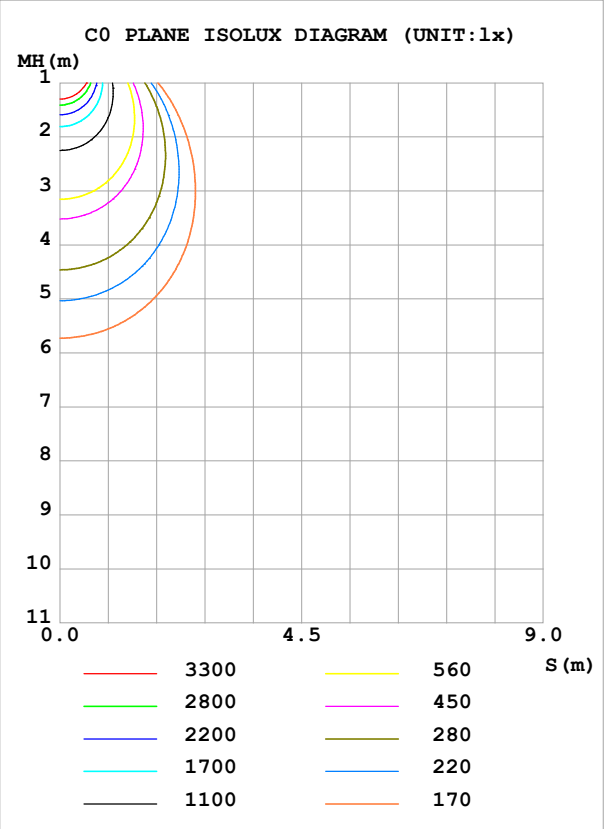
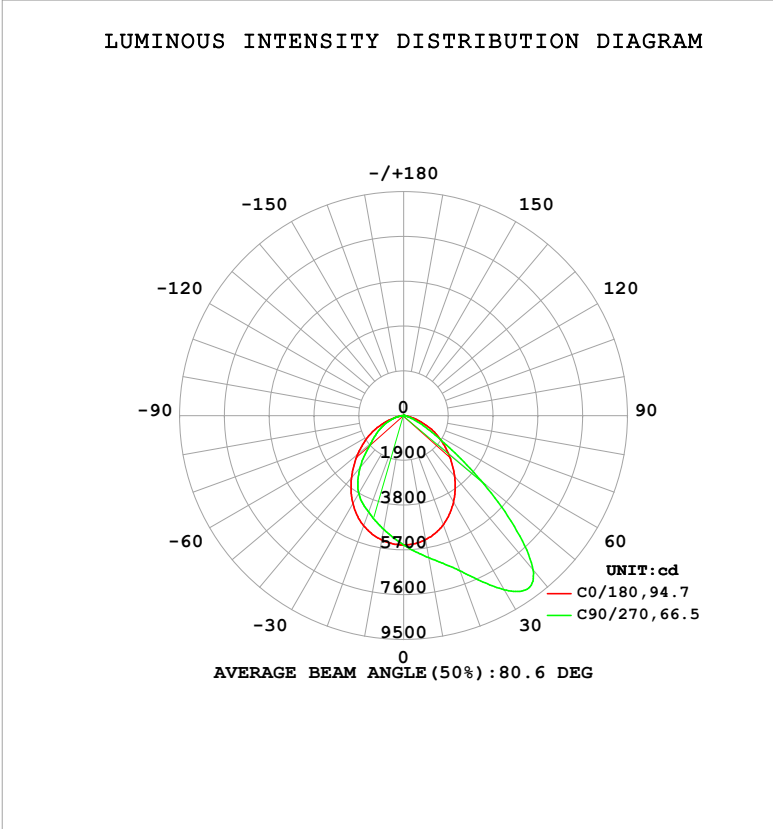


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.7V I:0.4639A P:99.4W PF:0.9326 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:15247.9x1 lm		
NAME: X501-457KA-9060 (100W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
		Eff: 153.44 lm/W			
MODEL	/	I <sub>max</sub> (cd)	9037	S/MH(C0/180)	1.18
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.05
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	15248	η UP,DN(C0-180)	0.0,63.3
NOMINAL FLUX(lm)	15247.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,36.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	/	η down (%)	100.0	CIBSE SHR MAX	1.30



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:

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	5346	5860	6117	5860	5359	4997	4900	5005	0- 10	521.0	521.0	3.42,3.42
20	4927	6181	7011	6151	4971	4431	4361	4443	10- 20	1520	2041	13.4,13.4
30	4237	6693	8530	6601	4314	3834	3818	3835	20- 30	2438	4479	29.4,29.4
40	3370	7378	8536	7358	3447	3145	2876	3114	30- 40	3211	7690	50.4,50.4
50	2469	6463	4270	6818	2545	2247	1809	2194	40- 50	3297	10987	72.1,72.1
60	1625	3196	1325	3633	1694	1366	1178	1327	50- 60	2397	13384	87.8,87.8
70	772.2	961.2	395.9	1134	846.4	724.2	640.5	680.7	60- 70	1332	14716	96.5,96.5
80	155.4	94.14	53.90	142.9	195.6	208.9	180.0	178.5	70- 80	479.6	15196	99.7,99.7
90	5.175	3.816	3.273	3.560	4.168	6.036	3.682	5.547	80- 90	51.86	15248	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): 9402.8 lm

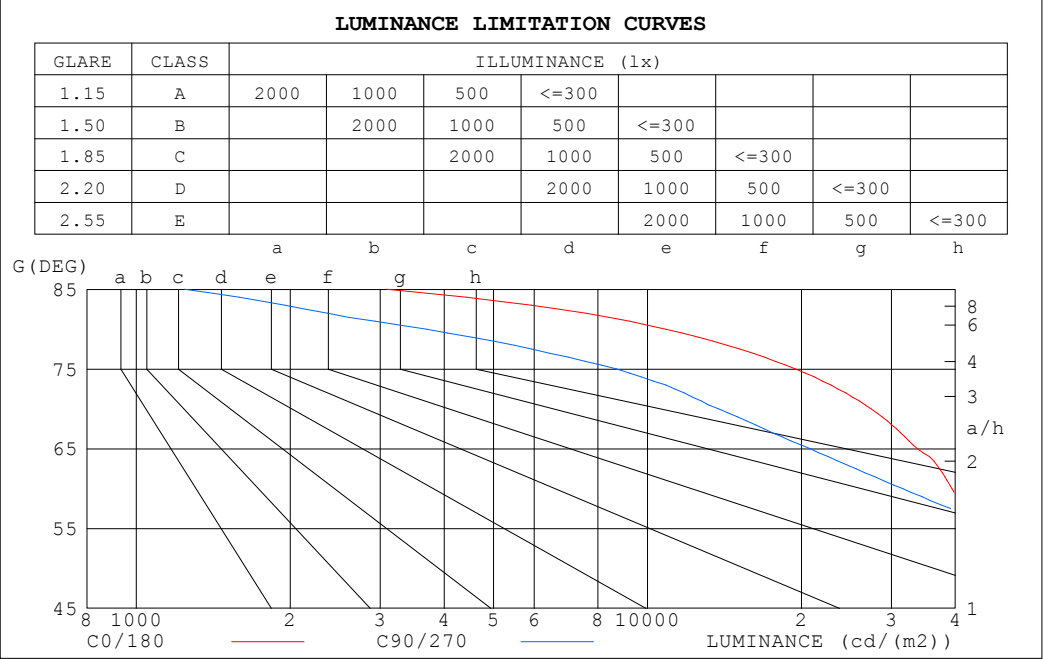
%lum = 61.7%  
%lamp = 61.7%

Conical surface Flux(120deg): 13384 lm

%lum = 87.8%  
%lamp = 87.8%

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



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3089	1244
80	10854	3700
75	19456	8689
70	27381	13800
65	33716	20813
60	39419	31602
55	43156	49302
50	46585	79197
45	50019	111979

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

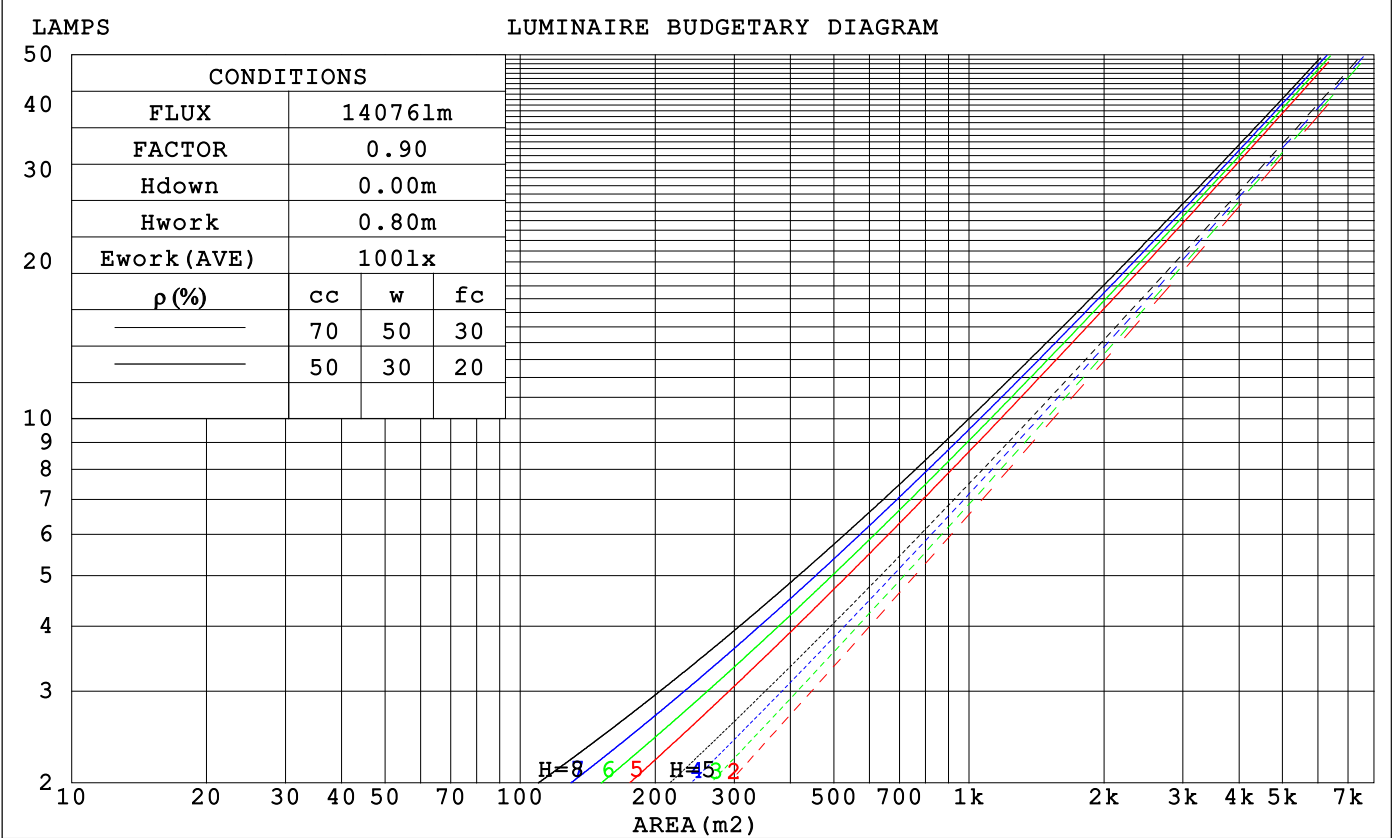
Humidity:65.0%

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 <sub>c</sub>	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	.64
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	.45	.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	.36	.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

$\rho_{cc}$	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	.266	.151	.048	.259	.148	.047	.246	.141	.045	.234	.135	.043	.223	.129	.042	
2.0	.259	.142	.044	.253	.140	.043	.242	.135	.042	.231	.130	.041	.222	.125	.040	
3.0	.246	.131	.039	.241	.129	.039	.230	.125	.038	.221	.121	.037	.213	.118	.036	
4.0	.231	.120	.035	.226	.118	.035	.217	.115	.034	.209	.112	.034	.201	.109	.033	
5.0	.217	.110	.032	.212	.109	.032	.204	.106	.031	.197	.104	.031	.190	.102	.031	
6.0	.203	.102	.029	.199	.101	.029	.192	.098	.029	.186	.096	.028	.179	.094	.028	
7.0	.190	.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	

$\rho_{cc}$	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	.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

$\gamma$  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	27.8	29.3	28.1	29.6	29.9	25.2	26.7	25.5	27.0	27.4
3H	28.7	30.1	29.1	30.4	30.8	25.4	26.8	25.8	27.1	27.5
4H	28.9	30.2	29.3	30.5	30.9	25.4	26.7	25.8	27.1	27.5
6H	28.9	30.1	29.3	30.5	30.8	25.4	26.6	25.8	27.0	27.3
8H	28.9	30.0	29.3	30.4	30.8	25.4	26.5	25.8	26.9	27.3
12H	28.8	29.9	29.3	30.3	30.7	25.3	26.4	25.8	26.8	27.2
4H 2H	28.1	29.4	28.5	29.8	30.1	26.3	27.6	26.7	27.9	28.3
3H	29.3	30.4	29.7	30.8	31.2	26.6	27.7	27.0	28.1	28.5
4H	29.6	30.5	30.0	30.9	31.4	26.6	27.6	27.1	28.0	28.5
6H	29.6	30.5	30.1	30.9	31.4	26.6	27.4	27.1	27.9	28.3
8H	29.6	30.4	30.1	30.8	31.3	26.6	27.3	27.0	27.8	28.3
12H	29.6	30.3	30.1	30.8	31.2	26.5	27.2	27.0	27.7	28.2
8H 4H	29.5	30.3	30.0	30.8	31.2	26.9	27.7	27.4	28.1	28.6
6H	29.6	30.2	30.1	30.7	31.2	26.9	27.5	27.4	28.0	28.5
8H	29.6	30.2	30.1	30.7	31.2	26.8	27.4	27.3	27.9	28.4
12H	29.6	30.1	30.1	30.6	31.1	26.8	27.3	27.3	27.8	28.4
12H 4H	29.5	30.2	30.0	30.7	31.1	26.9	27.6	27.4	28.1	28.5
6H	29.6	30.1	30.1	30.6	31.1	26.9	27.4	27.4	27.9	28.4
8H	29.6	30.1	30.1	30.6	31.1	26.8	27.3	27.3	27.8	28.4
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

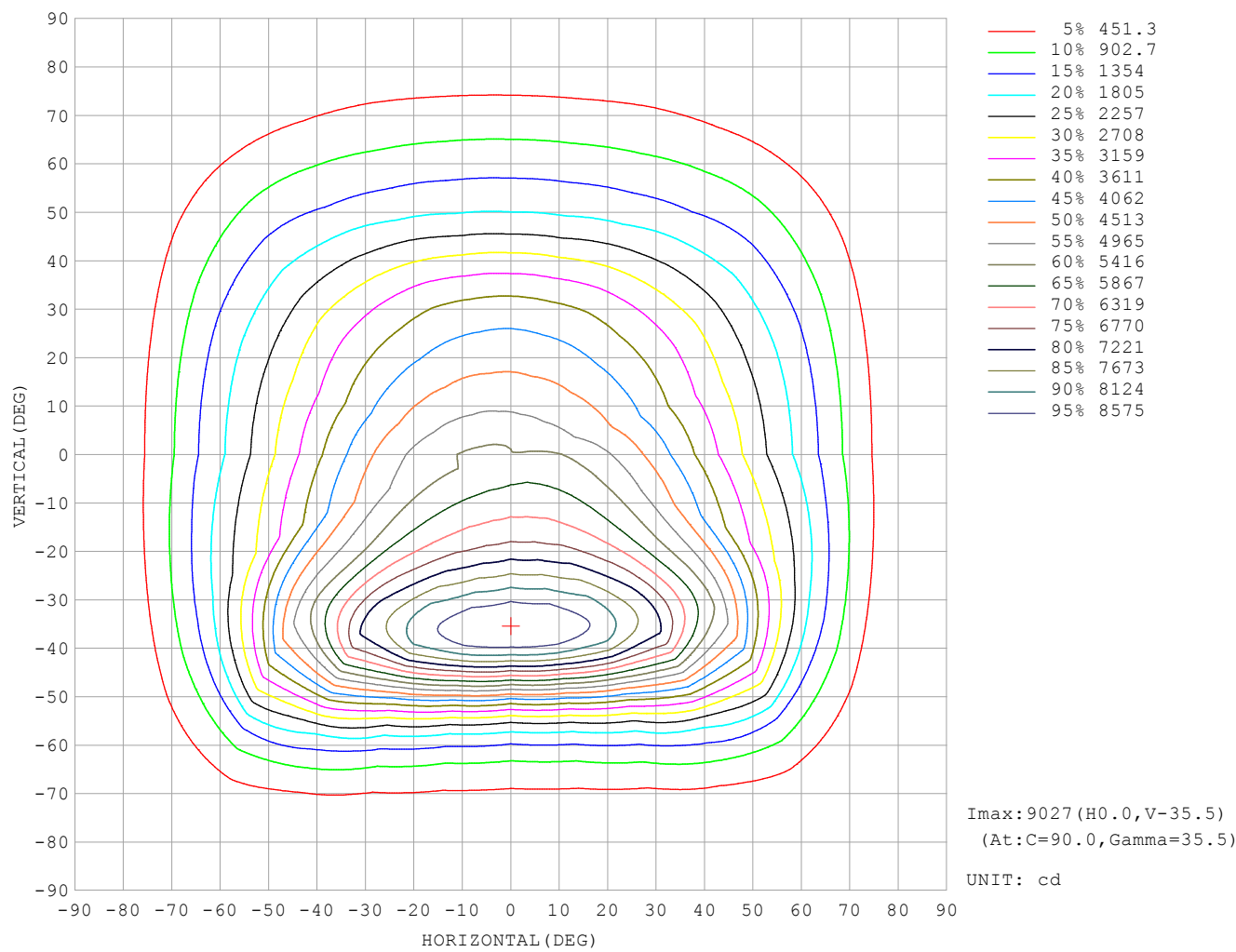
UTILIZATION FACTORS TABLE

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	53	46
1.00	80	70	63	79	69	63	77	70	62	56
1.25	87	78	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	88	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

$\gamma$  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:

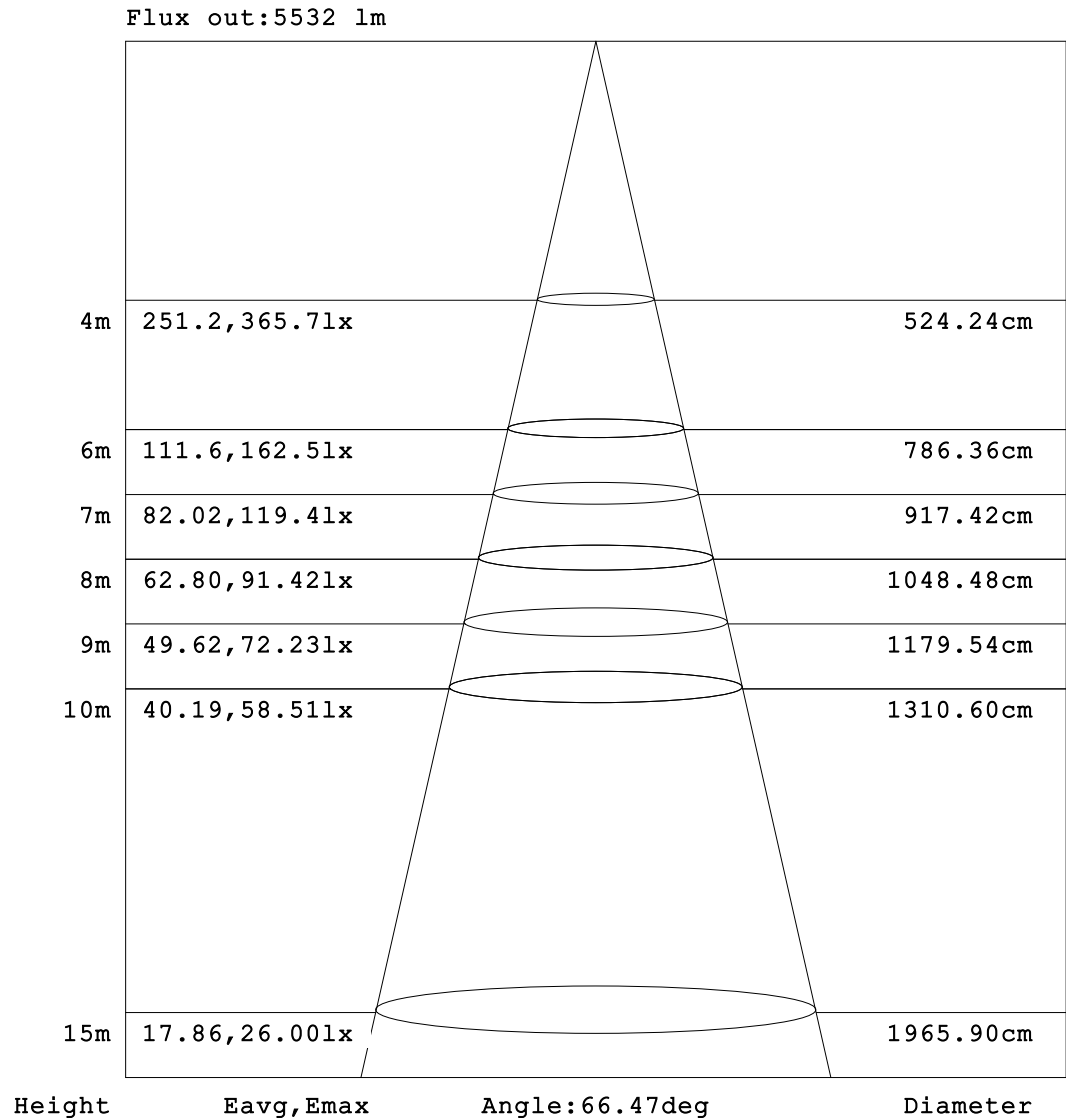
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG	$\gamma$ Range: 0 - 90DEG
C Interval: 15.0DEG	$\gamma$ 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:2024-10-28	Remarks:

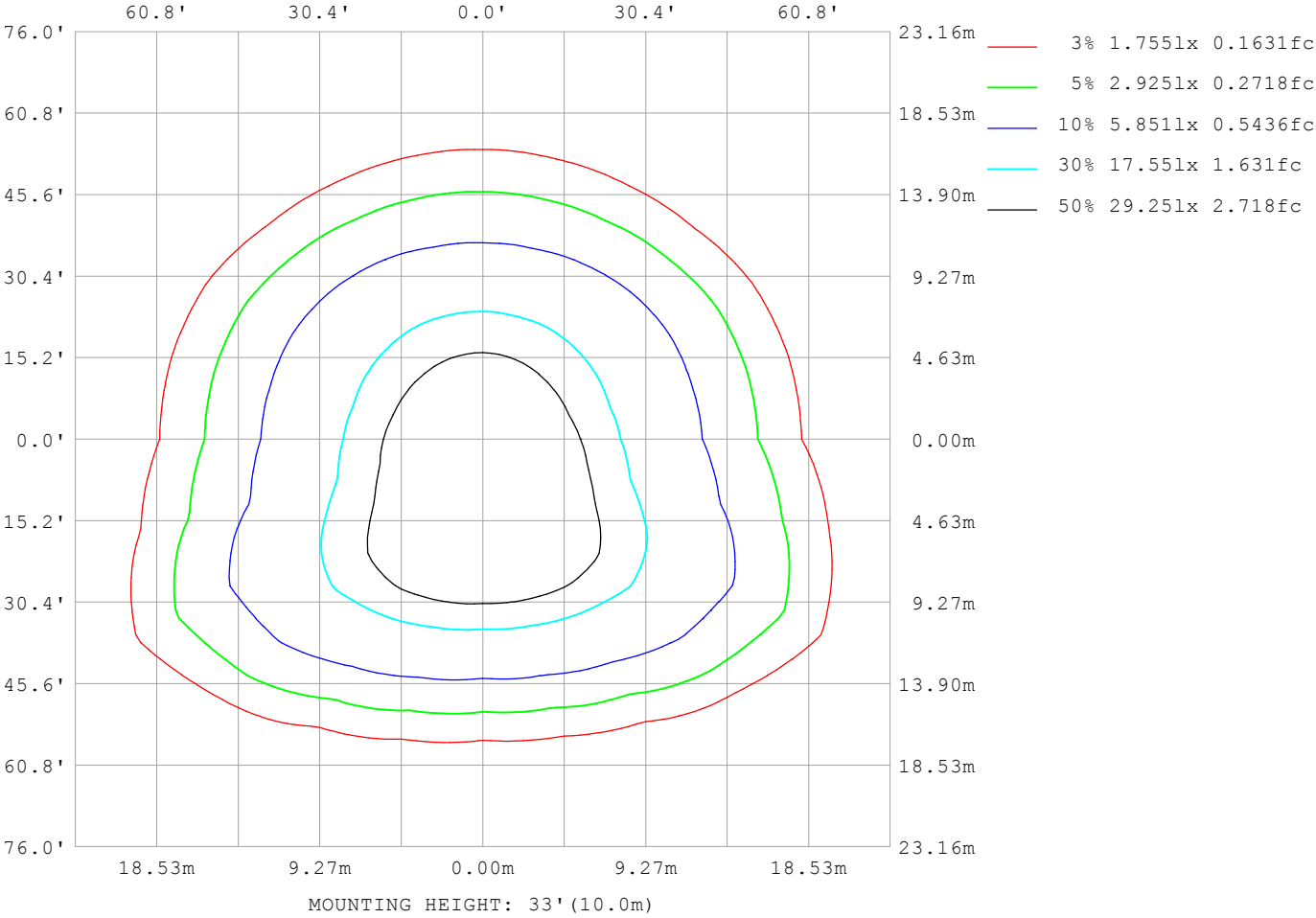


AAI Figure



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

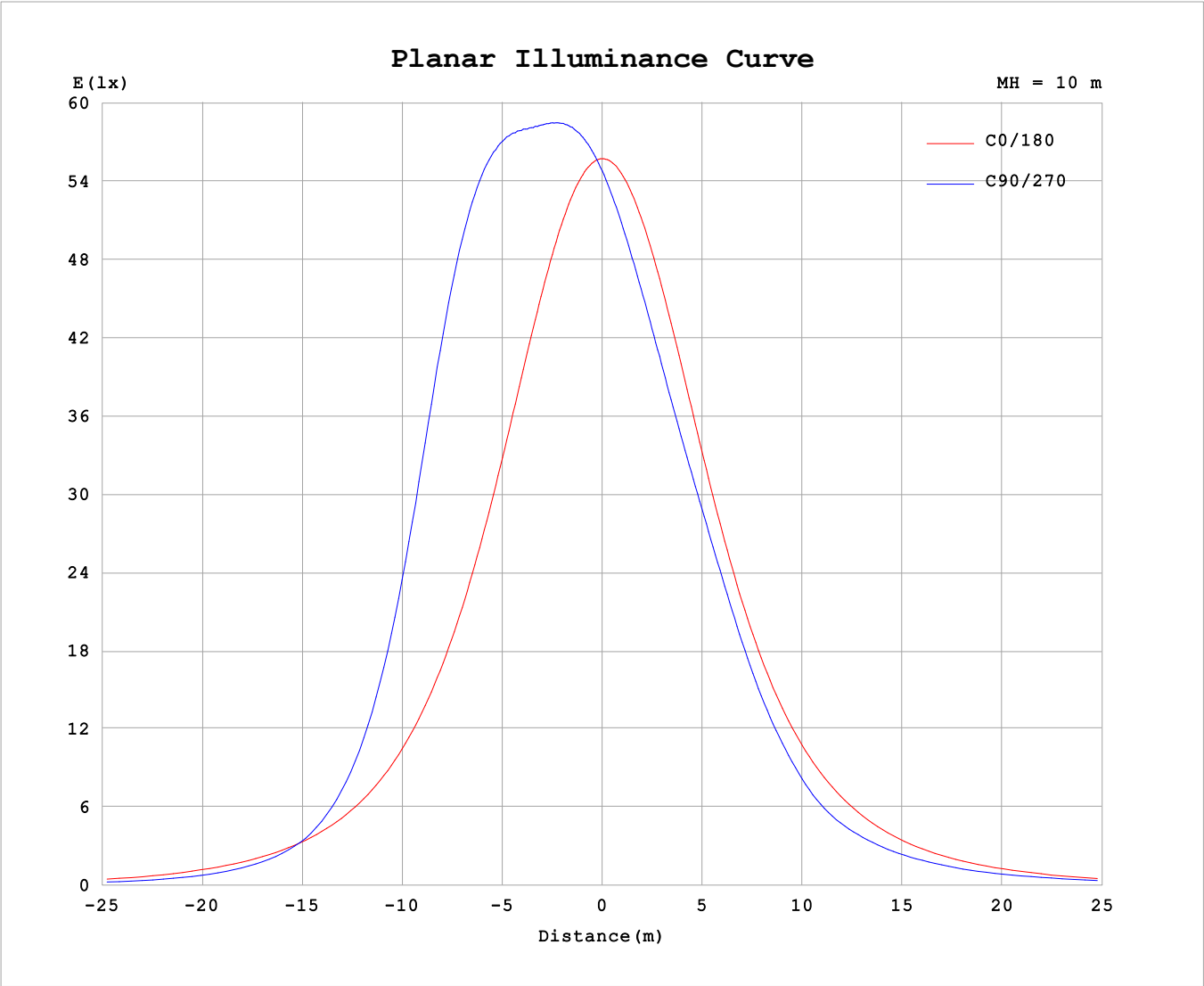
ISOLUX DIAGRAM



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: