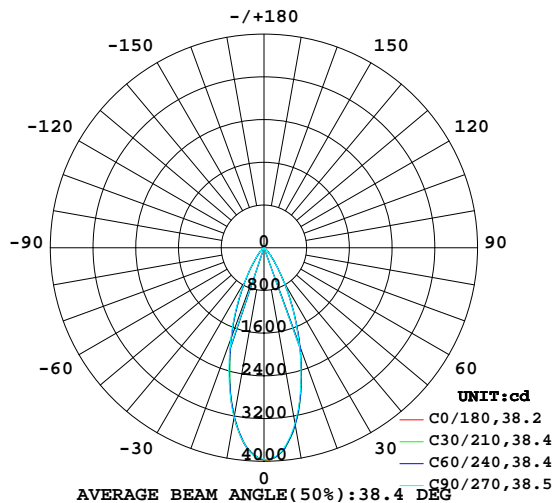


LUMINAIRE PHOTOMETRIC TEST REPORT

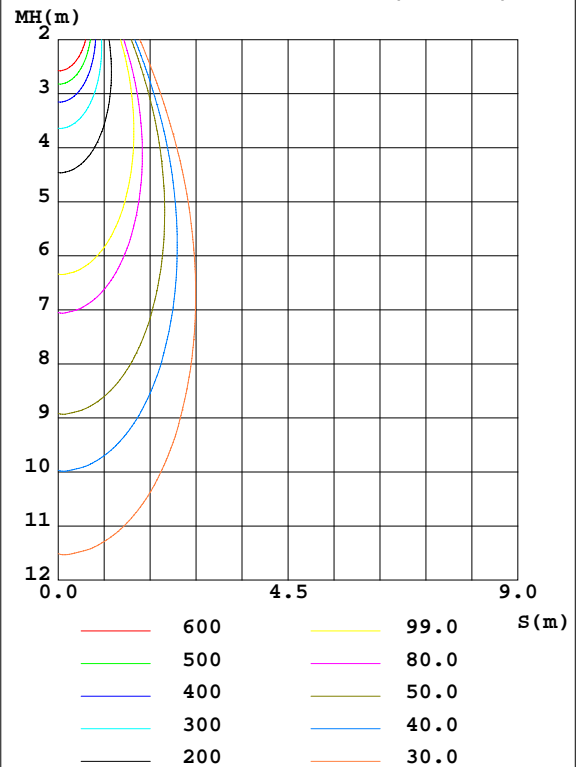
Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.66 lm/W			
MODEL		Imax(cd)	3987	S/MH(C0/180)	0.64
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.64
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1987.4	η UP,DN(C0-180)	0.0,51.1
NOMINAL FLUX(lm)	1987.42	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	0.65

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

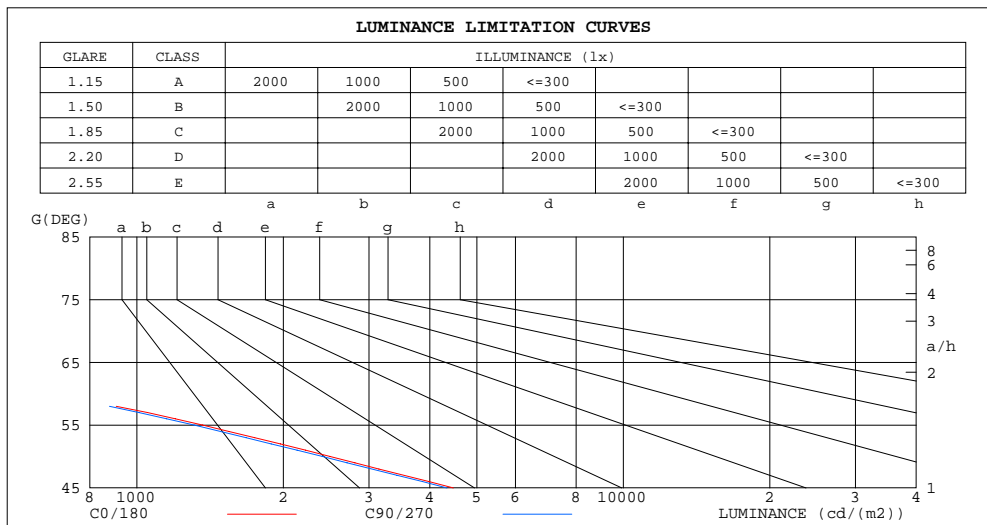
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	3359	3394	3342	3280	3223	3179	3229	3274	0- 10	345.1	345.1	17.4,17.4
20	1950	1991	1949	1862	1804	1771	1817	1876	10- 20	711.8	1057	53.2,53.2
30	755.1	786.2	760.8	720.4	681.3	663.6	703.7	729.3	20- 30	567.0	1624	81.7,81.7
40	205.6	209.4	202.1	192.2	184.8	184.6	199.2	202.9	30- 40	251.7	1876	94.4,94.4
50	53.36	53.40	51.48	49.51	48.38	48.71	51.91	52.09	40- 50	82.72	1958	98.5,98.5
60	11.19	11.66	10.89	10.22	9.583	9.297	9.863	10.55	50- 60	23.58	1982	99.7,99.7
70	1.582	1.478	1.474	1.357	1.414	1.497	1.356	1.497	60- 70	4.216	1986	99.9,99.9
80	0.6282	0.5326	0.5929	0.5066	0.5495	0.6447	0.5407	0.6362	70- 80	1.006	1987	100,100
90	0.0859	0.0773	0.0773	0.0601	0.1633	0.1632	0.1546	0.1546	80- 90	0.3246	1987	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		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:11.700m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	110	101
80	109	103
75	119	111
70	139	129
65	258	265
60	672	654
55	1364	1312
50	2492	2404
45	4474	4341

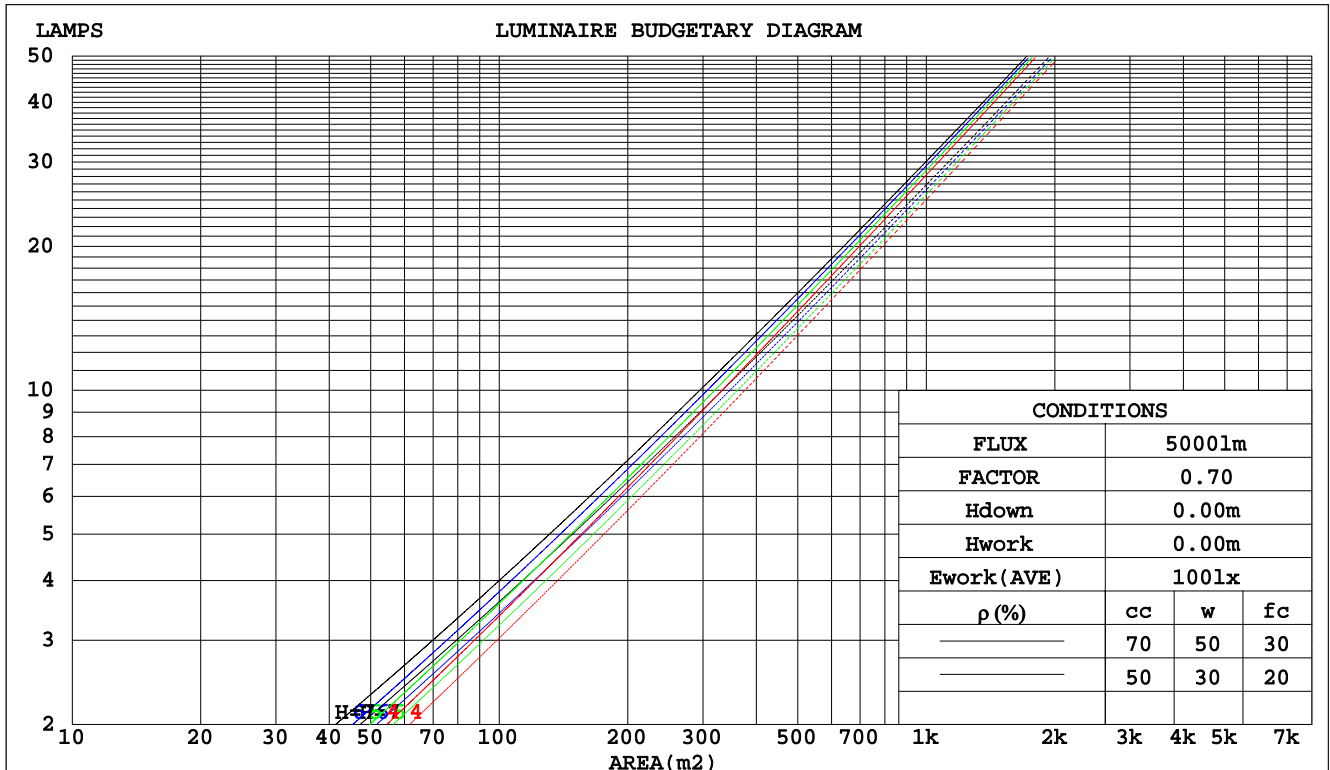
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	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	1.12	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.00	.97	.00	.97	.95	.97	.95	.93	.94	.92	.91	.89
3.0	.99	.94	.90	.97	.93	.90	.95	.91	.88	.92	.89	.87	.90	.88	.86	.84
4.0	.93	.88	.84	.92	.87	.84	.90	.86	.83	.88	.85	.82	.86	.83	.81	.79
5.0	.88	.83	.79	.87	.82	.79	.85	.81	.78	.84	.80	.77	.82	.79	.77	.75
6.0	.83	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.79	.74	.70	.79	.74	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
8.0	.76	.70	.67	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.66	.64
9.0	.72	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.63	.69	.65	.63	.61
10.0	.69	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.66	.63	.60	.59



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 228*48		SERIAL No.:	
MFR.:		SUR.:3.14*0.0.103*0.103		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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.164	.093	.029	.157	.089	.028	.144	.083	.026	.133	.077	.025	.122	.071	.023		
2.0	.155	.085	.026	.150	.083	.025	.139	.077	.024	.130	.073	.023	.121	.068	.022		
3.0	.147	.078	.023	.143	.076	.023	.134	.072	.022	.126	.069	.021	.118	.065	.020		
4.0	.140	.073	.021	.136	.071	.021	.128	.068	.020	.121	.065	.020	.115	.062	.019		
5.0	.133	.068	.020	.130	.066	.019	.123	.064	.019	.117	.062	.018	.111	.059	.018		
6.0	.127	.064	.018	.124	.062	.018	.118	.060	.018	.113	.059	.017	.108	.057	.017		
7.0	.121	.060	.017	.118	.059	.017	.113	.057	.016	.109	.056	.016	.104	.054	.016		
8.0	.116	.057	.016	.113	.056	.016	.109	.054	.016	.105	.053	.015	.101	.052	.015		
9.0	.111	.054	.015	.109	.053	.015	.105	.052	.015	.101	.051	.015	.097	.050	.014		
10.0	.107	.051	.014	.105	.051	.014	.101	.049	.014	.098	.048	.014	.094	.047	.014		

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.170	.157	.146	.146	.135	.126	.100	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.092	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.130	.099	.075	.111	.085	.065	.077	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.121	.087	.062	.104	.075	.054	.071	.052	.038	.041	.031	.022	.013	.010	.007	
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.060	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.078	.046	.025	.054	.033	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:11.700m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 228*48			SERIAL No.:			
MFR.:					SUR.:3.14*0.0.103*0.103			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	12.1	12.9	12.3	13.1	13.2	12.1	12.9	12.3	13.1	13.2	
	3H	11.9	12.7	12.2	12.9	13.1	11.9	12.7	12.1	12.9	13.1
	4H	11.8	12.6	12.1	12.8	13.0	11.8	12.6	12.1	12.8	13.0
	6H	11.7	12.4	12.0	12.7	12.9	11.7	12.4	12.0	12.7	12.9
	8H	11.7	12.4	12.0	12.6	12.9	11.7	12.4	12.0	12.6	12.9
	12H	11.6	12.3	12.0	12.5	12.8	11.6	12.3	12.0	12.5	12.8
4H	2H	11.8	12.6	12.1	12.8	13.0	11.8	12.6	12.1	12.8	13.0
	3H	11.7	12.3	12.0	12.6	12.8	11.7	12.3	12.0	12.6	12.8
	4H	11.6	12.2	11.9	12.5	12.8	11.6	12.2	11.9	12.4	12.8
	6H	11.5	12.0	11.9	12.3	12.7	11.5	12.0	11.8	12.3	12.7
	8H	11.4	11.9	11.8	12.3	12.6	11.4	11.9	11.8	12.3	12.6
	12H	11.4	11.8	11.8	12.2	12.6	11.4	11.8	11.8	12.2	12.6
8H	4H	11.4	11.9	11.8	12.3	12.6	11.4	11.9	11.8	12.2	12.6
	6H	11.3	11.7	11.7	12.1	12.5	11.3	11.7	11.7	12.1	12.5
	8H	11.3	11.6	11.7	12.0	12.5	11.3	11.6	11.7	12.0	12.5
	12H	11.2	11.5	11.7	12.0	12.4	11.2	11.5	11.7	11.9	12.4
12H	4H	11.4	11.8	11.8	12.2	12.6	11.4	11.8	11.8	12.2	12.6
	6H	11.3	11.6	11.7	12.0	12.5	11.3	11.6	11.7	12.0	12.5
	8H	11.2	11.5	11.7	11.9	12.4	11.2	11.5	11.7	11.9	12.4
Variations with the observer position at spacings:											
S = 1.0H	+ 3.0 / - 8.9					+ 2.9 / - 9.1					
1.5H	+ 4.6 / - 6.4					+ 4.6 / - 6.4					
2.0H	+ 5.5 / - 9.0					+ 5.4 / - 8.7					

CIE Pub.117, 1987 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 2.4$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

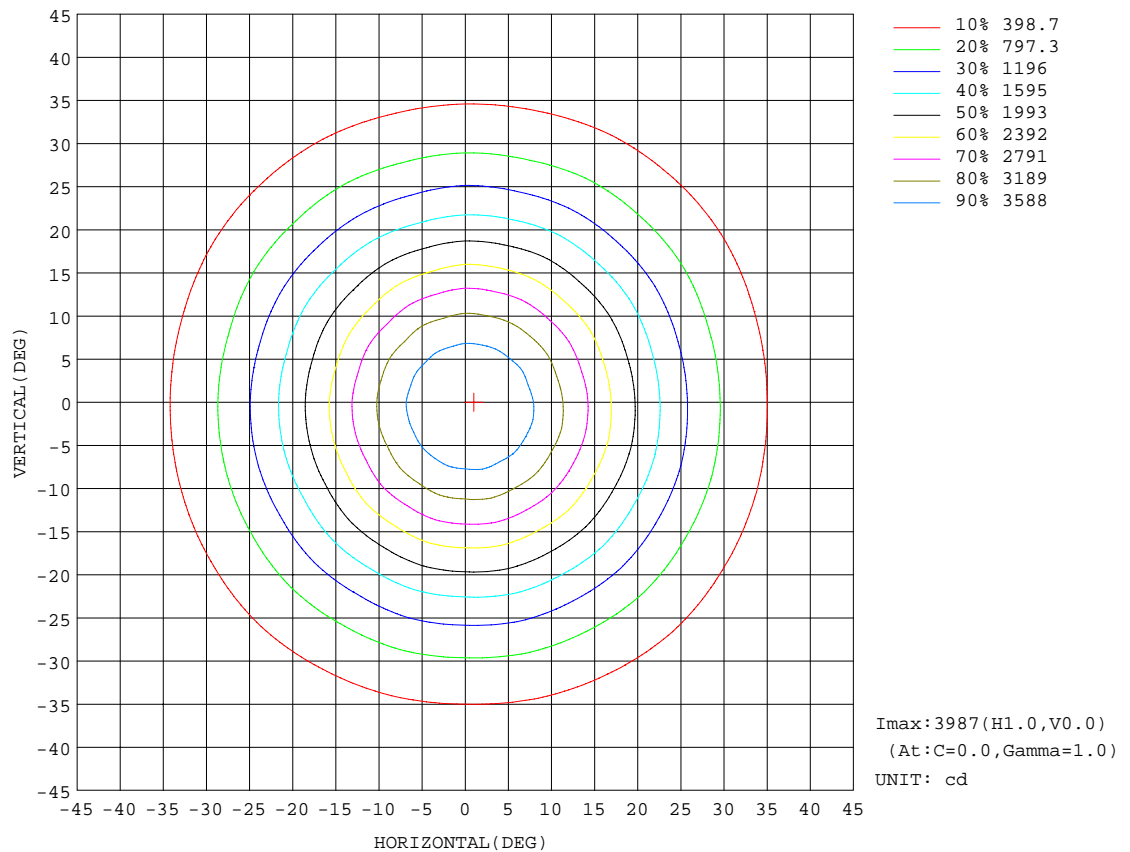
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	82	78	87	82	78	87	81	78	74
0.80	95	90	86	95	89	86	94	89	86	82
1.00	100	94	91	99	94	91	97	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
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:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

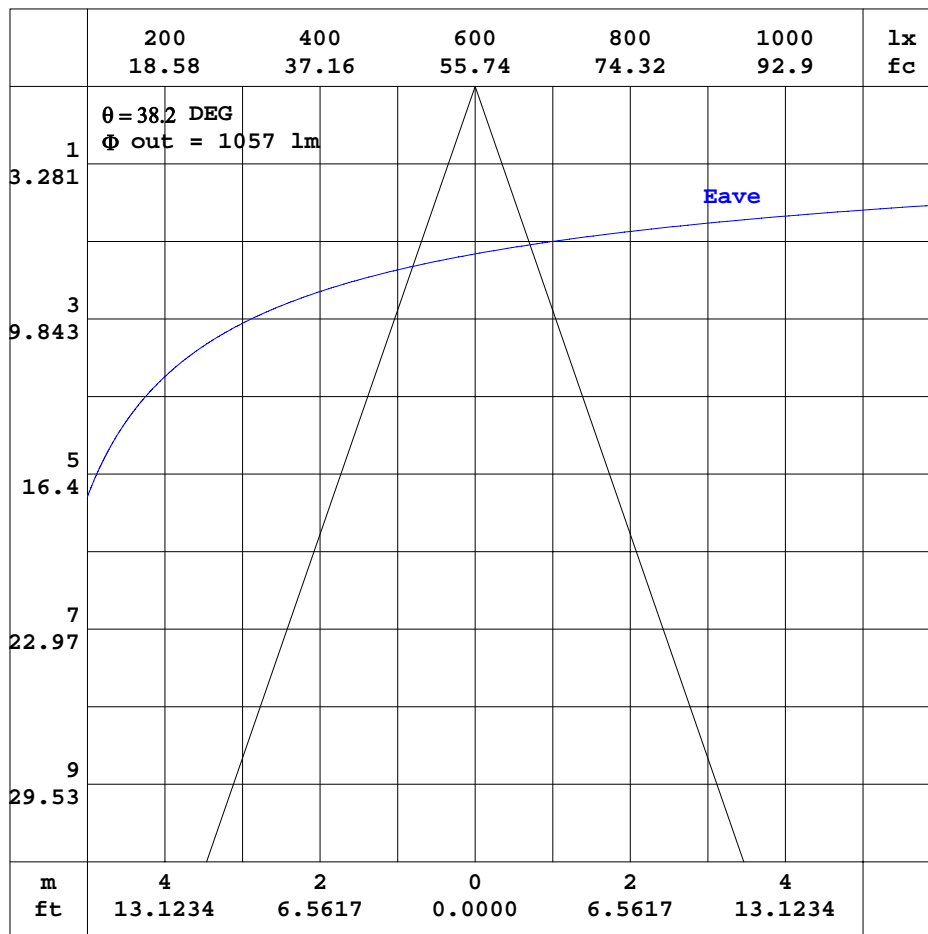


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

AAI CURVES

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:



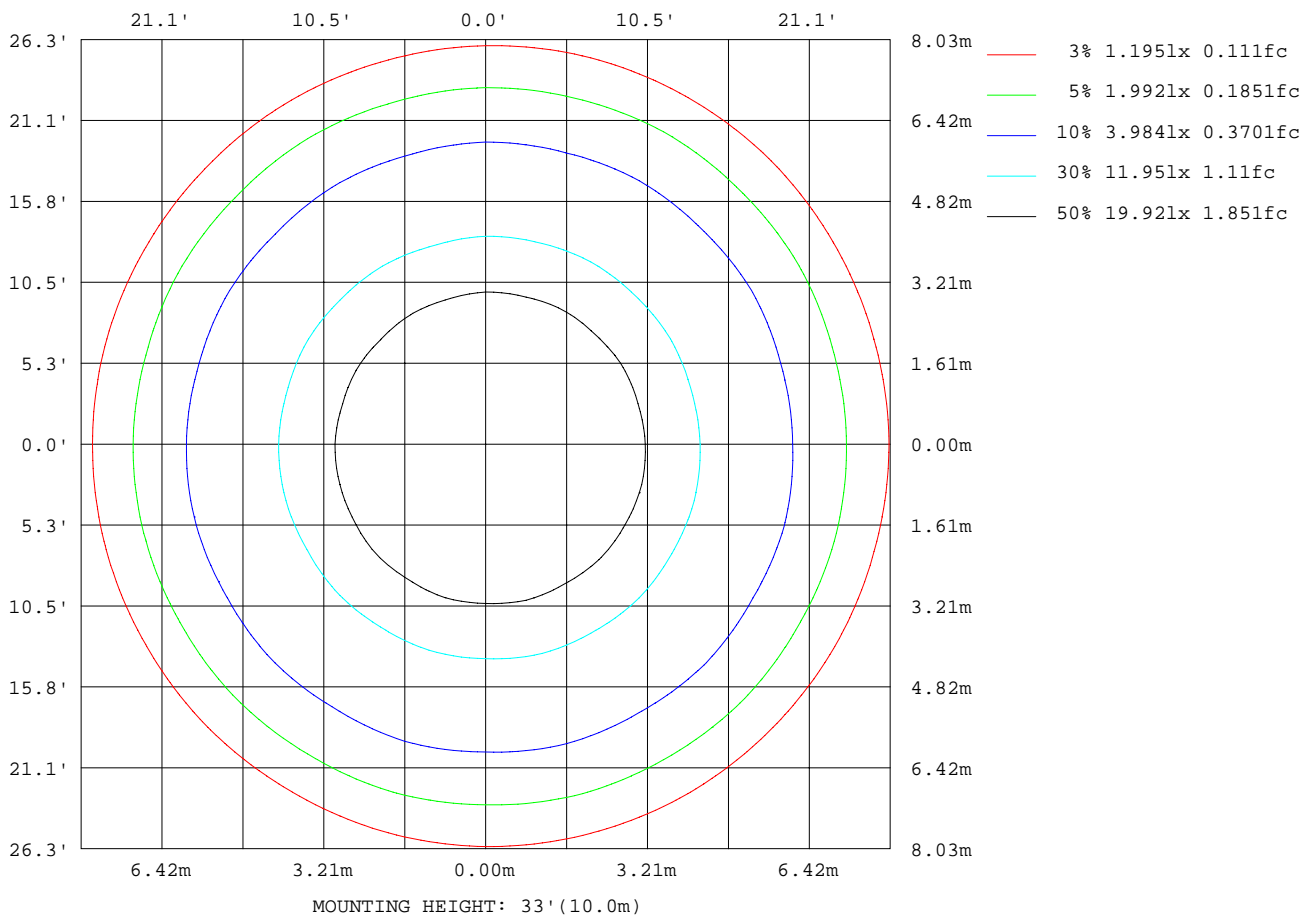
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:11.700m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity: 65.0%
 Test Distance: 11.700m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:229.84V I:0.1105A P:24.948W PF:0.9826 Freq:49.99Hz Lamp Flux:1987.42x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

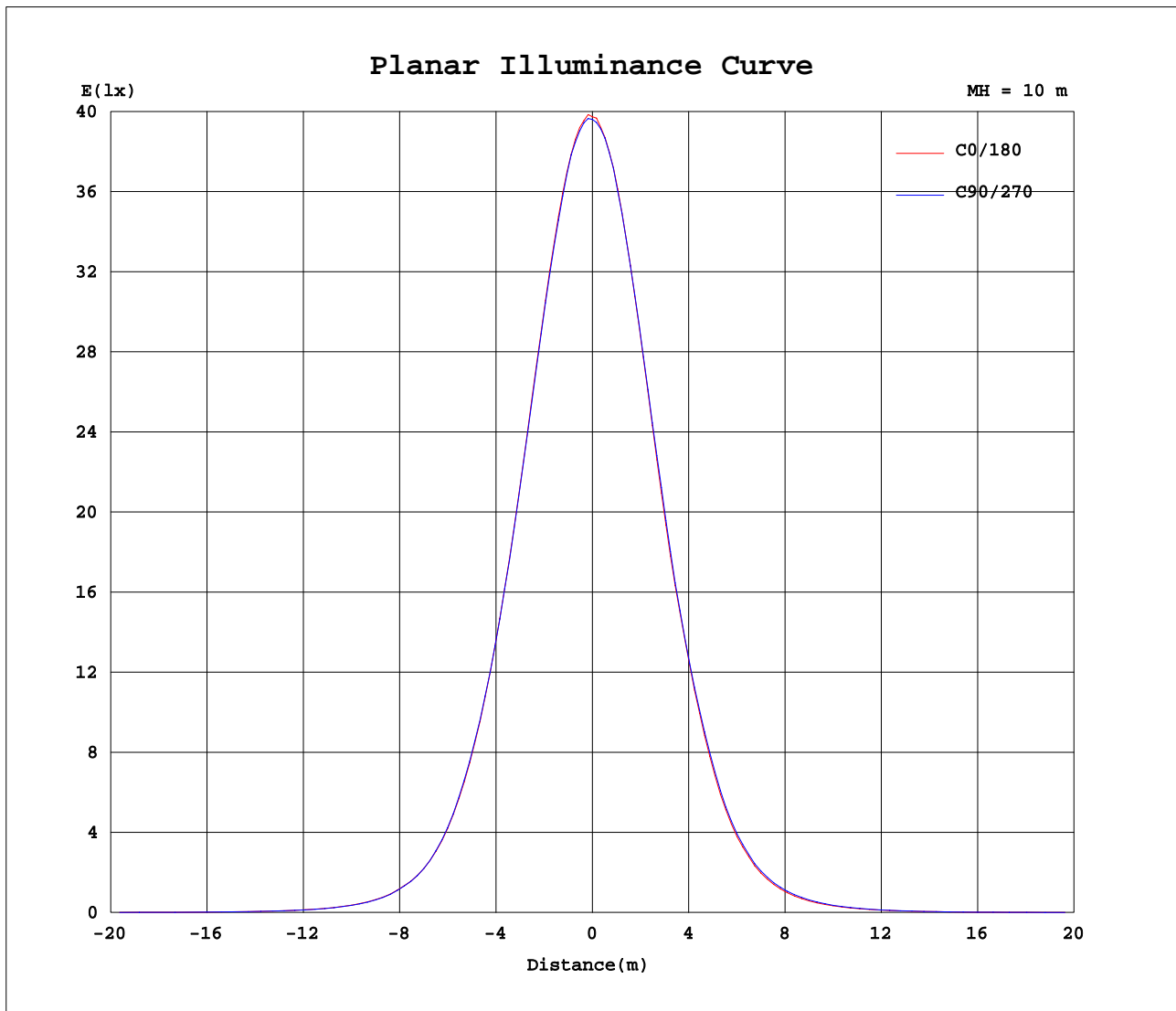
AvgL	cd/m2
L_0~180(65)av	241
L_0~180(75)av	113
L_0~180(85)av	99
L_90~270(65)av	243
L_90~270(75)av	105
L_90~270(85)av	95
L_45(65)av	251
L_45(75)av	108
L_45(85)av	93

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-20

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-07-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 11.700m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

```