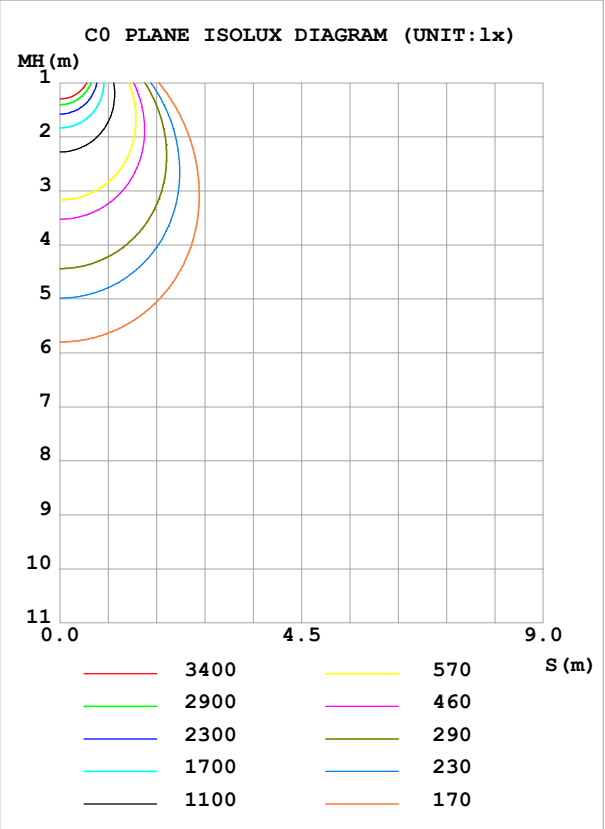
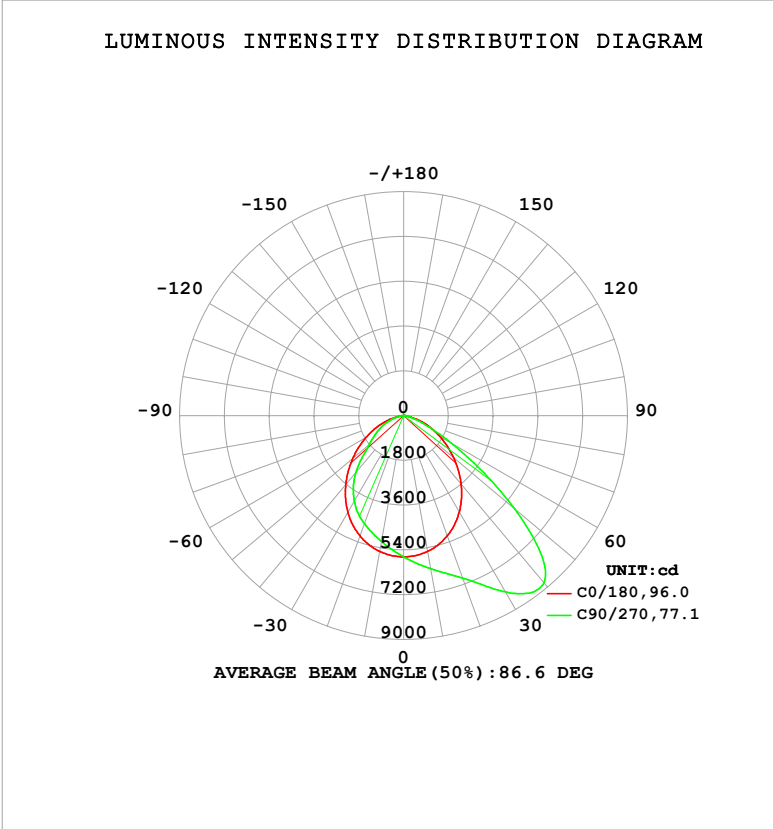


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.7V I:0.4569A P:97.1W PF:0.9251 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:16125.9x1 lm		
NAME: X503-457KA-9060 (100W 5700K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 166.09 lm/W
MODEL	/	I _{max} (cd)	8831	S/MH (C0/180)	1.18	
NOMINAL POWER(W)	/	LOR (%)	100.0	S/MH (C90/270)	1.07	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	16126	η UP,DN (C0-180)	0.0,64.1	
NOMINAL FLUX(lm)	16125.9	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,35.9	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	/	η down (%)	100.0	CIBSE SHR MAX	1.35	



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:

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	5543	6018	6246	5993	5546	5227	5141	5238	0- 10	539.0	539.0	3.34,3.34
20	5141	6270	6955	6205	5144	4698	4621	4705	10- 20	1570	2109	13.1,13.1
30	4476	6582	8178	6409	4489	4061	3975	4067	20- 30	2485	4594	28.5,28.5
40	3598	7136	8766	6866	3625	3287	2998	3269	30- 40	3225	7819	48.5,48.5
50	2625	6773	5828	6820	2671	2334	1799	2297	40- 50	3440	11258	69.8,69.8
60	1688	4000	2201	4411	1741	1320	1161	1295	50- 60	2691	13949	86.5,86.5
70	858.4	1387	667.9	1685	905.7	681.3	611.4	652.9	60- 70	1541	15490	96.1,96.1
80	158.8	230.6	139.9	296.2	196.1	190.4	151.5	161.9	70- 80	573.3	16063	99.6,99.6
90	5.067	3.459	3.141	4.097	4.676	6.234	4.021	6.618	80- 90	63.07	16126	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): 9573.3 lm

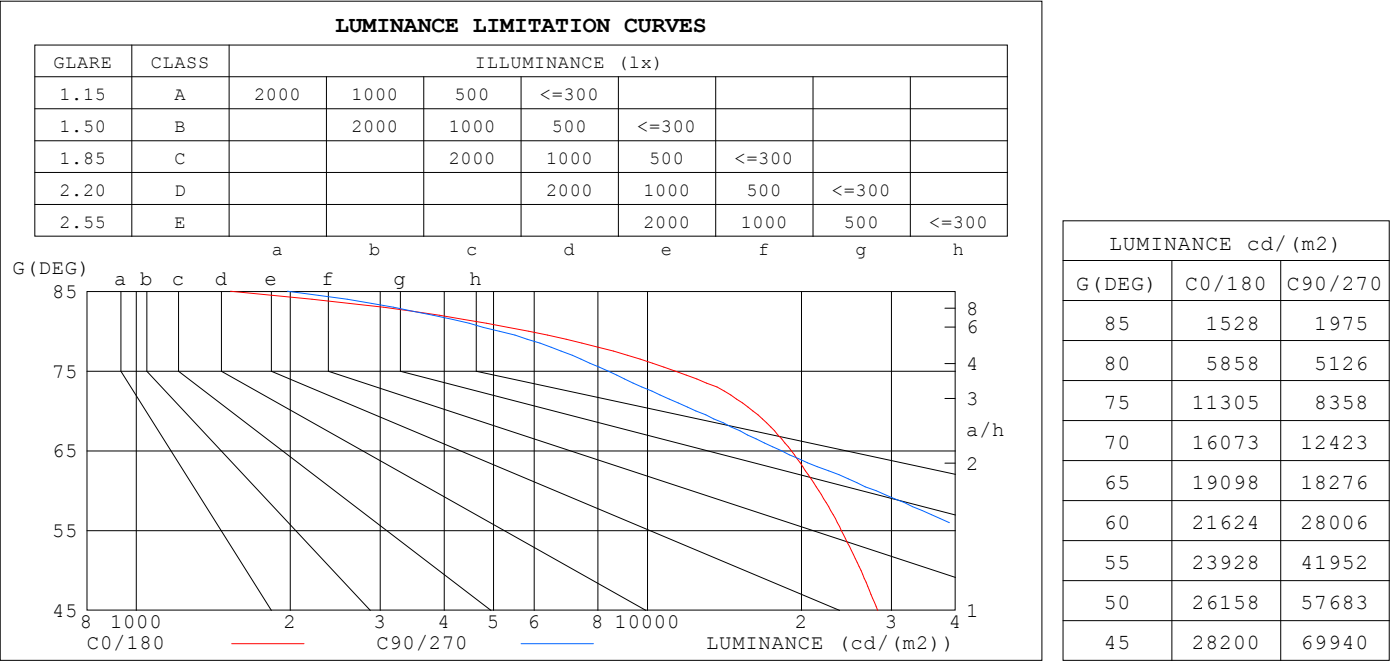
%lum = 59.4%
%lamp = 59.4%

Conical surface Flux(120deg): 13949 lm

%lum = 86.5%
%lamp = 86.5%

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:

LUMINANCE LIMITATION CURVES



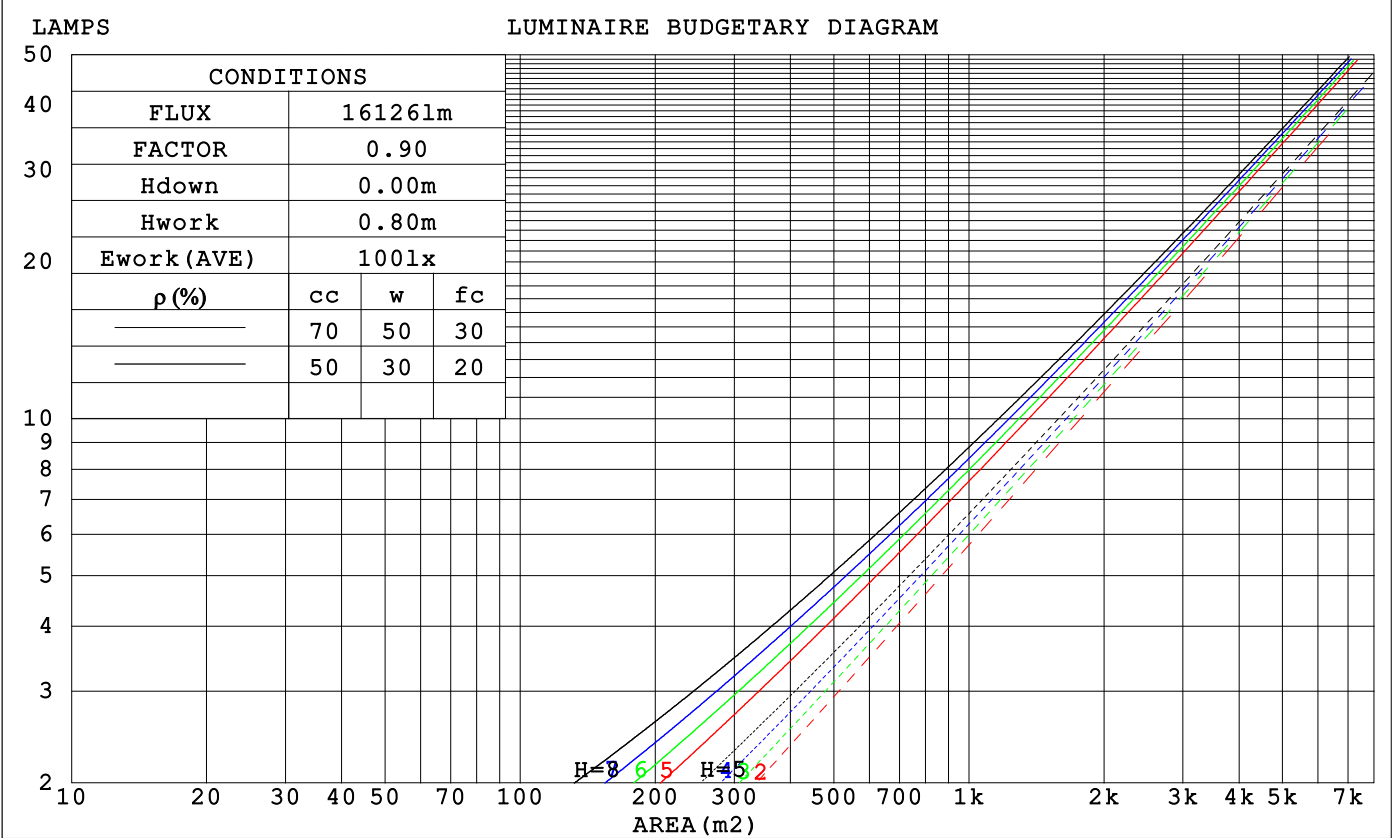
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-11-11

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	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.82	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.65	.63
4.0	.73	.65	.59	.72	.64	.58	.69	.63	.57	.67	.61	.57	.65	.60	.56	.54
5.0	.66	.57	.51	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.44	.55	.48	.43	.53	.47	.43	.41
7.0	.53	.45	.39	.53	.44	.39	.51	.44	.38	.50	.43	.38	.48	.42	.38	.36
8.0	.49	.40	.35	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.45	.37	.31	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.29
10.0	.41	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26



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

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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.272	.155	.049	.265	.151	.048	.252	.144	.046	.240	.138	.044	.229	.133	.043	
2.0	.265	.145	.045	.259	.142	.044	.247	.137	.043	.237	.133	.042	.227	.128	.040	
3.0	.250	.133	.040	.245	.131	.040	.235	.127	.039	.226	.124	.038	.217	.120	.037	
4.0	.235	.122	.036	.230	.120	.036	.221	.117	.035	.213	.114	.034	.205	.111	.034	
5.0	.220	.112	.032	.215	.111	.032	.207	.108	.032	.200	.106	.031	.193	.103	.031	
6.0	.206	.103	.029	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028	
7.0	.193	.095	.027	.189	.094	.027	.183	.092	.027	.177	.091	.026	.171	.089	.026	
8.0	.181	.088	.025	.178	.088	.025	.172	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.170	.082	.023	.168	.082	.023	.162	.080	.023	.158	.079	.023	.153	.078	.022	
10.0	.161	.077	.021	.158	.076	.021	.154	.075	.021	.149	.074	.021	.145	.073	.021	

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						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	.048	.019	.017	.015	
2.0	.169	.132	.101	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.153	.101	.060	.132	.087	.053	.090	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.126	.078	.042	.087	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

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

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	26.0	27.5	26.3	27.9	28.2	26.1	27.7	26.5	28.0	28.3
3H	27.1	28.5	27.5	28.9	29.2	26.4	27.8	26.8	28.1	28.5
4H	27.4	28.7	27.8	29.0	29.4	26.4	27.7	26.8	28.1	28.5
6H	27.4	28.6	27.8	29.0	29.4	26.4	27.6	26.8	28.0	28.4
8H	27.4	28.5	27.8	28.9	29.3	26.4	27.5	26.8	27.9	28.3
12H	27.3	28.5	27.8	28.8	29.3	26.4	27.5	26.8	27.8	28.3
4H 2H	26.7	28.0	27.1	28.3	28.7	27.0	28.3	27.4	28.7	29.0
3H	28.0	29.1	28.4	29.5	29.9	27.4	28.5	27.8	28.9	29.3
4H	28.4	29.3	28.8	29.7	30.2	27.5	28.4	27.9	28.8	29.3
6H	28.5	29.3	28.9	29.7	30.2	27.5	28.3	27.9	28.7	29.2
8H	28.4	29.2	28.9	29.7	30.1	27.4	28.2	27.9	28.7	29.1
12H	28.4	29.1	28.9	29.6	30.1	27.4	28.1	27.9	28.6	29.1
8H 4H	28.4	29.2	28.8	29.6	30.1	27.6	28.4	28.1	28.9	29.3
6H	28.5	29.2	29.0	29.6	30.1	27.6	28.3	28.1	28.8	29.3
8H	28.5	29.1	29.0	29.6	30.1	27.6	28.2	28.1	28.7	29.2
12H	28.5	29.0	29.0	29.5	30.0	27.6	28.1	28.1	28.6	29.1
12H 4H	28.4	29.1	28.8	29.5	30.0	27.6	28.3	28.1	28.8	29.3
6H	28.5	29.1	29.0	29.5	30.1	27.6	28.2	28.1	28.7	29.2
8H	28.5	29.0	29.0	29.5	30.0	27.6	28.1	28.1	28.6	29.2
CIE190: 2010										

CIE190: 2010
Area: 0.15719 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

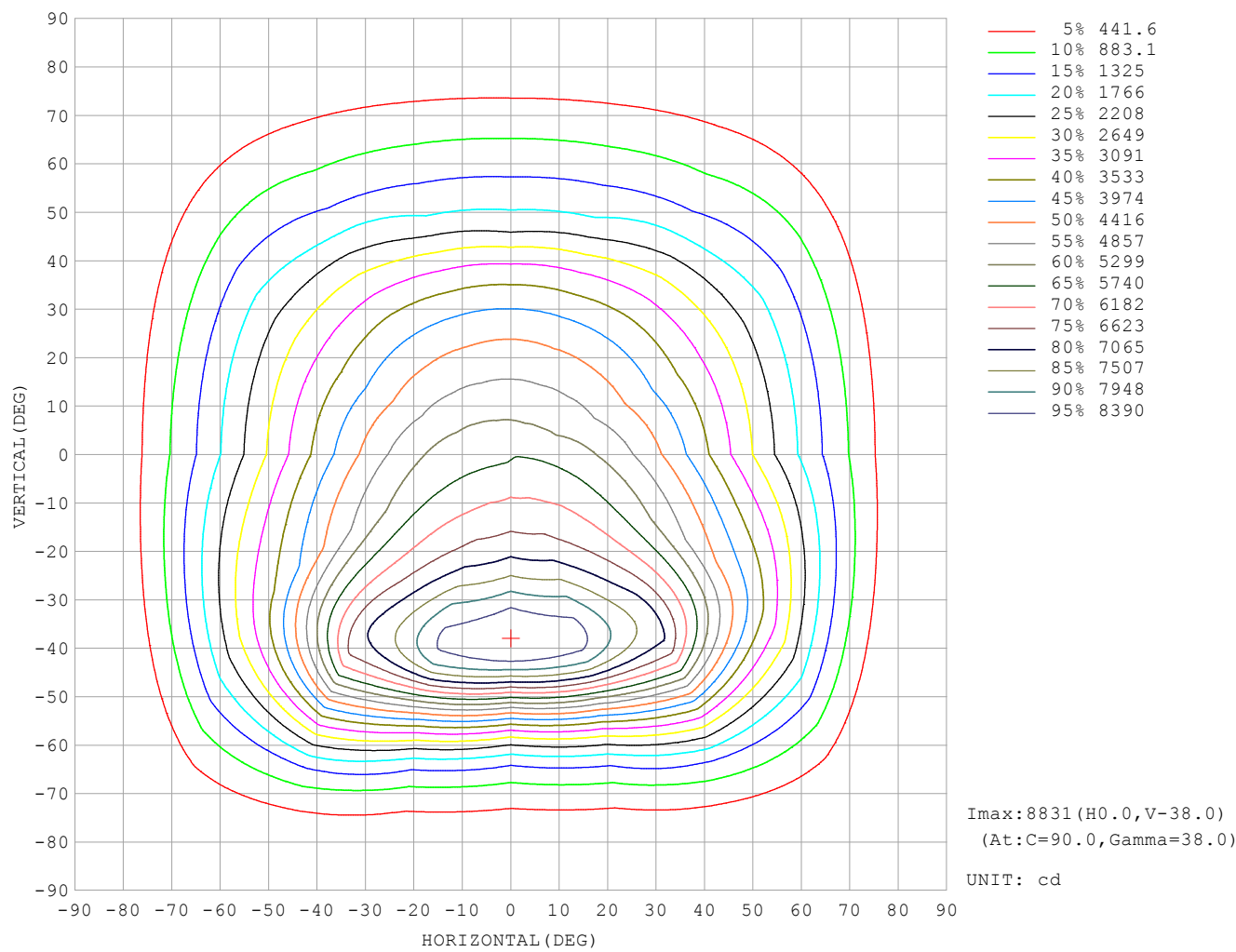
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	48	41	57	47	41	34
0.80	70	59	52	69	58	51	67	57	51	44
1.00	79	68	61	78	68	61	75	69	61	54
1.25	86	76	70	85	76	69	82	74	69	62
1.50	91	82	76	89	81	75	87	79	74	67
2.00	98	90	84	96	89	83	93	87	82	75
2.50	101	94	89	99	93	88	96	90	86	78
3.00	104	98	93	102	97	92	98	94	90	82
4.00	108	103	99	106	101	97	101	98	95	86
5.00	110	106	102	108	104	100	103	100	97	89
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

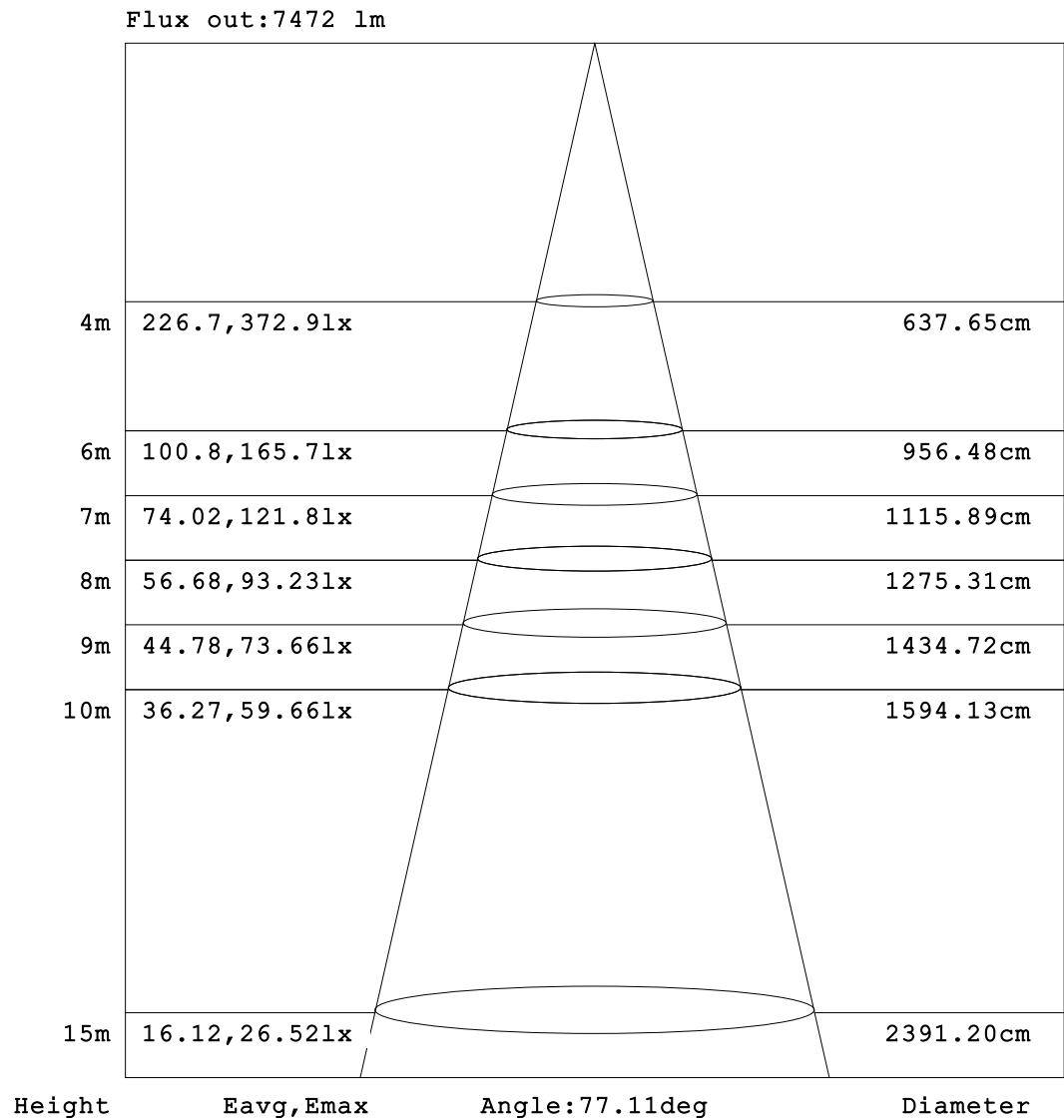
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
 Humidity: 65.0%
 Test Distance: 9.990m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM



C Range: 0 - 360DEG	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°C	Humidity: 65.0%
Operators: HXL	Test Distance: 9.990m [K=1.0000]
Test Date: 2024-11-11	Remarks:

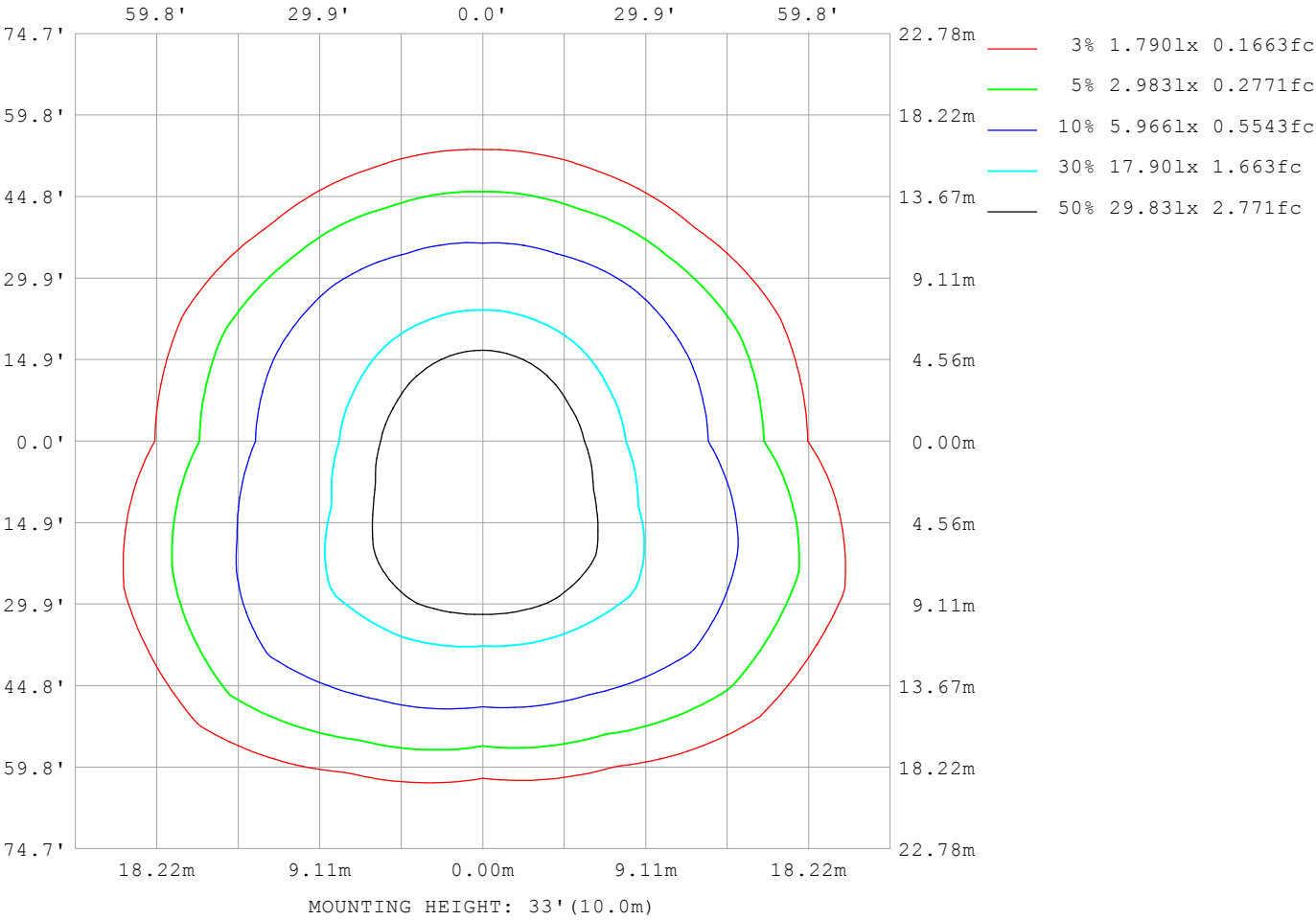
AAI Figure



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

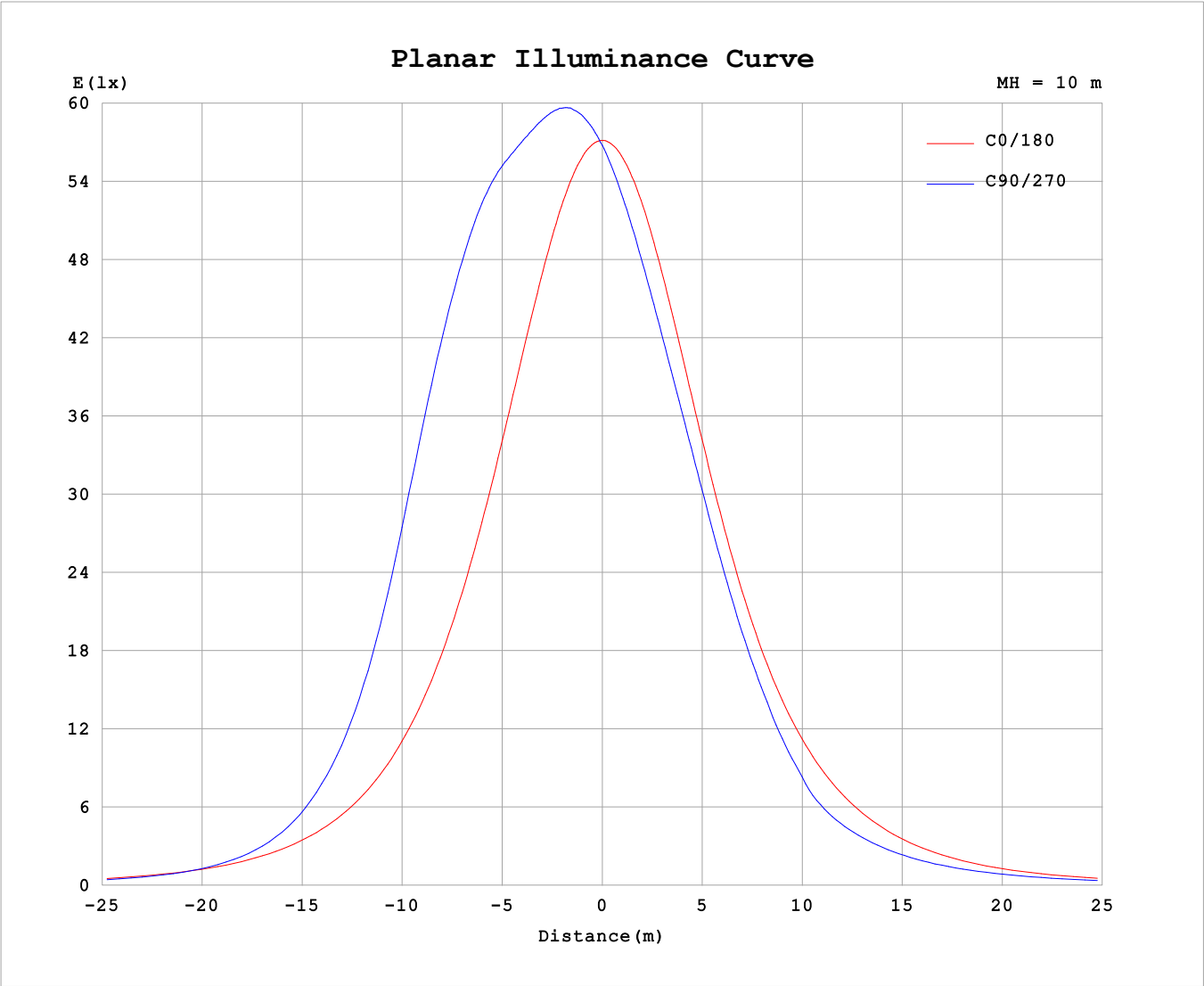
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



C Range: 0 - 360DEG	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°C	Humidity: 65.0%
Operators: HXL	Test Distance: 9.990m [K=1.0000]
Test Date: 2024-11-11	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: