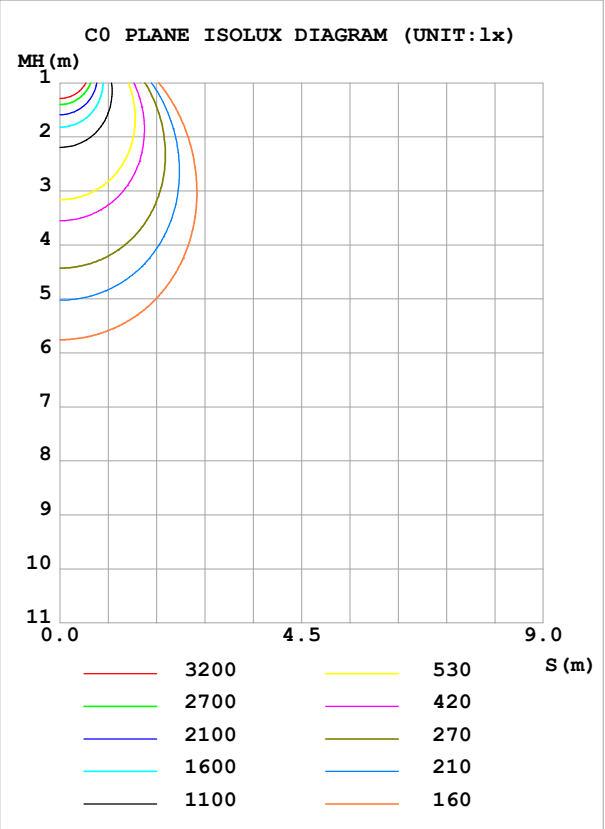
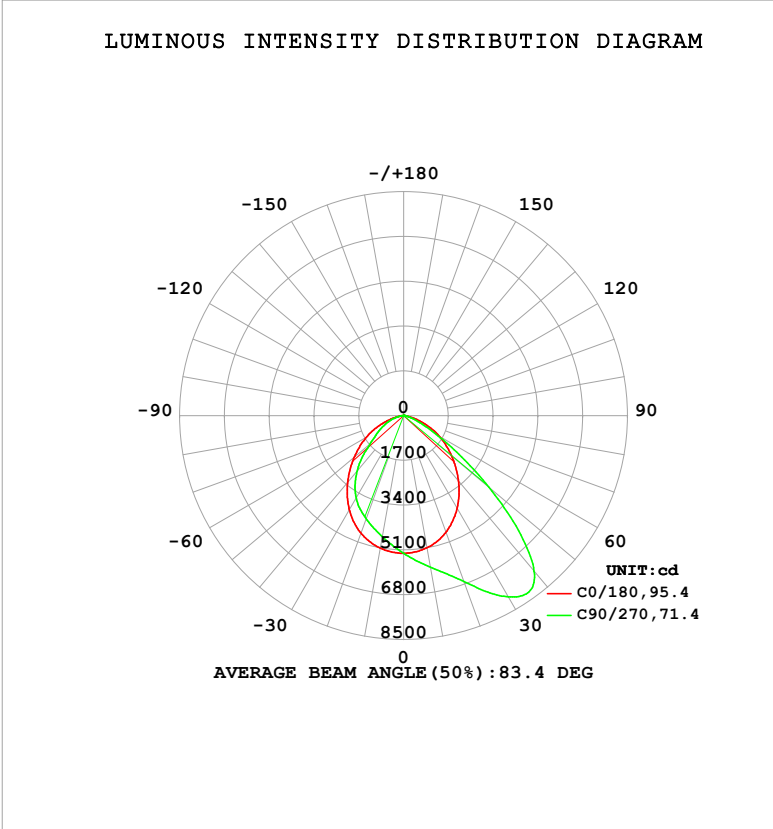


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.6V I:0.4681A P:100.2W PF:0.9318 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:14457.9x1 lm		
NAME: X501-457KA-9060 (100W 5700K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 144.36 lm/W
MODEL	/	Imax (cd)	8214	S/MH(C0/180)	1.18	
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.05	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	14458	η UP,DN(C0-180)	0.0,63.6	
NOMINAL FLUX(lm)	14457.9	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	5097	5593	5837	5584	5107	4764	4677	4770	0- 10	496.6	496.6	3.43,3.43
20	4710	5906	6701	5877	4749	4230	4164	4242	10- 20	1451	1948	13.5,13.5
30	4064	6372	7946	6292	4130	3655	3612	3653	20- 30	2324	4272	29.6,29.6
40	3244	6823	7706	6830	3311	2975	2754	2944	30- 40	3017	7289	50.4,50.4
50	2383	5862	4225	6147	2450	2141	1658	2093	40- 50	3083	10372	71.7,71.7
60	1569	3127	1440	3457	1628	1248	1014	1208	50- 60	2285	12657	87.5,87.5
70	750.9	1037	447.5	1228	814.1	621.5	545.8	584.1	60- 70	1285	13942	96.4,96.4
80	155.3	125.9	77.53	165.3	189.8	169.1	136.4	143.4	70- 80	462.0	14404	99.6,99.6
90	11.48	9.989	9.320	9.752	10.59	12.16	10.08	12.02	80- 90	53.59	14458	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): 8886.5 lm

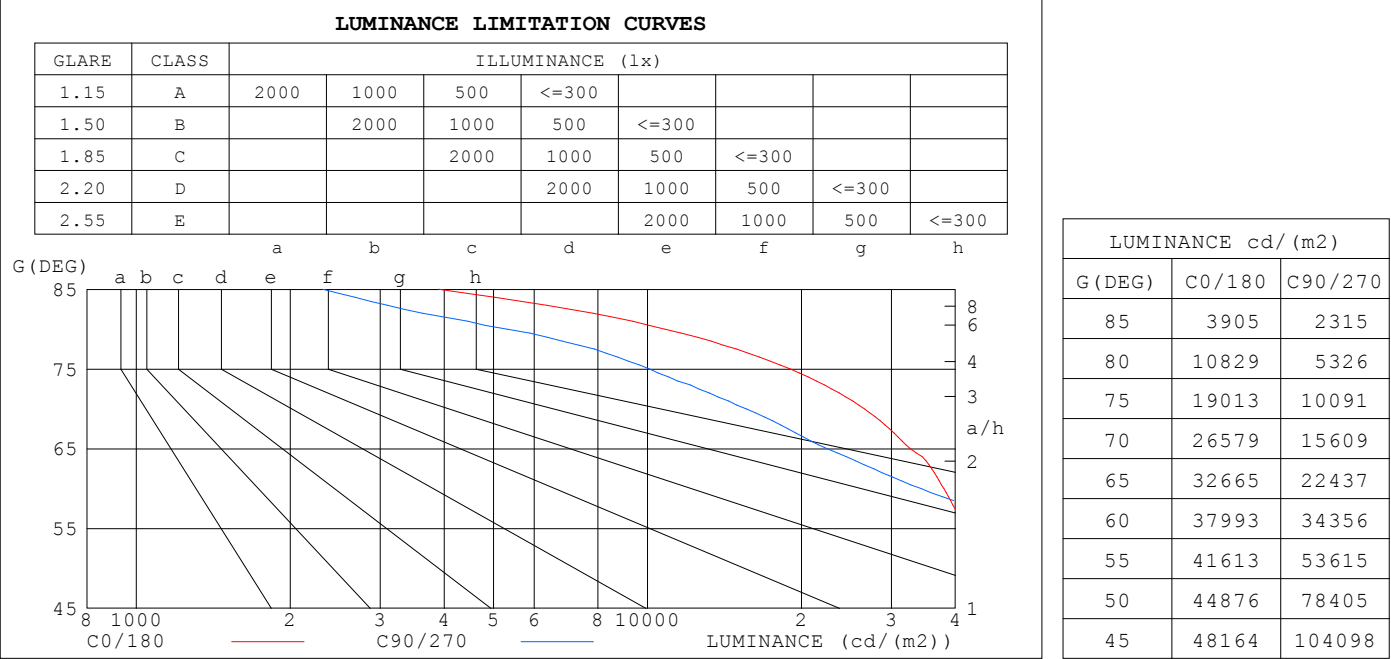
%lum = 61.5%
%lamp = 61.5%

Conical surface Flux(120deg): 12657 lm

%lum = 87.5%
%lamp = 87.5%

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

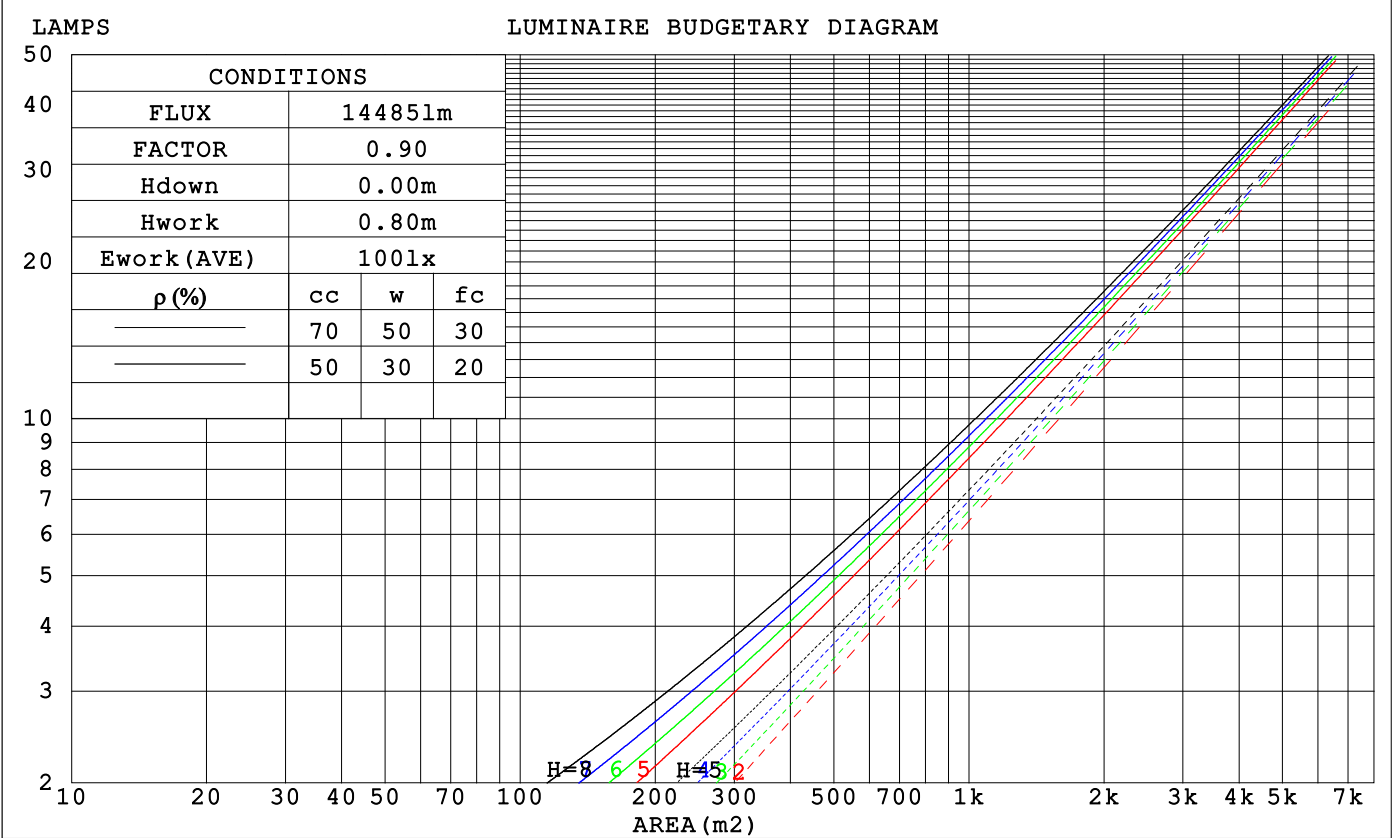


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:HXL
Test Date:2024-10-28

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
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	.00
1.0	1.06	1.02	.99	1.04	1.01	.97	.00	.97	.94	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.82	.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	.65	.63
4.0	.74	.66	.59	.73	.65	.59	.70	.64	.58	.68	.62	.58	.66	.61	.57	.55
5.0	.66	.58	.51	.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	.267	.152	.048	.260	.148	.047	.247	.142	.045	.235	.135	.043	.224	.130	.042		
2.0	.260	.142	.044	.254	.140	.043	.243	.135	.042	.232	.130	.041	.222	.126	.040		
3.0	.246	.131	.039	.241	.129	.039	.231	.125	.038	.222	.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	.107	.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°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:

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	27.6	29.1	27.9	29.4	29.7	26.1	27.6	26.4	27.9	28.2
3H	28.5	29.9	28.9	30.2	30.6	26.3	27.7	26.7	28.0	28.4
4H	28.7	30.0	29.1	30.3	30.7	26.3	27.6	26.7	28.0	28.3
6H	28.7	29.9	29.1	30.3	30.7	26.3	27.5	26.7	27.9	28.2
8H	28.7	29.8	29.1	30.2	30.6	26.3	27.4	26.7	27.8	28.2
12H	28.7	29.8	29.1	30.2	30.6	26.2	27.3	26.7	27.7	28.1
4H 2H	28.1	29.4	28.5	29.7	30.1	27.1	28.4	27.5	28.8	29.1
3H	29.4	30.4	29.8	30.8	31.2	27.4	28.5	27.8	28.9	29.3
4H	29.6	30.6	30.1	31.0	31.4	27.5	28.4	27.9	28.8	29.3
6H	29.7	30.5	30.2	31.0	31.4	27.5	28.3	27.9	28.7	29.2
8H	29.7	30.5	30.2	30.9	31.4	27.4	28.2	27.9	28.6	29.1
12H	29.7	30.4	30.2	30.8	31.3	27.4	28.1	27.9	28.5	29.0
8H 4H	29.6	30.4	30.1	30.8	31.3	27.7	28.5	28.2	28.9	29.4
6H	29.7	30.3	30.2	30.8	31.3	27.7	28.3	28.2	28.8	29.3
8H	29.7	30.3	30.2	30.8	31.3	27.6	28.2	28.1	28.7	29.2
12H	29.7	30.2	30.2	30.7	31.2	27.6	28.1	28.1	28.6	29.2
12H 4H	29.6	30.3	30.1	30.7	31.2	27.7	28.4	28.2	28.9	29.3
6H	29.7	30.2	30.2	30.7	31.2	27.7	28.2	28.2	28.7	29.2
8H	29.7	30.2	30.2	30.7	31.2	27.6	28.1	28.1	28.6	29.2
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

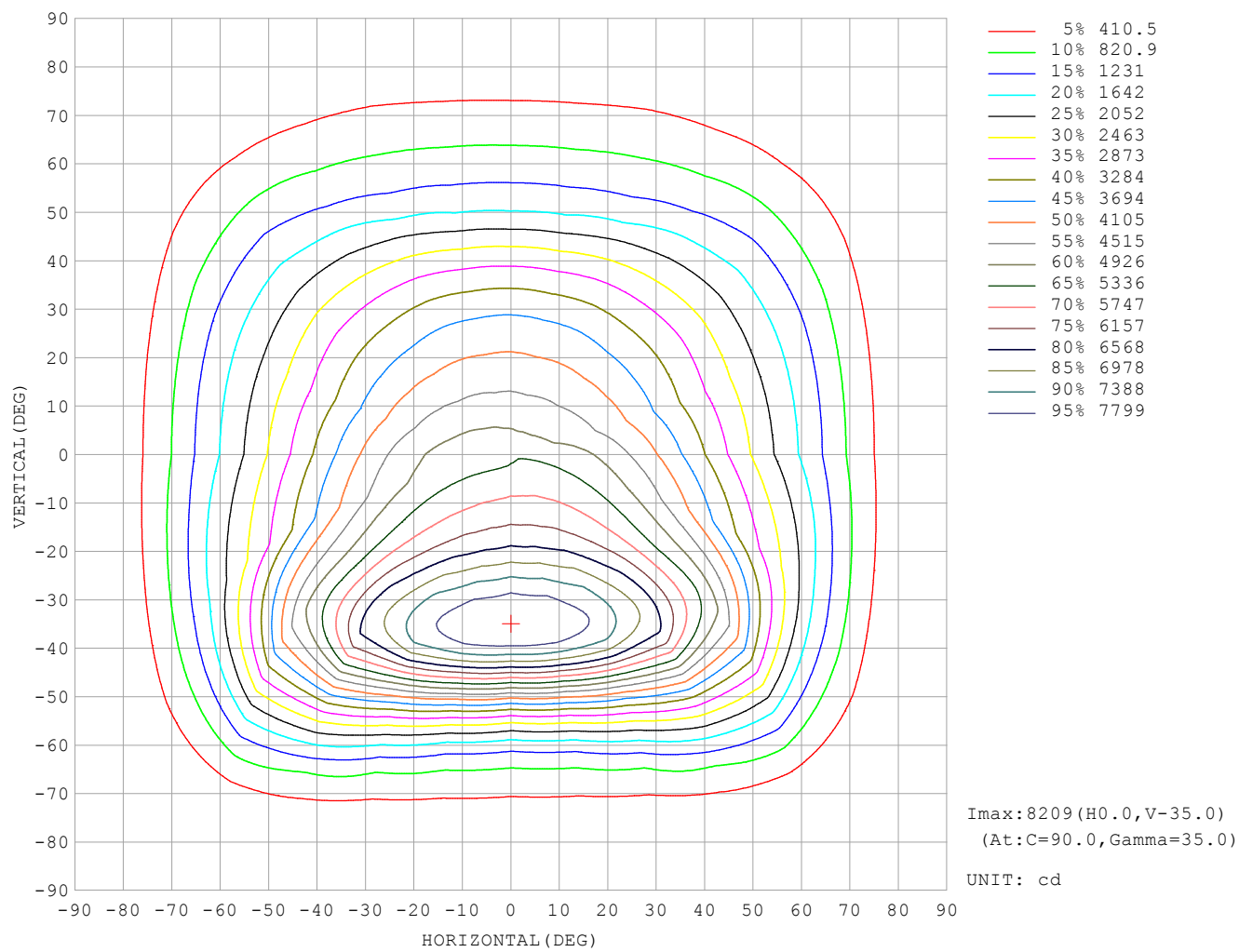
UTILIZATION FACTORS TABLE

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	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	101	98	102	98	95	87
5.00	110	106	102	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

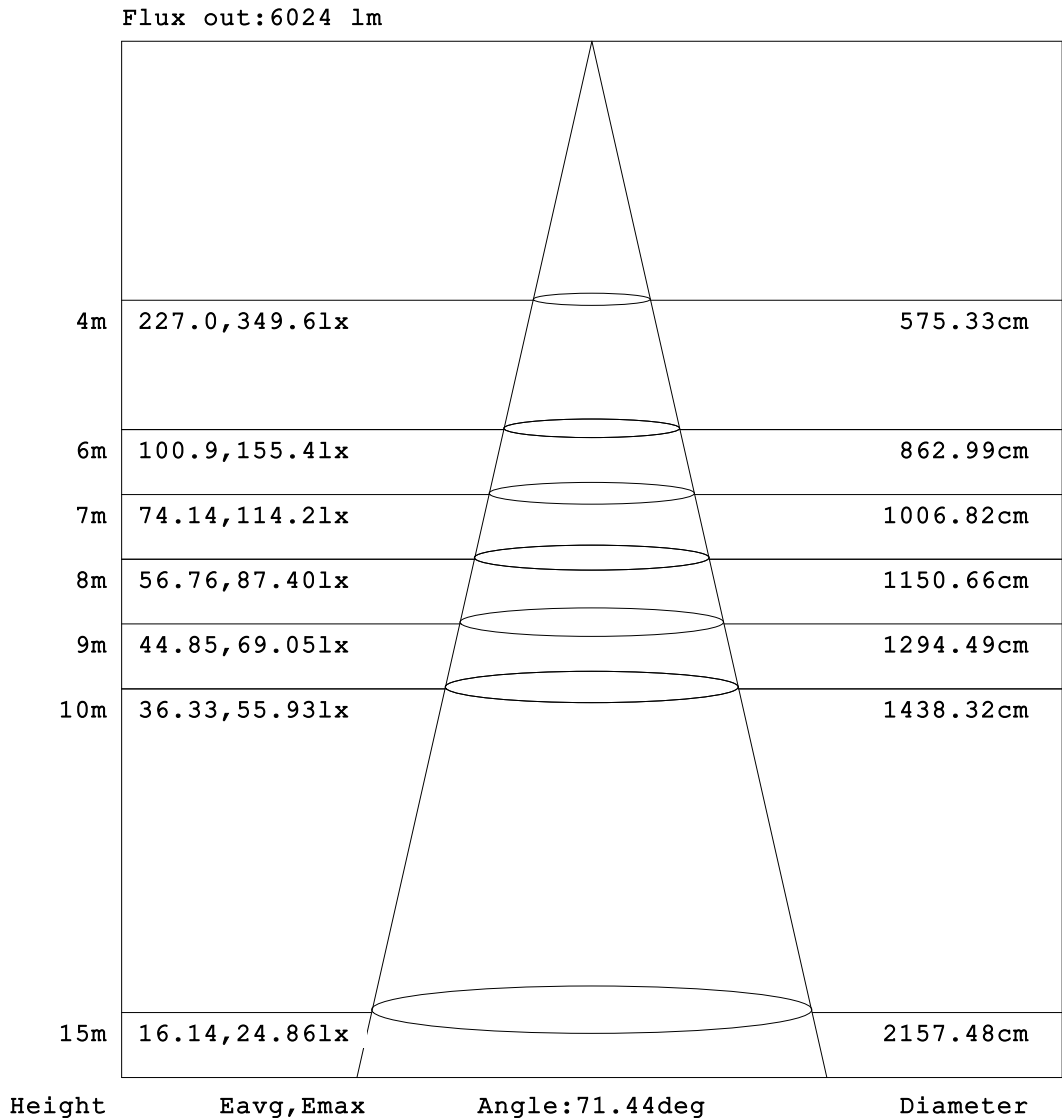
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity: 65.0%
Test Distance: 9.990m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM



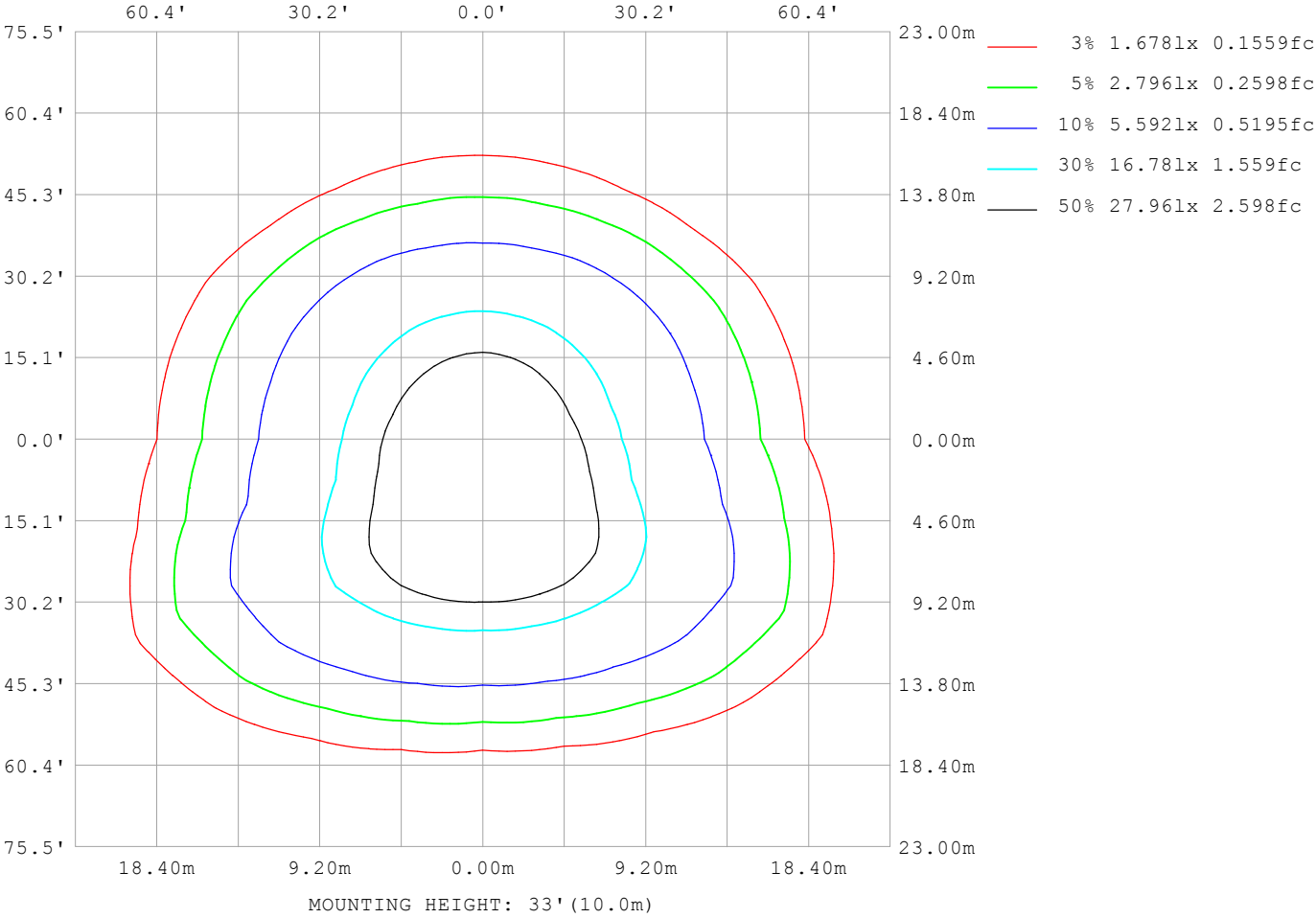
C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 15.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Temperature: 25.3°C	Humidity: 65.0%
Operators: HXL	Test Distance: 9.990m [K=1.0000]
Test Date: 2024-10-28	Remarks:

AAI Figure



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

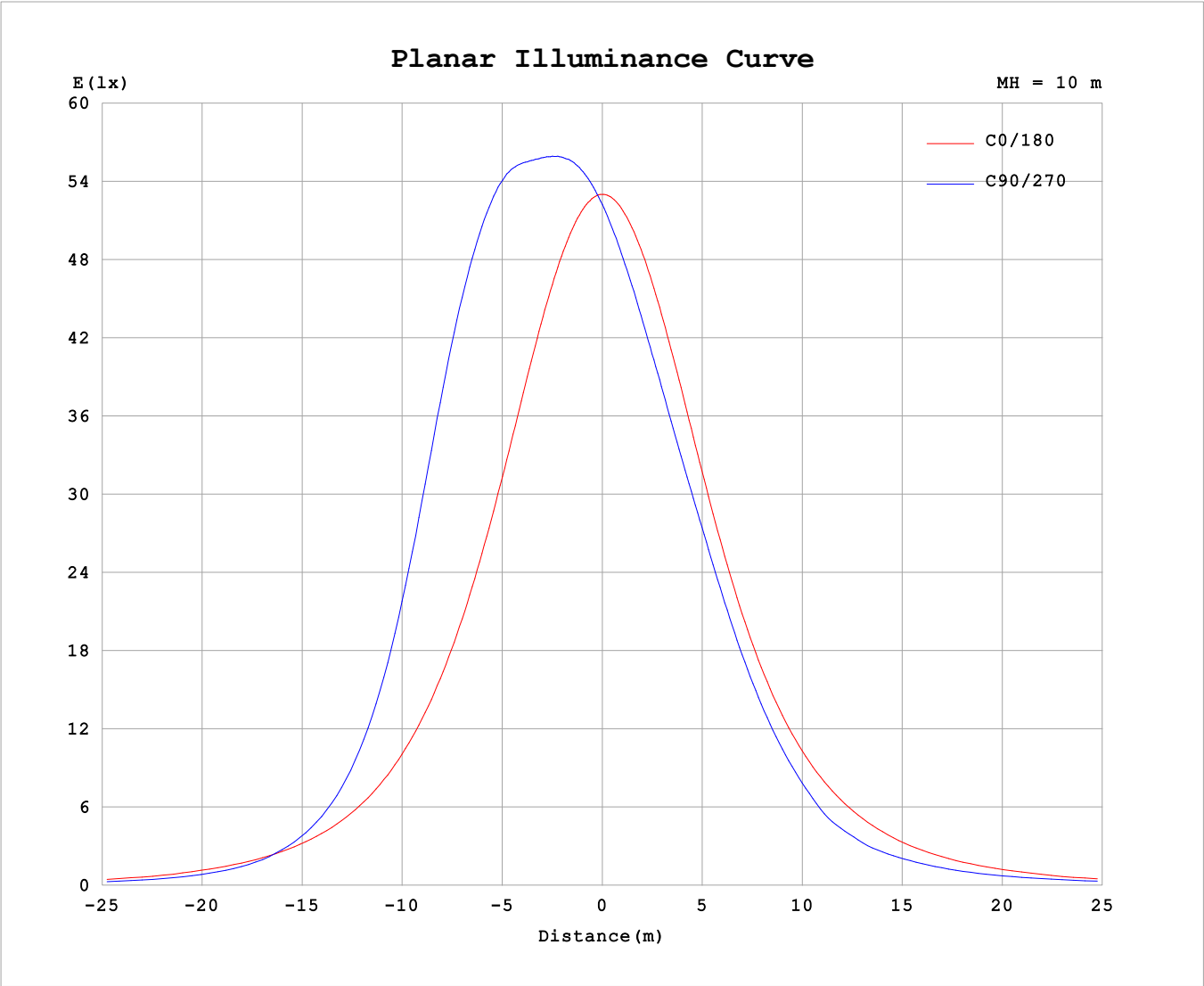
ISOLUX DIAGRAM



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: