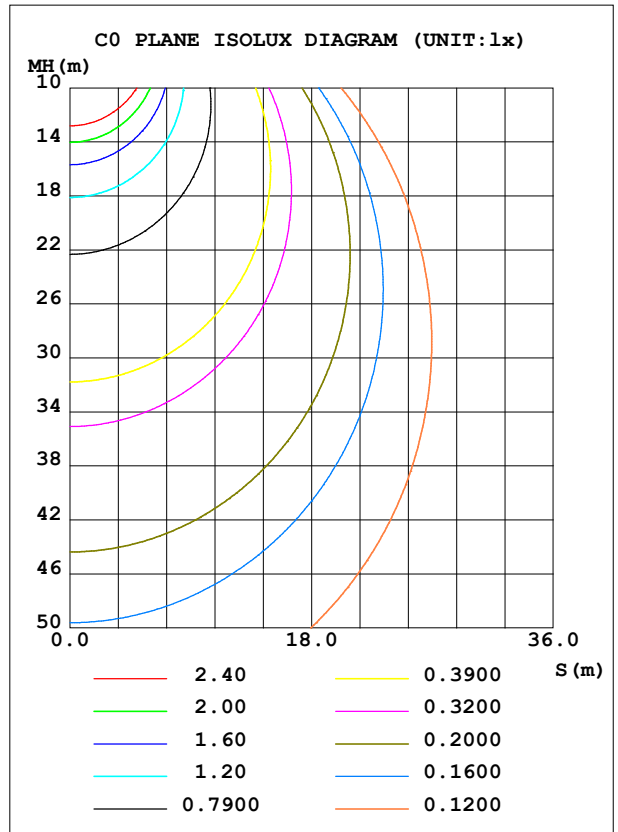
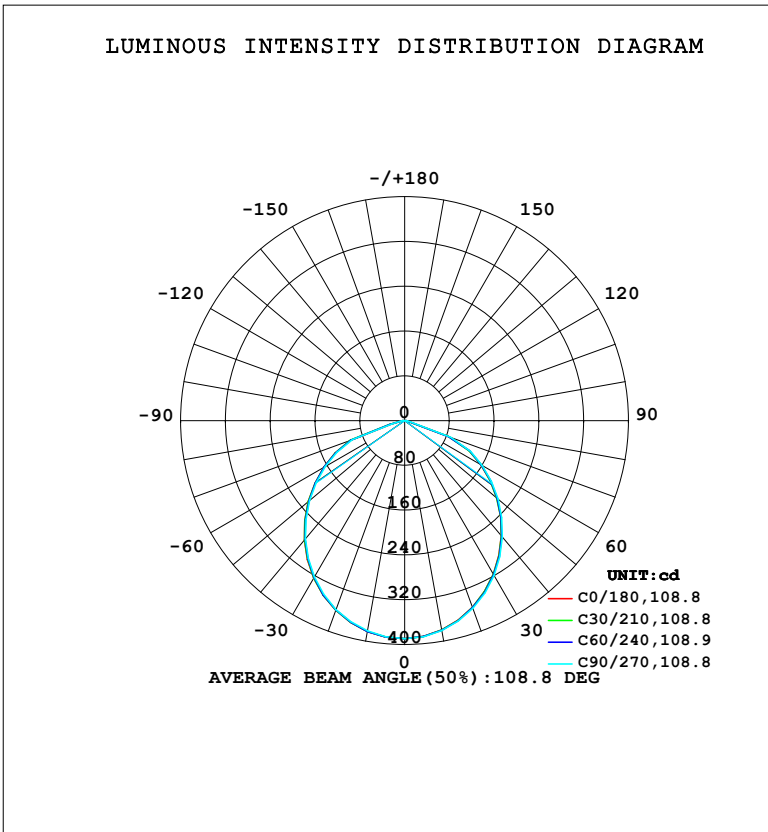


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 84.64 lm/W
MODEL	226R	I <sub>max</sub> (cd)	389.3	S/MH (C0/180)	1.24	
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	1.24	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1015.1	η UP, DN (C0-180)	0.0, 49.6	
NOMINAL FLUX (lm)	1015.13	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: 2024-01-19

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	380.0	380.4	381.1	382.2	382.7	382.2	381.7	380.4	0- 10	36.79	36.79	3.62,3.62
20	354.8	356.7	356.8	360.2	360.4	359.3	359.3	356.0	10- 20	104.7	141.5	13.9,13.9
30	316.8	318.9	319.4	323.6	324.9	322.8	322.5	318.4	20- 30	157.0	298.6	29.4,29.4
40	268.9	271.1	271.9	276.7	278.5	276.2	275.7	271.1	30- 40	186.7	485.3	47.8,47.8
50	214.8	216.8	217.9	222.8	224.7	222.7	221.9	217.2	40- 50	191.0	676.2	66.6,66.6
60	157.4	158.4	160.3	164.5	166.6	165.5	163.8	159.8	50- 60	171.1	847.3	83.5,83.5
70	85.30	84.78	87.73	97.42	102.5	102.1	99.43	92.22	60- 70	128.8	976.1	96.2,96.2
80	5.371	5.147	5.173	5.375	5.711	5.935	5.874	5.706	70- 80	35.08	1011	99.6,99.6
90	0.4226	0.4201	0.4224	0.4118	0.7856	0.5401	0.5249	0.4965	80- 90	3.918	1015	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): 581.77 lm

%lum = 57.3%

%lamp = 57.3%

Conical surface Flux(130deg): 918.85 lm

%lum = 90.5%

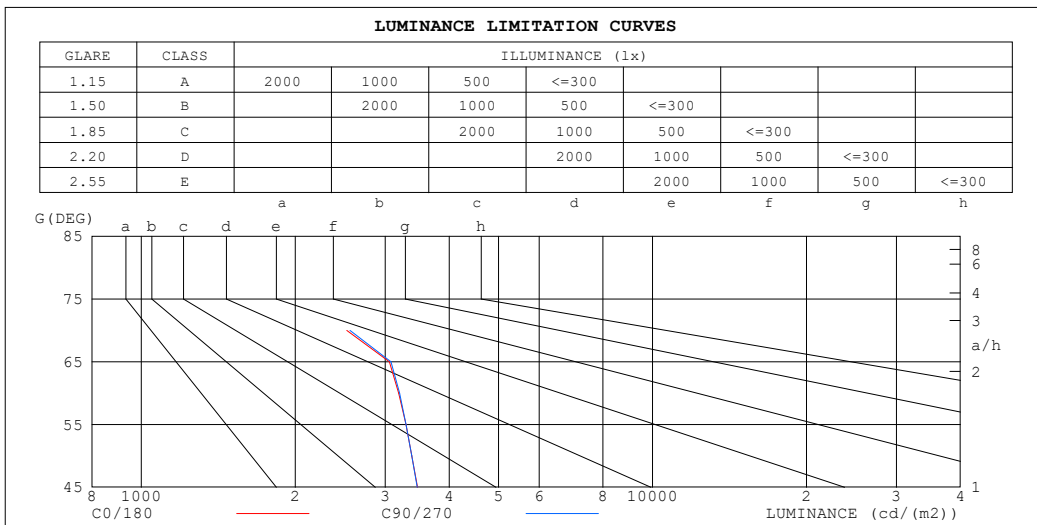
%lamp = 90.5%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

$\gamma$  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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	453	432
80	313	297
75	391	420
70	2523	2560
65	3054	3076
60	3185	3199
55	3293	3293
50	3382	3383
45	3470	3467

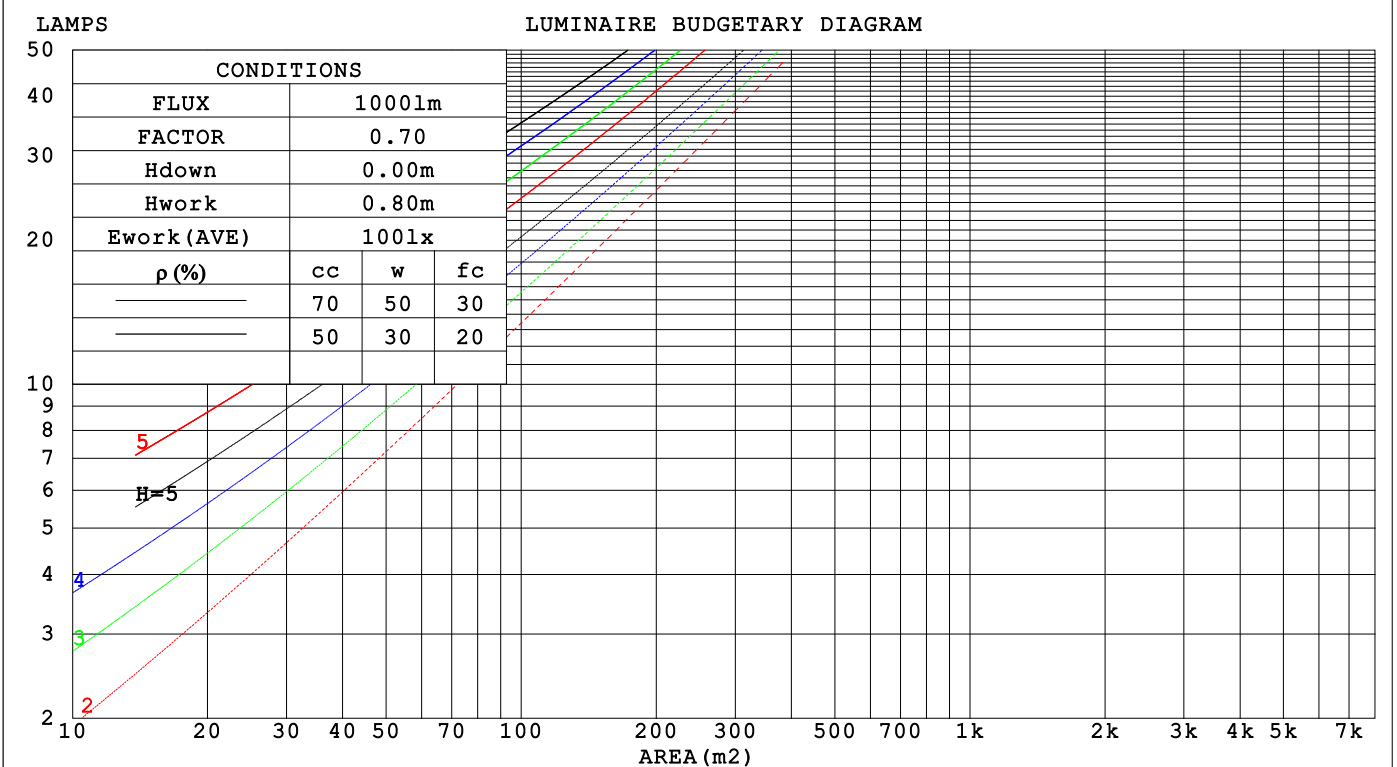
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 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	1.06	1.02	.98	1.03	.90	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.69	.65	.72	.68	.64	.62
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.56	.66	.61	.56	.64	.59	.55	.53
5.0	.65	.56	.50	.64	.56	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.46
6.0	.58	.50	.43	.58	.49	.43	.56	.48	.43	.54	.48	.43	.52	.47	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.51	.43	.38	.49	.43	.38	.48	.42	.37	.35
8.0	.48	.40	.34	.48	.40	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.44	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.33	.28	.39	.32	.28	.38	.32	.28	.26



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz		
Lamp Flux:1015.13x1 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	.277	.157	.050	.270	.154	.049	.257	.147	.047	.245	.141	.045	.234	.135	.044	
2.0	.270	.148	.045	.264	.145	.045	.252	.140	.044	.241	.135	.042	.232	.131	.041	
3.0	.255	.136	.041	.249	.133	.040	.239	.130	.039	.230	.126	.039	.221	.122	.038	
4.0	.238	.124	.036	.233	.122	.036	.224	.119	.036	.216	.116	.035	.208	.113	.034	
5.0	.222	.113	.033	.218	.112	.033	.210	.109	.032	.202	.107	.032	.195	.104	.031	
6.0	.207	.104	.030	.203	.103	.030	.196	.101	.029	.190	.099	.029	.183	.097	.029	
7.0	.194	.096	.027	.190	.095	.027	.184	.093	.027	.178	.091	.027	.172	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.173	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.171	.083	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.023	
10.0	.161	.077	.021	.158	.076	.021	.154	.075	.021	.149	.074	.021	.145	.073	.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																
1.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
2.0	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015	
3.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
4.0	.162	.114	.076	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009	
5.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
6.0	.147	.090	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
7.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
8.0	.134	.075	.034	.115	.065	.030	.079	.046	.021	.046	.027	.012	.015	.009	.004	
9.0	.127	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
10.0	.121	.064	.026	.105	.056	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

$\gamma$  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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz										
Lamp Flux:1015.13x1 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	17.2	18.6	17.4	18.8	19.0	17.2	18.7	17.5	18.9	19.1
3H	18.5	19.8	18.8	20.0	20.3	18.5	19.8	18.8	20.1	20.3
4H	18.4	19.6	18.7	19.9	20.1	18.4	19.7	18.7	19.9	20.2
6H	18.3	19.5	18.6	19.7	20.0	18.3	19.5	18.6	19.8	20.0
8H	18.2	19.4	18.6	19.7	20.0	18.3	19.4	18.6	19.7	20.0
12H	18.2	19.3	18.5	19.6	19.9	18.2	19.3	18.6	19.6	19.9
4H 2H	17.9	19.1	18.2	19.4	19.6	17.9	19.2	18.2	19.4	19.7
3H	19.0	20.1	19.4	20.4	20.7	19.1	20.2	19.4	20.5	20.8
4H	18.9	20.0	19.3	20.3	20.6	19.0	20.0	19.3	20.3	20.6
6H	18.9	19.8	19.3	20.1	20.5	18.9	19.8	19.3	20.1	20.5
8H	18.8	19.7	19.2	20.0	20.4	18.9	19.7	19.3	20.1	20.4
12H	18.8	19.6	19.2	19.9	20.3	18.8	19.6	19.3	20.0	20.4
8H 4H	18.9	19.7	19.3	20.0	20.4	18.9	19.7	19.3	20.1	20.5
6H	18.8	19.5	19.2	19.9	20.3	18.8	19.5	19.3	19.9	20.3
8H	18.8	19.4	19.2	19.8	20.2	18.8	19.4	19.3	19.8	20.3
12H	18.8	19.3	19.2	19.7	20.2	18.8	19.3	19.3	19.7	20.2
12H 4H	18.8	19.6	19.2	20.0	20.4	18.8	19.6	19.3	20.0	20.4
6H	18.8	19.4	19.2	19.8	20.2	18.8	19.4	19.2	19.8	20.3
8H	18.8	19.3	19.2	19.7	20.2	18.8	19.3	19.3	19.7	20.2
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.4					+ 0.1 / - 0.4				
1.5H	+ 0.7 / - 1.2					+ 0.7 / - 1.3				
2.0H	+ 0.9 / - 1.7					+ 0.9 / - 1.7				

CIE Pub.117, 1015 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.1)  
 Area: 0.1 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

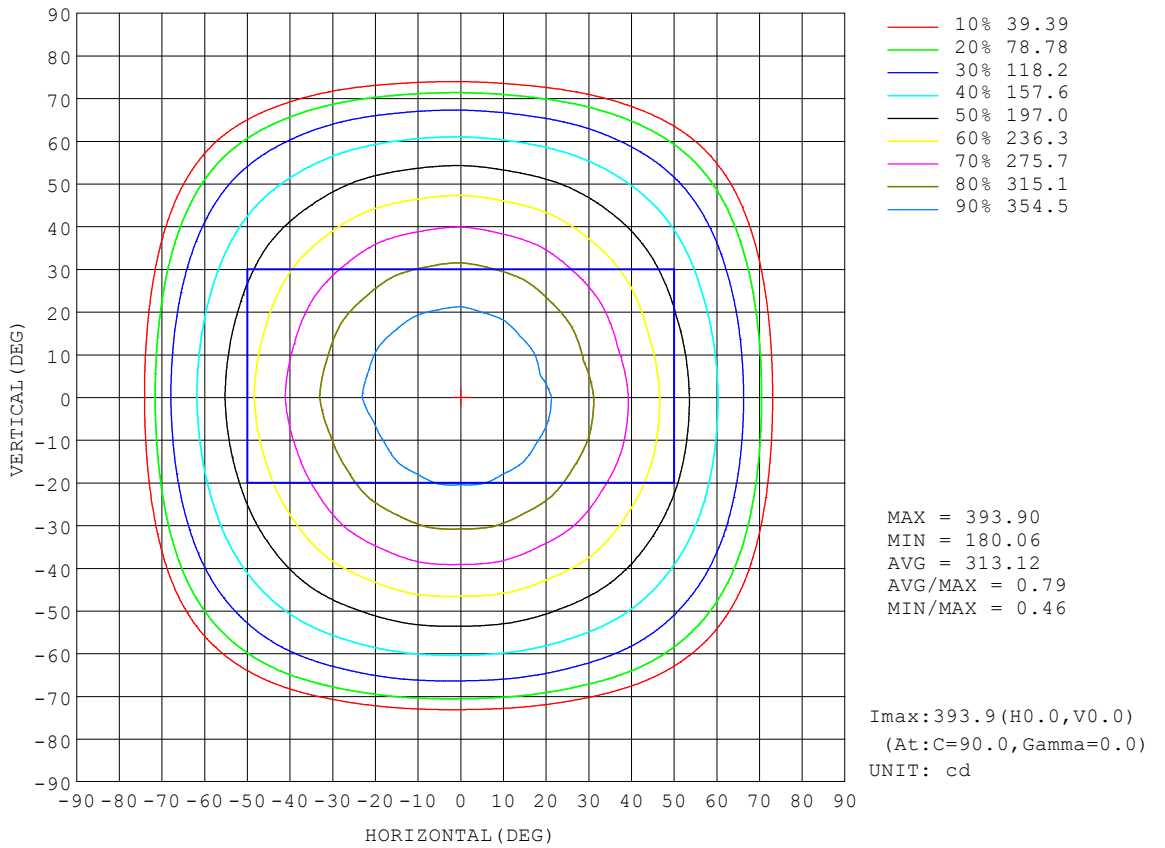
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	48	41	58	48	41	57	47	41	34
0.80	69	58	51	68	58	51	67	57	51	44
1.00	78	67	60	77	67	60	75	68	60	53
1.25	85	75	69	84	75	68	81	73	67	60
1.50	90	81	74	89	80	74	86	78	73	66
2.00	97	89	83	95	88	82	92	86	81	73
2.50	101	94	88	99	92	87	95	90	85	77
3.00	104	98	93	102	96	92	98	93	89	81
4.00	108	103	98	105	101	97	101	98	94	86
5.00	110	106	102	108	104	101	103	100	97	89
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:2024-01-19

$\gamma$  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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



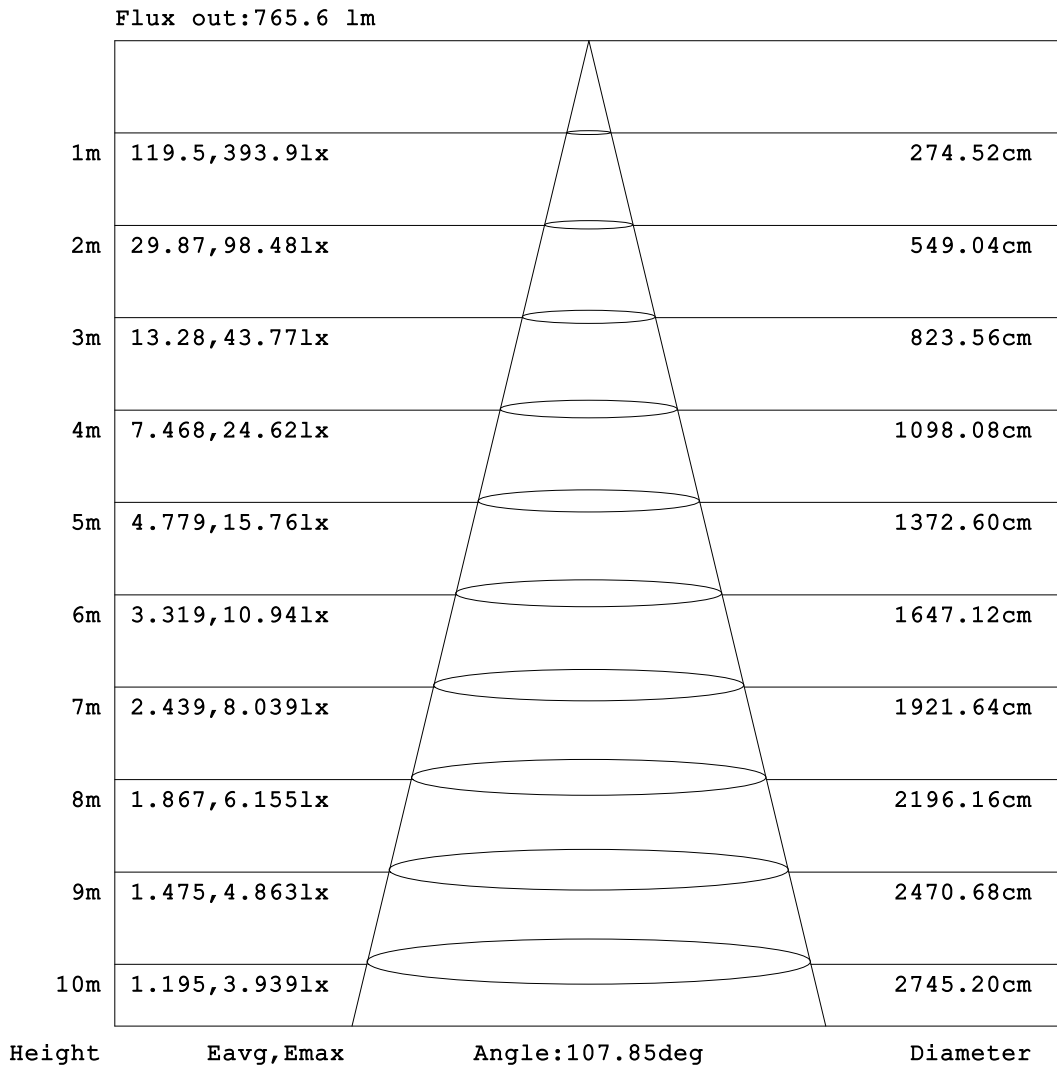
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



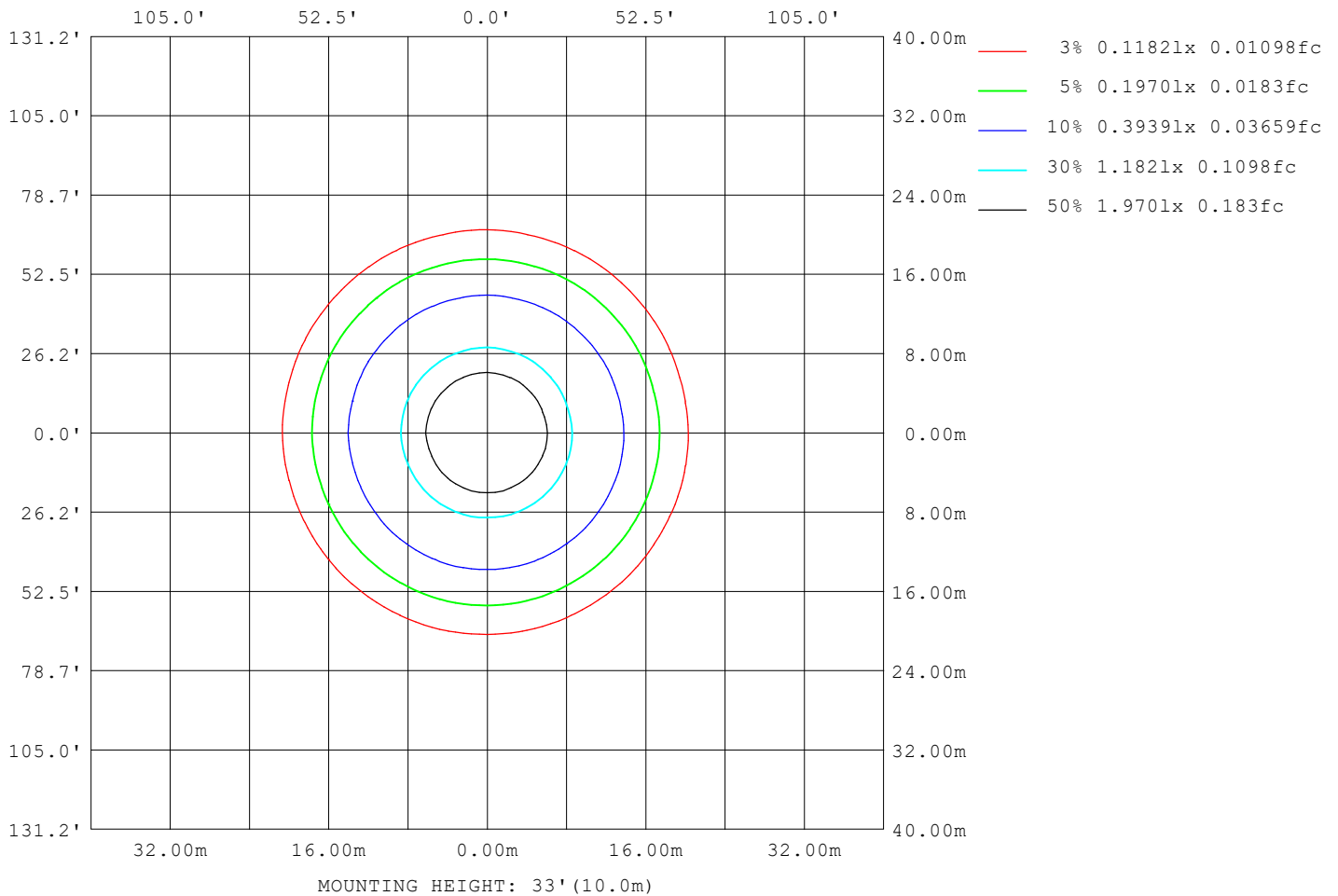
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:DAMIN  
Test Date:2024-01-19

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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 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:2024-01-19

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:220.46V I:0.0991A P:11.993W PF:0.5490 Freq:50.00Hz Lamp Flux:1015.13x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

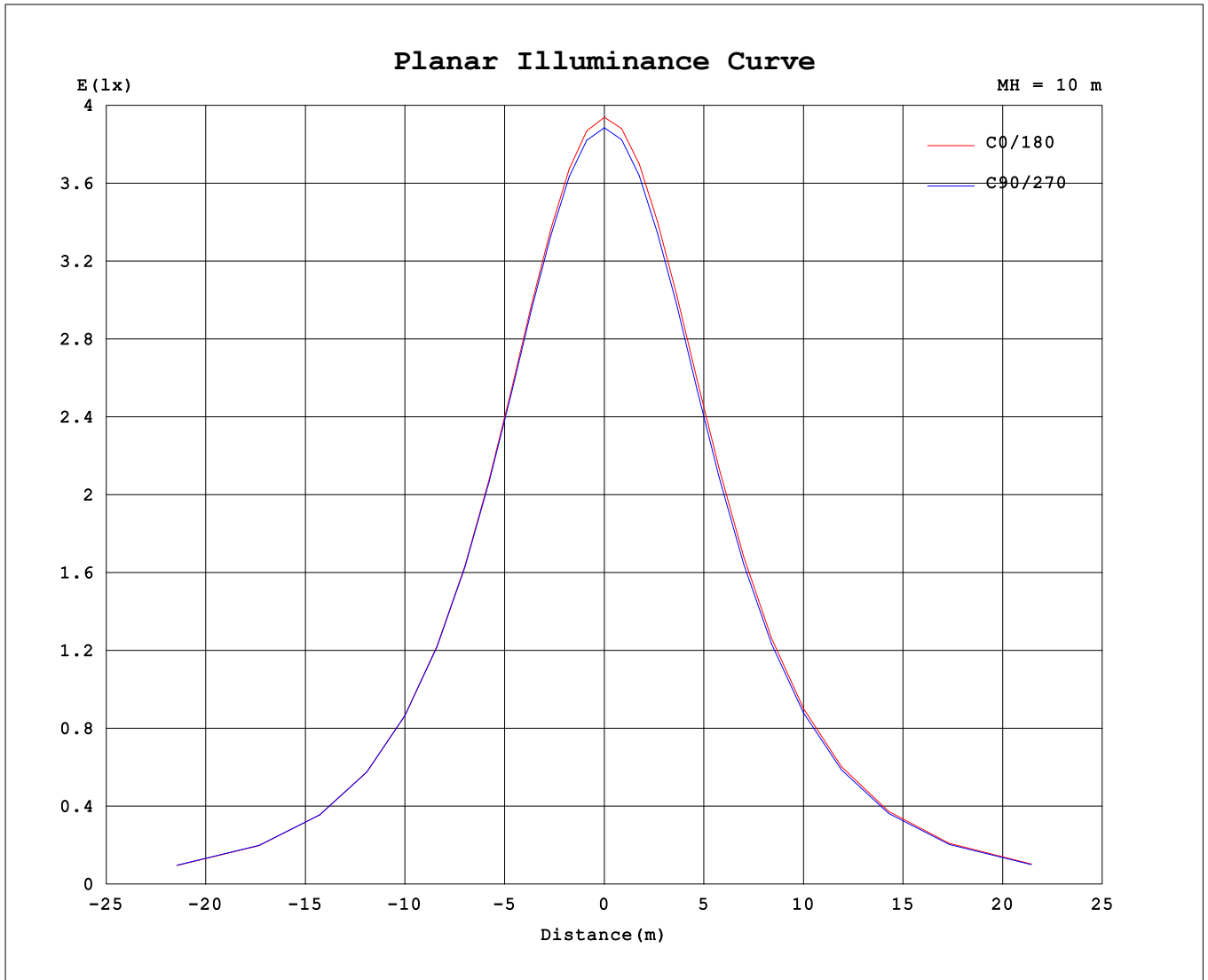
AvgL	cd/m2
L_0~180 (65) av	3128
L_0~180 (75) av	675
L_0~180 (85) av	481
L_90~270 (65) av	3128
L_90~270 (75) av	660
L_90~270 (85) av	478
L_45 (65) av	3130
L_45 (75) av	655
L_45 (85) av	480

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:DAMIN  
 Test Date:2024-01-19

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: 2024-01-19

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:



