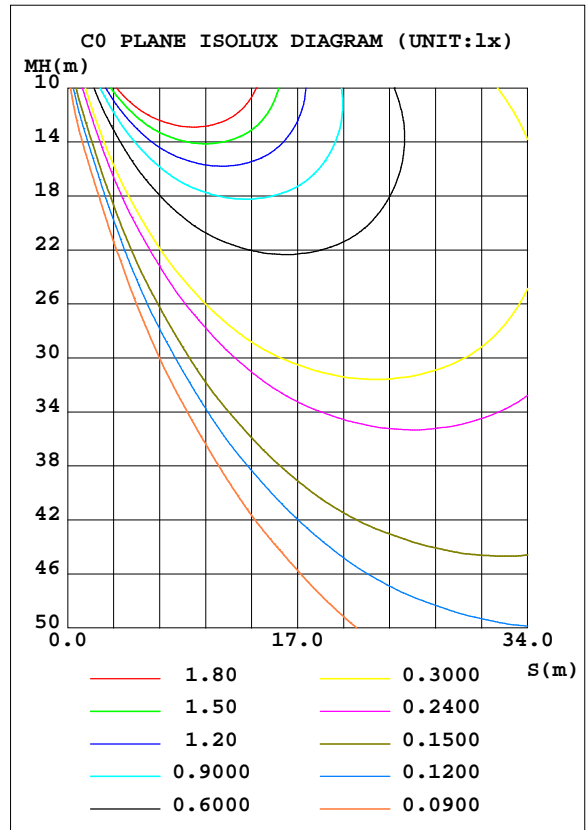
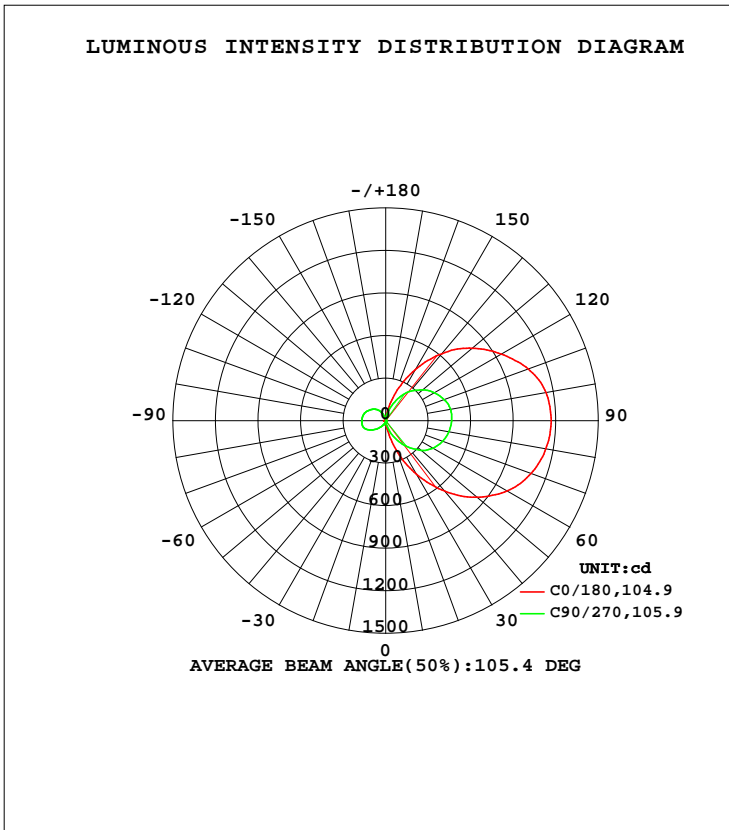


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 138.77 lm/W			
MODEL	S13-30W	I <sub>max</sub> (cd)	1197	S/MH(C0/180)	0.07
NOMINAL POWER(W)	30	LOR(%)	100.0	S/MH(C90/270)	9.24
RATED VOLTAGE(V)	100-277	TOTAL FLUX(lm)	4045.4	h UP, DN(C0-180)	34.5,34.1
NOMINAL FLUX(lm)	4045.43	CIE CLASS	DIFFUSE	h UP, DN(C180-360)	16.2,15.2
LAMPS INSIDE	1	h up(%)	50.6	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	220	h down(%)	49.4	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liwengqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

**ZONAL FLUX DIAGRAM:**

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	51.55	40.67	18.90	4.987	2.915	3.119	7.121	24.18	0- 10	1.070	1.070	0.03,0.03
20	220.4	174.7	71.10	8.717	4.425	5.529	18.71	106.0	10- 20	13.21	14.28	0.35,0.35
30	436.9	341.1	155.1	11.25	6.067	7.394	35.58	221.3	20- 30	53.39	67.67	1.67,1.67
40	649.3	522.8	243.1	16.88	7.644	8.416	61.51	338.4	30- 40	121.1	188.8	4.67,4.67
50	840.6	678.8	327.1	22.60	8.945	9.468	96.23	453.2	40- 50	208.8	397.6	9.83,9.83
60	990.9	806.2	387.7	25.88	10.07	10.41	133.3	541.4	50- 60	299.7	697.3	17.2,17.2
70	1091	899.1	427.6	26.95	10.97	11.04	159.4	606.0	60- 70	381.6	1079	26.7,26.7
80	1147	958.0	453.4	27.29	11.50	11.34	169.2	644.5	70- 80	442.7	1522	37.6,37.6
90	1167	977.6	465.8	27.72	11.55	11.21	169.2	658.0	80- 90	475.0	1997	49.4,49.4
100	1148	971.9	465.4	26.20	11.10	10.75	166.8	652.1	90-100	477.6	2474	61.2,61.2
110	1070	914.9	438.6	23.68	10.21	9.990	158.8	616.4	100-110	448.0	2922	72.2,72.2
120	941.8	820.0	396.6	21.41	8.835	8.915	143.8	555.5	110-120	384.5	3307	81.7,81.7
130	795.5	706.4	338.0	20.62	7.192	7.663	125.9	475.4	120-130	305.7	3612	89.3,89.3
140	618.1	563.9	272.8	22.65	5.505	6.411	105.5	380.9	130-140	218.8	3831	94.7,94.7
150	415.2	397.0	187.5	21.56	4.181	5.496	76.40	274.0	140-150	133.9	3965	98,98
160	211.0	213.0	97.35	12.54	2.823	4.421	41.36	153.6	150-160	62.65	4028	99.6,99.6
170	49.86	55.72	28.35	7.336	1.824	1.747	7.682	19.86	160-170	16.82	4044	100,100
180	1.048	1.008	1.075	1.226	1.052	1.012	1.079	1.234	170-180	0.9590	4045	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 281.64 lm

%lum = 7.0%

%lamp = 7.0%

Conical surface Flux(120deg): 697.32 lm

%lum = 17.2%

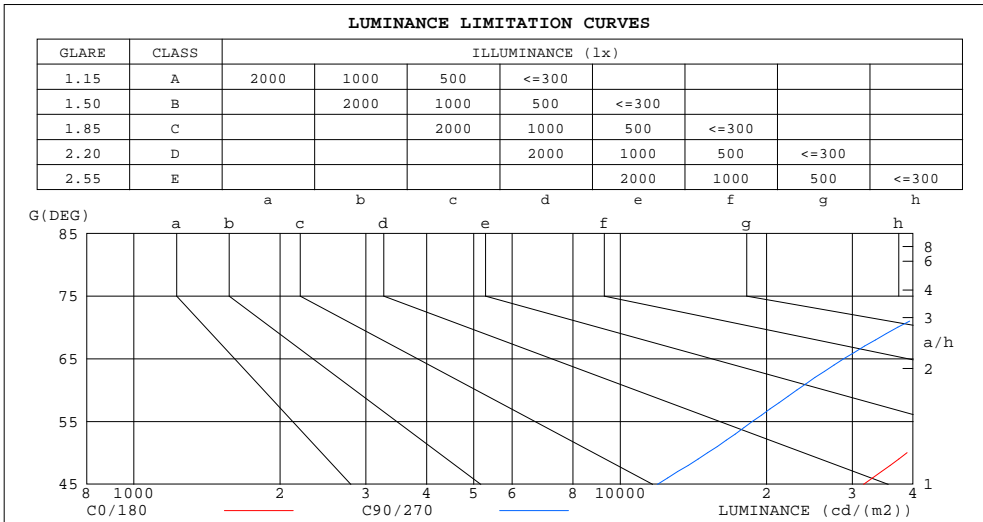
%lamp = 17.2%

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liwengqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	396725	157483
80	196645	77705
75	129259	50872
70	94901	37208
65	73819	28855
60	58982	23079
55	47711	18722
50	38922	15143
45	31634	11939

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liwengqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.446	.254	.080	.424	.242	.077	.381	.219	.070	.342	.197	.063	.306	.177	.057	
2.0	.366	.201	.062	.345	.190	.059	.306	.170	.053	.270	.152	.047	.237	.134	.042	
3.0	.316	.168	.050	.297	.159	.048	.261	.141	.043	.228	.125	.038	.197	.109	.034	
4.0	.279	.145	.043	.261	.137	.040	.229	.121	.036	.198	.106	.032	.170	.092	.028	
5.0	.250	.127	.037	.234	.120	.035	.204	.106	.031	.176	.093	.028	.150	.080	.024	
6.0	.227	.114	.033	.212	.107	.031	.184	.094	.027	.158	.082	.024	.134	.070	.021	
7.0	.207	.102	.029	.194	.097	.028	.168	.085	.024	.144	.074	.021	.121	.063	.019	
8.0	.191	.093	.026	.178	.088	.025	.155	.077	.022	.132	.067	.019	.111	.057	.017	
9.0	.177	.086	.024	.165	.081	.023	.143	.071	.020	.122	.061	.018	.102	.052	.015	
10.0	.165	.079	.022	.154	.074	.021	.133	.065	.018	.114	.056	.016	.095	.048	.014	

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.576	.576	.576	.493	.493	.493	.336	.336	.336	.193	.193	.193	.062	.062	.062	
1.0	.579	.544	.513	.495	.467	.441	.339	.321	.305	.195	.186	.177	.062	.060	.057	
2.0	.574	.523	.481	.491	.450	.416	.337	.312	.290	.194	.181	.170	.062	.059	.055	
3.0	.567	.508	.462	.486	.439	.400	.334	.305	.281	.193	.178	.165	.062	.058	.054	
4.0	.560	.497	.449	.480	.430	.390	.330	.299	.275	.191	.175	.163	.061	.057	.053	
5.0	.552	.488	.441	.474	.422	.384	.327	.295	.271	.189	.173	.161	.061	.057	.053	
6.0	.545	.481	.435	.468	.417	.379	.323	.292	.268	.187	.172	.159	.060	.056	.053	
7.0	.538	.475	.431	.463	.412	.376	.320	.289	.266	.186	.170	.158	.060	.056	.052	
8.0	.531	.470	.428	.457	.408	.373	.316	.286	.265	.184	.169	.158	.060	.055	.052	
9.0	.525	.465	.425	.452	.404	.371	.313	.284	.263	.182	.168	.157	.059	.055	.052	
10.0	.519	.462	.423	.447	.401	.369	.310	.282	.262	.181	.167	.157	.059	.055	.052	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liuwenqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	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	23.1	22.9	24.0	25.2	18.2	19.3	19.1	20.2	21.4
3H	25.8	26.8	26.7	27.8	29.0	21.4	22.4	22.3	23.3	24.5
4H	27.9	28.8	28.8	29.8	31.0	23.1	24.1	24.0	25.0	26.2
6H	30.1	31.0	31.0	31.9	33.2	25.0	25.9	25.9	26.8	28.1
8H	31.3	32.2	32.2	33.1	34.4	26.0	26.9	26.9	27.8	29.1
12H	32.7	33.5	33.6	34.5	35.7	27.2	28.0	28.1	29.0	30.2
4H 2H	22.8	23.7	23.7	24.7	25.9	20.5	21.5	21.4	22.4	23.6
3H	26.8	27.6	27.7	28.6	29.9	23.6	24.5	24.5	25.4	26.7
4H	29.0	29.8	30.0	30.8	32.1	25.4	26.2	26.3	27.1	28.4
6H	31.5	32.2	32.4	33.2	34.5	27.3	28.0	28.2	29.0	30.3
8H	32.8	33.4	33.7	34.4	35.8	28.3	28.9	29.3	30.0	31.3
12H	34.2	34.9	35.2	35.9	37.2	29.4	30.0	30.4	31.1	32.4
8H 4H	29.6	30.2	30.5	31.2	32.5	27.0	27.6	27.9	28.6	29.9
6H	32.3	32.9	33.3	33.9	35.2	29.1	29.7	30.1	30.7	32.0
8H	33.9	34.4	34.9	35.4	36.8	30.3	30.8	31.3	31.8	33.2
12H	35.6	36.0	36.6	37.1	38.5	31.6	32.0	32.6	33.1	34.5
12H 4H	29.6	30.3	30.6	31.3	32.6	27.5	28.1	28.5	29.1	30.4
6H	32.5	33.0	33.5	34.1	35.4	29.8	30.3	30.8	31.4	32.7
8H	34.2	34.6	35.2	35.7	37.0	31.1	31.6	32.2	32.6	34.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 4045 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.9)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liuwenqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:

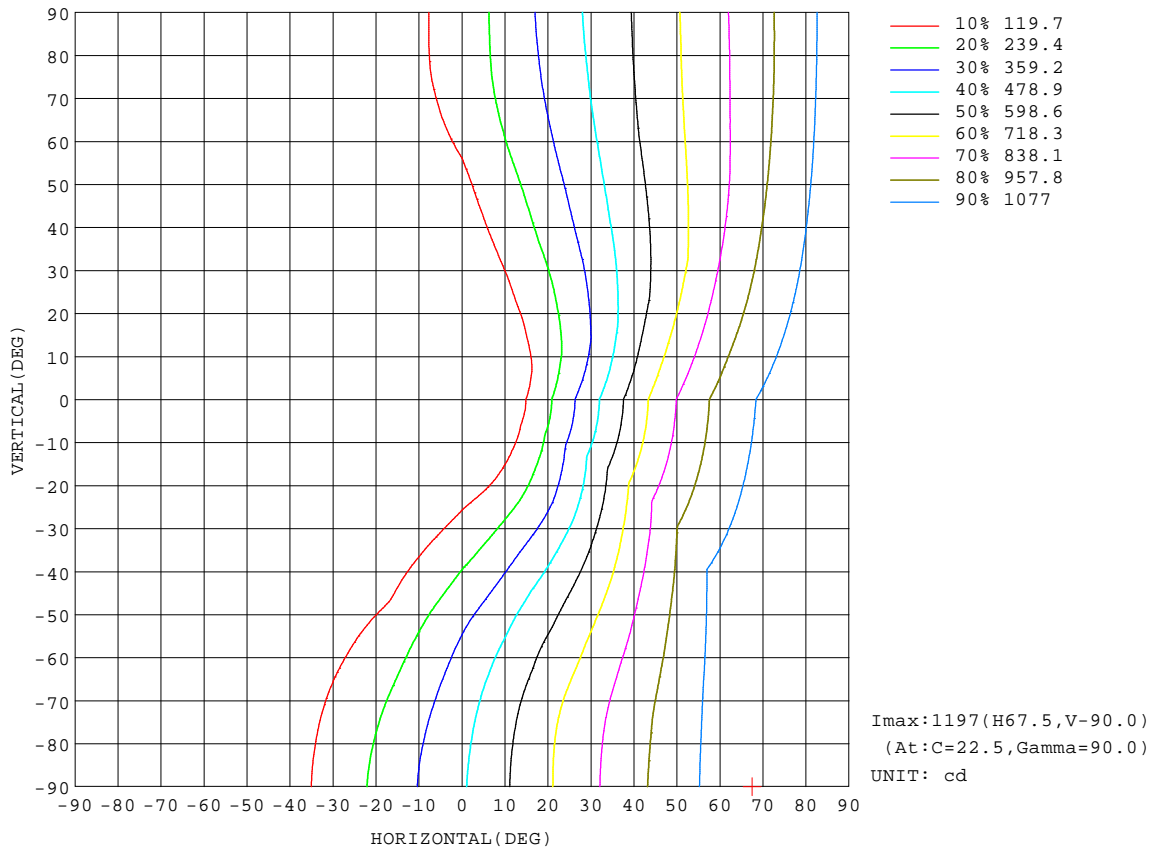
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	33	20	12	31	19	11	27	17	10	3
0.80	41	26	18	38	25	17	33	22	15	5
1.00	48	33	23	45	31	22	39	29	20	8
1.25	55	40	30	51	37	28	44	32	24	11
1.50	60	46	35	56	42	33	47	37	29	13
2.00	68	55	44	63	51	41	53	43	36	17
2.50	74	61	51	68	56	47	57	48	41	20
3.00	78	66	56	72	61	52	60	52	45	23
4.00	84	73	65	77	68	60	64	57	51	27
5.00	87	78	70	80	72	65	67	61	55	30
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: HIGH  
 Temperature:25.3DEG  
 Operators:Liwengqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:



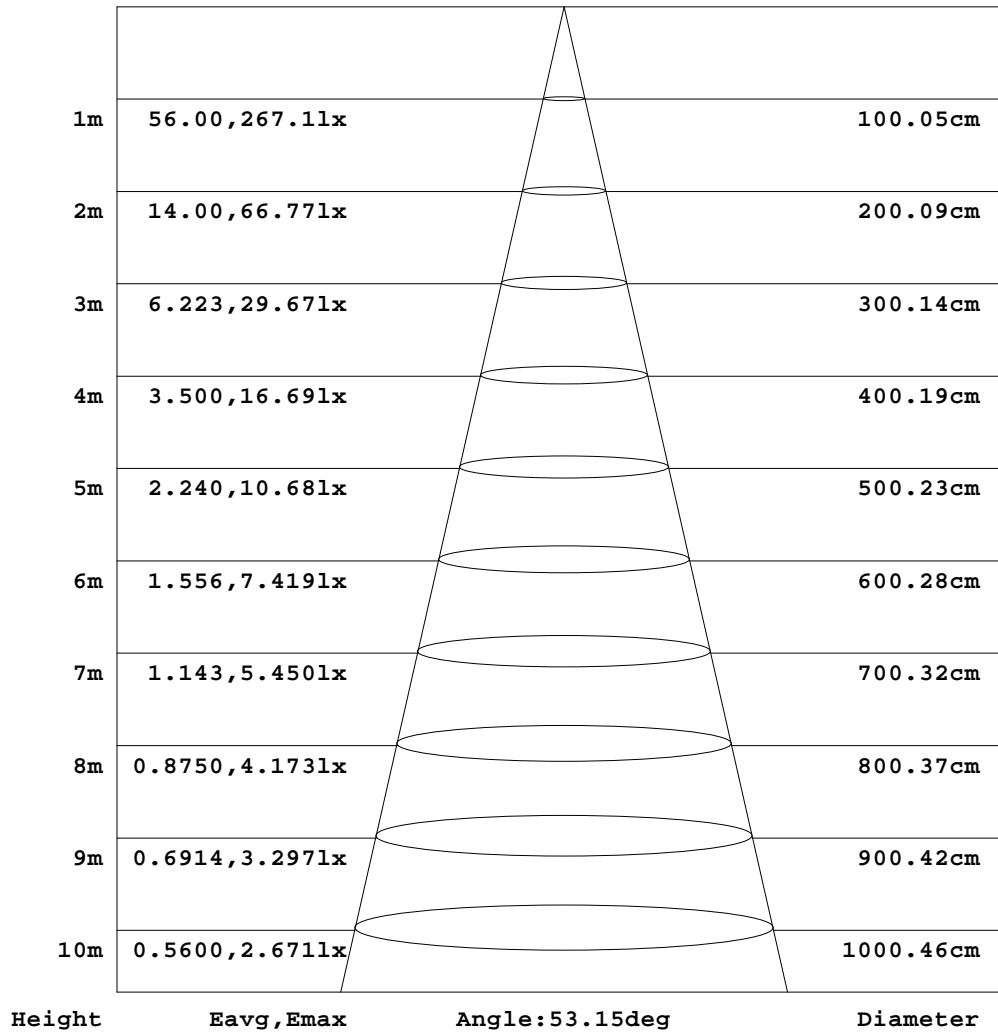
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liwengqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:

**AAI Figure**

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:

Flux out:45.68 lm



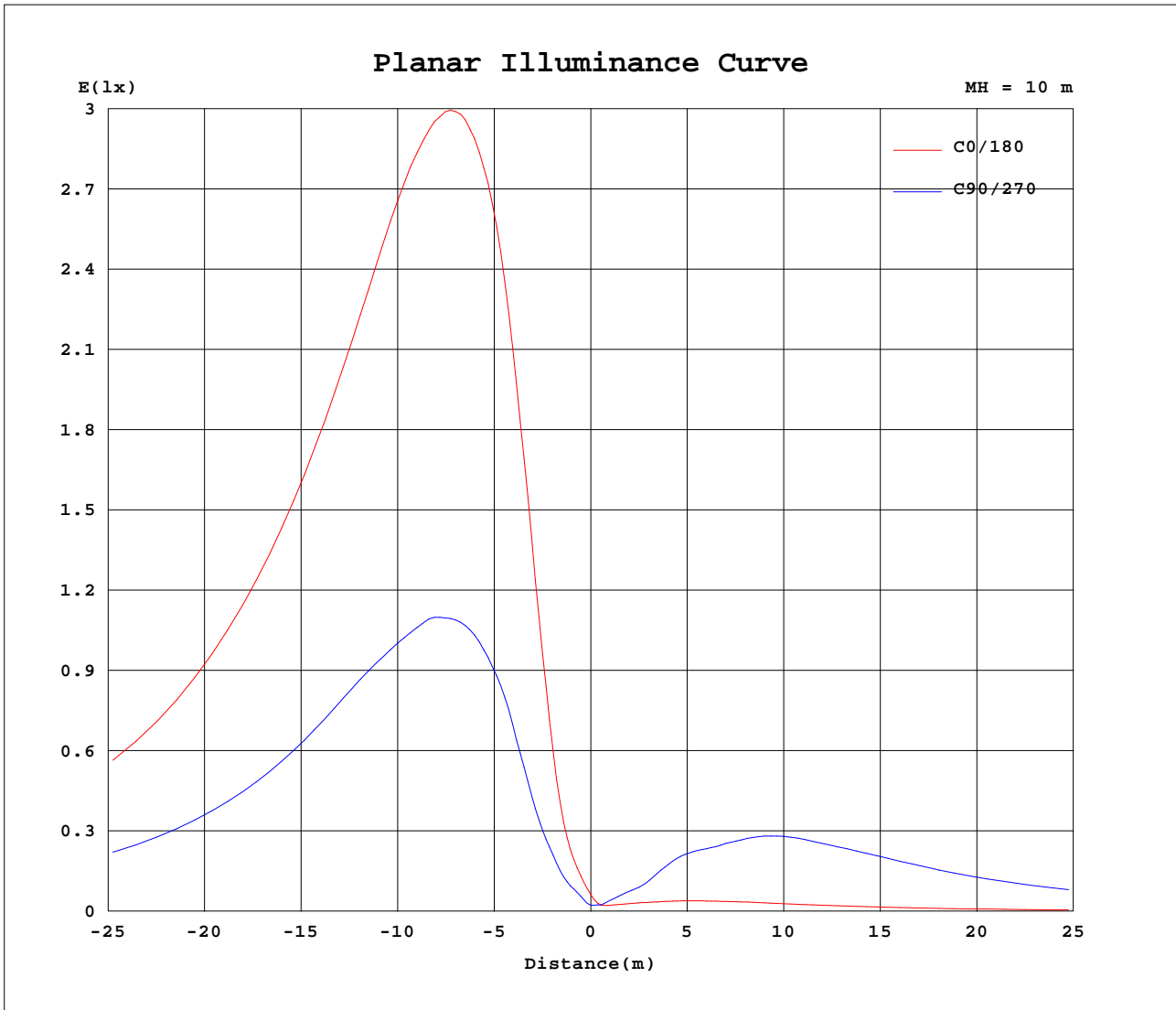
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liuwenqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Liwenqian  
 Test Date: 2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity: 65.0%  
 Test Distance: 8.310m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.1378A P:29.15W PF:0.9615 Freq:49.99Hz Lamp Flux:4045.43x1 lm		
NAME: S13-30W	TYPE:3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:21cm*16cm	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ g (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	6.28	5.33	3.18	2.33	2.39	2.33	2.11	1.99	6.28	5.33	3.18	2.33	2.39	2.33	2.11	1.99			
5	19.7	19.1	14.3	10.9	8.44	5.25	2.87	2.22	2.31	2.29	2.49	2.74	3.69	6.13	8.86	11.9			
10	51.5	51.8	40.7	29.4	18.9	9.43	4.99	3.02	2.91	2.77	3.12	4.42	7.12	13.1	24.2	34.3			
15	122	122	97.9	65.0	37.9	17.0	7.06	4.32	3.65	3.37	4.20	5.80	10.8	29.7	57.0	84.6			
20	220	220	175	118	71.1	23.9	8.72	5.65	4.42	4.09	5.53	7.36	18.7	52.3	106	154			
25	331	331	259	183	113	34.9	10.2	6.11	5.32	4.82	7.34	8.55	27.6	86.8	163	237			
30	437	442	341	254	155	53.1	11.3	6.74	6.07	5.66	7.39	9.28	35.6	122	221	313			
35	544	553	429	324	198	72.4	13.3	7.36	6.85	6.50	7.88	10.1	46.2	161	279	398			
40	649	661	523	391	243	90.7	16.9	8.06	7.64	7.29	8.42	10.9	61.5	202	338	482			
45	752	766	606	457	284	107	19.6	8.67	8.32	8.08	8.96	11.7	79.4	236	399	558			
50	841	856	679	518	327	123	22.6	9.17	8.94	8.79	9.47	12.8	96.2	269	453	619			
55	919	941	746	566	361	142	24.1	9.63	9.53	9.48	9.95	13.6	115	301	500	675			
60	991	1014	806	613	388	160	25.9	10.0	10.1	10.1	10.4	15.0	133	332	541	726			
65	1048	1076	857	651	410	177	26.8	10.3	10.5	10.7	10.8	16.8	148	356	576	773			
70	1091	1122	899	686	428	195	26.9	10.5	11.0	11.3	11.0	18.5	159	376	606	814			
75	1124	1155	935	710	442	210	27.4	10.6	11.3	11.8	11.2	21.7	167	393	629	848			
80	1147	1178	958	725	453	222	27.3	10.6	11.5	12.1	11.3	24.5	169	405	645	873			
85	1162	1193	971	733	461	230	27.6	10.6	11.6	12.3	11.3	25.3	169	415	654	888			
90	1167	1197	978	735	466	235	27.7	10.5	11.5	12.3	11.2	25.2	169	420	658	896			
95	1162	1193	979	732	467	236	27.2	10.4	11.4	12.1	11.0	25.4	169	422	658	899			
100	1148	1179	972	724	465	233	26.2	10.2	11.1	11.8	10.8	24.4	167	419	652	894			
105	1118	1152	951	708	457	225	25.0	9.95	10.7	11.3	10.4	24.9	164	410	638	877			
110	1070	1103	915	681	439	215	23.7	9.66	10.2	10.6	9.99	25.5	159	394	616	850			
115	1008	1032	868	649	419	203	22.4	9.24	9.57	9.87	9.47	25.5	152	377	587	813			
120	942	972	820	615	397	190	21.4	8.77	8.84	8.99	8.92	24.4	144	357	555	768			
125	872	913	767	576	370	176	20.9	8.35	8.03	8.03	8.31	23.1	135	333	518	713			
130	796	845	706	530	338	160	20.6	7.88	7.19	7.10	7.66	21.6	126	306	475	656			
135	715	752	641	481	305	141	20.7	7.42	6.29	6.18	6.99	19.9	116	273	433	592			
140	618	647	564	426	273	119	22.7	7.01	5.50	5.39	6.41	18.5	106	241	381	525			
145	518	554	487	367	233	97.5	23.1	6.58	4.83	4.73	5.95	17.1	91.5	207	330	451			
150	415	440	397	300	188	79.9	21.6	6.05	4.18	4.13	5.50	15.1	76.4	169	274	368			
155	313	339	307	234	141	63.5	16.4	5.54	3.44	3.46	4.97	12.3	58.1	131	213	285			
160	211	227	213	167	97.3	47.9	12.5	5.06	2.82	2.90	4.42	9.91	41.4	92.7	154	206			
165	122	130	125	102	59.8	31.0	9.49	4.46	2.31	2.43	3.68	8.21	24.7	51.7	86.5	111			
170	49.9	53.0	55.7	47.6	28.3	15.0	7.34	3.69	1.82	1.94	1.75	2.58	7.68	13.7	19.9	26.7			
175	10.7	11.5	12.7	11.0	8.06	5.64	3.36	1.67	1.40	1.40	1.28	1.19	1.16	1.70	1.70	2.96			
180	1.05	1.08	1.01	1.02	1.07	1.16	1.23	1.27	1.05	1.07	1.01	1.01	1.08	1.16	1.23	1.27			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Liwengqian  
 Test Date:2017-02-13

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.310m [K=1.0000]  
 Remarks: