

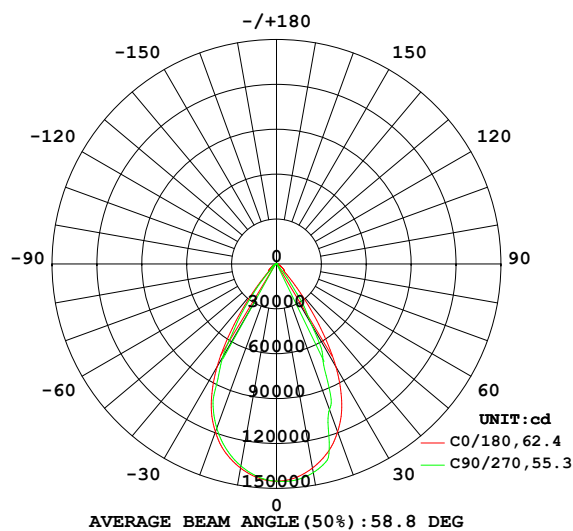
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

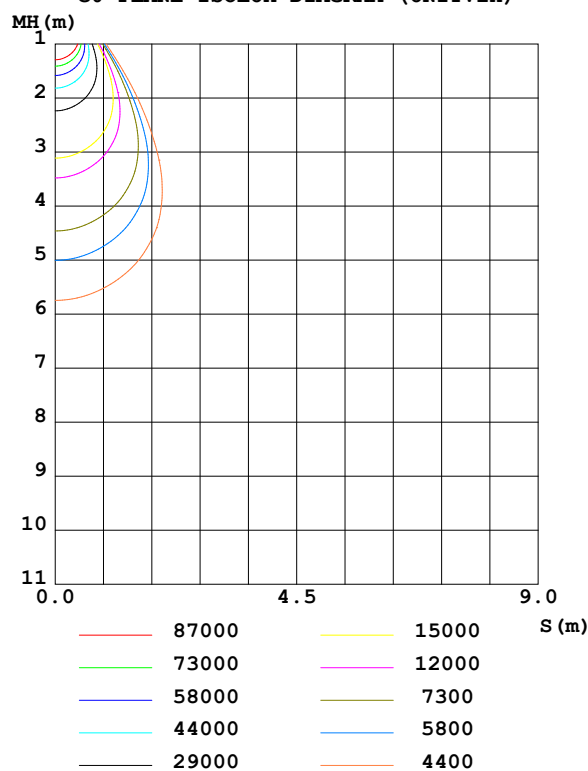
Test:U:230.0V I:4.272A P:960.0W PF:0.977 Freq:50.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:128922x1 lm		
NAME: SP04-960-5770-F04006Z+H130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 134.29 lm/W			
MODEL	/	I _{max} (cd)	145413	S/MH(C0/180)	0.92
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	0.88
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	128922	η UP,DN(C0-180)	0.0,46.5
NOMINAL FLUX(lm)	128922	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,53.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	/	η down(%)	100.0	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-12-14

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
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	1385	1406	1416	1406	1385	1373	1370	1373	0- 10	13564	13564	10.5,10.5
20	1194	1206	1036	1206	1194	1172	1167	1172	10- 20	36421	49985	38.8,38.8
30	796.5	639.6	466.4	639.6	796.5	786.1	718.3	786.1	20- 30	43654	93639	72.6,72.6
40	229.8	129.7	48.53	129.7	229.8	217.0	185.1	217.0	30- 40	25658	119298	92.5,92.5
50	66.60	12.20	2.231	12.20	66.60	49.74	45.30	49.74	40- 50	5615	124912	96.9,96.9
60	32.54	1.108	1.007	1.108	32.54	26.88	21.70	26.88	50- 60	2268	127181	98.6,98.6
70	13.14	0.5654	0.4533	0.5654	13.14	13.51	9.914	13.51	60- 70	1203	128384	99.6,99.6
80	2.270	0.2033	0.1392	0.2033	2.270	3.247	2.740	3.247	70- 80	458.9	128843	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	78.93	128922	100,100
100	0	0	0	0	0	0	0	0	90-100	0	128922	100,100
110	0	0	0	0	0	0	0	0	100-110	0	128922	100,100
120	0	0	0	0	0	0	0	0	110-120	0	128922	100,100
130	0	0	0	0	0	0	0	0	120-130	0	128922	100,100
140	0	0	0	0	0	0	0	0	130-140	0	128922	100,100
150	0	0	0	0	0	0	0	0	140-150	0	128922	100,100
160	0	0	0	0	0	0	0	0	150-160	0	128922	100,100
170	0	0	0	0	0	0	0	0	160-170	0	128922	100,100
180	0	0	0	0	0	0	0	0	170-180	0	128922	100,100
DEG	LUMINOUS INTENSITY:X100cd									UNIT:lm		

Conical surface Flux(90deg): 1.2317e+005 lm

%lum = 95.5%

%lamp = 95.5%

Conical surface Flux(120deg): 1.2718e+005 lm

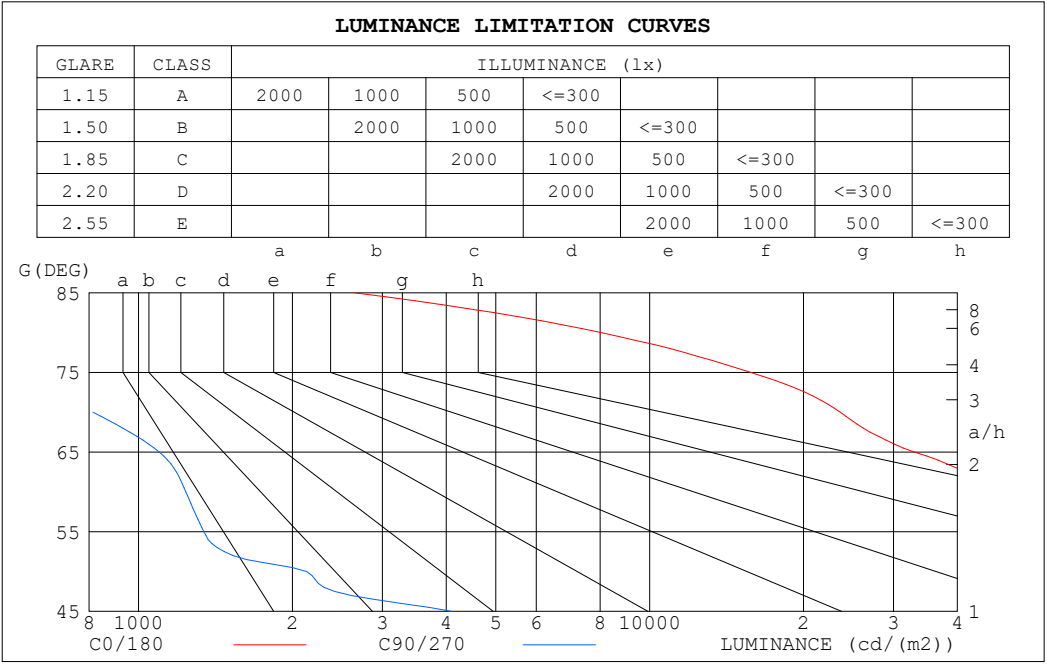
%lum = 98.6%

%lamp = 98.6%

C Range: 0 - 360DEG
C Interval: 10.0DEG
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Temperature:25.3°C
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Test Date:2022-12-14

γ Range: 0 - 180DEG
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Humidity:65.0%
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Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2646	444
80	8037	493
75	15782	596
70	23617	814
65	32970	1098
60	40018	1238
55	55147	1342
50	63711	2133
45	74278	4098

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:LYJ

Test Date:2022-12-14

γ Range: 0 - 180DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465

Humidity:65.0%

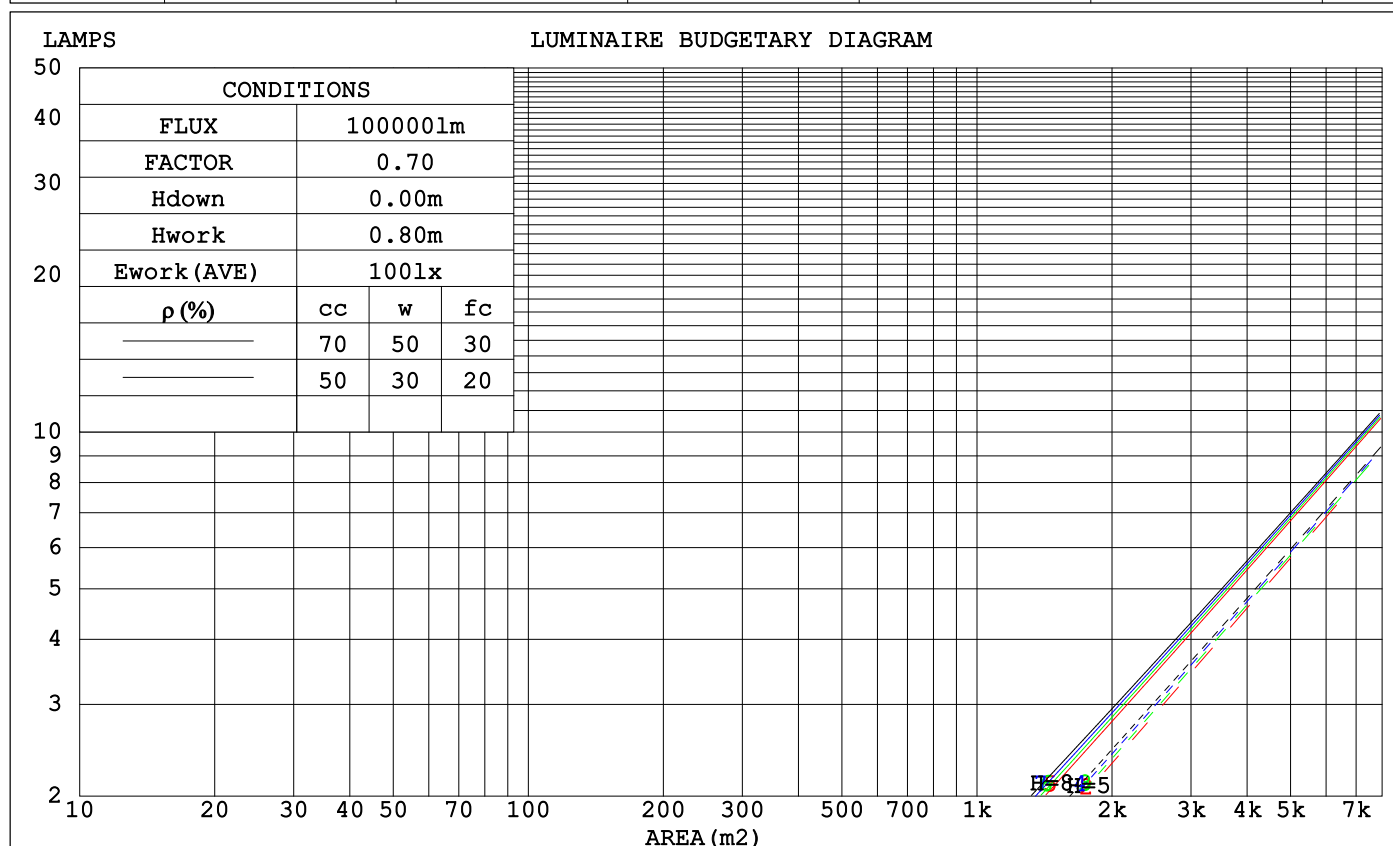
Test Distance:26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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						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	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.94	.90	.86	.92	.88	.85	.89	.86	.83	.87	.85	.82	.81
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.84	.81	.77	.82	.79	.77	.75
5.0	.84	.78	.74	.83	.78	.73	.81	.76	.73	.80	.75	.72	.78	.74	.72	.70
6.0	.79	.73	.69	.78	.72	.68	.76	.72	.68	.75	.71	.67	.74	.70	.67	.65
7.0	.74	.68	.64	.73	.68	.64	.72	.67	.63	.71	.66	.63	.70	.66	.63	.61
8.0	.70	.64	.60	.69	.64	.60	.68	.63	.59	.67	.63	.59	.66	.62	.59	.58
9.0	.66	.60	.56	.66	.60	.56	.65	.59	.56	.64	.59	.56	.63	.59	.55	.54
10.0	.62	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.52	.60	.55	.52	.51



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 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity:65.0%
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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	.180	.102	.032	.173	.099	.031	.161	.092	.029	.149	.086	.028	.139	.080	.026		
2.0	.172	.095	.029	.167	.092	.028	.156	.087	.027	.146	.082	.026	.137	.078	.024		
3.0	.164	.087	.026	.159	.085	.026	.150	.081	.025	.142	.078	.024	.134	.074	.023		
4.0	.156	.081	.024	.152	.080	.024	.144	.076	.023	.137	.073	.022	.130	.071	.022		
5.0	.149	.076	.022	.145	.074	.022	.138	.072	.021	.132	.070	.021	.126	.067	.020		
6.0	.142	.071	.020	.139	.070	.020	.133	.068	.020	.127	.066	.019	.122	.064	.019		
7.0	.135	.067	.019	.133	.066	.019	.127	.064	.019	.122	.063	.018	.118	.061	.018		
8.0	.130	.063	.018	.127	.063	.018	.122	.061	.017	.118	.060	.017	.114	.058	.017		
9.0	.124	.060	.017	.122	.059	.017	.118	.058	.016	.114	.057	.016	.110	.056	.016		
10.0	.119	.057	.016	.117	.057	.016	.113	.055	.016	.109	.054	.015	.106	.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	.171	.157	.145	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.059	.108	.076	.052	.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	.036	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.106	.064	.036	.091	.056	.031	.063	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.101	.059	.031	.087	.051	.027	.060	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.096	.055	.027	.083	.048	.024	.058	.033	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity:65.0%
 Test Distance:26.000m [K=0.4548]
 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	16.9	17.3	16.9	17.6	17.9	16.9	16.9	16.9	16.9	16.9
3H	16.9	17.8	17.3	18.1	18.5	16.9	16.9	16.9	16.9	16.9
4H	17.0	17.8	17.4	18.2	18.5	16.9	16.9	16.9	16.9	16.9
6H	17.0	17.7	17.4	18.1	18.5	16.9	16.9	16.9	16.9	16.9
8H	16.9	17.6	17.3	18.0	18.4	16.9	16.9	16.9	16.9	16.9
12H	16.9	17.5	17.3	17.9	18.3	16.9	16.9	16.9	16.9	16.9
4H 2H	16.9	16.9	16.9	17.2	17.6	16.9	16.9	16.9	16.9	16.9
3H	16.9	17.3	17.0	17.7	18.1	16.9	16.9	16.9	16.9	16.9
4H	16.9	17.2	17.1	17.7	18.1	16.9	16.9	16.9	16.9	16.9
6H	16.9	17.1	17.1	17.6	18.0	16.9	16.9	16.9	16.9	16.9
8H	16.9	17.0	17.0	17.5	18.0	16.9	16.9	16.9	16.9	16.9
12H	16.9	16.9	17.0	17.4	17.9	16.9	16.9	16.9	16.9	16.9
8H 4H	16.9	16.9	17.0	17.4	17.9	16.9	16.9	16.9	16.9	16.9
6H	16.9	16.9	16.9	17.3	17.8	16.9	16.9	16.9	16.9	16.9
8H	16.9	16.9	16.9	17.2	17.7	16.9	16.9	16.9	16.9	16.9
12H	16.9	16.9	16.9	17.1	17.7	16.9	16.9	16.9	16.9	16.9
12H 4H	16.9	16.9	16.9	17.3	17.8	16.9	16.9	16.9	16.9	16.9
6H	16.9	16.9	16.9	17.2	17.7	16.9	16.9	16.9	16.9	16.9
8H	16.9	16.9	16.9	17.1	17.7	16.9	16.9	16.9	16.9	16.9
CIE190: 2010										

CIE190: 2010
Area: 0.1627 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
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Temperature:25.3℃
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γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

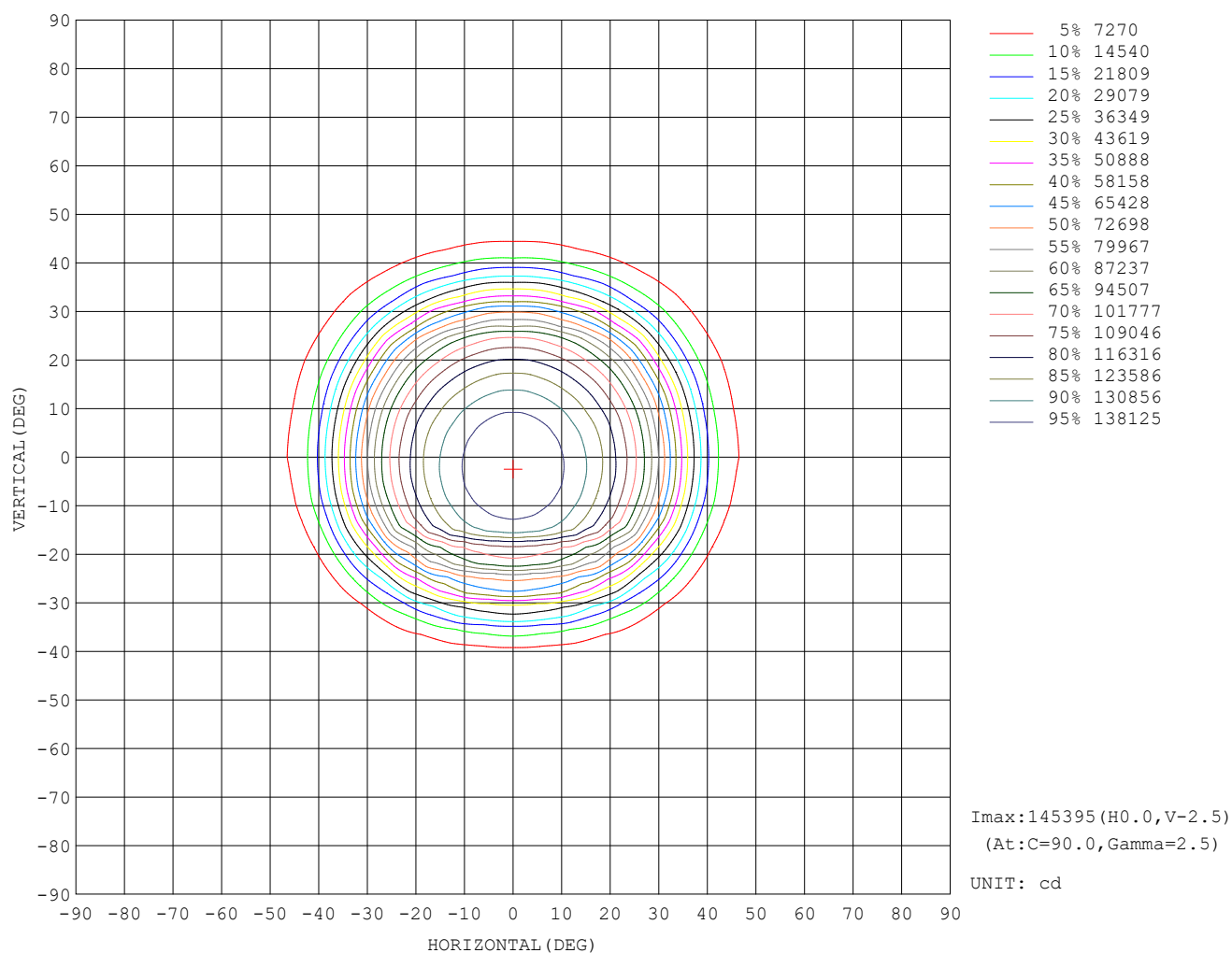
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	77	86	80	76	73
0.80	94	88	85	94	88	85	92	87	84	80
1.00	99	93	90	98	93	89	96	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	97	104	100	97	102	99	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity: 65.0%
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 Remarks:

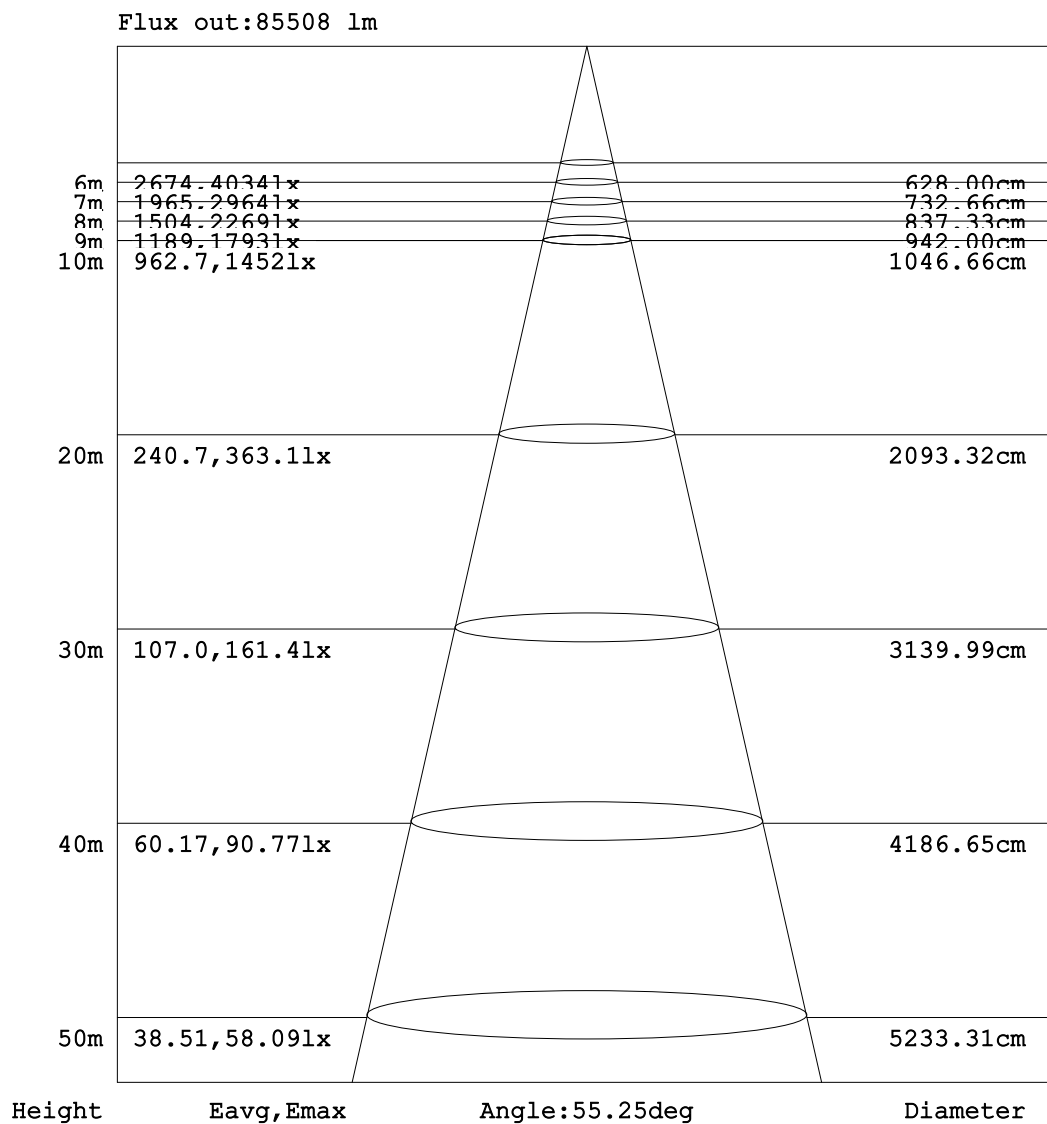
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2022-12-14

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

AAI Figure



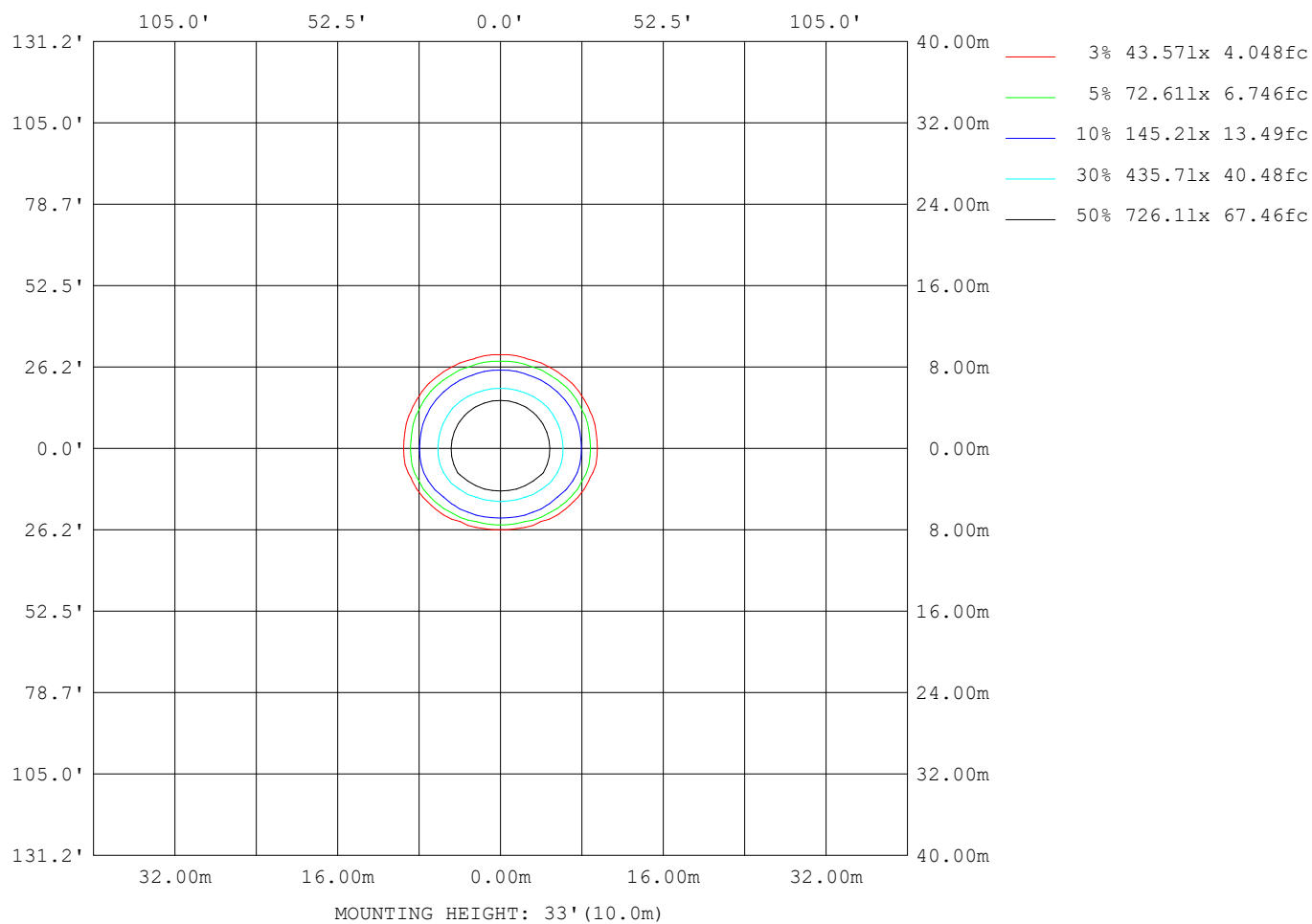
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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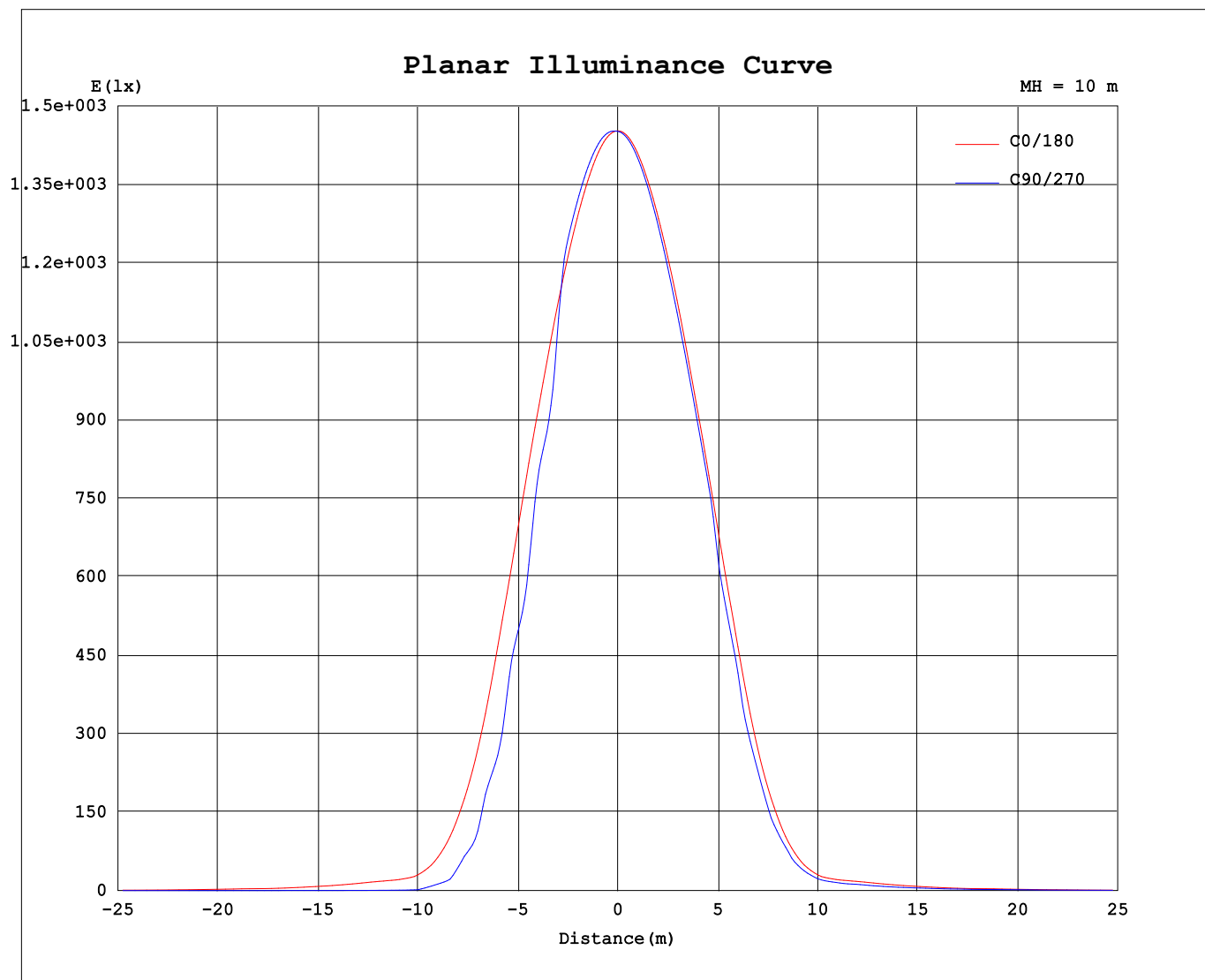
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-12-14

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks:

Planar Illuminance Curve



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γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks: