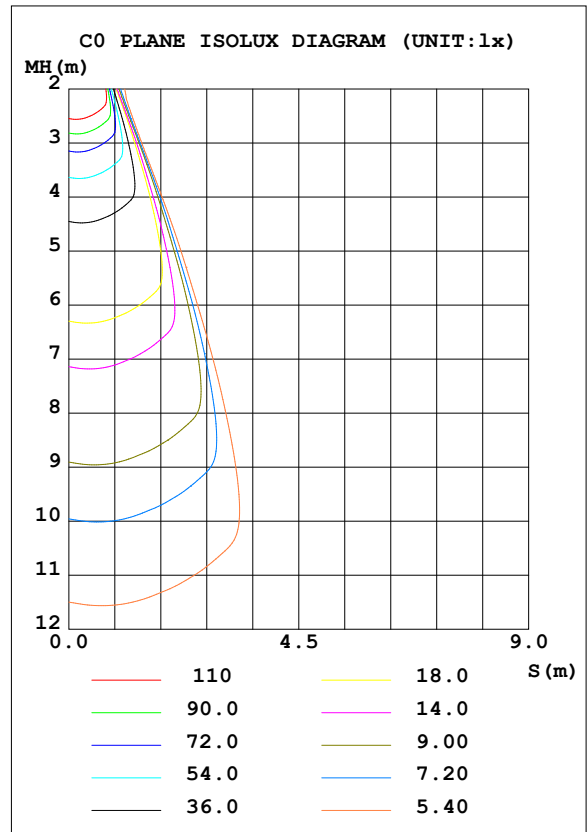
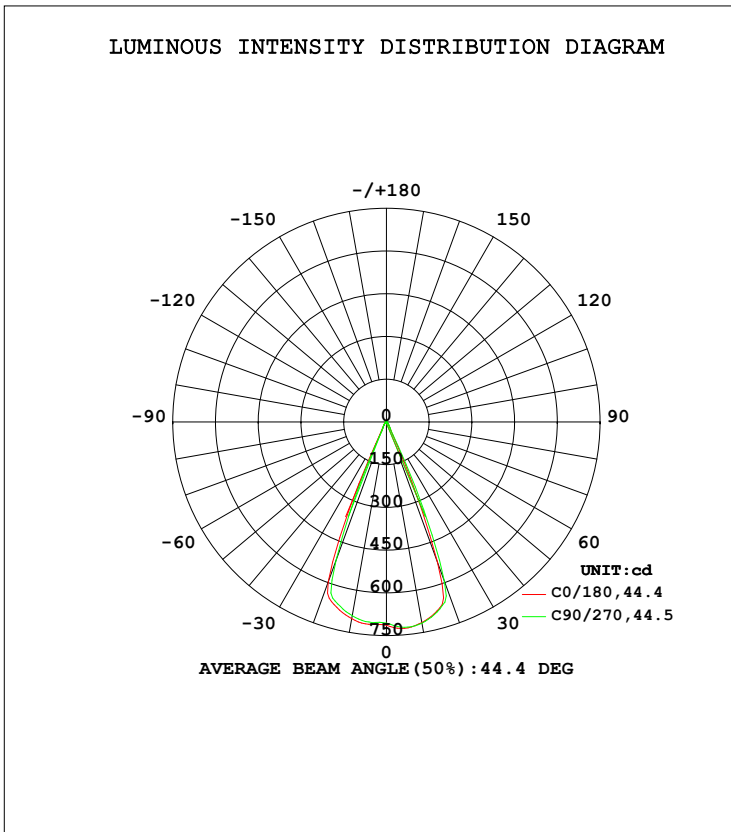


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.6V I:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 30.34 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	727.4	S/MH (C0/180)	0.63
NOMINAL POWER (W)	12W	LOR (%)	100.0	S/MH (C90/270)	0.61
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	360.76	η UP, DN (C0-180)	0.2, 50.0
NOMINAL FLUX (lm)	360.764	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 49.6
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2020-08-21

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:

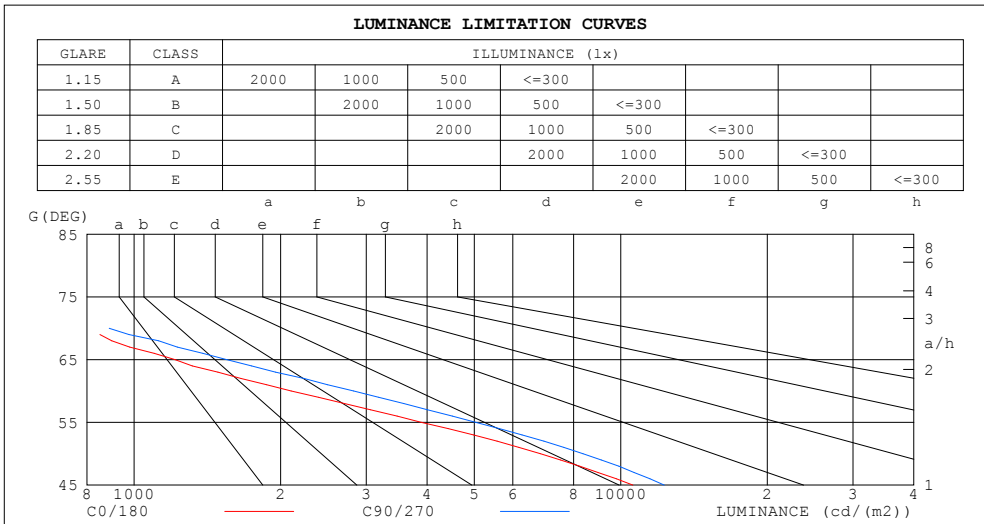
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	715.3	717.5	701.2	690.7				0- 10	68.10	68.10	18.9,18.9
20	523.3	595.2	597.2	516.7				10- 20	187.8	255.9	70.9,70.9
30	26.41	27.71	27.10	25.26				20- 30	82.23	338.2	93.7,93.7
40	10.98	12.24	13.12	12.25				30- 40	11.22	349.4	96.8,96.8
50	4.220	5.160	6.061	5.482				40- 50	6.461	355.9	98.6,98.6
60	1.009	1.356	1.803	1.575				50- 60	2.696	358.6	99.4,99.4
70	0.2490	0.2919	0.3789	0.3733				60- 70	0.7326	359.3	99.6,99.6
80	0.0933	0.0311	0.0497	0.0935				70- 80	0.1802	359.5	99.6,99.6
90	0.0249	0.0249	0.0311	0.0312				80- 90	0.0498	359.5	99.7,99.7
100	0.0187	0.0249	0.0311	0.0311				90-100	0.0300	359.5	99.7,99.7
110	0.0187	0.0249	0.0311	0.0311				100-110	0.0280	359.6	99.7,99.7
120	0.0187	0.0373	0.0373	0.0311				110-120	0.0286	359.6	99.7,99.7
130	0.0249	0.0498	0.0498	0.0311				120-130	0.0322	359.6	99.7,99.7
140	0.1988	0.2180	0.0997	0.0560				130-140	0.0503	359.7	99.7,99.7
150	0.7464	0.7653	0.4481	0.4229				140-150	0.2160	359.9	99.8,99.8
160	1.213	1.245	0.8529	0.8337				150-160	0.3760	360.3	99.9,99.9
170	1.599	1.618	1.164	1.151				160-170	0.3366	360.6	100,100
180	1.866	1.860	1.829	1.848				170-180	0.1508	360.8	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:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	819	297
80	560	187
75	576	501
70	758	889
65	1213	1549
60	2102	2825
55	3891	5036
50	6839	8362
45	10588	12282

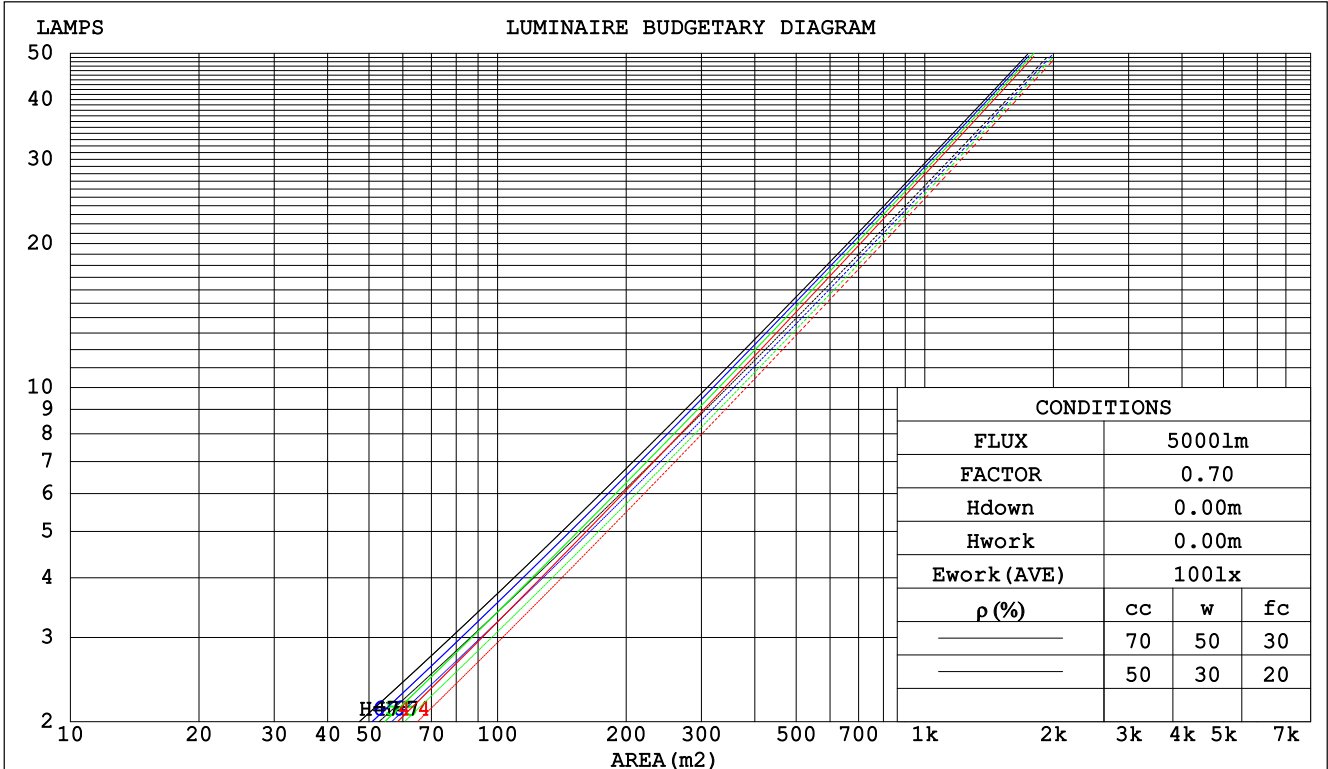
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	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						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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.06	1.03	.00	1.04	1.01	.99	1.01	.99	.97	.98	.96	.95	.95	.94	.93	.91
3.0	1.01	.97	.93	.99	.96	.93	.97	.94	.91	.94	.92	.90	.92	.90	.88	.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	.87	.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	.84	.79	.76	.82	.78	.75	.81	.78	.75	.80	.77	.75	.74
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	.70	.76	.72	.69	.75	.72	.69	.68
10.0	.75	.70	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.72	.69	.67	.66



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.150	.086	.027	.144	.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	.106	.060	.019	
3.0	.132	.070	.021	.128	.068	.021	.119	.064	.020	.111	.061	.019	.103	.057	.018	
4.0	.125	.065	.019	.121	.063	.019	.113	.060	.018	.106	.057	.017	.100	.054	.017	
5.0	.118	.060	.017	.115	.059	.017	.108	.056	.017	.102	.054	.016	.097	.052	.016	
6.0	.113	.056	.016	.110	.055	.016	.104	.053	.016	.099	.051	.015	.094	.049	.015	
7.0	.107	.053	.015	.105	.052	.015	.100	.050	.015	.095	.049	.014	.091	.047	.014	
8.0	.103	.050	.014	.100	.049	.014	.096	.048	.014	.092	.047	.013	.088	.045	.013	
9.0	.099	.048	.013	.097	.047	.013	.093	.046	.013	.089	.045	.013	.085	.043	.013	
10.0	.095	.045	.013	.093	.045	.013	.089	.044	.012	.086	.043	.012	.083	.042	.012	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.193	.193	.193	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.172	.160	.150	.147	.137	.129	.101	.095	.089	.058	.055	.052	.019	.018	.017	
2.0	.155	.135	.119	.133	.116	.103	.091	.081	.072	.052	.047	.042	.017	.015	.014	
3.0	.141	.116	.096	.121	.100	.084	.083	.070	.059	.048	.041	.035	.015	.013	.011	
4.0	.129	.101	.080	.111	.087	.069	.076	.061	.049	.044	.036	.029	.014	.012	.009	
5.0	.119	.089	.067	.102	.077	.058	.070	.054	.041	.041	.032	.024	.013	.010	.008	
6.0	.111	.079	.056	.095	.069	.049	.066	.048	.035	.038	.028	.021	.012	.009	.007	
7.0	.104	.071	.048	.089	.062	.042	.062	.043	.030	.036	.025	.018	.012	.008	.006	
8.0	.098	.065	.042	.084	.056	.037	.058	.039	.026	.034	.023	.015	.011	.008	.005	
9.0	.092	.059	.037	.079	.051	.032	.055	.036	.023	.032	.021	.014	.010	.007	.005	
10.0	.087	.055	.033	.075	.047	.028	.052	.033	.020	.031	.020	.012	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm										
NAME: S504LED					TYPE:			WEIGHT:		
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700					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	13.4	14.1	13.6	14.3	14.5	13.9	14.7	14.1	14.8	15.0
3H	13.3	14.0	13.5	14.2	14.4	13.8	14.5	14.1	14.7	14.9
4H	13.2	13.9	13.5	14.1	14.3	13.8	14.4	14.0	14.6	14.9
6H	13.1	13.8	13.4	14.0	14.2	13.7	14.3	14.0	14.5	14.8
8H	13.1	13.7	13.4	13.9	14.2	13.6	14.2	13.9	14.5	14.7
12H	13.1	13.6	13.4	13.9	14.2	13.6	14.2	13.9	14.4	14.7
4H 2H	13.3	13.9	13.5	14.1	14.4	13.8	14.4	14.1	14.7	14.9
3H	13.2	13.7	13.5	14.0	14.3	13.7	14.3	14.0	14.5	14.8
4H	13.1	13.6	13.4	13.9	14.2	13.6	14.1	14.0	14.4	14.7
6H	13.0	13.5	13.4	13.8	14.1	13.5	14.0	13.9	14.3	14.7
8H	13.0	13.4	13.3	13.7	14.1	13.5	13.9	13.9	14.2	14.6
12H	12.9	13.3	13.3	13.7	14.1	13.4	13.8	13.8	14.2	14.6
8H 4H	12.9	13.4	13.3	13.7	14.1	13.5	13.9	13.9	14.2	14.6
6H	12.8	13.2	13.3	13.6	14.0	13.4	13.7	13.8	14.1	14.5
8H	12.8	13.1	13.3	13.5	14.0	13.3	13.6	13.8	14.0	14.5
12H	12.8	13.0	13.2	13.5	14.0	13.2	13.5	13.7	14.0	14.4
12H 4H	12.9	13.3	13.3	13.6	14.0	13.4	13.8	13.8	14.2	14.6
6H	12.8	13.1	13.2	13.5	14.0	13.3	13.6	13.8	14.0	14.5
8H	12.7	13.0	13.2	13.5	13.9	13.2	13.5	13.7	14.0	14.4
Variations with the observer position at spacings:										
S = 1.0H	+ 2.1 / - 5.3					+ 2.0 / - 4.6				
1.5H	+ 2.5 / - 3.5					+ 2.5 / - 3.6				
2.0H	+ 4.3 / - 6.0					+ 4.5 / - 6.4				

CIE Pub.117, 360.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.5)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:

UTILIZATION FACTORS TABLE

Test:U:220.6V I:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

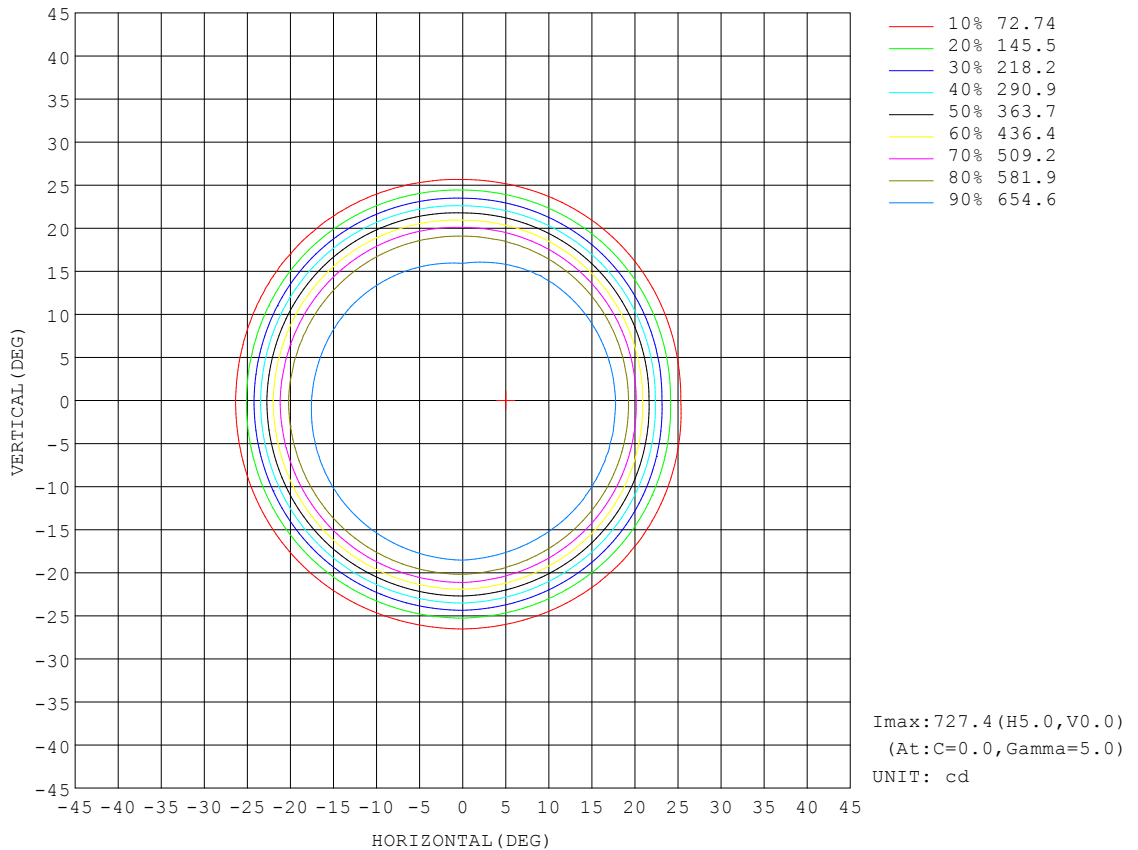
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	90	84	80	89	83	80	88	83	80	77
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	101	98	95	91
1.50	107	103	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	104	109	106	104	106	104	102	96
3.00	112	109	107	110	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

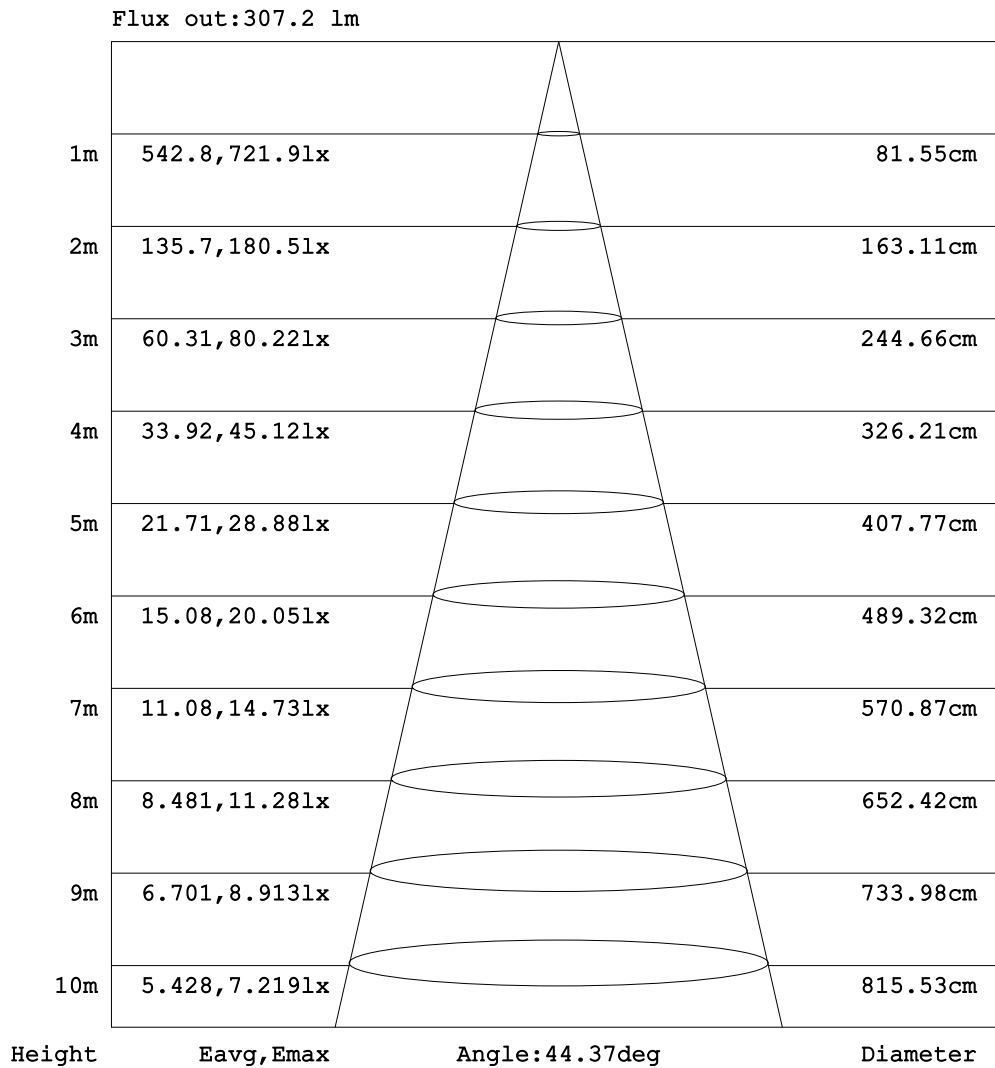


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



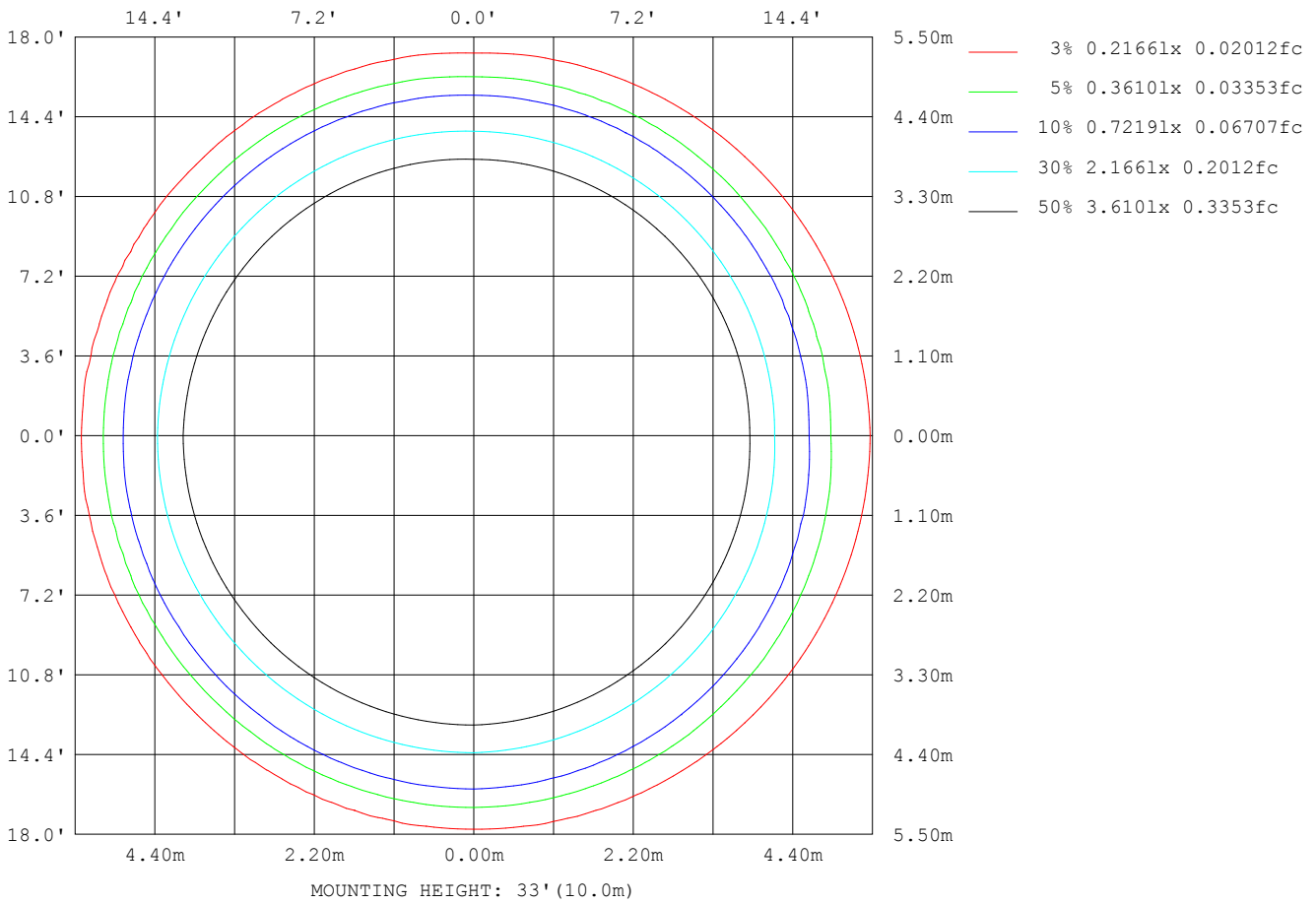
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	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:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

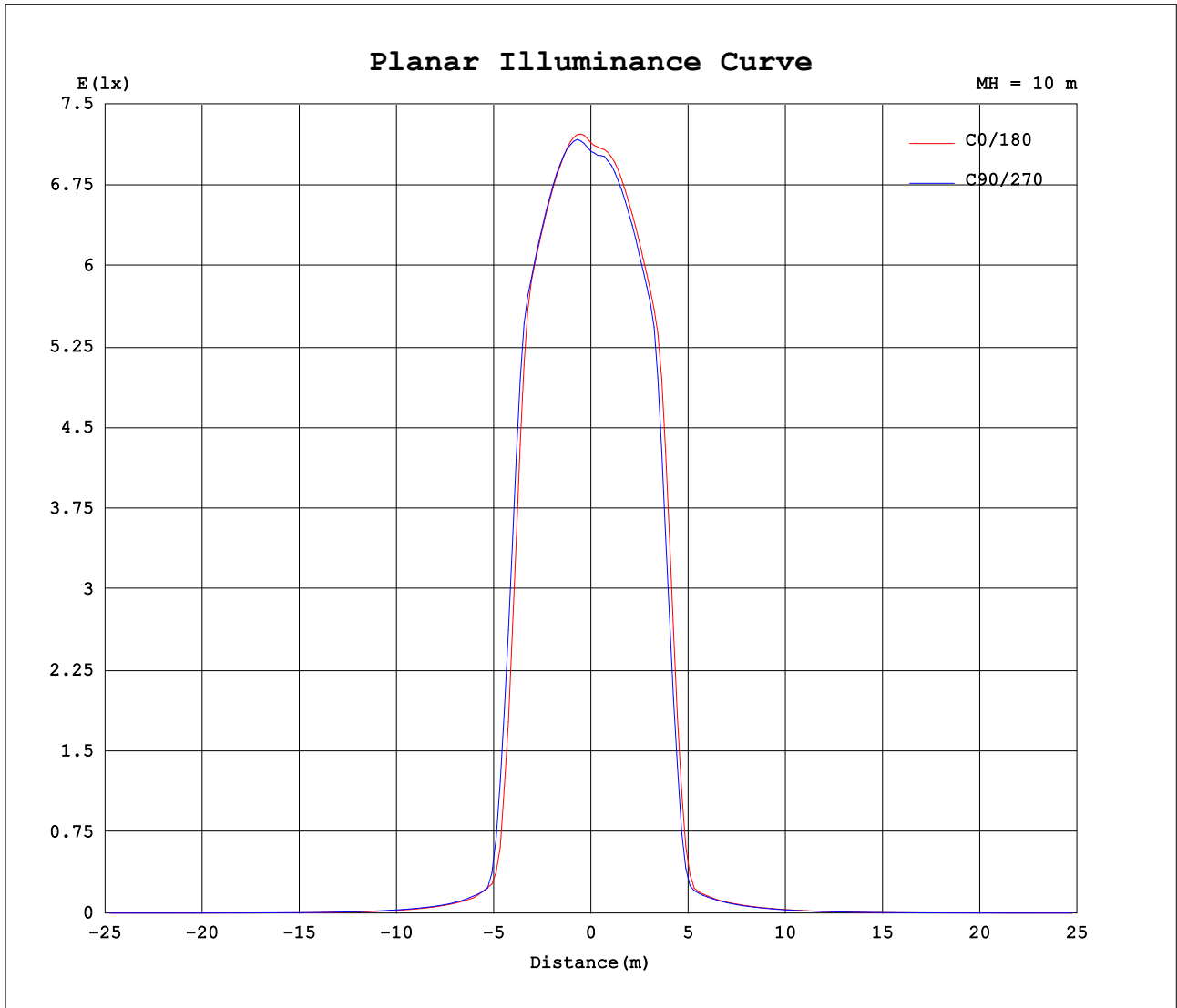
AvgL	cd/m2
L_0~180 (65) av	1641
L_0~180 (75) av	613
L_0~180 (85) av	595
L_90~270 (65) av	1711
L_90~270 (75) av	639
L_90~270 (85) av	521
L_45 (65) av	1712
L_45 (75) av	631
L_45 (85) av	535

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-08-21

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:2020-08-21

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:0.0582A P:11.89W PF:0.9257 Freq:59.98Hz Lamp Flux:360.764x1 lm		
NAME: S504LED	TYPE:	WEIGHT:
SPEC.:P-S504LED-12W3050-CI35031R90-HZ700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270																
0	714	706	714	706																
5	727	724	713	705																
10	715	718	701	691																
15	687	690	674	661																
20	523	595	597	517																
25	82.3	164	153	102																
30	26.4	27.7	27.1	25.3																
35	16.7	18.0	18.3	17.4																
40	11.0	12.2	13.1	12.2																
45	7.19	8.34	9.26	8.53																
50	4.22	5.16	6.06	5.48																
55	2.14	2.77	3.50	3.14																
60	1.01	1.36	1.80	1.58																
65	0.49	0.63	0.84	0.76																
70	0.25	0.29	0.38	0.37																
75	0.14	0.12	0.16	0.19																
80	0.09	0.03	0.05	0.09																
85	0.07	0.02	0.03	0.06																
90	0.02	0.02	0.03	0.03																
95	0.02	0.02	0.03	0.03																
100	0.02	0.02	0.03	0.03																
105	0.02	0.02	0.03	0.03																
110	0.02	0.02	0.03	0.03																
115	0.02	0.03	0.03	0.03																
120	0.02	0.04	0.04	0.03																
125	0.02	0.04	0.04	0.03																
130	0.02	0.05	0.05	0.03																
135	0.02	0.09	0.06	0.03																
140	0.20	0.22	0.10	0.06																
145	0.45	0.47	0.22	0.23																
150	0.75	0.77	0.45	0.42																
155	0.99	1.01	0.67	0.64																
160	1.21	1.24	0.85	0.83																
165	1.38	1.42	1.03	1.00																
170	1.60	1.62	1.16	1.15																
175	1.85	1.89	1.49	1.53																
180	1.87	1.86	1.83	1.85																

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
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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: