

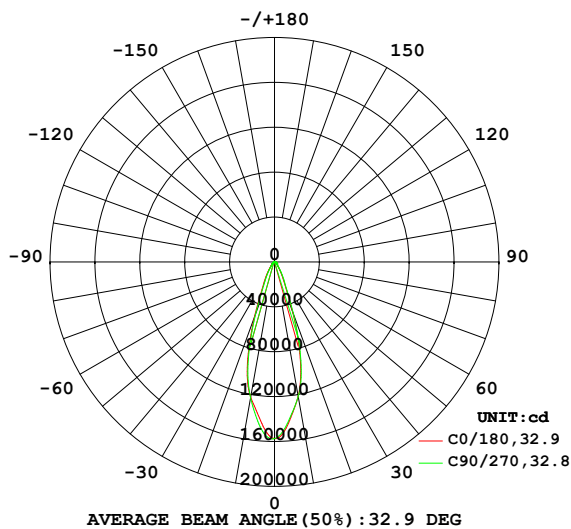
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

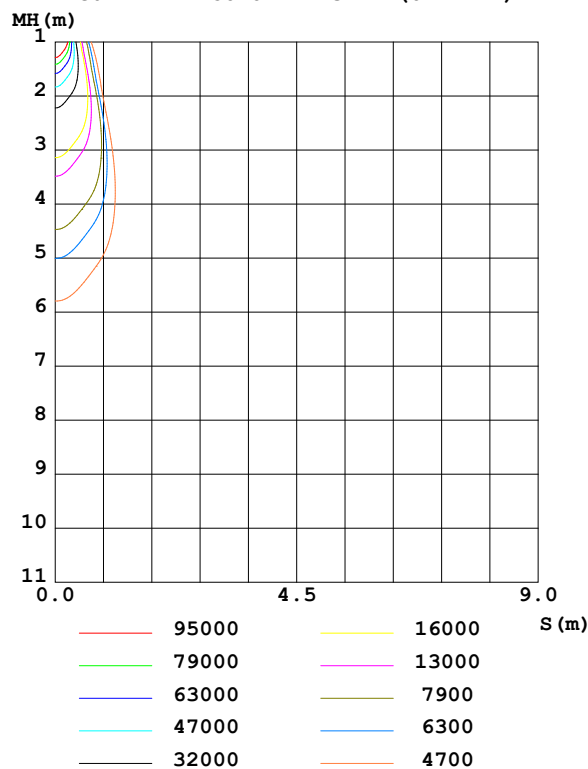
Test:U:230.0V I:1.787A P:400.0W PF:0.973 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:59755.3x1 lm		
NAME: SP04-400-5770-F04003Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 149.39 lm/W			
MODEL	/	I _{max} (cd)	157676	S/MH (C0/180)	0.53
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.52
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	59755	η UP,DN (C0-180)	0.0,50.2
NOMINAL FLUX (lm)	59755.3	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,49.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 19 September 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	1216	1215	1218	1230	1223	1223	1230	1223	0- 10	13037	13037	21.8,21.8
20	470.2	477.1	493.6	520.4	522.3	488.9	490.9	459.4	10- 20	24013	37050	62,62
30	125.7	119.0	142.5	137.6	154.4	128.0	133.9	112.1	20- 30	11315	48365	80.9,80.9
40	43.85	40.65	49.39	44.71	53.22	42.74	46.10	38.10	30- 40	4862	53227	89.1,89.1
50	26.80	25.61	28.05	26.65	28.82	25.85	27.07	24.71	40- 50	2586	55813	93.4,93.4
60	16.99	17.65	17.65	17.65	17.76	17.89	17.34	16.80	50- 60	1947	57760	96.7,96.7
70	9.024	9.353	9.323	9.268	9.459	9.441	9.150	8.782	60- 70	1299	59059	98.8,98.8
80	2.521	2.597	2.682	2.659	2.747	2.646	2.590	2.420	70- 80	602.6	59662	99.8,99.8
90	0.0149	0.0126	0.0185	0.0225	0.0214	0.0151	0.0151	0.0160	80- 90	93.74	59755	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): 54625 lm

%lum = 91.4%

%lamp = 91.4%

Conical surface Flux(120deg): 57760 lm

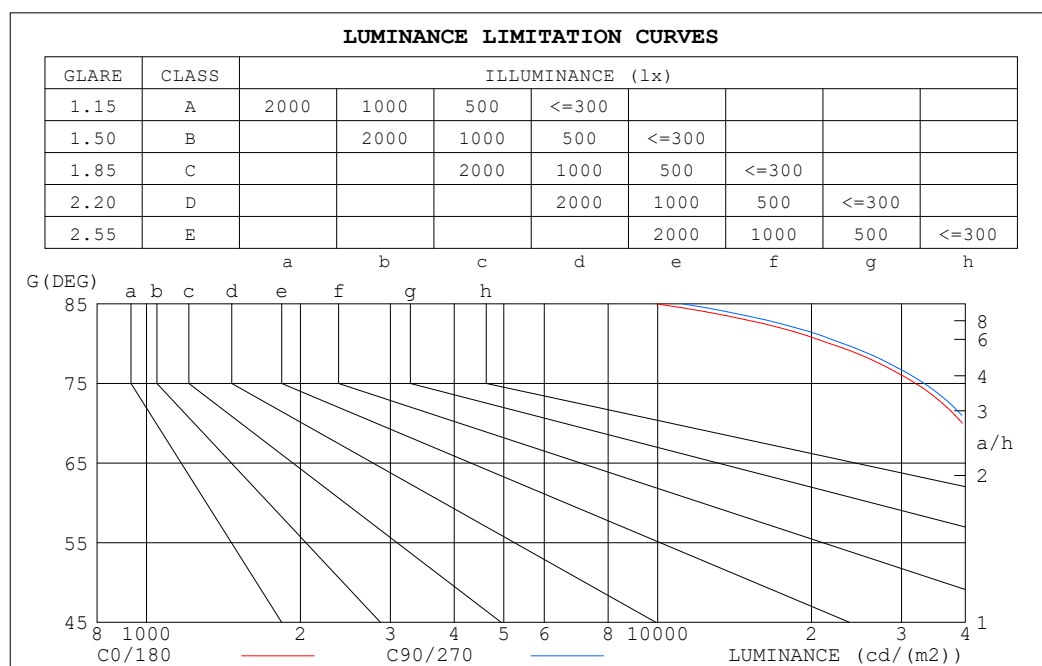
%lum = 96.7%

%lamp = 96.7%

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Temperature:25.3°C
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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



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9932	11163
80	21723	23058
75	31960	33237
70	39479	40690
65	45447	46881
60	50844	52679
55	56269	58081
50	62382	65132
45	69151	73971

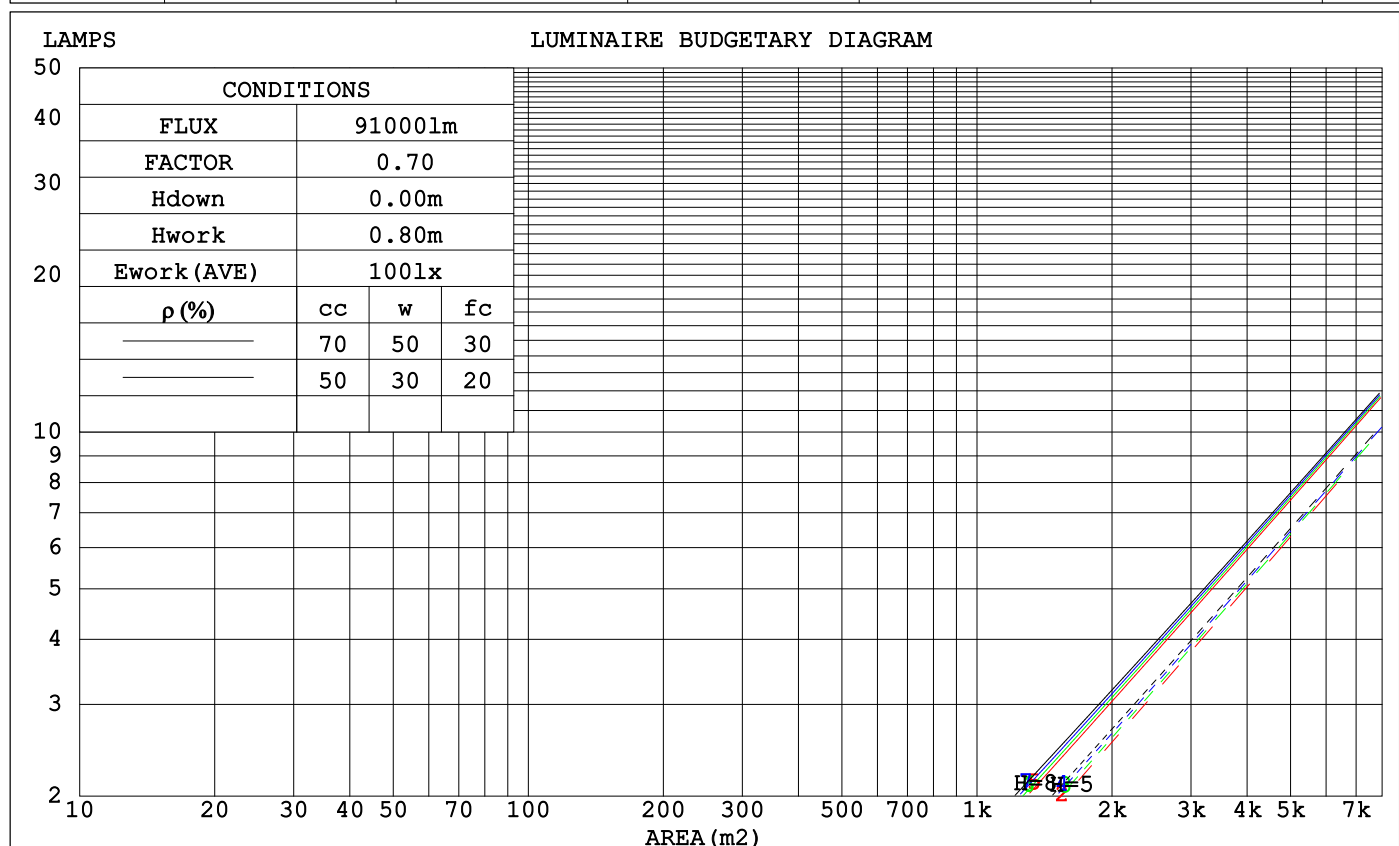
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Remarks:

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	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.92	.90	.88
3.0	.98	.93	.90	.97	.92	.89	.94	.90	.87	.92	.89	.86	.89	.87	.85	.83
4.0	.93	.87	.84	.91	.87	.83	.89	.85	.82	.87	.84	.81	.86	.83	.80	.79
5.0	.88	.83	.79	.87	.82	.78	.85	.81	.78	.84	.80	.77	.82	.79	.76	.75
6.0	.84	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.80	.75	.71	.79	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.70	.68
8.0	.76	.71	.68	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.65
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.71	.66	.62	.70	.65	.62	.69	.65	.62	.69	.65	.62	.68	.64	.62	.61



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

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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	.171	.097	.031	.165	.094	.030	.152	.087	.028	.141	.081	.026	.130	.075	.024	
2.0	.161	.088	.027	.156	.086	.026	.145	.081	.025	.136	.076	.024	.127	.072	.023	
3.0	.151	.081	.024	.147	.079	.024	.138	.075	.023	.129	.071	.022	.122	.067	.021	
4.0	.142	.074	.022	.138	.072	.021	.130	.069	.021	.123	.066	.020	.117	.063	.019	
5.0	.134	.068	.020	.130	.067	.019	.124	.064	.019	.117	.062	.018	.112	.060	.018	
6.0	.126	.063	.018	.123	.062	.018	.117	.060	.018	.112	.058	.017	.107	.056	.017	
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.107	.055	.016	.103	.053	.016	
8.0	.114	.056	.016	.111	.055	.015	.107	.053	.015	.103	.052	.015	.099	.051	.015	
9.0	.108	.052	.015	.106	.052	.015	.102	.051	.014	.098	.049	.014	.095	.048	.014	
10.0	.103	.050	.014	.101	.049	.014	.098	.048	.014	.095	.047	.013	.091	.046	.013	

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	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016		
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013		
3.0	.142	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011		
4.0	.130	.099	.074	.112	.085	.065	.077	.059	.045	.045	.035	.027	.014	.011	.009		
5.0	.121	.087	.062	.104	.075	.054	.072	.052	.038	.041	.031	.022	.013	.010	.007		
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006		
7.0	.105	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005		
8.0	.099	.063	.038	.085	.055	.033	.059	.038	.023	.034	.023	.014	.011	.007	.005		
9.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004		
10.0	.089	.053	.029	.077	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
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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:

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	21.0	22.1	21.4	22.4	22.7	21.1	22.2	21.5	22.5	22.8
3H	22.4	23.3	22.8	23.7	24.0	22.5	23.4	22.9	23.7	24.1
4H	22.8	23.6	23.2	24.0	24.4	22.9	23.7	23.3	24.1	24.5
6H	22.9	23.7	23.4	24.1	24.5	23.1	23.8	23.5	24.2	24.6
8H	23.0	23.7	23.4	24.1	24.5	23.1	23.8	23.5	24.2	24.6
12H	22.9	23.6	23.4	24.0	24.4	23.0	23.7	23.5	24.1	24.6
4H 2H	21.5	22.4	21.9	22.7	23.1	21.6	22.4	22.0	22.8	23.2
3H	23.0	23.7	23.4	24.1	24.5	23.1	23.8	23.5	24.2	24.6
4H	23.5	24.1	23.9	24.5	25.0	23.5	24.2	24.0	24.6	25.0
6H	23.7	24.2	24.2	24.7	25.2	23.8	24.3	24.3	24.8	25.2
8H	23.7	24.2	24.2	24.7	25.1	23.8	24.3	24.3	24.8	25.2
12H	23.7	24.1	24.2	24.6	25.1	23.8	24.2	24.3	24.7	25.2
8H 4H	23.6	24.1	24.0	24.5	25.0	23.6	24.1	24.1	24.6	25.1
6H	23.8	24.2	24.4	24.7	25.2	23.9	24.3	24.5	24.8	25.3
8H	23.9	24.2	24.4	24.8	25.2	24.0	24.3	24.5	24.9	25.4
12H	23.9	24.2	24.4	24.7	25.3	24.0	24.3	24.5	24.8	25.4
12H 4H	23.5	24.0	24.0	24.5	24.9	23.6	24.0	24.1	24.5	25.0
6H	23.8	24.2	24.4	24.6	25.2	23.9	24.3	24.5	24.7	25.3
8H	23.9	24.2	24.4	24.7	25.3	24.0	24.3	24.5	24.8	25.4
CIE190: 2010										

CIE190: 2010
Area: 0.06699 m2

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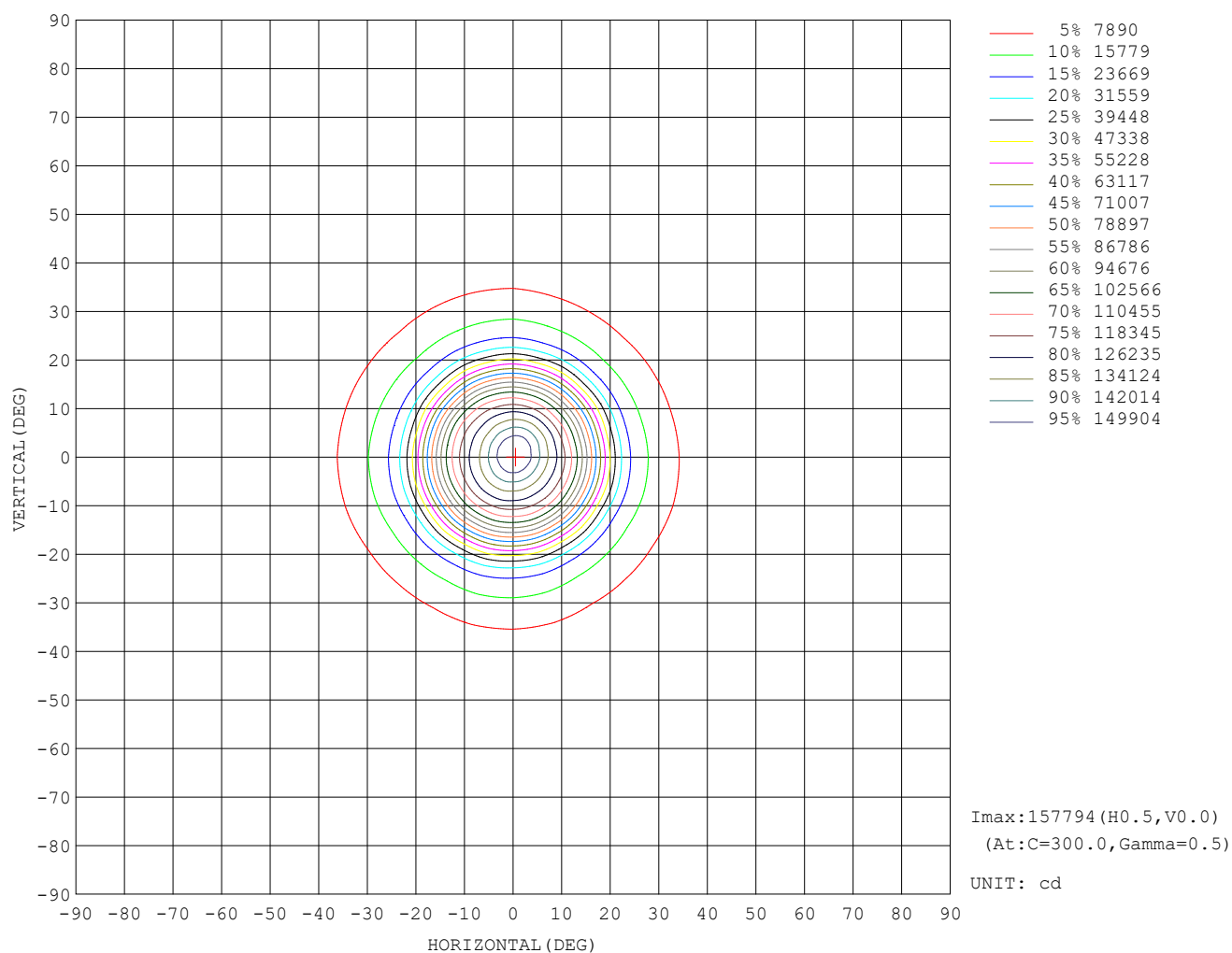
UTILIZATION FACTORS TABLE

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	92	86	82	92	86	82	90	85	81	77
1.00	97	91	87	96	91	87	95	91	86	82
1.25	101	96	92	100	95	91	98	94	91	86
1.50	104	99	95	103	98	95	101	97	94	89
2.00	107	103	99	106	102	98	103	100	97	91
2.50	109	105	102	108	104	101	104	101	99	93
3.00	111	107	104	109	106	103	106	103	101	94
4.00	113	110	108	111	108	106	107	105	104	96
5.00	115	112	110	112	110	108	108	107	105	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4548]
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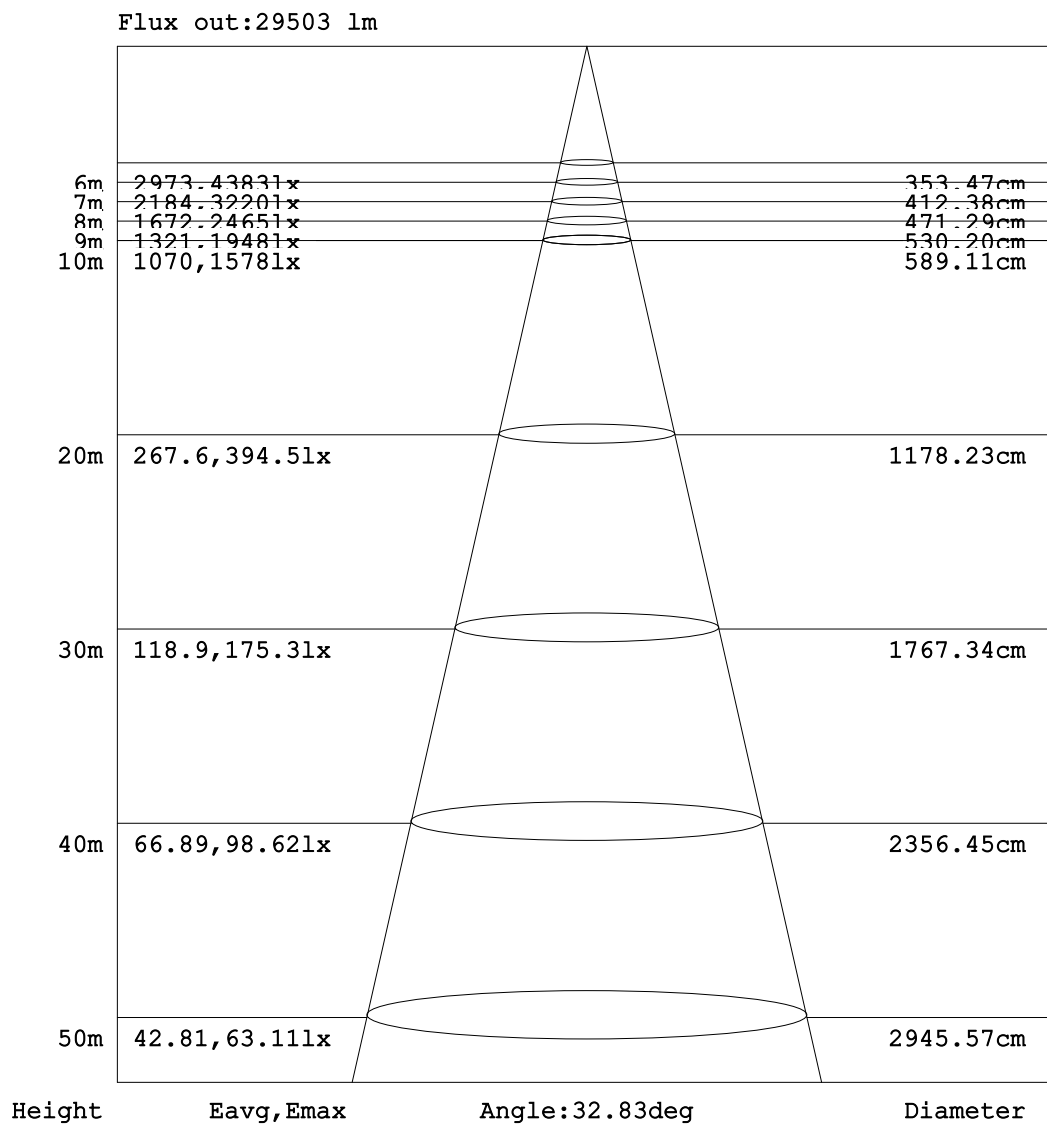
ISOCANDELA DIAGRAM



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Remarks:

AAI Figure



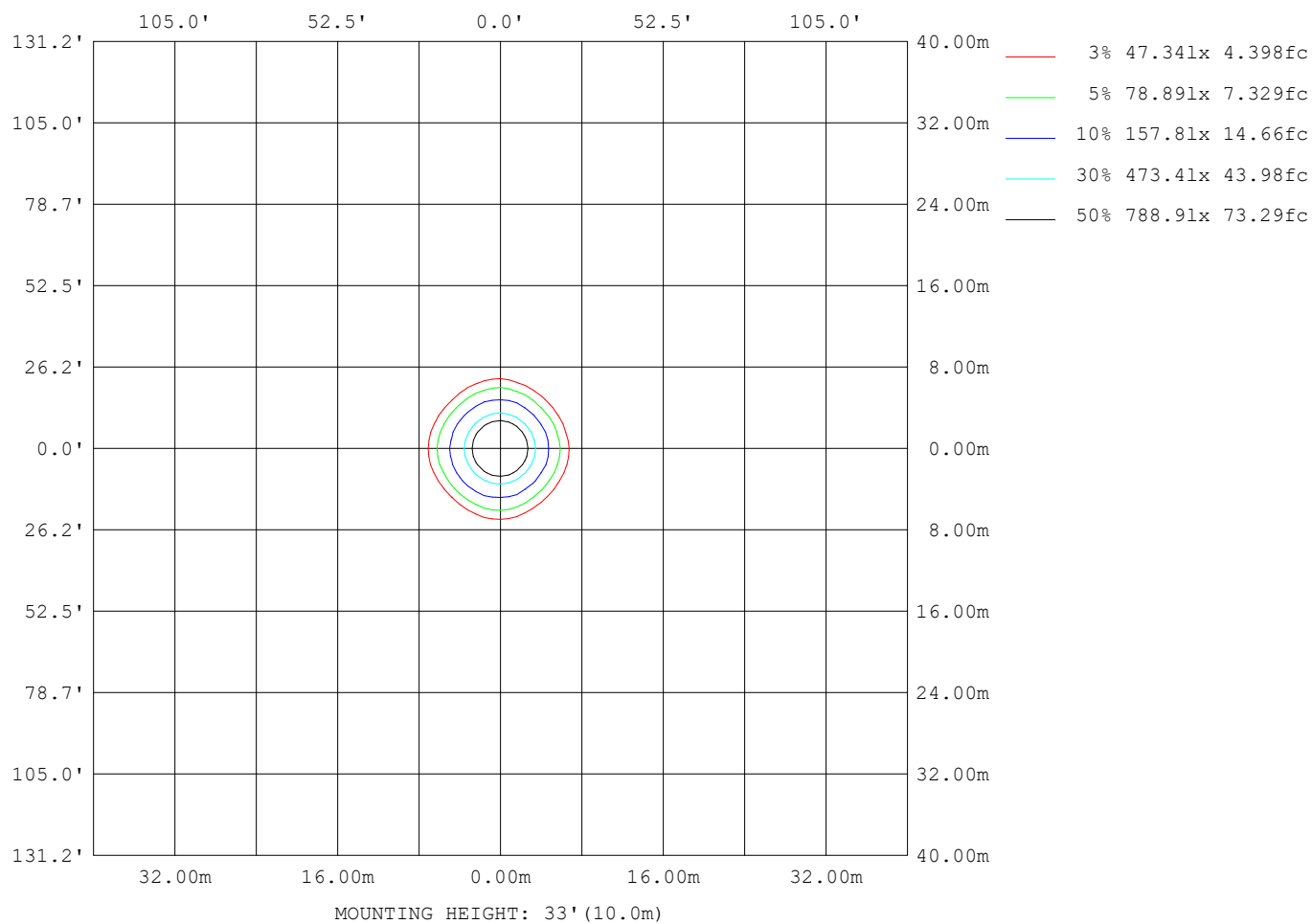
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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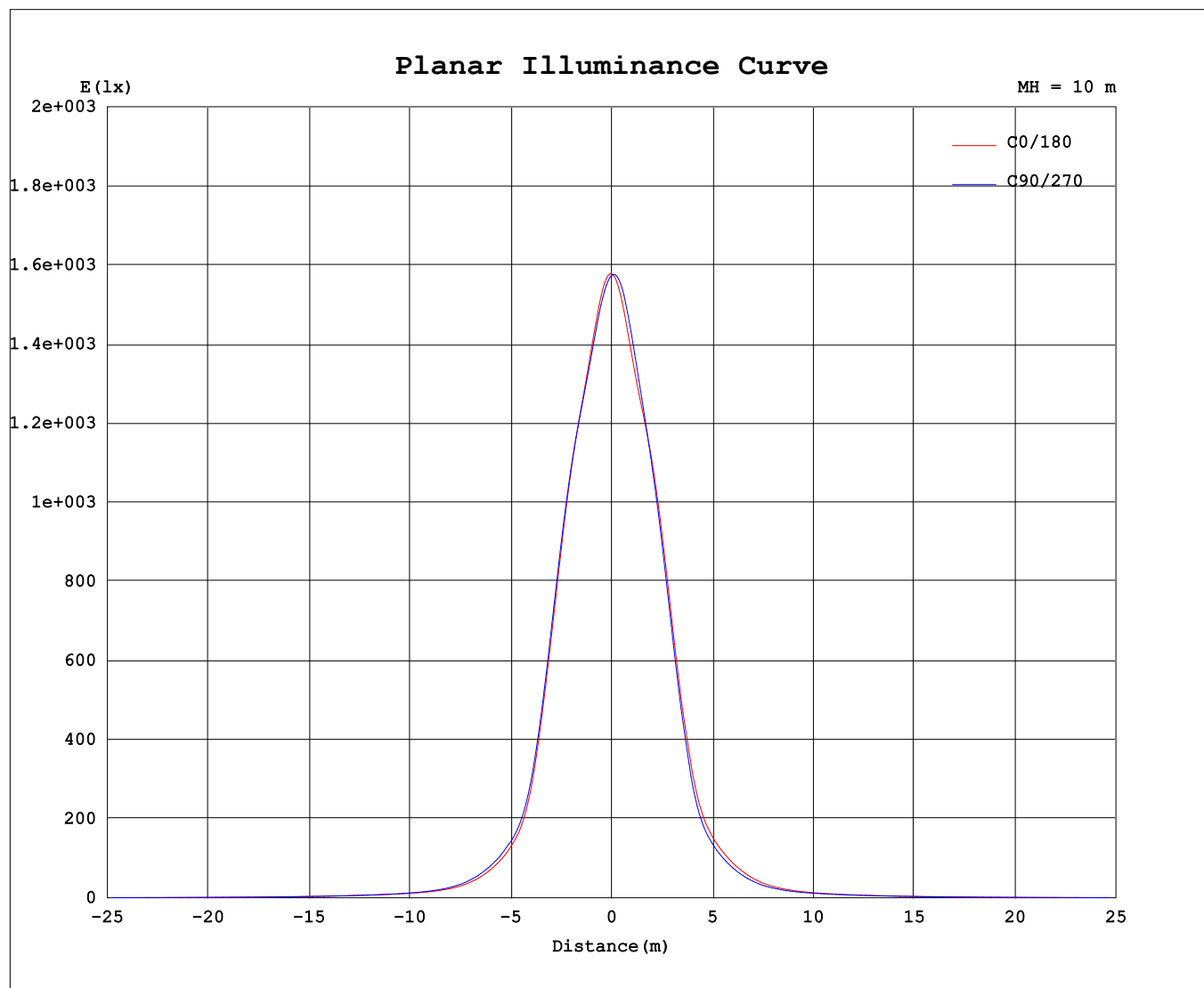
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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 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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