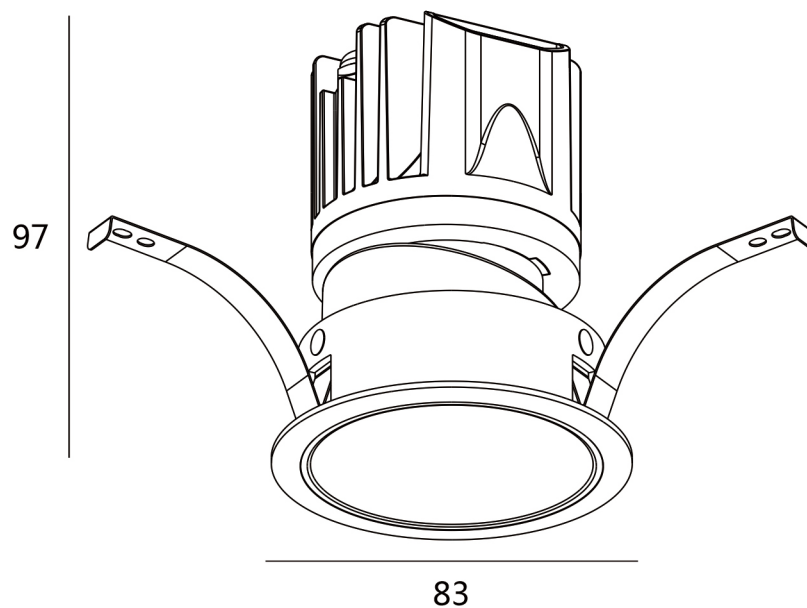


01.209A02R00



Light Output Ratio:	100.0%	
Luminaire Power:	12.23 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.80	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QINBOMIN
Test Date: 2022-05-13

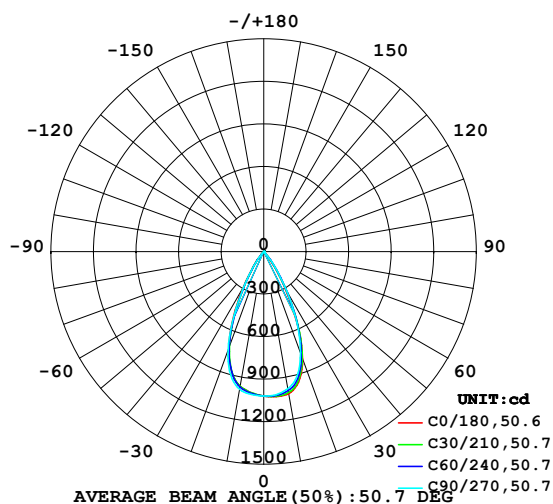
γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity: 65.0%
Test Distance: 11.660m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

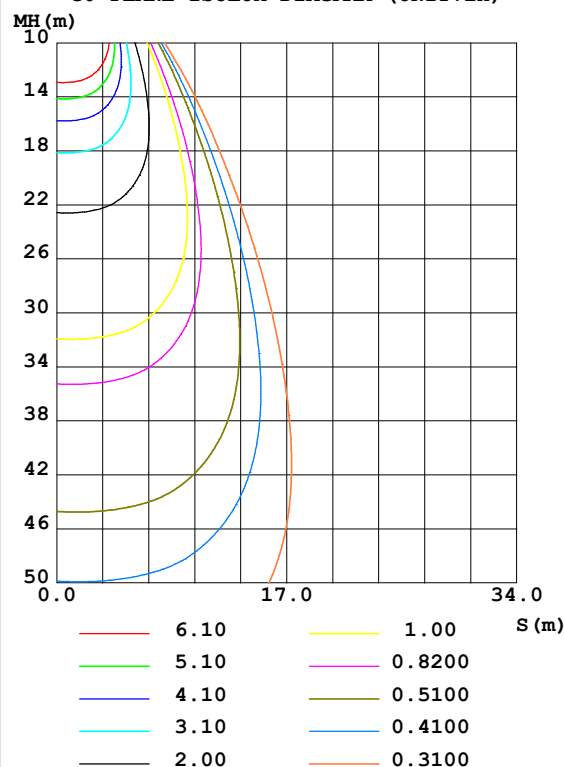
Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: **(mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 55.56 lm/W
MODEL	01.209A02R00	I _{max} (cd)	1028	S/MH(C0/180)	0.75	
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	0.74	
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	679.42	η UP,DN(C0-180)	0.0,51.4	
NOMINAL FLUX(lm)	679.416	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.6	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.80	

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:QINBOMIN
Test Date:2022-05-13

γ Range: 0 - 70DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:11.660m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

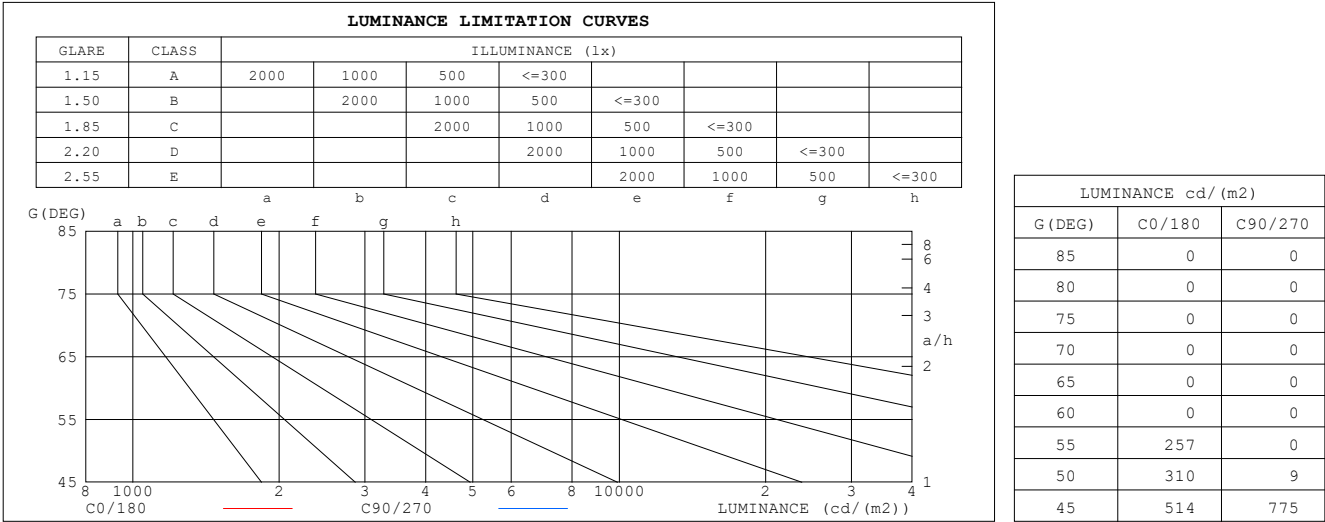
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1017	1004	982.0	964.1	964.1	965.5	986.5	1011	0- 10	95.89	95.89	14.1,14.1
20	802.3	788.8	758.6	725.0	718.5	705.2	737.9	780.6	10- 20	250.2	346.0	50.9,50.9
30	308.9	336.0	330.2	302.2	283.0	262.3	266.8	294.0	20- 30	237.3	583.3	85.9,85.9
40	39.16	55.21	59.15	50.81	41.90	29.85	26.32	30.56	30- 40	90.33	673.7	99.2,99.2
50	0.6599	0.1433	0.0192	0.0573	0.2102	0.6500	0.9941	1.035	40- 50	5.511	679.2	100,100
60	0	0	0	0	0	0	0.0380	0.0971	50- 60	0.2434	679.4	100,100
70	0	0	0	0	0	0	0	0	60- 70	0.0008	679.4	100,100
80	0	0	0	0	0	0	0	0	70- 80	0	679.4	100,100
90	0	0	0	0	0	0	0	0	80- 90	0	679.4	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:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: **(mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:



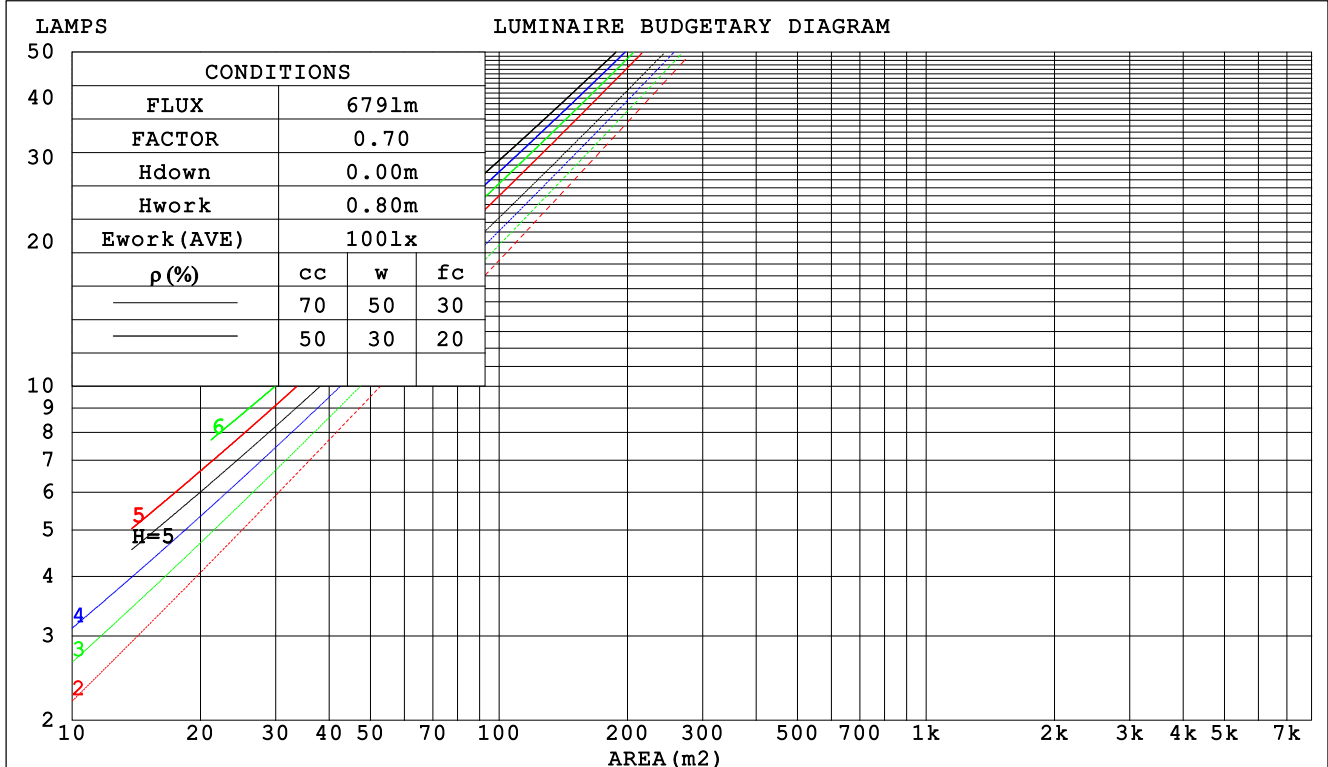
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QINBOMIN
Test Date:2022-05-13

γ Range: 0 - 70DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:11.660m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	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	1.19	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	1.01	.99	.98	.97	.97	.95
2.0	1.05	1.01	.98	1.03	.90	.97	1.00	.97	.95	.97	.95	.93	.94	.93	.91	.90
3.0	.99	.95	.91	.98	.94	.90	.95	.92	.89	.93	.90	.87	.90	.88	.86	.85
4.0	.93	.89	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.87	.84	.81	.80
5.0	.88	.83	.80	.88	.83	.79	.86	.82	.78	.84	.81	.78	.83	.80	.77	.76
6.0	.84	.79	.75	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72
7.0	.80	.74	.71	.79	.74	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.68
8.0	.76	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.72	.69	.66	.65
9.0	.72	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.63	.69	.65	.63	.62
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:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	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	.161	.092	.029	.154	.088	.028	.142	.081	.026	.130	.075	.024	.120	.069	.022		
2.0	.153	.084	.026	.147	.081	.025	.137	.076	.024	.127	.071	.022	.118	.067	.021		
3.0	.145	.077	.023	.140	.075	.023	.131	.071	.022	.123	.067	.021	.115	.064	.020		
4.0	.138	.071	.021	.134	.070	.021	.126	.067	.020	.119	.064	.019	.112	.061	.019		
5.0	.131	.067	.019	.128	.066	.019	.121	.063	.019	.115	.061	.018	.109	.058	.018		
6.0	.125	.063	.018	.122	.062	.018	.117	.060	.017	.111	.058	.017	.106	.056	.017		
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.108	.055	.016	.103	.054	.016		
8.0	.115	.056	.016	.113	.056	.016	.108	.054	.015	.104	.053	.015	.100	.051	.015		
9.0	.111	.054	.015	.109	.053	.015	.105	.052	.015	.101	.051	.014	.097	.049	.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	.145	.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	.083	.068	.056	.048	.040	.033	.015	.013	.011		
4.0	.129	.098	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007		
6.0	.112	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.012	.009	.006		
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005		
8.0	.100	.063	.038	.086	.055	.033	.059	.038	.023	.035	.023	.014	.011	.007	.005		
9.0	.095	.058	.033	.082	.050	.029	.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:QINBOMIN
Test Date:2022-05-13

γ Range: 0 - 70DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:11.660m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm										
NAME: Apollo					TYPE:Embedded Luminaire			WEIGHT:0.36kg		
SPEC.:					DIM.: ** (mm)			SERIAL No.:G032535		
MFR.: Guangdong KC Lighting CO.,LTD					SUR.:65mm			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	15.7	16.5	15.9	16.7	16.8	16.3	17.1	16.5	17.3	17.4
3H	15.5	16.3	15.8	16.5	16.7	16.1	16.9	16.4	17.1	17.3
4H	15.4	16.2	15.7	16.4	16.6	16.0	16.8	16.3	17.0	17.2
6H	15.3	16.0	15.6	16.3	16.5	15.9	16.6	16.2	16.9	17.1
8H	15.3	15.9	15.6	16.2	16.5	15.9	16.5	16.2	16.8	17.1
12H	15.2	15.9	15.6	16.1	16.4	15.8	16.5	16.2	16.7	17.0
4H 2H	15.4	16.2	15.7	16.4	16.6	16.0	16.8	16.3	17.0	17.2
3H	15.2	15.9	15.6	16.1	16.4	15.8	16.5	16.2	16.7	17.0
4H	15.2	15.7	15.5	16.0	16.3	15.8	16.3	16.1	16.6	16.9
6H	15.1	15.6	15.4	15.9	16.2	15.7	16.2	16.0	16.5	16.8
8H	15.0	15.5	15.4	15.8	16.2	15.6	16.1	16.0	16.4	16.8
12H	14.9	15.4	15.4	15.7	16.1	15.5	16.0	16.0	16.3	16.7
8H 4H	15.0	15.5	15.4	15.8	16.2	15.6	16.1	16.0	16.4	16.8
6H	14.9	15.3	15.3	15.7	16.1	15.5	15.9	15.9	16.3	16.7
8H	14.8	15.2	15.3	15.6	16.0	15.4	15.8	15.9	16.2	16.6
12H	14.8	15.1	15.2	15.5	16.0	15.4	15.7	15.8	16.1	16.6
12H 4H	14.9	15.4	15.4	15.7	16.1	15.5	16.0	16.0	16.3	16.7
6H	14.8	15.2	15.3	15.6	16.0	15.4	15.8	15.9	16.2	16.6
8H	14.8	15.1	15.2	15.5	16.0	15.4	15.7	15.8	16.1	16.6
Variations with the observer position at spacings:										
S = 1.0H	+ 4.2 / - 1.\$					+ 4.2 / - 1.\$				
1.5H	+ 7.0 / -37.1					+ 7.0 / - 1.\$				
2.0H	+ 7.5 / - 1.\$					+10.8 / - 1.\$				

CIE Pub.117, 679.4 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -1.3$)
Area: 0.00331663 m²

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QINBOMIN
Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:11.660m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:

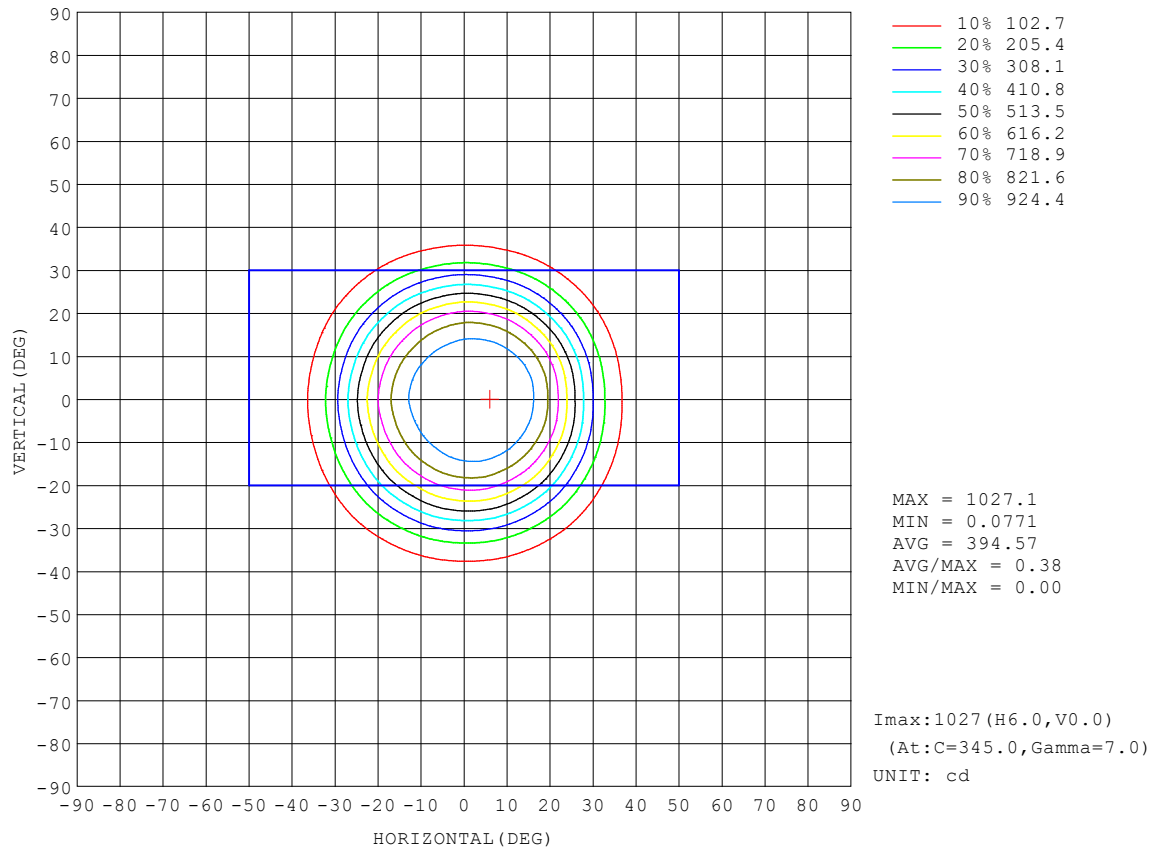
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	91	85	82	90	85	82	79
0.80	98	93	90	97	92	89	96	92	89	86
1.00	102	97	94	101	96	93	99	96	93	89
1.25	105	101	98	104	100	97	102	99	96	93
1.50	108	104	101	107	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	113	110	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	107	100
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:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:

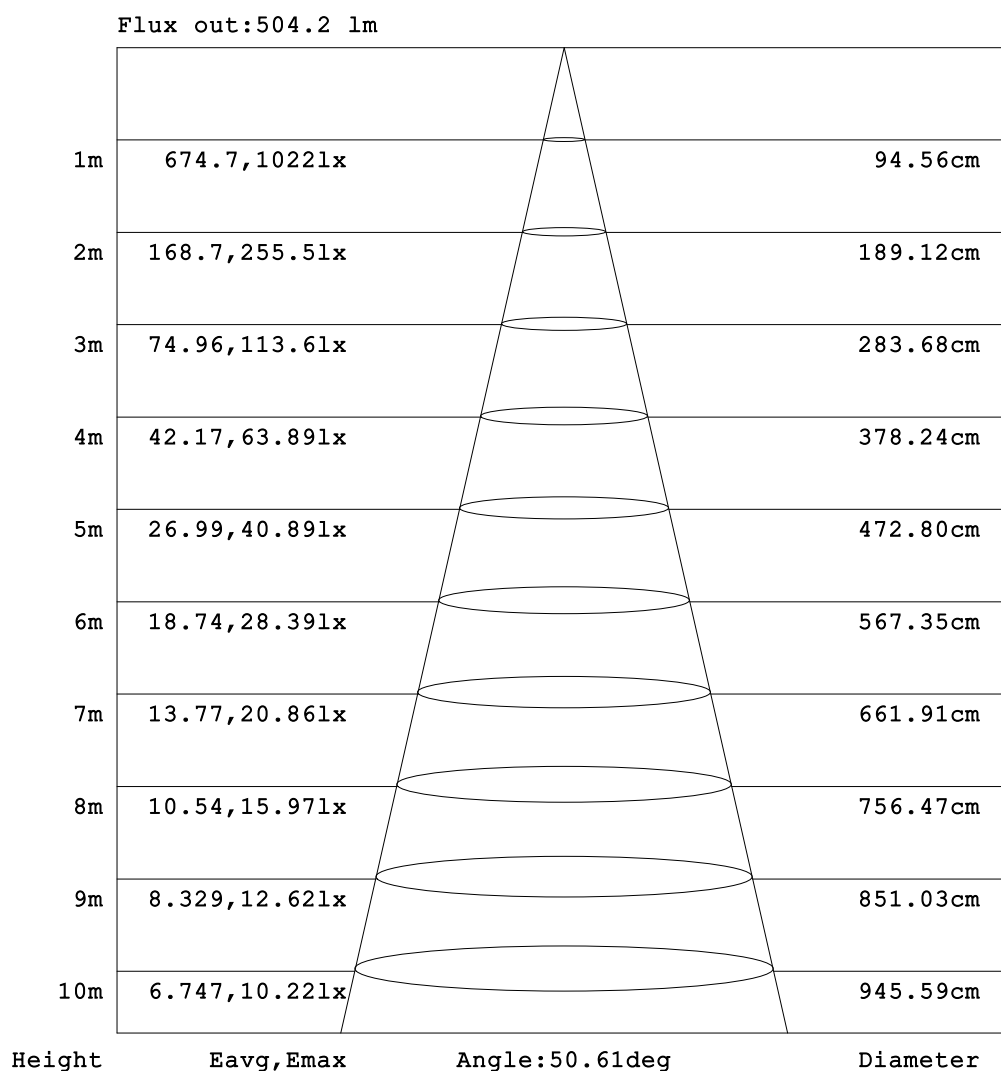


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

AAI Figure

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:



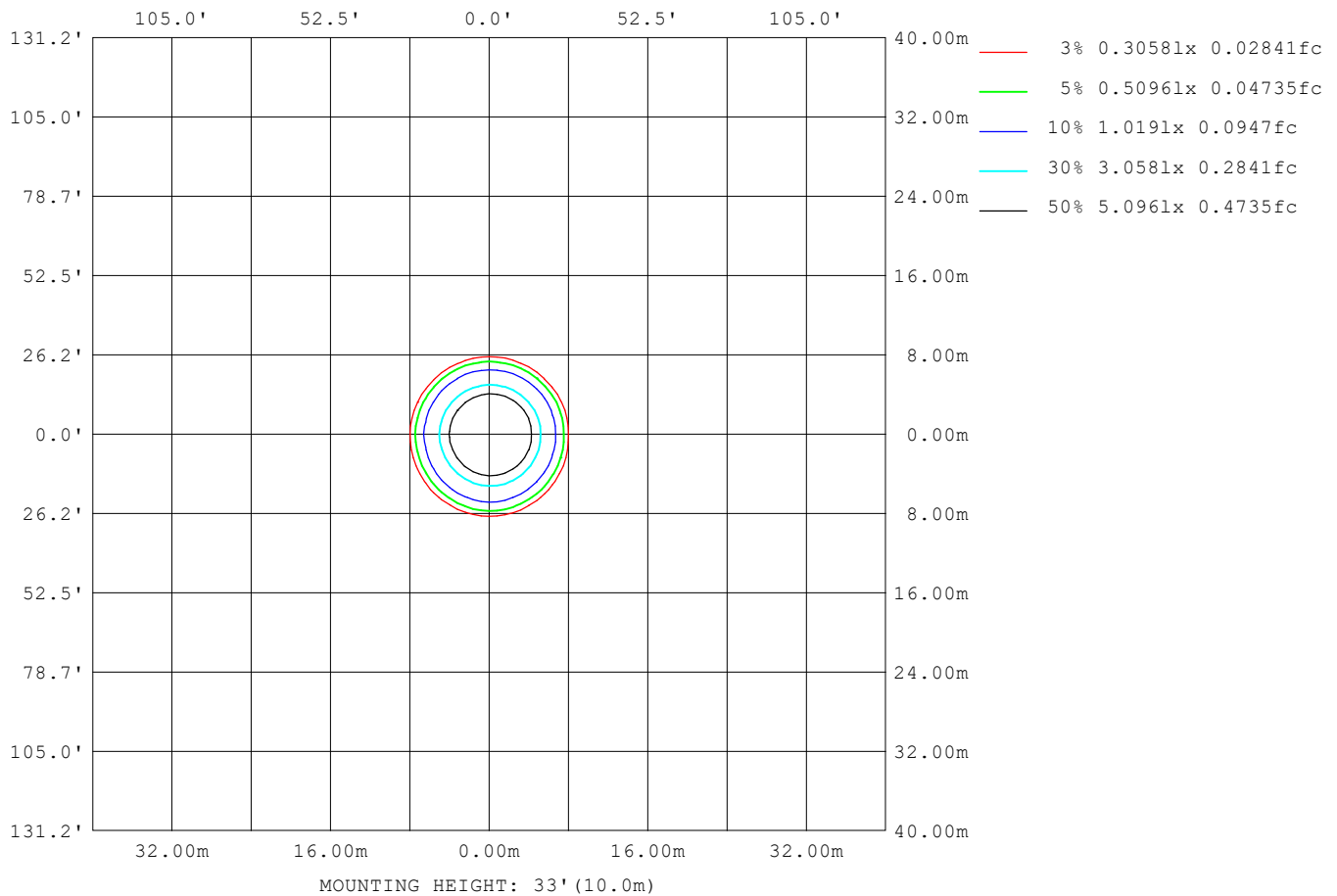
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:

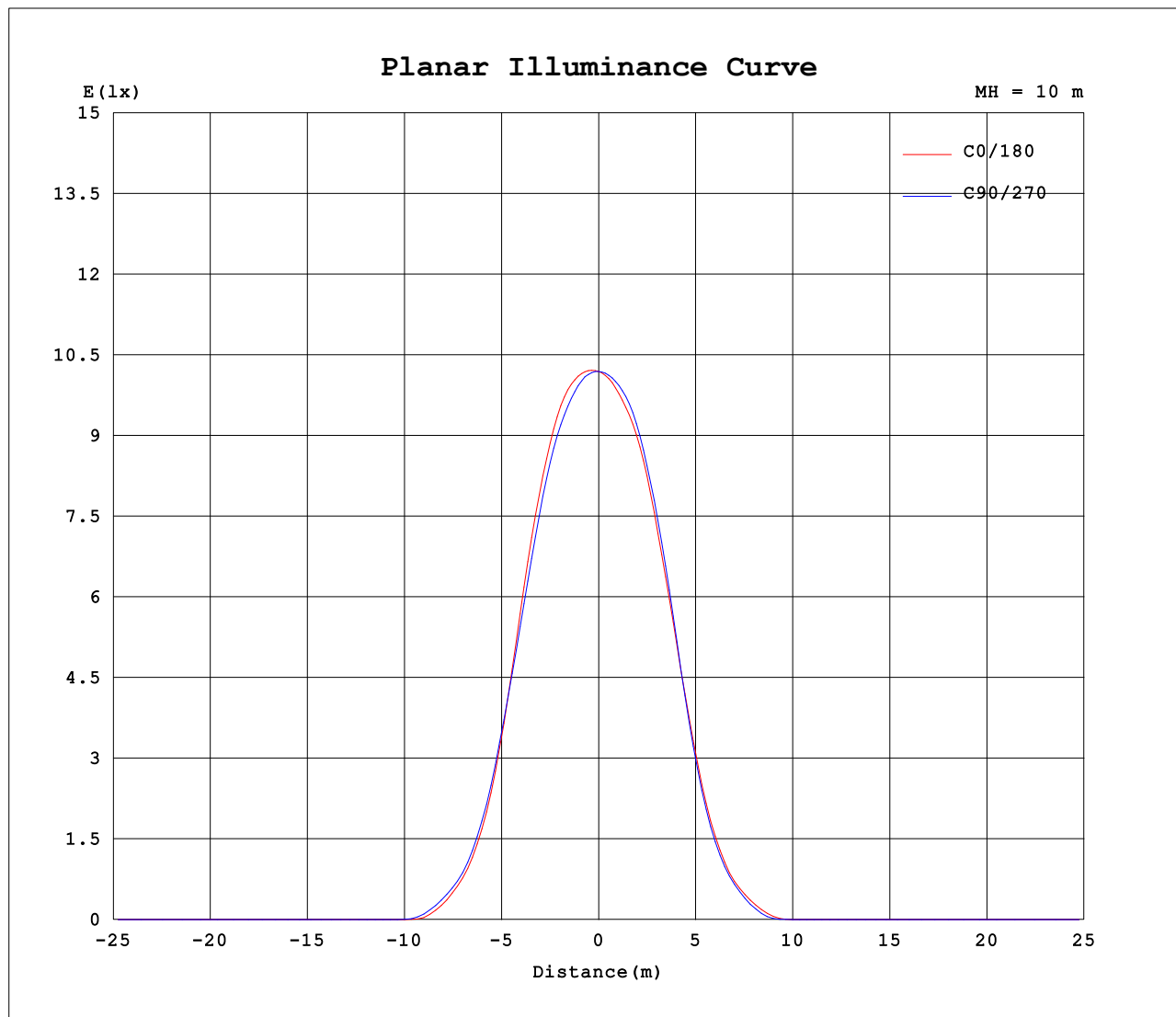
AvgL	cd/m2
L_0~180 (65) av	0
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	0
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	0
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QINBOMIN
 Test Date:2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:11.660m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QINBOMIN
Test Date: 2022-05-13

γ Range: 0 - 70DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity: 65.0%
Test Distance: 11.660m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QINBOMIN
Test Date:2022-05-13

```

γ Range: 0 - 70DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:11.660m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.18V I:0.1040A P:12.228W PF:0.5338 Freq:49.99Hz Lamp Flux:679.416x1 lm		
NAME: Apollo	TYPE:Embedded Luminaire	WEIGHT:0.36kg
SPEC.:	DIM.: ** (mm)	SERIAL No.:G032535
MFR.: Guangdong KC Lighting CO.,LTD	SUR.:65mm	Shielding Angle:

Table--2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QINBOMIN
Test Date:2022-05-13

```

γ Range: 0 - 70DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:11.660m [K=1.0000]
Remarks:

```