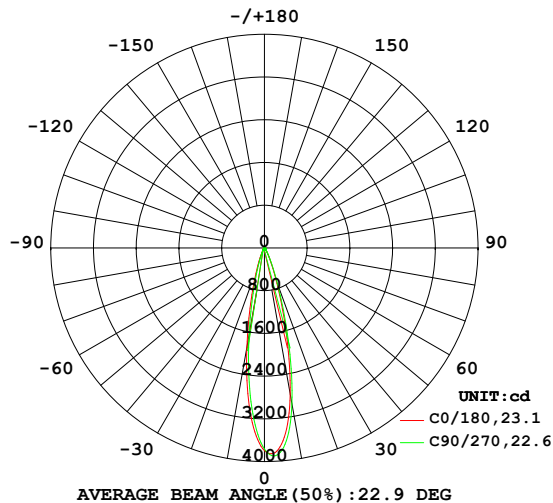


LUMINAIRE PHOTOMETRIC TEST REPORT

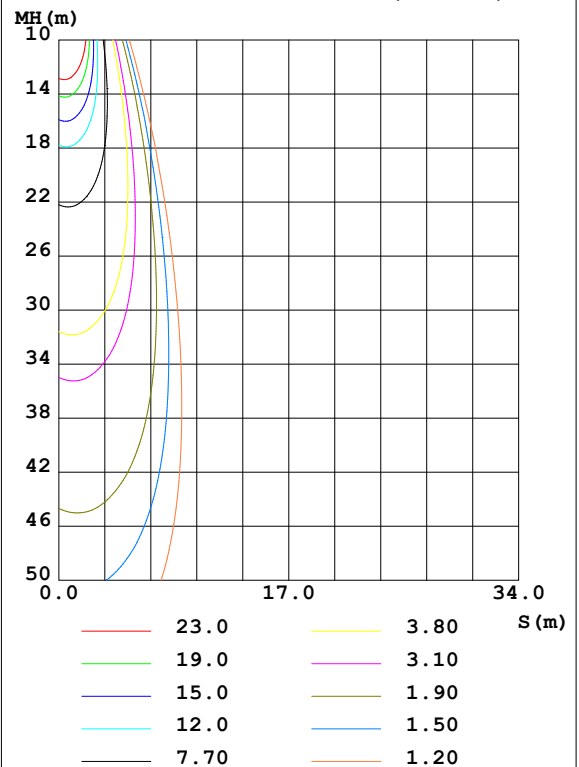
Test:U:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 70.21 lm/W			
MODEL	CLU701 1002	I _{max} (cd)	3898	S/MH (C0/180)	0.34
NOMINAL POWER (W)	10W	LOR (%)	100.0	S/MH (C90/270)	0.31
RATED VOLTAGE (V)		TOTAL FLUX (lm)	792.19	η UP, DN (C0-180)	0.2, 61.5
NOMINAL FLUX (lm)	792.188	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.2, 38.2
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: 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	2780	2964	1894	1654					0- 10	287.1	287.1	36.2,36.2
20	646.1	718.4	388.2	307.4					10- 20	334.8	621.9	78.5,78.5
30	115.1	130.0	79.40	64.82					20- 30	107.8	729.7	92.1,92.1
40	37.76	39.70	29.39	27.34					30- 40	34.62	764.3	96.5,96.5
50	16.91	17.52	13.08	11.77					40- 50	17.97	782.3	98.7,98.7
60	3.070	1.112	3.129	1.379					50- 60	6.751	789.0	99.6,99.6
70	0.0734	0	0.0535	0.0192					60- 70	0.5346	789.5	99.7,99.7
80	0	0	0	0.0000					70- 80	0.0049	789.5	99.7,99.7
90	0	0	0	0					80- 90	0.0000	789.5	99.7,99.7
100	0	0	0	0					90-100	0.0095	789.6	99.7,99.7
110	0.0850	0	0.2024	0.0314					100-110	0.0187	789.6	99.7,99.7
120	0.0017	0.0611	0.0174	0.0488					110-120	0.1084	789.7	99.7,99.7
130	0.0435	0.0994	0.0576	0.0906					120-130	0.0433	789.7	99.7,99.7
140	0.2300	0.2583	0.1816	0.2319					130-140	0.0993	789.8	99.7,99.7
150	1.059	0.9034	0.7869	0.8801					140-150	0.2967	790.1	99.7,99.7
160	3.020	2.881	2.374	2.595					150-160	0.7913	790.9	99.8,99.8
170	3.983	4.014	3.312	3.293					160-170	0.9323	791.8	100,100
180	3.624	3.559	3.622	3.564					170-180	0.3451	792.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 774.63 lm

%lum = 97.8%

%lamp = 97.8%

Conical surface Flux(120deg): 789 lm

%lum = 99.6%

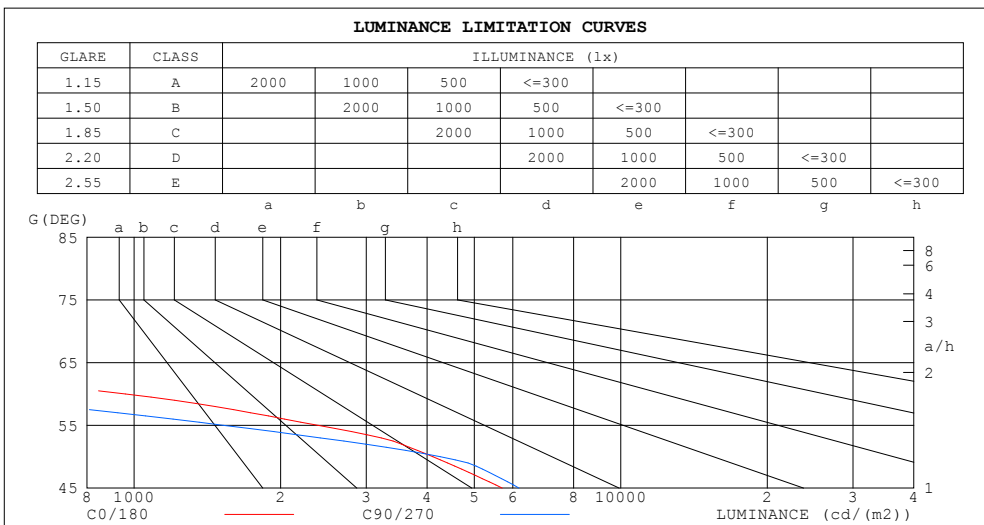
%lamp = 99.6%

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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-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	0
65	173	66
60	960	348
55	2389	1526
50	4112	4259
45	5704	6178

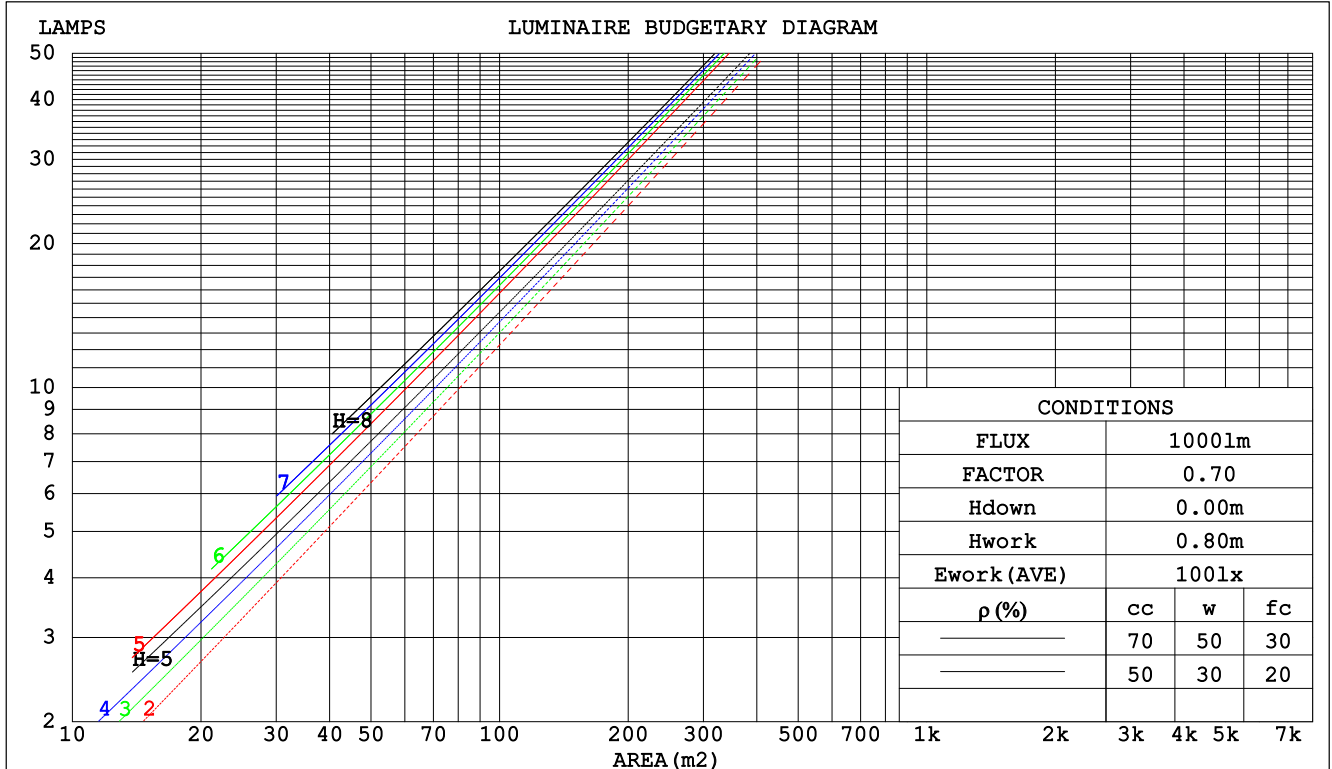
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-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	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.02	1.06	1.03	1.01	1.02	1.00	.98	.00	.98	.96	.97	.95	.94	.93
3.0	1.03	.99	.96	1.01	.98	.95	.99	.96	.94	.96	.94	.92	.94	.92	.91	.90
4.0	.98	.94	.91	.97	.94	.91	.95	.92	.90	.93	.91	.89	.92	.90	.88	.87
5.0	.95	.91	.87	.94	.90	.87	.92	.89	.86	.91	.88	.86	.89	.87	.85	.84
6.0	.91	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.83	.87	.84	.82	.81
7.0	.88	.84	.81	.88	.84	.81	.87	.83	.81	.86	.83	.80	.85	.82	.80	.79
8.0	.86	.81	.79	.85	.81	.78	.84	.81	.78	.83	.80	.78	.82	.80	.78	.77
9.0	.83	.79	.76	.83	.79	.76	.82	.78	.76	.81	.78	.76	.80	.78	.75	.74
10.0	.81	.77	.74	.80	.77	.74	.80	.76	.74	.79	.76	.74	.78	.76	.73	.73



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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm					
NAME: 59014LED			TYPE:		WEIGHT:
SPEC.:P-59014LED-10W2724-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	.139	.079	.025	.132	.075	.024	.119	.068	.022	.108	.062	.020	.097	.056	.018	
2.0	.129	.071	.022	.123	.068	.021	.113	.063	.020	.103	.058	.018	.095	.054	.017	
3.0	.120	.064	.019	.116	.062	.019	.107	.058	.018	.099	.054	.017	.092	.051	.016	
4.0	.113	.059	.017	.109	.057	.017	.102	.054	.016	.095	.051	.015	.089	.048	.015	
5.0	.107	.054	.016	.103	.053	.015	.097	.050	.015	.091	.048	.014	.086	.046	.014	
6.0	.101	.051	.014	.098	.049	.014	.092	.047	.014	.087	.045	.013	.083	.043	.013	
7.0	.096	.047	.013	.093	.046	.013	.088	.045	.013	.084	.043	.013	.080	.041	.012	
8.0	.091	.044	.013	.089	.044	.012	.085	.042	.012	.081	.041	.012	.077	.040	.012	
9.0	.087	.042	.012	.085	.041	.012	.081	.040	.011	.078	.039	.011	.075	.038	.011	
10.0	.083	.040	.011	.082	.039	.011	.078	.038	.011	.075	.037	.011	.072	.036	.010	

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	.171	.160	.150	.146	.138	.130	.100	.095	.090	.058	.055	.052	.018	.018	.017	
2.0	.153	.135	.120	.131	.116	.104	.090	.081	.073	.052	.047	.043	.017	.015	.014	
3.0	.138	.116	.098	.119	.100	.085	.081	.069	.060	.047	.041	.035	.015	.013	.012	
4.0	.126	.101	.081	.108	.087	.071	.074	.061	.050	.043	.035	.029	.014	.012	.010	
5.0	.115	.088	.068	.099	.076	.059	.068	.053	.042	.040	.031	.025	.013	.010	.008	
6.0	.107	.078	.058	.092	.068	.051	.063	.047	.036	.037	.028	.021	.012	.009	.007	
7.0	.099	.070	.050	.085	.061	.043	.059	.043	.031	.034	.025	.018	.011	.008	.006	
8.0	.093	.063	.043	.080	.055	.038	.055	.039	.027	.032	.023	.016	.010	.007	.005	
9.0	.087	.058	.038	.075	.050	.033	.052	.035	.024	.030	.021	.014	.010	.007	.005	
10.0	.082	.053	.034	.071	.046	.029	.049	.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: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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm											
NAME: 59014LED					TYPE:			WEIGHT:			
SPEC.:P-59014LED-10W2724-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		10.3	10.9	10.5	11.1	11.3	10.4	11.1	10.6	11.2	11.4
	3H	10.1	10.7	10.4	10.9	11.1	10.2	10.9	10.5	11.1	11.2
	4H	10.1	10.6	10.3	10.9	11.1	10.2	10.8	10.4	11.0	11.2
	6H	10.0	10.5	10.3	10.8	11.0	10.1	10.6	10.4	10.9	11.1
	8H	9.9	10.5	10.2	10.7	11.0	10.0	10.6	10.3	10.8	11.1
	12H	9.9	10.4	10.2	10.7	10.9	10.0	10.5	10.3	10.8	11.0
4H	2H	10.1	10.7	10.4	10.9	11.1	10.2	10.8	10.5	11.0	11.2
	3H	9.9	10.4	10.2	10.7	11.0	10.0	10.6	10.4	10.8	11.1
	4H	9.8	10.3	10.2	10.6	10.9	9.9	10.4	10.3	10.7	11.0
	6H	9.7	10.1	10.1	10.5	10.8	9.8	10.3	10.2	10.6	10.9
	8H	9.7	10.1	10.1	10.4	10.8	9.8	10.2	10.2	10.5	10.9
	12H	9.6	10.0	10.0	10.3	10.7	9.7	10.1	10.1	10.5	10.9
8H	4H	9.7	10.1	10.1	10.4	10.8	9.8	10.2	10.2	10.5	10.9
	6H	9.5	9.9	10.0	10.3	10.7	9.7	10.0	10.1	10.4	10.8
	8H	9.5	9.8	9.9	10.2	10.6	9.6	9.9	10.1	10.3	10.8
	12H	9.4	9.7	9.9	10.1	10.6	9.5	9.8	10.0	10.2	10.7
12H	4H	9.6	10.0	10.0	10.3	10.7	9.7	10.1	10.1	10.5	10.9
	6H	9.5	9.8	9.9	10.2	10.6	9.6	9.9	10.1	10.3	10.8
	8H	9.4	9.7	9.9	10.1	10.6	9.5	9.8	10.0	10.2	10.7
Variations with the observer position at spacings:											
S = 1.0H	+ 2.2 / - 6.1					+ 2.5 / - 9.6					
1.5H	+ 2.3 / - 4.5					+ 2.7 / - 5.7					
2.0H	+ 4.5 / -15.2					+ 5.2 / -17.4					

CIE Pub.117, 792.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.8)
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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

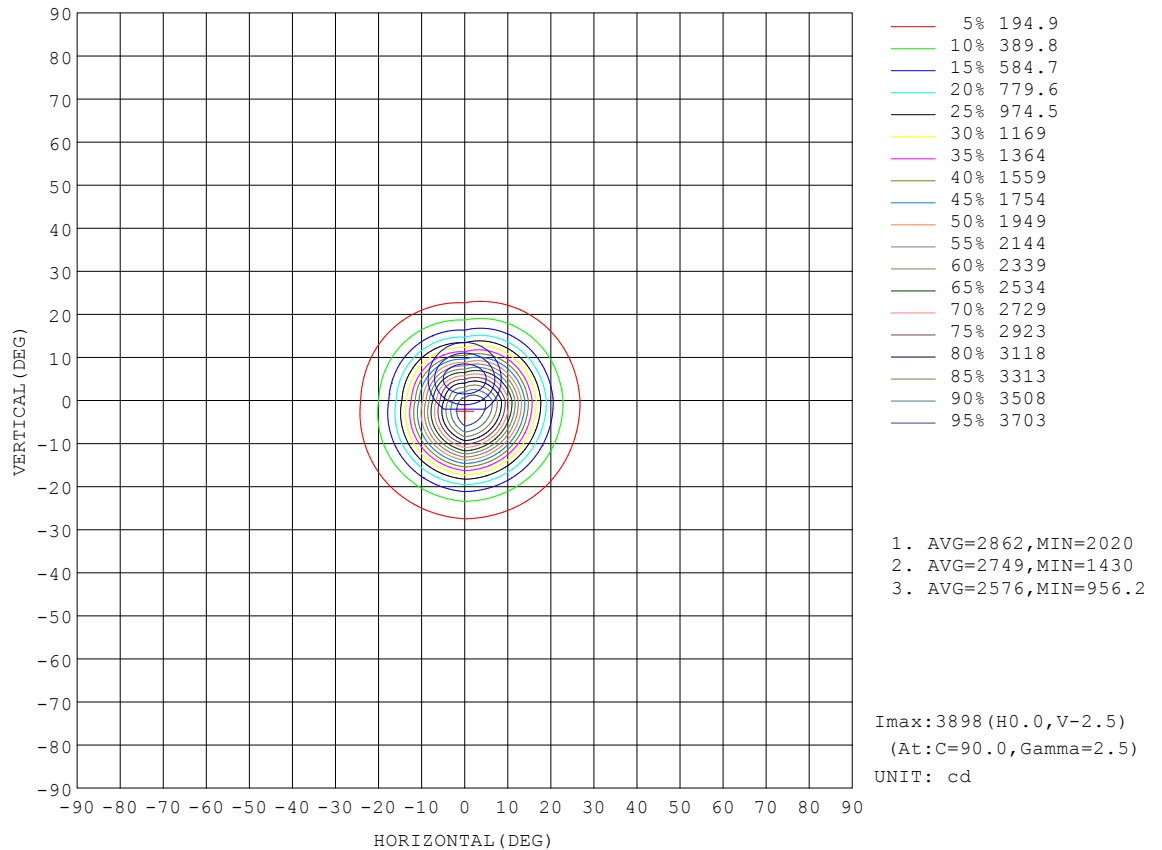
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	87	95	90	87	84
1.00	101	95	92	100	95	92	98	95	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	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: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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

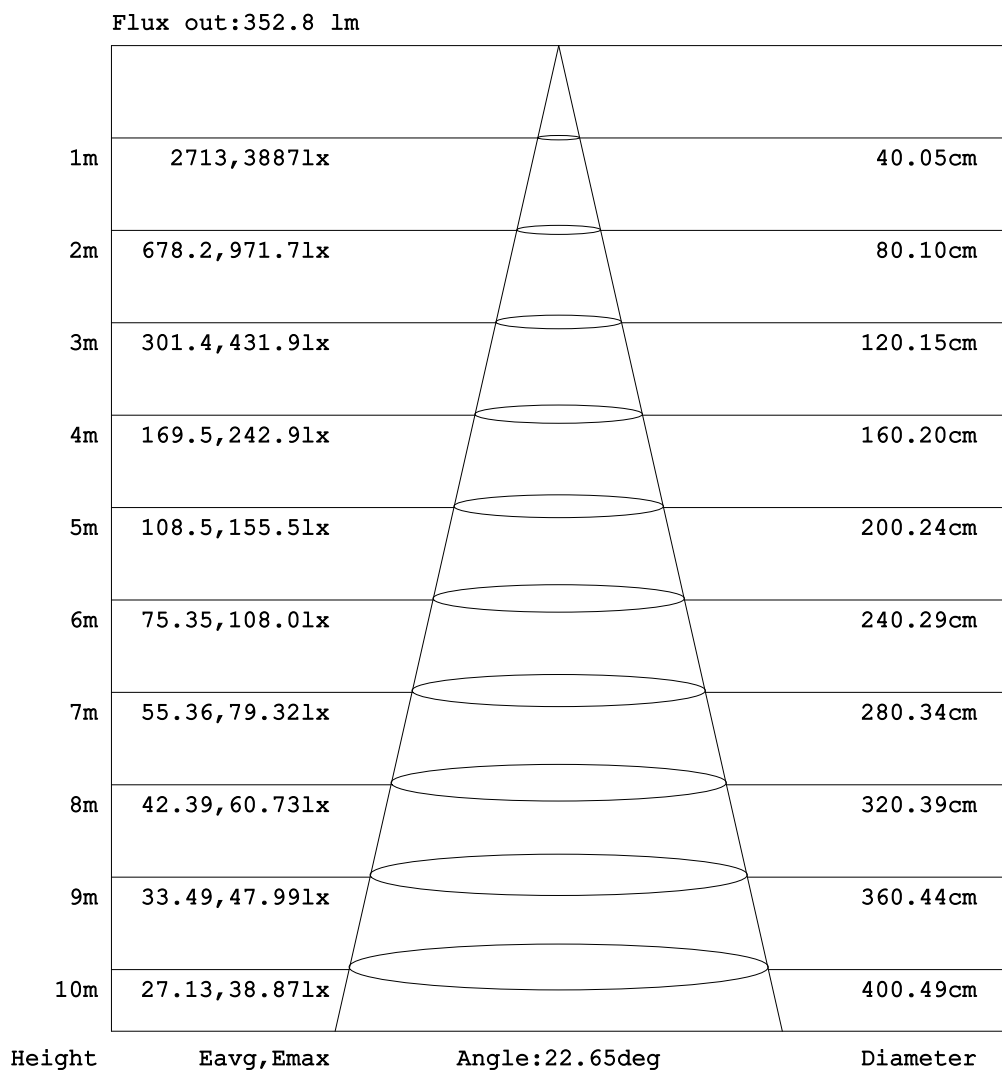


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2024-01-18

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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



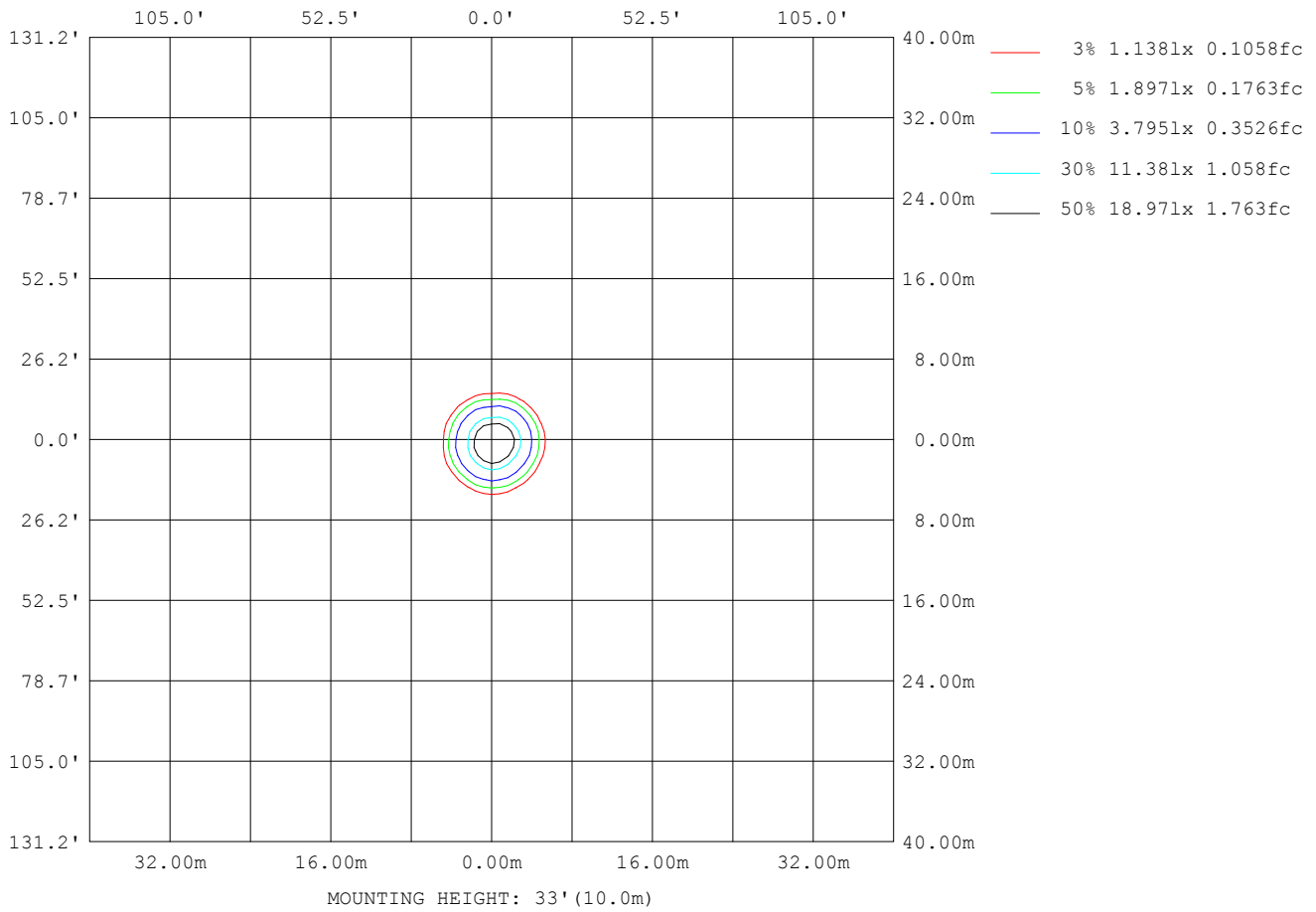
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

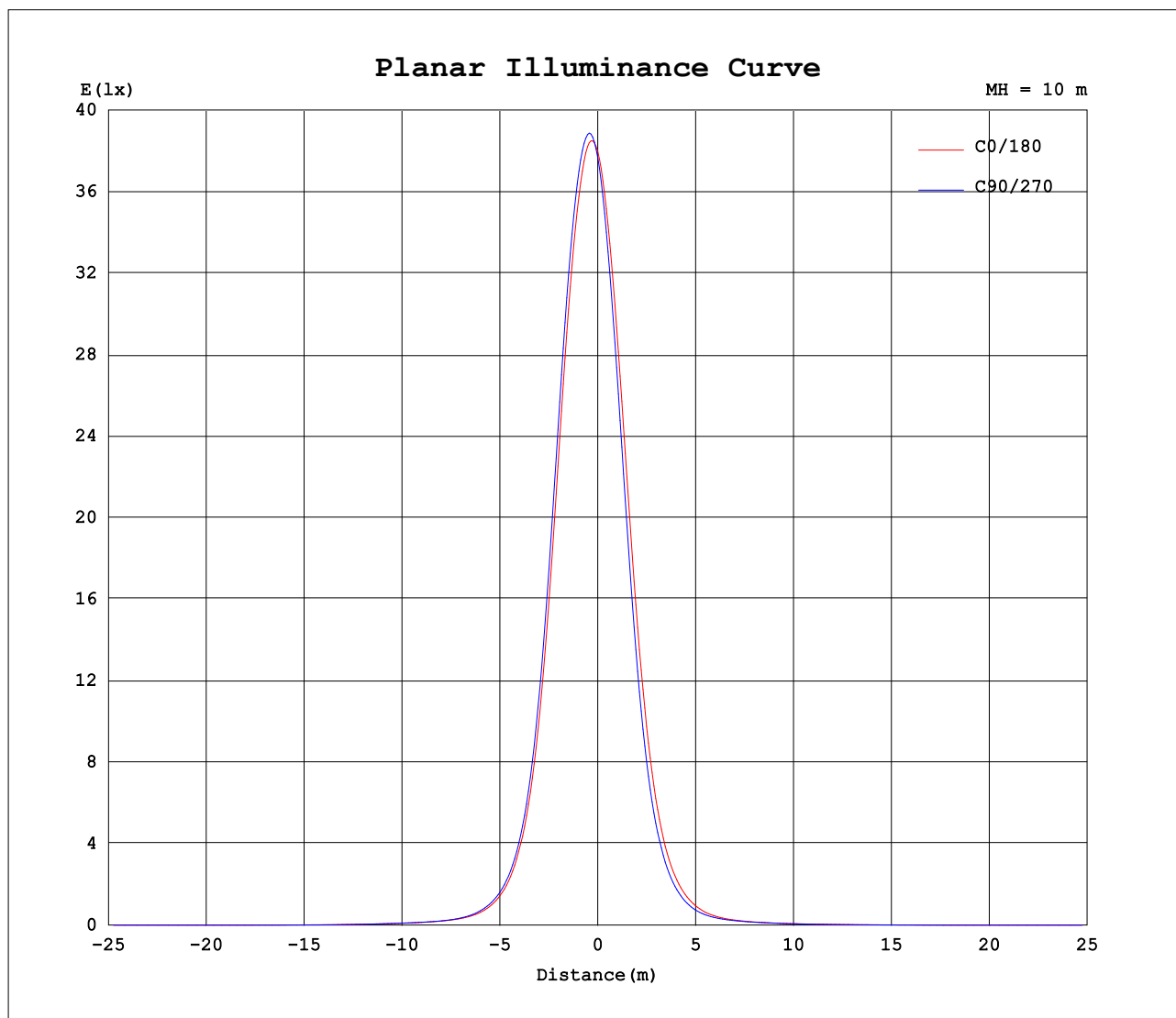
AvgL	cd/m2
L_0~180 (65) av	150
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	69
L_90~270 (75) av	3
L_90~270 (85) av	0
L_45 (65) av	98
L_45 (75) av	2
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date: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:232.36V I:0.0914A P:11.283W PF:0.5312 Freq:50.00Hz Lamp Flux:792.188x1 lm		
NAME: 59014LED	TYPE:	WEIGHT:
SPEC.:P-59014LED-10W2724-CI30031R90-HEK700	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	3794	3764	3794	3764															
5	3685	3799	3079	2891															
10	2780	2964	1894	1654															
15	1507	1666	910	738															
20	646	718	388	307															
25	263	296	170	132															
30	115	130	79.4	64.8															
35	59.4	63.8	44.8	40.0															
40	37.8	39.7	29.4	27.3															
45	25.8	28.0	20.0	18.6															
50	16.9	17.5	13.1	11.8															
55	8.77	5.60	8.08	6.36															
60	3.07	1.11	3.13	1.38															
65	0.47	0.18	0.35	0.20															
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	0.09	0.00	0.20	0.03															
115	0.25	0.04	0.30	0.04															
120	0.00	0.06	0.02	0.05															
125	0.02	0.07	0.03	0.06															
130	0.04	0.10	0.06	0.09															
135	0.10	0.15	0.10	0.14															
140	0.23	0.26	0.18	0.23															
145	0.51	0.48	0.38	0.45															
150	1.06	0.90	0.79	0.88															
155	1.97	1.83	1.50	1.71															
160	3.02	2.88	2.37	2.59															
165	3.73	3.68	3.04	3.15															
170	3.98	4.01	3.31	3.29															
175	3.83	3.82	3.40	3.26															
180	3.62	3.56	3.62	3.56															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
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Operators:Xie Bi
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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: