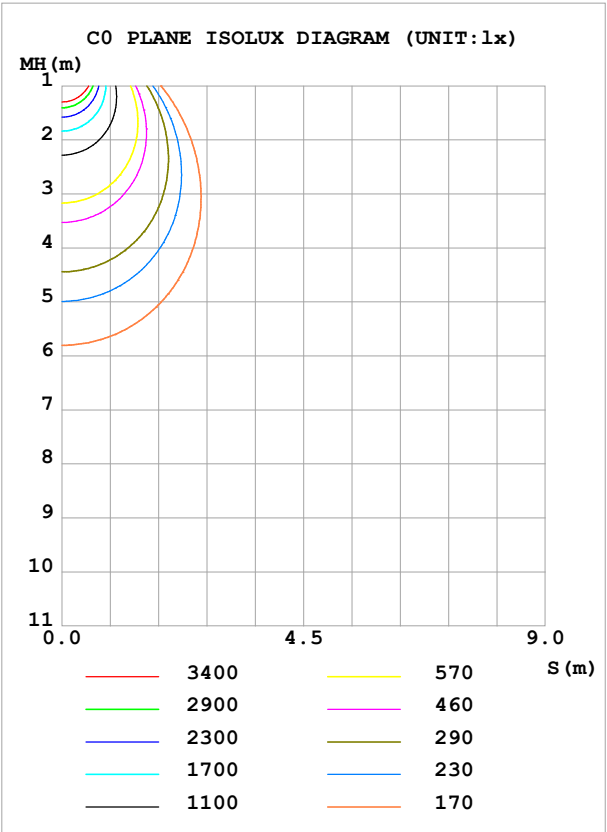
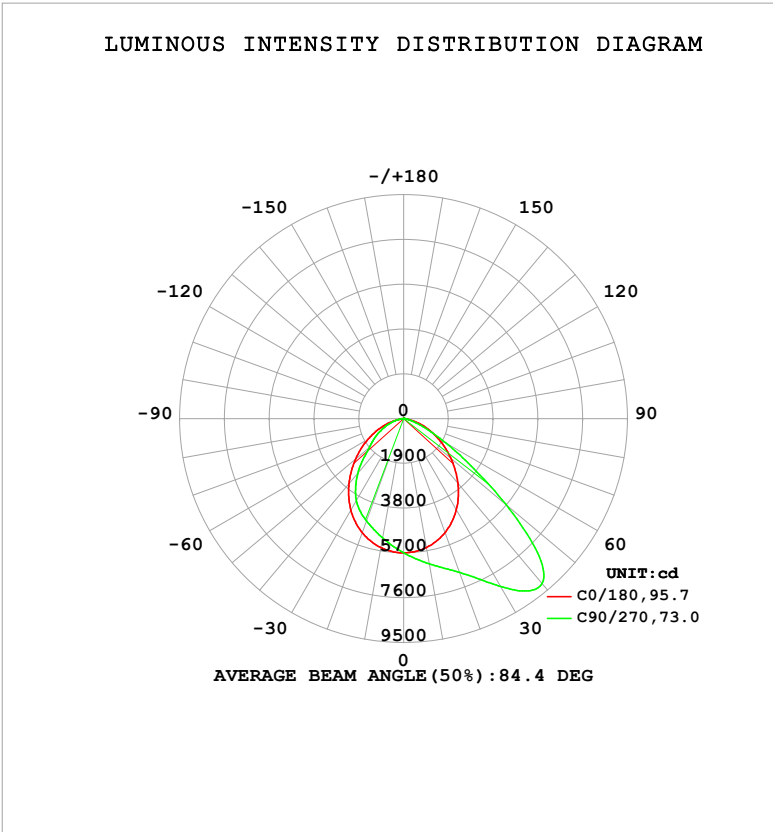


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.6V I:0.4526A P:96.2W PF:0.9258 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:16234.2x1 lm		
NAME: X503-457KA-9060 (100W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 168.74 lm/W
MODEL	/	I _{max} (cd)	9167	S/MH(C0/180)	1.18	
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.07	
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	16234	η UP,DN(C0-180)	0.0,63.7	
NOMINAL FLUX(lm)	16234.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,36.3	
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: 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

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	5557	6027	6254	6005	5558	5239	5148	5247	0- 10	540.4	540.4	3.33,3.33
20	5144	6261	6945	6203	5151	4685	4620	4694	10- 20	1571	2111	13,13
30	4472	6569	8218	6394	4482	4071	4018	4076	20- 30	2485	4596	28.3,28.3
40	3590	7216	9131	6904	3613	3326	3031	3304	30- 40	3250	7846	48.3,48.3
50	2623	7055	5676	7062	2664	2366	1905	2334	40- 50	3505	11350	69.9,69.9
60	1691	3919	2062	4462	1741	1401	1242	1375	50- 60	2703	14053	86.6,86.6
70	866.7	1383	616.0	1644	910.1	723.0	676.9	694.2	60- 70	1537	15590	96,96
80	160.9	211.2	126.8	281.2	198.6	213.2	174.8	183.2	70- 80	579.9	16170	99.6,99.6
90	5.087	3.607	3.317	4.269	4.703	6.169	3.847	6.580	80- 90	64.37	16234	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): 9633.2 lm

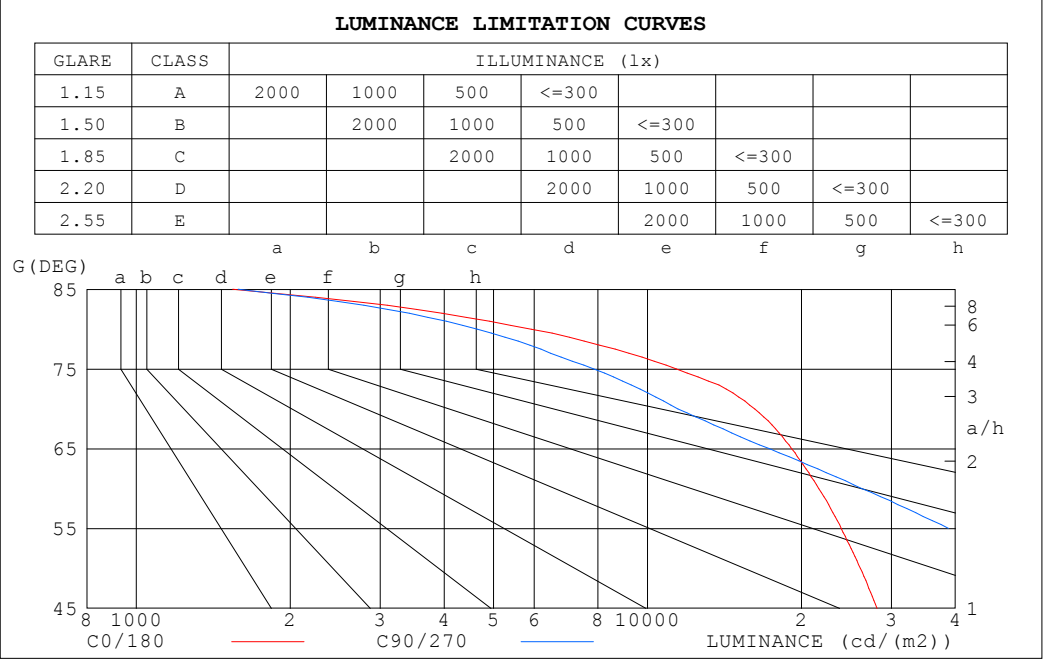
%lum = 59.3%
%lamp = 59.3%

Conical surface Flux(120deg): 14053 lm

%lum = 86.6%
%lamp = 86.6%

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



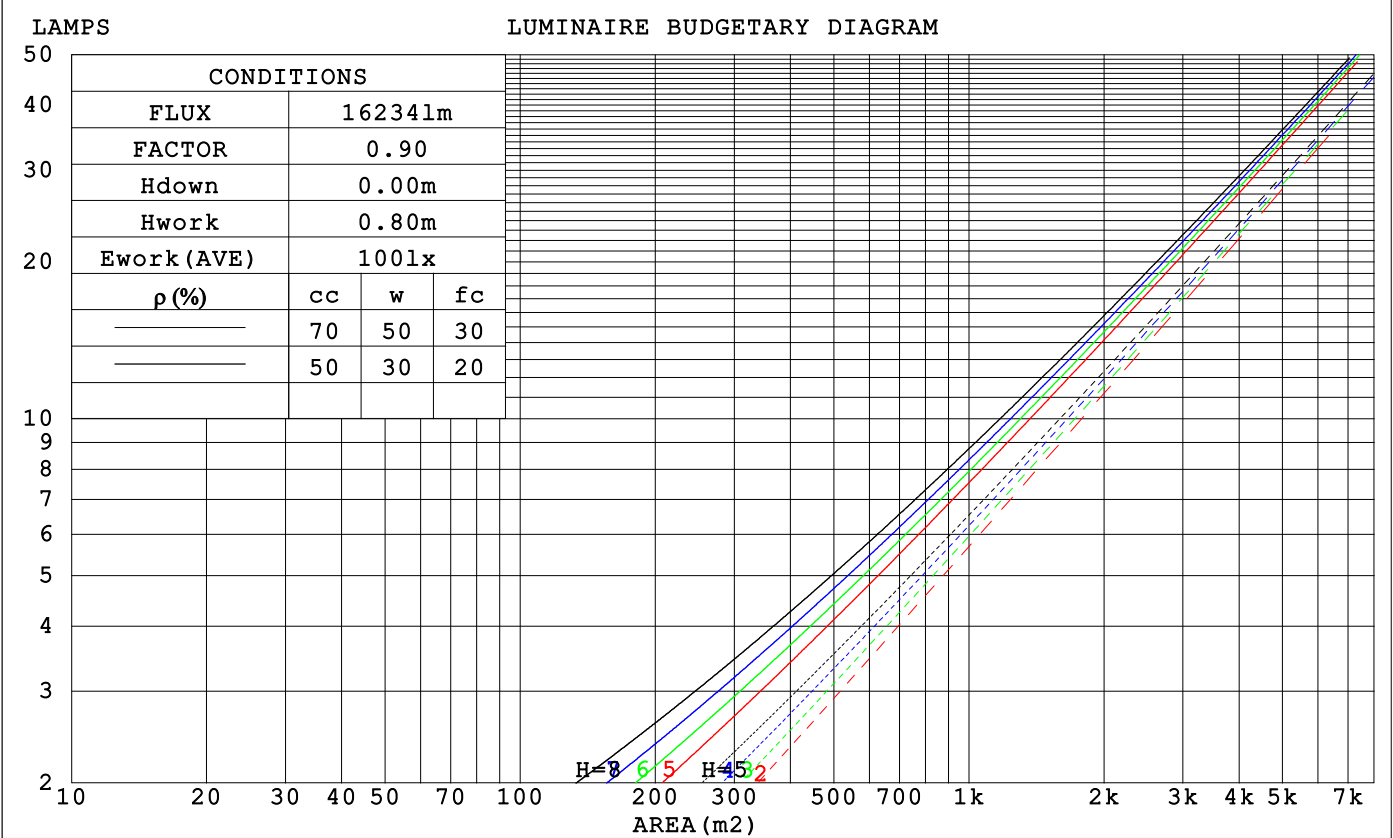
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1543	1582
80	5928	4647
75	11384	7848
70	16210	11464
65	19141	17324
60	21640	26256
55	23907	38753
50	26103	56213
45	28113	72260

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	.00
1.0	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.82	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.65	.63
4.0	.73	.65	.59	.72	.64	.58	.69	.63	.57	.67	.61	.57	.65	.60	.56	.54
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.43	.55	.48	.43	.53	.47	.43	.41
7.0	.53	.45	.39	.53	.44	.39	.51	.44	.38	.50	.43	.38	.48	.42	.38	.36
8.0	.49	.40	.35	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.45	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.29
10.0	.41	.33	.28	.40	.33	.28	.39	.33	.28	.39	.32	.28	.38	.32	.28	.26



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

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						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.272	.155	.049	.265	.151	.048	.252	.145	.046	.240	.138	.044	.229	.133	.043	
2.0	.265	.145	.045	.259	.143	.044	.247	.138	.043	.237	.133	.042	.227	.128	.040	
3.0	.251	.133	.040	.245	.131	.040	.235	.127	.039	.226	.124	.038	.217	.120	.037	
4.0	.235	.122	.036	.230	.120	.036	.221	.117	.035	.213	.114	.034	.205	.111	.034	
5.0	.220	.112	.032	.216	.111	.032	.208	.108	.032	.200	.106	.031	.193	.103	.031	
6.0	.206	.103	.030	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028	
7.0	.193	.095	.027	.189	.094	.027	.183	.093	.027	.177	.091	.026	.171	.089	.026	
8.0	.181	.088	.025	.178	.088	.025	.172	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.170	.082	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.022	
10.0	.161	.077	.021	.158	.076	.021	.154	.075	.021	.149	.074	.021	.145	.073	.021	

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						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	.048	.019	.017	.015	
2.0	.169	.132	.101	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.153	.101	.060	.132	.087	.053	.090	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.126	.078	.042	.087	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.115	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

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

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	26.0	27.5	26.3	27.9	28.2	25.5	27.1	25.9	27.4	27.7
3H	27.1	28.5	27.5	28.9	29.2	25.8	27.2	26.2	27.5	27.9
4H	27.4	28.7	27.8	29.0	29.4	25.8	27.2	26.2	27.5	27.9
6H	27.4	28.6	27.8	29.0	29.4	25.8	27.0	26.2	27.4	27.8
8H	27.4	28.5	27.8	28.9	29.3	25.8	27.0	26.2	27.3	27.7
12H	27.3	28.5	27.8	28.8	29.3	25.8	26.9	26.2	27.3	27.7
4H 2H	26.6	27.9	27.0	28.2	28.6	26.5	27.8	26.9	28.1	28.5
3H	28.0	29.0	28.4	29.4	29.8	26.9	28.0	27.3	28.4	28.8
4H	28.3	29.3	28.7	29.7	30.1	26.9	27.9	27.4	28.3	28.8
6H	28.4	29.2	28.8	29.7	30.1	26.9	27.8	27.4	28.2	28.7
8H	28.4	29.1	28.8	29.6	30.1	26.9	27.7	27.4	28.1	28.6
12H	28.3	29.0	28.8	29.5	30.0	26.9	27.6	27.4	28.1	28.5
8H 4H	28.3	29.1	28.8	29.5	30.0	27.1	27.9	27.6	28.4	28.8
6H	28.4	29.1	28.9	29.6	30.0	27.1	27.8	27.6	28.3	28.8
8H	28.4	29.0	28.9	29.5	30.0	27.1	27.7	27.6	28.2	28.7
12H	28.4	28.9	28.9	29.4	30.0	27.1	27.6	27.6	28.1	28.7
12H 4H	28.3	29.0	28.8	29.5	29.9	27.1	27.8	27.6	28.3	28.8
6H	28.4	29.0	28.9	29.4	30.0	27.1	27.7	27.7	28.2	28.7
8H	28.4	28.9	28.9	29.4	30.0	27.1	27.6	27.6	28.1	28.7
CIE190: 2010										

CIE190: 2010
Area: 0.15719 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:

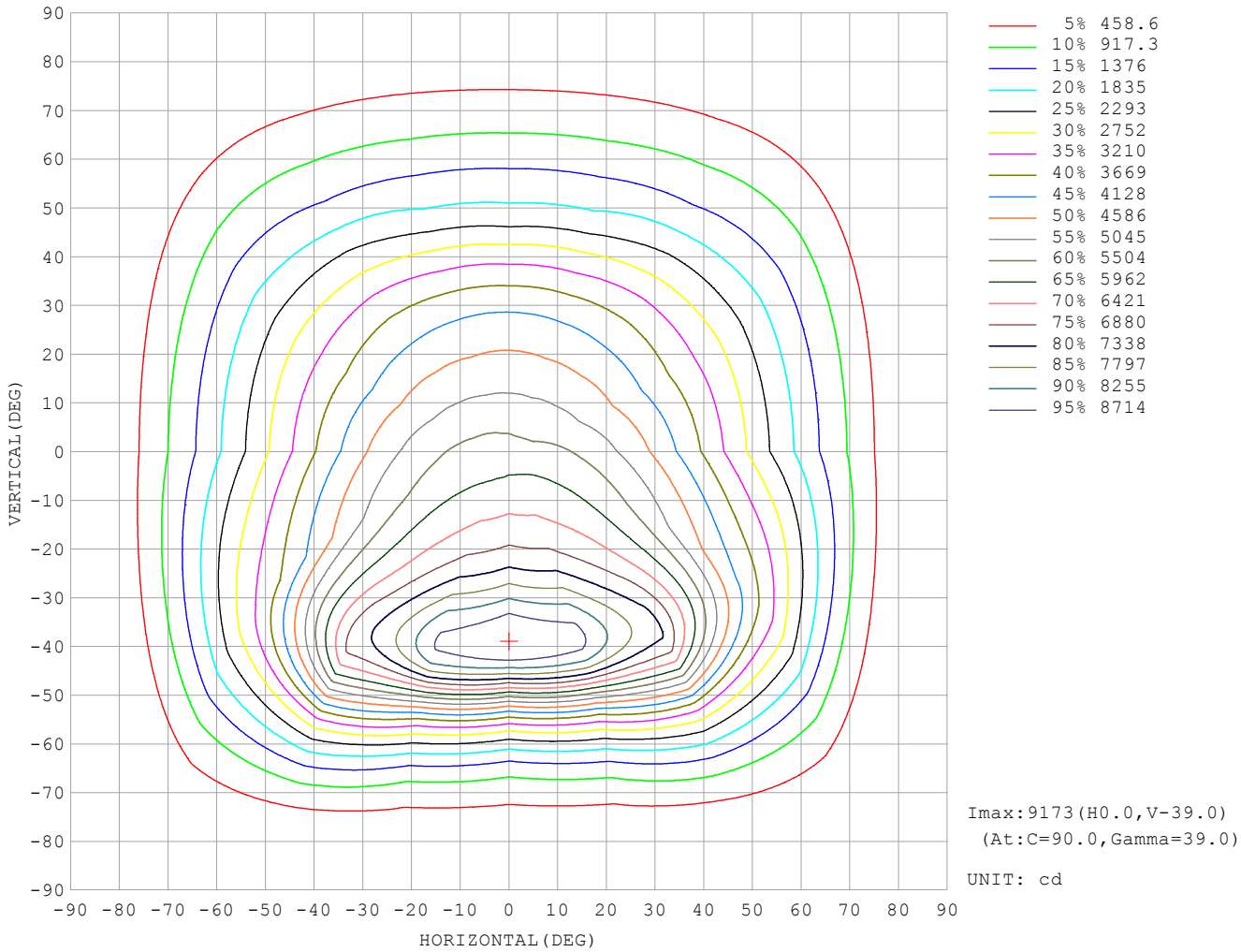
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	47	41	57	47	41	34
0.80	70	59	51	69	58	51	67	57	51	44
1.00	79	68	61	78	68	61	75	69	61	54
1.25	86	76	70	85	76	69	82	74	68	62
1.50	91	82	76	89	81	75	86	79	74	67
2.00	98	90	84	96	89	83	93	87	82	75
2.50	101	94	89	99	93	88	96	90	86	78
3.00	104	98	93	102	97	92	98	94	90	82
4.00	108	103	99	106	101	97	101	98	95	86
5.00	110	106	102	108	104	100	103	100	97	89
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

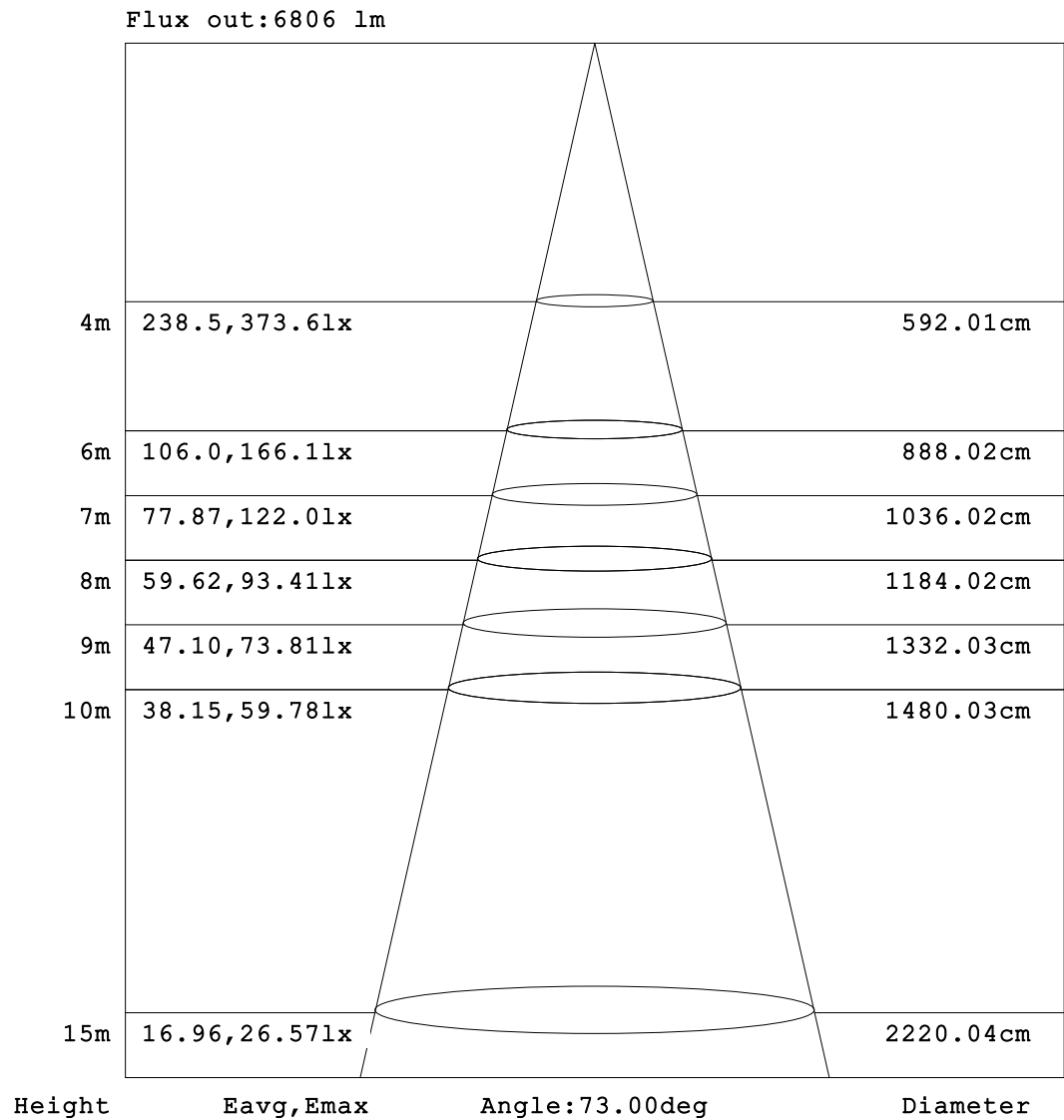
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Humidity:65.0%
Test Distance:9.990m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM



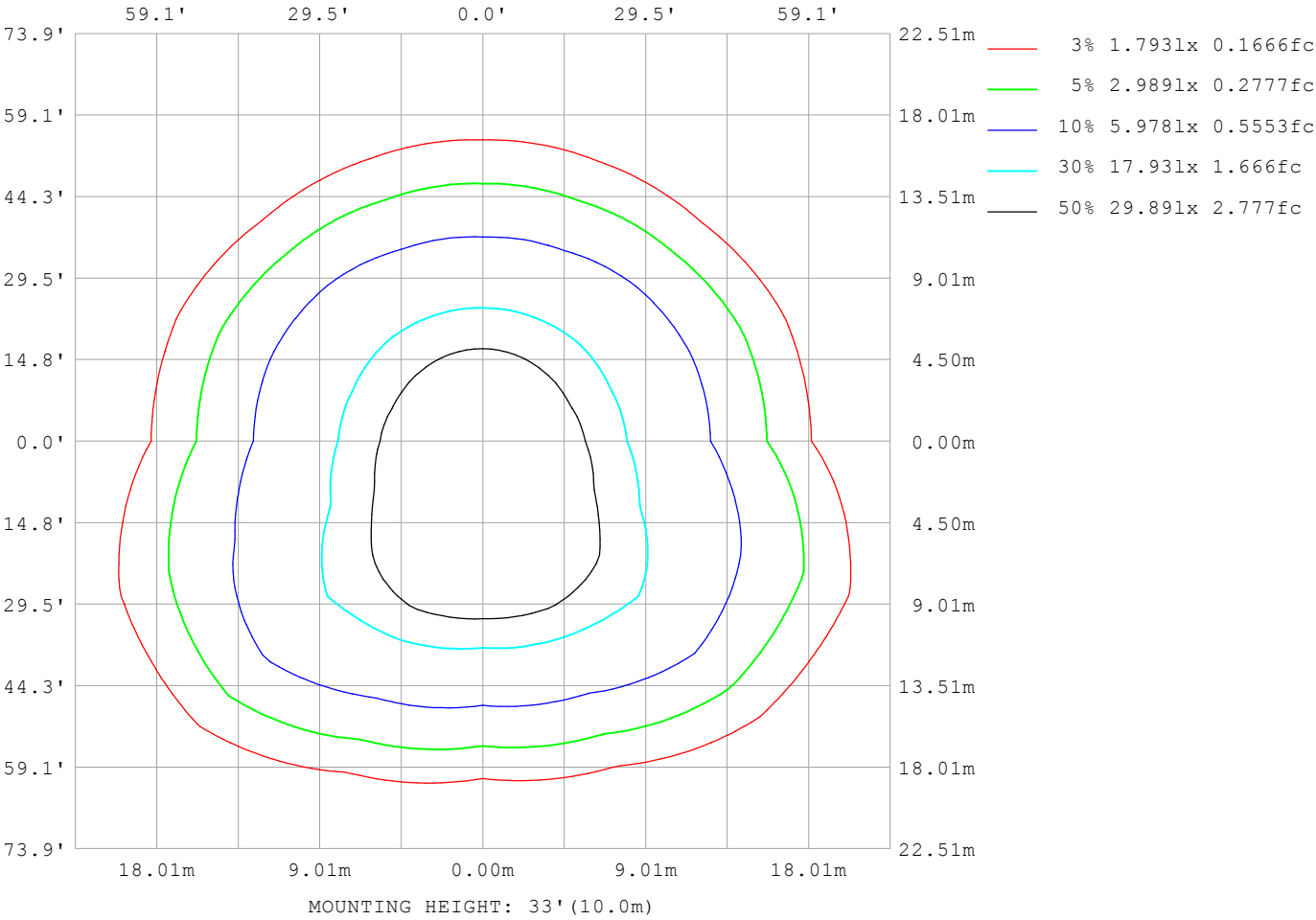
C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.487
Temperature: 25.3°C	Humidity: 65.0%
Operators: HXL	Test Distance: 9.990m [K=1.0000]
Test Date: 2024-11-11	Remarks:

AAI Figure



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

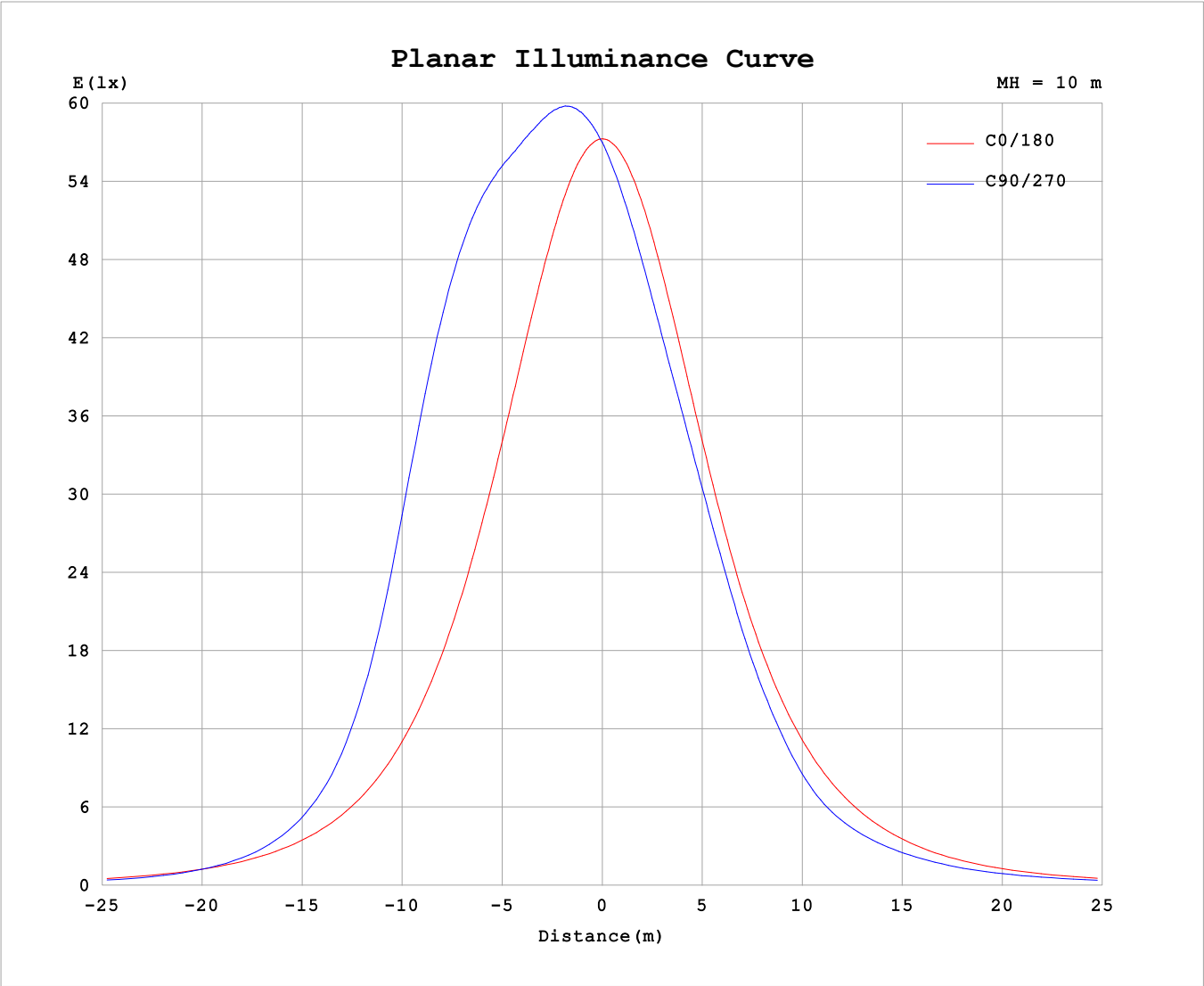
ISOLUX DIAGRAM



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
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: