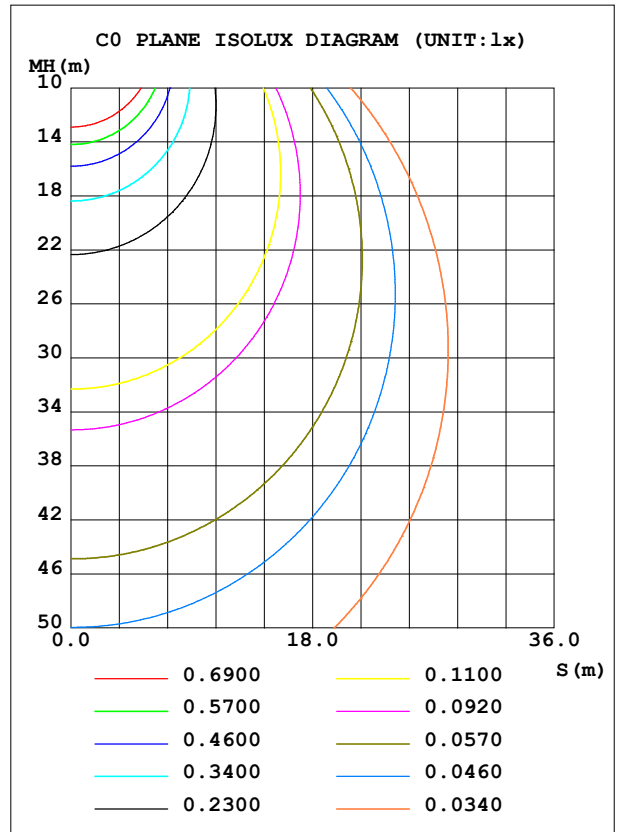
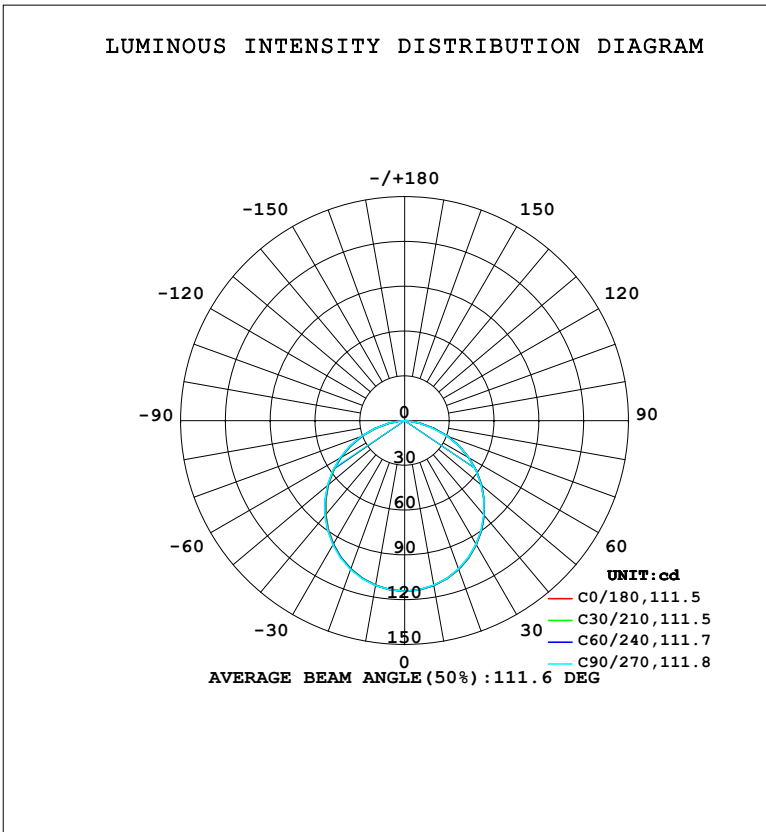


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 71.52 lm/W
MODEL	102BS	I <sub>max</sub> (cd)	114.3	S/MH (C0/180)	1.24	
NOMINAL POWER (W)	4	LOR (%)	100.0	S/MH (C90/270)	1.25	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	320.80	η UP, DN (C0-180)	0.0, 49.9	
NOMINAL FLUX (lm)	320.797	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.1	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	219.5	η down (%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 9.401m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	112.3	112.2	112.1	112.0	112.0	112.0	112.2	112.2	0- 10	10.80	10.80	3.37,3.37
20	106.1	106.0	105.7	105.6	105.6	105.7	106.0	106.1	10- 20	30.89	41.70	13,13
30	96.11	96.12	95.74	95.61	95.52	95.65	96.16	96.18	20- 30	46.68	88.38	27.5,27.5
40	82.99	82.98	82.67	82.43	82.34	82.50	83.10	83.08	30- 40	56.10	144.5	45,45
50	67.35	67.37	67.09	66.81	66.72	66.84	67.52	67.42	40- 50	58.02	202.5	63.1,63.1
60	49.84	49.86	49.67	49.34	49.27	49.25	50.01	49.78	50- 60	52.34	254.8	79.4,79.4
70	30.50	31.07	29.96	30.63	30.02	30.74	31.16	31.10	60- 70	39.87	294.7	91.9,91.9
80	11.36	10.56	9.681	10.46	11.04	11.22	11.05	11.51	70- 80	21.68	316.4	98.6,98.6
90	0.1438	0.1384	0.1386	0.1327	0.1798	0.1865	0.1808	0.1810	80- 90	4.410	320.8	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 173.73 lm

%lum = 54.2%

%lamp = 54.2%

Conical surface Flux(130deg): 276.72 lm

%lum = 86.3%

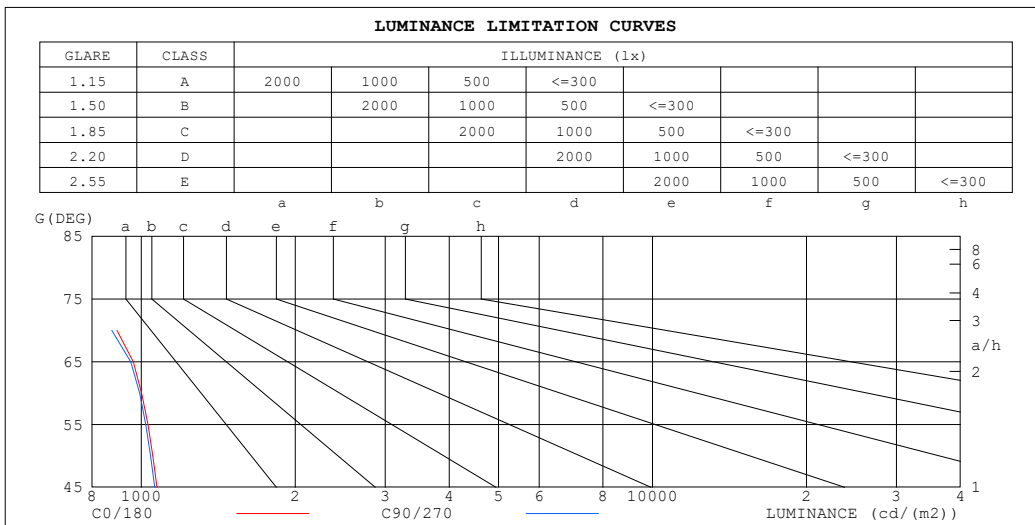
%lamp = 86.3%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	502	85
80	658	557
75	797	743
70	896	875
65	964	953
60	1001	992
55	1030	1020
50	1053	1043
45	1072	1062

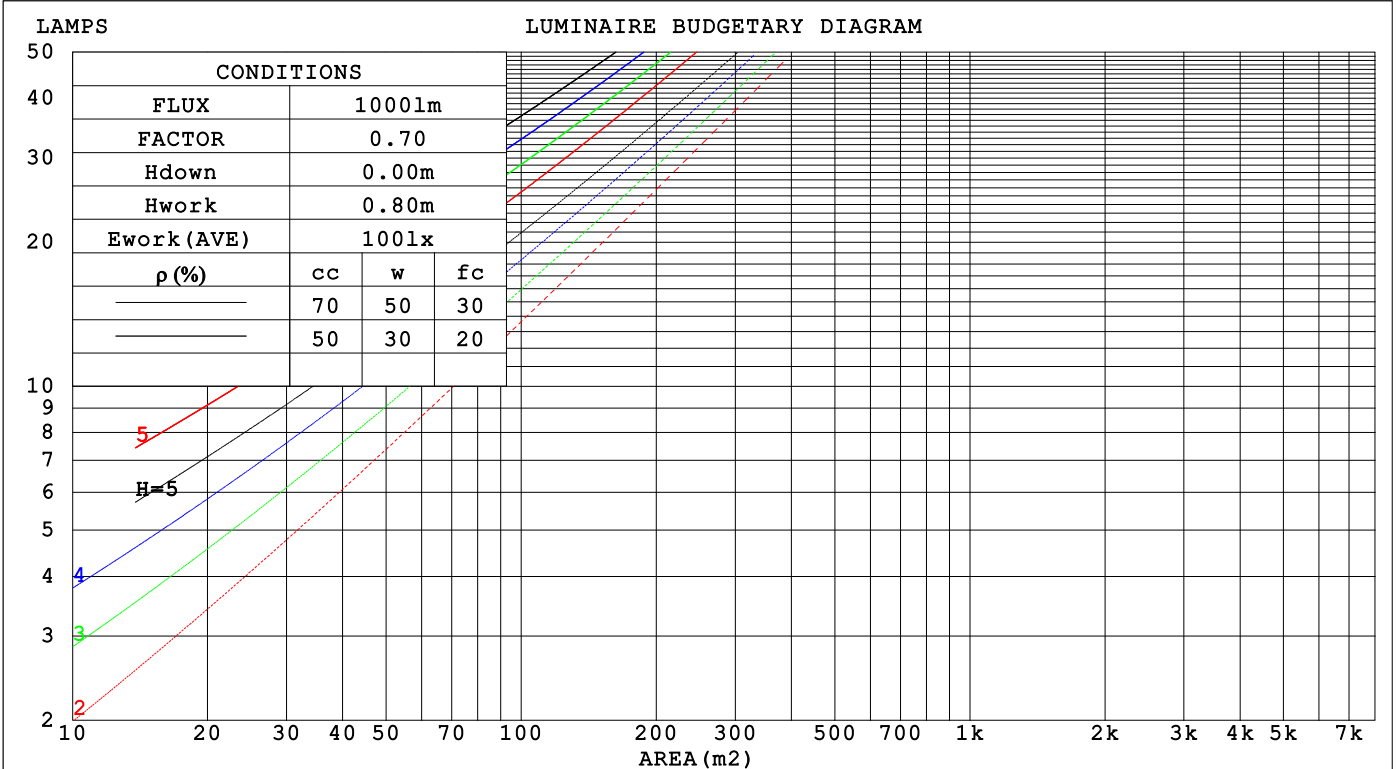
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

ρcc	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															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.04	.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.64	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.46	.40	.51	.45	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.33	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz								
Lamp Flux:320.797x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: EVERFINE			SUR.:			Shielding Angle:		

$\rho_{CC}$	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	.303	.173	.055	.296	.169	.054	.283	.162	.052	.271	.156	.050	.260	.151	.049	
2.0	.288	.158	.048	.282	.155	.048	.270	.150	.047	.260	.146	.046	.250	.141	.045	
3.0	.268	.142	.043	.262	.140	.042	.252	.137	.041	.242	.133	.041	.234	.129	.040	
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.225	.121	.036	.217	.118	.036	
5.0	.229	.117	.034	.225	.115	.034	.217	.113	.033	.209	.110	.033	.202	.108	.032	
6.0	.213	.107	.031	.209	.106	.030	.202	.103	.030	.195	.101	.030	.189	.099	.029	
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.177	.092	.027	
8.0	.185	.090	.025	.182	.090	.025	.176	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023	
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.152	.075	.021	.148	.074	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz										
Lamp Flux:320.797x1 lm										
NAME:			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	17.0	18.5	17.3	18.7	18.9	17.0	18.5	17.2	18.7	18.9
3H	18.5	19.9	18.8	20.1	20.4	18.4	19.8	18.7	20.1	20.3
4H	19.0	20.3	19.3	20.6	20.9	18.9	20.2	19.2	20.5	20.8
6H	19.3	20.6	19.6	20.8	21.1	19.1	20.4	19.5	20.7	21.0
8H	19.3	20.6	19.7	20.8	21.1	19.1	20.3	19.4	20.6	20.9
12H	19.4	20.5	19.7	20.8	21.1	19.0	20.2	19.4	20.5	20.8
4H 2H	17.6	18.9	17.9	19.2	19.5	17.6	18.9	17.9	19.2	19.4
3H	19.3	20.4	19.6	20.7	21.0	19.2	20.4	19.6	20.7	21.0
4H	19.9	21.0	20.3	21.3	21.6	19.8	20.9	20.2	21.2	21.5
6H	20.3	21.2	20.7	21.6	21.9	20.1	21.1	20.5	21.4	21.8
8H	20.3	21.2	20.7	21.6	21.9	20.1	20.9	20.5	21.3	21.7
12H	20.4	21.2	20.8	21.5	21.9	20.0	20.8	20.5	21.2	21.6
8H 4H	20.1	21.0	20.5	21.3	21.7	20.0	20.9	20.4	21.3	21.6
6H	20.5	21.3	21.0	21.7	22.1	20.4	21.1	20.8	21.5	21.9
8H	20.6	21.3	21.1	21.7	22.1	20.4	21.0	20.8	21.4	21.9
12H	20.7	21.2	21.1	21.7	22.1	20.3	20.9	20.8	21.3	21.8
12H 4H	20.1	20.9	20.5	21.3	21.7	20.0	20.8	20.4	21.2	21.6
6H	20.5	21.2	21.0	21.6	22.0	20.4	21.0	20.8	21.4	21.9
8H	20.6	21.2	21.1	21.6	22.1	20.4	20.9	20.8	21.4	21.8
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	+ 0.3 / - 0.4					+ 0.3 / - 0.3				

CIE Pub.117, 320.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -4.0)  
 Area: 0.1 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

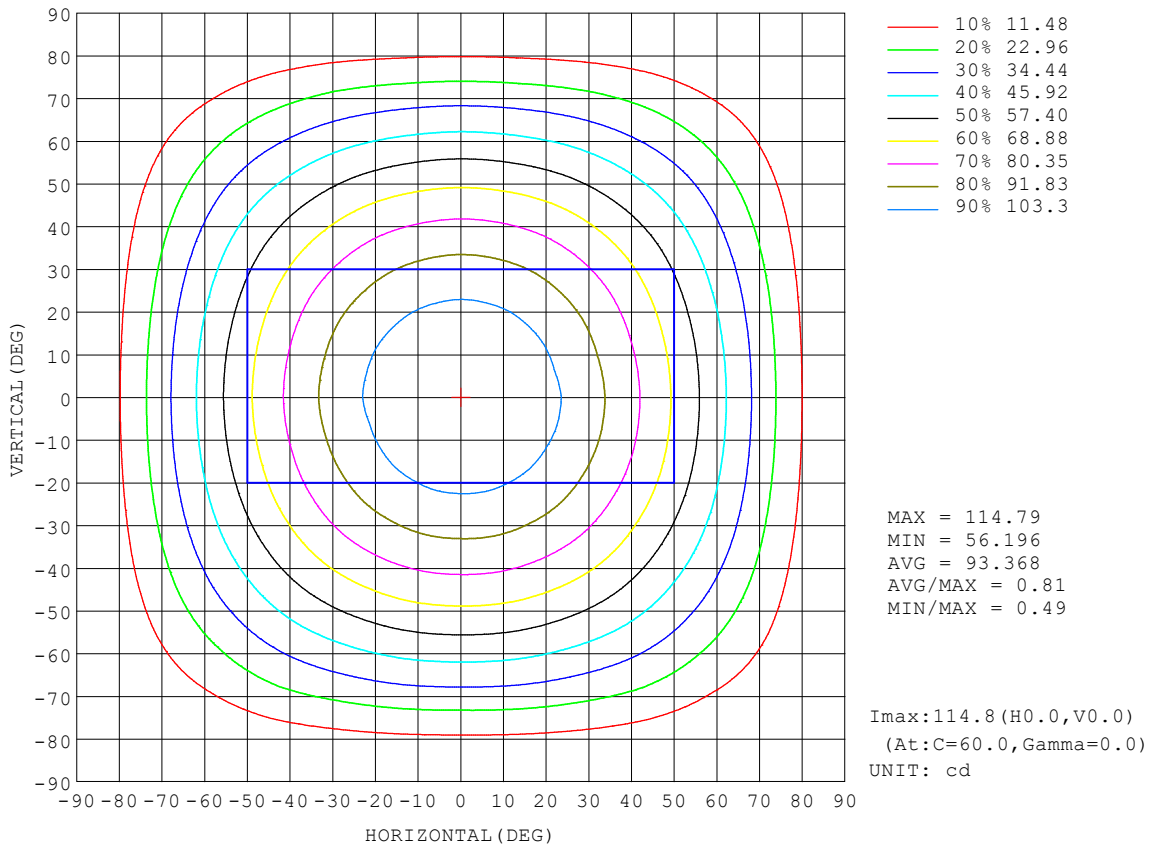
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	65	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	91	86	97	90	85	93	87	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	107	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	96	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



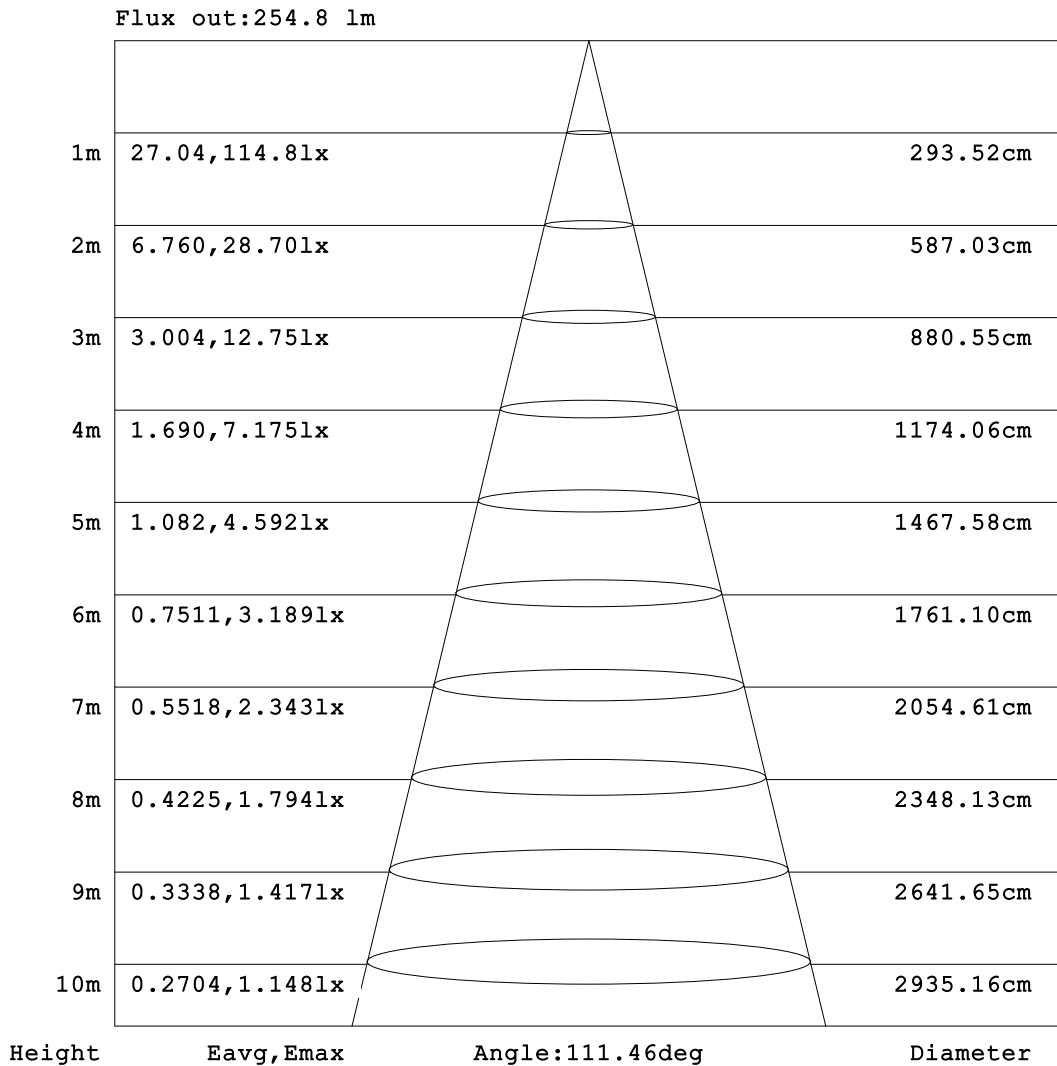
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



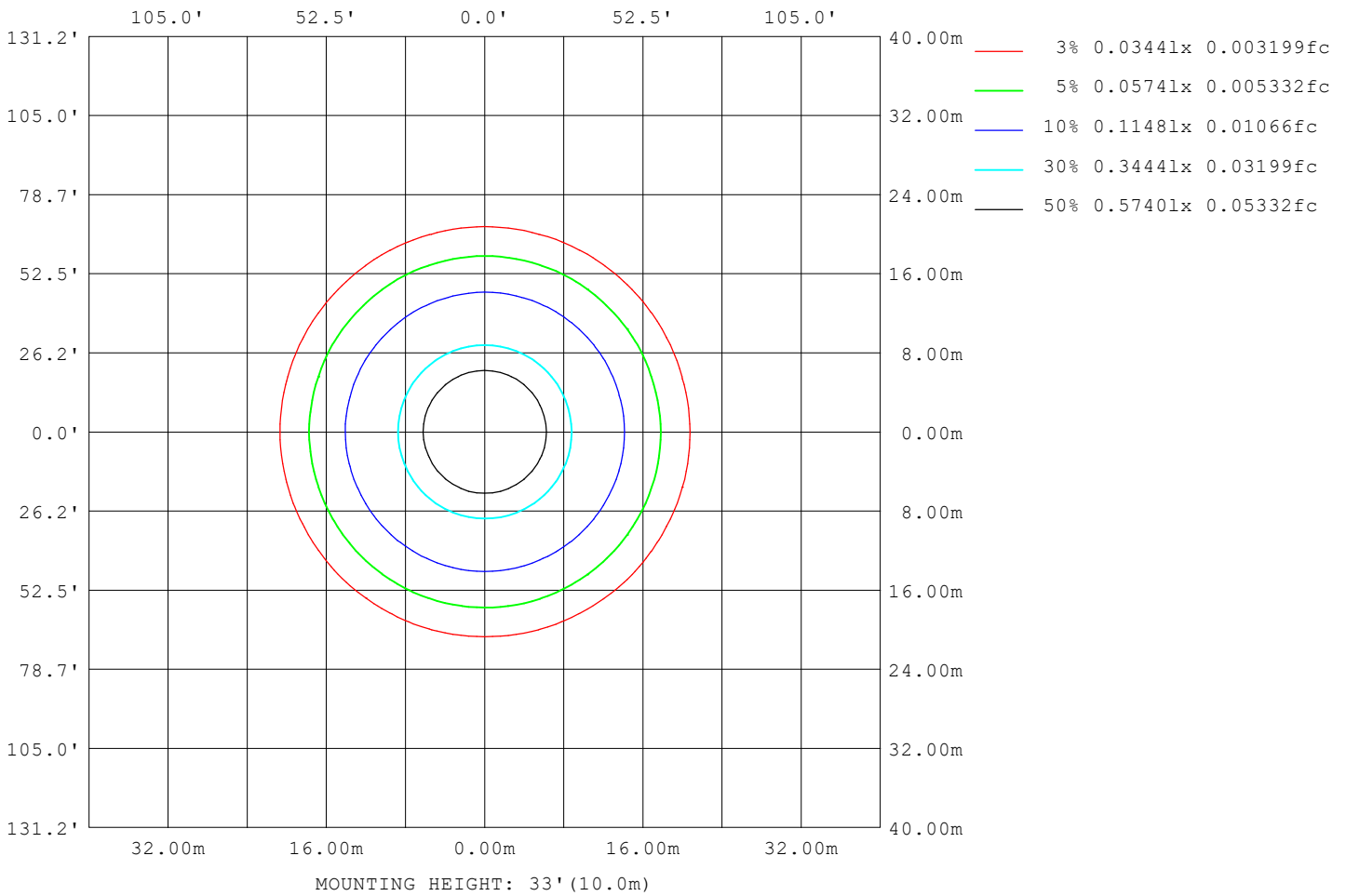
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:DAMIN  
Test Date:2024-01-24

γ Range: 0 - 90DEG  
γ Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
Humidity:65.0%  
Test Distance:9.401m [K=1.0000]  
Remarks:

**LED Avg.L Report**

Test:U:220.44V I:0.0362A P:4.4854W PF:0.5618 Freq:50.00Hz Lamp Flux:320.797x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

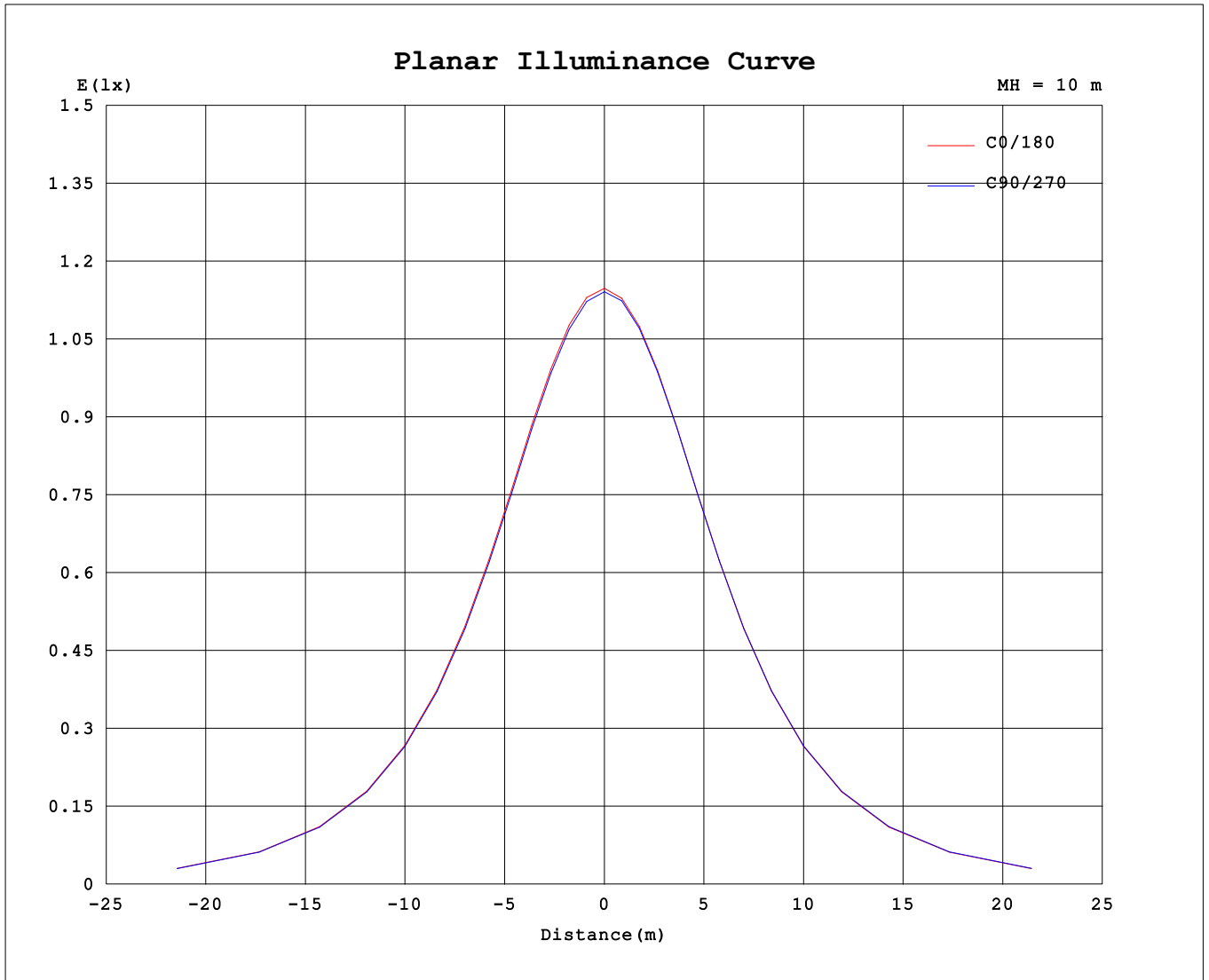
AvgL	cd/m2
L_0~180 (65) av	954
L_0~180 (75) av	786
L_0~180 (85) av	493
L_90~270 (65) av	960
L_90~270 (75) av	777
L_90~270 (85) av	186
L_45 (65) av	954
L_45 (75) av	805
L_45 (85) av	316

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity:65.0%  
 Test Distance:9.401m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 2024-01-24

γ Range: 0 - 90DEG  
 γ Interval: 5.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.473  
 Humidity: 65.0%  
 Test Distance: 9.401m [K=1.0000]  
 Remarks:



