

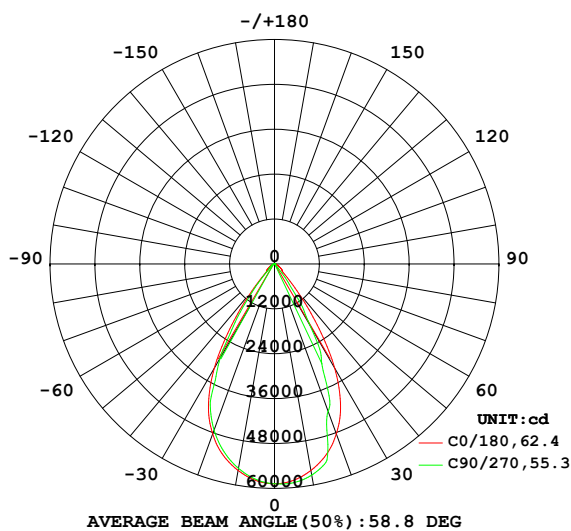
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

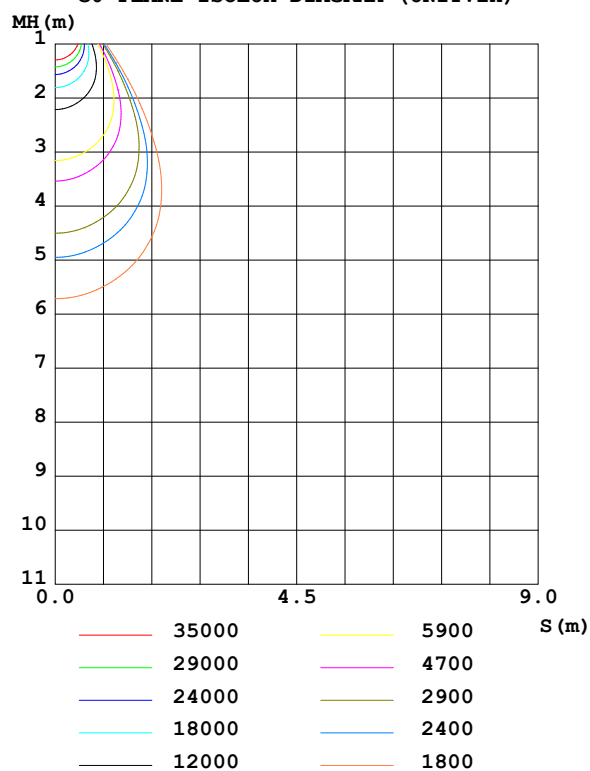
Test:U:230.0V I:1.787A P:400.0W PF:0.973 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:52183.6x1 lm		
NAME: SP04-400-5770-F04006Z+L130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.46 lm/W			
MODEL	/	I _{max} (cd)	58859	S/MH (C0/180)	0.92
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.88
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	52184	η UP, DN (C0-180)	0.0, 46.5
NOMINAL FLUX (lm)	52183.6	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	5605	5690	5730	5690	5605	5559	5547	5559	0- 10	5490	5490	10.5,10.5
20	4832	4880	4195	4880	4832	4742	4725	4742	10- 20	14742	20232	38.8,38.8
30	3224	2589	1888	2589	3224	3182	2908	3182	20- 30	17670	37902	72.6,72.6
40	930.1	525.1	196.4	525.1	930.1	878.2	749.3	878.2	30- 40	10386	48288	92.5,92.5
50	269.6	49.38	9.029	49.38	269.6	201.3	183.4	201.3	40- 50	2273	50561	96.9,96.9
60	131.7	4.485	4.075	4.485	131.7	108.8	87.85	108.8	50- 60	918.1	51479	98.6,98.6
70	53.17	2.289	1.835	2.289	53.17	54.67	40.13	54.67	60- 70	487.1	51966	99.6,99.6
80	9.187	0.8227	0.5636	0.8227	9.187	13.14	11.09	13.14	70- 80	185.7	52152	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	31.95	52184	100,100
100	0	0	0	0	0	0	0	0	90-100	0	52184	100,100
110	0	0	0	0	0	0	0	0	100-110	0	52184	100,100
120	0	0	0	0	0	0	0	0	110-120	0	52184	100,100
130	0	0	0	0	0	0	0	0	120-130	0	52184	100,100
140	0	0	0	0	0	0	0	0	130-140	0	52184	100,100
150	0	0	0	0	0	0	0	0	140-150	0	52184	100,100
160	0	0	0	0	0	0	0	0	150-160	0	52184	100,100
170	0	0	0	0	0	0	0	0	160-170	0	52184	100,100
180	0	0	0	0	0	0	0	0	170-180	0	52184	100,100
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

Conical surface Flux(90deg): 49855 lm

%lum = 95.5%

%lamp = 95.5%

Conical surface Flux(120deg): 51479 lm

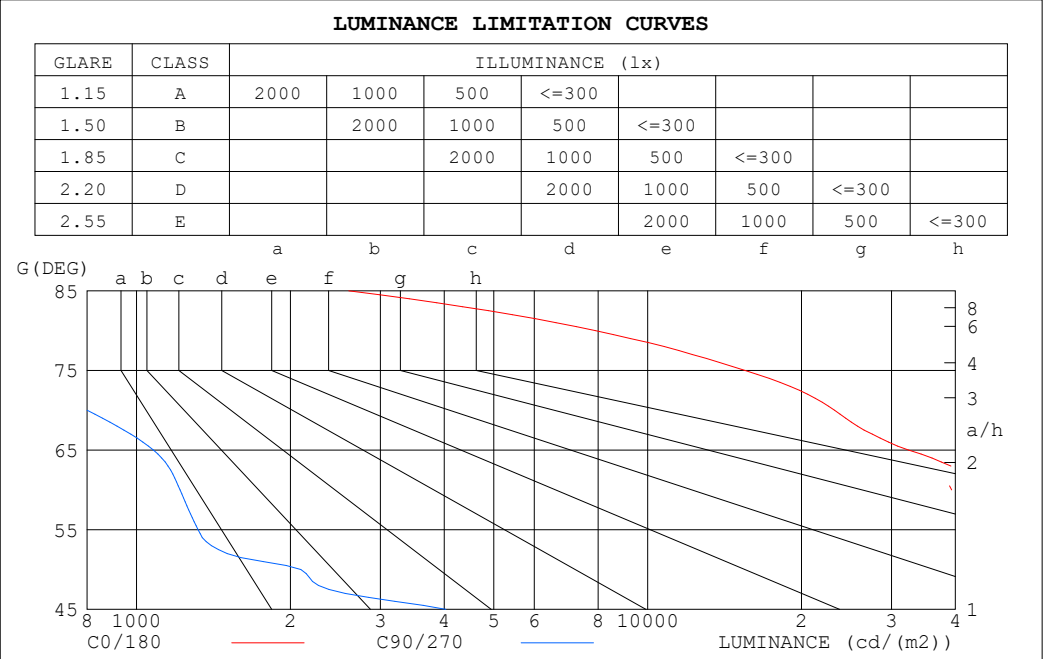
%lum = 98.6%

%lamp = 98.6%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3℃
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:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2601	436
80	7900	484
75	15513	586
70	23214	801
65	32407	1079
60	39334	1216
55	54205	1319
50	62623	2096
45	73009	4029

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3℃

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%

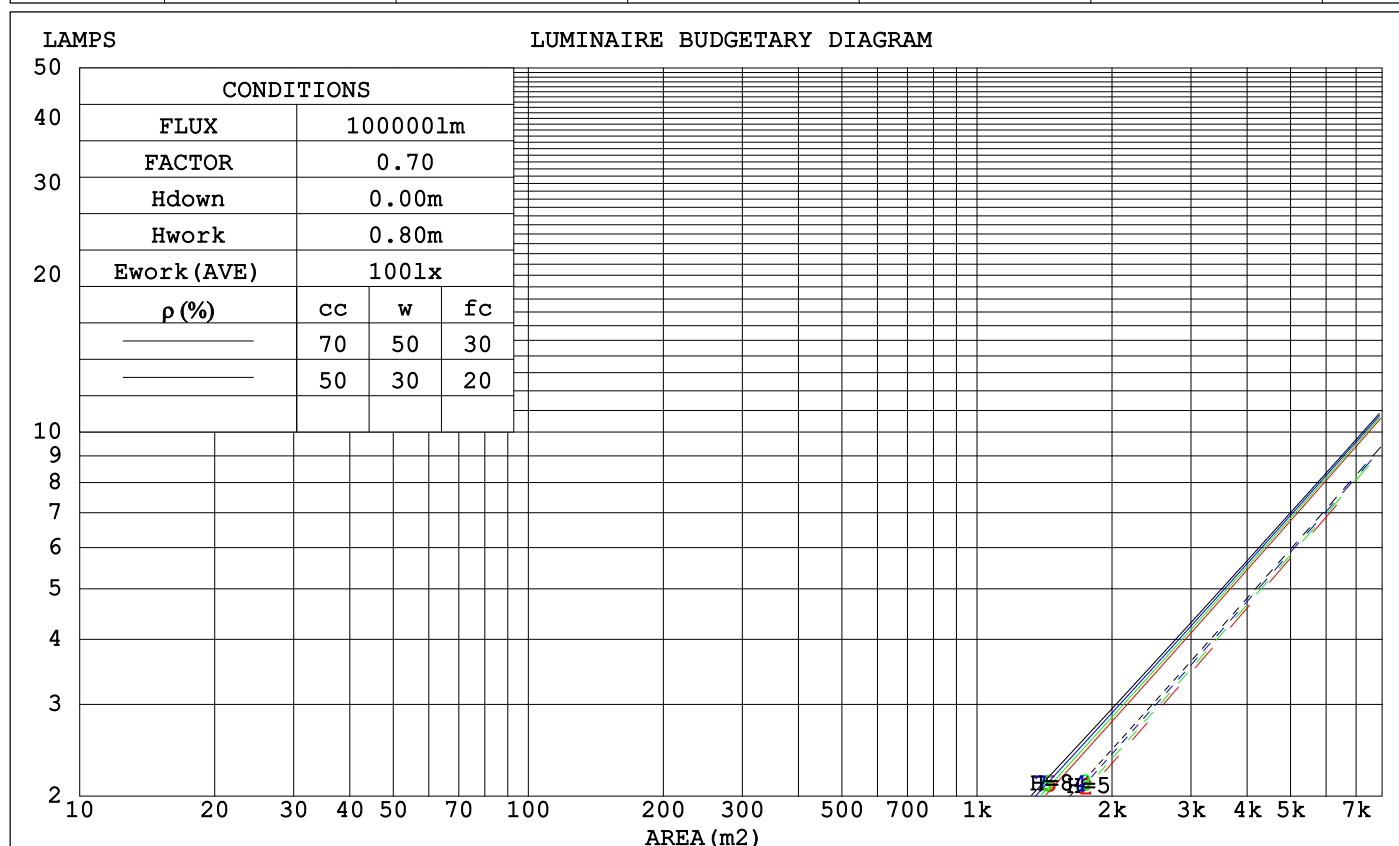
Test Distance:26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{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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 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 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
 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

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	17.2	16.6	17.5	17.9	13.7	13.7	13.7	13.7	13.7
3H	16.9	17.7	17.3	18.1	18.4	13.7	13.7	13.7	13.7	13.7
4H	16.9	17.7	17.3	18.1	18.5	13.7	13.7	13.7	13.7	13.7
6H	16.9	17.6	17.3	18.0	18.4	13.7	13.7	13.7	13.7	13.7
8H	16.8	17.5	17.3	17.9	18.3	13.7	13.7	13.7	13.7	13.7
12H	16.8	17.5	17.2	17.8	18.3	13.7	13.7	13.7	13.7	13.7
4H 2H	15.9	16.7	16.4	17.1	17.5	13.7	13.7	13.7	13.7	13.7
3H	16.6	17.2	17.0	17.6	18.0	13.7	13.7	13.7	13.7	13.7
4H	16.6	17.2	17.0	17.6	18.1	13.7	13.7	13.7	13.7	13.7
6H	16.6	17.1	17.0	17.5	18.0	13.7	13.7	13.7	13.7	13.7
8H	16.5	17.0	17.0	17.4	17.9	13.7	13.7	13.7	13.7	13.7
12H	16.4	16.8	16.9	17.3	17.8	13.7	13.7	13.7	13.7	13.7
8H 4H	16.4	16.9	16.9	17.3	17.8	13.7	13.7	13.7	13.7	13.7
6H	16.4	16.7	16.9	17.2	17.7	13.7	13.7	13.7	13.7	13.7
8H	16.3	16.6	16.8	17.2	17.7	13.7	13.7	13.7	13.7	13.7
12H	16.3	16.5	16.8	17.0	17.6	13.7	13.7	13.7	13.7	13.7
12H 4H	16.4	16.8	16.9	17.2	17.7	13.7	13.7	13.7	13.7	13.7
6H	16.3	16.6	16.8	17.1	17.6	13.7	13.7	13.7	13.7	13.7
8H	16.3	16.5	16.8	17.0	17.6	13.7	13.7	13.7	13.7	13.7
CIE190: 2010										

CIE190: 2010
Area: 0.067 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
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Temperature:25.3℃
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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

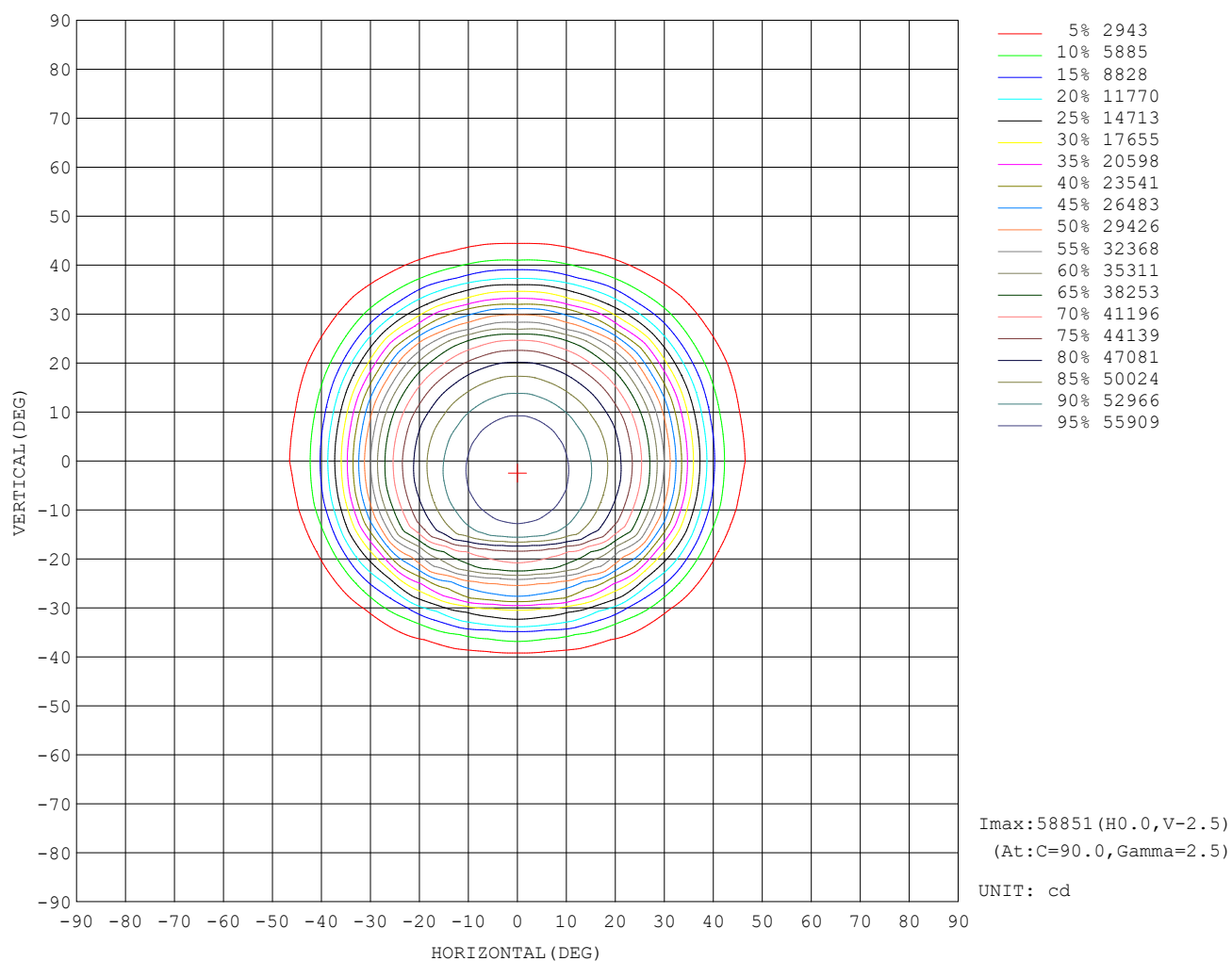
UTILIZATION FACTORS TABLE

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%
 Test Distance: 26.000m [K=0.4548]
 Remarks:

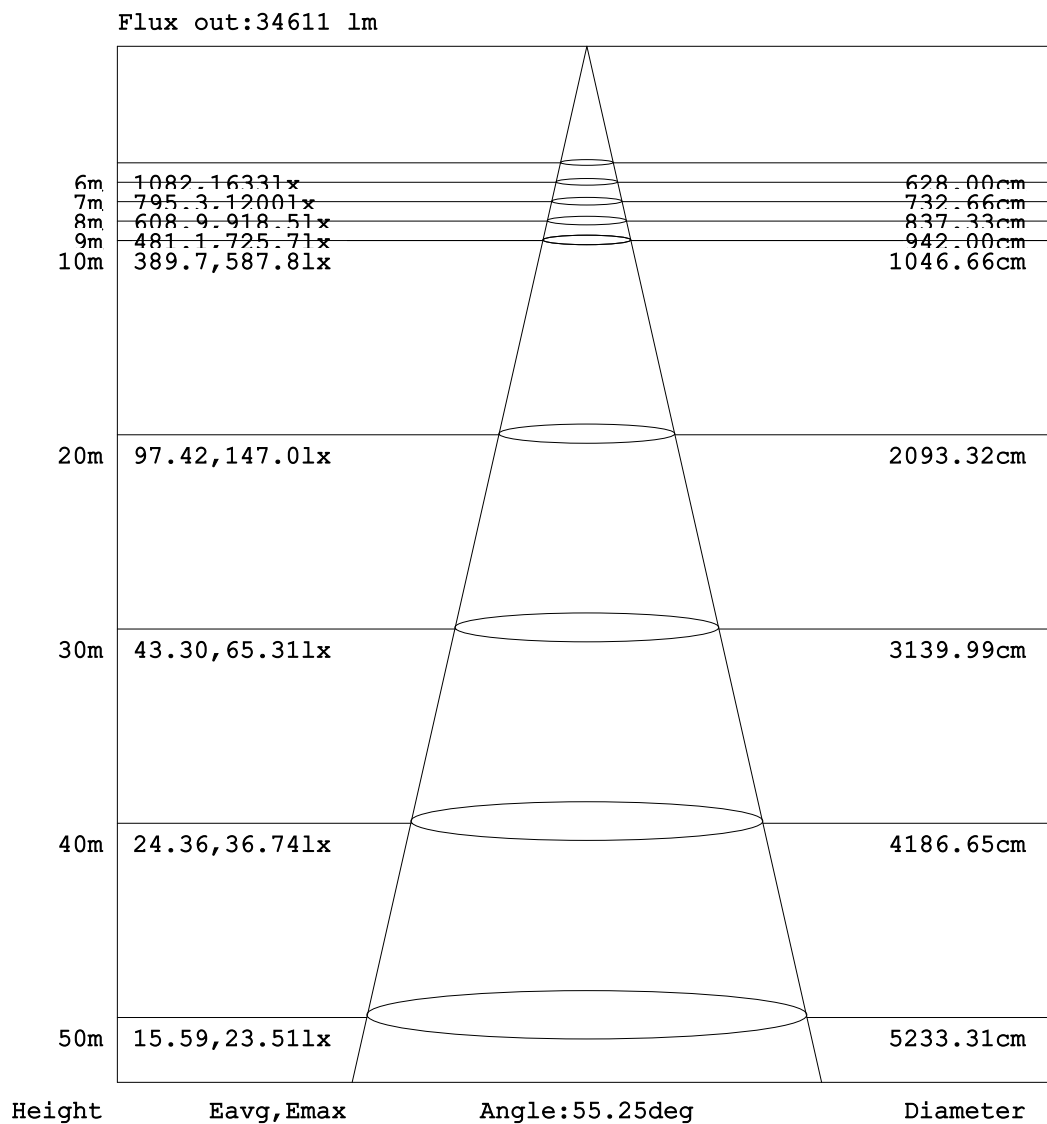
ISOCANDELA DIAGRAM



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:

AAI Figure



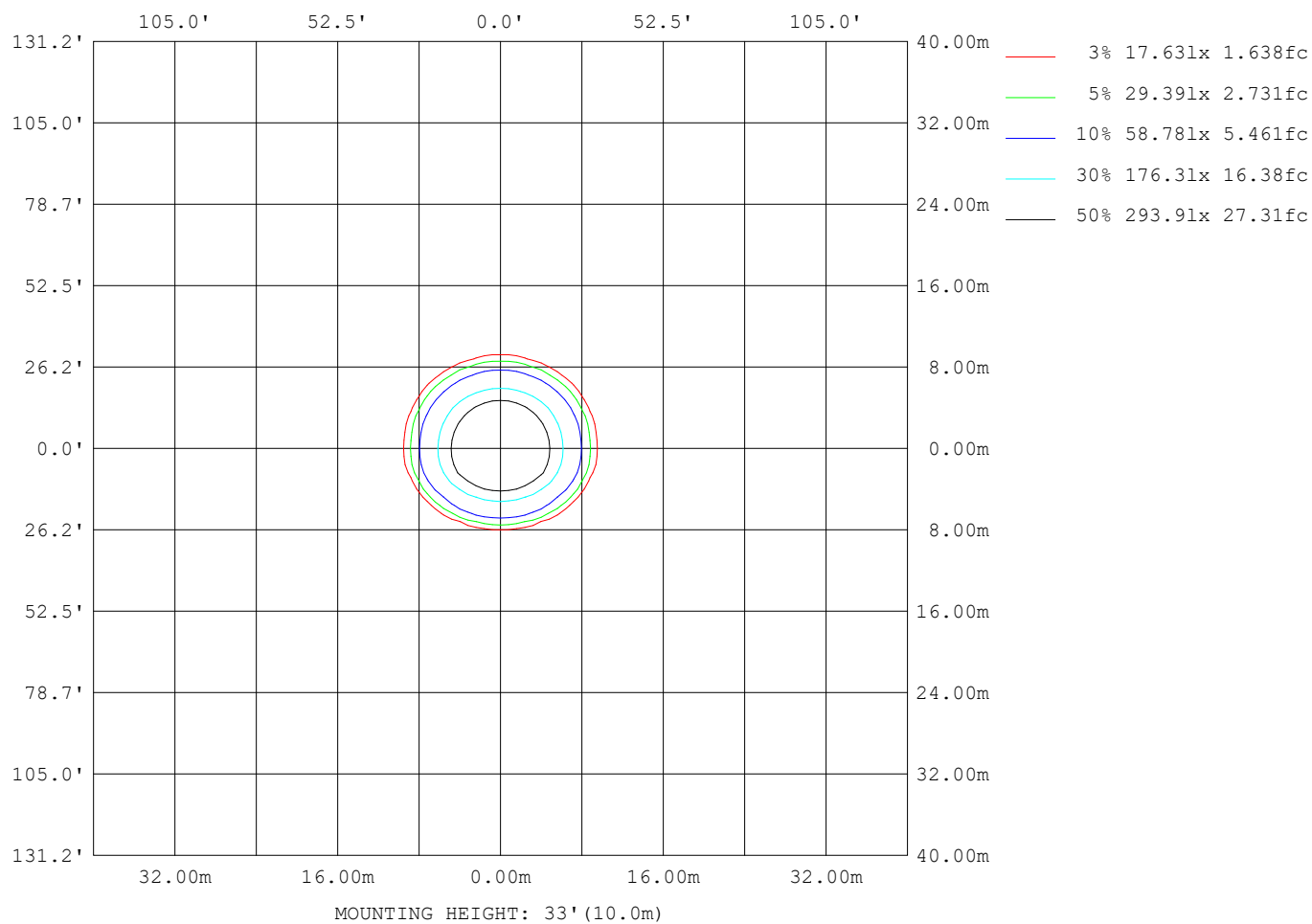
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 10.0DEG
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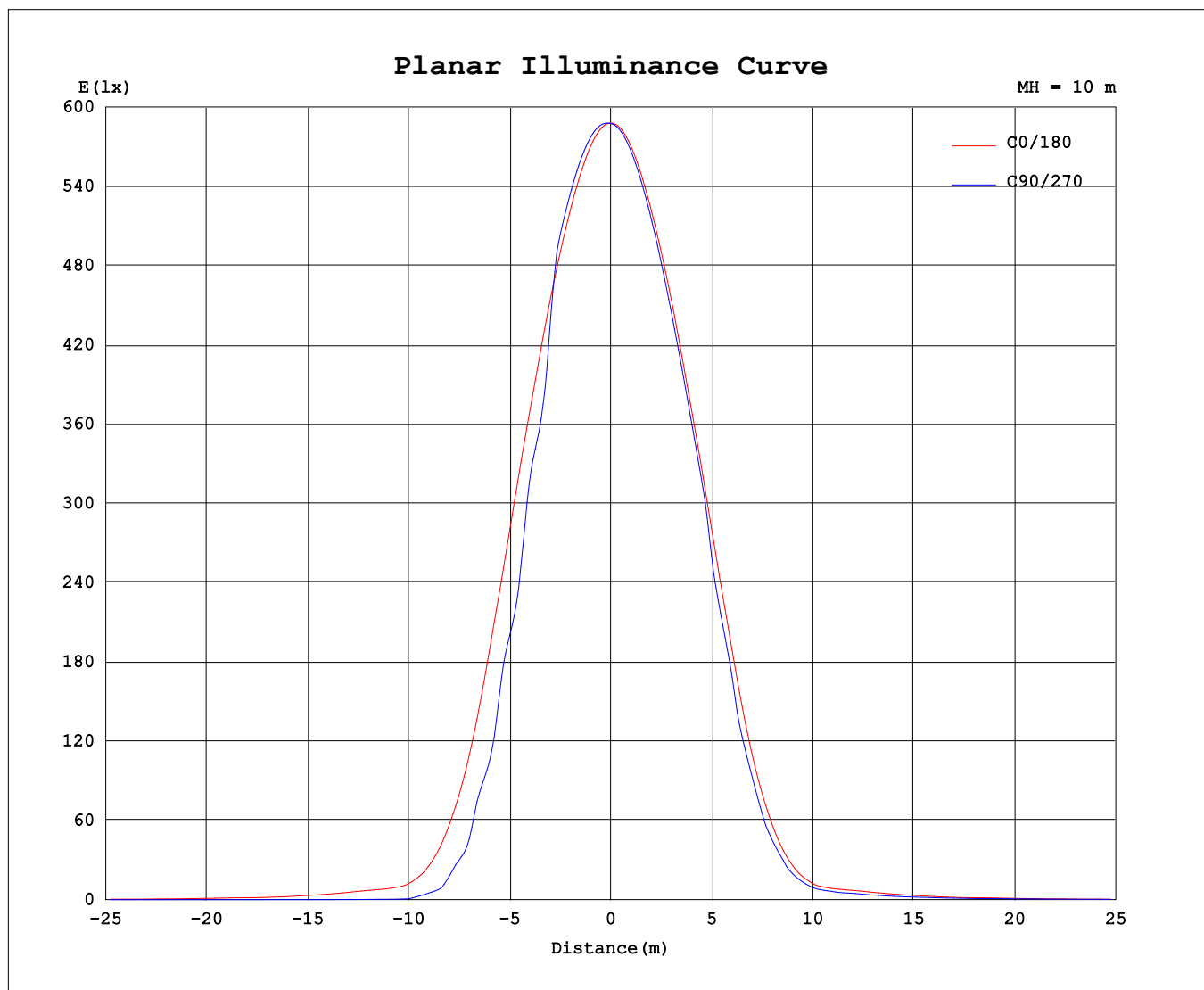
ISOLUX DIAGRAM



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:

Planar Illuminance Curve



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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: