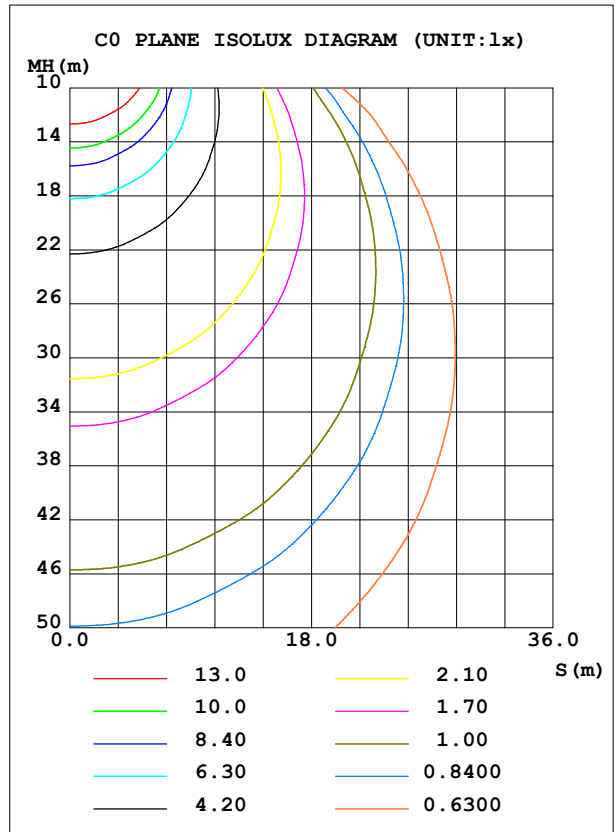
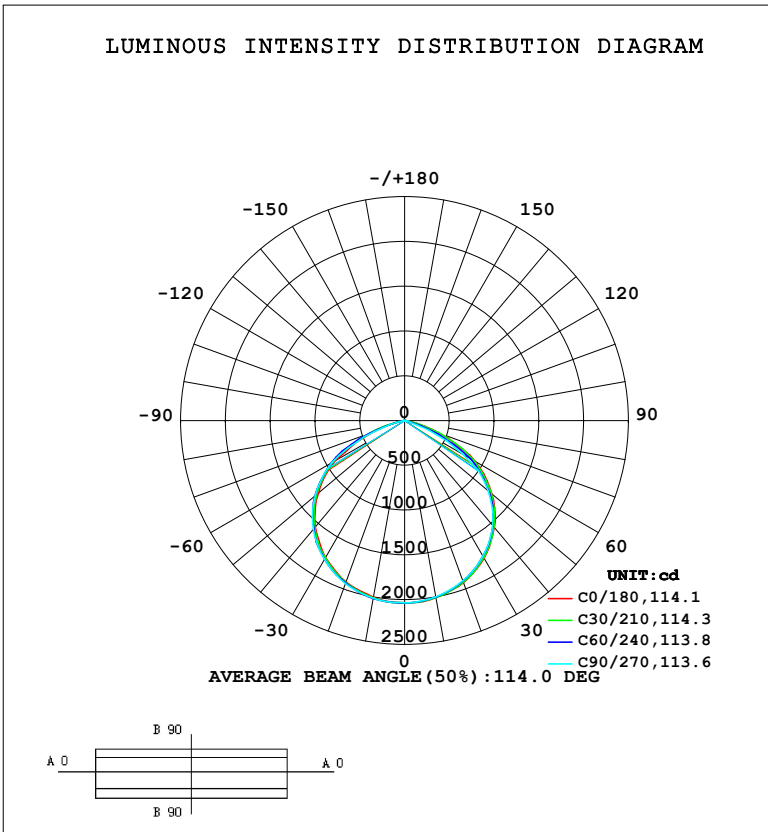


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	DFL-50W	Imax (cd)	2036	S/MH (C0/180)	1.29
NOMINAL POWER (W)	50	LOR (%)	100.0	S/MH (C90/270)	1.31
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	5522.9	η UP, DN (C0-180)	0.0, 48.7
NOMINAL FLUX (lm)	5522.92	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.3
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	2009	2005	2001	2003	2002	2014	2014	2016	0- 10	193.1	193.1	3.5,3.5
20	1926	1913	1903	1904	1918	1925	1935	1936	10- 20	556.6	749.7	13.6,13.6
30	1776	1759	1750	1745	1766	1779	1789	1794	20- 30	854.0	1604	29,29
40	1560	1542	1529	1530	1552	1569	1584	1587	30- 40	1046	2650	48,48
50	1270	1250	1218	1234	1257	1295	1302	1307	40- 50	1096	3746	67.8,67.8
60	899.1	872.7	747.5	851.6	895.1	933.2	939.8	947.4	50- 60	972.3	4718	85.4,85.4
70	399.8	359.7	161.0	307.3	378.4	419.1	359.7	451.6	60- 70	623.5	5342	96.7,96.7
80	35.10	27.11	10.07	16.60	19.71	30.93	24.67	48.37	70- 80	172.0	5514	99.8,99.8
90	1.862	2.012	1.915	2.082	0.9711	0.9477	0.6870	1.081	80- 90	9.169	5523	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): 3311.8 lm

%lum = 60.0%

%lamp = 60.0%

Conical surface Flux(130deg): 5149.8 lm

%lum = 93.2%

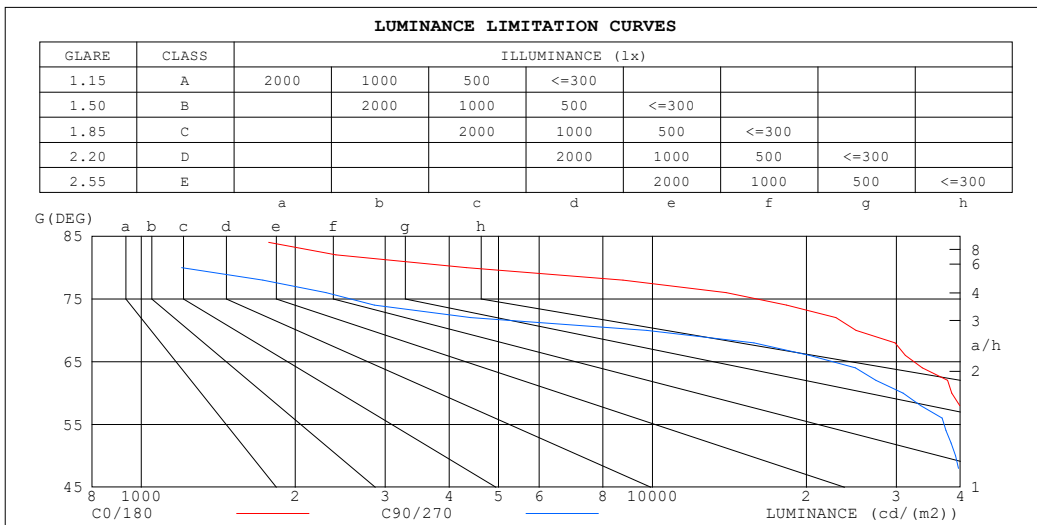
%lamp = 93.2%

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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2129	482
80	4325	1199
75	19472	3040
70	25016	9736
65	34991	25887
60	38484	30914
55	42480	38434
50	42267	39193
45	44099	41541

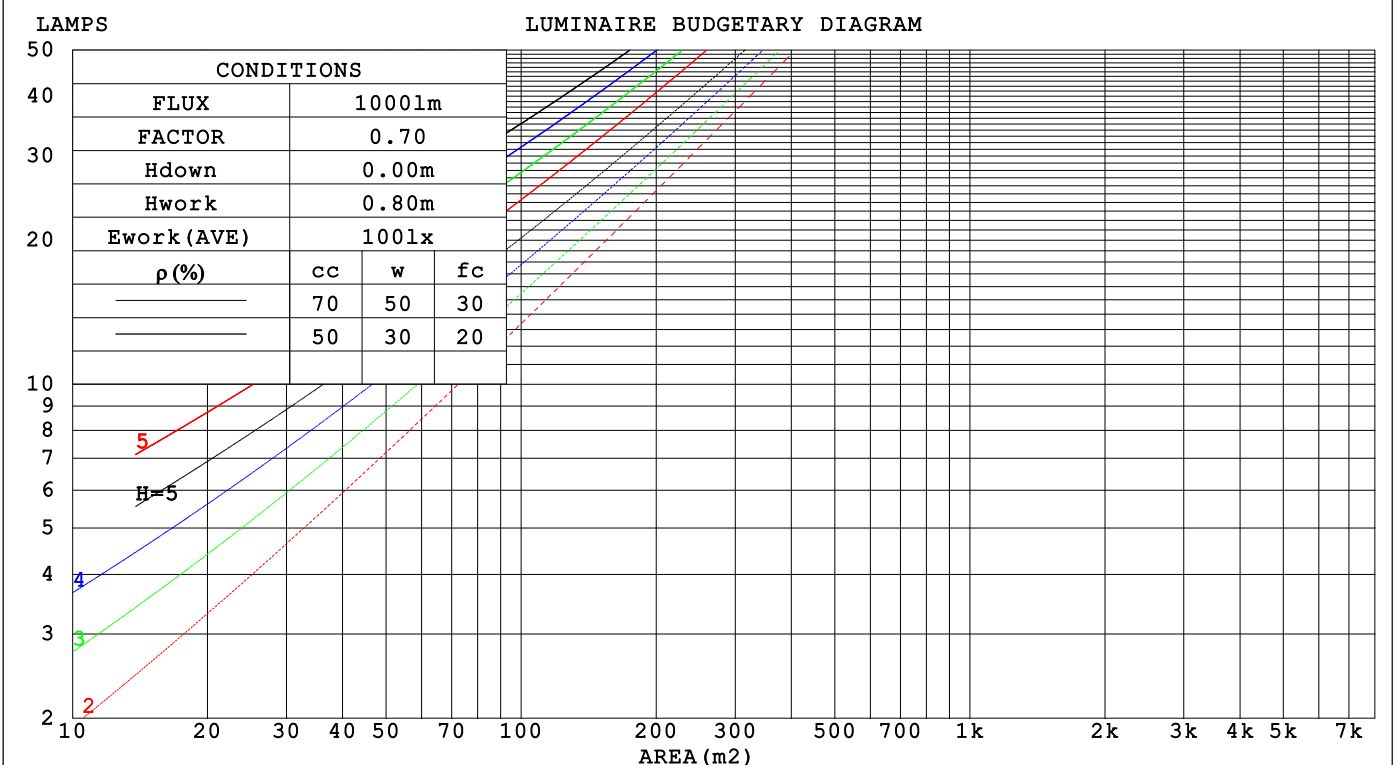
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3 °C
 Operators:
 Test Date:2024-04-10

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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 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	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.89	.87
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.82	.75	.68	.81	.74	.68	.78	.72	.67	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.56	.53
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.49	.60	.54	.49	.58	.53	.48	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.53	.47	.42	.40
7.0	.53	.45	.39	.52	.44	.39	.51	.44	.38	.49	.43	.38	.48	.42	.38	.36
8.0	.49	.40	.34	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.44	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.29
10.0	.41	.33	.28	.40	.33	.28	.40	.33	.28	.39	.32	.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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz		
Lamp Flux:5522.92x1 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	.271	.154	.049	.264	.151	.048	.251	.144	.046	.239	.138	.044	.228	.132	.043	
2.0	.266	.146	.045	.260	.143	.044	.248	.138	.043	.237	.133	.042	.228	.129	.041	
3.0	.252	.134	.040	.246	.132	.040	.236	.128	.039	.227	.124	.038	.218	.121	.037	
4.0	.236	.123	.036	.231	.121	.036	.222	.118	.035	.214	.115	.035	.206	.112	.034	
5.0	.221	.112	.033	.216	.111	.032	.208	.109	.032	.201	.106	.032	.194	.104	.031	
6.0	.206	.103	.030	.203	.102	.029	.195	.100	.029	.189	.098	.029	.183	.096	.029	
7.0	.193	.096	.027	.190	.095	.027	.183	.093	.027	.178	.091	.026	.172	.089	.026	
8.0	.181	.089	.025	.178	.088	.025	.173	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.170	.082	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.022	
10.0	.161	.077	.021	.158	.076	.021	.154	.075	.021	.149	.074	.021	.145	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.147	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.133	.075	.034	.115	.065	.030	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.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: 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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz										
Lamp Flux:5522.92x1 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	19.4	20.9	19.7	21.1	21.3
3H	21.0	22.4	21.3	22.6	22.8	19.8	21.1	20.1	21.4	21.6
4H	21.2	22.4	21.5	22.7	22.9	19.7	21.0	20.0	21.2	21.5
6H	21.1	22.3	21.4	22.6	22.8	19.6	20.8	19.9	21.1	21.3
8H	21.1	22.2	21.4	22.5	22.8	19.5	20.7	19.9	21.0	21.3
12H	21.0	22.1	21.4	22.4	22.7	19.5	20.6	19.8	20.9	21.2
4H 2H	20.4	21.7	20.7	22.0	22.2	19.9	21.2	20.2	21.4	21.7
3H	21.5	22.6	21.9	22.9	23.2	20.4	21.5	20.7	21.8	22.1
4H	21.7	22.7	22.1	23.0	23.4	20.3	21.3	20.7	21.6	21.9
6H	21.7	22.6	22.1	22.9	23.3	20.2	21.1	20.6	21.4	21.8
8H	21.6	22.5	22.0	22.8	23.2	20.2	21.0	20.6	21.3	21.7
12H	21.6	22.3	22.0	22.7	23.1	20.1	20.9	20.5	21.2	21.6
8H 4H	21.6	22.5	22.1	22.8	23.2	20.3	21.1	20.7	21.5	21.9
6H	21.6	22.3	22.1	22.7	23.1	20.2	20.9	20.7	21.3	21.7
8H	21.6	22.2	22.1	22.6	23.1	20.2	20.8	20.6	21.2	21.6
12H	21.6	22.1	22.0	22.5	23.0	20.1	20.6	20.6	21.1	21.6
12H 4H	21.6	22.4	22.0	22.7	23.1	20.3	21.0	20.7	21.4	21.8
6H	21.6	22.2	22.0	22.6	23.0	20.2	20.8	20.6	21.2	21.6
8H	21.6	22.1	22.0	22.5	23.0	20.1	20.6	20.6	21.1	21.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.5				
1.5H	+ 0.3 / - 0.4					+ 0.5 / - 0.8				
2.0H	+ 0.4 / - 0.8					+ 0.7 / - 1.0				

CIE Pub.117, 5523 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 5.9)
 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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

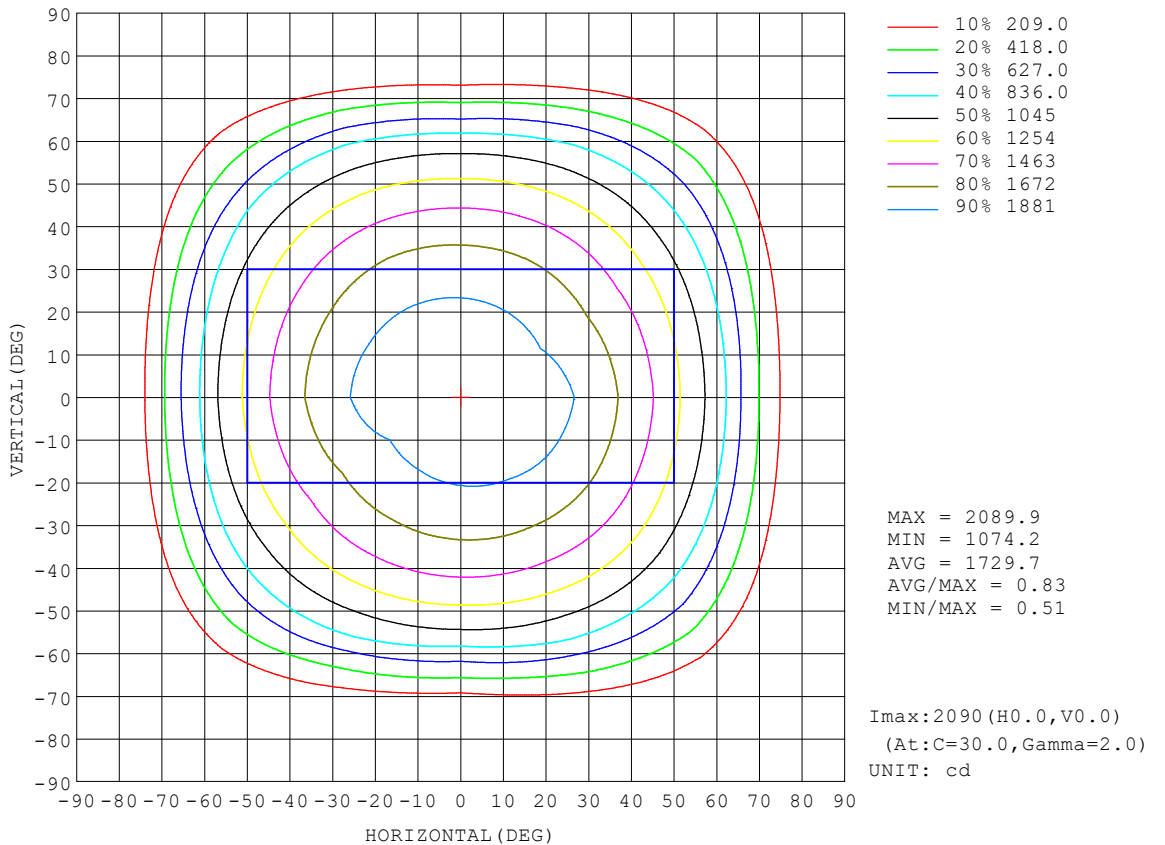
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	48	41	58	47	41	57	47	40	34
0.80	69	58	51	68	58	51	67	57	51	44
1.00	78	68	61	77	67	61	75	69	60	53
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	82	75	89	81	75	86	79	73	66
2.00	97	90	84	96	88	83	92	86	82	74
2.50	101	94	89	99	93	88	95	90	86	78
3.00	104	98	93	102	97	92	98	94	90	82
4.00	108	103	99	106	101	97	102	98	95	86
5.00	110	106	102	108	104	101	103	100	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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

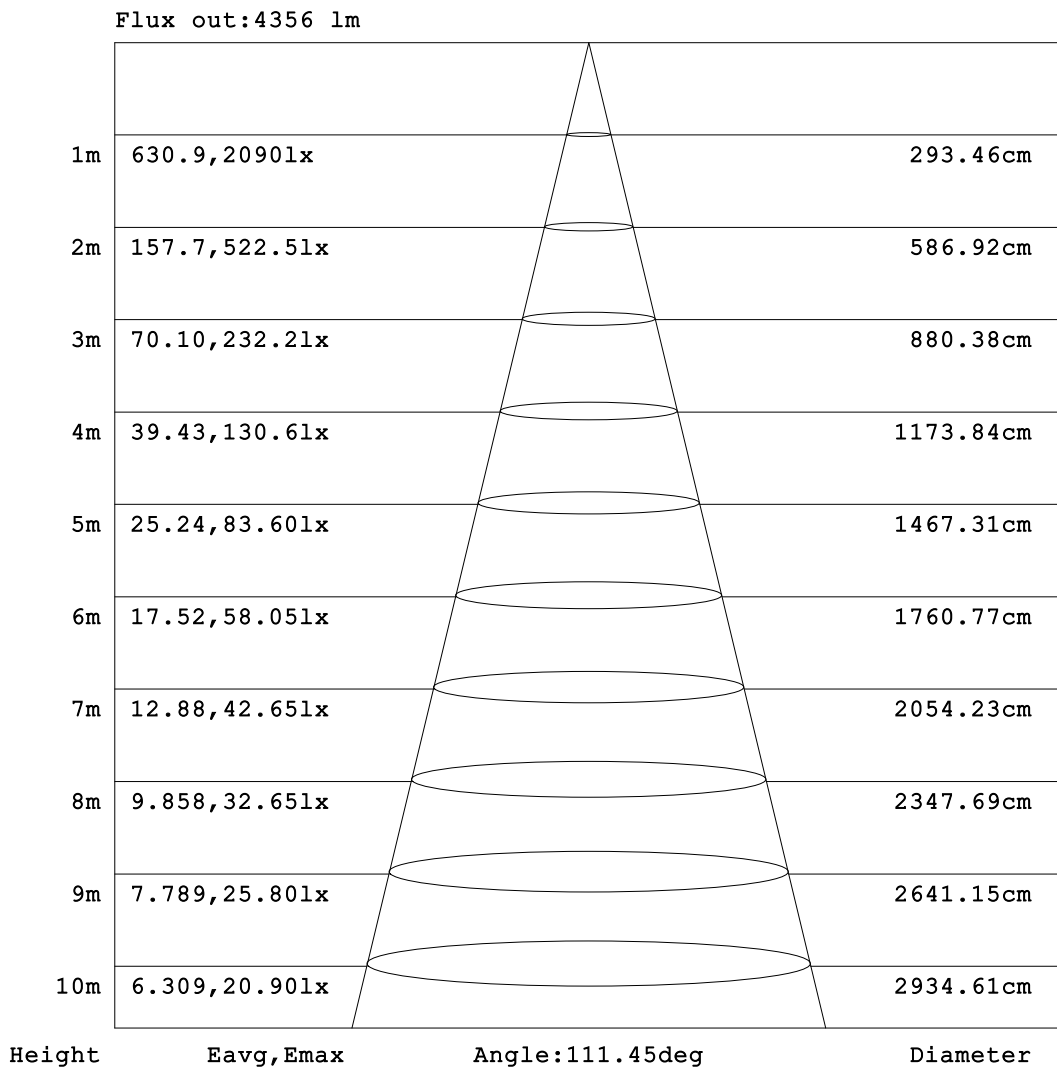


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:2024-04-10

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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



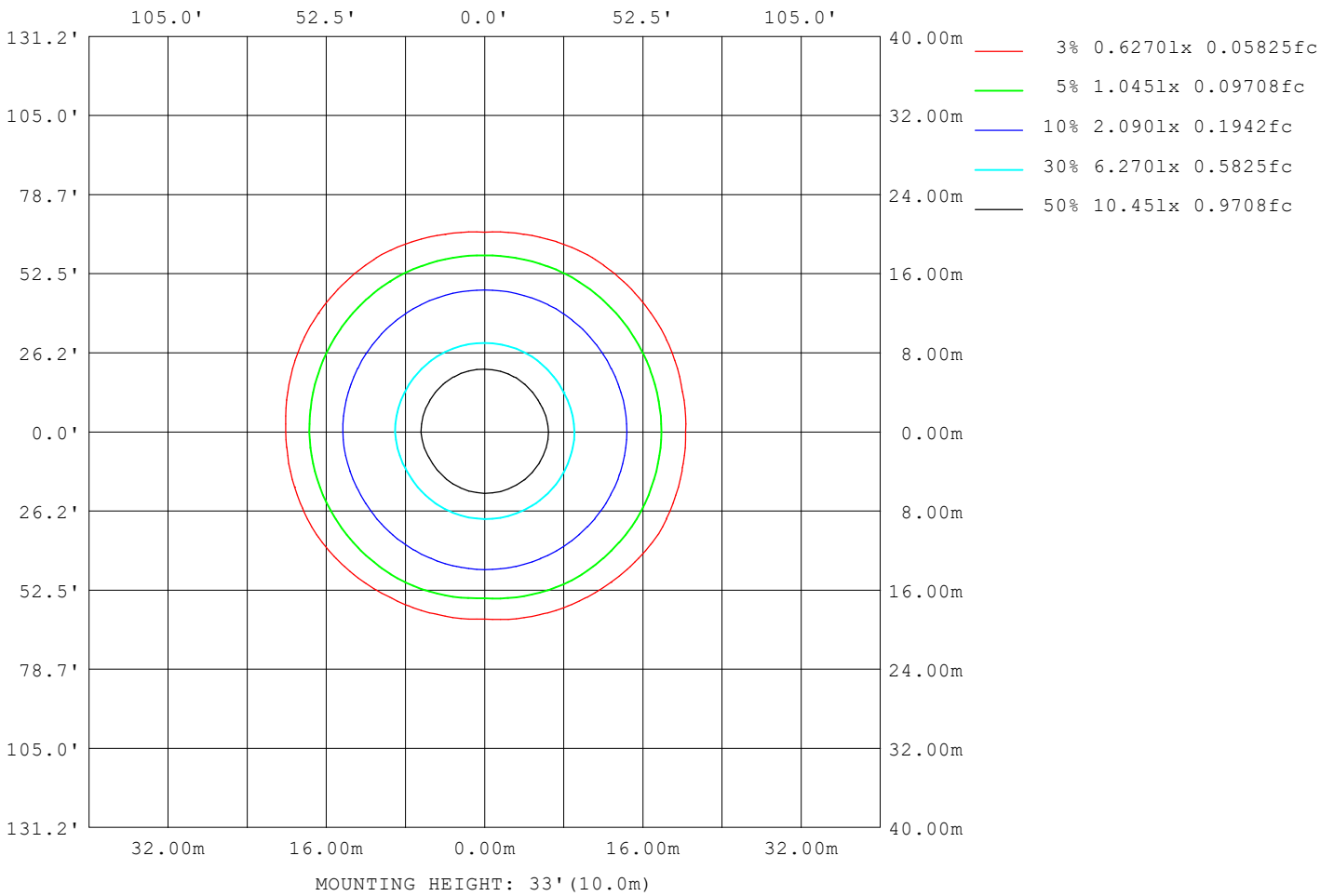
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 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:220.60V I:0.2229A P:47.405W PF:0.9641 Freq:49.99Hz Lamp Flux:5522.92x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

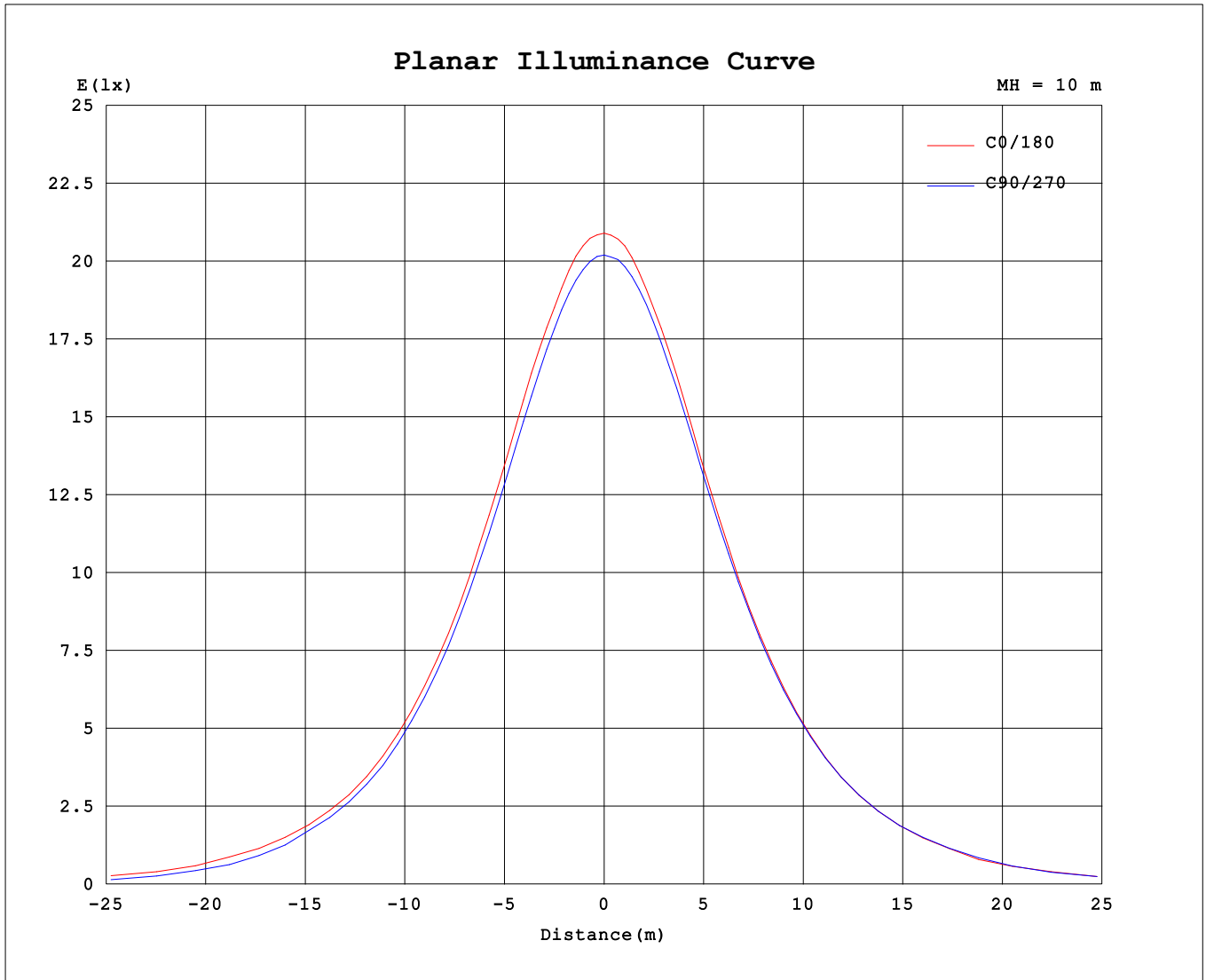
AvgL	cd/m2
L_0~180 (65) av	31326
L_0~180 (75) av	14603
L_0~180 (85) av	1139
L_90~270 (65) av	27179
L_90~270 (75) av	5908
L_90~270 (85) av	808
L_45 (65) av	32538
L_45 (75) av	12590
L_45 (85) av	1478

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:

