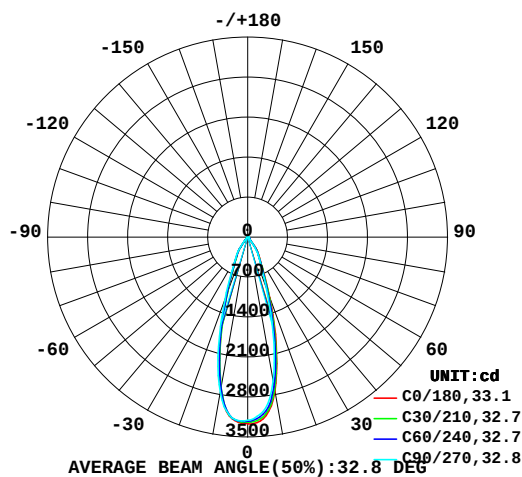


LUMINAIRE PHOTOMETRIC TEST REPORT

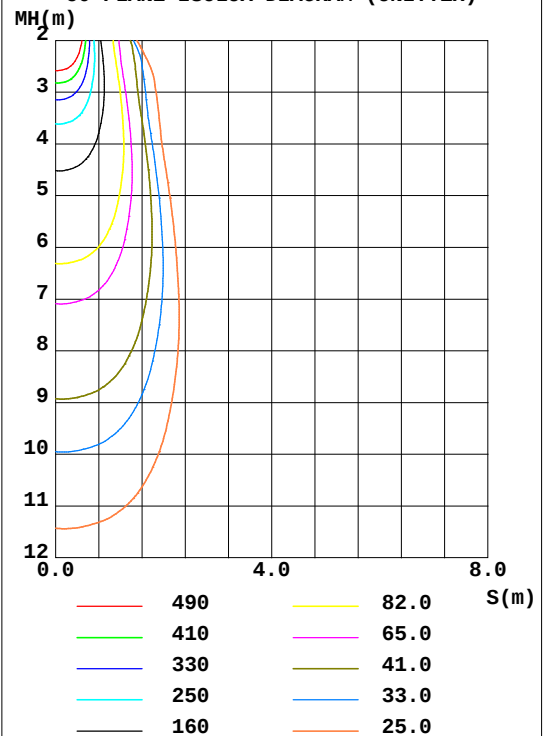
Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm					
NAME: 12W天花灯			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:70MM		Shielding Angle:

DATA OF LAMP			PHOTOMETRIC DATA			Eff: 102.00 lm/W
MODEL			I _{max} (cd)	3272	S/MH(C0/180)	0.53
NOMINAL POWER(W)	--		LOR(%)	100.0	S/MH(C90/270)	0.56
RATED VOLTAGE(V)	--		TOTAL FLUX(lm)	1302.1	η UP, DN(C0-180)	0.0,47.9
NOMINAL FLUX(lm)	1302.07		CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,52.1
LAMPS INSIDE	1		η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	--		η down(%)	100.0	CIBSE SHR MAX	0.50

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: DAMIN
 Test Date: 2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

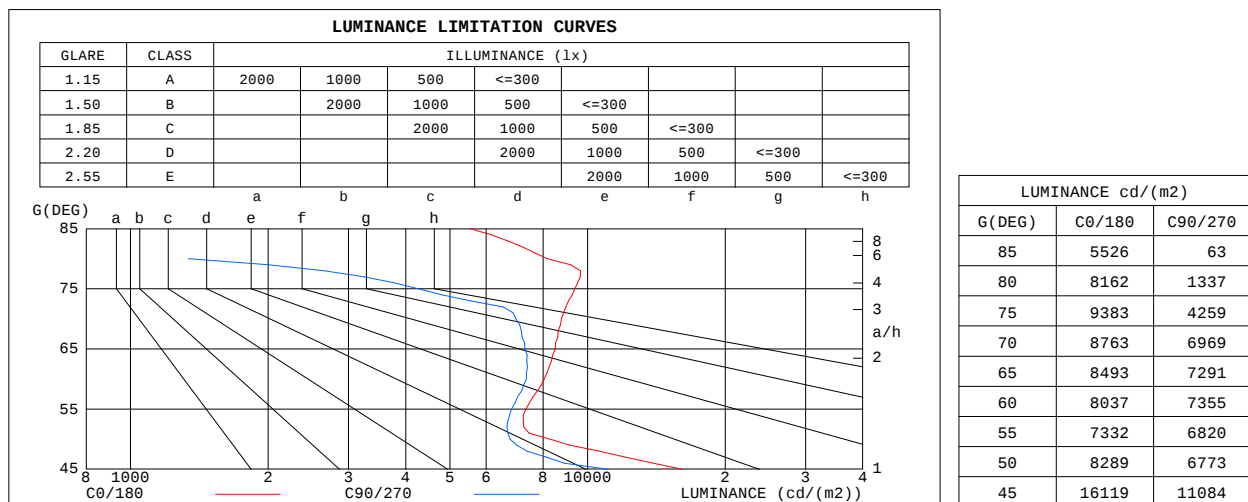
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum, lamp
10	2743	2702	2572	2499	2710	2668	2769	2849	0- 10	285.5	285.5	21.9, 21.9
20	1136	1083	972.3	919.8	1077	1046	1178	1262	10- 20	504.8	790.3	60.7, 60.7
30	414.9	402.5	383.1	378.6	400.3	381.0	421.8	446.5	20- 30	295.0	1085	83.4, 83.4
40	91.98	91.95	73.91	70.66	83.89	79.93	89.59	105.6	30- 40	150.0	1235	94.9, 94.9
50	20.25	18.99	16.54	16.93	17.84	17.23	16.47	22.36	40- 50	32.82	1268	97.4, 97.4
60	15.27	14.54	13.97	13.90	14.35	13.74	13.65	14.20	50- 60	13.72	1282	98.4, 98.4
70	11.39	10.14	9.058	9.224	10.77	9.878	9.829	10.46	60- 70	12.23	1294	99.4, 99.4
80	5.386	2.735	0.8022	1.984	4.634	2.211	1.182	3.045	70- 80	7.110	1301	99.9, 99.9
90	0.0305	0.0246	0.0186	0.0223	0.0536	0.0484	0.0432	0.0484	80- 90	0.8527	1302	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: DAMIN
 Test Date: 2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	Shielding Angle:



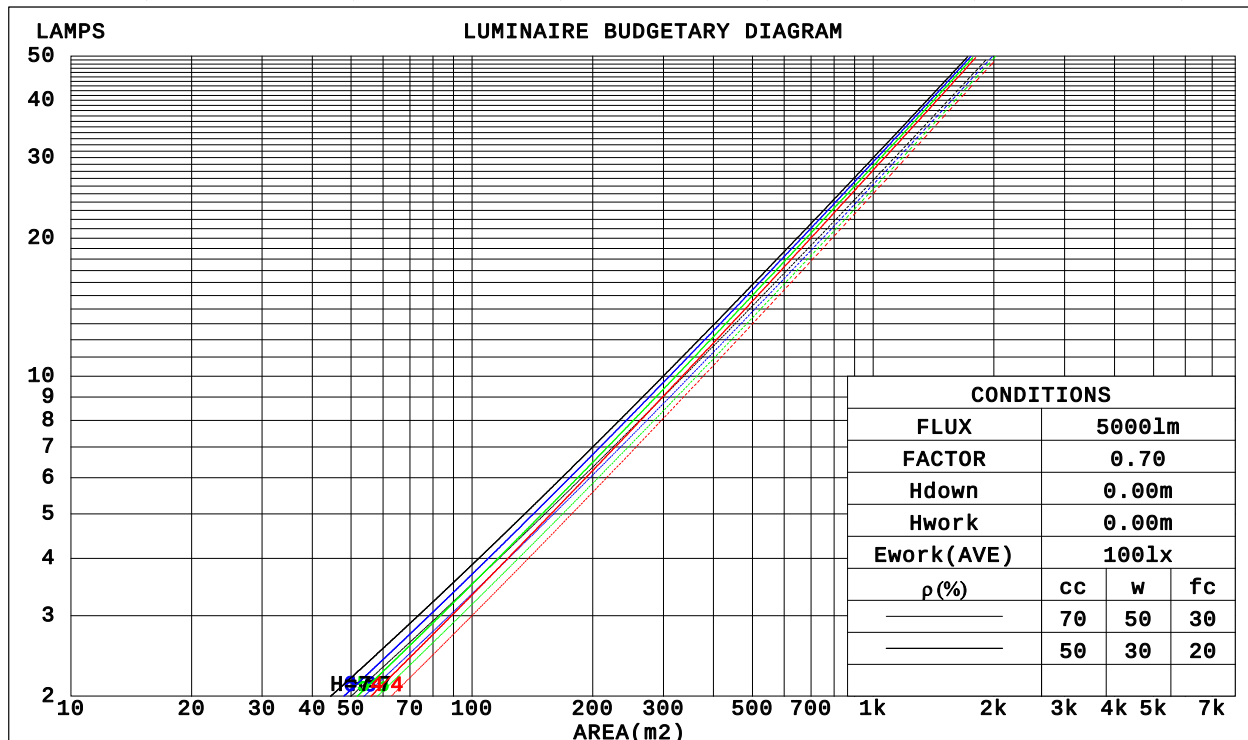
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	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						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	1.06	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	1.00	.97	1.00	.97	.95	.97	.95	.93	.94	.93	.91	.90
3.0	.99	.95	.91	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.88	.86	.85
4.0	.94	.89	.85	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.81	.88	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
6.0	.85	.80	.76	.84	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.75	.73
7.0	.81	.76	.73	.81	.76	.72	.80	.75	.72	.78	.75	.72	.77	.74	.71	.70
8.0	.78	.73	.69	.77	.73	.69	.76	.72	.69	.75	.71	.69	.74	.71	.68	.67
9.0	.75	.70	.66	.74	.69	.66	.73	.69	.66	.73	.69	.66	.72	.68	.66	.64
10.0	.72	.67	.64	.71	.67	.64	.71	.66	.63	.70	.66	.63	.69	.66	.63	.62



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	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	.162	.092	.029	.155	.088	.028	.142	.082	.026	.131	.076	.024	.120	.070	.022	
2.0	.152	.083	.026	.147	.081	.025	.136	.076	.024	.127	.071	.022	.118	.067	.021	
3.0	.143	.076	.023	.139	.074	.022	.130	.070	.021	.122	.067	.020	.114	.063	.020	
4.0	.135	.070	.021	.131	.069	.020	.124	.066	.020	.117	.063	.019	.110	.060	.018	
5.0	.128	.065	.019	.124	.064	.019	.118	.061	.018	.112	.059	.018	.106	.057	.017	
6.0	.121	.061	.017	.118	.060	.017	.113	.058	.017	.107	.056	.016	.102	.054	.016	
7.0	.115	.057	.016	.113	.056	.016	.108	.055	.016	.103	.053	.015	.099	.051	.015	
8.0	.110	.054	.015	.108	.053	.015	.103	.052	.015	.099	.050	.015	.095	.049	.014	
9.0	.105	.051	.014	.103	.050	.014	.099	.049	.014	.096	.048	.014	.092	.047	.014	
10.0	.101	.048	.013	.099	.048	.013	.096	.047	.013	.092	.046	.013	.089	.045	.013	

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	.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	.041	.017	.015	.013	
3.0	.140	.113	.092	.120	.098	.080	.082	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.014	.011	.007	.005	
9.0	.092	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004	
10.0	.088	.053	.029	.076	.046	.025	.052	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm											
NAME: 12W天花灯					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:70MM			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	17.3	18.1	17.5	18.3	18.4	16.8	17.6	17.0	17.8	17.9	
	3H	17.7	18.4	17.9	18.6	18.8	17.1	17.8	17.3	18.0	18.2
	4H	17.9	18.6	18.2	18.8	19.1	17.1	17.8	17.4	18.1	18.3
	6H	18.2	18.8	18.5	19.1	19.3	17.1	17.8	17.4	18.0	18.2
	8H	18.2	18.9	18.5	19.1	19.4	17.0	17.7	17.3	17.9	18.2
	12H	18.2	18.8	18.5	19.1	19.4	17.0	17.6	17.3	17.9	18.1
4H	2H	17.3	18.0	17.5	18.2	18.4	16.8	17.5	17.1	17.7	17.9
	3H	17.8	18.4	18.1	18.7	18.9	17.2	17.8	17.5	18.1	18.4
	4H	18.2	18.7	18.5	19.0	19.3	17.3	17.9	17.7	18.2	18.5
	6H	18.5	19.0	18.9	19.4	19.7	17.3	17.8	17.7	18.1	18.5
	8H	18.6	19.1	19.0	19.4	19.8	17.2	17.7	17.6	18.0	18.4
	12H	18.6	19.1	19.1	19.4	19.8	17.2	17.6	17.6	18.0	18.4
8H	4H	18.2	18.6	18.6	19.0	19.4	17.4	17.8	17.8	18.2	18.5
	6H	18.6	19.0	19.0	19.4	19.8	17.3	17.7	17.8	18.1	18.5
	8H	18.7	19.1	19.2	19.5	19.9	17.3	17.6	17.7	18.0	18.5
	12H	18.8	19.1	19.2	19.5	20.0	17.2	17.5	17.7	18.0	18.4
12H	4H	18.1	18.6	18.5	18.9	19.3	17.3	17.8	17.7	18.1	18.5
	6H	18.6	18.9	19.0	19.3	19.8	17.3	17.7	17.8	18.1	18.5
	8H	18.7	19.0	19.2	19.4	19.9	17.3	17.6	17.7	18.0	18.5
Variations with the observer position at spacings:											
S = 1.0H	+ 2.4 / - 1.6					+ 2.1 / - 2.1					
1.5H	+ 4.3 / - 1.7					+ 4.0 / - 2.0					
2.0H	+ 1.3 / - 0.5					+ 1.1 / - 0.7					

CIE Pub.117, 1302 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.9$)
Area: 0.0038 m²

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	Shielding Angle:

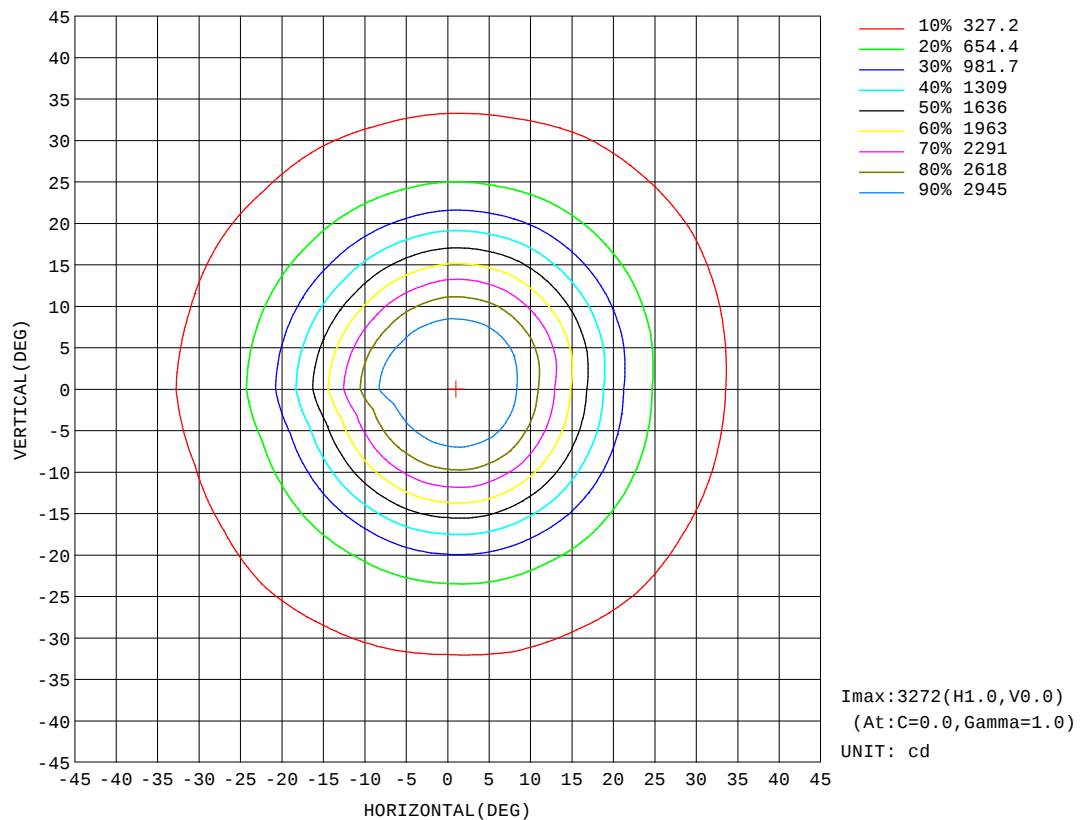
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	82	79	88	82	79	87	82	78	75
0.80	96	90	86	95	90	86	94	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	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	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:DAMIN
Test Date:2021-12-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	Shielding Angle:



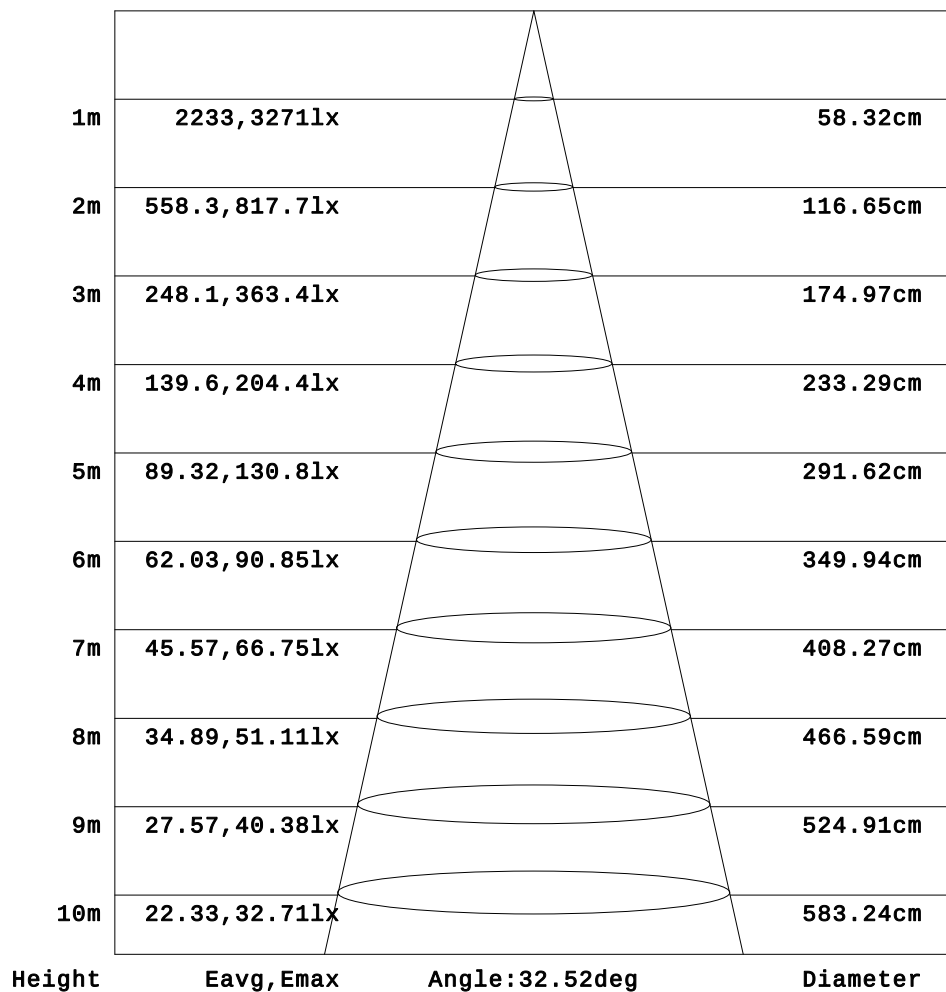
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

AAI Figure

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	Shielding Angle:

Flux out:655.7 lm



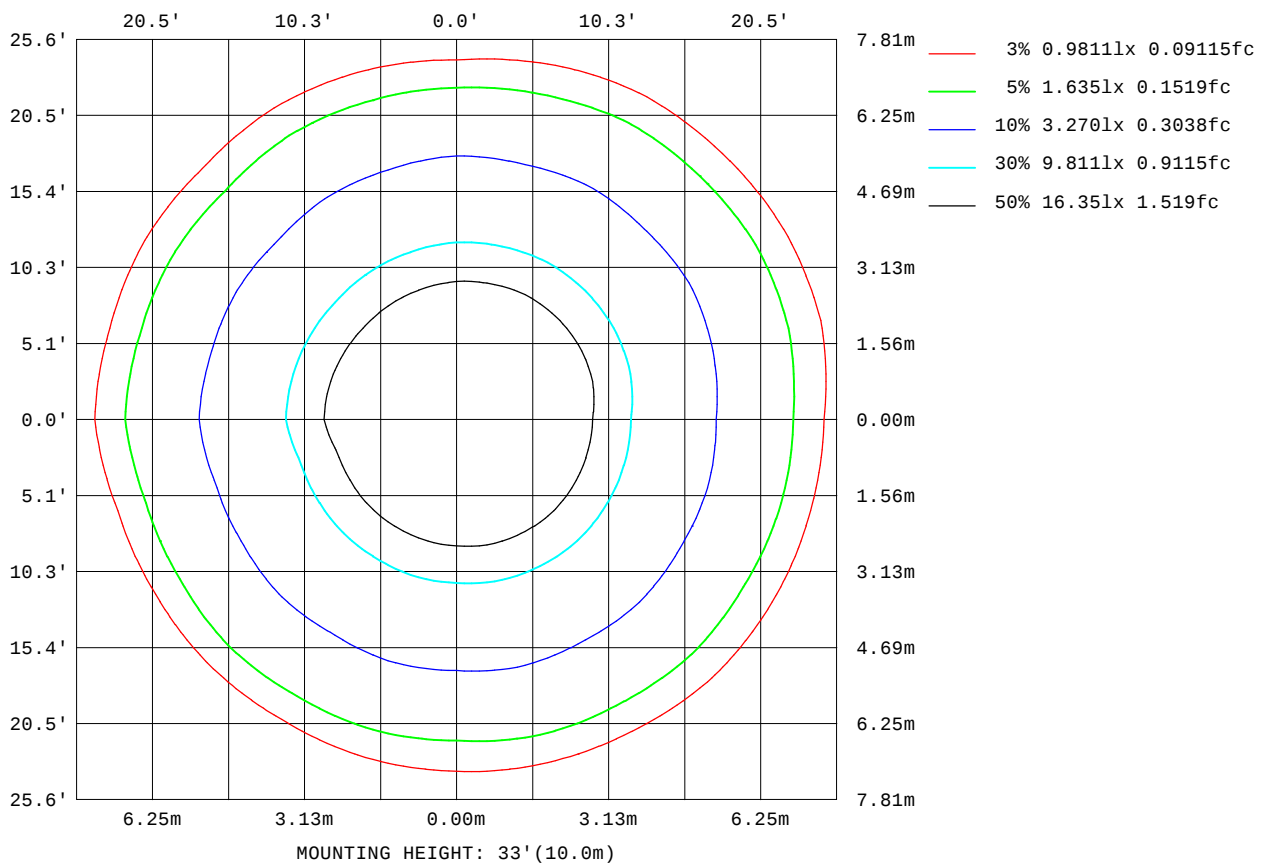
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-12-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:221.39V I:0.1118A P:12.765W PF:0.5156 Freq:50.00Hz Lamp Flux:1302.07x1 lm		
NAME: 12W天花灯	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:70MM	Shielding Angle:

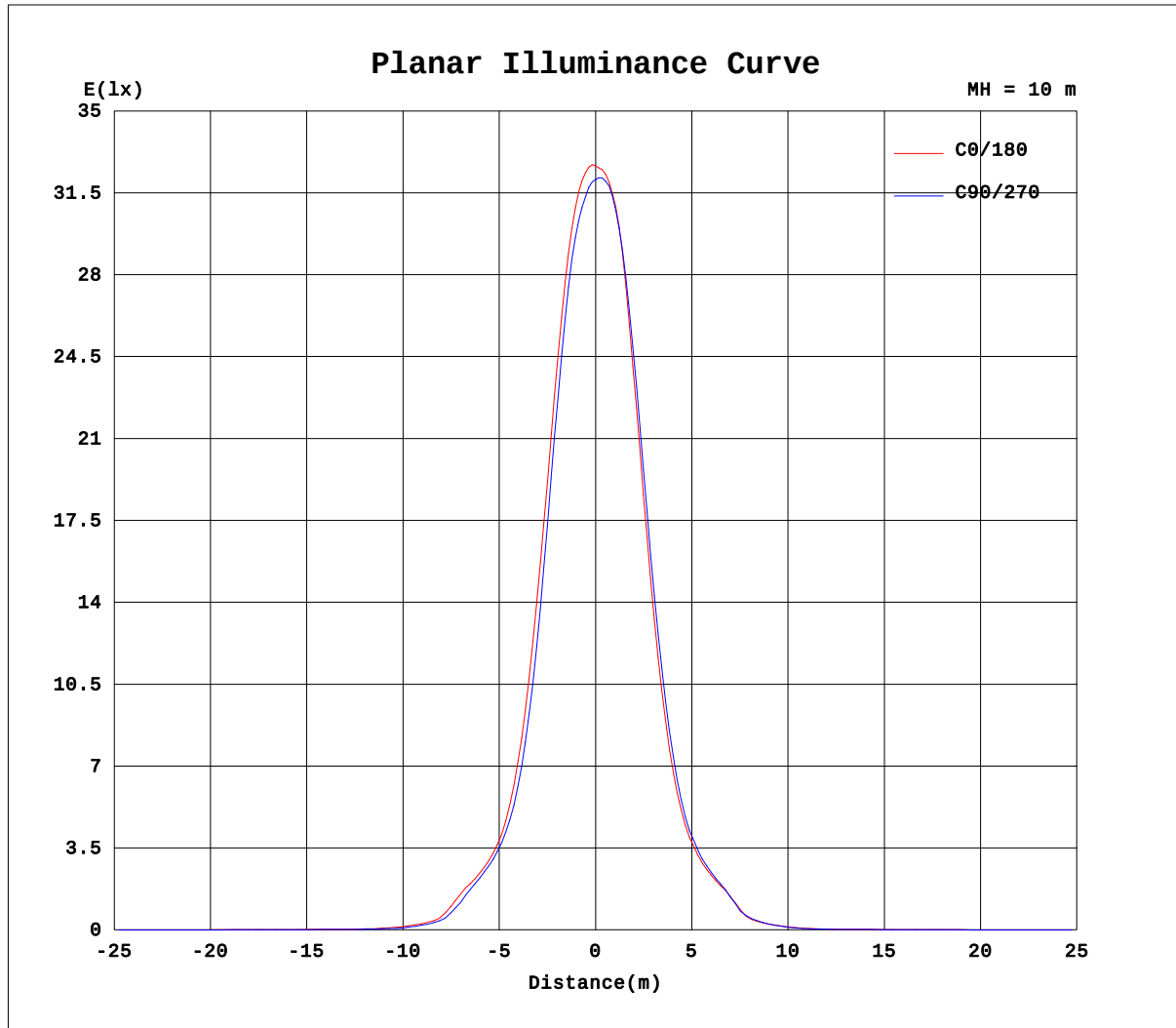
AvgL	cd/m2
L_0~180(65)av	8264
L_0~180(75)av	9067
L_0~180(85)av	4711
L_90~270(65)av	7449
L_90~270(75)av	4413
L_90~270(85)av	102
L_45(65)av	7668
L_45(75)av	7273
L_45(85)av	349

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-12-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

```