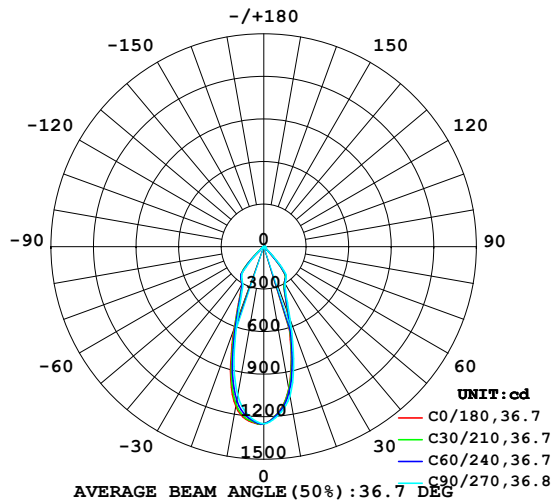


LUMINAIRE PHOTOMETRIC TEST REPORT

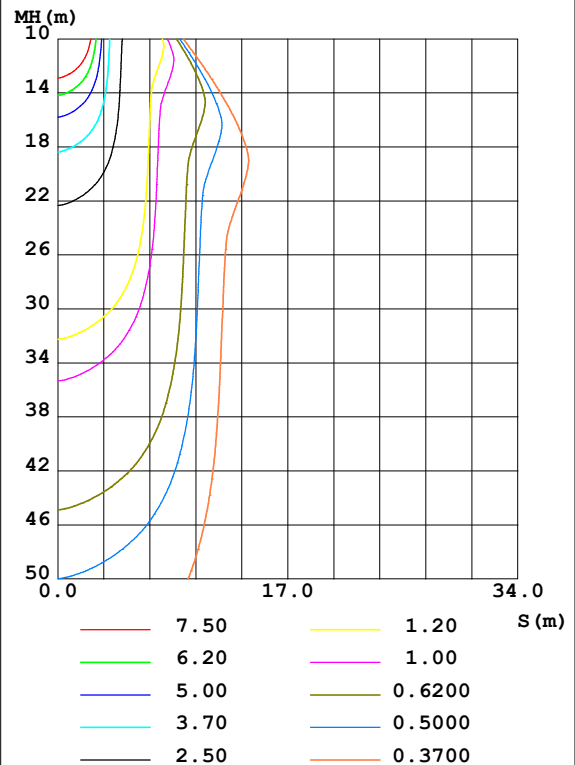
NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 81.54 lm/W
MODEL		Imax(cd)	1253	S/MH(C0/180)	0.65	
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.60	
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	771.64	η UP,DN(C0-180)	0.0,49.5	
NOMINAL FLUX(lm)	771.644	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.5	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	12	η down(%)	100.0	CIBSE SHR MAX	0.60	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [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	1018	1030	1068	1112	1143	1116	1064	1033	0- 10	110.7	110.7	14.3,14.3
20	489.8	504.2	546.0	588.9	610.8	590.0	546.0	510.2	10- 20	223.3	334.0	43.3,43.3
30	292.4	295.3	302.5	308.3	313.3	309.0	301.6	296.4	20- 30	178.4	512.5	66.4,66.4
40	186.2	194.5	218.7	238.3	248.2	243.2	224.8	200.7	30- 40	169.1	681.6	88.3,88.3
50	14.78	15.51	18.03	19.93	21.10	20.76	18.88	16.11	40- 50	68.41	750.0	97.2,97.2
60	8.068	8.270	8.863	9.176	9.424	9.423	9.065	8.430	50- 60	10.88	760.9	98.6,98.6
70	4.568	4.661	4.875	5.066	5.308	5.242	4.968	4.685	60- 70	6.541	767.5	99.5,99.5
80	0.5599	0.5818	1.098	1.876	2.433	1.970	1.220	0.6618	70- 80	3.872	771.3	100,100
90	0.0700	0.0700	0.0700	0.0700	0.1176	0.1188	0.1175	0.1200	80- 90	0.3147	771.6	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		

Conical surface Flux(90deg): 735.94 lm

%lum = 95.4%

%lamp = 95.4%

Conical surface Flux(120deg): 760.92 lm

%lum = 98.6%

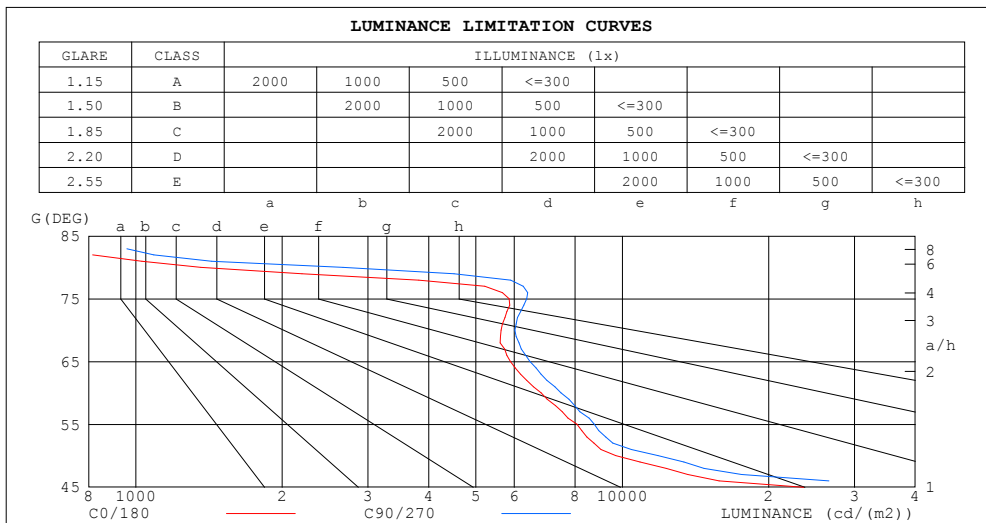
%lamp = 98.6%

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:陈荷莲
 Test Date:2023-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.480m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	535	737
80	1360	2668
75	5851	6361
70	5633	6014
65	5892	6461
60	6806	7479
55	8073	8754
50	9700	11835
45	23593	40357

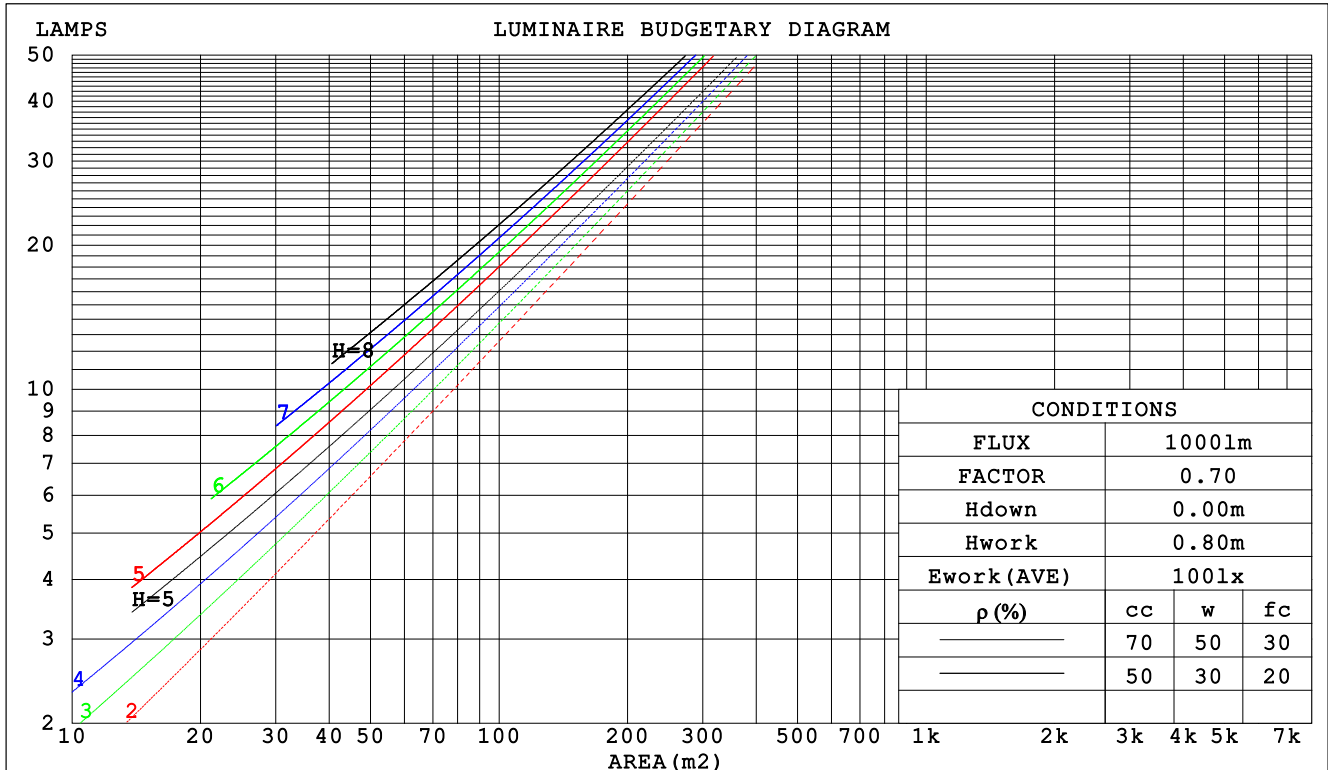
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:#55MM	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	.00
1.0	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.94	.90	.86	.92	.88	.85	.89	.86	.83	.87	.84	.82	.80
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.84	.80	.77	.82	.79	.76	.75
5.0	.84	.78	.74	.83	.77	.73	.81	.76	.73	.79	.75	.72	.78	.74	.71	.70
6.0	.79	.73	.69	.78	.72	.68	.76	.72	.68	.75	.71	.67	.74	.70	.67	.65
7.0	.74	.68	.64	.74	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.61
8.0	.70	.64	.60	.70	.64	.60	.68	.63	.60	.67	.63	.59	.66	.62	.59	.58
9.0	.66	.61	.57	.66	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.55
10.0	.63	.57	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.53	.52



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

WEC AND CCEC

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:#55MM	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	.181 .103 .033	.174 .099 .032	.161 .093 .030	.150 .086 .028	.139 .081 .026	
2.0	.173 .095 .029	.168 .092 .028	.157 .087 .027	.147 .083 .026	.138 .078 .025	
3.0	.165 .088 .026	.160 .086 .026	.151 .082 .025	.142 .078 .024	.135 .075 .023	
4.0	.157 .081 .024	.152 .080 .024	.145 .077 .023	.137 .074 .022	.130 .071 .022	
5.0	.149 .076 .022	.145 .075 .022	.138 .072 .021	.132 .070 .021	.126 .067 .020	
6.0	.142 .071 .020	.139 .070 .020	.133 .068 .020	.127 .066 .019	.122 .064 .019	
7.0	.135 .067 .019	.132 .066 .019	.127 .064 .018	.122 .063 .018	.117 .061 .018	
8.0	.129 .063 .018	.127 .062 .018	.122 .061 .017	.117 .059 .017	.113 .058 .017	
9.0	.123 .060 .017	.121 .059 .017	.117 .058 .016	.113 .057 .016	.109 .055 .016	
10.0	.118 .057 .016	.116 .056 .016	.112 .055 .015	.109 .054 .015	.105 .053 .015	

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	.171 .157 .145	.147 .135 .124	.100 .093 .086	.058 .054 .050	.018 .017 .016	
2.0	.156 .132 .112	.134 .114 .097	.092 .079 .068	.053 .046 .040	.017 .015 .013	
3.0	.144 .114 .089	.124 .098 .077	.085 .068 .054	.049 .040 .032	.016 .013 .010	
4.0	.134 .099 .072	.115 .085 .063	.079 .060 .044	.046 .035 .026	.015 .011 .009	
5.0	.125 .087 .059	.108 .076 .052	.074 .053 .036	.043 .031 .022	.014 .010 .007	
6.0	.118 .078 .049	.101 .068 .043	.070 .047 .030	.041 .028 .018	.013 .009 .006	
7.0	.111 .071 .042	.096 .061 .037	.066 .043 .026	.038 .025 .015	.012 .008 .005	
8.0	.106 .064 .036	.091 .056 .031	.063 .039 .022	.037 .023 .013	.012 .008 .004	
9.0	.100 .059 .031	.086 .051 .027	.060 .036 .019	.035 .021 .012	.011 .007 .004	
10.0	.096 .055 .027	.083 .047 .024	.057 .033 .017	.033 .020 .010	.011 .006 .003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME :					TYPE:5000K CRI90			WEIGHT:		
SPEC.:RAR40R-10-CCT-MR16					DIM. :			SERIAL No.:1		
MFR. :					SUR.:ø55MM			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	22.0	22.9	22.2	23.1	23.3	22.5	23.4	22.7	23.6	23.8
3H	21.9	22.8	22.2	23.0	23.2	22.4	23.3	22.6	23.5	23.7
4H	21.9	22.7	22.1	22.9	23.1	22.3	23.2	22.6	23.4	23.6
6H	21.8	22.6	22.1	22.8	23.1	22.3	23.1	22.6	23.3	23.6
8H	21.8	22.5	22.1	22.8	23.0	22.2	23.0	22.6	23.2	23.5
12H	21.7	22.4	22.0	22.7	23.0	22.2	22.9	22.5	23.2	23.5
4H 2H	21.8	22.6	22.0	22.8	23.1	22.2	23.1	22.5	23.3	23.5
3H	21.7	22.4	22.0	22.7	23.0	22.2	22.9	22.5	23.2	23.4
4H	21.7	22.4	22.1	22.7	23.0	22.2	22.8	22.5	23.1	23.4
6H	21.7	22.2	22.0	22.6	22.9	22.1	22.7	22.5	23.0	23.4
8H	21.6	22.1	22.0	22.5	22.9	22.1	22.6	22.5	23.0	23.3
12H	21.6	22.0	22.0	22.4	22.8	22.0	22.5	22.5	22.9	23.3
8H 4H	21.6	22.2	22.0	22.5	22.9	22.1	22.6	22.5	23.0	23.3
6H	21.6	22.0	22.0	22.4	22.8	22.0	22.5	22.5	22.9	23.3
8H	21.5	21.9	22.0	22.3	22.8	22.0	22.4	22.4	22.8	23.2
12H	21.5	21.8	21.9	22.2	22.7	21.9	22.3	22.4	22.7	23.2
12H 4H	21.6	22.1	22.0	22.4	22.8	22.0	22.5	22.4	22.9	23.3
6H	21.5	21.9	22.0	22.3	22.8	22.0	22.4	22.4	22.8	23.2
8H	21.5	21.8	21.9	22.2	22.7	21.9	22.3	22.4	22.7	23.2
Variations with the observer position at spacings:										
S = 1.0H	+ 2.7 / - 8.1					+ 2.7 / - 8.0				
1.5H	+ 5.3 / - 7.6					+ 5.1 / - 7.6				
2.0H	+ 4.0 / - 1.2					+ 6.4 / - 1.9				

CIE Pub.117, 771.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.9)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:陈荷莲
 Test Date:2023-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.480m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:

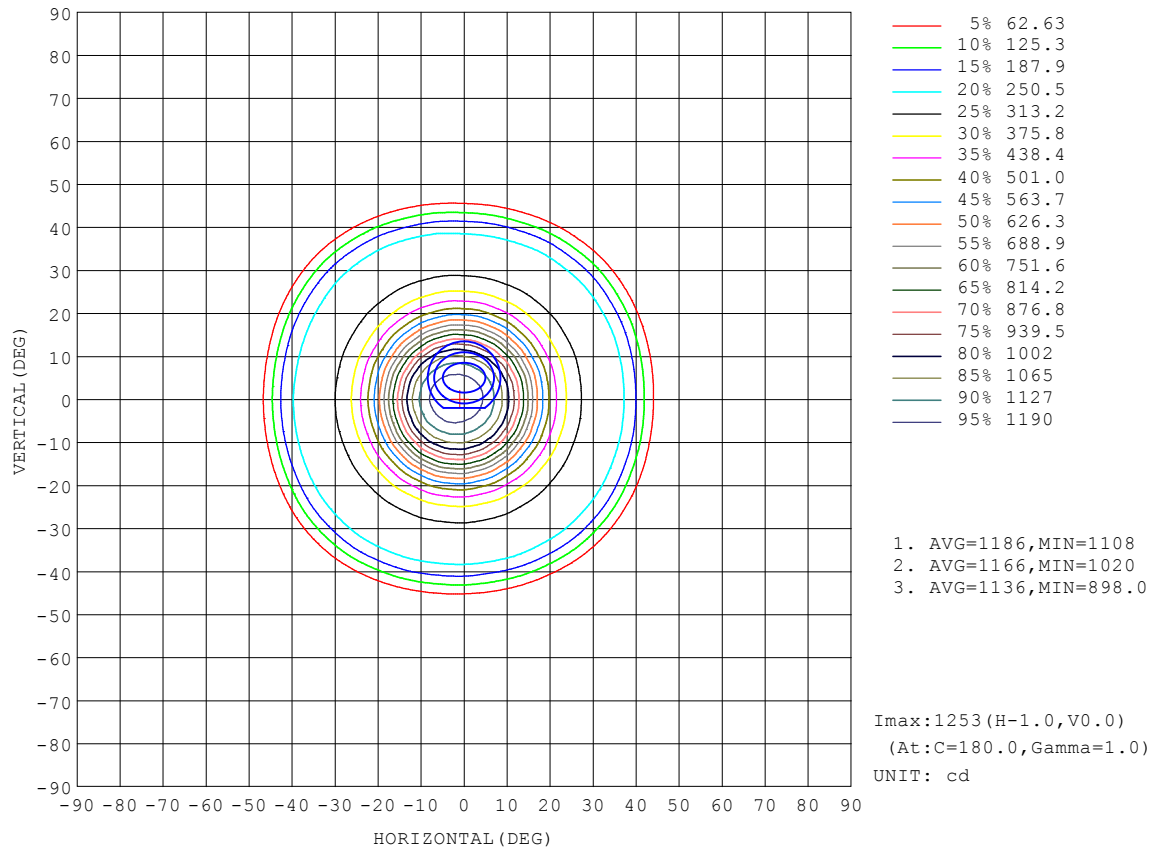
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	84	77	73	84	77	73	83	77	73	69
0.80	92	86	82	91	85	82	90	85	81	77
1.00	97	91	87	96	91	87	95	91	86	82
1.25	102	96	92	101	95	92	99	94	91	87
1.50	105	99	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	105	109	106	103	106	103	101	95
4.00	113	110	108	111	109	106	108	105	104	97
5.00	115	112	110	112	110	108	108	107	105	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 陈荷莲
 Test Date: 2023-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 6.480m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:

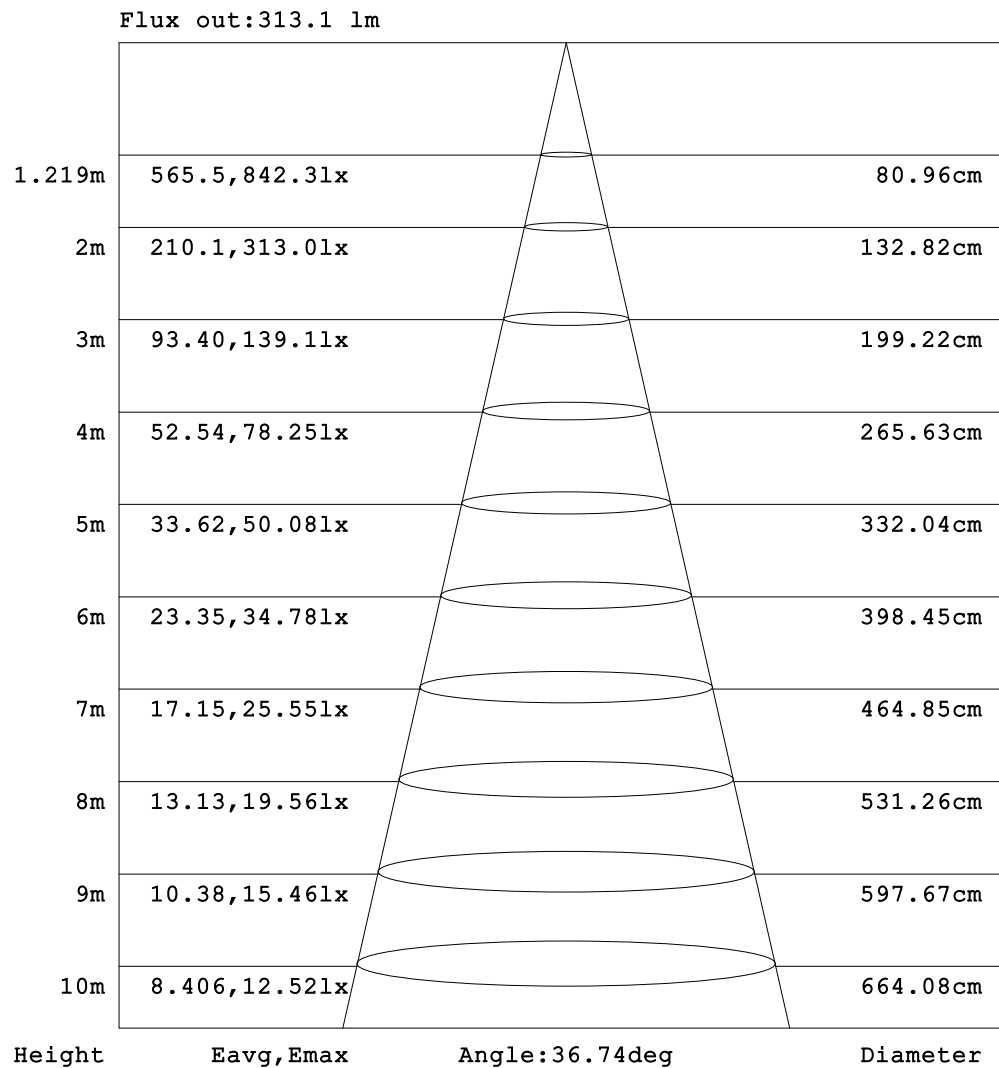


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

AAI Figure

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:



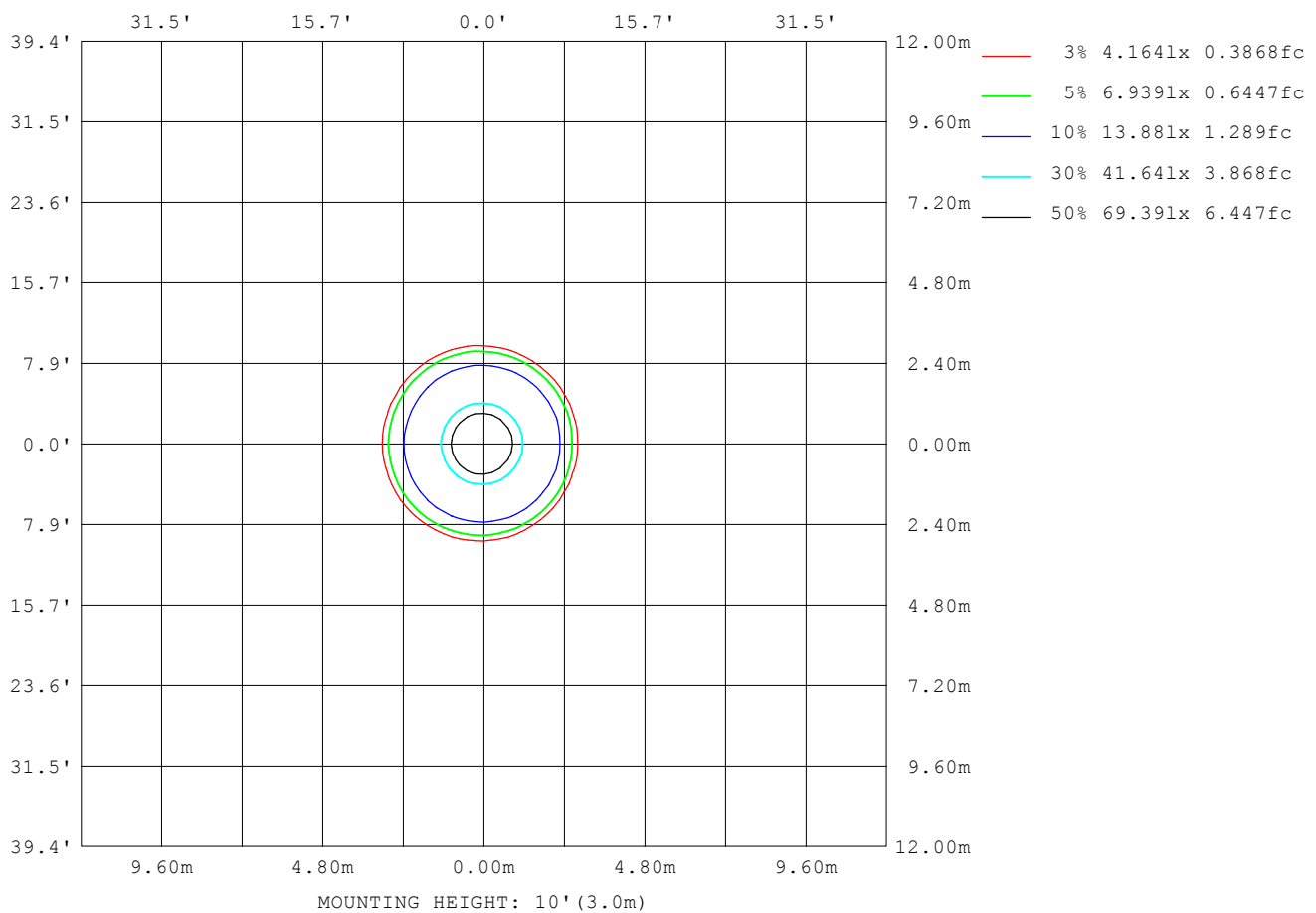
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:陈荷莲
 Test Date:2023-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.480m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

LED Avg.L Report

NAME:	TYPE:5000K CRI90	WEIGHT:
SPEC.:RAR40R-10-CCT-MR16	DIM.:	SERIAL No.:1
MFR.:	SUR.:Φ55MM	Shielding Angle:

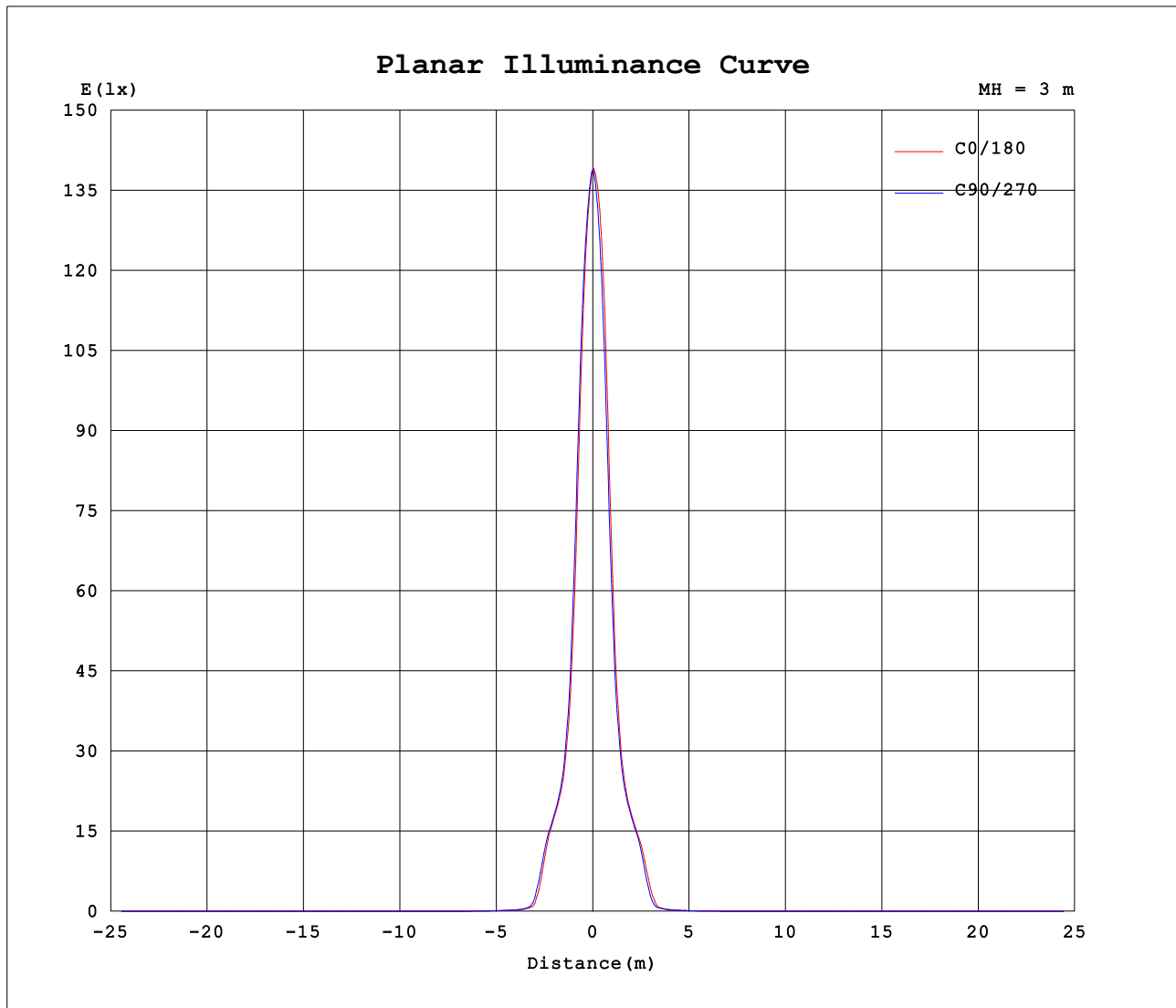
AvgL	cd/m2
L_0~180 (65) av	6422
L_0~180 (75) av	6439
L_0~180 (85) av	739
L_90~270 (65) av	6521
L_90~270 (75) av	6397
L_90~270 (85) av	866
L_45 (65) av	6463
L_45 (75) av	6427
L_45 (85) av	827

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:陈荷莲
Test Date:2023-08-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 陈荷莲
Test Date: 2023-08-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.480m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.480m [K=1.0000]
Remarks:

```