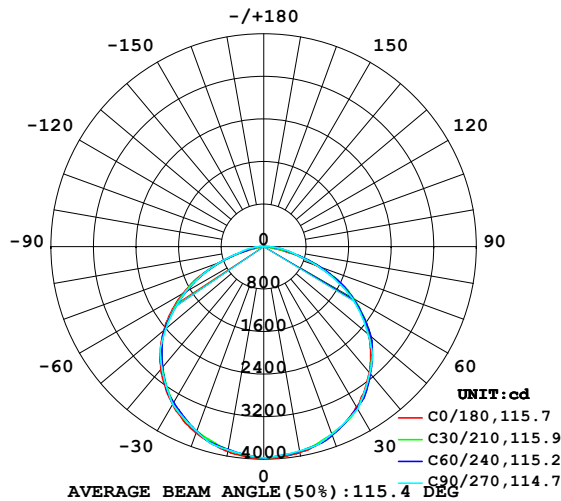


LUMINAIRE PHOTOMETRIC TEST REPORT

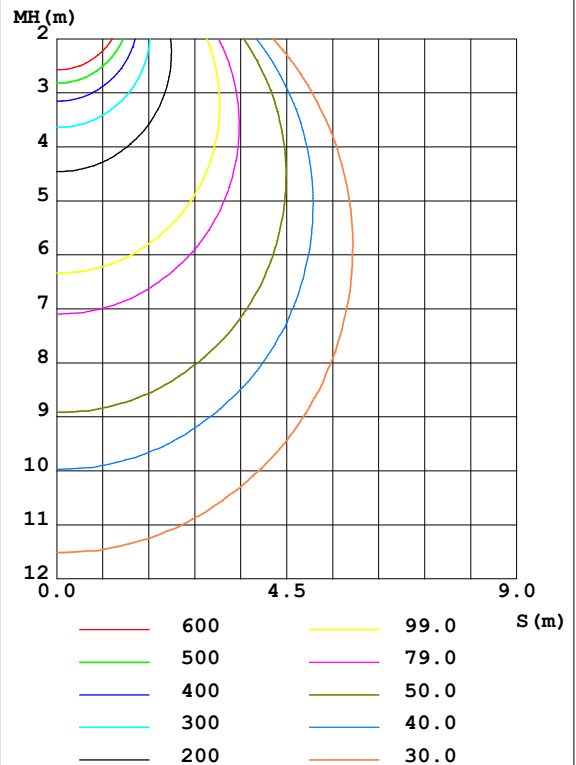
Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm		
NAME: DETA	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 114.65 lm/W			
MODEL	N6057	I _{max} (cd)	3981	S/MH (C0/180)	1.28
NOMINAL POWER (W)	99.5	LOR (%)	100.0	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	230.2	TOTAL FLUX (lm)	11408	η UP, DN (C0-180)	0.0, 51.1
NOMINAL FLUX (lm)	11407.6	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230.2	η down (%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



H(β) Range: -90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2022-06-24

V(B) Range: -90 - 90DEG
V(B) Interval: 5.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity: 65.0%
Test Distance: 9.900m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

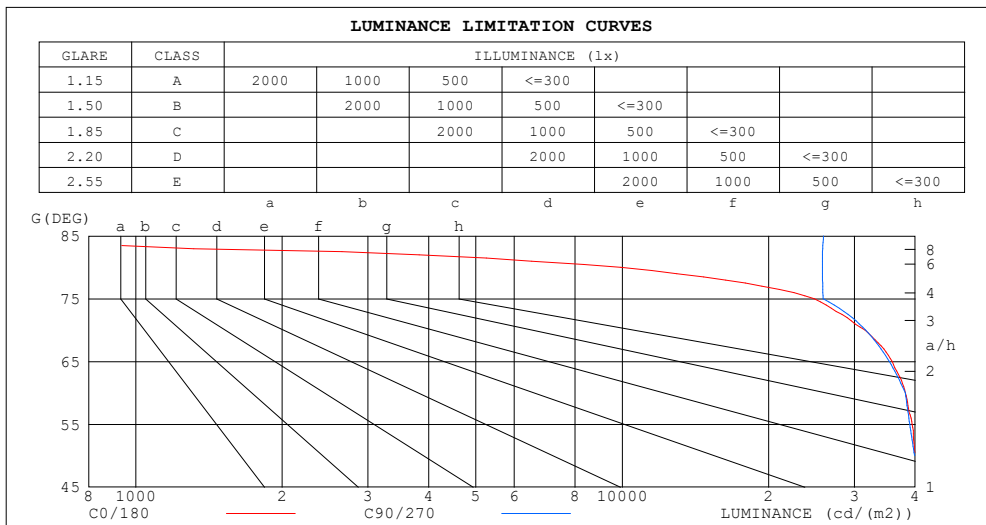
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3933	3906	3901	3893	3908	3876	3881	3889	0- 10	375.0	375.0	3.29,3.29
20	3763	3776	3753	3744	3726	3699	3697	3746	10- 20	1081	1456	12.8,12.8
30	3485	3498	3529	3450	3427	3379	3423	3431	20- 30	1661	3117	27.3,27.3
40	3095	3146	3105	3087	3011	2988	2981	3044	30- 40	2041	5158	45.2,45.2
50	2572	2608	2565	2523	2452	2413	2405	2509	40- 50	2157	7315	64.1,64.1
60	1910	1951	1909	1821	1750	1690	1695	1821	50- 60	1946	9260	81.2,81.2
70	1079	1148	1083	1010	879.6	887.1	893.3	1015	60- 70	1403	10663	93.5,93.5
80	172.4	314.9	447.9	203.7	28.77	172.1	328.6	271.7	70- 80	625.0	11288	99,99
90	0.8557	4.741	4.184	5.389	4.934	1.289	1.355	1.824	80- 90	119.3	11408	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		

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm		
NAME: DETA	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	432	25933
80	9927	25791
75	24819	25875
70	31538	31663
65	35920	35403
60	38201	38190
55	39440	39009
50	40018	39911
45	40290	40919

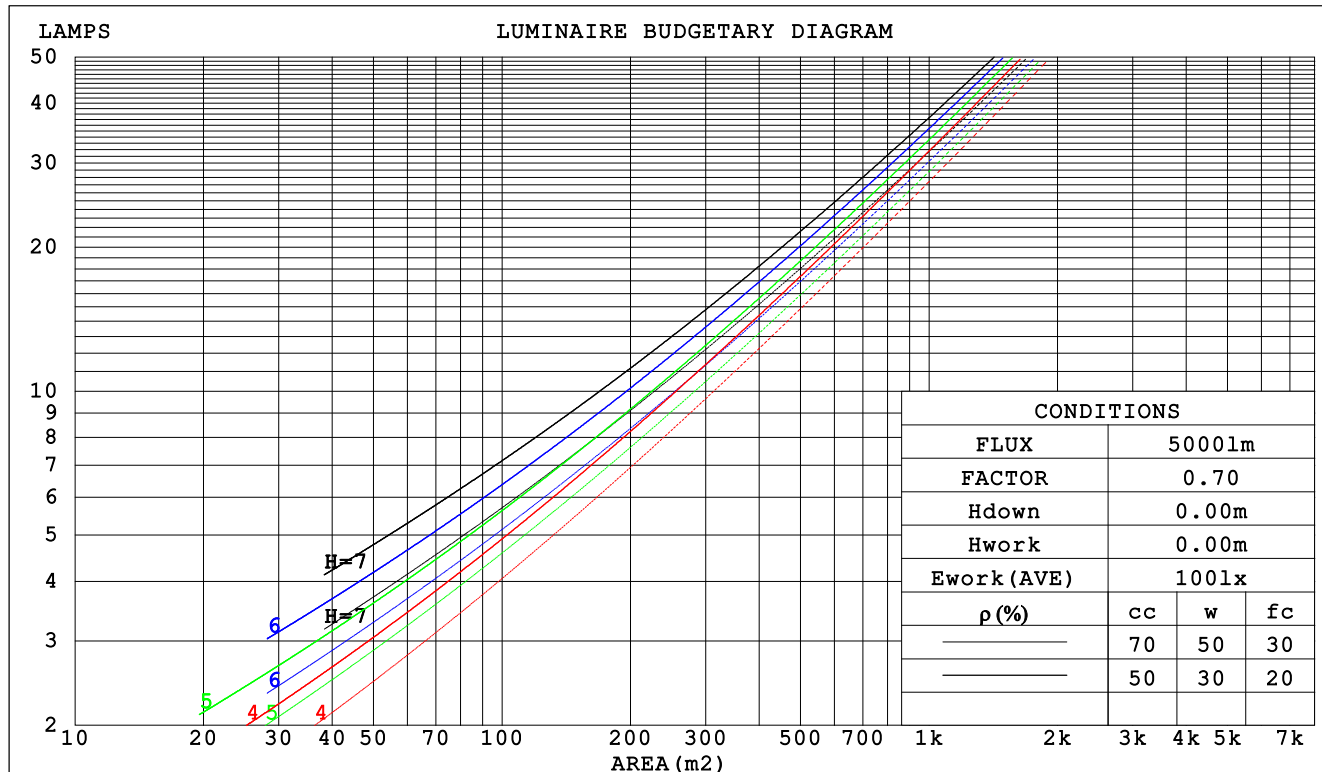
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm																
NAME: DETA					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	Coefficients of Utilization(CU)															
	RCR:Room Cavity Ratio															
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	.00
1.0	1.05	1.01	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.89	.91	.89	.87	.85
2.0	.91	.85	.79	.90	.83	.78	.86	.81	.76	.83	.78	.75	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.68	.63	.70	.66	.62	.60
4.0	.71	.62	.56	.70	.62	.55	.67	.60	.55	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.48	.62	.54	.48	.60	.53	.47	.58	.52	.47	.56	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.54	.47	.41	.53	.46	.41	.51	.45	.40	.38
7.0	.52	.43	.37	.51	.43	.37	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm									
NAME: DETA					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						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.295	.168	.053	.288	.164	.052	.274	.157	.050	.262	.151	.049	.251	.146	.047	
2.0	.282	.155	.047	.276	.152	.047	.265	.147	.046	.254	.142	.045	.244	.138	.044	
3.0	.264	.140	.042	.259	.138	.042	.248	.135	.041	.239	.131	.040	.230	.127	.039	
4.0	.245	.127	.037	.240	.126	.037	.231	.123	.037	.223	.120	.036	.215	.117	.036	
5.0	.228	.116	.034	.223	.115	.033	.215	.112	.033	.208	.110	.033	.201	.107	.032	
6.0	.212	.106	.030	.208	.105	.030	.201	.103	.030	.194	.101	.030	.188	.099	.029	
7.0	.198	.098	.028	.194	.097	.028	.188	.095	.027	.182	.093	.027	.176	.091	.027	
8.0	.185	.090	.025	.182	.089	.025	.176	.088	.025	.171	.086	.025	.165	.085	.025	
9.0	.173	.084	.023	.171	.083	.023	.165	.082	.023	.161	.080	.023	.156	.079	.023	
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.152	.075	.021	.147	.074	.021	

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.090	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.064	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm										
NAME: DETA					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	26.0	27.5	26.2	27.7	27.9	26.0	27.5	26.2	27.7	27.9
3H	27.4	28.8	27.7	29.0	29.2	27.3	28.7	27.6	29.0	29.2
4H	27.8	29.1	28.1	29.4	29.6	27.8	29.1	28.1	29.3	29.6
6H	27.9	29.1	28.2	29.4	29.6	28.1	29.3	28.4	29.6	29.9
8H	27.8	29.0	28.2	29.3	29.6	28.2	29.4	28.6	29.7	30.0
12H	27.8	28.9	28.1	29.2	29.5	28.3	29.5	28.7	29.8	30.1
4H 2H	26.6	27.9	26.9	28.2	28.4	26.6	27.9	26.9	28.2	28.4
3H	28.2	29.3	28.5	29.6	29.9	28.1	29.3	28.5	29.6	29.9
4H	28.7	29.7	29.0	30.0	30.4	28.6	29.7	29.0	30.0	30.3
6H	28.8	29.7	29.2	30.1	30.4	29.1	30.0	29.5	30.4	30.7
8H	28.8	29.6	29.2	30.0	30.4	29.3	30.1	29.7	30.5	30.9
12H	28.7	29.5	29.1	29.9	30.3	29.4	30.2	29.9	30.6	31.0
8H 4H	28.8	29.7	29.2	30.1	30.4	28.8	29.7	29.2	30.1	30.4
6H	29.0	29.7	29.5	30.1	30.6	29.4	30.1	29.8	30.5	30.9
8H	29.0	29.6	29.5	30.1	30.5	29.7	30.3	30.1	30.7	31.2
12H	29.0	29.5	29.4	30.0	30.4	29.9	30.5	30.4	30.9	31.4
12H 4H	28.8	29.6	29.2	30.0	30.4	28.8	29.6	29.2	30.0	30.4
6H	29.0	29.7	29.5	30.1	30.5	29.4	30.0	29.9	30.5	30.9
8H	29.0	29.6	29.5	30.0	30.5	29.7	30.3	30.2	30.7	31.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.5					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.5					+ 0.2 / - 0.3				

CIE Pub.117, 11408 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 8.5$)

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm		
NAME: DETA	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

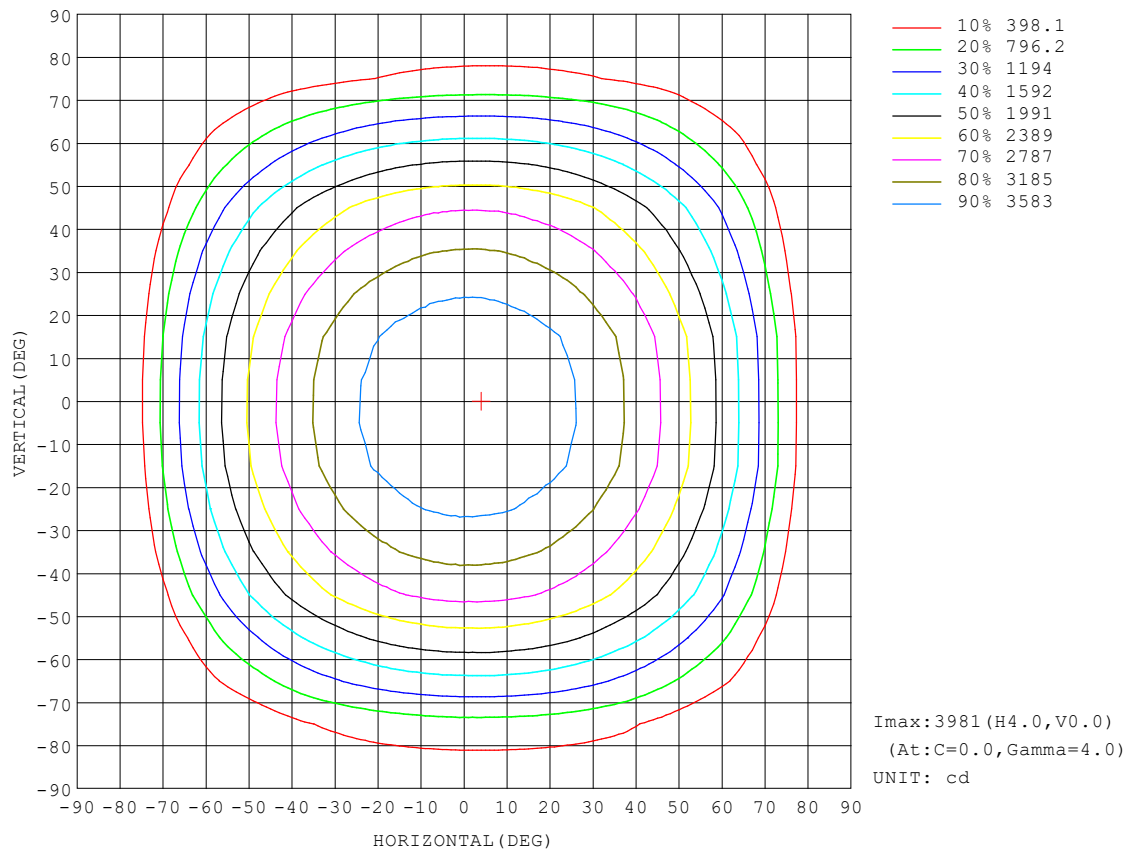
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	48	42
1.00	77	66	58	75	65	58	73	66	58	51
1.25	84	74	67	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	77	71	63
2.00	96	87	81	94	86	80	91	84	79	71
2.50	100	92	86	98	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-24

$V(B)$ Range:-90 - 90DEG
 $V(B)$ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
 Humidity:65.0%
 Test Distance:9.900m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm		
NAME: DETA	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

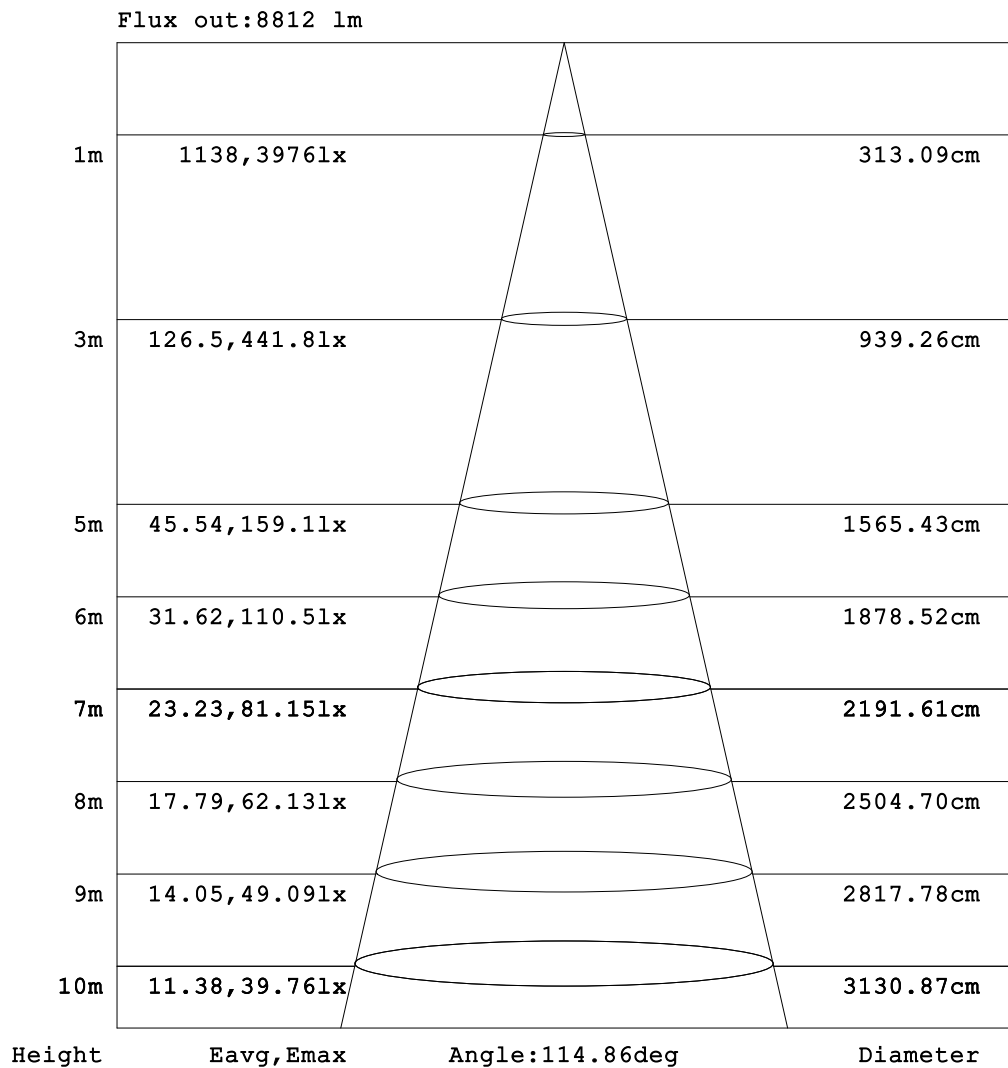


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm		
NAME: DETA	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



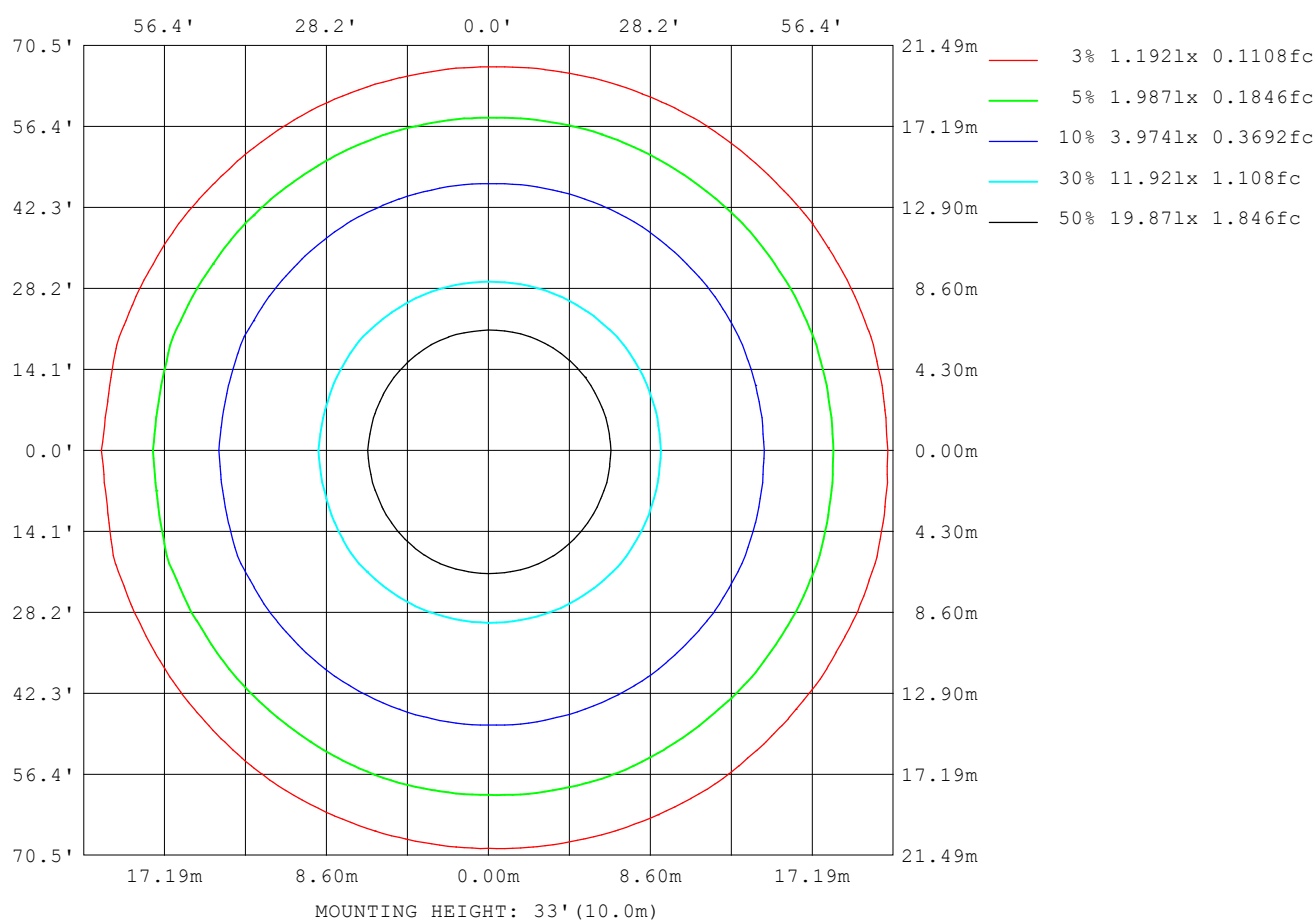
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

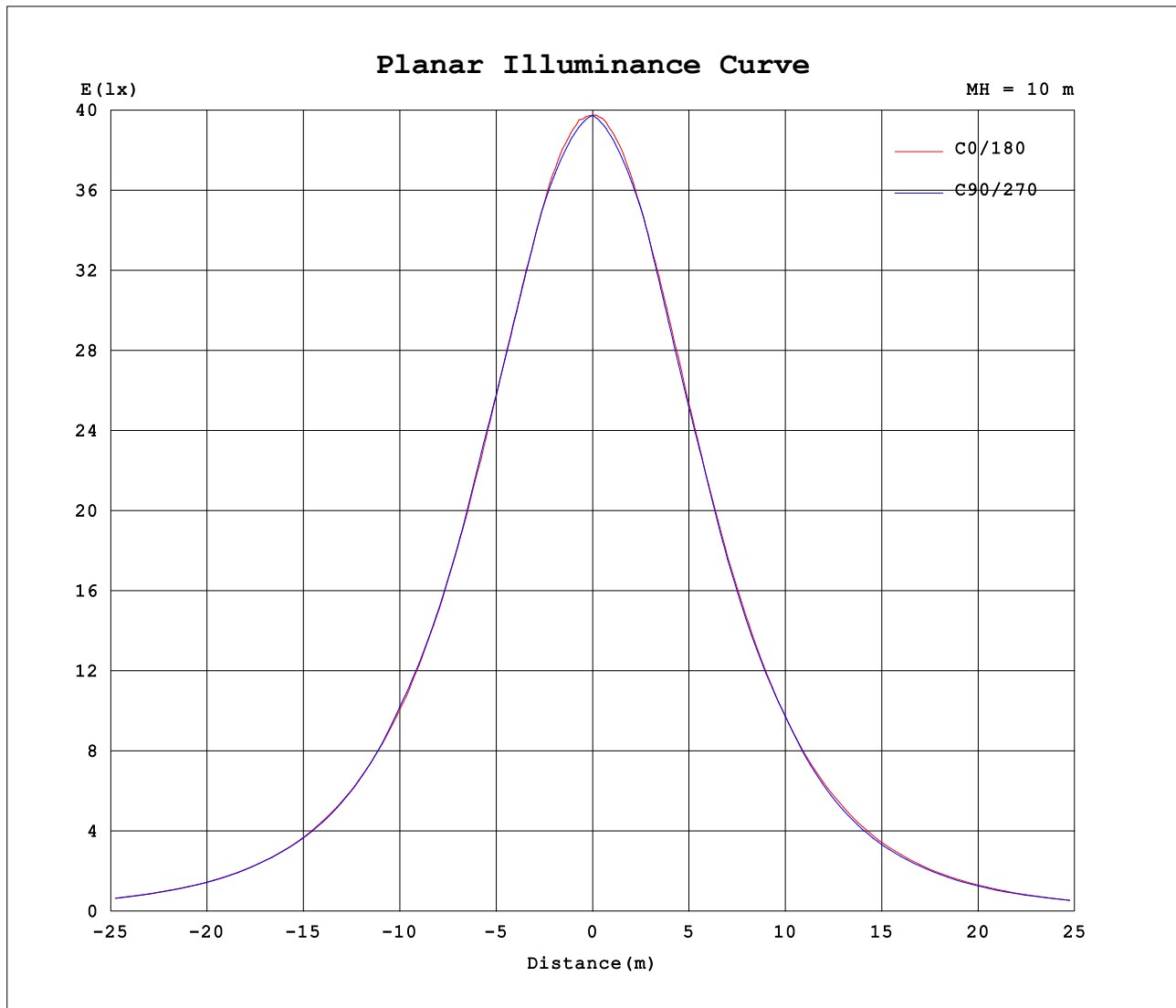
Test:U:230.20V I:0.4430A P:99.500W PF:0.9760 Freq:50.00Hz Lamp Flux:11407.6x1 lm		
NAME: DETA	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-24

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

```
V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:
```

```
V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:
```

```
V(B) Range:-90 - 90DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.266
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:
```