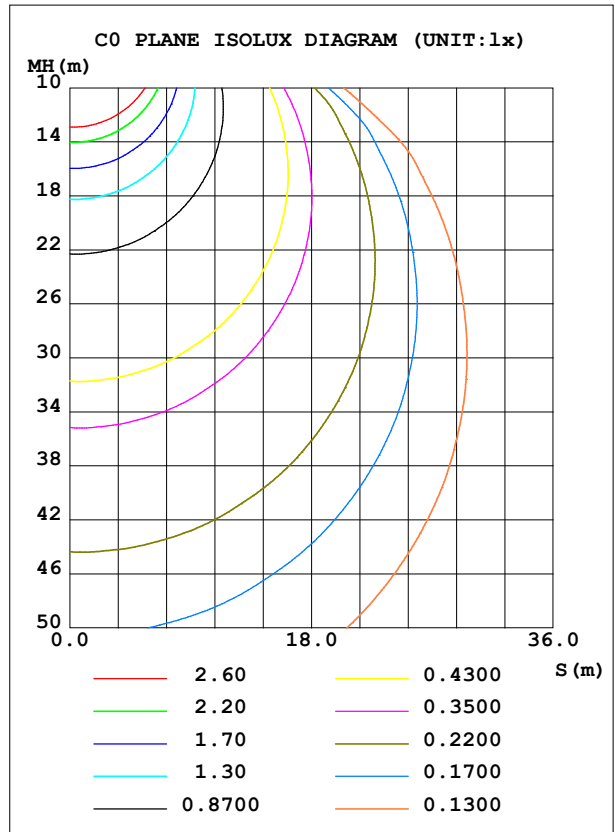
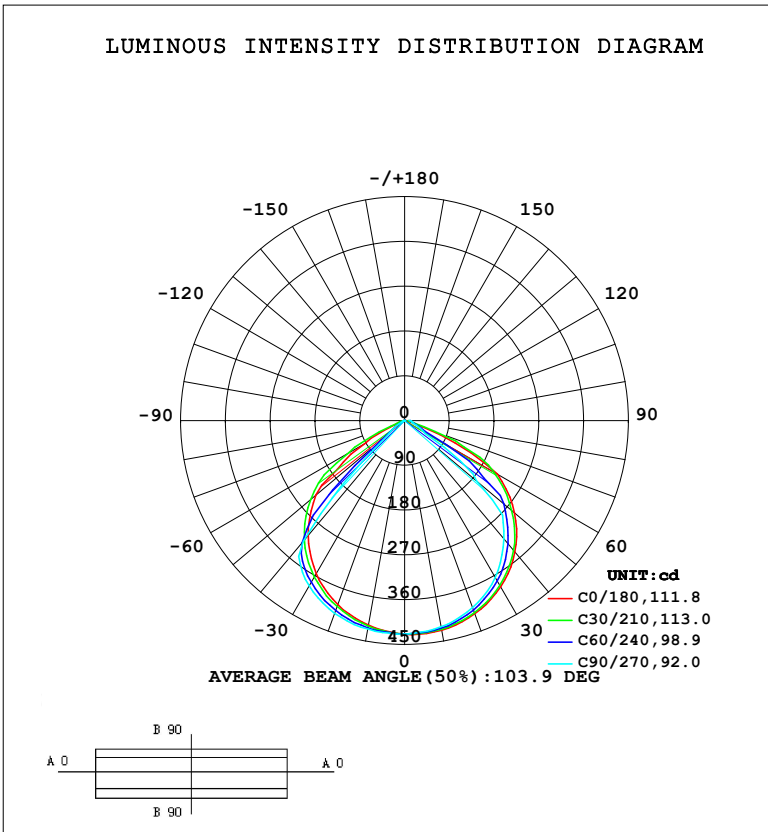


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	DFL-10W	Imax (cd)	430.4	S/MH (C0/180)	1.24
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	986.09	$\eta$ UP, DN (C0-180)	0.0, 52.9
NOMINAL FLUX (lm)	986.094	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 47.1
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2024-06-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity: 65.0%  
 Test Distance: 9.410m [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	427.7	424.7	421.0	417.2	417.6	421.1	425.6	427.7	0- 10	40.64	40.64	4.12,4.12
20	413.2	407.8	400.2	393.5	393.3	401.7	412.0	416.0	10- 20	117.3	158.0	16,16
30	385.8	377.5	364.0	355.9	355.4	369.2	383.5	390.5	20- 30	180.0	338.0	34.3,34.3
40	345.0	332.0	310.4	300.6	301.9	316.8	316.3	350.5	30- 40	219.3	557.3	56.5,56.5
50	288.5	270.8	189.2	228.7	232.5	154.3	42.38	234.9	40- 50	209.9	767.1	77.8,77.8
60	215.3	151.8	44.27	84.07	91.00	71.32	13.35	125.7	50- 60	138.8	905.9	91.9,91.9
70	39.38	45.76	21.28	21.45	13.31	9.863	3.134	39.74	60- 70	60.94	966.8	98,98
80	4.363	12.48	15.46	12.21	2.198	1.771	1.552	3.254	70- 80	13.33	980.2	99.4,99.4
90	1.064	8.602	9.632	8.754	0.9451	0.3780	0.2405	0.8570	80- 90	5.924	986.1	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): 689.59 lm

%lum = 69.9%

%lamp = 69.9%

Conical surface Flux(130deg): 950.93 lm

%lum = 96.4%

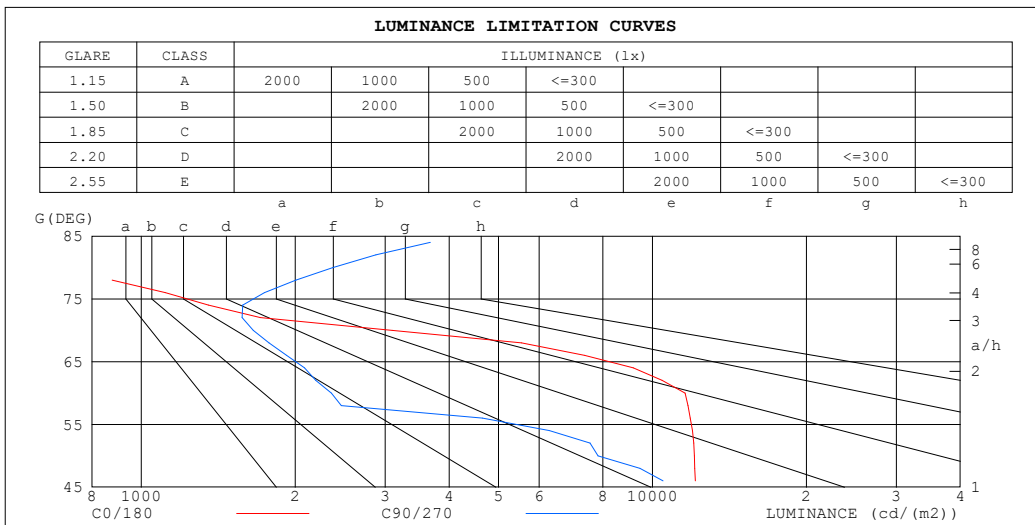
%lamp = 96.4%

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2024-06-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	497	4411
80	676	2369
75	1441	1682
70	3098	1655
65	9507	2162
60	11582	2355
55	12269	6440
50	12073	7829
45	12350	10755

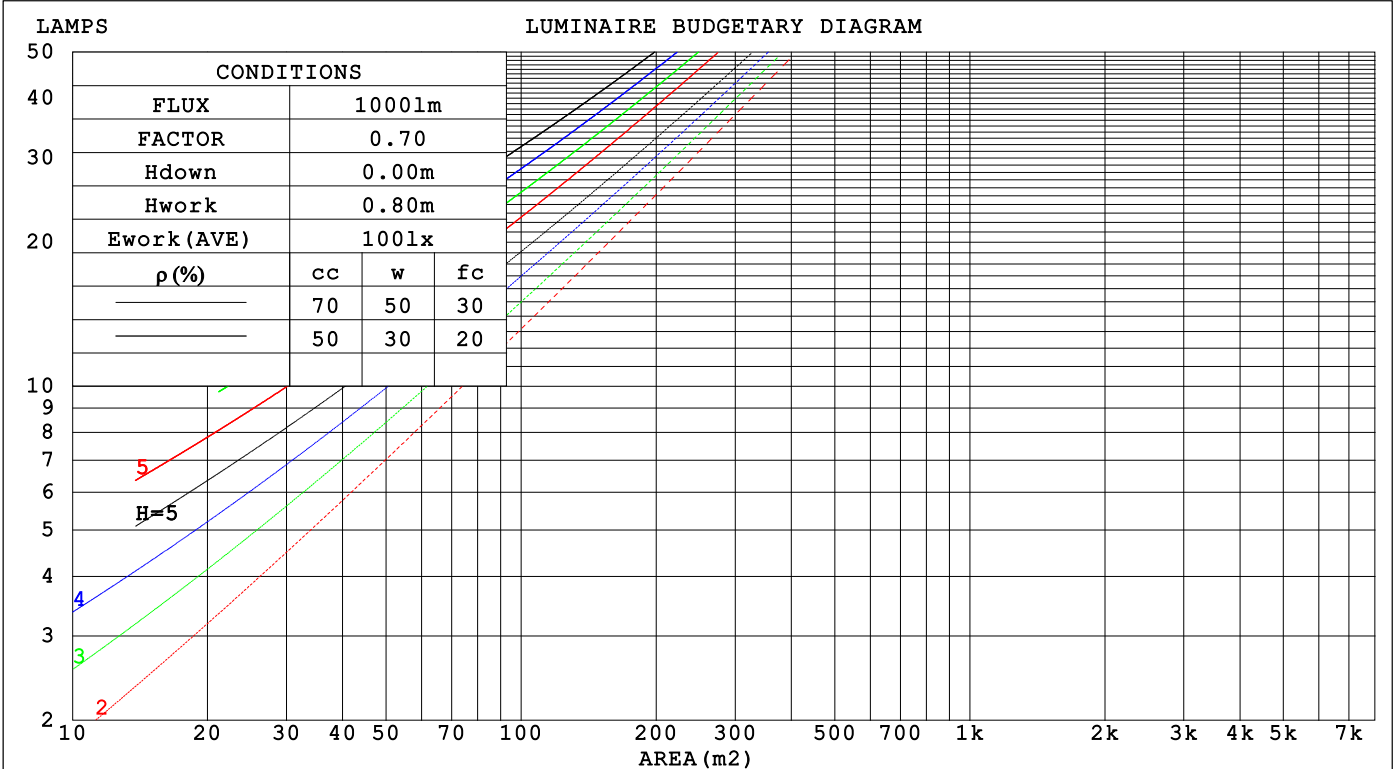
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity: 65.0%  
 Test Distance: 9.410m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	1.07	1.04	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.90	.85	.94	.89	.84	.90	.86	.82	.87	.84	.80	.84	.81	.79	.77
3.0	.86	.78	.73	.84	.77	.72	.81	.76	.71	.78	.74	.70	.76	.72	.69	.67
4.0	.77	.69	.63	.75	.68	.63	.73	.67	.62	.71	.65	.61	.69	.64	.60	.58
5.0	.69	.61	.55	.68	.61	.55	.66	.59	.54	.64	.58	.54	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.57	.52	.47	.45
7.0	.57	.49	.43	.56	.49	.43	.55	.48	.43	.54	.47	.43	.52	.47	.42	.41
8.0	.52	.44	.39	.52	.44	.39	.50	.44	.39	.49	.43	.38	.48	.42	.38	.36
9.0	.48	.40	.35	.48	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33
10.0	.44	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.41	.36	.32	.30



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz		
Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	.249	.141	.045	.242	.138	.044	.229	.131	.042	.217	.125	.040	.206	.119	.038	
2.0	.242	.133	.041	.236	.130	.040	.225	.125	.039	.215	.120	.038	.205	.116	.037	
3.0	.231	.123	.037	.225	.121	.036	.215	.117	.035	.206	.113	.035	.198	.110	.034	
4.0	.218	.113	.033	.213	.112	.033	.205	.108	.032	.196	.106	.032	.189	.103	.031	
5.0	.205	.105	.030	.201	.103	.030	.194	.101	.030	.186	.098	.029	.180	.096	.029	
6.0	.193	.097	.028	.190	.096	.028	.183	.094	.027	.176	.092	.027	.170	.090	.027	
7.0	.182	.090	.026	.179	.089	.025	.173	.087	.025	.167	.086	.025	.162	.084	.025	
8.0	.172	.084	.024	.169	.083	.024	.164	.082	.023	.158	.080	.023	.153	.079	.023	
9.0	.163	.079	.022	.160	.078	.022	.155	.077	.022	.150	.075	.022	.146	.074	.021	
10.0	.154	.074	.020	.152	.073	.020	.147	.072	.020	.143	.071	.020	.139	.070	.020	

$\rho_{CC}$	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	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.135	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.035	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.030	.106	.059	.027	.073	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.027	.101	.055	.023	.070	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.113	.059	.023	.097	.051	.020	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2024-06-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz										
Lamp Flux:986.094x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.:			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	22.5	23.9	22.8	24.1	24.3	19.3	20.6	19.5	20.8	21.0
3H	23.0	24.3	23.3	24.5	24.7	19.3	20.5	19.5	20.7	20.9
4H	22.9	24.1	23.2	24.4	24.6	19.2	20.4	19.5	20.7	20.9
6H	22.9	24.0	23.2	24.2	24.5	19.3	20.4	19.6	20.7	20.9
8H	22.8	23.9	23.1	24.1	24.4	19.4	20.4	19.7	20.7	21.0
12H	22.8	23.8	23.1	24.1	24.4	19.5	20.5	19.8	20.8	21.1
4H 2H	22.7	23.9	23.0	24.1	24.3	19.9	21.1	20.2	21.3	21.6
3H	23.3	24.3	23.6	24.6	24.8	19.9	21.0	20.3	21.2	21.5
4H	23.2	24.1	23.6	24.4	24.8	20.0	20.9	20.3	21.2	21.5
6H	23.1	23.9	23.5	24.3	24.6	20.1	20.9	20.5	21.2	21.6
8H	23.1	23.8	23.5	24.2	24.6	20.2	20.9	20.6	21.3	21.7
12H	23.1	23.7	23.5	24.1	24.5	20.4	21.1	20.8	21.5	21.9
8H 4H	23.1	23.8	23.5	24.2	24.6	20.0	20.7	20.4	21.1	21.5
6H	23.1	23.7	23.5	24.1	24.5	20.2	20.8	20.6	21.2	21.6
8H	23.0	23.6	23.5	24.0	24.4	20.4	20.9	20.8	21.3	21.8
12H	23.0	23.5	23.5	23.9	24.4	20.7	21.2	21.2	21.6	22.1
12H 4H	23.1	23.7	23.5	24.1	24.5	19.9	20.6	20.4	21.0	21.4
6H	23.0	23.6	23.5	24.0	24.4	20.2	20.7	20.6	21.1	21.6
8H	23.0	23.5	23.5	23.9	24.4	20.4	20.9	20.9	21.3	21.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.4 / - 0.6					+ 0.9 / - 2.3				
1.5H	+ 0.6 / - 0.9					+ 0.9 / - 0.9				
2.0H	+ 0.7 / - 1.7					+ 1.8 / - 4.0				

CIE Pub.117, 986.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.0)  
 Area: 0.0375 m2

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

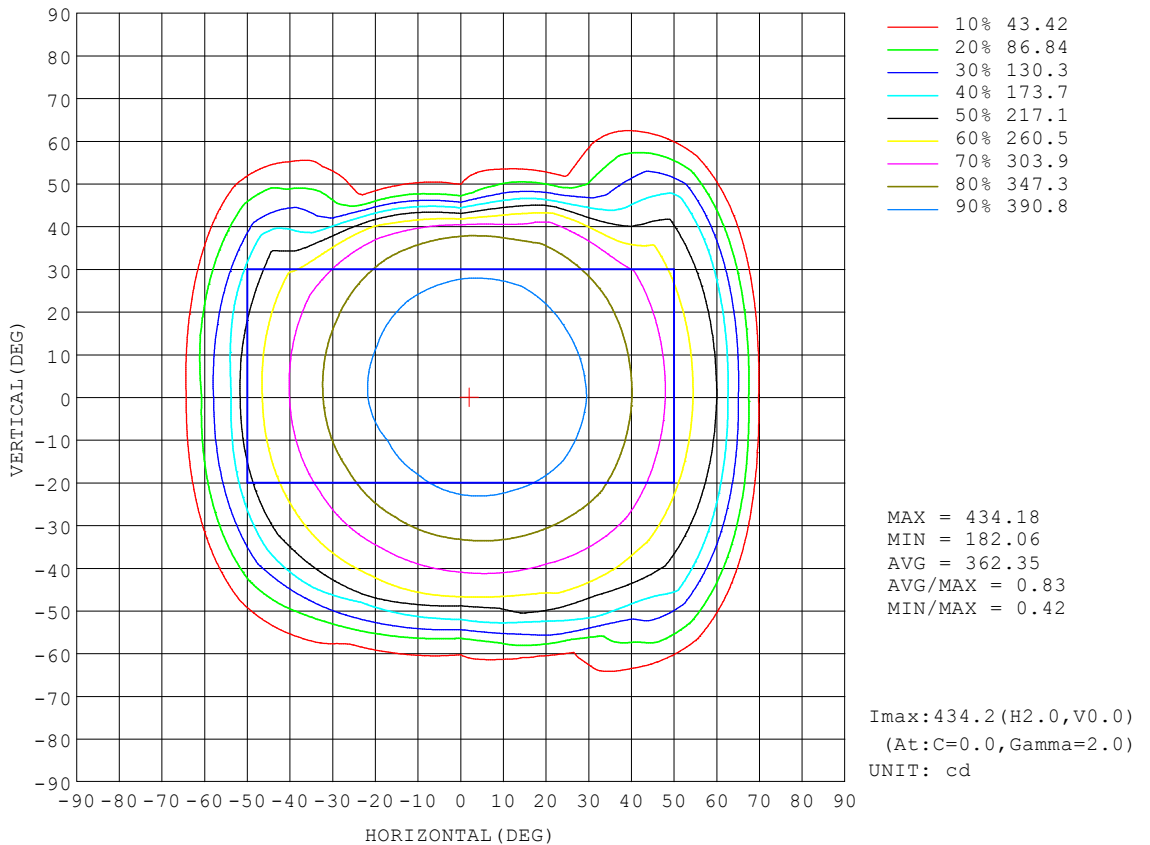
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	64	53	47	63	53	47	62	53	47	41
0.80	74	64	58	73	64	58	72	63	57	51
1.00	83	74	67	82	73	67	80	74	67	60
1.25	90	81	75	89	80	75	86	79	74	68
1.50	94	86	81	93	85	80	90	84	79	73
2.00	100	93	88	99	92	88	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	101	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2024-06-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

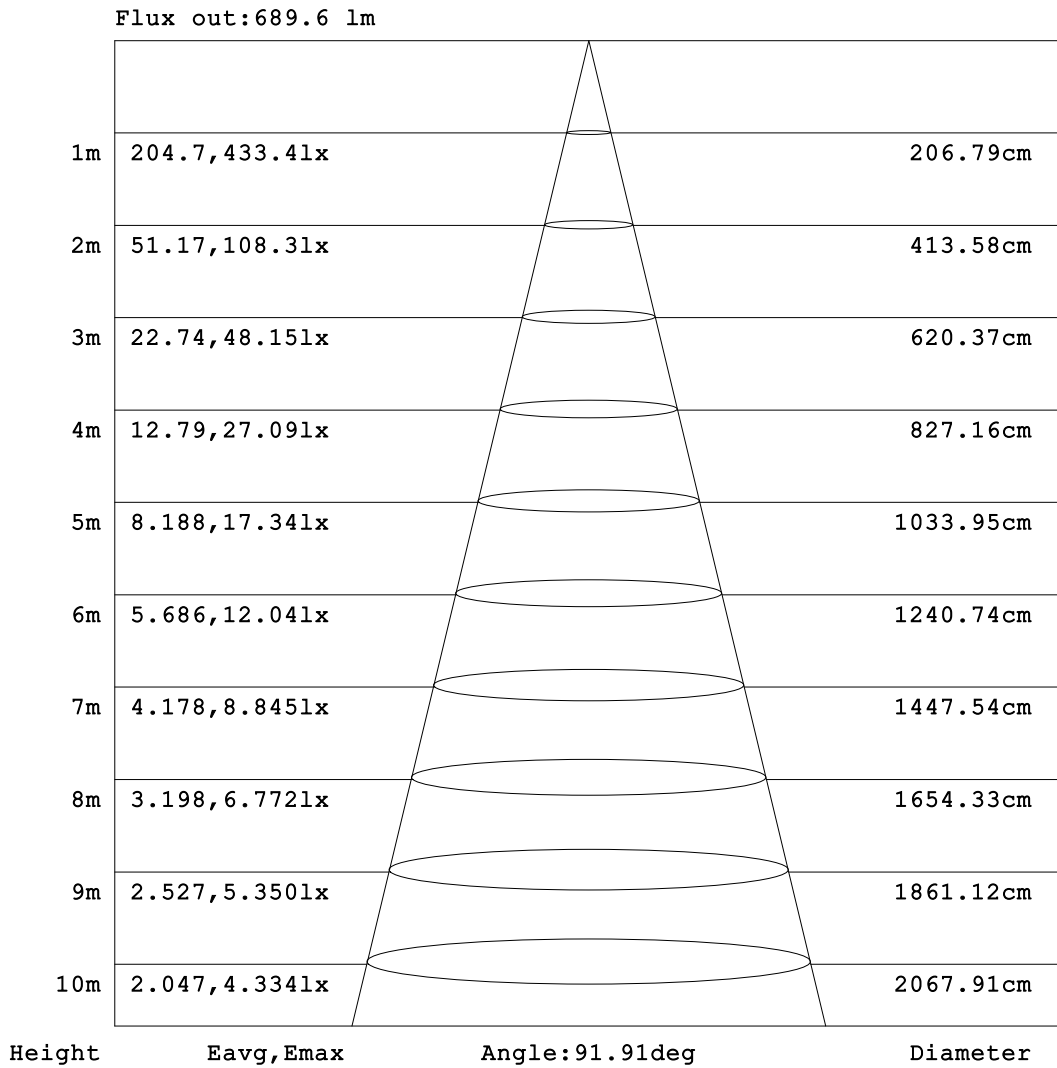


C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators:  
Test Date: 2024-06-07

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
Humidity: 65.0%  
Test Distance: 9.410m [K=1.0000]  
Remarks:

**AAI Figure**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



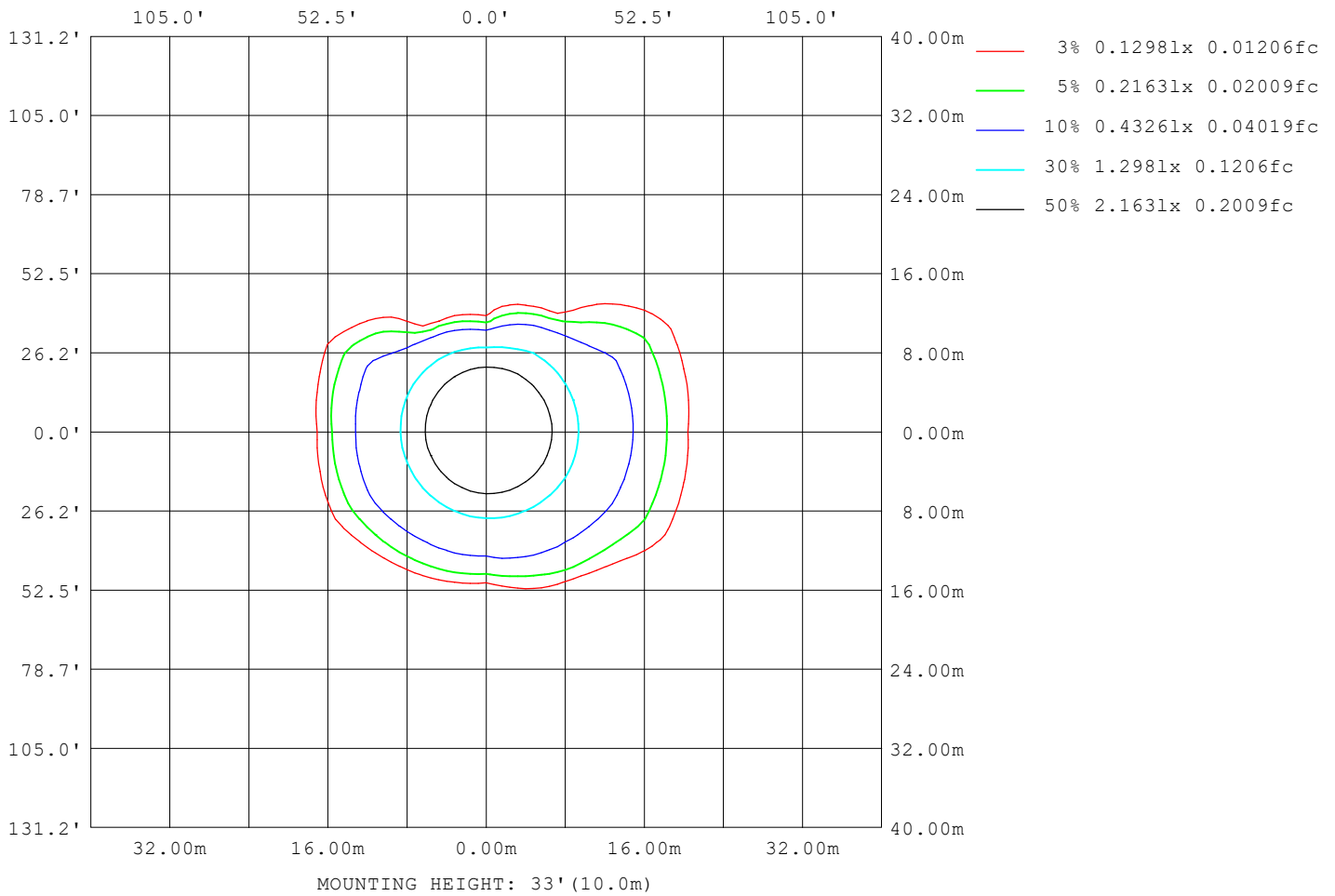
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

Test:U:220.36V I:0.0419A P:9.0257W PF:0.9772 Freq:49.99Hz Lamp Flux:986.094x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

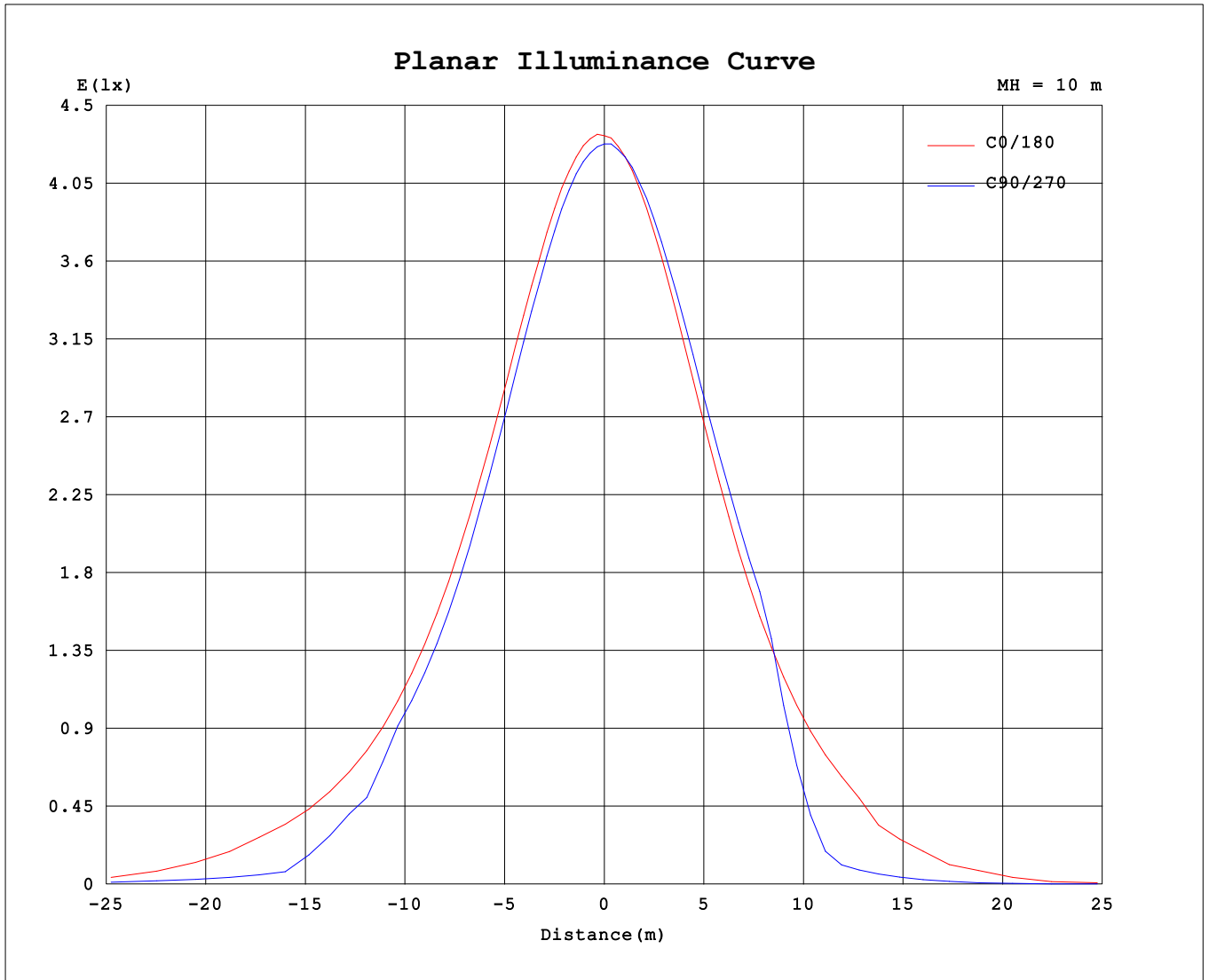
AvgL	cd/m2
L_0~180 (65) av	5149
L_0~180 (75) av	949
L_0~180 (85) av	390
L_90~270 (65) av	1164
L_90~270 (75) av	942
L_90~270 (85) av	2273
L_45 (65) av	4248
L_45 (75) av	1184
L_45 (85) av	1883

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:  
 Test Date:2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.410m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2024-06-07

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity: 65.0%  
 Test Distance: 9.410m [K=1.0000]  
 Remarks:

