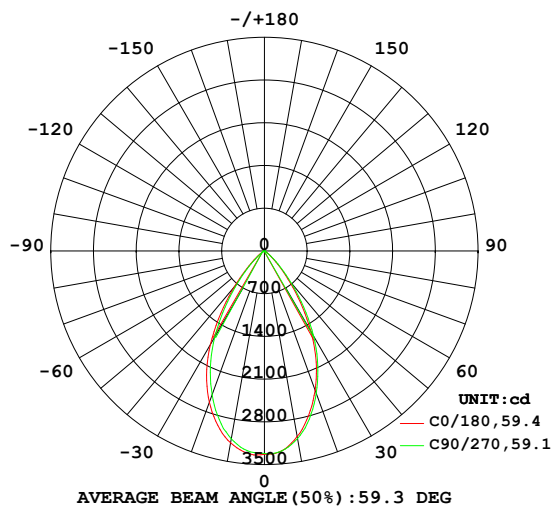


LUMINAIRE PHOTOMETRIC TEST REPORT

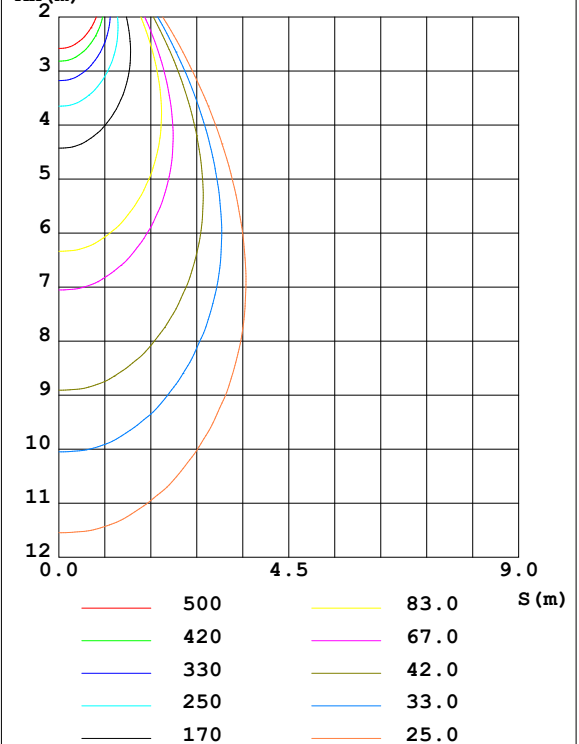
Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 84.05 lm/W			
MODEL	CLU038 1208	I _{max} (cd)	3346	S/MH (C0/180)	0.93
NOMINAL POWER (W)	40W	LOR (%)	100.0	S/MH (C90/270)	0.89
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	3139.1	η UP, DN (C0-180)	0.2, 48.2
NOMINAL FLUX (lm)	3139.09	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 51.5
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.95

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: 2022-06-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

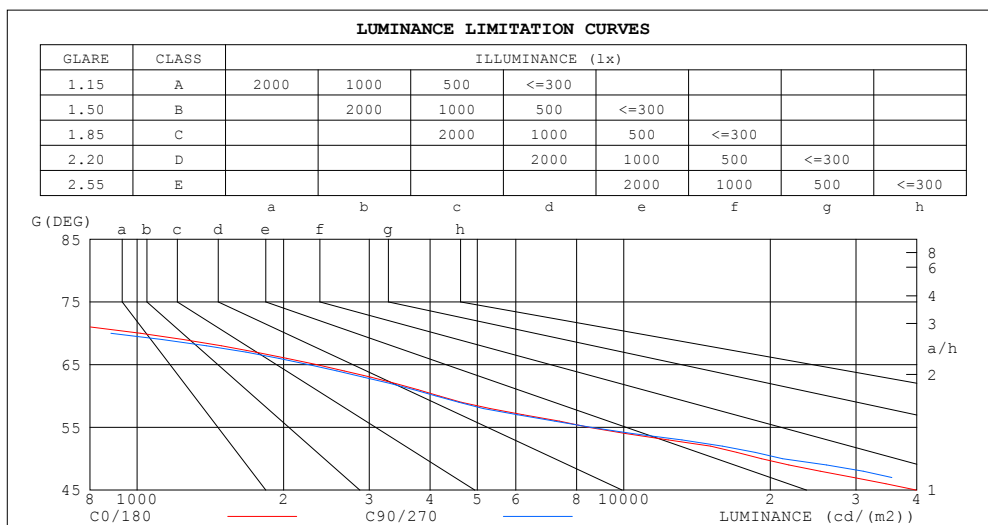
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	3087	3121	3193	3126					0- 10	309.1	309.1	9.85,9.85
20	2432	2481	2639	2506					10- 20	798.5	1108	35.3,35.3
30	1520	1611	1770	1626					20- 30	956.1	2064	65.7,65.7
40	599.5	676.6	766.9	682.1					30- 40	702.7	2766	88.1,88.1
50	135.7	149.9	198.5	149.0					40- 50	286.3	3053	97.2,97.2
60	22.96	22.63	32.59	21.86					50- 60	63.53	3116	99.3,99.3
70	3.828	3.325	6.551	2.830					60- 70	12.24	3128	99.7,99.7
80	0.0297	0.0715	0.0488	0.1151					70- 80	1.046	3130	99.7,99.7
90	0.0087	0.0070	0.0366	0.0454					80- 90	0.0534	3130	99.7,99.7
100	0.0104	0.0122	0.0506	0.0436					90-100	0.0280	3130	99.7,99.7
110	0.1201	0.0854	0.0924	0.0836					100-110	0.0571	3130	99.7,99.7
120	0.5700	0.4764	0.2583	0.2790					110-120	0.2100	3130	99.7,99.7
130	1.727	1.542	0.8200	0.9010					120-130	0.6778	3131	99.7,99.7
140	3.462	3.233	1.975	2.096					130-140	1.481	3132	99.8,99.8
150	5.234	5.022	3.443	3.525					140-150	2.180	3134	99.8,99.8
160	6.680	6.577	4.939	5.069					150-160	2.324	3137	99.9,99.9
170	7.683	7.669	6.624	6.741					160-170	1.828	3138	100,100
180	7.946	8.081	7.960	8.079					170-180	0.7186	3139	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	18	55
80	16	37
75	16	35
70	1018	884
65	2338	2251
60	4175	4114
55	8476	8569
50	19193	21198
45	39923	45514

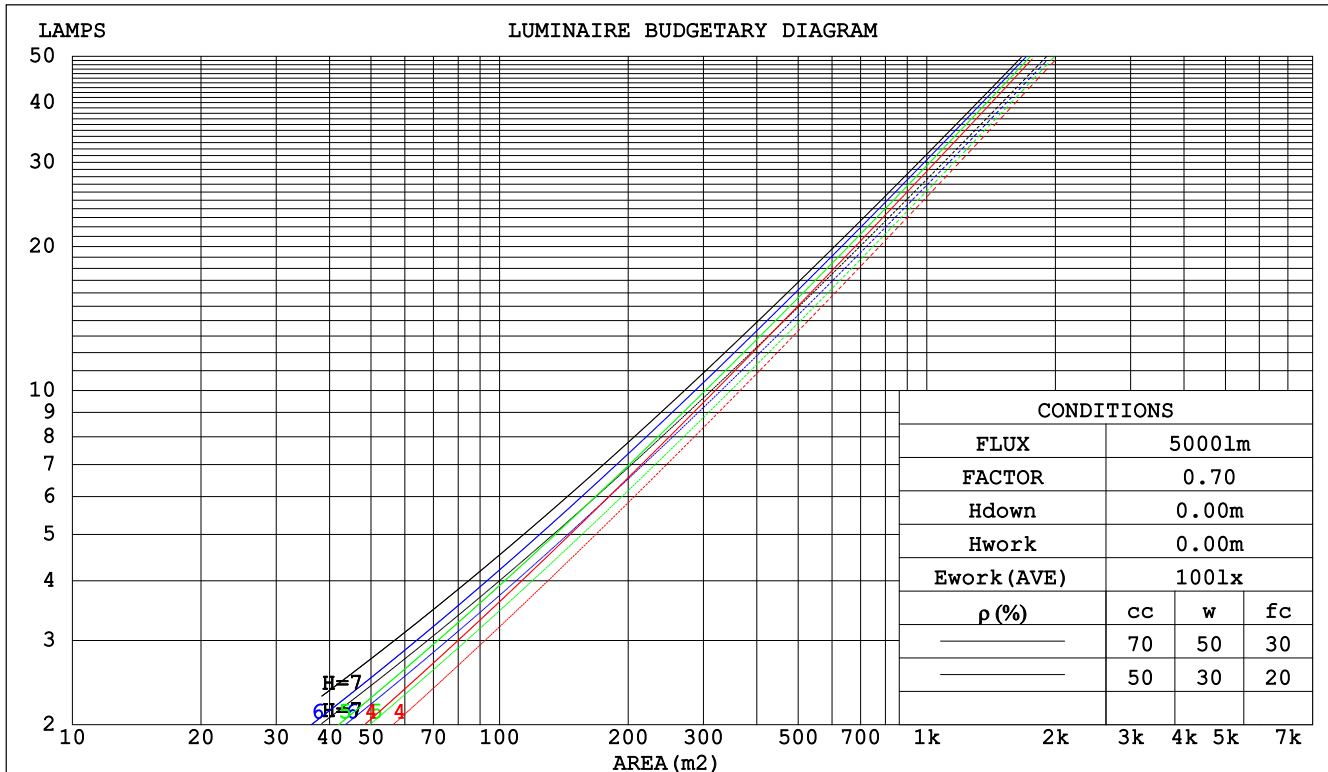
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	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	1.10	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.02	.98	.95	1.01	.97	.94	.97	.94	.91	.94	.92	.89	.91	.89	.88	.86
3.0	.95	.90	.86	.94	.89	.85	.91	.87	.84	.88	.85	.82	.86	.83	.81	.79
4.0	.88	.83	.78	.87	.82	.78	.85	.80	.77	.83	.79	.76	.81	.78	.75	.73
5.0	.82	.76	.72	.81	.76	.72	.80	.75	.71	.78	.74	.70	.76	.73	.70	.68
6.0	.77	.71	.66	.76	.70	.66	.75	.70	.66	.73	.69	.65	.72	.68	.65	.63
7.0	.72	.66	.62	.71	.66	.61	.70	.65	.61	.69	.64	.61	.68	.64	.60	.59
8.0	.68	.62	.57	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.56	.55
9.0	.64	.58	.54	.63	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.53	.51
10.0	.60	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.57	.53	.50	.48



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	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	.183	.104	.033	.176	.101	.032	.164	.094	.030	.152	.088	.028	.141	.082	.026		
2.0	.177	.097	.030	.171	.094	.029	.160	.089	.028	.150	.084	.026	.141	.080	.025		
3.0	.169	.090	.027	.164	.088	.026	.155	.084	.026	.146	.080	.025	.138	.077	.024		
4.0	.161	.084	.025	.157	.082	.024	.149	.079	.024	.142	.076	.023	.135	.073	.022		
5.0	.154	.079	.023	.150	.077	.022	.143	.075	.022	.137	.072	.021	.131	.070	.021		
6.0	.147	.074	.021	.144	.073	.021	.138	.071	.021	.132	.068	.020	.126	.067	.020		
7.0	.141	.070	.020	.138	.069	.020	.132	.067	.019	.127	.065	.019	.122	.063	.019		
8.0	.134	.066	.018	.132	.065	.018	.127	.063	.018	.122	.062	.018	.118	.061	.018		
9.0	.129	.062	.017	.126	.062	.017	.122	.060	.017	.118	.059	.017	.114	.058	.017		
10.0	.123	.059	.016	.121	.059	.016	.117	.057	.016	.113	.056	.016	.110	.055	.016		

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	.174	.160	.147	.149	.137	.126	.102	.094	.087	.059	.055	.051	.019	.018	.016	
2.0	.159	.135	.114	.136	.116	.099	.093	.080	.069	.054	.047	.040	.017	.015	.013	
3.0	.147	.116	.091	.126	.100	.079	.087	.070	.055	.050	.041	.033	.016	.013	.011	
4.0	.138	.101	.074	.118	.088	.064	.081	.061	.045	.047	.036	.027	.015	.012	.009	
5.0	.129	.090	.061	.111	.078	.053	.076	.054	.037	.044	.032	.022	.014	.010	.007	
6.0	.122	.081	.051	.105	.070	.044	.072	.049	.031	.042	.029	.019	.014	.009	.006	
7.0	.116	.073	.044	.100	.064	.038	.069	.045	.027	.040	.026	.016	.013	.009	.005	
8.0	.110	.067	.038	.095	.058	.033	.066	.041	.023	.038	.024	.014	.012	.008	.005	
9.0	.105	.062	.033	.091	.054	.029	.063	.038	.020	.037	.022	.012	.012	.007	.004	
10.0	.101	.058	.029	.087	.050	.025	.060	.035	.018	.035	.021	.011	.011	.007	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2022-06-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm												
NAME: 81251LED					TYPE:			WEIGHT:				
SPEC.:P-81251LED-40W3060-CI100036R90-GR110					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		16.9	17.9	17.1	18.1	18.2	17.3	18.3	17.5	18.4	18.6	
		3H	16.7	17.6	17.0	17.8	18.0	17.1	18.0	17.4	18.2	18.4
		4H	16.6	17.5	16.9	17.7	17.9	17.0	17.9	17.3	18.1	18.3
		6H	16.5	17.3	16.8	17.6	17.8	16.9	17.7	17.2	18.0	18.2
		8H	16.5	17.3	16.8	17.5	17.8	16.9	17.6	17.2	17.9	18.2
		12H	16.4	17.2	16.8	17.5	17.7	16.8	17.6	17.1	17.8	18.1
4H	2H	16.6	17.5	16.9	17.7	18.0	17.0	17.9	17.3	18.1	18.3	
	3H	16.5	17.2	16.8	17.5	17.8	16.8	17.6	17.2	17.9	18.1	
	4H	16.4	17.0	16.7	17.3	17.7	16.7	17.4	17.1	17.7	18.0	
	6H	16.3	16.9	16.7	17.2	17.6	16.6	17.2	17.0	17.6	17.9	
	8H	16.2	16.8	16.6	17.1	17.5	16.6	17.1	17.0	17.5	17.9	
	12H	16.2	16.7	16.6	17.0	17.4	16.5	17.0	17.0	17.4	17.8	
8H	4H	16.2	16.8	16.6	17.1	17.5	16.6	17.1	17.0	17.5	17.9	
	6H	16.1	16.6	16.6	17.0	17.4	16.5	16.9	16.9	17.3	17.8	
	8H	16.1	16.5	16.5	16.9	17.3	16.4	16.8	16.9	17.3	17.7	
	12H	16.0	16.3	16.5	16.8	17.3	16.4	16.7	16.9	17.2	17.6	
12H	4H	16.2	16.7	16.6	17.0	17.4	16.6	17.0	17.0	17.4	17.8	
	6H	16.1	16.5	16.5	16.9	17.3	16.4	16.8	16.9	17.3	17.7	
	8H	16.0	16.3	16.5	16.8	17.3	16.4	16.7	16.9	17.2	17.6	
Variations with the observer position at spacings:												
S = 1.0H		+ 2.7 / -11.4					+ 2.9 / -12.0					
1.5H		+ 4.3 / - 8.7					+ 4.6 / - 9.2					
2.0H		+ 6.2 / - 9.8					+ 6.5 / -10.5					

CIE Pub.117, 3139 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.0)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2022-06-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

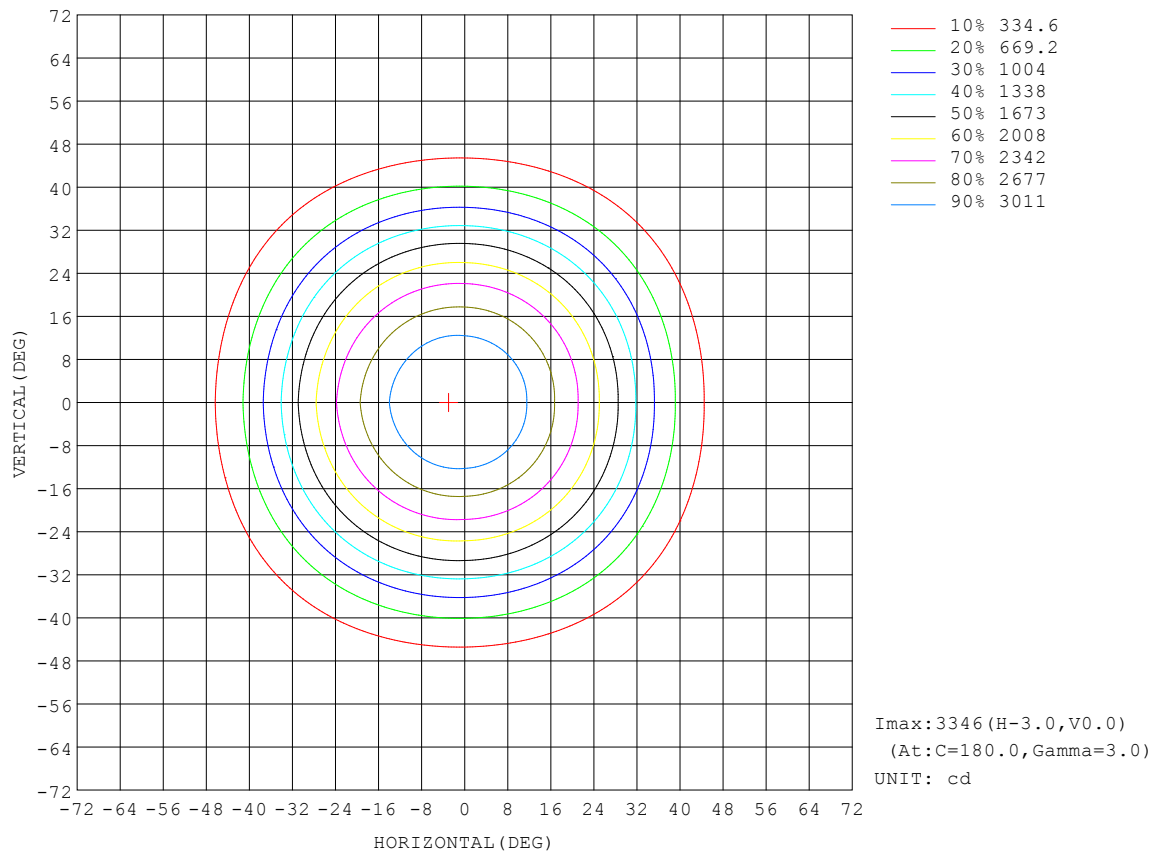
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	83	77	73	83	76	73	69
0.80	92	86	82	91	85	81	90	85	81	77
1.00	97	91	87	96	91	87	95	91	86	82
1.25	102	96	92	101	96	92	99	94	91	87
1.50	105	100	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	110	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	107	105	104	96
5.00	115	112	110	112	110	108	108	107	105	98
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:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



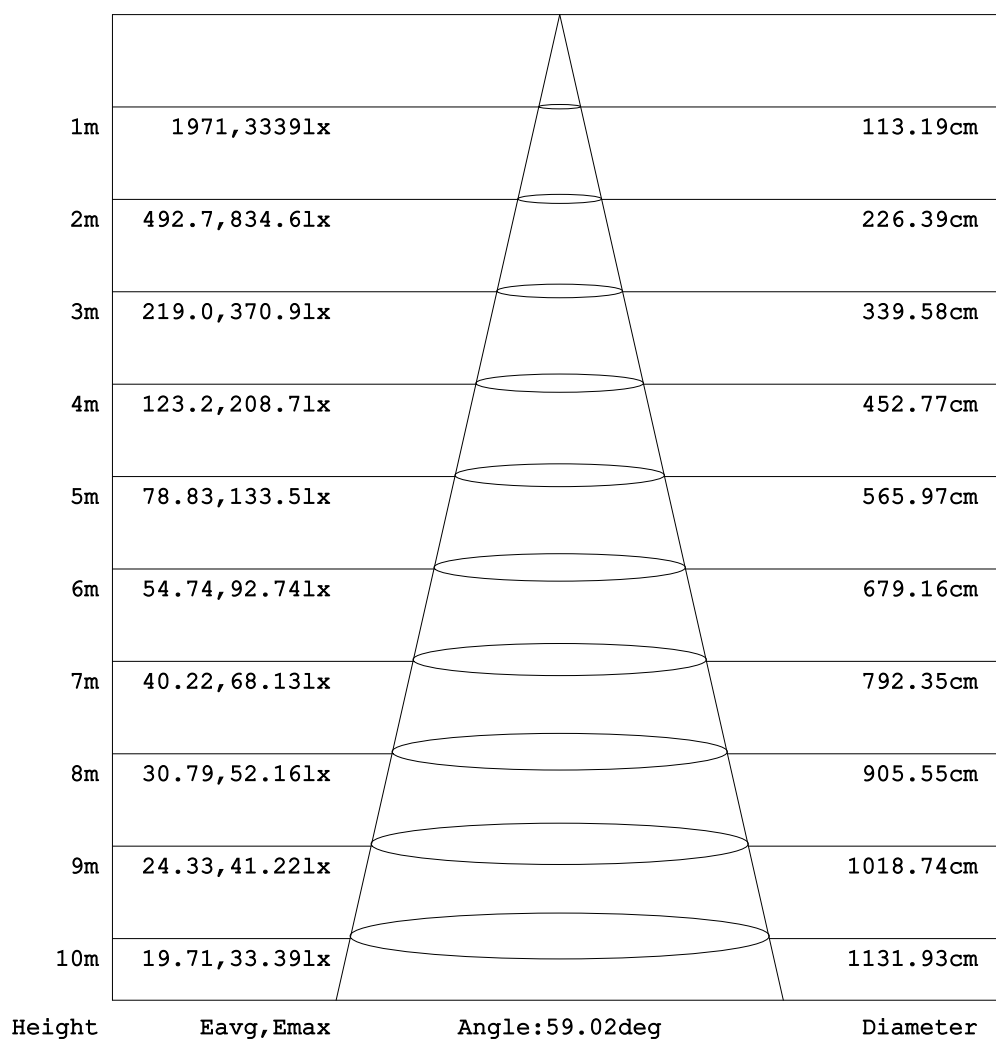
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

AAI Figure

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Flux out:2064 lm



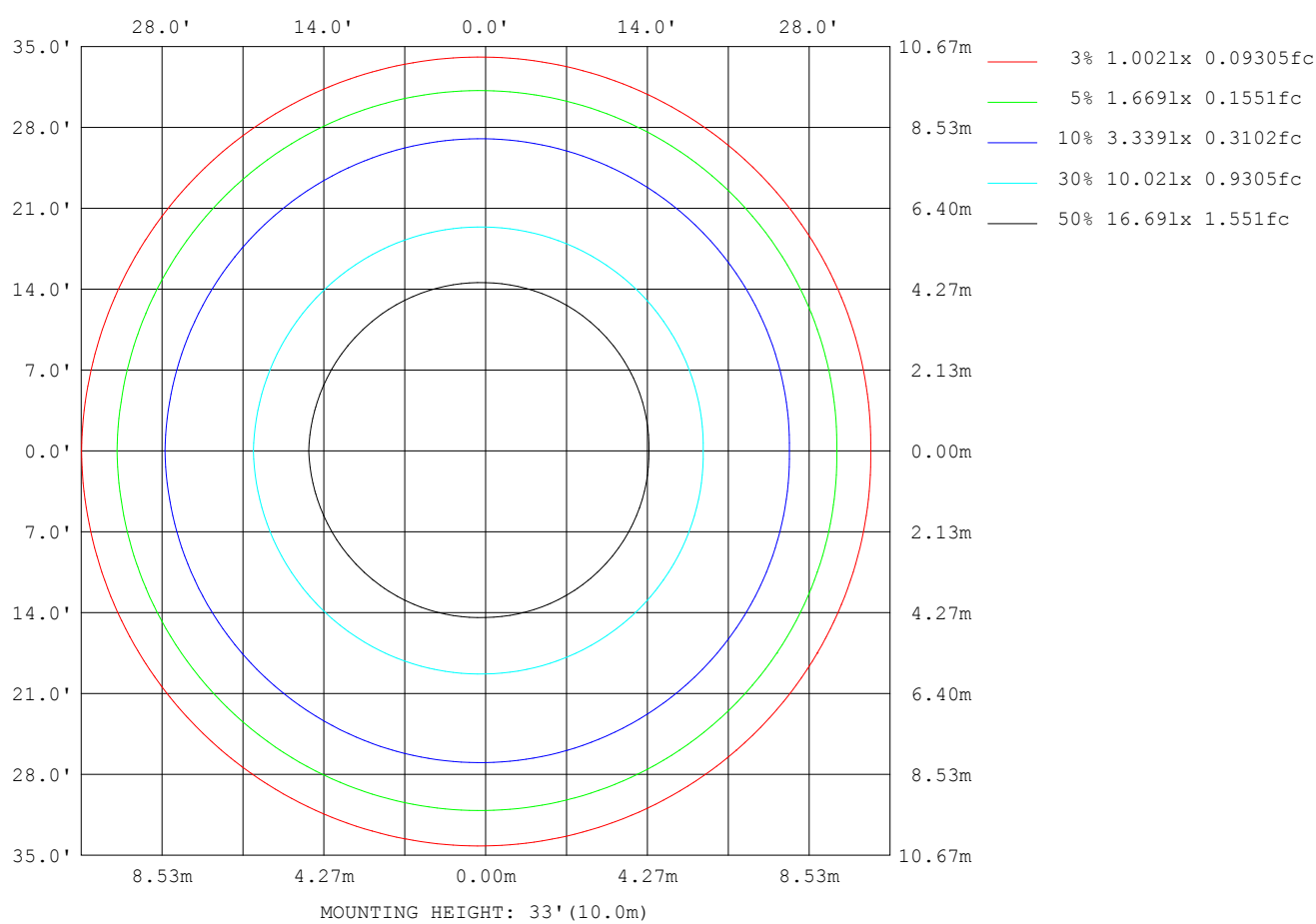
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	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:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

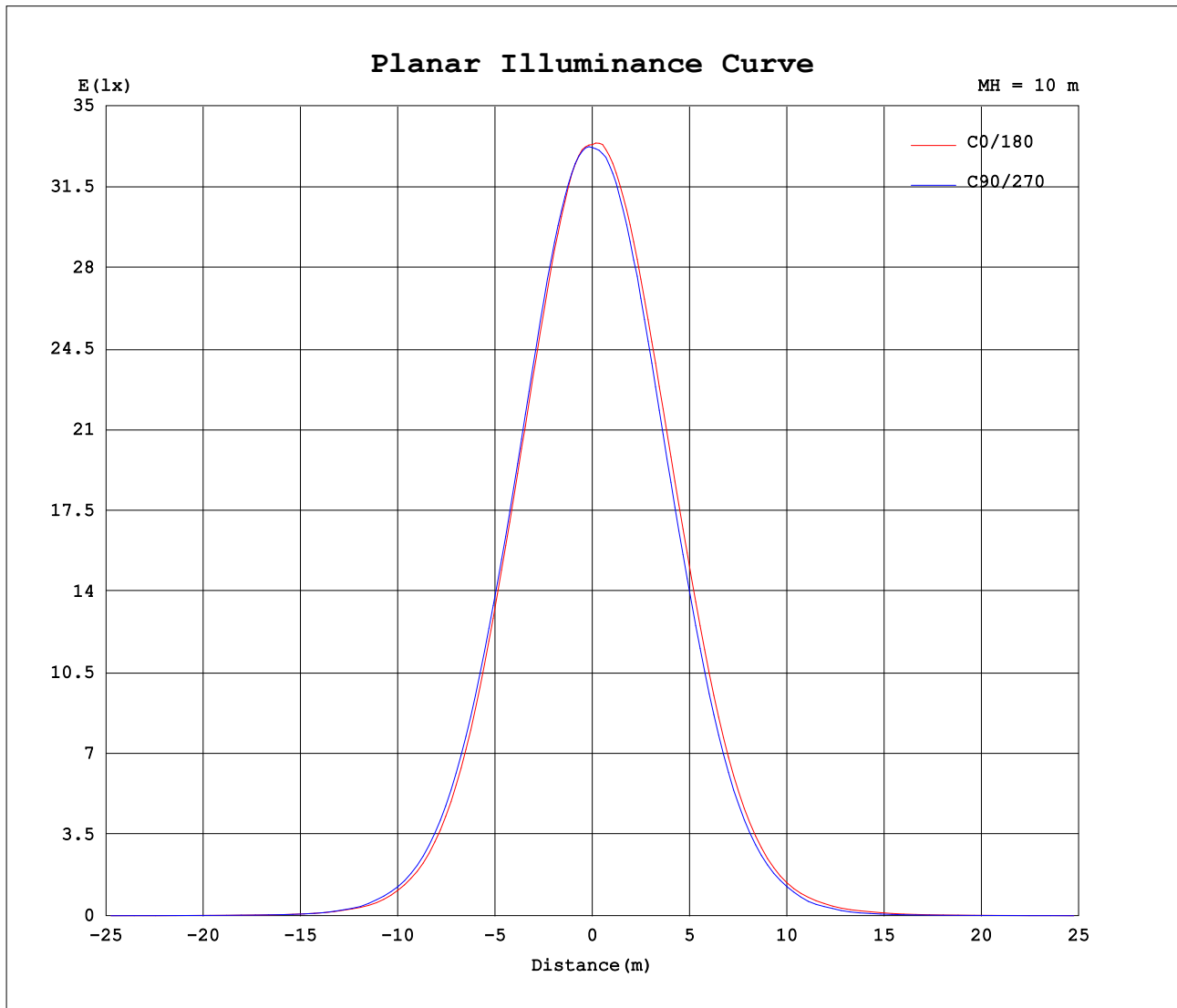
AvgL	cd/m2
L_0~180 (65) av	2787
L_0~180 (75) av	275
L_0~180 (85) av	30
L_90~270 (65) av	2158
L_90~270 (75) av	43
L_90~270 (85) av	77
L_45 (65) av	2422
L_45 (75) av	161
L_45 (85) av	60

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
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: 2022-06-16

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:231.3V I:0.1665A P:37.35W PF:0.9696 Freq:49.37Hz Lamp Flux:3139.09x1 lm		
NAME: 81251LED	TYPE:	WEIGHT:
SPEC.:P-81251LED-40W3060-CI100036R90-GR110	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	3332	3319	3332	3319															
5	3286	3288	3321	3281															
10	3087	3121	3193	3126															
15	2794	2849	2956	2858															
20	2432	2481	2639	2506															
25	2008	2067	2244	2096															
30	1520	1611	1770	1626															
35	1027	1121	1245	1126															
40	600	677	767	682															
45	311	354	403	356															
50	136	150	198	149															
55	53.5	54.1	90.5	50.5															
60	23.0	22.6	32.6	21.9															
65	10.9	10.5	15.0	9.60															
70	3.83	3.32	6.55	2.83															
75	0.04	0.10	1.52	0.15															
80	0.03	0.07	0.05	0.12															
85	0.02	0.05	0.04	0.10															
90	0.01	0.01	0.04	0.05															
95	0.01	0.01	0.05	0.04															
100	0.01	0.01	0.05	0.04															
105	0.04	0.03	0.07	0.06															
110	0.12	0.09	0.09	0.08															
115	0.28	0.21	0.15	0.15															
120	0.57	0.48	0.26	0.28															
125	1.04	0.91	0.47	0.52															
130	1.73	1.54	0.82	0.90															
135	2.55	2.34	1.33	1.44															
140	3.46	3.23	1.98	2.10															
145	4.38	4.16	2.69	2.81															
150	5.23	5.02	3.44	3.53															
155	6.02	5.81	4.19	4.26															
160	6.68	6.58	4.94	5.07															
165	7.28	7.19	5.79	5.89															
170	7.68	7.67	6.62	6.74															
175	7.93	7.97	7.39	7.51															
180	7.95	8.08	7.96	8.08															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2022-06-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks: