

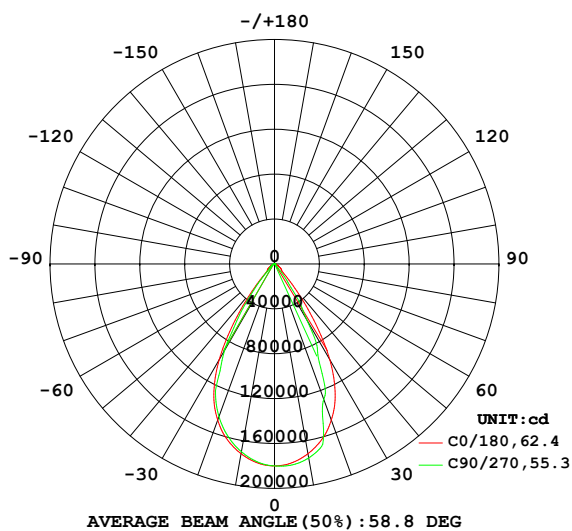
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.0V I:5.324A P:1200.0W PF:0.980 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:159839x1 lm		
NAME: SP04-1K2-5770-F04006Z+L130	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

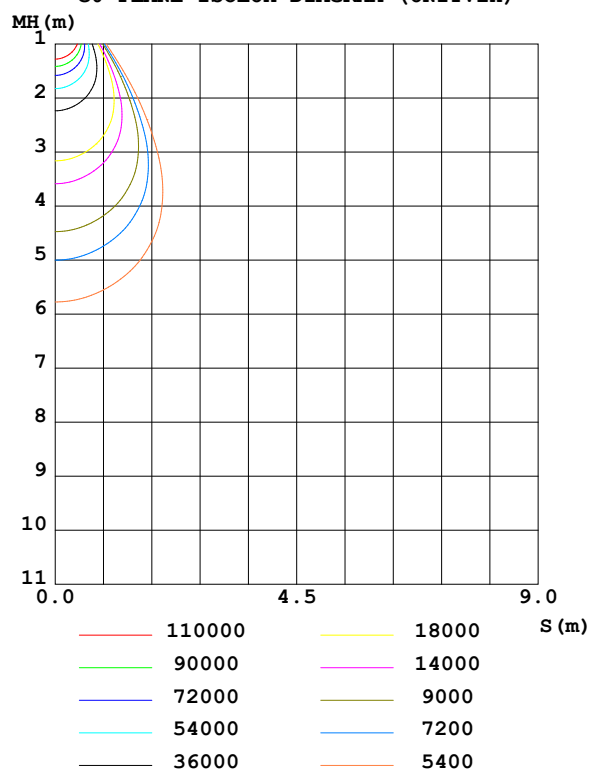
DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.20 lm/W			
MODEL	/	I _{max} (cd)	180285	S/MH (C0/180)	0.92
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.88
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	159839	η UP,DN (C0-180)	0.0,46.5
NOMINAL FLUX (lm)	159839	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,53.5
LAMPS INSIDE	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



AVERAGE BEAM ANGLE (50%): 58.8 DEG

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	1717	1743	1755	1743	1717	1703	1699	1703	0- 10	16817	16817	10.5,10.5
20	1480	1495	1285	1495	1480	1453	1447	1453	10- 20	45155	61972	38.8,38.8
30	987.5	793.0	578.2	793.0	987.5	974.7	890.6	974.7	20- 30	54123	116095	72.6,72.6
40	284.9	160.8	60.16	160.8	284.9	269.0	229.5	269.0	30- 40	31812	147907	92.5,92.5
50	82.57	15.13	2.766	15.13	82.57	61.67	56.17	61.67	40- 50	6961	154868	96.9,96.9
60	40.34	1.374	1.248	1.374	40.34	33.33	26.91	33.33	50- 60	2812	157680	98.6,98.6
70	16.29	0.7010	0.5620	0.7010	16.29	16.75	12.29	16.75	60- 70	1492	159172	99.6,99.6
80	2.814	0.2520	0.1726	0.2520	2.814	4.026	3.397	4.026	70- 80	568.9	159741	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	97.85	159839	100,100
100	0	0	0	0	0	0	0	0	90-100	0	159839	100,100
110	0	0	0	0	0	0	0	0	100-110	0	159839	100,100
120	0	0	0	0	0	0	0	0	110-120	0	159839	100,100
130	0	0	0	0	0	0	0	0	120-130	0	159839	100,100
140	0	0	0	0	0	0	0	0	130-140	0	159839	100,100
150	0	0	0	0	0	0	0	0	140-150	0	159839	100,100
160	0	0	0	0	0	0	0	0	150-160	0	159839	100,100
170	0	0	0	0	0	0	0	0	160-170	0	159839	100,100
180	0	0	0	0	0	0	0	0	170-180	0	159839	100,100
DEG	LUMINOUS INTENSITY:X100cd									UNIT:lm		

Conical surface Flux(90deg): 1.5271e+005 lm

%lum = 95.5%

%lamp = 95.5%

Conical surface Flux(120deg): 1.5768e+005 lm

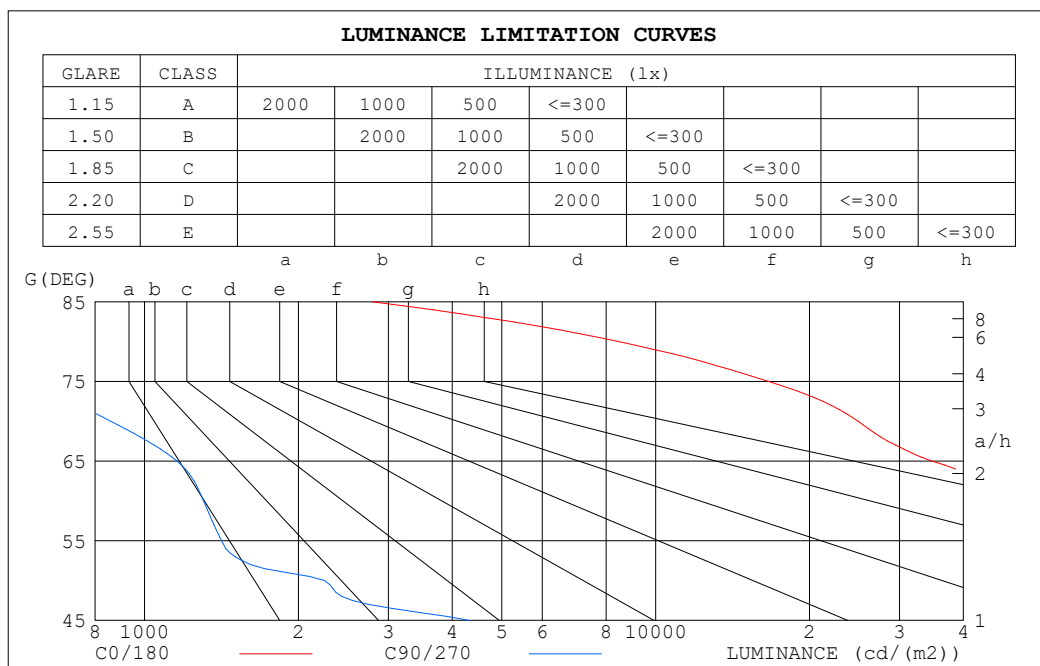
%lum = 98.6%

%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	2789	467
80	8471	519
75	16633	628
70	24890	858
65	34748	1157
60	42175	1304
55	58119	1415
50	67146	2248
45	78282	4319

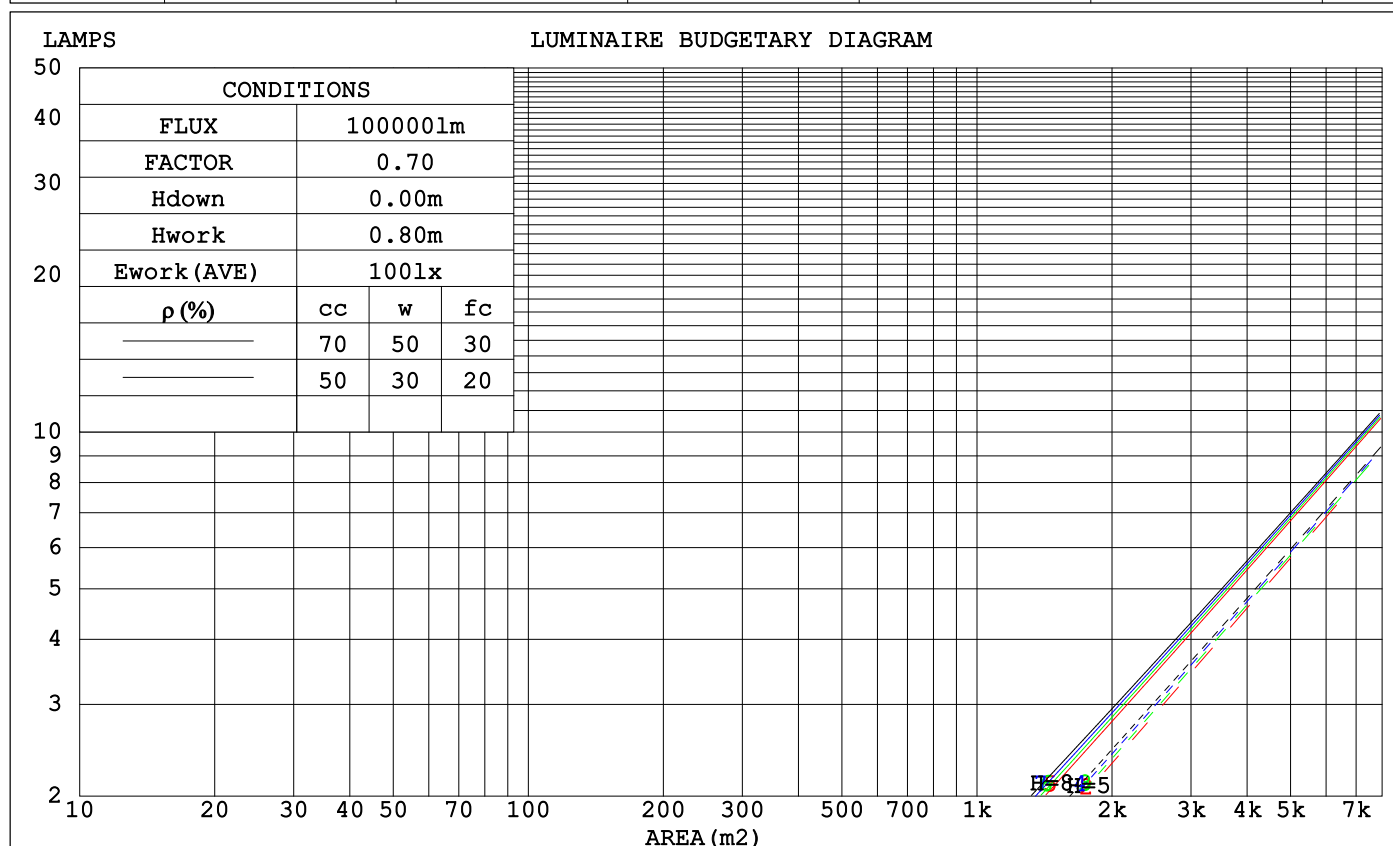
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Test Distance: 26.000m [K=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
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 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:

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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	17.6	17.6	17.6	17.8	18.1	17.6	17.6	17.6	17.6	17.6
3H	17.6	18.0	17.6	18.3	18.7	17.6	17.6	17.6	17.6	17.6
4H	17.6	18.0	17.6	18.3	18.7	17.6	17.6	17.6	17.6	17.6
6H	17.6	17.9	17.6	18.2	18.6	17.6	17.6	17.6	17.6	17.6
8H	17.6	17.8	17.6	18.2	18.6	17.6	17.6	17.6	17.6	17.6
12H	17.6	17.7	17.6	18.1	18.5	17.6	17.6	17.6	17.6	17.6
4H 2H	17.6	17.6	17.6	17.6	17.7	17.6	17.6	17.6	17.6	17.6
3H	17.6	17.6	17.6	17.9	18.3	17.6	17.6	17.6	17.6	17.6
4H	17.6	17.6	17.6	17.9	18.3	17.6	17.6	17.6	17.6	17.6
6H	17.6	17.6	17.6	17.8	18.2	17.6	17.6	17.6	17.6	17.6
8H	17.6	17.6	17.6	17.7	18.1	17.6	17.6	17.6	17.6	17.6
12H	17.6	17.6	17.6	17.6	18.1	17.6	17.6	17.6	17.6	17.6
8H 4H	17.6	17.6	17.6	17.6	18.1	17.6	17.6	17.6	17.6	17.6
6H	17.6	17.6	17.6	17.6	18.0	17.6	17.6	17.6	17.6	17.6
8H	17.6	17.6	17.6	17.6	17.9	17.6	17.6	17.6	17.6	17.6
12H	17.6	17.6	17.6	17.6	17.9	17.6	17.6	17.6	17.6	17.6
12H 4H	17.6	17.6	17.6	17.6	18.0	17.6	17.6	17.6	17.6	17.6
6H	17.6	17.6	17.6	17.6	17.9	17.6	17.6	17.6	17.6	17.6
8H	17.6	17.6	17.6	17.6	17.9	17.6	17.6	17.6	17.6	17.6

CIE190: 2010

CIE190: 2010
Area: 0.1914 m2

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

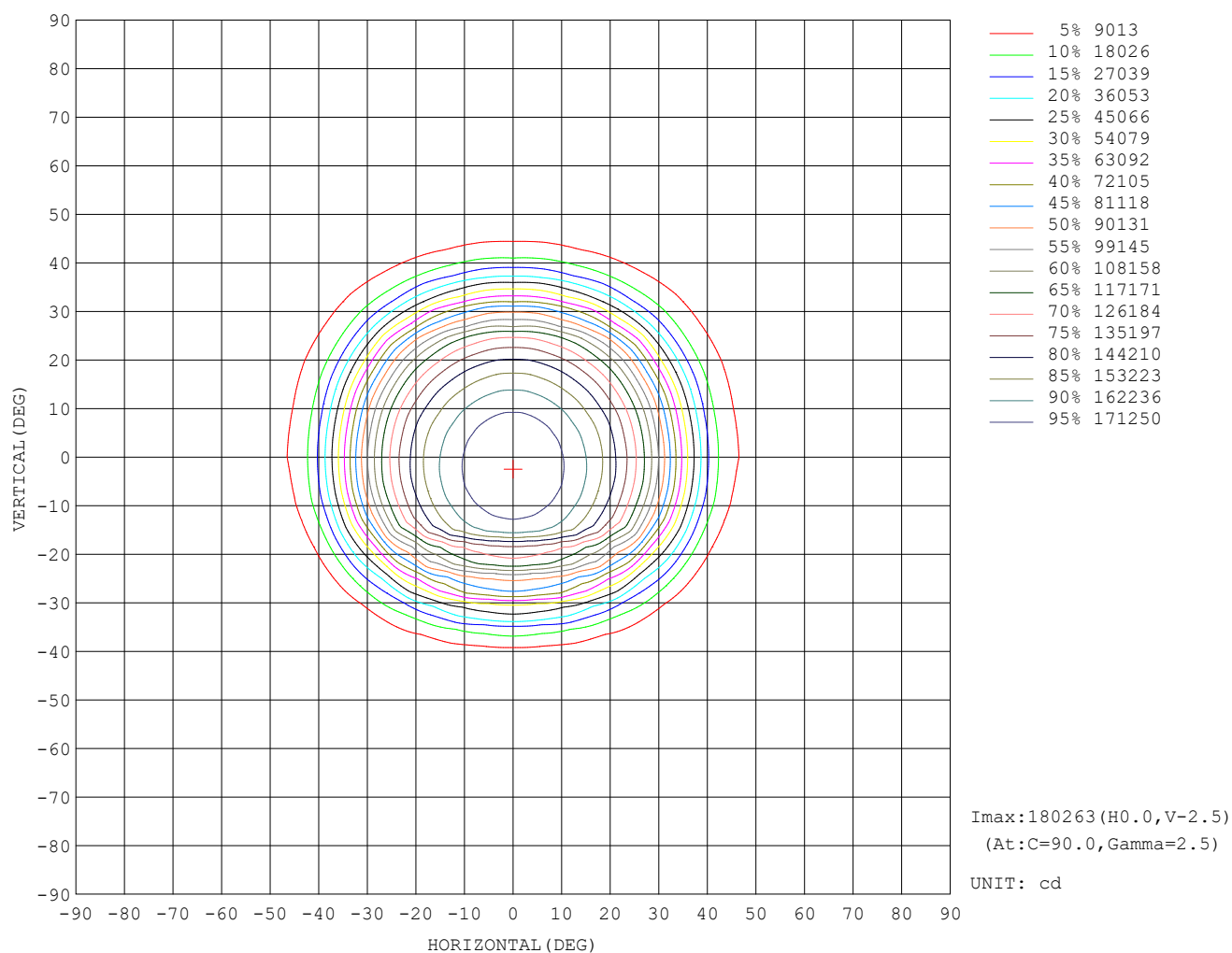
UTILIZATION FACTORS TABLE

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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 C Interval: 10.0DEG
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 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity: 65.0%
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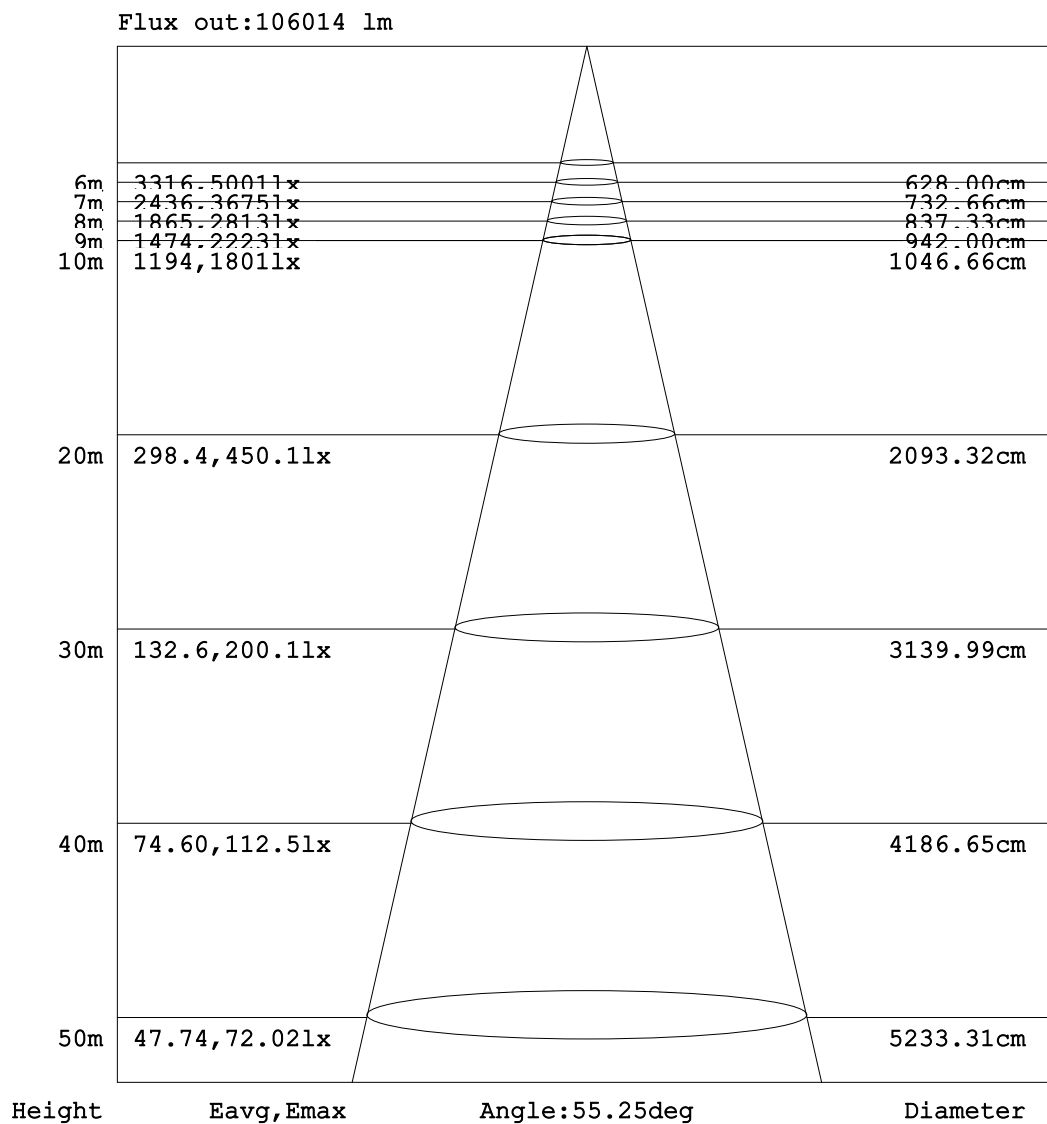
ISOCANDELA DIAGRAM



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

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

AAI Figure



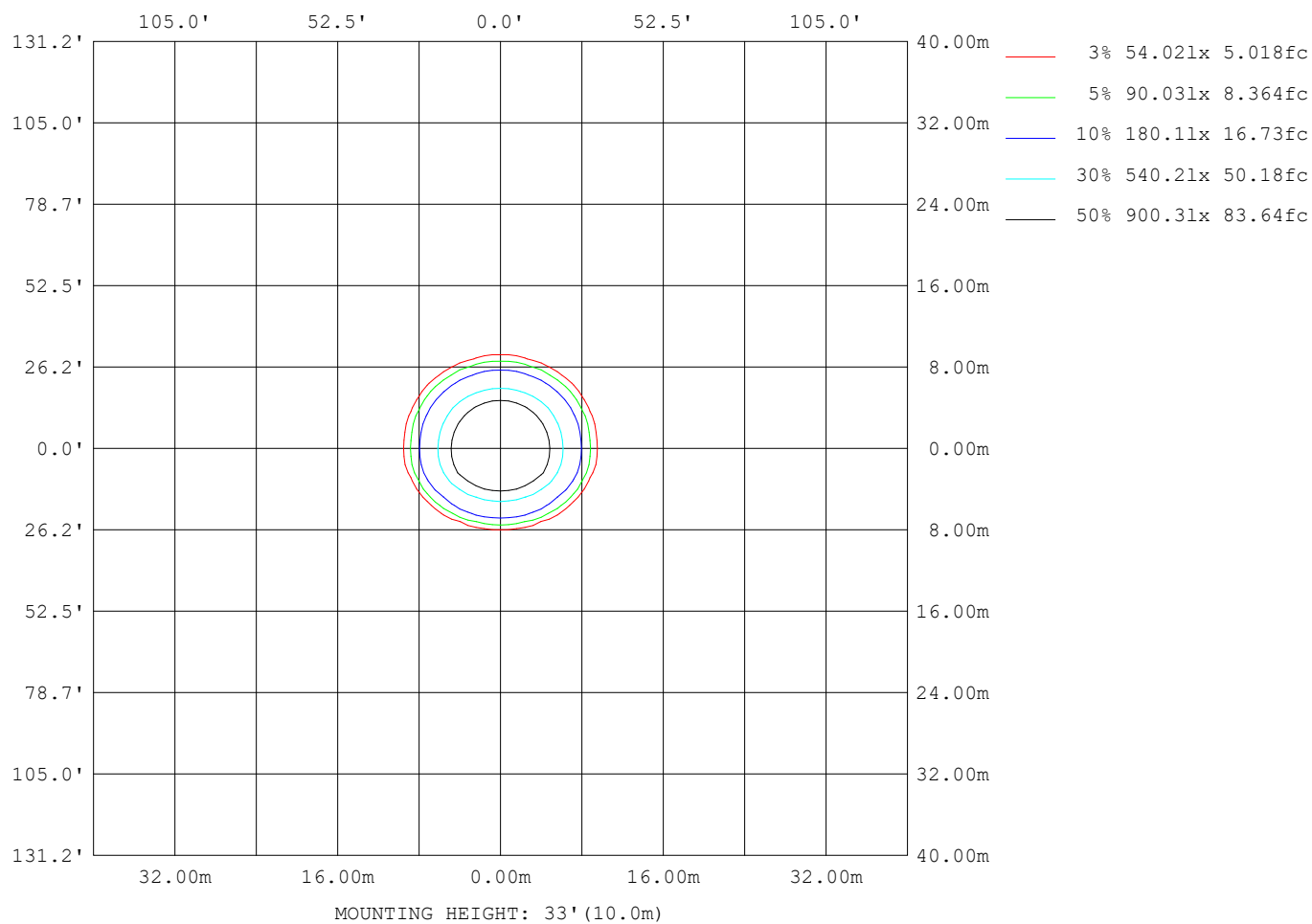
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 10.0DEG
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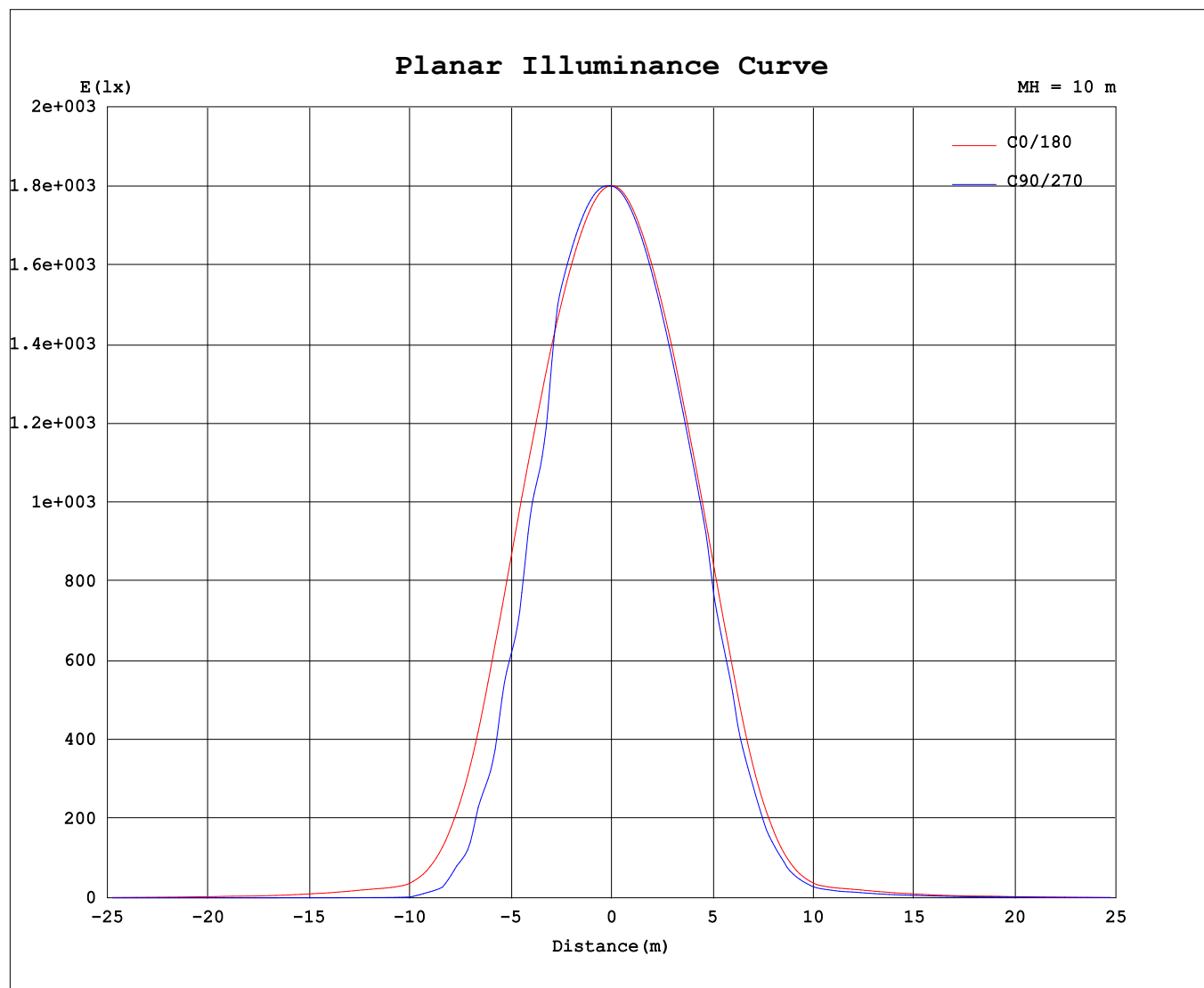
ISOLUX DIAGRAM



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
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Remarks:

Planar Illuminance Curve



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