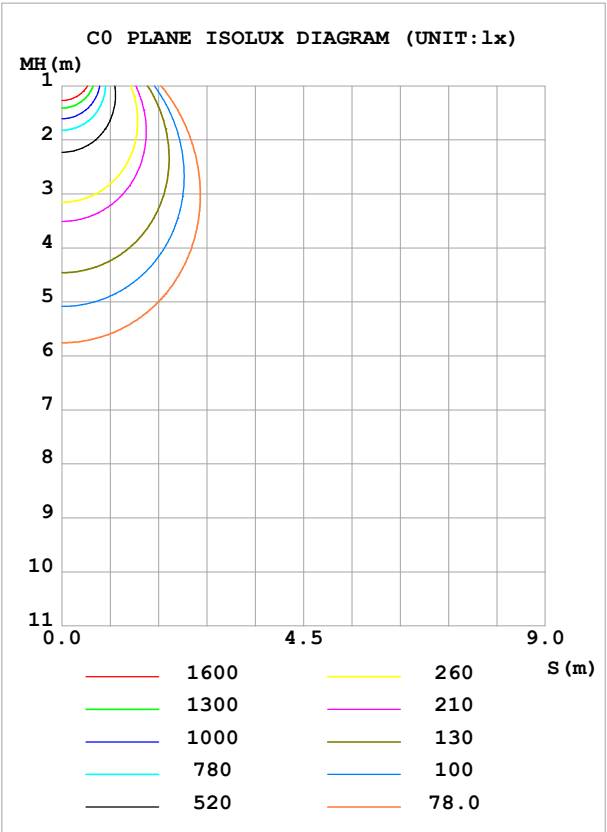
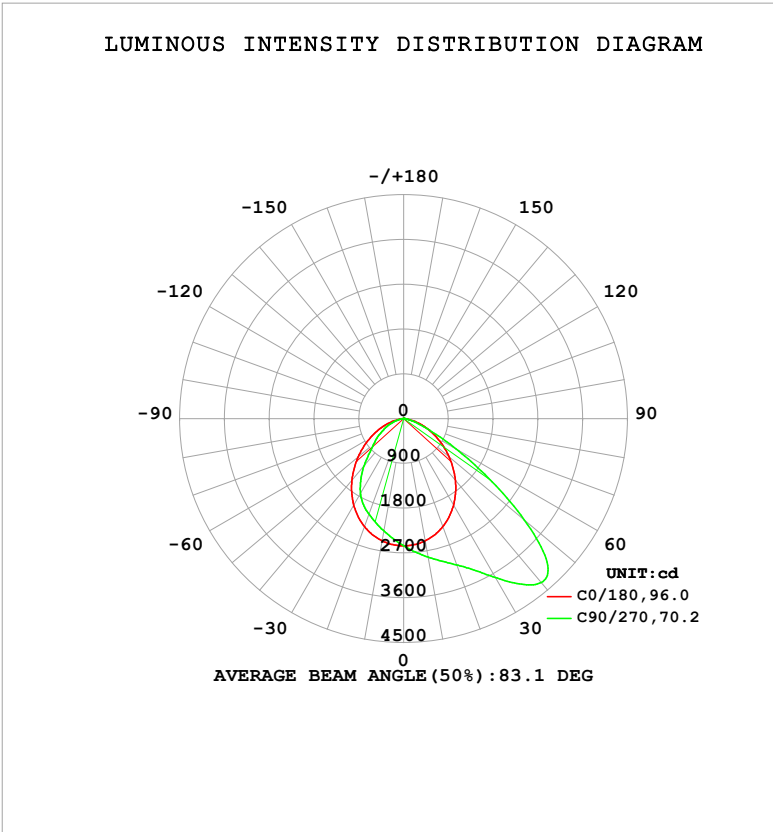


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.6V I:0.2254A P:51.0W PF:0.9857 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:7483.91x1 lm		
NAME: X500-457KA-9060 (50W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 146.69 lm/W
MODEL	/	I _{max} (cd)	4308	S/MH(C0/180)	1.18	
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.05	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	7483.9	η UP,DN(C0-180)	0.0,66.1	
NOMINAL FLUX(lm)	7483.91	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,33.9	
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: 15.0DEG
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	2496	2714	2824	2714	2496	2340	2294	2340	0- 10	242.7	242.7	3.24,3.24
20	2310	2817	3131	2817	2310	2084	2045	2084	10- 20	704.9	947.6	12.7,12.7
30	2008	2911	3686	2911	2008	1798	1740	1798	20- 30	1111	2059	27.5,27.5
40	1620	3167	4299	3167	1620	1429	1247	1429	30- 40	1450	3509	46.9,46.9
50	1193	3345	3171	3345	1193	978.4	780.7	978.4	40- 50	1610	5119	68.4,68.4
60	777.6	2285	1211	2285	777.6	575.4	484.3	575.4	50- 60	1312	6431	85.9,85.9
70	416.9	852.1	339.3	852.1	416.9	279.6	246.9	279.6	60- 70	747.4	7178	95.9,95.9
80	84.88	153.3	73.44	153.3	84.88	64.89	41.84	64.89	70- 80	277.0	7455	99.6,99.6
90	2.261	1.855	1.825	1.855	2.261	3.378	2.176	3.378	80- 90	28.93	7484	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): 4318 lm

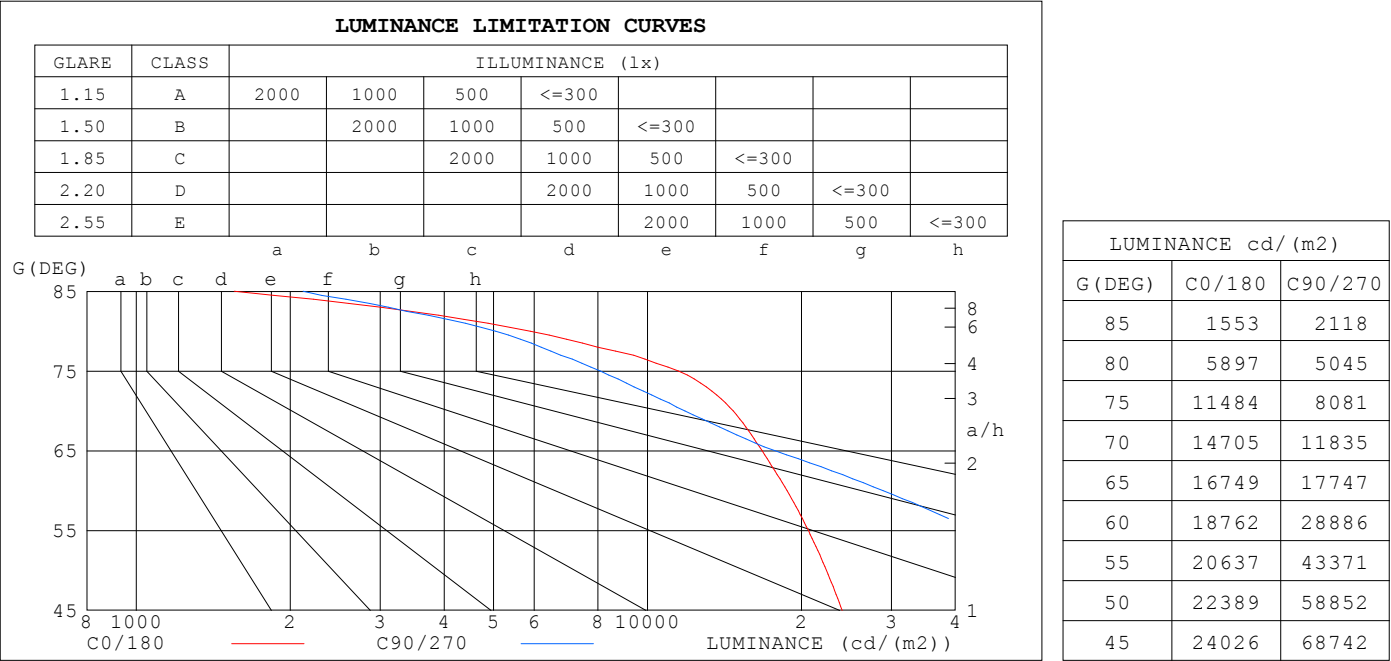
%lum = 57.7%
%lamp = 57.7%

Conical surface Flux(120deg): 6430.5 lm

%lum = 85.9%
%lamp = 85.9%

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 15.0DEG	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

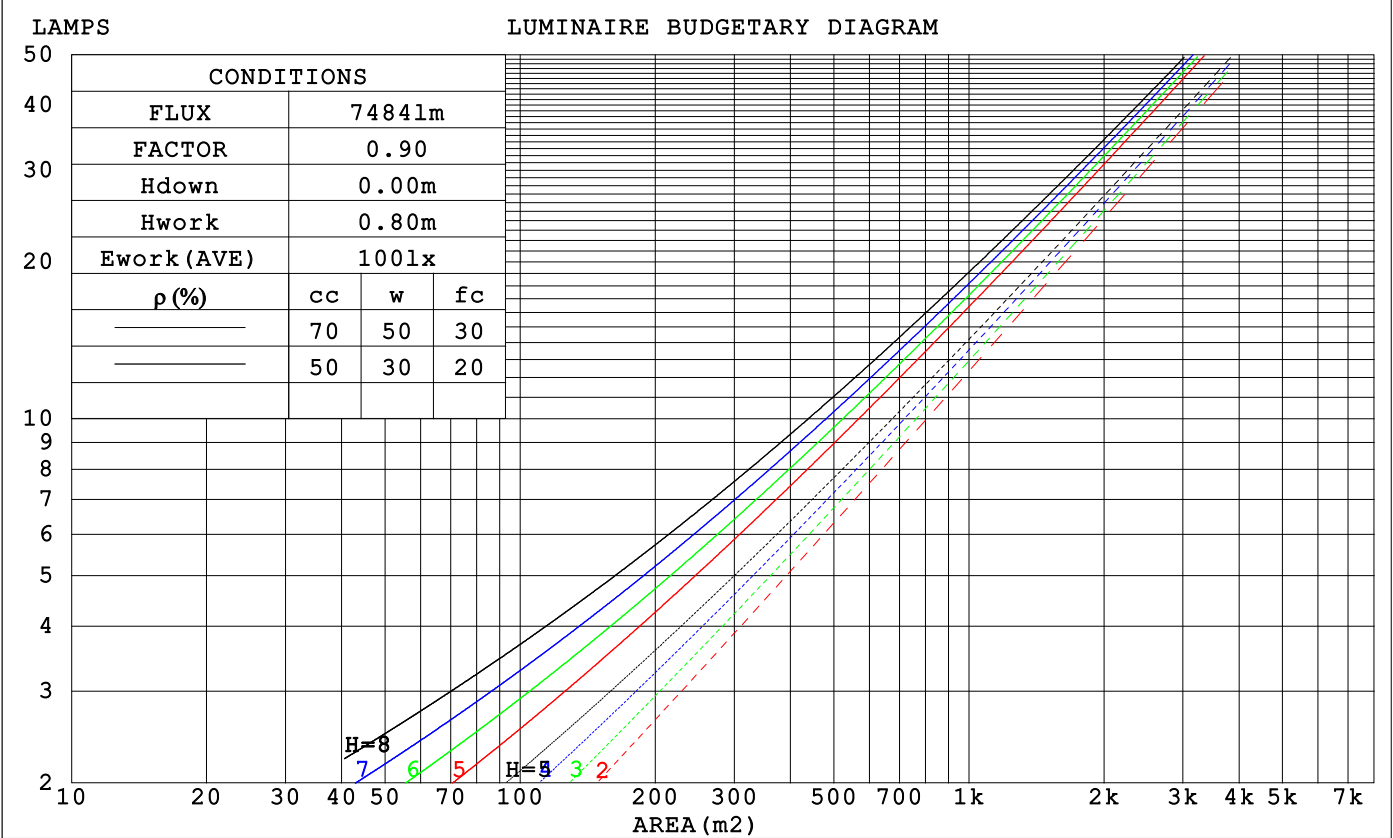


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-11-11

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:

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
pf _c	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	.70	.65	.72	.68	.64	.62
4.0	.73	.64	.58	.71	.64	.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: 15.0DEG
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	.250	.139	.043	.240	.135	.042	.230	.130	.041	
3.0	.253	.135	.040	.248	.133	.040	.238	.129	.039	.229	.125	.038	.220	.122	.038	
4.0	.237	.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: 15.0DEG
 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	24.3	25.9	24.7	26.2	26.5	26.5	28.1	26.9	28.4	28.7
3H	25.3	26.7	25.6	27.0	27.4	26.7	28.2	27.1	28.5	28.9
4H	25.5	26.9	25.9	27.2	27.6	26.8	28.1	27.2	28.4	28.8
6H	25.6	26.9	26.1	27.2	27.6	26.7	28.0	27.2	28.3	28.7
8H	25.6	26.8	26.1	27.2	27.6	26.7	27.9	27.1	28.3	28.7
12H	25.6	26.7	26.0	27.1	27.5	26.7	27.8	27.1	28.2	28.6
4H 2H	25.8	27.2	26.2	27.5	27.9	27.3	28.7	27.7	29.0	29.4
3H	27.3	28.4	27.7	28.8	29.2	27.7	28.8	28.1	29.2	29.6
4H	27.7	28.7	28.1	29.1	29.5	27.7	28.7	28.2	29.1	29.6
6H	27.8	28.7	28.3	29.1	29.6	27.7	28.6	28.2	29.0	29.5
8H	27.8	28.6	28.2	29.0	29.5	27.7	28.5	28.2	28.9	29.4
12H	27.8	28.5	28.2	29.0	29.4	27.7	28.4	28.2	28.9	29.3
8H 4H	27.8	28.6	28.3	29.0	29.5	27.9	28.7	28.4	29.1	29.6
6H	28.0	28.7	28.5	29.1	29.6	27.9	28.6	28.4	29.1	29.5
8H	28.0	28.6	28.5	29.1	29.6	27.9	28.5	28.4	29.0	29.5
12H	28.0	28.5	28.5	29.0	29.6	27.9	28.4	28.4	28.9	29.4
12H 4H	27.8	28.5	28.2	29.0	29.4	27.9	28.6	28.4	29.1	29.6
6H	28.0	28.6	28.5	29.0	29.6	27.9	28.5	28.4	29.0	29.5
8H	28.0	28.5	28.5	29.0	29.6	27.9	28.4	28.4	28.9	29.5
CIE190: 2010										

CIE190: 2010
Area: 0.08378 m2

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

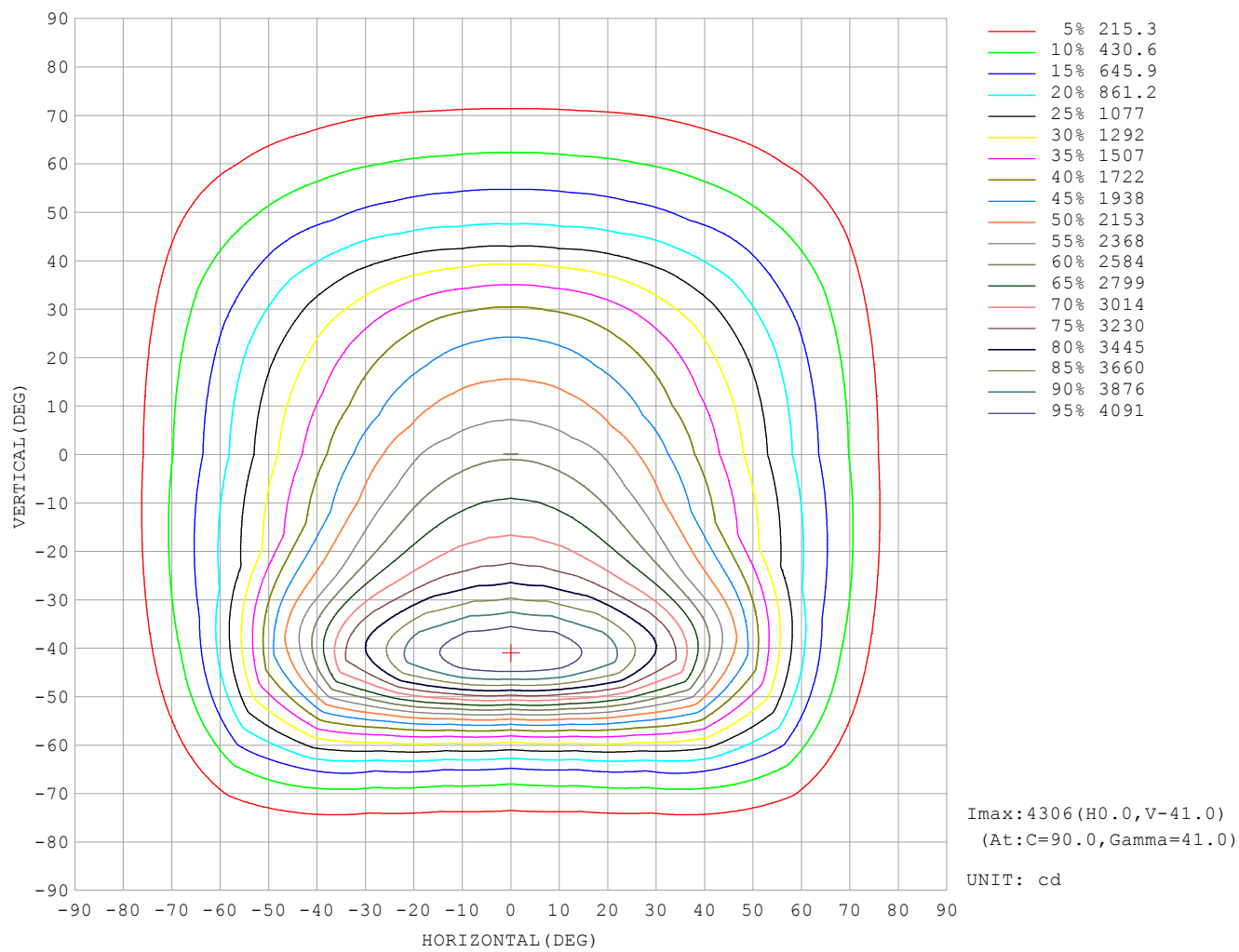
UTILIZATION FACTORS TABLE

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	84	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	103	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: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: HXL
Test Date: 2024-11-11

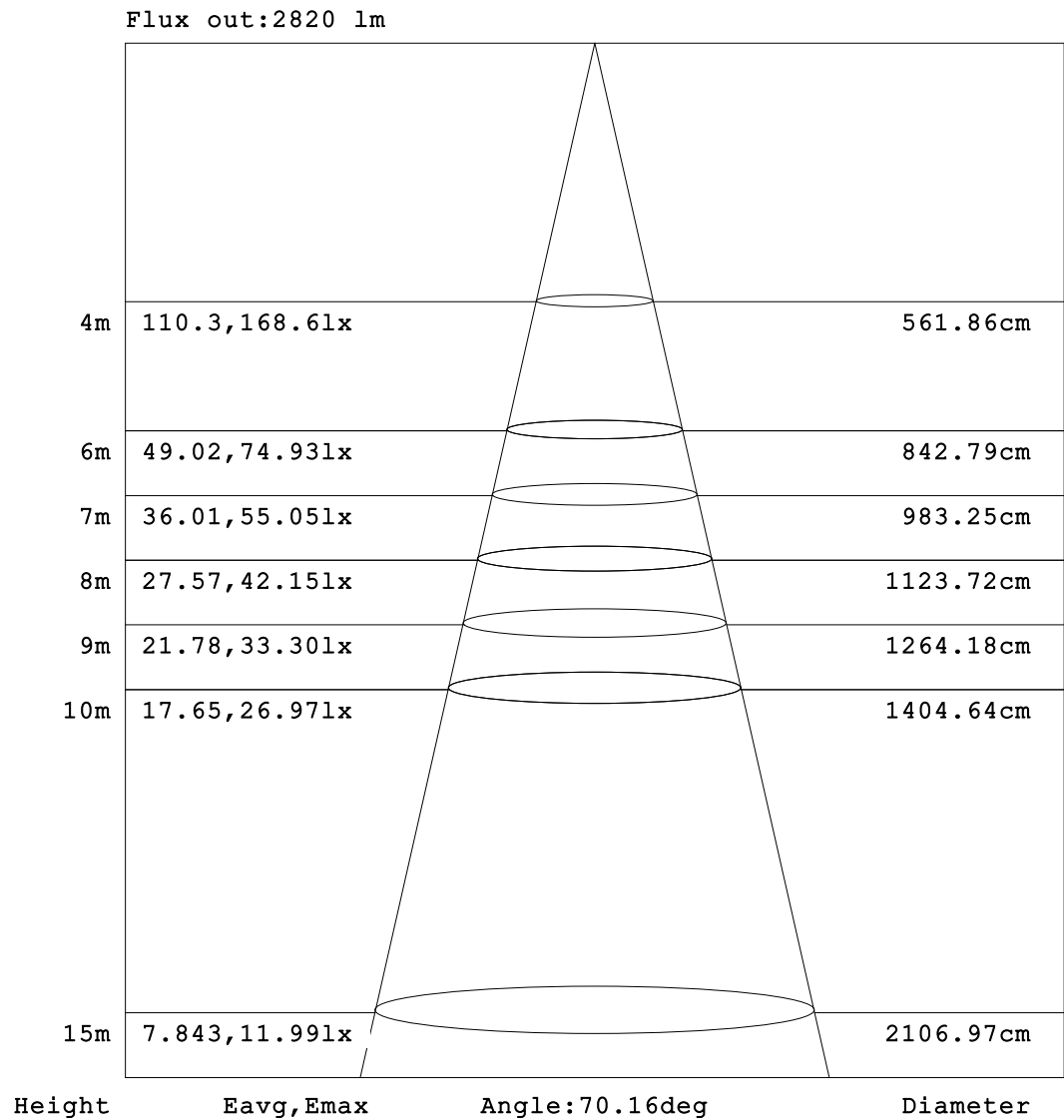
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity: 65.0%
Test Distance: 9.990m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM



C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 15.0DEG	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:

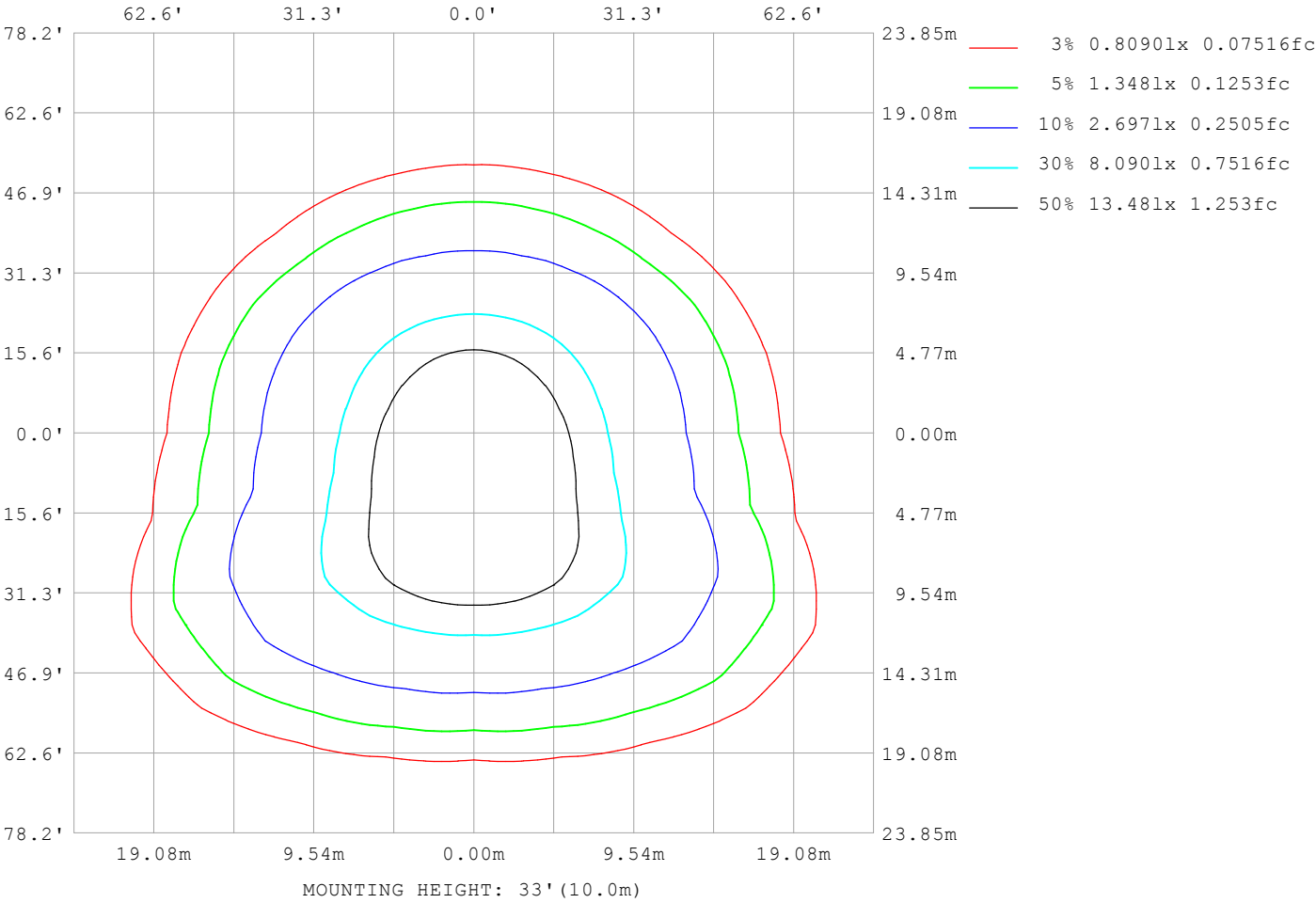
AAI Figure



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

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

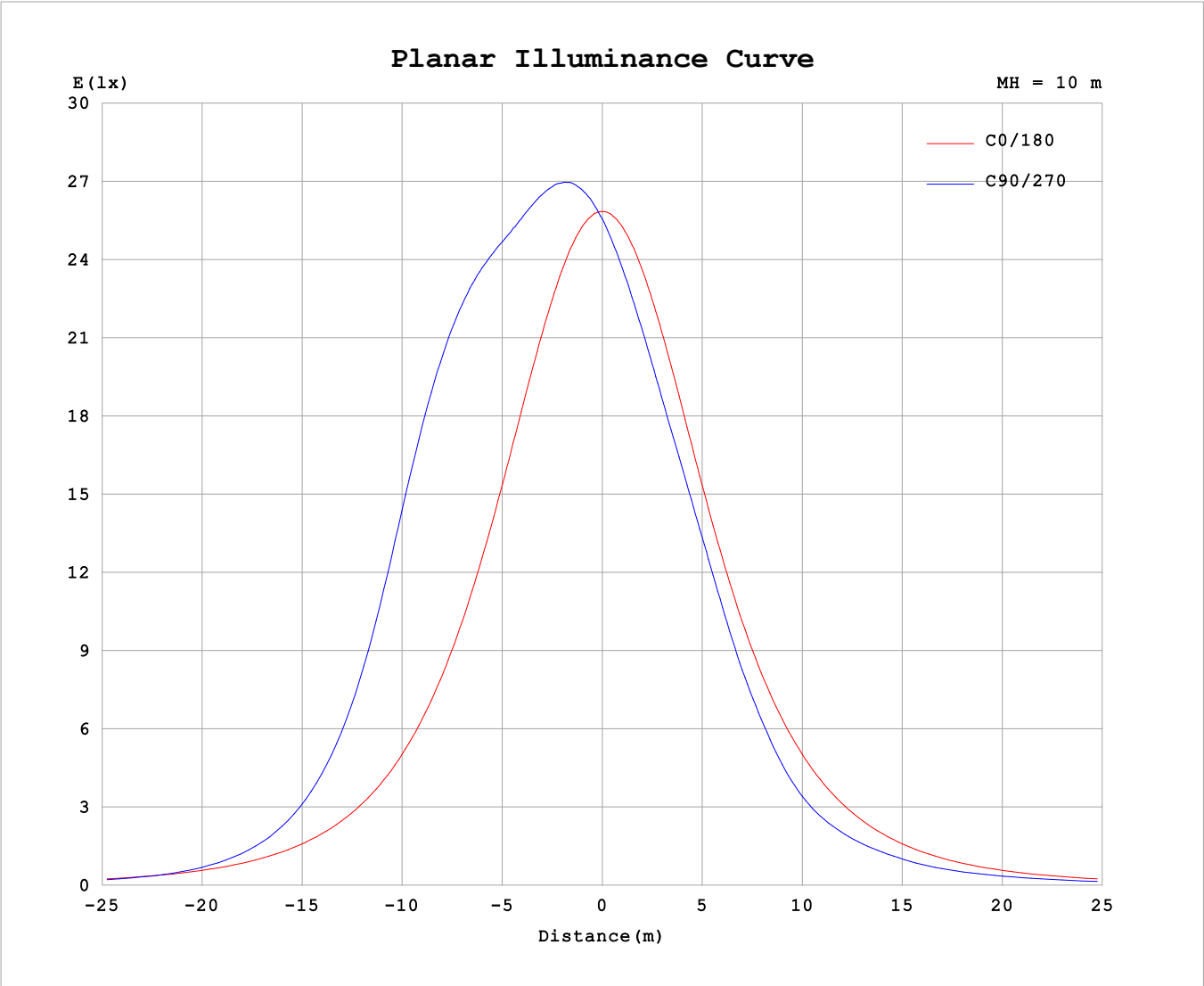
ISOLUX DIAGRAM



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