

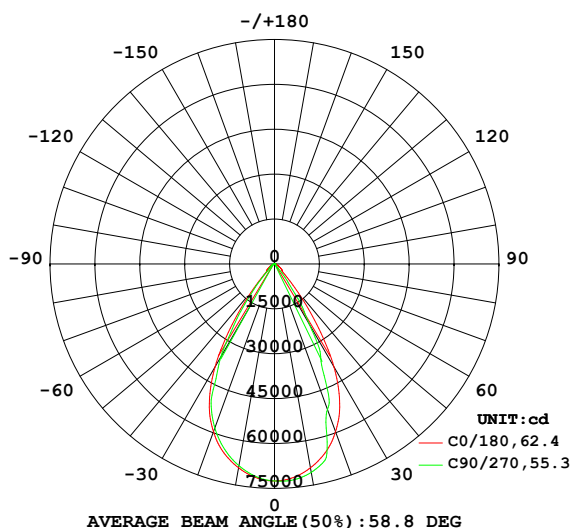
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

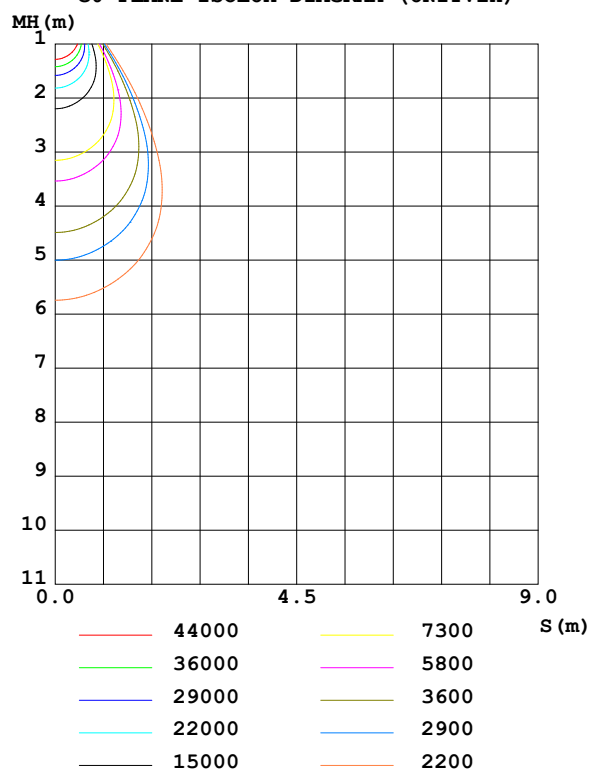
Test:U:230.0V I:2.140A P:480.0W PF:0.975 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:64394x1 lm		
NAME: SP04-480-5770-F04006Z+H130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 134.15 lm/W			
MODEL	/	I _{max} (cd)	72631	S/MH (C0/180)	0.92
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.88
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	64394	η UP,DN (C0-180)	0.0,46.5
NOMINAL FLUX (lm)	64394	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,53.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.90

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: 2022-12-14

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=0.4548]
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	6917	7021	7071	7021	6917	6860	6845	6860	0- 10	6775	6775	10.5,10.5
20	5963	6022	5177	6022	5963	5852	5830	5852	10- 20	18192	24967	38.8,38.8
30	3978	3195	2329	3195	3978	3927	3588	3927	20- 30	21805	46771	72.6,72.6
40	1148	648.0	242.4	648.0	1148	1084	924.7	1084	30- 40	12816	59587	92.5,92.5
50	332.6	60.94	11.14	60.94	332.6	248.4	226.3	248.4	40- 50	2804	62391	96.9,96.9
60	162.5	5.535	5.029	5.535	162.5	134.3	108.4	134.3	50- 60	1133	63524	98.6,98.6
70	65.61	2.824	2.264	2.824	65.61	67.46	49.52	67.46	60- 70	601.1	64125	99.6,99.6
80	11.34	1.015	0.6954	1.015	11.34	16.22	13.69	16.22	70- 80	229.2	64355	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	39.42	64394	100,100
100	0	0	0	0	0	0	0	0	90-100	0	64394	100,100
110	0	0	0	0	0	0	0	0	100-110	0	64394	100,100
120	0	0	0	0	0	0	0	0	110-120	0	64394	100,100
130	0	0	0	0	0	0	0	0	120-130	0	64394	100,100
140	0	0	0	0	0	0	0	0	130-140	0	64394	100,100
150	0	0	0	0	0	0	0	0	140-150	0	64394	100,100
160	0	0	0	0	0	0	0	0	150-160	0	64394	100,100
170	0	0	0	0	0	0	0	0	160-170	0	64394	100,100
180	0	0	0	0	0	0	0	0	170-180	0	64394	100,100
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

Conical surface Flux(90deg): 61520 lm

%lum = 95.5%

%lamp = 95.5%

Conical surface Flux(120deg): 63524 lm

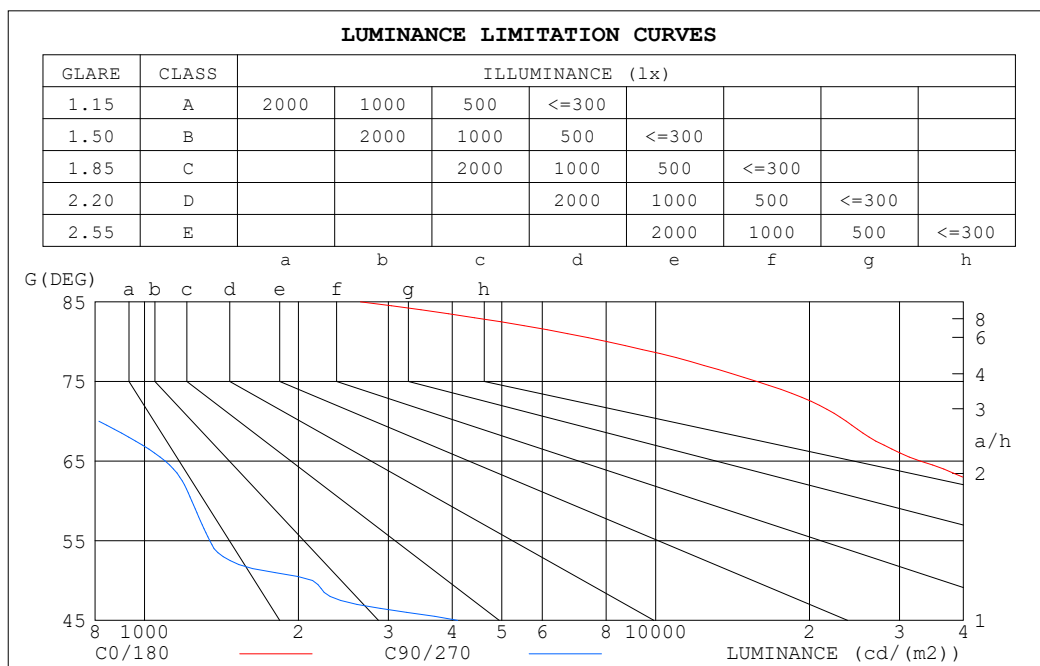
%lum = 98.6%

%lamp = 98.6%

C Range: 0 - 360DEG
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γ Range: 0 - 180DEG
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Humidity:65.0%
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Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2645	443
80	8034	493
75	15776	596
70	23607	814
65	32956	1098
60	40001	1237
55	55123	1342
50	63684	2132
45	74246	4097

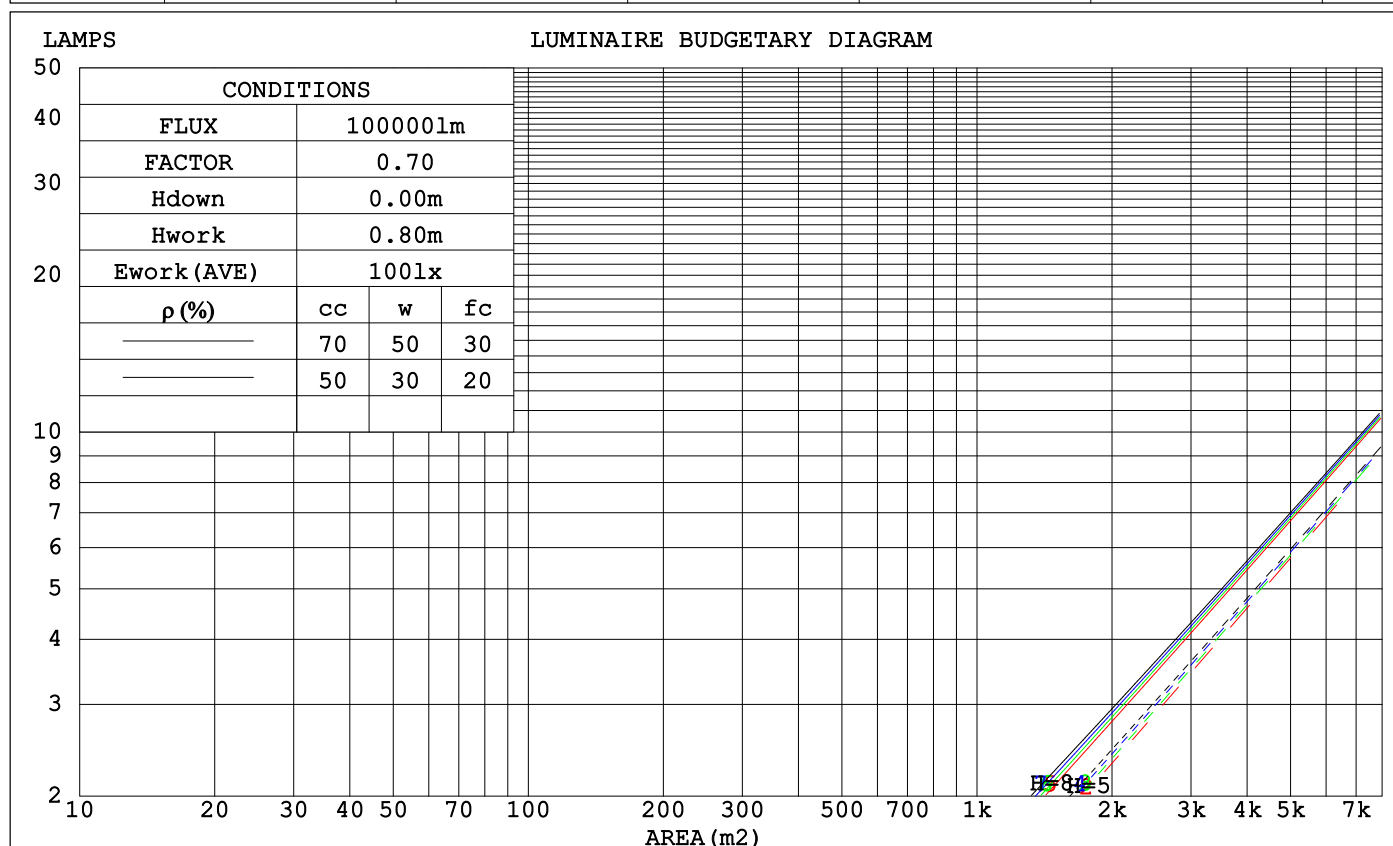
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Remarks:

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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	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.94	.90	.86	.92	.88	.85	.89	.86	.83	.87	.85	.82	.81
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.84	.81	.77	.82	.79	.77	.75
5.0	.84	.78	.74	.83	.78	.73	.81	.76	.73	.80	.75	.72	.78	.74	.72	.70
6.0	.79	.73	.69	.78	.72	.68	.76	.72	.68	.75	.71	.67	.74	.70	.67	.65
7.0	.74	.68	.64	.73	.68	.64	.72	.67	.63	.71	.66	.63	.70	.66	.63	.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	.59	.56	.64	.59	.56	.63	.59	.55	.54
10.0	.62	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.52	.60	.55	.52	.51



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 Humidity:65.0%
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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	.180	.102	.032	.173	.099	.031	.161	.092	.029	.149	.086	.028	.139	.080	.026		
2.0	.172	.095	.029	.167	.092	.028	.156	.087	.027	.146	.082	.026	.137	.078	.024		
3.0	.164	.087	.026	.159	.085	.026	.150	.081	.025	.142	.078	.024	.134	.074	.023		
4.0	.156	.081	.024	.152	.080	.024	.144	.076	.023	.137	.073	.022	.130	.071	.022		
5.0	.149	.076	.022	.145	.074	.022	.138	.072	.021	.132	.070	.021	.126	.067	.020		
6.0	.142	.071	.020	.139	.070	.020	.133	.068	.020	.127	.066	.019	.122	.064	.019		
7.0	.135	.067	.019	.133	.066	.019	.127	.064	.019	.122	.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	.122	.059	.017	.118	.058	.016	.114	.057	.016	.110	.056	.016		
10.0	.119	.057	.016	.117	.057	.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	.171	.157	.145	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016		
2.0	.156	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013		
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010		
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009		
5.0	.125	.087	.059	.108	.076	.052	.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	.036	.066	.043	.026	.038	.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	.058	.033	.017	.034	.020	.010	.011	.007	.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=0.4548]
 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	16.3	17.3	16.7	17.6	17.9	14.5	14.5	14.5	14.5	14.5
3H	16.9	17.8	17.3	18.1	18.5	14.5	14.5	14.5	14.5	14.5
4H	17.0	17.8	17.4	18.1	18.5	14.5	14.5	14.5	14.5	14.5
6H	17.0	17.7	17.4	18.1	18.5	14.5	14.5	14.5	14.5	14.5
8H	16.9	17.6	17.3	18.0	18.4	14.5	14.5	14.5	14.5	14.5
12H	16.9	17.5	17.3	17.9	18.3	14.5	14.5	14.5	14.5	14.5
4H 2H	16.0	16.8	16.4	17.2	17.6	14.5	14.5	14.5	14.5	14.5
3H	16.6	17.3	17.0	17.7	18.1	14.5	14.5	14.5	14.5	14.5
4H	16.7	17.2	17.1	17.7	18.1	14.5	14.5	14.5	14.5	14.5
6H	16.6	17.1	17.1	17.6	18.0	14.5	14.5	14.5	14.5	14.5
8H	16.6	17.0	17.0	17.5	18.0	14.5	14.5	14.5	14.5	14.5
12H	16.5	16.9	17.0	17.4	17.9	14.5	14.5	14.5	14.5	14.5
8H 4H	16.5	16.9	17.0	17.4	17.9	14.5	14.5	14.5	14.5	14.5
6H	16.4	16.8	16.9	17.3	17.8	14.5	14.5	14.5	14.5	14.5
8H	16.4	16.7	16.9	17.2	17.7	14.5	14.5	14.5	14.5	14.5
12H	16.3	16.6	16.8	17.1	17.7	14.5	14.5	14.5	14.5	14.5
12H 4H	16.4	16.8	16.9	17.3	17.8	14.5	14.5	14.5	14.5	14.5
6H	16.4	16.7	16.9	17.2	17.7	14.5	14.5	14.5	14.5	14.5
8H	16.3	16.6	16.8	17.1	17.7	14.5	14.5	14.5	14.5	14.5
CIE190: 2010										

CIE190: 2010
Area: 0.0813 m2

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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=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

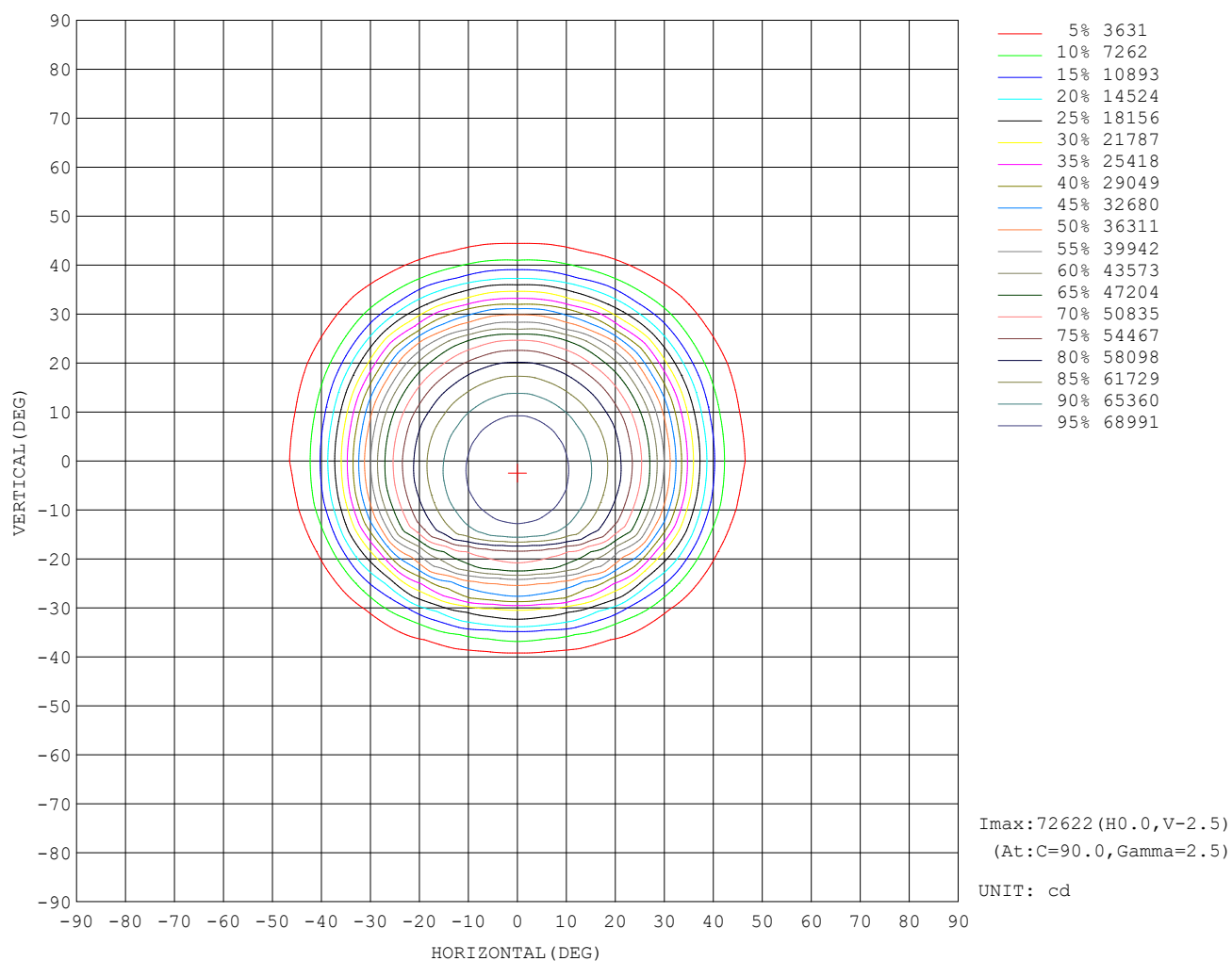
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	77	86	80	76	73
0.80	94	88	85	94	88	85	92	87	84	80
1.00	99	93	90	98	93	89	96	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	97	104	100	97	102	99	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	99
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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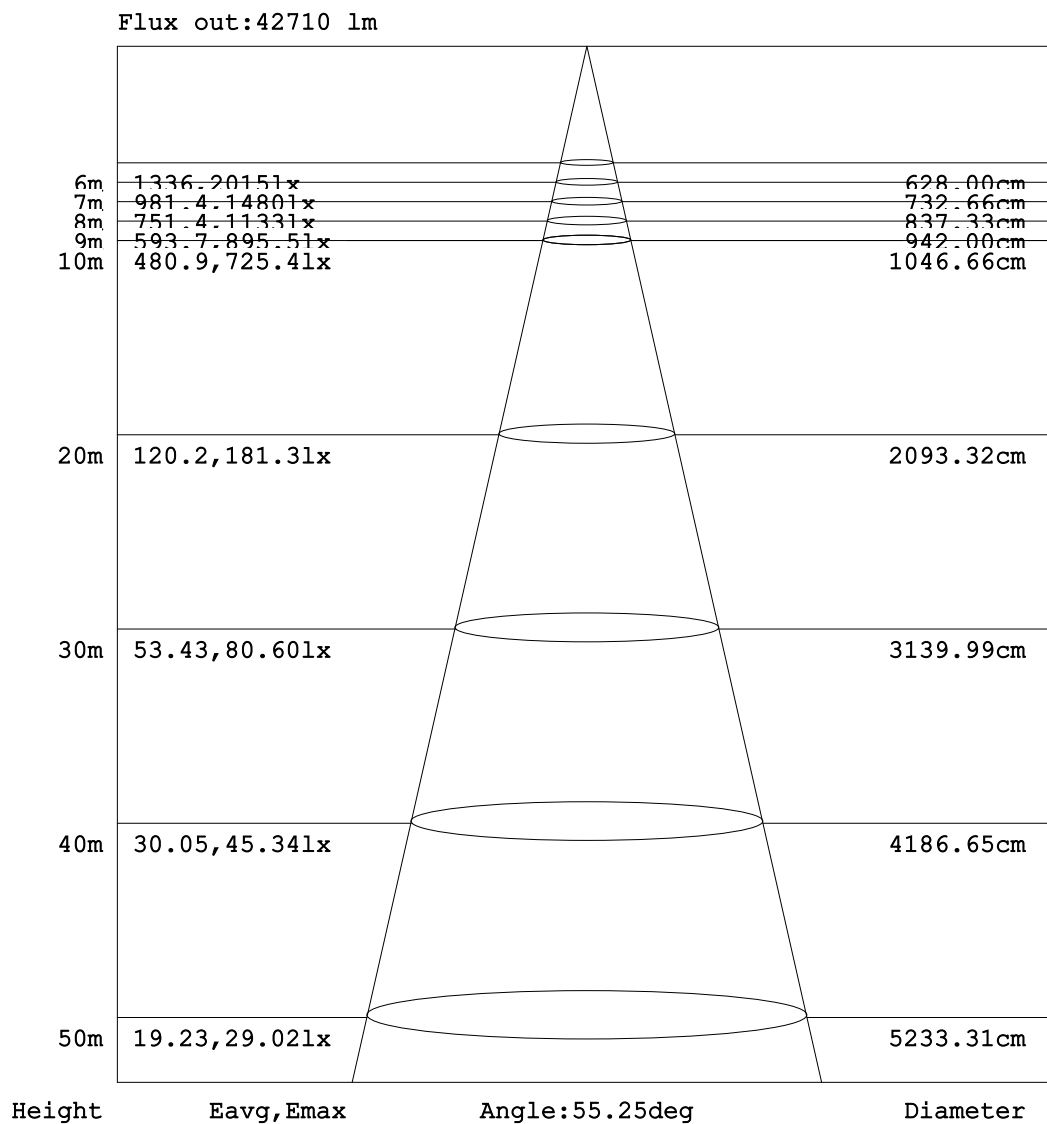
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Date: 2022-12-14

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Remarks:

AAI Figure



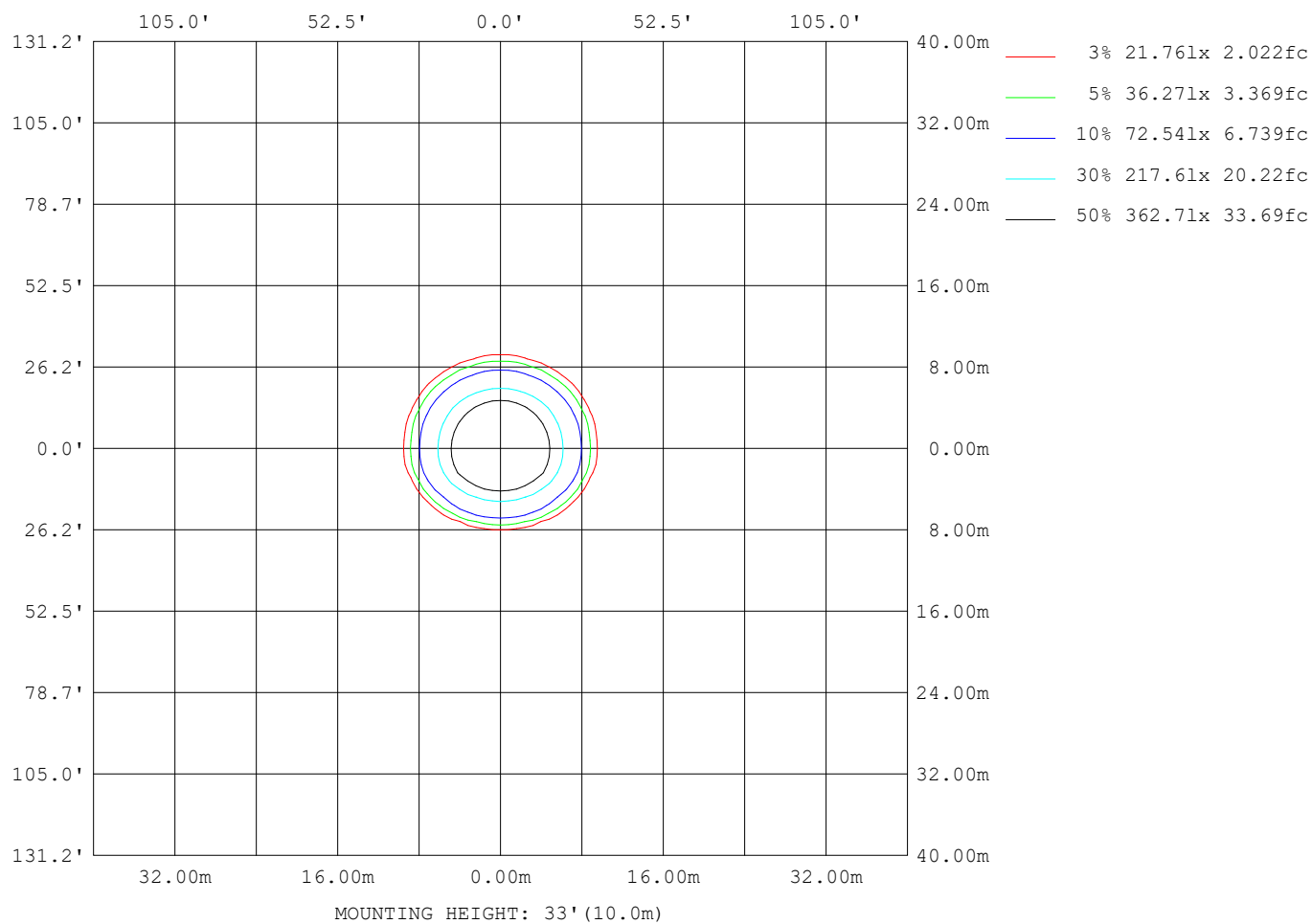
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
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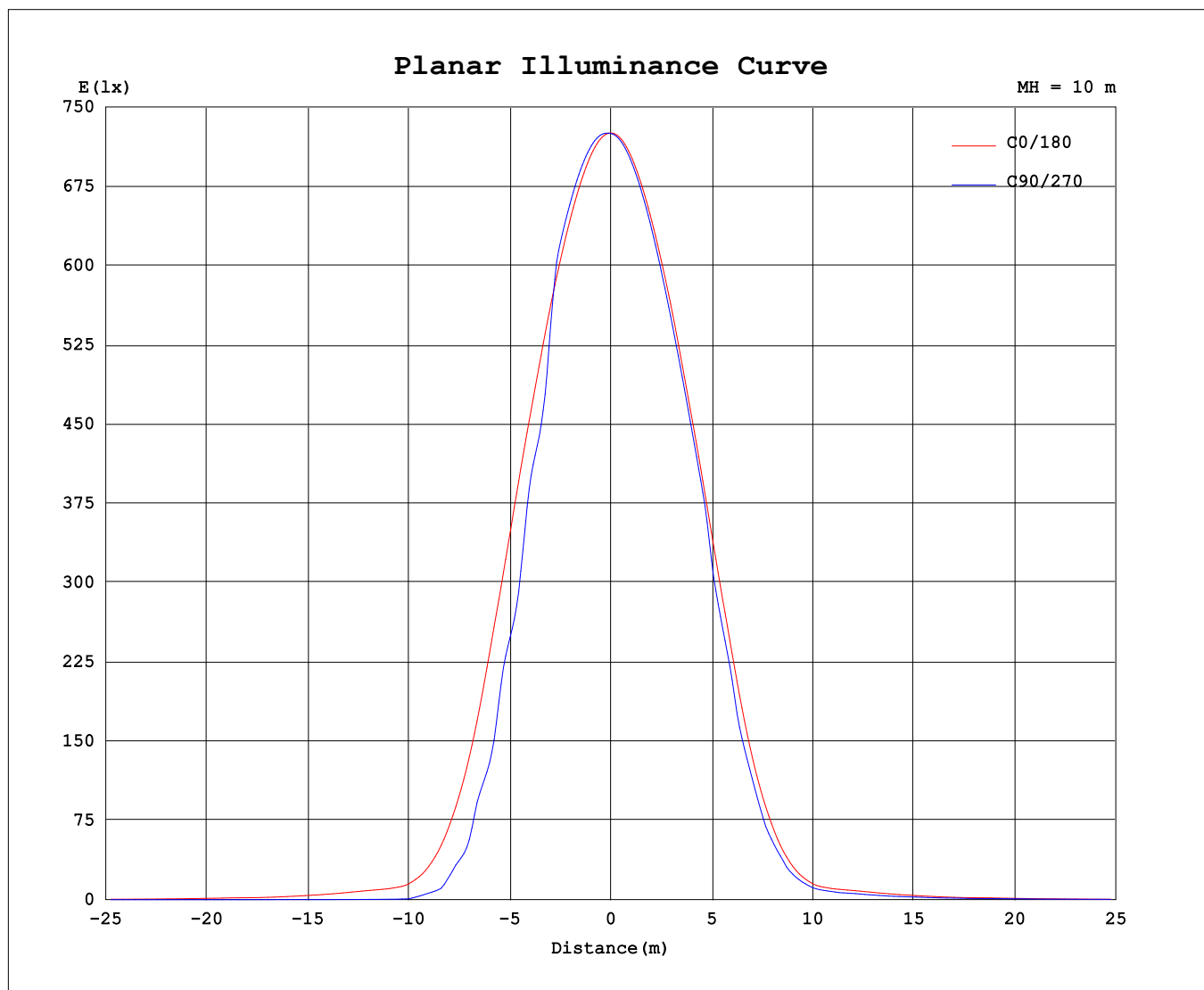
ISOLUX DIAGRAM



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Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-12-14

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γ Interval: 0.5DEG
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Remarks:

Planar Illuminance Curve



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