

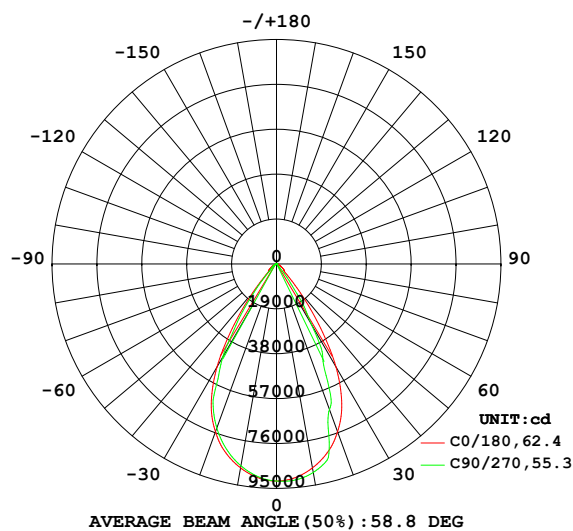
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

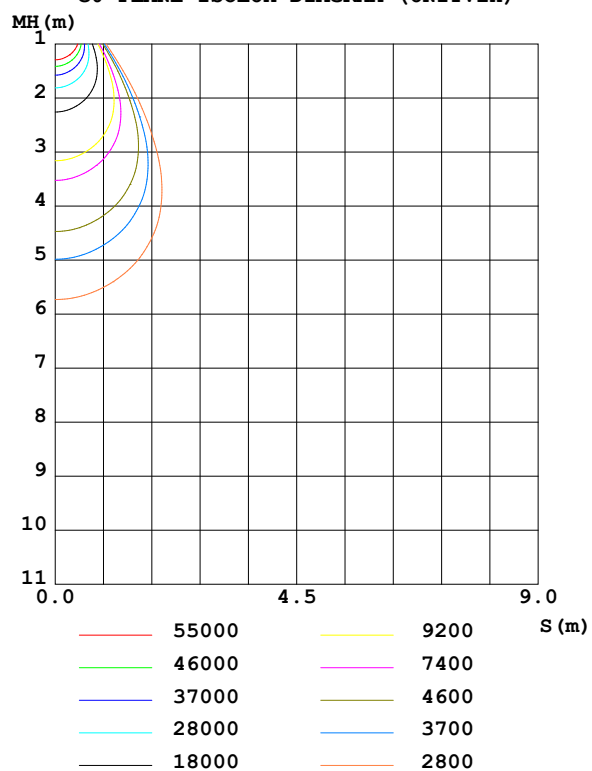
Test:U:230.0V I:2.665A P:600.0W PF:0.979 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:81599.1x1 lm		
NAME: SP04-600-5770-F04006Z+L130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 136.00 lm/W			
MODEL	/	I _{max} (cd)	92037	S/MH (C0/180)	0.92
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.88
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	81599	η UP, DN (C0-180)	0.0, 46.5
NOMINAL FLUX (lm)	81599.1	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	8765	8897	8960	8897	8765	8693	8674	8693	0- 10	8585	8585	10.5,10.5
20	7556	7631	6560	7631	7556	7416	7388	7416	10- 20	23052	31637	38.8,38.8
30	5041	4048	2952	4048	5041	4976	4547	4976	20- 30	27630	59268	72.6,72.6
40	1454	821.1	307.1	821.1	1454	1373	1172	1373	30- 40	16240	75508	92.5,92.5
50	421.5	77.22	14.12	77.22	421.5	314.8	286.7	314.8	40- 50	3554	79061	96.9,96.9
60	205.9	7.014	6.373	7.014	205.9	170.1	137.4	170.1	50- 60	1436	80497	98.6,98.6
70	83.14	3.579	2.869	3.579	83.14	85.49	62.75	85.49	60- 70	761.7	81259	99.6,99.6
80	14.36	1.286	0.8812	1.286	14.36	20.55	17.34	20.55	70- 80	290.4	81549	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	49.96	81599	100,100
100	0	0	0	0	0	0	0	0	90-100	0	81599	100,100
110	0	0	0	0	0	0	0	0	100-110	0	81599	100,100
120	0	0	0	0	0	0	0	0	110-120	0	81599	100,100
130	0	0	0	0	0	0	0	0	120-130	0	81599	100,100
140	0	0	0	0	0	0	0	0	130-140	0	81599	100,100
150	0	0	0	0	0	0	0	0	140-150	0	81599	100,100
160	0	0	0	0	0	0	0	0	150-160	0	81599	100,100
170	0	0	0	0	0	0	0	0	160-170	0	81599	100,100
180	0	0	0	0	0	0	0	0	170-180	0	81599	100,100
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

Conical surface Flux(90deg): 77957 lm

%lum = 95.5%

%lamp = 95.5%

Conical surface Flux(120deg): 80497 lm

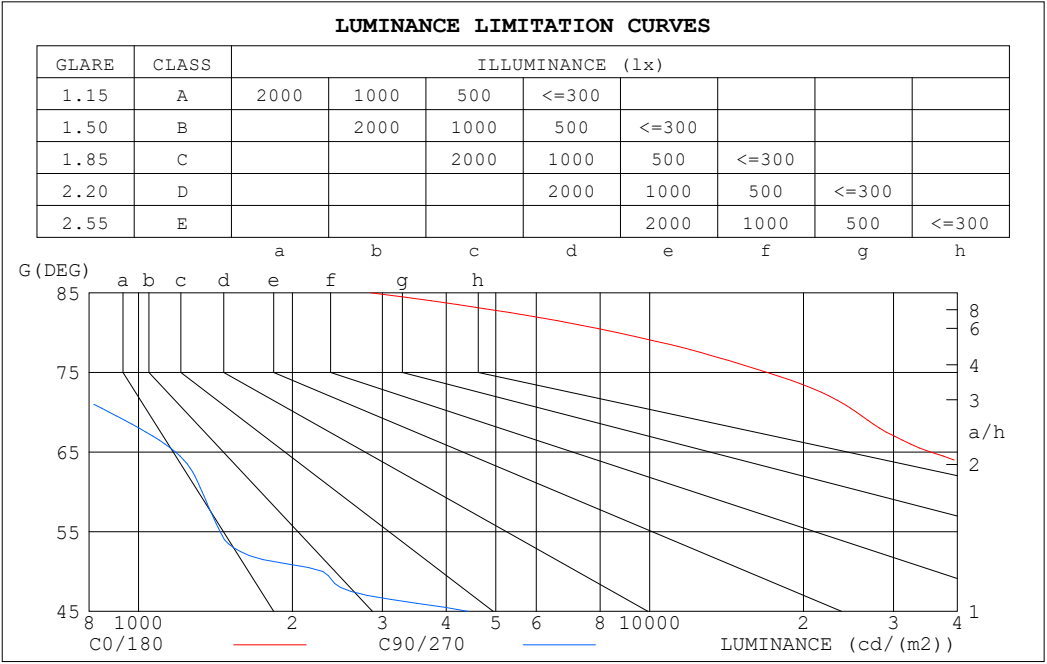
%lum = 98.6%

%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	2847	477
80	8649	530
75	16983	641
70	25413	876
65	35478	1182
60	43061	1332
55	59341	1444
50	68557	2295
45	79927	4410

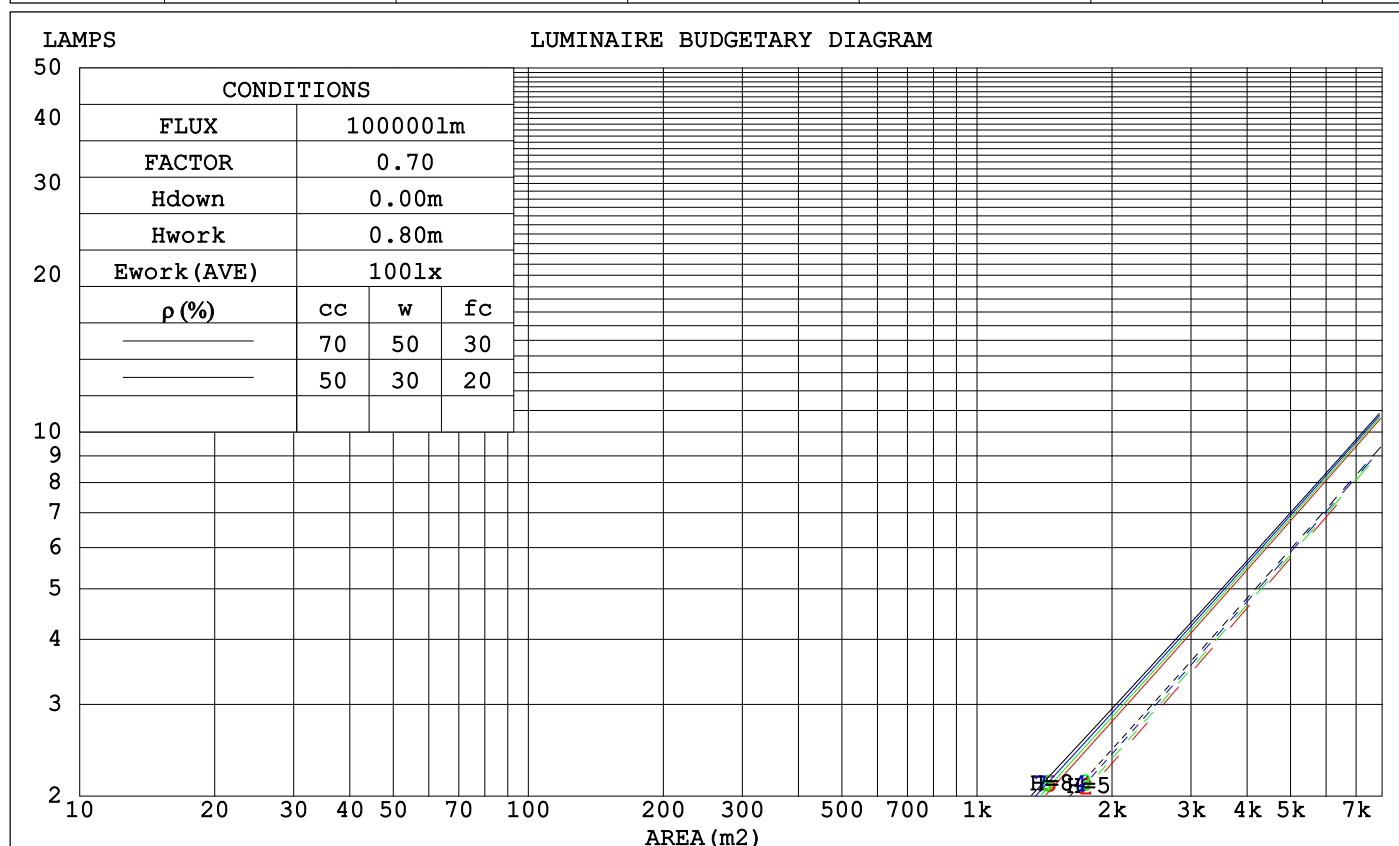
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Remarks:

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	1.08	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	16.6	17.6	16.9	17.9	18.2	15.3	15.3	15.3	15.3	15.3
3H	17.2	18.1	17.6	18.4	18.8	15.3	15.3	15.3	15.3	15.3
4H	17.3	18.1	17.7	18.4	18.8	15.3	15.3	15.3	15.3	15.3
6H	17.2	17.9	17.6	18.3	18.7	15.3	15.3	15.3	15.3	15.3
8H	17.2	17.9	17.6	18.2	18.7	15.3	15.3	15.3	15.3	15.3
12H	17.1	17.8	17.5	18.1	18.6	15.3	15.3	15.3	15.3	15.3
4H 2H	16.3	17.1	16.7	17.4	17.8	15.3	15.3	15.3	15.3	15.3
3H	16.9	17.5	17.3	17.9	18.3	15.3	15.3	15.3	15.3	15.3
4H	16.9	17.5	17.4	17.9	18.4	15.3	15.3	15.3	15.3	15.3
6H	16.9	17.4	17.4	17.8	18.3	15.3	15.3	15.3	15.3	15.3
8H	16.8	17.3	17.3	17.7	18.2	15.3	15.3	15.3	15.3	15.3
12H	16.8	17.2	17.3	17.6	18.1	15.3	15.3	15.3	15.3	15.3
8H 4H	16.7	17.2	17.2	17.7	18.1	15.3	15.3	15.3	15.3	15.3
6H	16.7	17.0	17.2	17.6	18.0	15.3	15.3	15.3	15.3	15.3
8H	16.6	16.9	17.2	17.5	18.0	15.3	15.3	15.3	15.3	15.3
12H	16.6	16.9	17.1	17.4	17.9	15.3	15.3	15.3	15.3	15.3
12H 4H	16.7	17.1	17.2	17.6	18.0	15.3	15.3	15.3	15.3	15.3
6H	16.6	16.9	17.2	17.4	18.0	15.3	15.3	15.3	15.3	15.3
8H	16.6	16.8	17.1	17.3	17.9	15.3	15.3	15.3	15.3	15.3
CIE190: 2010										

CIE190: 2010
Area: 0.0957 m2

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

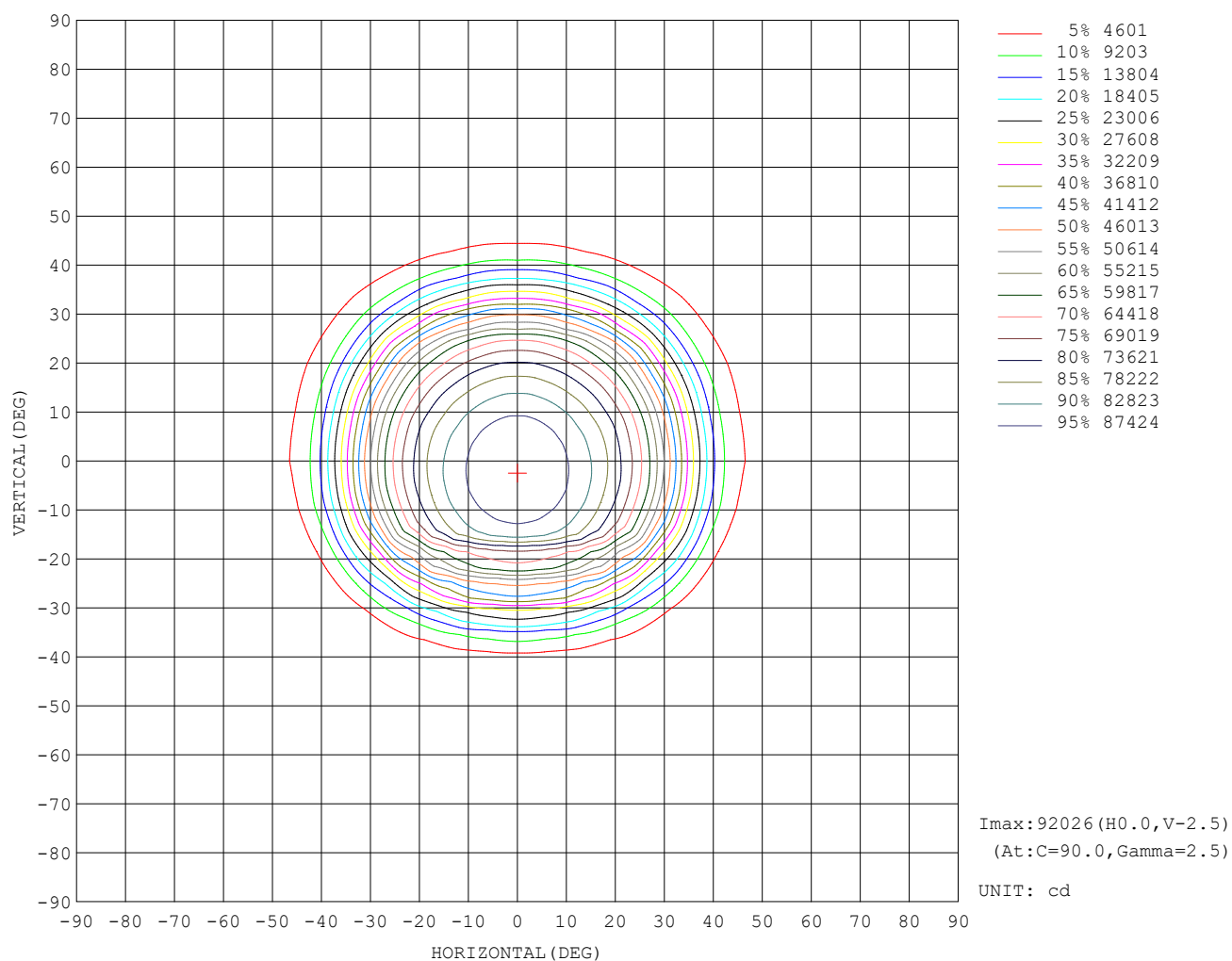
UTILIZATION FACTORS TABLE

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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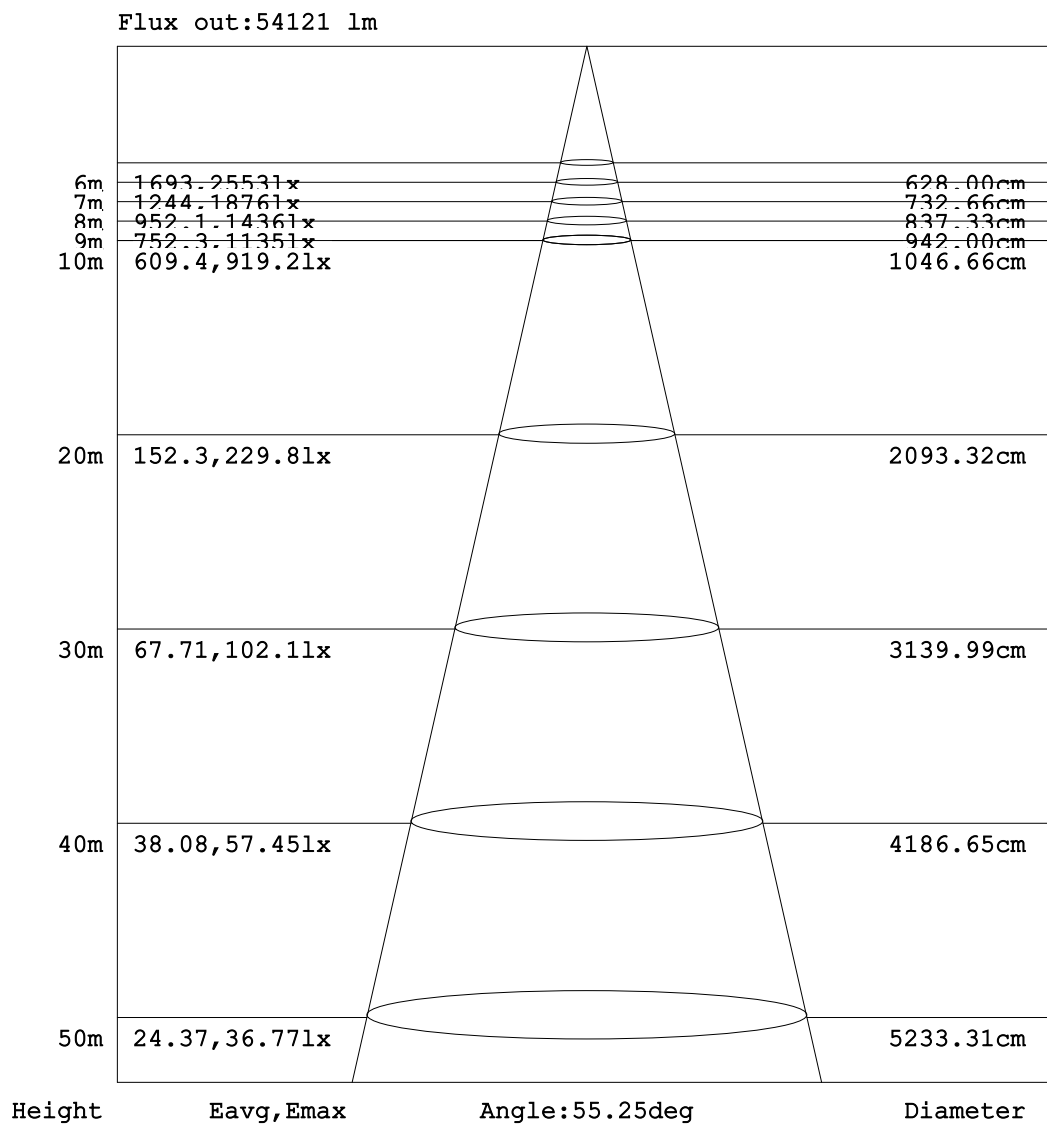
ISOCANDELA DIAGRAM



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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
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Humidity: 65.0%
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Remarks:

AAI Figure



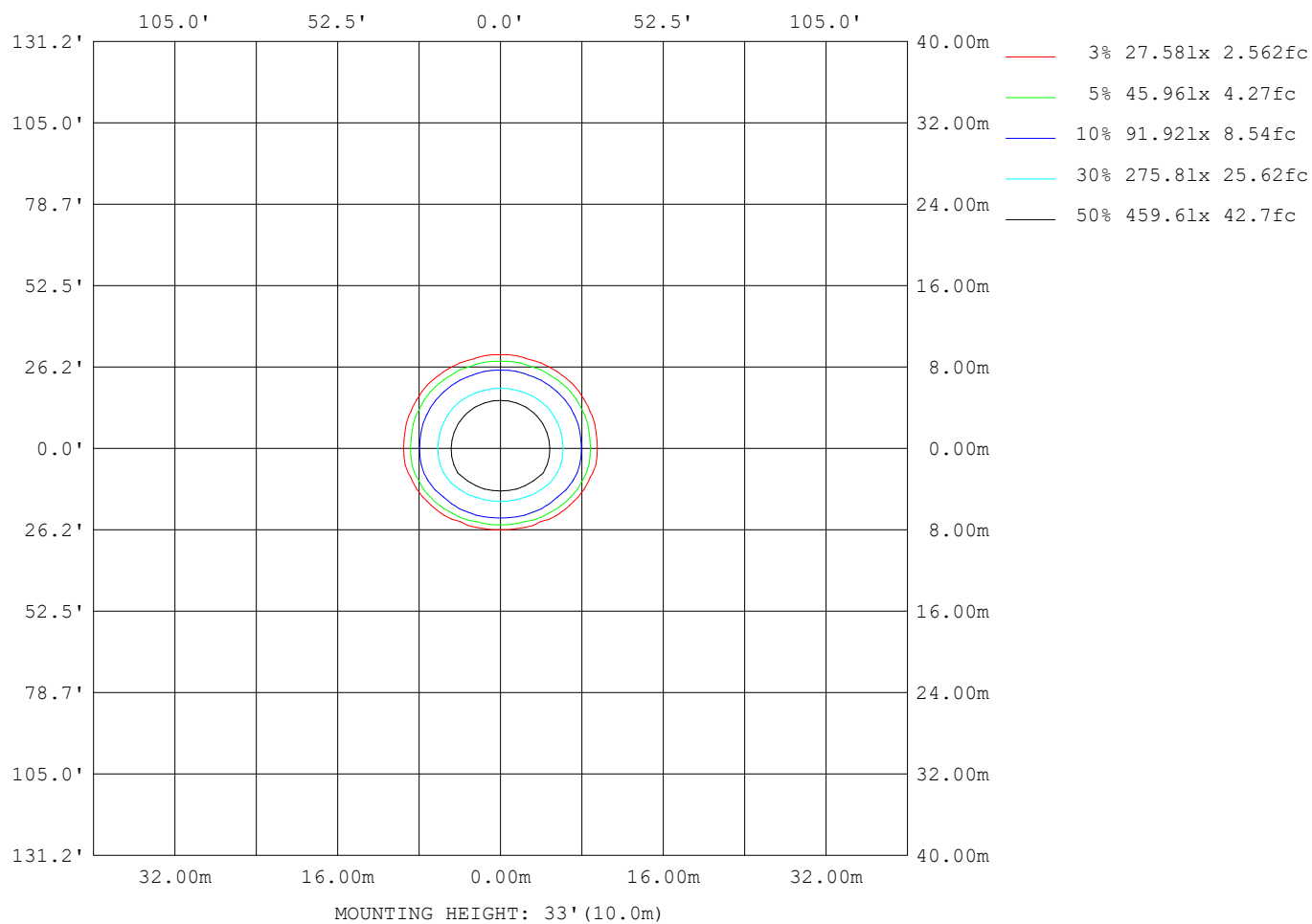
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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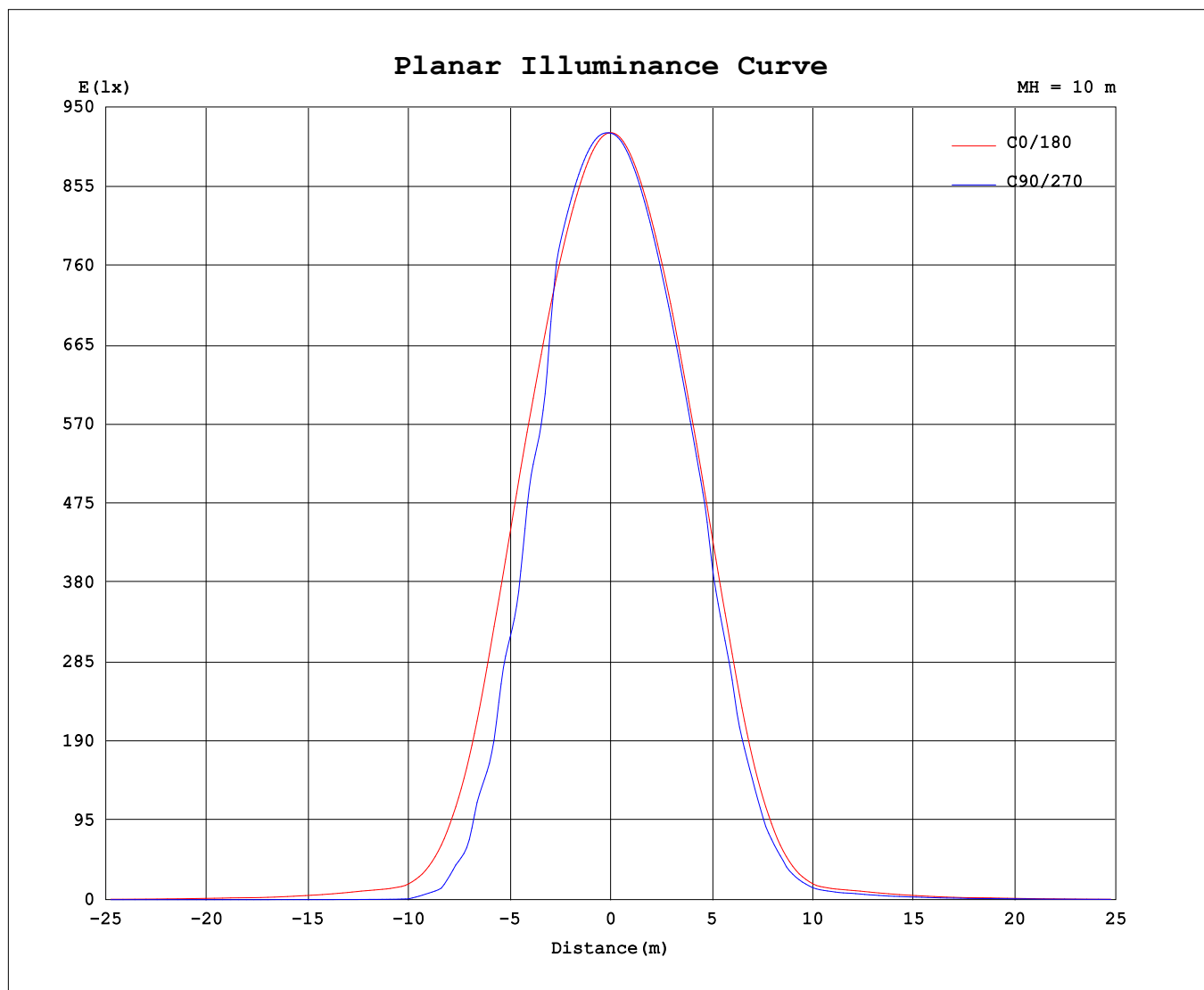
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-12-14

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
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Test Distance: 26.000m [K=0.4548]
Remarks:

Planar Illuminance Curve



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