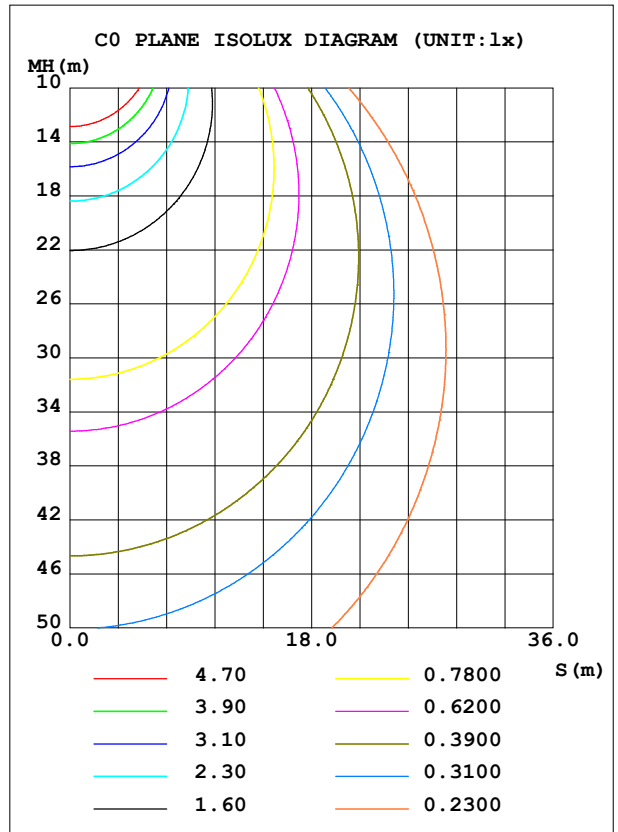
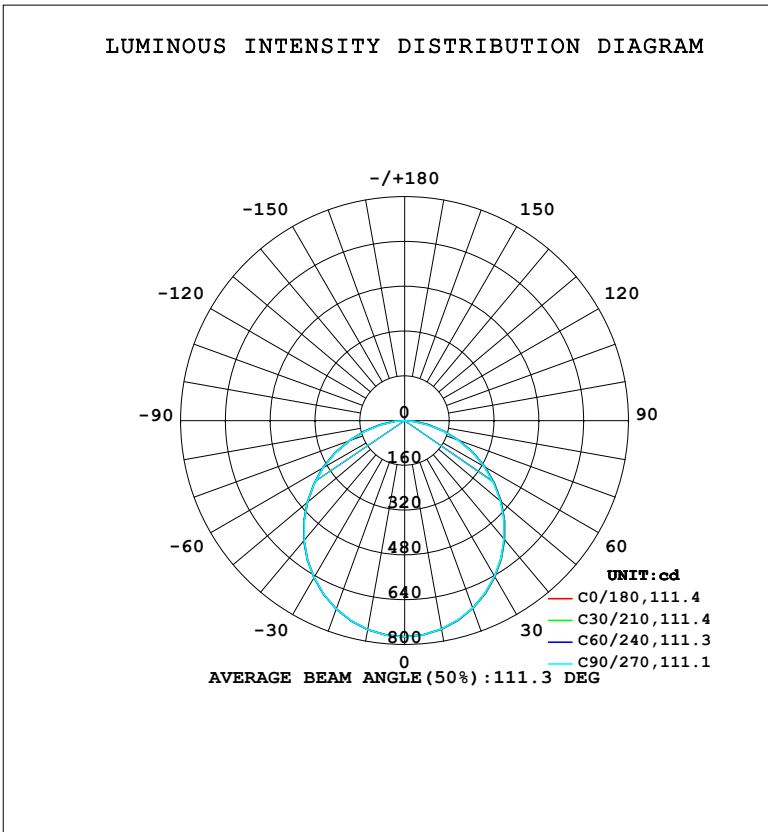


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 102.30 lm/W
MODEL	102R	I _{max} (cd)	772.1	S/MH (C0/180)	1.25	
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	1.25	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2181.2	η UP, DN (C0-180)	0.0, 49.8	
NOMINAL FLUX (lm)	2181.21	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.2	
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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	757.2	757.0	756.1	756.9	757.9	758.1	758.3	757.4	0- 10	73.00	73.00	3.35,3.35
20	713.6	713.3	711.8	713.2	715.2	715.5	715.7	714.3	10- 20	208.5	281.5	12.9,12.9
30	645.2	645.0	642.5	644.6	647.5	647.9	647.8	645.9	20- 30	314.7	596.2	27.3,27.3
40	556.3	555.8	552.6	555.1	559.0	559.3	559.2	557.0	30- 40	377.6	973.8	44.6,44.6
50	450.7	450.3	446.6	449.2	453.5	453.9	454.0	451.4	40- 50	390.1	1364	62.5,62.5
60	332.8	333.5	328.4	332.5	336.6	335.4	337.1	333.2	50- 60	351.7	1716	78.7,78.7
70	207.7	208.2	202.9	207.2	211.2	210.6	211.9	208.5	60- 70	268.7	1984	91,91
80	88.11	85.87	79.60	83.81	89.62	89.13	86.38	86.37	70- 80	154.9	2139	98.1,98.1
90	1.530	1.557	1.501	1.504	1.697	1.713	1.664	1.727	80- 90	42.00	2181	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): 1170.5 lm

%lum = 53.7%

%lamp = 53.7%

Conical surface Flux(130deg): 1862.7 lm

%lum = 85.4%

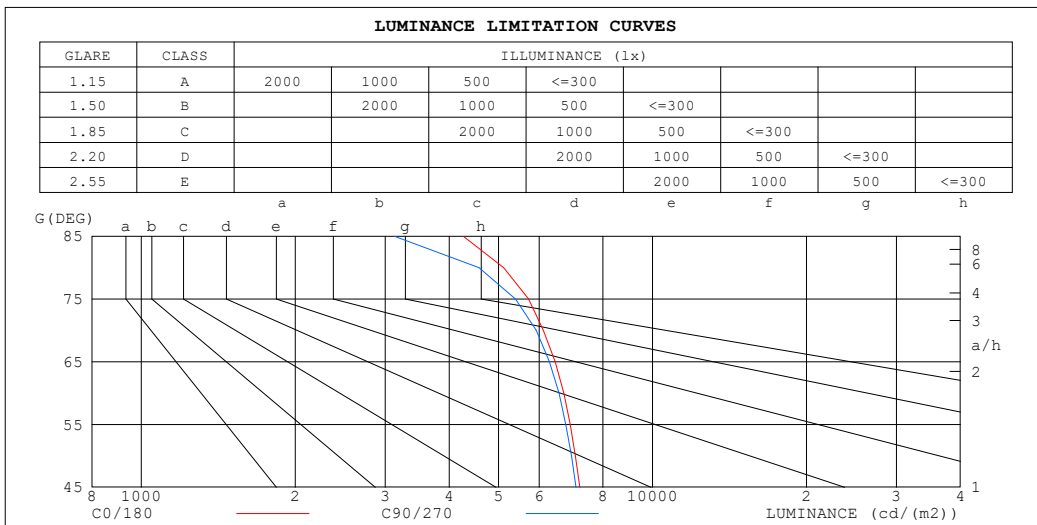
%lamp = 85.4%

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:

LUMINANCE LIMITATION CURVES

Test:U:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4262	3127
80	5113	4578
75	5722	5395
70	6118	5923
65	6449	6288
60	6706	6558
55	6904	6767
50	7065	6938
45	7203	7082

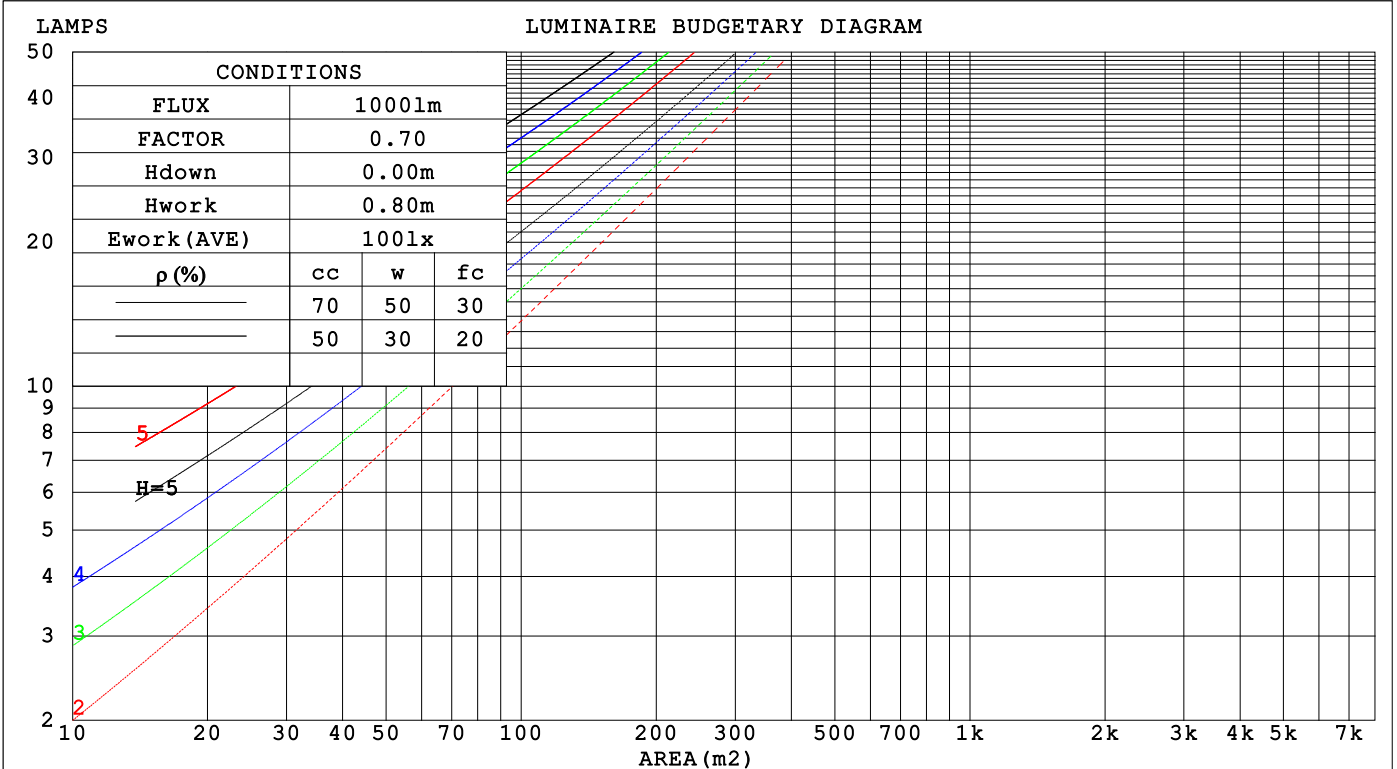
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-24

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:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

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	1.19	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	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.84
2.0	.90	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.69
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.61	.58
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.53	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.59	.52	.46	.57	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.35	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.26	.39	.31	.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:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz								
Lamp Flux:2181.21x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: EVERFINE			SUR.:			Shielding Angle:		

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	.311	.177	.056	.303	.173	.055	.290	.166	.053	.278	.160	.051	.267	.155	.050	
2.0	.292	.160	.049	.286	.157	.049	.274	.152	.047	.263	.148	.046	.253	.143	.045	
3.0	.270	.144	.043	.265	.142	.043	.254	.138	.042	.245	.134	.041	.236	.131	.040	
4.0	.249	.130	.038	.244	.128	.038	.235	.125	.037	.227	.122	.037	.219	.119	.036	
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.109	.033	
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.189	.100	.030	
7.0	.199	.098	.028	.195	.097	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.024	.171	.083	.023	.166	.082	.023	.161	.081	.023	.157	.080	.023	
10.0	.164	.078	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.021	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.134	.154	.134	.116	.106	.092	.080	.061	.053	.046	.019	.017	.015	
2.0	.172	.132	.098	.148	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.165	.114	.074	.141	.099	.064	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.017	.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	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.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

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:

UGR(Unified Glare Rating) Table

Test:U:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz										
Lamp Flux:2181.2lx1 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	16.9	18.4	17.2	18.6	18.8	16.8	18.3	17.1	18.5	18.7
3H	18.4	19.8	18.7	20.0	20.3	18.3	19.7	18.6	19.9	20.2
4H	19.0	20.3	19.3	20.6	20.9	18.9	20.2	19.2	20.4	20.7
6H	19.4	20.7	19.7	20.9	21.2	19.2	20.5	19.5	20.7	21.0
8H	19.5	20.7	19.8	21.0	21.3	19.2	20.4	19.6	20.7	21.0
12H	19.6	20.7	19.9	21.0	21.3	19.2	20.4	19.6	20.7	21.0
4H 2H	17.5	18.8	17.8	19.1	19.3	17.4	18.8	17.7	19.0	19.3
3H	19.2	20.4	19.5	20.6	21.0	19.1	20.3	19.4	20.6	20.9
4H	19.9	21.0	20.3	21.3	21.6	19.8	20.8	20.1	21.2	21.5
6H	20.4	21.4	20.8	21.7	22.1	20.2	21.2	20.6	21.5	21.9
8H	20.6	21.5	21.0	21.8	22.2	20.3	21.2	20.7	21.5	21.9
12H	20.7	21.5	21.1	21.9	22.3	20.3	21.1	20.7	21.5	21.9
8H 4H	20.2	21.0	20.6	21.4	21.8	20.0	20.9	20.4	21.3	21.7
6H	20.8	21.5	21.2	21.9	22.4	20.6	21.3	21.0	21.7	22.1
8H	21.0	21.7	21.5	22.1	22.5	20.7	21.4	21.2	21.8	22.2
12H	21.2	21.7	21.6	22.2	22.6	20.8	21.3	21.3	21.8	22.3
12H 4H	20.1	21.0	20.6	21.3	21.8	20.0	20.8	20.5	21.2	21.6
6H	20.8	21.5	21.3	21.9	22.4	20.6	21.3	21.1	21.7	22.1
8H	21.1	21.6	21.5	22.1	22.5	20.8	21.3	21.2	21.8	22.2
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	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 2181 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.7)
 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:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

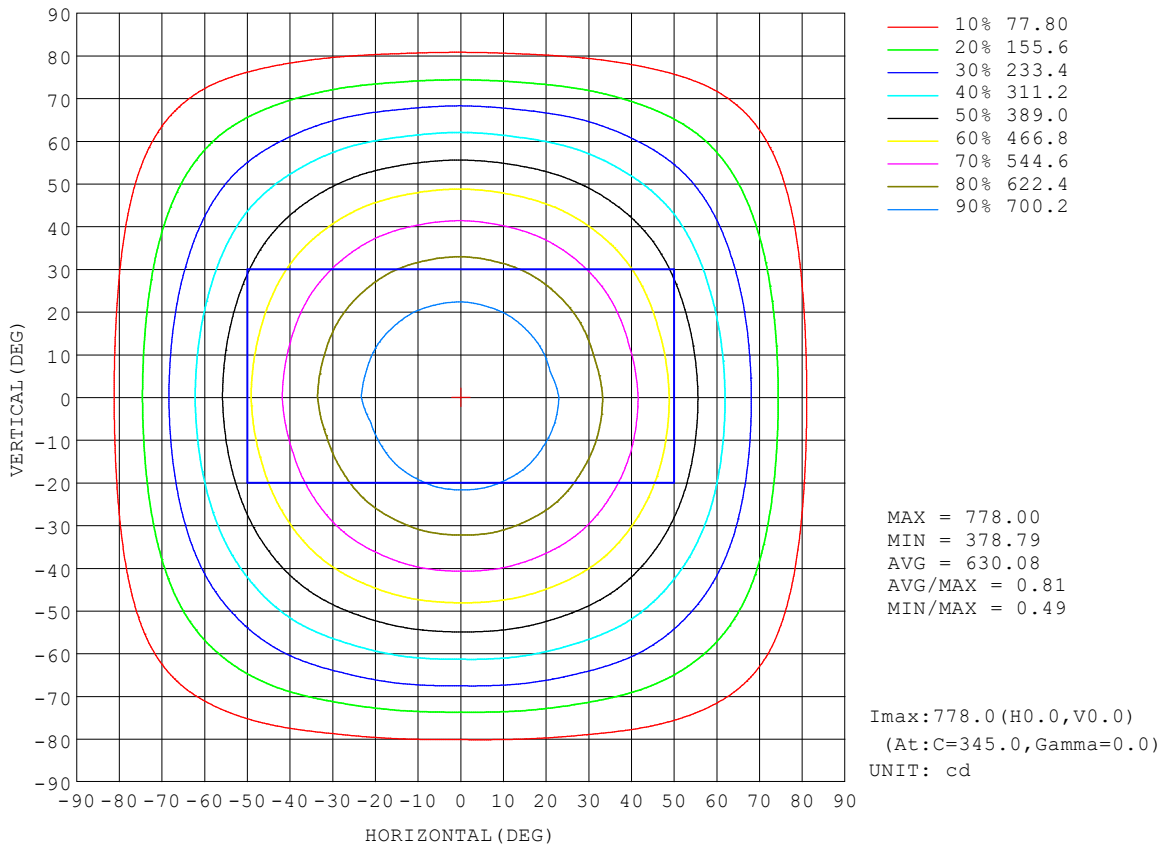
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	48	65	55	48	41
1.00	76	65	58	75	64	57	73	66	57	50
1.25	83	73	65	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	75	70	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	101	96	104	99	94	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	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

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:

ISOCANDELA DIAGRAM

Test:U:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

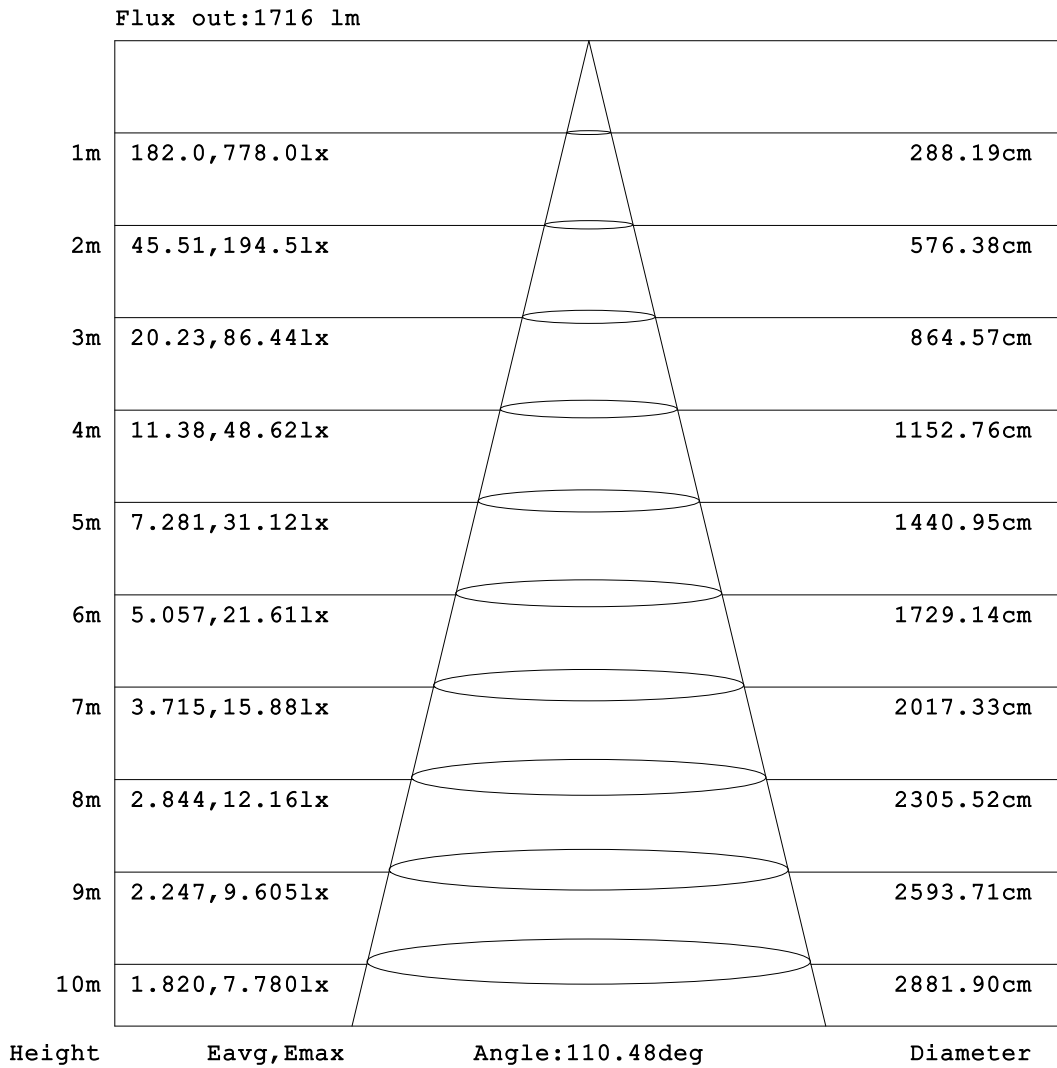


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2024-01-24

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:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



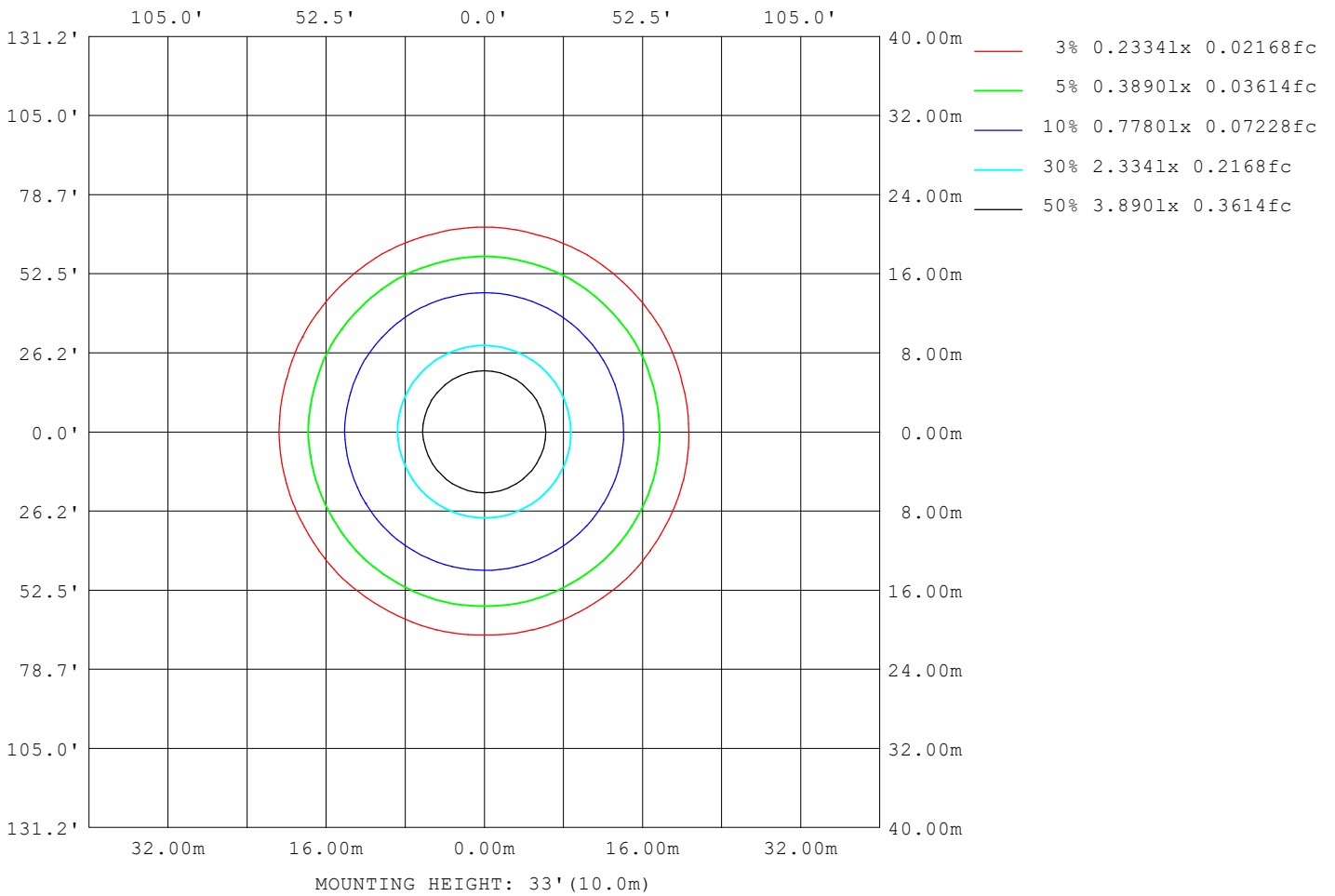
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 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:220.42V I:0.1683A P:21.322W PF:0.5748 Freq:50.00Hz Lamp Flux:2181.21x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

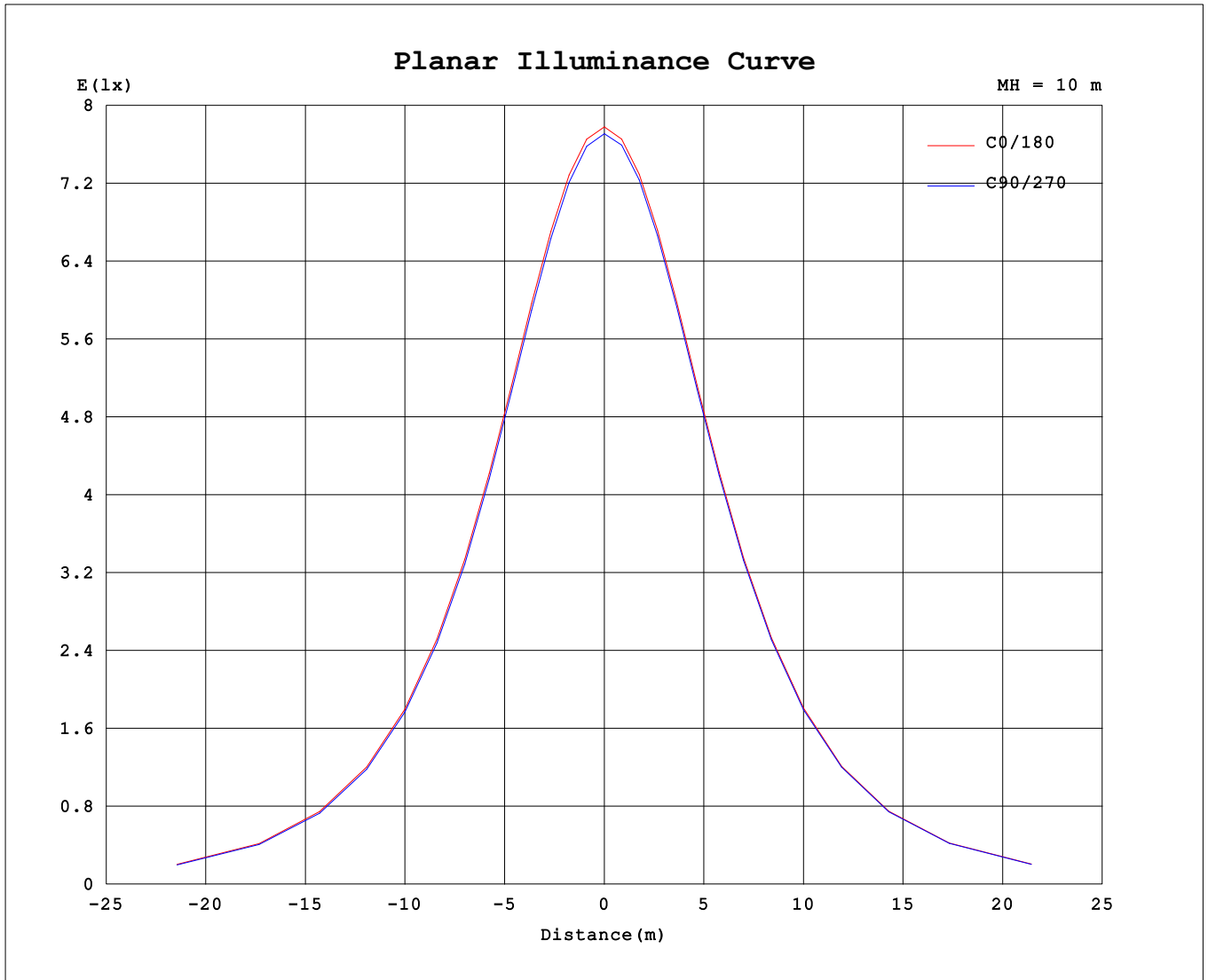
AvgL	cd/m2
L_0~180 (65) av	6444
L_0~180 (75) av	5717
L_0~180 (85) av	4287
L_90~270 (65) av	6400
L_90~270 (75) av	5552
L_90~270 (85) av	3446
L_45 (65) av	6423
L_45 (75) av	5662
L_45 (85) av	3781

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:

