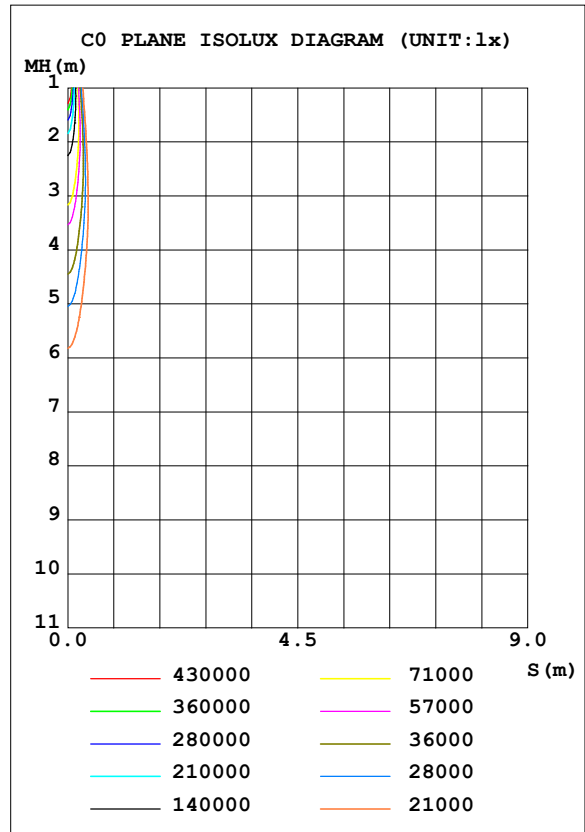
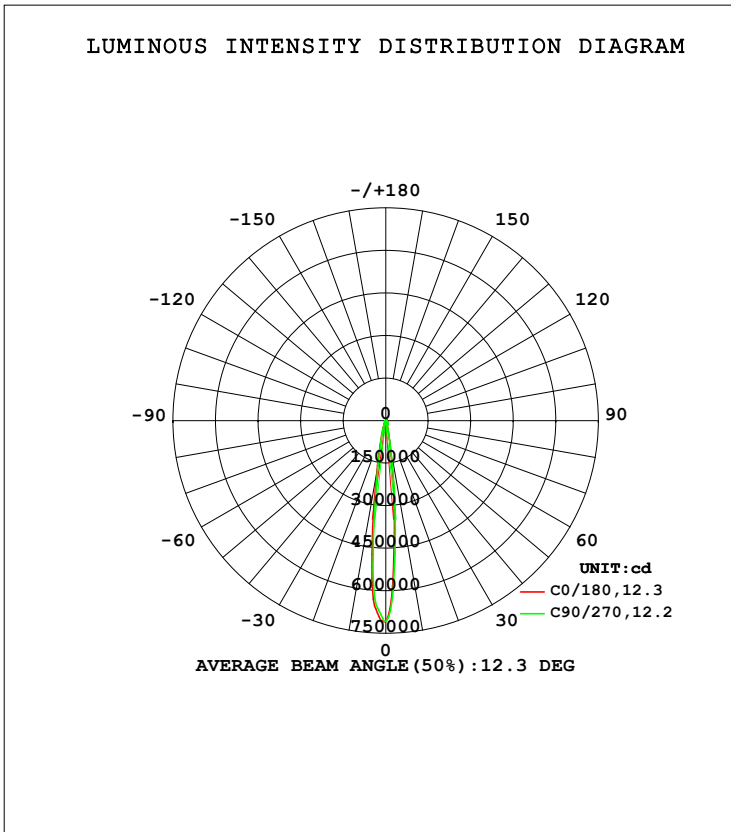


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.2V I:2.1315A P:478.81W PF:0.9802 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:59778.5x1 lm		
NAME: FL05-480-5070-S31301 (12deg)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 124.85 lm/W			
MODEL	/	I _{max} (cd)	727408	S/MH (C0/180)	0.25
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.23
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	59778	η UP, DN (C0-180)	0.0, 43.5
NOMINAL FLUX (lm)	59778.5	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 56.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	0.20



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-07

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	938.6	882.4	1045	1444	1812	1828	1577	1215	0- 10	32173	32173	53.8,53.8
20	140.1	130.7	137.8	174.7	264.6	304.4	246.2	172.7	10- 20	14022	46195	77.3,77.3
30	51.23	48.91	52.77	63.59	82.35	88.74	76.62	59.35	20- 30	5402	51597	86.3,86.3
40	27.73	26.78	27.79	31.18	35.32	37.65	35.10	30.43	30- 40	2690	54287	90.8,90.8
50	17.89	17.32	17.95	19.62	22.06	23.03	21.59	19.28	40- 50	1936	56223	94.1,94.1
60	13.16	12.83	13.19	14.31	15.89	16.48	15.59	14.09	50- 60	1516	57739	96.6,96.6
70	8.392	8.241	8.546	9.236	10.14	10.31	9.783	8.881	60- 70	1180	58919	98.6,98.6
80	3.190	3.150	3.419	3.910	4.344	4.386	4.024	3.511	70- 80	683.9	59603	99.7,99.7
90	0.1557	0.1617	0.1937	0.2484	0.2650	0.2363	0.1847	0.1542	80- 90	175.3	59778	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:X100cd									UNIT:lm		

Conical surface Flux(90deg): 55325 lm

%lum = 92.6%

%lamp = 92.6%

Conical surface Flux(120deg): 57739 lm

%lum = 96.6%

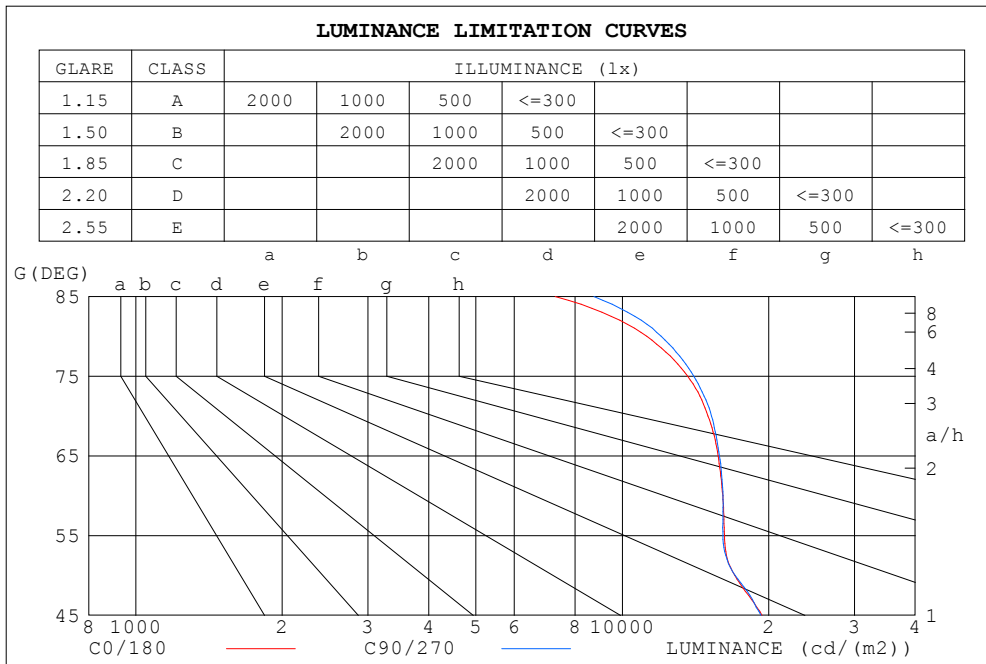
%lamp = 96.6%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-12-07

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	7279	8742
80	11233	12021
75	13627	14030
70	15004	15256
65	15743	15843
60	16093	16109
55	16222	16094
50	17024	17053
45	19376	19294

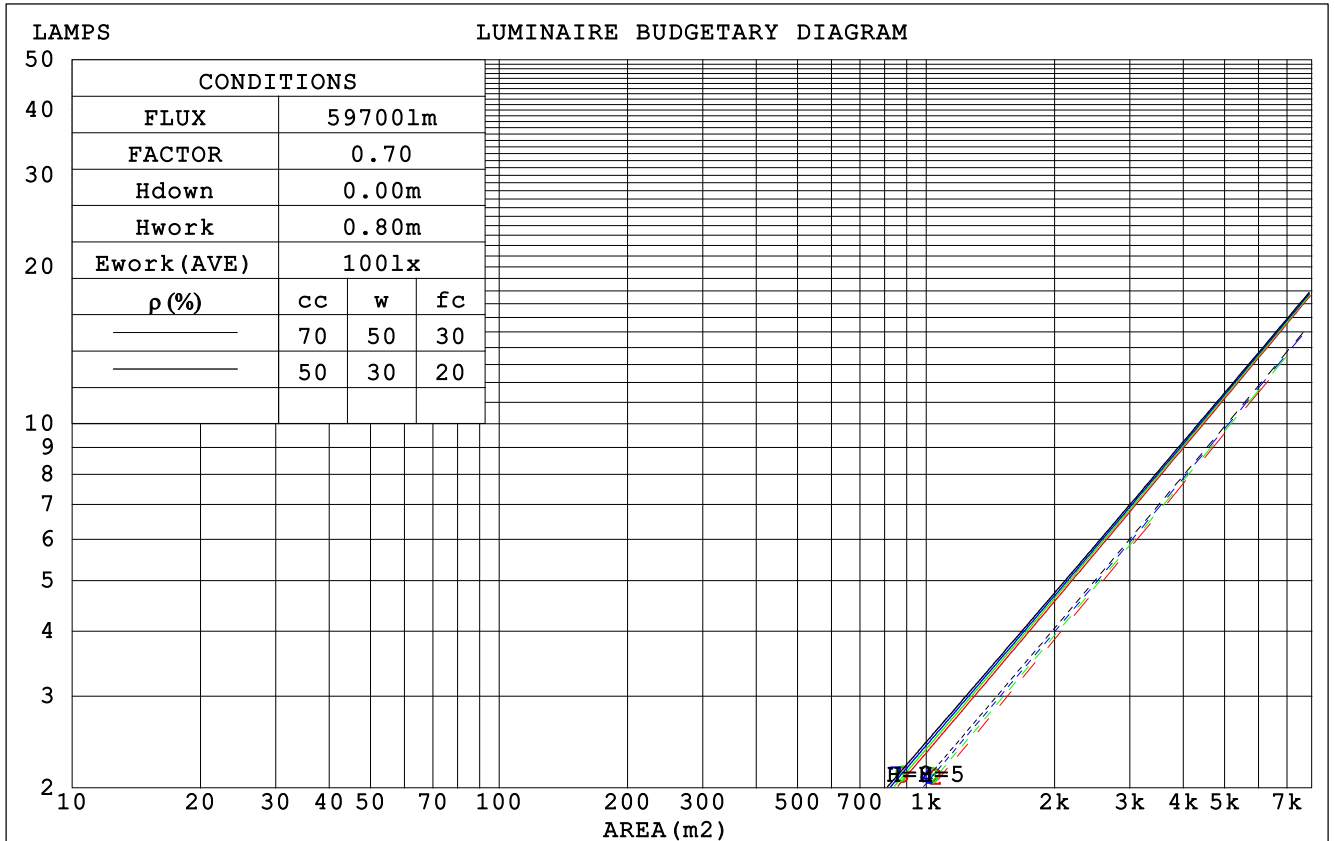
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-07

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	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.03	1.01	1.00	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.94	.98	.95	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.91	.88	.92	.89	.87	.86
5.0	.95	.91	.87	.94	.90	.87	.92	.89	.86	.91	.88	.86	.89	.87	.85	.84
6.0	.92	.88	.85	.91	.87	.84	.90	.86	.84	.89	.86	.83	.87	.85	.83	.82
7.0	.89	.85	.82	.89	.85	.82	.88	.84	.82	.87	.84	.81	.86	.83	.81	.80
8.0	.87	.83	.80	.87	.83	.80	.86	.82	.80	.85	.82	.80	.84	.81	.79	.78
9.0	.85	.81	.79	.85	.81	.78	.84	.81	.78	.83	.80	.78	.83	.80	.78	.77
10.0	.83	.80	.77	.83	.79	.77	.82	.79	.77	.82	.79	.77	.81	.78	.76	.76



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-07

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	.147	.084	.026	.140	.080	.025	.128	.073	.023	.117	.067	.022	.106	.061	.020	
2.0	.135	.074	.023	.130	.072	.022	.120	.067	.021	.110	.062	.019	.101	.057	.018	
3.0	.125	.066	.020	.120	.064	.019	.111	.060	.018	.103	.057	.017	.096	.053	.016	
4.0	.115	.060	.018	.111	.058	.017	.104	.055	.016	.097	.052	.016	.091	.049	.015	
5.0	.107	.054	.016	.104	.053	.015	.097	.051	.015	.092	.048	.014	.086	.046	.014	
6.0	.100	.050	.014	.097	.049	.014	.091	.047	.014	.087	.045	.013	.082	.043	.013	
7.0	.093	.046	.013	.091	.045	.013	.086	.044	.013	.082	.042	.012	.078	.041	.012	
8.0	.088	.043	.012	.086	.042	.012	.082	.041	.012	.078	.039	.011	.074	.038	.011	
9.0	.083	.040	.011	.081	.039	.011	.077	.038	.011	.074	.037	.011	.071	.036	.010	
10.0	.078	.038	.010	.077	.037	.010	.074	.036	.010	.071	.035	.010	.068	.034	.010	

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008	
6.0	.104	.076	.056	.089	.066	.048	.061	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.067	.048	.082	.058	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.089	.060	.041	.076	.052	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.082	.055	.036	.071	.047	.031	.049	.033	.022	.029	.020	.013	.009	.006	.004	
10.0	.077	.050	.032	.066	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-07

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	15.8	16.8	16.1	17.1	17.4	16.1	17.1	16.4	17.4	17.7
3H	17.6	18.5	18.0	18.9	19.2	18.0	18.9	18.3	19.2	19.6
4H	18.3	19.1	18.7	19.5	19.9	18.6	19.5	19.0	19.8	20.2
6H	18.7	19.5	19.1	19.9	20.3	19.1	19.8	19.5	20.2	20.6
8H	18.8	19.5	19.2	19.9	20.3	19.2	19.9	19.6	20.3	20.7
12H	18.8	19.5	19.3	19.9	20.3	19.2	19.9	19.7	20.3	20.7
4H 2H	16.3	17.2	16.7	17.5	17.9	16.7	17.6	17.2	17.9	18.3
3H	18.4	19.1	18.8	19.5	19.9	18.8	19.5	19.2	19.9	20.3
4H	19.2	19.8	19.6	20.2	20.6	19.6	20.2	20.0	20.6	21.1
6H	19.7	20.2	20.1	20.6	21.1	20.2	20.7	20.6	21.1	21.6
8H	19.8	20.3	20.3	20.7	21.2	20.3	20.8	20.8	21.2	21.7
12H	19.8	20.3	20.3	20.7	21.2	20.4	20.8	20.9	21.3	21.8
8H 4H	19.4	19.9	19.9	20.3	20.8	19.9	20.4	20.4	20.8	21.3
6H	20.0	20.4	20.5	20.9	21.4	20.6	21.0	21.1	21.5	22.0
8H	20.2	20.5	20.7	21.0	21.5	20.8	21.1	21.3	21.7	22.2
12H	20.3	20.6	20.8	21.1	21.6	20.9	21.2	21.5	21.7	22.3
12H 4H	19.4	19.8	19.9	20.3	20.8	19.9	20.3	20.4	20.8	21.3
6H	20.0	20.4	20.5	20.8	21.4	20.6	21.0	21.2	21.4	22.0
8H	20.2	20.5	20.7	21.0	21.6	20.9	21.2	21.4	21.7	22.3
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:2021-12-07

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

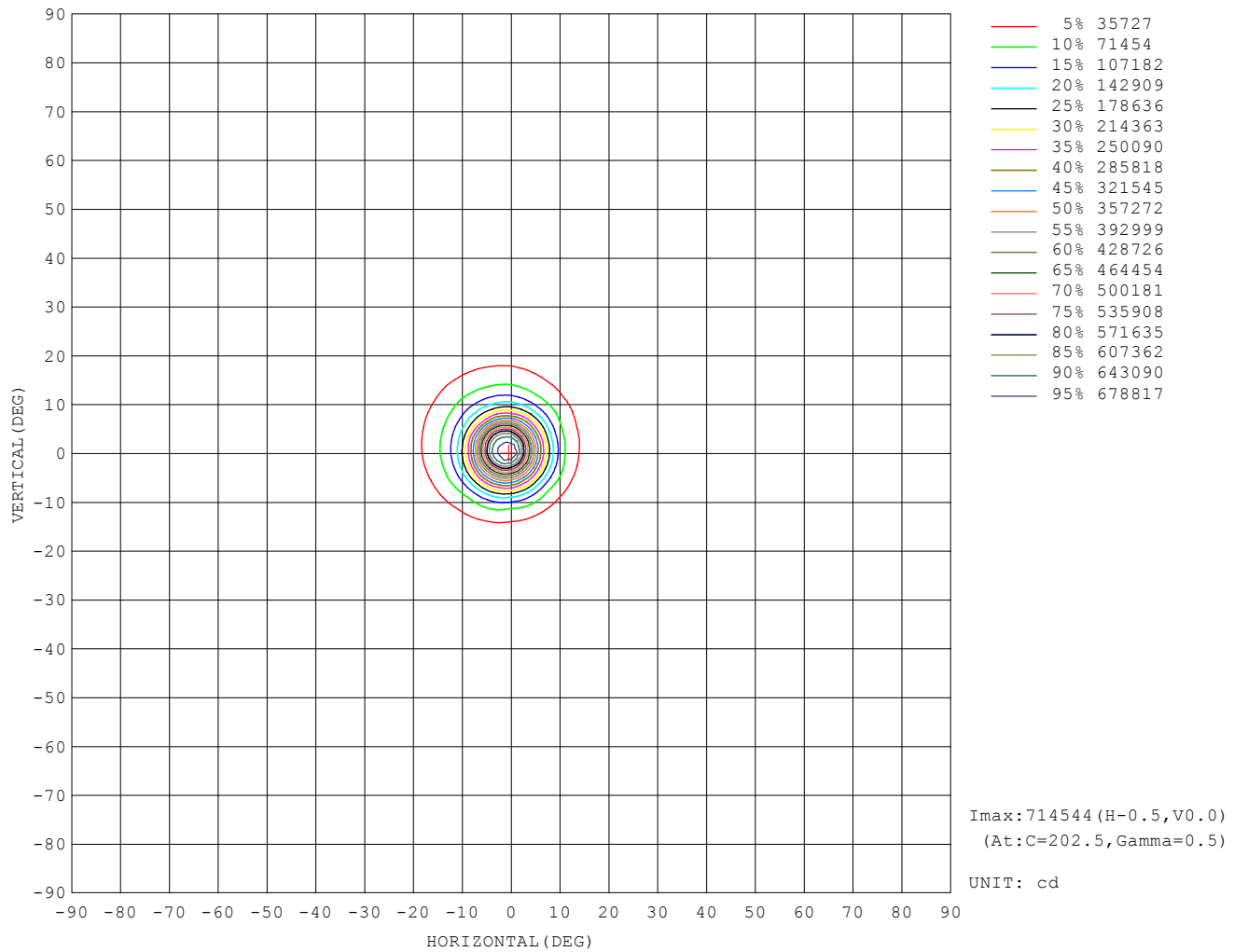
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	71
0.80	93	87	83	93	87	83	91	86	83	79
1.00	98	92	88	97	91	88	95	91	87	83
1.25	102	96	93	101	96	92	99	95	91	87
1.50	105	100	96	103	99	96	101	97	94	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	104	109	106	103	106	103	101	95
4.00	113	110	108	111	109	107	108	105	104	97
5.00	115	112	110	112	110	109	108	107	106	98
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: 2021-12-07

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

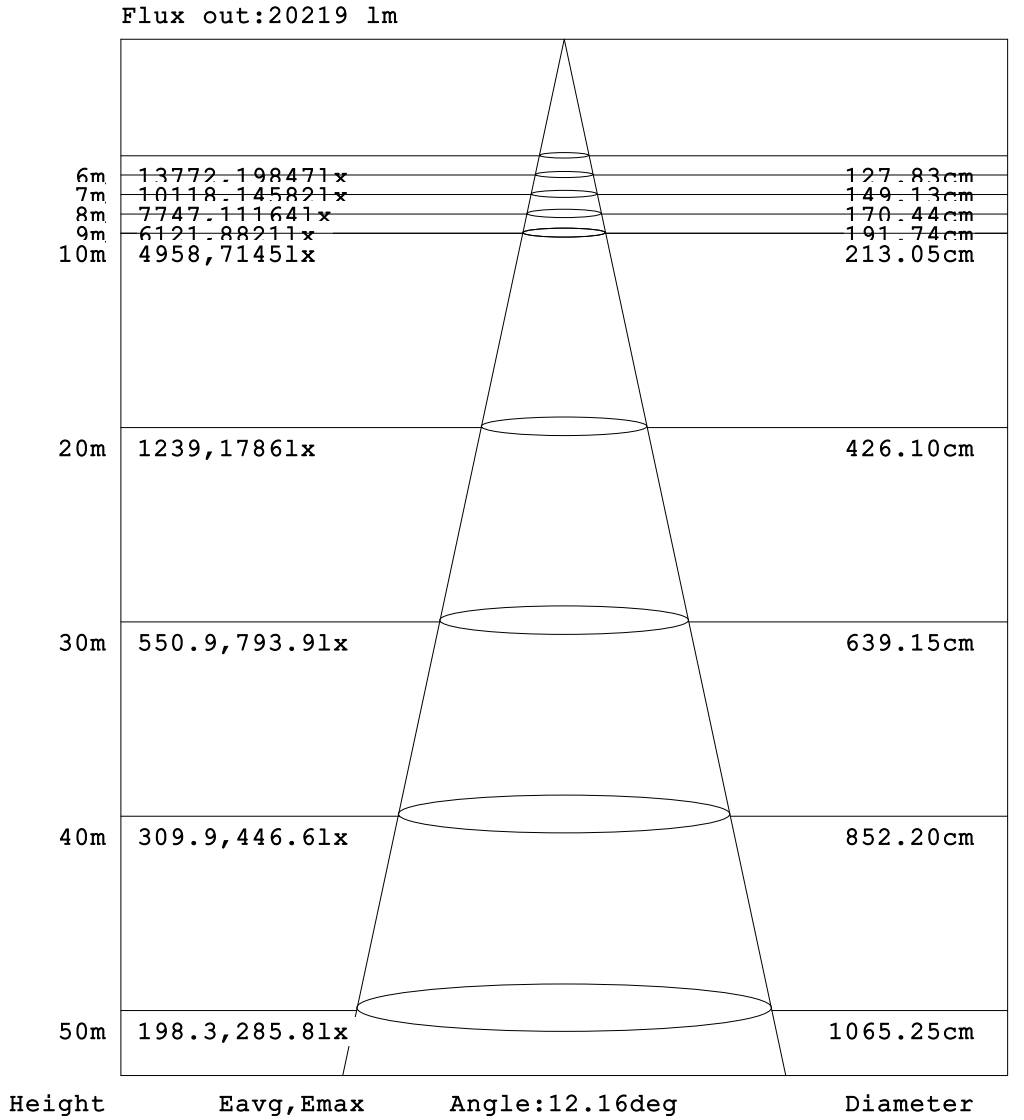
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2021-12-07

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



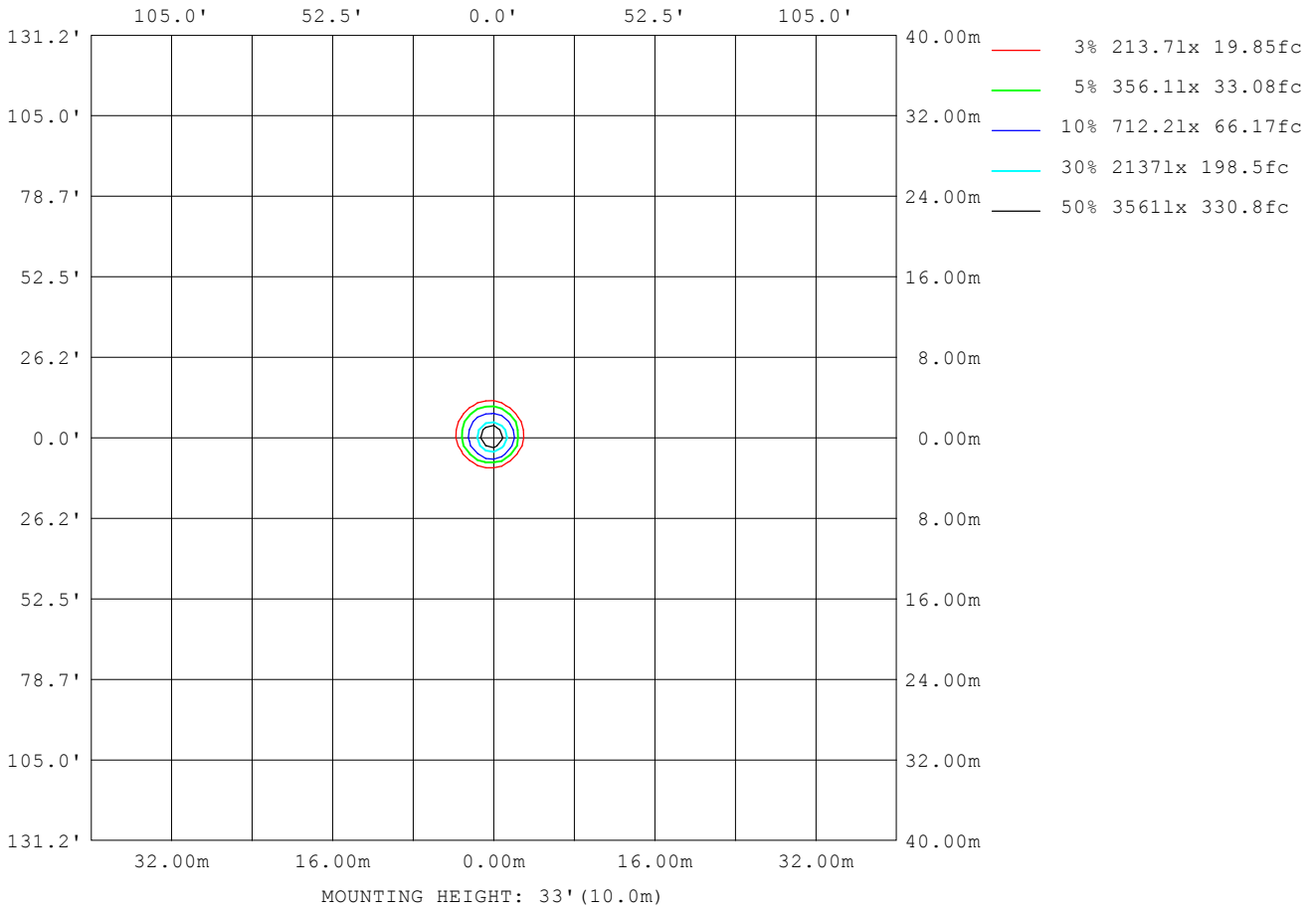
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2021-12-07

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

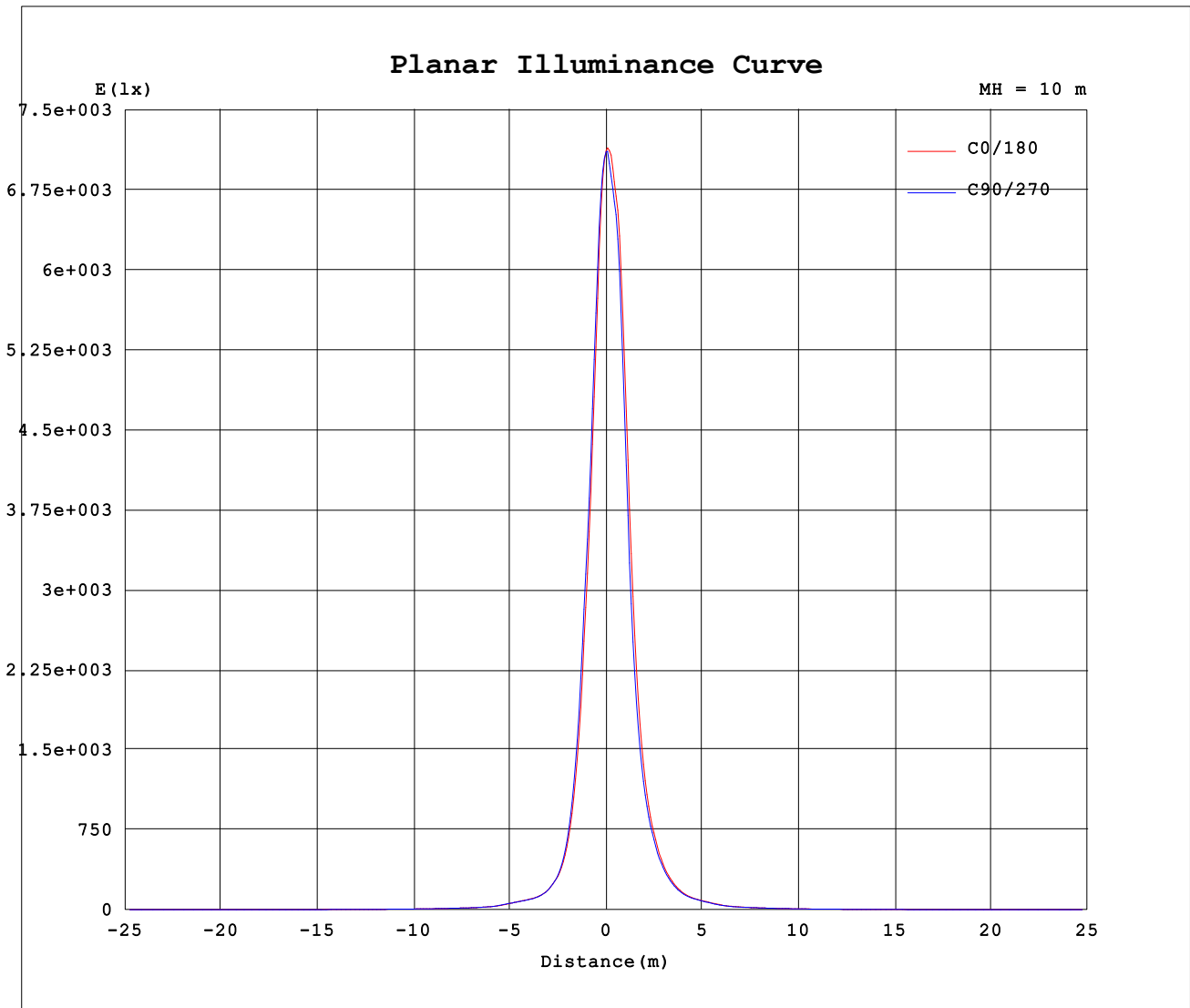
ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2021-12-07

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:2021-12-07

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: