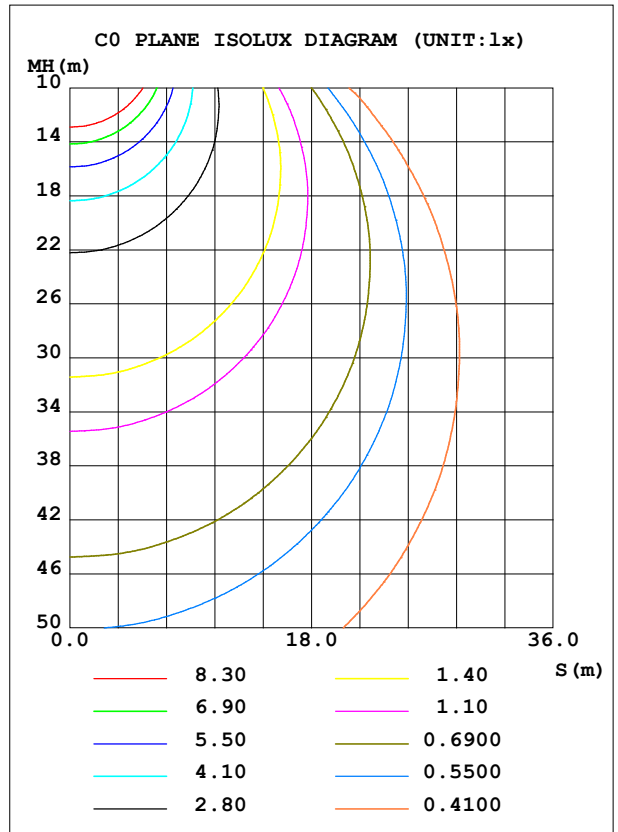
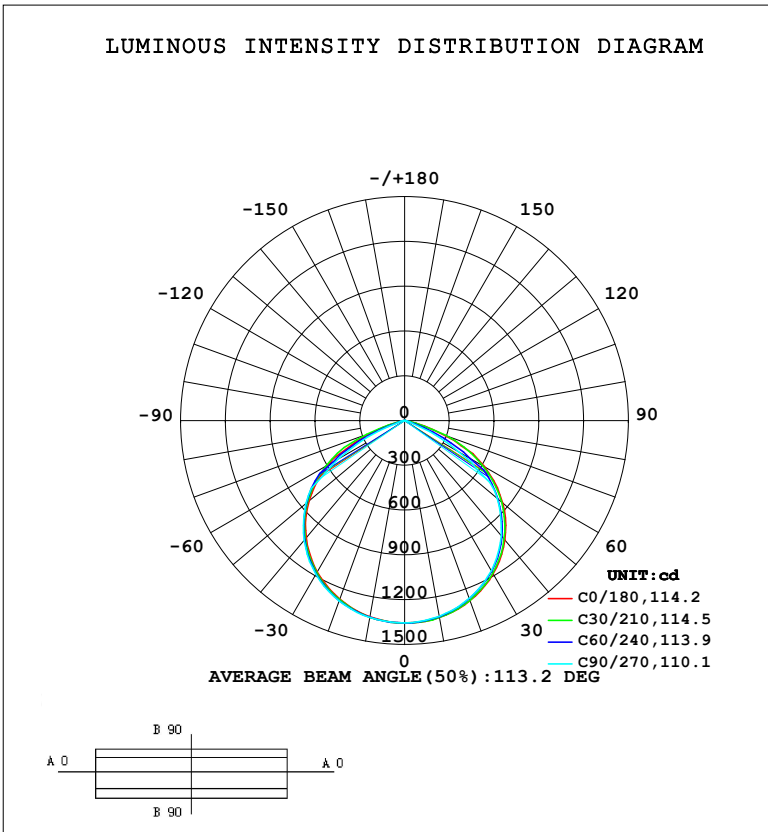


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	DFL-30W	Imax (cd)	1358	S/MH (C0/180)	1.28
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	1.30
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	3592.6	η UP, DN (C0-180)	0.0,49.1
NOMINAL FLUX (lm)	3592.58	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,50.9
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	1340	1337	1332	1330	1334	1338	1340	1343	0- 10	128.5	128.5	3.58,3.58
20	1284	1276	1266	1266	1272	1280	1285	1290	10- 20	370.6	499.1	13.9,13.9
30	1186	1174	1162	1159	1171	1182	1190	1196	20- 30	568.2	1067	29.7,29.7
40	1045	1026	1007	1008	1026	1039	1047	1055	30- 40	694.5	1762	49,49
50	857.3	831.7	809.1	812.7	836.0	852.5	862.8	871.5	40- 50	726.4	2488	69.3,69.3
60	616.7	555.3	418.1	529.5	591.5	582.0	514.7	605.3	50- 60	638.9	3127	87,87
70	271.8	217.9	53.72	152.2	215.4	216.9	120.5	257.5	60- 70	377.0	3504	97.5,97.5
80	15.92	15.70	6.182	10.99	10.43	16.37	18.51	25.21	70- 80	83.02	3587	99.9,99.9
90	1.158	1.122	0.9203	1.223	0.5883	0.5374	0.3110	0.5047	80- 90	5.366	3593	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): 2200.5 lm

%lum = 61.3%

%lamp = 61.3%

Conical surface Flux(130deg): 3393.6 lm

%lum = 94.5%

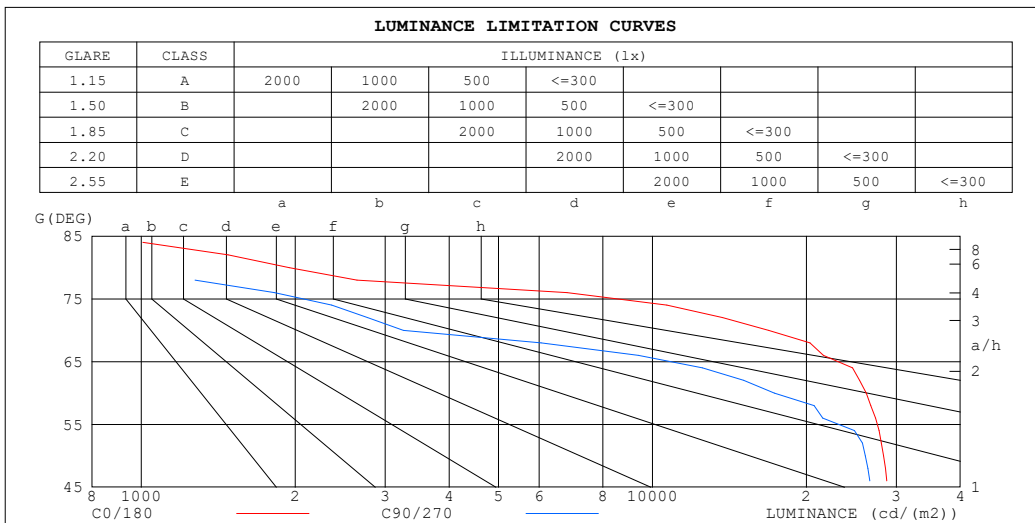
%lamp = 94.5%

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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1207	154
80	1947	738
75	11360	2511
70	16879	3255
65	25532	12992
60	26198	17329
55	28447	25460
50	28332	26085
45	29323	27302

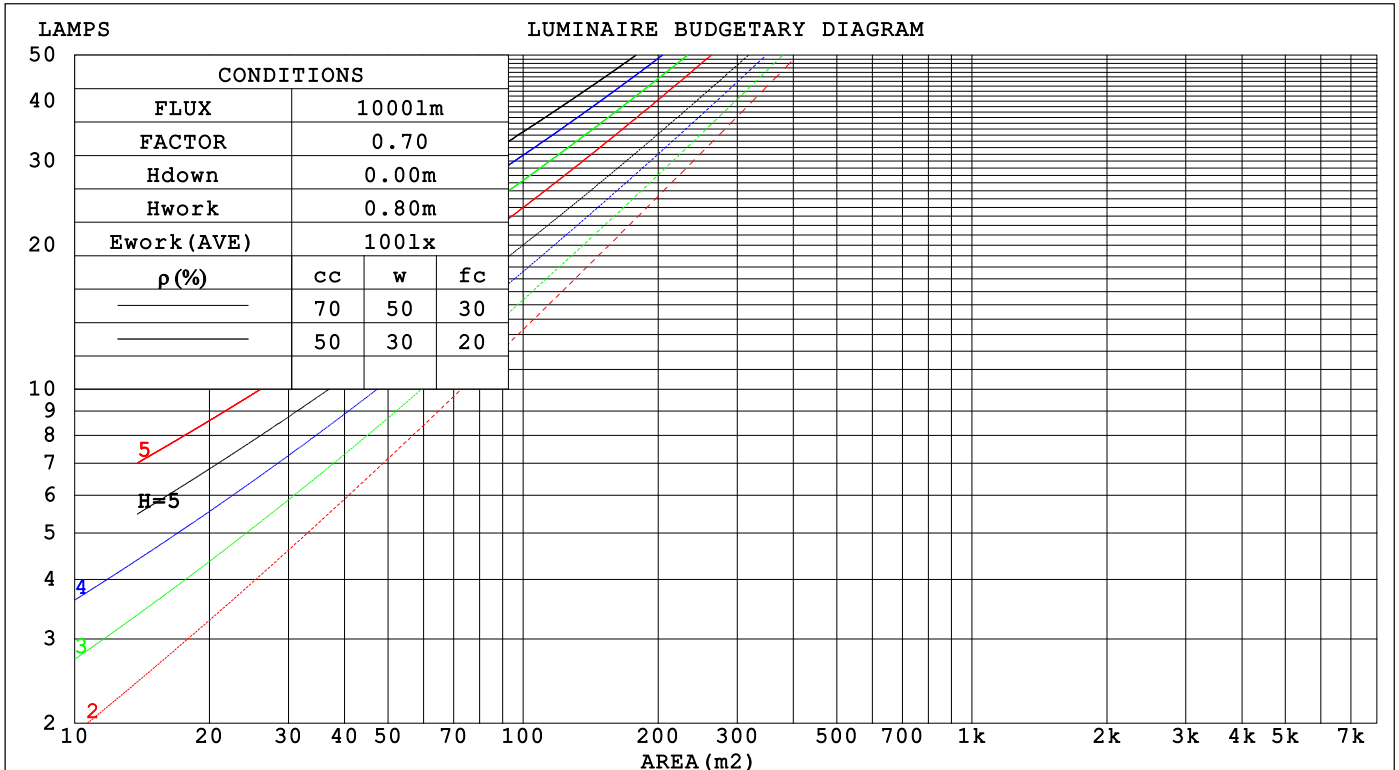
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2024-04-10

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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 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	1.06	1.03	.99	1.04	1.01	.98	.00	.97	.95	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.82	.92	.86	.81	.88	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.83	.75	.69	.81	.74	.69	.78	.72	.68	.76	.71	.66	.73	.69	.65	.63
4.0	.74	.65	.59	.72	.65	.59	.70	.63	.58	.68	.62	.57	.65	.61	.56	.54
5.0	.66	.57	.51	.65	.57	.51	.63	.56	.50	.61	.55	.50	.59	.54	.49	.47
6.0	.59	.51	.45	.58	.50	.44	.57	.49	.44	.55	.49	.44	.53	.48	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.44	.39	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.41	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26



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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz								
Lamp Flux:3592.58x1 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	.265	.151	.048	.258	.147	.047	.245	.141	.045	.233	.134	.043	.222	.129	.041	
2.0	.260	.143	.044	.254	.140	.043	.243	.135	.042	.232	.130	.041	.223	.126	.040	
3.0	.248	.132	.039	.242	.130	.039	.232	.126	.038	.223	.122	.037	.214	.119	.037	
4.0	.233	.121	.036	.228	.119	.035	.219	.116	.035	.211	.113	.034	.203	.110	.034	
5.0	.218	.111	.032	.214	.110	.032	.206	.107	.032	.199	.105	.031	.192	.102	.031	
6.0	.204	.102	.029	.201	.101	.029	.193	.099	.029	.187	.097	.029	.181	.095	.028	
7.0	.192	.095	.027	.188	.094	.027	.182	.092	.026	.176	.090	.026	.170	.089	.026	
8.0	.180	.088	.025	.177	.087	.025	.171	.086	.024	.166	.084	.024	.161	.083	.024	
9.0	.169	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.022	.152	.077	.022	
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.073	.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																
1.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
2.0	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
3.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
4.0	.160	.114	.077	.137	.098	.067	.094	.068	.047	.054	.040	.028	.017	.013	.009	
5.0	.153	.101	.061	.131	.087	.053	.090	.061	.037	.052	.035	.022	.017	.012	.007	
6.0	.146	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
7.0	.139	.082	.040	.120	.071	.035	.082	.050	.025	.048	.029	.015	.015	.010	.005	
8.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
9.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
10.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz										
Lamp Flux:3592.58x1 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	20.3	21.7	20.6	21.9	22.1	19.2	20.6	19.4	20.8	21.0
3H	21.3	22.6	21.6	22.9	23.1	19.3	20.6	19.6	20.9	21.1
4H	21.4	22.7	21.7	22.9	23.2	19.2	20.5	19.5	20.7	21.0
6H	21.3	22.5	21.6	22.8	23.0	19.1	20.3	19.4	20.6	20.8
8H	21.3	22.4	21.6	22.7	23.0	19.1	20.2	19.4	20.5	20.8
12H	21.2	22.3	21.6	22.6	22.9	19.0	20.1	19.4	20.4	20.7
4H 2H	20.7	21.9	21.0	22.2	22.4	19.7	21.0	20.0	21.2	21.5
3H	21.8	22.9	22.1	23.2	23.5	19.9	21.0	20.3	21.3	21.6
4H	21.9	22.9	22.3	23.2	23.5	19.8	20.8	20.2	21.1	21.5
6H	21.8	22.7	22.2	23.0	23.4	19.8	20.6	20.1	21.0	21.3
8H	21.8	22.6	22.2	23.0	23.3	19.7	20.5	20.1	20.9	21.3
12H	21.7	22.5	22.2	22.9	23.3	19.7	20.4	20.1	20.8	21.2
8H 4H	21.8	22.6	22.2	23.0	23.4	19.8	20.6	20.2	21.0	21.4
6H	21.8	22.4	22.2	22.8	23.2	19.8	20.4	20.2	20.8	21.2
8H	21.7	22.3	22.2	22.7	23.2	19.7	20.3	20.2	20.7	21.2
12H	21.7	22.2	22.2	22.6	23.1	19.7	20.2	20.2	20.6	21.1
12H 4H	21.8	22.5	22.2	22.9	23.3	19.8	20.5	20.2	20.9	21.3
6H	21.7	22.3	22.2	22.7	23.2	19.7	20.3	20.2	20.7	21.2
8H	21.7	22.2	22.2	22.6	23.1	19.7	20.2	20.2	20.6	21.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.4					+ 0.4 / - 0.4				
1.5H	+ 0.2 / - 0.4					+ 0.8 / - 1.2				
2.0H	+ 0.5 / - 0.7					+ 1.0 / - 1.5				

CIE Pub.117, 3593 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.4)
 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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

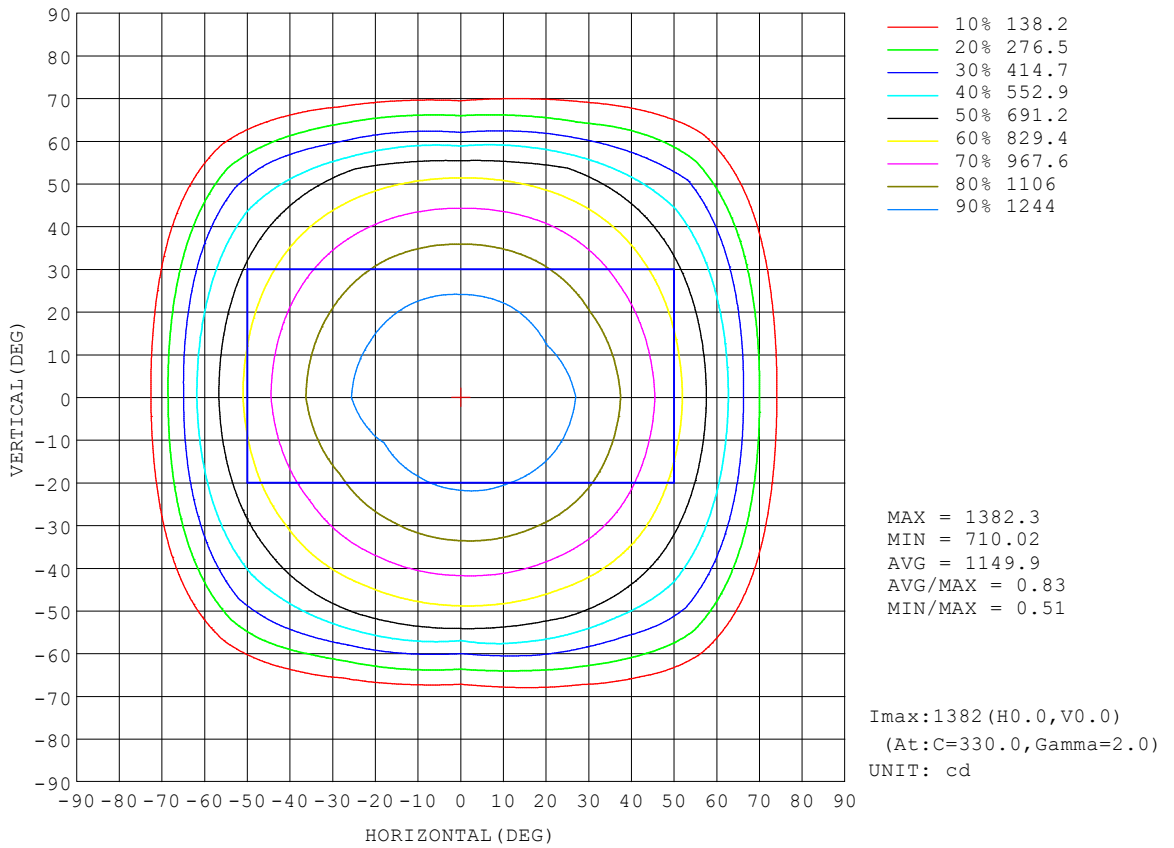
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	48	41	59	48	41	57	47	41	35
0.80	70	59	52	69	59	52	67	58	51	45
1.00	79	69	62	78	68	62	76	69	61	54
1.25	86	77	70	85	76	70	82	75	69	62
1.50	91	82	76	90	81	76	87	80	74	67
2.00	98	90	85	96	89	84	93	87	82	75
2.50	102	95	89	100	93	88	96	91	87	79
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	102	98	102	98	95	87
5.00	110	106	103	108	104	101	104	101	98	89
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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

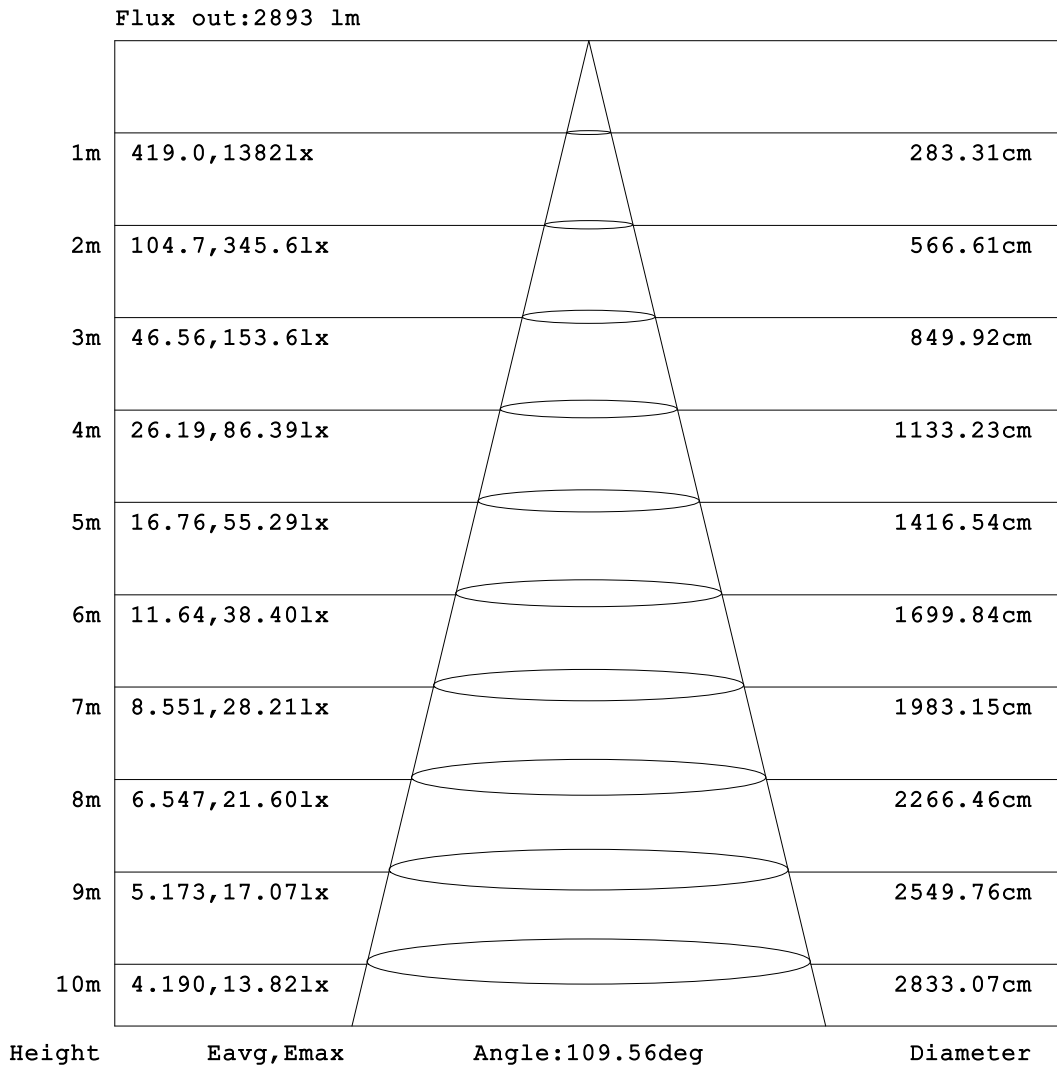


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



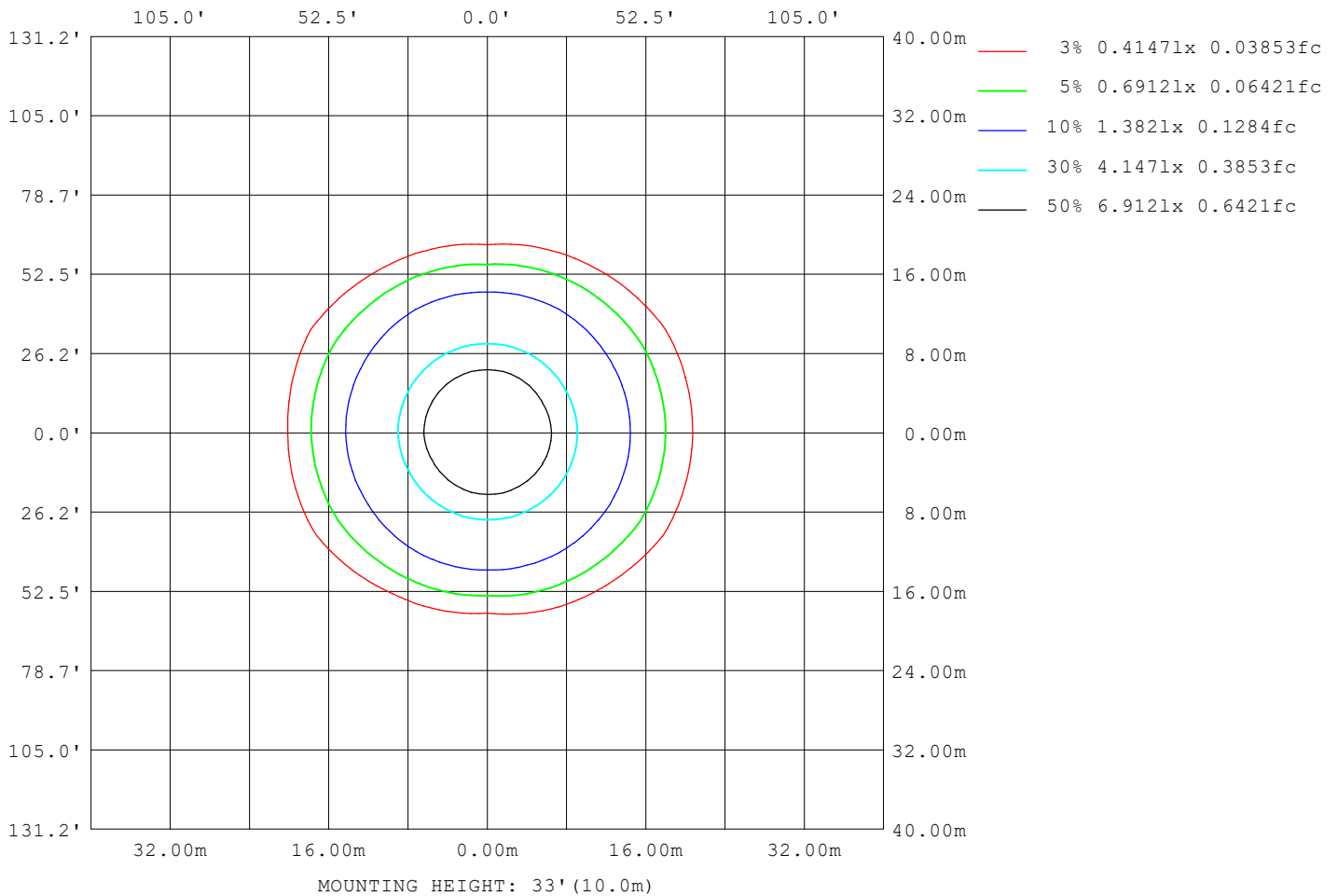
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 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:220.55V I:0.1437A P:29.937W PF:0.9444 Freq:49.99Hz Lamp Flux:3592.58x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

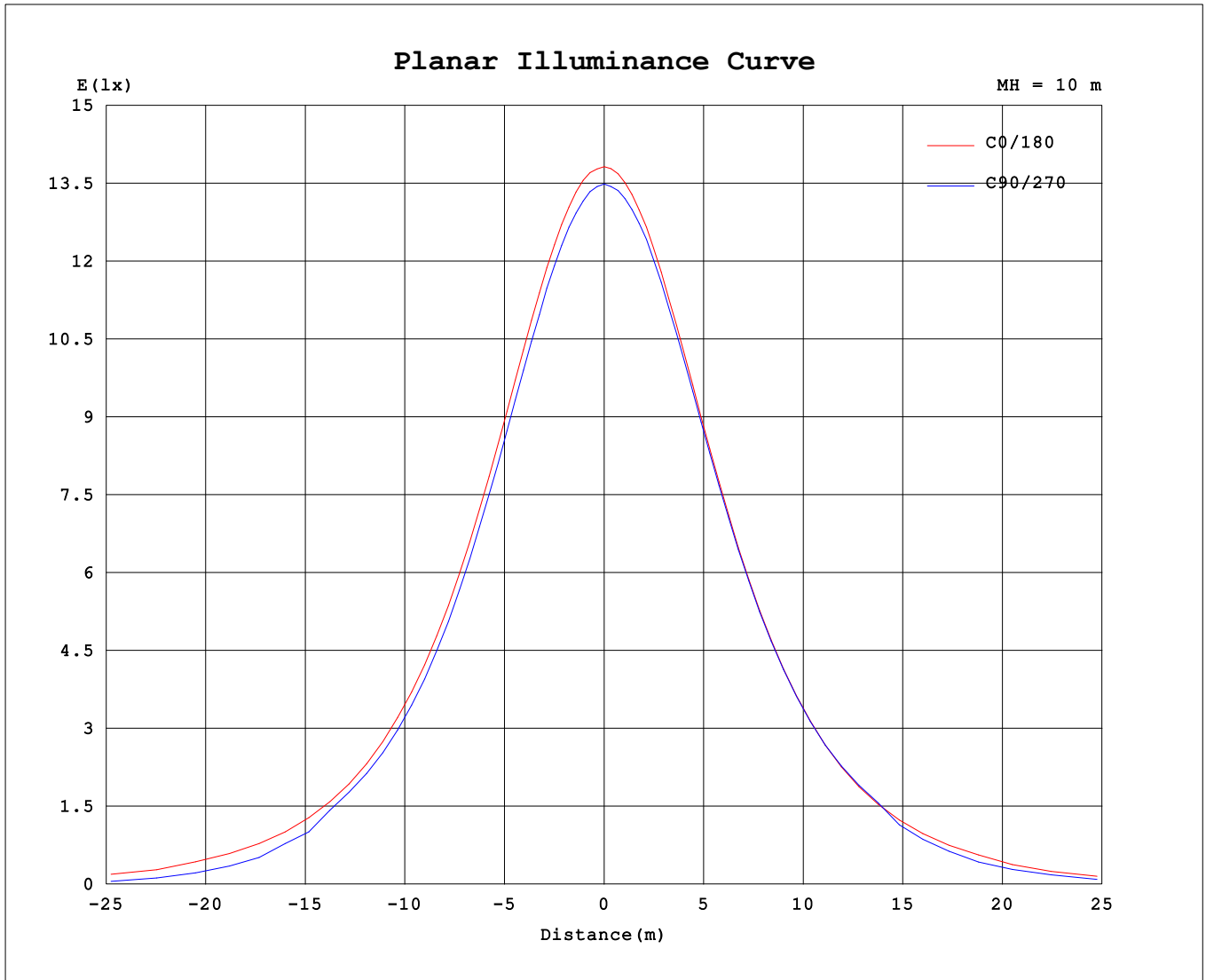
AvgL	cd/m2
L_0~180 (65) av	21261
L_0~180 (75) av	7030
L_0~180 (85) av	556
L_90~270 (65) av	13200
L_90~270 (75) av	2748
L_90~270 (85) av	387
L_45 (65) av	20168
L_45 (75) av	5463
L_45 (85) av	901

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:

