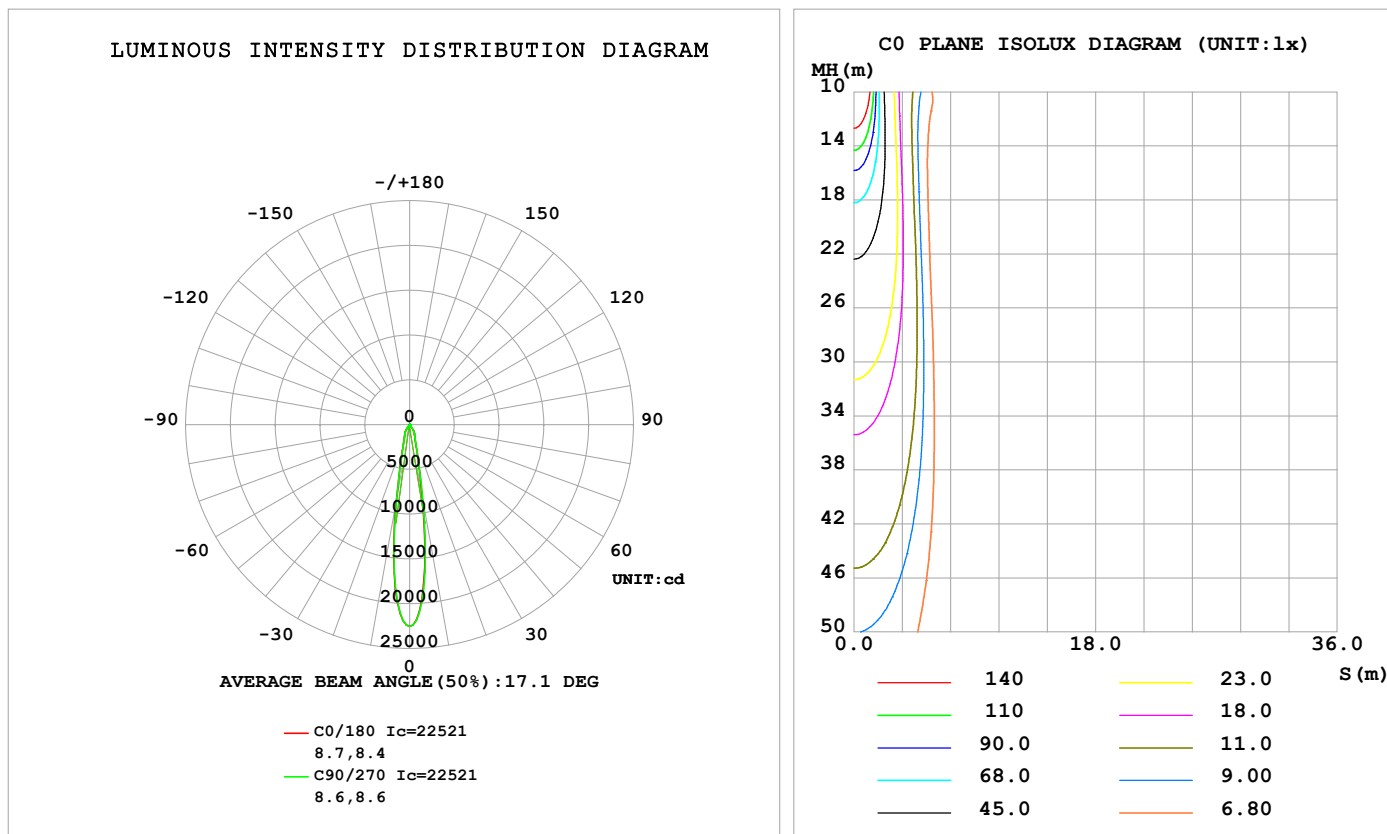


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 122.86 lm/W			
MODEL	CITIZEN CLU038	Imax (cd)	22521	S/MH(C0/180)	0.30
NOMINAL POWER(W)	430	LOR(%)	96.7	S/MH(C90/270)	0.30
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	3452.4	η UP,DN(C0-180)	0.0,48.5
NOMINAL FLUX(lm)	3570.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	219.5	η down (%)	96.7	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators: 杨泽全
Test Date: 2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity: 65.0%
Test Distance: 7.710m [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	821.5	837.2	855.4	862.9	879.7	867.1	852.1	837.6	0- 10	1412	1412	40.9,39.6
20	185.5	188.5	194.6	197.0	193.2	189.6	188.3	186.4	10- 20	1039	2452	71,68.7
30	107.8	108.9	111.6	113.1	111.5	110.3	109.4	108.0	20- 30	641.1	3093	89.6,86.6
40	5.051	5.262	6.328	8.301	8.185	6.576	5.561	5.318	30- 40	344.6	3437	99.6,96.3
50	0.6565	0.6668	0.7140	0.7489	0.4034	0.3990	0.4005	0.3894	40- 50	11.96	3449	99.9,96.6
60	0.0755	0.0746	0.0826	0.0891	0.0785	0.0779	0.0806	0.0773	50- 60	2.218	3451	100,96.7
70	0.0297	0.0291	0.0328	0.0358	0.0307	0.0298	0.0294	0.0271	60- 70	0.5290	3452	100,96.7
80	0.0174	0.0177	0.0187	0.0201	0.0134	0.0137	0.0127	0.0127	70- 80	0.2330	3452	100,96.7
90	0.0164	0.0873	0.0880	0.0238	0.0147	0.0351	0.0629	0.0104	80- 90	0.1803	3452	100,96.7
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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 3445.9 lm

%lum = 99.8%

%lamp = 96.5%

Conical surface Flux(130deg): 3451.8 lm

%lum = 100.0%

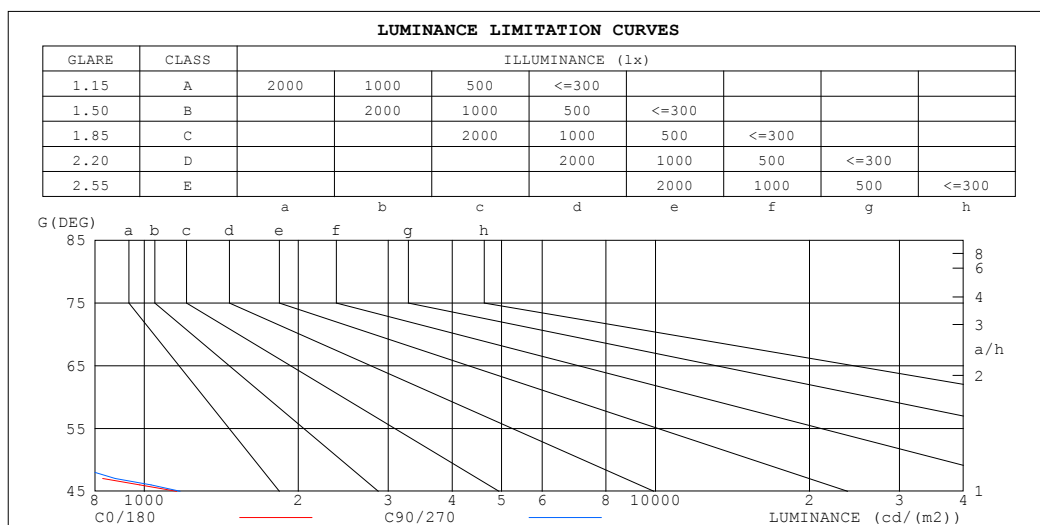
%lamp = 96.7%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	96	109
80	57	61
75	45	48
70	49	54
65	61	67
60	86	94
55	224	249
50	581	631
45	1157	1175

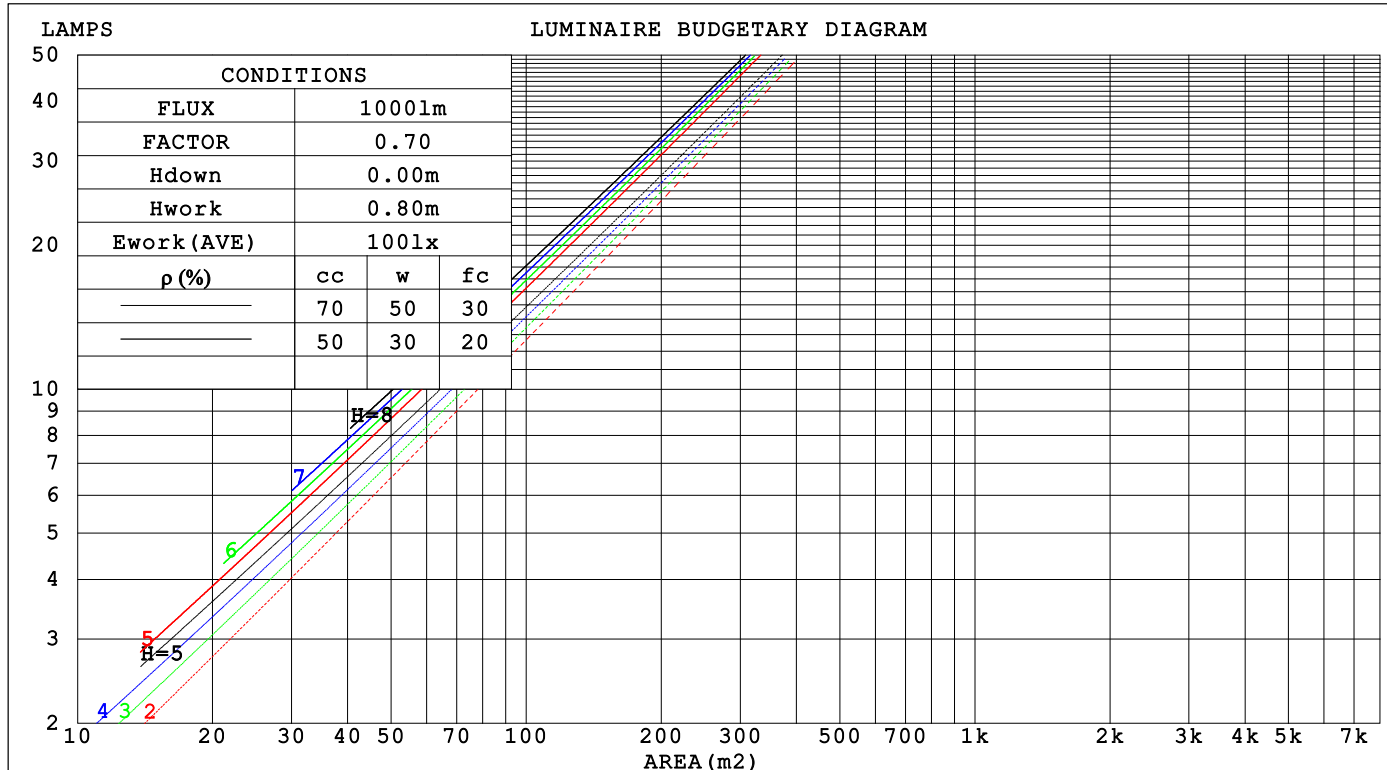
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.15	1.15	1.15	1.12	1.12	1.12	1.07	1.07	1.07	1.03	1.03	1.03	.99	.99	.99	.97
1.0	1.09	1.07	1.06	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.96	.96	.95	.93
2.0	1.04	1.01	.98	1.02	.00	.97	.99	.97	.95	.96	.95	.93	.94	.93	.91	.90
3.0	.99	.96	.93	.98	.95	.92	.96	.93	.91	.93	.91	.89	.91	.90	.88	.87
4.0	.95	.91	.88	.94	.91	.88	.92	.89	.87	.91	.88	.86	.89	.87	.85	.84
5.0	.92	.88	.85	.91	.87	.84	.89	.86	.84	.88	.85	.83	.86	.84	.82	.81
6.0	.88	.84	.81	.88	.84	.81	.86	.83	.81	.85	.82	.80	.84	.82	.80	.79
7.0	.85	.81	.78	.85	.81	.78	.84	.80	.78	.83	.80	.78	.82	.79	.77	.76
8.0	.83	.79	.76	.82	.78	.76	.81	.78	.75	.81	.77	.75	.80	.77	.75	.74
9.0	.80	.76	.74	.80	.76	.73	.79	.76	.73	.78	.75	.73	.78	.75	.73	.72
10.0	.78	.74	.72	.78	.74	.71	.77	.74	.71	.76	.73	.71	.76	.73	.71	.70



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	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	.133	.076	.024	.127	.072	.023	.115	.066	.021	.104	.060	.019	.094	.054	.018		
2.0	.124	.068	.021	.119	.066	.020	.109	.061	.019	.100	.056	.018	.092	.052	.016		
3.0	.116	.062	.019	.112	.060	.018	.104	.056	.017	.096	.053	.016	.089	.049	.015		
4.0	.109	.057	.017	.106	.055	.016	.099	.052	.016	.092	.049	.015	.086	.047	.014		
5.0	.103	.053	.015	.100	.051	.015	.094	.049	.014	.088	.047	.014	.083	.044	.013		
6.0	.098	.049	.014	.095	.048	.014	.090	.046	.013	.085	.044	.013	.080	.042	.013		
7.0	.093	.046	.013	.090	.045	.013	.086	.043	.013	.082	.042	.012	.078	.040	.012		
8.0	.088	.043	.012	.086	.042	.012	.082	.041	.012	.079	.040	.012	.075	.039	.011		
9.0	.084	.041	.011	.083	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011		
10.0	.081	.039	.011	.079	.038	.011	.076	.037	.011	.073	.036	.010	.070	.035	.010		

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	.184	.184	.184	.157	.157	.157	.107	.107	.107	.062	.062	.062	.020	.020	.020		
1.0	.163	.152	.143	.139	.131	.123	.095	.090	.085	.055	.052	.050	.018	.017	.016		
2.0	.145	.128	.114	.125	.110	.098	.085	.076	.069	.049	.044	.040	.016	.014	.013		
3.0	.131	.110	.092	.112	.094	.080	.077	.066	.056	.045	.038	.033	.014	.012	.011		
4.0	.119	.095	.076	.102	.082	.066	.070	.057	.046	.041	.033	.028	.013	.011	.009		
5.0	.109	.083	.063	.094	.072	.055	.065	.050	.039	.037	.029	.023	.012	.010	.008		
6.0	.101	.073	.054	.086	.063	.047	.060	.044	.033	.035	.026	.020	.011	.009	.006		
7.0	.093	.065	.046	.080	.057	.040	.055	.040	.028	.032	.023	.017	.010	.008	.006		
8.0	.087	.059	.039	.075	.051	.034	.052	.036	.024	.030	.021	.015	.010	.007	.005		
9.0	.082	.053	.034	.070	.046	.030	.049	.033	.021	.028	.019	.013	.009	.006	.004		
10.0	.077	.049	.030	.066	.042	.026	.046	.030	.019	.027	.018	.011	.009	.006	.004		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm											
NameAA: 2-2904-LM2						Type: 铝反杯			Weight:		
SPEC.: 75						DIM.:			SERIAL No.: 20251125-C007		
MFR.: NATA						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	2H	17.9	18.6	18.1	18.7	18.9	18.2	18.9	18.4	19.1	19.2
	3H	17.8	18.4	18.0	18.6	18.8	18.1	18.7	18.3	18.9	19.1
	4H	17.7	18.3	18.0	18.5	18.7	18.0	18.6	18.3	18.8	19.0
	6H	17.6	18.2	17.9	18.4	18.6	17.9	18.5	18.2	18.7	19.0
	8H	17.6	18.1	17.9	18.4	18.6	17.9	18.4	18.2	18.7	18.9
	12H	17.5	18.0	17.8	18.3	18.6	17.8	18.4	18.1	18.6	18.9
4H	2H	17.7	18.3	18.0	18.5	18.7	18.0	18.6	18.3	18.8	19.0
	3H	17.5	18.0	17.8	18.3	18.6	17.8	18.4	18.1	18.6	18.9
	4H	17.4	17.9	17.8	18.2	18.5	17.7	18.2	18.1	18.5	18.8
	6H	17.3	17.8	17.7	18.1	18.4	17.6	18.1	18.0	18.4	18.7
	8H	17.3	17.7	17.7	18.0	18.4	17.6	18.0	18.0	18.3	18.7
	12H	17.2	17.6	17.6	18.0	18.3	17.5	17.9	17.9	18.3	18.6
8H	4H	17.3	17.7	17.7	18.0	18.4	17.6	18.0	18.0	18.3	18.7
	6H	17.2	17.5	17.6	17.9	18.3	17.5	17.8	17.9	18.2	18.6
	8H	17.1	17.4	17.5	17.8	18.2	17.4	17.7	17.9	18.1	18.6
	12H	17.0	17.3	17.5	17.7	18.2	17.4	17.6	17.8	18.0	18.5
12H	4H	17.2	17.6	17.6	17.9	18.3	17.5	17.9	17.9	18.3	18.6
	6H	17.1	17.4	17.5	17.8	18.2	17.4	17.7	17.9	18.1	18.6
	8H	17.0	17.3	17.5	17.7	18.2	17.4	17.6	17.8	18.0	18.5
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 5.7 / -22.3					+ 5.8 / -22.7				
1.5H		+ 8.5 / -19.2					+ 8.5 / -19.8				
2.0H		+ 6.3 / - 8.1					+ 6.2 / - 8.1				

CIE Pub.117, 3571 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.4)
Area: 0.0176 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:

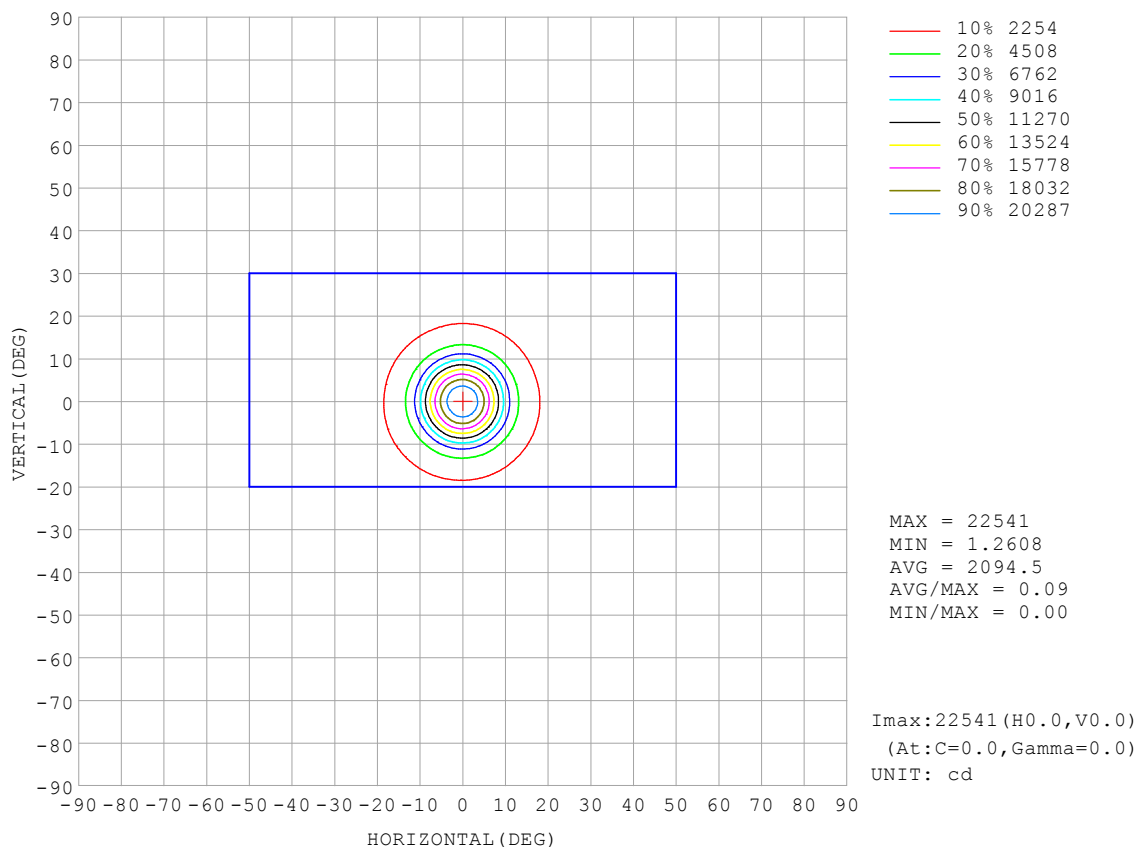
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	83	80	88	83	79	87	82	79	76
0.80	95	90	87	94	90	87	93	89	86	83
1.00	99	94	91	98	93	90	96	93	90	86
1.25	102	97	95	101	97	94	99	96	93	90
1.50	104	100	97	103	99	97	101	98	96	92
2.00	106	103	100	105	102	99	102	100	98	93
2.50	108	104	102	106	103	101	103	101	99	94
3.00	109	106	104	107	105	103	104	102	100	95
4.00	111	108	107	109	107	105	105	104	103	96
5.00	112	110	108	110	108	107	106	105	104	97
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: 25.3°C
Operators: 杨泽全
Test Date: 2025-11-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 γ Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity: 65.0%
Test Distance: 7.710m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:

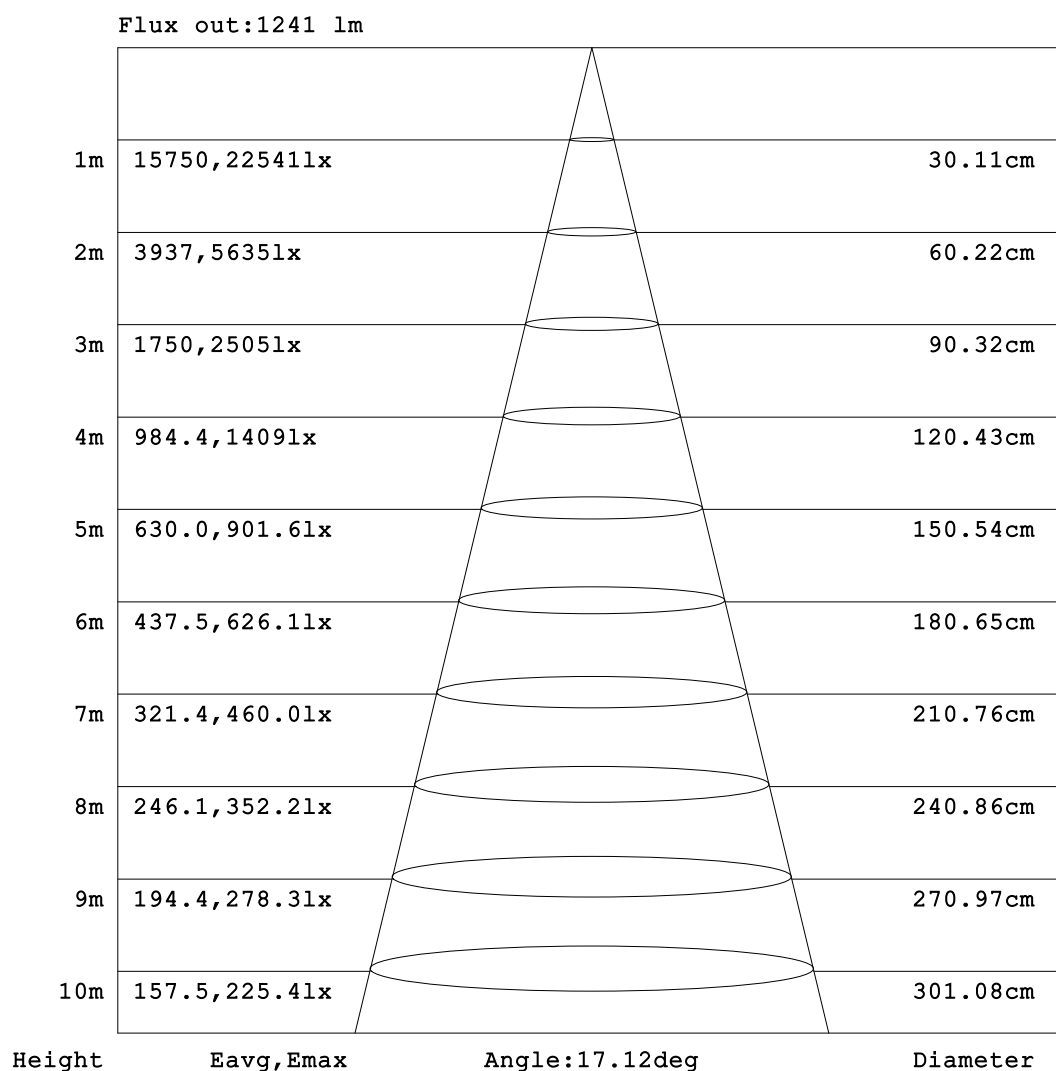


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:



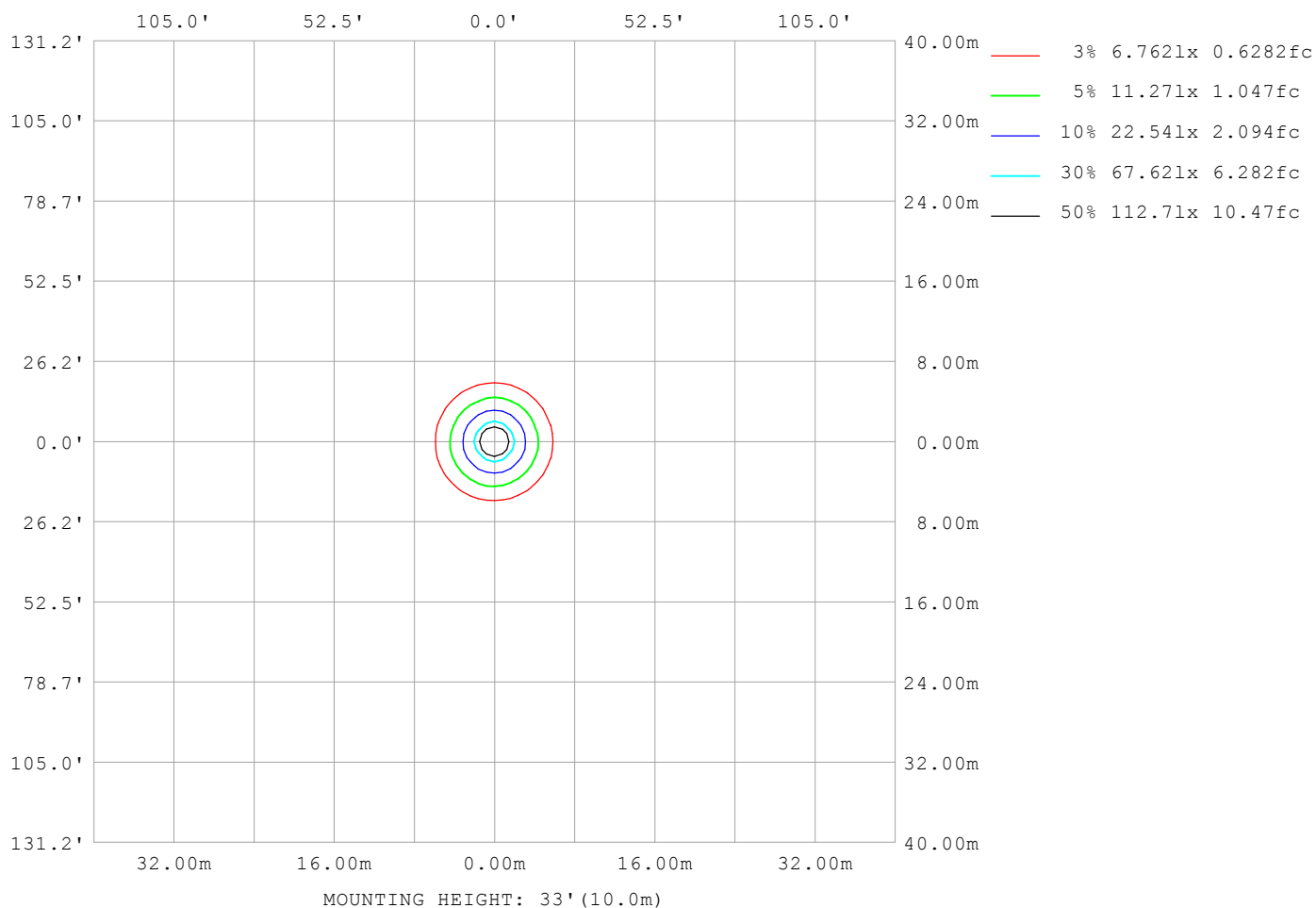
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:

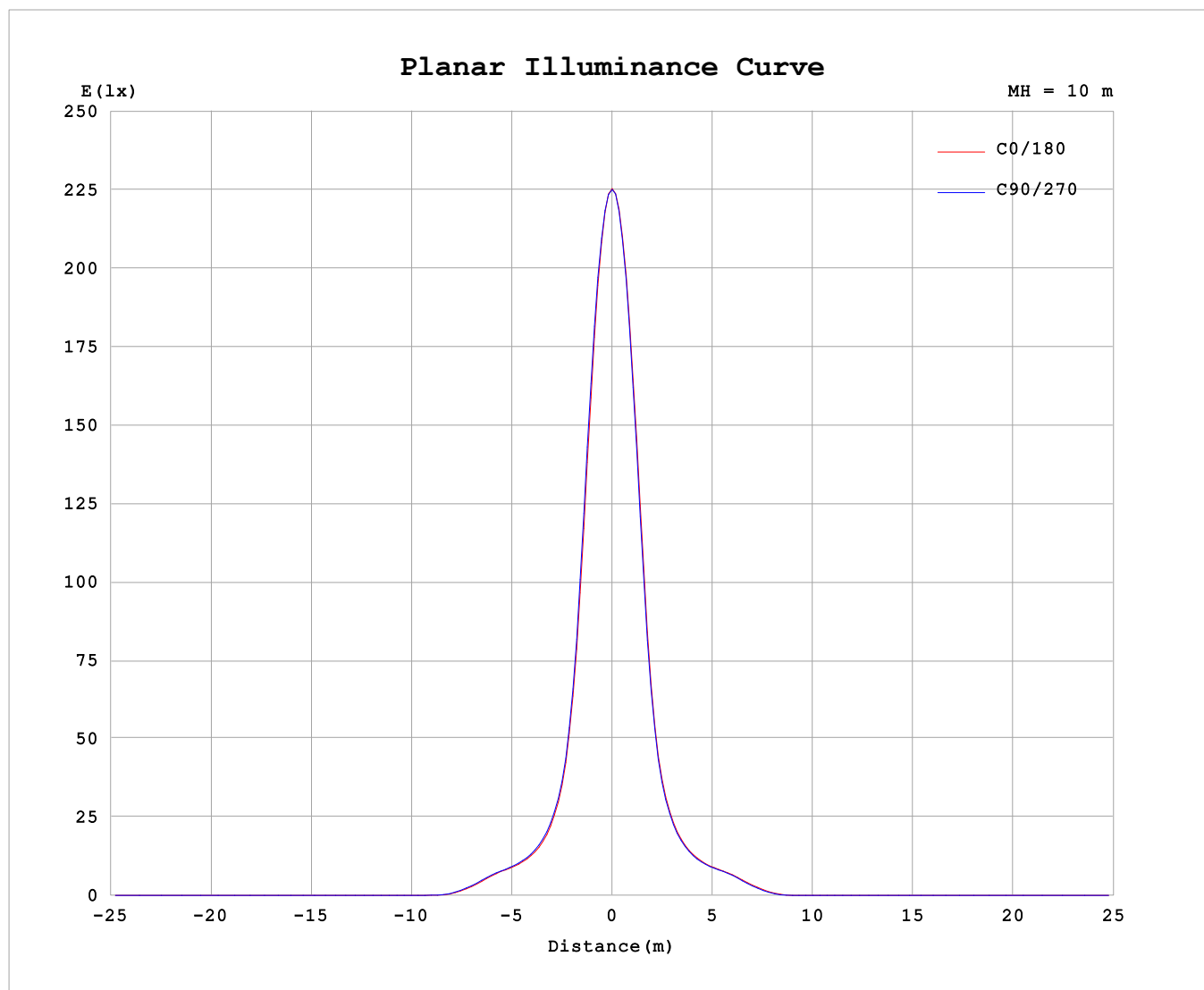
AvgL	cd/m2
L_0~180 (65) av	63
L_0~180 (75) av	44
L_0~180 (85) av	77
L_90~270 (65) av	66
L_90~270 (75) av	44
L_90~270 (85) av	86
L_45 (65) av	65
L_45 (75) av	46
L_45 (85) av	86

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:杨泽全
Test Date:2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators: 杨泽全
Test Date: 2025-11-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity: 65.0%
Test Distance: 7.710m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.54V I:0.1295A P:28.099W PF:0.9409 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:3570.9x1 lm		
NameAA: 2-2904-LM2	Type: 铝反杯	Weight:
SPEC.: 75	DIM.:	SERIAL No.: 20251125-C007
MFR.: NATA	SUR.:	shielding angle:

Table--1

UNIT: X10cd

[illegible]

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators: 杨泽全
Test Date: 2025-11-24

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:7.710m [K=1.0000]
Remarks:

```