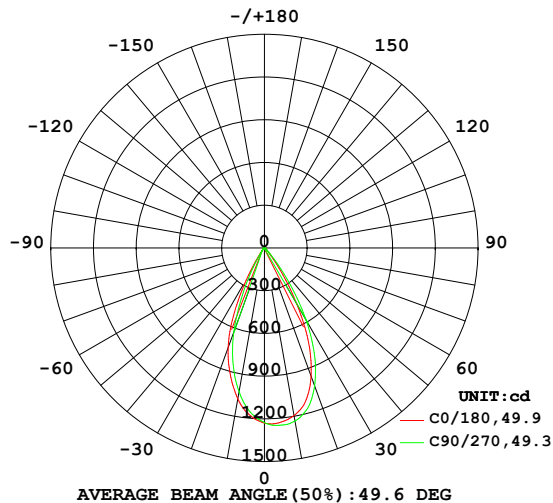


LUMINAIRE PHOTOMETRIC TEST REPORT

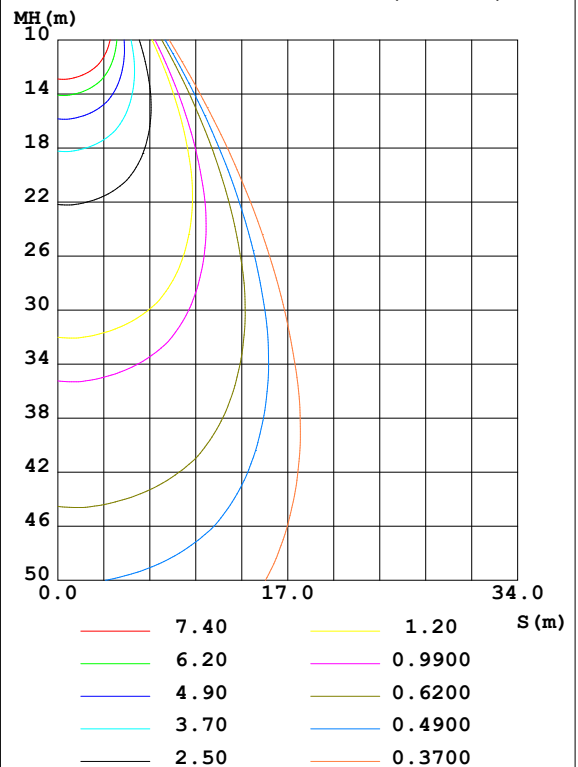
Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 71.68 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	1250	S/MH (C0/180)	0.70
NOMINAL POWER (W)	10W	LOR (%)	100.0	S/MH (C90/270)	0.64
RATED VOLTAGE (V)		TOTAL FLUX (lm)	809.51	η UP, DN (C0-180)	0.1, 61.7
NOMINAL FLUX (lm)	809.508	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.2, 38.0
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.80

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: 2024-01-18

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.417
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	1195	1234	1076	1025					0- 10	112.7	112.7	13.9,13.9
20	957.7	1030	745.3	628.5					10- 20	280.3	392.9	48.5,48.5
30	455.3	584.6	237.6	160.6					20- 30	273.3	666.2	82.3,82.3
40	71.25	123.4	29.48	25.32					30- 40	109.9	776.1	95.9,95.9
50	17.16	21.77	11.39	9.943					40- 50	23.01	799.2	98.7,98.7
60	2.978	3.307	2.413	0.6504					50- 60	7.384	806.5	99.6,99.6
70	0.0350	0	0.0119	0.0192					60- 70	0.5294	807.1	99.7,99.7
80	0	0	0	0					70- 80	0.0023	807.1	99.7,99.7
90	0	0	0	0.0555					80- 90	0.0012	807.1	99.7,99.7
100	0	0	0	0					90-100	0.0227	807.1	99.7,99.7
110	0	0.0488	0.0087	0.0157					100-110	0.0140	807.1	99.7,99.7
120	0	0.0157	0.0158	0.0314					110-120	0.0141	807.1	99.7,99.7
130	0.1009	0.0855	0.1204	0.1934					120-130	0.0470	807.2	99.7,99.7
140	0.5438	0.4503	0.5097	0.6678					130-140	0.2302	807.4	99.7,99.7
150	1.274	1.118	1.142	1.276					140-150	0.5339	807.9	99.8,99.8
160	2.031	1.922	1.776	1.890					150-160	0.7150	808.6	99.9,99.9
170	2.554	2.466	2.347	2.457					160-170	0.6087	809.3	100,100
180	2.855	2.893	2.856	2.891					170-180	0.2514	809.5	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 791.14 lm

%lum = 97.7%

%lamp = 97.7%

Conical surface Flux(120deg): 806.54 lm

%lum = 99.6%

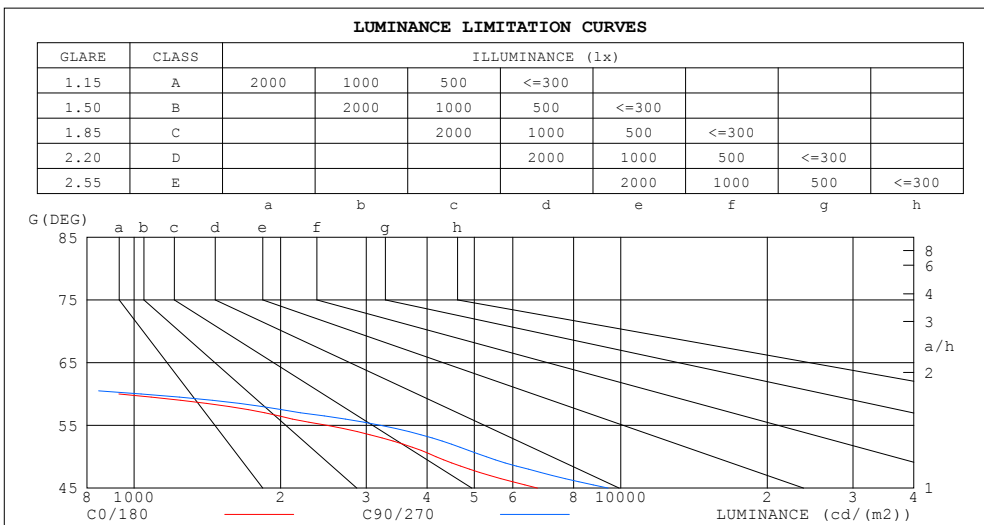
%lamp = 99.6%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	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	16	0
65	115	103
60	931	1033
55	2492	3211
50	4171	5293
45	6743	9415

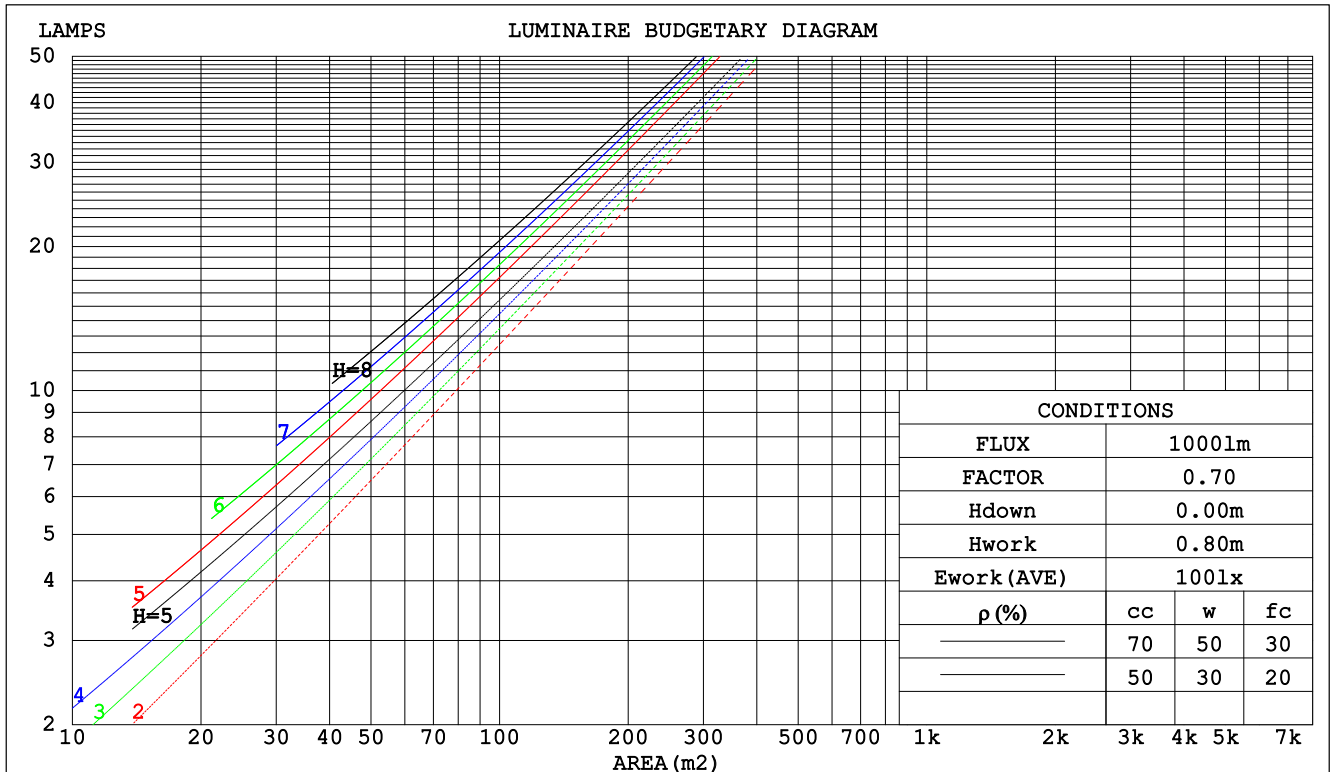
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	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	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.89	.94	.91	.88	.92	.89	.86	.89	.87	.85	.83
4.0	.92	.87	.84	.91	.87	.83	.89	.85	.82	.87	.84	.81	.85	.82	.80	.79
5.0	.87	.82	.78	.86	.81	.78	.85	.80	.77	.83	.79	.76	.81	.78	.76	.74
6.0	.83	.77	.73	.82	.77	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.78	.72	.69	.76	.72	.68	.75	.71	.68	.74	.70	.68	.66
8.0	.74	.69	.65	.74	.69	.65	.73	.68	.65	.72	.67	.64	.71	.67	.64	.63
9.0	.71	.65	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.68	.64	.61	.60
10.0	.67	.62	.59	.67	.62	.58	.66	.62	.58	.65	.61	.58	.65	.61	.58	.57



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	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	.165	.094	.030	.159	.090	.029	.146	.084	.027	.134	.077	.025	.123	.072	.023	
2.0	.157	.086	.026	.152	.084	.026	.141	.078	.024	.131	.074	.023	.122	.069	.022	
3.0	.149	.080	.024	.145	.077	.023	.136	.073	.022	.127	.070	.021	.119	.066	.020	
4.0	.142	.074	.022	.138	.072	.021	.130	.069	.021	.123	.066	.020	.116	.063	.019	
5.0	.135	.069	.020	.132	.068	.020	.125	.065	.019	.119	.063	.019	.113	.060	.018	
6.0	.129	.065	.019	.126	.064	.018	.120	.062	.018	.115	.060	.018	.110	.058	.017	
7.0	.124	.061	.017	.121	.060	.017	.116	.059	.017	.111	.057	.017	.106	.055	.016	
8.0	.119	.058	.016	.116	.057	.016	.111	.056	.016	.107	.054	.016	.103	.053	.015	
9.0	.114	.055	.015	.112	.054	.015	.107	.053	.015	.103	.052	.015	.100	.051	.015	
10.0	.109	.052	.015	.107	.052	.014	.104	.051	.014	.100	.050	.014	.097	.049	.014	

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						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.193	.193	.193	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.173	.160	.148	.148	.137	.127	.101	.094	.088	.058	.055	.051	.019	.018	.017	
2.0	.157	.135	.117	.134	.116	.101	.092	.080	.070	.053	.047	.041	.017	.015	.013	
3.0	.144	.116	.094	.123	.100	.081	.085	.069	.057	.049	.041	.034	.016	.013	.011	
4.0	.133	.101	.077	.114	.087	.067	.078	.061	.047	.045	.036	.028	.015	.012	.009	
5.0	.124	.089	.064	.106	.077	.055	.073	.054	.039	.042	.032	.023	.014	.010	.008	
6.0	.116	.080	.054	.100	.069	.047	.069	.048	.033	.040	.028	.020	.013	.009	.006	
7.0	.109	.072	.046	.094	.062	.040	.065	.044	.028	.038	.026	.017	.012	.008	.006	
8.0	.104	.066	.040	.089	.057	.035	.062	.040	.025	.036	.024	.015	.012	.008	.005	
9.0	.099	.060	.035	.085	.052	.030	.059	.037	.021	.034	.022	.013	.011	.007	.004	
10.0	.094	.056	.031	.081	.049	.027	.056	.034	.019	.033	.020	.011	.011	.007	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm										
NAME: 89014LED					TYPE:			WEIGHT:		
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700					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	17.1	18.0	17.3	18.1	18.3	18.6	19.5	18.8	19.7	19.8
3H	16.9	17.7	17.2	17.9	18.1	18.5	19.3	18.7	19.5	19.7
4H	16.9	17.6	17.1	17.8	18.1	18.4	19.1	18.6	19.3	19.6
6H	16.8	17.5	17.1	17.7	18.0	18.3	19.0	18.6	19.2	19.5
8H	16.7	17.4	17.0	17.7	17.9	18.2	18.9	18.5	19.2	19.4
12H	16.7	17.3	17.0	17.6	17.9	18.2	18.8	18.5	19.1	19.4
4H 2H	16.9	17.6	17.1	17.8	18.1	18.4	19.1	18.7	19.4	19.6
3H	16.7	17.3	17.0	17.6	17.9	18.2	18.8	18.5	19.1	19.4
4H	16.6	17.2	16.9	17.5	17.8	18.1	18.7	18.5	19.0	19.3
6H	16.5	17.0	16.9	17.3	17.7	18.0	18.5	18.4	18.9	19.2
8H	16.4	16.9	16.8	17.3	17.6	18.0	18.4	18.3	18.8	19.2
12H	16.4	16.8	16.8	17.2	17.6	17.9	18.3	18.3	18.7	19.1
8H 4H	16.4	16.9	16.8	17.3	17.6	18.0	18.4	18.3	18.8	19.2
6H	16.3	16.7	16.8	17.1	17.5	17.8	18.2	18.3	18.6	19.1
8H	16.3	16.6	16.7	17.0	17.5	17.8	18.1	18.2	18.6	19.0
12H	16.2	16.5	16.7	17.0	17.4	17.7	18.0	18.2	18.5	19.0
12H 4H	16.4	16.8	16.8	17.2	17.6	17.9	18.3	18.3	18.7	19.1
6H	16.3	16.6	16.7	17.0	17.5	17.8	18.1	18.2	18.6	19.0
8H	16.2	16.5	16.7	17.0	17.4	17.7	18.0	18.2	18.5	19.0
Variations with the observer position at spacings:										
S = 1.0H	+ 3.3 / -11.4					+ 4.3 / -12.4				
1.5H	+ 5.4 / - 7.0					+ 6.6 / - 8.7				
2.0H	+ 4.7 / -17.1					+ 5.8 / -18.2				

CIE Pub.117, 809.5 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)
Area: 0.0064 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

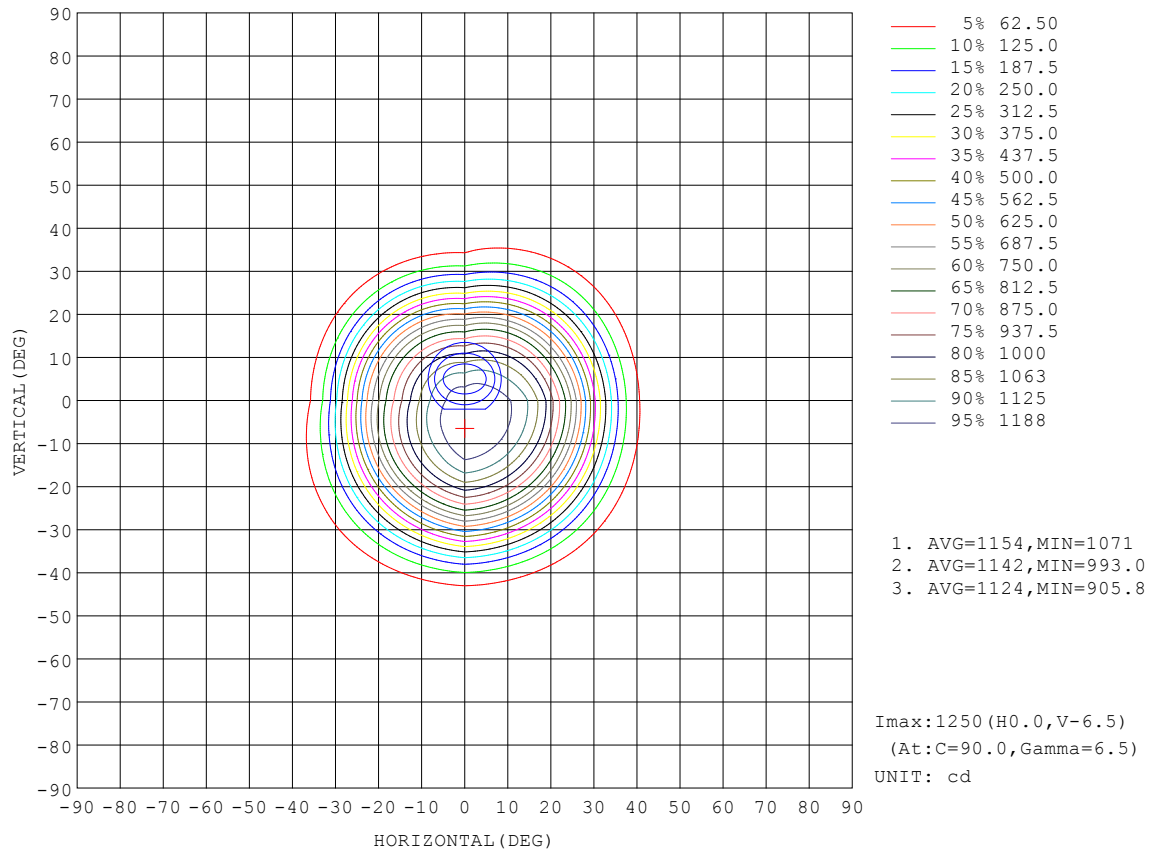
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	76
0.80	96	91	87	96	90	87	94	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
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: 2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

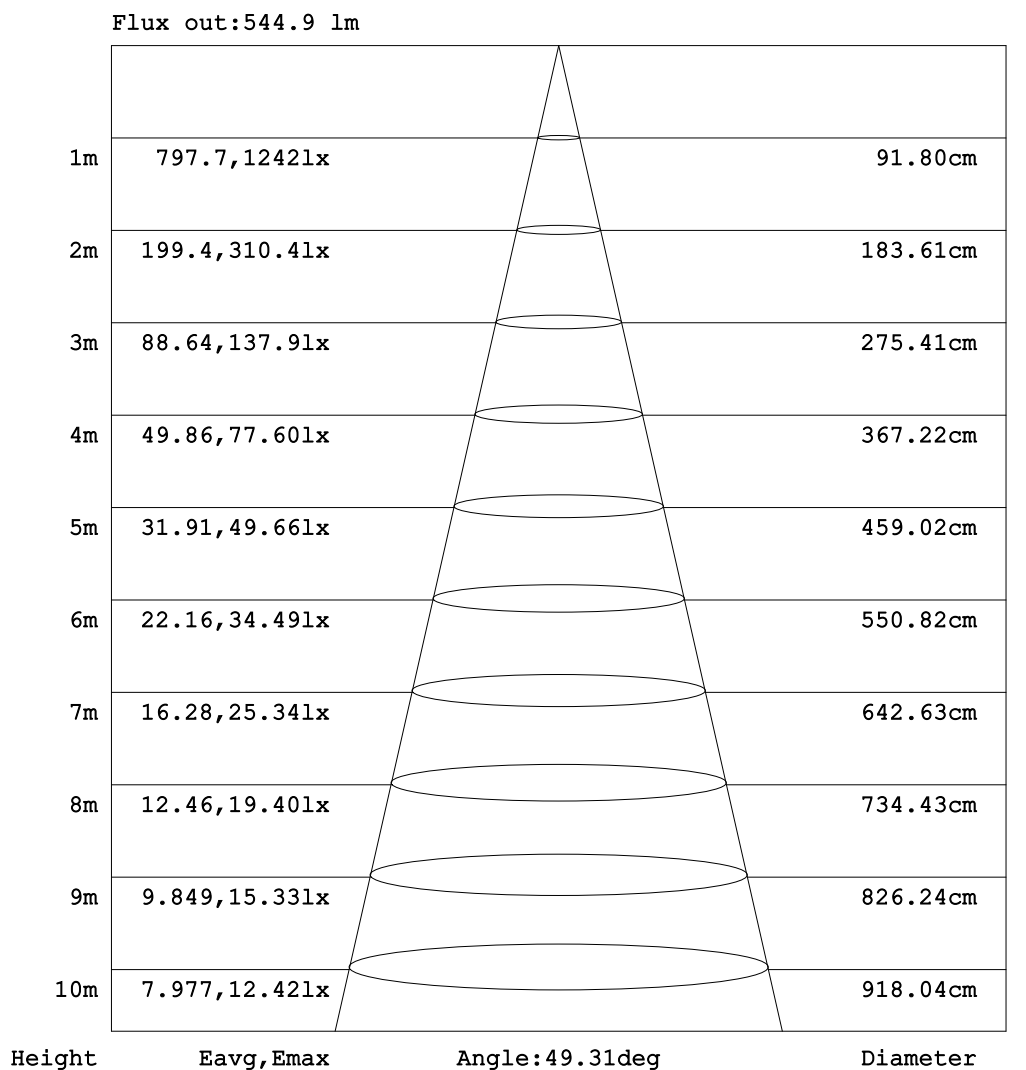


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

AAI Figure

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



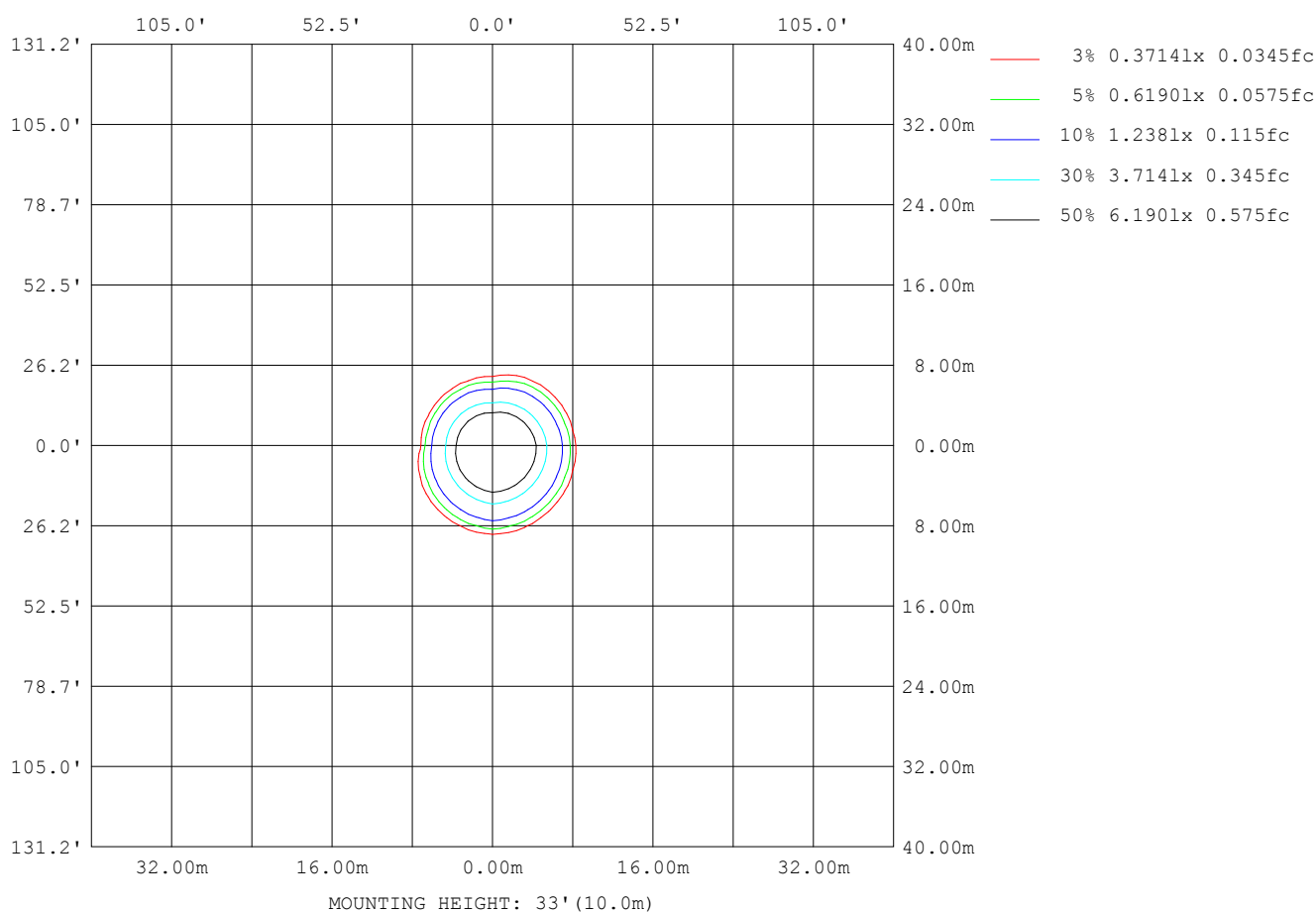
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	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:2024-01-18

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

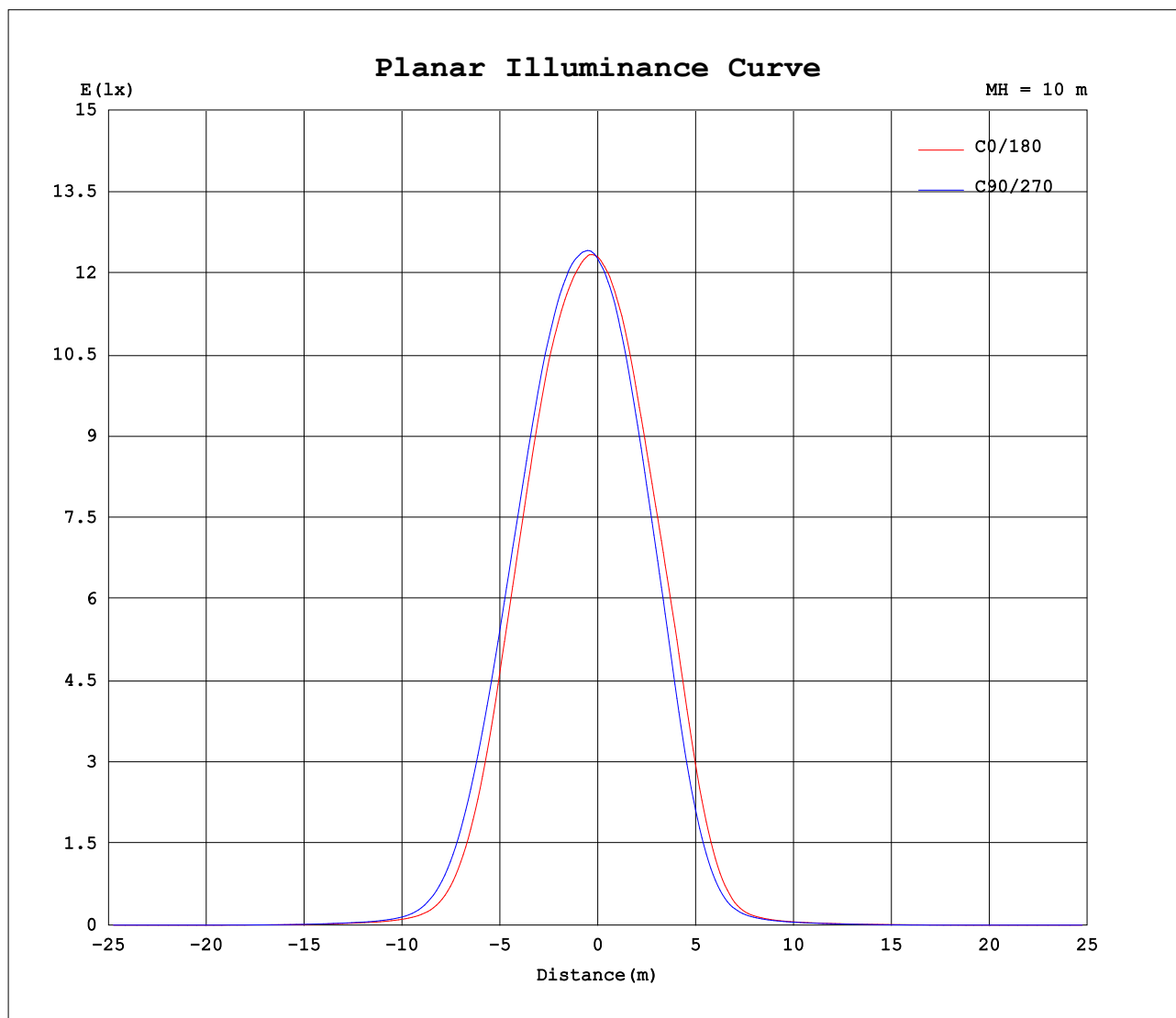
AvgL	cd/m2
L_0~180 (65) av	104
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	71
L_90~270 (75) av	2
L_90~270 (85) av	0
L_45 (65) av	83
L_45 (75) av	1
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
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: 2024-01-18

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:232.34V I:0.0915A P:11.294W PF:0.5312 Freq:50.00Hz Lamp Flux:809.508x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2750-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1229	1226	1229	1226															
5	1230	1250	1179	1156															
10	1195	1234	1076	1025															
15	1115	1168	924	848															
20	958	1030	745	629															
25	734	834	499	368															
30	455	585	238	161															
35	212	321	75.6	54.9															
40	71.3	123	29.5	25.3															
45	30.5	42.6	16.8	15.4															
50	17.2	21.8	11.4	9.94															
55	9.15	11.8	6.99	4.97															
60	2.98	3.31	2.41	0.65															
65	0.31	0.28	0.25	0.11															
70	0.03	0.00	0.01	0.02															
75	0.00	0.00	0.00	0.01															
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	0.06															
95	0.00	0.00	0.00	0.05															
100	0.00	0.00	0.00	0.00															
105	0.00	0.03	0.00	0.09															
110	0.00	0.05	0.01	0.02															
115	0.00	0.03	0.00	0.01															
120	0.00	0.02	0.02	0.03															
125	0.02	0.03	0.05	0.08															
130	0.10	0.09	0.12	0.19															
135	0.27	0.22	0.27	0.39															
140	0.54	0.45	0.51	0.67															
145	0.89	0.77	0.81	0.97															
150	1.27	1.12	1.14	1.28															
155	1.69	1.55	1.47	1.63															
160	2.03	1.92	1.78	1.89															
165	2.28	2.19	2.03	2.12															
170	2.55	2.47	2.35	2.46															
175	2.77	2.73	2.66	2.74															
180	2.85	2.89	2.86	2.89															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.417
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks: