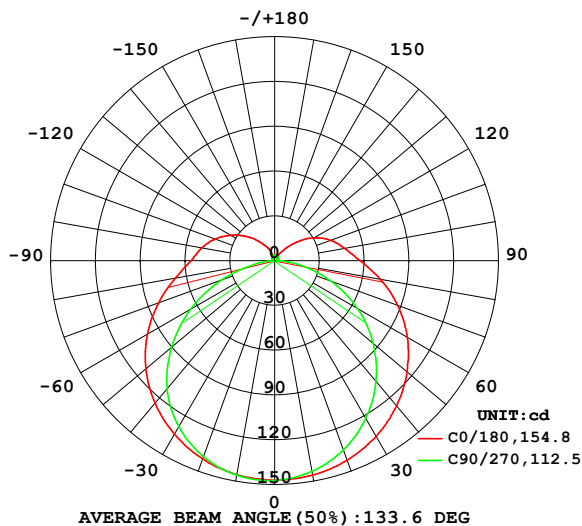


LUMINAIRE PHOTOMETRIC TEST REPORT

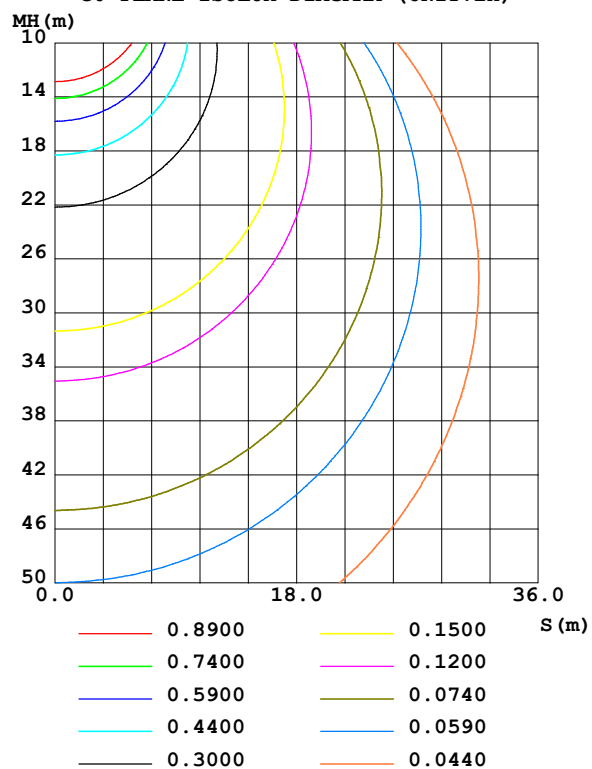
Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 53.33 lm/W			
MODEL		I _{max} (cd)	147.4	S/MH(C0/180)	1.36
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	629.25	η UP,DN(C0-180)	7.7,42.1
NOMINAL FLUX(lm)	629.254	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	8.7,41.5
LAMPS INSIDE	1	η up (%)	16.4	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	100	η down (%)	83.6	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℃
Operators:DAMIN
Test Date:20 December 2023

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	145.9	143.4	145.7	146.0					0- 10	13.95	13.95	2.22,2.22
20	142.3	134.9	141.3	139.7					10- 20	40.36	54.31	8.63,8.63
30	135.9	122.1	134.3	128.4					20- 30	62.42	116.7	18.6,18.6
40	127.1	105.6	124.7	112.2					30- 40	77.80	194.5	30.9,30.9
50	115.9	86.19	112.6	90.23					40- 50	84.66	279.2	44.4,44.4
60	102.5	64.08	98.34	64.66					50- 60	82.45	361.6	57.5,57.5
70	87.75	40.00	82.73	37.45					60- 70	71.68	433.3	68.9,68.9
80	71.85	16.93	67.53	12.32					70- 80	54.85	488.2	77.6,77.6
90	57.25	2.861	56.02	1.988					80- 90	37.99	526.2	83.6,83.6
100	47.76	1.818	49.65	1.946					90-100	29.66	555.8	88.3,88.3
110	40.03	2.017	42.59	2.188					100-110	24.99	580.8	92.3,92.3
120	30.77	2.242	34.20	2.445					110-120	19.53	600.3	95.4,95.4
130	19.52	2.498	25.52	2.687					120-130	13.54	613.9	97.6,97.6
140	9.222	2.811	17.31	2.935					130-140	7.993	621.9	98.8,98.8
150	3.359	3.080	10.68	3.177					140-150	4.035	625.9	99.5,99.5
160	3.196	3.345	3.467	3.473					150-160	2.053	628.0	99.8,99.8
170	3.275	3.548	3.398	3.632					160-170	0.9640	628.9	99.9,99.9
180	3.393	3.694	3.402	3.698					170-180	0.3344	629.3	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 236.57 lm

%lum = 37.6%

%lamp = 37.6%

Conical surface Flux(130deg): 399.28 lm

%lum = 63.5%

%lamp = 63.5%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz

Lamp Flux:629.254x1 lm

NAME: 4

TYPE:

WEIGHT:

SPEC.:

DIM.:

SERIAL No.:

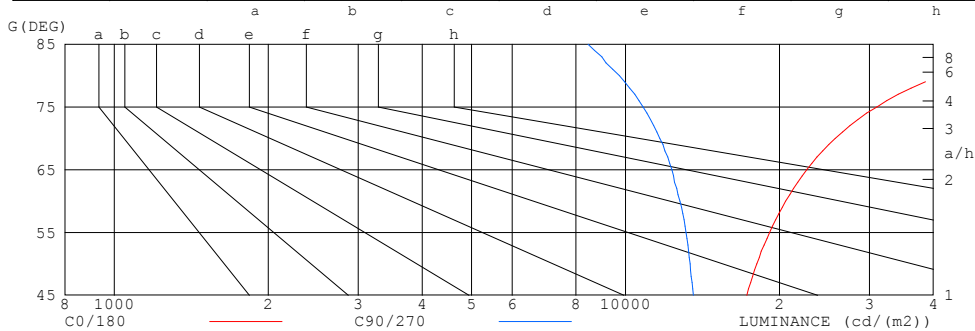
MFR.: EVERFINE

SUR.:

Shielding Angle:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	73719	8446
80	41488	9724
75	31004	10830
70	25725	11663
65	22627	12316
60	20559	12782
55	19141	13138
50	18072	13373
45	17264	13571

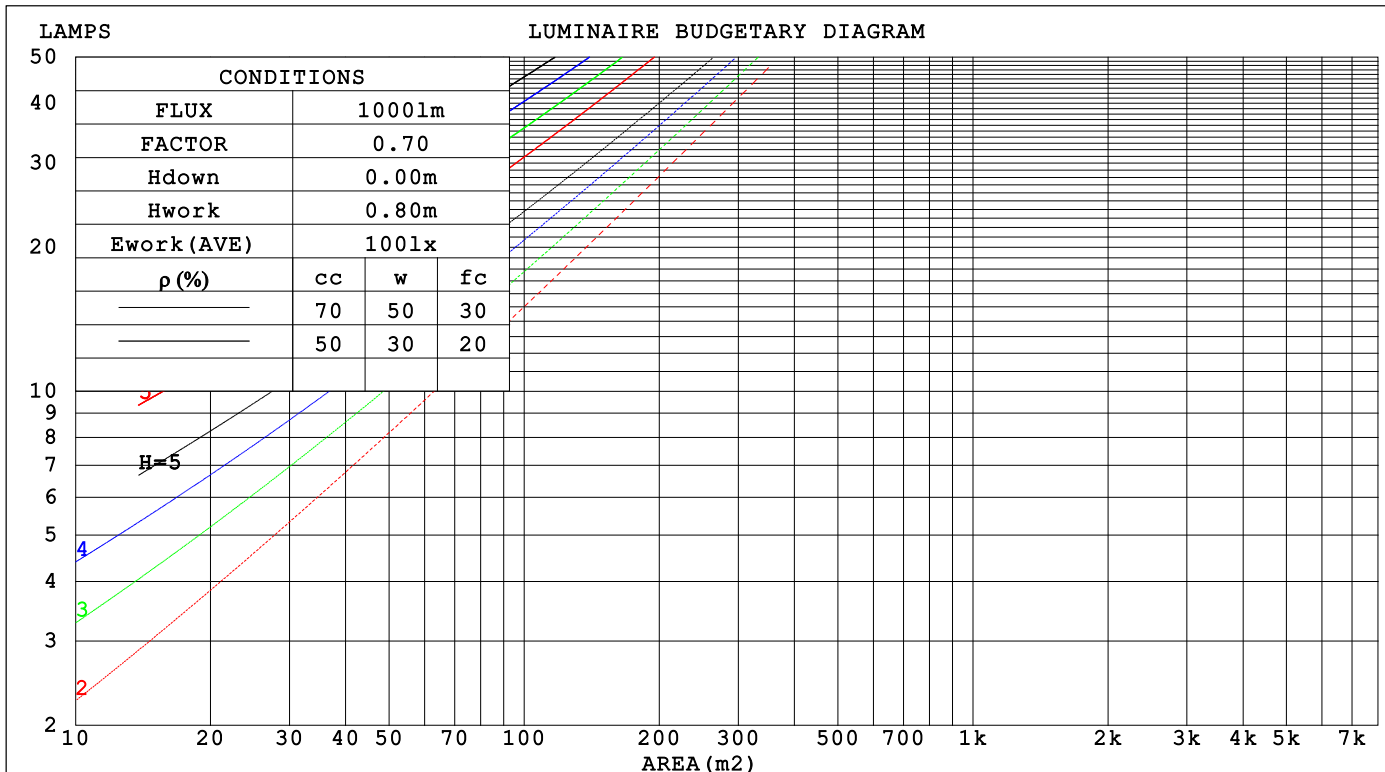
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0														
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
p _{fc}	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Coefficients of Utilization(CU)														
0.0	1.15	1.15	1.15	1.11	1.11	1.11	1.02	1.02	1.02	.94	.94	.94	.87	.87	.87	.84														
1.0	.97	.92	.87	.93	.89	.84	.86	.82	.79	.79	.76	.73	.73	.71	.68	.65														
2.0	.83	.76	.69	.80	.73	.67	.74	.68	.63	.68	.63	.59	.63	.59	.56	.52														
3.0	.72	.64	.57	.70	.61	.55	.64	.57	.52	.59	.54	.49	.55	.50	.46	.43														
4.0	.64	.54	.47	.61	.53	.46	.57	.49	.44	.52	.46	.41	.48	.43	.39	.36														
5.0	.57	.47	.40	.54	.46	.39	.50	.43	.37	.47	.40	.35	.43	.38	.34	.31														
6.0	.51	.41	.35	.49	.40	.34	.45	.38	.32	.42	.36	.31	.39	.34	.29	.27														
7.0	.46	.37	.30	.44	.36	.30	.41	.34	.28	.38	.32	.27	.35	.30	.26	.23														
8.0	.42	.33	.27	.40	.32	.26	.37	.30	.25	.35	.29	.24	.33	.27	.23	.21														
9.0	.38	.30	.24	.37	.29	.23	.34	.27	.23	.32	.26	.22	.30	.25	.21	.19														
10.0	.35	.27	.22	.34	.26	.21	.32	.25	.20	.30	.24	.19	.28	.22	.19	.17														



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	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	.366	.208	.066	.354	.202	.064	.331	.190	.061	.310	.179	.057	.291	.169	.054		
2.0	.322	.177	.054	.312	.172	.053	.291	.162	.050	.272	.153	.048	.254	.144	.045		
3.0	.289	.154	.046	.279	.150	.045	.261	.141	.043	.243	.133	.041	.227	.126	.039		
4.0	.262	.136	.040	.253	.132	.039	.236	.125	.037	.220	.118	.036	.206	.112	.034		
5.0	.239	.122	.035	.231	.118	.035	.216	.112	.033	.201	.106	.032	.188	.100	.030		
6.0	.219	.110	.031	.212	.107	.031	.198	.102	.030	.185	.096	.028	.173	.091	.027		
7.0	.203	.100	.028	.196	.098	.028	.183	.093	.027	.172	.088	.026	.160	.083	.024		
8.0	.188	.092	.026	.182	.090	.025	.171	.085	.024	.160	.081	.023	.149	.077	.022		
9.0	.176	.085	.024	.170	.083	.023	.159	.079	.022	.149	.075	.021	.140	.071	.021		
10.0	.165	.079	.022	.160	.077	.021	.150	.073	.021	.140	.070	.020	.131	.066	.019		

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	.315	.315	.315	.269	.269	.269	.184	.184	.184	.106	.106	.106	.034	.034	.034		
1.0	.310	.282	.256	.265	.242	.220	.181	.166	.152	.104	.096	.089	.033	.031	.029		
2.0	.303	.258	.221	.260	.222	.191	.178	.154	.133	.103	.090	.078	.033	.029	.025		
3.0	.296	.242	.199	.253	.209	.173	.174	.145	.121	.100	.085	.071	.032	.027	.023		
4.0	.288	.229	.184	.247	.198	.160	.170	.138	.113	.098	.081	.067	.032	.026	.022		
5.0	.280	.219	.174	.241	.190	.152	.166	.133	.107	.096	.078	.064	.031	.025	.021		
6.0	.273	.211	.167	.235	.183	.145	.162	.128	.103	.094	.075	.061	.030	.025	.020		
7.0	.266	.205	.162	.229	.177	.141	.158	.124	.100	.092	.073	.059	.030	.024	.020		
8.0	.259	.199	.158	.223	.173	.138	.155	.121	.098	.090	.072	.058	.029	.023	.019		
9.0	.253	.194	.155	.218	.169	.135	.151	.119	.096	.088	.070	.057	.029	.023	.019		
10.0	.247	.190	.152	.213	.165	.133	.148	.116	.094	.086	.069	.056	.028	.023	.019		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm										
NAME: 4			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.: EVERFINE			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	22.4	23.8	22.9	24.3	24.8	20.7	22.1	21.2	22.6	23.1
3H	25.0	26.2	25.5	26.8	27.3	22.3	23.6	22.8	24.1	24.6
4H	26.4	27.6	26.9	28.1	28.7	22.9	24.1	23.5	24.6	25.2
6H	27.9	29.0	28.5	29.6	30.2	23.4	24.5	23.9	25.1	25.7
8H	28.8	29.9	29.3	30.4	31.0	23.5	24.6	24.1	25.2	25.8
12H	29.7	30.8	30.3	31.4	32.0	23.6	24.6	24.2	25.2	25.9
4H 2H	23.0	24.2	23.5	24.7	25.3	21.7	22.9	22.3	23.4	24.0
3H	25.7	26.8	26.3	27.3	28.0	23.5	24.6	24.1	25.1	25.8
4H	27.3	28.2	27.9	28.8	29.5	24.3	25.3	24.9	25.9	26.6
6H	29.0	29.8	29.6	30.5	31.2	25.0	25.8	25.6	26.4	27.2
8H	30.0	30.8	30.6	31.4	32.1	25.2	26.0	25.8	26.6	27.4
12H	31.1	31.8	31.7	32.5	33.2	25.3	26.1	26.0	26.7	27.5
8H 4H	27.5	28.3	28.2	29.0	29.7	25.1	25.9	25.8	26.6	27.3
6H	29.5	30.2	30.2	30.8	31.6	26.1	26.8	26.7	27.4	28.2
8H	30.7	31.3	31.3	31.9	32.7	26.5	27.1	27.2	27.8	28.6
12H	32.0	32.6	32.7	33.3	34.1	26.8	27.3	27.5	28.1	28.9
12H 4H	27.5	28.3	28.2	28.9	29.7	25.3	26.1	26.0	26.7	27.5
6H	29.6	30.2	30.3	30.9	31.7	26.5	27.1	27.2	27.8	28.6
8H	30.8	31.4	31.5	32.1	32.9	27.0	27.6	27.7	28.3	29.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117, 629.3 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -1.6)
Area: 0.01 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

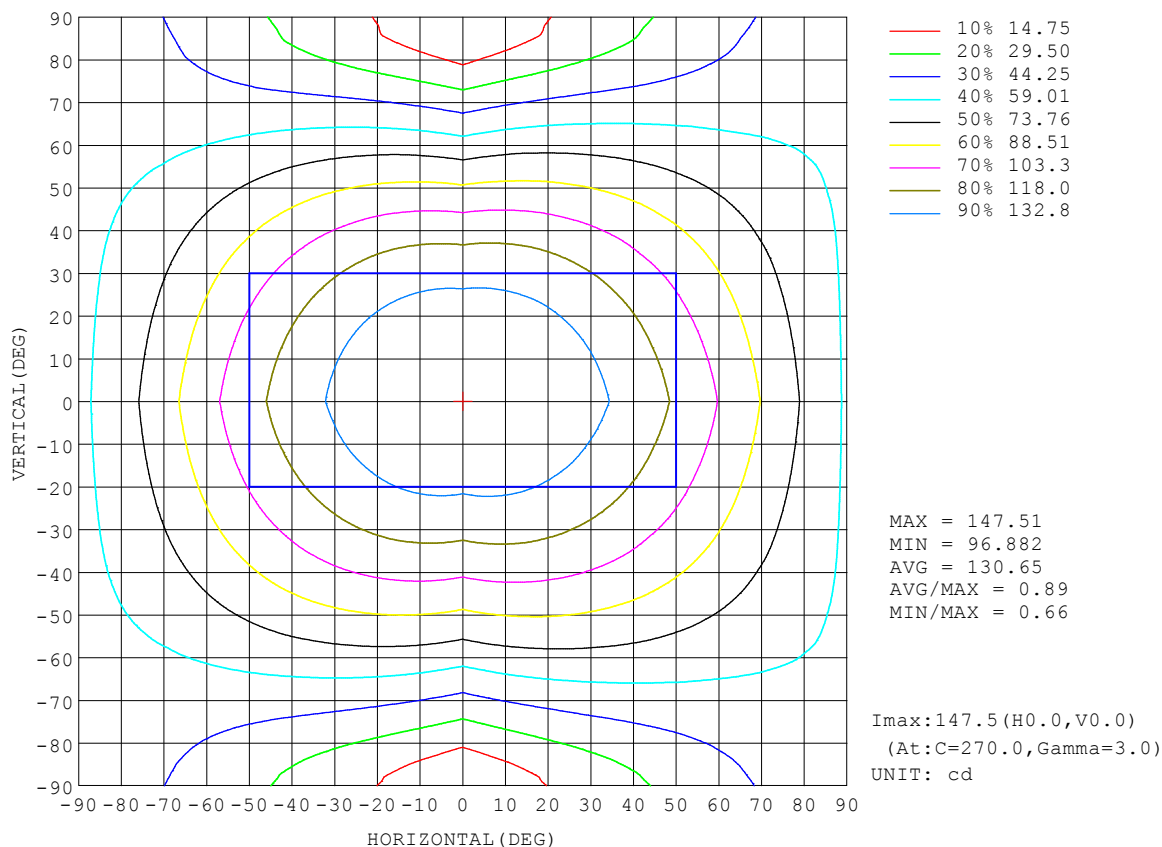
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	49	37	30	48	36	29	46	35	29	22
0.80	58	46	38	57	45	37	54	44	37	29
1.00	66	54	45	64	53	45	61	53	44	35
1.25	73	61	53	71	60	52	67	57	50	41
1.50	78	67	58	76	65	57	71	62	55	45
2.00	86	75	67	83	73	66	77	69	63	52
2.50	90	80	73	87	78	71	81	74	68	55
3.00	94	85	78	90	82	76	84	77	72	59
4.00	98	91	85	95	88	82	88	82	78	64
5.00	101	95	89	97	91	86	90	85	81	67
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:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

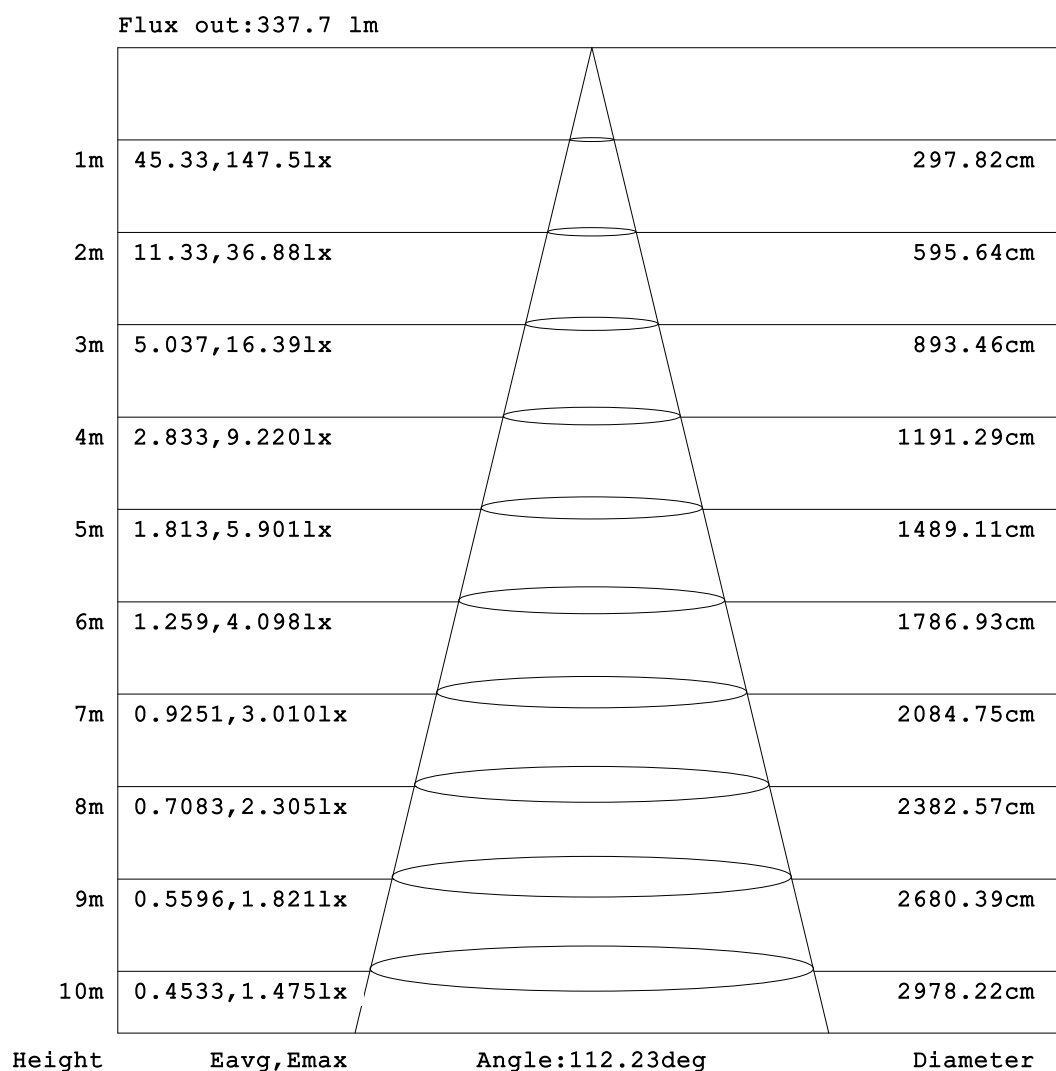


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



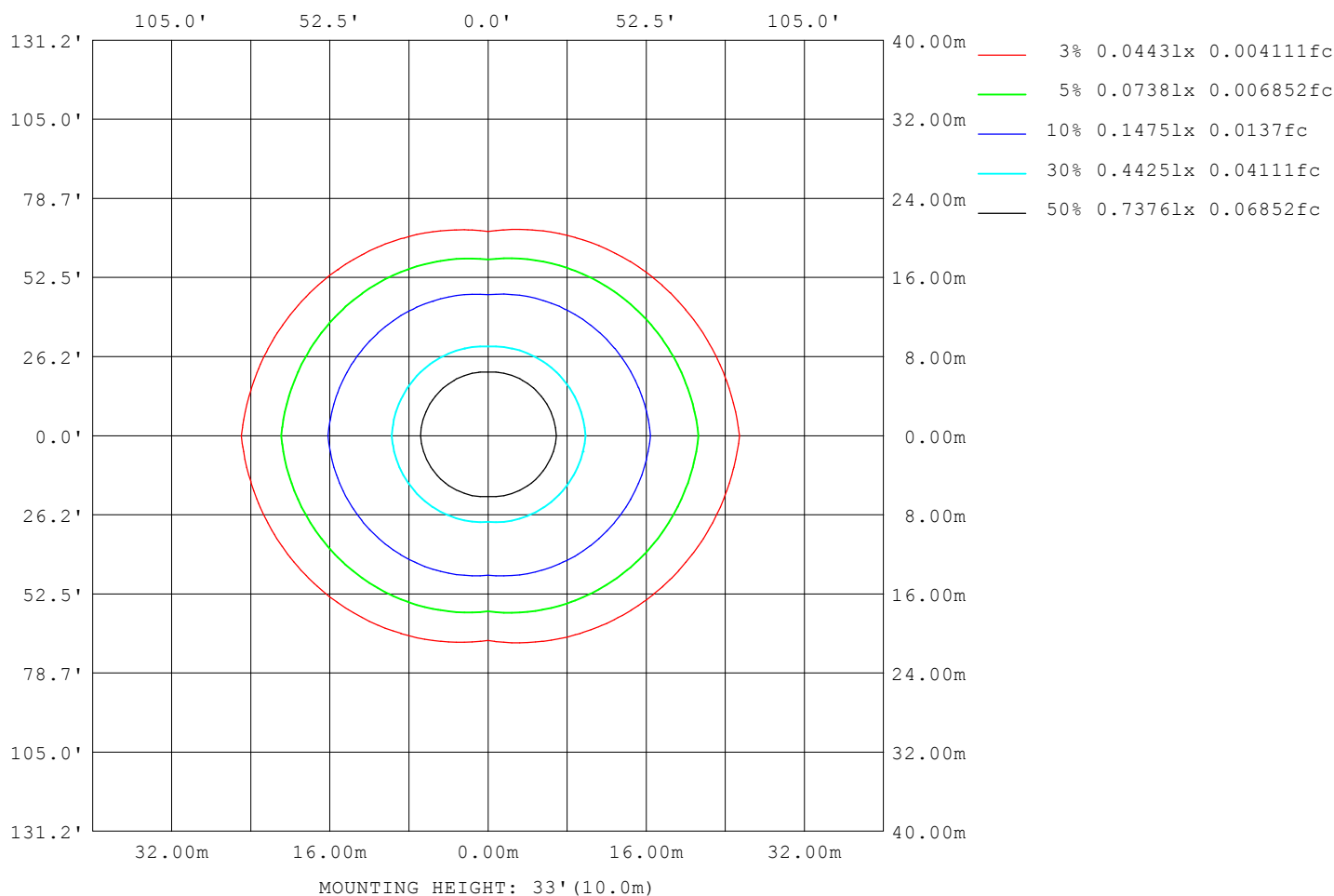
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:20 December 2023

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:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

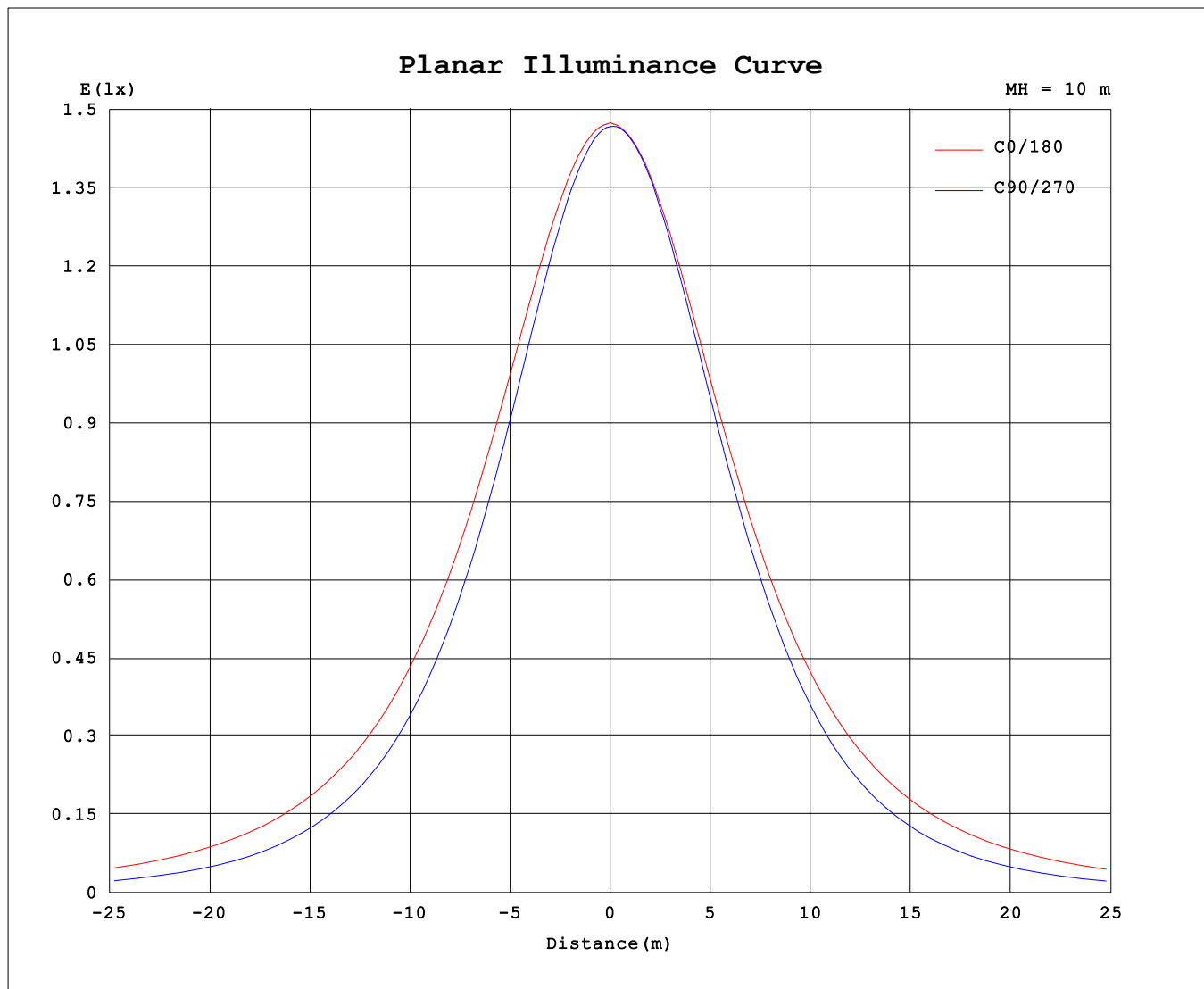
AvgL	cd/m2
L_0~180 (65) av	22006
L_0~180 (75) av	29938
L_0~180 (85) av	71862
L_90~270 (65) av	12231
L_90~270 (75) av	10089
L_90~270 (85) av	6349
L_45 (65) av	15873
L_45 (75) av	17494
L_45 (85) av	30889

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:20 December 2023

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: 20 December 2023

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

Test:U:99.000V I:0.1320A P:11.800W PF:0.9010 Freq:50.00Hz Lamp Flux:629.254x1 lm		
NAME: 4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270														
0	147	147	147	147														
5	147	146	147	147														
10	146	143	146	146														
15	144	140	144	144														
20	142	135	141	140														
25	139	129	138	135														
30	136	122	134	128														
35	132	114	130	121														
40	127	106	125	112														
45	122	96.2	119	102														
50	116	86.2	113	90.2														
55	109	75.6	106	77.8														
60	103	64.1	98.3	64.7														
65	95.4	52.2	90.6	51.2														
70	87.7	40.0	82.7	37.5														
75	80.0	28.1	74.9	24.1														
80	71.9	16.9	67.5	12.3														
85	64.1	7.38	61.2	3.69														
90	57.2	2.86	56.0	1.99														
95	51.9	1.64	52.6	1.92														
100	47.8	1.82	49.7	1.95														
105	44.0	1.95	46.3	2.06														
110	40.0	2.02	42.6	2.19														
115	35.6	2.11	38.5	2.30														
120	30.8	2.24	34.2	2.44														
125	25.4	2.37	29.8	2.57														
130	19.5	2.50	25.5	2.69														
135	13.9	2.67	21.4	2.82														
140	9.22	2.81	17.3	2.93														
145	5.42	2.95	13.5	3.06														
150	3.36	3.08	10.7	3.18														
155	3.19	3.23	8.16	3.39														
160	3.20	3.35	3.47	3.47														
165	3.22	3.45	3.39	3.57														
170	3.27	3.55	3.40	3.63														
175	3.34	3.66	3.41	3.68														
180	3.39	3.69	3.40	3.70														

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:20 December 2023

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: