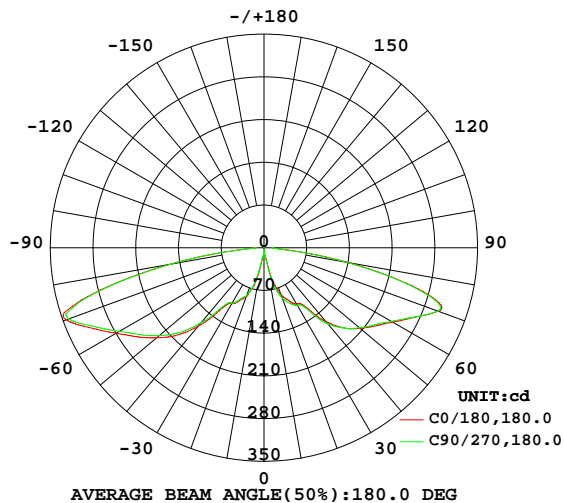


LUMINAIRE PHOTOMETRIC TEST REPORT

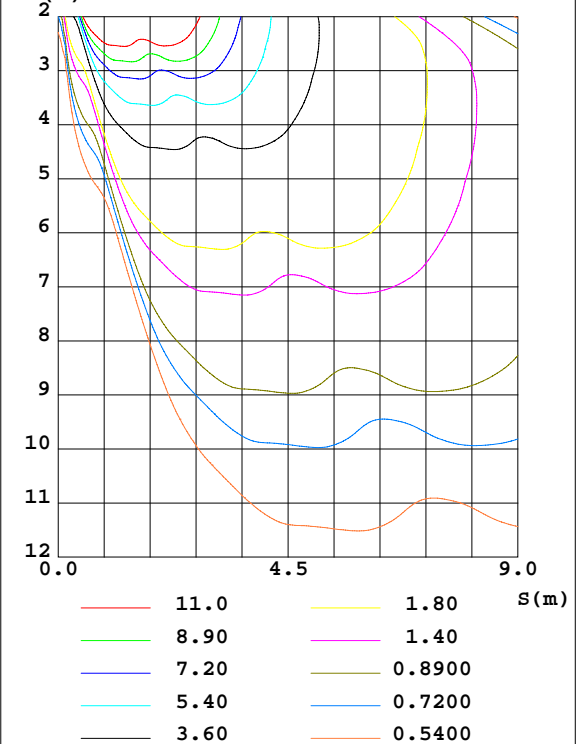
Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 49.05 lm/W			
MODEL		Imax(cd)	347.9	S/MH(C0/180)	8.10
NOMINAL POWER(W)	22	LOR(%)	100.0	S/MH(C90/270)	8.02
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1123.8	η UP,DN(C0-180)	0.0,48.4
NOMINAL FLUX(lm)	1123.76	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

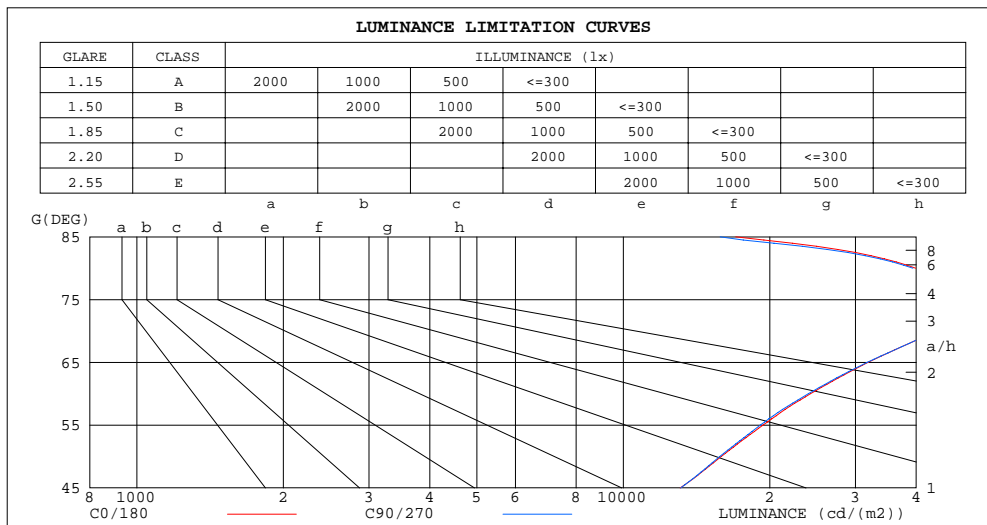
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	17.09	17.50	20.17	22.02	22.23	19.08	18.50	16.38	0- 10	1.248	1.248	0.11,0.11
20	82.06	83.13	87.91	87.80	85.53	84.12	83.01	80.59	10- 20	17.18	18.43	1.64,1.64
30	106.6	103.6	109.0	104.3	105.8	98.90	104.7	99.42	20- 30	45.01	63.45	5.65,5.65
40	158.0	164.2	162.9	169.3	167.0	171.1	160.9	161.1	30- 40	80.75	144.2	12.8,12.8
50	205.4	199.3	204.0	215.4	229.5	231.7	223.7	207.2	40- 50	148.3	292.5	26,26
60	243.8	234.2	241.3	258.1	280.4	284.1	274.1	250.8	50- 60	212.5	504.9	44.9,44.9
70	303.5	299.3	303.1	322.9	344.8	342.8	340.4	312.1	60- 70	287.1	792.1	70.5,70.5
80	139.2	134.7	137.4	144.0	156.2	157.7	155.4	151.1	70- 80	275.0	1067	95,95
90	13.38	13.46	13.55	13.30	12.99	12.95	12.75	12.95	80- 90	56.72	1124	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: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	17025	15813
80	39891	39380
75	50326	49682
70	44162	44096
65	31866	31730
60	24259	24014
55	19374	19135
50	15897	15795
45	13091	13115

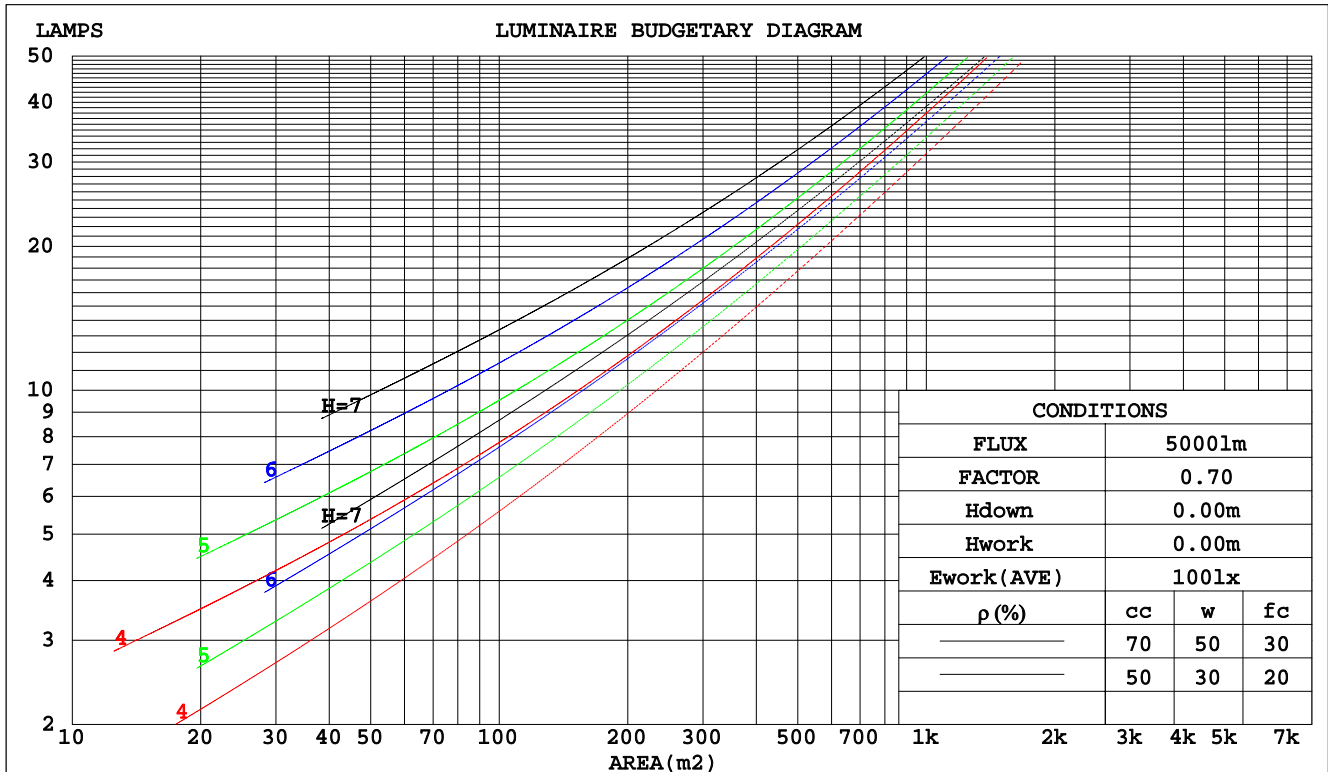
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	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	.95	.89	.83	.93	.87	.81	.88	.83	.79	.84	.80	.76	.80	.77	.74	.71
2.0	.76	.66	.58	.74	.65	.57	.70	.62	.56	.67	.60	.54	.63	.58	.53	.50
3.0	.63	.51	.42	.61	.50	.42	.58	.48	.41	.54	.47	.40	.52	.45	.39	.36
4.0	.53	.41	.32	.51	.40	.32	.48	.39	.31	.46	.37	.30	.43	.36	.30	.27
5.0	.45	.33	.25	.44	.33	.25	.41	.32	.24	.39	.31	.24	.37	.29	.23	.21
6.0	.39	.28	.20	.38	.28	.20	.36	.27	.19	.34	.26	.19	.32	.25	.19	.16
7.0	.35	.24	.16	.34	.23	.16	.32	.23	.16	.30	.22	.16	.29	.21	.15	.13
8.0	.31	.21	.14	.30	.20	.13	.29	.20	.13	.27	.19	.13	.26	.19	.13	.11
9.0	.28	.18	.12	.27	.18	.11	.26	.17	.11	.25	.17	.11	.24	.16	.11	.09
10.0	.25	.16	.10	.25	.16	.10	.24	.15	.10	.23	.15	.10	.22	.15	.10	.07



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	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	.476	.271	.086	.468	.267	.085	.454	.261	.083	.441	.254	.082	.429	.249	.080	
2.0	.426	.234	.072	.419	.231	.071	.406	.226	.070	.395	.221	.069	.384	.217	.068	
3.0	.377	.200	.060	.370	.198	.060	.359	.194	.059	.348	.191	.058	.338	.187	.058	
4.0	.334	.173	.051	.328	.172	.051	.318	.169	.050	.308	.165	.050	.299	.163	.050	
5.0	.298	.152	.044	.293	.151	.044	.284	.148	.044	.275	.145	.043	.267	.143	.043	
6.0	.269	.135	.039	.265	.134	.038	.256	.131	.038	.249	.129	.038	.241	.127	.038	
7.0	.244	.121	.034	.241	.120	.034	.233	.118	.034	.226	.116	.034	.220	.114	.034	
8.0	.224	.109	.031	.220	.109	.031	.214	.107	.031	.208	.105	.030	.202	.104	.030	
9.0	.206	.100	.028	.203	.099	.028	.197	.098	.028	.192	.096	.028	.187	.095	.027	
10.0	.191	.092	.025	.188	.091	.025	.183	.090	.025	.178	.089	.025	.174	.087	.025	

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	.192	.155	.121	.164	.133	.104	.112	.091	.072	.065	.053	.042	.021	.017	.014		
2.0	.190	.131	.082	.163	.113	.071	.112	.078	.049	.064	.045	.029	.021	.015	.009		
3.0	.185	.115	.059	.159	.099	.051	.109	.069	.036	.063	.040	.021	.020	.013	.007		
4.0	.178	.103	.046	.152	.089	.040	.105	.062	.028	.061	.036	.017	.020	.012	.005		
5.0	.169	.093	.037	.146	.081	.032	.100	.056	.023	.058	.033	.014	.019	.011	.004		
6.0	.161	.085	.031	.138	.074	.027	.095	.052	.019	.055	.030	.011	.018	.010	.004		
7.0	.153	.079	.027	.131	.068	.024	.091	.048	.017	.053	.028	.010	.017	.009	.003		
8.0	.145	.073	.024	.125	.063	.021	.086	.044	.015	.050	.026	.009	.016	.009	.003		
9.0	.137	.068	.021	.118	.059	.019	.082	.042	.013	.048	.025	.008	.015	.008	.003		
10.0	.130	.064	.019	.112	.055	.017	.078	.039	.012	.045	.023	.007	.015	.008	.002		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2021-12-16

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm											
NAME: 圆形草坪灯					TYPE:			WEIGHT:			
SPEC.:					DIM.: /			SERIAL No.:			
MFR.:					SUR.:0.08*0.08*3.14			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	2H	24.1	26.1	24.4	26.4	26.6	24.1	26.1	24.4	26.3	26.6
	3H	28.5	30.3	28.8	30.6	30.9	28.4	30.3	28.8	30.6	30.9
	4H	30.3	32.1	30.7	32.4	32.7	30.3	32.1	30.7	32.4	32.7
	6H	31.3	33.0	31.7	33.3	33.6	31.3	33.0	31.6	33.3	33.6
	8H	31.5	33.1	31.8	33.4	33.8	31.4	33.1	31.8	33.4	33.7
	12H	31.5	33.1	31.9	33.4	33.8	31.4	33.1	31.8	33.4	33.7
4H	2H	25.5	27.3	25.9	27.6	27.9	25.5	27.3	25.9	27.6	27.9
	3H	29.9	31.5	30.2	31.8	32.1	29.8	31.5	30.2	31.8	32.1
	4H	31.7	33.2	32.1	33.6	33.9	31.7	33.2	32.1	33.5	33.9
	6H	32.7	34.1	33.2	34.5	34.8	32.7	34.1	33.1	34.4	34.8
	8H	32.9	34.2	33.4	34.6	35.0	32.9	34.2	33.4	34.6	35.0
	12H	33.0	34.2	33.4	34.6	35.0	33.0	34.1	33.4	34.5	35.0
8H	4H	32.3	33.6	32.7	33.9	34.4	32.3	33.6	32.7	33.9	34.4
	6H	33.4	34.5	33.9	34.9	35.4	33.4	34.5	33.9	34.9	35.3
	8H	33.7	34.7	34.2	35.1	35.6	33.7	34.6	34.1	35.1	35.5
	12H	33.8	34.6	34.3	35.1	35.6	33.7	34.6	34.2	35.0	35.5
12H	4H	32.3	33.5	32.8	33.9	34.3	32.3	33.5	32.8	33.9	34.3
	6H	33.5	34.5	34.0	34.9	35.4	33.5	34.5	34.0	34.9	35.3
	8H	33.8	34.6	34.3	35.1	35.6	33.8	34.6	34.3	35.1	35.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.0 / - 0.1					+ 0.0 / - 0.1					
1.5H	+ 0.1 / - 0.2					+ 0.1 / - 0.2					
2.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					

CIE Pub.117, 1124 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.4$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:

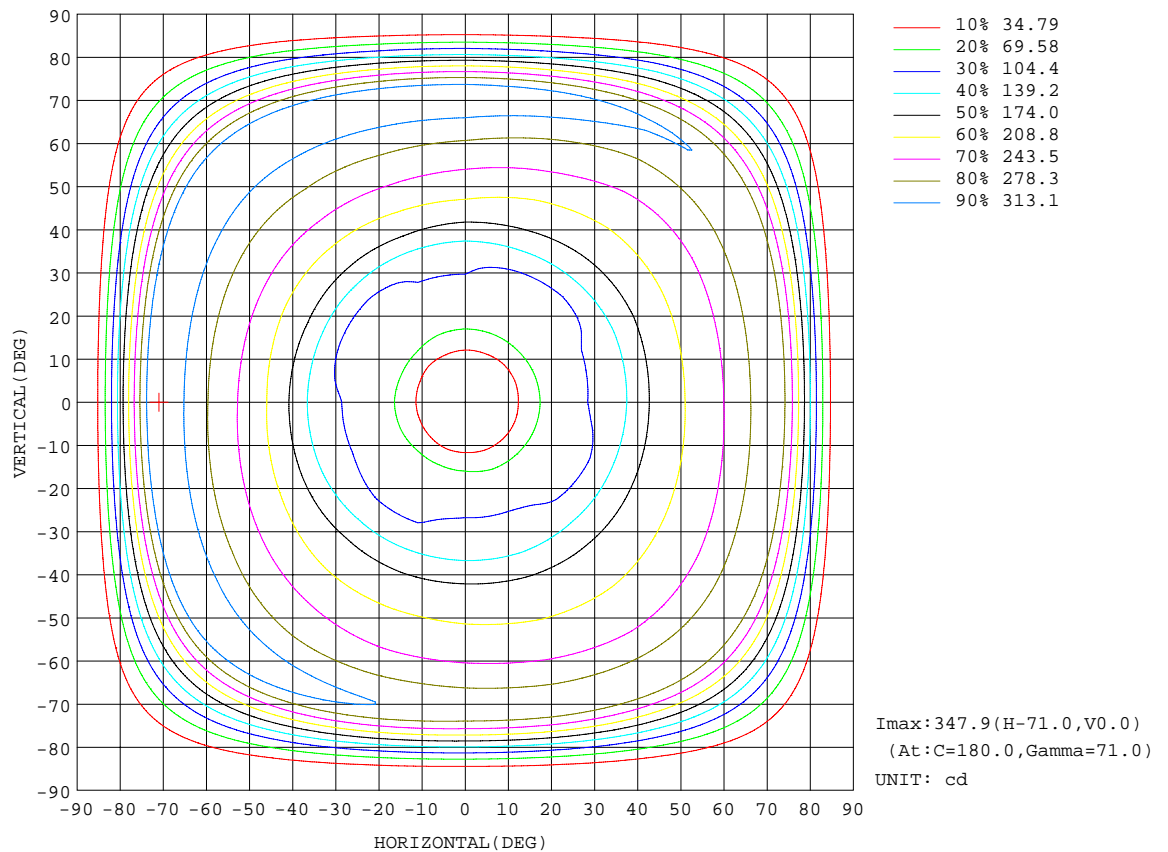
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	41	26	18	40	26	17	39	25	17	9
0.80	50	34	24	48	34	24	46	33	24	15
1.00	58	42	32	56	41	32	53	44	31	21
1.25	65	50	40	64	49	39	60	48	39	28
1.50	72	57	46	69	56	46	66	54	45	34
2.00	81	68	58	79	66	57	74	64	56	45
2.50	87	75	66	84	74	65	80	71	63	52
3.00	92	81	73	89	80	72	85	76	69	59
4.00	98	89	82	96	88	81	91	84	78	67
5.00	102	95	89	99	93	87	94	89	84	73
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:

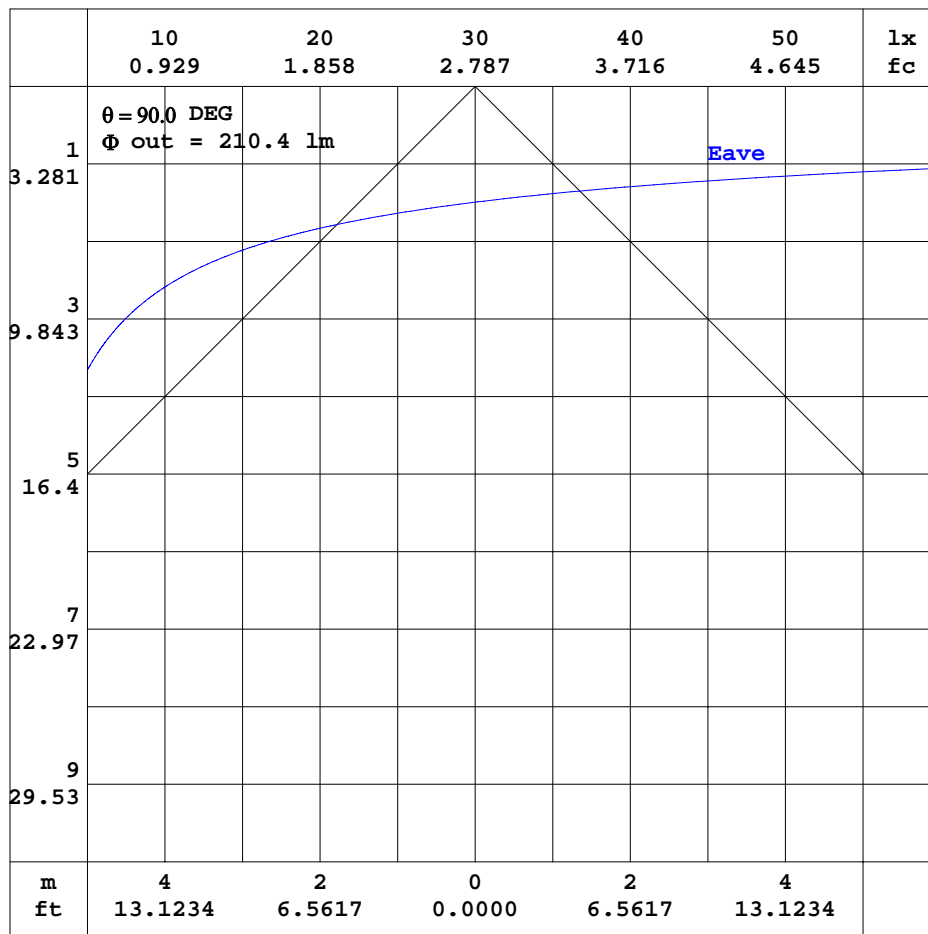


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

AAI CURVES

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:



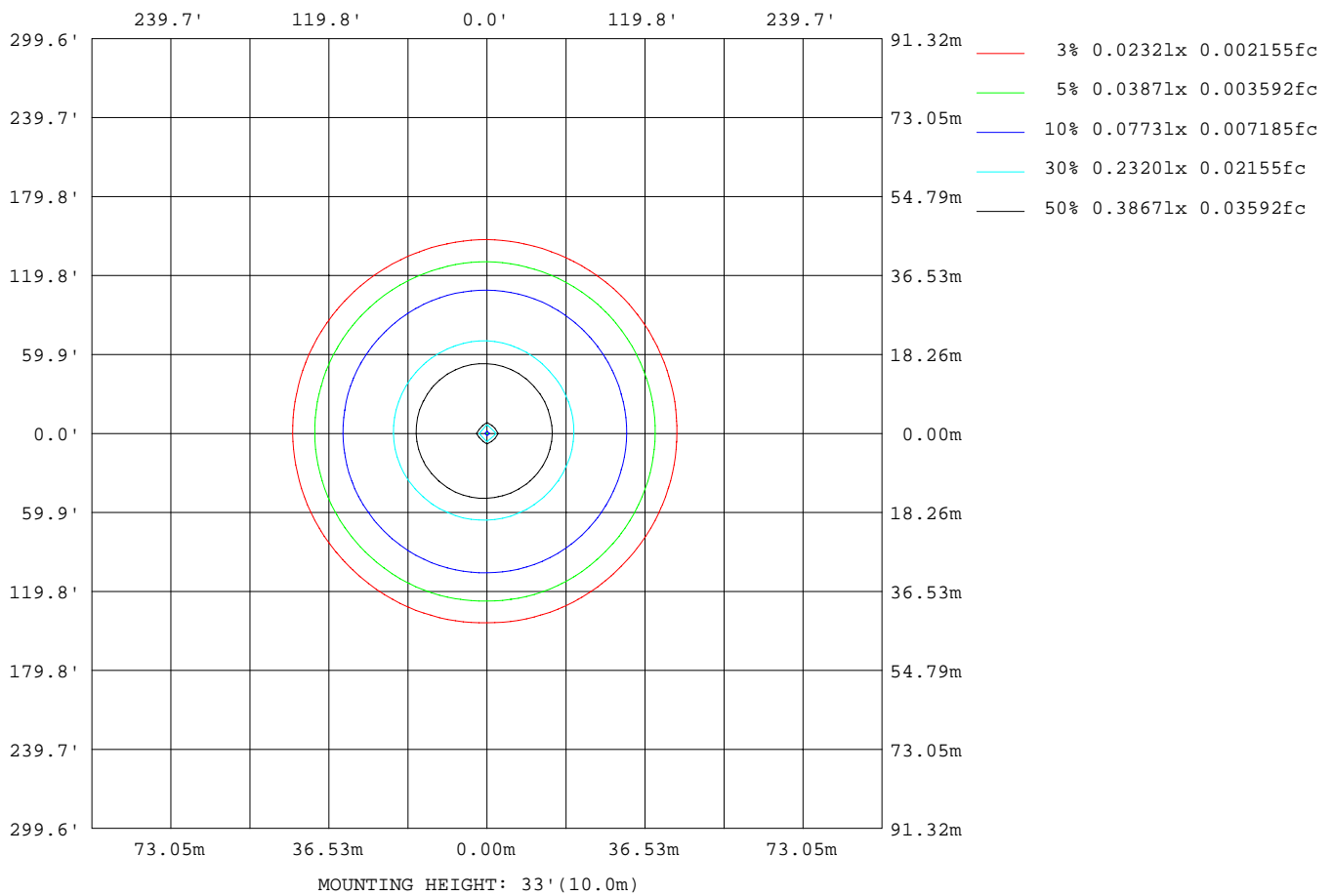
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 9.370m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:229.97V I:0.1025A P:22.909W PF:0.9721 Freq:49.99Hz Lamp Flux:1123.76x1 lm		
NAME: 圆形草坪灯	TYPE:	WEIGHT:
SPEC.:	DIM.: /	SERIAL No.:
MFR.:	SUR.:0.08*0.08*3.14	Shielding Angle:

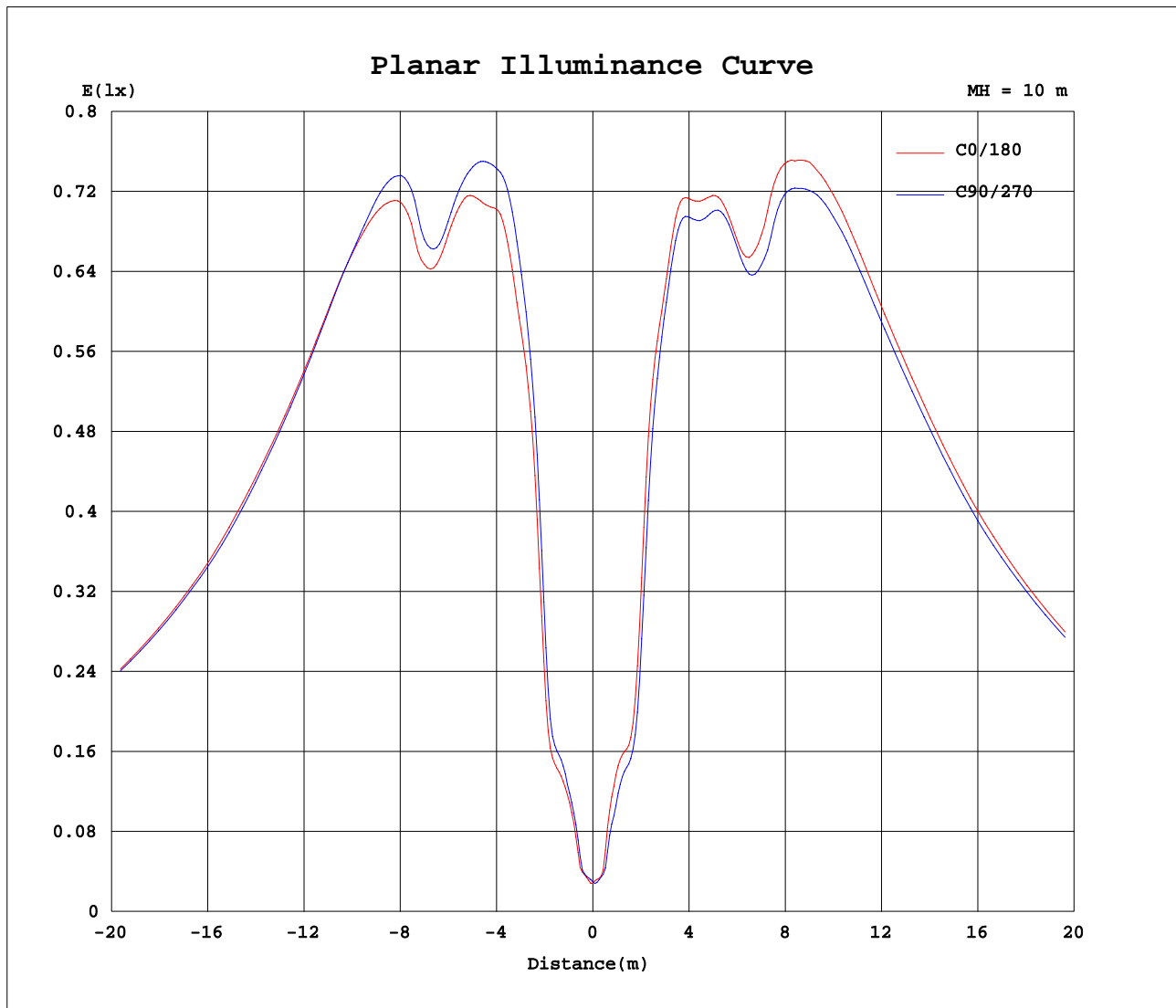
AvgL	cd/m2
L_0~180(65)av	34279
L_0~180(75)av	52924
L_0~180(85)av	19445
L_90~270(65)av	33897
L_90~270(75)av	52290
L_90~270(85)av	18794
L_45(65)av	33699
L_45(75)av	52512
L_45(85)av	18799

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 9.370m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

```