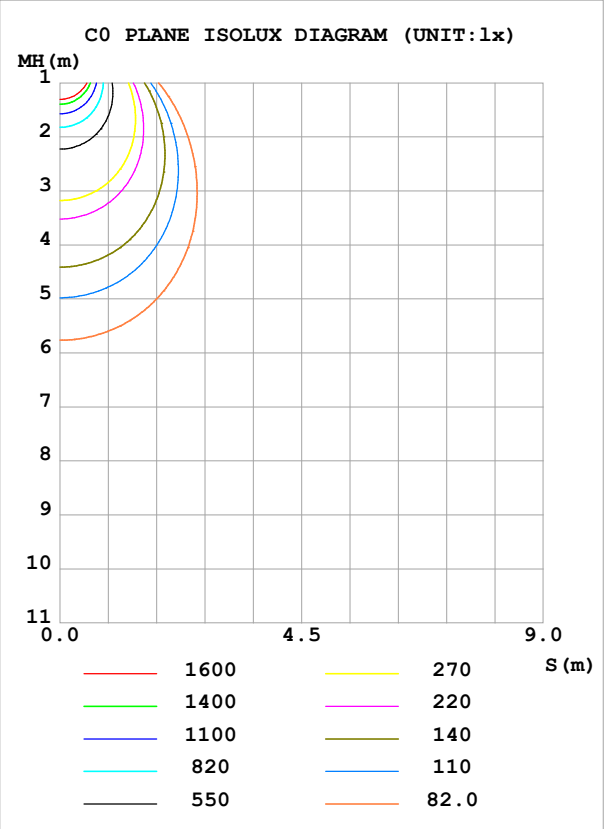
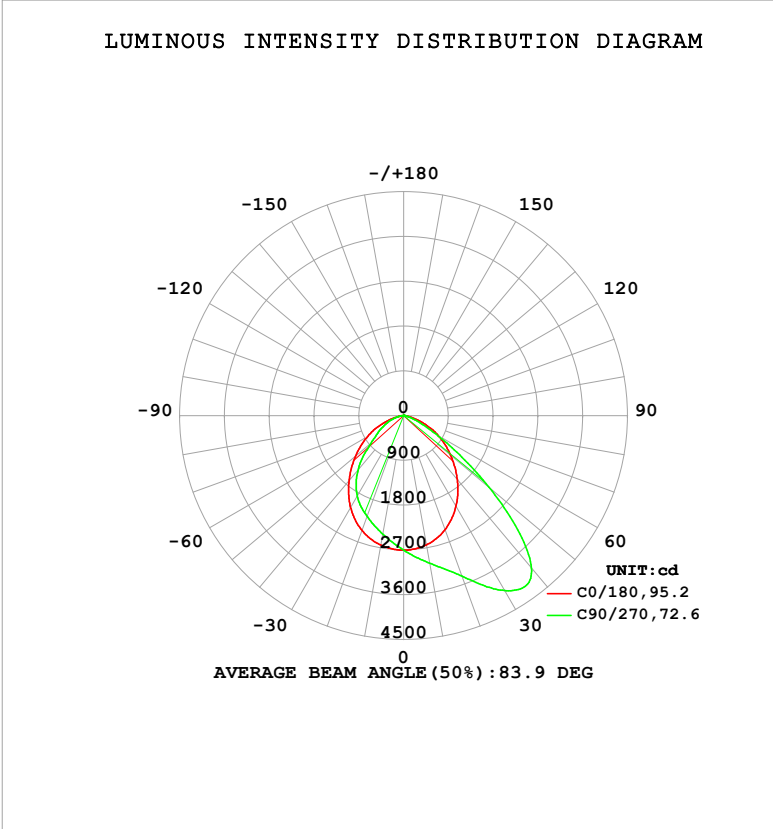


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.6V I:0.2663A P:48.2W PF:0.7880 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:7459.88x1 lm		
NAME: X501-457KA-9060 (50W 5700K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 154.83 lm/W
MODEL	/	I _{max} (cd)	4212	S/MH (C0/180)	1.18	
NOMINAL POWER(W)	/	LOR (%)	100.0	S/MH (C90/270)	1.05	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	7459.9	η UP,DN (C0-180)	0.0,63.6	
NOMINAL FLUX(lm)	7459.88	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,36.4	
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
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-10-28

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	2639	2887	3012	2882	2643	2468	2421	2472	0- 10	256.9	256.9	3.44,3.44
20	2439	3039	3433	3025	2455	2190	2154	2198	10- 20	749.7	1007	13.5,13.5
30	2106	3261	4059	3214	2135	1891	1867	1892	20- 30	1197	2204	29.5,29.5
40	1681	3487	3999	3479	1710	1540	1427	1527	30- 40	1552	3755	50.3,50.3
50	1232	3035	2247	3177	1262	1110	855.1	1085	40- 50	1595	5351	71.7,71.7
60	805.9	1633	757.9	1808	836.3	641.2	519.6	620.7	50- 60	1186	6536	87.6,87.6
70	382.9	541.1	228.8	641.6	416.3	316.1	279.4	297.3	60- 70	663.8	7200	96.5,96.5
80	76.42	62.51	36.70	83.27	94.00	83.81	67.42	70.67	70- 80	236.0	7436	99.7,99.7
90	2.492	1.751	1.388	1.593	2.024	2.896	1.803	2.804	80- 90	24.03	7460	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): 4580.5 lm

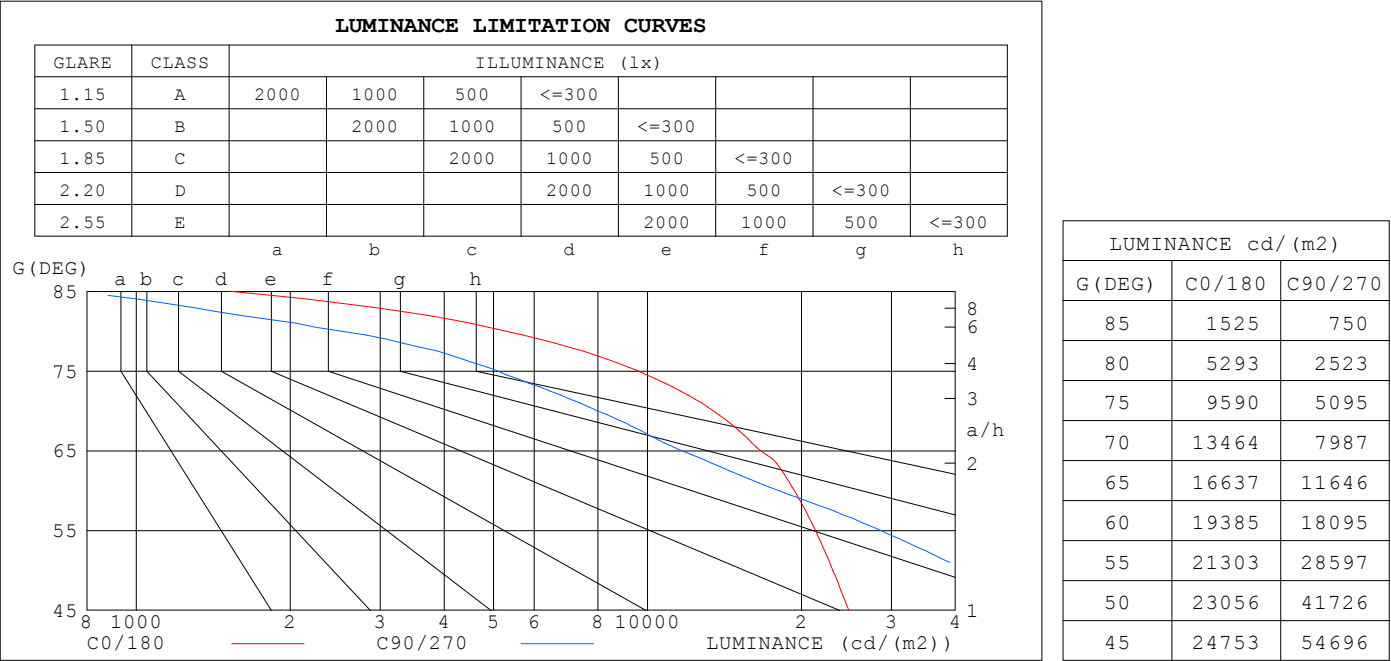
%lum = 61.4%
%lamp = 61.4%

Conical surface Flux(120deg): 6536.1 lm

%lum = 87.6%
%lamp = 87.6%

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:2024-10-28	Remarks:

LUMINANCE LIMITATION CURVES

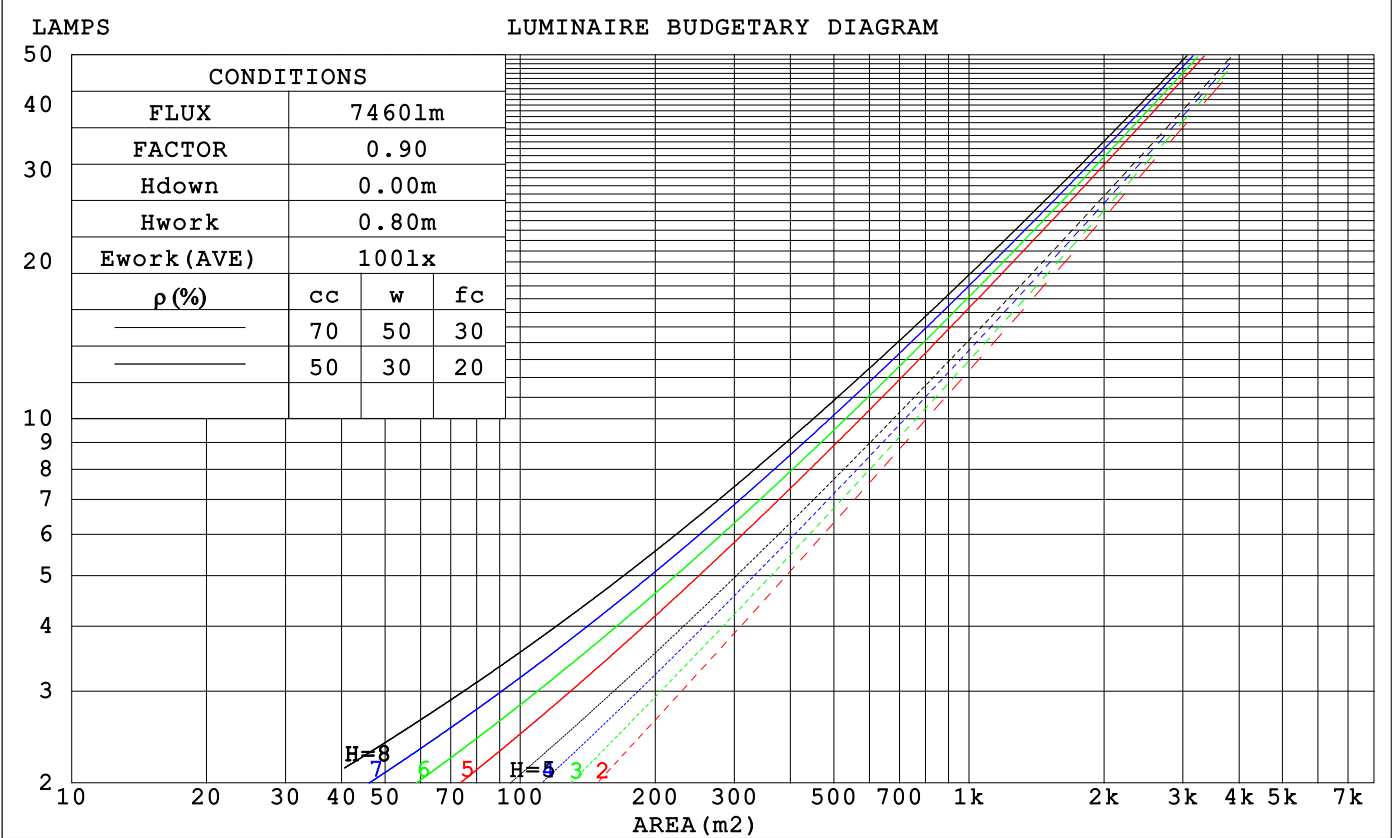


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-10-28

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	.99	1.04	1.01	.98	.00	.97	.94	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.83	.92	.86	.82	.88	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.83	.76	.70	.82	.75	.69	.79	.73	.68	.76	.71	.67	.73	.69	.66	.63
4.0	.74	.66	.60	.73	.65	.59	.70	.64	.58	.68	.62	.58	.66	.61	.57	.55
5.0	.66	.58	.52	.65	.57	.51	.63	.56	.51	.61	.55	.50	.59	.54	.50	.48
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.44	.55	.49	.44	.54	.48	.44	.42
7.0	.54	.46	.40	.53	.45	.40	.52	.45	.39	.50	.44	.39	.49	.43	.39	.37
8.0	.49	.41	.35	.49	.41	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
9.0	.45	.37	.32	.45	.37	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.30
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.38	.33	.28	.27



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-10-28

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	.266	.151	.048	.259	.148	.047	.246	.141	.045	.234	.135	.043	.223	.129	.042		
2.0	.260	.142	.044	.254	.140	.043	.242	.135	.042	.232	.130	.041	.222	.126	.040		
3.0	.246	.131	.039	.241	.129	.039	.231	.125	.038	.221	.121	.037	.213	.118	.036		
4.0	.231	.120	.035	.227	.119	.035	.218	.115	.034	.209	.112	.034	.202	.110	.033		
5.0	.217	.110	.032	.212	.109	.032	.205	.106	.031	.197	.104	.031	.190	.102	.031		
6.0	.203	.102	.029	.199	.101	.029	.192	.099	.029	.186	.096	.028	.179	.094	.028		
7.0	.191	.094	.027	.187	.093	.027	.181	.091	.026	.175	.090	.026	.169	.088	.026		
8.0	.179	.088	.025	.176	.087	.025	.170	.085	.024	.165	.084	.024	.160	.082	.024		
9.0	.169	.082	.023	.166	.081	.023	.161	.080	.023	.156	.078	.022	.152	.077	.022		
10.0	.159	.076	.021	.157	.076	.021	.152	.075	.021	.148	.073	.021	.144	.072	.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	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.160	.114	.078	.137	.098	.067	.094	.068	.047	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.061	.131	.087	.053	.090	.061	.037	.052	.035	.022	.017	.012	.007	
5.0	.145	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.041	.119	.071	.035	.082	.049	.025	.048	.029	.015	.015	.010	.005	
7.0	.132	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.126	.069	.030	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators: HXL
 Test Date:2024-10-28

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	2H	25.2	26.7	25.5	27.0	27.4	24.0	25.5	24.3	25.8	26.2
	3H	26.1	27.5	26.5	27.8	28.2	24.2	25.6	24.6	25.9	26.3
	4H	26.3	27.6	26.7	27.9	28.3	24.2	25.5	24.6	25.9	26.2
	6H	26.3	27.5	26.7	27.9	28.3	24.2	25.4	24.6	25.7	26.1
	8H	26.3	27.4	26.7	27.8	28.2	24.1	25.3	24.6	25.7	26.1
	12H	26.3	27.4	26.7	27.7	28.2	24.1	25.2	24.5	25.6	26.0
4H	2H	25.7	27.0	26.1	27.4	27.8	25.0	26.3	25.4	26.6	27.0
	3H	27.0	28.1	27.4	28.5	28.9	25.3	26.4	25.7	26.8	27.2
	4H	27.3	28.2	27.7	28.6	29.1	25.3	26.3	25.8	26.7	27.1
	6H	27.3	28.2	27.8	28.6	29.1	25.3	26.1	25.8	26.6	27.0
	8H	27.3	28.1	27.8	28.5	29.0	25.3	26.0	25.7	26.5	27.0
	12H	27.3	28.0	27.8	28.5	28.9	25.2	25.9	25.7	26.4	26.9
8H	4H	27.2	28.0	27.7	28.5	28.9	25.6	26.3	26.0	26.8	27.2
	6H	27.3	28.0	27.8	28.5	28.9	25.5	26.2	26.0	26.6	27.1
	8H	27.3	27.9	27.8	28.4	28.9	25.5	26.0	26.0	26.6	27.0
	12H	27.3	27.8	27.8	28.3	28.8	25.4	26.0	26.0	26.4	27.0
12H	4H	27.2	27.9	27.7	28.4	28.9	25.5	26.2	26.0	26.7	27.2
	6H	27.3	27.9	27.8	28.3	28.9	25.5	26.1	26.0	26.5	27.1
	8H	27.3	27.8	27.8	28.3	28.8	25.5	26.0	26.0	26.5	27.0
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:2024-10-28

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

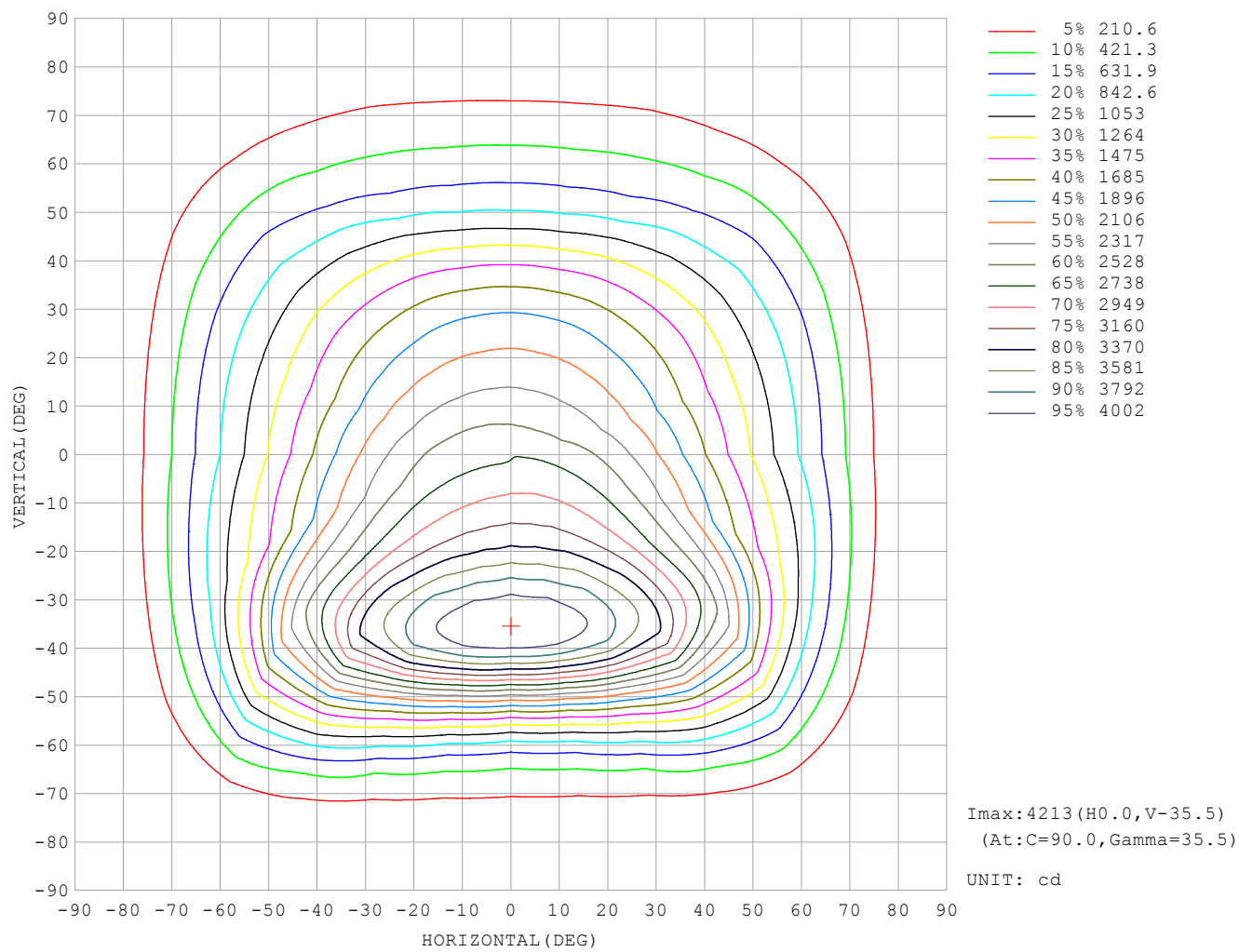
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	42	60	49	42	58	48	42	36
0.80	71	60	53	70	60	53	68	59	52	46
1.00	80	70	63	79	69	63	76	70	62	55
1.25	87	77	71	86	77	71	83	75	70	63
1.50	92	83	77	90	82	76	87	80	75	68
2.00	98	91	85	97	90	84	93	87	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	102	98	102	98	95	87
5.00	110	106	103	108	104	101	103	101	98	89
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: 2024-10-28

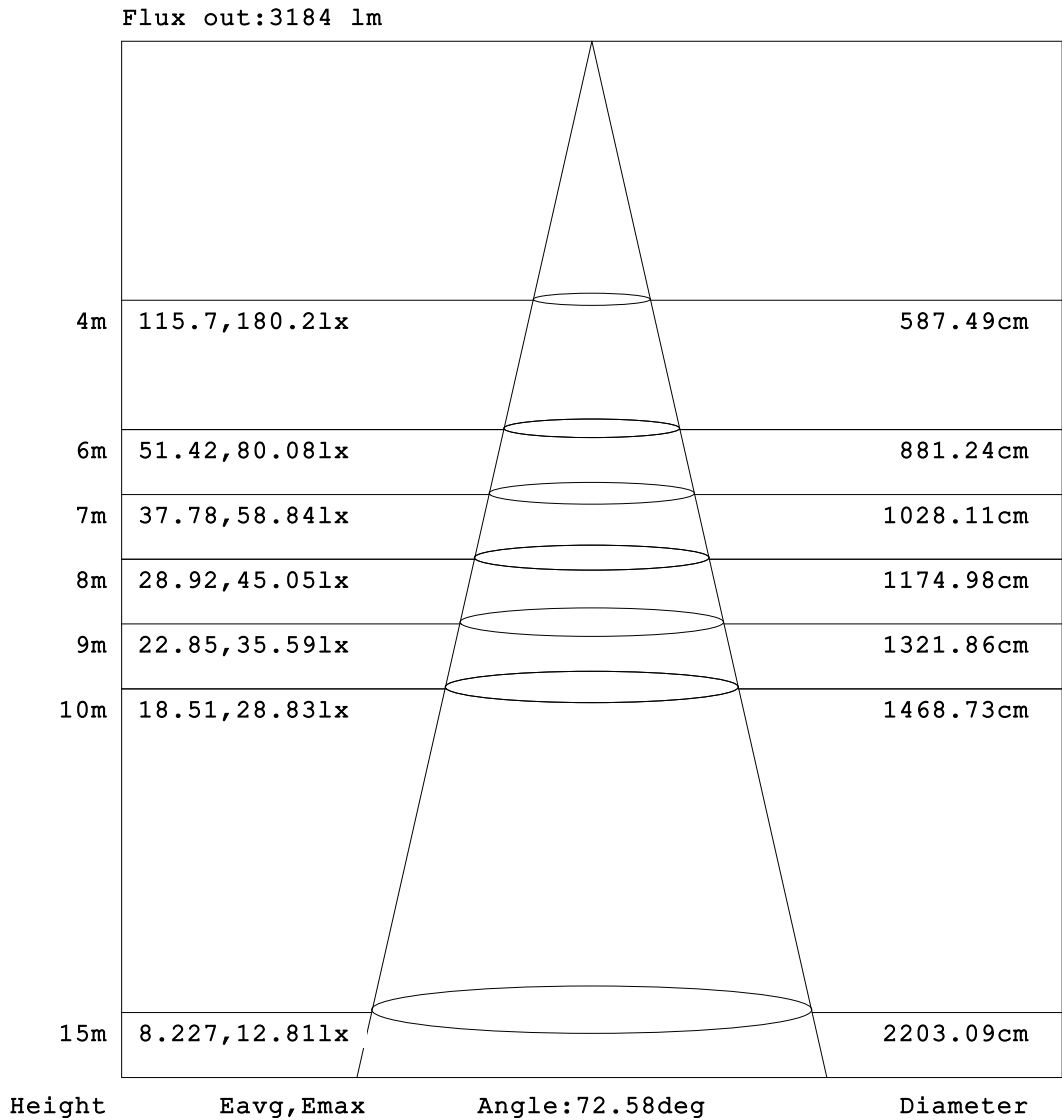
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity: 65.0%
Test Distance: 9.990m [K=1.0000]
Remarks:

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: 2024-10-28	Remarks:

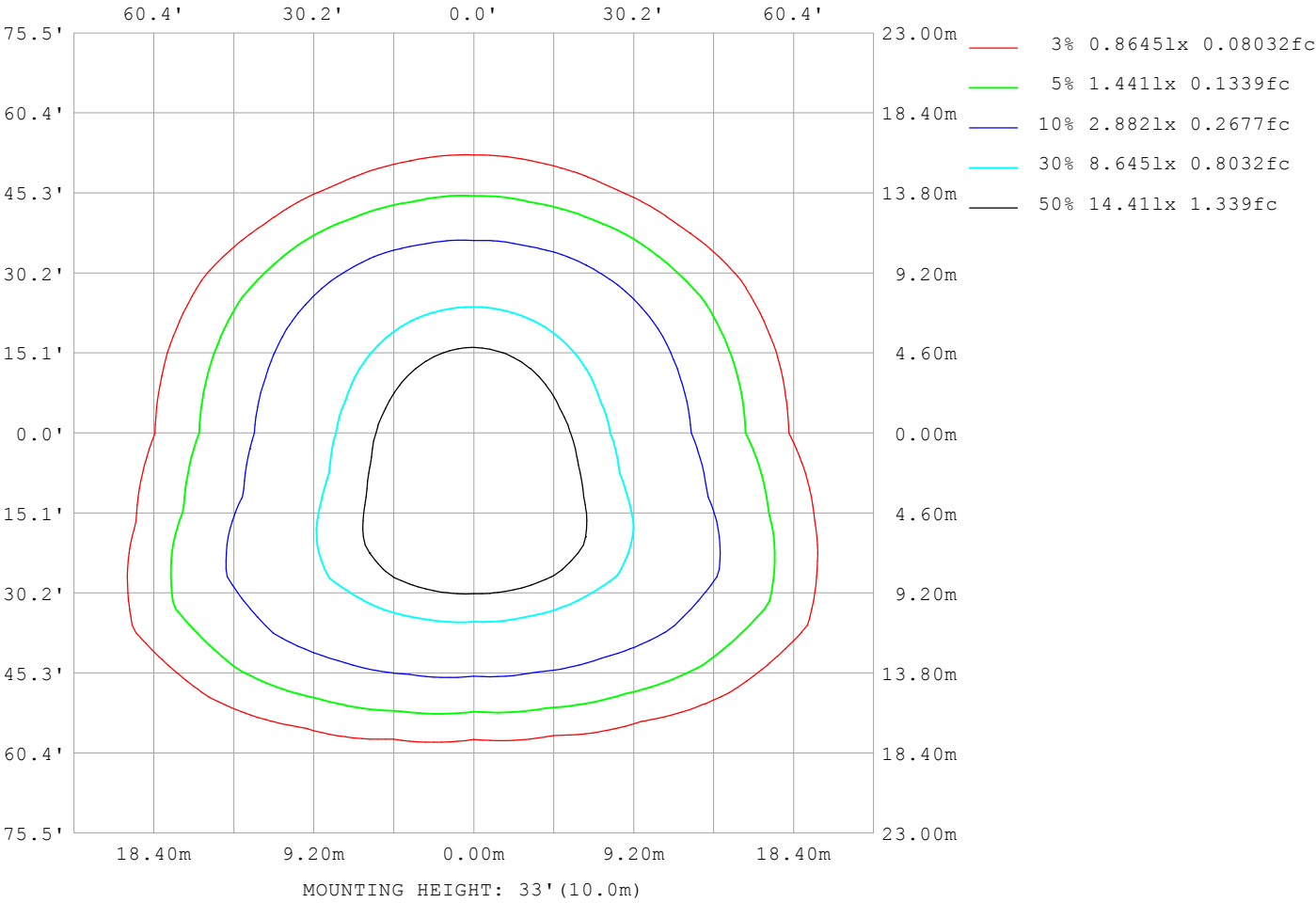
AAI Figure



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

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

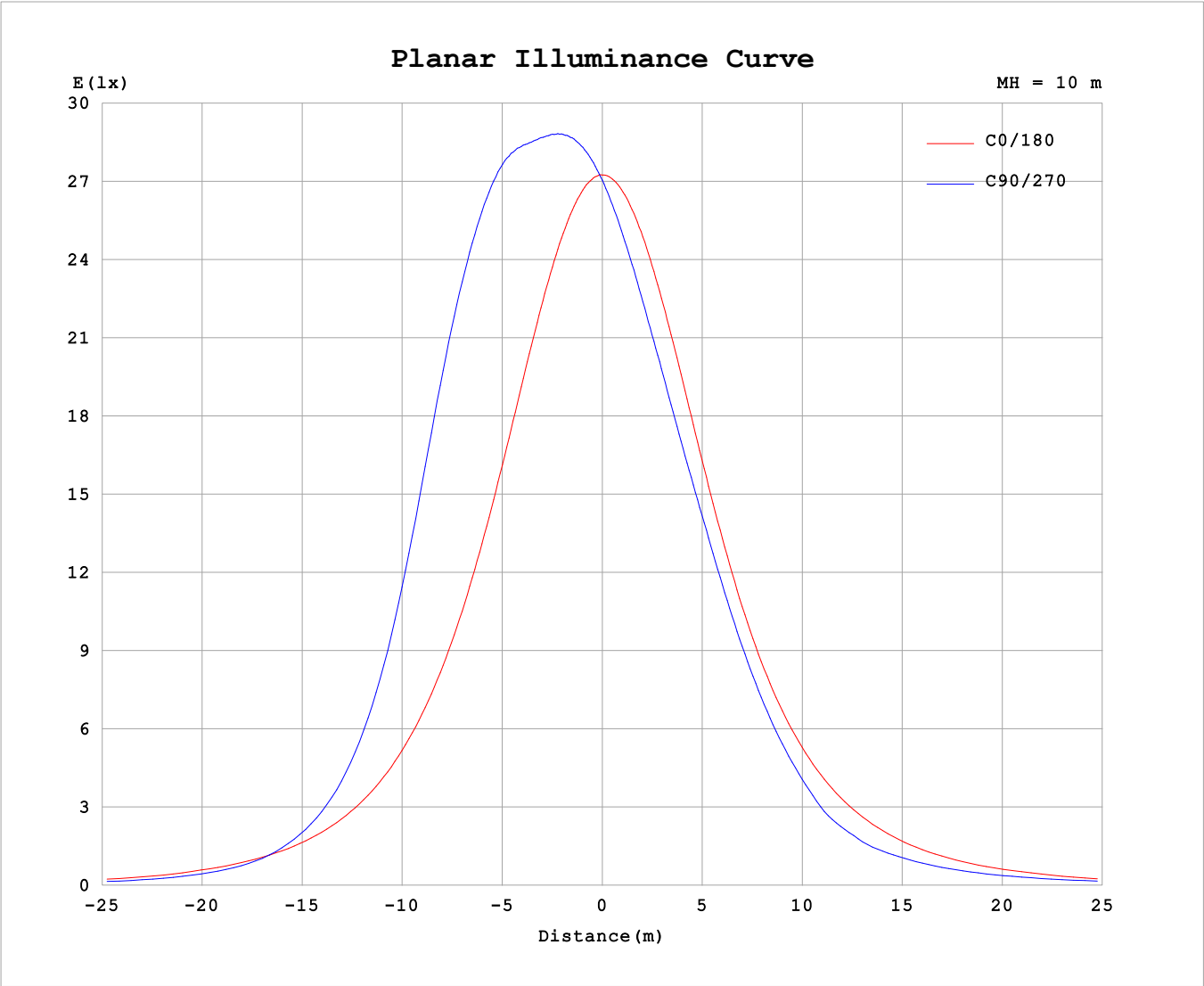
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:HXL
Test Date:2024-10-28

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:2024-10-28	Remarks: