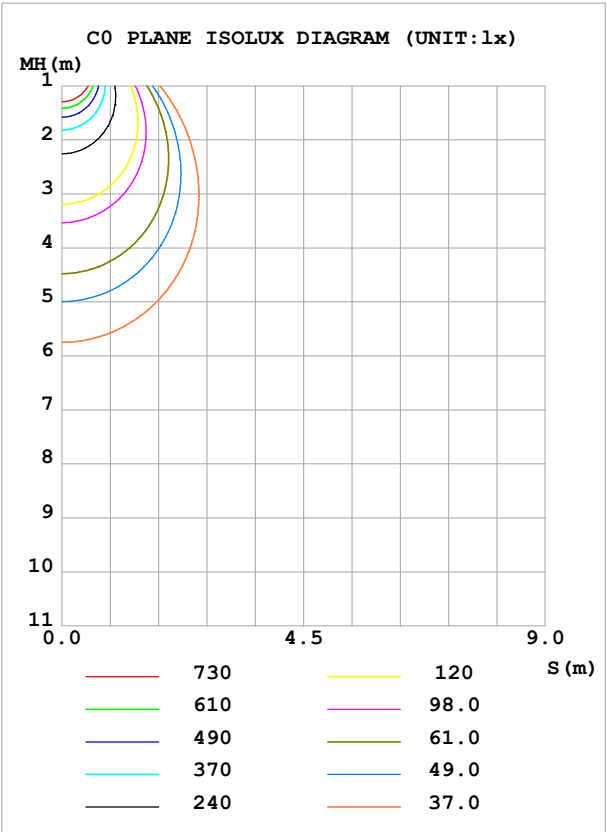
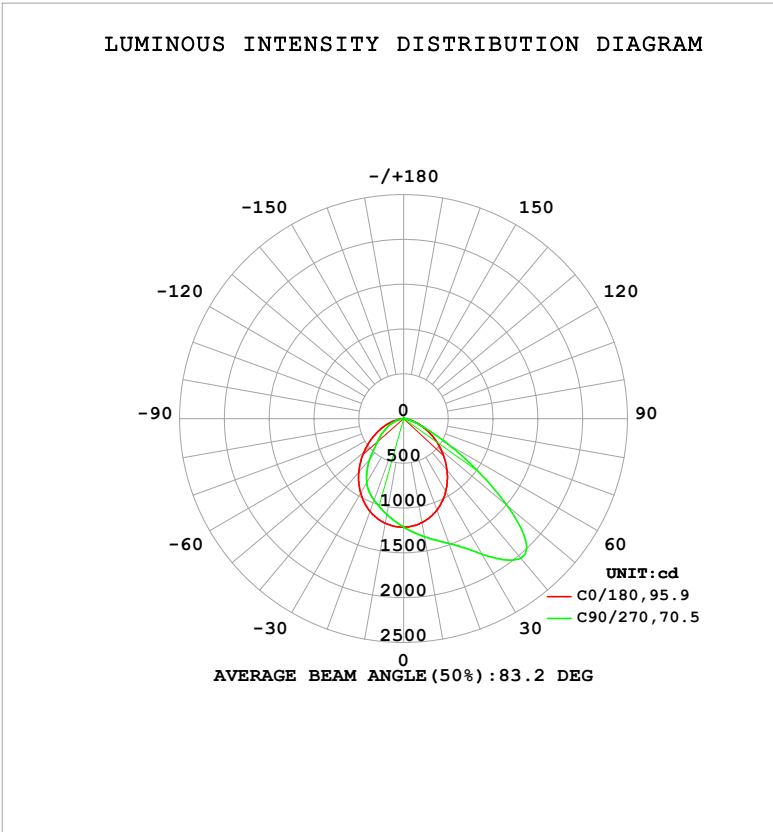


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.6V I:0.1172A P:25.1W PF:0.9316 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:3548.46x1 lm		
NAME: X500-457KA-9060 (25W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 141.52 lm/W
MODEL	/	I <sub>max</sub> (cd)	2035	S/MH(C0/180)	1.19	
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.05	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	3548.5	η UP,DN(C0-180)	0.0,65.9	
NOMINAL FLUX(lm)	3548.46	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	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	1180	1285	1338	1287	1187	1112	1087	1109	0- 10	115.0	115.0	3.24,3.24
20	1087	1332	1483	1336	1102	991.1	968.5	985.4	10- 20	334.1	449.2	12.7,12.7
30	941.3	1380	1744	1378	962.0	856.7	824.8	848.6	20- 30	526.6	975.7	27.5,27.5
40	754.8	1509	2033	1490	781.0	688.4	592.0	670.2	30- 40	686.9	1663	46.9,46.9
50	550.7	1566	1504	1590	579.1	477.8	371.2	455.8	40- 50	762.6	2425	68.3,68.3
60	354.0	1025	576.5	1124	381.8	282.6	230.4	266.7	50- 60	621.6	3047	85.9,85.9
70	184.1	358.9	162.2	440.2	209.8	140.5	117.4	127.0	60- 70	356.0	3403	95.9,95.9
80	31.37	58.87	34.73	85.35	48.86	36.68	19.93	25.69	70- 80	131.9	3535	99.6,99.6
90	1.128	0.7330	0.8519	1.015	0.9364	1.445	1.017	1.656	80- 90	13.69	3548	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): 2045.8 lm

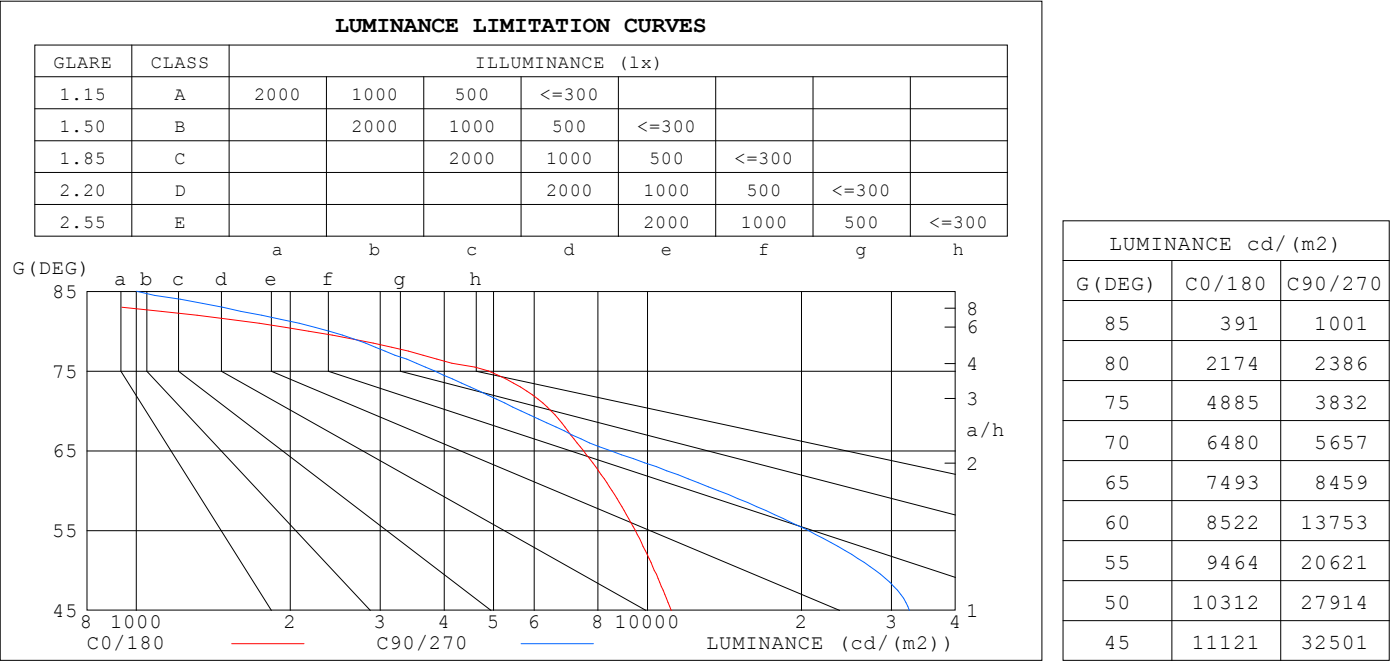
%lum = 57.7%  
%lamp = 57.7%

Conical surface Flux(120deg): 3046.8 lm

%lum = 85.9%  
%lamp = 85.9%

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

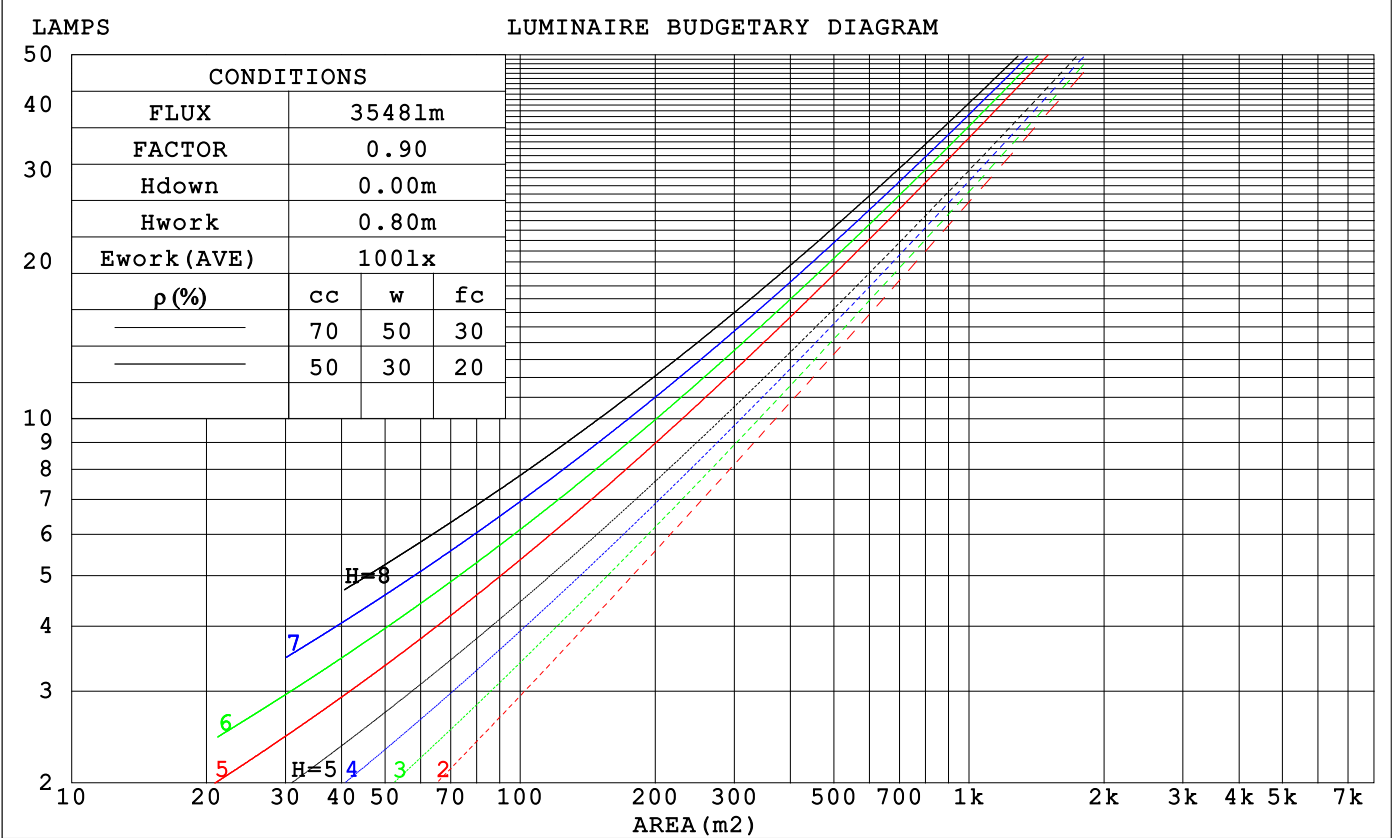


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:HXL  
Test Date:2024-11-11

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:

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

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.275	.157	.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	

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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	2H	22.2	23.8	22.6	24.1	24.4	24.1	25.7	24.5	26.0	26.4
	3H	23.5	24.9	23.9	25.3	25.6	24.4	25.8	24.7	26.1	26.5
	4H	23.8	25.2	24.2	25.5	25.9	24.4	25.7	24.8	26.1	26.4
	6H	23.9	25.1	24.3	25.5	25.9	24.4	25.6	24.8	26.0	26.4
	8H	23.8	25.0	24.3	25.4	25.8	24.3	25.5	24.8	25.9	26.3
	12H	23.8	24.9	24.3	25.3	25.8	24.3	25.4	24.7	25.8	26.2
	4H	2H	23.4	24.7	23.8	25.1	25.5	25.0	26.3	25.4	26.7
	3H	24.8	25.9	25.2	26.3	26.7	25.4	26.5	25.8	26.9	27.3
	4H	25.2	26.2	25.7	26.6	27.1	25.4	26.4	25.9	26.8	27.3
	6H	25.3	26.2	25.8	26.6	27.1	25.4	26.3	25.9	26.7	27.2
	8H	25.3	26.1	25.8	26.6	27.0	25.4	26.2	25.9	26.6	27.1
	12H	25.3	26.0	25.8	26.5	26.9	25.4	26.1	25.8	26.6	27.0
	8H	4H	25.3	26.1	25.8	26.5	27.0	25.6	26.4	26.1	26.8
	6H	25.4	26.1	25.9	26.6	27.1	25.6	26.3	26.1	26.8	27.2
	8H	25.4	26.0	25.9	26.5	27.0	25.6	26.2	26.1	26.7	27.2
	12H	25.4	25.9	25.9	26.4	27.0	25.6	26.1	26.1	26.6	27.1
	12H	4H	25.3	26.0	25.8	26.5	26.9	25.6	26.3	26.1	26.8
	6H	25.4	26.0	25.9	26.5	27.0	25.6	26.2	26.1	26.7	27.2
	8H	25.4	25.9	25.9	26.4	27.0	25.6	26.1	26.1	26.6	27.2
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

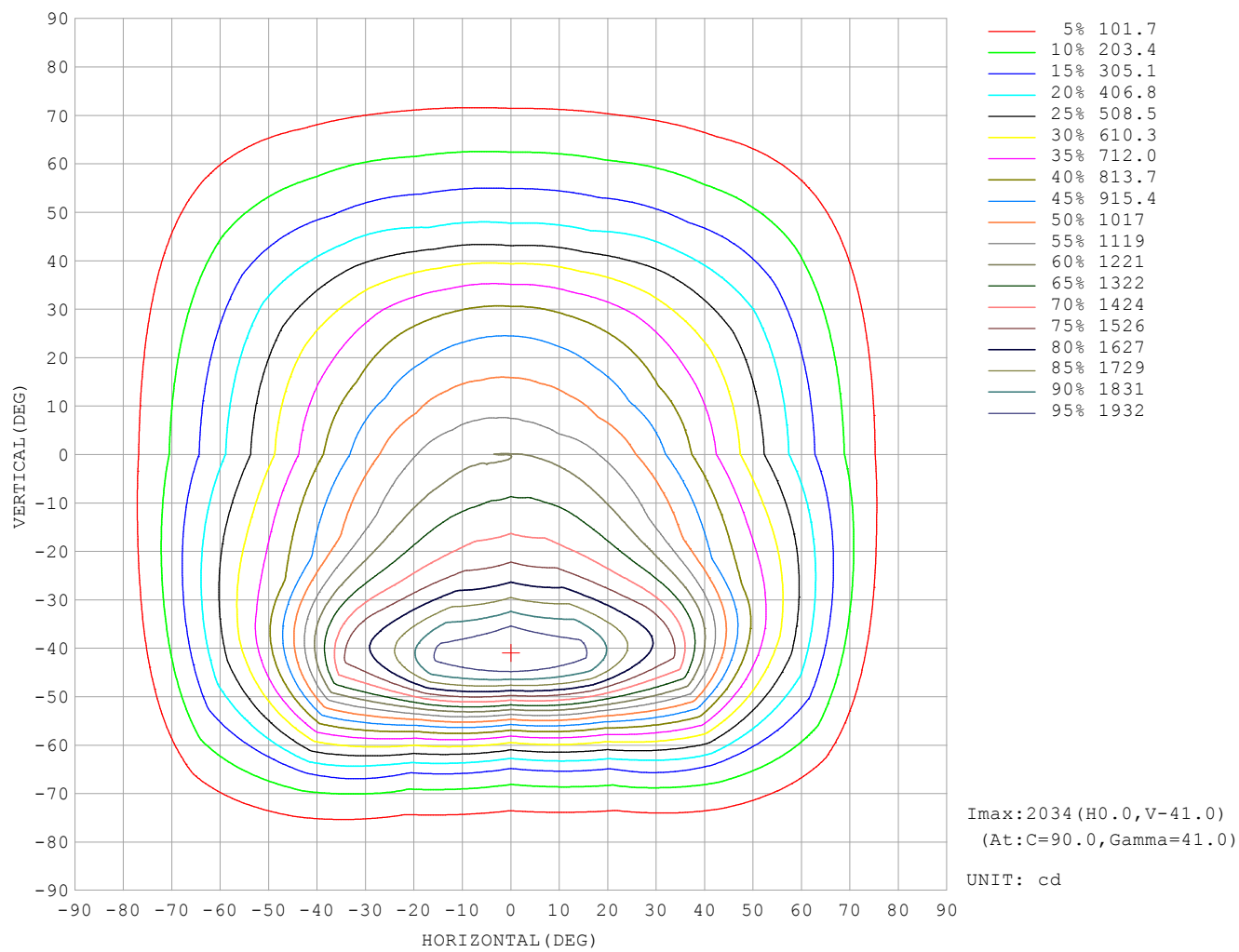
UTILIZATION FACTORS TABLE

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	75	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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 $\gamma$  Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.487  
Humidity: 65.0%  
Test Distance: 9.990m [K=1.0000]  
Remarks:

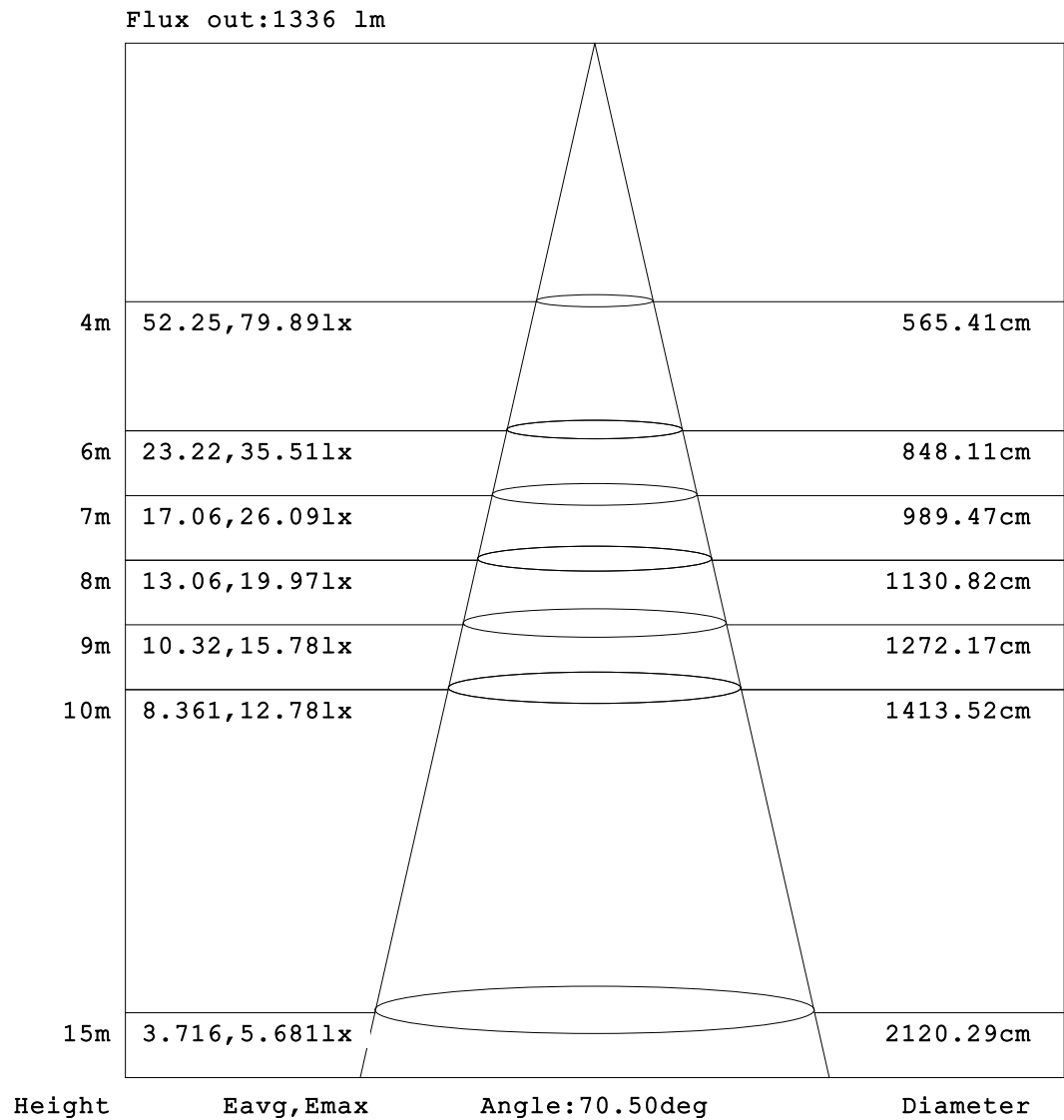
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG	$\gamma$ Range: 0 - 90DEG
C Interval: 22.5DEG	$\gamma$ 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:



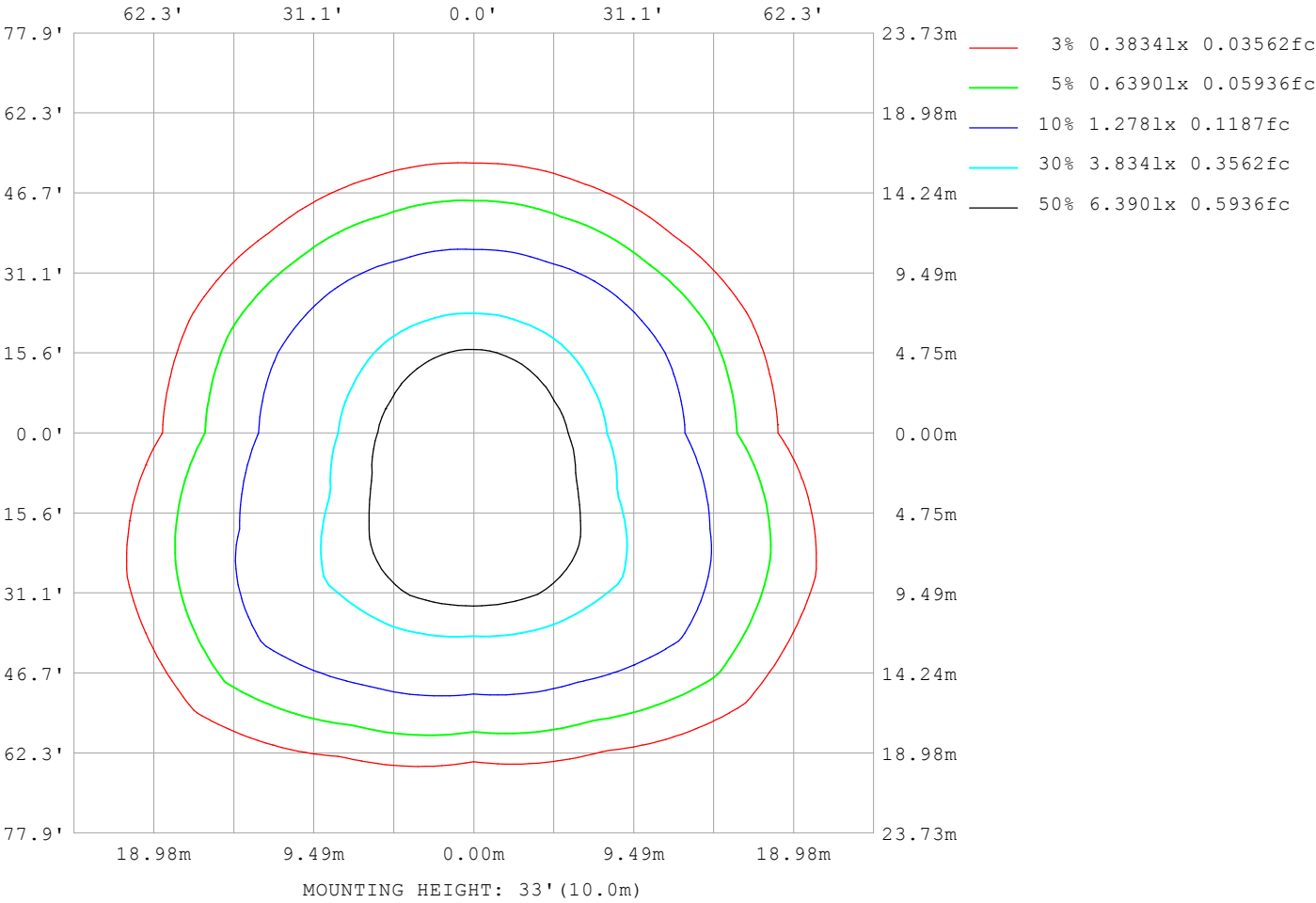
AAI Figure



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

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

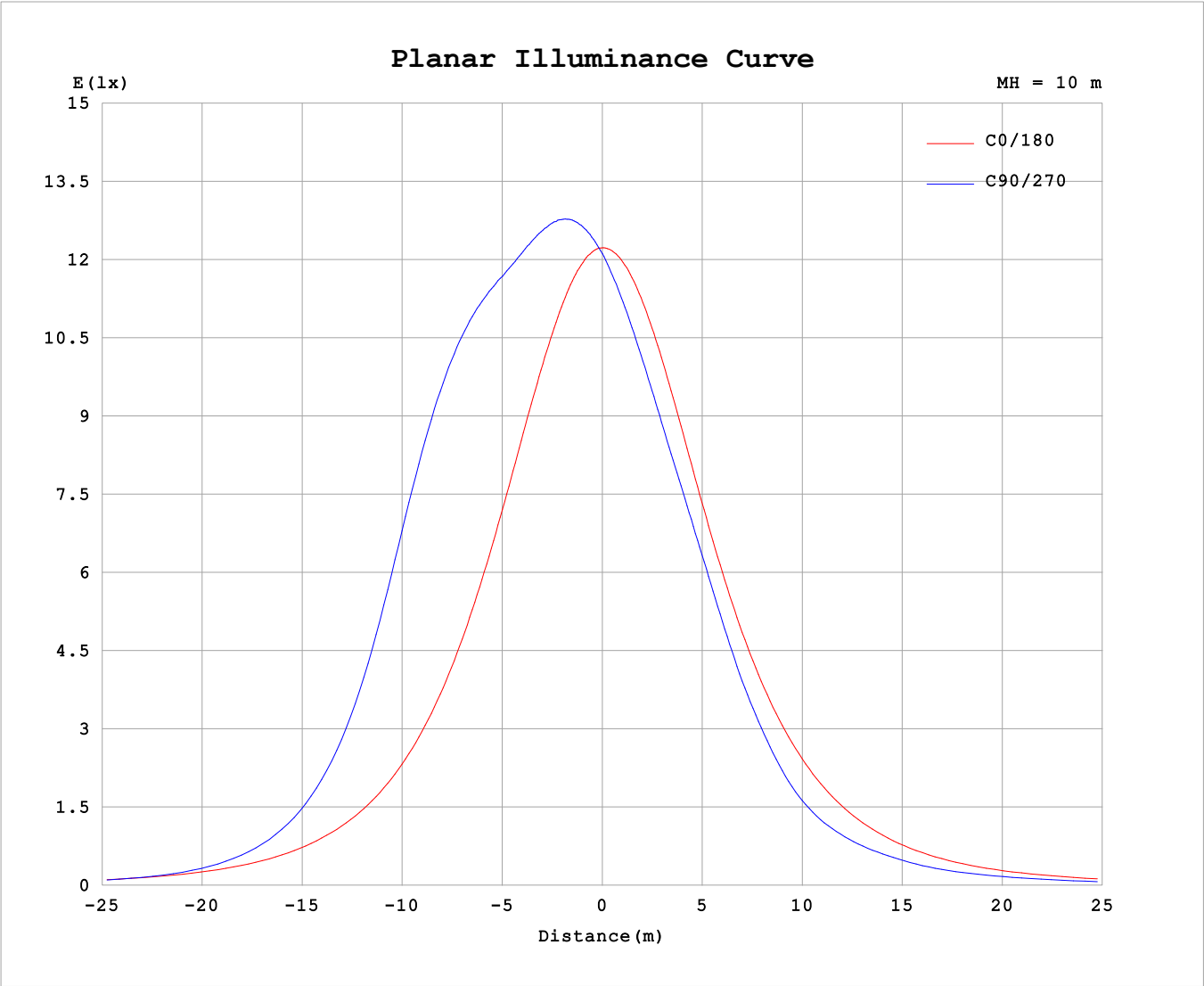
ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 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: