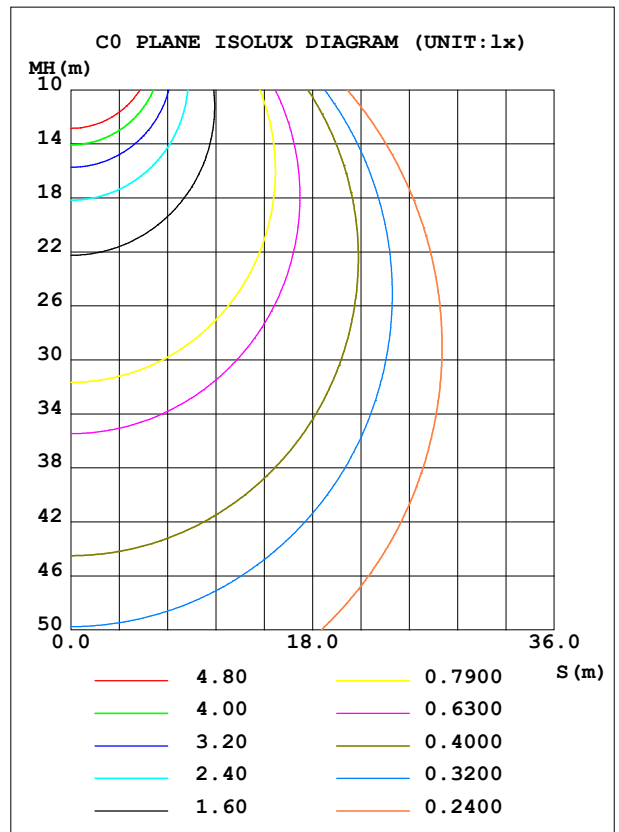
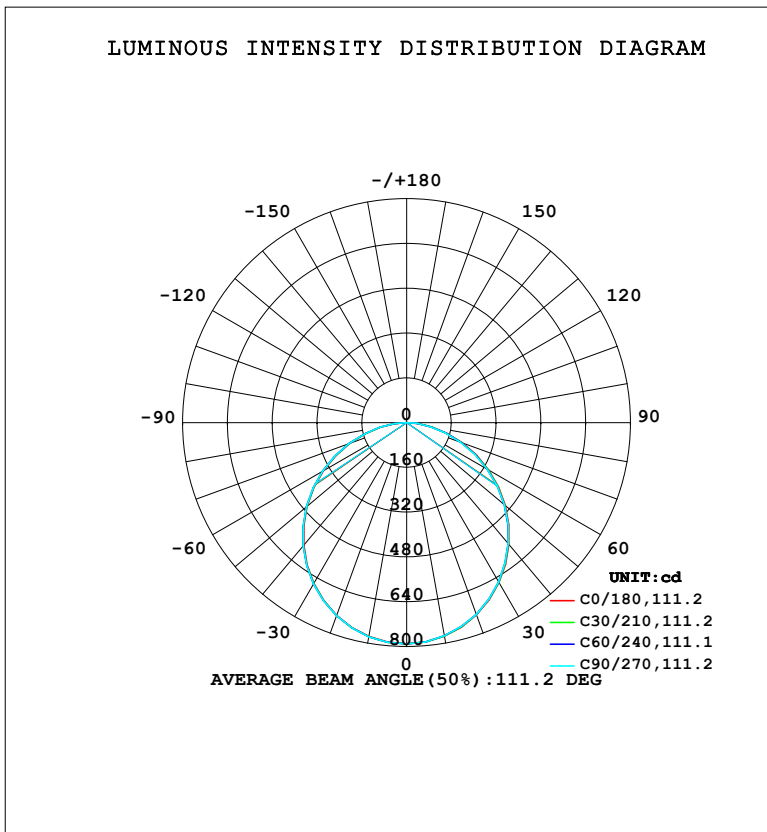


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 96.35 lm/W
MODEL	102BS	I <sub>max</sub> (cd)	790.5	S/MH (C0/180)	1.25	
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.25	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2239.4	η UP, DN (C0-180)	0.0, 49.6	
NOMINAL FLUX (lm)	2239.37	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.4	
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: 2024-01-27

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	775.0	774.4	773.9	775.1	775.9	776.6	776.8	776.0	0- 10	74.74	74.74	3.34,3.34
20	730.5	729.6	728.6	730.7	732.7	733.6	734.3	732.6	10- 20	213.6	288.3	12.9,12.9
30	660.4	658.9	657.5	660.4	663.4	664.8	665.6	663.3	20- 30	322.4	610.7	27.3,27.3
40	568.6	566.7	565.0	568.4	572.2	573.9	575.2	572.1	30- 40	386.9	997.6	44.5,44.5
50	460.4	457.6	455.9	459.6	464.1	466.0	467.4	464.1	40- 50	399.5	1397	62.4,62.4
60	339.1	337.2	333.8	339.0	343.8	344.4	347.6	342.7	50- 60	359.8	1757	78.5,78.5
70	211.8	209.3	205.4	210.6	215.6	216.3	219.0	214.9	60- 70	274.3	2031	90.7,90.7
80	92.72	89.35	86.53	89.96	94.11	95.60	96.50	94.89	70- 80	160.1	2191	97.8,97.8
90	1.815	1.620	1.579	1.572	1.809	1.783	2.893	2.384	80- 90	48.15	2239	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): 1199.1 lm

%lum = 53.5%

%lamp = 53.5%

Conical surface Flux(130deg): 1907.1 lm

%lum = 85.2%

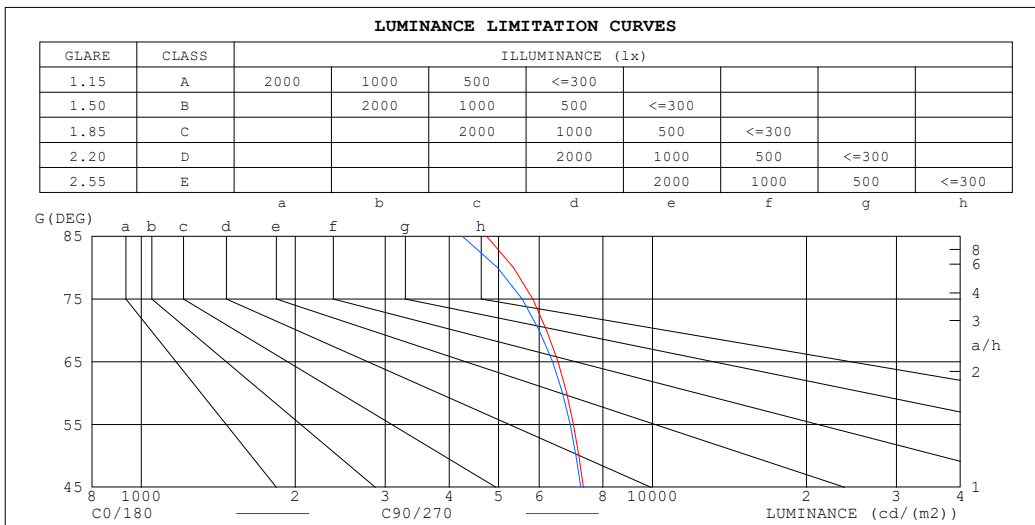
%lamp = 85.2%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-27

$\gamma$  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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4739	4245
80	5351	4979
75	5835	5561
70	6206	6001
65	6531	6375
60	6796	6670
55	7006	6900
50	7177	7087
45	7320	7240

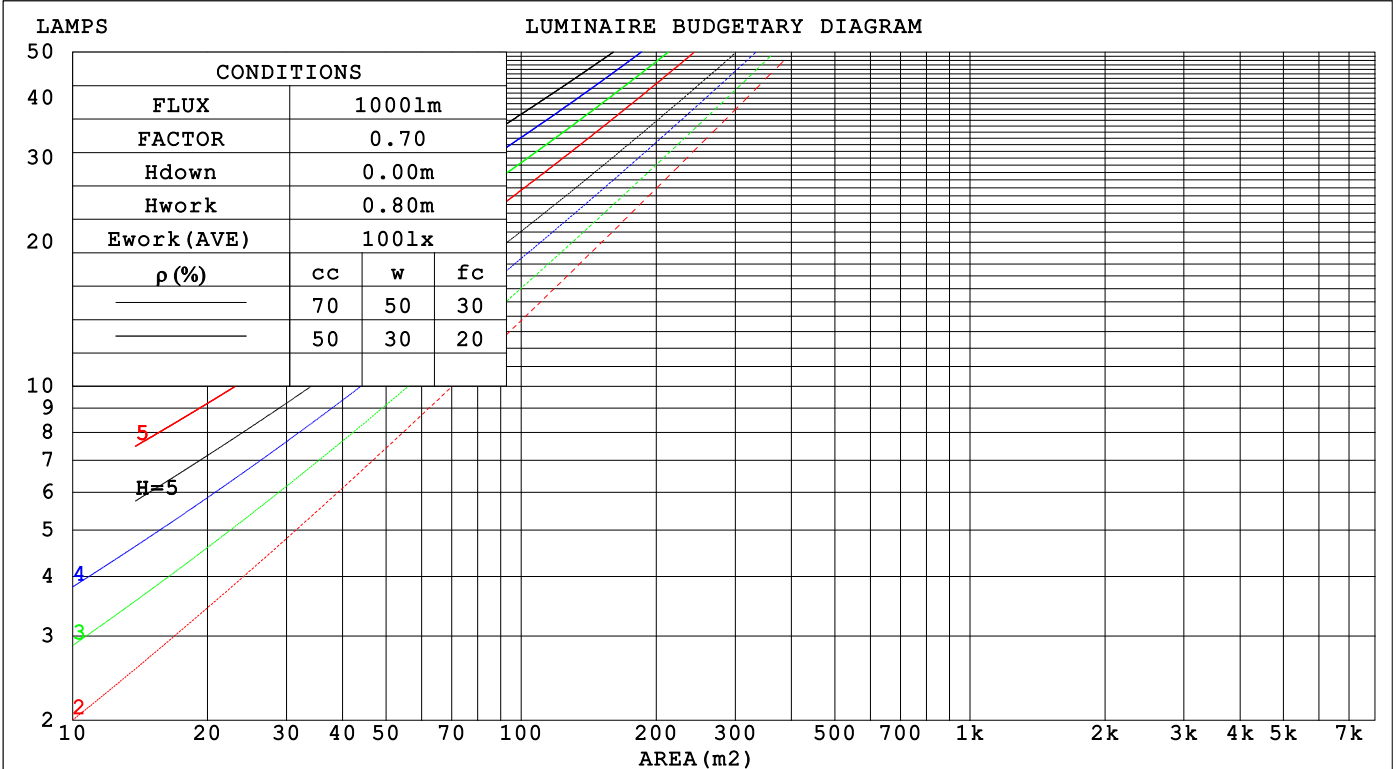
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-27

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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 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						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	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.91	.88	.90	.87	.85	.83
2.0	.90	.83	.78	.88	.82	.77	.85	.79	.75	.82	.77	.73	.78	.75	.71	.69
3.0	.79	.71	.64	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.60	.58
4.0	.70	.61	.54	.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	.40	.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:2024-01-27

$\gamma$  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:

WEC AND CCEC

Test:U:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz								
Lamp Flux:2239.37x1 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	.313	.178	.056	.306	.174	.055	.293	.168	.054	.280	.162	.052	.269	.156	.050	
2.0	.293	.161	.049	.287	.158	.049	.275	.153	.048	.265	.148	.046	.255	.144	.045	
3.0	.271	.144	.043	.265	.142	.043	.255	.138	.042	.245	.135	.041	.237	.131	.041	
4.0	.250	.130	.038	.245	.128	.038	.236	.125	.037	.227	.122	.037	.219	.119	.036	
5.0	.231	.118	.034	.226	.116	.034	.218	.114	.033	.211	.111	.033	.204	.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	.181	.156	.134	.154	.134	.115	.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	.150	.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:2024-01-27

$\gamma$  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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz										
Lamp Flux:2239.37x1 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	18.3	17.1	18.5	18.7	16.7	18.2	17.0	18.4	18.7
3H	18.3	19.7	18.6	19.9	20.2	18.2	19.6	18.5	19.8	20.1
4H	18.9	20.2	19.2	20.5	20.8	18.8	20.1	19.1	20.4	20.6
6H	19.3	20.6	19.7	20.9	21.2	19.2	20.4	19.5	20.7	21.0
8H	19.5	20.7	19.8	21.0	21.2	19.2	20.5	19.6	20.8	21.0
12H	19.5	20.7	19.9	21.0	21.3	19.3	20.5	19.7	20.8	21.1
4H 2H	17.4	18.7	17.7	19.0	19.2	17.3	18.7	17.6	18.9	19.2
3H	19.1	20.2	19.4	20.5	20.8	19.0	20.1	19.3	20.4	20.7
4H	19.8	20.9	20.2	21.2	21.5	19.7	20.7	20.0	21.1	21.4
6H	20.3	21.3	20.7	21.7	22.0	20.2	21.1	20.6	21.5	21.8
8H	20.5	21.4	20.9	21.8	22.2	20.3	21.2	20.7	21.6	22.0
12H	20.6	21.5	21.1	21.8	22.2	20.4	21.2	20.8	21.6	22.0
8H 4H	20.0	20.9	20.4	21.3	21.7	19.9	20.8	20.3	21.2	21.6
6H	20.7	21.5	21.2	21.9	22.3	20.6	21.3	21.0	21.7	22.1
8H	21.0	21.6	21.4	22.1	22.5	20.8	21.4	21.2	21.9	22.3
12H	21.2	21.7	21.6	22.2	22.7	20.9	21.5	21.4	22.0	22.4
12H 4H	20.0	20.9	20.5	21.2	21.6	19.9	20.7	20.4	21.1	21.5
6H	20.8	21.4	21.2	21.9	22.3	20.6	21.3	21.1	21.7	22.1
8H	21.1	21.6	21.5	22.1	22.5	20.9	21.4	21.3	21.9	22.4
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 / - 0.3				

CIE Pub.117, 2239 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.8)  
 Area: 0.1 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-27

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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

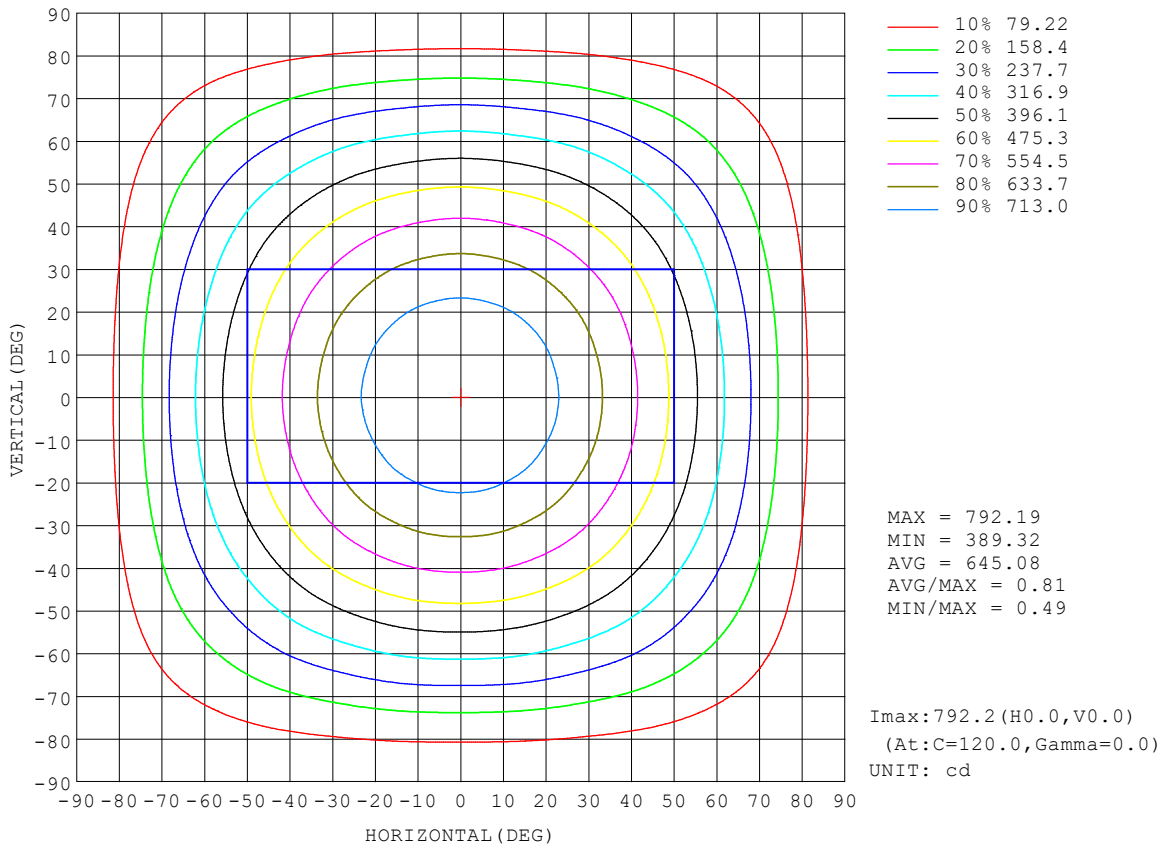
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	46	39	57	46	39	56	45	39	32
0.80	68	56	48	66	55	48	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	70	83	75	69	62
2.00	95	86	80	93	85	79	89	83	77	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	99	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:2024-01-27

$\gamma$  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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



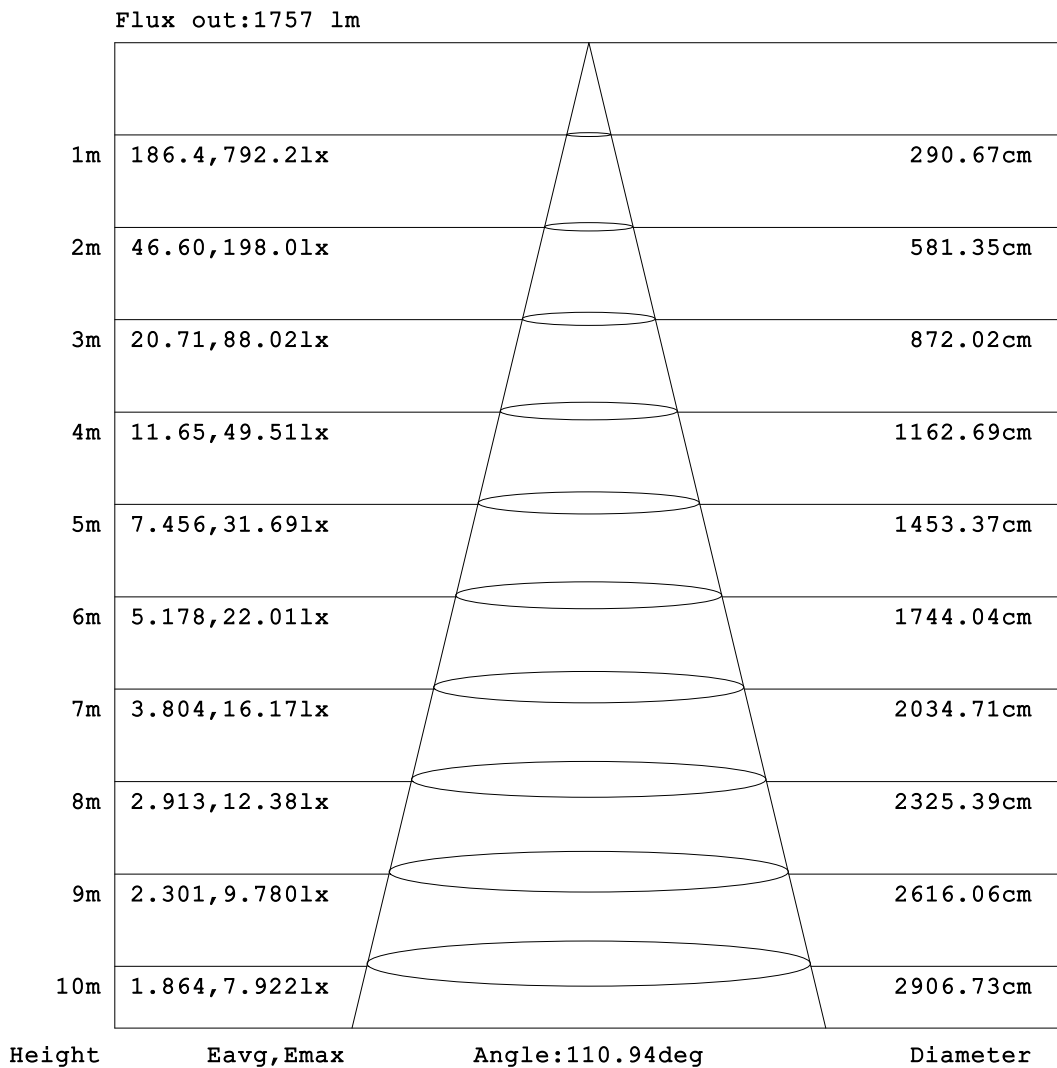
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 2024-01-27

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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



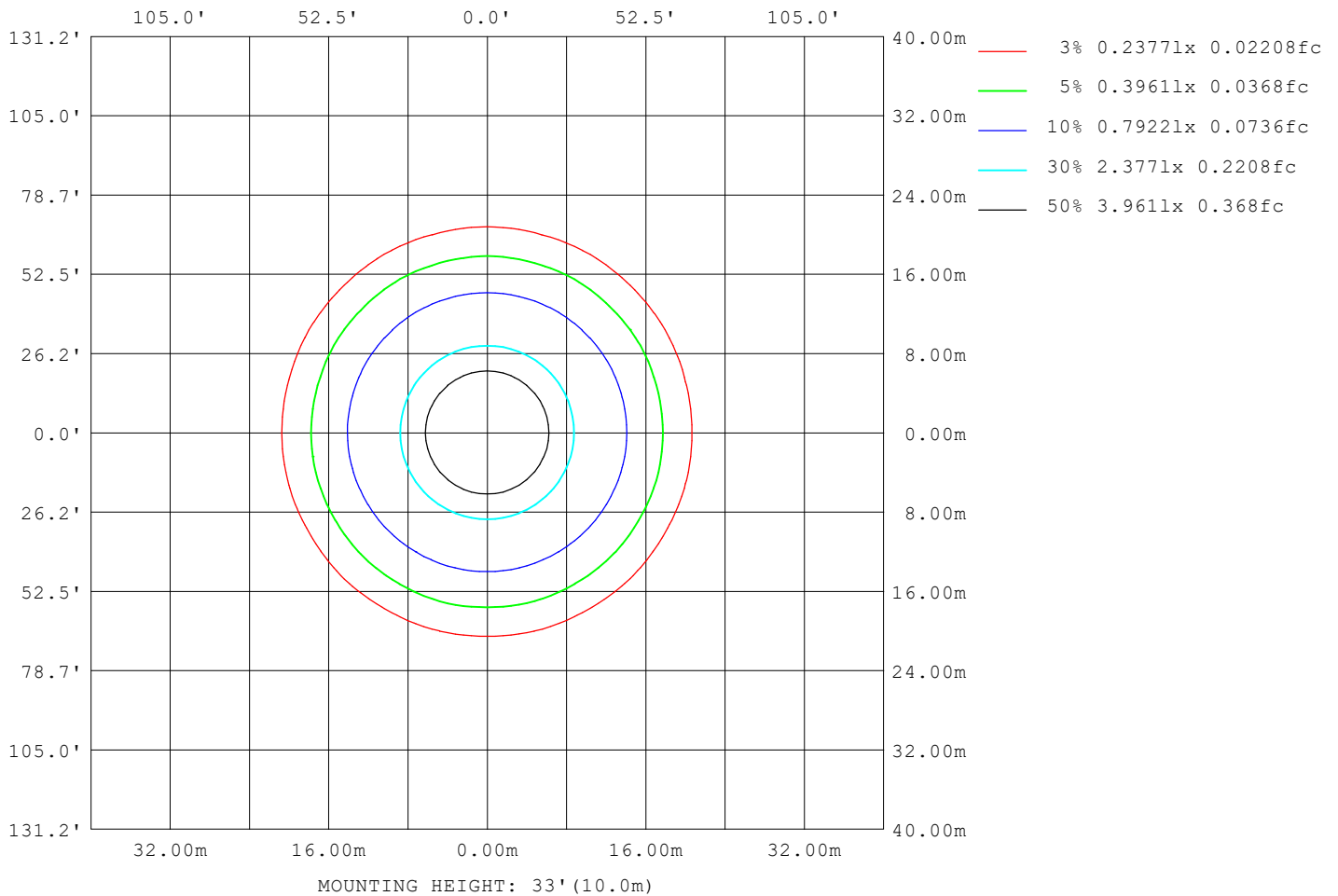
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 2024-01-27

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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 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:2024-01-27

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:220.48V I:0.1135A P:23.241W PF:0.9288 Freq:50.00Hz Lamp Flux:2239.37x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

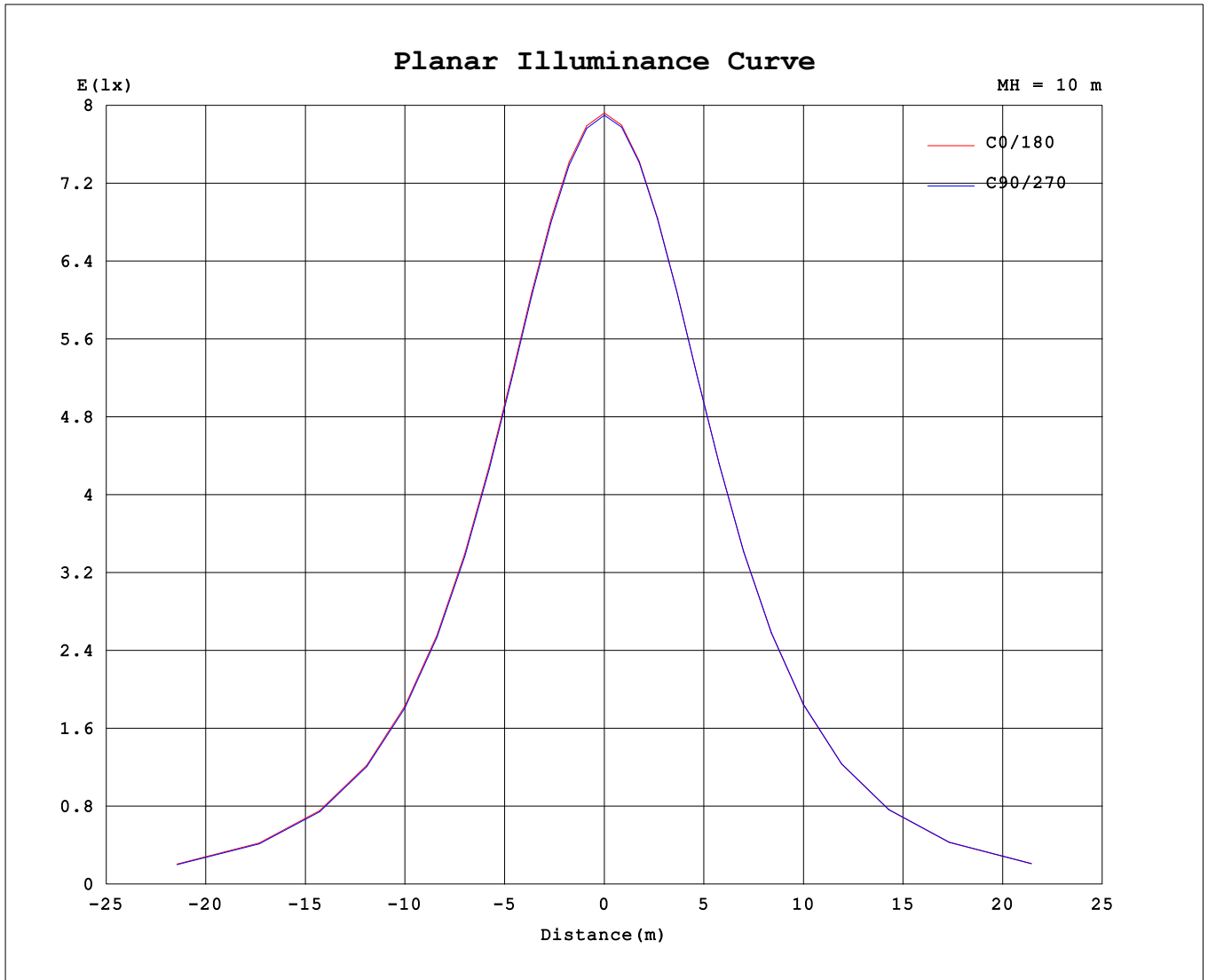
AvgL	cd/m2
L_0~180 (65) av	6570
L_0~180 (75) av	5863
L_0~180 (85) av	4770
L_90~270 (65) av	6545
L_90~270 (75) av	5791
L_90~270 (85) av	4691
L_45 (65) av	6553
L_45 (75) av	5822
L_45 (85) av	4752

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-27

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: 2024-01-27

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:



