

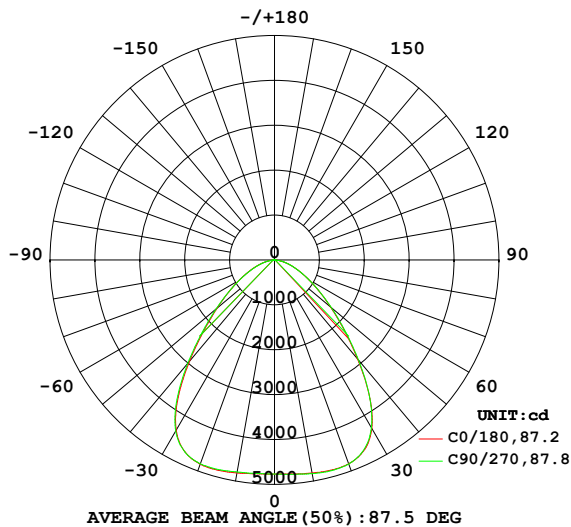
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

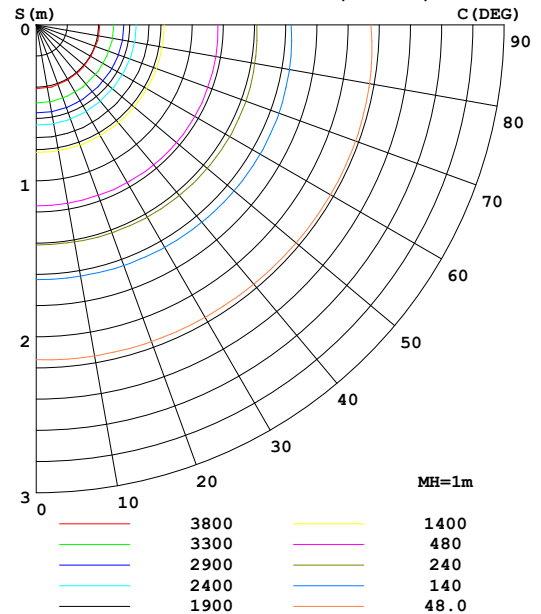
Test:U:230.1V I:0.391A P:90.7W PF:0.972 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:10198.8x1 lm		
NAME: P301-B3K (90W with no reflector)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.43 lm/W			
MODEL	/	Imax (cd)	4870	S/MH (C0/180)	1.23
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	10199	η UP, DN (C0-180)	0.0, 49.7
NOMINAL FLUX (lm)	10198.8	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4593]
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	4821	4829	4834	4831	4816	4805	4797	4808	0- 10	457.7	457.7	4.49,4.49
20	4832	4834	4838	4829	4841	4818	4832	4826	10- 20	1372	1830	17.9,17.9
30	4336	4309	4319	4298	4381	4369	4402	4346	20- 30	2151	3981	39,39
40	2878	2912	2910	2859	2944	2991	3006	2912	30- 40	2293	6274	61.5,61.5
50	1633	1710	1653	1696	1669	1774	1696	1721	40- 50	1737	8011	78.5,78.5
60	887.8	936.7	889.2	961.4	917.4	984.4	909.5	973.4	50- 60	1145	9156	89.8,89.8
70	437.0	461.8	437.5	485.8	452.2	483.3	437.7	484.0	60- 70	671.9	9827	96.4,96.4
80	142.6	154.9	148.8	169.2	150.4	162.1	142.6	160.6	70- 80	316.5	10144	99.5,99.5
90	0.2704	0.3154	0.5867	0.8569	1.262	0.9313	0.6168	0.6765	80- 90	54.81	10199	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): 7222.8 lm

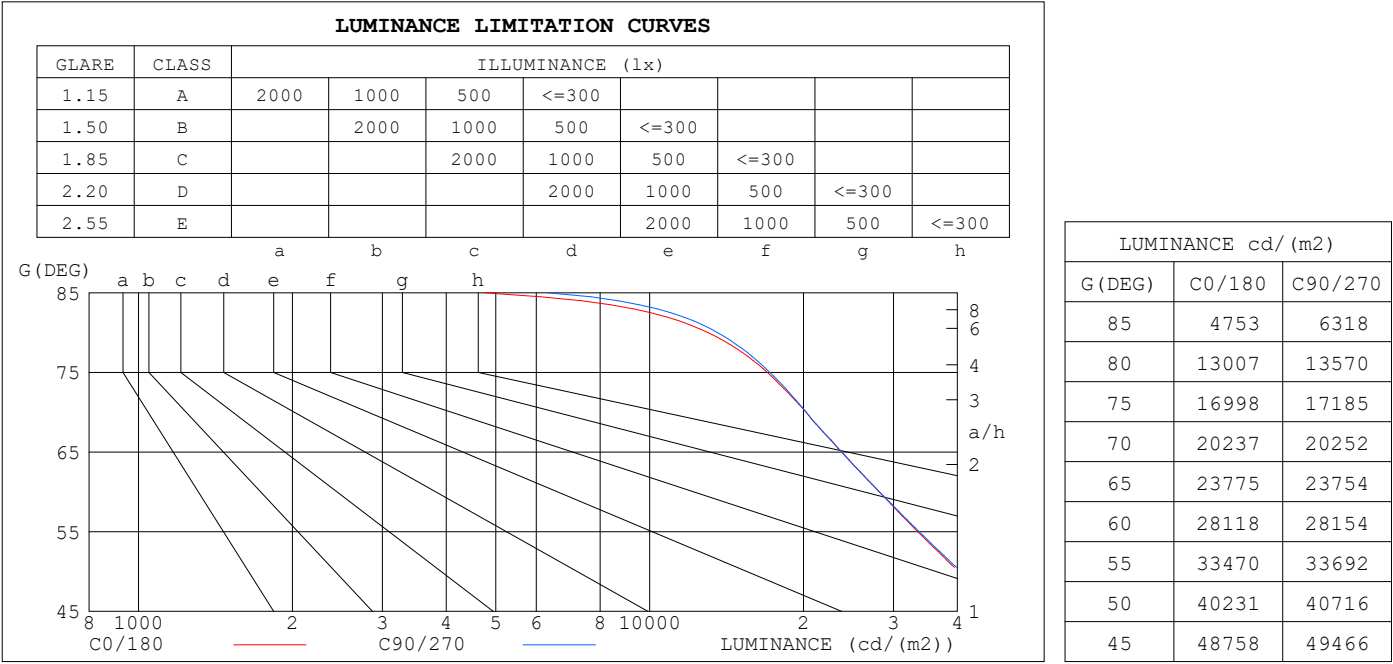
%lum = 70.8%
%lamp = 70.8%

Conical surface Flux(120deg): 9155.6 lm

%lum = 89.8%
%lamp = 89.8%

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Temperature:25.3℃	Humidity:65.0%
Operators:ZZX	Test Distance:26.000m [K=0.4593]
Test Date:2024-06-14	Remarks:

LUMINANCE LIMITATION CURVES

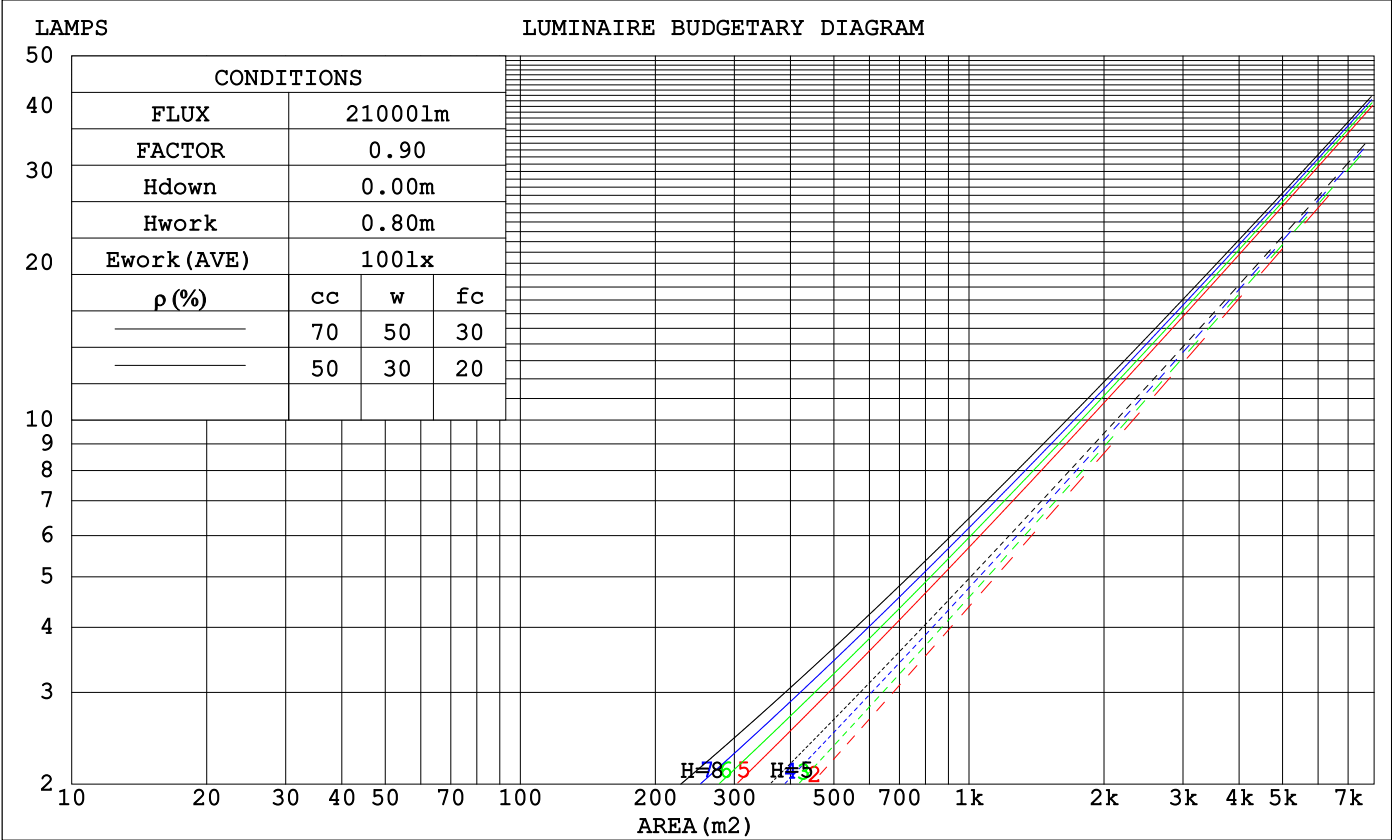


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
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	1.00	
1.0	1.07	1.03	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88	
2.0	.96	.90	.85	.94	.89	.84	.90	.86	.82	.87	.84	.80	.84	.81	.79	.77	
3.0	.86	.79	.73	.84	.78	.73	.82	.76	.72	.79	.74	.70	.76	.73	.69	.67	
4.0	.77	.70	.64	.76	.69	.64	.74	.68	.63	.72	.66	.62	.70	.65	.61	.59	
5.0	.70	.62	.57	.69	.62	.56	.67	.61	.56	.65	.60	.55	.64	.59	.55	.53	
6.0	.64	.56	.50	.63	.56	.50	.61	.55	.50	.60	.54	.49	.58	.53	.49	.47	
7.0	.59	.51	.45	.58	.50	.45	.56	.50	.45	.55	.49	.44	.54	.48	.44	.42	
8.0	.54	.46	.41	.53	.46	.41	.52	.45	.41	.51	.45	.40	.50	.44	.40	.38	
9.0	.50	.42	.37	.49	.42	.37	.48	.42	.37	.47	.41	.37	.46	.41	.37	.35	
10.0	.46	.39	.34	.46	.39	.34	.45	.38	.34	.44	.38	.34	.43	.38	.34	.32	



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:ZZX

Test Date:2024-06-14

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465

Humidity:65.0%

Test Distance:26.000m [K=0.4593]

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	.250	.142	.045	.244	.139	.044	.231	.132	.042	.219	.126	.040	.208	.120	.039		
2.0	.242	.132	.041	.236	.130	.040	.224	.125	.039	.214	.120	.038	.204	.116	.036		
3.0	.228	.121	.036	.223	.119	.036	.213	.116	.035	.204	.112	.034	.196	.108	.034		
4.0	.214	.111	.033	.210	.110	.032	.201	.107	.032	.193	.104	.031	.186	.101	.031		
5.0	.201	.103	.030	.197	.101	.029	.190	.099	.029	.182	.096	.029	.176	.094	.028		
6.0	.189	.095	.027	.186	.094	.027	.179	.092	.027	.172	.090	.026	.166	.088	.026		
7.0	.178	.088	.025	.175	.087	.025	.169	.085	.025	.163	.084	.024	.158	.082	.024		
8.0	.168	.082	.023	.165	.081	.023	.160	.080	.023	.155	.078	.023	.150	.077	.022		
9.0	.159	.077	.021	.156	.076	.021	.151	.075	.021	.147	.074	.021	.142	.072	.021		
10.0	.151	.072	.020	.148	.072	.020	.144	.070	.020	.140	.069	.020	.136	.068	.020		

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	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.080	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.063	.127	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.141	.089	.051	.121	.077	.045	.083	.054	.032	.048	.032	.019	.016	.010	.006	
6.0	.134	.081	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.116	.063	.027	.100	.055	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.096	.051	.021	.066	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:ZZX
 Test Date:2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity:65.0%
 Test Distance:26.000m [K=0.4593]
 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	22.8	24.2	23.1	24.5	24.8	22.8	24.3	23.2	24.6	24.9
3H	23.9	25.1	24.3	25.5	25.8	23.9	25.2	24.3	25.5	25.9
4H	24.2	25.4	24.6	25.8	26.1	24.3	25.5	24.7	25.8	26.2
6H	24.4	25.5	24.9	25.9	26.3	24.5	25.6	24.9	26.0	26.4
8H	24.5	25.5	24.9	25.9	26.3	24.5	25.6	25.0	26.0	26.4
12H	24.5	25.5	24.9	25.8	26.3	24.5	25.5	25.0	25.9	26.3
4H 2H	23.2	24.4	23.6	24.7	25.1	23.3	24.5	23.7	24.8	25.2
3H	24.5	25.5	24.9	25.9	26.3	24.6	25.6	25.0	26.0	26.4
4H	25.0	25.8	25.4	26.2	26.7	25.1	25.9	25.5	26.3	26.8
6H	25.3	26.0	25.7	26.5	26.9	25.4	26.1	25.8	26.6	27.0
8H	25.3	26.0	25.8	26.5	26.9	25.4	26.1	25.9	26.6	27.0
12H	25.3	25.9	25.8	26.4	26.9	25.4	26.1	25.9	26.5	27.0
8H 4H	25.1	25.8	25.6	26.3	26.7	25.2	25.9	25.7	26.4	26.9
6H	25.5	26.1	26.0	26.6	27.0	25.6	26.2	26.1	26.7	27.2
8H	25.6	26.1	26.1	26.6	27.1	25.7	26.3	26.3	26.8	27.3
12H	25.6	26.0	26.1	26.5	27.1	25.8	26.2	26.3	26.7	27.3
12H 4H	25.1	25.7	25.6	26.2	26.7	25.2	25.9	25.7	26.3	26.8
6H	25.5	26.0	26.0	26.5	27.0	25.7	26.2	26.2	26.6	27.2
8H	25.6	26.1	26.1	26.6	27.1	25.8	26.2	26.3	26.7	27.3
CIE190: 2010										

CIE190: 2010
Area: 0.0632 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

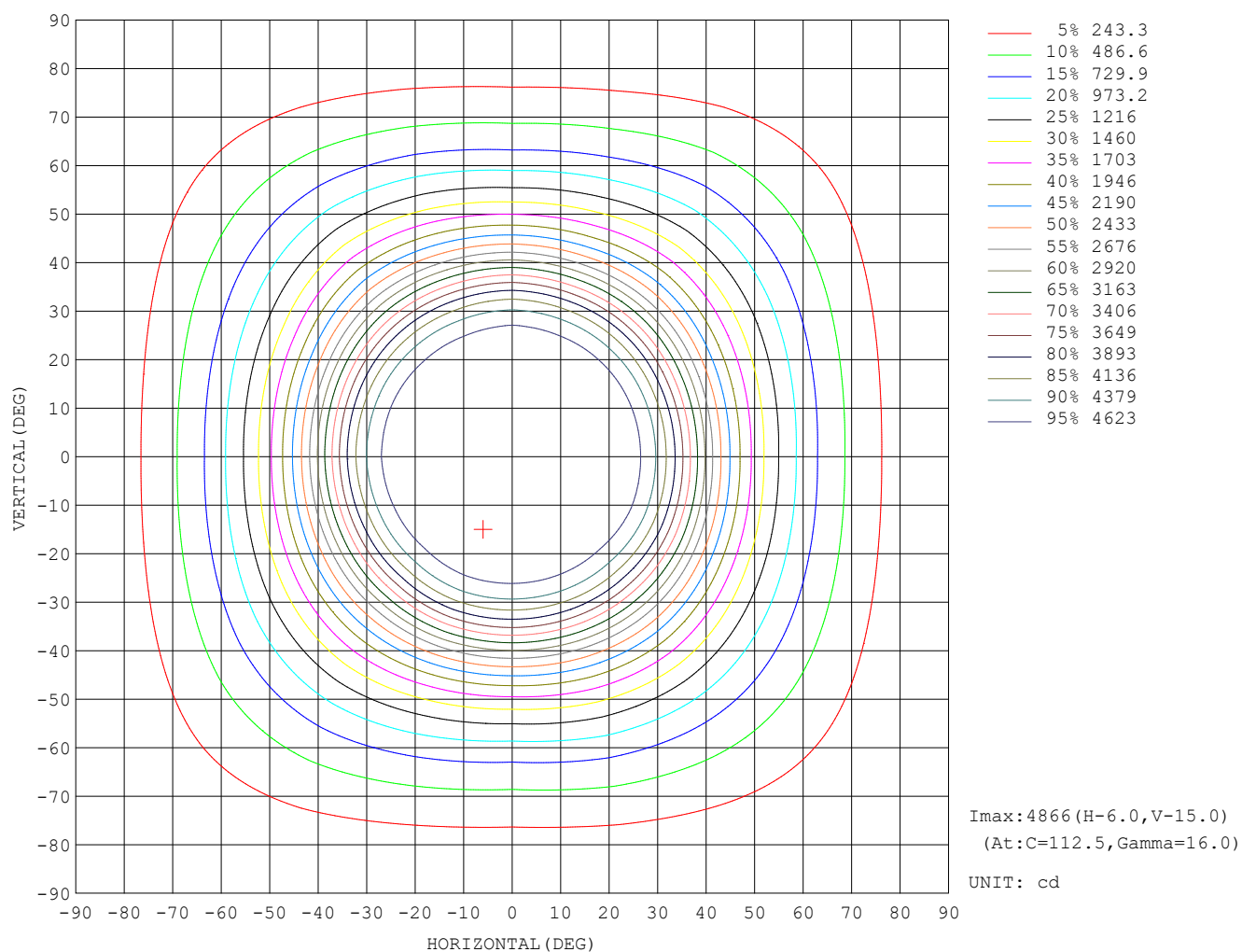
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	67	58	52	67	57	52	66	57	51	46
0.80	77	68	61	76	67	61	75	66	61	55
1.00	85	76	70	84	75	70	82	76	69	63
1.25	91	83	77	90	82	76	87	81	76	70
1.50	95	87	82	94	87	81	91	85	80	74
2.00	101	94	89	99	93	88	96	91	87	80
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	104	99	96	101	97	93	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	108	104	109	106	103	105	102	100	91
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:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

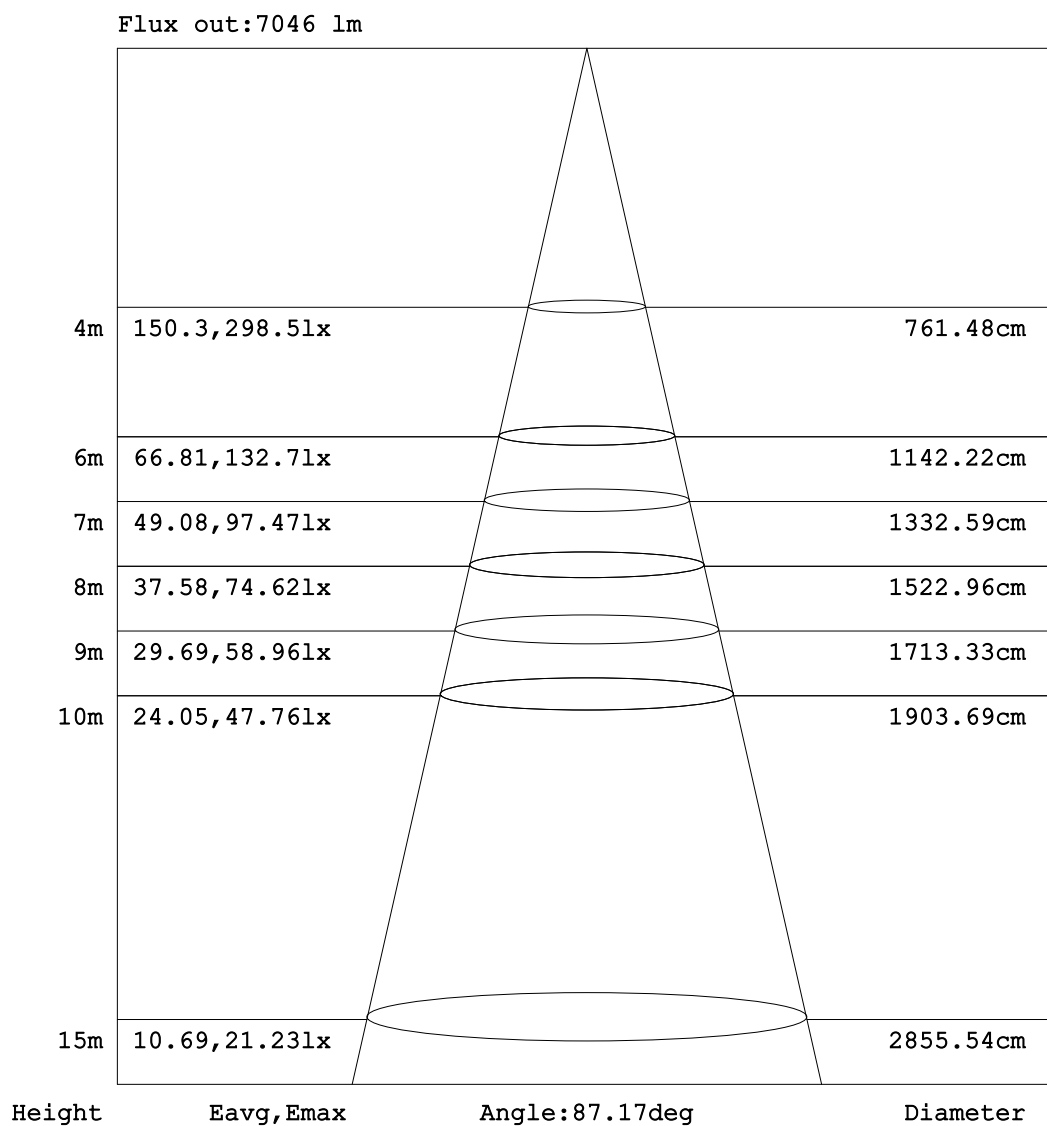
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4593]
Remarks:

AAI Figure

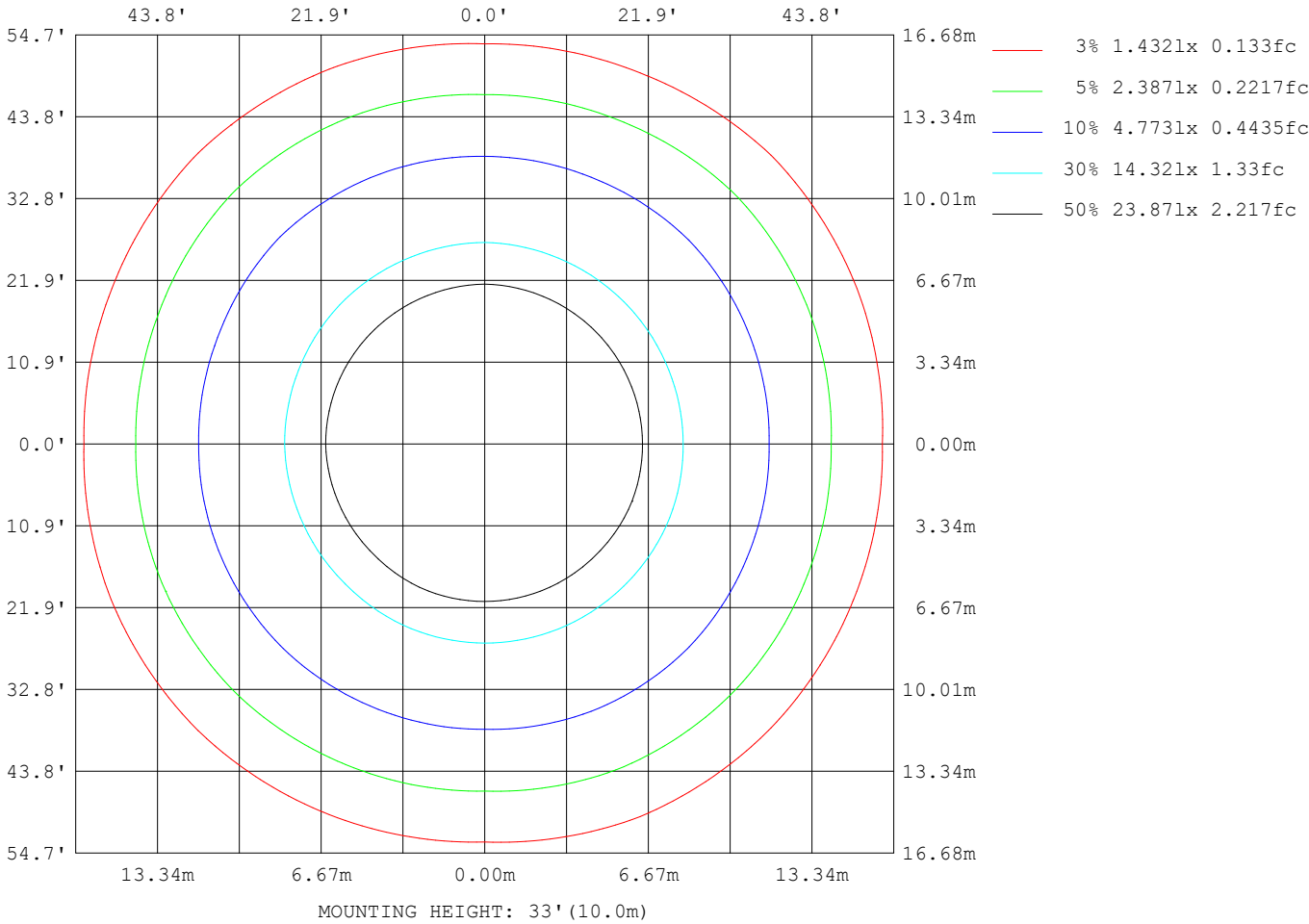


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2024-06-14

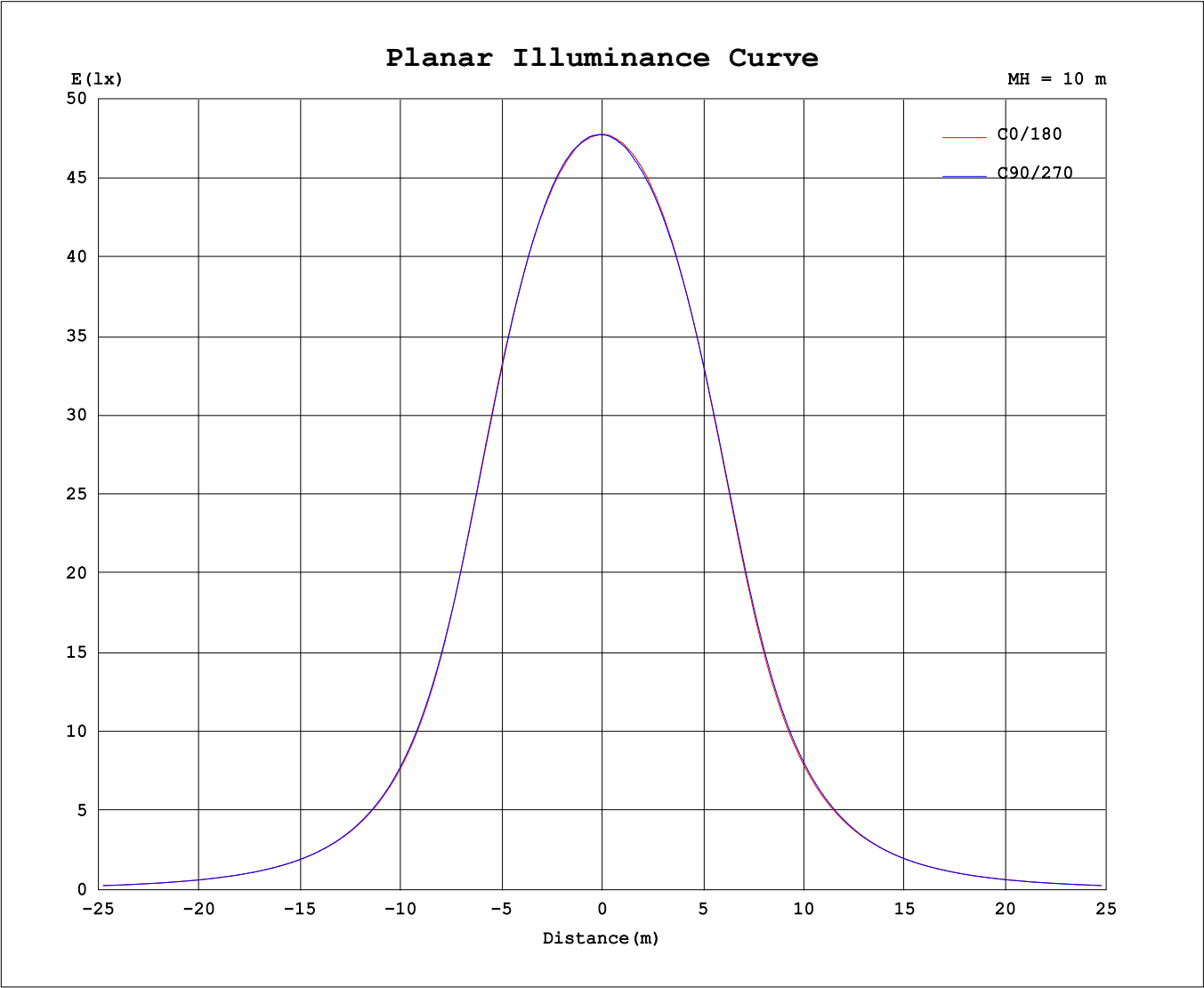
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4593]
Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Temperature:25.3°C	Humidity:65.0%
Operators:ZZX	Test Distance:26.000m [K=0.4593]
Test Date:2024-06-14	Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Temperature:25.3°C	Humidity:65.0%
Operators:ZZX	Test Distance:26.000m [K=0.4593]
Test Date:2024-06-14	Remarks:

UNIT: cd

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3℃
Operators: ZZX
Test Date: 2024-06-14

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

```