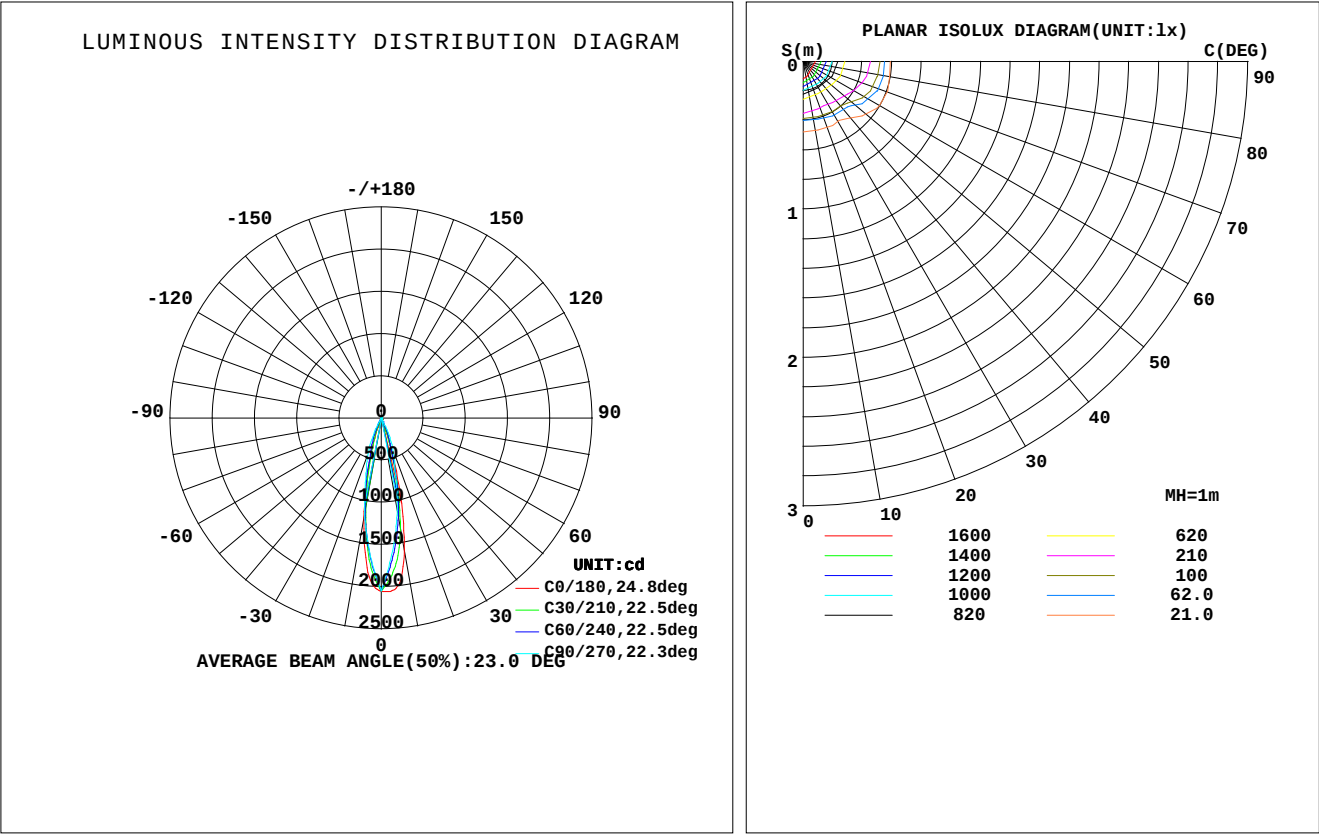


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm		
NAME: 65A001	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2025062601
MFR.: LCZ	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 40.82 lm/W
MODEL	TEEN	I _{max} (cd)	2060	S/MH(C0/180)	0.38	
NOMINAL POWER(W)	9	LOR(%)	39.8	S/MH(C90/270)	0.39	
RATED VOLTAGE(V)	222	TOTAL FLUX(lm)	376.33	h UP,DN(C0-180)	0.0,20.4	
NOMINAL FLUX(lm)	945	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,19.4	
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	221.3	h down(%)	39.8	CIBSE SHR MAX	1.00	



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

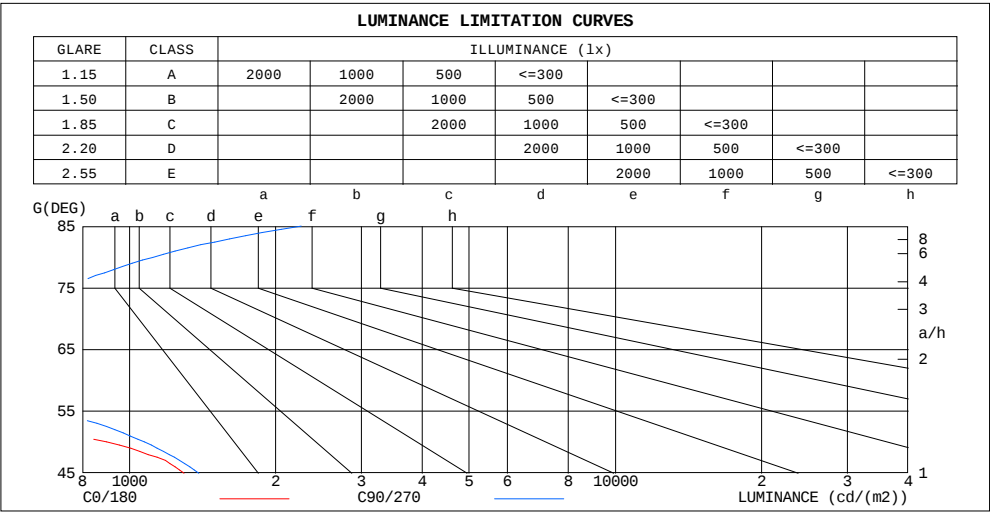
g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
5	1836	1642	1603	1728	2027	1713	1581	1624	0- 5	43.81	43.81	11.6,4.64
10	1196	1087	1154	1282	1583	1249	1110	1046	5- 10	102.5	146.3	38.9,15.5
15	584.3	570.0	705.5	711.3	804.9	664.0	638.5	508.4	10- 15	105.3	251.5	66.8,26.6
20	155.3	198.8	474.4	241.1	237.1	193.2	429.2	136.1	15- 20	69.03	320.6	85.2,33.9
25	18.84	45.26	243.3	64.67	27.78	46.66	220.0	28.04	20- 25	34.51	355.1	94.4,37.6
30	10.18	13.05	12.28	16.04	13.13	14.59	10.69	11.17	25- 30	13.74	368.8	98,39
35	4.834	6.434	8.906	7.530	6.077	7.035	7.737	5.683	30- 35	3.068	371.9	98.8,39.4
40	2.788	2.986	5.532	3.499	3.122	3.035	4.786	2.781	35- 40	1.635	373.5	99.3,39.5
45	2.013	2.012	2.158	2.291	1.964	1.980	1.835	1.894	40- 45	1.062	374.6	99.5,39.6
50	1.269	1.281	1.518	1.410	1.336	1.202	1.292	1.170	45- 50	0.6844	375.3	99.7,39.7
55	0.5323	0.6472	0.8792	0.7533	0.6653	0.5953	0.7482	0.5109	50- 55	0.4405	375.7	99.8,39.8
60	0.2119	0.3340	0.2400	0.4174	0.2470	0.2982	0.2047	0.2344	55- 60	0.2234	375.9	99.9,39.8
65	0.1178	0.1472	0.2997	0.1686	0.1271	0.1407	0.1365	0.1247	60- 65	0.0998	376.0	99.9,39.8
70	0.0659	0.1088	0.3595	0.1026	0.0611	0.0551	0.0682	0.0609	65- 70	0.0634	376.1	99.9,39.8
75	0.0306	0.1293	0.4192	0.1358	0.0141	0.0248	0	0.0261	70- 75	0.0486	376.1	100,39.8
80	0.0047	0.1605	0.4260	0.1840	0.0000	0	0	0	75- 80	0.0445	376.2	100,39.8
85	0	0.2160	0.4329	0.3053	0	0	0	0	80- 85	0.0551	376.2	100,39.8
90	0	0.2753	0.4397	0.4306	0	0	0	0	85- 90	0.0814	376.3	100,39.8
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

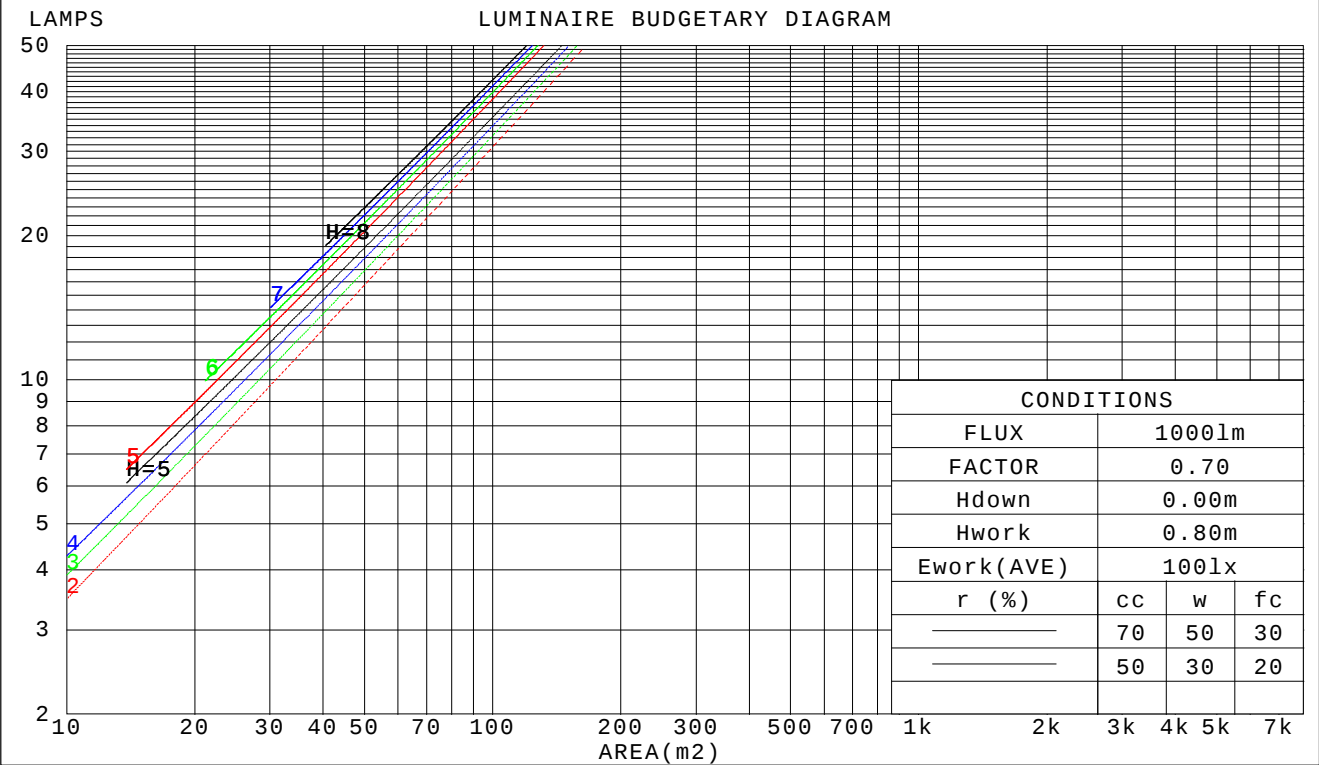
g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm		
NAME: 65A001	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2025062601
MFR.: LCZ	SUR.:	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	.47	.47	.47	.46	.46	.46	.44	.44	.44	.42	.42	.42	.41	.41	.41	.40
1.0	.45	.44	.44	.44	.44	.43	.43	.42	.42	.41	.41	.40	.40	.40	.39	.39
2.0	.43	.42	.41	.42	.41	.41	.41	.40	.40	.40	.39	.39	.39	.39	.38	.37
3.0	.41	.40	.39	.41	.40	.39	.40	.39	.38	.39	.38	.37	.38	.38	.37	.36
4.0	.40	.38	.37	.40	.38	.37	.39	.38	.37	.38	.37	.36	.37	.37	.36	.35
5.0	.39	.37	.36	.38	.37	.36	.38	.36	.35	.37	.36	.35	.36	.36	.35	.34
6.0	.37	.36	.35	.37	.36	.35	.37	.35	.34	.36	.35	.34	.36	.35	.34	.34
7.0	.36	.35	.34	.36	.35	.34	.36	.34	.33	.35	.34	.33	.35	.34	.33	.33
8.0	.35	.34	.33	.35	.34	.33	.35	.33	.33	.34	.33	.32	.34	.33	.32	.32
9.0	.34	.33	.32	.34	.33	.32	.34	.33	.32	.34	.32	.32	.33	.32	.32	.31
10.0	.33	.32	.31	.33	.32	.31	.33	.32	.31	.33	.32	.31	.33	.32	.31	.30



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm											
NAME: 65A001						TYPE:			WEIGHT:		
DIM.:						SPEC.:			SERIAL No.:2025062601		
MFR.: LCZ						SUR.:			PROTECTION ANGLE:		

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.052	.030	.009	.050	.028	.009	.045	.026	.008	.040	.023	.007	.036	.021	.007	
2.0	.048	.026	.008	.046	.025	.008	.042	.023	.007	.038	.021	.007	.035	.020	.006	
3.0	.045	.024	.007	.043	.023	.007	.040	.021	.007	.036	.020	.006	.034	.019	.006	
4.0	.042	.022	.006	.040	.021	.006	.037	.020	.006	.035	.019	.006	.032	.018	.005	
5.0	.039	.020	.006	.038	.020	.006	.036	.019	.005	.033	.018	.005	.031	.017	.005	
6.0	.037	.019	.005	.036	.018	.005	.034	.017	.005	.032	.017	.005	.030	.016	.005	
7.0	.035	.017	.005	.034	.017	.005	.032	.016	.005	.031	.016	.005	.029	.015	.004	
8.0	.034	.016	.005	.033	.016	.005	.031	.016	.004	.030	.015	.004	.028	.015	.004	
9.0	.032	.015	.004	.031	.015	.004	.030	.015	.004	.029	.014	.004	.027	.014	.004	
10.0	.031	.015	.004	.030	.015	.004	.029	.014	.004	.028	.014	.004	.027	.013	.004	

rcc	80%			70%			50%			30%			10%			0	
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
rfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)										
0.0	.076	.076	.076	.065	.065	.065	.044	.044	.044	.025	.025	.025	.008	.008	.008		
1.0	.067	.063	.059	.057	.054	.051	.039	.037	.035	.023	.021	.020	.007	.007	.007		
2.0	.060	.053	.047	.051	.046	.041	.035	.031	.028	.020	.018	.017	.006	.006	.005		
3.0	.053	.045	.038	.046	.039	.033	.031	.027	.023	.018	.016	.014	.006	.005	.005		
4.0	.048	.039	.032	.041	.034	.028	.029	.023	.019	.016	.014	.012	.005	.004	.004		
5.0	.044	.034	.027	.038	.029	.023	.026	.021	.016	.015	.012	.010	.005	.004	.003		
6.0	.040	.030	.022	.035	.026	.020	.024	.018	.014	.014	.011	.008	.004	.003	.003		
7.0	.037	.027	.019	.032	.023	.017	.022	.016	.012	.013	.010	.007	.004	.003	.002		
8.0	.035	.024	.017	.030	.021	.014	.021	.015	.010	.012	.009	.006	.004	.003	.002		
9.0	.032	.022	.014	.028	.019	.013	.019	.013	.009	.011	.008	.005	.004	.003	.002		
10.0	.030	.020	.013	.026	.017	.011	.018	.012	.008	.011	.007	.005	.003	.002	.002		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm										
NAME: 65A001					TYPE:			WEIGHT:		
DIM.:					SPEC.:			SERIAL No.:2025062601		
MFR.: LCZ					SUR.:			PROTECTION 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	-1.9	-1.3	-1.7	-1.1	-1.0	0.6	1.2	0.8	1.3	1.5
3H	-2.0	-1.4	-1.8	-1.2	-1.1	0.7	1.3	1.0	1.5	1.7
4H	-2.1	-1.5	-1.8	-1.3	-1.1	1.2	1.8	1.5	2.0	2.2
6H	-2.2	-1.6	-1.9	-1.4	-1.2	2.3	2.9	2.6	3.1	3.3
8H	-2.2	-1.7	-1.9	-1.5	-1.2	3.1	3.6	3.4	3.8	4.1
12H	-2.2	-1.8	-1.9	-1.5	-1.2	4.1	4.5	4.4	4.8	5.1
4H 2H	-2.0	-1.4	-1.7	-1.2	-1.0	0.4	0.9	0.6	1.1	1.3
3H	-2.1	-1.6	-1.8	-1.4	-1.1	0.6	1.1	0.9	1.3	1.6
4H	-2.2	-1.7	-1.9	-1.5	-1.2	1.2	1.6	1.5	1.9	2.2
6H	-2.3	-1.9	-1.9	-1.6	-1.2	2.5	2.9	2.8	3.2	3.5
8H	-2.3	-2.0	-2.0	-1.6	-1.3	3.5	3.9	3.9	4.3	4.6
12H	-2.4	-2.1	-2.0	-1.7	-1.3	5.0	5.3	5.4	5.7	6.1
8H 4H	-2.2	-1.8	-1.8	-1.5	-1.1	1.1	1.4	1.4	1.8	2.1
6H	-2.2	-1.9	-1.8	-1.5	-1.1	2.5	2.8	2.9	3.2	3.6
8H	-2.1	-1.8	-1.7	-1.4	-1.0	3.7	4.0	4.1	4.4	4.8
12H	-2.0	-1.7	-1.5	-1.3	-0.8	5.4	5.6	5.9	6.1	6.6
12H 4H	-2.1	-1.8	-1.7	-1.4	-1.0	1.0	1.4	1.4	1.7	2.1
6H	-2.0	-1.7	-1.5	-1.3	-0.8	2.5	2.8	2.9	3.2	3.6
8H	-1.7	-1.5	-1.2	-1.0	-0.6	3.7	4.0	4.2	4.4	4.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.8 / - 3.5					+ 1.2 / - 1.5				
1.5H	+ 2.2 / - 2.6					+ 2.4 / - 1.4				
2.0H	+ 3.8 / - 3.2					+ 0.8 / - 1.5				

CIE Pub.117 Corrected 945.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.2)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm		
NAME: 65A001	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2025062601
MFR.: LCZ	SUR.:	PROTECTION ANGLE:

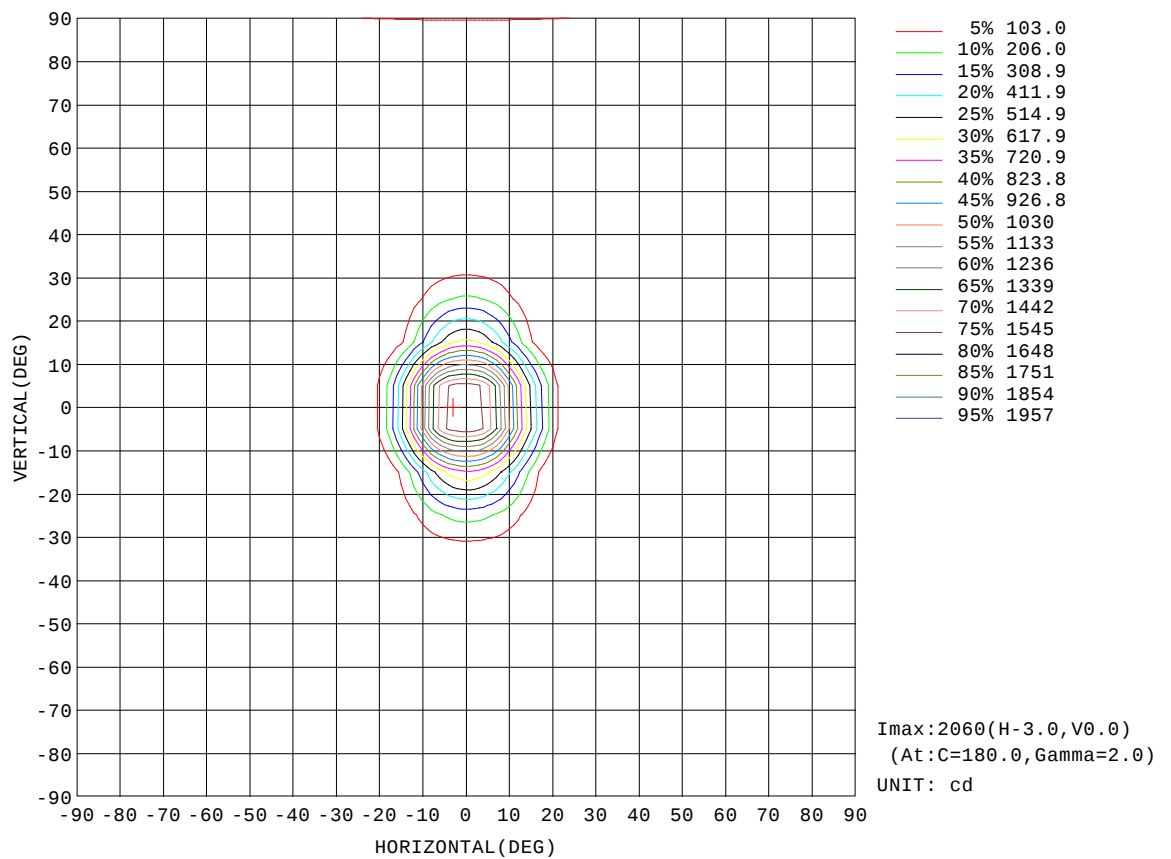
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	36	34	33	36	34	33	36	34	33	31
0.80	39	37	36	39	37	36	38	37	35	34
1.00	41	39	37	40	38	37	40	38	37	36
1.25	42	40	39	42	40	39	41	39	38	37
1.50	43	41	40	42	41	40	42	40	39	38
2.00	44	42	41	43	42	41	42	41	40	38
2.50	44	43	42	44	42	42	43	42	41	39
3.00	45	44	43	44	43	42	43	42	41	39
4.00	46	45	44	45	44	43	43	43	42	39
5.00	46	45	45	45	45	44	44	43	43	40
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2025-06-26

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity:65.0%
 Test Distance:5.835m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm		
NAME: 65A001	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2025062601
MFR.: LCZ	SUR.:	PROTECTION ANGLE:



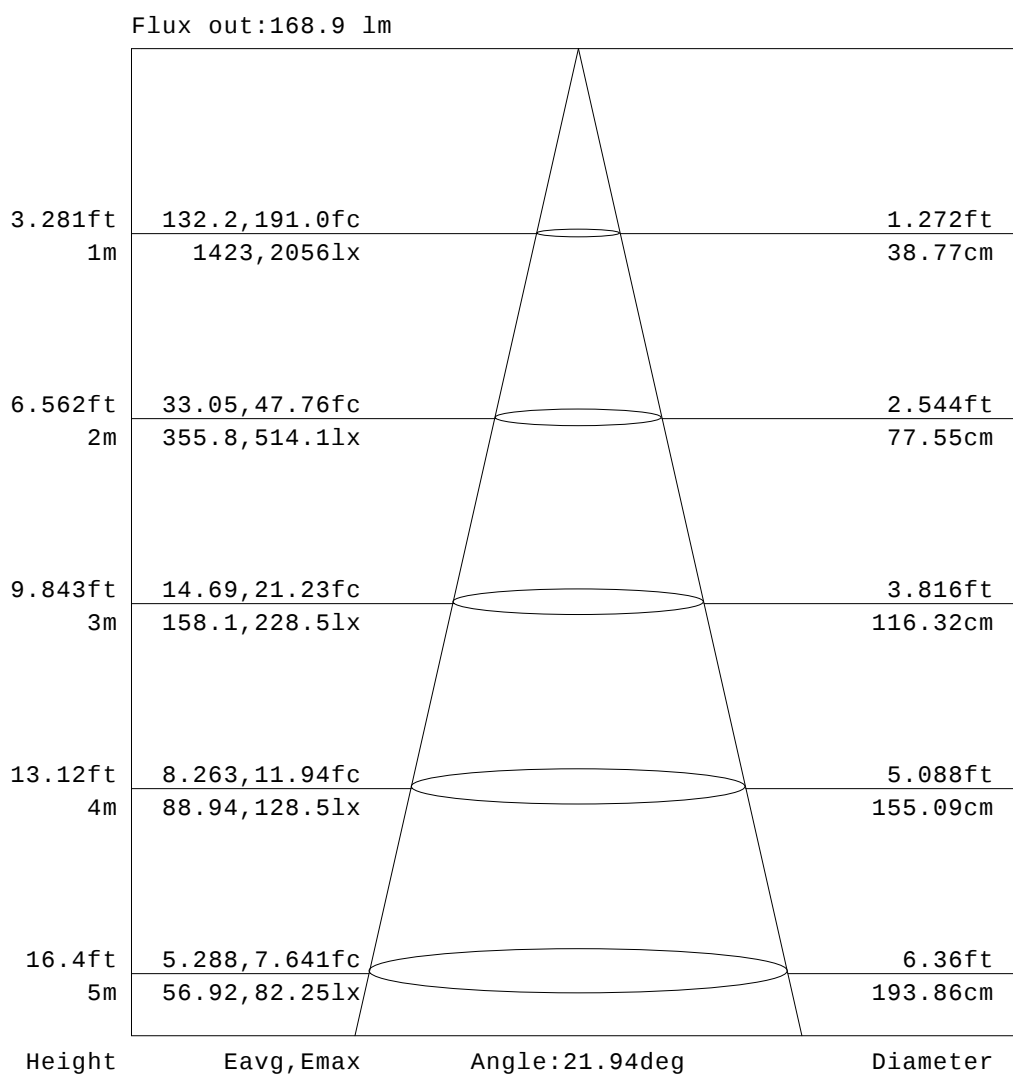
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm		
NAME: 65A001	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2025062601
MFR.: LCZ	SUR.:	PROTECTION ANGLE:



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

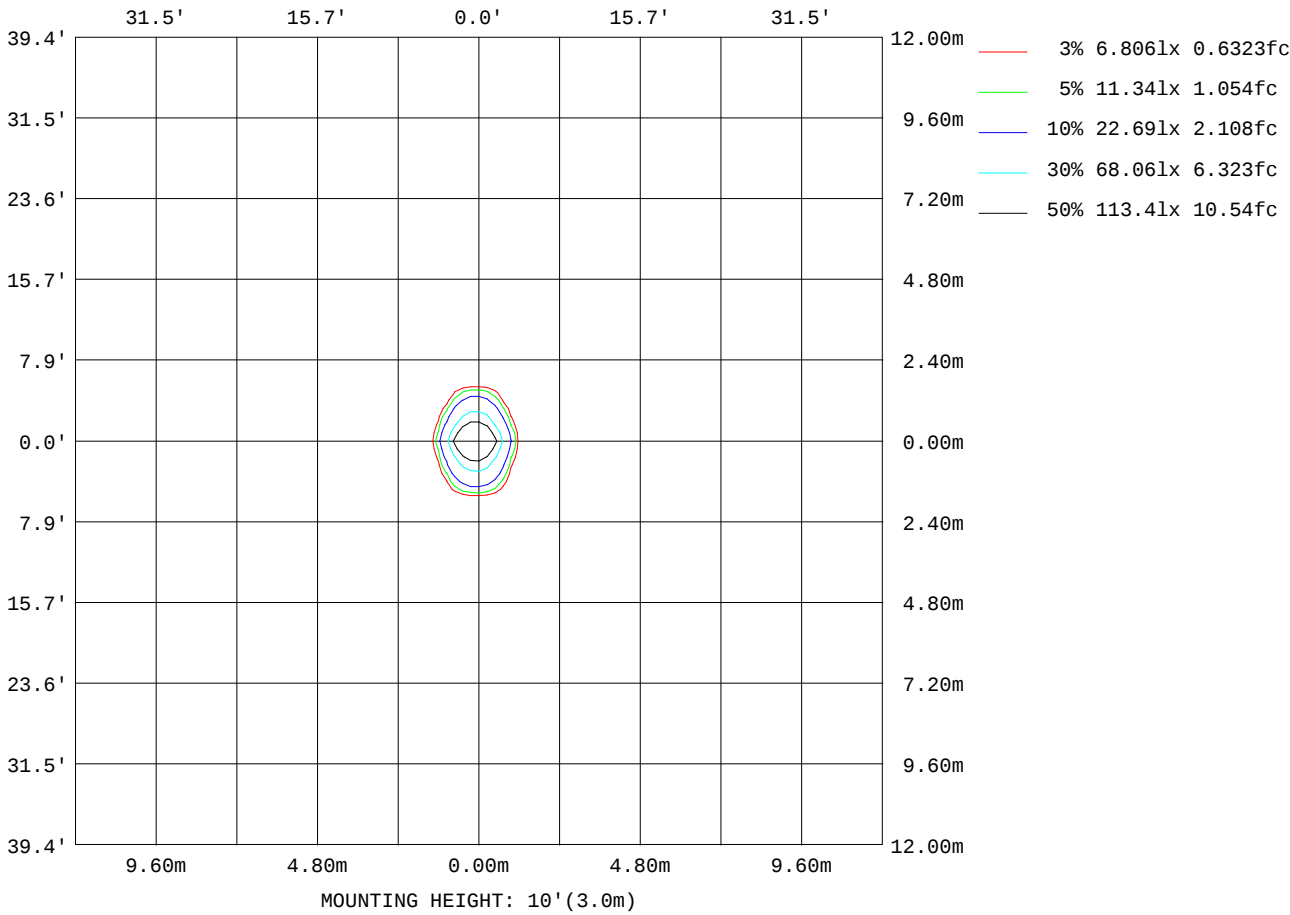
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

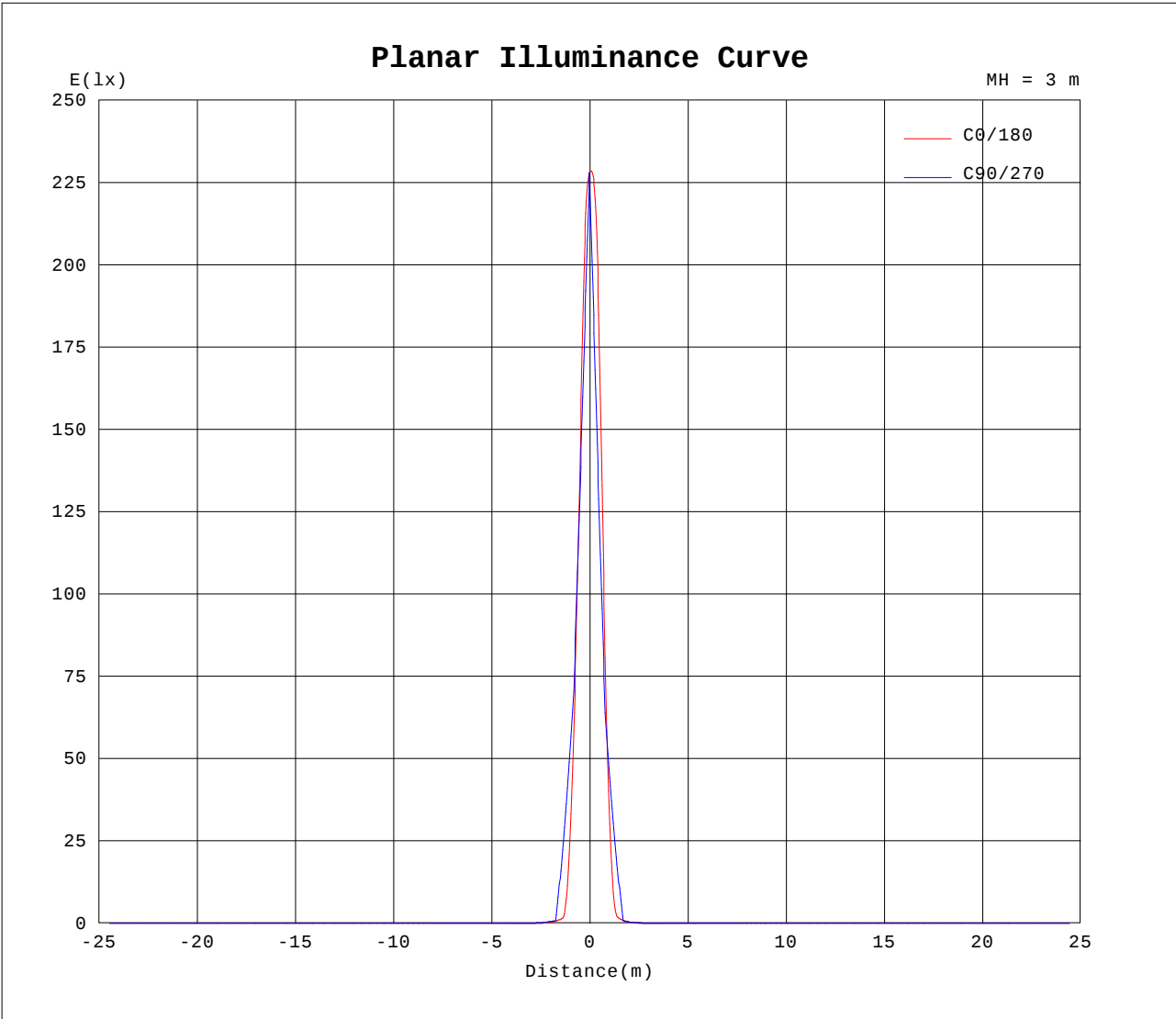
Test:U:221.3V I:0.0450A P:9.220W PF:0.9070 Lamp Flux:945x1 lm		
NAME: 65A001	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2025062601
MFR.: LCZ	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2025-06-26

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG	g Range: 0 - 90DEG
C Interval: 5.0DEG	g Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Temperature:30DEG	Humidity:65.0%
Operators:	Test Distance:5.835m [K=1.0000]
Test Date:2025-06-26	Remarks: