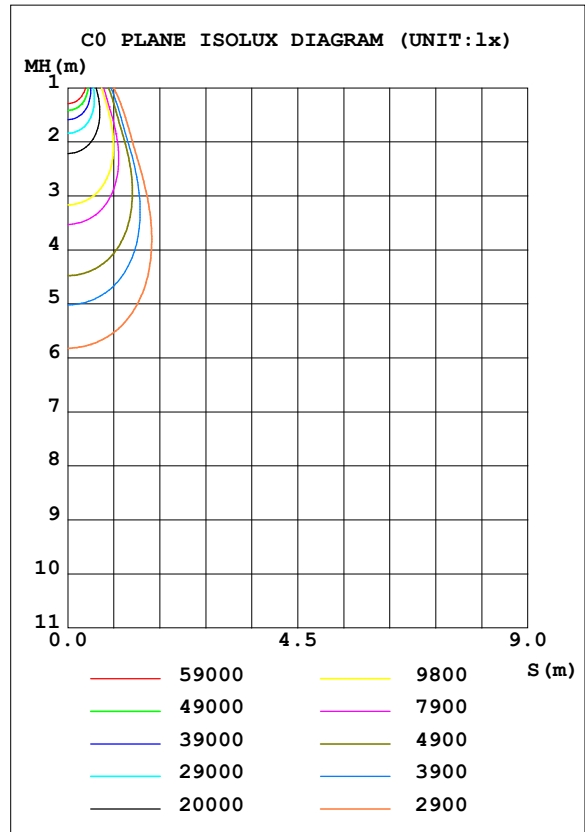
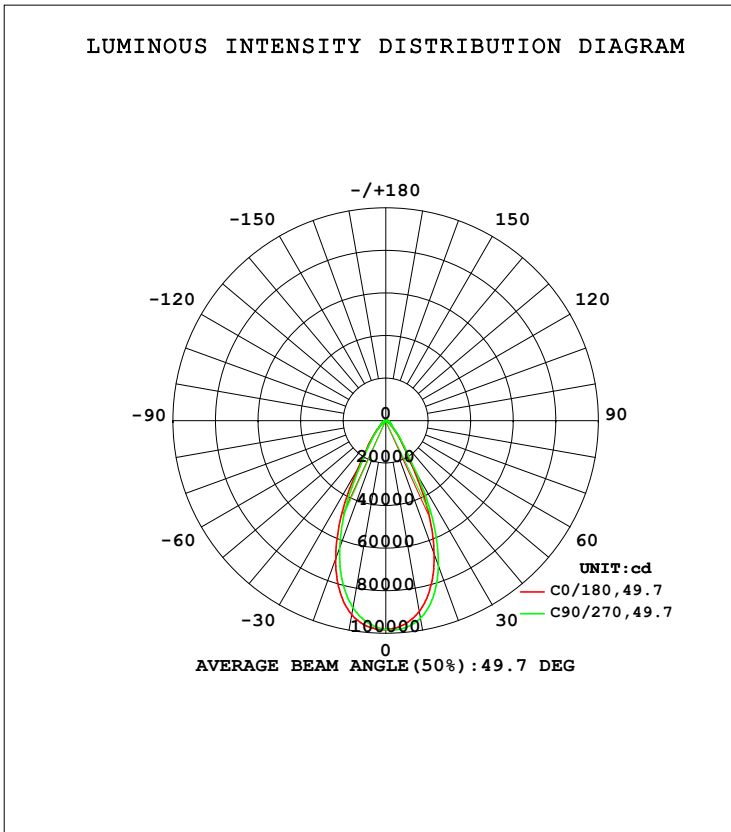


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.1V I:2.0482A P:459.31W PF:0.9786 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:72078.4x1 lm		
NAME: FL05-480-5070-S32702 (55deg)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.93 lm/W			
MODEL	/	I _{max} (cd)	98444	S/MH (C0/180)	0.76
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.73
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	72078	η UP, DN (C0-180)	0.0, 52.1
NOMINAL FLUX (lm)	72078.4	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	9102	9300	9424	9404	9259	9055	8923	8944	0- 10	9075	9075	12.6,12.6
20	6663	7019	7245	7206	6902	6550	6351	6402	10- 20	22727	31802	44.1,44.1
30	2603	2868	3068	3011	2733	2455	2335	2405	20- 30	21664	53467	74.2,74.2
40	882.2	933.2	957.4	954.4	889.4	814.3	786.5	820.7	30- 40	9566	63032	87.4,87.4
50	310.1	334.4	337.9	332.5	317.1	323.5	310.7	307.6	40- 50	4084	67116	93.1,93.1
60	175.7	181.9	185.2	182.6	179.6	179.1	176.1	175.2	50- 60	2141	69256	96.1,96.1
70	114.4	117.6	117.4	117.1	117.3	116.2	113.2	113.2	60- 70	1445	70702	98.1,98.1
80	62.39	62.86	63.80	63.11	63.63	62.94	62.34	61.38	70- 80	936.2	71638	99.4,99.4
90	1.822	2.206	2.919	2.672	2.445	2.606	2.407	2.458	80- 90	440.5	72078	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

Conical surface Flux(90deg): 65513 lm

%lum = 90.9%

%lamp = 90.9%

Conical surface Flux(120deg): 69256 lm

%lum = 96.1%

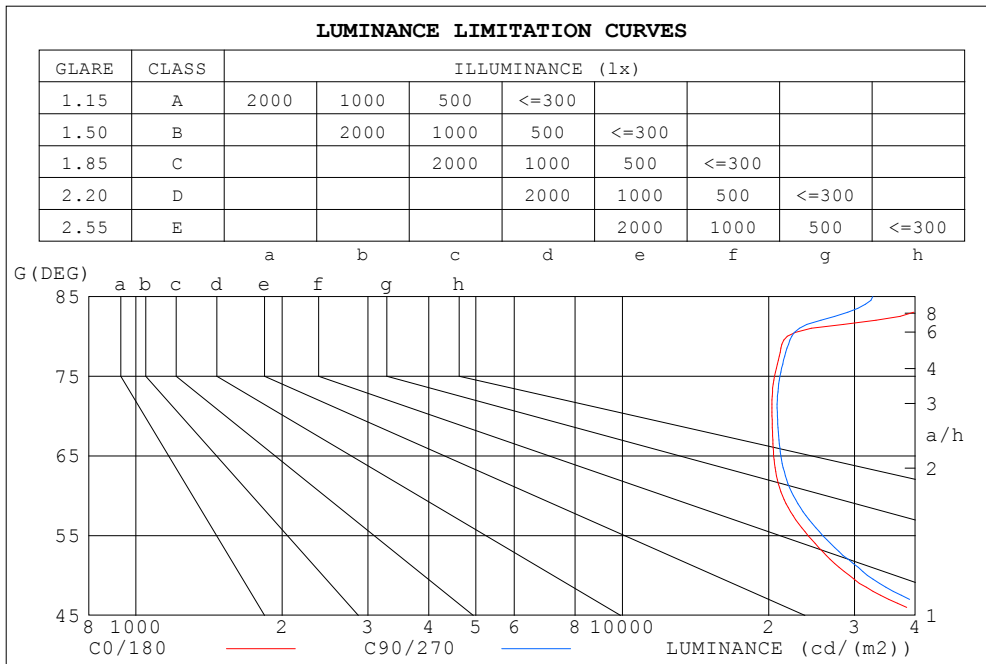
%lamp = 96.1%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	37419	32748
80	21828	22299
75	20551	21096
70	20317	20834
65	20474	21187
60	21345	22475
55	24105	25849
50	29310	31903
45	42195	46519

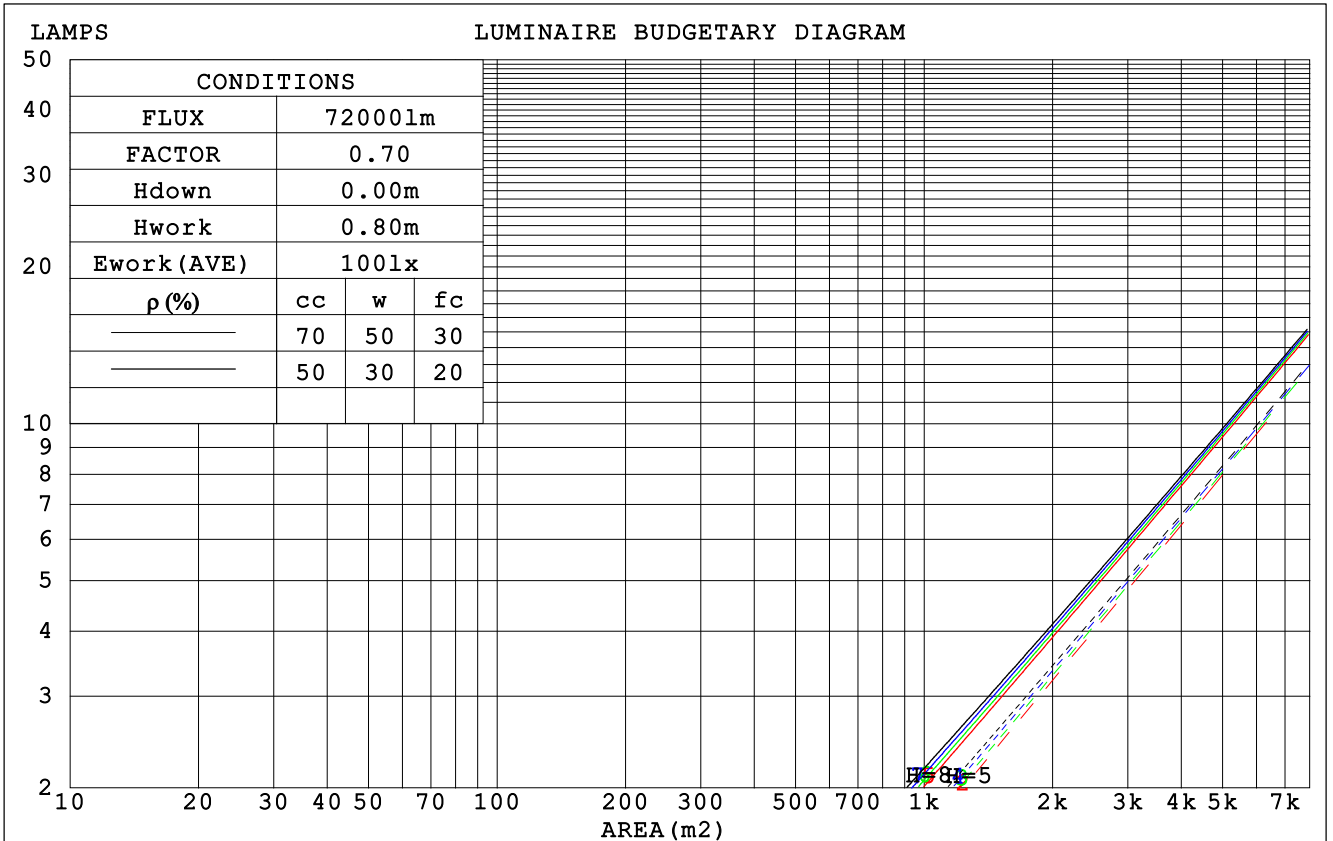
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	1.00
1.0	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	1.00	1.00	.99	.97	.97	.95	.94	.93
2.0	1.02	.98	.94	1.00	.97	.93	.97	.94	.91	.94	.92	.89	.91	.89	.87	.86
3.0	.95	.90	.86	.94	.89	.85	.91	.87	.84	.89	.85	.82	.86	.84	.81	.80
4.0	.89	.83	.79	.88	.83	.79	.86	.81	.78	.84	.80	.77	.82	.79	.76	.74
5.0	.84	.78	.73	.83	.77	.73	.81	.76	.72	.79	.75	.72	.78	.74	.71	.70
6.0	.79	.73	.68	.78	.72	.68	.76	.71	.68	.75	.71	.67	.74	.70	.67	.65
7.0	.74	.68	.64	.74	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.61
8.0	.70	.64	.60	.70	.64	.60	.69	.64	.60	.68	.63	.60	.67	.62	.59	.58
9.0	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.56	.63	.59	.56	.55
10.0	.63	.58	.54	.63	.57	.54	.62	.57	.54	.61	.57	.53	.61	.56	.53	.52



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.191	.109	.034	.185	.105	.033	.172	.099	.031	.160	.092	.030	.150	.087	.028	
2.0	.180	.099	.030	.174	.096	.030	.163	.091	.028	.154	.086	.027	.144	.082	.026	
3.0	.169	.090	.027	.164	.088	.026	.155	.084	.026	.147	.080	.025	.139	.077	.024	
4.0	.159	.083	.024	.155	.081	.024	.147	.078	.023	.140	.075	.023	.133	.072	.022	
5.0	.150	.077	.022	.147	.075	.022	.140	.073	.021	.133	.070	.021	.127	.068	.020	
6.0	.142	.071	.020	.139	.070	.020	.133	.068	.020	.127	.066	.019	.122	.064	.019	
7.0	.135	.067	.019	.132	.066	.019	.127	.064	.018	.122	.063	.018	.117	.061	.018	
8.0	.129	.063	.018	.126	.062	.018	.121	.061	.017	.117	.059	.017	.113	.058	.017	
9.0	.123	.059	.017	.121	.059	.016	.116	.057	.016	.112	.056	.016	.108	.055	.016	
10.0	.117	.056	.016	.115	.056	.016	.112	.055	.015	.108	.054	.015	.104	.053	.015	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.135	.114	.096	.092	.079	.067	.053	.046	.039	.017	.015	.013	
3.0	.145	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.135	.099	.072	.116	.086	.062	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.126	.087	.059	.108	.076	.051	.074	.053	.036	.043	.031	.022	.014	.010	.007	
6.0	.118	.078	.049	.101	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.111	.071	.042	.096	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.091	.056	.031	.063	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.060	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.095	.055	.027	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

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	17.6	18.7	18.0	19.0	19.3	17.9	18.9	18.2	19.3	19.6
3H	19.4	20.3	19.7	20.6	21.0	19.5	20.5	19.9	20.8	21.2
4H	20.1	21.0	20.5	21.3	21.7	20.3	21.1	20.7	21.5	21.9
6H	20.8	21.6	21.2	21.9	22.3	20.9	21.7	21.3	22.1	22.5
8H	21.3	22.0	21.7	22.4	22.8	21.2	22.0	21.7	22.4	22.8
12H	21.9	22.6	22.3	23.0	23.4	21.7	22.4	22.1	22.8	23.2
4H 2H	18.1	19.0	18.5	19.4	19.8	18.3	19.2	18.7	19.6	19.9
3H	20.1	20.8	20.5	21.2	21.6	20.2	21.0	20.6	21.4	21.8
4H	21.0	21.7	21.4	22.1	22.5	21.1	21.8	21.6	22.2	22.6
6H	21.8	22.4	22.3	22.8	23.3	22.0	22.5	22.4	23.0	23.4
8H	22.4	22.9	22.9	23.4	23.9	22.4	22.9	22.8	23.3	23.8
12H	23.1	23.6	23.6	24.0	24.5	22.9	23.4	23.4	23.8	24.3
8H 4H	21.3	21.8	21.8	22.3	22.8	21.4	21.9	21.9	22.4	22.9
6H	22.3	22.8	22.9	23.3	23.7	22.4	22.8	22.9	23.4	23.8
8H	23.1	23.4	23.6	24.0	24.5	23.0	23.4	23.6	23.9	24.4
12H	23.9	24.3	24.5	24.7	25.3	23.8	24.1	24.3	24.6	25.2
12H 4H	21.4	21.8	21.9	22.3	22.8	21.5	21.9	21.9	22.4	22.9
6H	22.5	22.8	23.0	23.3	23.9	22.5	22.9	23.1	23.4	23.9
8H	23.3	23.7	23.9	24.2	24.7	23.3	23.6	23.8	24.1	24.7
CIE190: 2010										

CIE190: 2010
 Area: 0.16475 m2

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

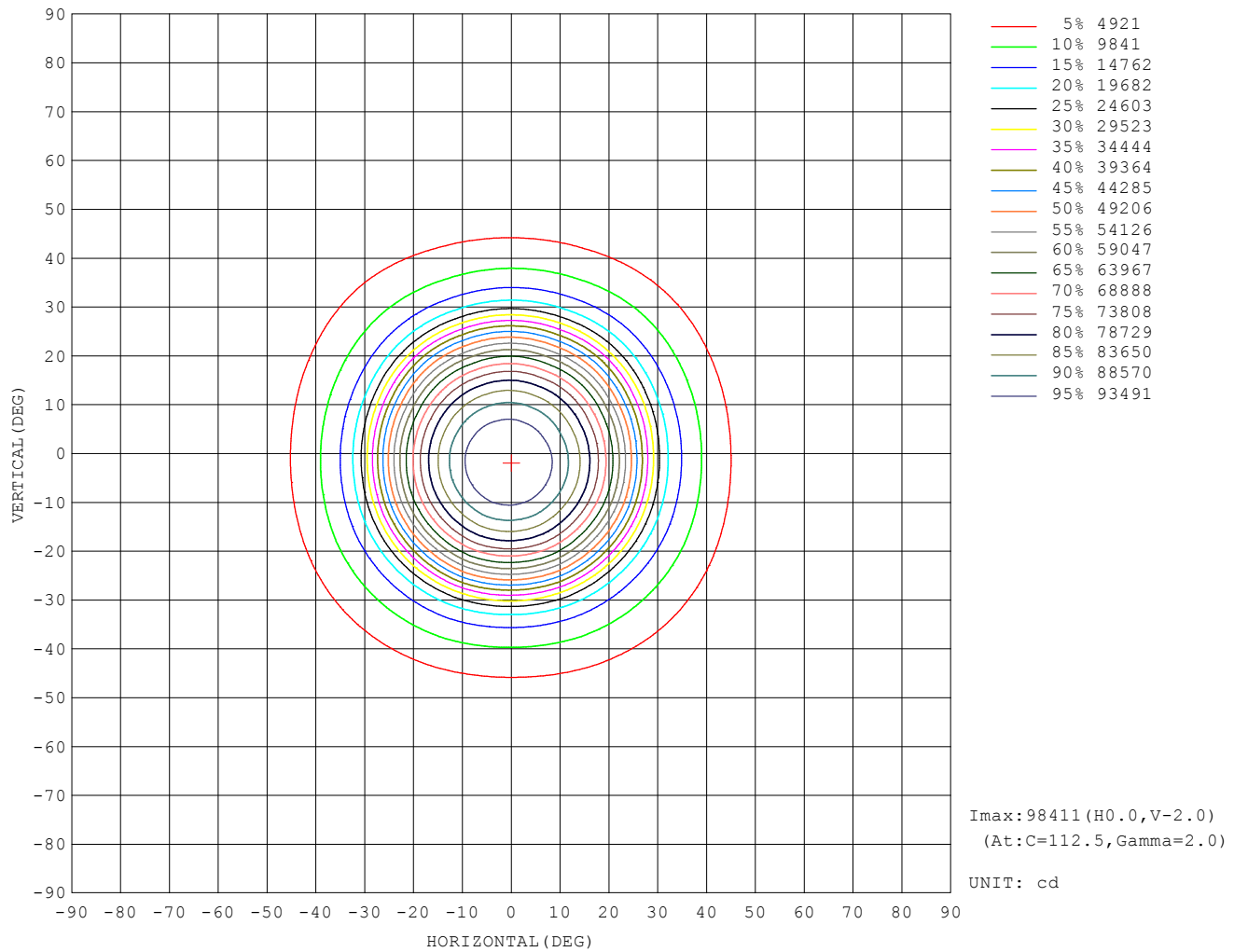
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	83	77	73	82	76	72	69
0.80	92	85	81	91	85	81	90	84	80	76
1.00	96	90	86	95	90	86	94	90	85	81
1.25	101	95	91	100	94	91	98	93	90	85
1.50	104	98	94	102	97	94	100	96	93	88
2.00	107	102	98	105	101	98	102	99	96	91
2.50	109	104	101	107	103	100	104	101	98	92
3.00	110	107	104	109	105	102	105	102	100	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	109	112	110	108	108	106	105	97
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

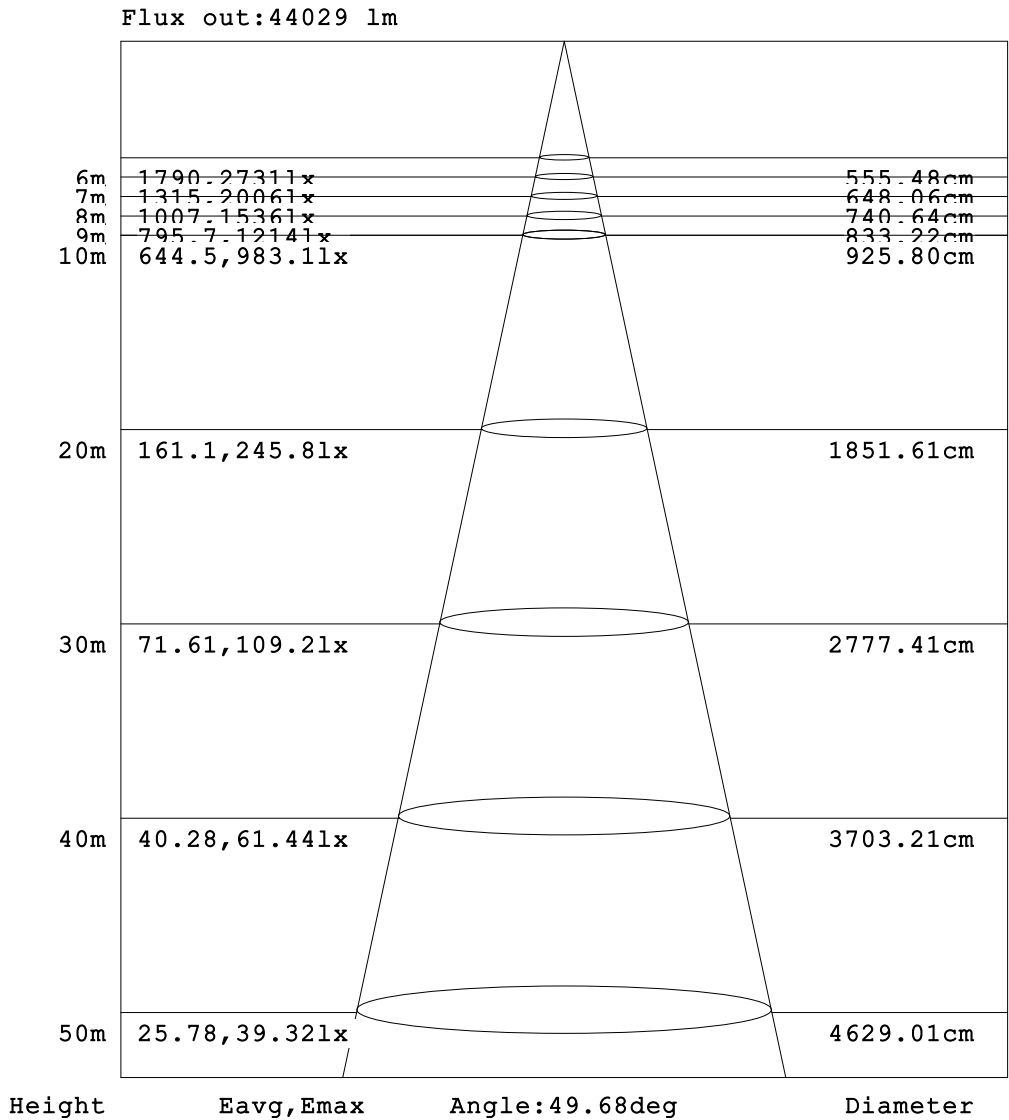
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4536]
Remarks:

AAI Figure



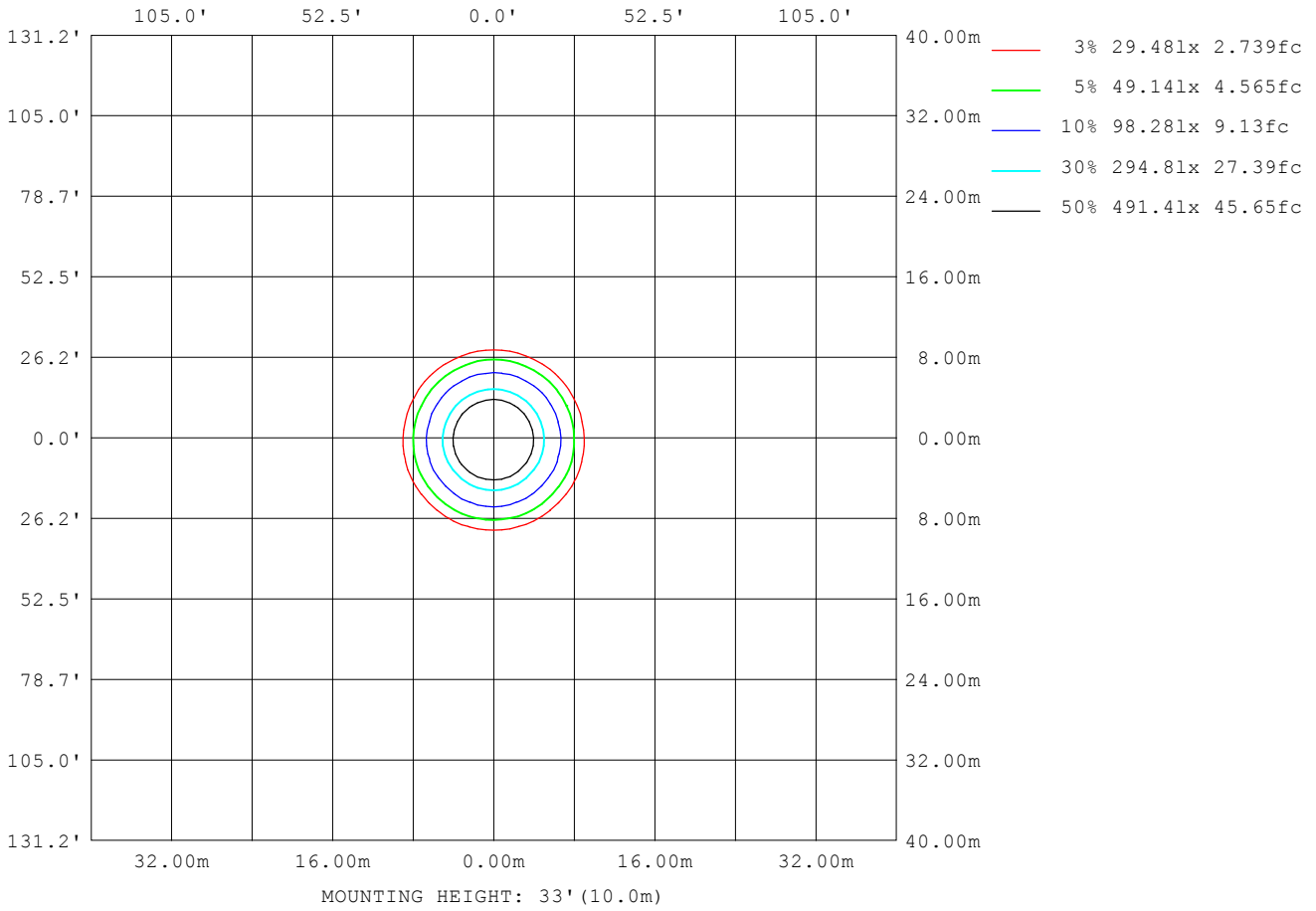
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4536]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

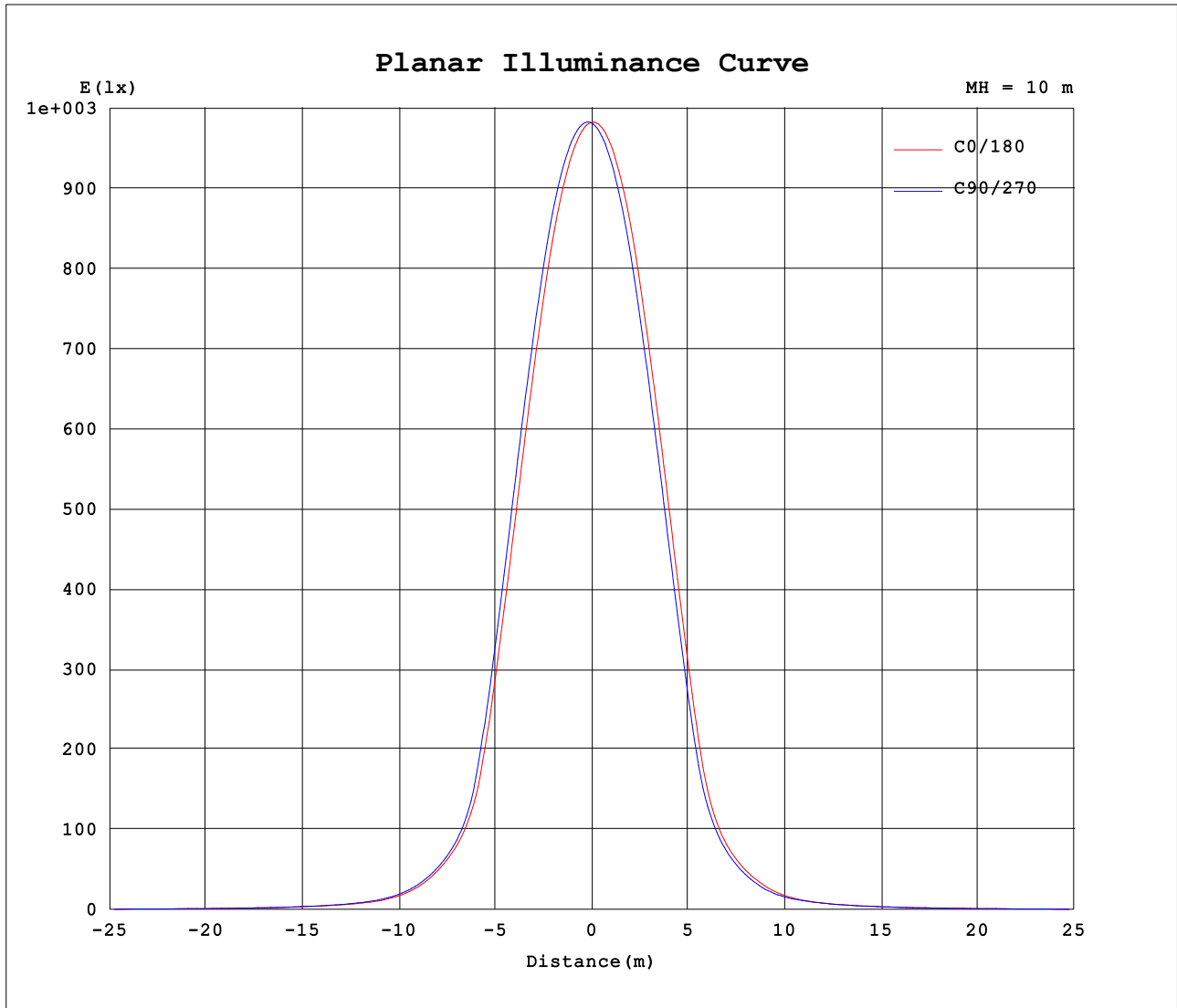
ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4536]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2021-12-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4536]
Remarks: