

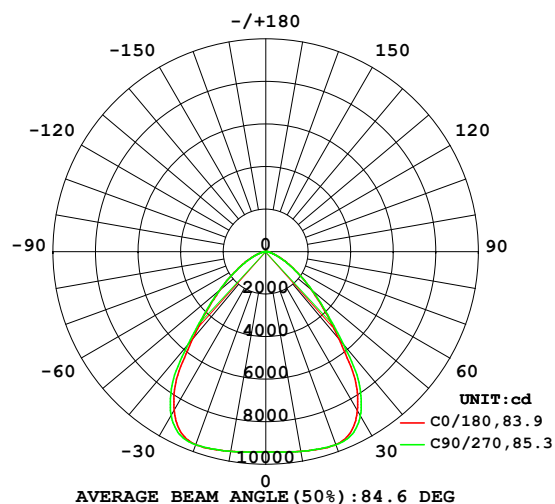
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

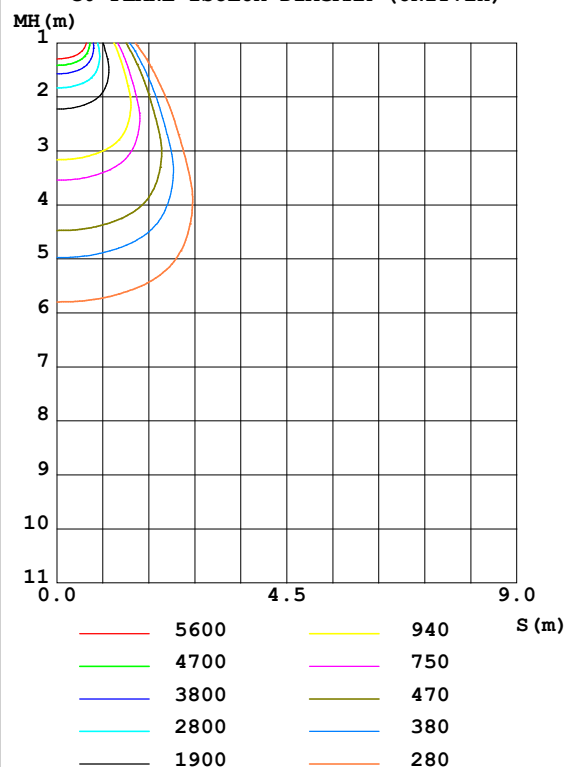
Test:U:230.1V I:0.4587A P:100.4W PF:0.9511 Lamp Flux:18701.7x1 lm		
NAME: 950-106_90°	TYPE:100W	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:φ0.27	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 186.31 lm/W			
MODEL	2835	I _{max} (cd)	9665	S/MH(C0/180)	1.20
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	18702	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	18701.7	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.25

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2018-11-08

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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	9453	9449	9454	9456	9453	9456	9454	9449	0- 5	225.6	225.6	1.21,1.21
10	9531	9521	9535	9537	9531	9537	9535	9521	5- 10	679.6	905.2	4.84,4.84
15	9614	9597	9607	9618	9614	9618	9607	9597	10- 15	1136	2041	10.9,10.9
20	9650	9646	9652	9648	9650	9648	9652	9646	15- 20	1589	3631	19.4,19.4
25	9404	9469	9519	9431	9404	9431	9519	9469	20- 25	2011	5641	30.2,30.2
30	8611	8803	8899	8706	8611	8706	8899	8803	25- 30	2315	7957	42.5,42.5
35	7316	7576	7698	7423	7316	7423	7698	7576	30- 35	2404	10361	55.4,55.4
40	5334	5560	5671	5439	5334	5439	5671	5560	35- 40	2175	12536	67,67
45	3902	4024	4016	3920	3902	3920	4016	4024	40- 45	1730	14266	76.3,76.3
50	2821	2857	2865	2848	2821	2848	2865	2857	45- 50	1366	15632	83.6,83.6
55	2009	2017	2003	2015	2009	2015	2003	2017	50- 55	1050	16681	89.2,89.2
60	1366	1368	1330	1349	1366	1349	1330	1368	55- 60	763.6	17445	93.3,93.3
65	877.9	876.3	845.6	854.3	877.9	854.3	845.6	876.3	60- 65	528.4	17973	96.1,96.1
70	528.8	518.6	509.1	511.2	528.8	511.2	509.1	518.6	65- 70	340.2	18314	97.9,97.9
75	300.0	295.2	295.4	292.6	300.0	292.6	295.4	295.2	70- 75	205.4	18519	99,99
80	152.9	151.6	149.3	150.1	152.9	150.1	149.3	151.6	75- 80	117.4	18636	99.7,99.7
85	54.47	53.25	52.80	53.78	54.47	53.78	52.80	53.25	80- 85	53.24	18690	99.9,99.9
90	3.263	3.249	3.231	3.257	3.263	3.257	3.231	3.249	85- 90	12.00	18702	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): 14266 lm

%lum = 76.3%

%lamp = 76.3%

Conical surface Flux(120deg): 17445 lm

%lum = 93.3%

%lamp = 93.3%

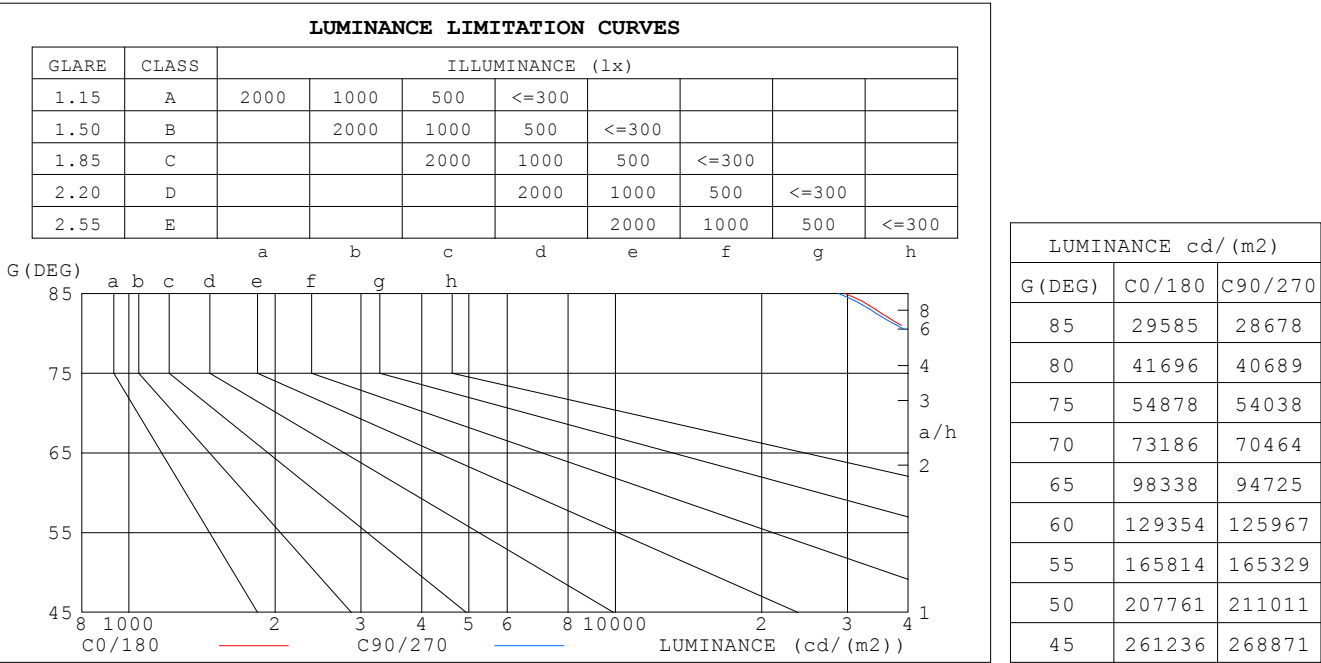
C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2018-11-08

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

LUMINANCE LIMITATION CURVES



C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2018-11-08

Checker: LI

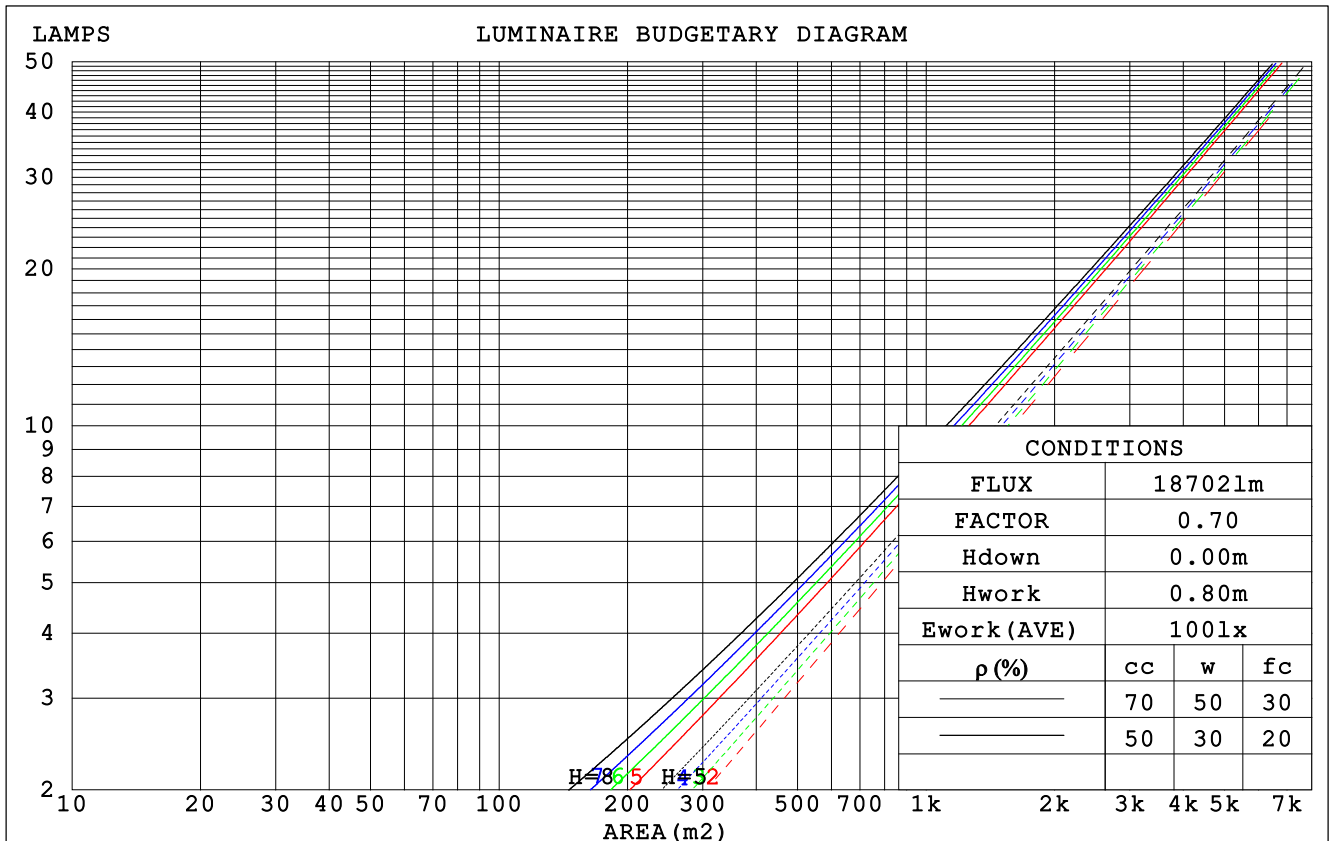
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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			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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.92	.87	.95	.91	.86	.92	.88	.84	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.81	.76	.86	.80	.75	.84	.78	.74	.81	.77	.73	.79	.75	.72	.70
4.0	.80	.72	.67	.78	.72	.67	.76	.70	.66	.74	.69	.65	.72	.68	.64	.62
5.0	.73	.65	.59	.72	.64	.59	.70	.63	.59	.68	.62	.58	.66	.61	.57	.56
6.0	.66	.59	.53	.66	.58	.53	.64	.57	.53	.62	.57	.52	.61	.56	.52	.50
7.0	.61	.53	.48	.60	.53	.48	.59	.52	.48	.57	.52	.47	.56	.51	.47	.45
8.0	.56	.49	.44	.56	.48	.43	.54	.48	.43	.53	.47	.43	.52	.47	.43	.41
9.0	.52	.45	.40	.51	.44	.40	.50	.44	.40	.49	.44	.39	.48	.43	.39	.38
10.0	.48	.41	.37	.48	.41	.36	.47	.41	.36	.46	.40	.36	.45	.40	.36	.34



C Range: 0 - 360DEG
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	.233	.133	.042	.226	.129	.041	.213	.122	.039	.202	.116	.037	.191	.111	.036	
2.0	.226	.124	.038	.220	.121	.037	.209	.116	.036	.199	.112	.035	.190	.107	.034	
3.0	.215	.115	.034	.210	.113	.034	.200	.109	.033	.191	.105	.032	.183	.101	.031	
4.0	.204	.106	.031	.199	.104	.031	.191	.101	.030	.183	.098	.030	.175	.095	.029	
5.0	.192	.098	.028	.188	.097	.028	.181	.094	.028	.174	.092	.027	.167	.089	.027	
6.0	.182	.091	.026	.178	.090	.026	.171	.088	.026	.165	.086	.025	.159	.084	.025	
7.0	.172	.085	.024	.169	.084	.024	.163	.082	.024	.157	.080	.023	.152	.079	.023	
8.0	.163	.079	.022	.160	.079	.022	.154	.077	.022	.149	.076	.022	.145	.074	.022	
9.0	.154	.075	.021	.152	.074	.021	.147	.073	.021	.142	.071	.020	.138	.070	.020	
10.0	.146	.070	.019	.144	.070	.019	.140	.069	.019	.136	.067	.019	.132	.066	.019	

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	.175	.157	.140	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.125	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.138	.089	.053	.119	.077	.046	.082	.054	.032	.047	.032	.019	.015	.010	.006	
6.0	.131	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.125	.073	.037	.108	.064	.032	.074	.045	.023	.043	.026	.014	.014	.009	.004	
8.0	.119	.067	.032	.103	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.114	.062	.028	.098	.054	.024	.068	.038	.017	.040	.022	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2018-11-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	29.8	31.1	30.1	31.3	31.4	29.8	31.1	30.0	31.2	31.4
3H	30.1	31.3	30.4	31.5	31.7	30.0	31.2	30.3	31.4	31.6
4H	30.1	31.2	30.4	31.5	31.7	30.1	31.2	30.4	31.4	31.7
6H	30.1	31.2	30.5	31.4	31.7	30.1	31.1	30.4	31.4	31.6
8H	30.1	31.1	30.5	31.4	31.7	30.1	31.1	30.4	31.3	31.6
12H	30.1	31.0	30.4	31.3	31.6	30.0	31.0	30.4	31.3	31.6
4H 2H	29.9	31.0	30.2	31.2	31.5	29.9	31.0	30.2	31.2	31.5
3H	30.3	31.2	30.6	31.5	31.8	30.2	31.2	30.6	31.5	31.7
4H	30.4	31.3	30.8	31.6	31.9	30.3	31.2	30.7	31.5	31.8
6H	30.4	31.2	30.8	31.5	31.9	30.4	31.1	30.8	31.5	31.8
8H	30.4	31.1	30.9	31.5	31.9	30.4	31.1	30.8	31.4	31.8
12H	30.4	31.1	30.8	31.4	31.8	30.4	31.0	30.8	31.4	31.8
8H 4H	30.4	31.1	30.8	31.4	31.8	30.3	31.0	30.7	31.4	31.7
6H	30.5	31.0	30.9	31.4	31.9	30.4	31.0	30.8	31.4	31.8
8H	30.5	31.0	30.9	31.4	31.9	30.4	30.9	30.9	31.3	31.8
12H	30.5	30.9	31.0	31.4	31.8	30.4	30.8	30.9	31.3	31.8
12H 4H	30.3	31.0	30.7	31.3	31.7	30.3	30.9	30.7	31.3	31.7
6H	30.4	30.9	30.9	31.4	31.8	30.4	30.9	30.8	31.3	31.7
8H	30.5	30.9	30.9	31.3	31.8	30.4	30.8	30.9	31.3	31.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.9 / - 1.3					+ 1.0 / - 1.5				
1.5H	+ 0.9 / - 0.7					+ 1.2 / - 0.9				
2.0H	+ 1.8 / - 1.8					+ 1.9 / - 1.9				

CIE Pub.117 Corrected 18702 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.2)

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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) $k(RI) \times RCR = 5$									
$k = 0.60$	71	61	56	70	61	56	69	61	56	50
0.80	80	71	66	79	71	65	78	70	65	60
1.00	88	79	74	87	79	73	85	79	73	67
1.25	94	86	81	92	85	80	90	84	79	74
1.50	98	90	85	96	90	85	94	88	84	78
2.00	103	96	92	101	95	91	98	93	90	83
2.50	105	100	95	103	98	94	100	96	92	86
3.00	108	103	99	106	101	98	102	98	95	88
4.00	110	106	103	108	105	102	104	101	99	91
5.00	112	109	106	110	107	104	106	103	101	93
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

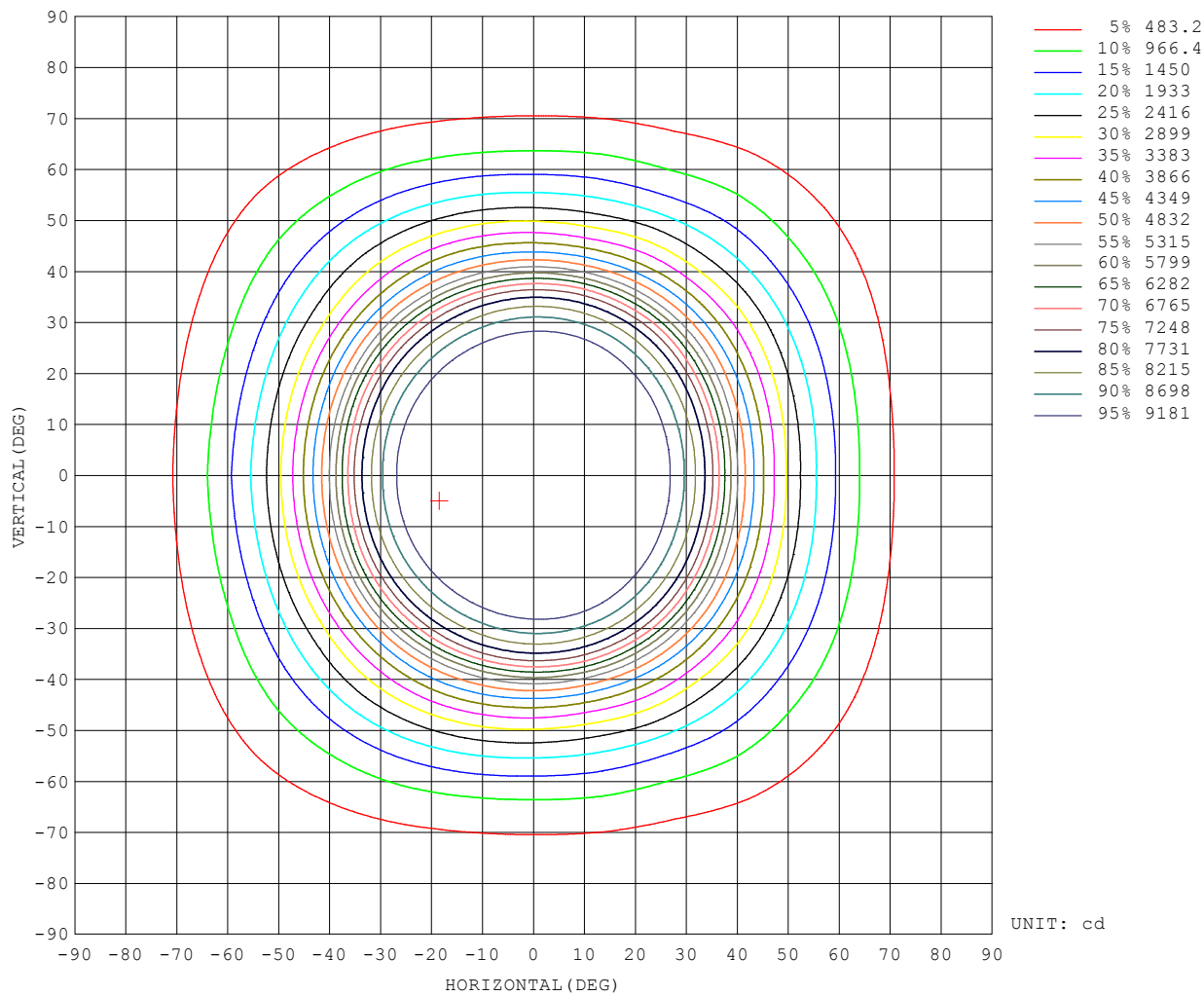
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 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2018-11-08

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

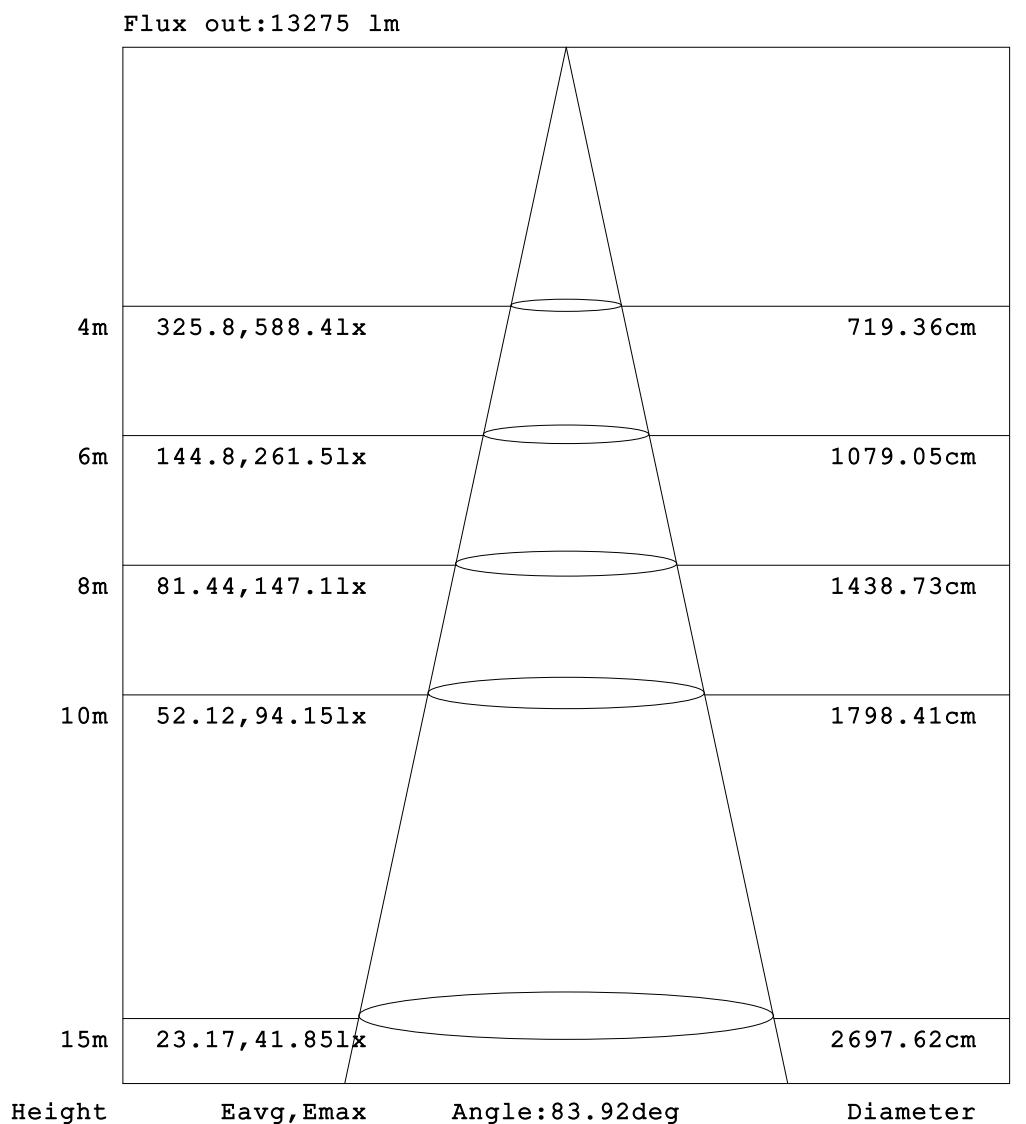
Assessor:

ISOCANDELA DIAGRAM



C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 2.5DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Temperature:25.3DEG	Humidity:65.0%
Operators:	Test Distance:9.500m [K=1.0000]
Test Date:2018-11-08	Remarks:
Checker: LI	Assessor:

AAI Figure



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

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2018-11-08

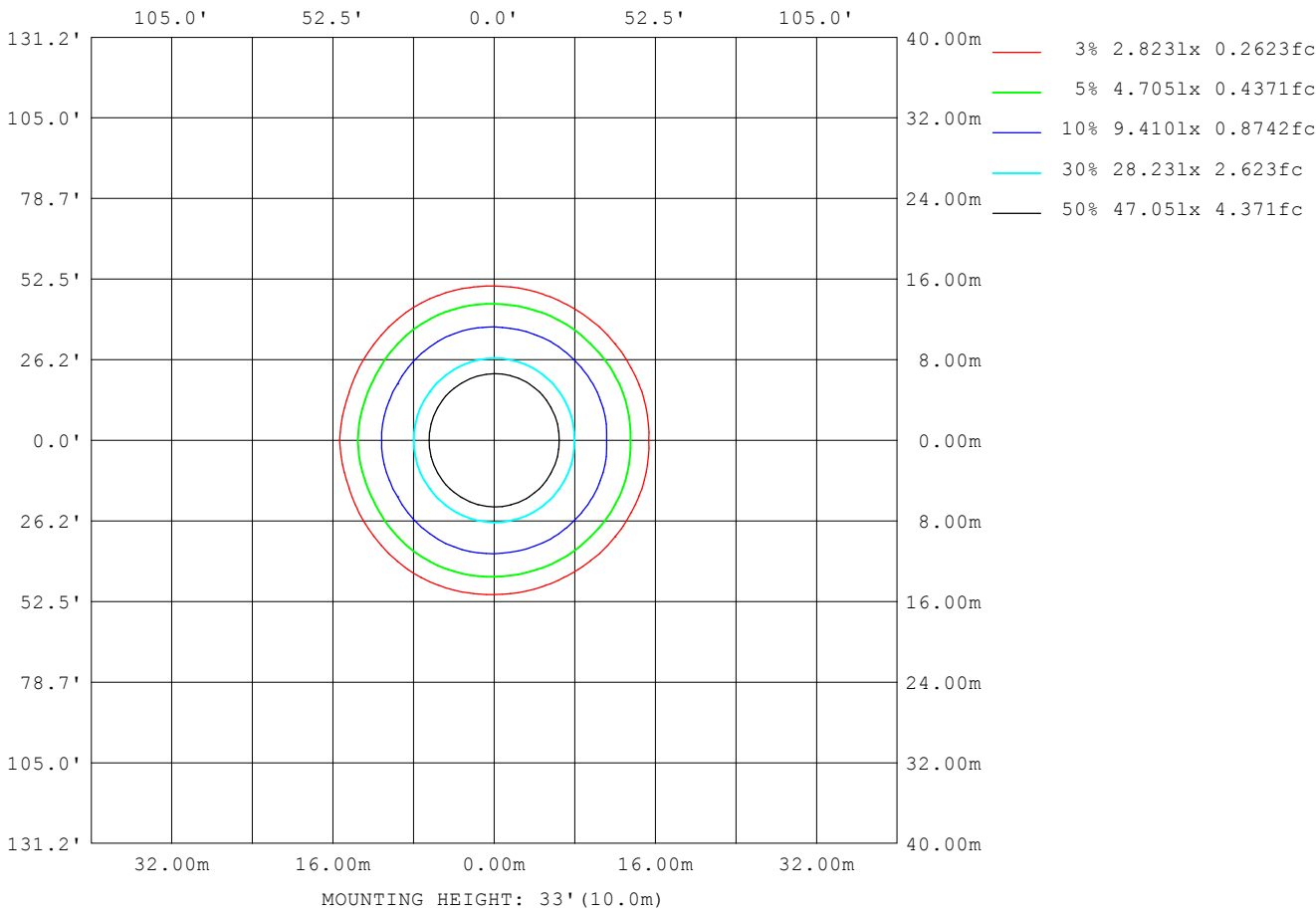
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.500m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



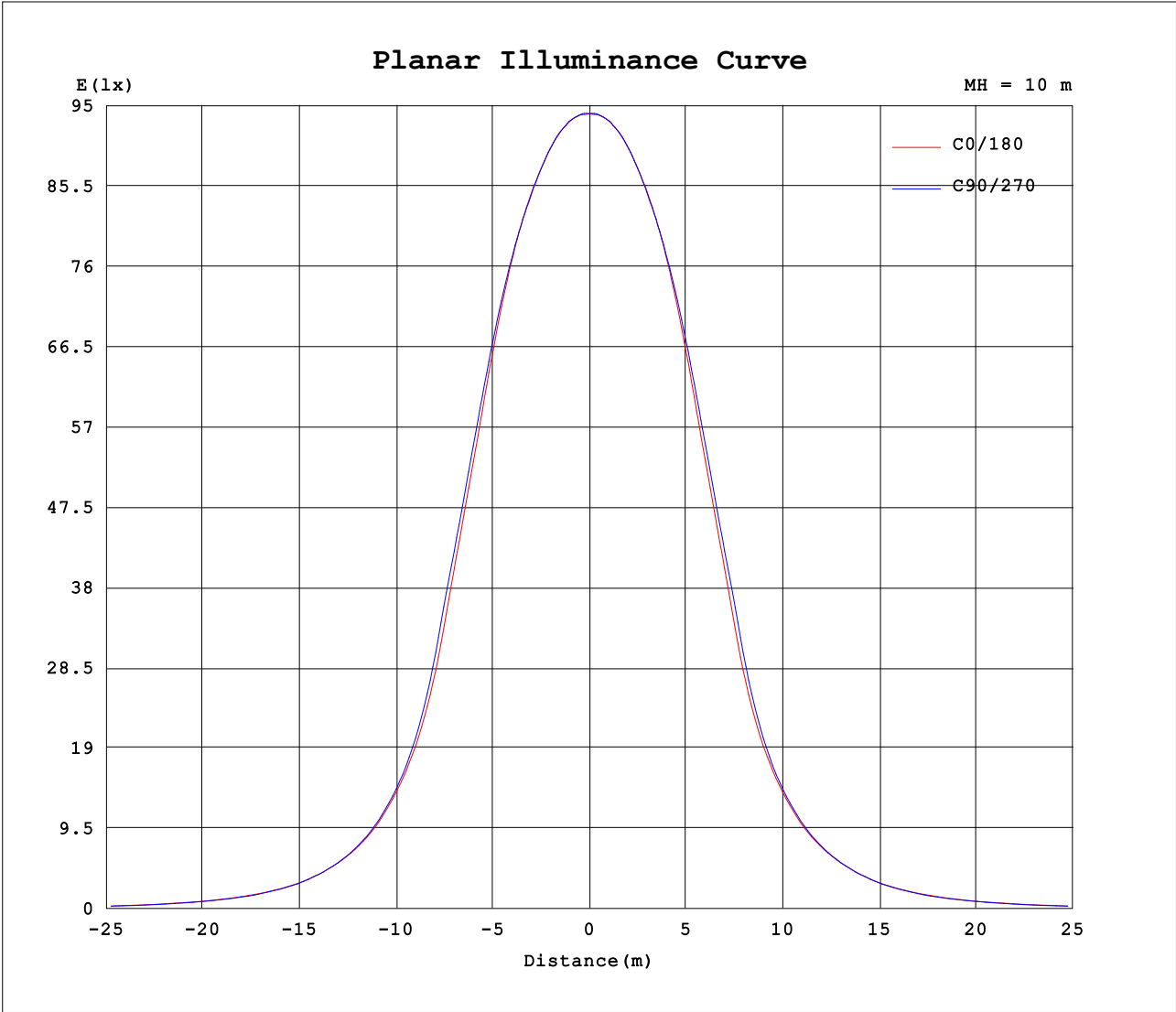
C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.500m [K=1.0000]
Remarks:

Assessor:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2018-11-08

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--3

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--4

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--5

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--6

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--7

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Checker: LI

Assessor:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--8

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2018-11-08

Checker: LI

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.500m [K=1.0000]
Remarks:

```

Assessor: