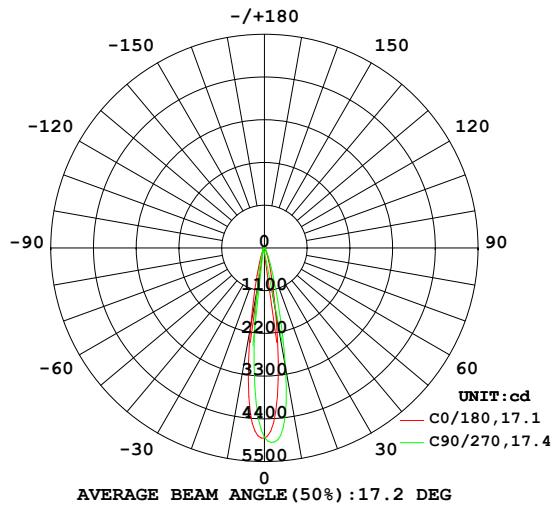


LUMINAIRE PHOTOMETRIC TEST REPORT

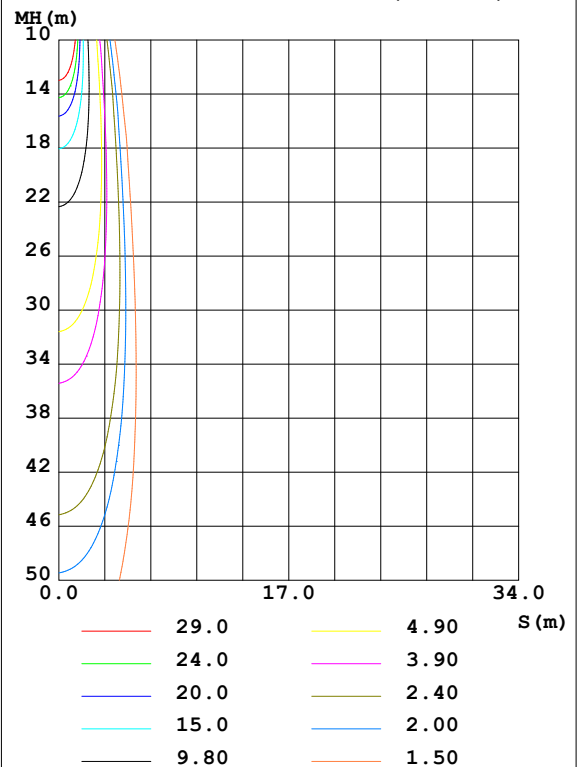
Test:U:232.34V I:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 70.73 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	5009	S/MH(C0/180)	0.30
NOMINAL POWER(W)	8W	LOR(%)	100.0	S/MH(C90/270)	0.22
RATED VOLTAGE(V)		TOTAL FLUX(lm)	657.38	η UP,DN(C0-180)	0.2,57.5
NOMINAL FLUX(lm)	657.381	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.1,42.2
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: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	1641	3129	2028	1065					0- 10	311.8	311.8	47.4,47.4
20	270.2	447.8	313.4	188.6					10- 20	221.9	533.7	81.2,81.2
30	72.73	103.9	80.53	54.31					20- 30	71.86	605.6	92.1,92.1
40	25.88	33.44	27.40	21.61					30- 40	28.65	634.2	96.5,96.5
50	13.52	12.50	14.26	9.440					40- 50	14.77	649.0	98.7,98.7
60	3.248	0.6380	3.259	0.3754					50- 60	5.778	654.8	99.6,99.6
70	0.0733	0	0.0537	0.0192					60- 70	0.4949	655.3	99.7,99.7
80	0	0	0	0.0000					70- 80	0.0053	655.3	99.7,99.7
90	0	0	0	0					80- 90	0.0000	655.3	99.7,99.7
100	0	0	0	0					90-100	0	655.3	99.7,99.7
110	0	0.0227	0	0					100-110	0.0014	655.3	99.7,99.7
120	0	0.0122	0.0070	0.0122					110-120	0.0078	655.3	99.7,99.7
130	0.0418	0.0506	0.0366	0.0592					120-130	0.0208	655.3	99.7,99.7
140	0.2004	0.1658	0.1030	0.1691					130-140	0.0708	655.4	99.7,99.7
150	0.9632	0.5511	0.3647	0.6082					140-150	0.2001	655.6	99.7,99.7
160	3.161	2.506	1.668	2.386					150-160	0.6380	656.2	99.8,99.8
170	3.387	3.679	3.022	2.930					160-170	0.8596	657.1	100,100
180	2.656	2.654	2.658	2.656					170-180	0.2860	657.4	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 642.63 lm

%lum = 97.8%

%lamp = 97.8%

Conical surface Flux(120deg): 654.8 lm

%lum = 99.6%

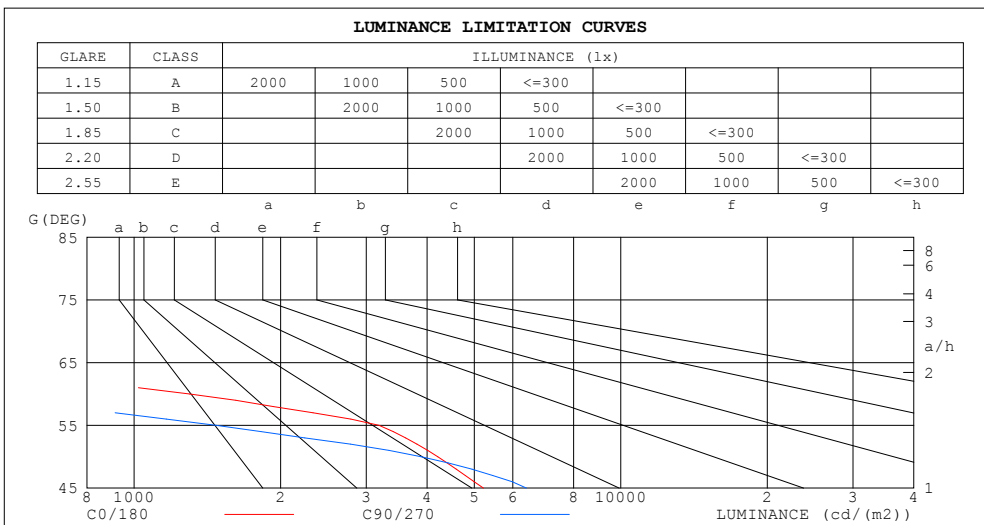
%lamp = 99.6%

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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-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	43	0
65	244	50
60	1299	255
55	3187	1475
50	4206	3888
45	5221	6399

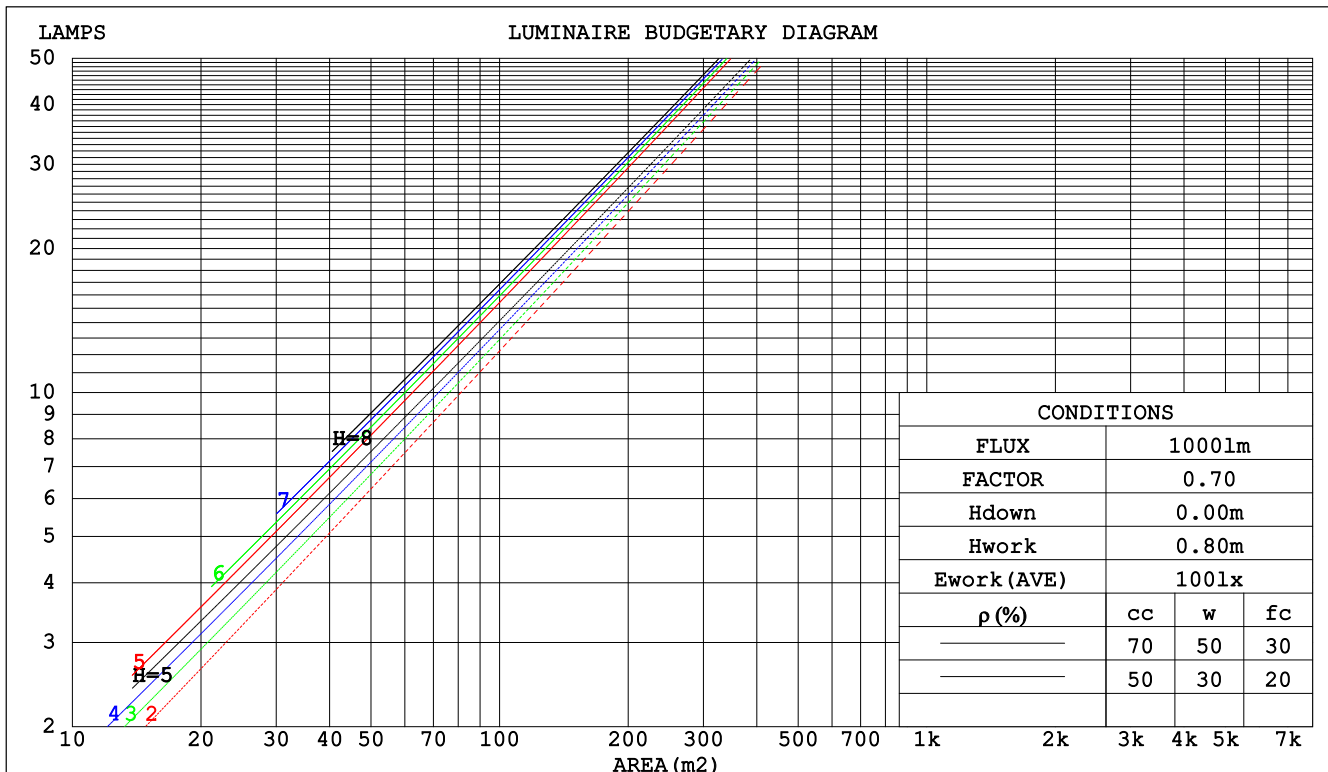
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-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	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	1.10	1.11	1.09	1.08	1.07	1.06	1.05	1.03	1.02	1.01	.00	.99	.98	.97
2.0	1.08	1.05	1.03	1.06	1.04	1.02	1.03	1.01	.99	1.00	.99	.97	.98	.96	.95	.94
3.0	1.04	1.00	.98	1.02	.99	.97	.00	.97	.95	.98	.96	.94	.95	.94	.92	.91
4.0	.00	.96	.93	.99	.95	.93	.97	.94	.92	.95	.93	.91	.93	.91	.90	.88
5.0	.97	.93	.90	.96	.92	.89	.94	.91	.89	.93	.90	.88	.91	.89	.87	.86
6.0	.94	.90	.87	.93	.89	.87	.92	.88	.86	.90	.88	.86	.89	.87	.85	.84
7.0	.91	.87	.84	.90	.87	.84	.89	.86	.84	.88	.85	.83	.87	.85	.83	.82
8.0	.89	.85	.82	.88	.84	.82	.87	.84	.82	.86	.83	.81	.86	.83	.81	.80
9.0	.86	.83	.80	.86	.82	.80	.85	.82	.80	.84	.82	.79	.84	.81	.79	.78
10.0	.84	.81	.78	.84	.81	.78	.83	.80	.78	.83	.80	.78	.82	.80	.78	.77



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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-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	.132	.075	.024	.125	.071	.023	.112	.065	.021	.101	.058	.019	.090	.052	.017		
2.0	.122	.067	.021	.116	.064	.020	.106	.059	.018	.097	.054	.017	.088	.050	.016		
3.0	.113	.060	.018	.109	.058	.018	.100	.054	.016	.092	.051	.015	.085	.047	.015		
4.0	.106	.055	.016	.102	.053	.016	.095	.050	.015	.088	.047	.014	.082	.044	.014		
5.0	.099	.051	.015	.096	.049	.014	.090	.047	.014	.084	.044	.013	.079	.042	.013		
6.0	.094	.047	.013	.091	.046	.013	.085	.044	.013	.081	.042	.012	.076	.040	.012		
7.0	.088	.044	.012	.086	.043	.012	.081	.041	.012	.077	.040	.012	.073	.038	.011		
8.0	.084	.041	.012	.082	.040	.011	.078	.039	.011	.074	.038	.011	.070	.036	.011		
9.0	.080	.039	.011	.078	.038	.011	.075	.037	.010	.071	.036	.010	.068	.035	.010		
10.0	.076	.037	.010	.075	.036	.010	.071	.035	.010	.068	.034	.010	.066	.033	.009		

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	.170	.160	.151	.146	.137	.130	.100	.095	.090	.057	.055	.052	.018	.018	.017	
2.0	.152	.135	.121	.130	.116	.105	.089	.081	.073	.051	.047	.043	.017	.015	.014	
3.0	.137	.116	.099	.117	.100	.086	.081	.069	.060	.046	.040	.035	.015	.013	.012	
4.0	.124	.100	.082	.106	.087	.071	.073	.060	.050	.042	.035	.030	.014	.012	.010	
5.0	.113	.088	.069	.097	.076	.060	.067	.053	.042	.039	.031	.025	.013	.010	.008	
6.0	.104	.078	.059	.089	.067	.051	.062	.047	.036	.036	.028	.022	.012	.009	.007	
7.0	.096	.070	.051	.083	.060	.044	.057	.042	.031	.033	.025	.019	.011	.008	.006	
8.0	.090	.063	.044	.077	.054	.039	.053	.038	.027	.031	.023	.016	.010	.007	.005	
9.0	.084	.057	.039	.072	.049	.034	.050	.035	.024	.029	.020	.014	.009	.007	.005	
10.0	.079	.052	.034	.068	.045	.030	.047	.032	.021	.027	.019	.013	.009	.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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm											
NAME: 29014LED					TYPE:			WEIGHT:			
SPEC.:P-29014LED-8W2715-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	2H	10.6	11.2	10.8	11.3	11.5	11.0	11.6	11.2	11.7	11.9
	3H	10.4	11.0	10.7	11.2	11.4	10.8	11.4	11.1	11.6	11.8
	4H	10.4	10.9	10.6	11.1	11.3	10.7	11.3	11.0	11.5	11.7
	6H	10.3	10.8	10.6	11.0	11.3	10.7	11.2	10.9	11.4	11.6
	8H	10.2	10.7	10.5	11.0	11.2	10.6	11.1	10.9	11.4	11.6
	12H	10.2	10.7	10.5	10.9	11.2	10.6	11.0	10.9	11.3	11.6
4H	2H	10.4	11.0	10.7	11.2	11.4	10.8	11.3	11.1	11.6	11.8
	3H	10.2	10.7	10.5	11.0	11.3	10.6	11.1	10.9	11.4	11.6
	4H	10.1	10.6	10.5	10.9	11.2	10.5	11.0	10.9	11.3	11.6
	6H	10.0	10.4	10.4	10.8	11.1	10.4	10.8	10.8	11.1	11.5
	8H	10.0	10.3	10.4	10.7	11.1	10.4	10.7	10.8	11.1	11.5
	12H	9.9	10.3	10.3	10.6	11.0	10.3	10.6	10.7	11.0	11.4
8H	4H	10.0	10.3	10.4	10.7	11.1	10.4	10.7	10.8	11.1	11.5
	6H	9.9	10.2	10.3	10.6	11.0	10.3	10.6	10.7	11.0	11.4
	8H	9.8	10.1	10.3	10.5	10.9	10.2	10.5	10.6	10.9	11.3
	12H	9.7	10.0	10.2	10.4	10.9	10.1	10.4	10.6	10.8	11.3
12H	4H	9.9	10.3	10.3	10.6	11.0	10.3	10.6	10.7	11.0	11.4
	6H	9.8	10.1	10.3	10.5	10.9	10.2	10.5	10.6	10.9	11.3
	8H	9.7	10.0	10.2	10.4	10.9	10.1	10.4	10.6	10.8	11.3
Variations with the observer position at spacings:											
S = 1.0H		+ 2.0 / - 4.3					+ 2.9 / -10.0				
1.5H		+ 1.8 / - 2.6					+ 3.3 / - 4.9				
2.0H		+ 3.9 / -13.1					+ 5.5 / -18.1				

CIE Pub.117, 657.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.5)
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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

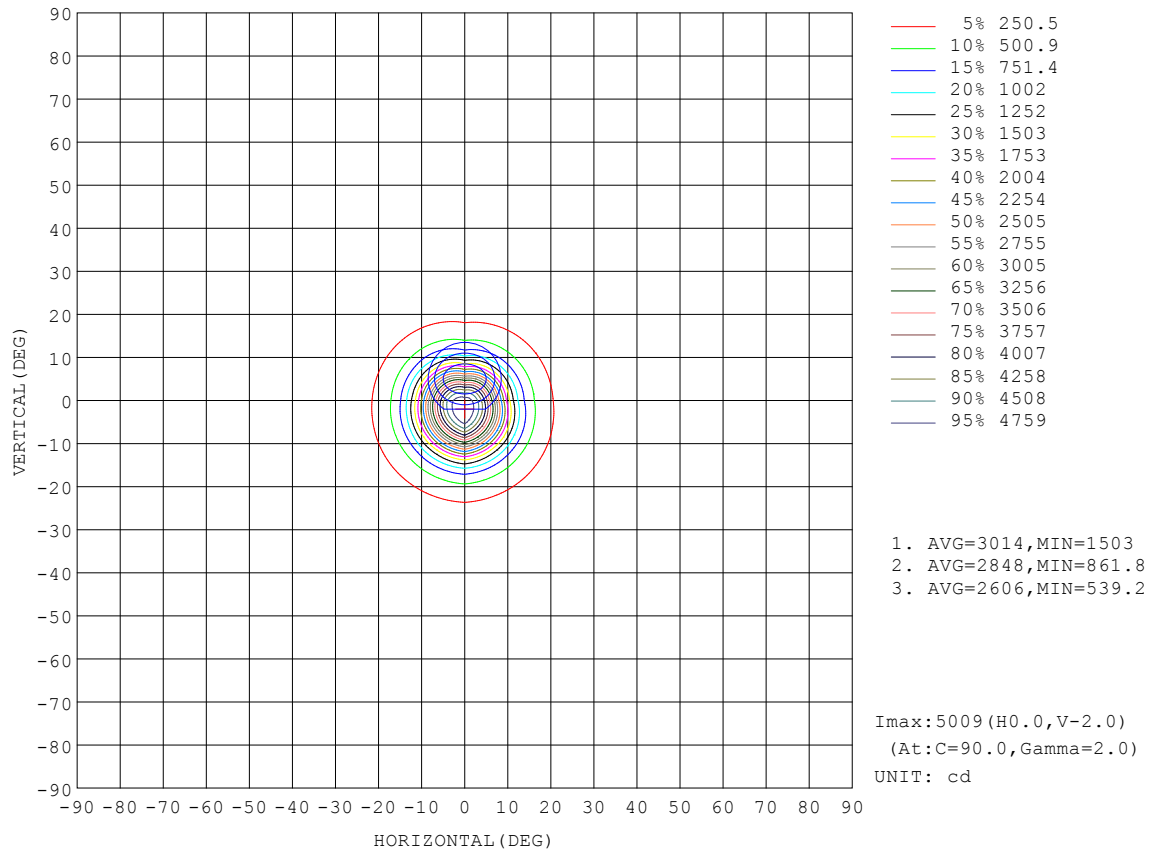
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	87	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	87
1.25	104	100	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	102	105	102	100	95
2.50	111	107	104	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	108	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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

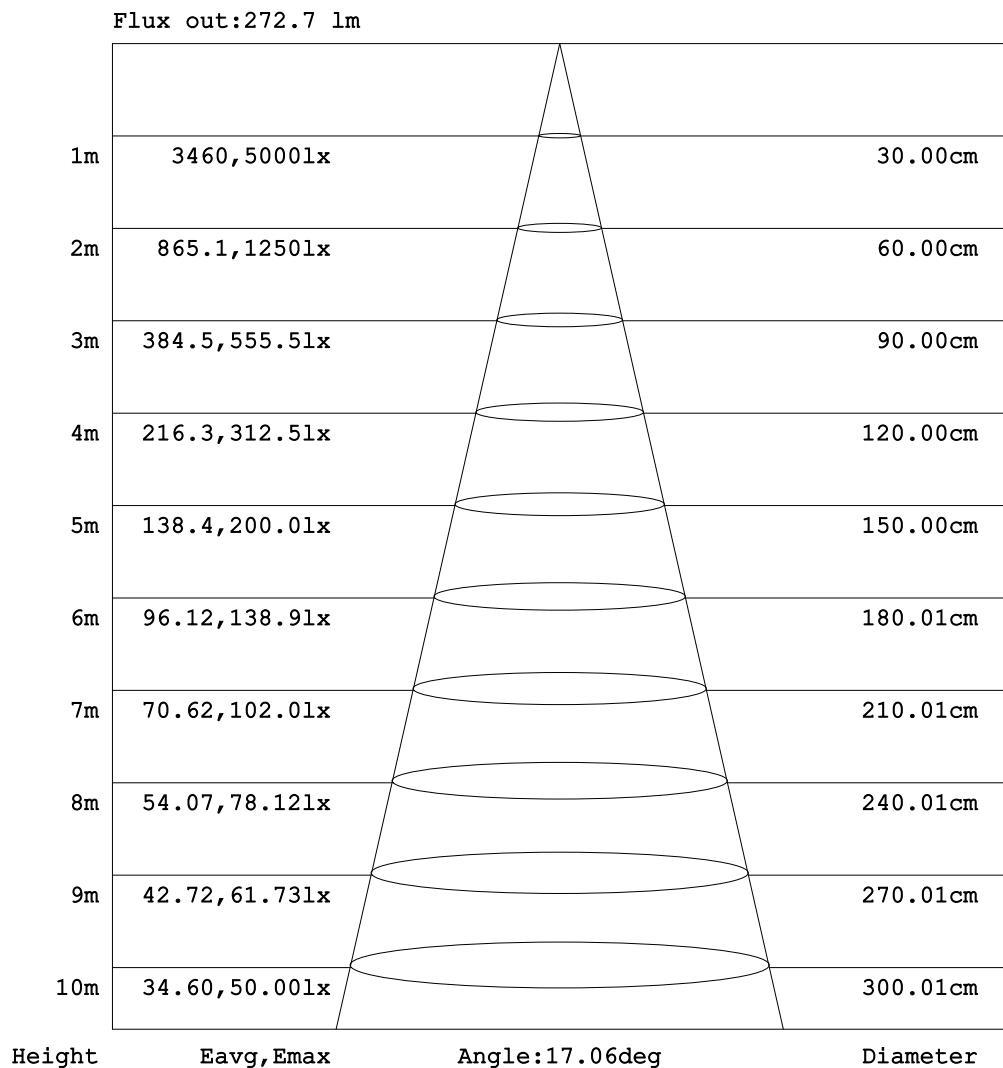


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-11-14

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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



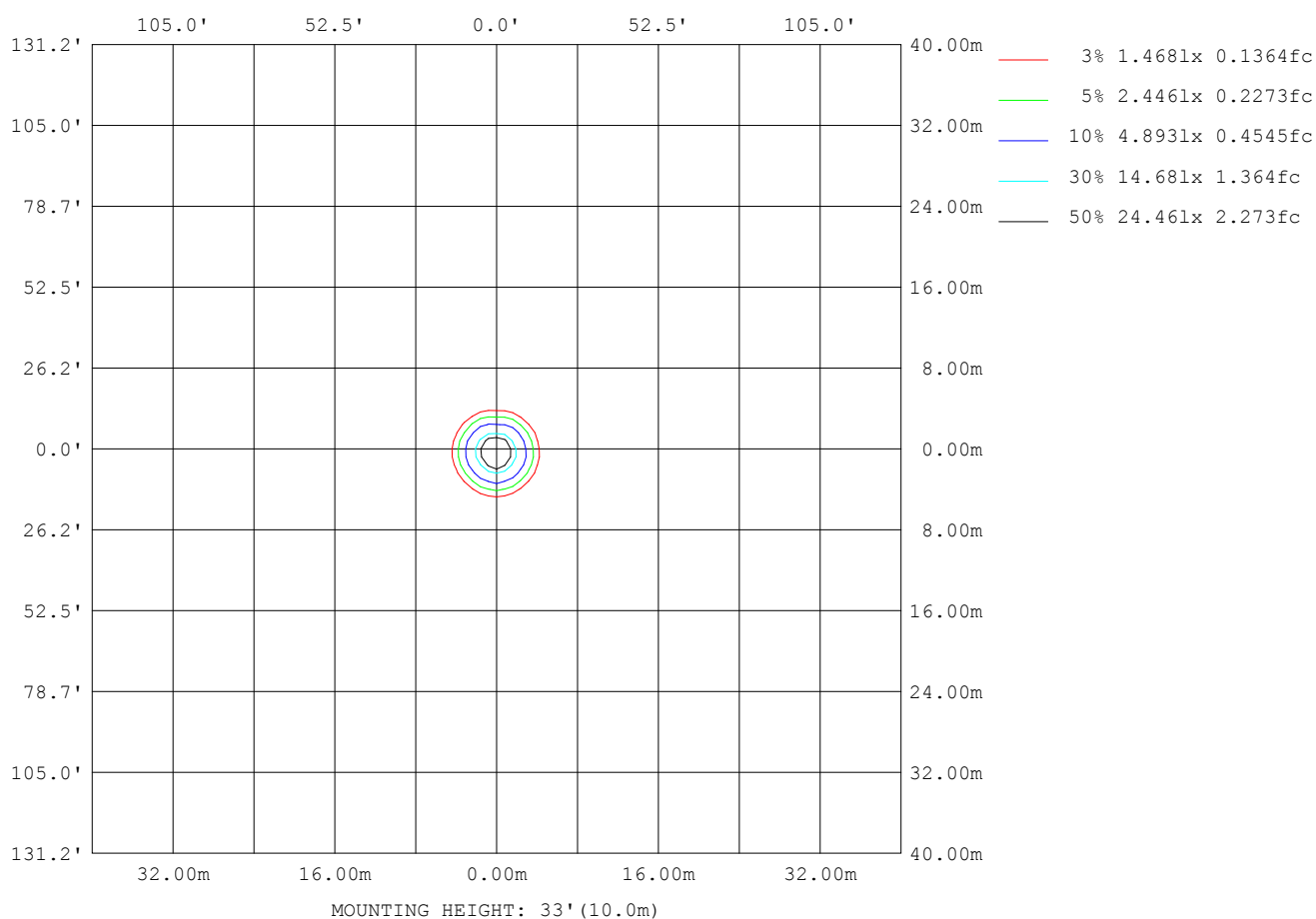
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date: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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.38lx1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-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: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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

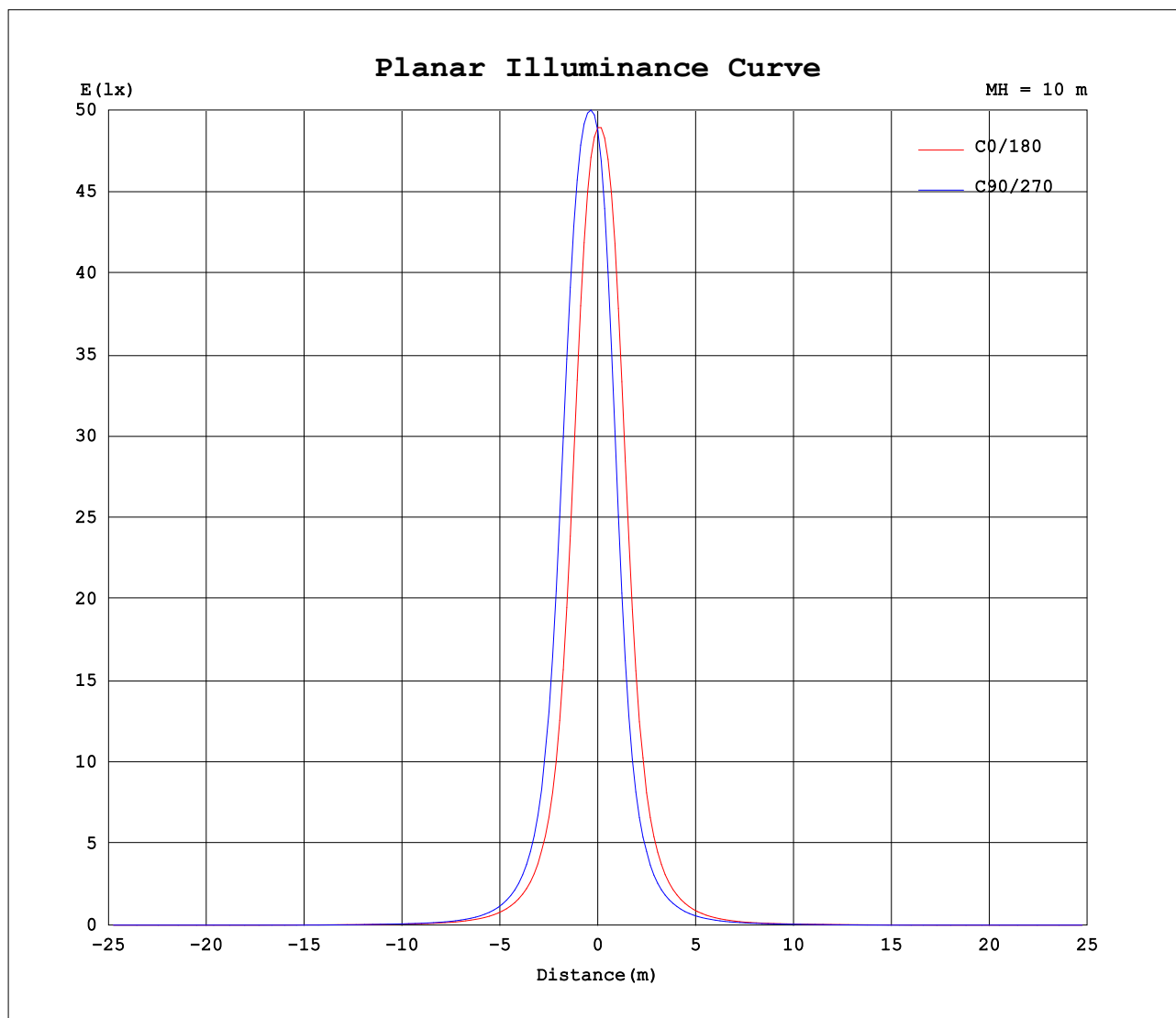
AvgL	cd/m2
L_0~180 (65) av	199
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	42
L_90~270 (75) av	4
L_90~270 (85) av	0
L_45 (65) av	98
L_45 (75) av	3
L_45 (85) av	0

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:0.0442A P:9.2948W PF:0.9053 Freq:50.00Hz Lamp Flux:657.381x1 lm		
NAME: 29014LED	TYPE:	WEIGHT:
SPEC.:P-29014LED-8W2715-CI25031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	4893	4871	4893	4871															
5	3843	4840	4231	3065															
10	1641	3129	2028	1065															
15	606	1186	733	409															
20	270	448	313	189															
25	135	205	153	96.6															
30	72.7	104	80.5	54.3															
35	41.0	57.0	45.1	31.7															
40	25.9	33.4	27.4	21.6															
45	18.5	22.6	19.3	15.9															
50	13.5	12.5	14.3	9.44															
55	9.14	4.23	9.29	2.96															
60	3.25	0.64	3.26	0.38															
65	0.51	0.10	0.32	0.07															
70	0.07	0.00	0.05	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	0.02	0.00	0.00															
115	0.00	0.04	0.00	0.00															
120	0.00	0.01	0.01	0.01															
125	0.01	0.03	0.02	0.03															
130	0.04	0.05	0.04	0.06															
135	0.10	0.09	0.06	0.10															
140	0.20	0.17	0.10	0.17															
145	0.42	0.29	0.18	0.30															
150	0.96	0.55	0.36	0.61															
155	2.01	1.35	0.81	1.40															
160	3.16	2.51	1.67	2.39															
165	3.69	3.47	2.58	3.01															
170	3.39	3.68	3.02	2.93															
175	2.81	3.16	2.85	2.52															
180	2.66	2.65	2.66	2.66															

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