

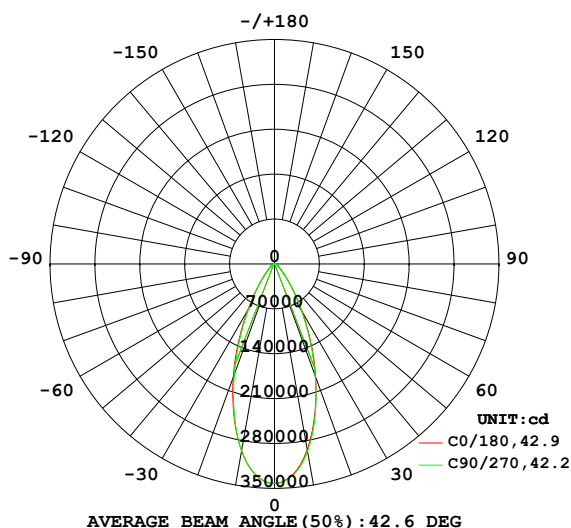
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

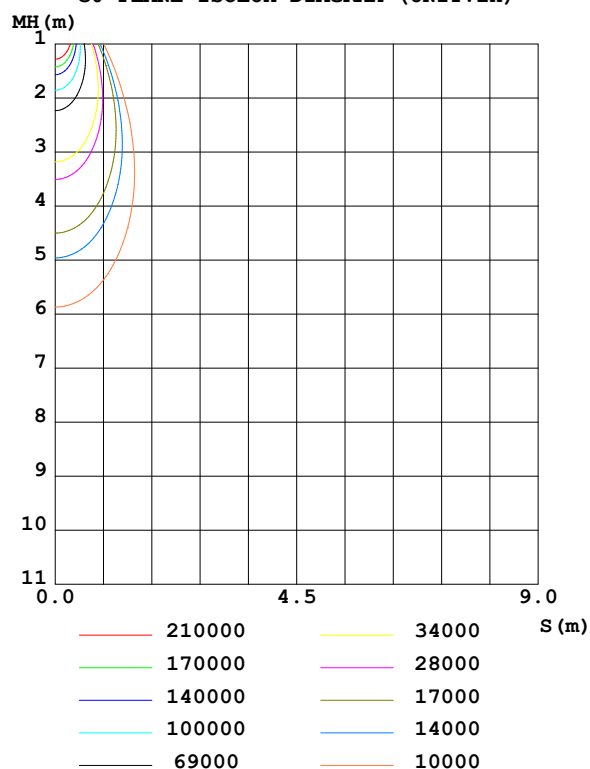
Test:U:230.0V I:6.541A P:1500.0W PF:0.997 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:222910x1 lm		
NAME: SP04-1K5-5770-F04004Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 148.61 lm/W			
MODEL	5050	I _{max} (cd)	342253	S/MH (C0/180)	0.68
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.67
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	222910	η UP, DN (C0-180)	0.0, 50.6
NOMINAL FLUX (lm)	222910	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.4
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	2941	2959	2967	2962	2959	2962	2955	2943	0- 10	30422	30422	13.6,13.6
20	1874	1880	1855	1881	1880	1873	1829	1869	10- 20	67202	97624	43.8,43.8
30	871.8	931.1	844.1	891.3	833.6	879.8	807.2	890.0	20- 30	60420	158045	70.9,70.9
40	304.5	376.0	300.3	344.6	282.2	333.1	276.8	352.0	30- 40	34225	192269	86.3,86.3
50	112.0	150.5	111.9	136.0	103.7	129.2	104.6	139.8	40- 50	15481	207751	93.2,93.2
60	59.77	73.88	61.15	69.23	57.52	66.91	59.08	70.78	50- 60	7829	215580	96.7,96.7
70	32.00	37.18	31.80	36.24	31.18	35.46	31.02	36.70	60- 70	4749	220328	98.8,98.8
80	9.649	10.49	9.395	10.43	9.595	10.30	9.225	10.57	70- 80	2206	222534	99.8,99.8
90	0.0455	0.0470	0.0463	0.0606	0.0664	0.0664	0.0496	0.0518	80- 90	376.3	222910	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): 2.0154e+005 lm

%lum = 90.4%

%lamp = 90.4%

Conical surface Flux(120deg): 2.1558e+005 lm

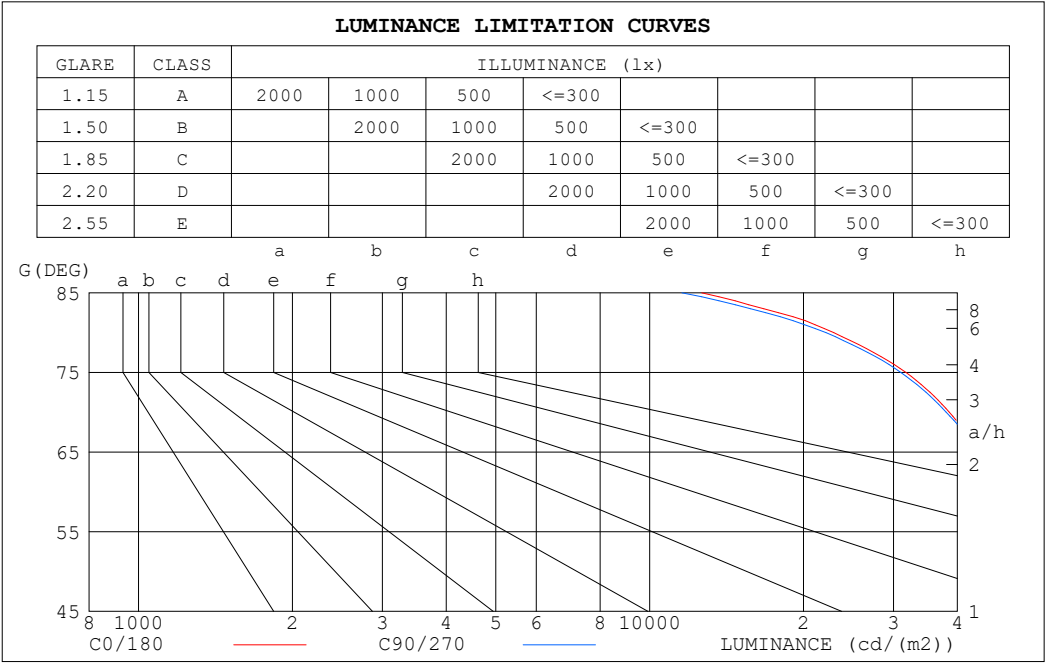
%lum = 96.7%

%lamp = 96.7%

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:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	12648	11566
80	22917	22134
75	31739	31009
70	38582	38037
65	43974	43918
60	49301	50037
55	56907	57205
50	71877	71245
45	103843	101606

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%

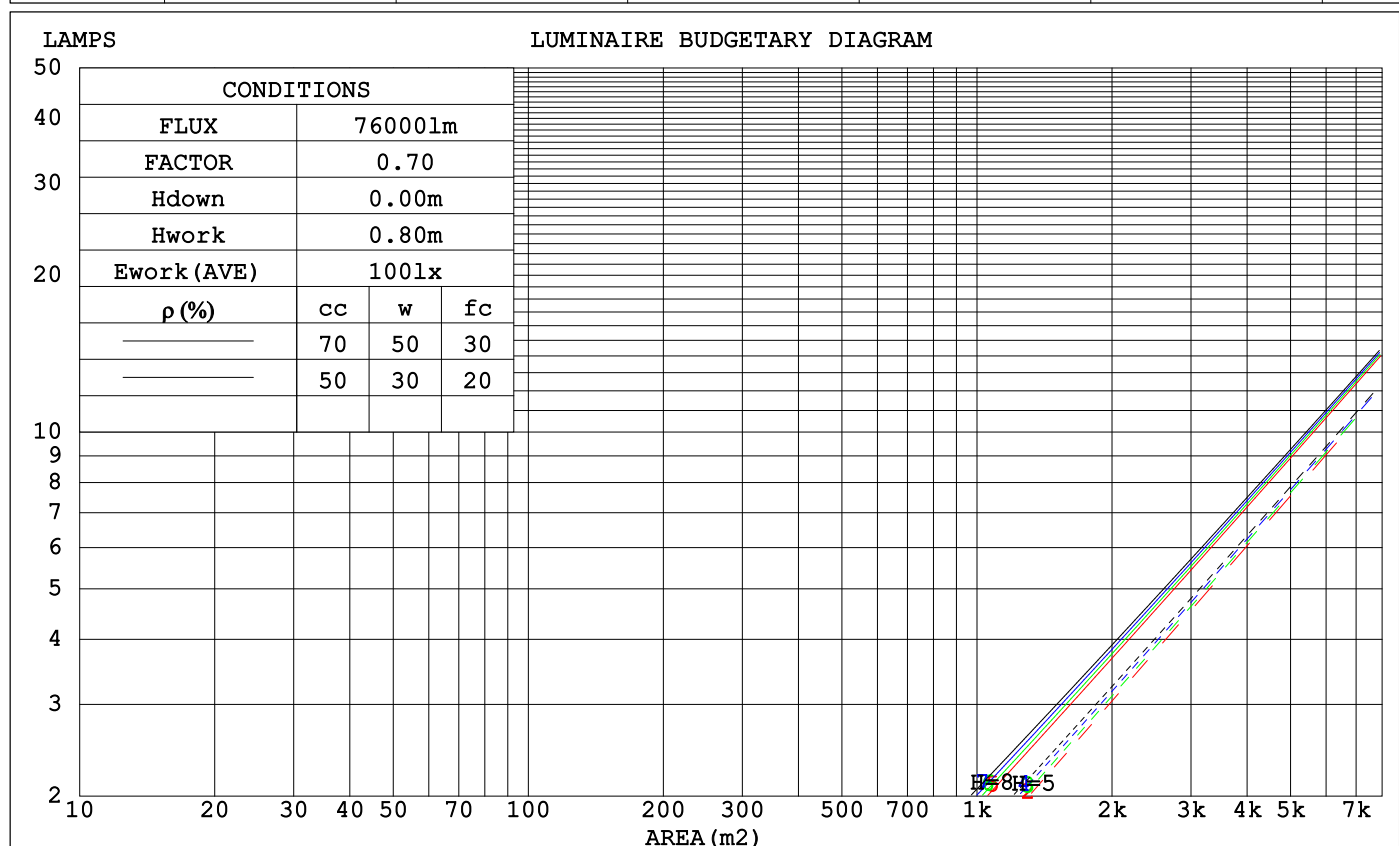
Test Distance:26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	.88	.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	.82	.78	.86	.81	.77	.84	.80	.77	.82	.78	.76	.74
5.0	.83	.77	.73	.82	.77	.73	.81	.76	.72	.79	.75	.71	.77	.74	.71	.69
6.0	.78	.72	.68	.78	.72	.68	.76	.71	.67	.75	.70	.67	.73	.69	.66	.65
7.0	.74	.68	.64	.73	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.62	.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	.60	.56	.64	.59	.56	.63	.59	.56	.54
10.0	.63	.57	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.53	.52



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	.187	.107	.034	.181	.103	.033	.168	.096	.031	.156	.090	.029	.146	.084	.027	
2.0	.179	.098	.030	.173	.095	.029	.162	.090	.028	.152	.086	.027	.143	.081	.026	
3.0	.169	.090	.027	.164	.088	.026	.155	.084	.026	.147	.080	.025	.139	.077	.024	
4.0	.160	.083	.024	.155	.081	.024	.148	.078	.023	.140	.075	.023	.133	.073	.022	
5.0	.151	.077	.022	.147	.076	.022	.141	.073	.022	.134	.071	.021	.128	.068	.021	
6.0	.143	.072	.021	.140	.071	.020	.134	.069	.020	.128	.067	.020	.123	.065	.019	
7.0	.136	.067	.019	.133	.066	.019	.128	.065	.019	.123	.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	.121	.059	.017	.117	.058	.016	.113	.057	.016	.109	.056	.016	
10.0	.118	.057	.016	.116	.056	.016	.112	.055	.015	.109	.054	.015	.105	.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	.097	.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	.118	.078	.049	.102	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.112	.071	.042	.096	.061	.036	.066	.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	.012	.011	.007	.004	
10.0	.096	.055	.027	.083	.047	.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	21.4	22.5	21.7	22.8	23.1	21.2	22.3	21.6	22.6	22.9
3H	22.6	23.5	22.9	23.8	24.2	22.4	23.4	22.8	23.7	24.1
4H	22.9	23.8	23.3	24.1	24.5	22.8	23.6	23.2	24.0	24.4
6H	23.1	23.9	23.5	24.3	24.6	22.9	23.7	23.3	24.1	24.5
8H	23.1	23.8	23.5	24.2	24.6	22.9	23.7	23.4	24.1	24.5
12H	23.1	23.8	23.5	24.2	24.6	22.9	23.6	23.3	24.0	24.4
4H 2H	21.9	22.8	22.3	23.1	23.5	21.7	22.6	22.1	23.0	23.3
3H	23.3	24.0	23.7	24.4	24.8	23.1	23.8	23.5	24.2	24.6
4H	23.7	24.3	24.1	24.8	25.2	23.5	24.2	23.9	24.6	25.0
6H	23.9	24.5	24.4	24.9	25.4	23.7	24.3	24.2	24.7	25.2
8H	23.9	24.4	24.4	24.9	25.4	23.7	24.3	24.2	24.7	25.2
12H	23.9	24.4	24.4	24.8	25.3	23.7	24.2	24.2	24.7	25.1
8H 4H	23.8	24.3	24.3	24.8	25.2	23.6	24.1	24.1	24.6	25.1
6H	24.1	24.5	24.6	25.0	25.5	23.9	24.3	24.4	24.8	25.3
8H	24.1	24.5	24.7	25.0	25.5	24.0	24.3	24.5	24.8	25.3
12H	24.1	24.5	24.7	25.0	25.5	24.0	24.3	24.5	24.8	25.4
12H 4H	23.8	24.2	24.3	24.7	25.2	23.6	24.0	24.1	24.5	25.0
6H	24.1	24.4	24.6	24.9	25.5	23.9	24.3	24.4	24.7	25.3
8H	24.1	24.5	24.7	25.0	25.5	24.0	24.3	24.5	24.8	25.4
CIE190: 2010										

CIE190: 2010
Area: 0.244035 m2

C Range: 0 - 360DEG
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 γ Interval: 0.5DEG
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Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

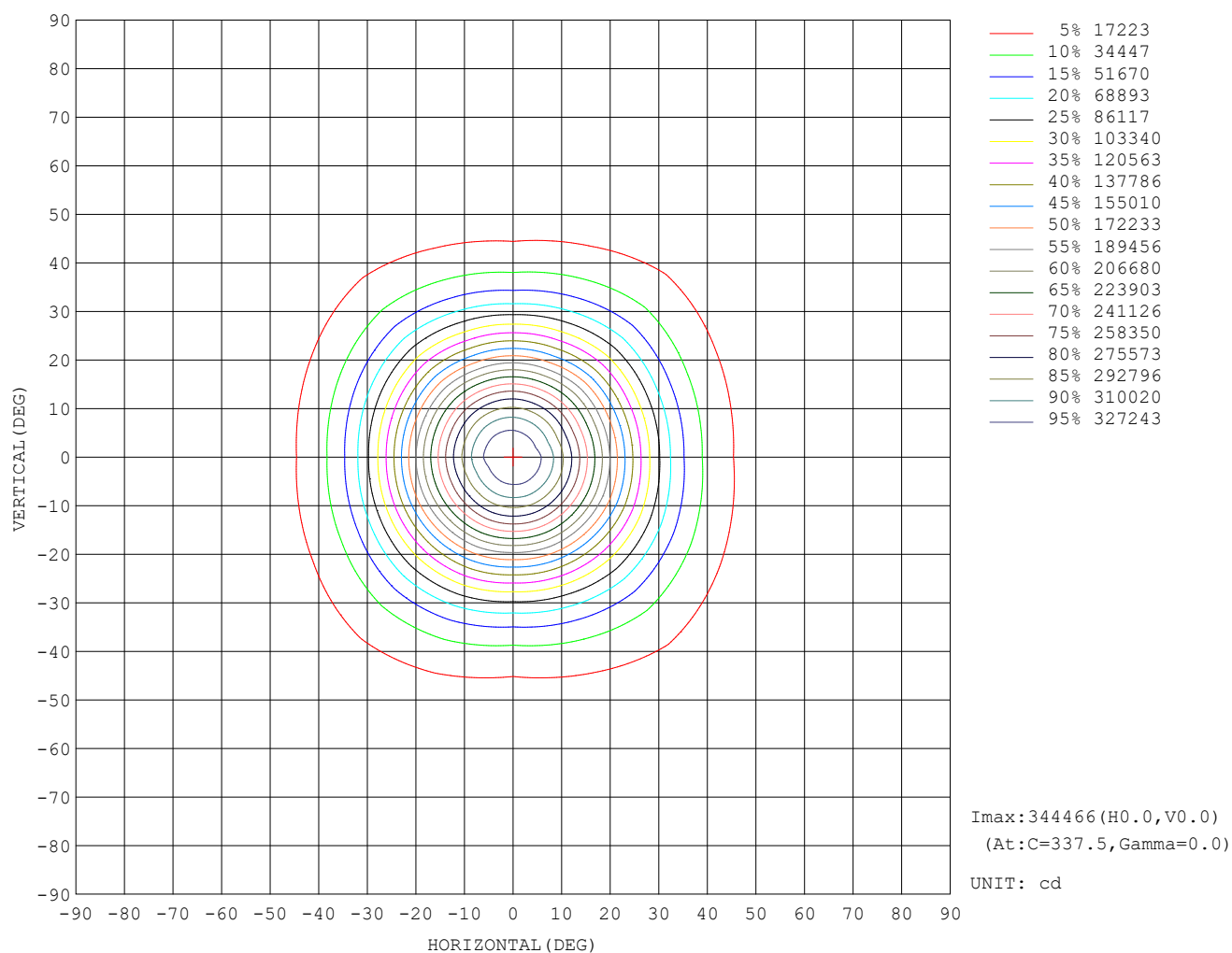
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	72	82	76	71	82	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	95	91	99	94	90	97	93	89	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	111	107	104	109	105	103	105	103	100	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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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:

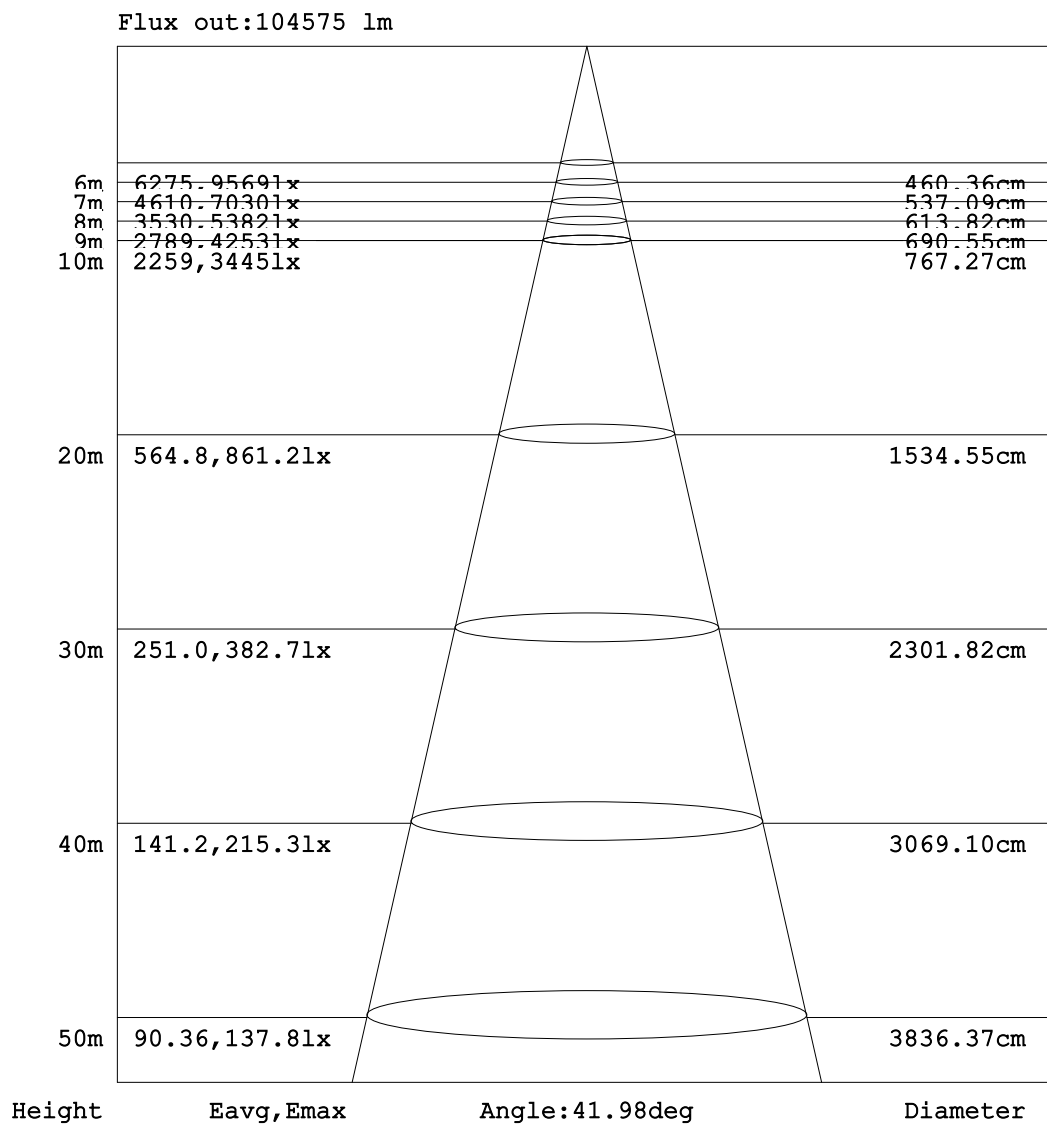
ISOCANDELA DIAGRAM



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:

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

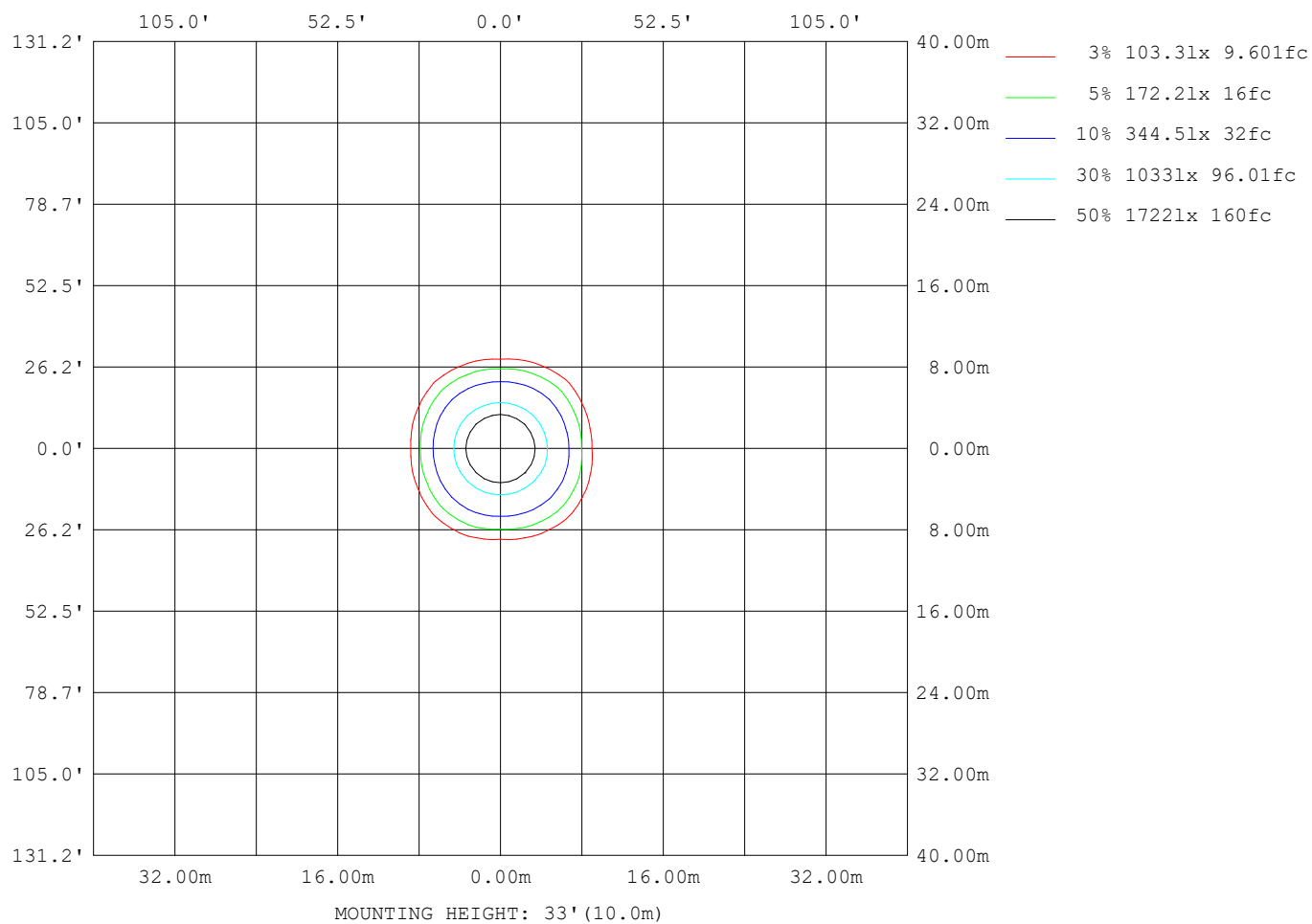
Humidity: 65.0%

Test Distance: 26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

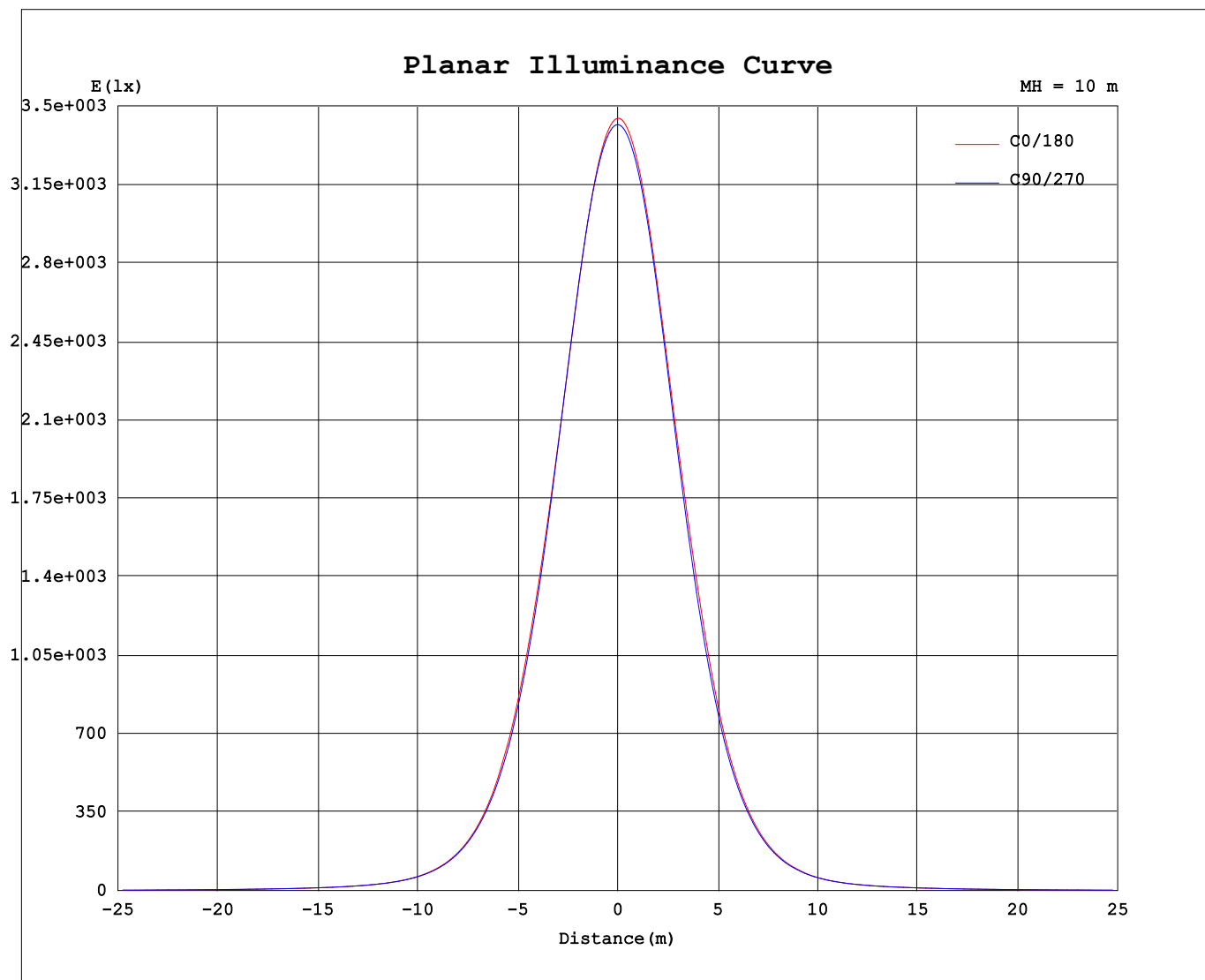
ISOLUX DIAGRAM



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: