

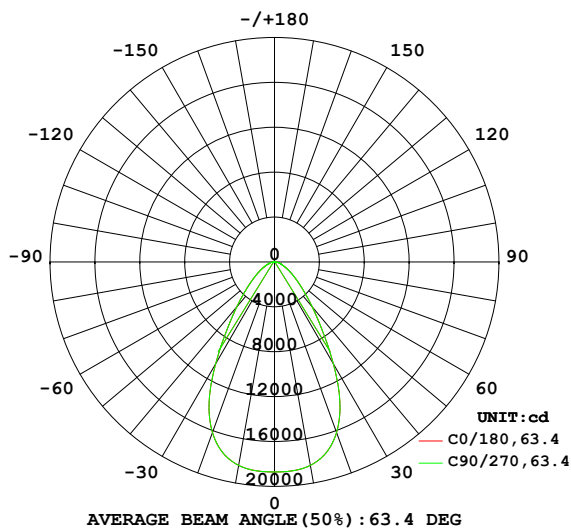
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

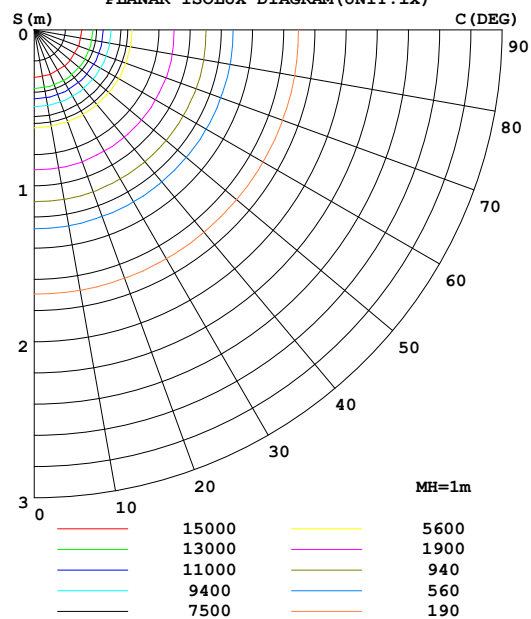
Test:U:230.0V I:0.659A P:150.0W PF:0.990 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:23949.7x1 lm		
NAME: HB74-150-5080-H00218	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 159.66 lm/W			
MODEL	/	I _{max} (cd)	18713	S/MH (C0/180)	0.95
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.95
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	23950	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	23949.7	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.95

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: 2023-09-23

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	1840	1840	1840	1840	1840	1840	1840	1840	0- 10	1775	1775	7.41,7.41
20	1617	1617	1617	1617	1617	1617	1617	1617	10- 20	4934	6708	28,28
30	1050	1050	1050	1050	1050	1050	1050	1050	20- 30	6224	12933	54,54
40	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	30- 40	4687	17620	73.6,73.6
50	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	40- 50	2917	20536	85.7,85.7
60	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	50- 60	1752	22289	93.1,93.1
70	65.83	65.83	65.83	65.83	65.83	65.83	65.83	65.83	60- 70	976.4	23265	97.1,97.1
80	31.65	31.65	31.65	31.65	31.65	31.65	31.65	31.65	70- 80	523.3	23788	99.3,99.3
90	1.104	1.104	1.104	1.104	1.104	1.104	1.104	1.104	80- 90	161.2	23950	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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 19258 lm

%lum = 80.4%

%lamp = 80.4%

Conical surface Flux(120deg): 22289 lm

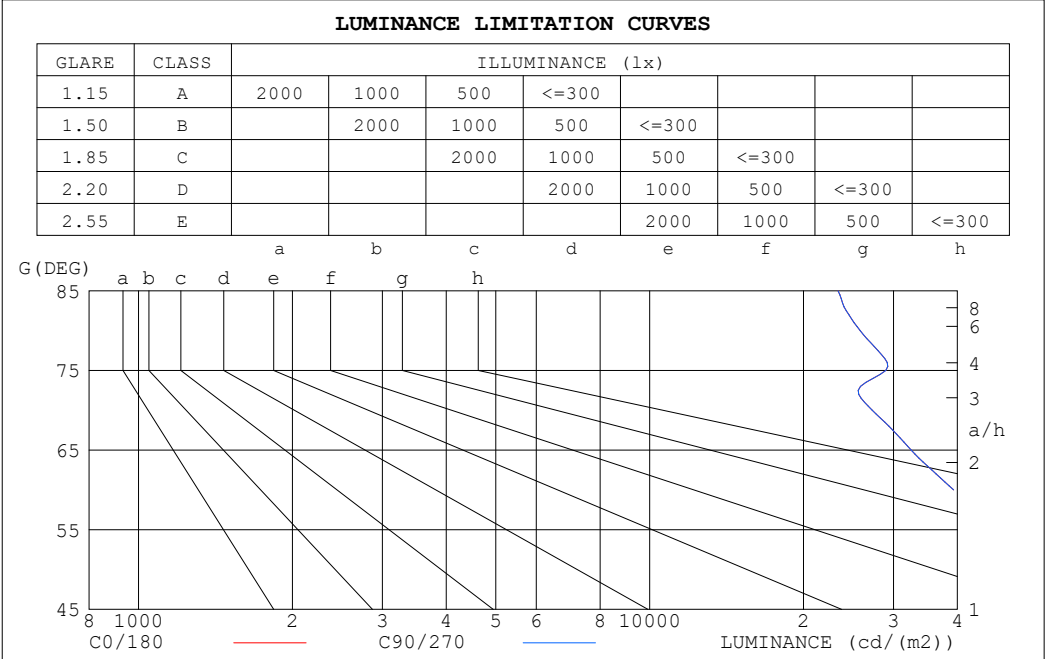
%lum = 93.1%

%lamp = 93.1%

C Range: 0 - 360DEG
C Interval: 22.5DEG
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Temperature:25.3°C
Operators:ZZX
Test Date:2023-09-23

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:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	23372	23372
80	25819	25819
75	28976	28976
70	27261	27261
65	32487	32487
60	39339	39339
55	47719	47719
50	58911	58911
45	74592	74592

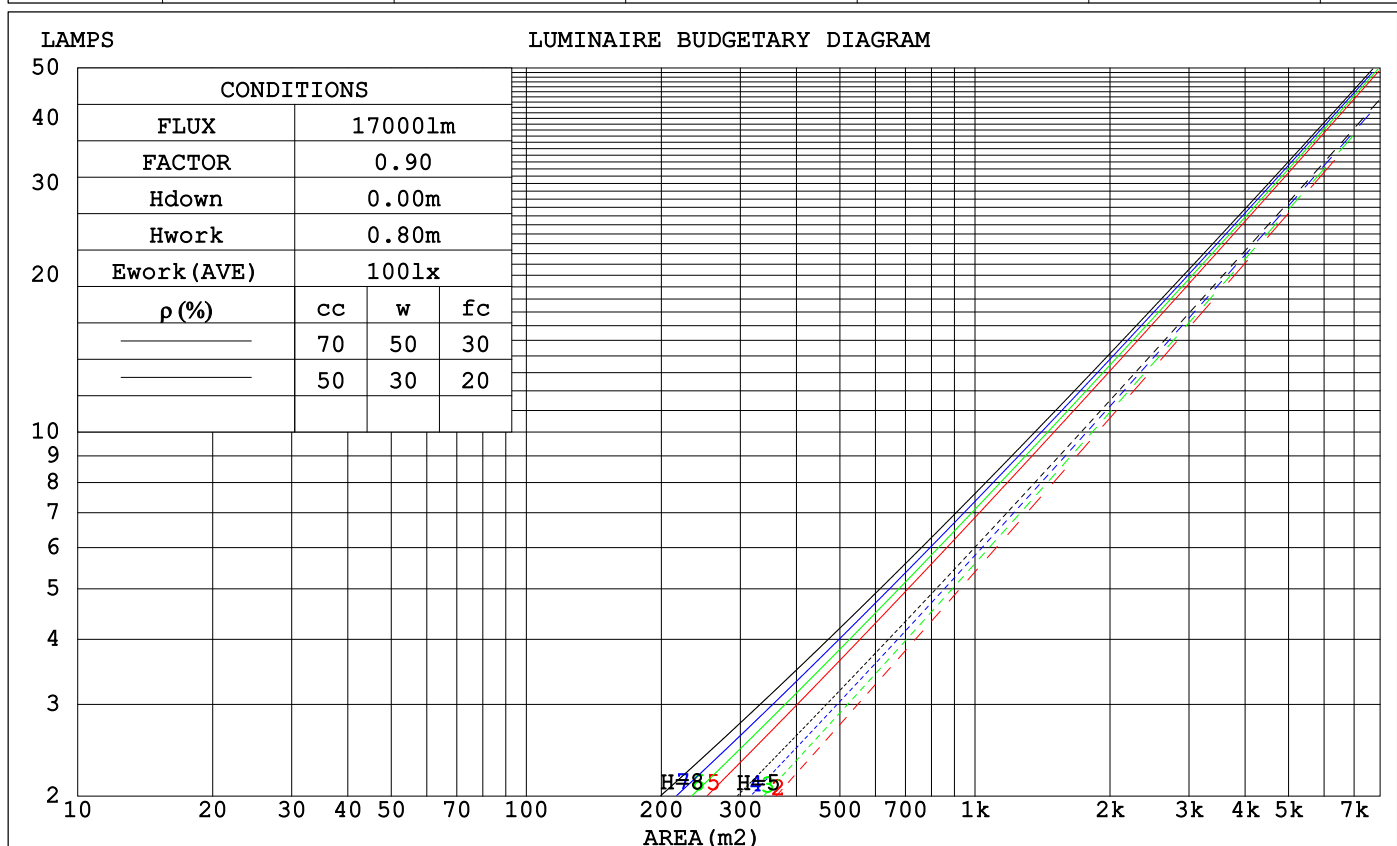
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Temperature:25.3°C
Operators:ZZX
Test Date:2023-09-23

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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						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	1.01	1.02	.00	.98	.98	.96	.95	.95	.93	.92	.90
2.0	.99	.93	.89	.97	.92	.88	.93	.90	.86	.90	.87	.84	.87	.85	.83	.81
3.0	.90	.84	.79	.88	.83	.78	.86	.81	.77	.83	.79	.76	.81	.77	.74	.73
4.0	.83	.76	.71	.81	.75	.70	.79	.74	.69	.77	.72	.68	.75	.71	.68	.66
5.0	.76	.69	.64	.75	.68	.63	.73	.67	.63	.71	.66	.62	.70	.65	.62	.60
6.0	.70	.63	.58	.69	.63	.58	.68	.62	.57	.66	.61	.57	.65	.60	.57	.55
7.0	.65	.58	.53	.65	.58	.53	.63	.57	.53	.62	.57	.52	.61	.56	.52	.51
8.0	.61	.54	.49	.60	.54	.49	.59	.53	.49	.58	.53	.49	.57	.52	.48	.47
9.0	.57	.50	.46	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.49	.45	.43
10.0	.53	.47	.42	.53	.47	.42	.52	.46	.42	.51	.46	.42	.50	.45	.42	.40



C Range: 0 - 360DEG
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 Test Date:2023-09-23

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	.225	.128	.040	.218	.124	.039	.205	.118	.038	.193	.111	.036	.182	.106	.034	
2.0	.214	.117	.036	.208	.115	.035	.197	.110	.034	.187	.105	.033	.178	.101	.032	
3.0	.202	.108	.032	.197	.105	.032	.187	.102	.031	.179	.098	.030	.170	.094	.029	
4.0	.190	.099	.029	.186	.097	.029	.177	.094	.028	.170	.091	.027	.162	.088	.027	
5.0	.179	.091	.026	.175	.090	.026	.168	.087	.026	.161	.085	.025	.155	.083	.025	
6.0	.169	.085	.024	.166	.084	.024	.159	.082	.024	.153	.080	.023	.147	.078	.023	
7.0	.160	.079	.022	.157	.078	.022	.151	.076	.022	.146	.075	.022	.140	.073	.021	
8.0	.151	.074	.021	.149	.073	.021	.143	.072	.020	.139	.070	.020	.134	.069	.020	
9.0	.144	.069	.019	.141	.069	.019	.137	.068	.019	.132	.066	.019	.128	.065	.019	
10.0	.137	.066	.018	.134	.065	.018	.130	.064	.018	.126	.063	.018	.123	.062	.018	

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	.174	.157	.141	.149	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.162	.132	.107	.139	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.151	.114	.084	.130	.098	.073	.089	.068	.051	.051	.040	.030	.017	.013	.010	
4.0	.142	.100	.067	.122	.086	.058	.084	.060	.041	.049	.035	.024	.016	.011	.008	
5.0	.134	.089	.055	.115	.077	.048	.079	.054	.034	.046	.031	.020	.015	.010	.007	
6.0	.127	.080	.046	.109	.069	.040	.075	.048	.028	.044	.028	.017	.014	.009	.006	
7.0	.121	.072	.039	.104	.063	.034	.072	.044	.024	.042	.026	.014	.013	.008	.005	
8.0	.115	.066	.033	.099	.058	.029	.068	.040	.020	.040	.024	.012	.013	.008	.004	
9.0	.109	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.104	.057	.025	.090	.049	.022	.062	.035	.016	.036	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
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 Operators:ZZX
 Test Date:2023-09-23

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	22.7	23.9	23.0	24.2	24.5	22.7	23.9	23.0	24.2	24.5
3H	23.7	24.8	24.0	25.1	25.5	23.7	24.8	24.0	25.1	25.5
4H	24.1	25.2	24.5	25.5	25.9	24.1	25.2	24.5	25.5	25.9
6H	24.5	25.5	25.0	25.9	26.3	24.5	25.5	25.0	25.9	26.3
8H	24.7	25.6	25.1	26.0	26.4	24.7	25.6	25.1	26.0	26.4
12H	24.7	25.6	25.2	26.0	26.4	24.7	25.6	25.2	26.0	26.4
4H 2H	23.0	24.0	23.4	24.4	24.7	23.0	24.0	23.4	24.4	24.7
3H	24.2	25.0	24.6	25.4	25.8	24.2	25.0	24.6	25.4	25.8
4H	24.8	25.6	25.2	26.0	26.4	24.8	25.6	25.2	26.0	26.4
6H	25.4	26.0	25.8	26.5	26.9	25.4	26.0	25.8	26.5	26.9
8H	25.5	26.1	26.0	26.6	27.1	25.5	26.1	26.0	26.6	27.1
12H	25.6	26.2	26.1	26.7	27.1	25.6	26.2	26.1	26.7	27.1
8H 4H	25.0	25.6	25.5	26.1	26.6	25.0	25.6	25.5	26.1	26.6
6H	25.7	26.2	26.2	26.7	27.2	25.7	26.2	26.2	26.7	27.2
8H	25.9	26.4	26.4	26.9	27.4	25.9	26.4	26.4	26.9	27.4
12H	26.1	26.5	26.6	27.0	27.6	26.1	26.5	26.6	27.0	27.6
12H 4H	25.0	25.6	25.5	26.1	26.5	25.0	25.6	25.5	26.1	26.5
6H	25.7	26.2	26.3	26.6	27.2	25.7	26.2	26.3	26.6	27.2
8H	26.0	26.4	26.5	26.9	27.5	26.0	26.4	26.5	26.9	27.5
CIE190: 2010										

CIE190: 2010
Area: 0.0706 m2

C Range: 0 - 360DEG
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Operators:ZZX
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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

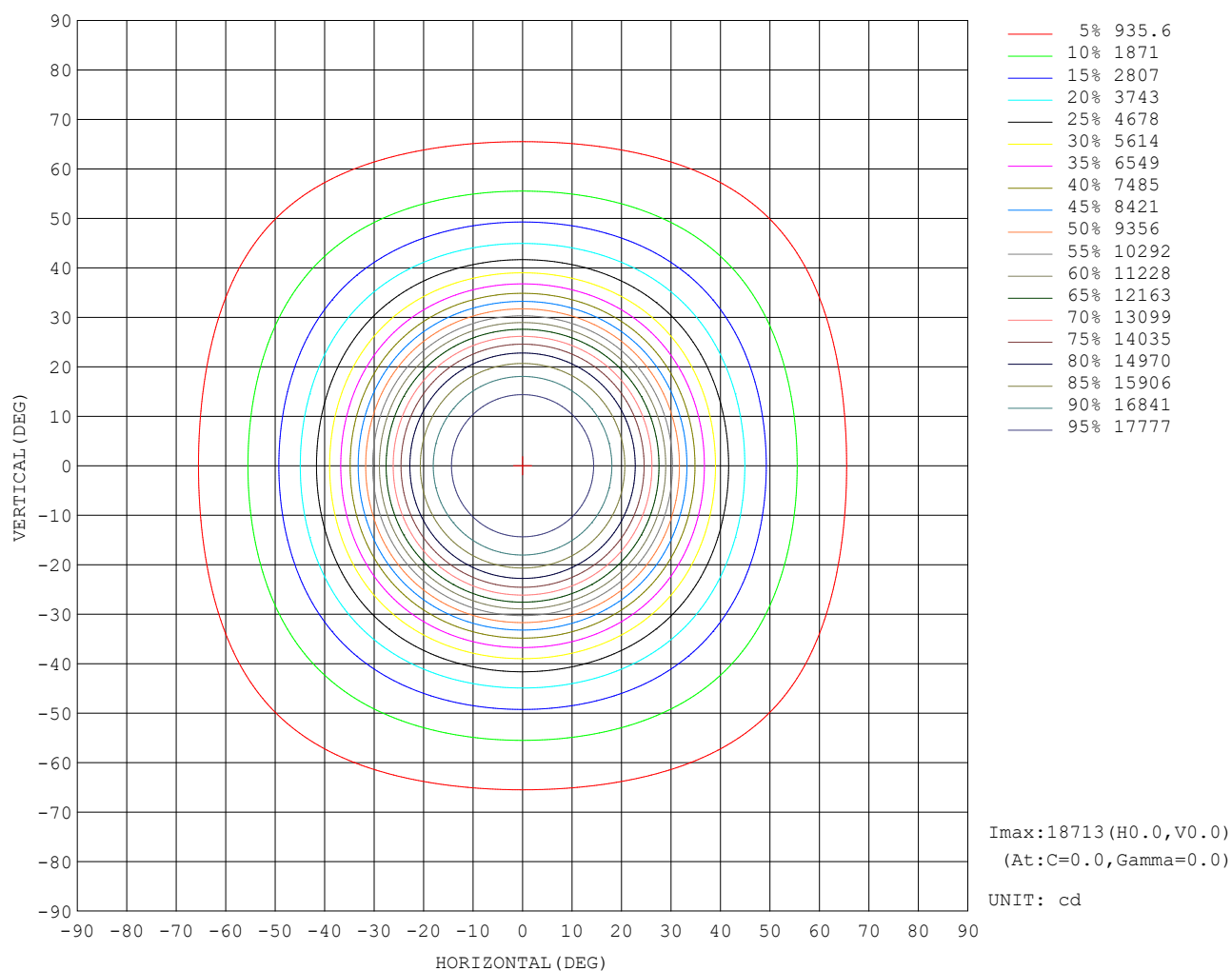
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	75	66	61	74	66	61	73	66	61	56
0.80	84	76	70	83	75	70	82	75	70	65
1.00	90	82	77	89	82	77	87	82	77	71
1.25	96	88	84	94	88	83	92	86	82	77
1.50	99	93	88	98	92	87	95	90	86	81
2.00	104	98	93	102	97	93	99	95	91	85
2.50	106	101	97	104	99	96	101	97	94	87
3.00	108	104	100	106	102	99	103	99	97	89
4.00	111	107	104	109	105	103	105	102	100	92
5.00	113	109	107	110	107	105	106	104	102	94
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

C Range: 0 - 360DEG
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 Operators: ZZX
 Test Date: 2023-09-23

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:

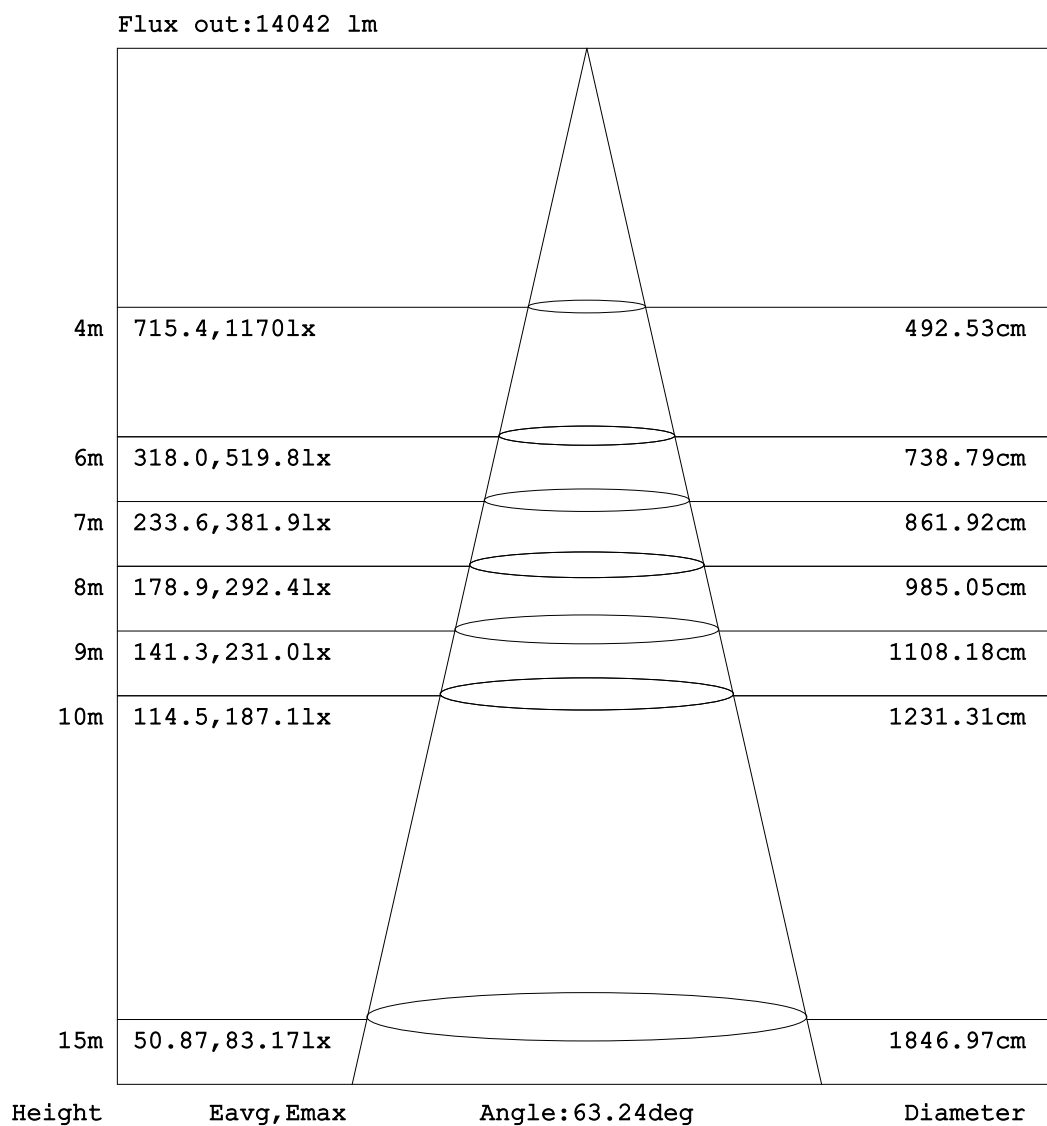
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-09-23

γ Range: 0 - 90DEG
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Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

AAI Figure



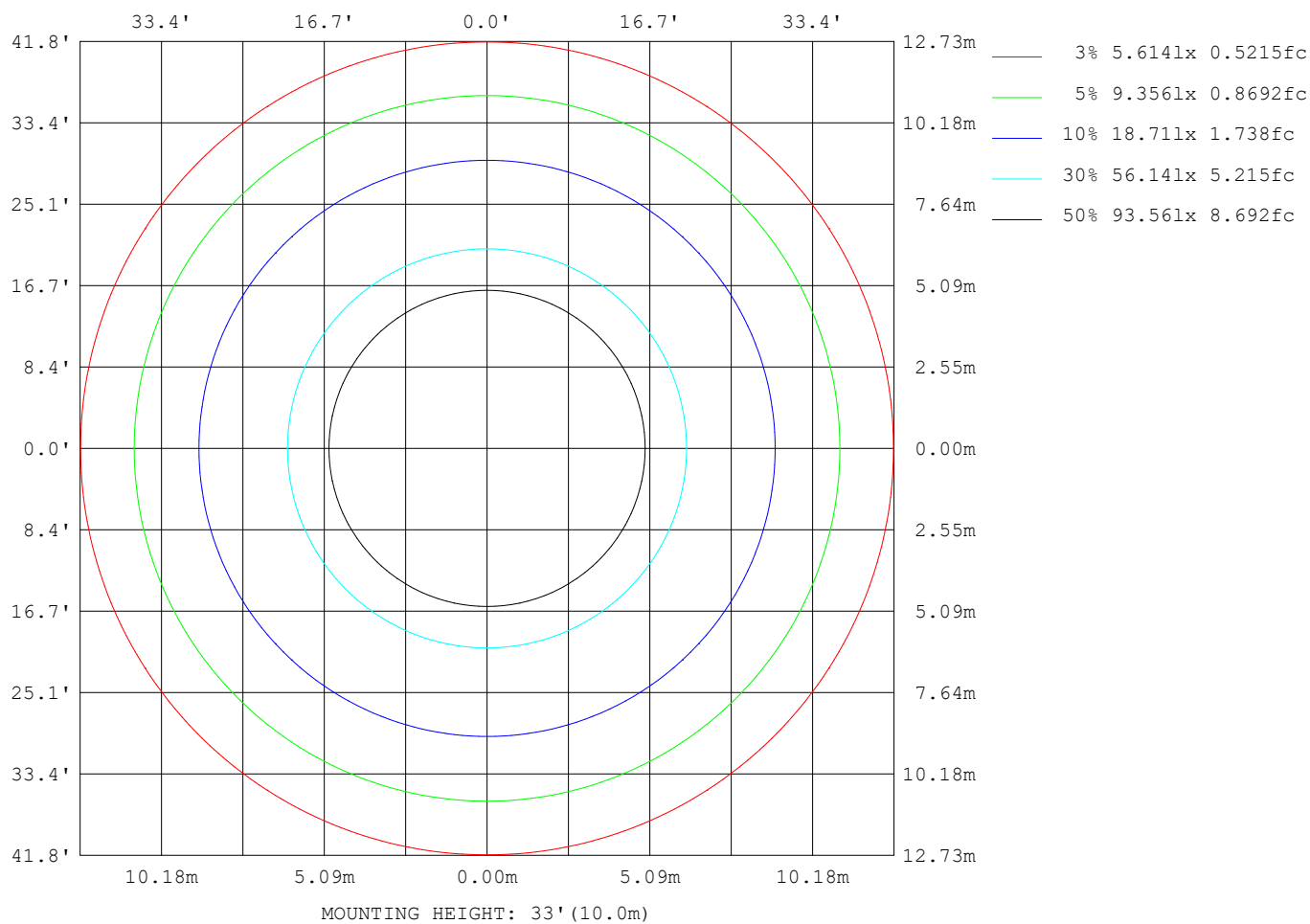
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 22.5DEG
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Operators: ZZX
Test Date: 2023-09-23

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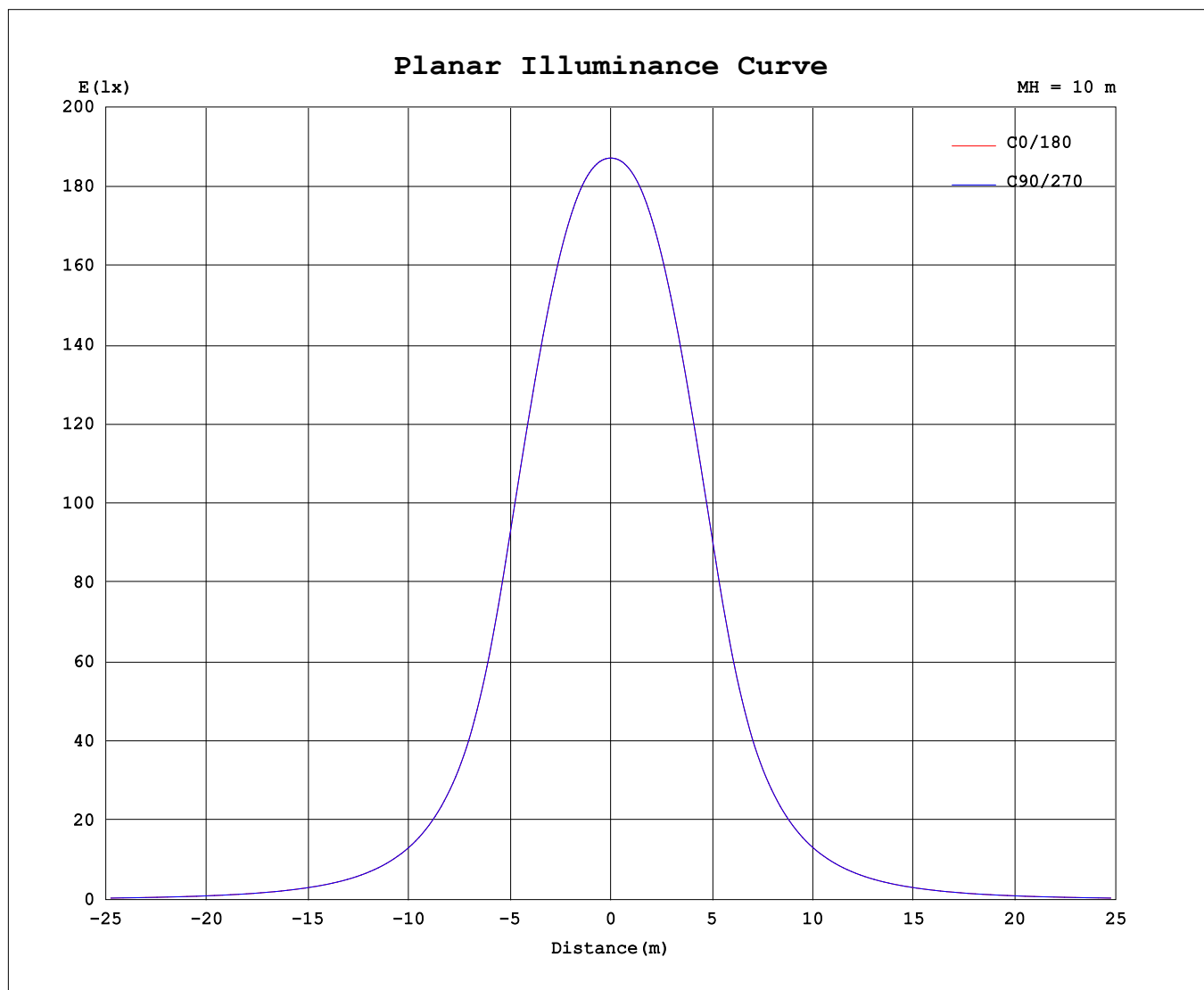
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-09-23

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:

Planar Illuminance Curve



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Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-09-23

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

UNIT: X10cd

[illegible]

C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-09-23

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γ Range: 0 - 90DEG
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Humidity:65.0%
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Remarks:

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