

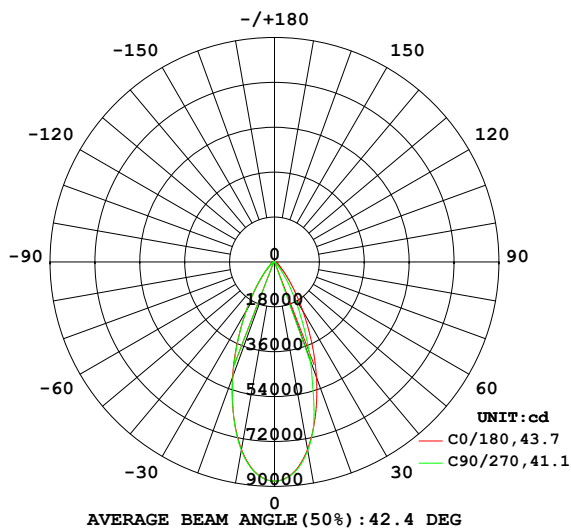
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

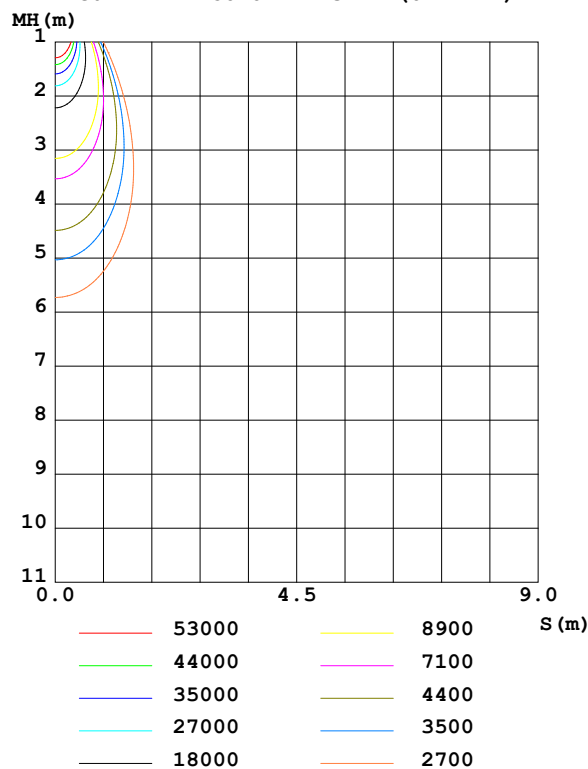
Test:U:230.0V I:1.787A P:400.0W PF:0.973 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:54687.4x1 lm		
NAME: SP04-400-5770-F04004Z+L130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 136.72 lm/W			
MODEL	/	I _{max} (cd)	87874	S/MH (C0/180)	0.69
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.69
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	54687	η UP,DN (C0-180)	0.0,45.8
NOMINAL FLUX (lm)	54687.4	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,54.2
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: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2023-03-07

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=0.4556]
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	7630	7653	7675	7653	7630	7653	7663	7653	0- 10	7845	7845	14.3,14.3
20	4924	4779	4237	4779	4924	4933	4865	4933	10- 20	17381	25226	46.1,46.1
30	2275	1949	1456	1949	2275	2443	2282	2443	20- 30	15254	40480	74,74
40	796.2	611.3	335.9	611.3	796.2	1006	828.3	1006	30- 40	8290	48770	89.2,89.2
50	287.5	147.2	37.59	147.2	287.5	398.4	296.8	398.4	40- 50	3437	52207	95.5,95.5
60	144.8	20.47	1.371	20.47	144.8	183.6	139.6	183.6	50- 60	1451	53658	98.1,98.1
70	71.17	1.976	0.7391	1.976	71.17	81.83	57.16	81.83	60- 70	712.3	54370	99.4,99.4
80	15.95	0.5090	0.0949	0.5090	15.95	20.58	18.18	20.58	70- 80	271.3	54642	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	45.82	54687	100,100
100	0	0	0	0	0	0	0	0	90-100	0	54687	100,100
110	0	0	0	0	0	0	0	0	100-110	0	54687	100,100
120	0	0	0	0	0	0	0	0	110-120	0	54687	100,100
130	0	0	0	0	0	0	0	0	120-130	0	54687	100,100
140	0	0	0	0	0	0	0	0	130-140	0	54687	100,100
150	0	0	0	0	0	0	0	0	140-150	0	54687	100,100
160	0	0	0	0	0	0	0	0	150-160	0	54687	100,100
170	0	0	0	0	0	0	0	0	160-170	0	54687	100,100
180	0	0	0	0	0	0	0	0	170-180	0	54687	100,100
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

Conical surface Flux(90deg): 50879 lm

%lum = 93.0%

%lamp = 93.0%

Conical surface Flux(120deg): 53658 lm

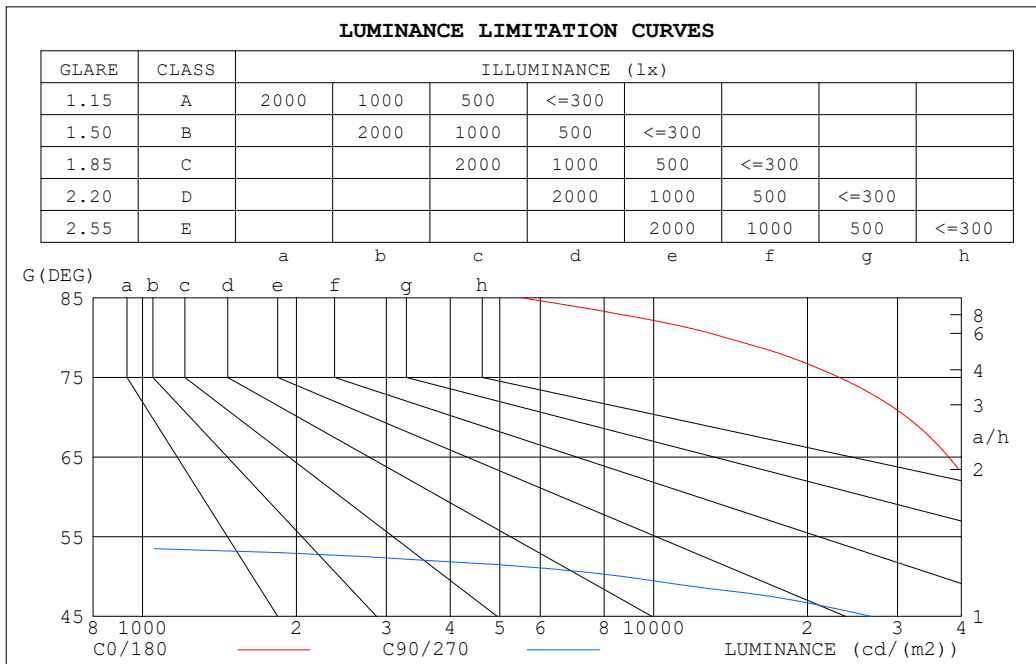
%lum = 98.1%

%lamp = 98.1%

C Range: 0 - 360DEG
C Interval: 10.0DEG
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γ Range: 0 - 180DEG
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Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4556]
Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	5520	188
80	13817	81
75	23094	102
70	31309	322
65	37776	459
60	43579	409
55	51668	449
50	67300	8714
45	98334	26630

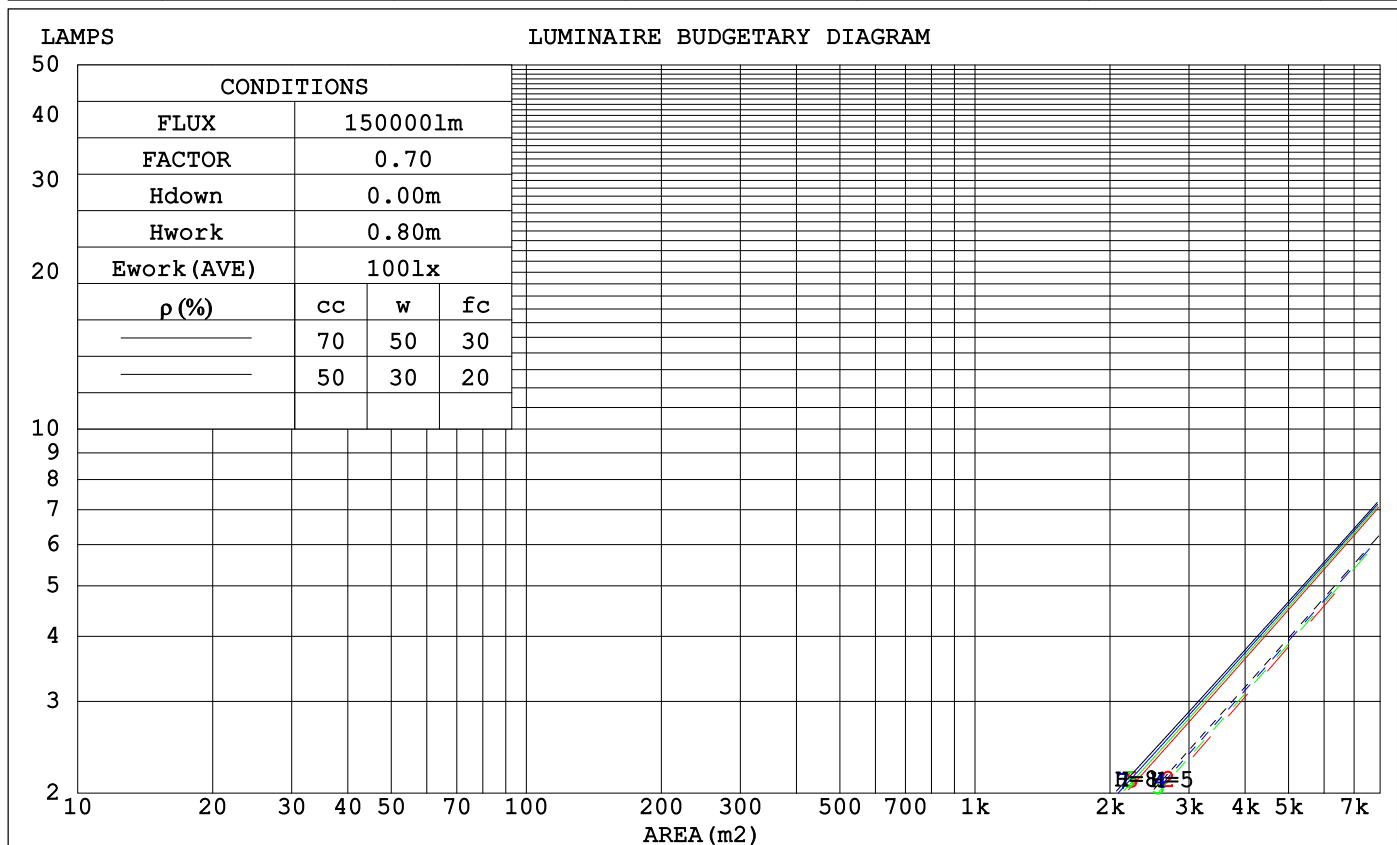
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Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
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Remarks:

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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.77	.74	.80	.76	.73	.79	.75	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.65	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.72	.66	.62	.71	.65	.62	.70	.65	.61	.69	.64	.61	.68	.64	.61	.60
9.0	.68	.62	.58	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.65	.59	.55	.64	.59	.55	.63	.59	.55	.63	.58	.55	.62	.58	.55	.54



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Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
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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	.178	.102	.032	.172	.098	.031	.159	.091	.029	.148	.085	.027	.137	.079	.026	
2.0	.170	.093	.029	.165	.091	.028	.154	.086	.027	.144	.081	.025	.135	.077	.024	
3.0	.162	.086	.026	.157	.084	.025	.148	.080	.024	.139	.076	.023	.132	.073	.023	
4.0	.153	.080	.023	.149	.078	.023	.141	.075	.022	.134	.072	.022	.127	.069	.021	
5.0	.145	.074	.021	.142	.073	.021	.135	.070	.021	.129	.068	.020	.123	.066	.020	
6.0	.138	.069	.020	.135	.068	.020	.129	.066	.019	.123	.064	.019	.118	.062	.018	
7.0	.132	.065	.018	.129	.064	.018	.124	.062	.018	.119	.061	.018	.114	.059	.017	
8.0	.125	.061	.017	.123	.061	.017	.118	.059	.017	.114	.058	.017	.110	.056	.016	
9.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.109	.053	.015	.106	.052	.015	.102	.051	.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	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.090	.123	.098	.078	.085	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.055	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
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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=0.4556]
 Remarks:

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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	18.5	19.5	18.8	19.8	20.1	13.9	13.9	13.9	13.9	13.9
3H	19.4	20.3	19.8	20.7	21.0	13.9	13.9	13.9	13.9	13.9
4H	19.6	20.5	20.0	20.8	21.2	13.9	13.9	13.9	13.9	13.9
6H	19.7	20.4	20.1	20.8	21.2	13.9	13.9	13.9	13.9	13.9
8H	19.7	20.4	20.1	20.8	21.2	13.9	13.9	13.9	13.9	13.9
12H	19.6	20.3	20.0	20.7	21.1	13.9	13.9	13.9	13.9	13.9
4H 2H	18.2	19.0	18.6	19.4	19.8	13.9	13.9	13.9	13.9	13.9
3H	19.1	19.8	19.5	20.2	20.6	13.9	13.9	13.9	13.9	13.9
4H	19.3	19.9	19.8	20.4	20.8	13.9	13.9	13.9	13.9	13.9
6H	19.4	19.9	19.8	20.3	20.8	13.9	13.9	13.9	13.9	13.9
8H	19.3	19.8	19.8	20.3	20.7	13.9	13.9	13.9	13.9	13.9
12H	19.3	19.7	19.8	20.2	20.7	13.9	13.9	13.9	13.9	13.9
8H 4H	19.1	19.6	19.6	20.1	20.6	13.9	13.9	13.9	13.9	13.9
6H	19.2	19.6	19.7	20.1	20.6	13.9	13.9	13.9	13.9	13.9
8H	19.1	19.5	19.7	20.0	20.5	13.9	13.9	13.9	13.9	13.9
12H	19.1	19.4	19.6	19.9	20.5	13.9	13.9	13.9	13.9	13.9
12H 4H	19.1	19.5	19.6	20.0	20.5	13.9	13.9	13.9	13.9	13.9
6H	19.1	19.5	19.7	19.9	20.5	13.9	13.9	13.9	13.9	13.9
8H	19.1	19.4	19.6	19.9	20.5	13.9	13.9	13.9	13.9	13.9
CIE190: 2010										

CIE190: 2010
Area: 0.067 m2

C Range: 0 - 360DEG
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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%
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Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

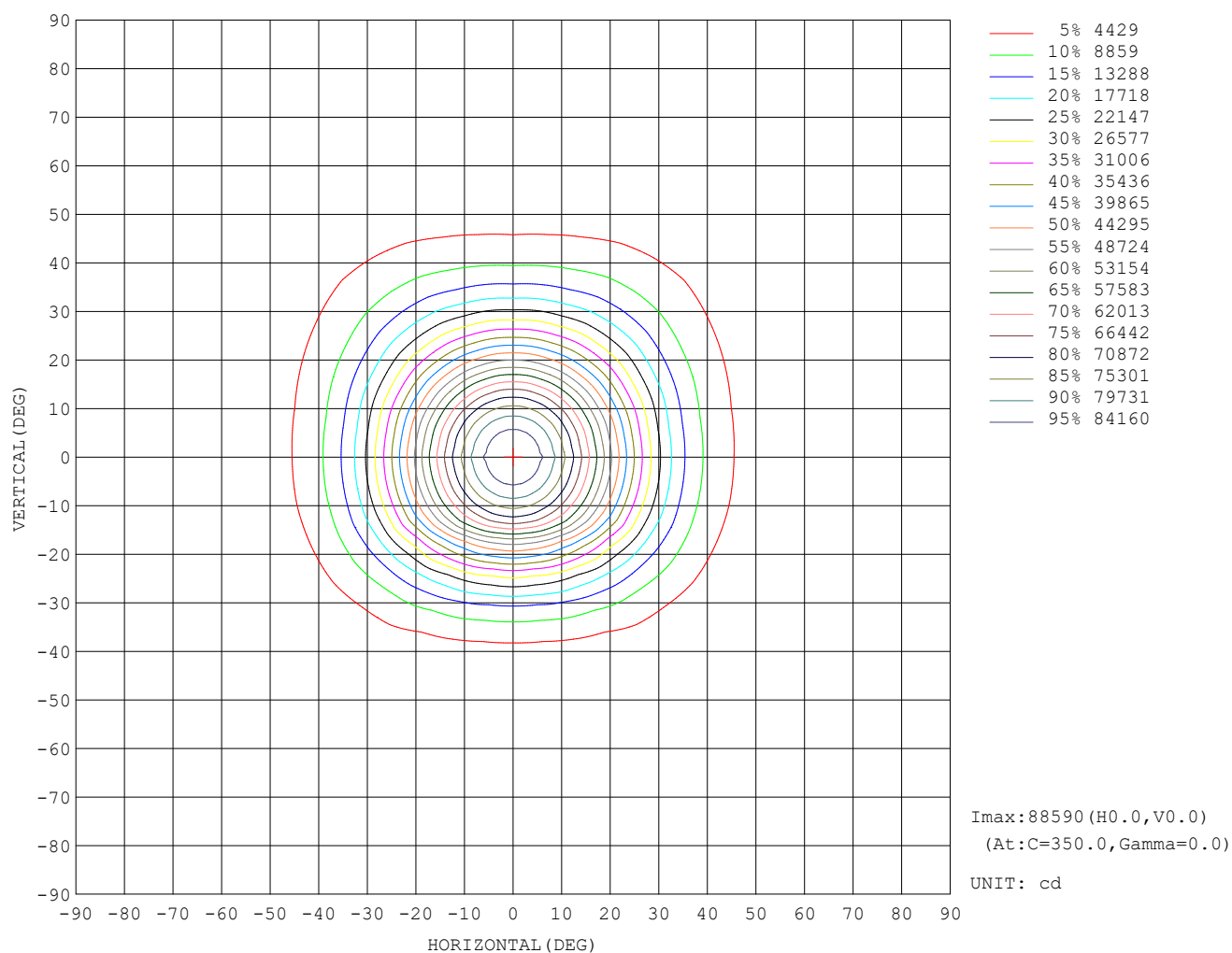
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	83	77	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	97	91	87	97	91	87	95	91	87	83
1.25	102	96	92	101	96	92	99	94	91	87
1.50	105	100	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	110	109	108	107	105	98
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:

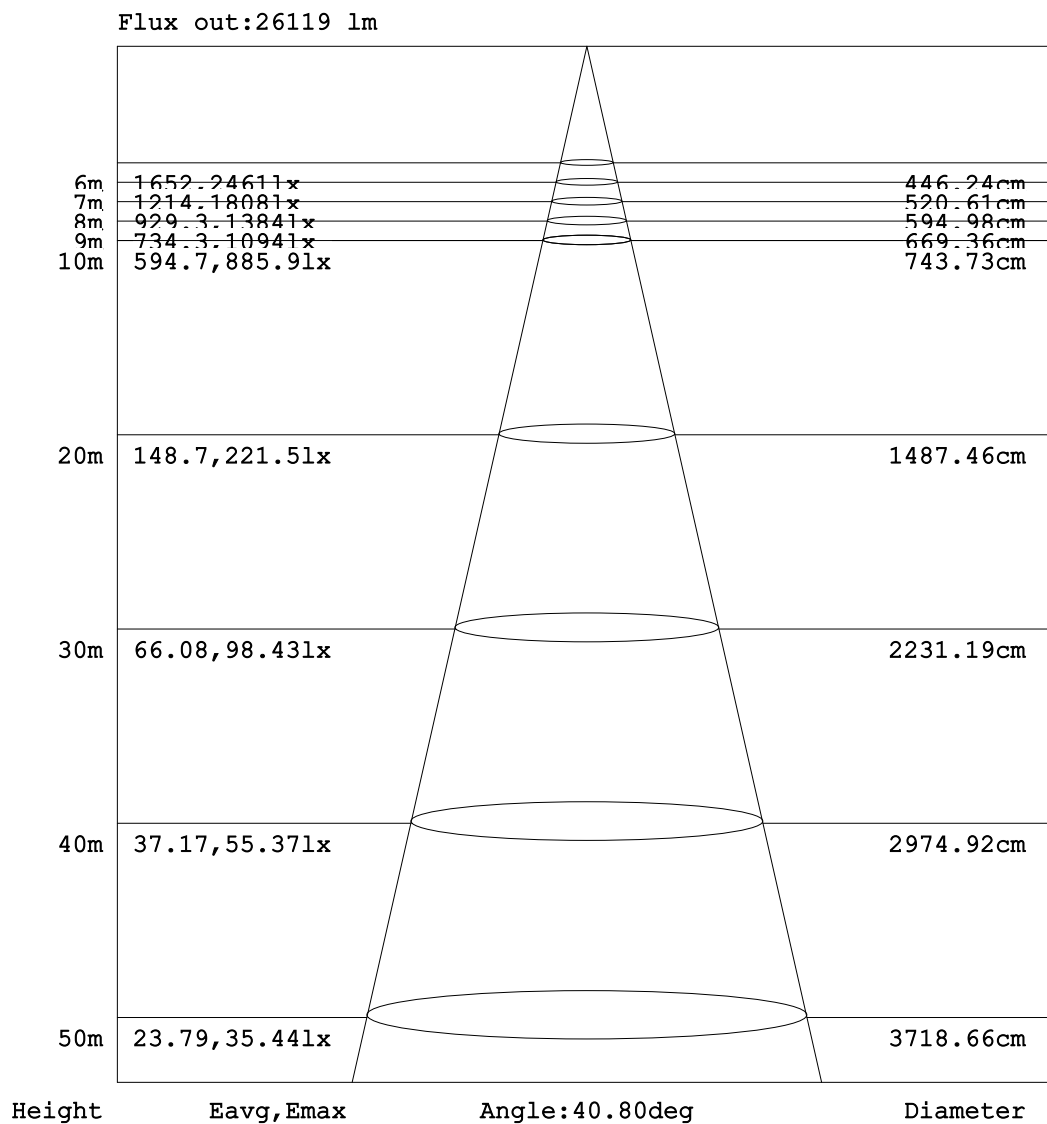
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Date: 2023-03-07

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Remarks:

AAI Figure



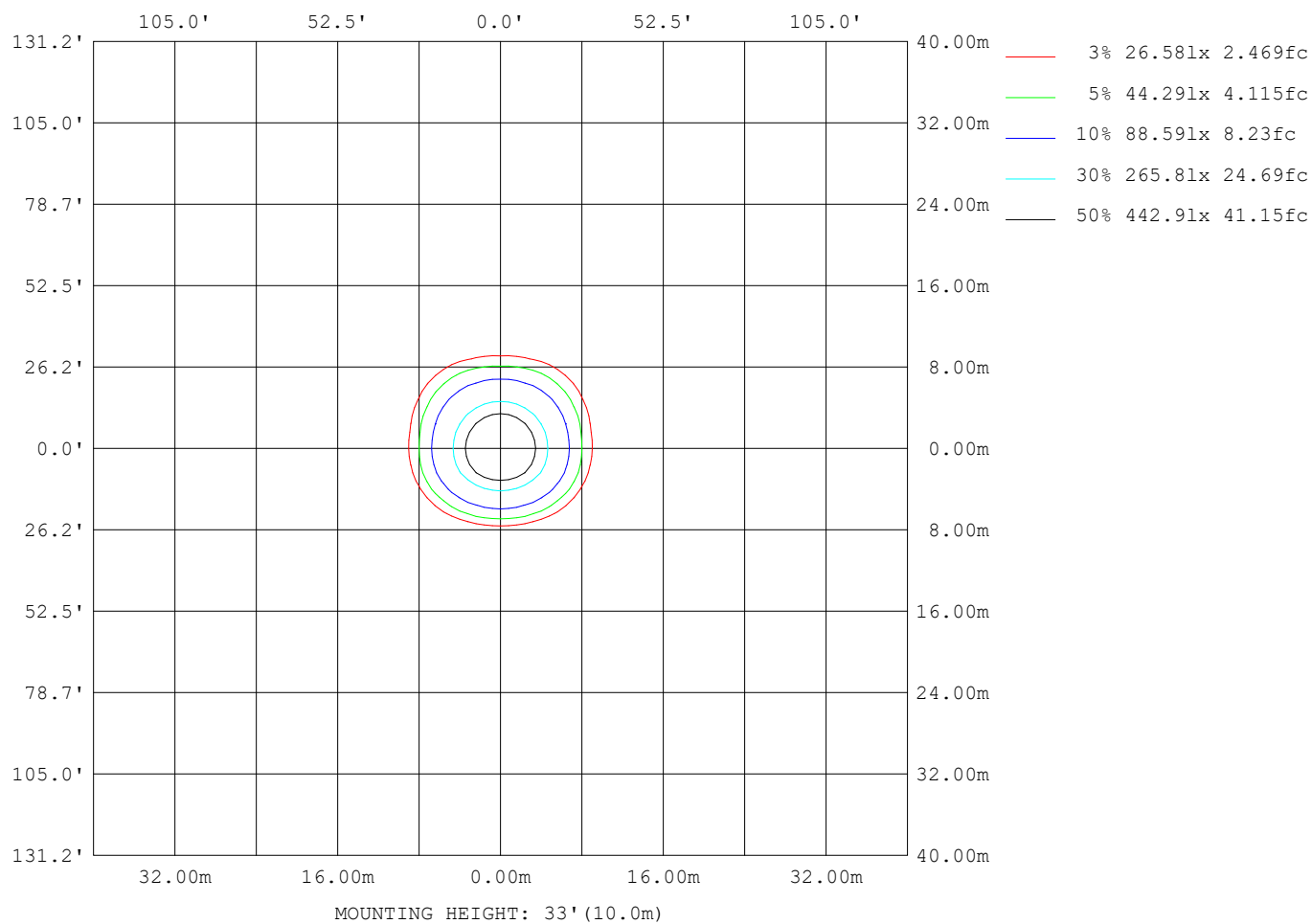
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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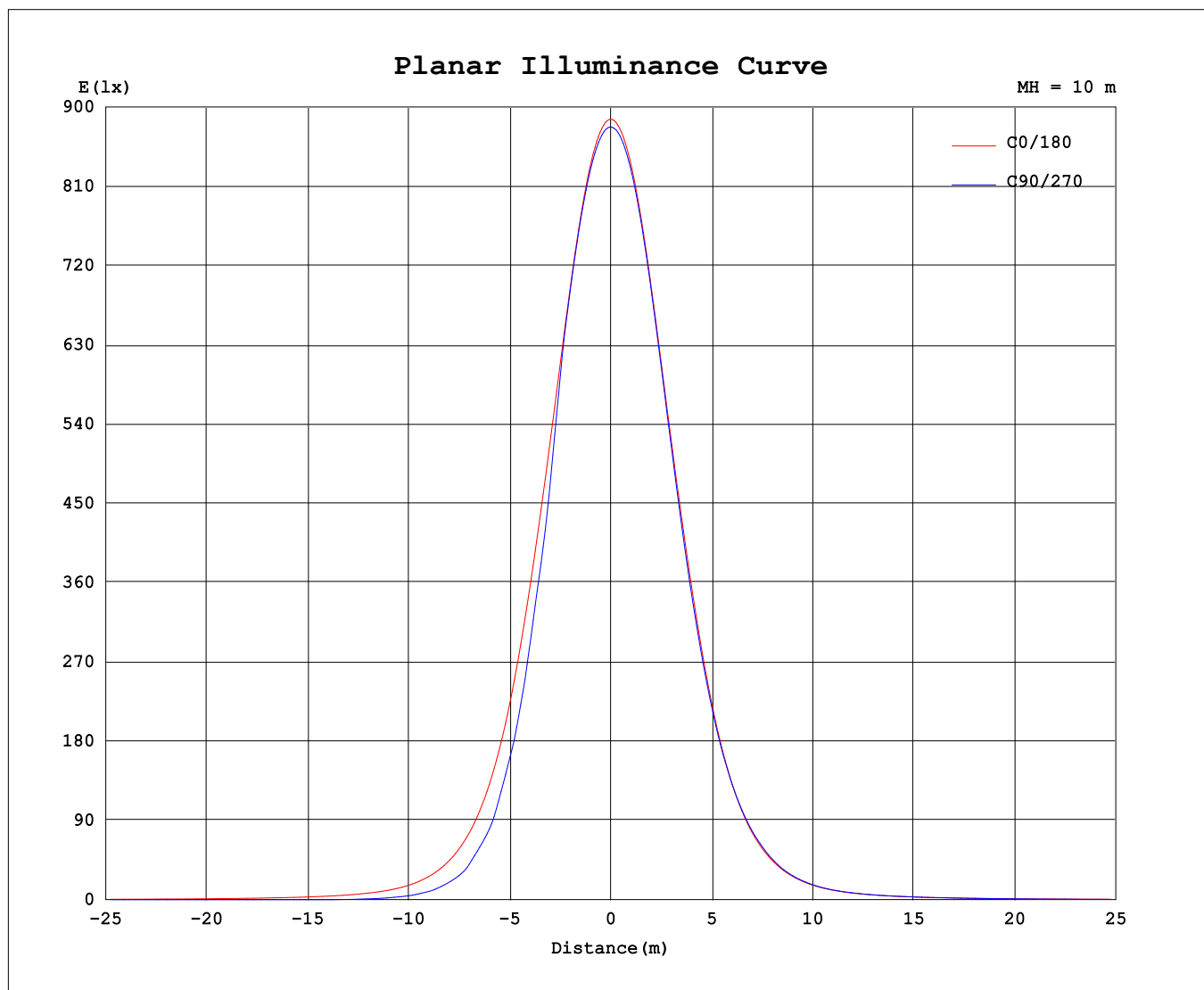
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature: 25.3°C
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Test Date: 2023-03-07

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Remarks:

Planar Illuminance Curve



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