

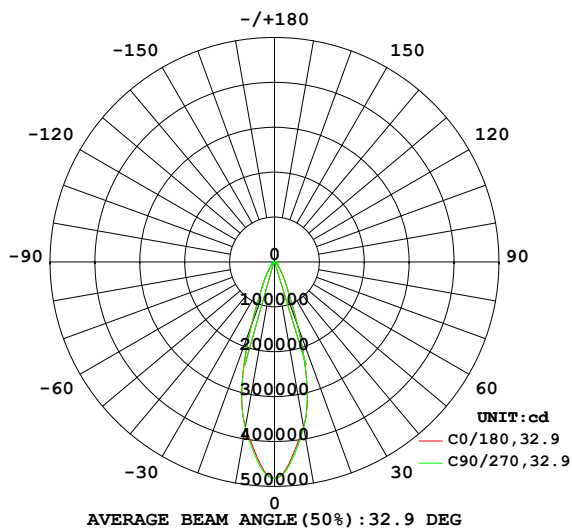
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

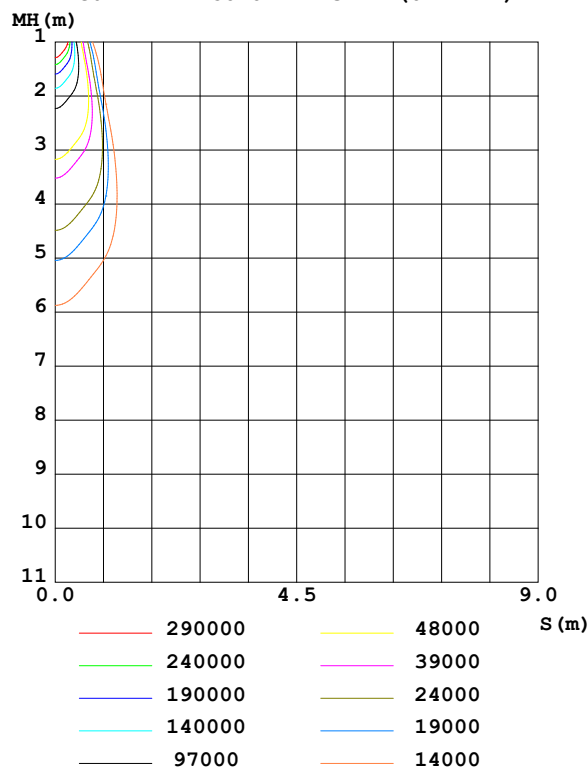
Test:U:230.0V I:5.324A P:1200.0W PF:0.980 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:183009x1 lm		
NAME: SP04-1K2-5770-F04003Z	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 152.51 lm/W			
MODEL	/	Imax (cd)	482095	S/MH (C0/180)	0.52
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.52
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	183009	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	183009	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0
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	3735	3744	3749	3744	3735	3744	3749	3744	0- 10	39928	39928	21.8,21.8
20	1520	1490	1508	1490	1520	1490	1508	1490	10- 20	73543	113471	62,62
30	428.8	380.3	423.2	380.3	428.8	380.3	423.2	380.3	20- 30	34655	148126	80.9,80.9
40	148.6	127.3	146.2	127.3	148.6	127.3	146.2	127.3	30- 40	14890	163016	89.1,89.1
50	85.17	78.72	84.41	78.72	85.17	78.72	84.41	78.72	40- 50	7919	170935	93.4,93.4
60	53.21	53.59	53.58	53.59	53.21	53.59	53.58	53.59	50- 60	5963	176898	96.7,96.7
70	28.30	28.21	28.29	28.21	28.30	28.21	28.29	28.21	60- 70	3978	180876	98.8,98.8
80	8.066	7.903	8.074	7.903	8.066	7.903	8.074	7.903	70- 80	1845	182722	99.8,99.8
90	0.0556	0.0506	0.0514	0.0506	0.0556	0.0506	0.0514	0.0506	80- 90	287.1	183009	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): 1.673e+005 lm

%lum = 91.4%

%lamp = 91.4%

Conical surface Flux(120deg): 1.769e+005 lm

%lum = 96.7%

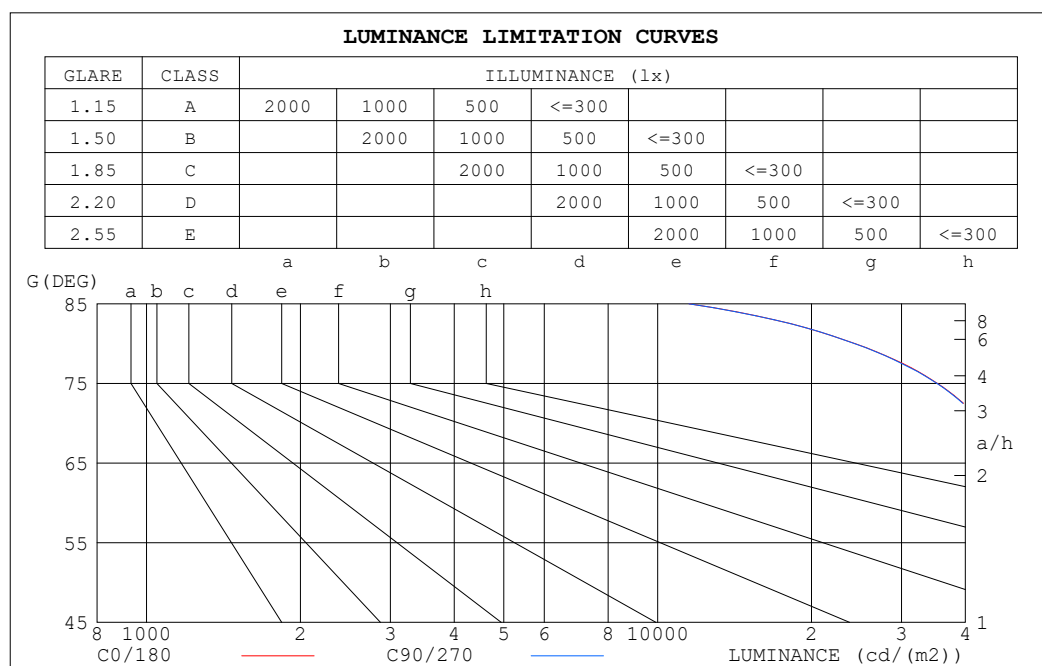
%lamp = 96.7%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
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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

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11527	11515
80	24328	24290
75	35275	35213
70	43338	43212
65	49709	49831
60	55737	55983
55	62106	61557
50	69388	68602
45	78826	77226

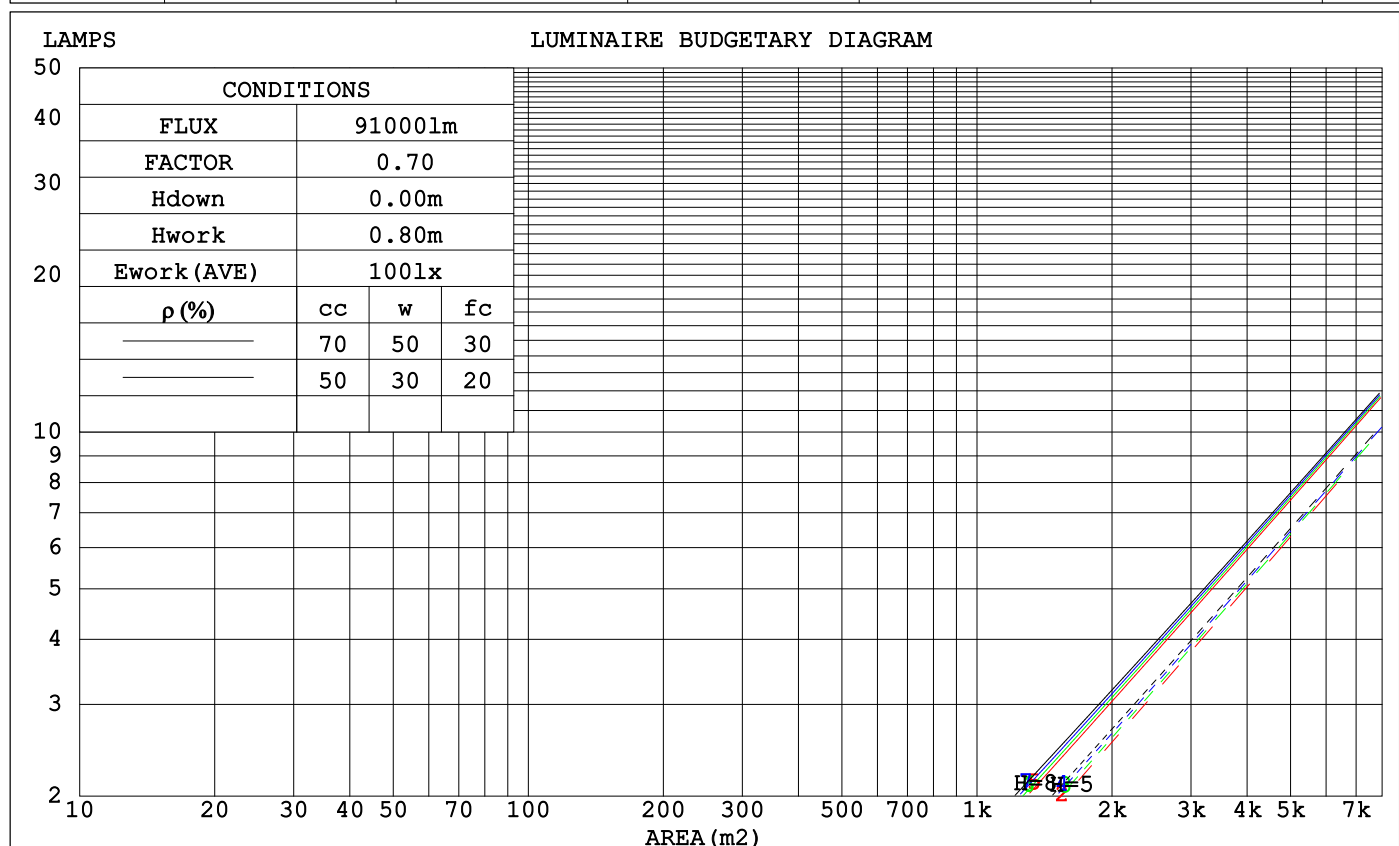
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 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
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 Test Date: 19 September 2022

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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:

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



C Range: 0 - 360DEG
 C Interval: 15.0DEG
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 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

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
 C Interval: 15.0DEG
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 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

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	2H	21.3	22.4	21.7	22.7	23.0	21.3	22.4	21.7	22.7	23.0
	3H	22.7	23.6	23.1	23.9	24.3	22.7	23.6	23.1	23.9	24.3
	4H	23.1	23.9	23.5	24.3	24.7	23.1	23.9	23.5	24.3	24.7
	6H	23.3	24.0	23.7	24.4	24.8	23.2	24.0	23.7	24.4	24.8
	8H	23.3	24.0	23.7	24.4	24.8	23.2	24.0	23.7	24.4	24.8
	12H	23.2	23.9	23.7	24.3	24.7	23.2	23.9	23.6	24.3	24.7
	4H	2H	21.8	22.6	22.2	23.0	23.4	21.8	22.6	22.2	23.0
	3H	23.3	24.0	23.7	24.4	24.8	23.3	24.0	23.7	24.4	24.8
	4H	23.7	24.4	24.2	24.8	25.2	23.7	24.4	24.2	24.8	25.2
	6H	24.0	24.5	24.5	25.0	25.4	24.0	24.5	24.4	25.0	25.4
	8H	24.0	24.5	24.5	24.9	25.4	24.0	24.5	24.5	24.9	25.4
	12H	24.0	24.4	24.5	24.9	25.4	24.0	24.4	24.4	24.9	25.4
	8H	4H	23.8	24.3	24.3	24.8	25.3	23.8	24.3	24.3	24.8
	6H	24.1	24.5	24.6	25.0	25.5	24.1	24.5	24.6	25.0	25.5
	8H	24.2	24.5	24.7	25.0	25.5	24.2	24.5	24.7	25.0	25.5
	12H	24.2	24.5	24.7	25.0	25.5	24.2	24.5	24.7	25.0	25.5
	12H	4H	23.8	24.2	24.3	24.7	25.2	23.8	24.2	24.3	24.7
	6H	24.1	24.5	24.6	24.9	25.5	24.1	24.4	24.6	24.9	25.5
	8H	24.2	24.5	24.7	25.0	25.5	24.2	24.5	24.7	25.0	25.5
CIE190: 2010											

CIE190: 2010
Area: 0.1914 m2

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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:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

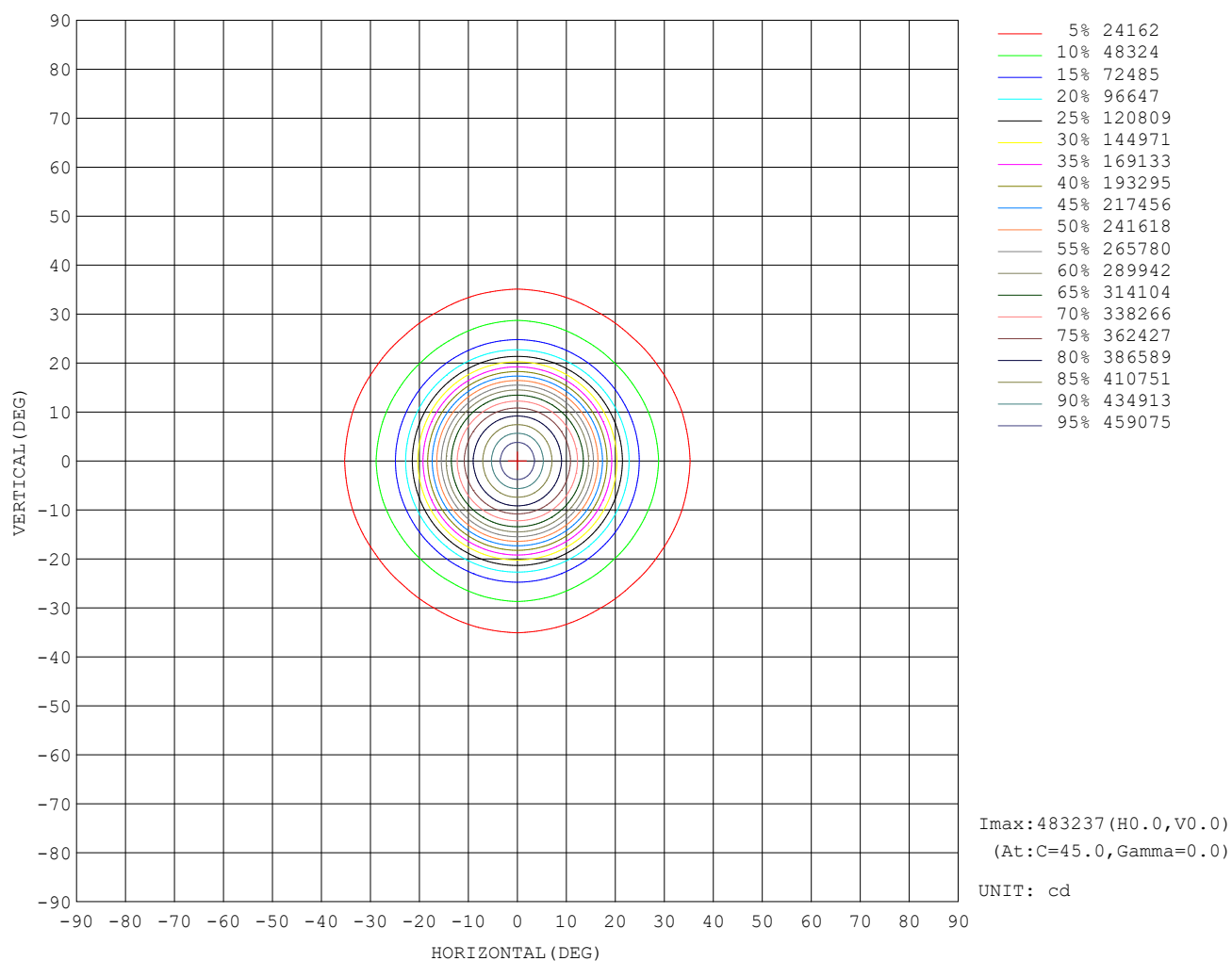
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	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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 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:

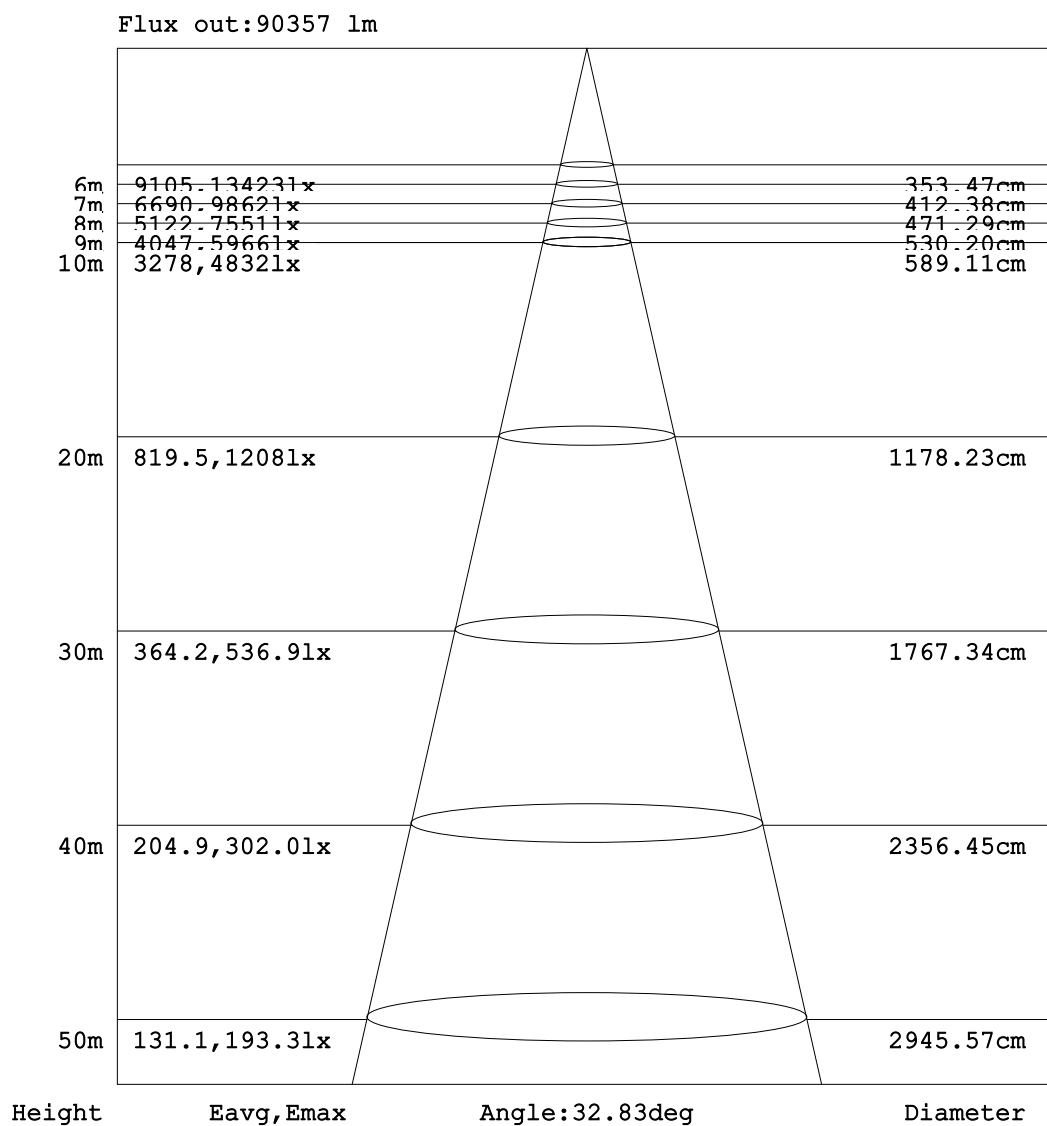
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
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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.

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

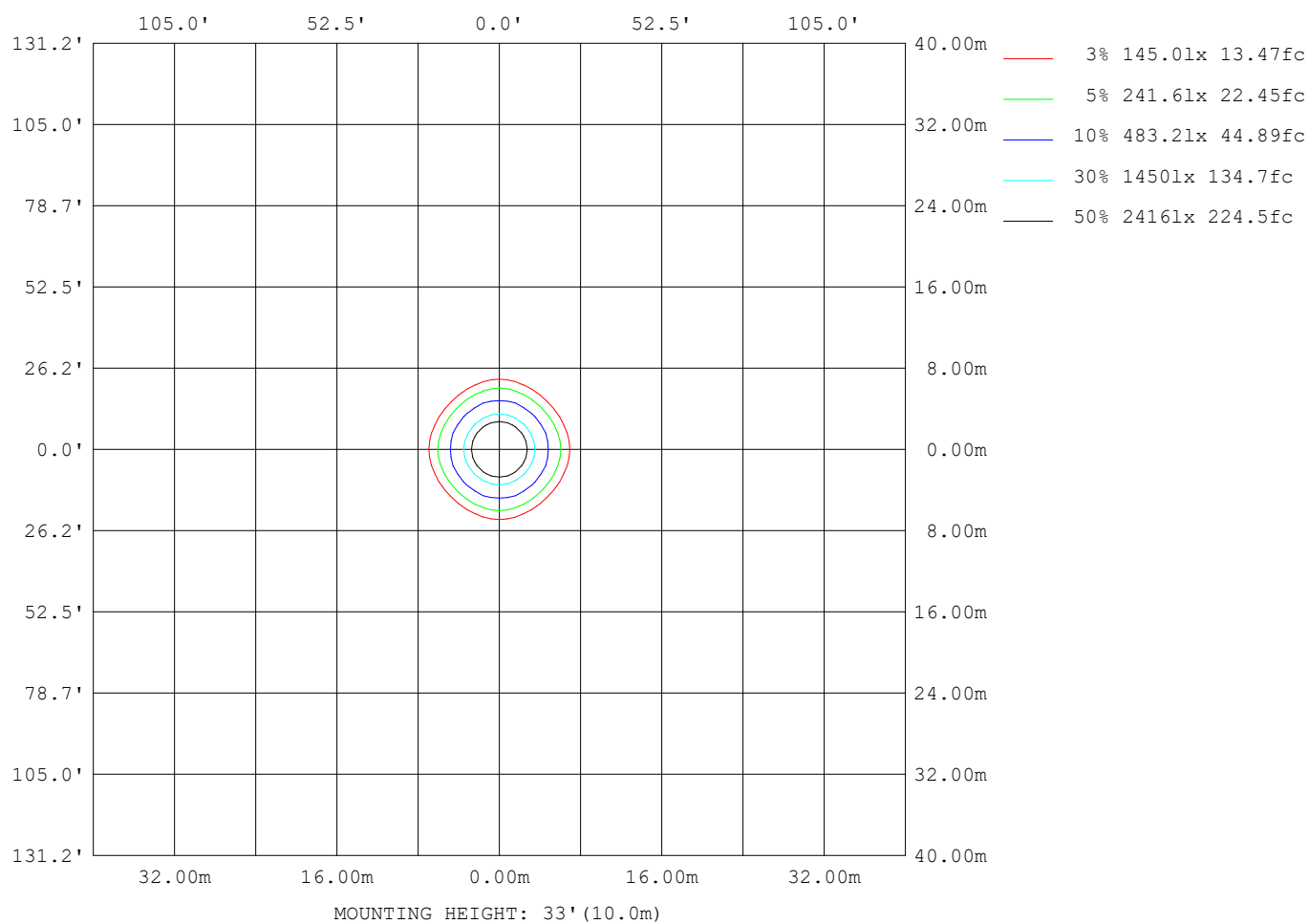
Humidity: 65.0%

Test Distance: 26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

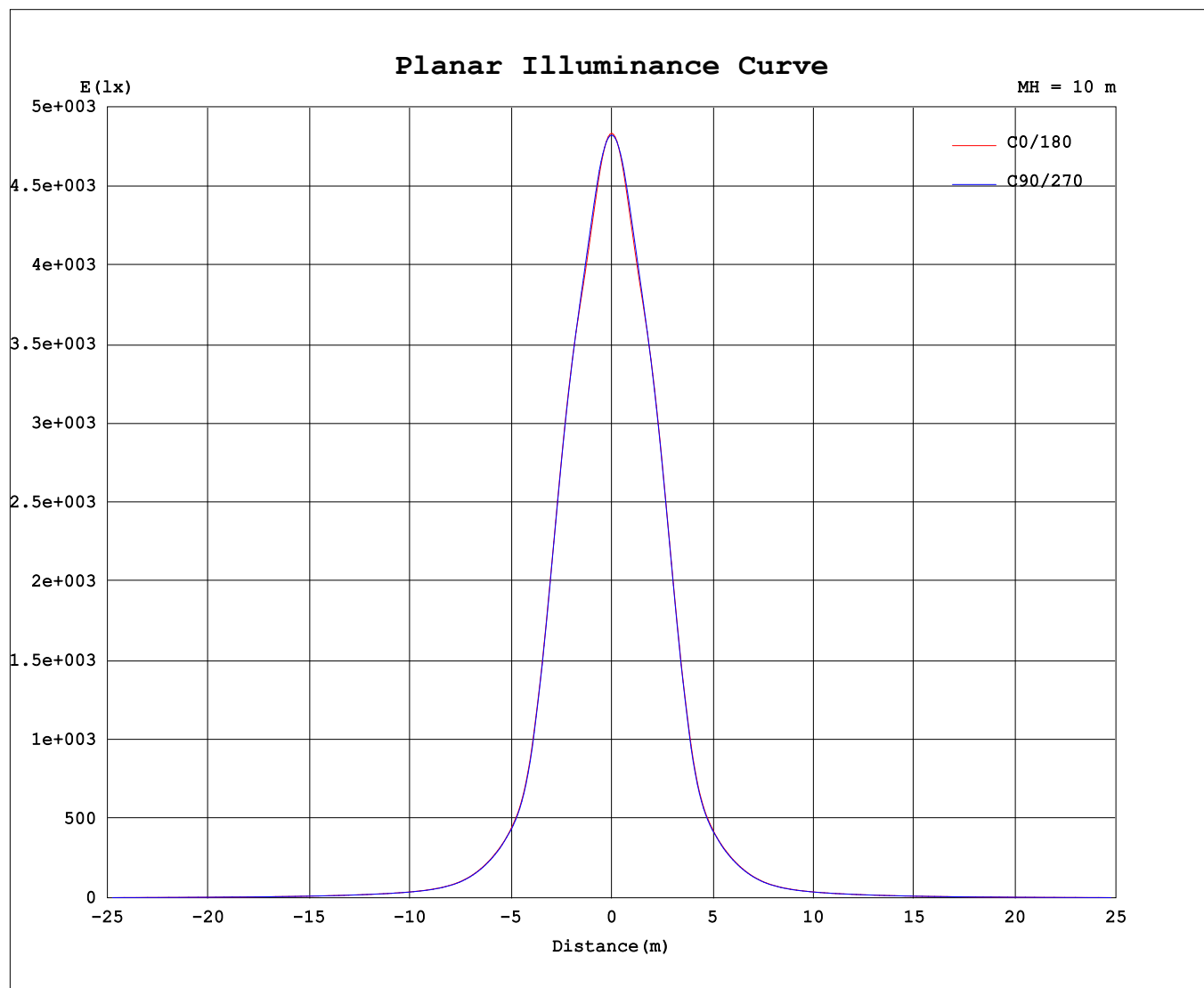
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
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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:

Planar Illuminance Curve



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: