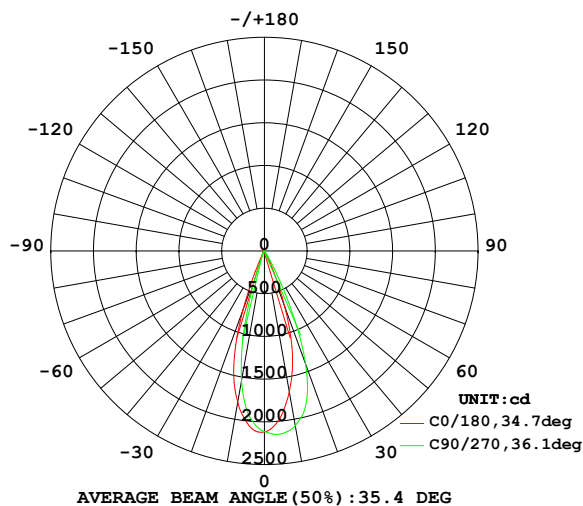


LUMINAIRE PHOTOMETRIC TEST REPORT

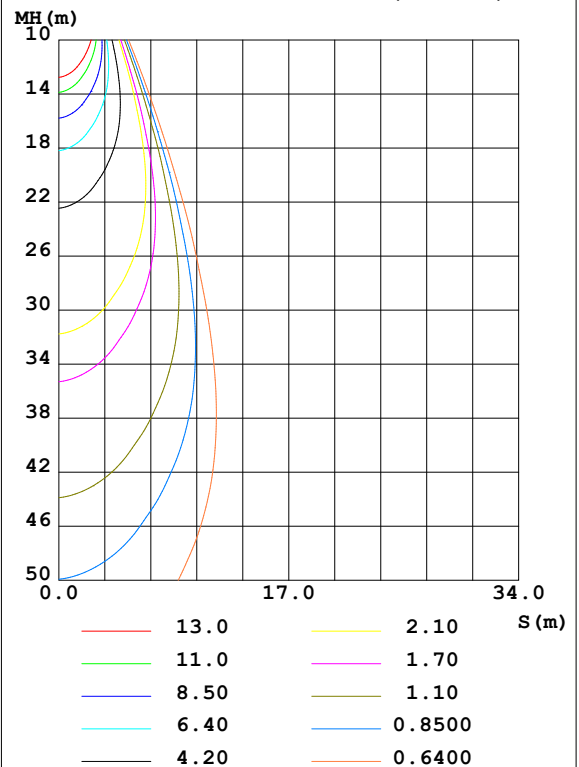
Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.: P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 62.42 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	2152	S/MH (C0/180)	0.53
NOMINAL POWER (W)	10W	LOR (%)	100.0	S/MH (C90/270)	0.43
RATED VOLTAGE (V)		TOTAL FLUX (lm)	702.68	η UP, DN (C0-180)	0.2, 60.4
NOMINAL FLUX (lm)	702.676	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 39.3
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.55

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: 2023-10-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	1676	2078	1799	1543					0- 10	185.8	185.8	26.4, 26.4
20	699.6	1409	734.6	246.1					10- 20	359.4	545.2	77.6, 77.6
30	34.34	171.0	25.91	10.18					20- 30	142.0	687.2	97.8, 97.8
40	3.758	7.745	2.918	1.925					30- 40	10.99	698.2	99.4, 99.4
50	1.158	1.210	0.8817	0.8023					40- 50	1.467	699.6	99.6, 99.6
60	0.5322	0.4865	0.3626	0.2809					50- 60	0.6069	700.3	99.7, 99.7
70	0.1971	0.0677	0.1184	0.0122					60- 70	0.2335	700.5	99.7, 99.7
80	0.0315	0	0.0017	0					70- 80	0.0453	700.5	99.7, 99.7
90	0	0	0	0					80- 90	0.0010	700.5	99.7, 99.7
100	0	0	0	0					90-100	0	700.5	99.7, 99.7
110	0	0	0	0					100-110	0	700.5	99.7, 99.7
120	0	0	0	0					110-120	0	700.5	99.7, 99.7
130	0	0	0.0052	0.0087					120-130	0.0004	700.5	99.7, 99.7
140	0.2770	0.0734	0.0927	0.2842					130-140	0.0404	700.6	99.7, 99.7
150	1.366	0.8232	0.6700	1.248					140-150	0.3314	700.9	99.7, 99.7
160	2.626	2.143	1.694	2.267					150-160	0.7313	701.6	99.9, 99.9
170	3.320	3.097	2.581	2.971					160-170	0.7284	702.4	100, 100
180	3.495	3.786	3.496	3.781					170-180	0.3102	702.7	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

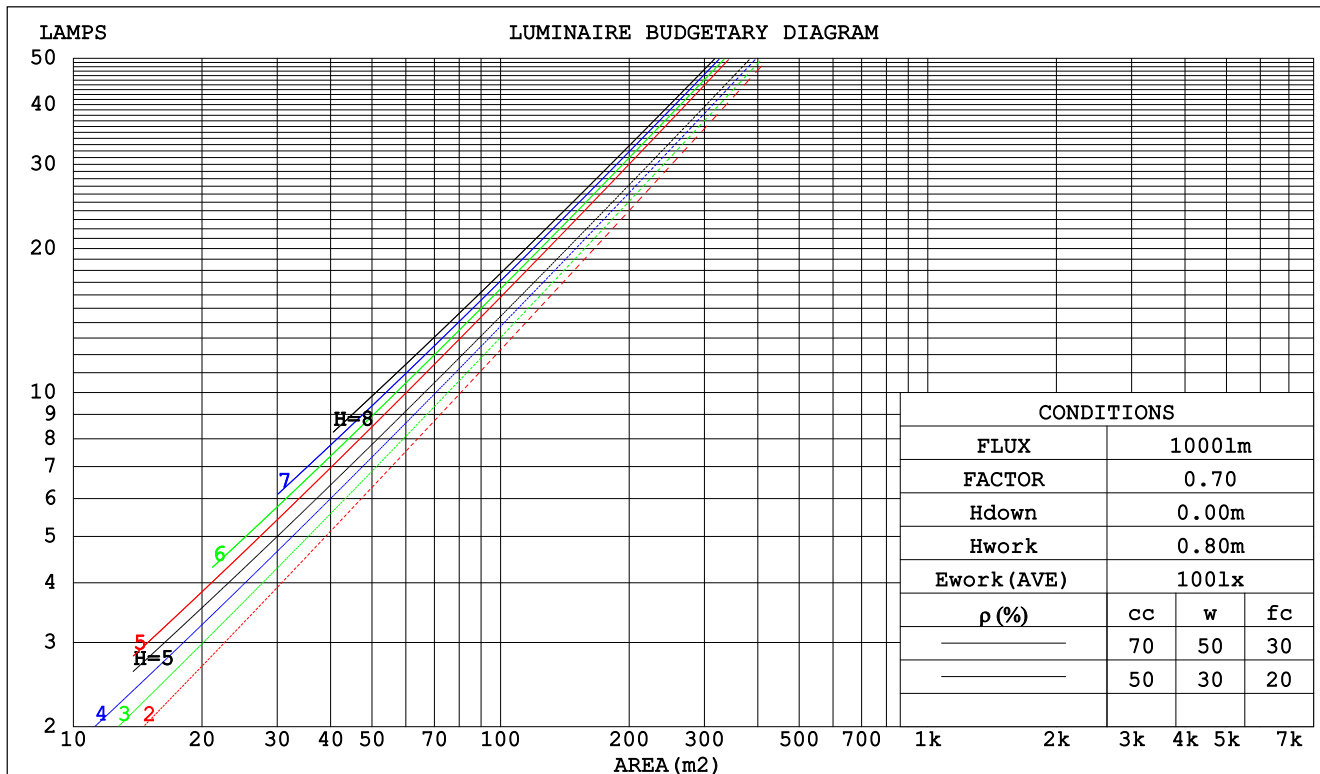
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION 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	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.02	1.05	1.03	1.00	1.02	1.00	.98	.99	.98	.96	.97	.95	.94	.93
3.0	1.02	.99	.96	1.01	.98	.95	.99	.96	.93	.96	.94	.92	.94	.92	.91	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.91	.88	.91	.89	.87	.86
5.0	.94	.90	.87	.93	.89	.87	.92	.88	.86	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.86	.83	.90	.86	.83	.89	.85	.83	.87	.84	.82	.86	.84	.81	.80
7.0	.88	.83	.80	.87	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.78
8.0	.85	.80	.77	.84	.80	.77	.83	.79	.77	.82	.79	.77	.81	.78	.76	.75
9.0	.82	.78	.75	.81	.77	.75	.81	.77	.74	.80	.76	.74	.79	.76	.74	.73
10.0	.79	.75	.72	.79	.75	.72	.78	.75	.72	.77	.74	.72	.77	.74	.72	.71



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION 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	.140	.080	.025	.134	.076	.024	.121	.069	.022	.110	.063	.020	.099	.057	.018		
2.0	.130	.071	.022	.125	.069	.021	.114	.064	.020	.105	.059	.018	.096	.054	.017		
3.0	.122	.065	.019	.117	.063	.019	.108	.059	.018	.100	.055	.017	.093	.051	.016		
4.0	.115	.060	.018	.111	.058	.017	.103	.055	.016	.096	.052	.016	.090	.049	.015		
5.0	.108	.055	.016	.105	.054	.016	.099	.051	.015	.093	.049	.015	.087	.047	.014		
6.0	.103	.052	.015	.100	.050	.015	.094	.048	.014	.089	.046	.014	.085	.045	.013		
7.0	.098	.048	.014	.095	.048	.014	.091	.046	.013	.086	.044	.013	.082	.043	.013		
8.0	.094	.046	.013	.091	.045	.013	.087	.044	.012	.083	.042	.012	.080	.041	.012		
9.0	.090	.043	.012	.088	.043	.012	.084	.042	.012	.081	.040	.012	.077	.039	.011		
10.0	.086	.041	.011	.085	.041	.011	.081	.040	.011	.078	.039	.011	.075	.038	.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	.119	.100	.085	.081	.069	.059	.047	.040	.035	.015	.013	.011	
4.0	.126	.100	.081	.108	.087	.070	.074	.060	.049	.043	.035	.029	.014	.012	.010	
5.0	.116	.088	.068	.099	.076	.059	.068	.053	.042	.040	.031	.025	.013	.010	.008	
6.0	.107	.078	.057	.092	.068	.050	.064	.047	.035	.037	.028	.021	.012	.009	.007	
7.0	.100	.070	.049	.086	.061	.043	.059	.043	.030	.034	.025	.018	.011	.008	.006	
8.0	.093	.063	.043	.080	.055	.037	.056	.039	.026	.032	.023	.016	.010	.007	.005	
9.0	.088	.058	.038	.076	.050	.033	.052	.035	.023	.031	.021	.014	.010	.007	.005	
10.0	.083	.053	.033	.072	.046	.029	.050	.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:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm											
NAME: 1867LED-X						TYPE:			WEIGHT:		
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700						DIM.:			SERIAL No.:		
MFR.: CETTIGA						SUR.:			PROTECTION 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		6.3	7.0	6.5	7.1	7.3	11.5	12.1	11.7	12.3	12.4
	3H	6.2	6.8	6.4	7.0	7.2	11.3	11.9	11.6	12.1	12.3
	4H	6.1	6.7	6.4	6.9	7.1	11.2	11.8	11.5	12.0	12.3
	6H	6.0	6.6	6.3	6.8	7.1	11.1	11.7	11.4	11.9	12.2
	8H	6.0	6.5	6.3	6.8	7.0	11.1	11.6	11.4	11.9	12.1
	12H	5.9	6.5	6.3	6.7	7.0	11.1	11.6	11.4	11.8	12.1
4H	2H	6.1	6.7	6.4	6.9	7.1	11.2	11.8	11.5	12.0	12.3
	3H	6.0	6.5	6.3	6.8	7.0	11.1	11.6	11.4	11.9	12.1
	4H	5.9	6.4	6.3	6.7	7.0	11.0	11.4	11.3	11.7	12.0
	6H	5.8	6.2	6.2	6.6	6.9	10.9	11.3	11.2	11.6	12.0
	8H	5.8	6.2	6.2	6.5	6.9	10.8	11.2	11.2	11.6	11.9
	12H	5.7	6.1	6.1	6.4	6.8	10.8	11.1	11.2	11.5	11.9
8H	4H	5.8	6.2	6.1	6.5	6.9	10.8	11.2	11.2	11.6	11.9
	6H	5.7	6.0	6.1	6.4	6.8	10.7	11.0	11.1	11.4	11.8
	8H	5.6	5.9	6.0	6.3	6.7	10.6	10.9	11.1	11.3	11.8
	12H	5.5	5.8	6.0	6.2	6.7	10.6	10.8	11.0	11.3	11.7
12H	4H	5.7	6.1	6.1	6.4	6.8	10.8	11.1	11.2	11.5	11.9
	6H	5.6	5.9	6.0	6.3	6.7	10.6	10.9	11.1	11.3	11.8
	8H	5.5	5.8	6.0	6.2	6.7	10.6	10.8	11.0	11.3	11.7
Variations with the observer position at spacings:											
S = 1.0H	+ 2.7 / - 5.3					+ 4.4 / - 9.1					
1.5H	+ 4.7 / - 3.9					+ 6.9 / - 7.0					
2.0H	+ 2.6 / - 2.5					+ 3.9 / - 3.2					

CIE Pub.117 Corrected 702.7 lm Total Lamp Luminous Flux. (8log(F/F0) = -1.2)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION 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) $k(RI) \times RCR = 5$									
$k = 0.60$	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	97	93	90	96	92	89	86
1.00	102	97	94	101	96	93	99	96	93	89
1.25	105	101	98	104	100	97	102	99	96	93
1.50	108	103	101	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	105	104	98
4.00	114	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	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: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

699.13 lm

%lum = 99.5%

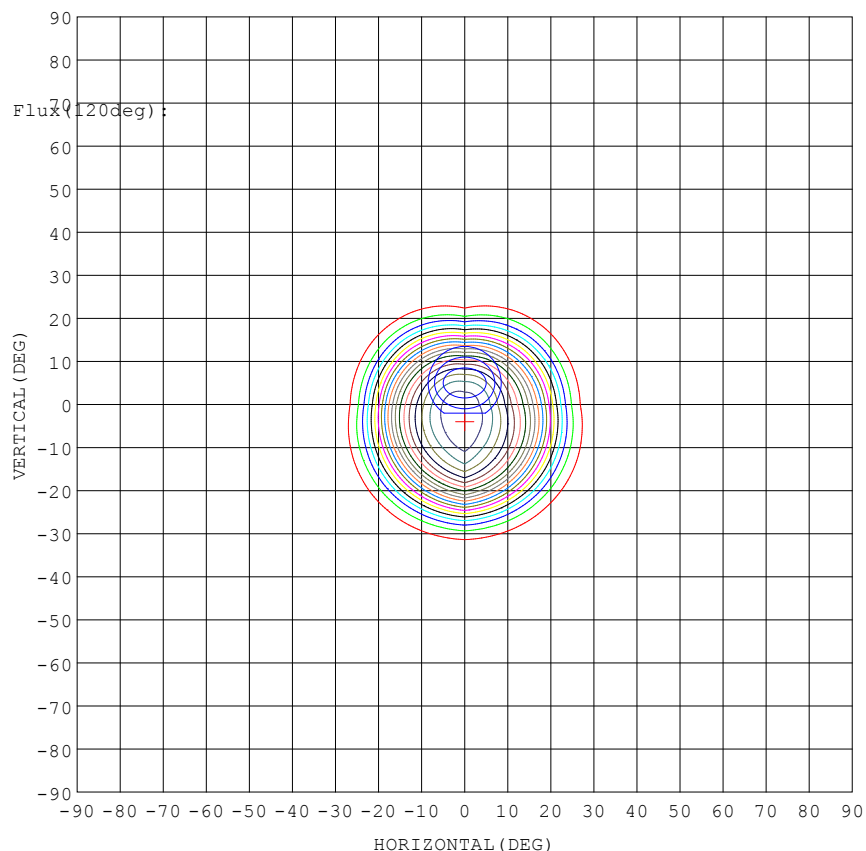
%lamp = 99.5%

Conical surface Flux(120deg):

700.25 lm

%lum = 99.7%

%lamp = 99.7%



5%	107.6
10%	215.2
15%	322.8
20%	430.5
25%	538.1
30%	645.7
35%	753.3
40%	860.9
45%	968.5
50%	1076
55%	1184
60%	1291
65%	1399
70%	1507
75%	1614
80%	1722
85%	1829
90%	1937
95%	2045

1. AVG=1922,MIN=1694
2. AVG=1871,MIN=1425
3. AVG=1797,MIN=1097

Imax:2152 (H0.0,V-4.0)
(At:C=90.0,Gamma=4.0)
UNIT: cd

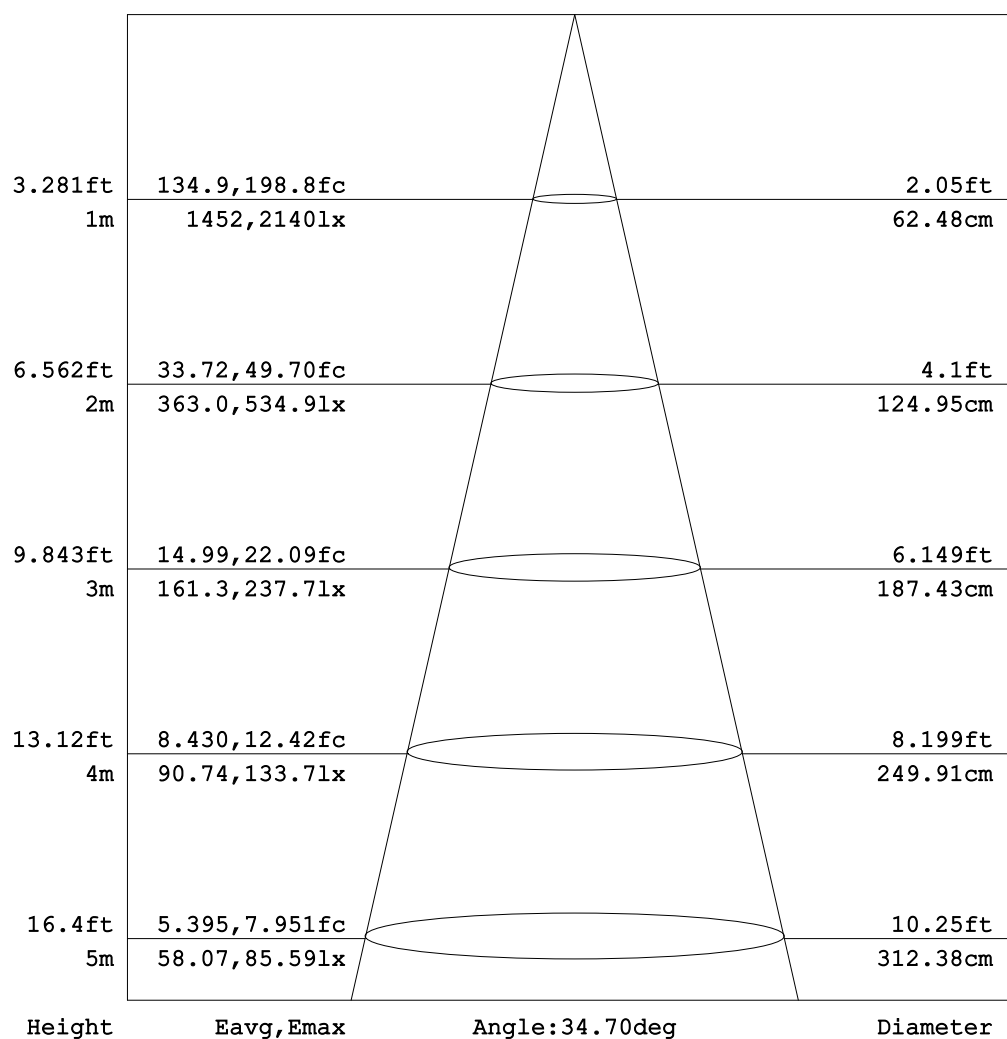
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-10-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

AAI Figure

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

Flux out:481.5 lm



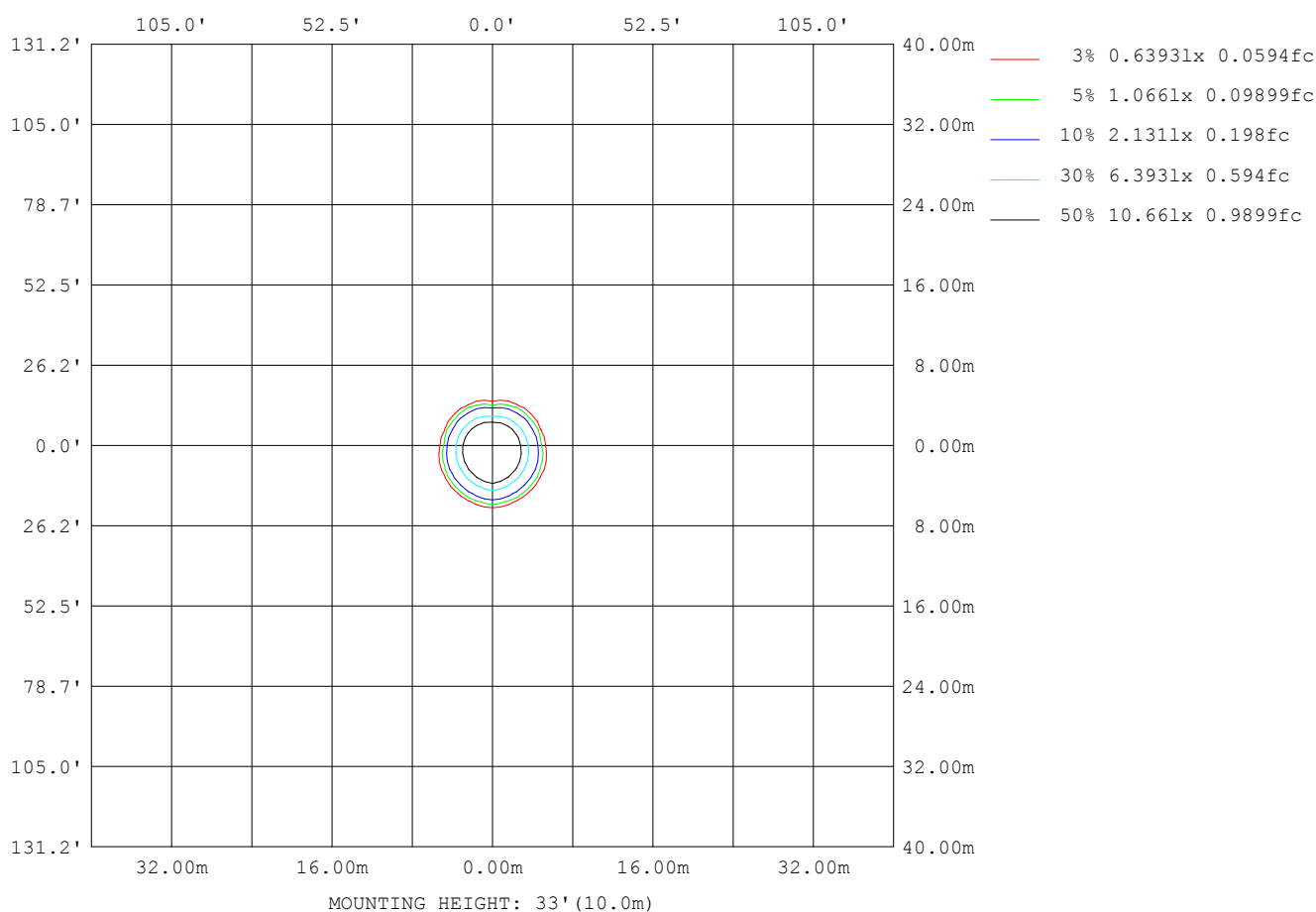
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

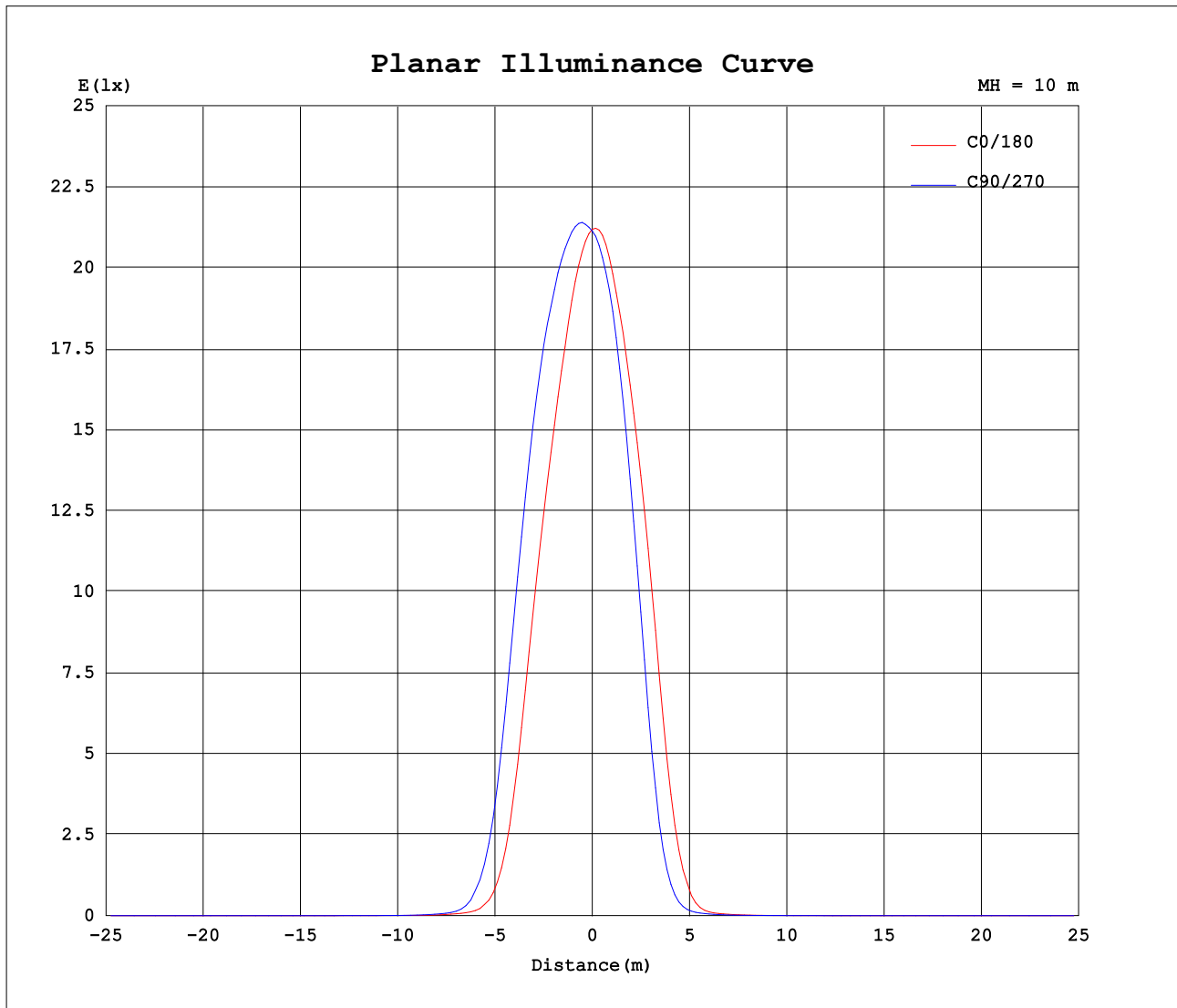
Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
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γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:6.810m [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: 2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:232.5V I:0.0520A P:11.26W PF:0.9310 Lamp Flux:702.676x1 lm		
NAME: 1867LED-X	TYPE:	WEIGHT:
SPEC.:P-1867LED-X-10W2736-CI30031R90-YML700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	2119	2113	2119	2113															
5	1981	2151	2054	1954															
10	1676	2078	1799	1543															
15	1270	1868	1388	876															
20	700	1409	735	246															
25	199	696	190	38.3															
30	34.3	171	25.9	10.2															
35	10.8	25.1	8.11	3.98															
40	3.76	7.75	2.92	1.92															
45	1.71	2.18	1.36	1.26															
50	1.16	1.21	0.88	0.80															
55	0.79	0.79	0.57	0.51															
60	0.53	0.49	0.36	0.28															
65	0.34	0.25	0.22	0.11															
70	0.20	0.07	0.12	0.01															
75	0.10	0.00	0.05	0.00															
80	0.03	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	0.00	0.00	0.00															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.01	0.01															
135	0.05	0.00	0.02	0.07															
140	0.28	0.07	0.09	0.28															
145	0.73	0.33	0.30	0.69															
150	1.37	0.82	0.67	1.25															
155	2.04	1.48	1.17	1.81															
160	2.63	2.14	1.69	2.27															
165	3.05	2.70	2.19	2.57															
170	3.32	3.10	2.58	2.97															
175	3.50	3.46	3.05	3.51															
180	3.49	3.79	3.50	3.78															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks: