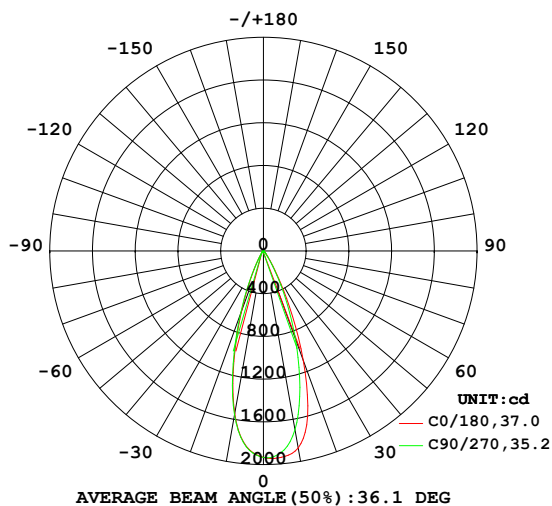


LUMINAIRE PHOTOMETRIC TEST REPORT

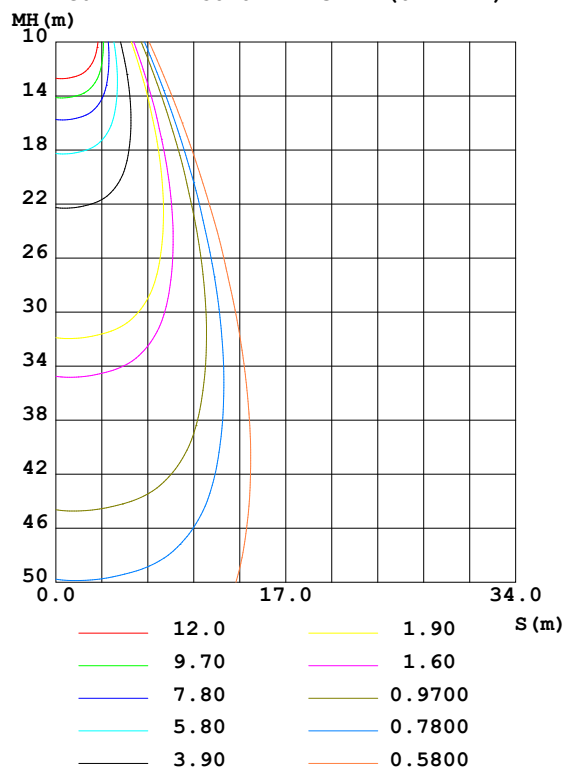
Test:U:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 71.83 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	1944	S/MH(C0/180)	0.52
NOMINAL POWER(W)	10W	LOR(%)	100.0	S/MH(C90/270)	0.53
RATED VOLTAGE(V)		TOTAL FLUX(lm)	783.36	η UP,DN(C0-180)	0.2,58.2
NOMINAL FLUX(lm)	783.36	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.1,41.5
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:2023-11-14

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	1873	1700	1545	1558					0- 10	172.8	172.8	22.1,22.1
20	1093	875.0	599.9	629.6					10- 20	343.0	515.7	65.8,65.8
30	244.1	214.2	112.7	115.1					20- 30	192.3	708.0	90.4,90.4
40	43.61	40.17	26.29	27.86					30- 40	49.23	757.2	96.7,96.7
50	17.32	14.56	12.37	10.65					40- 50	16.97	774.2	98.8,98.8
60	3.628	0.5979	2.473	0.3496					50- 60	6.263	780.4	99.6,99.6
70	0.0576	0.0035	0.0346	0.0157					60- 70	0.4386	780.9	99.7,99.7
80	0	0	0	0.0000					70- 80	0.0038	780.9	99.7,99.7
90	0	0	0	0					80- 90	0.0000	780.9	99.7,99.7
100	0	0	0	0					90-100	0	780.9	99.7,99.7
110	0	0	0	0					100-110	0.0004	780.9	99.7,99.7
120	0.1151	0.0140	0.1150	0.0628					110-120	0.0373	780.9	99.7,99.7
130	0.0889	0.0890	0.1099	0.1133					120-130	0.0709	781.0	99.7,99.7
140	0.3677	0.4015	0.3667	0.3452					130-140	0.1530	781.1	99.7,99.7
150	1.202	1.261	1.097	0.9500					140-150	0.4305	781.6	99.8,99.8
160	2.336	2.512	2.017	1.990					150-160	0.7659	782.3	99.9,99.9
170	3.138	3.200	2.747	2.689					160-170	0.7248	783.1	100,100
180	3.510	3.432	3.503	3.435					170-180	0.3011	783.4	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 767.15 lm

%lum = 97.9%

%lamp = 97.9%

Conical surface Flux(120deg): 780.43 lm

%lum = 99.6%

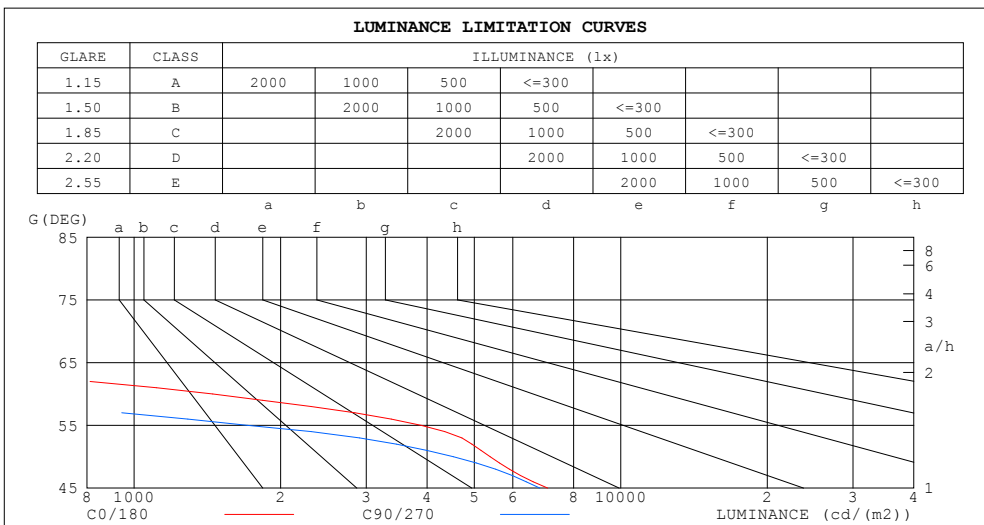
%lamp = 99.6%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-14

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:

LUMINANCE LIMITATION CURVES

Test:U:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-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	34	2
65	161	47
60	1451	239
55	3889	1711
50	5390	4530
45	7077	6820

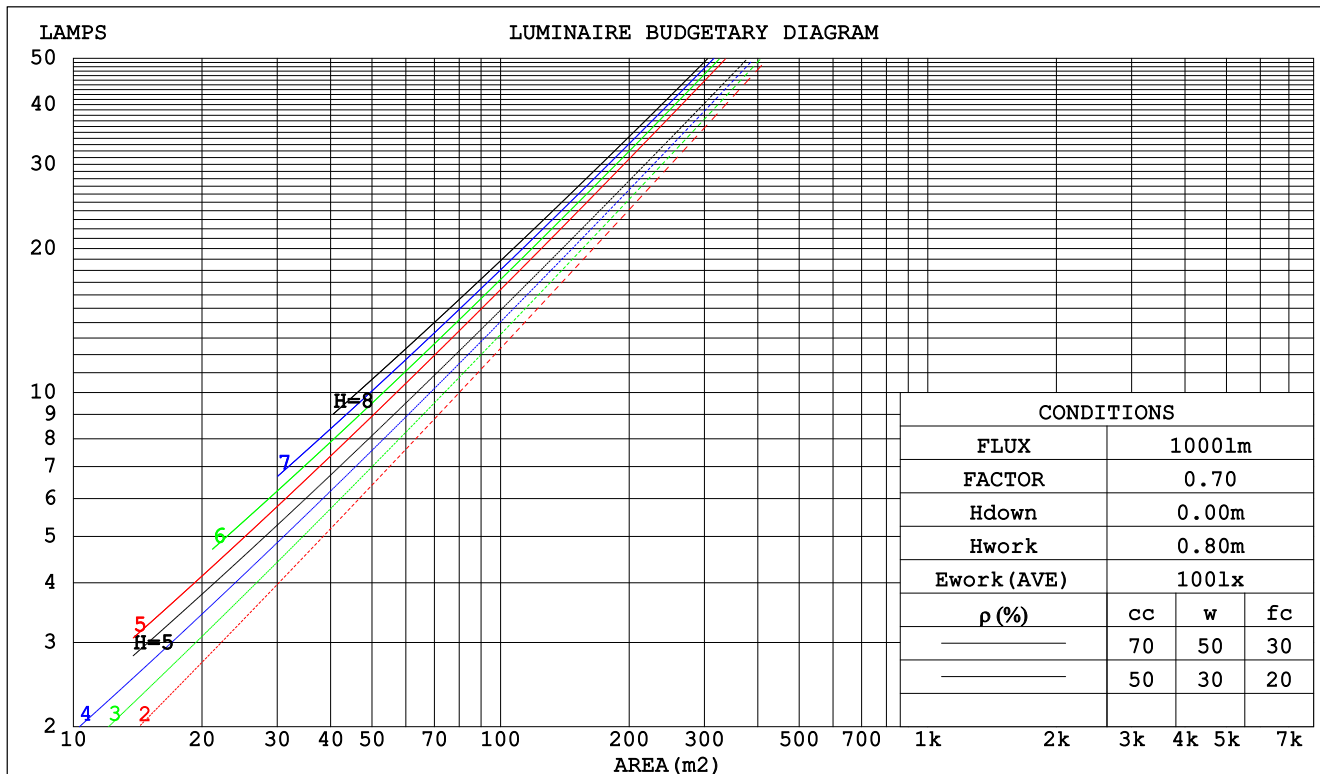
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-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	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	.96	.98	.96	.94	.95	.94	.92	.91
3.0	1.01	.96	.93	.99	.95	.92	.97	.93	.91	.94	.92	.90	.92	.90	.88	.87
4.0	.96	.91	.88	.95	.90	.87	.92	.89	.86	.91	.88	.85	.89	.86	.84	.83
5.0	.91	.87	.83	.90	.86	.83	.89	.85	.82	.87	.84	.81	.86	.83	.81	.79
6.0	.87	.82	.79	.87	.82	.79	.85	.81	.78	.84	.80	.78	.83	.80	.77	.76
7.0	.84	.79	.75	.83	.78	.75	.82	.78	.75	.81	.77	.74	.80	.76	.74	.73
8.0	.80	.75	.72	.80	.75	.72	.79	.75	.72	.78	.74	.71	.77	.74	.71	.70
9.0	.77	.72	.69	.77	.72	.69	.76	.72	.69	.75	.71	.69	.74	.71	.68	.67
10.0	.74	.70	.67	.74	.69	.66	.73	.69	.66	.72	.69	.66	.72	.68	.66	.65



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-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	.151	.086	.027	.145	.082	.026	.132	.076	.024	.120	.069	.022	.110	.064	.020	
2.0	.142	.078	.024	.137	.075	.023	.126	.070	.022	.116	.065	.020	.107	.061	.019	
3.0	.134	.071	.021	.129	.069	.021	.120	.065	.020	.112	.061	.019	.105	.058	.018	
4.0	.127	.066	.019	.123	.064	.019	.115	.061	.018	.108	.058	.018	.102	.055	.017	
5.0	.120	.061	.018	.117	.060	.017	.110	.057	.017	.104	.055	.016	.098	.053	.016	
6.0	.114	.057	.016	.111	.056	.016	.106	.054	.016	.100	.052	.015	.095	.050	.015	
7.0	.109	.054	.015	.106	.053	.015	.101	.051	.015	.097	.050	.014	.092	.048	.014	
8.0	.104	.051	.014	.102	.050	.014	.098	.049	.014	.093	.047	.014	.090	.046	.013	
9.0	.100	.048	.013	.098	.048	.013	.094	.046	.013	.090	.045	.013	.087	.044	.013	
10.0	.096	.046	.013	.094	.045	.013	.091	.044	.012	.087	.043	.012	.084	.042	.012	

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	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.172	.160	.149	.147	.137	.129	.101	.094	.089	.058	.055	.052	.019	.018	.017	
2.0	.155	.135	.119	.133	.116	.102	.091	.080	.071	.052	.047	.042	.017	.015	.014	
3.0	.141	.116	.096	.121	.100	.083	.083	.069	.058	.048	.041	.034	.015	.013	.011	
4.0	.129	.101	.079	.111	.087	.069	.076	.061	.048	.044	.036	.029	.014	.012	.009	
5.0	.119	.089	.066	.103	.077	.057	.071	.054	.041	.041	.031	.024	.013	.010	.008	
6.0	.111	.079	.056	.095	.068	.049	.066	.048	.034	.038	.028	.020	.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	.036	.058	.039	.026	.034	.023	.015	.011	.008	.005	
9.0	.093	.059	.036	.080	.051	.032	.055	.036	.023	.032	.021	.013	.010	.007	.004	
10.0	.088	.054	.032	.076	.047	.028	.053	.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:2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm											
NAME: 89014LED					TYPE:			WEIGHT:			
SPEC.:P-89014LED-10W2736-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		13.1	13.9	13.4	14.1	14.2	12.4	13.2	12.7	13.4	13.5
	3H	13.0	13.7	13.2	13.9	14.1	12.3	13.0	12.5	13.2	13.4
	4H	12.9	13.6	13.2	13.8	14.0	12.2	12.9	12.5	13.1	13.3
	6H	12.8	13.4	13.1	13.7	13.9	12.1	12.7	12.4	13.0	13.2
	8H	12.8	13.4	13.1	13.6	13.9	12.1	12.7	12.4	12.9	13.2
	12H	12.7	13.3	13.0	13.6	13.8	12.0	12.6	12.3	12.9	13.1
4H	2H	12.9	13.6	13.2	13.8	14.0	12.2	12.9	12.5	13.1	13.3
	3H	12.8	13.3	13.1	13.6	13.9	12.1	12.6	12.4	12.9	13.2
	4H	12.7	13.2	13.0	13.5	13.8	12.0	12.5	12.3	12.8	13.1
	6H	12.6	13.0	12.9	13.4	13.7	11.9	12.3	12.2	12.7	13.0
	8H	12.5	12.9	12.9	13.3	13.7	11.8	12.3	12.2	12.6	13.0
	12H	12.4	12.8	12.9	13.2	13.6	11.8	12.2	12.2	12.5	12.9
8H	4H	12.5	12.9	12.9	13.3	13.7	11.8	12.3	12.2	12.6	13.0
	6H	12.4	12.7	12.8	13.1	13.6	11.7	12.1	12.1	12.5	12.9
	8H	12.3	12.6	12.8	13.1	13.5	11.6	12.0	12.1	12.4	12.8
	12H	12.3	12.5	12.7	13.0	13.5	11.6	11.9	12.1	12.3	12.8
12H	4H	12.4	12.8	12.9	13.2	13.6	11.8	12.2	12.2	12.5	12.9
	6H	12.3	12.6	12.8	13.1	13.5	11.6	12.0	12.1	12.4	12.8
	8H	12.3	12.5	12.7	13.0	13.5	11.6	11.9	12.1	12.3	12.8
Variations with the observer position at spacings:											
S = 1.0H	+ 3.1 / - 6.2					+ 3.1 / -11.5					
1.5H	+ 4.1 / - 4.0					+ 3.9 / - 5.3					
2.0H	+ 4.0 / -16.7					+ 5.0 / -19.2					

CIE Pub.117, 783.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.8)
Area: 0.005 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

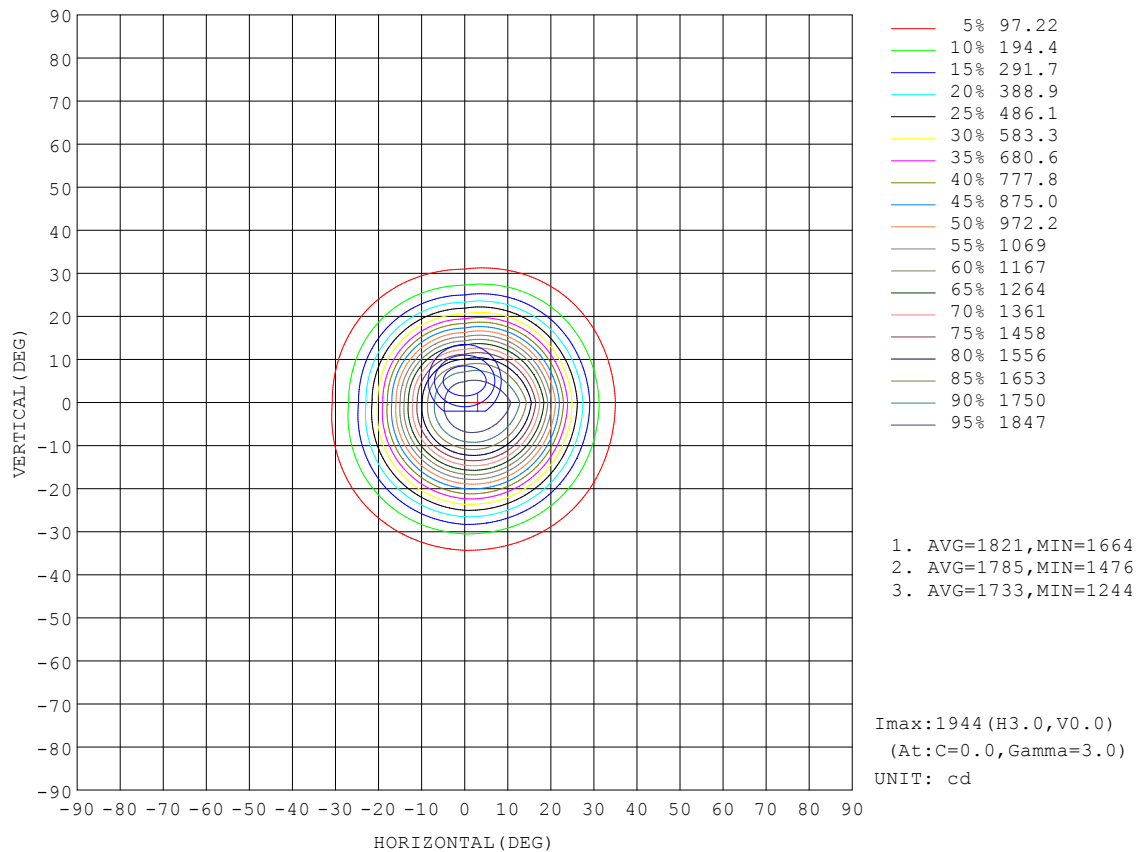
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	95	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	105	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					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

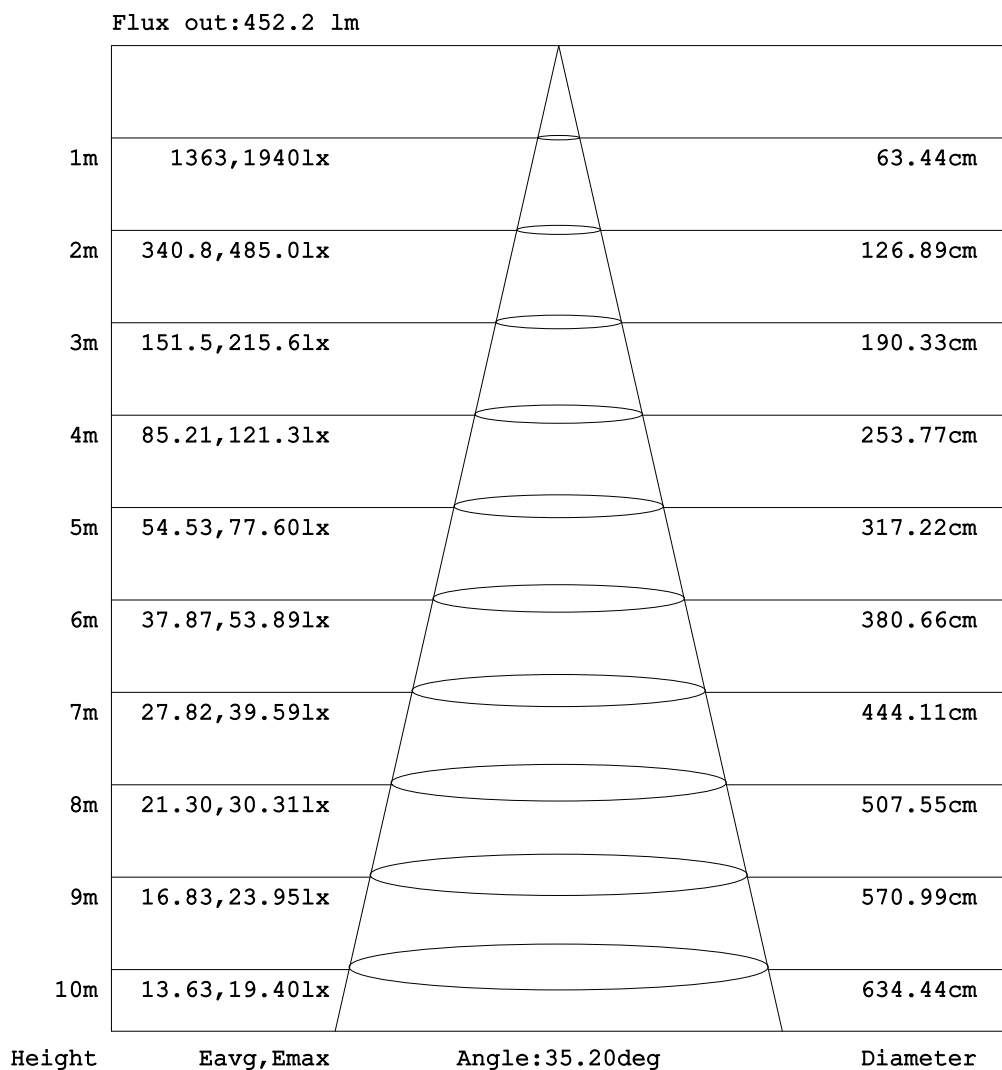


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



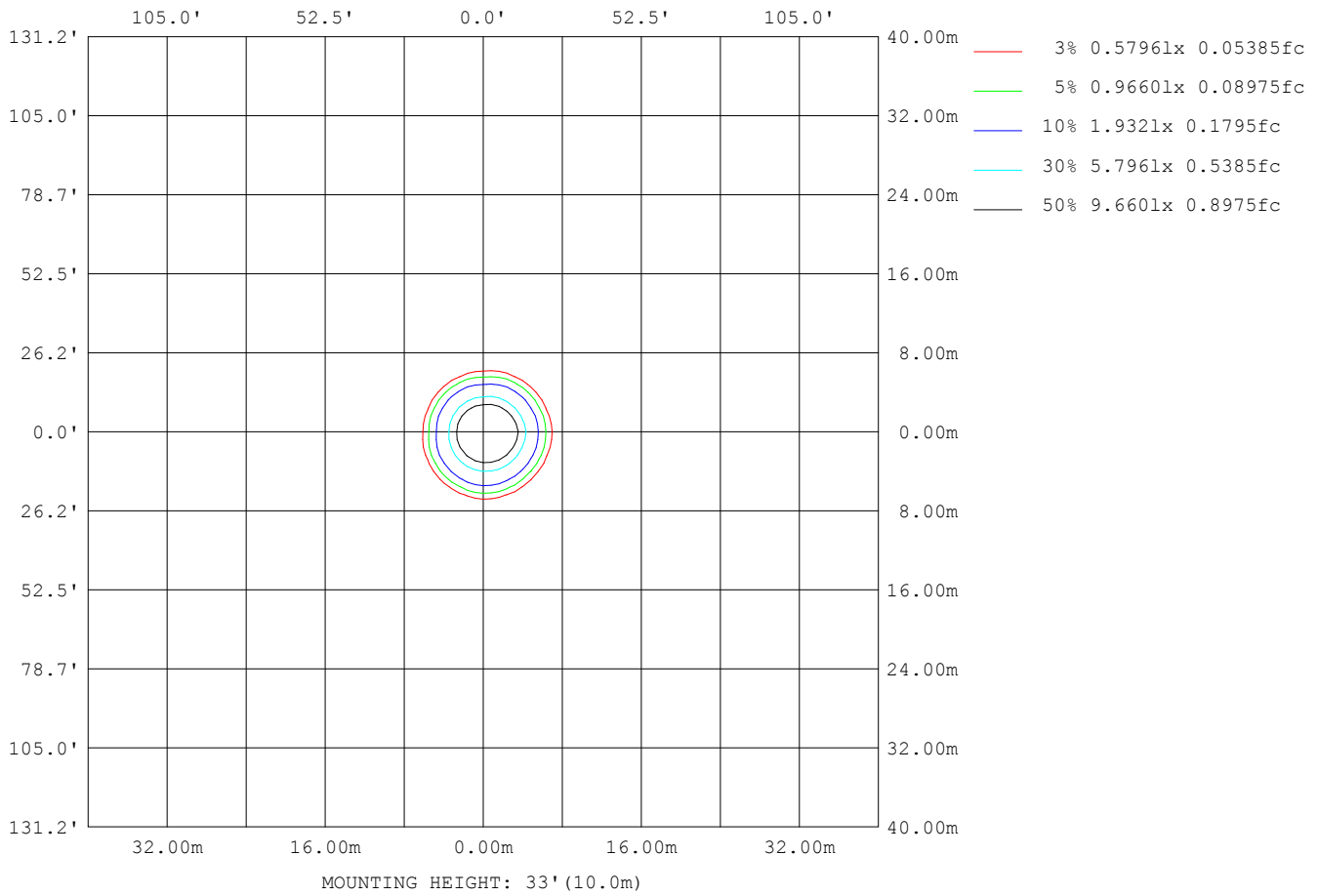
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-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:2023-11-14

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:

LED Avg.L Report

Test:U:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

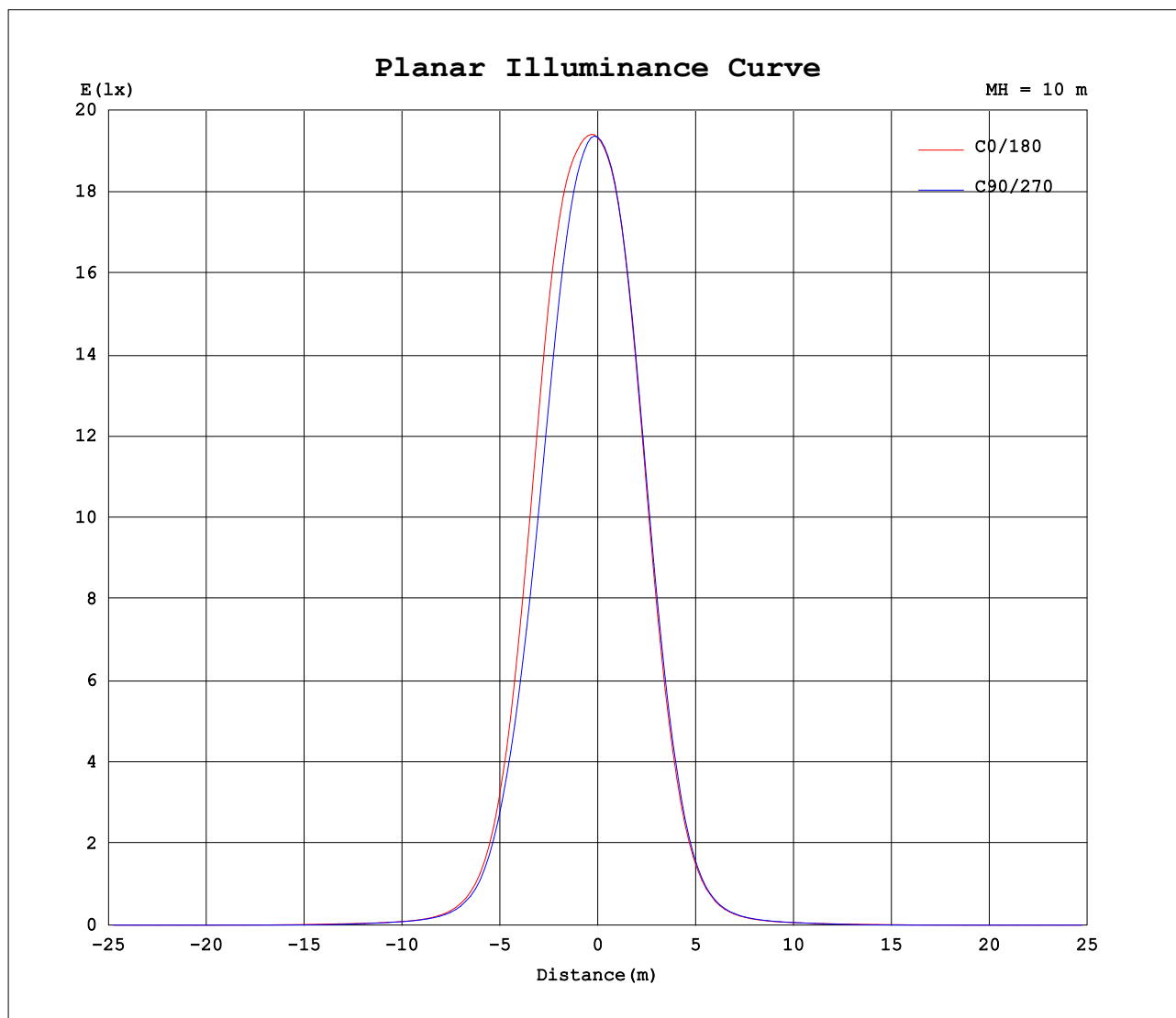
AvgL	cd/m2
L_0~180 (65) av	139
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	41
L_90~270 (75) av	3
L_90~270 (85) av	0
L_45 (65) av	77
L_45 (75) av	2
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-14

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: 2023-11-14

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:232.34V I:0.0890A P:10.905W PF:0.5271 Freq:50.00Hz Lamp Flux:783.36x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-10W2736-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1932	1933	1932	1933															
5	1939	1894	1836	1841															
10	1873	1700	1545	1558															
15	1599	1321	1068	1096															
20	1093	875	600	630															
25	577	489	274	290															
30	244	214	113	115															
35	97.1	85.1	48.3	51.2															
40	43.6	40.2	26.3	27.9															
45	25.0	24.1	17.4	18.3															
50	17.3	14.6	12.4	10.6															
55	11.2	4.91	7.92	3.07															
60	3.63	0.60	2.47	0.35															
65	0.34	0.10	0.25	0.08															
70	0.06	0.00	0.03	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	0.00															
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	0.02	0.00	0.15	0.05															
120	0.12	0.01	0.12	0.06															
125	0.09	0.04	0.09	0.08															
130	0.09	0.09	0.11	0.11															
135	0.17	0.19	0.19	0.19															
140	0.37	0.40	0.37	0.35															
145	0.69	0.77	0.64	0.57															
150	1.20	1.26	1.10	0.95															
155	1.79	1.93	1.59	1.51															
160	2.34	2.51	2.02	1.99															
165	2.78	2.91	2.37	2.31															
170	3.14	3.20	2.75	2.69															
175	3.41	3.36	3.18	3.09															
180	3.51	3.43	3.50	3.44															

C Range: 0 - 360DEG
C Interval: 90.0DEG
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
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