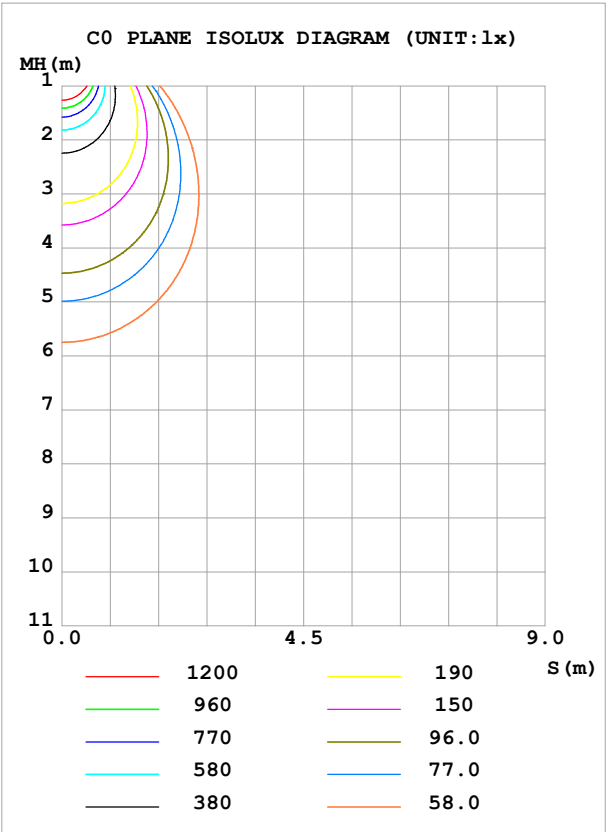
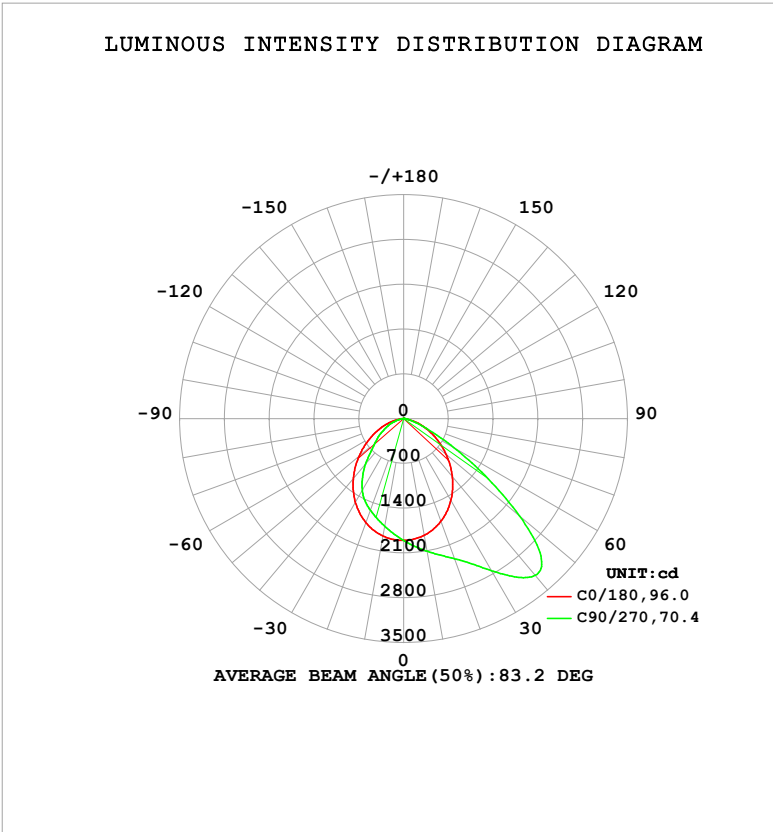


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.7V I:0.1642A P:36.7W PF:0.9744 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:5576.64x1 lm		
NAME: X500-457KA-9060 (37W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 151.81 lm/W
MODEL	/	I _{max} (cd)	3204	S/MH(C0/180)	1.19	
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.05	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	5576.6	η UP,DN(C0-180)	0.0,65.9	
NOMINAL FLUX(lm)	5576.64	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,34.1	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	/	η down (%)	100.0	CIBSE SHR MAX	1.50	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-11-11

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity:65.0%
Test Distance:9.990m [K=1.0000]
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	1853	2018	2104	2023	1864	1747	1709	1743	0- 10	180.8	180.8	3.24,3.24
20	1708	2092	2332	2099	1732	1557	1524	1549	10- 20	525.0	705.8	12.7,12.7
30	1480	2169	2745	2165	1511	1346	1297	1334	20- 30	827.5	1533	27.5,27.5
40	1186	2370	3197	2343	1227	1081	930.5	1054	30- 40	1080	2613	46.9,46.9
50	866.2	2464	2366	2501	910.2	749.6	581.6	715.3	40- 50	1199	3812	68.4,68.4
60	556.6	1610	904.1	1772	599.6	443.4	361.6	419.1	50- 60	976.9	4789	85.9,85.9
70	288.3	563.4	253.1	691.6	330.2	220.7	184.2	199.4	60- 70	559.1	5348	95.9,95.9
80	49.33	91.78	54.56	133.8	76.70	57.57	31.29	40.26	70- 80	207.0	5555	99.6,99.6
90	1.820	1.167	1.360	1.597	1.486	2.313	1.610	2.662	80- 90	21.50	5577	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:cd									UNIT:lm		

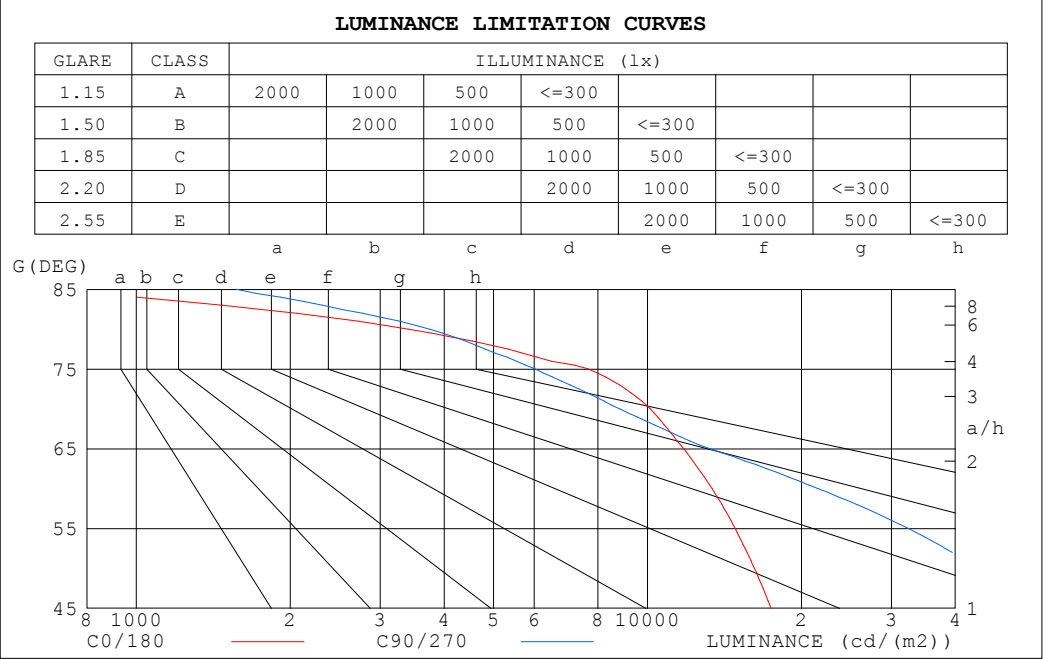
Conical surface Flux(90deg): 3215.6 lm

%lum = 57.7%
%lamp = 57.7%

Conical surface Flux(120deg): 4789.1 lm

%lum = 85.9%
%lamp = 85.9%

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	619	1569
80	3412	3749
75	7659	6024
70	10124	8830
65	11764	13235
60	13371	21574
55	14839	32388
50	16185	43909
45	17445	51210

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:HXL

Test Date:2024-11-11

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487

Humidity:65.0%

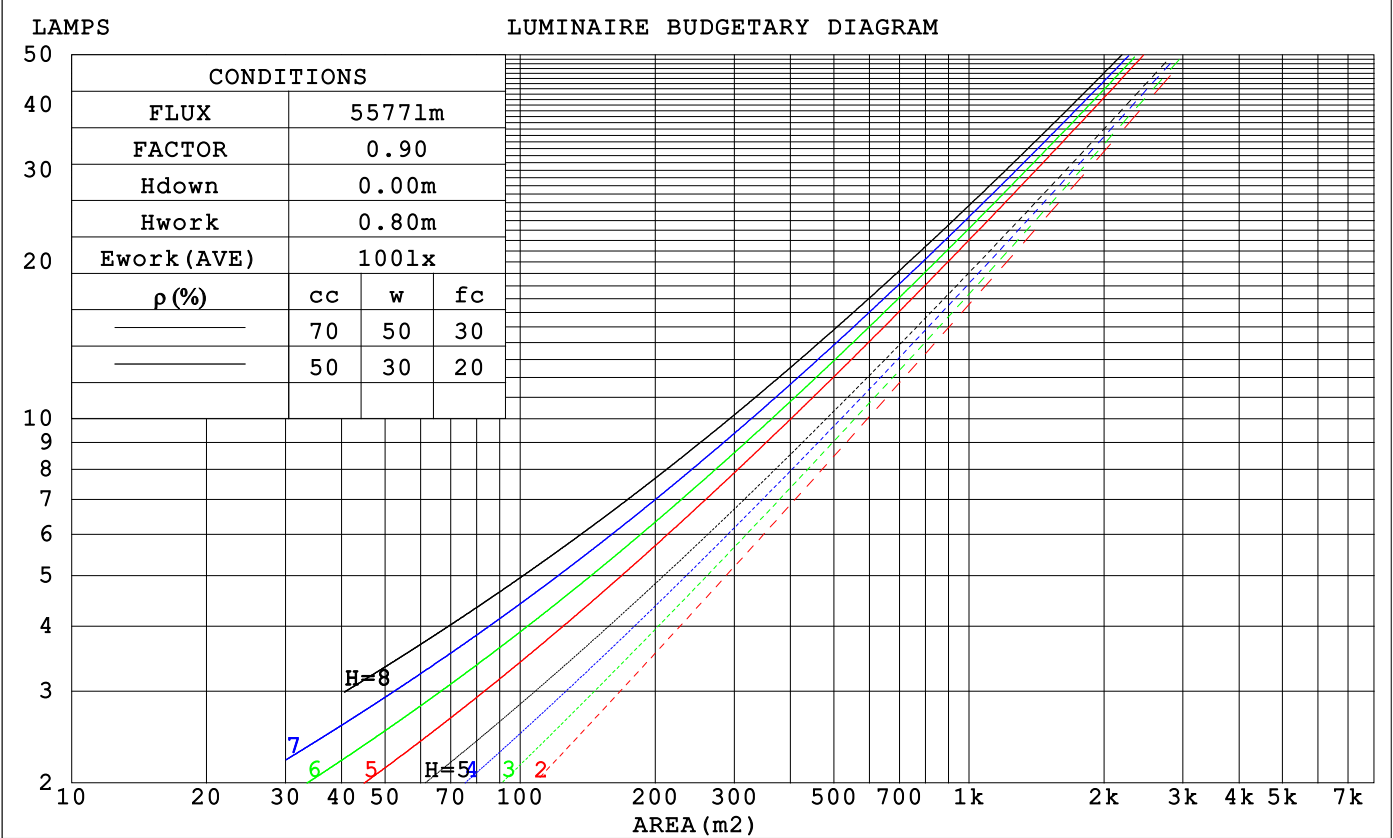
Test Distance:9.990m [K=1.0000]

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	1.06	1.02	.98	1.03	.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.88	.83	.78	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.69	.65	.72	.68	.64	.62
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.57	.67	.61	.56	.64	.59	.55	.53
5.0	.65	.56	.50	.64	.56	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.46
6.0	.58	.50	.43	.57	.49	.43	.56	.48	.43	.54	.47	.42	.52	.47	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.50	.43	.38	.49	.42	.37	.48	.42	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-11-11

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity:65.0%
Test Distance:9.990m [K=1.0000]
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	.275	.156	.050	.268	.153	.049	.255	.146	.047	.243	.140	.045	.232	.134	.043		
2.0	.268	.147	.045	.262	.144	.044	.251	.139	.043	.240	.135	.042	.230	.130	.041		
3.0	.254	.135	.040	.248	.133	.040	.238	.129	.039	.229	.125	.038	.220	.122	.038		
4.0	.238	.123	.036	.233	.122	.036	.224	.119	.035	.215	.116	.035	.208	.113	.034		
5.0	.222	.113	.033	.218	.112	.033	.210	.109	.032	.202	.107	.032	.195	.104	.031		
6.0	.208	.104	.030	.204	.103	.030	.197	.101	.029	.190	.099	.029	.184	.097	.029		
7.0	.194	.096	.027	.191	.095	.027	.185	.093	.027	.179	.092	.027	.173	.090	.026		
8.0	.182	.089	.025	.179	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024		
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023		
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.074	.021		

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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: HXL
 Test Date: 2024-11-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
 Humidity: 65.0%
 Test Distance: 9.990m [K=1.0000]
 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	23.8	25.4	24.1	25.7	26.0	25.7	27.3	26.1	27.6	27.9
3H	25.1	26.5	25.5	26.8	27.2	25.9	27.4	26.3	27.7	28.0
4H	25.4	26.7	25.8	27.1	27.4	26.0	27.3	26.3	27.6	28.0
6H	25.4	26.7	25.8	27.0	27.4	25.9	27.2	26.3	27.5	27.9
8H	25.4	26.6	25.8	27.0	27.4	25.9	27.1	26.3	27.5	27.9
12H	25.4	26.5	25.8	26.9	27.3	25.9	27.0	26.3	27.4	27.8
4H 2H	25.0	26.3	25.4	26.6	27.0	26.6	27.9	27.0	28.3	28.6
3H	26.4	27.5	26.8	27.9	28.3	27.0	28.1	27.4	28.5	28.9
4H	26.8	27.8	27.2	28.2	28.6	27.0	28.0	27.4	28.4	28.8
6H	26.9	27.7	27.3	28.2	28.7	27.0	27.9	27.5	28.3	28.8
8H	26.9	27.7	27.3	28.1	28.6	27.0	27.8	27.4	28.2	28.7
12H	26.8	27.6	27.3	28.0	28.5	26.9	27.7	27.4	28.1	28.6
8H 4H	26.9	27.7	27.3	28.1	28.6	27.2	28.0	27.6	28.4	28.9
6H	27.0	27.7	27.5	28.1	28.6	27.2	27.8	27.7	28.3	28.8
8H	27.0	27.6	27.5	28.1	28.6	27.2	27.7	27.7	28.3	28.7
12H	27.0	27.5	27.5	28.0	28.5	27.1	27.7	27.6	28.1	28.7
12H 4H	26.8	27.5	27.3	28.0	28.5	27.2	27.9	27.7	28.4	28.8
6H	27.0	27.6	27.5	28.0	28.6	27.2	27.8	27.7	28.2	28.8
8H	27.0	27.5	27.5	28.0	28.5	27.2	27.7	27.7	28.2	28.7
CIE190: 2010										

CIE190: 2010
Area: 0.08378 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-11-11

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity:65.0%
Test Distance:9.990m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

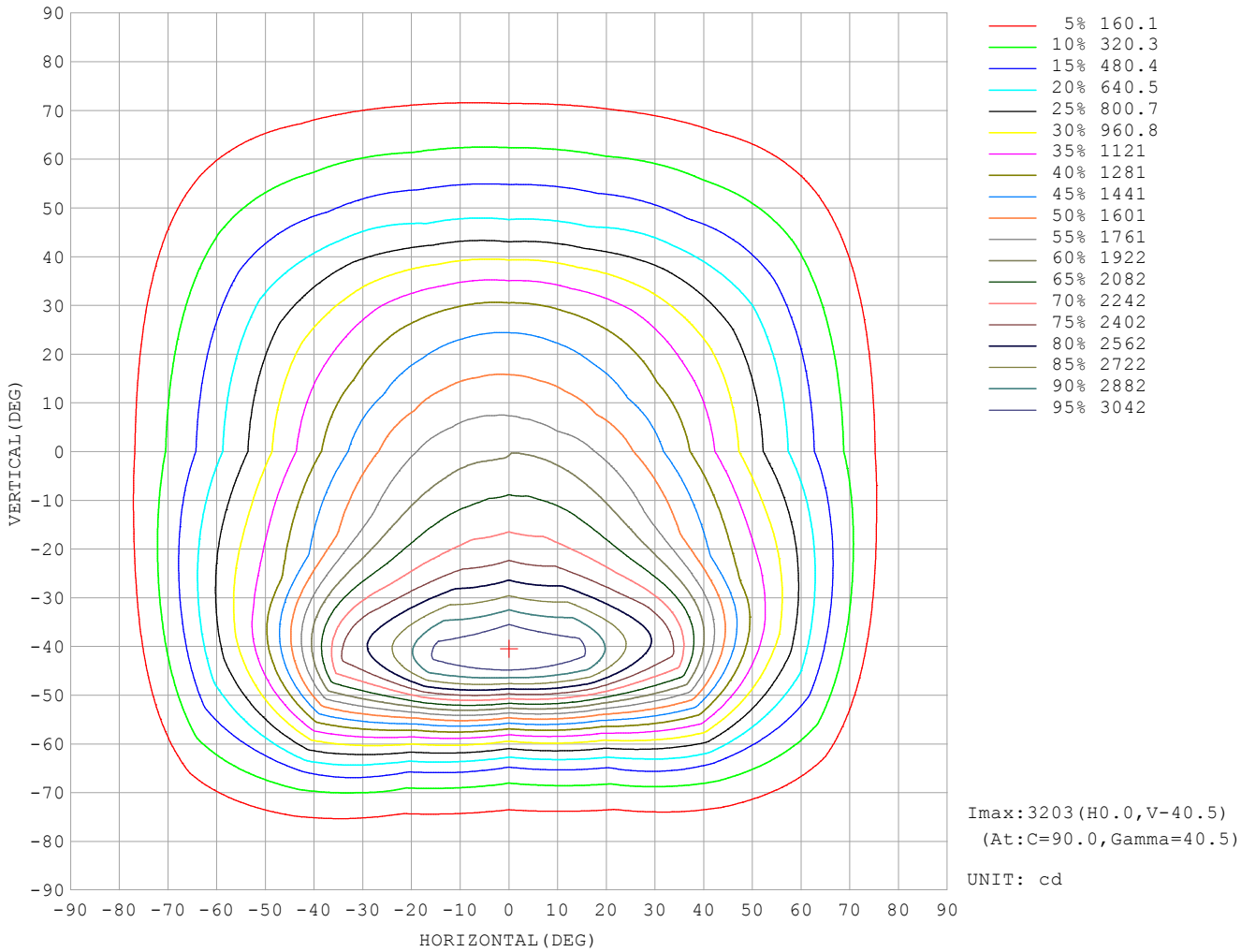
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	57	46	40	56	46	39	33
0.80	69	58	50	68	57	50	66	56	50	43
1.00	78	67	60	77	67	60	75	68	60	53
1.25	85	76	69	84	75	68	81	73	68	61
1.50	90	81	75	89	80	74	86	79	73	66
2.00	97	89	83	95	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	78
3.00	104	98	93	102	96	92	98	93	90	81
4.00	108	102	98	105	101	97	101	97	94	86
5.00	110	105	102	107	103	100	103	100	97	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: HXL
 Test Date: 2024-11-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
 Humidity: 65.0%
 Test Distance: 9.990m [K=1.0000]
 Remarks:

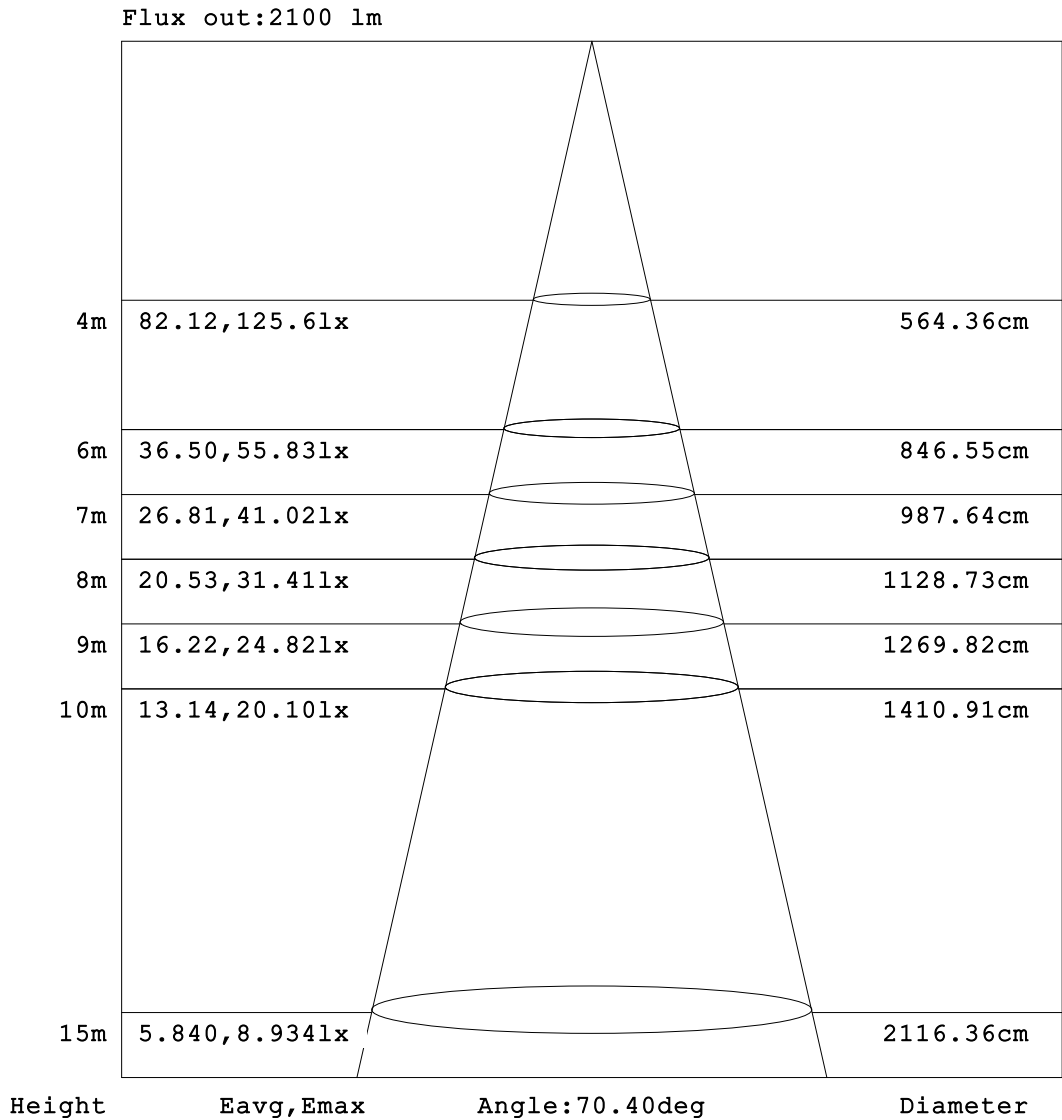
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: HXL
Test Date: 2024-11-11

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity: 65.0%
Test Distance: 9.990m [K=1.0000]
Remarks:

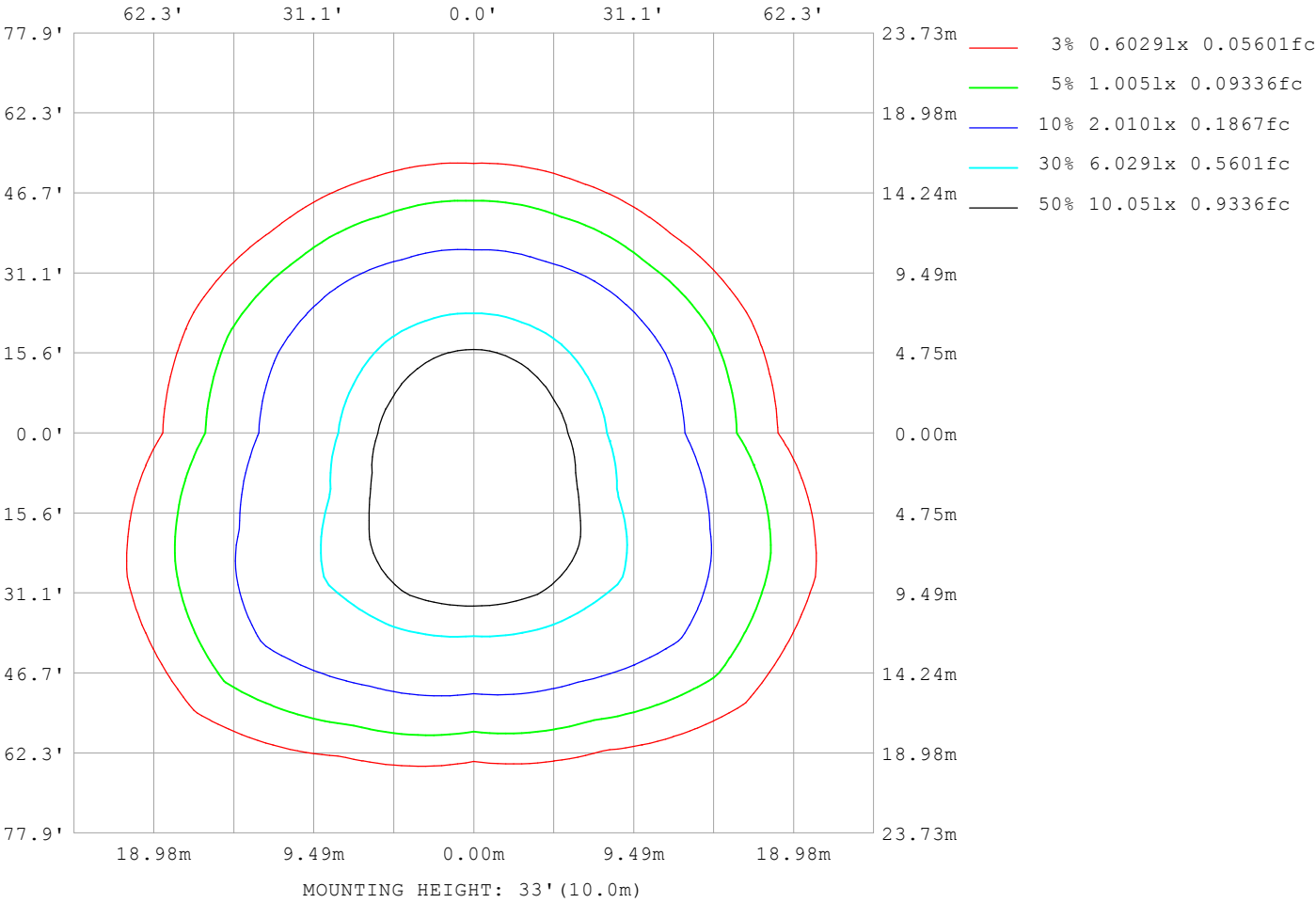
AAI Figure



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

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

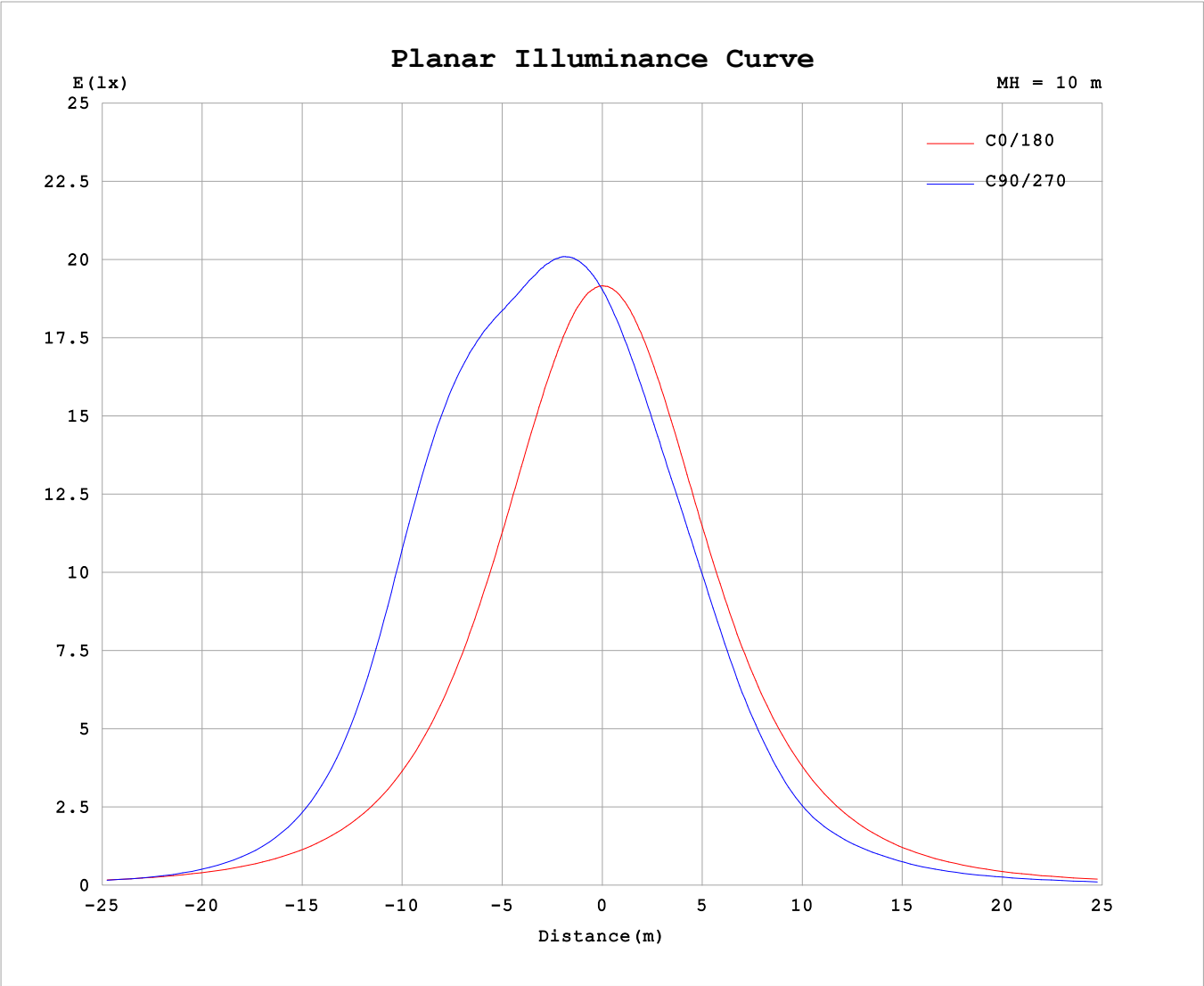
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:HXL
Test Date:2024-11-11

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity:65.0%
Test Distance:9.990m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Temperature:25.3℃	Humidity:65.0%
Operators:HXL	Test Distance:9.990m [K=1.0000]
Test Date:2024-11-11	Remarks: