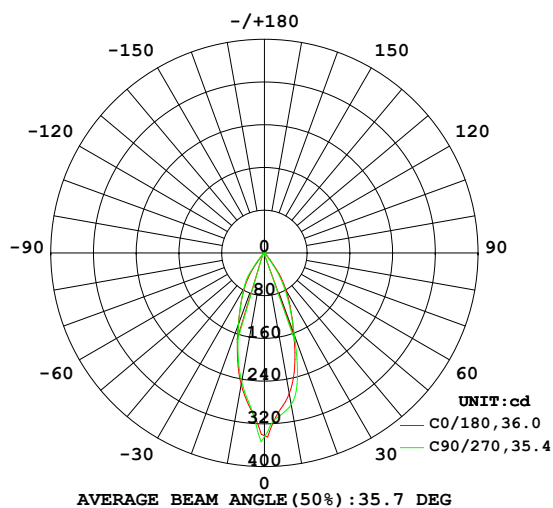


LUMINAIRE PHOTOMETRIC TEST REPORT

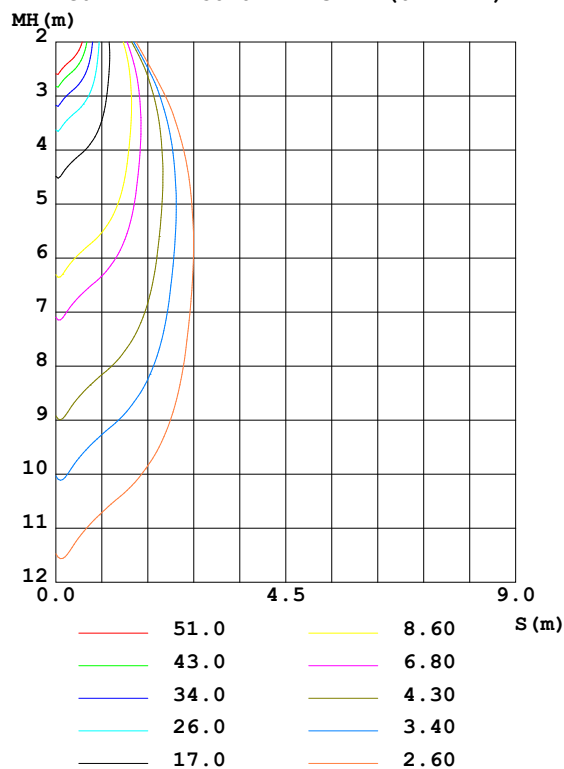
Test:U:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm					
NAME: 1231LED		TYPE:		WEIGHT:	
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700		DIM.:		SERIAL No.:	
MFR.: CETTIGA		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 50.00 lm/W
MODEL	OS 3030	I _{max} (cd)	353.6	S/MH (C0/180)	0.55	
NOMINAL POWER (W)	3W	LOR (%)	100.0	S/MH (C90/270)	0.54	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	166.94	η UP, DN (C0-180)	0.2, 51.3	
NOMINAL FLUX (lm)	166.939	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 48.5	
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.60	

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: 2020-04-07

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:

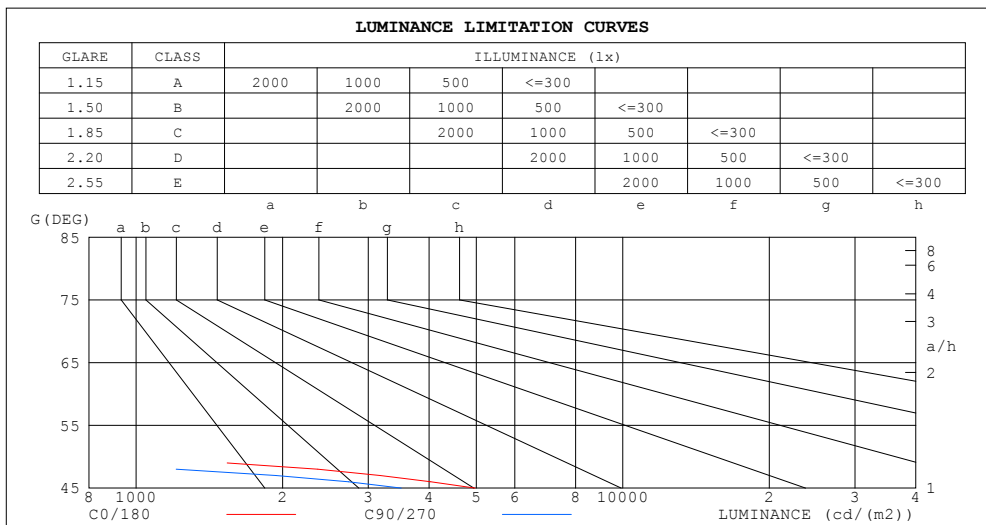
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	267.4	288.4	250.2	244.8					0- 10	27.47	27.47	16.5,16.5
20	160.9	164.4	143.1	141.7					10- 20	57.80	85.27	51.1,51.1
30	81.53	73.29	74.02	77.08					20- 30	50.31	135.6	81.2,81.2
40	12.76	8.354	14.15	21.34					30- 40	27.05	162.6	97.4,97.4
50	0.5012	0.0346	0.2824	0.8891					40- 50	3.814	166.4	99.7,99.7
60	0	0	0	0.0058					50- 60	0.0383	166.5	99.7,99.7
70	0	0	0	0					60- 70	0.0005	166.5	99.7,99.7
80	0	0	0	0					70- 80	0.0002	166.5	99.7,99.7
90	0	0	0	0					80- 90	0.0005	166.5	99.7,99.7
100	0	0	0	0.0000					90-100	0.0002	166.5	99.7,99.7
110	0	0	0	0					100-110	0.0000	166.5	99.7,99.7
120	0	0.0116	0	0					110-120	0.0003	166.5	99.7,99.7
130	0.0116	0.0638	0.0290	0					120-130	0.0090	166.5	99.7,99.7
140	0.1103	0.1568	0.0872	0.0232					130-140	0.0412	166.5	99.8,99.8
150	0.2697	0.2960	0.1916	0.1392					140-150	0.0971	166.6	99.8,99.8
160	0.4004	0.4586	0.3426	0.2878					150-160	0.1365	166.8	99.9,99.9
170	0.5658	0.5629	0.4933	0.4178					160-170	0.1244	166.9	100,100
180	0.5803	0.5919	0.5803	0.5919					170-180	0.0514	166.9	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:2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	0	0
65	0	0
60	0	0
55	20	0
50	780	54
45	4971	3506

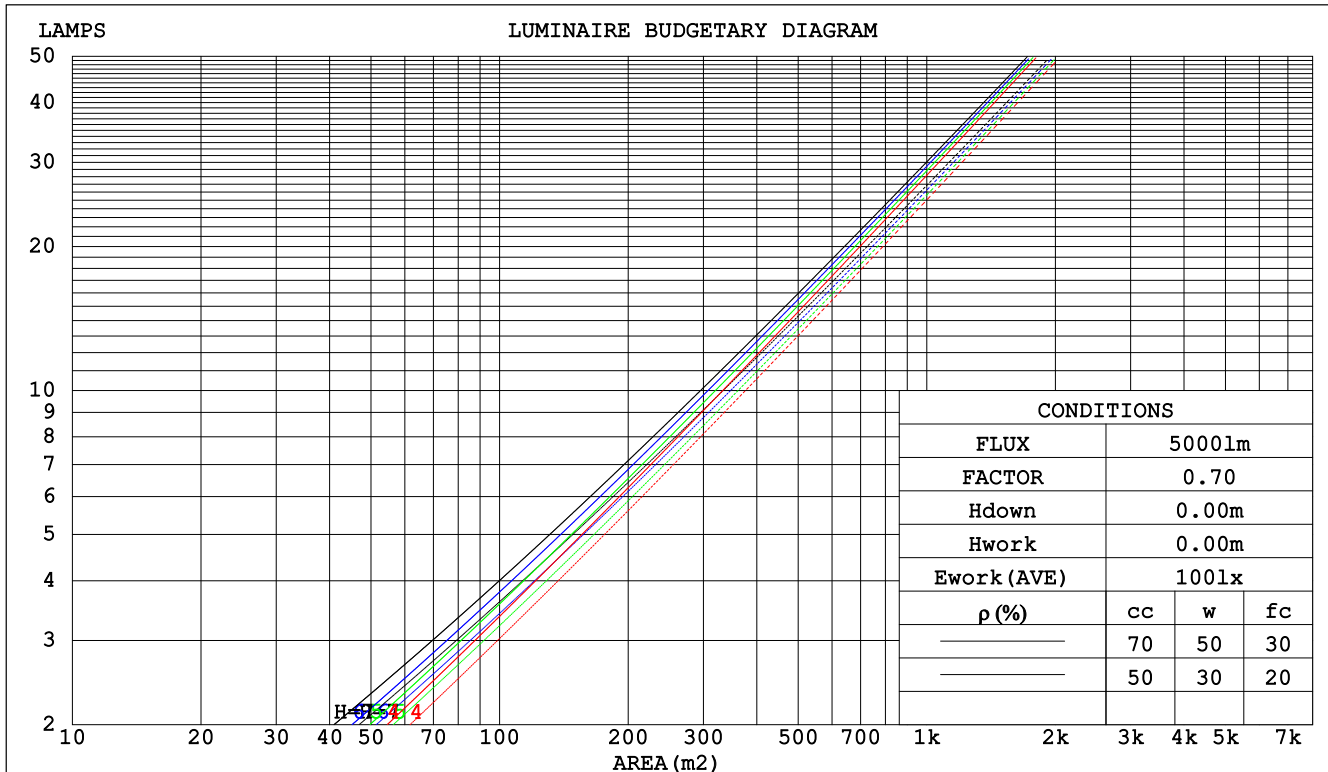
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	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						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	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.94
2.0	1.05	1.01	.98	1.03	.90	.97	.90	.97	.95	.97	.95	.93	.94	.92	.91	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.88	.92	.89	.87	.90	.88	.86	.84
4.0	.93	.88	.84	.92	.87	.84	.90	.86	.83	.88	.85	.82	.86	.83	.81	.80
5.0	.88	.83	.79	.87	.82	.79	.85	.81	.78	.84	.80	.77	.82	.79	.77	.75
6.0	.84	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.79	.74	.70	.79	.74	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
8.0	.75	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.64
9.0	.72	.67	.63	.71	.66	.63	.71	.66	.63	.70	.66	.63	.69	.65	.62	.61
10.0	.69	.63	.60	.68	.63	.60	.67	.63	.60	.67	.63	.60	.66	.62	.59	.58



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	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	.162	.092	.029	.155	.089	.028	.143	.082	.026	.131	.076	.024	.120	.070	.022		
2.0	.154	.084	.026	.148	.082	.025	.138	.077	.024	.128	.072	.022	.119	.067	.021		
3.0	.146	.078	.023	.141	.076	.023	.132	.072	.022	.124	.068	.021	.116	.064	.020		
4.0	.139	.072	.021	.135	.071	.021	.127	.067	.020	.120	.064	.019	.113	.062	.019		
5.0	.132	.067	.020	.129	.066	.019	.122	.064	.019	.116	.061	.018	.110	.059	.018		
6.0	.126	.063	.018	.123	.062	.018	.117	.060	.018	.112	.058	.017	.107	.056	.017		
7.0	.121	.060	.017	.118	.059	.017	.113	.057	.016	.108	.055	.016	.104	.054	.016		
8.0	.116	.057	.016	.113	.056	.016	.109	.054	.016	.105	.053	.015	.100	.052	.015		
9.0	.111	.054	.015	.109	.053	.015	.105	.052	.015	.101	.051	.014	.097	.049	.014		
10.0	.107	.051	.014	.105	.051	.014	.101	.050	.014	.098	.049	.014	.094	.047	.014		

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	.172	.160	.148	.147	.137	.128	.101	.094	.088	.058	.055	.051	.019	.018	.017	
2.0	.156	.135	.117	.134	.116	.101	.092	.080	.070	.053	.047	.041	.017	.015	.013	
3.0	.143	.116	.094	.122	.100	.081	.084	.069	.057	.049	.040	.034	.016	.013	.011	
4.0	.132	.101	.077	.113	.087	.067	.078	.061	.047	.045	.036	.028	.014	.012	.009	
5.0	.123	.089	.064	.105	.077	.056	.073	.054	.039	.042	.032	.023	.014	.010	.008	
6.0	.115	.079	.054	.099	.069	.047	.068	.048	.033	.040	.028	.020	.013	.009	.007	
7.0	.108	.072	.046	.093	.062	.040	.064	.044	.028	.037	.026	.017	.012	.008	.006	
8.0	.102	.065	.040	.088	.057	.035	.061	.040	.025	.035	.023	.015	.011	.008	.005	
9.0	.097	.060	.035	.084	.052	.030	.058	.037	.022	.034	.022	.013	.011	.007	.004	
10.0	.093	.055	.031	.080	.048	.027	.055	.034	.019	.032	.020	.011	.010	.007	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm											
NAME.: 1231LED						TYPE:			WEIGHT:		
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700						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	22.2	23.0	22.4	23.2	23.4	21.3	22.1	21.5	22.3	22.5	
	3H	22.0	22.8	22.3	23.0	23.2	21.1	21.9	21.4	22.1	22.3
	4H	21.9	22.7	22.2	22.9	23.1	21.0	21.8	21.3	22.0	22.2
	6H	21.9	22.5	22.2	22.8	23.0	20.9	21.6	21.2	21.9	22.1
	8H	21.8	22.5	22.1	22.7	23.0	20.9	21.6	21.2	21.8	22.1
	12H	21.8	22.4	22.1	22.7	22.9	20.8	21.5	21.2	21.8	22.0
4H	2H	21.9	22.7	22.2	22.9	23.1	21.0	21.8	21.3	22.0	22.2
	3H	21.8	22.4	22.1	22.7	22.9	20.8	21.5	21.2	21.8	22.0
	4H	21.7	22.2	22.0	22.5	22.9	20.8	21.3	21.1	21.6	21.9
	6H	21.6	22.1	21.9	22.4	22.8	20.7	21.2	21.0	21.5	21.8
	8H	21.5	22.0	21.9	22.3	22.7	20.6	21.1	21.0	21.4	21.8
	12H	21.5	21.9	21.9	22.3	22.7	20.5	21.0	21.0	21.4	21.7
8H	4H	21.5	22.0	21.9	22.3	22.7	20.6	21.1	21.0	21.4	21.8
	6H	21.4	21.8	21.8	22.2	22.6	20.5	20.9	20.9	21.3	21.7
	8H	21.4	21.7	21.8	22.1	22.6	20.4	20.8	20.9	21.2	21.6
	12H	21.3	21.6	21.8	22.0	22.5	20.4	20.7	20.9	21.1	21.6
12H	4H	21.5	21.9	21.9	22.3	22.7	20.5	21.0	21.0	21.4	21.7
	6H	21.4	21.7	21.8	22.1	22.6	20.4	20.8	20.9	21.2	21.6
	8H	21.3	21.6	21.8	22.0	22.5	20.4	20.7	20.9	21.1	21.6
Variations with the observer position at spacings:											
S = 1.0H	+ 4.9 / -45.1					+ 4.1 / -51.1					
1.5H	+ 7.5 / -47.8					+ 6.8 / -84.0					
2.0H	+ 8.7 / - 1.\$					+ 8.4 / - 1.\$					

CIE Pub.117, 166.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.2)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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:

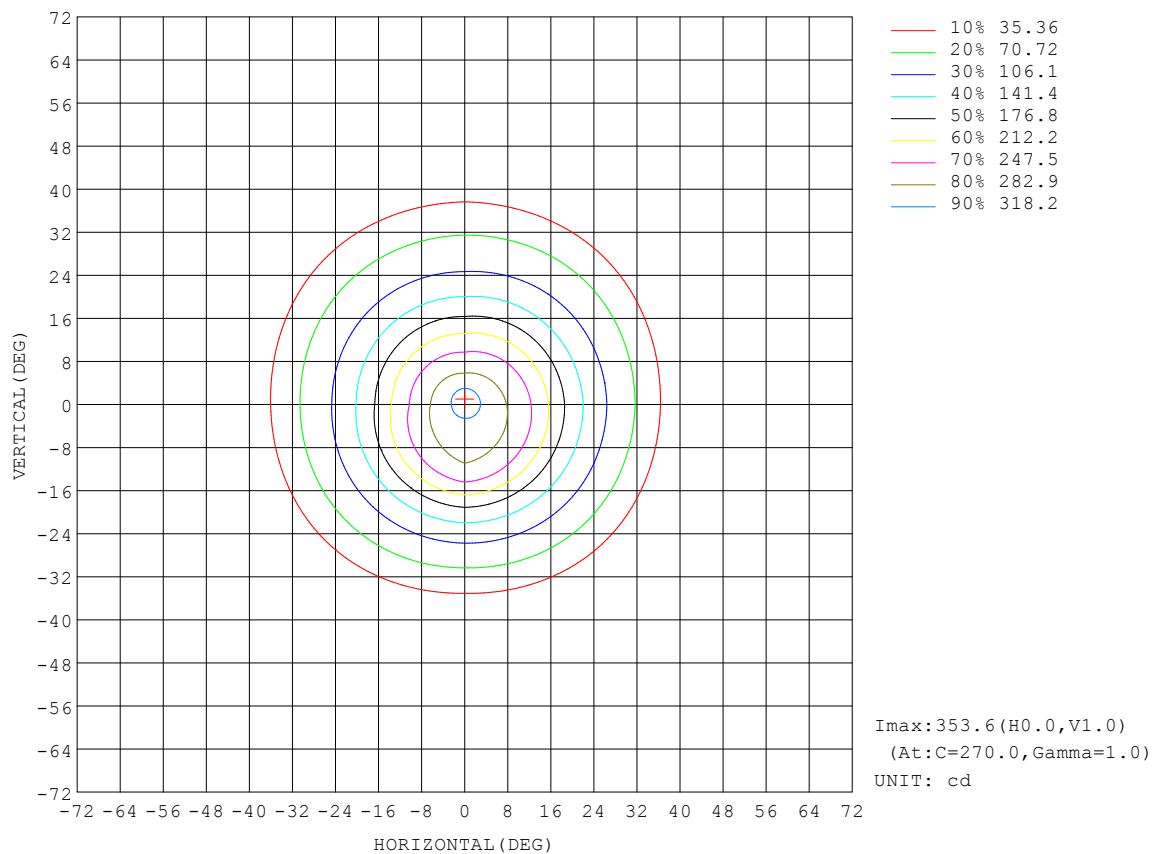
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks:

```

ISOCANDELA DIAGRAM

Test:U:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



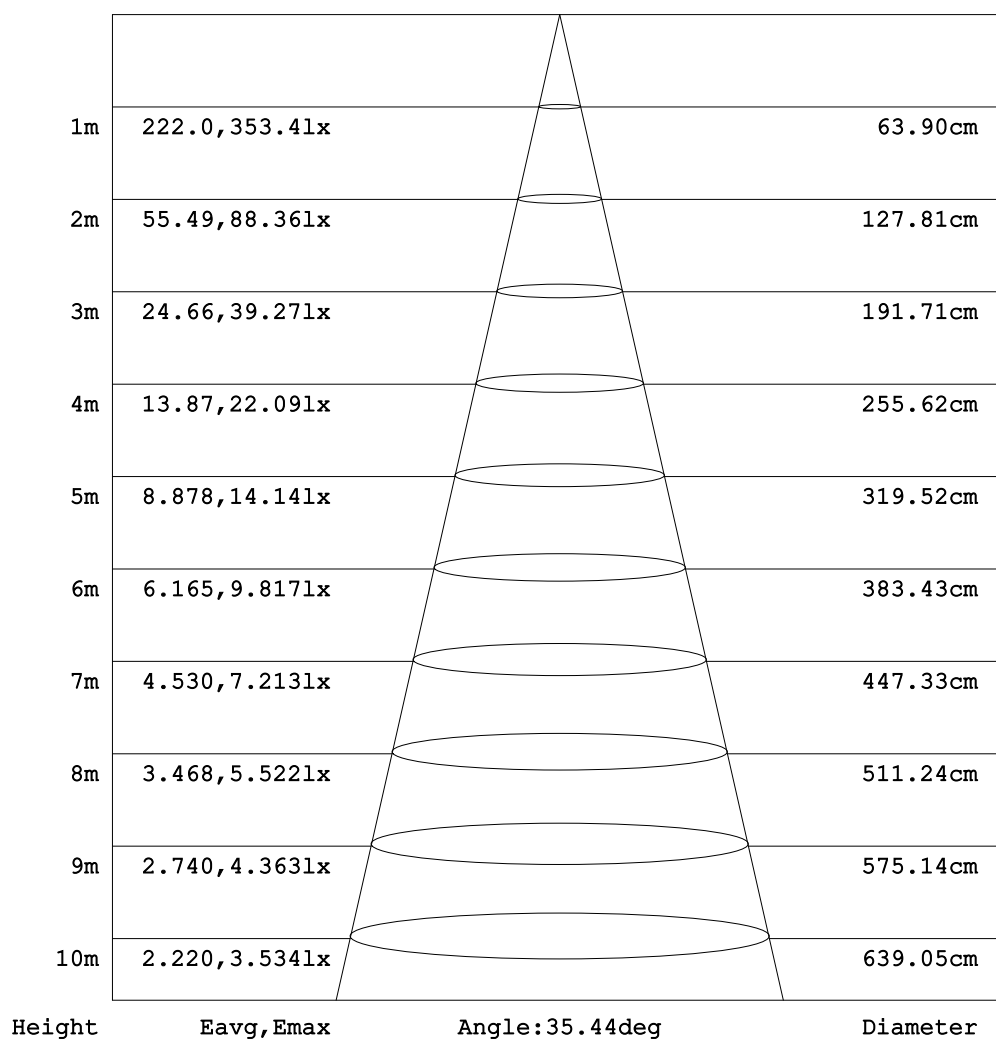
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Flux out:73.62 lm



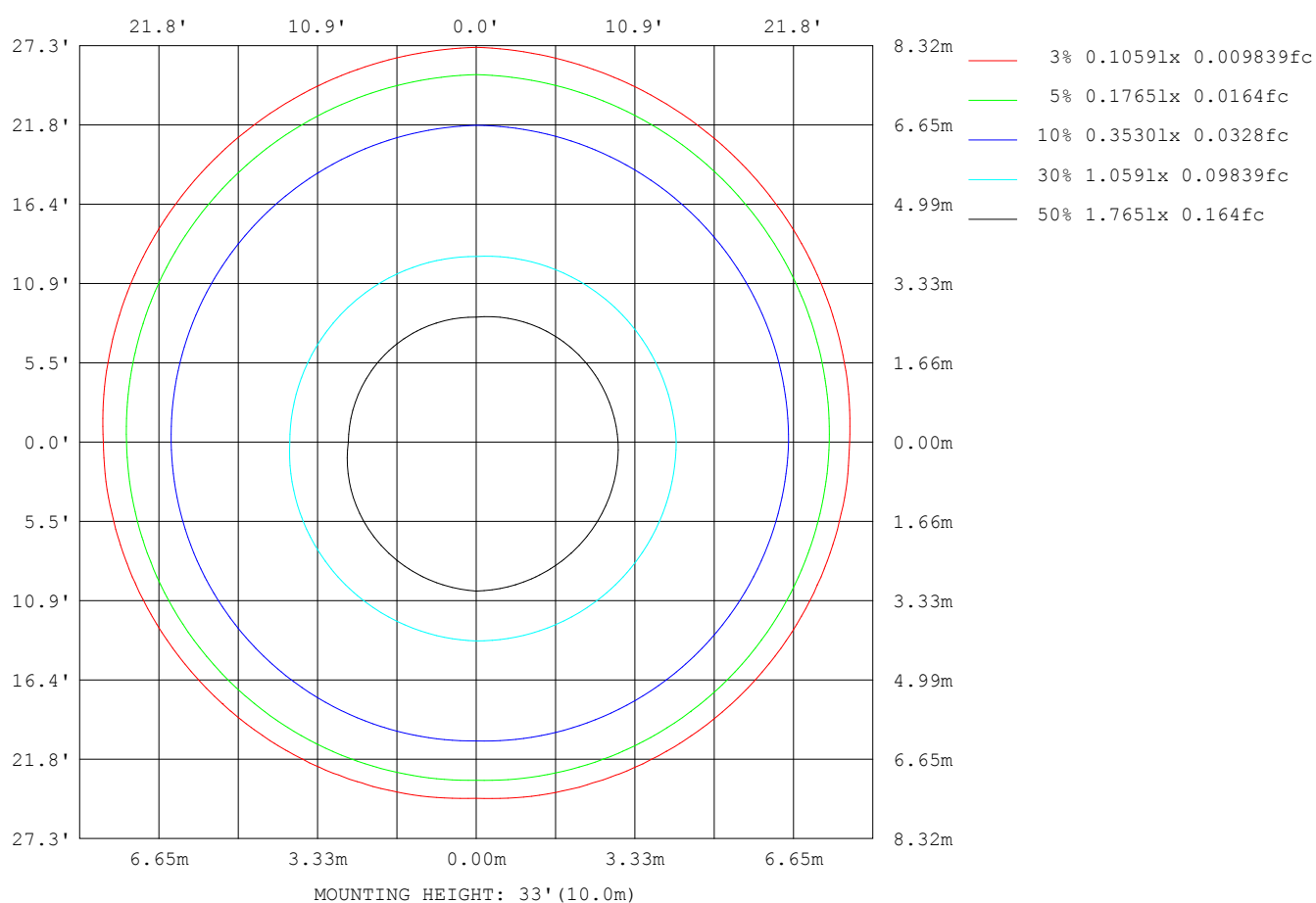
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	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: 2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

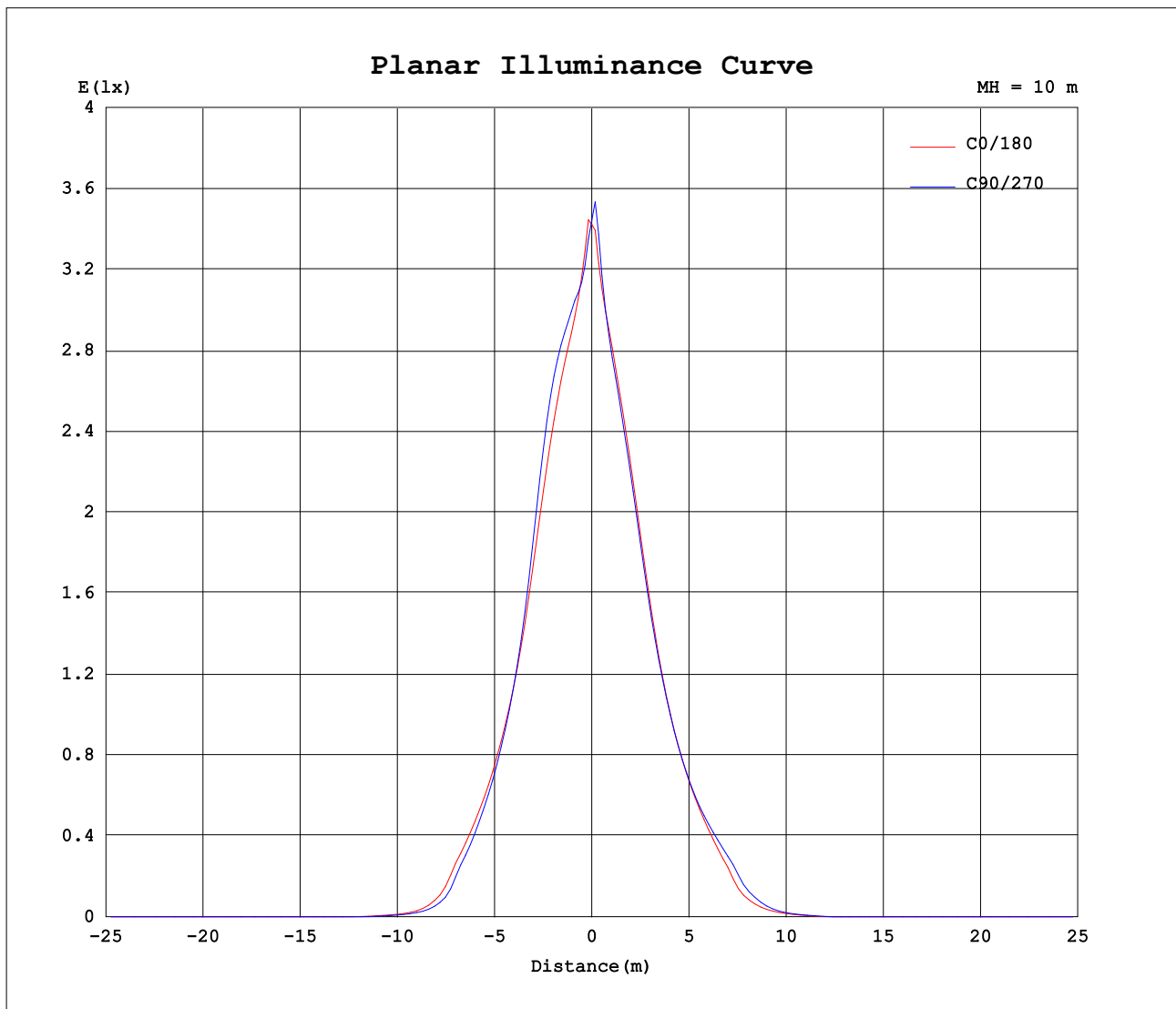
AvgL	cd/m2
L_0~180 (65) av	0
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	0
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	0
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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: 2020-04-07

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:220.7V I:0.0342A P:3.339W PF:0.4421 Freq:59.98Hz Lamp Flux:166.939x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W3034-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	342	344	342	344															
5	300	308	294	291															
10	267	288	250	245															
15	219	240	196	192															
20	161	164	143	142															
25	117	113	104	104															
30	81.5	73.3	74.0	77.1															
35	48.4	36.1	44.4	54.4															
40	12.8	8.35	14.2	21.3															
45	3.52	2.48	4.55	5.78															
50	0.50	0.03	0.28	0.89															
55	0.01	0.00	0.00	0.01															
60	0.00	0.00	0.00	0.01															
65	0.00	0.00	0.00	0.00															
70	0.00	0.00	0.00	0.00															
75	0.00	0.00	0.00	0.00															
80	0.00	0.00	0.00	0.00															
85	0.00	0.00	0.00	0.00															
90	0.00	0.00	0.00	0.00															
95	0.00	0.00	0.00	0.00															
100	0.00	0.00	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.00	0.00	0.00															
115	0.00	0.00	0.00	0.00															
120	0.00	0.01	0.00	0.00															
125	0.00	0.02	0.01	0.00															
130	0.01	0.06	0.03	0.00															
135	0.03	0.10	0.06	0.01															
140	0.11	0.16	0.09	0.02															
145	0.23	0.22	0.13	0.09															
150	0.27	0.30	0.19	0.14															
155	0.31	0.38	0.27	0.21															
160	0.40	0.46	0.34	0.29															
165	0.48	0.53	0.42	0.36															
170	0.57	0.56	0.49	0.42															
175	0.58	0.58	0.55	0.48															
180	0.58	0.59	0.58	0.59															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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: