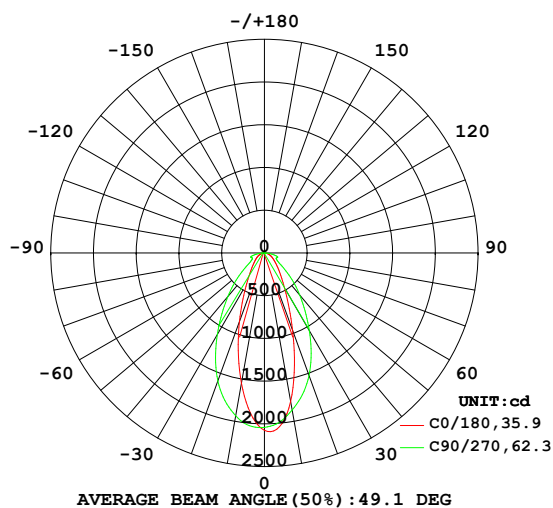


LUMINAIRE PHOTOMETRIC TEST REPORT

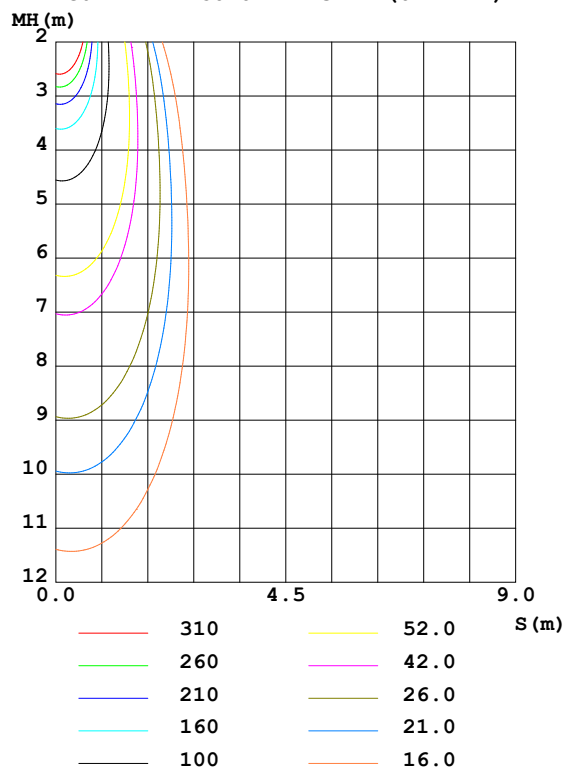
Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.: P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 77.34 lm/W			
MODEL	OS 2835	I _{max} (cd)	2092	S/MH (C0/180)	0.55
NOMINAL POWER (W)	30W	LOR (%)	100.0	S/MH (C90/270)	0.92
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	2101.2	η UP, DN (C0-180)	0.2, 50.1
NOMINAL FLUX (lm)	2101.19	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 49.7
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.80

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 6.900m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

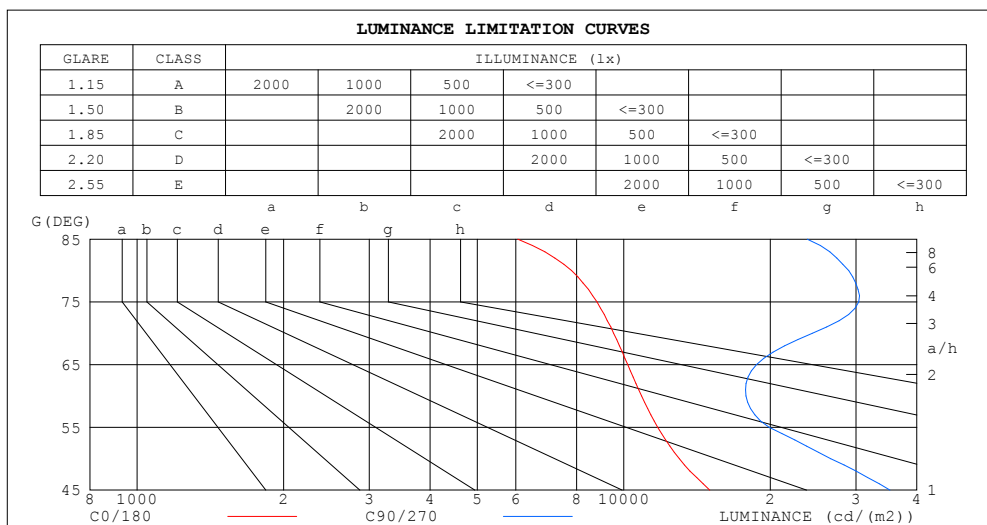
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	1764	1867	1550	1935					0- 10	182.8	182.8	8.7, 8.7
20	963.7	1526	855.8	1593					10- 20	419.8	602.6	28.7, 28.7
30	468.7	1052	414.8	1102					20- 30	448.6	1051	50, 50
40	262.2	642.1	230.3	664.4					30- 40	368.1	1419	67.5, 67.5
50	160.5	328.5	145.8	343.3					40- 50	262.6	1682	80, 80
60	104.4	171.1	98.81	176.8					50- 60	161.5	1843	87.7, 87.7
70	62.58	160.2	60.95	161.3					60- 70	118.9	1962	93.4, 93.4
80	26.04	96.63	26.05	108.8					70- 80	100.6	2063	98.2, 98.2
90	0.1032	2.693	0.0755	4.141					80- 90	32.04	2095	99.7, 99.7
100	0.1161	0.3135	0.1335	0.2438					90-100	0.6612	2096	99.7, 99.7
110	0.2203	0.4758	0.2148	0.3018					100-110	0.2631	2096	99.7, 99.7
120	0.3887	0.7778	0.3541	0.5049					110-120	0.3951	2096	99.8, 99.8
130	0.7305	1.300	0.5514	0.8588					120-130	0.5989	2097	99.8, 99.8
140	1.219	2.003	0.9232	1.375					130-140	0.8501	2098	99.8, 99.8
150	1.984	2.780	1.614	1.961					140-150	1.075	2099	99.9, 99.9
160	2.890	3.430	2.584	2.611					150-160	1.140	2100	99.9, 99.9
170	3.621	3.929	3.540	3.447					160-170	0.9156	2101	100, 100
180	4.016	4.068	4.016	4.022					170-180	0.3641	2101	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 6.900m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.: P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6057	23826
80	7811	28984
75	8813	30388
70	9530	24402
65	10190	18739
60	10879	17827
55	11741	19904
50	13008	26620
45	15019	35232

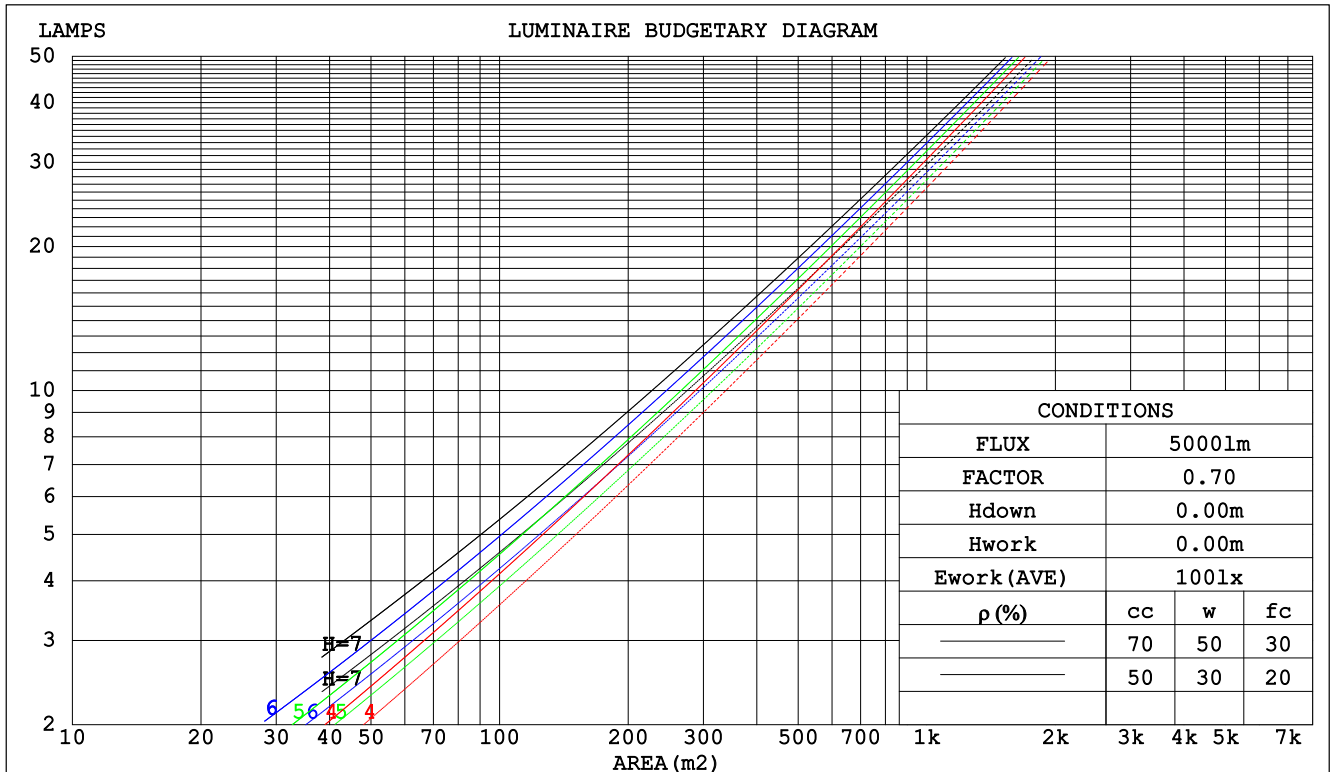
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.900m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.:P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	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	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	1.07	1.03	1.00	1.05	1.01	.99	1.00	.98	.95	.97	.94	.92	.93	.91	.90	.88
2.0	.96	.91	.86	.95	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.80	.78
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.72	.78	.74	.71	.69
4.0	.80	.73	.67	.79	.72	.67	.76	.71	.66	.74	.69	.65	.72	.68	.64	.63
5.0	.74	.66	.61	.73	.66	.60	.71	.65	.60	.69	.63	.59	.67	.62	.59	.57
6.0	.68	.61	.55	.67	.60	.55	.66	.59	.55	.64	.58	.54	.62	.58	.54	.52
7.0	.63	.56	.51	.63	.56	.51	.61	.55	.50	.60	.54	.50	.58	.53	.50	.48
8.0	.59	.52	.47	.58	.52	.47	.57	.51	.47	.56	.50	.46	.55	.50	.46	.44
9.0	.55	.48	.44	.55	.48	.44	.54	.48	.43	.53	.47	.43	.52	.47	.43	.41
10.0	.52	.45	.41	.51	.45	.41	.51	.45	.40	.50	.44	.40	.49	.44	.40	.39



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.900m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.:P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	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	.251	.143	.045	.244	.139	.044	.231	.133	.042	.219	.126	.041	.208	.121	.039		
2.0	.234	.128	.039	.228	.126	.039	.217	.121	.037	.207	.116	.036	.197	.111	.035		
3.0	.217	.116	.035	.212	.114	.034	.202	.110	.033	.193	.106	.032	.185	.102	.032		
4.0	.202	.105	.031	.197	.103	.030	.189	.100	.030	.181	.097	.029	.173	.094	.029		
5.0	.188	.096	.028	.184	.094	.028	.176	.092	.027	.169	.089	.027	.163	.087	.026		
6.0	.176	.088	.025	.172	.087	.025	.166	.085	.025	.159	.083	.024	.153	.081	.024		
7.0	.165	.082	.023	.162	.081	.023	.156	.079	.023	.150	.077	.022	.145	.075	.022		
8.0	.156	.076	.021	.153	.075	.021	.147	.074	.021	.142	.072	.021	.138	.071	.021		
9.0	.147	.071	.020	.145	.070	.020	.140	.069	.020	.135	.068	.019	.131	.067	.019		
10.0	.139	.067	.019	.137	.066	.018	.133	.065	.018	.129	.064	.018	.125	.063	.018		

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	.193	.193	.193	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.179	.159	.141	.153	.136	.122	.104	.094	.084	.060	.054	.049	.019	.017	.016	
2.0	.167	.134	.107	.143	.116	.093	.098	.080	.065	.056	.047	.038	.018	.015	.012	
3.0	.157	.116	.084	.134	.100	.073	.092	.070	.051	.053	.041	.030	.017	.013	.010	
4.0	.147	.102	.068	.127	.088	.059	.087	.062	.041	.050	.036	.025	.016	.012	.008	
5.0	.139	.091	.056	.120	.079	.049	.082	.055	.034	.048	.032	.020	.015	.011	.007	
6.0	.132	.082	.047	.113	.071	.041	.078	.050	.029	.045	.029	.017	.015	.010	.006	
7.0	.125	.075	.040	.108	.065	.035	.074	.046	.025	.043	.027	.015	.014	.009	.005	
8.0	.119	.069	.035	.102	.060	.030	.071	.042	.022	.041	.025	.013	.013	.008	.004	
9.0	.113	.064	.031	.098	.056	.027	.068	.039	.019	.039	.023	.011	.013	.008	.004	
10.0	.108	.060	.027	.093	.052	.024	.065	.036	.017	.038	.022	.010	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-06-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm											
NAME: S223LED					TYPE:			WEIGHT:			
SPEC.:P-S223LED-30W3034x62-OS70036R90-JG000					DIM.:			SERIAL No.:			
MFR.: CETTIGA					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		17.0	18.2	17.3	18.4	18.6	19.5	20.7	19.8	20.9	21.1
3H		18.1	19.2	18.3	19.4	19.6	21.2	22.3	21.5	22.6	22.8
4H		18.6	19.6	18.9	19.9	20.1	22.5	23.6	22.8	23.8	24.1
6H		18.9	19.9	19.2	20.2	20.4	23.5	24.5	23.8	24.8	25.1
8H		19.0	20.0	19.3	20.2	20.5	23.8	24.8	24.2	25.1	25.4
12H		19.0	20.0	19.4	20.2	20.5	24.0	25.0	24.4	25.3	25.6
4H 2H		17.7	18.8	18.0	19.0	19.2	19.7	20.8	20.0	21.1	21.3
3H		19.2	20.1	19.5	20.4	20.7	21.8	22.8	22.2	23.0	23.3
4H		19.9	20.7	20.3	21.1	21.4	23.3	24.2	23.7	24.5	24.8
6H		20.4	21.1	20.8	21.5	21.9	24.5	25.3	24.9	25.6	26.0
8H		20.5	21.2	20.9	21.6	22.0	24.9	25.6	25.3	26.0	26.3
12H		20.6	21.2	21.0	21.6	22.0	25.1	25.8	25.6	26.2	26.6
8H 4H		20.7	21.4	21.1	21.8	22.1	23.6	24.3	24.0	24.6	25.0
6H		21.4	22.0	21.8	22.4	22.8	24.9	25.5	25.3	25.9	26.3
8H		21.6	22.1	22.1	22.5	23.0	25.4	25.9	25.8	26.3	26.8
12H		21.7	22.2	22.2	22.6	23.1	25.7	26.2	26.2	26.6	27.1
12H 4H		20.8	21.5	21.2	21.9	22.3	23.6	24.2	24.0	24.6	25.0
6H		21.6	22.1	22.1	22.5	23.0	24.9	25.4	25.4	25.9	26.3
8H		21.9	22.3	22.3	22.8	23.3	25.4	25.9	25.9	26.3	26.8
Variations with the observer position at spacings:											
S = 1.0H		+ 0.4 / - 0.4					+ 0.2 / - 0.3				
1.5H		+ 0.2 / - 0.4					+ 0.3 / - 0.3				
2.0H		+ 0.3 / - 0.5					+ 0.8 / - 0.3				

CIE Pub.117, 2101 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.6$)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks:

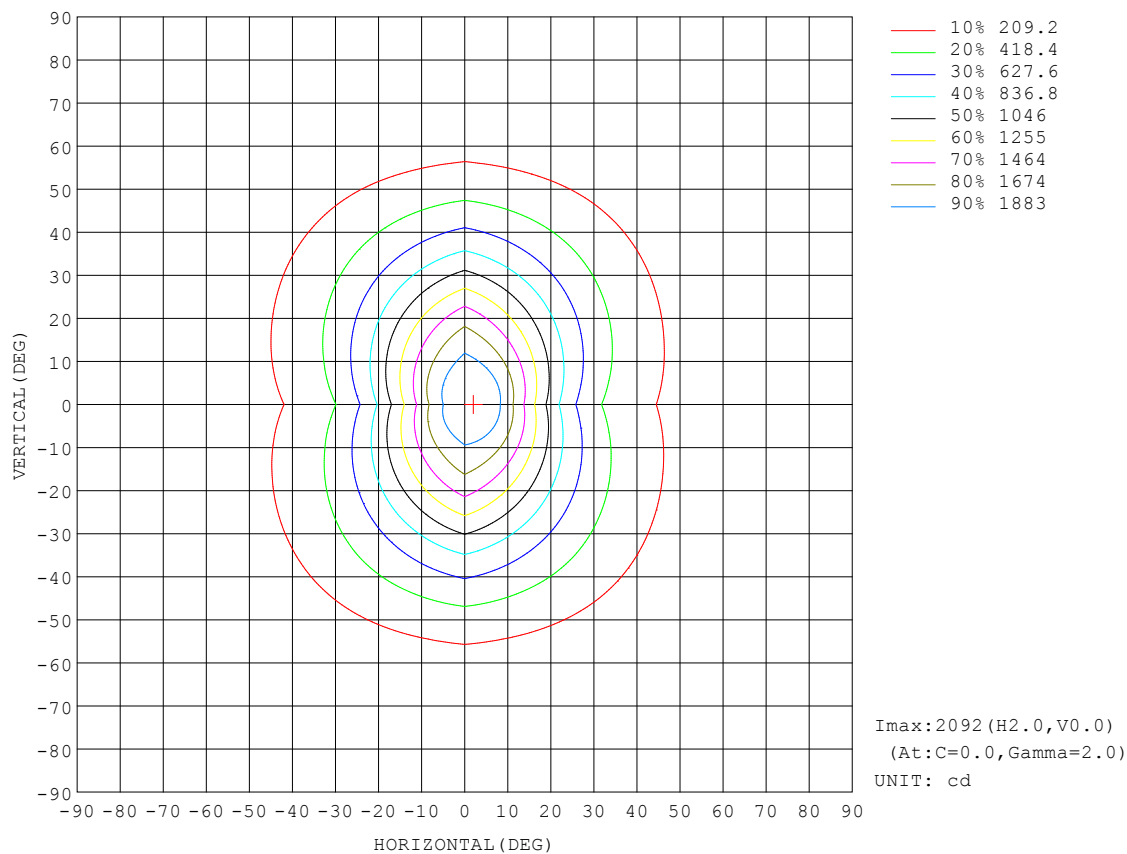
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks:

```

ISOCANDELA DIAGRAM

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.: P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

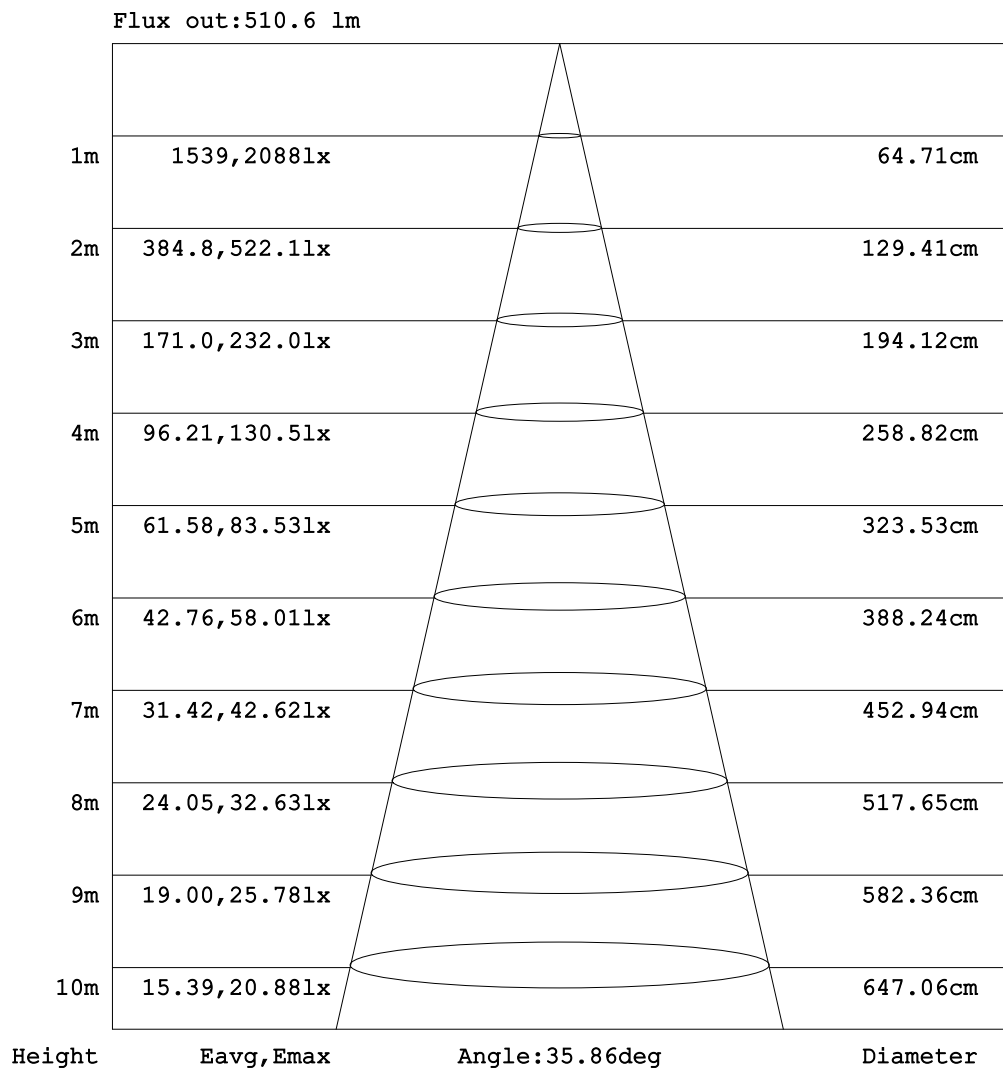


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.:P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



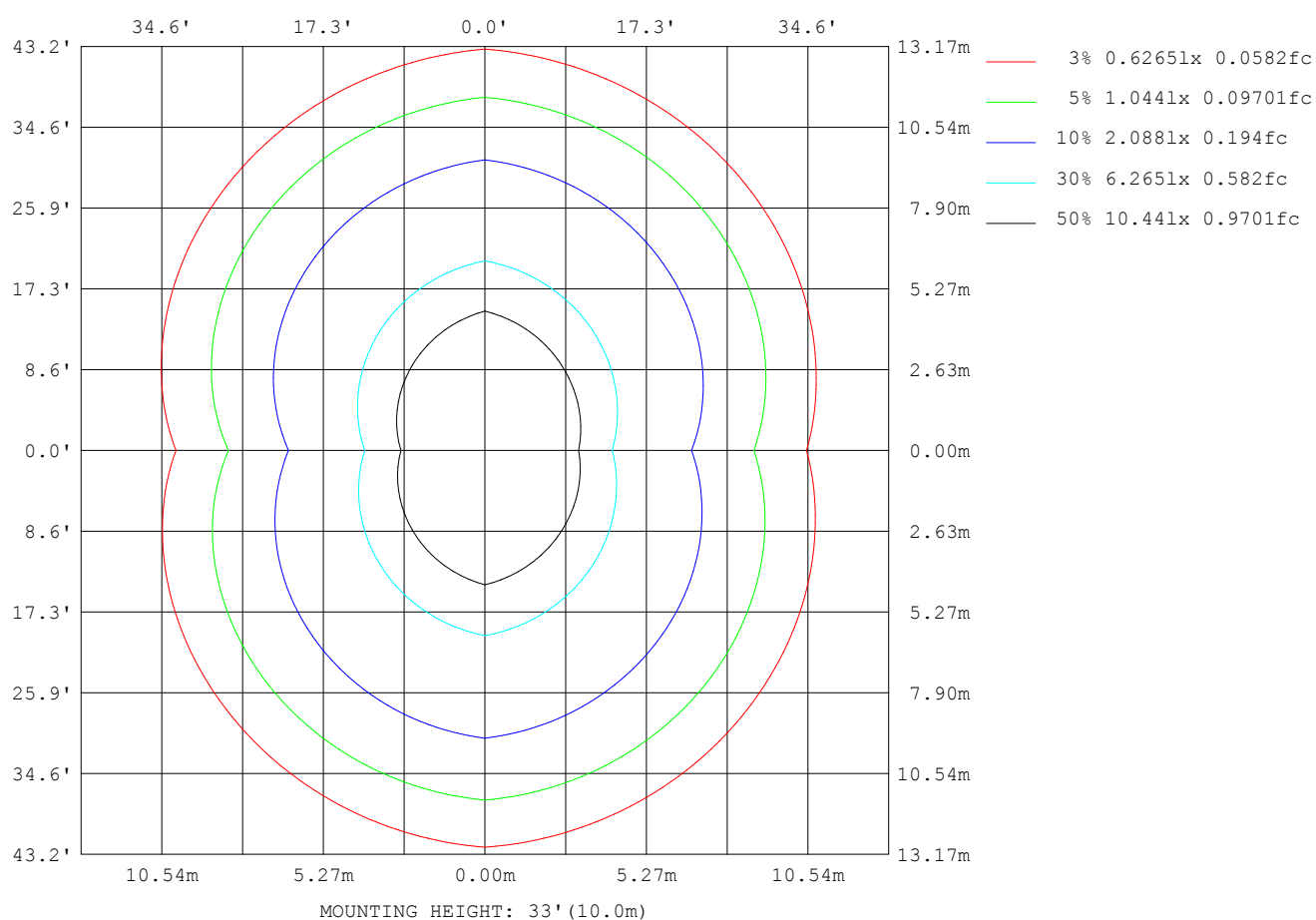
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 6.900m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.: P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 6.900m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.:P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

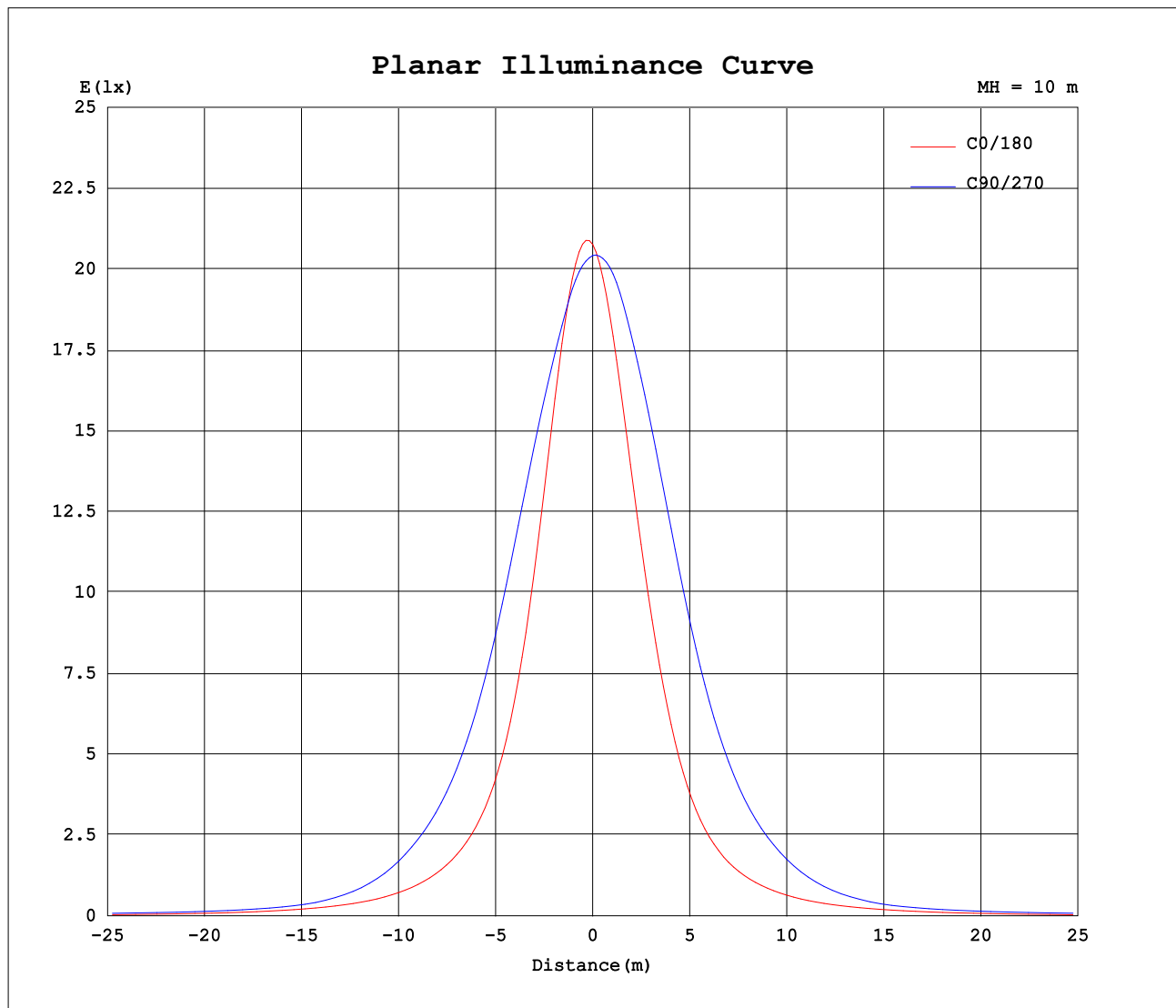
AvgL	cd/m2
L_0~180 (65) av	9996
L_0~180 (75) av	8739
L_0~180 (85) av	6127
L_90~270 (65) av	18977
L_90~270 (75) av	31362
L_90~270 (85) av	27077
L_45 (65) av	15597
L_45 (75) av	22874
L_45 (85) av	19225

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
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 Test Date:2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.900m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2020-06-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.900m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1270A P:27.17W PF:0.9694 Freq:59.98Hz Lamp Flux:2101.19x1 lm		
NAME: S223LED	TYPE:	WEIGHT:
SPEC.: P-S223LED-30W3034x62-OS70036R90-JG000	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	2076	2042	2076	2042															
5	2040	1989	1881	2029															
10	1764	1867	1550	1935															
15	1358	1717	1185	1788															
20	964	1526	856	1593															
25	663	1295	595	1354															
30	469	1052	415	1102															
35	346	830	301	868															
40	262	642	230	664															
45	204	478	181	495															
50	161	329	146	343															
55	129	219	120	231															
60	104	171	98.8	177															
65	82.7	152	79.5	156															
70	62.6	160	60.9	161															
75	43.8	151	43.1	161															
80	26.0	96.6	26.0	109															
85	10.1	39.9	10.4	50.8															
90	0.10	2.69	0.08	4.14															
95	0.09	0.50	0.10	0.95															
100	0.12	0.31	0.13	0.24															
105	0.17	0.38	0.17	0.27															
110	0.22	0.48	0.21	0.30															
115	0.30	0.61	0.28	0.38															
120	0.39	0.78	0.35	0.50															
125	0.53	1.00	0.44	0.67															
130	0.73	1.30	0.55	0.86															
135	0.93	1.64	0.71	1.11															
140	1.22	2.00	0.92	1.38															
145	1.58	2.40	1.22	1.67															
150	1.98	2.78	1.61	1.96															
155	2.44	3.15	2.07	2.32															
160	2.89	3.43	2.58	2.61															
165	3.28	3.69	3.12	2.99															
170	3.62	3.93	3.54	3.45															
175	3.90	4.01	3.89	3.77															
180	4.02	4.07	4.02	4.02															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-06-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks: