

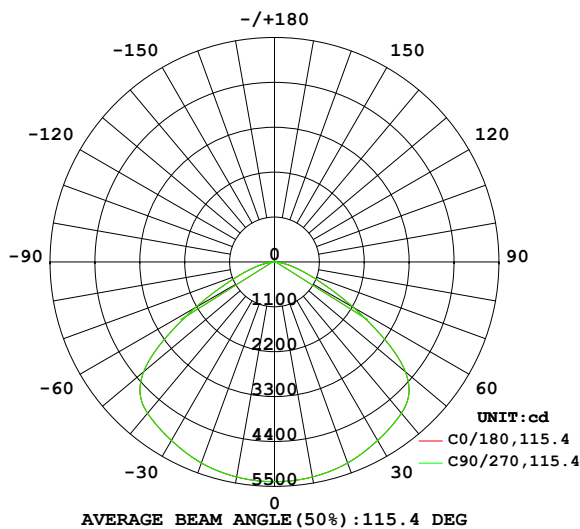
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

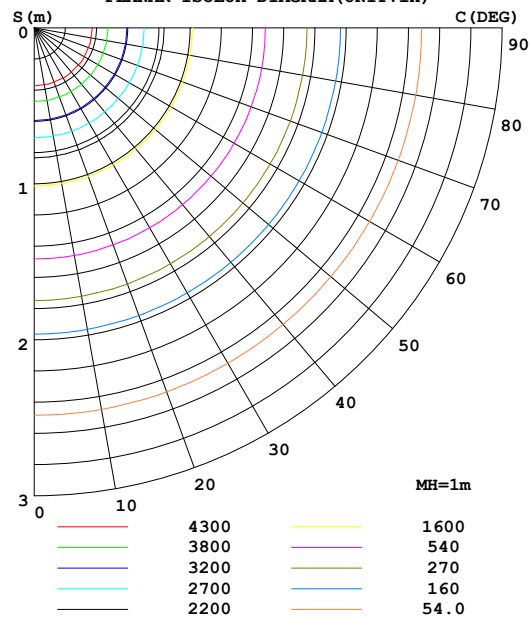
Test:U:230.0V I:0.448A P:100.0W PF:0.970 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:16017.5x1 lm		
NAME: HB74-100-5080-H00213	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 160.18 lm/W			
MODEL	/	Imax (cd)	5384	S/MH (C0/180)	1.42
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	1.42
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	16018	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	16017.5	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	1.55

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:2023-10-16

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=0.4559]
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	5350	5350	5350	5350	5350	5350	5350	5350	0- 10	512.4	512.4	3.2,3.2
20	5240	5240	5240	5240	5240	5240	5240	5240	10- 20	1501	2014	12.6,12.6
30	5051	5051	5051	5051	5051	5051	5051	5051	20- 30	2381	4394	27.4,27.4
40	4839	4839	4839	4839	4839	4839	4839	4839	30- 40	3106	7500	46.8,46.8
50	4186	4186	4186	4186	4186	4186	4186	4186	40- 50	3557	11057	69,69
60	2235	2235	2235	2235	2235	2235	2235	2235	50- 60	2905	13962	87.2,87.2
70	847.1	847.1	847.1	847.1	847.1	847.1	847.1	847.1	60- 70	1429	15390	96.1,96.1
80	237.3	237.3	237.3	237.3	237.3	237.3	237.3	237.3	70- 80	531.1	15922	99.4,99.4
90	1.391	1.391	1.391	1.391	1.391	1.391	1.391	1.391	80- 90	95.98	16018	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): 9261.1 lm

%lum = 57.8%

%lamp = 57.8%

Conical surface Flux(120deg): 13962 lm

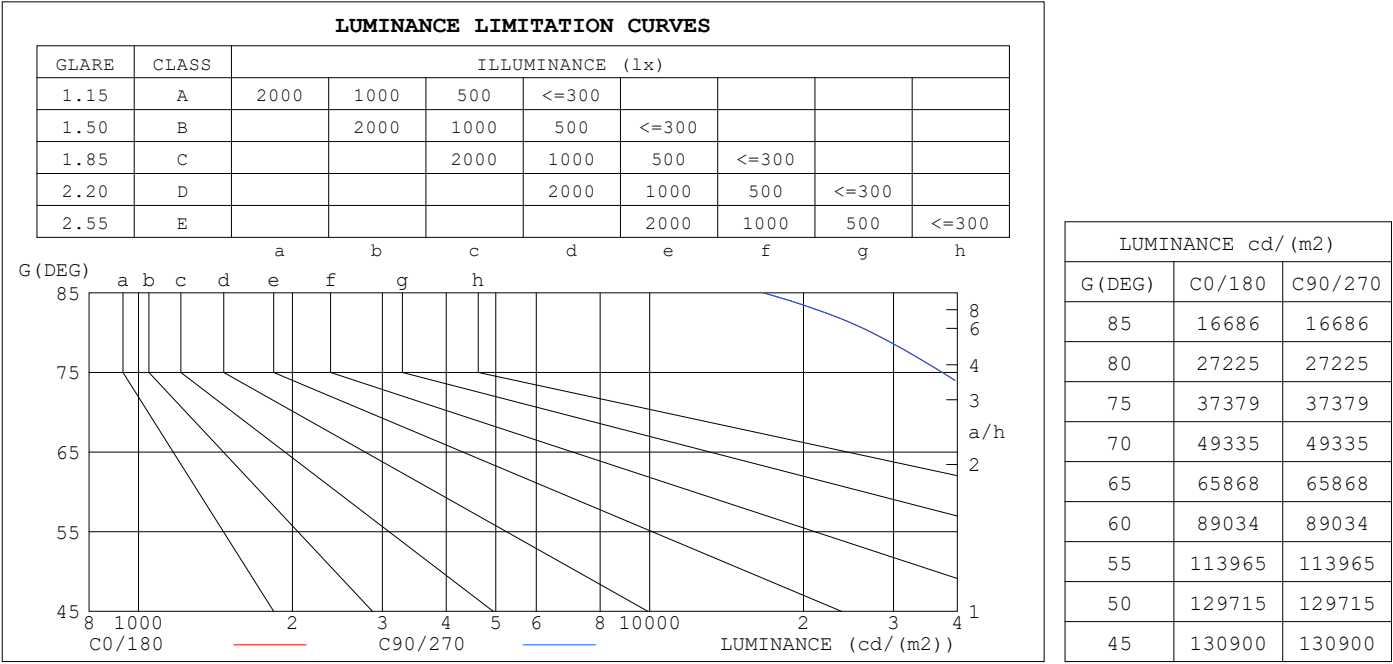
%lum = 87.2%

%lamp = 87.2%

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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
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Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

LUMINANCE LIMITATION CURVES



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:ZZX

Test Date:2023-10-16

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465

Humidity:65.0%

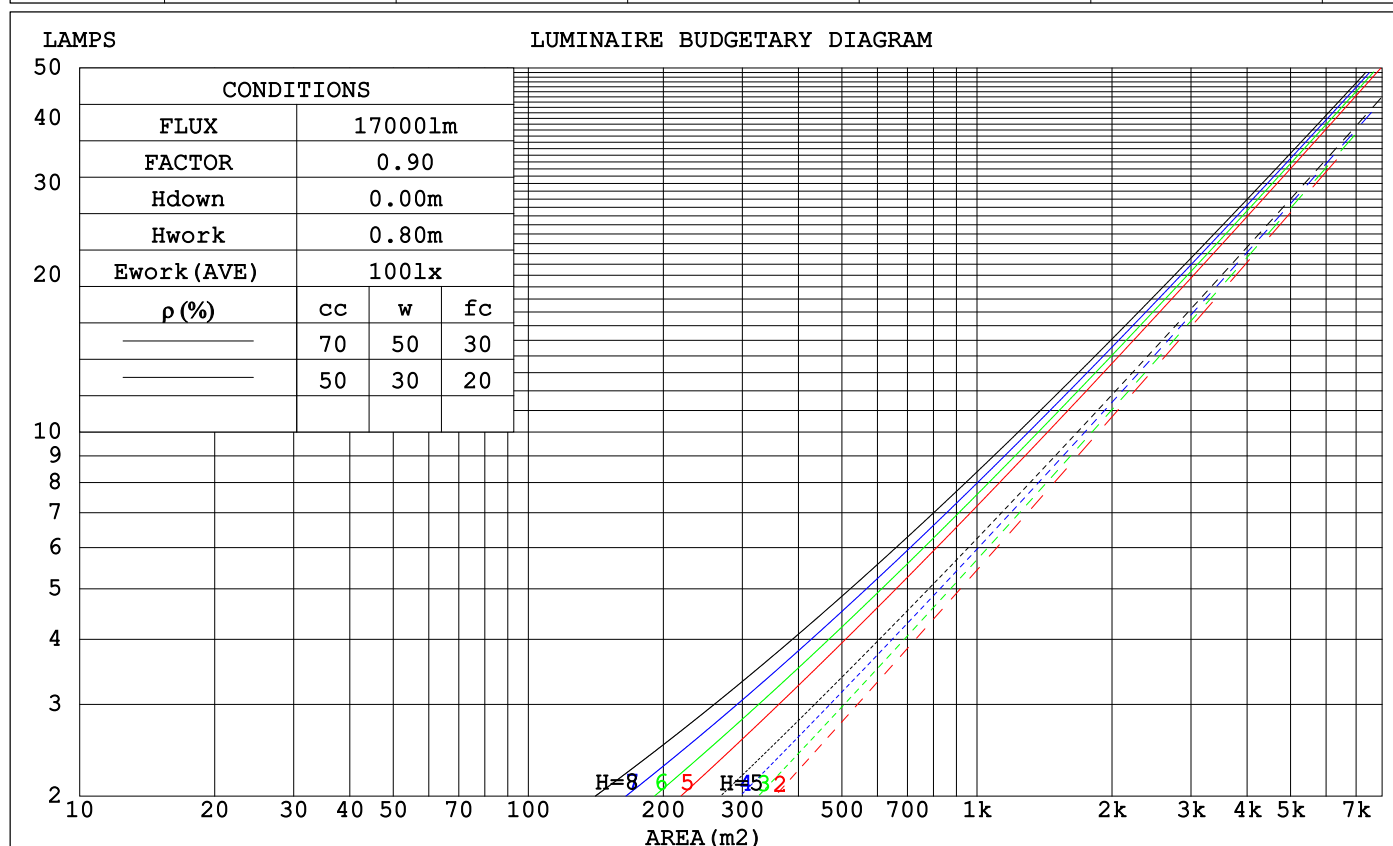
Test Distance:26.000m [K=0.4559]

Remarks:

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															



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: ZZK
 Test Date: 2023-10-16

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=0.4559]
 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	.274	.156	.049	.267	.152	.048	.254	.146	.046	.242	.139	.045	.231	.134	.043	
2.0	.266	.146	.045	.260	.143	.044	.249	.138	.043	.238	.134	.042	.228	.129	.041	
3.0	.252	.134	.040	.247	.132	.040	.236	.128	.039	.227	.124	.038	.218	.121	.037	
4.0	.236	.123	.036	.232	.121	.036	.223	.118	.035	.214	.115	.035	.206	.112	.034	
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.202	.106	.032	.195	.104	.031	
6.0	.207	.104	.030	.203	.103	.030	.196	.101	.029	.189	.098	.029	.183	.096	.029	
7.0	.194	.096	.027	.191	.095	.027	.184	.093	.027	.178	.091	.027	.173	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.173	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.073	.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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.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	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.147	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.030	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:ZZX
 Test Date:2023-10-16

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=0.4559]
 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	28.3	29.9	28.7	30.3	30.6	28.3	29.9	28.7	30.3	30.6
3H	29.0	30.4	29.4	30.8	31.1	29.0	30.4	29.4	30.8	31.1
4H	29.2	30.5	29.6	30.9	31.3	29.2	30.5	29.6	30.9	31.3
6H	29.3	30.5	29.7	30.9	31.3	29.3	30.5	29.7	30.9	31.3
8H	29.3	30.5	29.7	30.8	31.2	29.3	30.5	29.7	30.8	31.2
12H	29.3	30.4	29.7	30.8	31.2	29.3	30.4	29.7	30.8	31.2
4H 2H	28.6	29.9	29.0	30.3	30.7	28.6	29.9	29.0	30.3	30.7
3H	29.4	30.5	29.8	30.9	31.3	29.4	30.5	29.8	30.9	31.3
4H	29.7	30.7	30.1	31.1	31.5	29.7	30.7	30.1	31.1	31.5
6H	29.8	30.7	30.3	31.1	31.6	29.8	30.7	30.3	31.1	31.6
8H	29.8	30.6	30.3	31.1	31.5	29.8	30.6	30.3	31.1	31.5
12H	29.8	30.5	30.3	31.0	31.5	29.8	30.5	30.3	31.0	31.5
8H 4H	29.7	30.5	30.2	31.0	31.4	29.7	30.5	30.2	31.0	31.4
6H	29.9	30.6	30.4	31.1	31.5	29.9	30.6	30.4	31.1	31.5
8H	29.9	30.5	30.5	31.0	31.5	29.9	30.5	30.5	31.0	31.5
12H	30.0	30.5	30.5	31.0	31.5	30.0	30.5	30.5	31.0	31.5
12H 4H	29.7	30.4	30.2	30.9	31.4	29.7	30.4	30.2	30.9	31.4
6H	29.9	30.5	30.4	31.0	31.5	29.9	30.5	30.4	31.0	31.5
8H	29.9	30.5	30.5	31.0	31.5	29.9	30.5	30.5	31.0	31.5
CIE190: 2010										

CIE190: 2010
Area: 0.0502 m2

C Range: 0 - 360DEG
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 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
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Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

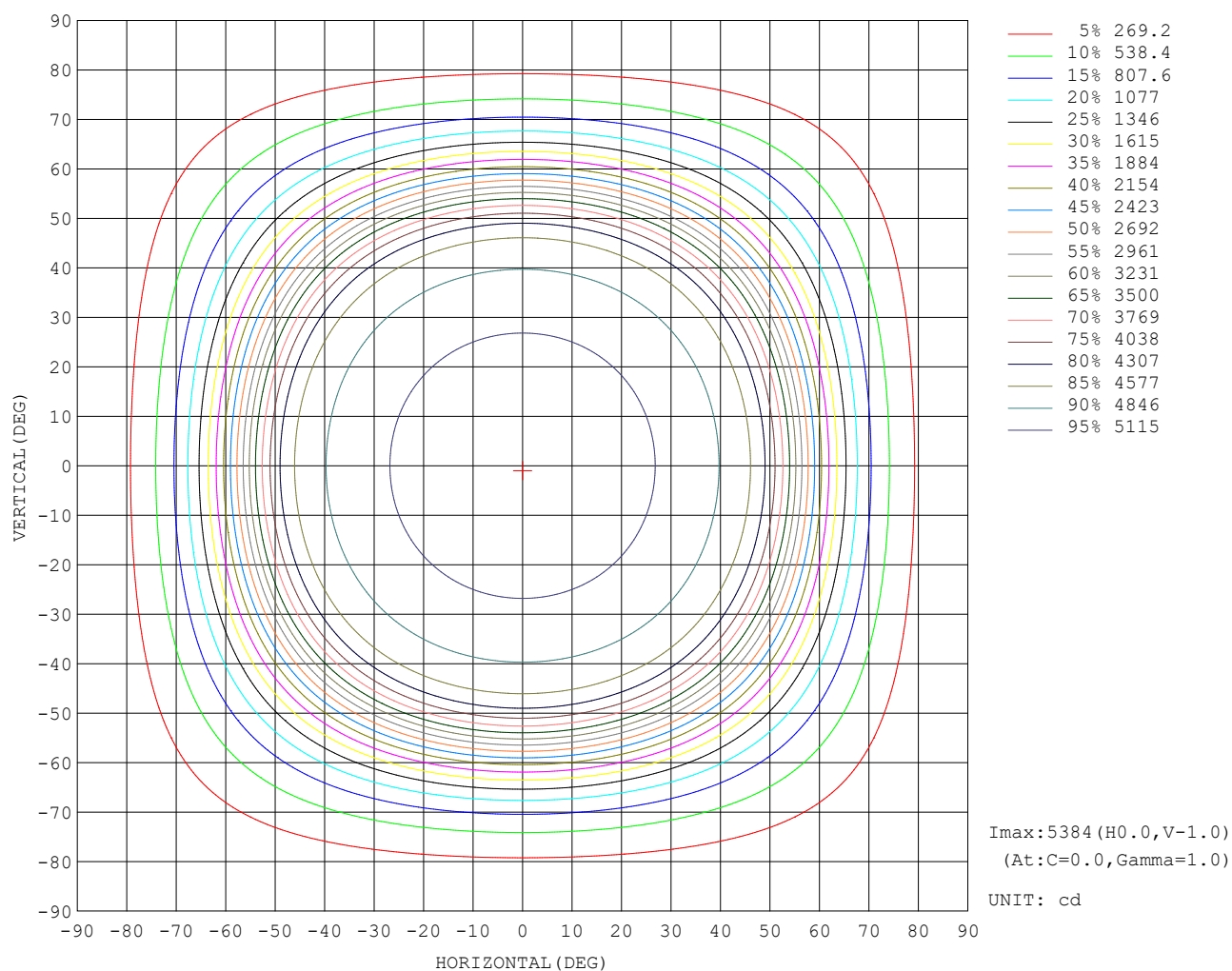
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	69	57	50	68	57	50	66	56	50	43
1.00	78	68	61	77	67	60	75	68	60	53
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	81	75	89	81	75	86	79	73	66
2.00	97	90	84	96	89	83	92	86	82	74
2.50	101	94	88	99	93	88	95	90	86	78
3.00	104	98	93	102	96	92	98	94	90	82
4.00	108	102	98	105	101	97	101	97	94	86
5.00	110	105	102	107	103	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 Operators: ZZX
 Test Date: 2023-10-16

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=0.4559]
 Remarks:

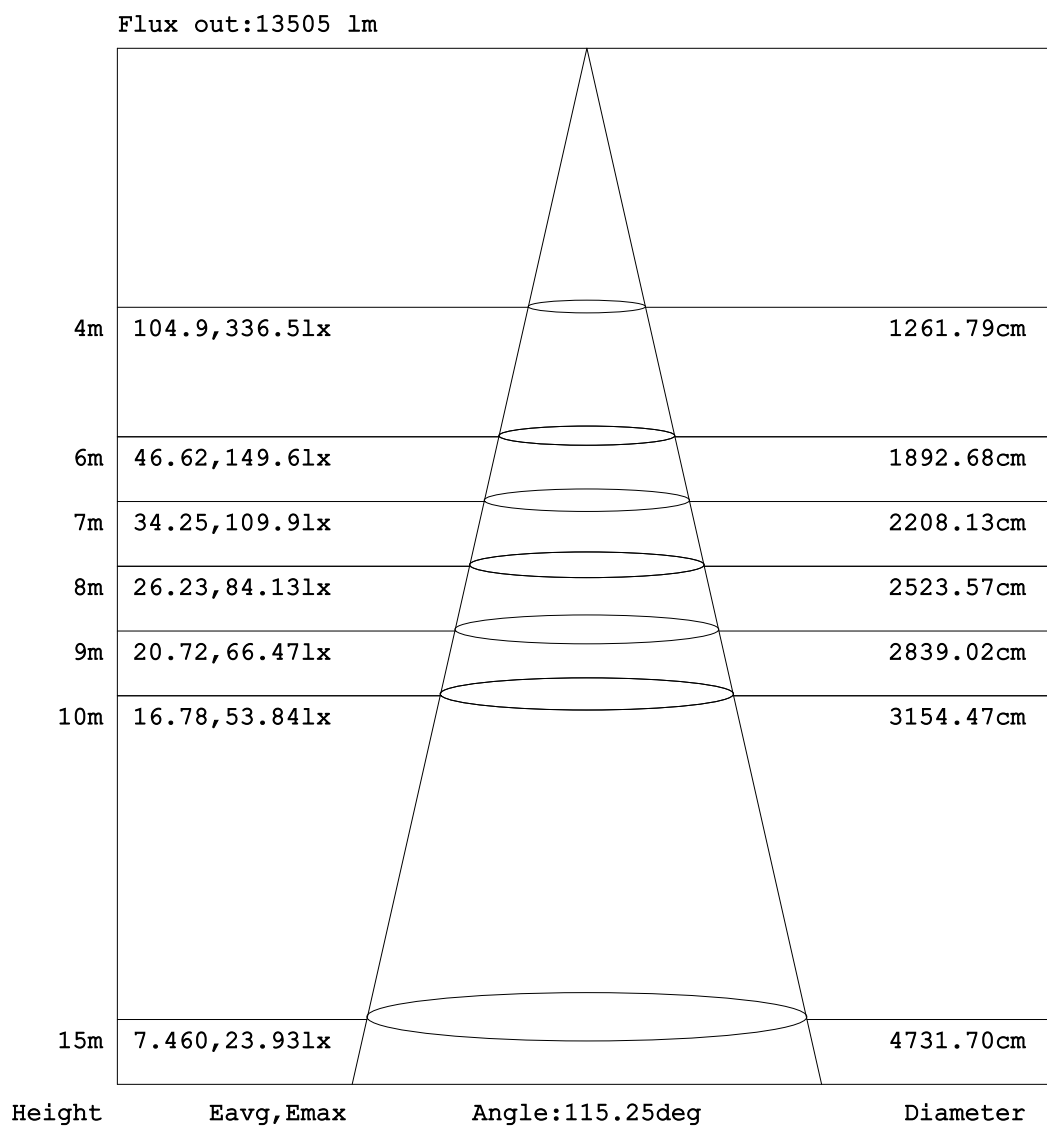
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZK
Test Date: 2023-10-16

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=0.4559]
Remarks:

AAI Figure



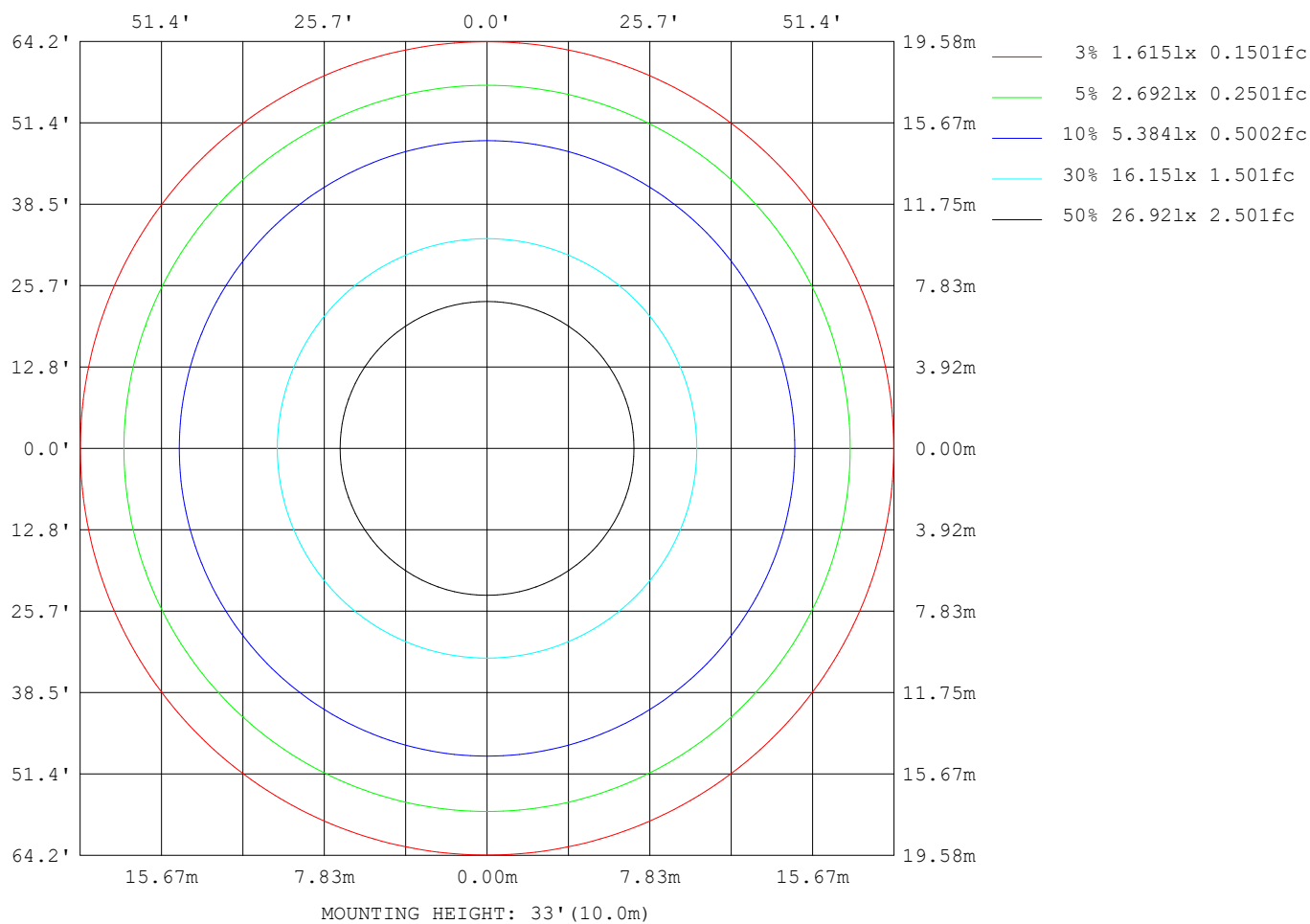
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 22.5DEG
Test Speed: HIGH
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Operators:ZZX
Test Date:2023-10-16

γ Range: 0 - 90DEG
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

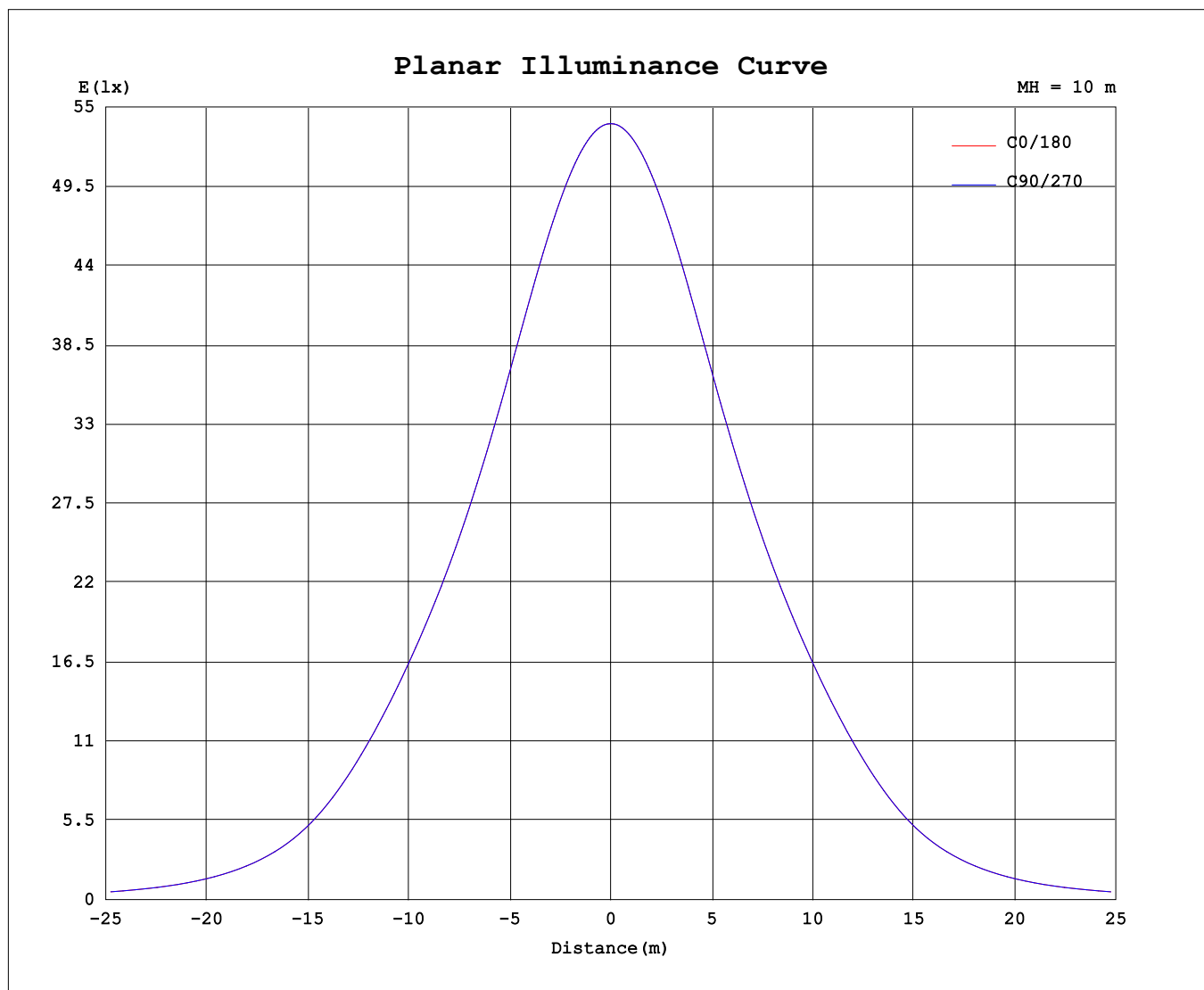
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-10-16

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
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Remarks:

Planar Illuminance Curve



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Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-10-16

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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
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