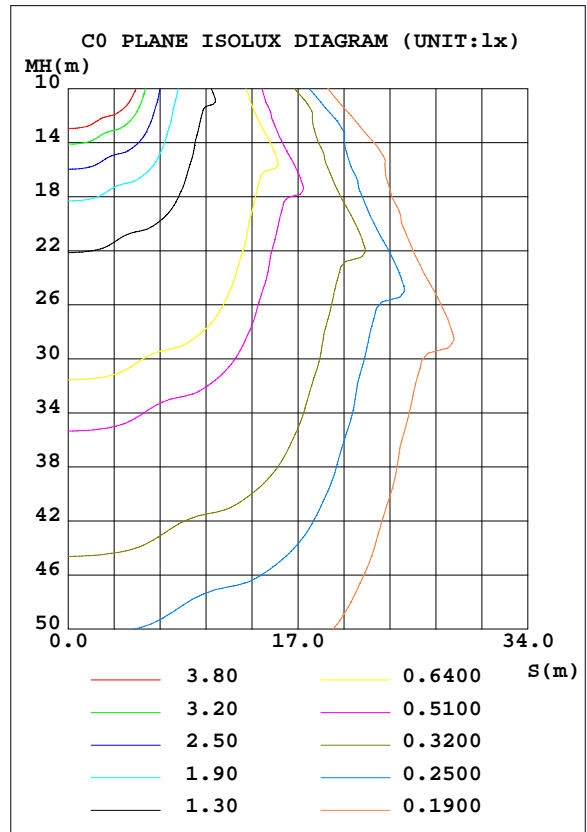
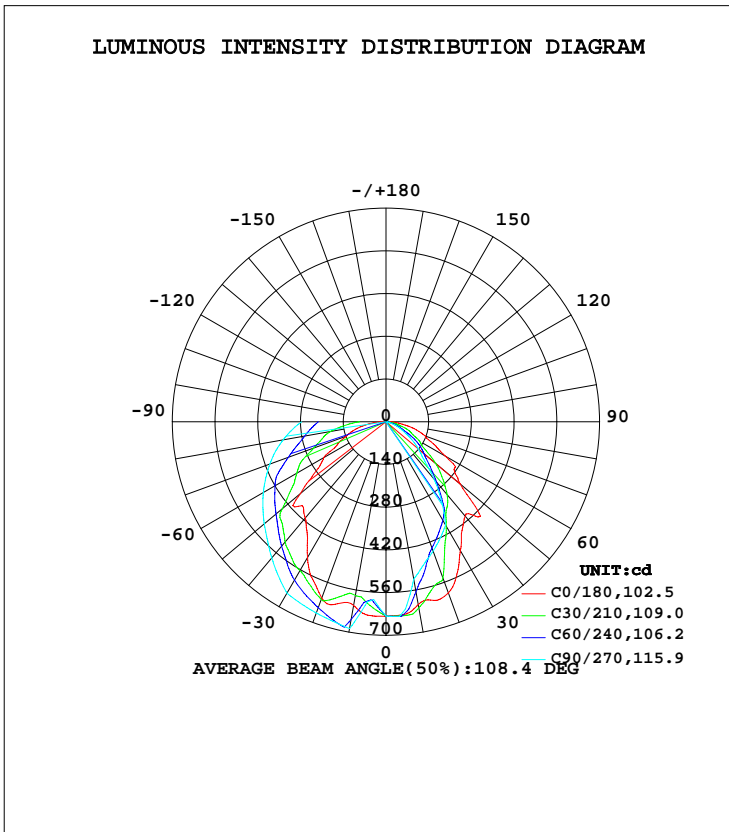


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME: ASD-WLP05-15N30B	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.55 lm/W			
MODEL	ASD-WLP05-15N30B	I _{max} (cd)	688.7	S/MH(C0/180)	1.20
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	1.47
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1778.6	η UP, DN(C0-180)	0.0,31.8
NOMINAL FLUX(lm)	1778.6	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,68.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.25



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [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
5	635.0	639.4	628.0	639.1	637.1	591.0	588.8	589.8	0- 5	14.92	14.92	0.84,0.84
10	608.5	598.3	524.2	589.2	611.3	615.0	688.3	615.0	5- 10	43.64	58.56	3.29,3.29
15	606.0	529.3	482.8	525.7	617.8	655.6	676.5	653.8	10- 15	70.41	129.0	7.25,7.25
20	597.3	442.3	451.3	464.2	615.2	633.9	667.1	610.9	15- 20	94.34	223.3	12.6,12.6
25	550.6	398.1	420.9	413.5	569.3	610.0	658.1	585.5	20- 25	114.3	337.6	19,19
30	487.5	360.1	390.6	361.7	514.6	573.5	649.0	571.0	25- 30	130.6	468.2	26.3,26.3
35	434.8	315.3	318.0	306.8	449.8	542.8	615.6	548.6	30- 35	142.4	610.6	34.3,34.3
40	404.3	269.0	245.3	253.4	411.9	523.3	582.3	526.9	35- 40	146.5	757.2	42.6,42.6
45	438.0	240.3	176.5	227.8	388.9	496.9	549.4	499.1	40- 45	145.7	902.9	50.8,50.8
50	318.0	208.3	138.9	193.0	365.6	451.8	520.7	459.7	45- 50	141.8	1045	58.7,58.7
55	272.5	162.6	105.2	146.8	277.4	400.3	492.5	404.4	50- 55	134.4	1179	66.3,66.3
60	224.6	117.7	71.48	105.6	235.8	369.5	464.2	369.1	55- 60	122.9	1302	73.2,73.2
65	171.5	83.39	50.16	74.64	175.2	340.2	434.5	348.5	60- 65	111.0	1413	79.4,79.4
70	137.6	53.24	28.84	53.64	139.9	312.5	404.8	307.1	65- 70	98.87	1512	85,85
75	103.7	29.89	9.522	31.47	110.0	276.7	374.8	271.2	70- 75	85.28	1597	89.8,89.8
80	64.18	11.99	6.203	12.38	75.65	246.2	342.2	238.1	75- 80	72.29	1669	93.9,93.9
85	33.53	8.108	4.883	8.609	38.86	210.7	309.3	198.7	80- 85	60.32	1730	97.2,97.2
90	2.701	4.218	3.564	4.409	1.464	175.9	276.5	163.6	85- 90	48.94	1779	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

Conical surface Flux(90deg): 902.87 lm

%lum = 50.8%
%lamp = 50.8%

Conical surface Flux(120deg): 1301.9 lm

%lum = 73.2%
%lamp = 73.2%

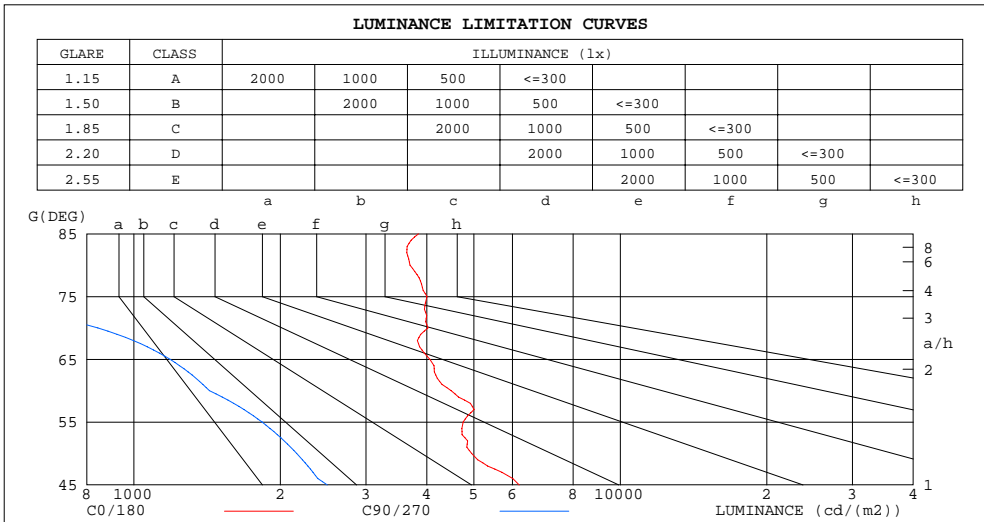
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2017-03-06

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
Humidity:65.0%
Test Distance:7.850m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3847	560
80	3696	357
75	4006	368
70	4022	843
65	4059	1187
60	4491	1430
55	4751	1834
50	4947	2161
45	6195	2497

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

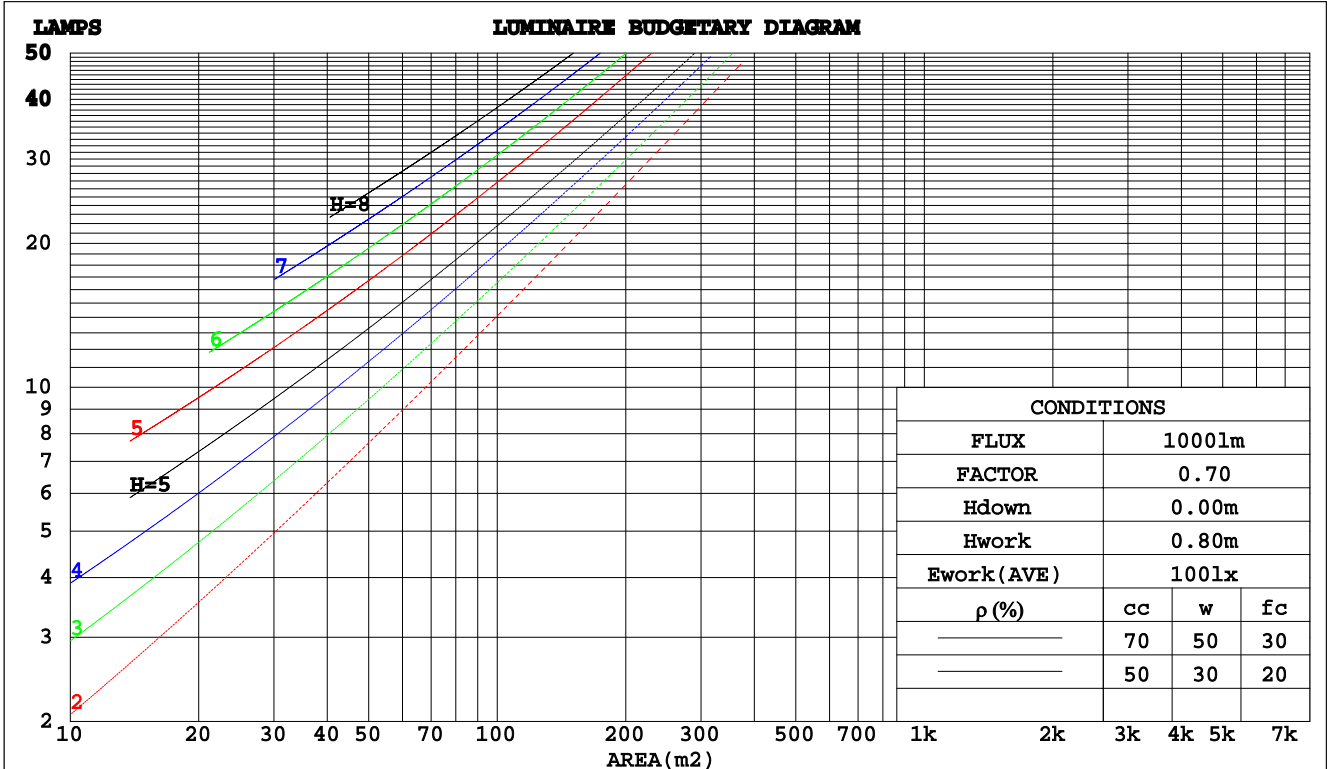
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw																
ρfc																
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	1.01	.96	.92	.99	.94	.90	.95	.91	.87	.91	.87	.85	.87	.84	.82	.80
2.0	.88	.80	.74	.86	.79	.73	.82	.76	.71	.79	.74	.70	.76	.72	.68	.66
3.0	.77	.68	.61	.75	.67	.61	.72	.65	.59	.69	.63	.58	.67	.62	.57	.55
4.0	.68	.59	.52	.67	.58	.51	.64	.57	.51	.62	.55	.50	.59	.54	.49	.47
5.0	.61	.51	.45	.60	.51	.44	.57	.50	.44	.55	.49	.43	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.38	.50	.43	.38	.49	.42	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.40	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.33	.27	.39	.32	.27	.38	.32	.27	.25
10.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm									
NAME:					TYPE:			WEIGHT:	
SPEC.:					DIM.:			SERIAL No.:	
MFR.:					SUR.:			Shielding Angle:	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.360	.205	.065	.353	.201	.064	.339	.195	.062	.327	.189	.061	.315	.183	.059	
2.0	.319	.175	.054	.312	.172	.053	.300	.167	.052	.289	.162	.051	.279	.158	.050	
3.0	.287	.153	.046	.281	.150	.045	.270	.147	.045	.261	.143	.044	.252	.139	.043	
4.0	.260	.135	.040	.255	.134	.039	.246	.130	.039	.237	.127	.038	.229	.125	.038	
5.0	.238	.121	.035	.234	.120	.035	.225	.117	.035	.218	.115	.034	.210	.112	.034	
6.0	.219	.110	.031	.215	.109	.031	.208	.107	.031	.201	.104	.031	.195	.102	.030	
7.0	.203	.100	.028	.199	.099	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028	
8.0	.189	.092	.026	.186	.091	.026	.180	.090	.026	.174	.088	.025	.169	.087	.025	
9.0	.176	.085	.024	.174	.085	.024	.168	.083	.024	.163	.082	.023	.159	.081	.023	
10.0	.165	.079	.022	.163	.079	.022	.158	.078	.022	.154	.076	.022	.150	.075	.022	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.184	.156	.130	.157	.134	.112	.108	.092	.078	.062	.053	.045	.020	.017	.015	
2.0	.176	.132	.095	.151	.113	.082	.103	.078	.057	.060	.046	.033	.019	.015	.011	
3.0	.168	.114	.072	.144	.099	.062	.099	.069	.044	.057	.040	.026	.018	.013	.008	
4.0	.160	.101	.057	.137	.087	.049	.094	.061	.035	.054	.036	.021	.018	.012	.007	
5.0	.152	.091	.046	.130	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.083	.038	.124	.071	.033	.085	.050	.024	.050	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.018	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:			Shielding Angle:		
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	16.1	17.7	16.4	17.9	18.1	12.3	13.9	12.6	14.1	14.3
3H	17.6	19.0	17.9	19.3	19.5	12.7	14.2	13.0	14.4	14.7
4H	18.2	19.6	18.5	19.9	20.1	12.7	14.1	13.0	14.4	14.6
6H	18.7	20.0	19.1	20.3	20.6	12.6	14.0	13.0	14.2	14.5
8H	18.9	20.2	19.2	20.5	20.7	12.6	13.9	12.9	14.2	14.5
12H	19.0	20.3	19.4	20.6	20.9	12.6	13.8	12.9	14.1	14.4
4H 2H	16.1	17.5	16.4	17.7	18.0	12.9	14.3	13.2	14.5	14.8
3H	17.7	19.0	18.1	19.3	19.6	13.4	14.7	13.8	15.0	15.3
4H	18.4	19.6	18.8	19.9	20.2	13.5	14.6	13.8	14.9	15.3
6H	19.0	20.0	19.4	20.4	20.8	13.4	14.4	13.8	14.8	15.2
8H	19.2	20.2	19.7	20.6	21.0	13.4	14.4	13.8	14.7	15.1
12H	19.4	20.3	19.9	20.7	21.1	13.4	14.3	13.8	14.7	15.1
8H 4H	18.4	19.3	18.8	19.7	20.1	13.7	14.6	14.1	15.0	15.4
6H	19.0	19.8	19.5	20.2	20.7	13.7	14.5	14.2	14.9	15.4
8H	19.3	20.0	19.7	20.4	20.9	13.7	14.5	14.2	14.9	15.4
12H	19.5	20.1	20.0	20.6	21.1	13.8	14.4	14.3	14.9	15.4
12H 4H	18.3	19.2	18.8	19.6	20.0	13.7	14.6	14.1	15.0	15.4
6H	19.0	19.7	19.4	20.1	20.6	13.8	14.5	14.2	14.9	15.4
8H	19.2	19.9	19.7	20.3	20.8	13.8	14.4	14.3	14.9	15.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.6 / - 0.6				
1.5H	+ 0.9 / - 0.8					+ 1.0 / - 0.9				
2.0H	+ 1.8 / - 1.7					+ 1.2 / - 1.6				

CIE Pub.117 Corrected 1779 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.0)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	57	45	38	56	45	38	55	44	38	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	74	63	55	73	62	55	71	64	54	47
1.25	81	70	62	80	69	62	77	68	61	54
1.50	86	75	68	84	74	67	81	73	66	58
2.00	93	83	76	91	82	75	87	80	74	66
2.50	97	88	81	94	87	80	90	84	79	70
3.00	100	92	86	98	91	85	94	88	83	74
4.00	104	98	92	102	96	91	97	92	88	79
5.00	107	101	96	104	99	95	100	95	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

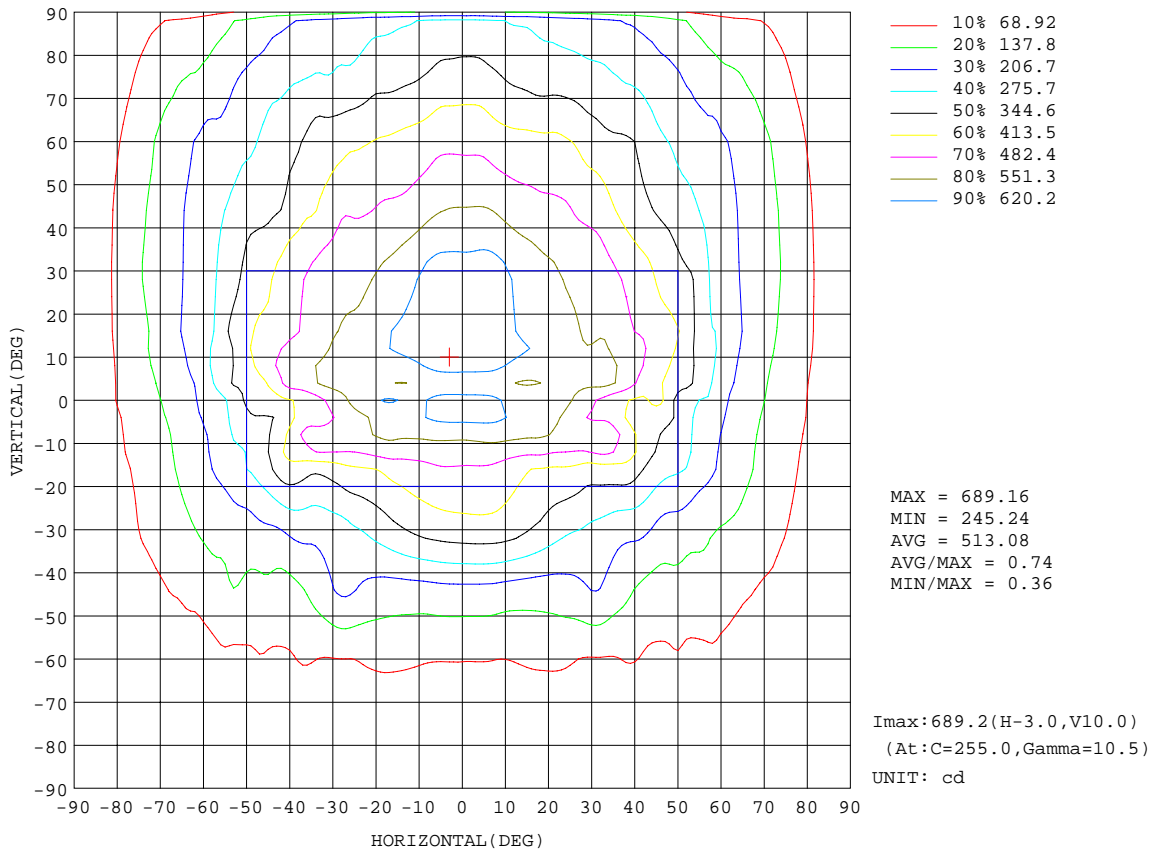
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2017-03-06

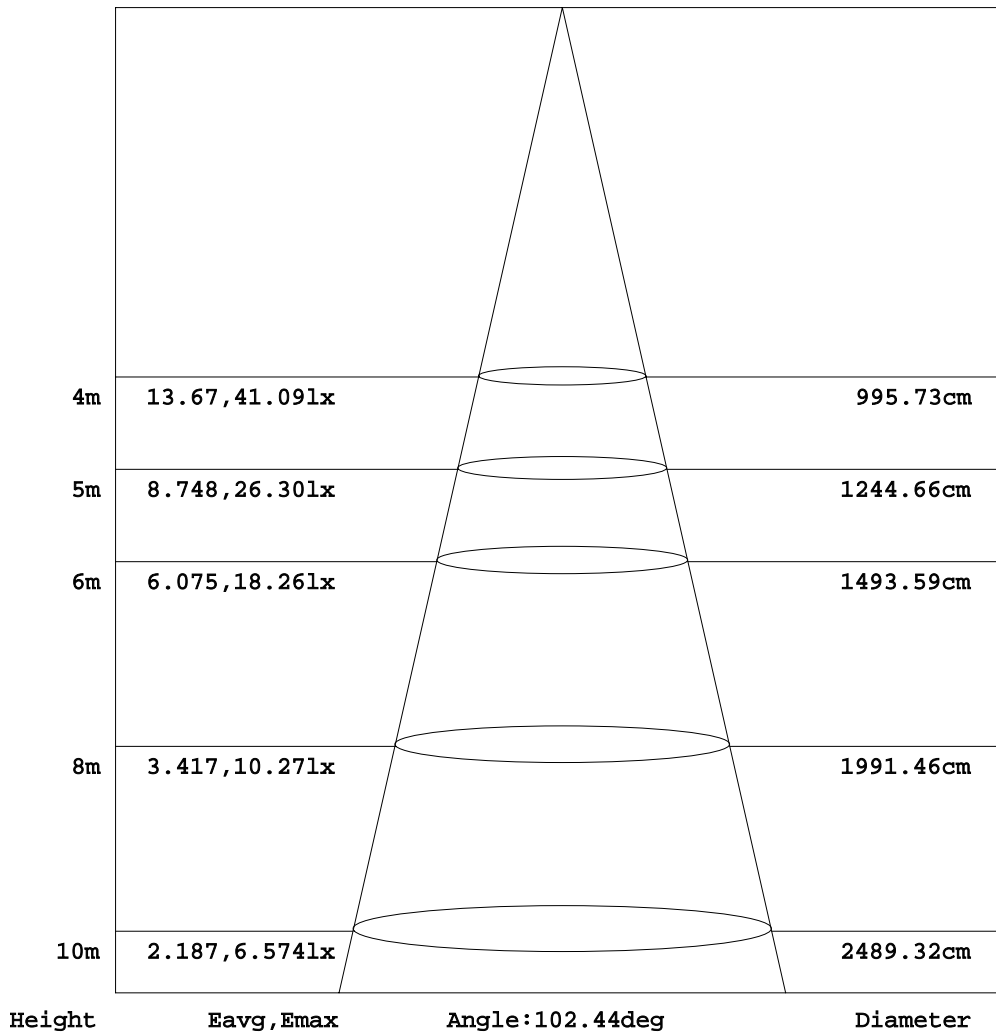
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1086 lm



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

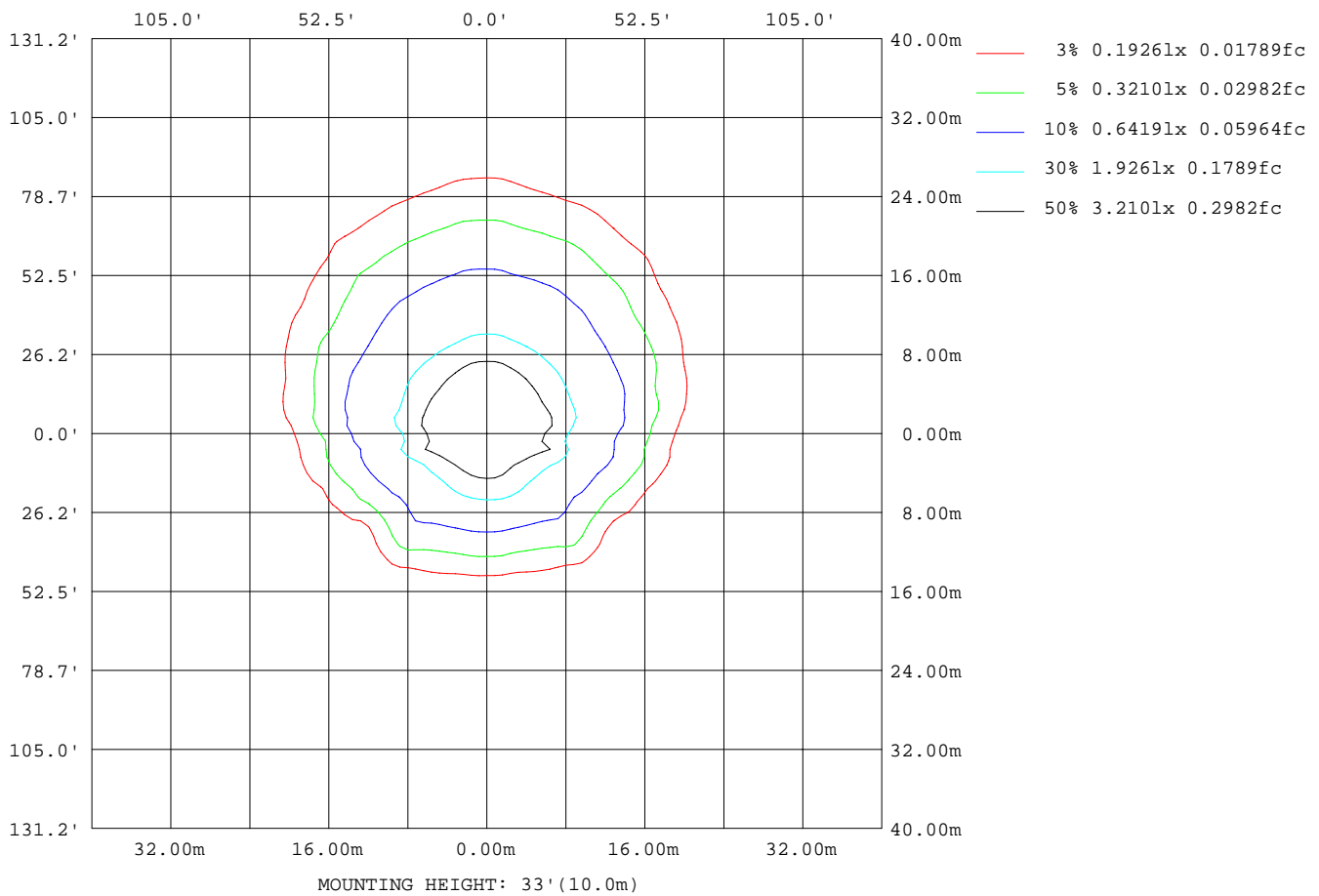
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.5V I:0.1277A P:14.88W PF:0.9672 Lamp Flux:1778.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

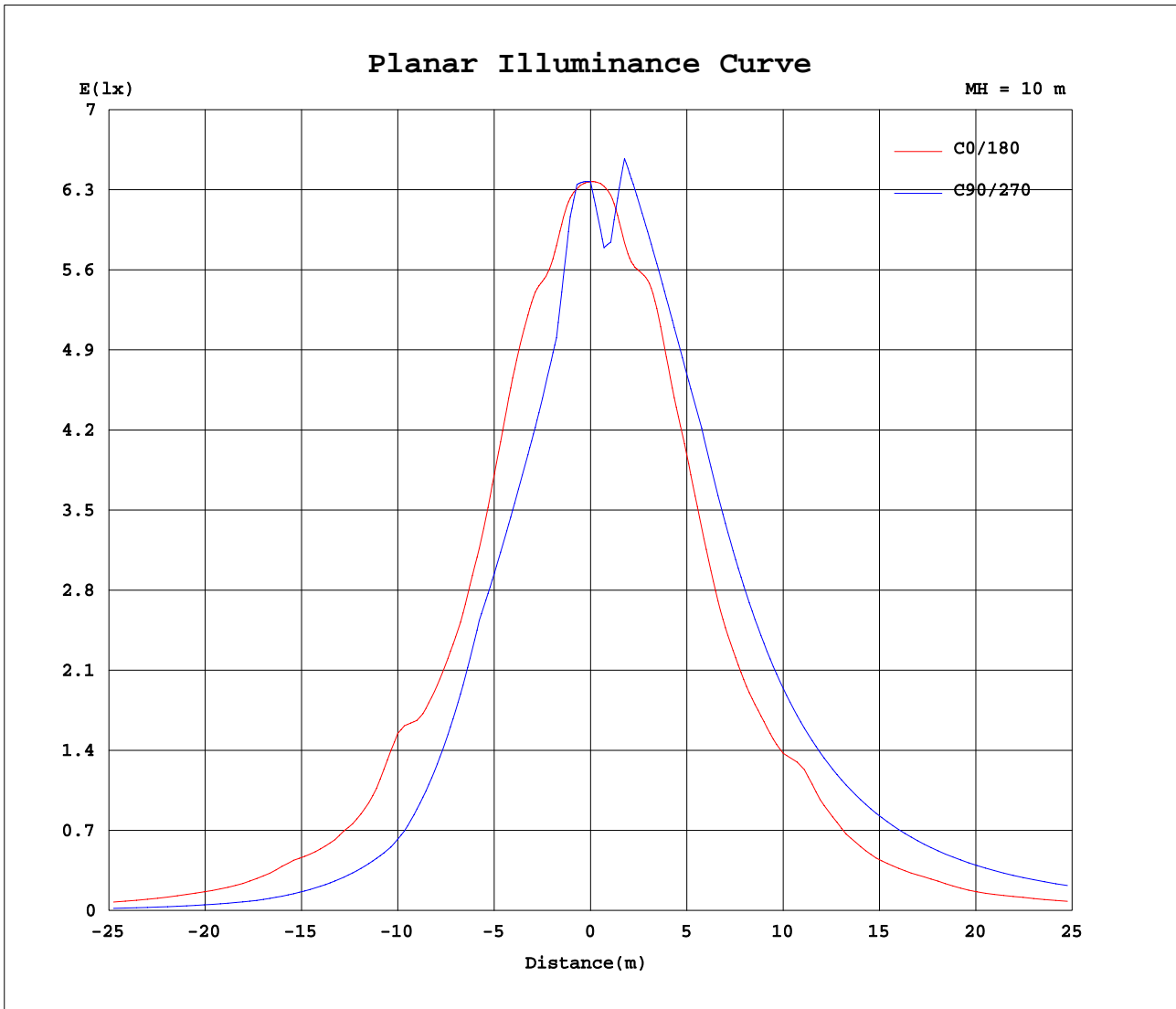
AvgL	cd/m2
L_0~180(65)av	4102
L_0~180(75)av	4128
L_0~180(85)av	4153
L_90~270(65)av	5734
L_90~270(75)av	7424
L_90~270(85)av	18027
L_45(65)av	5009
L_45(75)av	5885
L_45(85)av	12221

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity:65.0%
 Test Distance:7.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2017-03-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.350
 Humidity: 65.0%
 Test Distance: 7.850m [K=1.0000]
 Remarks:

