

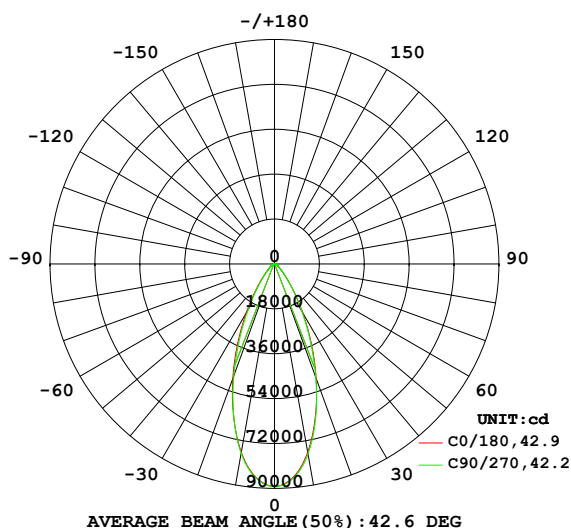
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

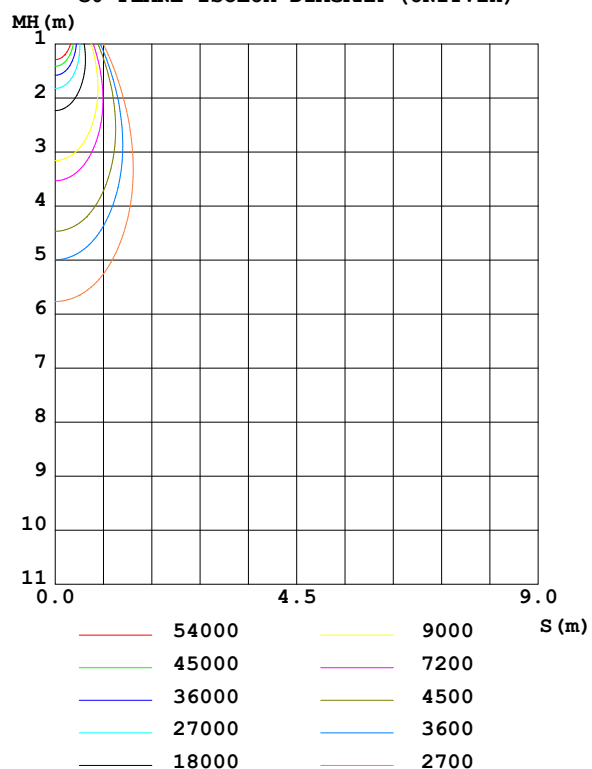
Test:U:230.0V I:1.787A P:400.0W PF:0.973 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:58503.4x1 lm		
NAME: SP04-400-5770-F04004Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 146.26 lm/W			
MODEL	5050	I _{max} (cd)	89227	S/MH (C0/180)	0.68
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.67
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	58503	η UP,DN (C0-180)	0.0,50.8
NOMINAL FLUX (lm)	58503.4	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,49.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:15 November 2022

γ Range: 0 - 90DEG
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	7666	7715	7736	7715	7666	7672	7704	7672	0- 10	7920	7920	13.5,13.5
20	4885	4903	4836	4903	4885	4872	4769	4872	10- 20	17493	25413	43.4,43.4
30	2273	2428	2201	2428	2273	2320	2104	2320	20- 30	15813	41227	70.5,70.5
40	793.7	980.2	782.8	980.2	793.7	917.8	721.6	917.8	30- 40	9088	50315	86,86
50	292.1	392.3	291.8	392.3	292.1	364.4	272.8	364.4	40- 50	4161	54476	93.1,93.1
60	155.8	192.6	159.4	192.6	155.8	184.5	154.0	184.5	50- 60	2095	56571	96.7,96.7
70	83.41	96.93	82.90	96.93	83.41	95.68	80.88	95.68	60- 70	1256	57826	98.8,98.8
80	25.16	27.34	24.49	27.34	25.16	27.54	24.05	27.54	70- 80	579.5	58406	99.8,99.8
90	0.1185	0.1226	0.1206	0.1226	0.1185	0.1351	0.1294	0.1351	80- 90	97.87	58503	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): 52806 lm

%lum = 90.3%

%lamp = 90.3%

Conical surface Flux(120deg): 56571 lm

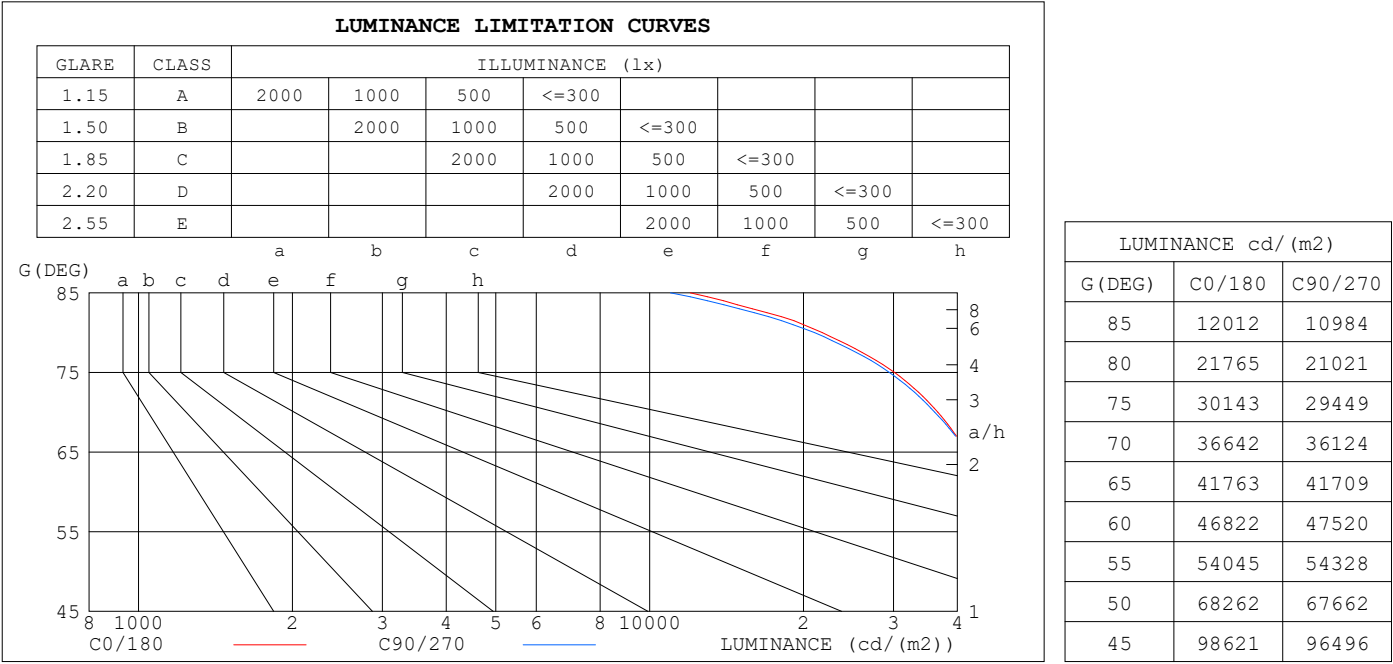
%lum = 96.7%

%lamp = 96.7%

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Temperature:25.3°C
Operators:LYJ
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γ Range: 0 - 90DEG
 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:

LUMINANCE LIMITATION CURVES



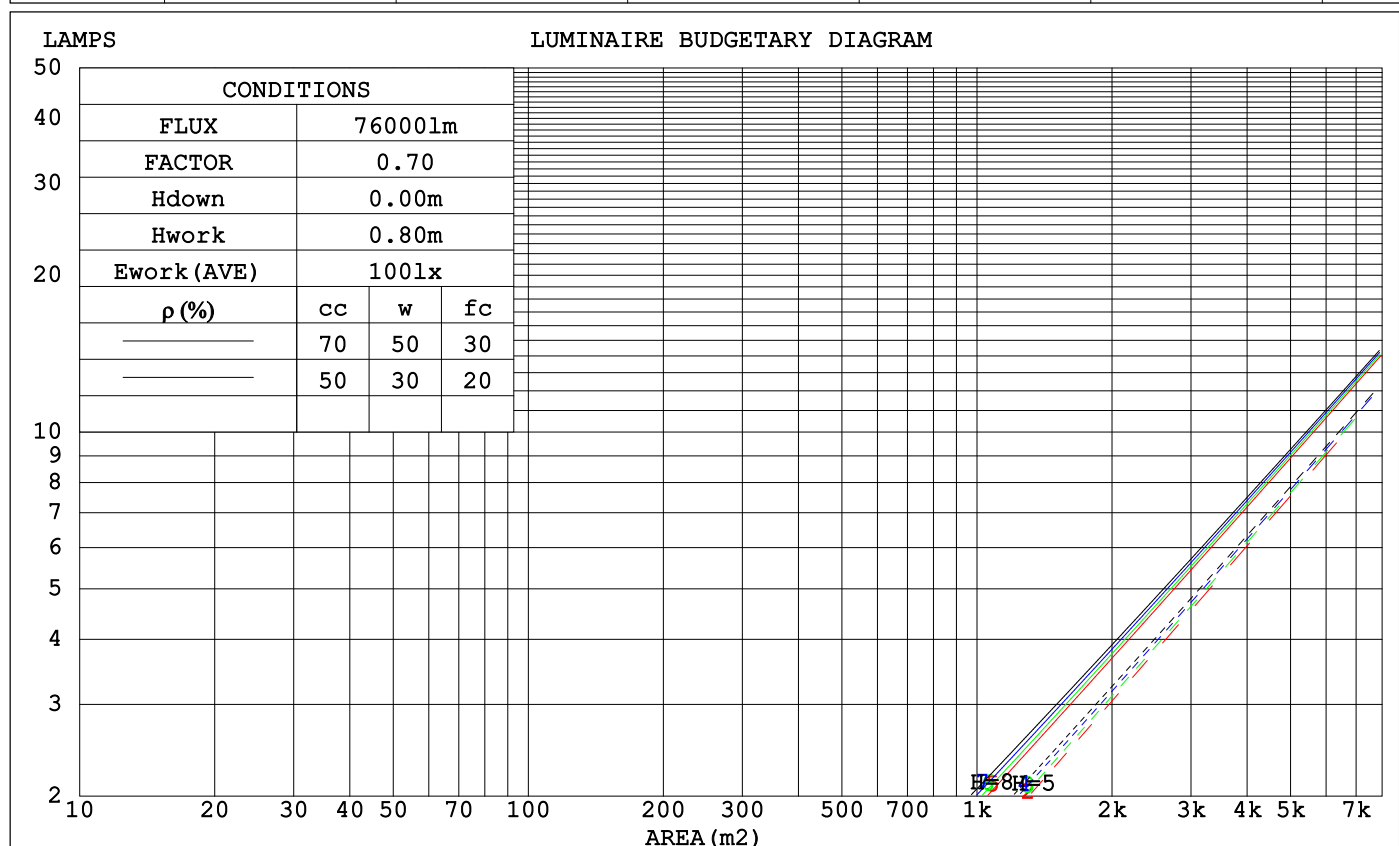
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C Interval: 22.5DEG
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Temperature:25.3°C
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γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	.99	.97	.97	.96	.95	.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	.83	.81	.79
4.0	.89	.83	.79	.88	.82	.78	.85	.81	.77	.83	.80	.76	.82	.78	.76	.74
5.0	.83	.77	.73	.82	.77	.72	.80	.76	.72	.79	.74	.71	.77	.73	.71	.69
6.0	.78	.72	.68	.77	.72	.68	.76	.71	.67	.74	.70	.67	.73	.69	.66	.65
7.0	.74	.68	.63	.73	.67	.63	.72	.67	.63	.71	.66	.63	.69	.65	.62	.61
8.0	.70	.64	.60	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.57
9.0	.66	.60	.56	.66	.60	.56	.65	.59	.56	.64	.59	.56	.63	.59	.56	.54
10.0	.63	.57	.53	.62	.57	.53	.62	.56	.53	.61	.56	.53	.60	.56	.53	.51



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:LYJ
 Test Date:15 November 2022

γ Range: 0 - 90DEG
 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

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	.188	.107	.034	.181	.103	.033	.168	.097	.031	.157	.090	.029	.146	.085	.027		
2.0	.179	.098	.030	.174	.096	.029	.163	.091	.028	.153	.086	.027	.144	.081	.026		
3.0	.170	.090	.027	.165	.088	.027	.156	.084	.026	.147	.081	.025	.139	.077	.024		
4.0	.160	.083	.024	.156	.082	.024	.148	.079	.023	.141	.076	.023	.134	.073	.022		
5.0	.152	.077	.022	.148	.076	.022	.141	.073	.022	.135	.071	.021	.129	.069	.021		
6.0	.144	.072	.021	.141	.071	.020	.135	.069	.020	.129	.067	.020	.124	.065	.019		
7.0	.137	.068	.019	.134	.067	.019	.128	.065	.019	.123	.063	.018	.119	.062	.018		
8.0	.130	.064	.018	.128	.063	.018	.123	.061	.018	.118	.060	.017	.114	.059	.017		
9.0	.124	.060	.017	.122	.059	.017	.118	.058	.016	.113	.057	.016	.110	.056	.016		
10.0	.119	.057	.016	.116	.056	.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	.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	.080	.060	.044	.046	.035	.026	.015	.011	.009		
5.0	.126	.087	.059	.108	.076	.051	.075	.053	.036	.043	.031	.021	.014	.010	.007		
6.0	.119	.078	.049	.102	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006		
7.0	.112	.071	.042	.096	.061	.036	.067	.043	.026	.039	.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	.057	.033	.017	.033	.020	.010	.011	.006	.003		

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3°C

Operators:LYJ

Test Date:15 November 2022

γ Range: 0 - 90DEG

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	2H	21.2	22.3	21.5	22.6	22.9	21.0	22.0	21.3	22.4	22.7
	3H	22.3	23.3	22.7	23.6	24.0	22.1	23.1	22.5	23.4	23.8
	4H	22.7	23.6	23.1	23.9	24.3	22.5	23.4	22.9	23.7	24.1
	6H	22.9	23.7	23.3	24.1	24.4	22.7	23.5	23.1	23.8	24.2
	8H	22.9	23.6	23.3	24.0	24.4	22.7	23.4	23.1	23.8	24.2
	12H	22.9	23.6	23.3	24.0	24.4	22.6	23.4	23.1	23.7	24.2
	4H	2H	21.7	22.6	22.1	22.9	23.3	21.5	22.4	21.9	22.8
	3H	23.0	23.8	23.5	24.2	24.6	22.9	23.6	23.3	24.0	24.4
	4H	23.5	24.1	23.9	24.5	25.0	23.3	23.9	23.7	24.4	24.8
	6H	23.7	24.3	24.2	24.7	25.2	23.5	24.1	24.0	24.5	25.0
	8H	23.7	24.2	24.2	24.7	25.2	23.5	24.0	24.0	24.5	25.0
	12H	23.7	24.2	24.2	24.6	25.1	23.5	24.0	24.0	24.4	24.9
	8H	4H	23.6	24.1	24.1	24.6	25.0	23.4	23.9	23.9	24.4
	6H	23.9	24.3	24.4	24.8	25.3	23.7	24.1	24.2	24.6	25.1
	8H	23.9	24.3	24.5	24.8	25.3	23.7	24.1	24.3	24.6	25.1
	12H	23.9	24.3	24.5	24.8	25.3	23.8	24.1	24.3	24.6	25.1
	12H	4H	23.6	24.0	24.0	24.5	25.0	23.4	23.8	23.9	24.3
	6H	23.9	24.2	24.4	24.7	25.3	23.7	24.1	24.2	24.5	25.1
	8H	23.9	24.3	24.5	24.8	25.3	23.8	24.1	24.3	24.6	25.2
CIE190: 2010											

CIE190: 2010
Area: 0.06699 m2

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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

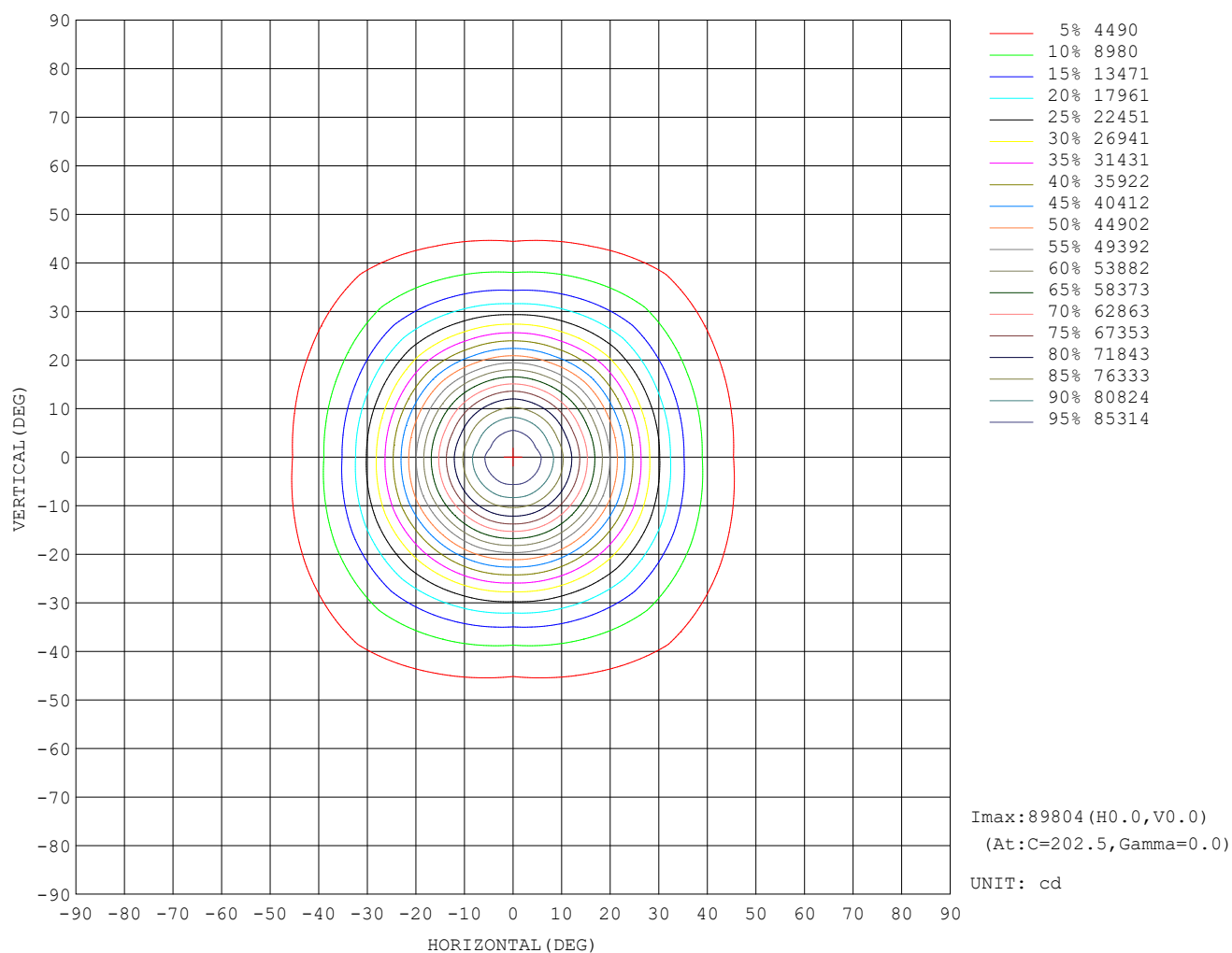
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	71	82	75	71	81	75	71	67
0.80	91	84	80	90	84	80	89	83	79	75
1.00	96	90	85	95	89	85	93	89	85	80
1.25	100	94	90	99	94	90	97	93	89	85
1.50	103	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	111	107	104	109	105	102	105	103	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
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 Operators: LYJ
 Test Date: 15 November 2022

γ Range: 0 - 90DEG
 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:

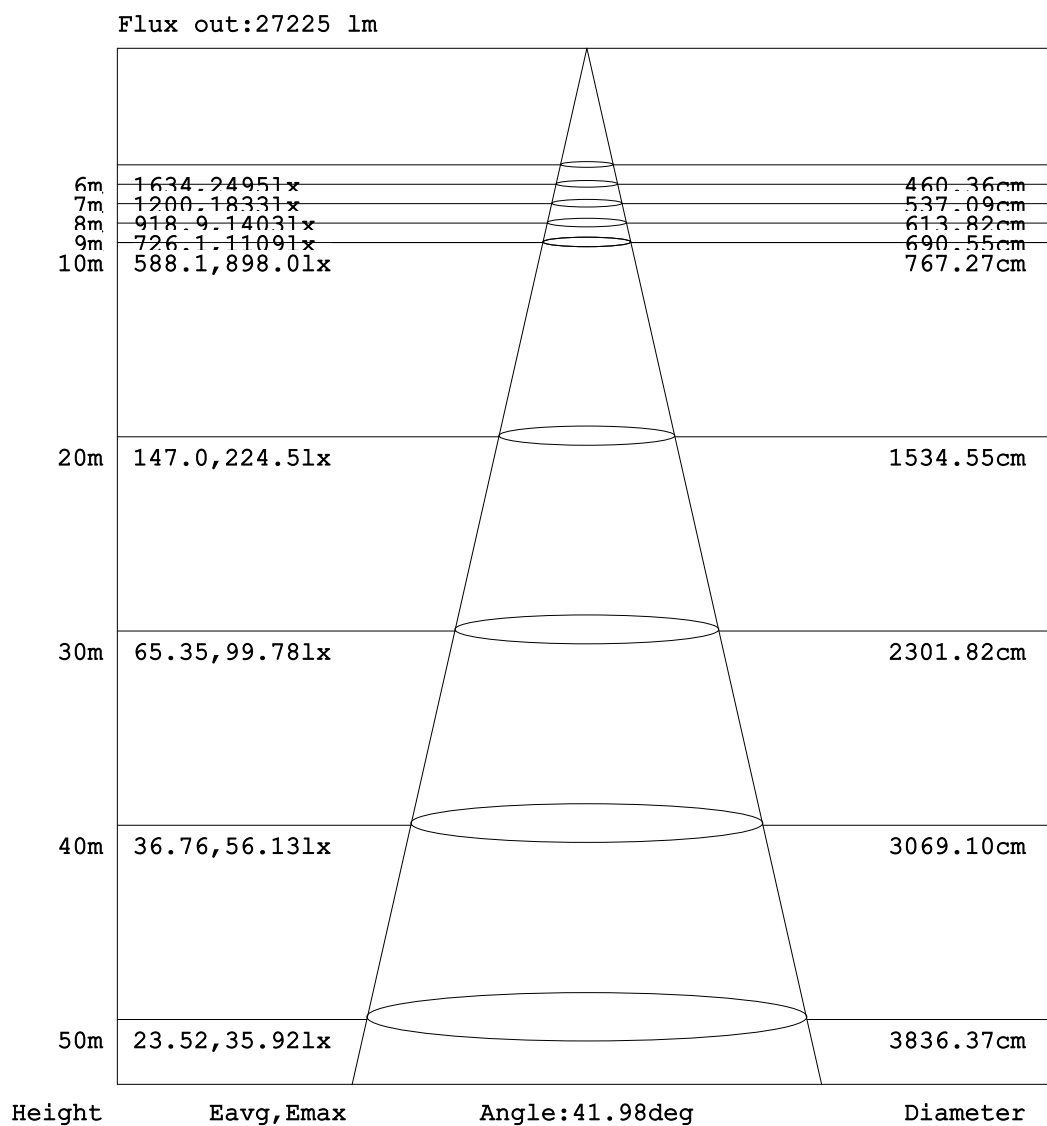
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:15 November 2022

γ Range: 0 - 90DEG
 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.

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature: 25.3°C

Operators: LYJ

Test Date: 15 November 2022

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465

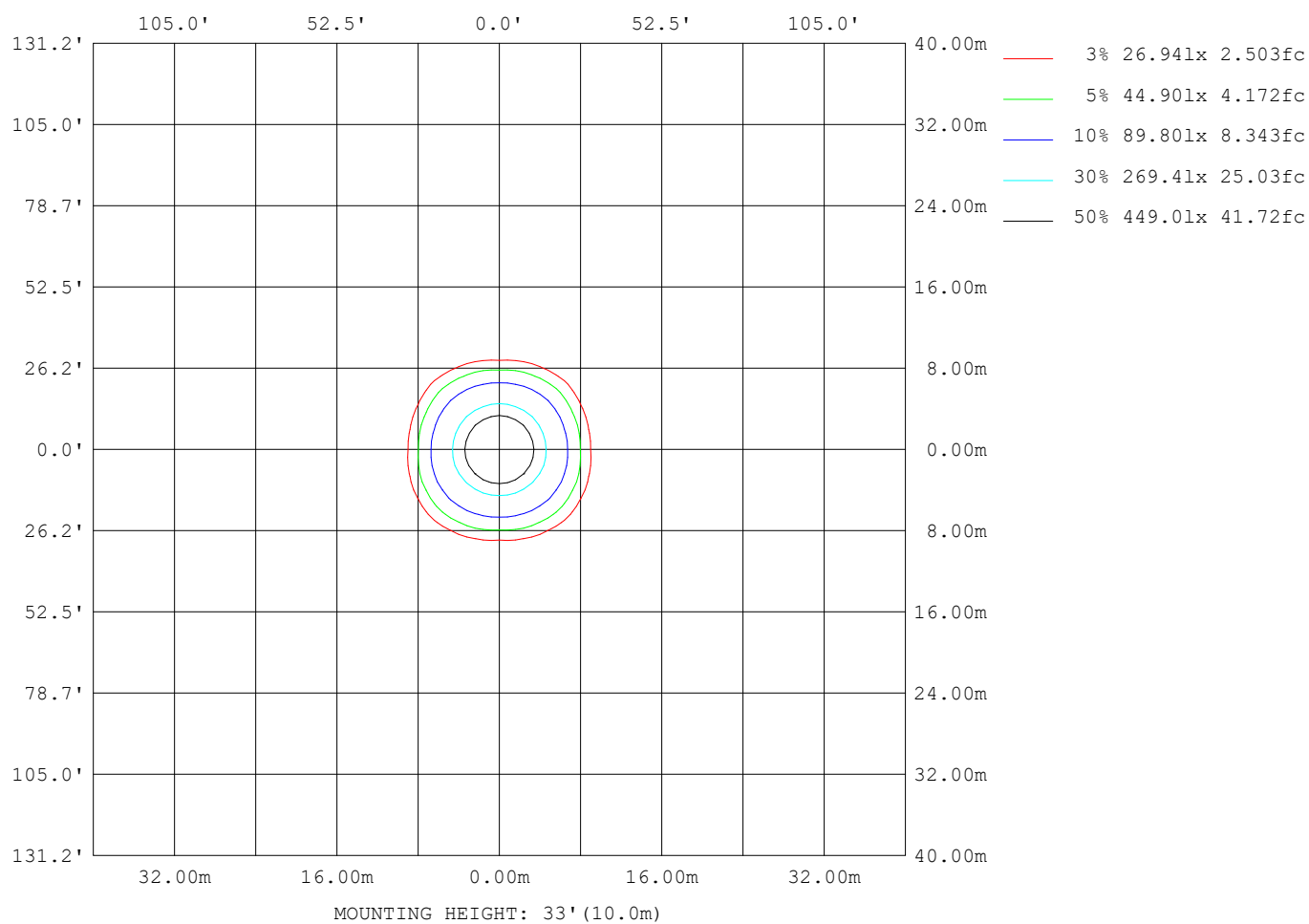
Humidity: 65.0%

Test Distance: 26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

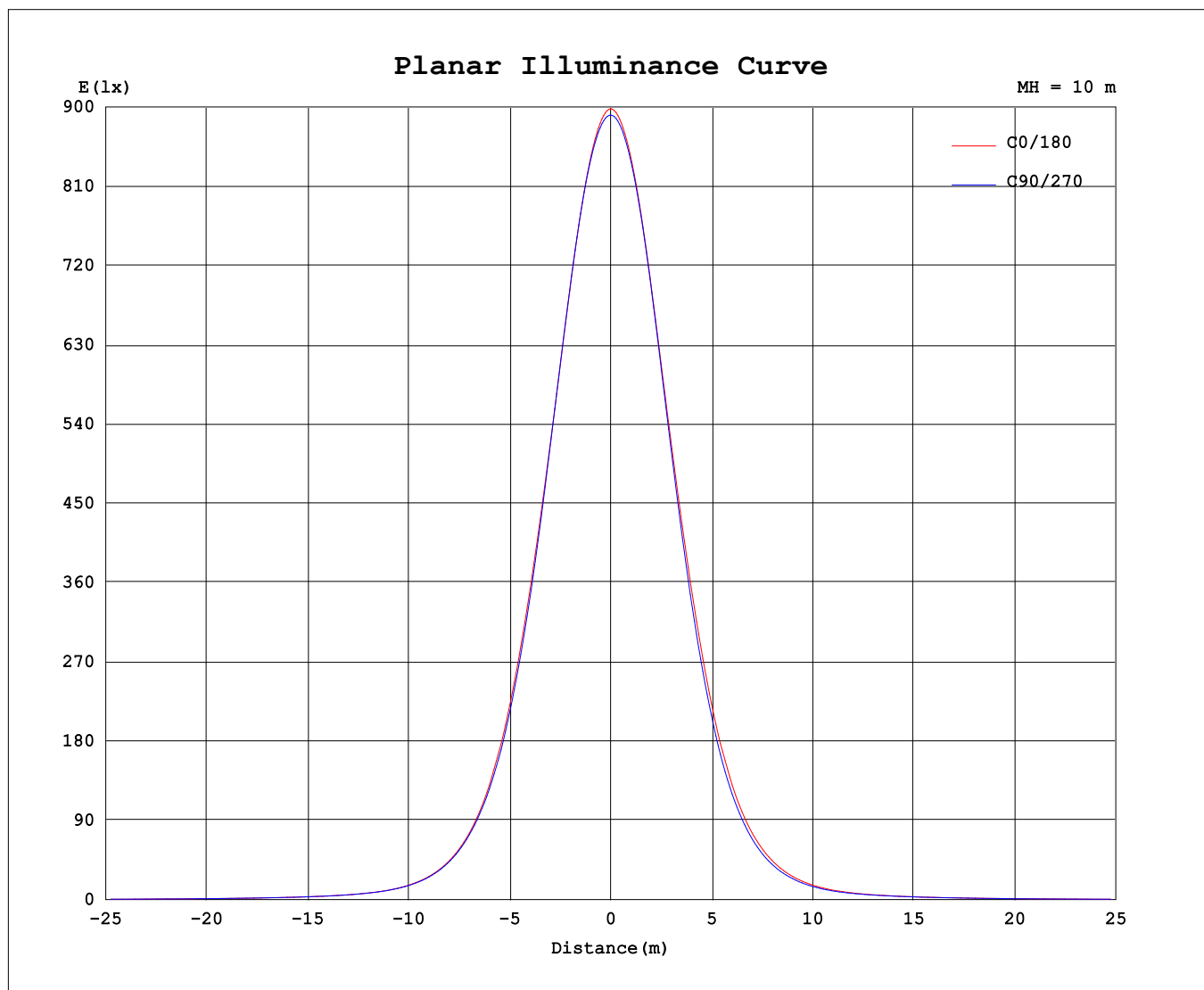
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 15 November 2022

γ Range: 0 - 90DEG
 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



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 15 November 2022

γ Range: 0 - 90DEG
 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: