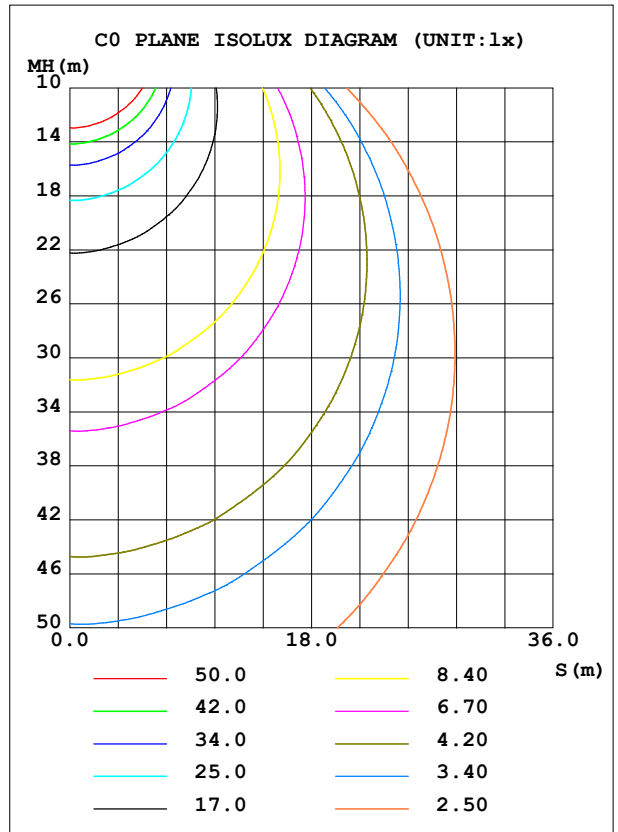
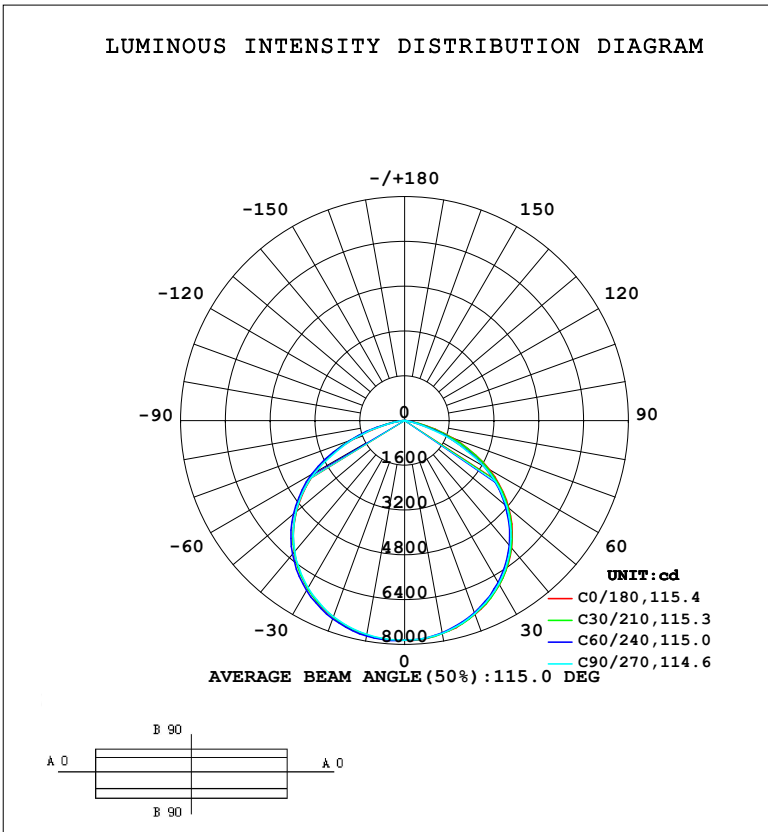


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	DFL-200W	Imax (cd)	7872	S/MH (C0/180)	1.31
NOMINAL POWER (W)	200	LOR (%)	100.0	S/MH (C90/270)	1.31
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	22124	η UP, DN (C0-180)	0.0,48.4
NOMINAL FLUX (lm)	22123.9	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,51.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η 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: 2024-04-10

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	7726	7713	7721	7739	7777	7796	7755	7752	0- 10	744.9	744.9	3.37,3.37
20	7360	7326	7334	7387	7466	7505	7454	7431	10- 20	2149	2894	13.1,13.1
30	6775	6723	6732	6800	6937	6971	6903	6863	20- 30	3299	6193	28,28
40	5948	5875	5882	5952	6117	6174	6111	6071	30- 40	4041	10234	46.3,46.3
50	4856	4760	4762	4845	5045	5129	5073	5021	40- 50	4248	14482	65.5,65.5
60	3507	3358	3298	3429	3675	3775	3689	3695	50- 60	3822	18304	82.7,82.7
70	1844	1650	1411	1701	1975	2070	1983	2016	60- 70	2676	20979	94.8,94.8
80	341.0	220.4	88.02	199.3	391.9	444.0	375.5	443.6	70- 80	1059	22038	99.6,99.6
90	9.034	9.326	9.180	9.210	4.838	5.894	5.234	5.485	80- 90	86.00	22124	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): 12797 lm

%lum = 57.8%

%lamp = 57.8%

Conical surface Flux(130deg): 20091 lm

%lum = 90.8%

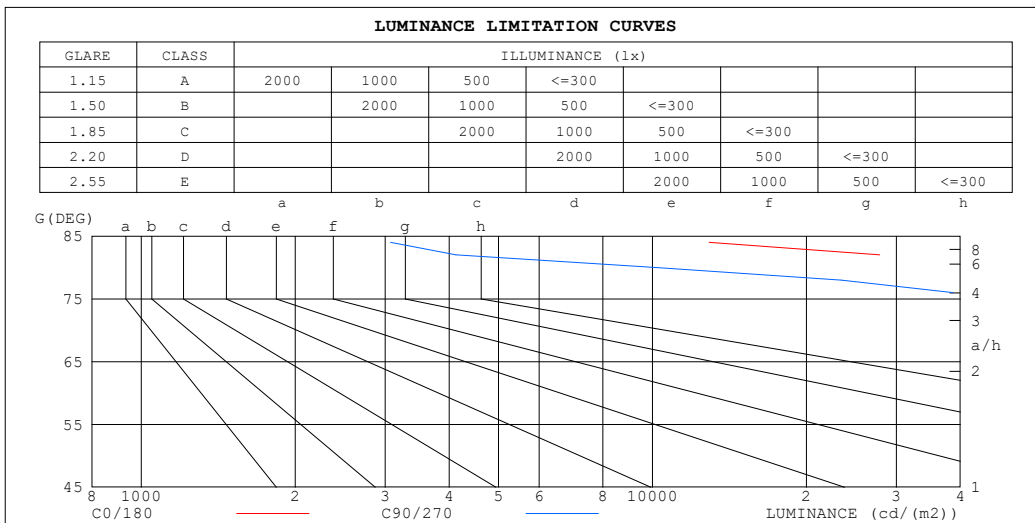
%lamp = 90.8%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:

LUMINANCE LIMITATION CURVES

Test:U:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15476	3685
80	43775	10241
75	98988	55788
70	120166	83338
65	149428	119076
60	156339	133253
55	169328	148807
50	168418	149669
45	174773	156182

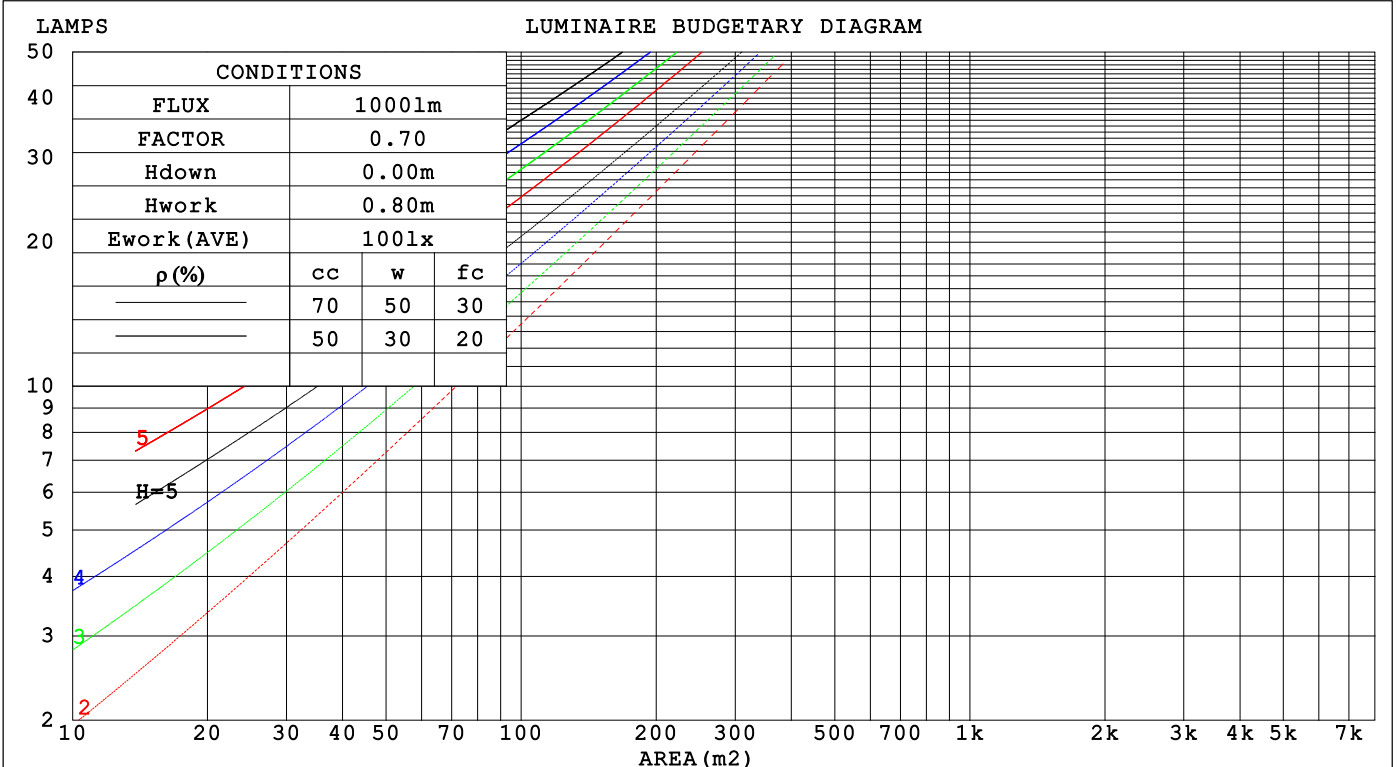
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz		
Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.88	.86
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.77	.83	.79	.76	.80	.77	.74	.72
3.0	.81	.73	.67	.79	.72	.66	.77	.70	.65	.74	.68	.64	.71	.67	.63	.61
4.0	.72	.63	.57	.70	.62	.56	.68	.61	.56	.66	.60	.55	.64	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.48	.61	.54	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.42	.57	.48	.42	.55	.47	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.52	.44	.37	.51	.43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.33	.47	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2024-04-10

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:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz		
Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	.284	.161	.051	.277	.158	.050	.264	.151	.048	.252	.145	.047	.240	.139	.045	
2.0	.275	.151	.046	.269	.148	.046	.258	.143	.045	.247	.139	.043	.237	.134	.042	
3.0	.259	.138	.041	.254	.136	.041	.244	.132	.040	.234	.128	.039	.225	.125	.039	
4.0	.242	.126	.037	.237	.124	.037	.228	.121	.036	.219	.118	.036	.212	.115	.035	
5.0	.225	.115	.033	.221	.113	.033	.213	.111	.033	.205	.108	.032	.198	.106	.032	
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029	
7.0	.196	.097	.027	.193	.096	.027	.186	.094	.027	.180	.092	.027	.174	.091	.027	
8.0	.183	.090	.025	.180	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.025	
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.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	.179	.156	.136	.153	.134	.117	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.091	.061	.036	.053	.036	.022	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:

UGR(Unified Glare Rating) Table

Test:U:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz										
Lamp Flux:22123.9x1 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	20.0	21.5	20.3	21.7	21.9	19.3	20.8	19.6	21.0	21.2
3H	21.2	22.6	21.5	22.8	23.0	20.2	21.6	20.5	21.8	22.0
4H	21.5	22.8	21.8	23.0	23.3	20.3	21.6	20.6	21.8	22.1
6H	21.5	22.7	21.8	23.0	23.3	20.2	21.4	20.5	21.7	22.0
8H	21.5	22.6	21.8	22.9	23.2	20.2	21.3	20.5	21.6	21.9
12H	21.4	22.5	21.8	22.8	23.1	20.1	21.2	20.5	21.5	21.8
4H 2H	20.5	21.8	20.8	22.0	22.3	19.9	21.2	20.2	21.5	21.7
3H	21.8	22.9	22.1	23.2	23.5	20.9	22.0	21.2	22.3	22.6
4H	22.1	23.1	22.5	23.4	23.8	21.0	22.0	21.4	22.3	22.7
6H	22.2	23.1	22.6	23.4	23.8	20.9	21.9	21.3	22.2	22.6
8H	22.1	23.0	22.6	23.4	23.7	20.9	21.7	21.3	22.1	22.5
12H	22.1	22.9	22.5	23.3	23.7	20.9	21.6	21.3	22.0	22.4
8H 4H	22.1	22.9	22.5	23.3	23.7	21.1	21.9	21.5	22.3	22.6
6H	22.2	22.9	22.6	23.3	23.7	21.0	21.7	21.5	22.1	22.6
8H	22.2	22.8	22.6	23.2	23.7	21.0	21.6	21.4	22.0	22.5
12H	22.1	22.7	22.6	23.1	23.6	21.0	21.5	21.4	21.9	22.4
12H 4H	22.1	22.8	22.5	23.2	23.6	21.0	21.8	21.4	22.2	22.6
6H	22.2	22.8	22.6	23.2	23.6	21.0	21.6	21.5	22.0	22.5
8H	22.1	22.7	22.6	23.1	23.6	21.0	21.5	21.4	21.9	22.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.5					+ 0.3 / - 0.5				
2.0H	+ 0.4 / - 0.5					+ 0.4 / - 0.5				

CIE Pub.117, 22124 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 10.8)
 Area: 0.048 m2

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

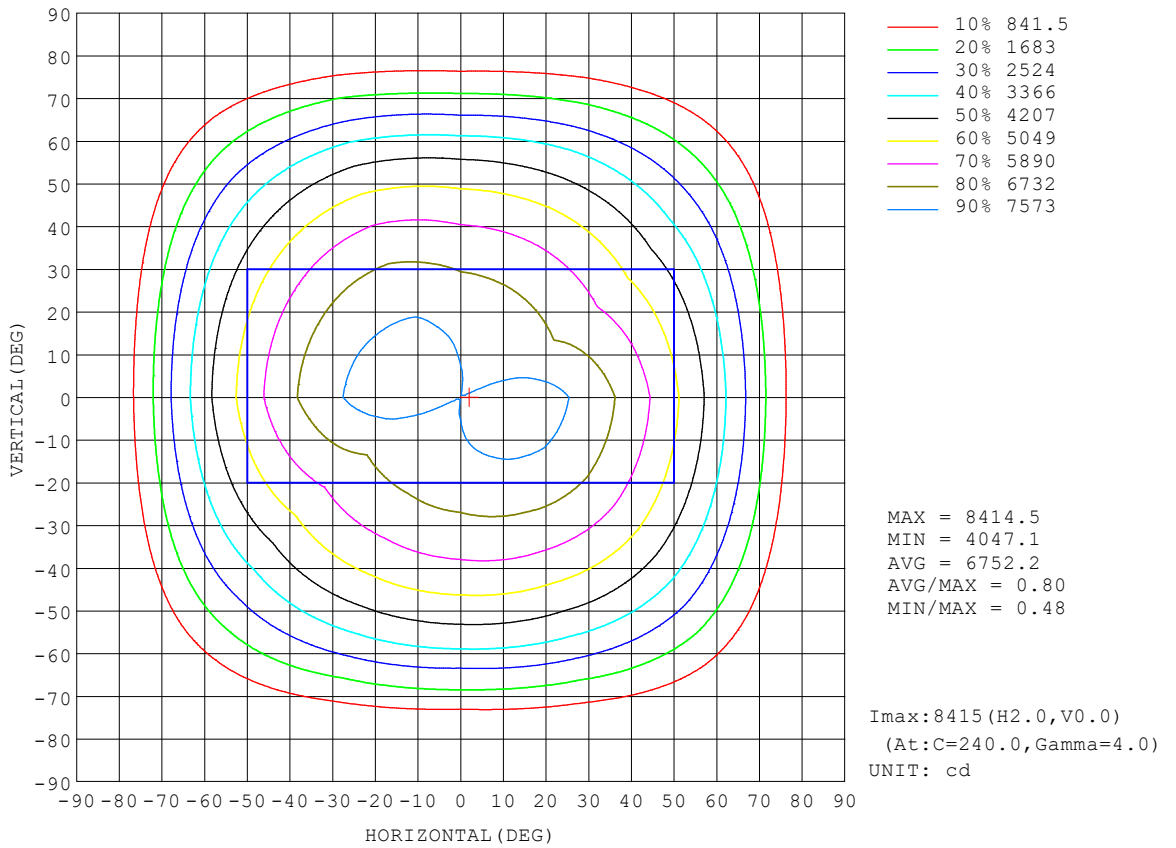
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	47	40	57	46	40	56	46	39	33
0.80	69	57	50	68	57	50	66	56	49	42
1.00	77	66	59	76	66	59	74	67	59	52
1.25	85	74	68	83	74	67	80	72	66	59
1.50	90	80	73	88	79	73	85	77	72	65
2.00	96	88	82	95	87	81	91	85	80	72
2.50	100	93	87	98	92	86	94	89	84	76
3.00	104	97	92	101	96	91	97	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
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:2024-04-10

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:

ISOCANDELA DIAGRAM

Test:U:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

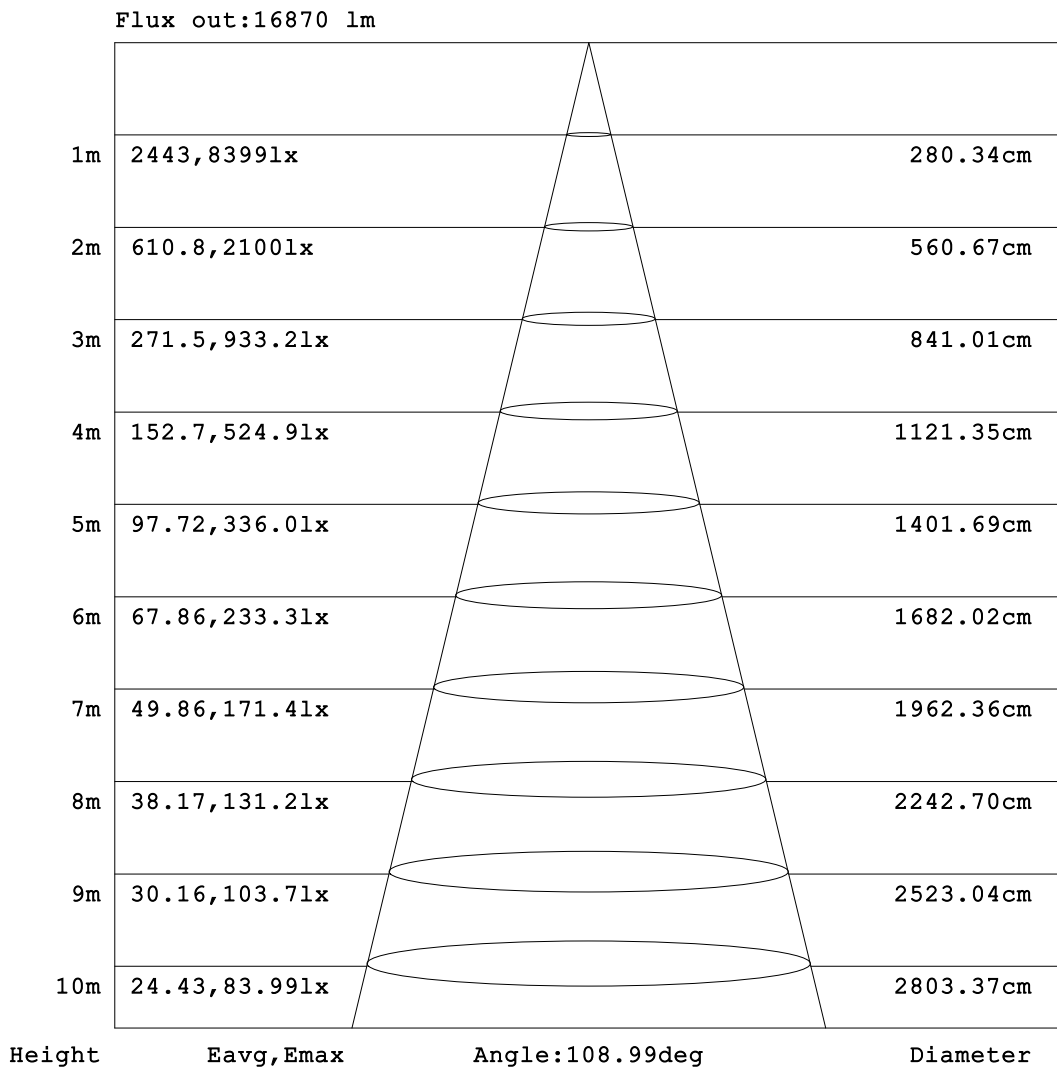


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



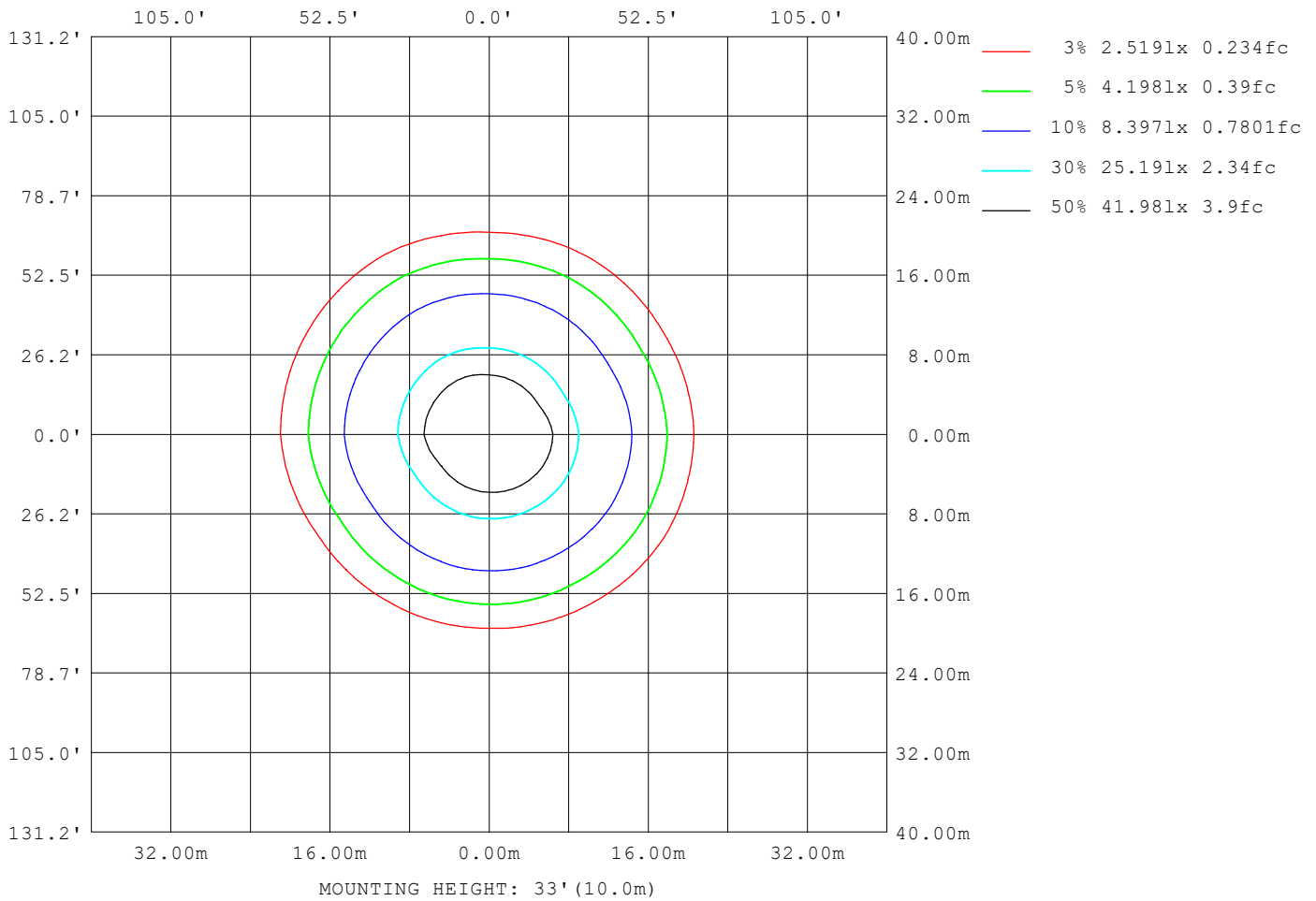
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3 °C
 Operators:
 Test Date: 2024-04-10

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:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 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:2024-04-10

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:220.41V I:0.8611A P:178.49W PF:0.9405 Freq:49.99Hz Lamp Flux:22123.9x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

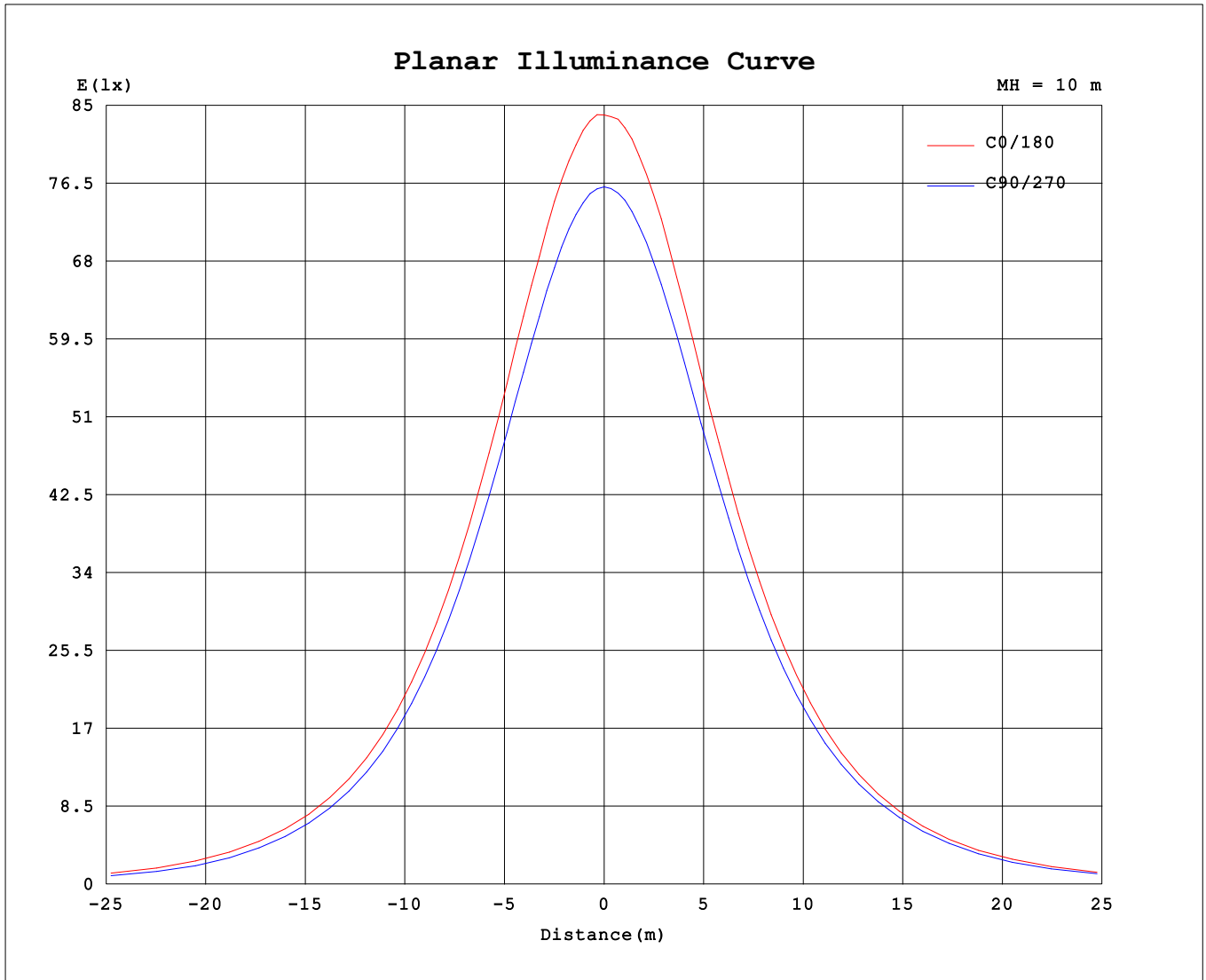
AvgL	cd/m2
L_0~180 (65) av	136113
L_0~180 (75) av	81501
L_0~180 (85) av	8342
L_90~270 (65) av	125754
L_90~270 (75) av	67687
L_90~270 (85) av	5474
L_45 (65) av	135259
L_45 (75) av	79808
L_45 (85) av	8043

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2024-04-10

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: 2024-04-10

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:

