

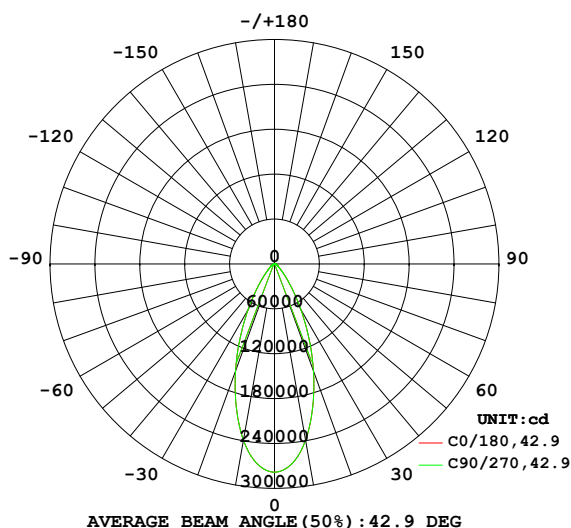
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

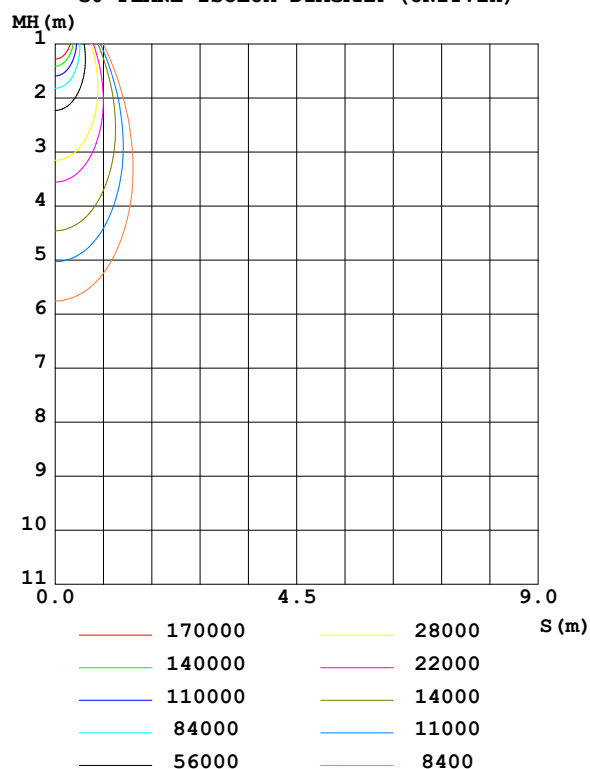
Test:U:230.0V I:5.324A P:1200.0W PF:0.980 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:179177x1 lm		
NAME: SP04-1K2-5770-F04004Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 149.31 lm/W			
MODEL	5050	I _{max} (cd)	278358	S/MH (C0/180)	0.68
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.68
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	179177	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	179177	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.70

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	2392	2392	2392	2392	2392	2392	2392	2392	0- 10	24658	24658	13.8,13.8
20	1524	1524	1524	1524	1524	1524	1524	1524	10- 20	54497	79155	44.2,44.2
30	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	20- 30	49508	128663	71.8,71.8
40	247.6	247.6	247.6	247.6	247.6	247.6	247.6	247.6	30- 40	27263	155926	87,87
50	91.11	91.11	91.11	91.11	91.11	91.11	91.11	91.11	40- 50	11677	167603	93.5,93.5
60	48.61	48.61	48.61	48.61	48.61	48.61	48.61	48.61	50- 60	5899	173503	96.8,96.8
70	26.02	26.02	26.02	26.02	26.02	26.02	26.02	26.02	60- 70	3644	177147	98.9,98.9
80	7.848	7.848	7.848	7.848	7.848	7.848	7.848	7.848	70- 80	1729	178876	99.8,99.8
90	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	80- 90	301.5	179177	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): 1.6298e+005 lm

%lum = 91.0%

%lamp = 91.0%

Conical surface Flux(120deg): 1.735e+005 lm

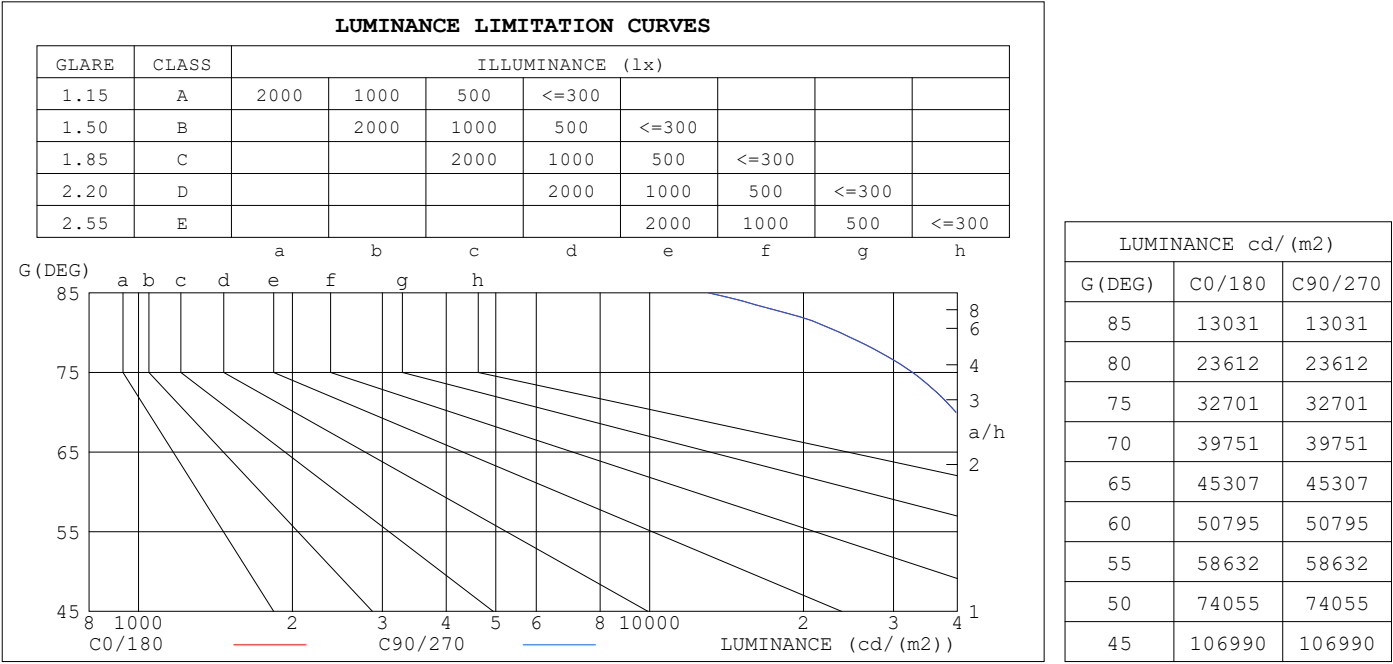
%lum = 96.8%

%lamp = 96.8%

C Range: 0 - 360DEG
C Interval: 22.5DEG
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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



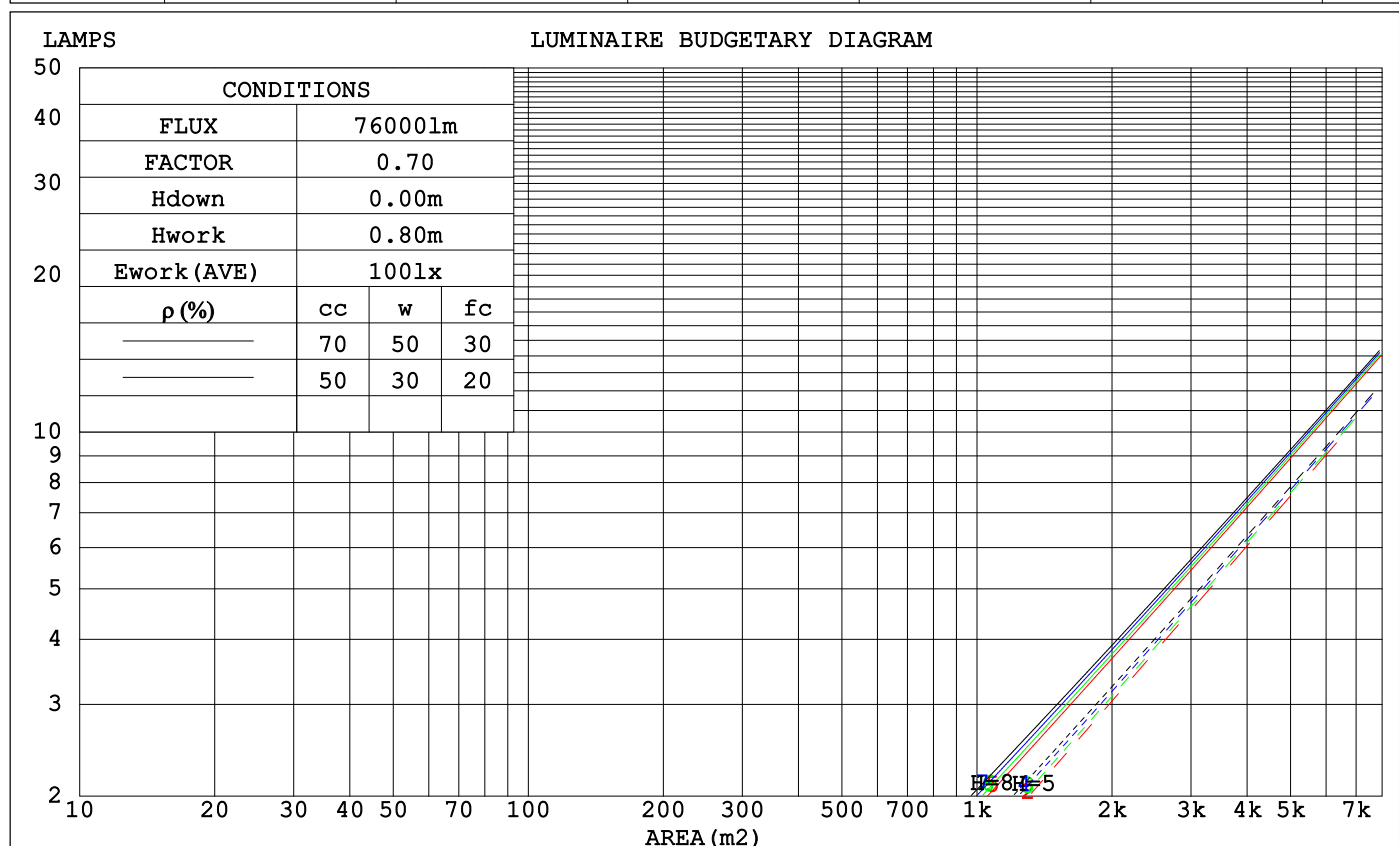
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:15 November 2022

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	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.02	.98	.95	1.01	.97	.94	.97	.94	.92	.94	.92	.90	.92	.90	.88	.86
3.0	.95	.90	.86	.94	.89	.85	.91	.87	.84	.89	.86	.83	.87	.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	.63	.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
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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:

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	.186	.106	.034	.179	.102	.032	.167	.096	.031	.155	.089	.029	.144	.084	.027		
2.0	.177	.097	.030	.172	.095	.029	.161	.089	.028	.151	.085	.027	.142	.080	.025		
3.0	.168	.089	.027	.163	.087	.026	.154	.083	.025	.145	.080	.024	.137	.076	.024		
4.0	.158	.082	.024	.154	.081	.024	.146	.078	.023	.139	.075	.023	.132	.072	.022		
5.0	.150	.076	.022	.146	.075	.022	.139	.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	.058	.016	.112	.056	.016	.109	.055	.016		
10.0	.117	.056	.016	.115	.056	.016	.112	.055	.015	.108	.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	.134	.114	.097	.092	.079	.067	.053	.046	.040	.017	.015	.013		
3.0	.145	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010		
4.0	.134	.099	.072	.115	.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:25.3°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	20.9	22.0	21.3	22.3	22.6	20.9	22.0	21.3	22.3	22.6
	3H	22.2	23.2	22.6	23.5	23.9	22.2	23.2	22.6	23.5	23.9
	4H	22.6	23.5	23.0	23.8	24.2	22.6	23.5	23.0	23.8	24.2
	6H	22.8	23.6	23.2	24.0	24.4	22.8	23.6	23.2	24.0	24.4
	8H	22.8	23.6	23.3	24.0	24.4	22.8	23.6	23.3	24.0	24.4
	12H	22.8	23.5	23.2	23.9	24.3	22.8	23.5	23.2	23.9	24.3
	4H	2H	21.3	22.2	21.7	22.6	22.9	21.3	22.2	21.7	22.6
	3H	22.8	23.5	23.2	23.9	24.3	22.8	23.5	23.2	23.9	24.3
	4H	23.3	23.9	23.7	24.3	24.8	23.3	23.9	23.7	24.3	24.8
	6H	23.5	24.1	24.0	24.5	25.0	23.5	24.1	24.0	24.5	25.0
	8H	23.6	24.1	24.0	24.5	25.0	23.6	24.1	24.0	24.5	25.0
	12H	23.6	24.0	24.0	24.5	25.0	23.6	24.0	24.0	24.5	25.0
	8H	4H	23.4	23.9	23.9	24.3	24.8	23.4	23.9	23.9	24.3
	6H	23.7	24.1	24.2	24.6	25.1	23.7	24.1	24.2	24.6	25.1
	8H	23.8	24.1	24.3	24.6	25.1	23.8	24.1	24.3	24.6	25.1
	12H	23.8	24.1	24.3	24.6	25.2	23.8	24.1	24.3	24.6	25.2
	12H	4H	23.3	23.8	23.8	24.3	24.8	23.3	23.8	23.8	24.3
	6H	23.7	24.0	24.2	24.5	25.1	23.7	24.0	24.2	24.5	25.1
	8H	23.8	24.1	24.3	24.6	25.2	23.8	24.1	24.3	24.6	25.2
CIE190: 2010											

CIE190: 2010
Area: 0.1914 m2

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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%
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

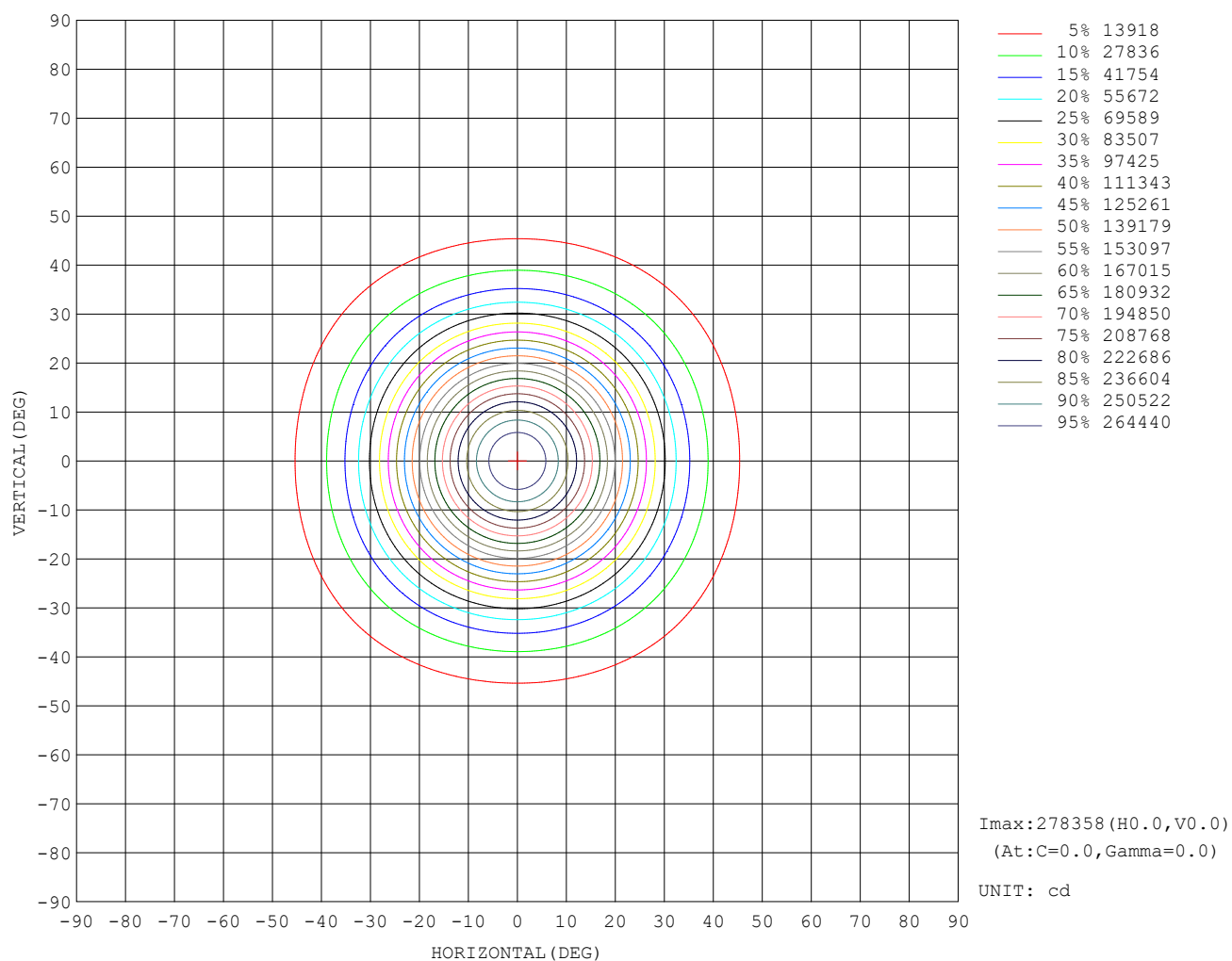
UTILIZATION FACTORS TABLE

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	72	83	76	72	82	76	72	68
0.80	91	85	81	91	84	80	89	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	95	102	98	94	100	96	93	88
2.00	107	102	99	105	101	98	103	99	96	91
2.50	109	105	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	103	101	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:

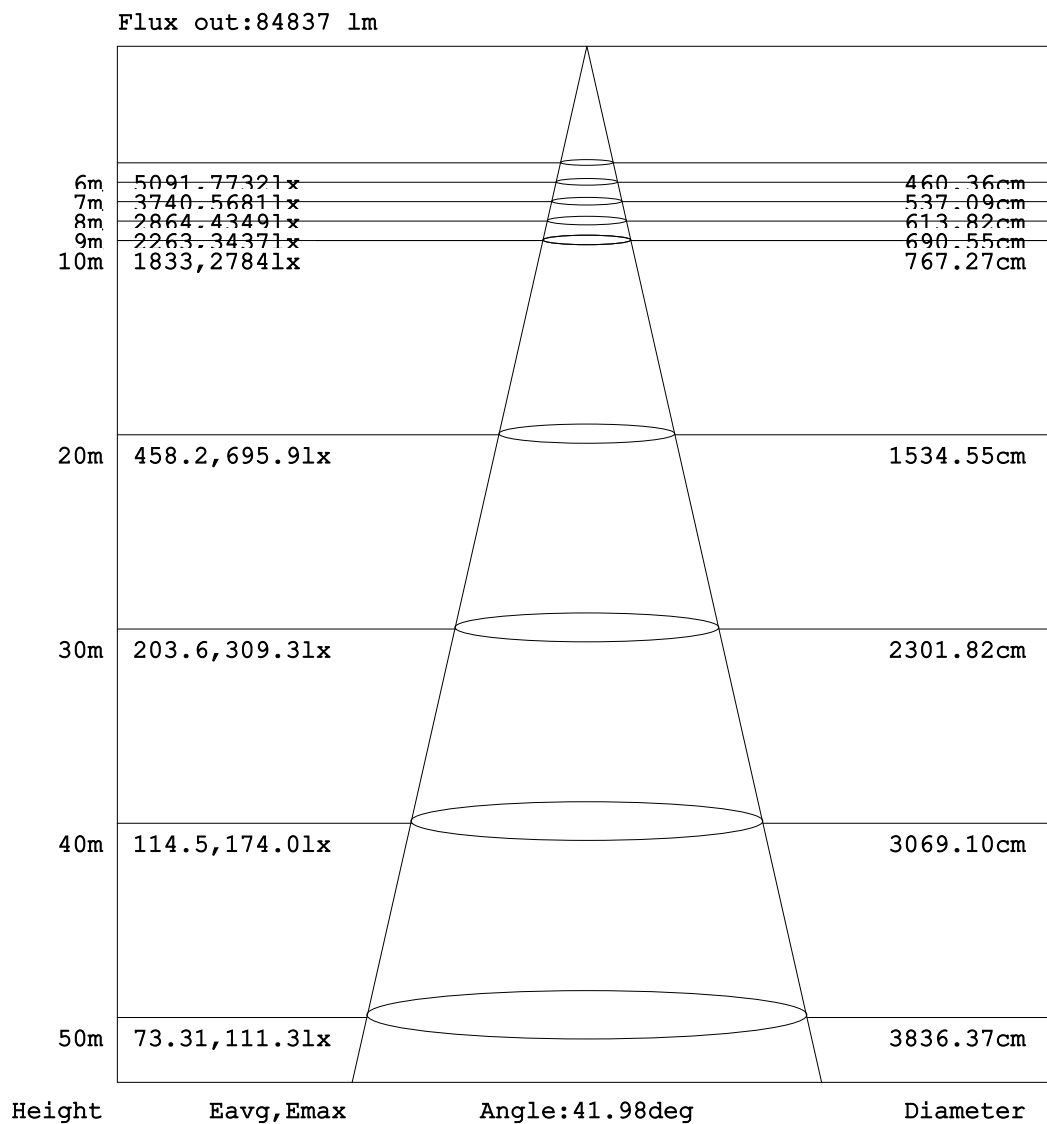
ISOCANDELA DIAGRAM



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

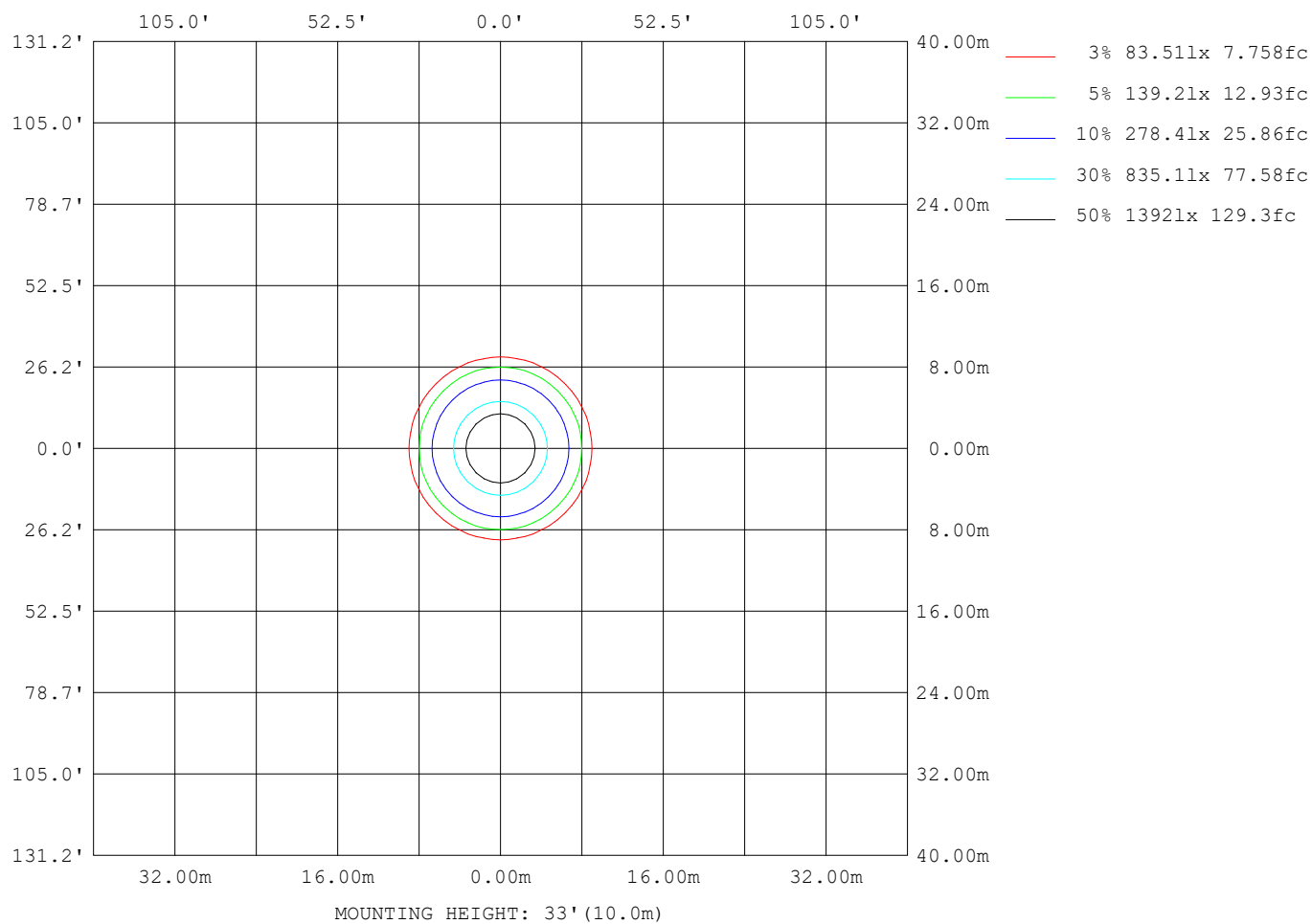
Humidity: 65.0%

Test Distance: 26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

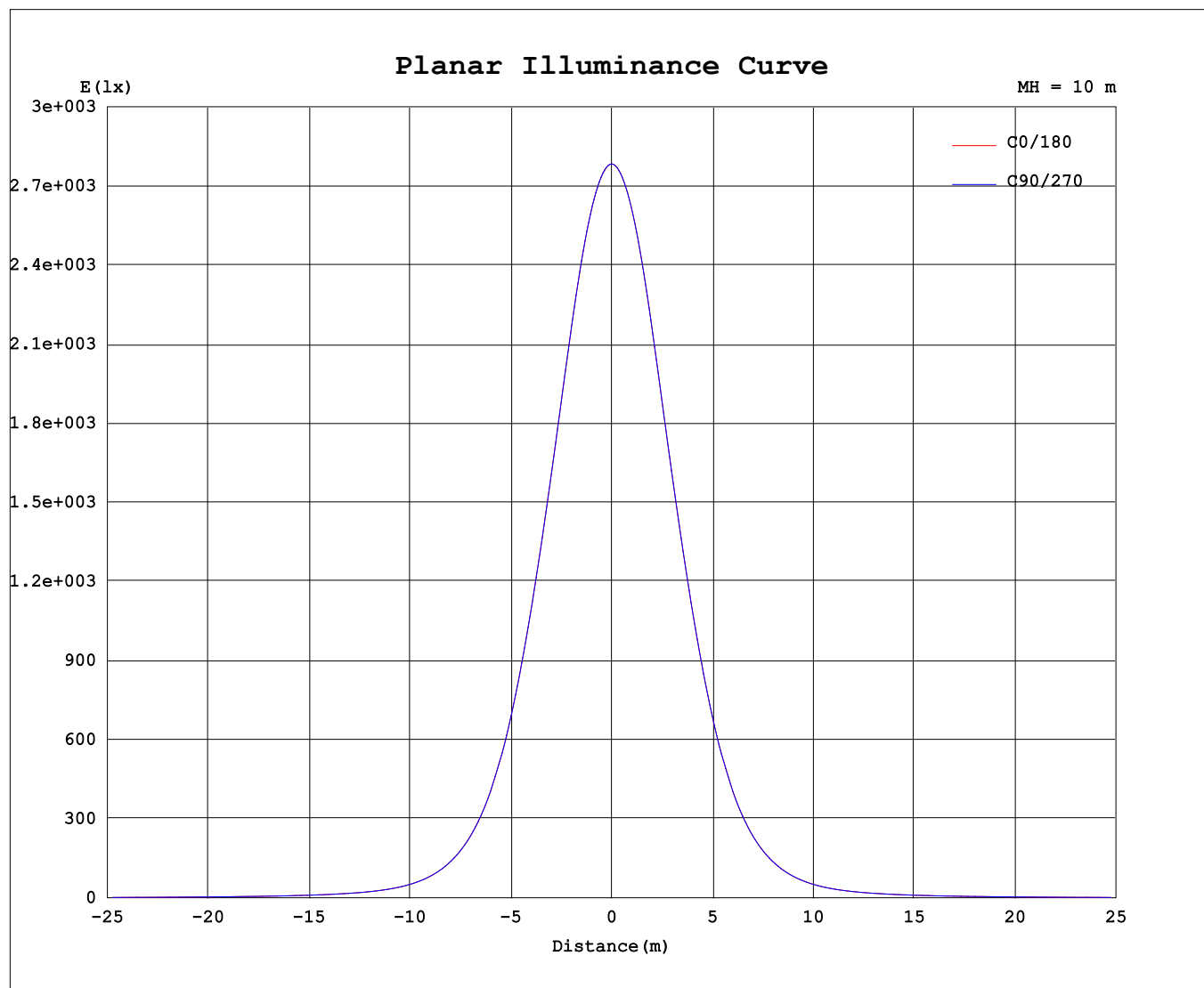
ISOLUX DIAGRAM



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: