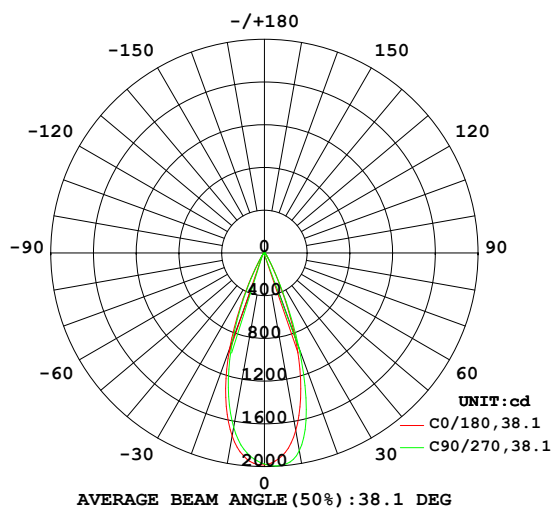


LUMINAIRE PHOTOMETRIC TEST REPORT

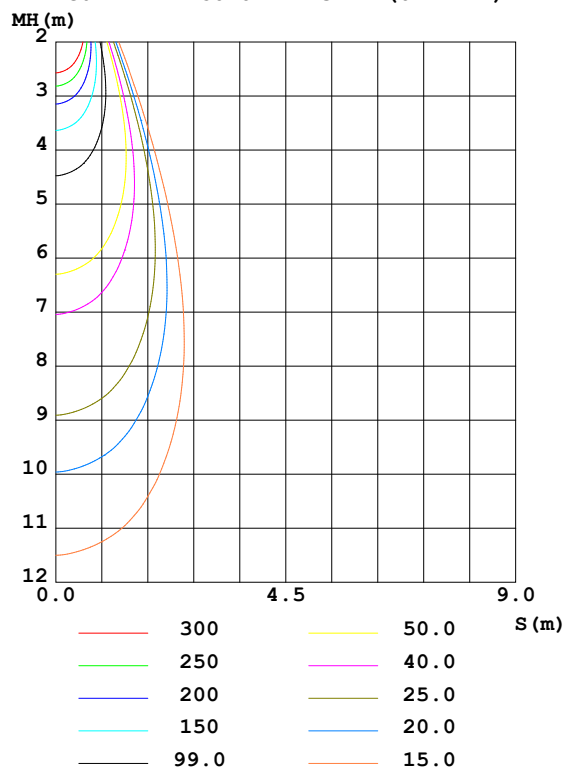
Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx1 lm		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.: P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.: 0.0003	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.50 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	1997	S/MH (C0/180)	0.61
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	0.59
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	821.31	η UP, DN (C0-180)	0.0, 50.7
NOMINAL FLUX (lm)	821.311	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220.2	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: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: XIE BI
Test Date: 2018-09-08

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.800m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

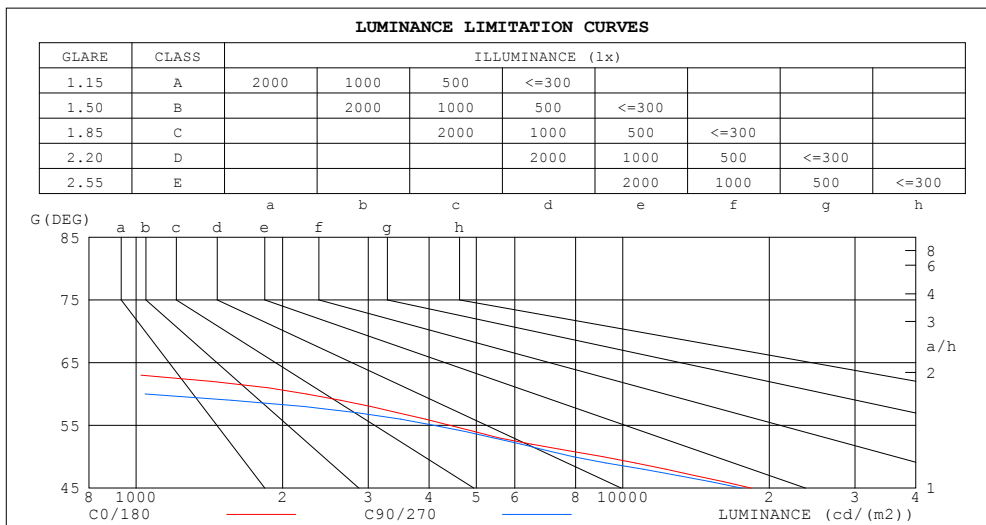
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1687	1788	1879	1832	1739	1667	1657	1642	0- 10	178.0	178.0	21.7,21.7
20	843.2	903.3	944.3	979.7	951.4	910.5	870.9	818.8	10- 20	373.2	551.2	67.1,67.1
30	135.8	143.1	149.4	167.3	174.3	168.3	158.8	146.1	20- 30	203.3	754.5	91.9,91.9
40	34.05	36.58	36.48	40.07	38.60	37.97	36.12	36.63	30- 40	46.22	800.7	97.5,97.5
50	8.784	8.979	7.623	9.809	10.48	9.983	8.784	9.581	40- 50	16.32	817.0	99.5,99.5
60	1.678	1.528	0.7826	1.667	2.103	1.764	1.012	1.682	50- 60	3.916	820.9	100,100
70	0.0043	0	0.0000	0	0	0.0087	0	0	60- 70	0.3963	821.3	100,100
80	0	0	0	0	0	0	0	0	70- 80	0.0001	821.3	100,100
90	0	0	0	0	0	0	0	0	80- 90	0	821.3	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: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XIE BI
 Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.800m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.311x1 lm		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	8	0
65	488	124
60	2238	1043
55	4413	4091
50	9110	7906
45	18347	17525

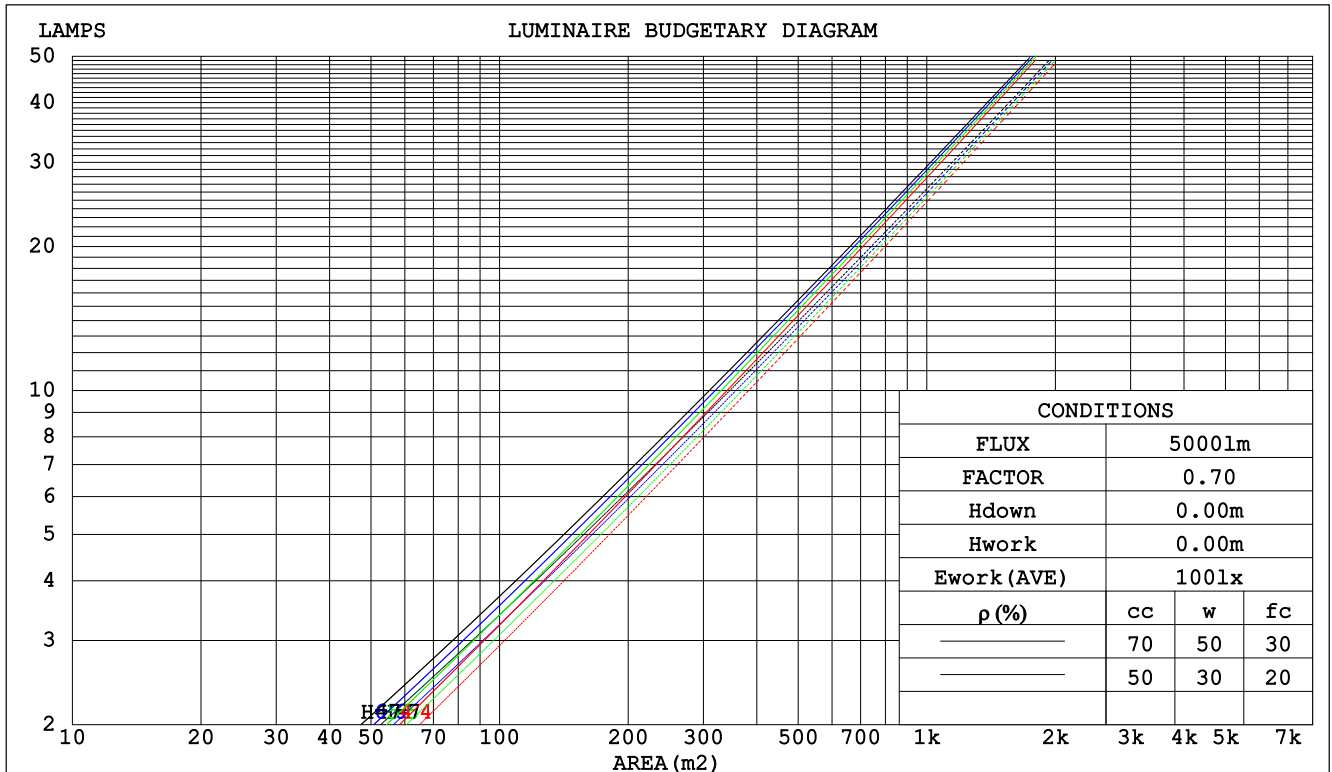
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:XIE BI
Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx1 lm		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.04	1.01	.99	1.01	.99	.97	.98	.96	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.99	.96	.93	.97	.94	.91	.95	.92	.90	.92	.90	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.89	.87	.91	.88	.86	.89	.87	.85	.83
5.0	.92	.87	.84	.91	.86	.83	.89	.85	.82	.88	.84	.82	.86	.83	.81	.80
6.0	.88	.83	.80	.87	.83	.79	.86	.82	.79	.84	.81	.78	.83	.80	.78	.77
7.0	.84	.79	.76	.83	.79	.76	.82	.78	.75	.81	.78	.75	.80	.77	.75	.73
8.0	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.77	.74	.72	.71
9.0	.78	.73	.70	.77	.73	.70	.76	.72	.69	.76	.72	.69	.75	.71	.69	.68
10.0	.75	.70	.67	.74	.70	.67	.74	.70	.67	.73	.69	.67	.72	.69	.67	.65



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XIE BI
 Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.800m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx1 lm					
NAME: S503LED			TYPE:		WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700			DIM.:		SERIAL No.:
MFR.: CETTIGA			SUR.:0.0003		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	.150	.085	.027	.143	.082	.026	.131	.075	.024	.119	.069	.022	.109	.063	.020		
2.0	.141	.077	.024	.135	.075	.023	.125	.069	.022	.115	.065	.020	.107	.060	.019		
3.0	.133	.071	.021	.128	.068	.021	.119	.065	.020	.111	.061	.019	.104	.057	.018		
4.0	.125	.065	.019	.121	.063	.019	.114	.060	.018	.107	.057	.017	.101	.055	.017		
5.0	.119	.061	.018	.115	.059	.017	.109	.057	.017	.103	.054	.016	.098	.052	.016		
6.0	.113	.057	.016	.110	.056	.016	.105	.054	.016	.099	.052	.015	.095	.050	.015		
7.0	.108	.053	.015	.105	.052	.015	.101	.051	.015	.096	.049	.014	.092	.048	.014		
8.0	.103	.050	.014	.101	.050	.014	.097	.048	.014	.093	.047	.014	.089	.046	.013		
9.0	.099	.048	.013	.097	.047	.013	.093	.046	.013	.090	.045	.013	.086	.044	.013		
10.0	.095	.046	.013	.093	.045	.013	.090	.044	.012	.087	.043	.012	.084	.042	.012		

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.075	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.100	.075	.055	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.006	
7.0	.101	.068	.046	.087	.059	.040	.060	.042	.028	.035	.025	.017	.011	.008	.006	
8.0	.095	.062	.039	.082	.054	.034	.057	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.090	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.085	.052	.030	.073	.045	.026	.051	.032	.019	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:XIE BI
Test Date:2018-09-08

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx1 lm											
NAME: S503LED					TYPE:			WEIGHT:			
SPEC.:P-S503LED-12W3038-CI35031R90-HK700					DIM.:			SERIAL No.:			
MFR.: CETTIGA					SUR.:0.0003			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	3H	13.8	14.6	14.0	14.7	14.9	14.1	14.9	14.4	15.1	15.2
	4H	13.7	14.4	13.9	14.5	14.7	14.0	14.7	14.2	14.9	15.1
	6H	13.6	14.2	13.8	14.5	14.7	13.9	14.6	14.2	14.8	15.0
	8H	13.5	14.1	13.8	14.3	14.6	13.8	14.4	14.1	14.7	14.9
	12H	13.5	14.0	13.7	14.3	14.5	13.8	14.4	14.1	14.6	14.9
	12H	13.4	14.0	13.7	14.2	14.5	13.7	14.3	14.0	14.6	14.8
4H	2H	13.6	14.3	13.9	14.5	14.7	13.9	14.6	14.2	14.8	15.0
	3H	13.4	14.0	13.7	14.3	14.5	13.8	14.3	14.1	14.6	14.9
	4H	13.3	13.9	13.7	14.1	14.4	13.7	14.2	14.0	14.5	14.8
	6H	13.2	13.7	13.6	14.0	14.4	13.6	14.0	13.9	14.3	14.7
	8H	13.2	13.6	13.6	14.0	14.3	13.5	13.9	13.9	14.3	14.6
	12H	13.1	13.5	13.5	13.9	14.3	13.4	13.8	13.9	14.2	14.6
8H	4H	13.2	13.6	13.6	14.0	14.3	13.5	13.9	13.9	14.3	14.6
	6H	13.1	13.4	13.5	13.8	14.2	13.4	13.7	13.8	14.1	14.5
	8H	13.0	13.3	13.5	13.7	14.2	13.3	13.6	13.8	14.1	14.5
	12H	12.9	13.2	13.4	13.7	14.1	13.3	13.5	13.7	14.0	14.4
12H	4H	13.1	13.5	13.5	13.9	14.3	13.4	13.8	13.9	14.2	14.6
	6H	13.0	13.3	13.5	13.7	14.2	13.3	13.6	13.8	14.1	14.5
	8H	12.9	13.2	13.4	13.7	14.1	13.3	13.5	13.7	14.0	14.4
Variations with the observer position at spacings:											
S = 1.0H	+ 2.4 / -10.1					+ 2.8 / -11.4					
1.5H	+ 3.9 / - 7.1					+ 4.5 / - 7.5					
2.0H	+ 6.1 / -15.0					+ 6.2 / -16.8					

CIE Pub.117, 821.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:XIE BI
Test Date:2018-09-08

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx1 lm		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	Shielding Angle:

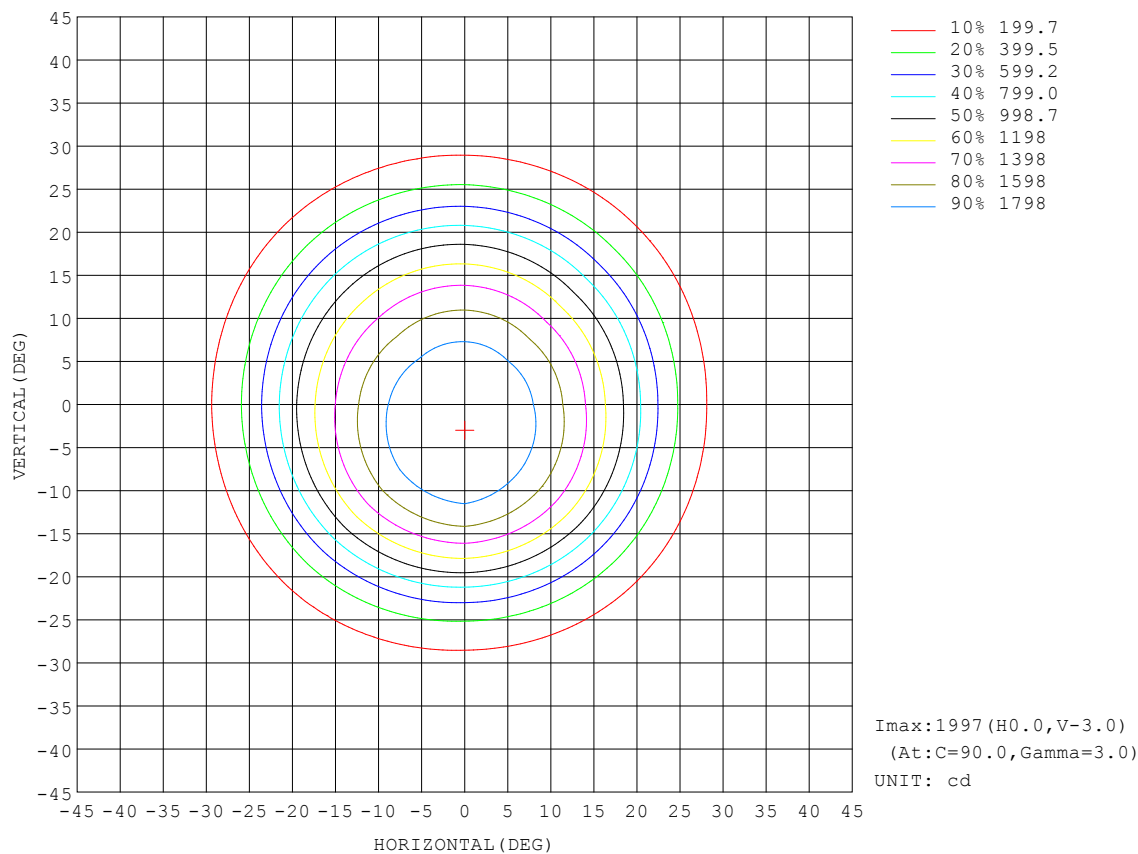
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	89	84	80	89	84	80	77
0.80	97	92	88	96	91	88	95	91	88	84
1.00	101	96	93	100	95	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	96	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	110	106	103	108	105	102	106	103	100	95
2.50	111	108	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	104	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	116	113	112	113	112	110	110	108	107	100
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:25.3DEG
Operators:XIE BI
Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.311x1 lm		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	Shielding Angle:



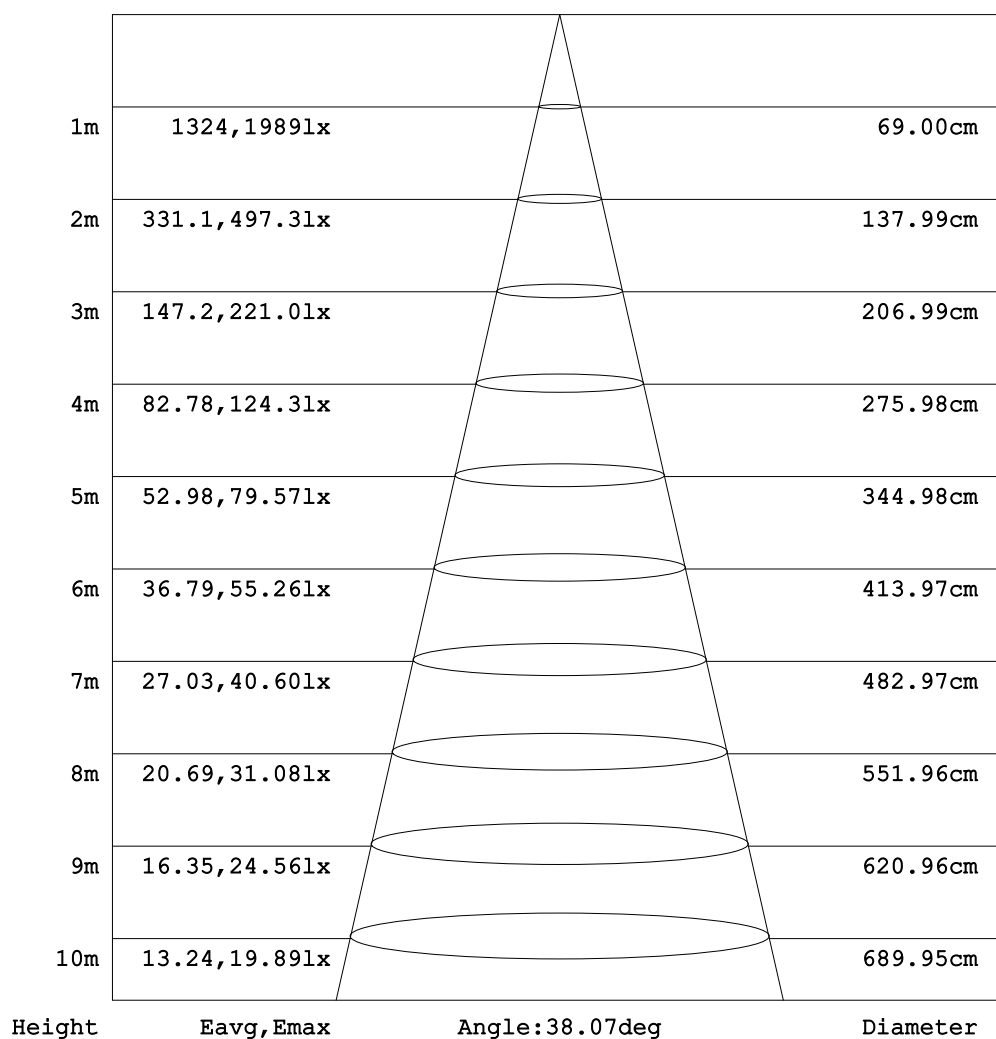
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:XIE BI
Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx 1m		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	Shielding Angle:

Flux out:551.2 lm



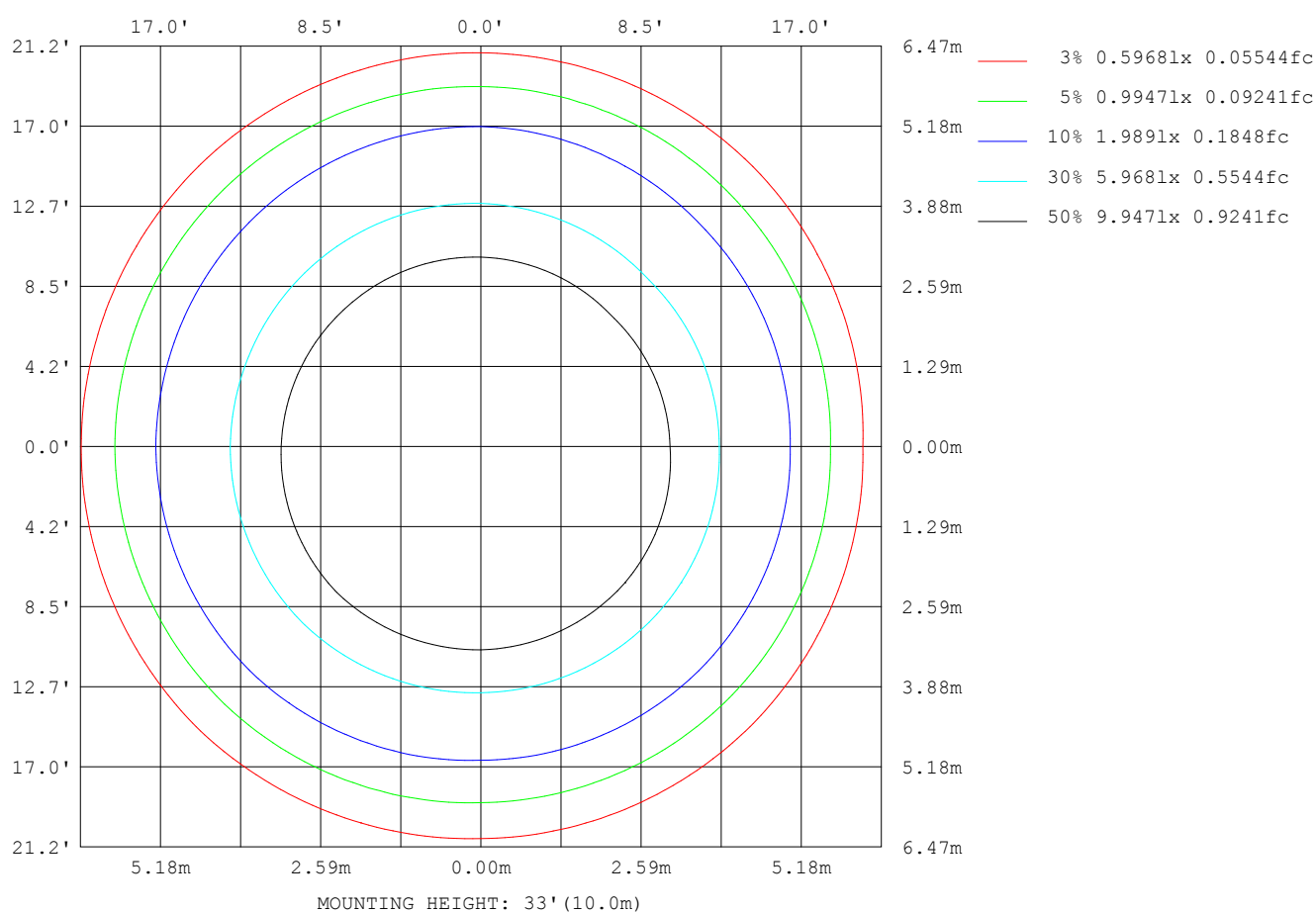
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XIE BI
 Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.800m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.31lx 1m		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.: P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:XIE BI
Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.8V I:0.0592A P:12.54W PF:0.9588 Freq:59.98Hz Lamp Flux:821.311x1 lm		
NAME: S503LED	TYPE:	WEIGHT:
SPEC.:P-S503LED-12W3038-CI35031R90-HK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:0.0003	Shielding Angle:

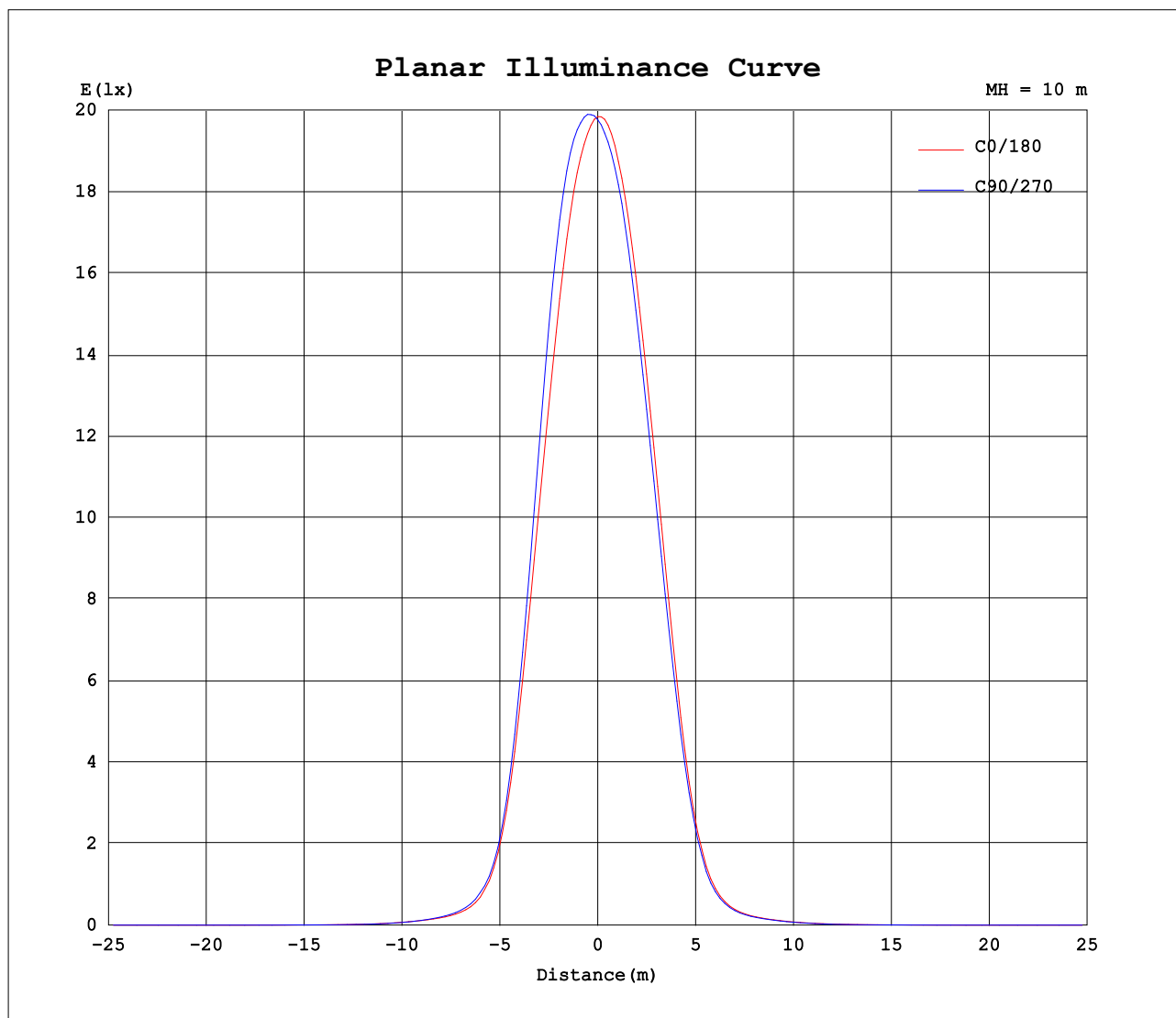
AvgL	cd/m2
L_0~180 (65) av	585
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	110
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	329
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:XIE BI
 Test Date:2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.800m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: XIE BI
Test Date: 2018-09-08

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.800m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.800m [K=1.0000]
Remarks:

```