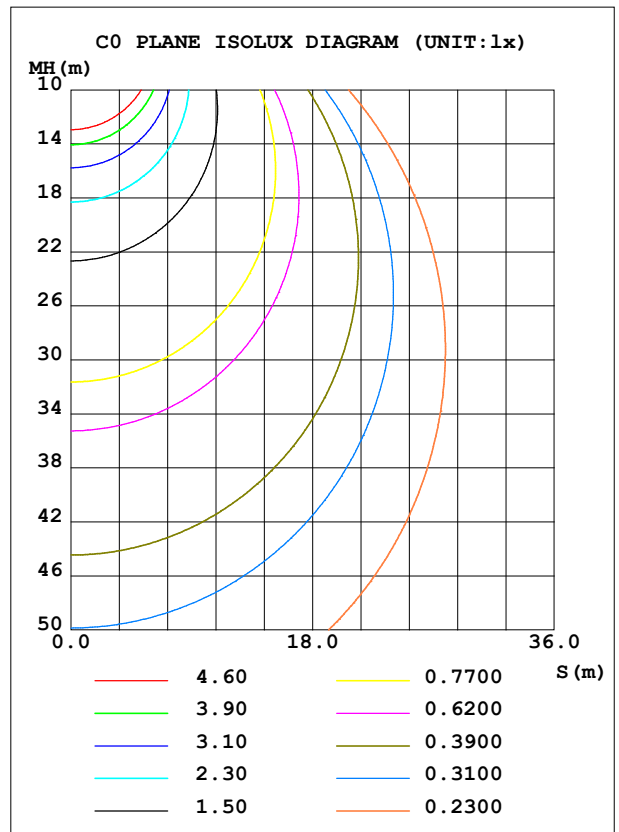
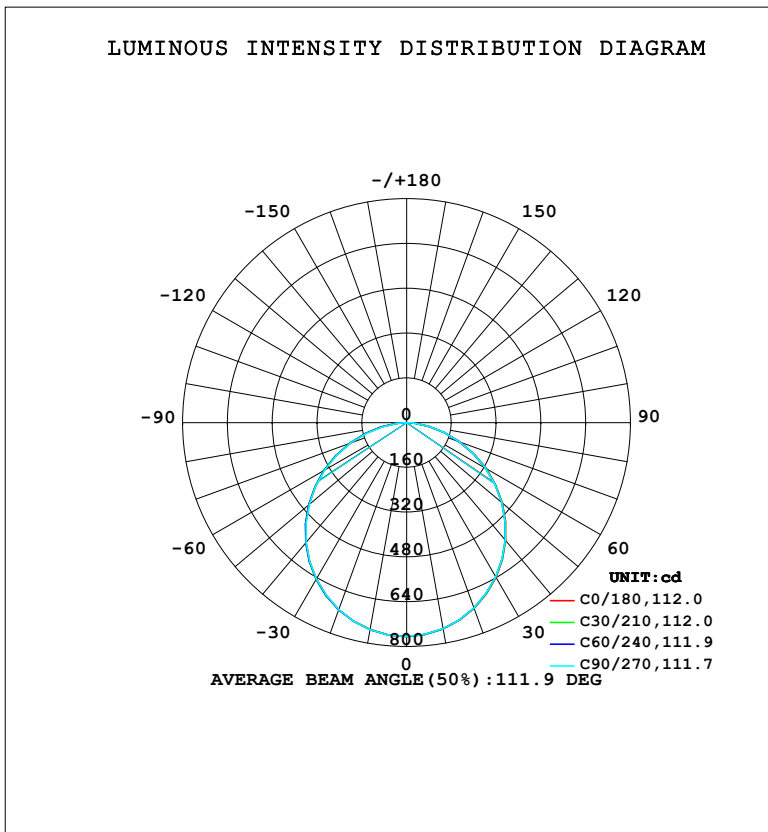


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.44V I:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	102S	Imax (cd)	763.9	S/MH (C0/180)	1.26
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2170.1	$\eta$ UP, DN (C0-180)	0.0,49.6
NOMINAL FLUX (lm)	2170.06	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0,50.4
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	219.5	$\eta$ 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:2024-01-25

$\gamma$  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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	748.9	748.4	747.9	749.3	750.8	751.2	750.9	749.5	0- 10	72.24	72.24	3.33,3.33
20	706.2	705.6	704.3	707.0	710.4	711.0	710.6	707.6	10- 20	206.6	278.8	12.8,12.8
30	639.1	638.4	636.3	640.1	645.1	646.2	645.1	640.9	20- 30	312.2	591.0	27.2,27.2
40	551.1	550.2	547.8	552.4	559.0	560.3	558.6	553.1	30- 40	375.4	966.4	44.5,44.5
50	446.4	445.2	443.3	448.1	455.5	456.8	454.9	448.5	40- 50	388.6	1355	62.4,62.4
60	328.7	328.9	325.9	332.4	339.9	339.4	339.1	330.7	50- 60	350.9	1706	78.6,78.6
70	203.3	203.5	201.5	207.5	214.5	214.5	213.8	205.8	60- 70	268.1	1974	91,91
80	83.31	83.34	78.45	86.05	91.95	92.63	87.77	85.78	70- 80	154.7	2129	98.1,98.1
90	1.427	1.509	1.400	1.426	1.844	1.749	1.707	1.734	80- 90	41.36	2170	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): 1162.3 lm

%lum = 53.6%

%lamp = 53.6%

Conical surface Flux(130deg): 1852.7 lm

%lum = 85.4%

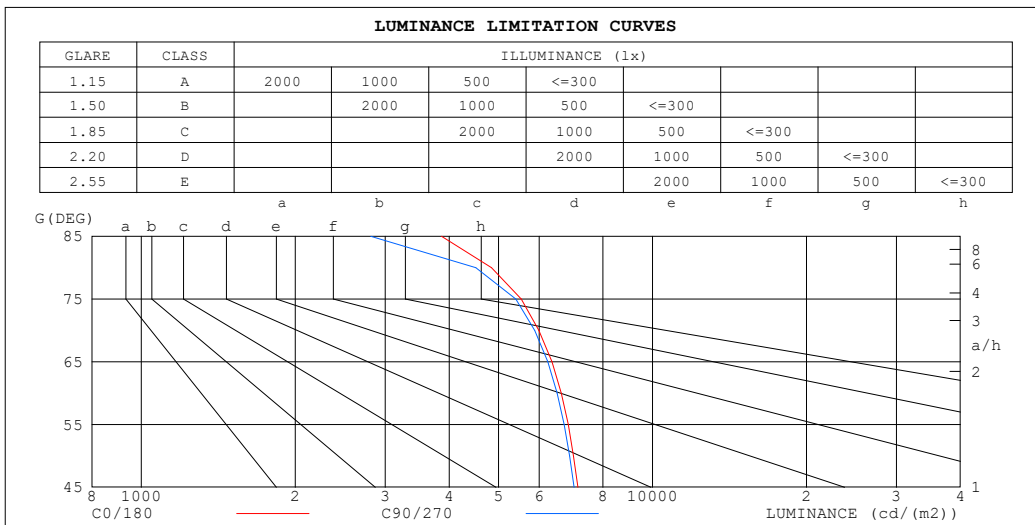
%lamp = 85.4%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-25

$\gamma$  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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3868	2812
80	4840	4509
75	5539	5400
70	5996	5879
65	6358	6236
60	6632	6506
55	6839	6714
50	7006	6883
45	7143	7023

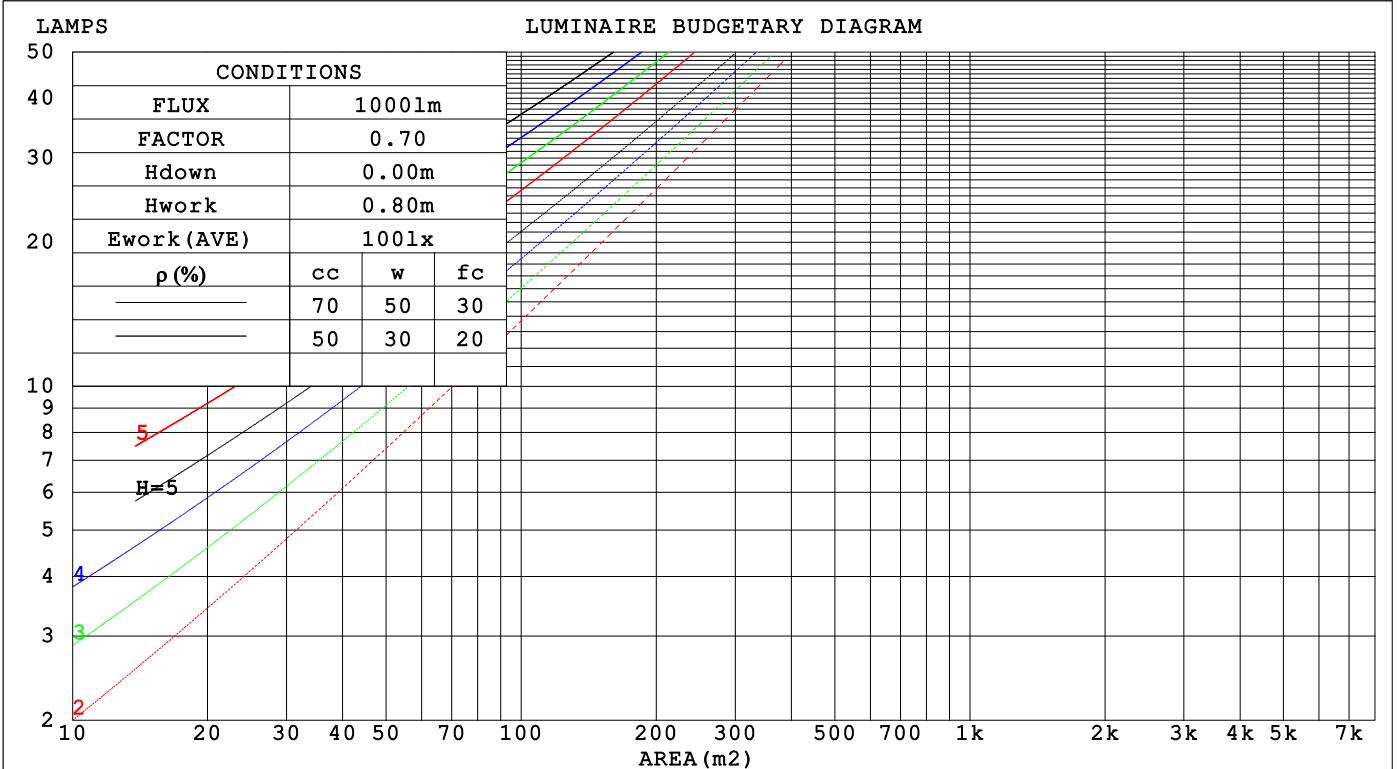
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-25

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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	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						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	.83	.78	.88	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.69
3.0	.79	.71	.64	.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	.31	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.39	.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:2024-01-25

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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz								
Lamp Flux:2170.06x1 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	.311	.177	.056	.304	.173	.055	.290	.167	.053	.278	.160	.051	.267	.155	.050	
2.0	.292	.160	.049	.286	.158	.049	.274	.153	.047	.264	.148	.046	.254	.143	.045	
3.0	.270	.144	.043	.265	.142	.043	.255	.138	.042	.245	.134	.041	.236	.131	.040	
4.0	.250	.130	.038	.245	.128	.038	.235	.125	.037	.227	.122	.037	.219	.119	.036	
5.0	.231	.118	.034	.226	.116	.034	.218	.114	.033	.211	.111	.033	.203	.109	.033	
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030	
7.0	.199	.098	.028	.196	.097	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.172	.087	.025	.166	.085	.025	
9.0	.174	.084	.024	.171	.084	.023	.166	.082	.023	.161	.081	.023	.157	.080	.023	
10.0	.164	.078	.022	.161	.078	.022	.157	.077	.022	.152	.076	.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	.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	.069	.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	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.003	
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:2024-01-25

$\gamma$  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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz										
Lamp Flux:2170.06x1 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	16.8	18.4	17.1	18.6	18.8	16.8	18.3	17.0	18.5	18.7
3H	18.3	19.7	18.6	20.0	20.2	18.3	19.7	18.6	19.9	20.1
4H	18.9	20.3	19.2	20.5	20.8	18.8	20.2	19.1	20.4	20.7
6H	19.3	20.6	19.6	20.8	21.1	19.2	20.4	19.5	20.7	21.0
8H	19.4	20.6	19.7	20.9	21.2	19.2	20.4	19.5	20.7	21.0
12H	19.4	20.6	19.8	20.9	21.2	19.2	20.4	19.5	20.7	21.0
4H 2H	17.4	18.8	17.7	19.0	19.3	17.4	18.7	17.7	19.0	19.2
3H	19.1	20.3	19.5	20.6	20.9	19.0	20.2	19.4	20.5	20.8
4H	19.8	20.9	20.2	21.2	21.5	19.7	20.8	20.1	21.1	21.5
6H	20.3	21.2	20.7	21.6	22.0	20.2	21.1	20.6	21.5	21.8
8H	20.4	21.3	20.8	21.7	22.0	20.2	21.1	20.6	21.5	21.9
12H	20.5	21.3	20.9	21.7	22.1	20.2	21.1	20.7	21.4	21.8
8H 4H	20.0	20.9	20.5	21.3	21.7	20.0	20.9	20.4	21.2	21.6
6H	20.6	21.4	21.1	21.8	22.2	20.5	21.3	21.0	21.7	22.1
8H	20.8	21.5	21.3	21.9	22.3	20.6	21.3	21.1	21.7	22.1
12H	20.9	21.5	21.4	22.0	22.4	20.7	21.2	21.1	21.7	22.2
12H 4H	20.0	20.9	20.5	21.2	21.6	20.0	20.8	20.4	21.2	21.6
6H	20.7	21.3	21.1	21.7	22.2	20.5	21.2	21.0	21.6	22.1
8H	20.9	21.4	21.3	21.9	22.3	20.6	21.2	21.1	21.7	22.1
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, 2170 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:2024-01-25

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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

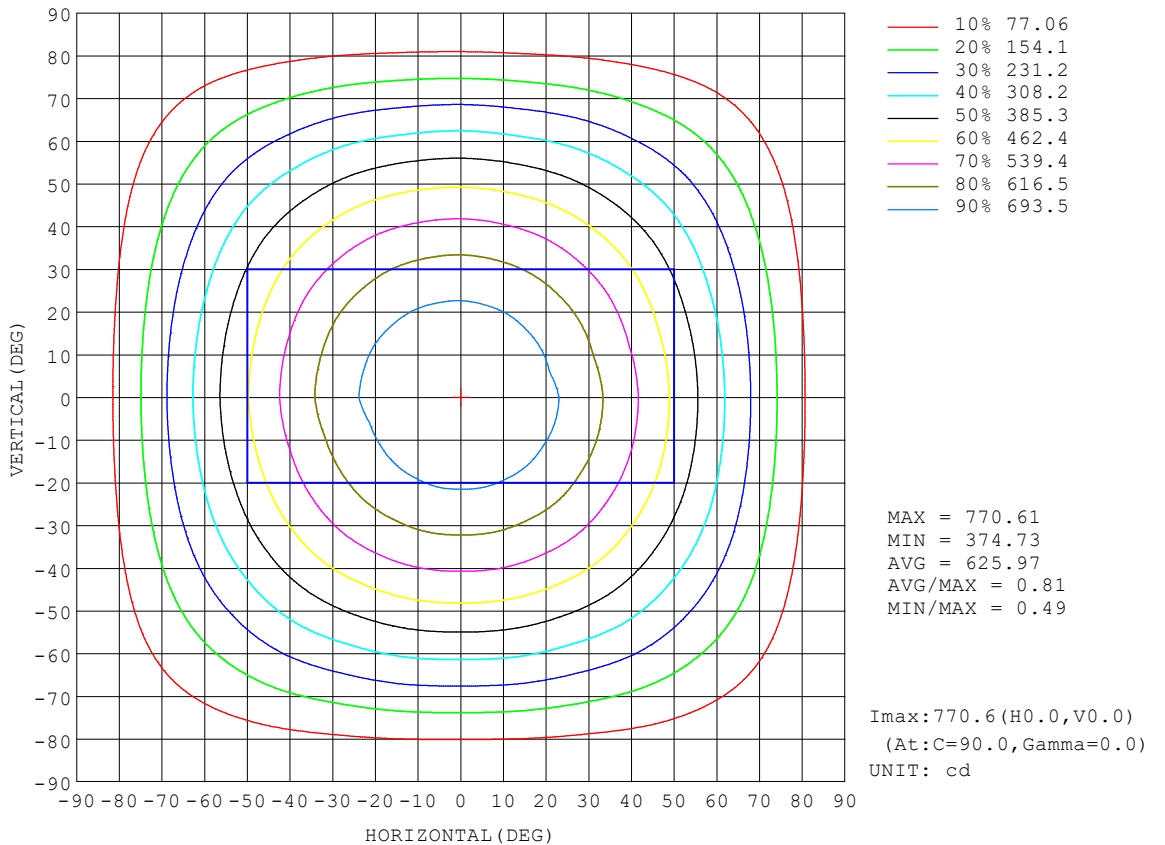
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	46	39	57	46	39	56	45	39	32
0.80	68	56	48	66	55	48	65	55	48	41
1.00	76	65	57	75	64	57	72	66	57	49
1.25	83	72	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	86	78
4.00	106	100	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:2024-01-25

$\gamma$  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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



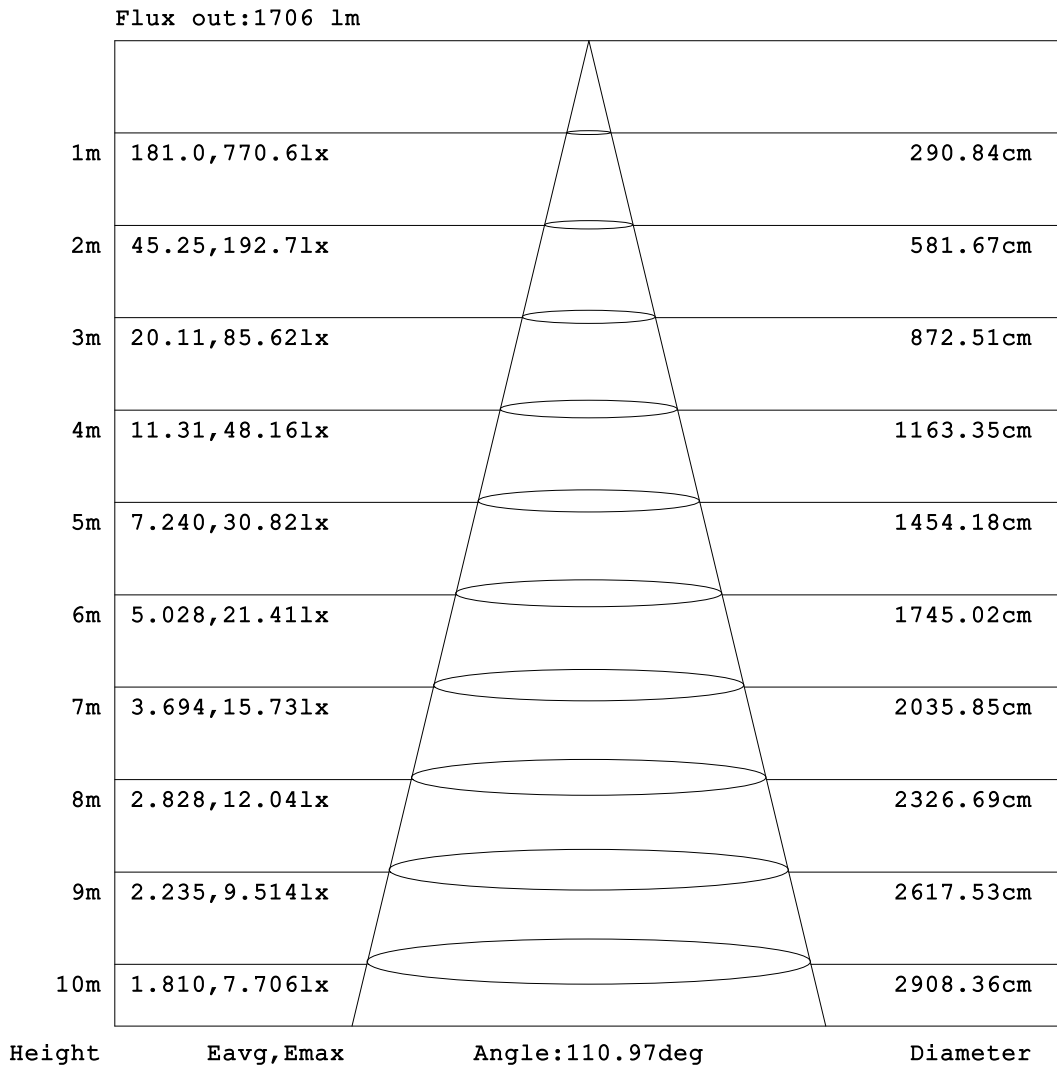
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 2024-01-25

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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



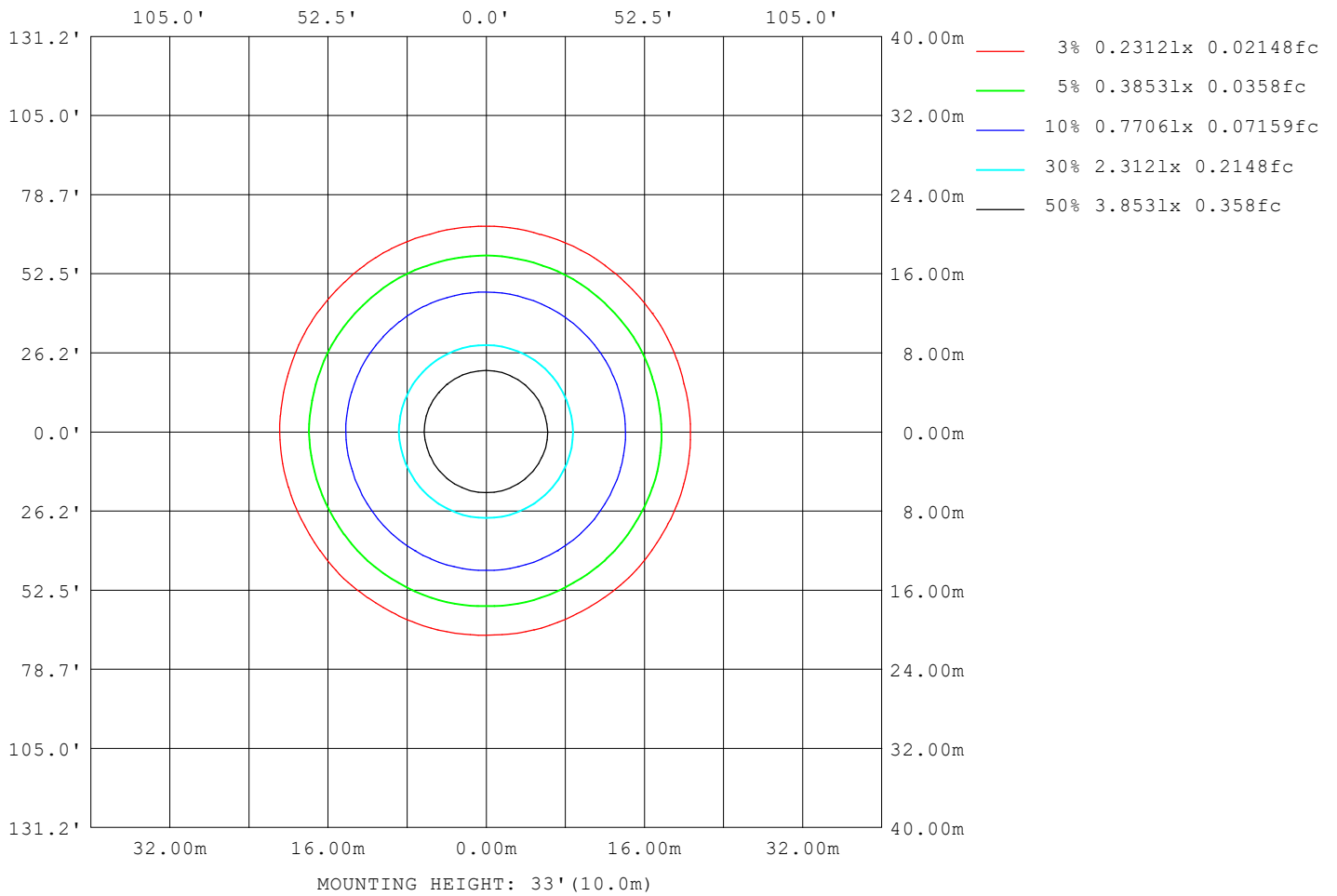
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 2024-01-25

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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 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:2024-01-25

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:0.1687A P:21.390W PF:0.5750 Freq:50.00Hz Lamp Flux:2170.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

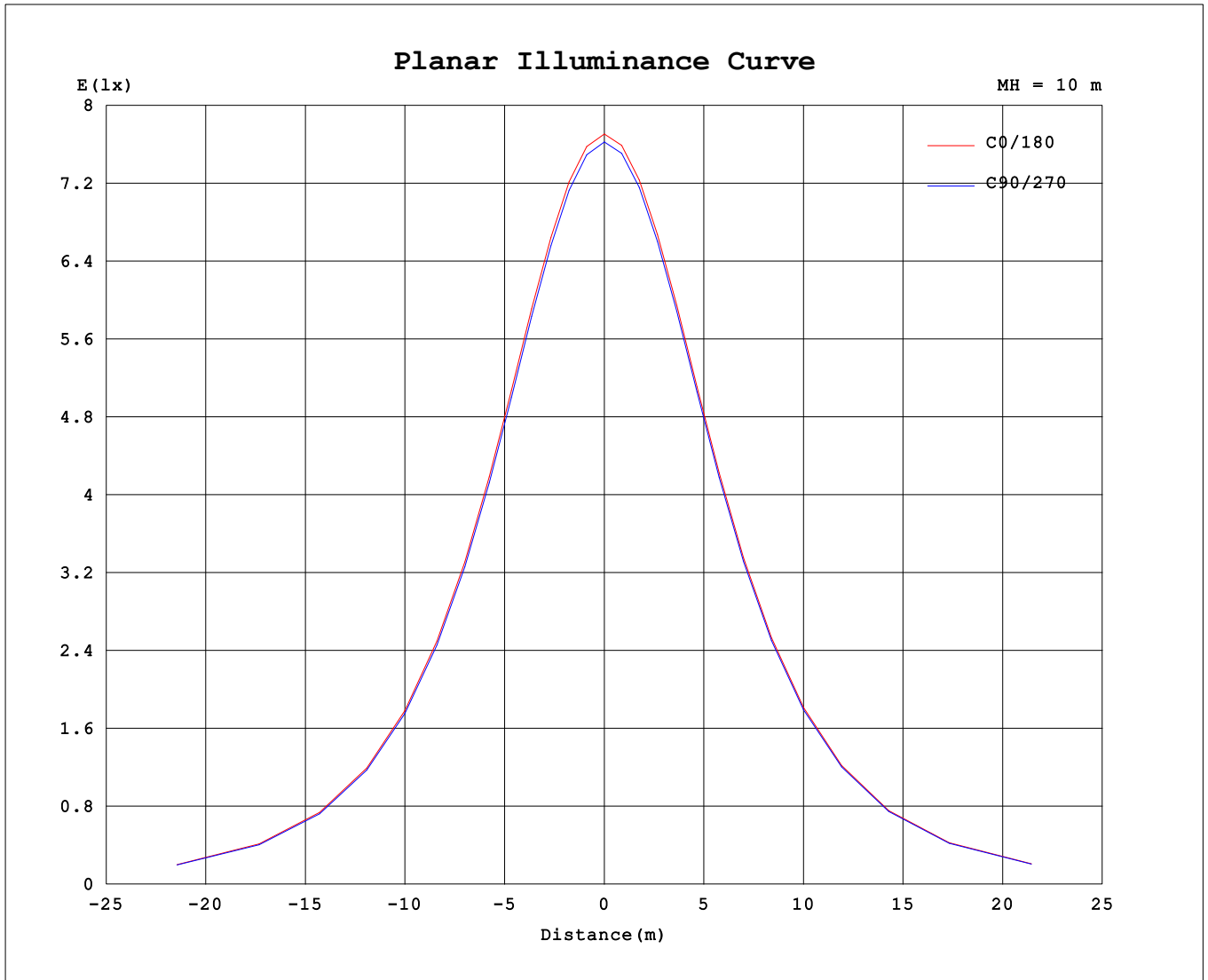
AvgL	cd/m2
L_0~180 (65) av	6437
L_0~180 (75) av	5679
L_0~180 (85) av	4232
L_90~270 (65) av	6400
L_90~270 (75) av	5614
L_90~270 (85) av	3236
L_45 (65) av	6406
L_45 (75) av	5649
L_45 (85) av	3620

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-25

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: 2024-01-25

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:



