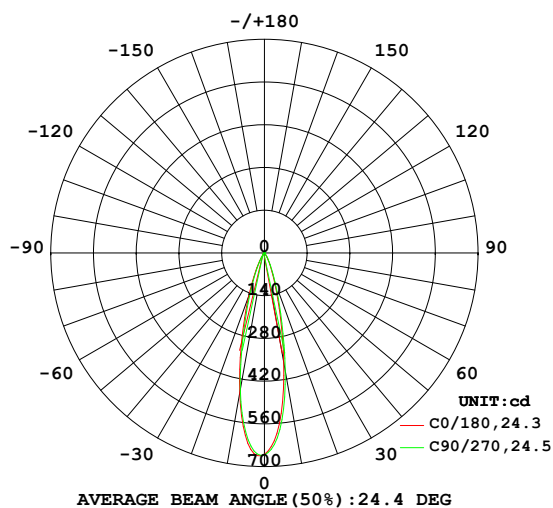


LUMINAIRE PHOTOMETRIC TEST REPORT

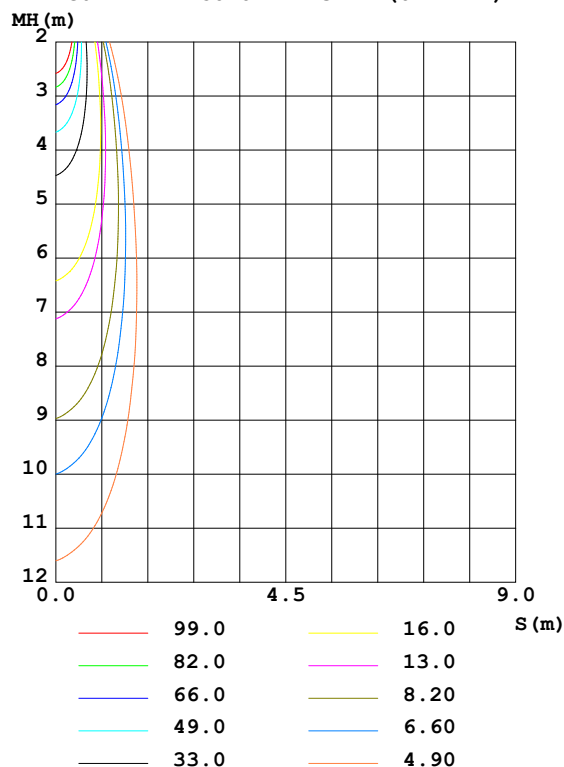
Test:U:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm					
NAME: 1231LED		TYPE:		WEIGHT:	
SPEC.:P-1231LED-3W2724-OS7003R90-LDY700		DIM.:		SERIAL No.:	
MFR.: CETTIGA		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 45.95 lm/W
MODEL	OS 3030	I _{max} (cd)	664.9	S/MH (C0/180)	0.46	
NOMINAL POWER (W)	3W	LOR (%)	100.0	S/MH (C90/270)	0.44	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	152.88	η UP, DN (C0-180)	0.2, 43.2	
NOMINAL FLUX (lm)	152.88	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 56.5	
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	

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:

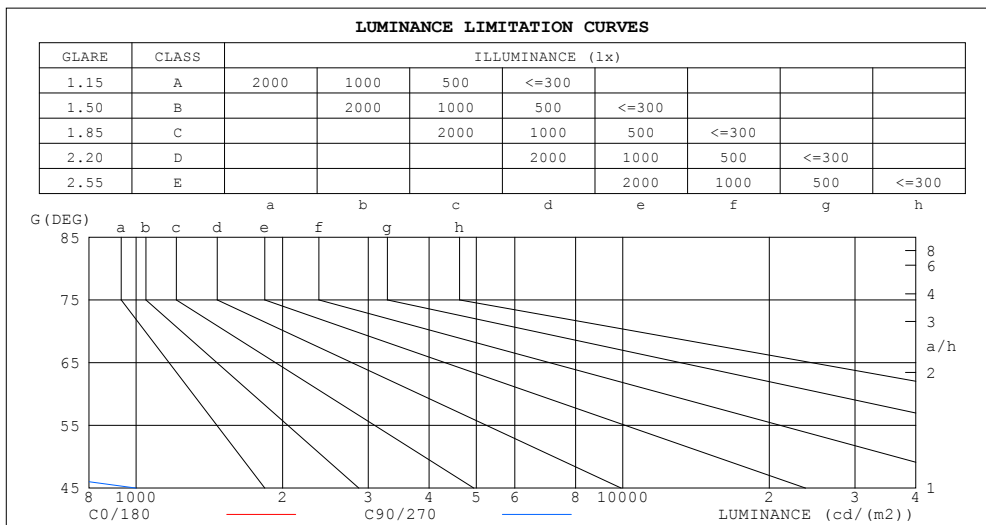
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	364.0	393.4	465.8	455.8					0- 10	51.10	51.10	33.4,33.4
20	89.52	100.7	150.4	131.2					10- 20	65.25	116.4	76.1,76.1
30	19.54	22.67	34.54	30.79					20- 30	27.58	143.9	94.2,94.2
40	1.734	1.856	4.656	4.354					30- 40	7.434	151.4	99,99
50	0.0294	0.0519	0.5727	0.5980					40- 50	1.009	152.4	99.7,99.7
60	0	0	0	0					50- 60	0.0424	152.4	99.7,99.7
70	0	0	0	0					60- 70	0.0001	152.4	99.7,99.7
80	0	0	0	0					70- 80	0	152.4	99.7,99.7
90	0	0.0059	0	0					80- 90	0.0007	152.4	99.7,99.7
100	0	0.0058	0	0					90-100	0.0014	152.4	99.7,99.7
110	0	0.0000	0	0					100-110	0.0007	152.4	99.7,99.7
120	0	0.0001	0	0					110-120	0.0001	152.4	99.7,99.7
130	0	0.0232	0.0058	0					120-130	0.0025	152.4	99.7,99.7
140	0.0405	0.0814	0.0349	0.0058					130-140	0.0119	152.4	99.7,99.7
150	0.2840	0.3076	0.1161	0.0869					140-150	0.0634	152.5	99.8,99.8
160	0.5977	0.6502	0.3658	0.3076					150-160	0.1504	152.7	99.9,99.9
170	0.6758	0.7658	0.5920	0.5745					160-170	0.1634	152.8	100,100
180	0.6616	0.6790	0.6558	0.6674					170-180	0.0625	152.9	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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	0	66
80	0	0
75	0	0
70	0	0
65	0	0
60	0	0
55	0	0
50	46	81
45	946	999

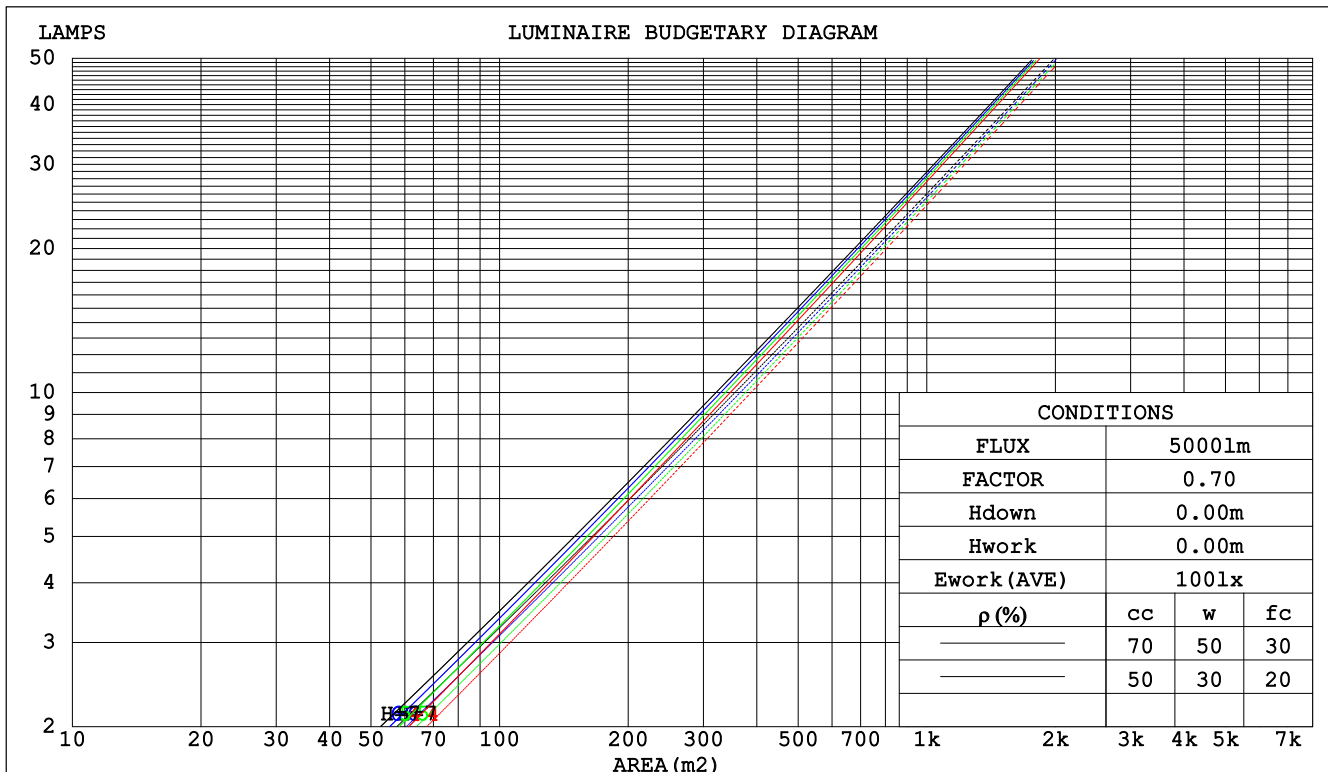
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2020-04-07

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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-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	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.02	1.06	1.03	1.01	1.03	1.00	.98	.00	.98	.96	.97	.96	.94	.93
3.0	1.03	.99	.96	1.01	.98	.95	.99	.96	.94	.96	.94	.92	.94	.92	.91	.90
4.0	.98	.94	.91	.97	.94	.91	.95	.92	.90	.94	.91	.89	.92	.90	.88	.87
5.0	.95	.91	.87	.94	.90	.87	.92	.89	.86	.91	.88	.86	.89	.87	.85	.84
6.0	.91	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.83	.87	.84	.82	.81
7.0	.88	.84	.81	.88	.84	.81	.86	.83	.80	.85	.82	.80	.84	.82	.80	.79
8.0	.85	.81	.78	.85	.81	.78	.84	.80	.78	.83	.80	.77	.82	.79	.77	.76
9.0	.83	.79	.76	.82	.78	.76	.81	.78	.75	.81	.77	.75	.80	.77	.75	.74
10.0	.80	.76	.73	.80	.76	.73	.79	.76	.73	.79	.75	.73	.78	.75	.73	.72



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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm					
NAME: 1231LED			TYPE:		WEIGHT:
SPEC.:P-1231LED-3W2724-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	.139	.079	.025	.132	.075	.024	.119	.068	.022	.108	.062	.020	.097	.056	.018		
2.0	.129	.071	.022	.123	.068	.021	.113	.063	.019	.103	.058	.018	.094	.053	.017		
3.0	.120	.064	.019	.116	.062	.019	.107	.058	.018	.099	.054	.017	.092	.051	.016		
4.0	.113	.059	.017	.109	.057	.017	.102	.054	.016	.095	.051	.015	.089	.048	.015		
5.0	.107	.054	.016	.103	.053	.015	.097	.051	.015	.091	.048	.014	.086	.046	.014		
6.0	.101	.051	.015	.098	.050	.014	.093	.048	.014	.088	.046	.013	.083	.044	.013		
7.0	.096	.048	.013	.094	.047	.013	.089	.045	.013	.085	.043	.013	.080	.042	.012		
8.0	.092	.045	.013	.090	.044	.012	.085	.043	.012	.082	.041	.012	.078	.040	.012		
9.0	.088	.043	.012	.086	.042	.012	.082	.041	.012	.079	.039	.011	.076	.038	.011		
10.0	.084	.040	.011	.083	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011		

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	.171	.160	.150	.146	.137	.129	.100	.094	.089	.058	.055	.052	.018	.018	.017	
2.0	.153	.135	.120	.131	.116	.104	.090	.080	.072	.052	.047	.042	.017	.015	.014	
3.0	.138	.116	.098	.118	.100	.085	.081	.069	.059	.047	.040	.035	.015	.013	.011	
4.0	.126	.100	.081	.108	.087	.070	.074	.060	.050	.043	.035	.029	.014	.012	.010	
5.0	.115	.088	.068	.099	.076	.059	.068	.053	.042	.039	.031	.025	.013	.010	.008	
6.0	.106	.078	.058	.092	.068	.050	.063	.047	.036	.037	.028	.021	.012	.009	.007	
7.0	.099	.070	.050	.085	.061	.043	.059	.043	.031	.034	.025	.018	.011	.008	.006	
8.0	.093	.063	.043	.080	.055	.038	.055	.038	.027	.032	.023	.016	.010	.007	.005	
9.0	.087	.058	.038	.075	.050	.033	.052	.035	.023	.030	.021	.014	.010	.007	.005	
10.0	.082	.053	.033	.071	.046	.029	.049	.032	.021	.029	.019	.012	.009	.006	.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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm										
NAME.: 1231LED					TYPE:			WEIGHT:		
SPEC.:P-1231LED-3W2724-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	11.4	12.1	11.6	12.2	12.4	12.3	13.0	12.5	13.1	13.3
	3H	11.3	11.9	11.5	12.1	12.3	12.2	12.8	12.4	13.0
	4H	11.2	11.8	11.5	12.0	12.2	12.1	12.7	12.4	12.9
	6H	11.1	11.7	11.4	11.9	12.1	12.0	12.6	12.3	12.8
	8H	11.1	11.6	11.4	11.9	12.1	12.0	12.5	12.3	12.7
	12H	11.0	11.5	11.3	11.8	12.1	11.9	12.4	12.2	12.7
4H	2H	11.2	11.8	11.5	12.0	12.2	12.1	12.7	12.4	12.9
	3H	11.0	11.5	11.3	11.8	12.1	11.9	12.4	12.2	12.7
	4H	10.9	11.4	11.3	11.7	12.0	11.8	12.3	12.2	12.6
	6H	10.8	11.2	11.2	11.6	11.9	11.7	12.1	12.1	12.5
	8H	10.8	11.2	11.2	11.5	11.9	11.7	12.1	12.1	12.4
	12H	10.7	11.1	11.1	11.4	11.8	11.6	12.0	12.0	12.3
8H	4H	10.8	11.2	11.2	11.5	11.9	11.7	12.1	12.1	12.4
	6H	10.7	11.0	11.1	11.4	11.8	11.5	11.9	12.0	12.3
	8H	10.6	10.9	11.0	11.3	11.7	11.5	11.8	11.9	12.2
	12H	10.5	10.8	11.0	11.2	11.7	11.4	11.7	11.9	12.1
12H	4H	10.7	11.1	11.1	11.4	11.8	11.6	12.0	12.0	12.3
	6H	10.6	10.9	11.0	11.3	11.7	11.5	11.8	11.9	12.2
	8H	10.5	10.8	11.0	11.2	11.7	11.4	11.7	11.9	12.1
Variations with the observer position at spacings:										
S = 1.0H	+ 4.5 / -32.7					+ 4.6 / -26.0				
1.5H	+ 7.0 / -33.1					+ 7.3 / -32.6				
2.0H	+ 8.5 / - 1.\$					+ 8.5 / - 1.\$				

CIE Pub.117, 152.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.5)

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:

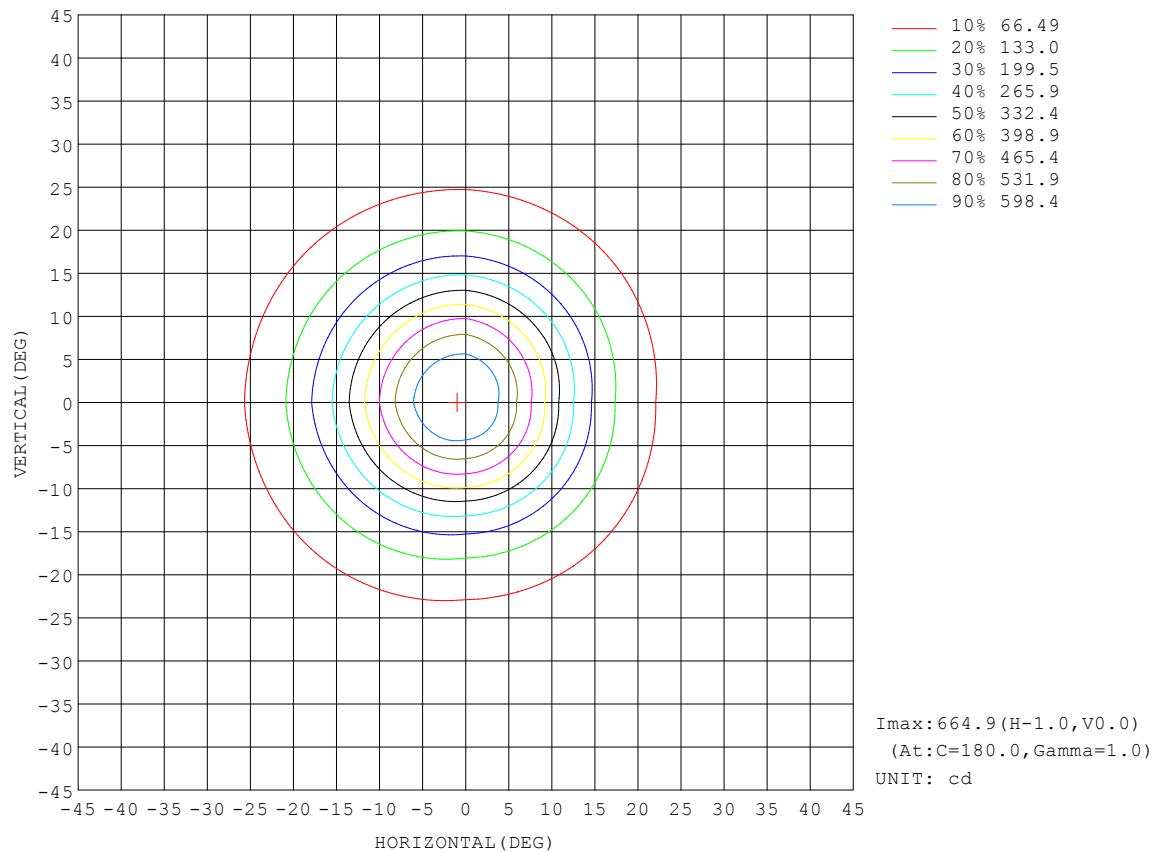
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.900m [K=1.0000]
Remarks:

```

ISOCANDELA DIAGRAM

Test:U:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



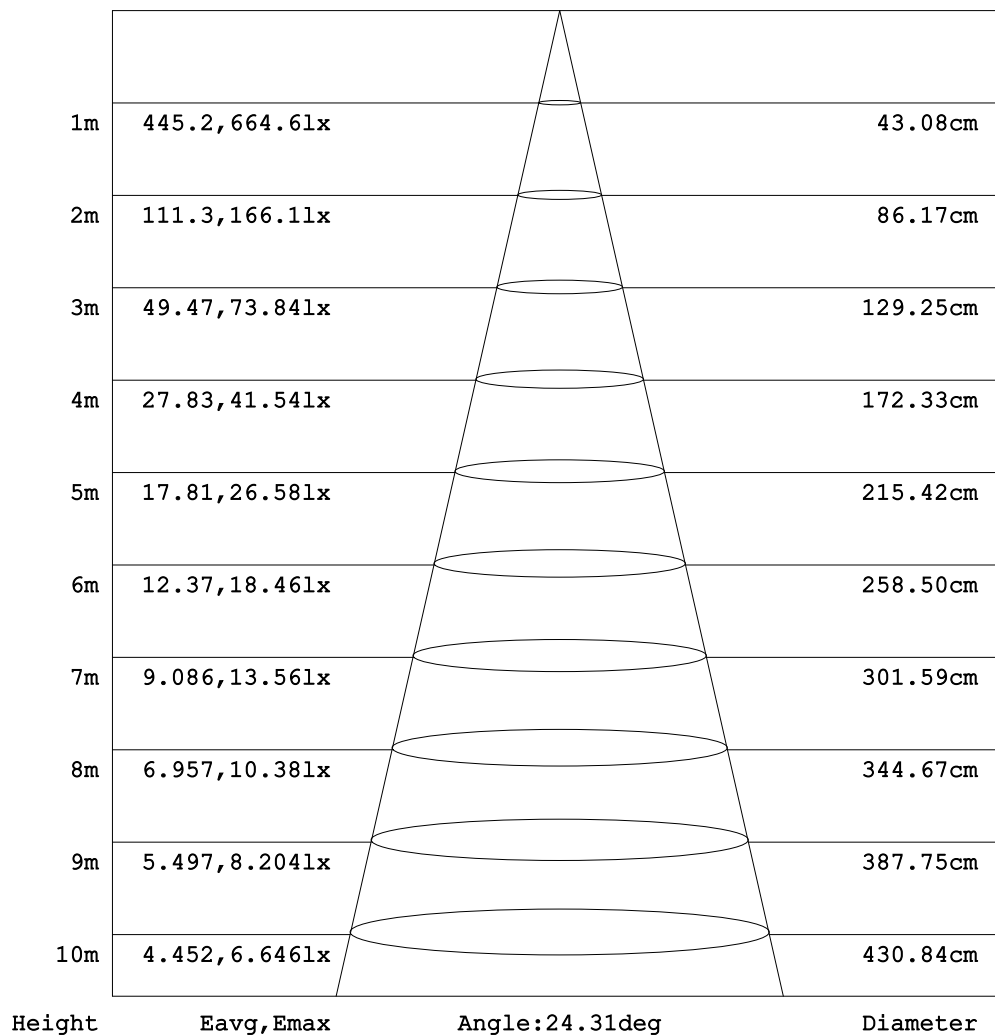
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2020-04-07

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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Flux out:74.55 lm



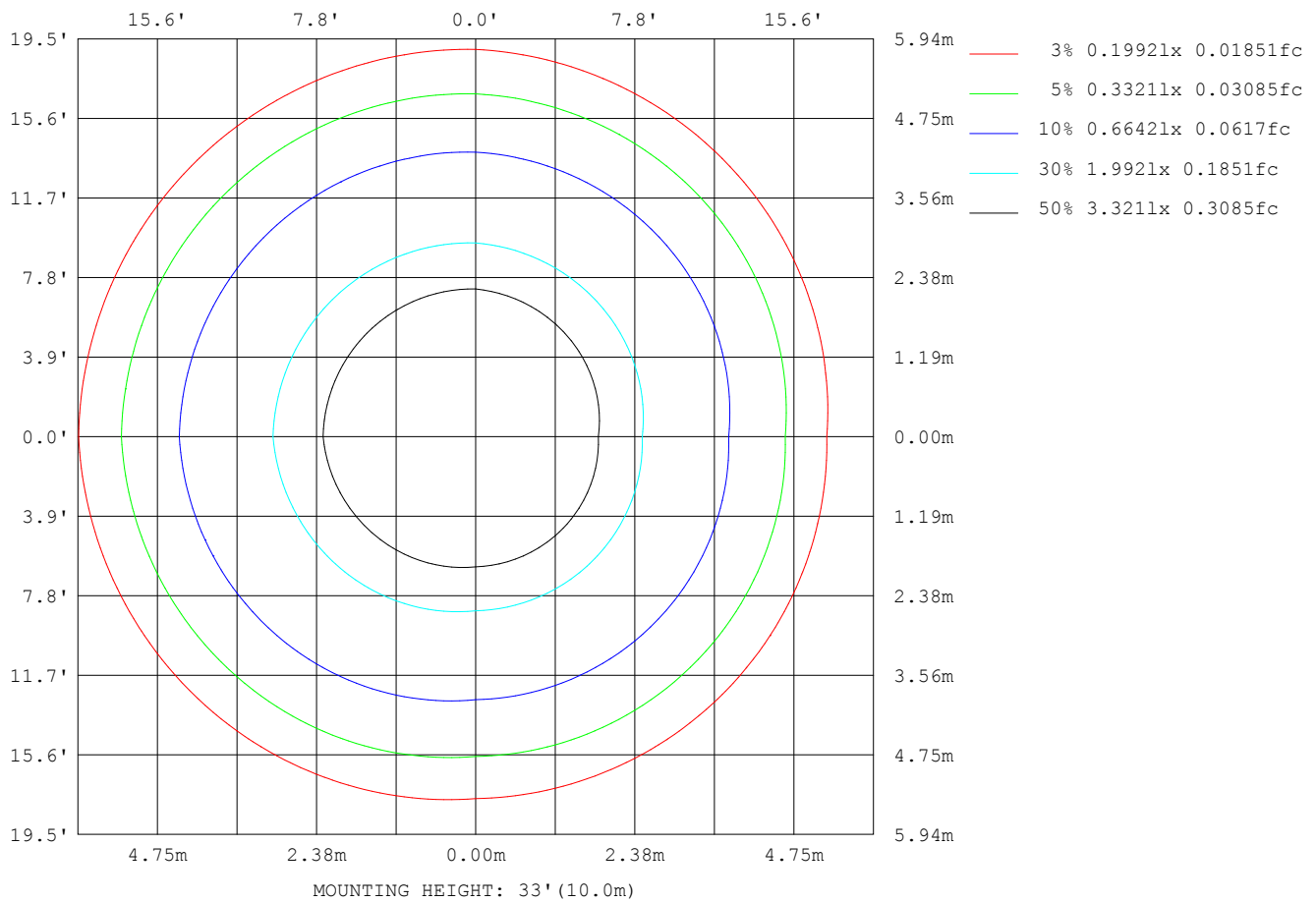
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

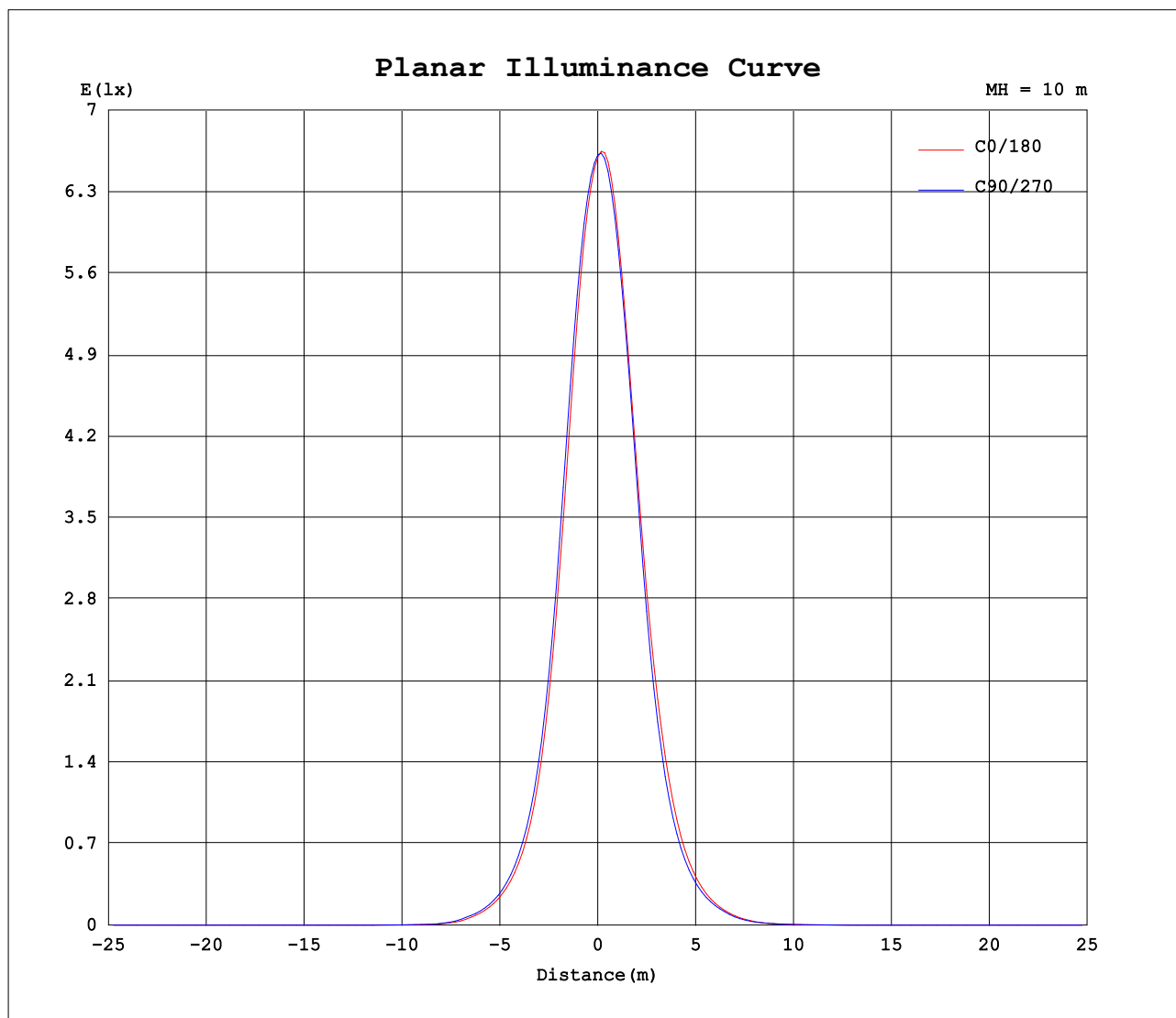
AvgL	cd/m2
L_0~180 (65) av	0
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	0
L_90~270 (75) av	0
L_90~270 (85) av	33
L_45 (65) av	0
L_45 (75) av	0
L_45 (85) av	22

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:220.6V I:0.0341A P:3.327W PF:0.4416 Freq:59.98Hz Lamp Flux:152.88x1 lm		
NAME: 1231LED	TYPE:	WEIGHT:
SPEC.:P-1231LED-3W2724-OS7003R90-LDY700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	660	662	660	662															
5	562	581	626	614															
10	364	393	466	456															
15	188	207	282	260															
20	89.5	101	150	131															
25	43.0	48.8	73.2	63.7															
30	19.5	22.7	34.5	30.8															
35	6.63	9.04	14.7	12.9															
40	1.73	1.86	4.66	4.35															
45	0.67	0.71	1.52	1.66															
50	0.03	0.05	0.57	0.60															
55	0.00	0.00	0.00	0.01															
60	0.00	0.00	0.00	0.00															
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	0.01	0.00	0.00															
90	0.00	0.01	0.00	0.00															
95	0.00	0.01	0.00	0.00															
100	0.00	0.01	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	0.00	0.00	0.00															
125	0.00	0.02	0.00	0.00															
130	0.00	0.02	0.01	0.00															
135	0.01	0.03	0.01	0.00															
140	0.04	0.08	0.03	0.01															
145	0.14	0.17	0.06	0.01															
150	0.28	0.31	0.12	0.09															
155	0.45	0.49	0.21	0.20															
160	0.60	0.65	0.37	0.31															
165	0.67	0.74	0.50	0.47															
170	0.68	0.77	0.59	0.57															
175	0.68	0.71	0.63	0.60															
180	0.66	0.68	0.66	0.67															

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: