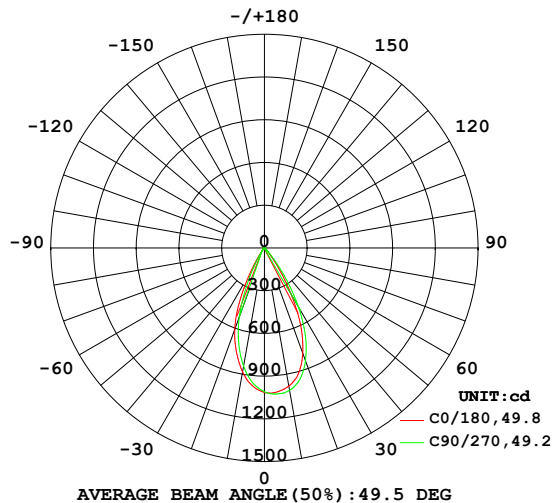


LUMINAIRE PHOTOMETRIC TEST REPORT

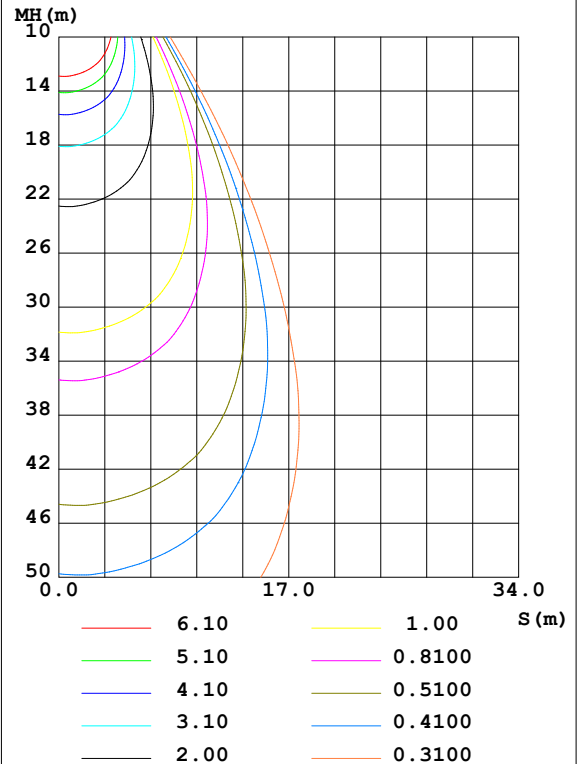
Test:U:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.61 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	1029	S/MH (C0/180)	0.70
NOMINAL POWER (W)	8W	LOR (%)	100.0	S/MH (C90/270)	0.64
RATED VOLTAGE (V)		TOTAL FLUX (lm)	664.15	η UP, DN (C0-180)	0.1, 61.7
NOMINAL FLUX (lm)	664.148	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	984.7	1015	884.0	842.0					0- 10	92.74	92.74	14,14
20	786.8	842.4	610.1	516.2					10- 20	230.1	322.8	48.6,48.6
30	373.3	476.2	193.9	132.4					20- 30	223.8	546.6	82.3,82.3
40	59.40	101.7	24.55	21.06					30- 40	90.04	636.6	95.9,95.9
50	14.35	17.99	9.486	8.232					40- 50	19.04	655.6	98.7,98.7
60	2.446	2.685	2.000	0.5298					50- 60	6.114	661.7	99.6,99.6
70	0.0262	0	0.0017	0.0122					60- 70	0.4295	662.2	99.7,99.7
80	0	0	0	0					70- 80	0.0009	662.2	99.7,99.7
90	0	0	0	0.0415					80- 90	0.0007	662.2	99.7,99.7
100	0	0	0	0					90-100	0.0173	662.2	99.7,99.7
110	0	0.0349	0.0035	0.0036					100-110	0.0098	662.2	99.7,99.7
120	0	0.0070	0.0087	0.0209					110-120	0.0072	662.2	99.7,99.7
130	0.0783	0.0645	0.0942	0.1533					120-130	0.0339	662.2	99.7,99.7
140	0.4445	0.3648	0.4137	0.5405					130-140	0.1846	662.4	99.7,99.7
150	1.037	0.9103	0.9331	1.037					140-150	0.4338	662.9	99.8,99.8
160	1.663	1.565	1.451	1.549					150-160	0.5835	663.4	99.9,99.9
170	2.097	2.016	1.927	2.019					160-170	0.4979	663.9	100,100
180	2.331	2.372	2.335	2.368					170-180	0.2062	664.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 648.97 lm

%lum = 97.7%

%lamp = 97.7%

Conical surface Flux(120deg): 661.74 lm

%lum = 99.6%

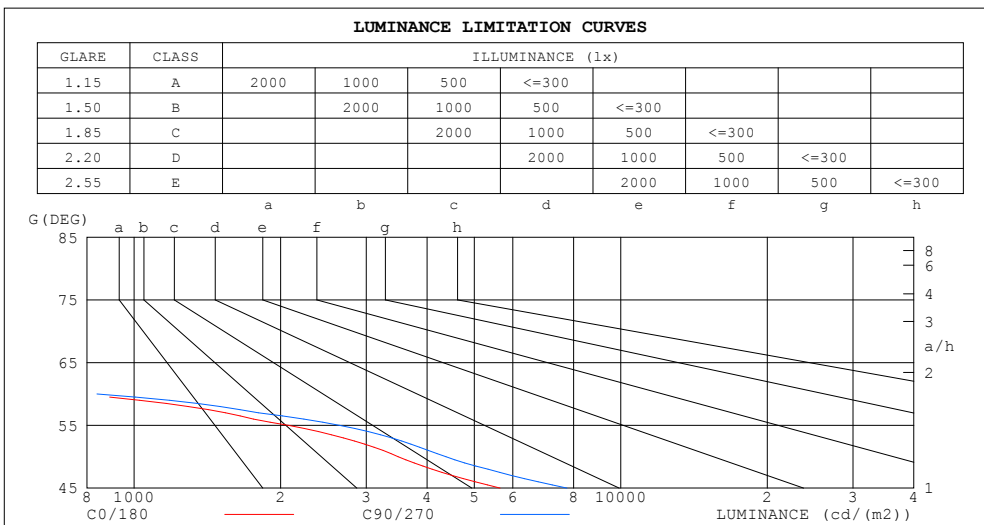
%lamp = 99.6%

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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-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	12	0
65	92	81
60	764	839
55	2076	2642
50	3488	4374
45	5649	7750

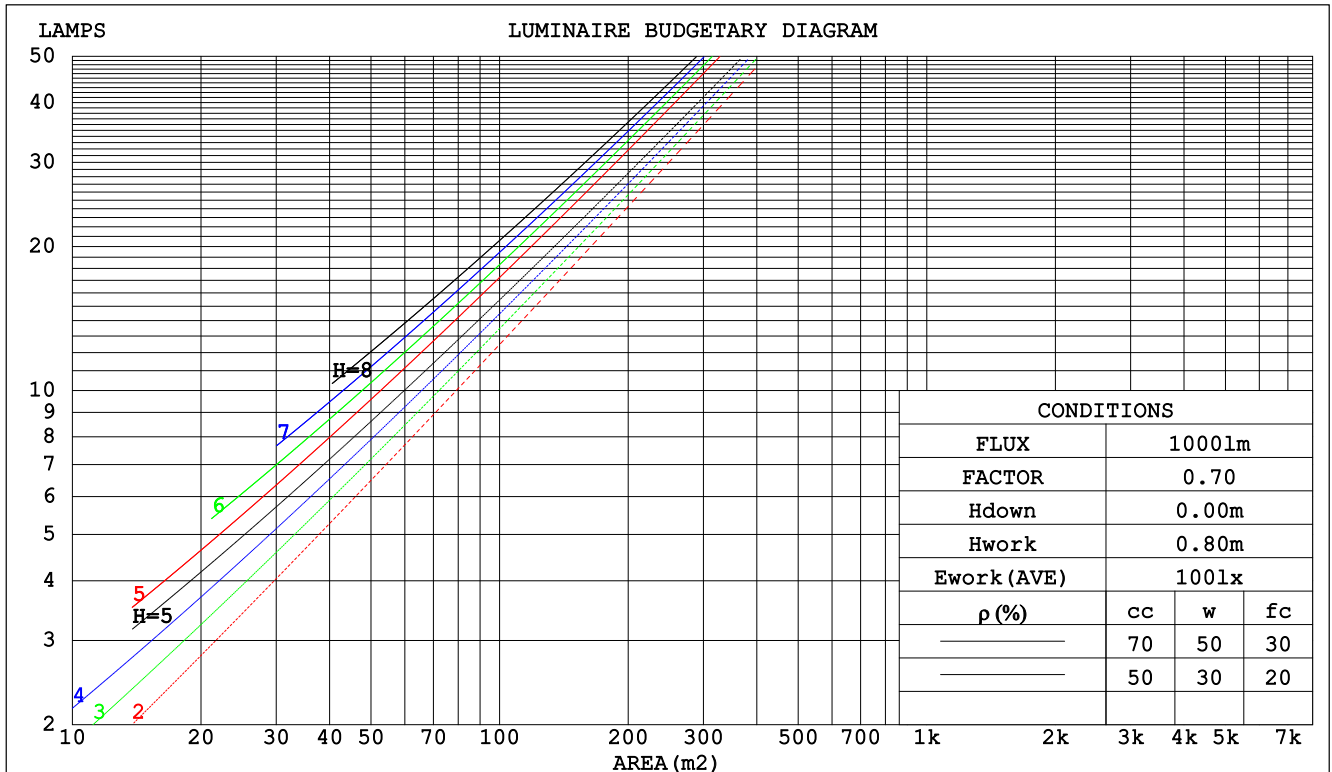
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-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	.84
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	.68	.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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm					
NAME: 89014LED			TYPE:		WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-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	.079	.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	.058	.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		

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	.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	.084	.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	.098	.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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm											
NAME: 89014LED					TYPE:			WEIGHT:			
SPEC.:P-89014LED-8W2750-CI25031R90-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	19.6	19.8
	3H	16.9	17.7	17.2	17.9	18.1	18.4	19.2	18.7	19.4	19.6
	4H	16.9	17.6	17.1	17.8	18.1	18.3	19.1	18.6	19.3	19.5
	6H	16.8	17.5	17.1	17.7	18.0	18.2	18.9	18.5	19.2	19.4
	8H	16.7	17.4	17.0	17.7	17.9	18.2	18.9	18.5	19.1	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	17.2	17.8	18.1	18.3	19.1	18.6	19.3	19.5
	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	18.4	19.0	19.3
	6H	16.5	17.0	16.9	17.4	17.7	18.0	18.5	18.3	18.8	19.2
	8H	16.5	16.9	16.8	17.3	17.7	17.9	18.4	18.3	18.7	19.1
	12H	16.4	16.8	16.8	17.2	17.6	17.9	18.3	18.3	18.7	19.1
8H	4H	16.5	16.9	16.8	17.3	17.7	17.9	18.4	18.3	18.7	19.1
	6H	16.3	16.7	16.8	17.1	17.6	17.8	18.2	18.2	18.6	19.0
	8H	16.3	16.6	16.7	17.1	17.5	17.8	18.1	18.2	18.5	19.0
	12H	16.2	16.5	16.7	17.0	17.4	17.7	18.0	18.2	18.4	18.9
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	17.1	17.5	17.8	18.1	18.2	18.5	19.0
	8H	16.2	16.5	16.7	17.0	17.4	17.7	18.0	18.2	18.4	18.9
Variations with the observer position at spacings:											
S = 1.0H	+ 3.3 / -11.3					+ 4.2 / -12.3					
1.5H	+ 5.4 / - 7.0					+ 6.5 / - 8.6					
2.0H	+ 4.7 / -17.3					+ 5.7 / -18.3					

CIE Pub.117, 664.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.4)
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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

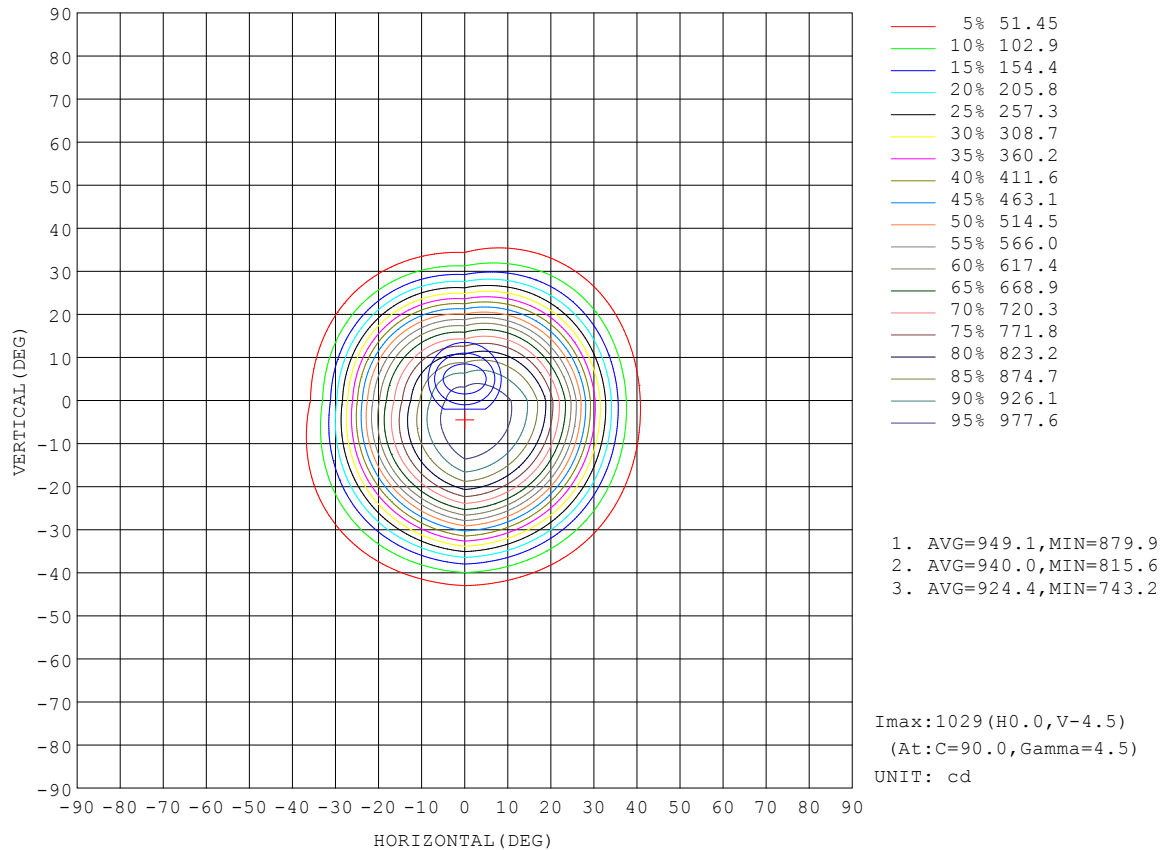
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	76
0.80	96	91	87	96	90	87	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	97	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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

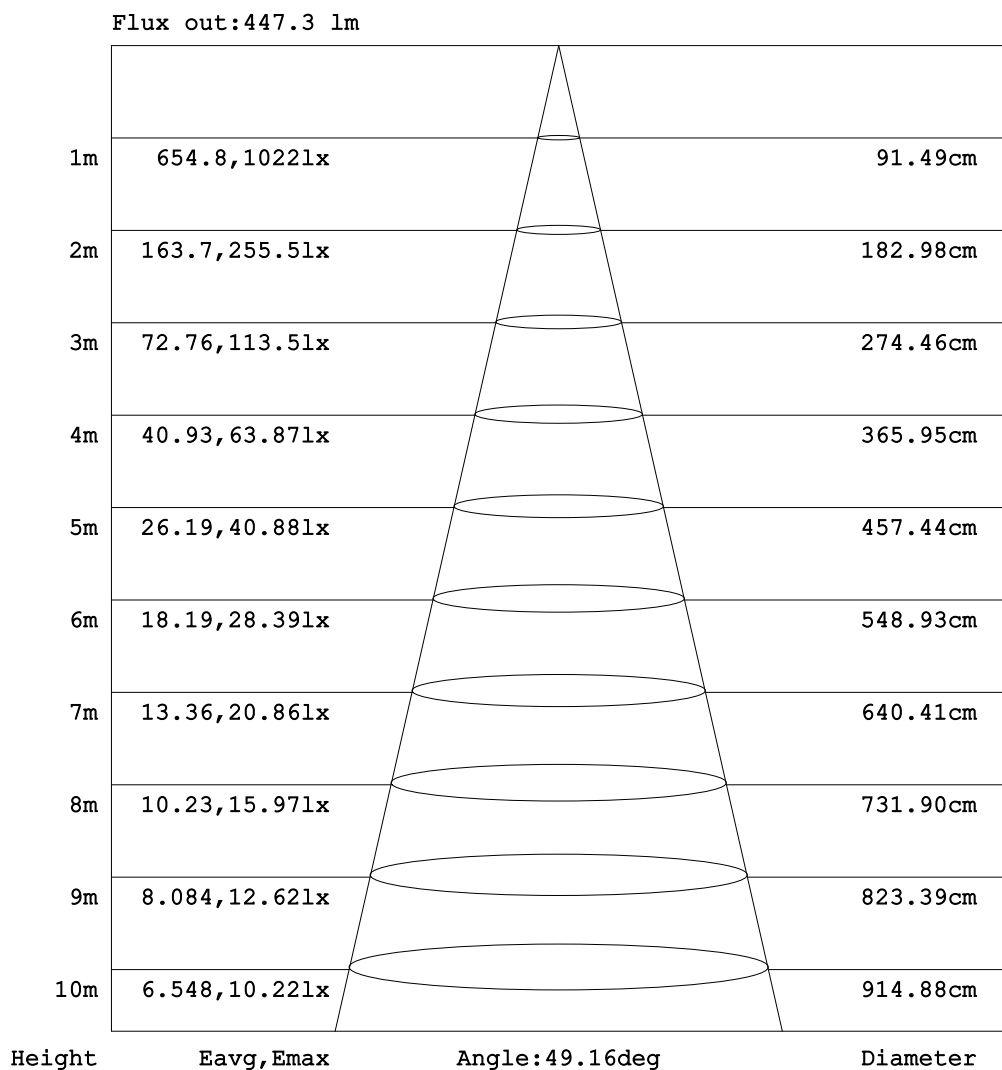


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



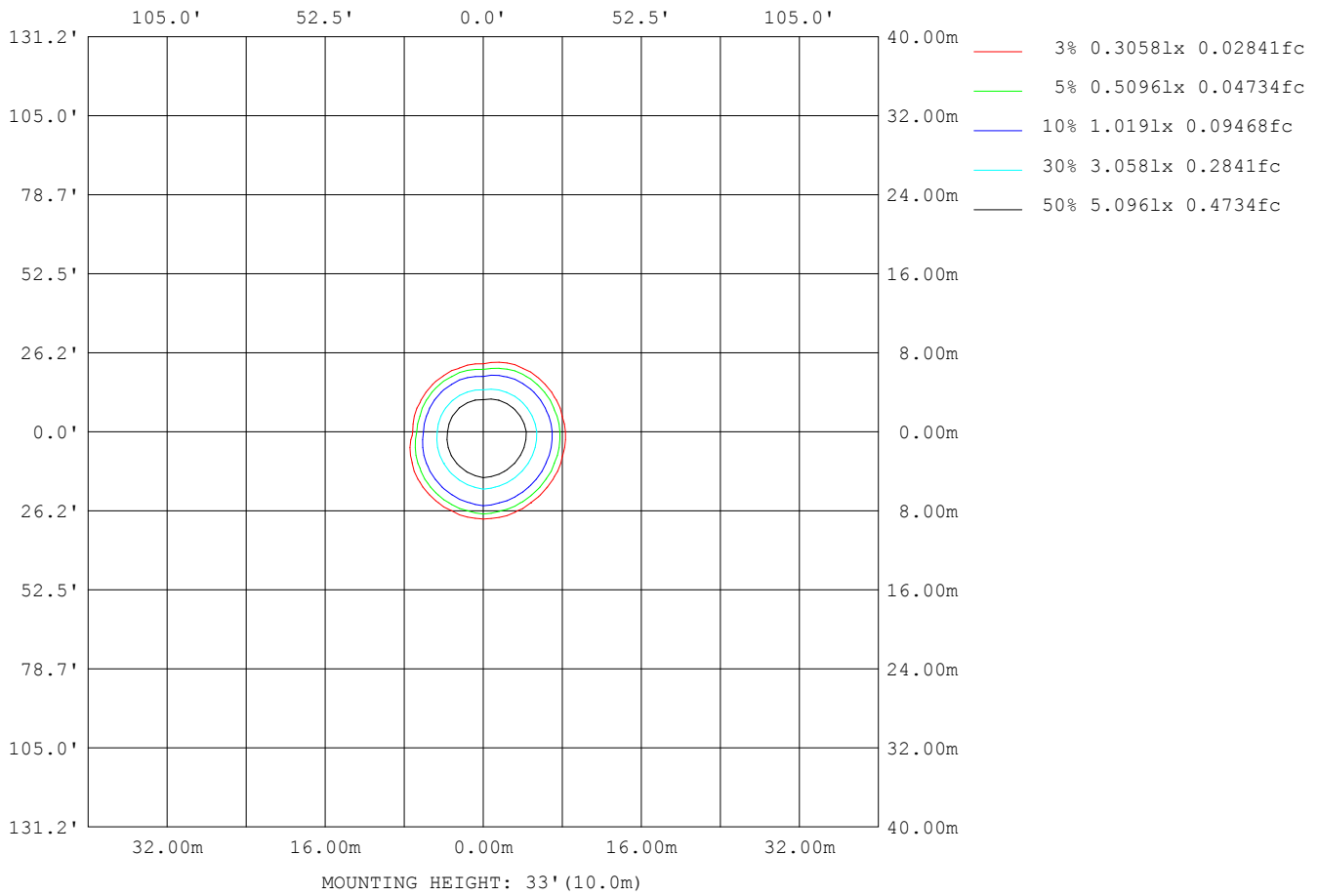
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

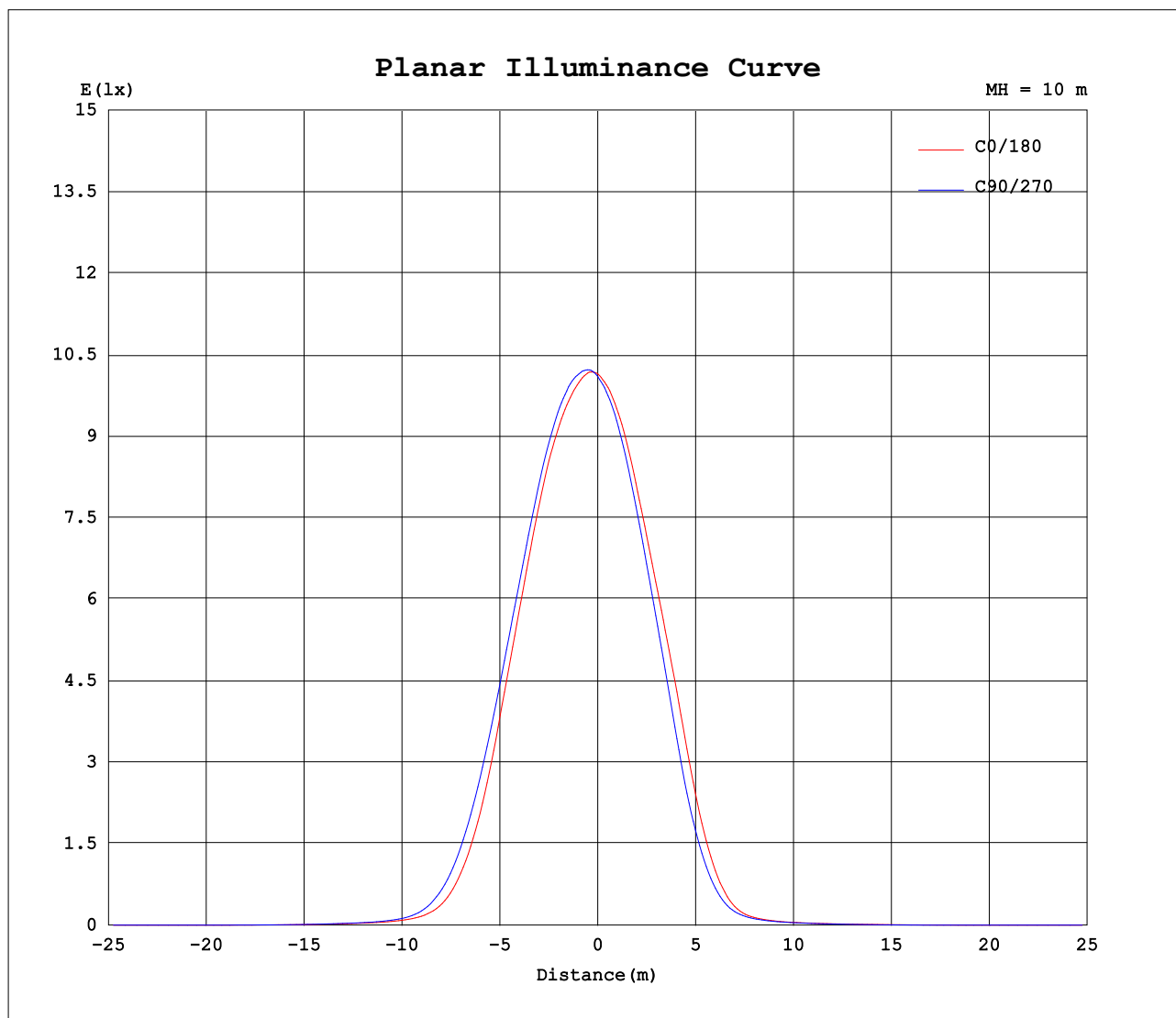
AvgL	cd/m2
L_0~180 (65) av	83
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	56
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	65
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date: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:232.30V I:0.0664A P:8.7844W PF:0.5695 Freq:50.00Hz Lamp Flux:664.148x1 lm		
NAME: 89014LED	TYPE:	WEIGHT:
SPEC.:P-89014LED-8W2750-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1014	1009	1014	1009															
5	1015	1029	971	950															
10	985	1015	884	842															
15	917	957	758	696															
20	787	842	610	516															
25	604	681	407	301															
30	373	476	194	132															
35	174	261	62.1	45.1															
40	59.4	102	24.6	21.1															
45	25.6	35.1	14.1	12.8															
50	14.3	18.0	9.49	8.23															
55	7.62	9.70	5.81	4.11															
60	2.45	2.68	2.00	0.53															
65	0.25	0.22	0.20	0.08															
70	0.03	0.00	0.00	0.01															
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	0.04															
95	0.00	0.00	0.00	0.03															
100	0.00	0.00	0.00	0.00															
105	0.00	0.02	0.00	0.07															
110	0.00	0.03	0.00	0.00															
115	0.00	0.02	0.00	0.01															
120	0.00	0.01	0.01	0.02															
125	0.01	0.02	0.03	0.06															
130	0.08	0.06	0.09	0.15															
135	0.22	0.17	0.22	0.31															
140	0.44	0.36	0.41	0.54															
145	0.72	0.63	0.66	0.79															
150	1.04	0.91	0.93	1.04															
155	1.38	1.27	1.20	1.33															
160	1.66	1.56	1.45	1.55															
165	1.86	1.78	1.66	1.74															
170	2.10	2.02	1.93	2.02															
175	2.27	2.23	2.18	2.25															
180	2.33	2.37	2.33	2.37															

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: