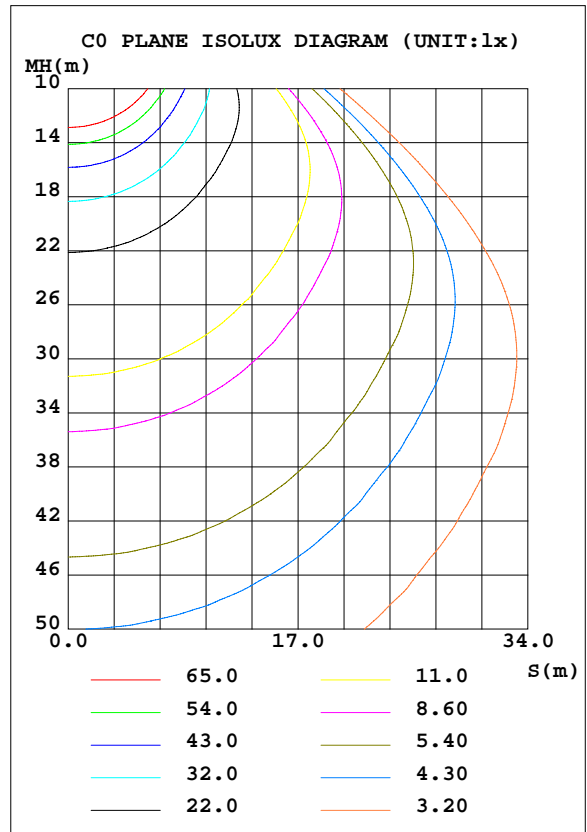
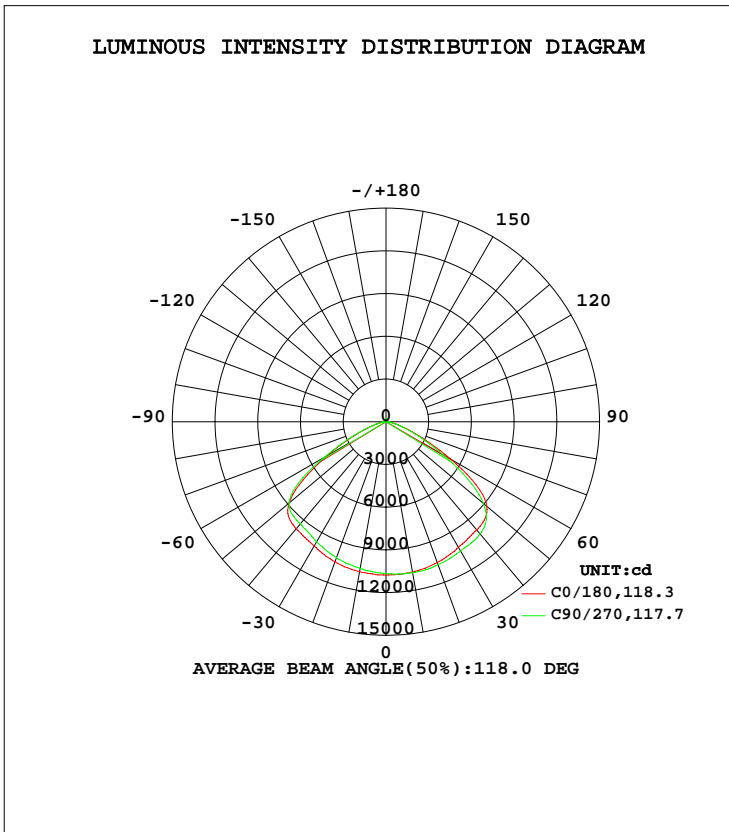


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm		
NAME: SL-UFOAOO-200W-R120-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D 0.289	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 175.67 lm/W			
MODEL	SL-UFOAOO-200W-R120-C	Imax(cd)	10791	S/MH(C0/180)	1.42
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.37
RATED VOLTAGE(V)	100-240	TOTAL FLUX(lm)	33954	η UP, DN(C0-180)	1.4,49.2
NOMINAL FLUX(lm)	33953.6	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.4,48.0
LAMPS INSIDE	1	η up(%)	2.8	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	230	η down(%)	97.2	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lishengchi
 Test Date:2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [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	1071	1077	1077	1069	1068	1054	1046	1048	0- 10	1018	1018	3,3
20	1053	1069	1069	1056	1046	1025	1017	1022	10- 20	2990	4008	11.8,11.8
30	1017	1042	1048	1029	1009	981.4	973.4	982.4	20- 30	4755	8763	25.8,25.8
40	992.0	1021	1028	1011	981.4	949.1	936.0	952.1	30- 40	6255	15018	44.2,44.2
50	924.6	913.0	894.5	884.5	889.0	891.6	887.6	904.8	40- 50	7399	22417	66,66
60	525.4	485.0	463.2	449.3	474.3	475.7	506.9	528.4	50- 60	6398	28815	84.9,84.9
70	173.0	166.1	159.4	153.8	154.8	159.5	165.5	173.6	60- 70	2983	31798	93.7,93.7
80	45.48	45.26	42.77	41.68	39.69	41.02	42.28	44.56	70- 80	955.9	32754	96.5,96.5
90	14.99	14.92	14.84	14.79	13.18	13.03	12.96	12.92	80- 90	241.2	32995	97.2,97.2
100	14.28	14.21	14.12	14.12	13.79	13.68	13.64	13.60	90-100	152.1	33147	97.6,97.6
110	14.13	14.07	14.01	14.05	14.24	14.14	14.14	14.08	100-110	148.0	33295	98.1,98.1
120	14.56	14.46	14.42	14.48	14.82	14.78	14.72	14.65	110-120	142.3	33438	98.5,98.5
130	15.18	15.12	15.04	15.12	15.43	15.37	15.35	15.27	120-130	133.8	33571	98.9,98.9
140	15.96	15.88	15.83	15.90	16.15	16.10	16.03	15.96	130-140	120.6	33692	99.2,99.2
150	17.25	17.22	17.16	17.21	17.43	17.31	17.18	17.06	140-150	103.9	33796	99.5,99.5
160	18.80	18.77	18.72	18.79	18.98	18.79	18.70	18.61	150-160	83.03	33879	99.8,99.8
170	20.22	20.17	20.11	20.17	20.37	20.19	20.06	19.97	160-170	55.05	33934	99.9,99.9
180	20.89	20.87	20.76	20.77	20.93	20.83	20.78	20.75	170-180	19.53	33954	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 18630 lm

%lum = 54.9%

%lamp = 54.9%

Conical surface Flux(120deg): 28815 lm

%lum = 84.9%

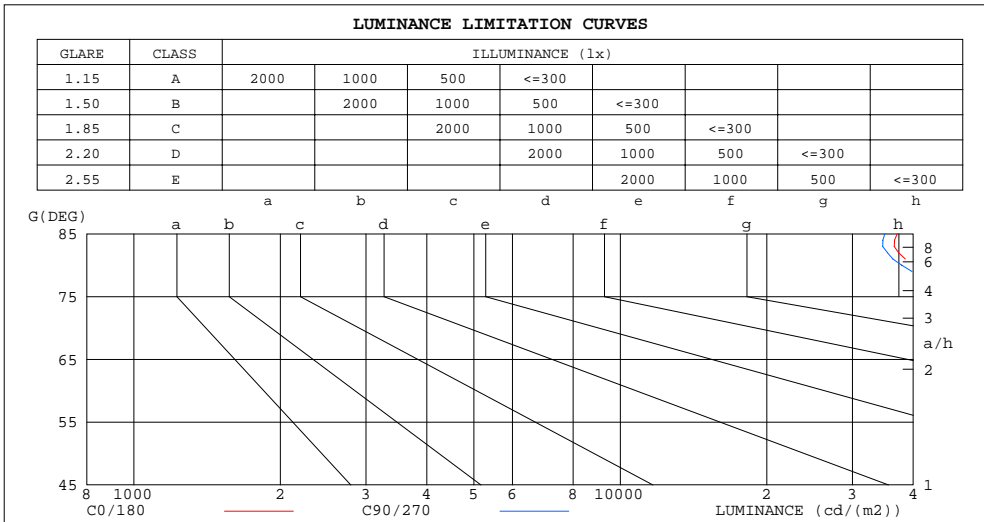
%lamp = 84.9%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lishengchi
 Test Date:2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm		
NAME: SL-UFOAOO-200W-R120-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D 0.289	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	37056	34977
80	40291	37890
75	52621	48798
70	77829	71687
65	112539	102788
60	161673	142511
55	206915	187721
50	221293	214085
45	212421	215985

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 28.5DEG
 Operators: lishengchi
 Test Date: 2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 55.0%
 Test Distance: 11.340m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm		
NAME: SL-UFOA00-200W-R120-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D 0.289	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.275	.156	.050	.267	.152	.048	.252	.145	.046	.239	.138	.044	.226	.131	.042	
2.0	.267	.146	.045	.260	.143	.044	.247	.137	.043	.235	.132	.041	.224	.127	.040	
3.0	.253	.134	.040	.246	.132	.040	.235	.127	.039	.224	.123	.038	.214	.119	.037	
4.0	.237	.123	.036	.232	.121	.036	.221	.117	.035	.212	.114	.034	.203	.110	.034	
5.0	.222	.113	.033	.217	.111	.032	.208	.108	.032	.199	.105	.031	.191	.102	.031	
6.0	.208	.104	.030	.203	.103	.030	.195	.100	.029	.187	.097	.029	.180	.095	.028	
7.0	.194	.096	.027	.191	.095	.027	.183	.093	.027	.176	.090	.026	.170	.088	.026	
8.0	.183	.089	.025	.179	.088	.025	.172	.086	.025	.166	.084	.024	.160	.082	.024	
9.0	.172	.083	.023	.169	.082	.023	.162	.080	.023	.157	.079	.022	.151	.077	.022	
10.0	.162	.078	.022	.159	.077	.021	.153	.075	.021	.148	.074	.021	.143	.072	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.212	.212	.212	.181	.181	.181	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.200	.178	.159	.171	.153	.137	.117	.105	.095	.067	.061	.055	.022	.020	.018	
2.0	.191	.154	.123	.163	.132	.106	.112	.092	.074	.065	.053	.043	.021	.017	.014	
3.0	.183	.136	.099	.157	.117	.086	.108	.082	.060	.062	.048	.035	.020	.015	.012	
4.0	.176	.123	.082	.151	.106	.071	.104	.074	.050	.060	.043	.030	.019	.014	.010	
5.0	.169	.112	.071	.145	.097	.061	.100	.068	.043	.058	.040	.026	.019	.013	.008	
6.0	.162	.104	.062	.140	.090	.054	.096	.063	.038	.056	.037	.023	.018	.012	.008	
7.0	.156	.097	.056	.134	.084	.049	.093	.059	.035	.054	.035	.021	.017	.011	.007	
8.0	.150	.092	.051	.129	.079	.045	.089	.056	.032	.052	.033	.019	.017	.011	.006	
9.0	.144	.087	.048	.124	.075	.042	.086	.053	.030	.050	.031	.018	.016	.010	.006	
10.0	.139	.082	.045	.120	.072	.039	.083	.050	.028	.048	.030	.017	.016	.010	.006	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lishengchi
 Test Date:2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm										
NAME: SL-UFOA00-200W-R120-C					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:D 0.289			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	19.0	20.5	19.3	20.7	21.0	18.7	20.2	19.0	20.4	20.7
3H	19.4	20.7	19.7	21.0	21.3	19.1	20.4	19.4	20.7	21.0
4H	19.4	20.7	19.8	21.0	21.3	19.1	20.4	19.5	20.7	21.0
6H	19.4	20.6	19.8	20.9	21.2	19.1	20.3	19.5	20.6	20.9
8H	19.4	20.5	19.8	20.8	21.2	19.1	20.2	19.5	20.5	20.9
12H	19.4	20.4	19.8	20.8	21.1	19.0	20.1	19.4	20.5	20.8
4H 2H	19.2	20.5	19.6	20.7	21.1	19.0	20.2	19.3	20.5	20.8
3H	19.7	20.8	20.1	21.1	21.5	19.4	20.5	19.8	20.8	21.2
4H	19.8	20.7	20.2	21.1	21.5	19.5	20.5	19.9	20.8	21.2
6H	19.8	20.7	20.2	21.1	21.5	19.5	20.4	20.0	20.8	21.2
8H	19.8	20.6	20.3	21.0	21.4	19.5	20.3	20.0	20.7	21.2
12H	19.8	20.5	20.3	20.9	21.4	19.5	20.2	20.0	20.7	21.1
8H 4H	19.7	20.5	20.2	20.9	21.4	19.5	20.3	19.9	20.7	21.1
6H	19.8	20.5	20.3	20.9	21.4	19.5	20.2	20.0	20.6	21.1
8H	19.8	20.4	20.3	20.9	21.4	19.6	20.1	20.1	20.6	21.1
12H	19.9	20.3	20.4	20.8	21.4	19.6	20.1	20.1	20.6	21.1
12H 4H	19.7	20.4	20.2	20.8	21.3	19.4	20.2	19.9	20.6	21.0
6H	19.8	20.4	20.3	20.8	21.3	19.5	20.1	20.0	20.6	21.1
8H	19.8	20.3	20.3	20.8	21.3	19.6	20.0	20.1	20.5	21.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.5				
1.5H	+ 0.6 / - 1.3					+ 0.5 / - 1.2				
2.0H	+ 1.2 / - 1.7					+ 1.2 / - 1.7				

CIE Pub.117, 33954 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 12.2$)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:lishengchi
Test Date:2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:55.0%
Test Distance:11.340m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm		
NAME: SL-UFOAOO-200W-R120-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D 0.289	Shielding Angle:

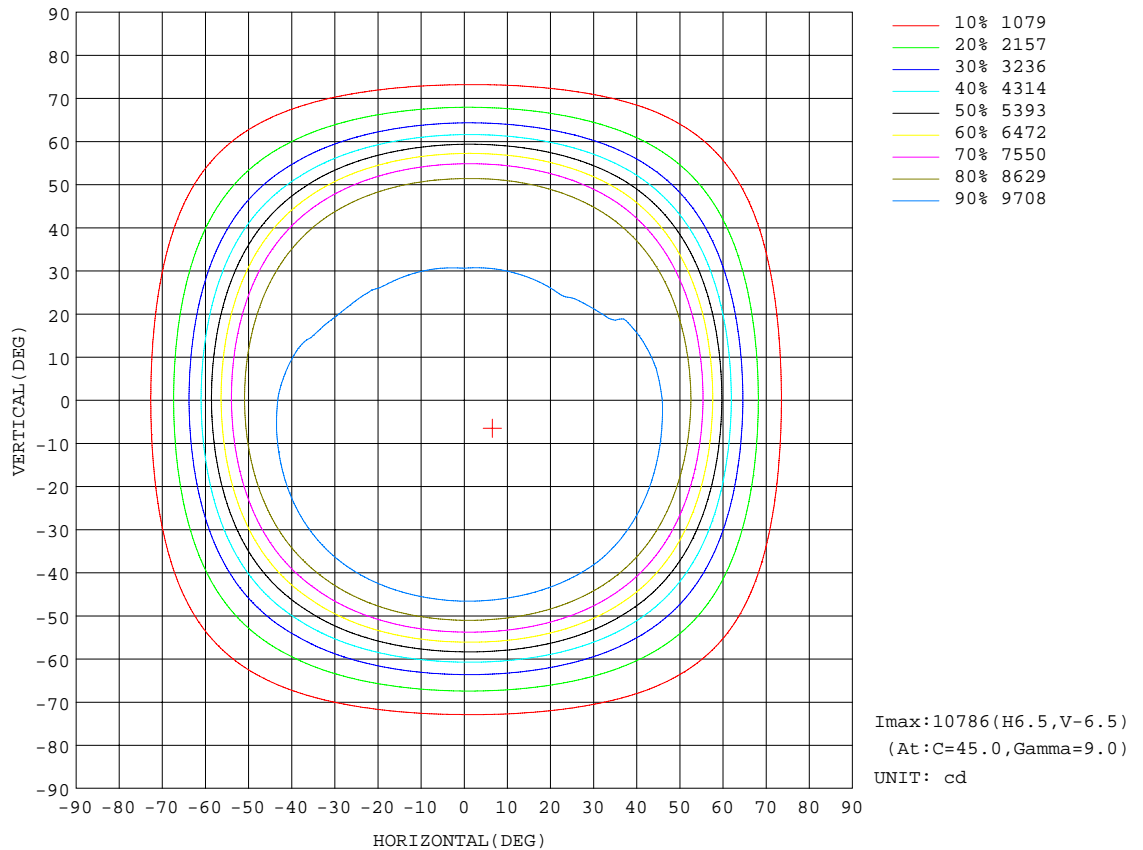
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	67	56	48	66	55	48	64	54	48	41
1.00	77	66	59	75	65	58	73	66	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	73	84	77	71	64
2.00	96	88	82	94	87	81	91	84	80	72
2.50	100	93	87	98	91	86	94	88	84	75
3.00	103	97	92	101	95	90	96	92	88	79
4.00	107	101	97	104	99	95	99	96	92	83
5.00	109	104	100	106	102	99	101	98	95	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lishengchi
 Test Date:2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm		
NAME: SL-UFOAOO-200W-R120-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D 0.289	Shielding Angle:

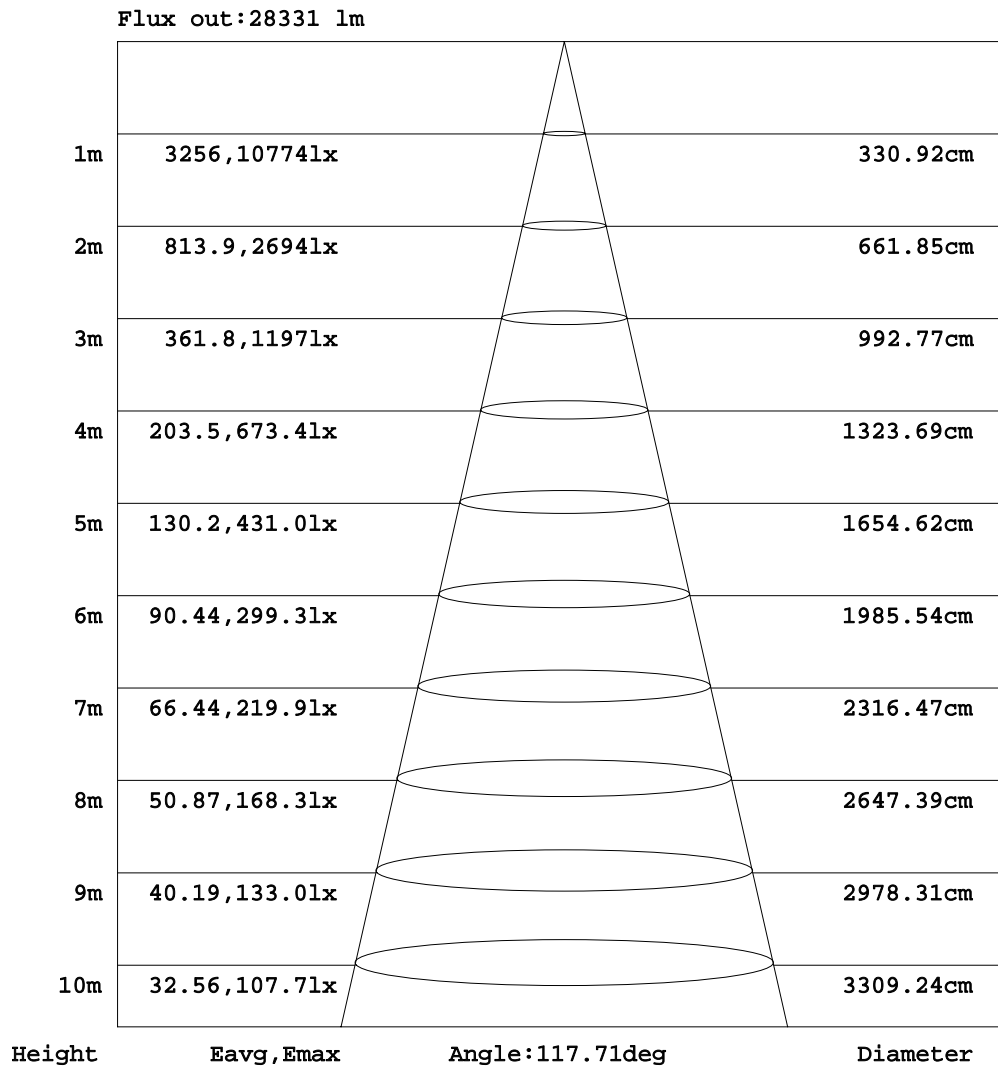


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 28.5DEG
 Operators: lishengchi
 Test Date: 2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 55.0%
 Test Distance: 11.340m [K=1.0000]
 Remarks:

AAI Figure

Test:U:222.9V I:0.8883A P:193.3W PF:0.9759 Freq:50.00Hz Lamp Flux:33953.6x1 lm		
NAME: SL-UFOAOO-200W-R120-C	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:D 0.289	Shielding Angle:

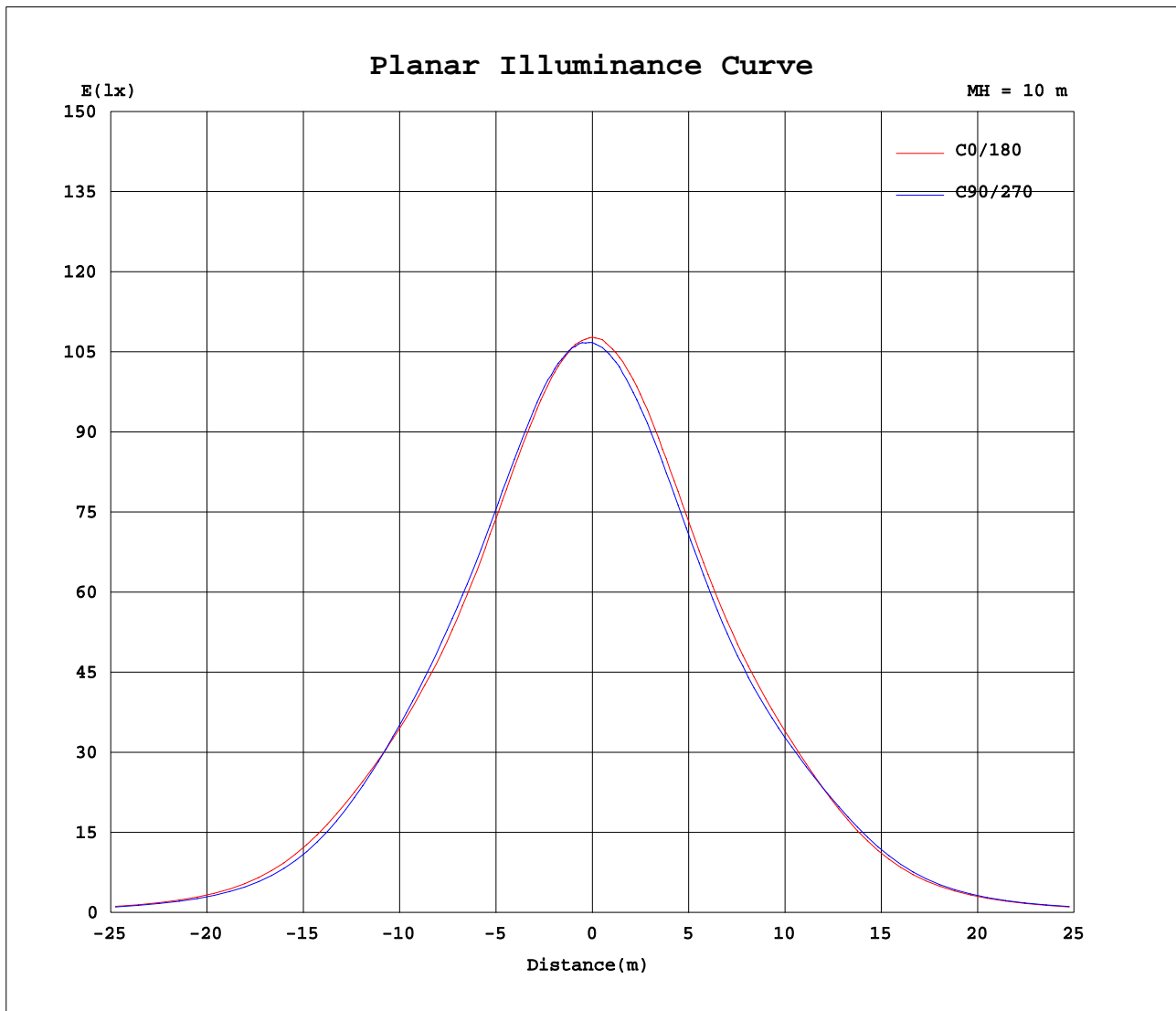


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:lishengchi
 Test Date:2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:11.340m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 28.5DEG
Operators: lishengchi
Test Date: 2019-05-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 55.0%
Test Distance: 11.340m [K=1.0000]
Remarks: