

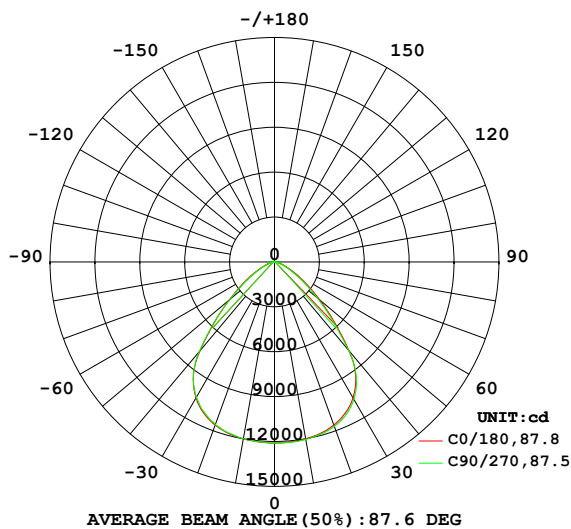
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

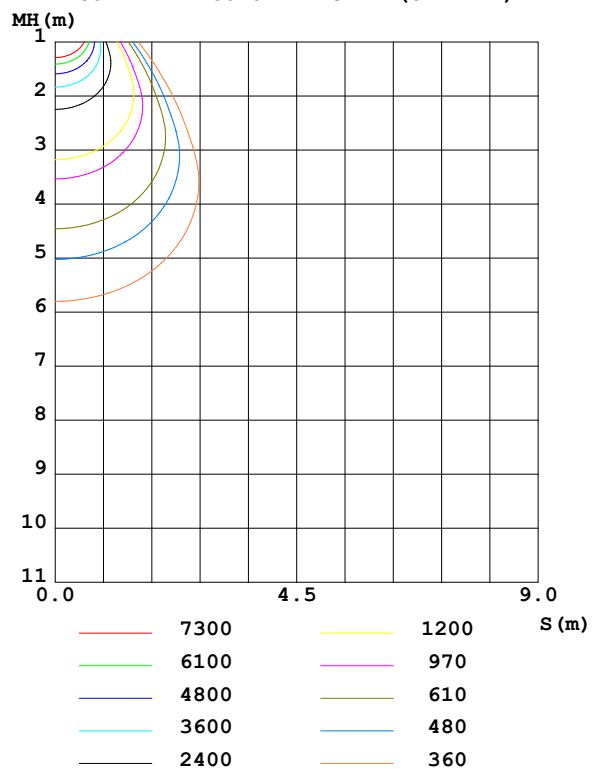
Test:U:229.8V I:0.528A P:118.7W PF:0.978 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:23638.3x1 lm		
NAME: HB68-120H-5070-H00195	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 199.19 lm/W			
MODEL	/	Imax (cd)	12117	S/MH (C0/180)	1.25
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	1.25
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	23638	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	23638.3	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)	/	η down (%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2023-06-02

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=0.4556]
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	1200	1202	1204	1202	1200	1201	1199	1201	0- 10	1150	1150	4.87,4.87
20	1160	1166	1169	1166	1160	1157	1157	1157	10- 20	3352	4503	19,19
30	1050	1061	1060	1061	1050	1047	1043	1047	20- 30	5141	9643	40.8,40.8
40	773.9	777.4	771.8	777.4	773.9	786.3	782.6	786.3	30- 40	5863	15506	65.6,65.6
50	392.5	368.5	370.8	368.5	392.5	385.2	385.6	385.2	40- 50	4352	19858	84,84
60	173.7	152.4	151.8	152.4	173.7	155.1	157.8	155.1	50- 60	2289	22146	93.7,93.7
70	64.14	56.13	56.60	56.13	64.14	56.44	58.99	56.44	60- 70	1018	23164	98,98
80	20.24	18.69	18.64	18.69	20.24	19.44	20.58	19.44	70- 80	391.0	23555	99.6,99.6
90	0.4428	0.1619	0.1197	0.1619	0.4428	0.3958	0.2366	0.3958	80- 90	82.95	23638	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): 17971 lm

%lum = 76.0%

%lamp = 76.0%

Conical surface Flux(120deg): 22146 lm

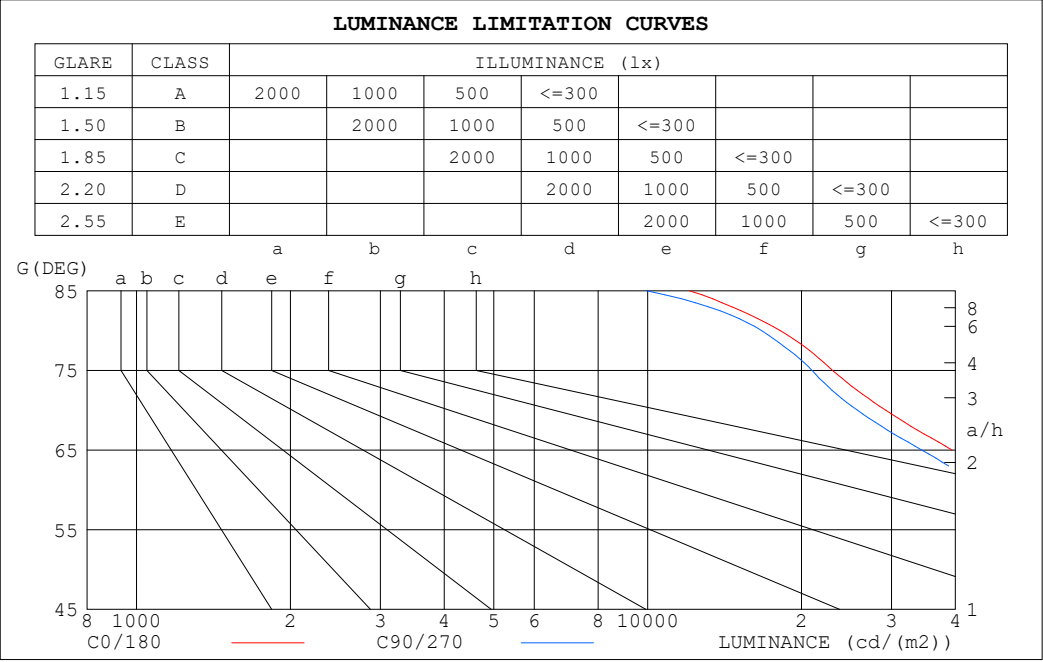
%lum = 93.7%

%lamp = 93.7%

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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=0.4556]
Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	12078	9966
80	18176	16704
75	22999	20971
70	29244	25753
65	39408	34382
60	54186	47233
55	72277	65331
50	95228	89768
45	124174	119325

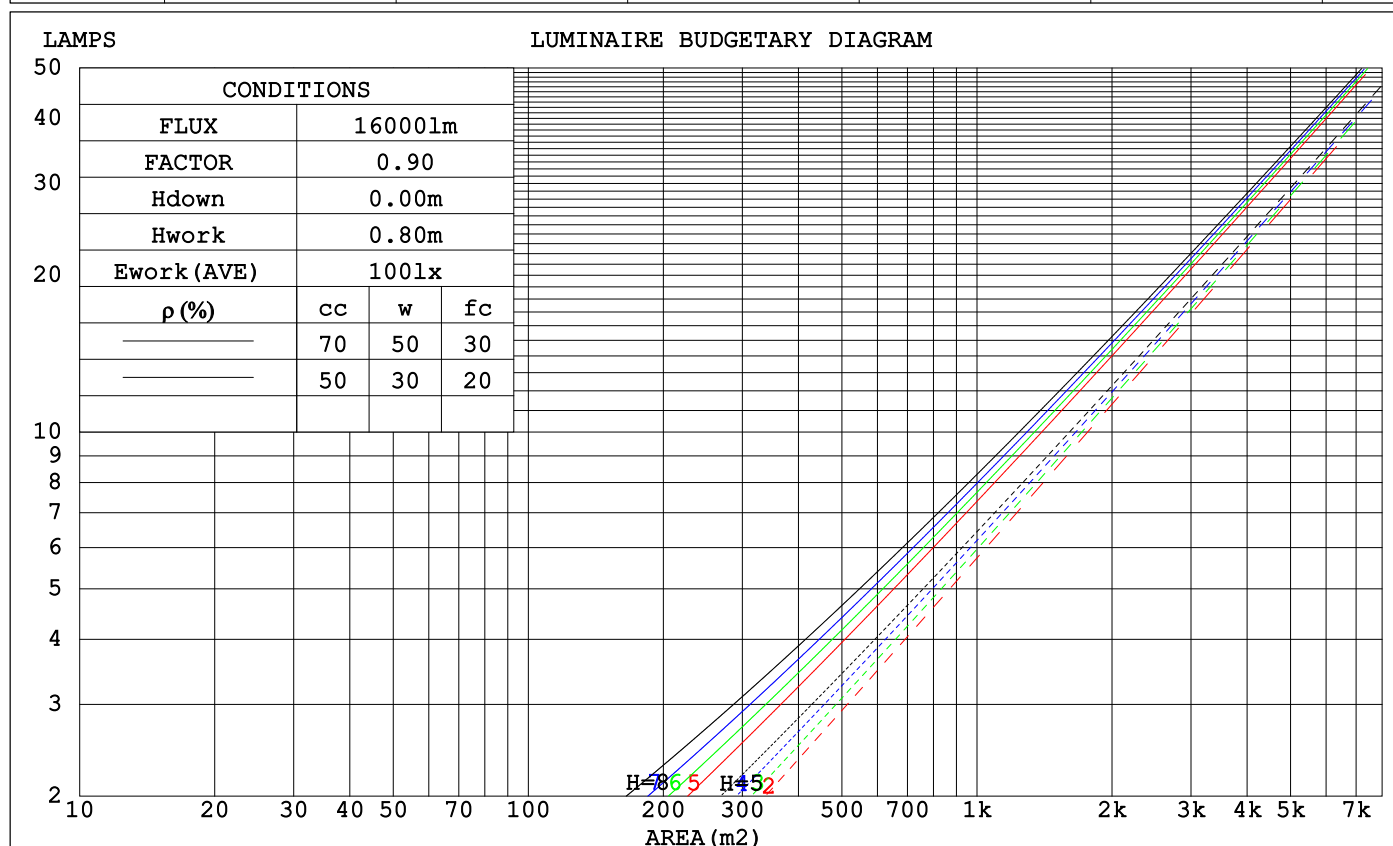
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:LYJ
Test Date:2023-06-02

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γ Interval: 0.5DEG
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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	1.00	1.01	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.73	.78	.75	.72	.70
4.0	.80	.72	.67	.78	.72	.66	.76	.70	.65	.74	.69	.65	.72	.67	.64	.62
5.0	.72	.65	.59	.71	.64	.59	.69	.63	.58	.67	.62	.58	.66	.61	.57	.55
6.0	.66	.58	.53	.65	.58	.53	.64	.57	.52	.62	.56	.52	.60	.55	.51	.50
7.0	.61	.53	.48	.60	.53	.47	.58	.52	.47	.57	.51	.47	.56	.51	.47	.45
8.0	.56	.48	.43	.55	.48	.43	.54	.47	.43	.53	.47	.43	.52	.46	.42	.41
9.0	.52	.44	.39	.51	.44	.39	.50	.44	.39	.49	.43	.39	.48	.43	.39	.37
10.0	.48	.41	.36	.47	.41	.36	.46	.40	.36	.46	.40	.36	.45	.39	.36	.34



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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=0.4556]
 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	.234	.133	.042	.227	.129	.041	.214	.123	.039	.202	.117	.037	.191	.111	.036	
2.0	.227	.124	.038	.221	.122	.038	.210	.117	.036	.200	.112	.035	.190	.108	.034	
3.0	.216	.115	.034	.211	.113	.034	.201	.109	.033	.192	.105	.032	.184	.102	.032	
4.0	.205	.106	.031	.200	.105	.031	.192	.102	.030	.184	.099	.030	.176	.096	.029	
5.0	.193	.098	.029	.189	.097	.028	.182	.095	.028	.175	.092	.027	.168	.090	.027	
6.0	.183	.092	.026	.179	.090	.026	.172	.088	.026	.166	.086	.025	.160	.084	.025	
7.0	.173	.085	.024	.170	.084	.024	.164	.083	.024	.158	.081	.024	.153	.079	.023	
8.0	.164	.080	.022	.161	.079	.022	.155	.078	.022	.150	.076	.022	.146	.075	.022	
9.0	.155	.075	.021	.153	.074	.021	.148	.073	.021	.143	.072	.021	.139	.071	.020	
10.0	.147	.071	.020	.145	.070	.020	.141	.069	.019	.137	.068	.019	.133	.067	.019	

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	.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	.056	.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	.132	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.126	.073	.037	.108	.064	.032	.075	.045	.023	.043	.026	.014	.014	.009	.004	
8.0	.120	.067	.032	.103	.059	.027	.071	.041	.019	.042	.024	.012	.013	.008	.004	
9.0	.114	.063	.027	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
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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=0.4556]
 Remarks:

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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	2H	24.4	25.8	24.8	26.1	26.4	24.3	25.7	24.7	26.0	26.3
	3H	25.0	26.2	25.4	26.6	26.9	24.9	26.1	25.3	26.4	26.8
	4H	25.2	26.3	25.6	26.7	27.1	25.0	26.1	25.4	26.5	26.9
	6H	25.3	26.3	25.7	26.7	27.1	25.1	26.1	25.5	26.5	26.9
	8H	25.3	26.3	25.7	26.7	27.1	25.1	26.1	25.5	26.5	26.9
	12H	25.3	26.2	25.7	26.6	27.0	25.1	26.0	25.5	26.4	26.8
	4H	2H	24.6	25.7	25.0	26.0	26.4	24.5	25.6	24.9	25.9
	3H	25.3	26.2	25.7	26.6	27.0	25.2	26.1	25.6	26.5	26.9
	4H	25.5	26.3	26.0	26.8	27.2	25.4	26.2	25.8	26.6	27.1
	6H	25.7	26.4	26.2	26.9	27.3	25.5	26.2	26.0	26.7	27.1
	8H	25.7	26.4	26.2	26.8	27.3	25.5	26.2	26.0	26.6	27.1
	12H	25.7	26.3	26.2	26.8	27.3	25.5	26.1	26.0	26.6	27.1
	8H	4H	25.6	26.2	26.0	26.6	27.1	25.4	26.1	25.9	26.5
	6H	25.8	26.3	26.3	26.8	27.3	25.6	26.1	26.1	26.6	27.1
	8H	25.8	26.3	26.3	26.8	27.3	25.6	26.1	26.1	26.6	27.1
	12H	25.8	26.3	26.4	26.8	27.3	25.6	26.1	26.2	26.6	27.1
	12H	4H	25.5	26.1	26.0	26.6	27.1	25.4	26.0	25.9	26.4
	6H	25.7	26.2	26.3	26.7	27.2	25.6	26.1	26.1	26.5	27.1
	8H	25.8	26.2	26.3	26.7	27.3	25.6	26.1	26.1	26.5	27.1
CIE190: 2010											

CIE190: 2010
Area: 0.0642 m2

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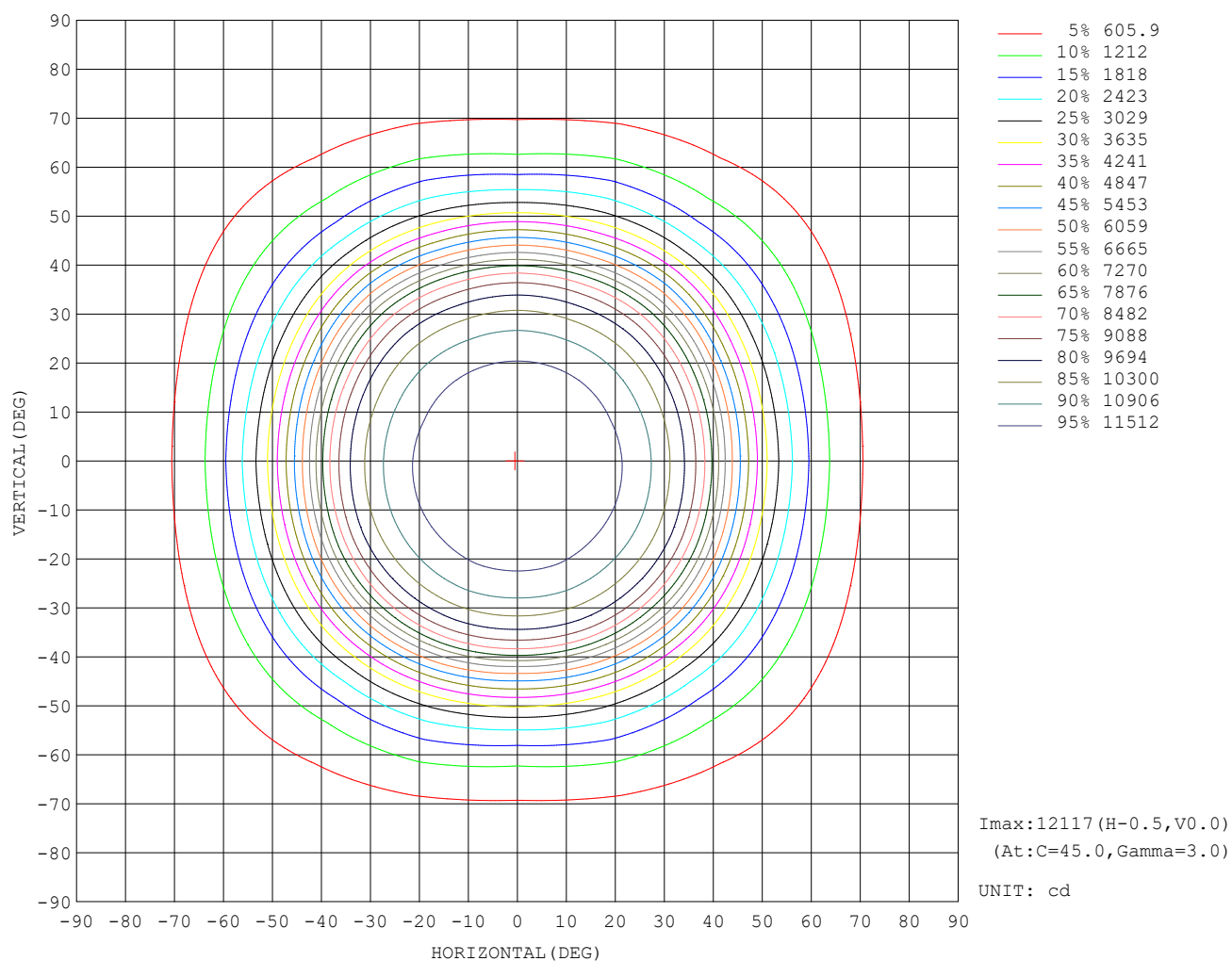
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	70	60	55	69	60	54	68	60	54	49
0.80	79	70	65	79	70	64	77	69	64	59
1.00	87	79	73	86	78	73	84	79	72	67
1.25	93	85	80	92	85	80	90	83	79	73
1.50	97	90	85	96	89	84	93	88	83	77
2.00	102	96	92	101	95	91	98	93	89	83
2.50	105	99	95	103	98	94	100	96	92	85
3.00	107	103	99	106	101	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	91
5.00	112	108	106	110	107	104	105	103	101	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4556]
 Remarks:

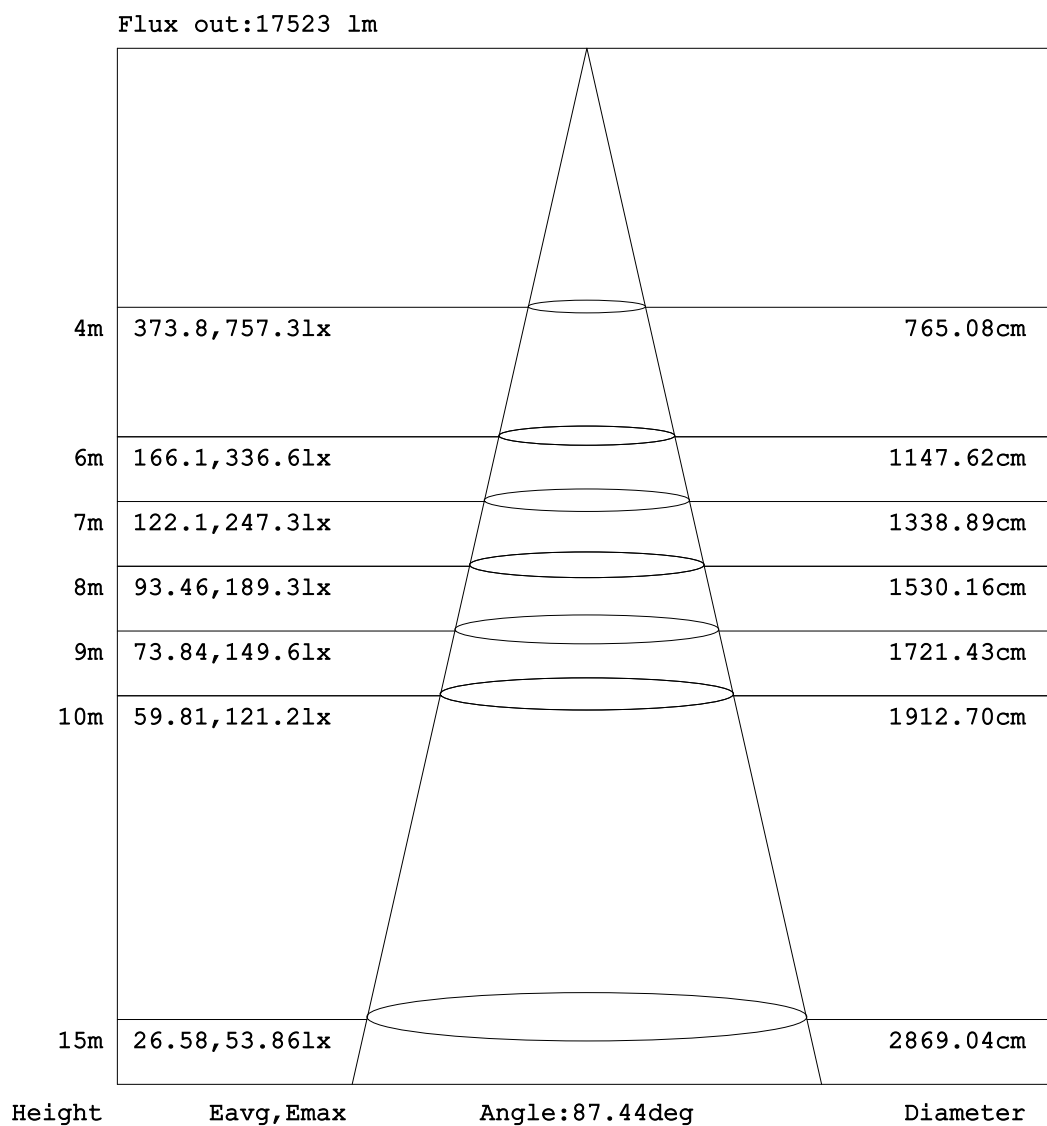
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Operators:LYJ
Test Date:2023-06-02

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Remarks:

AAI Figure



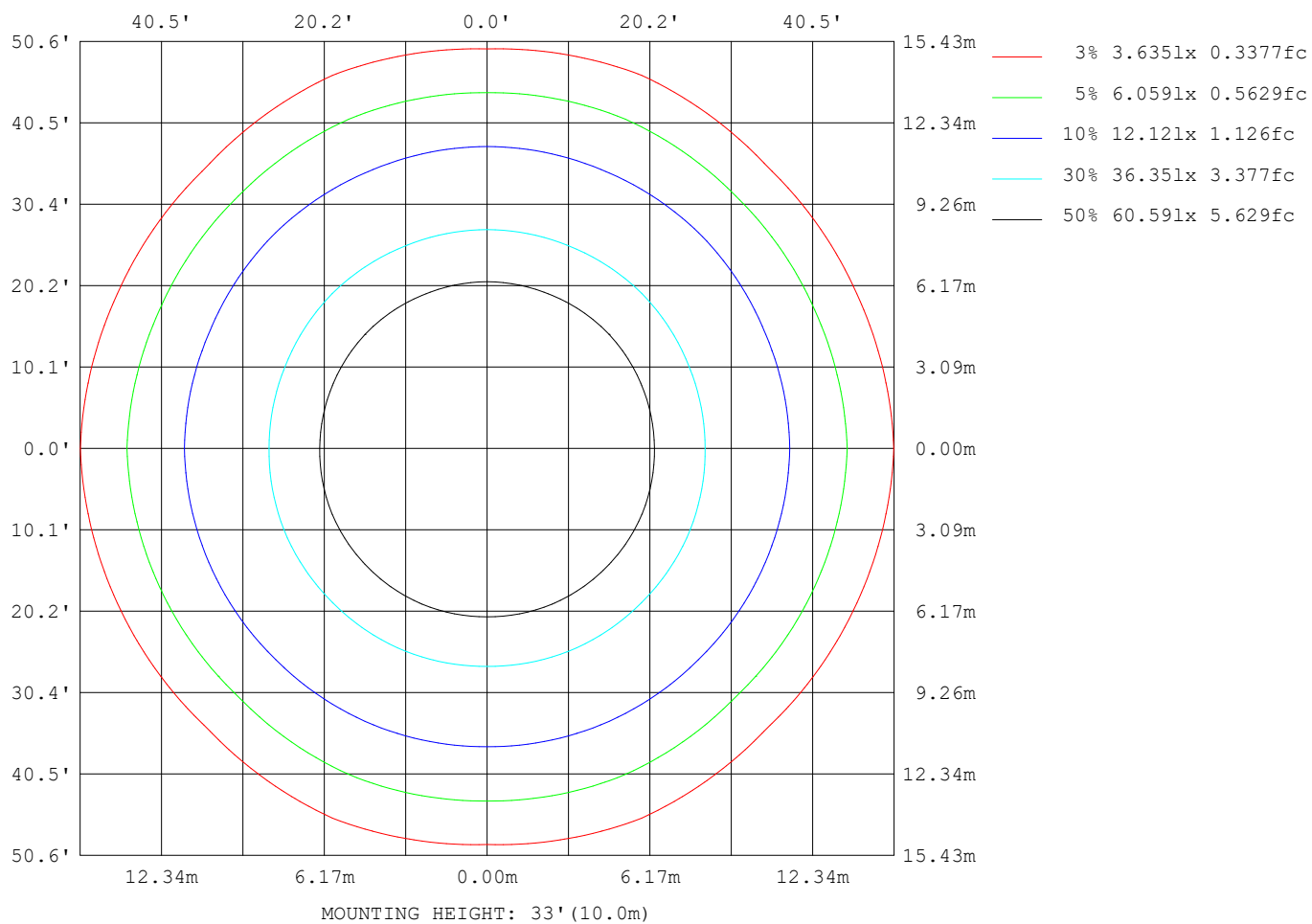
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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C Interval: 22.5DEG
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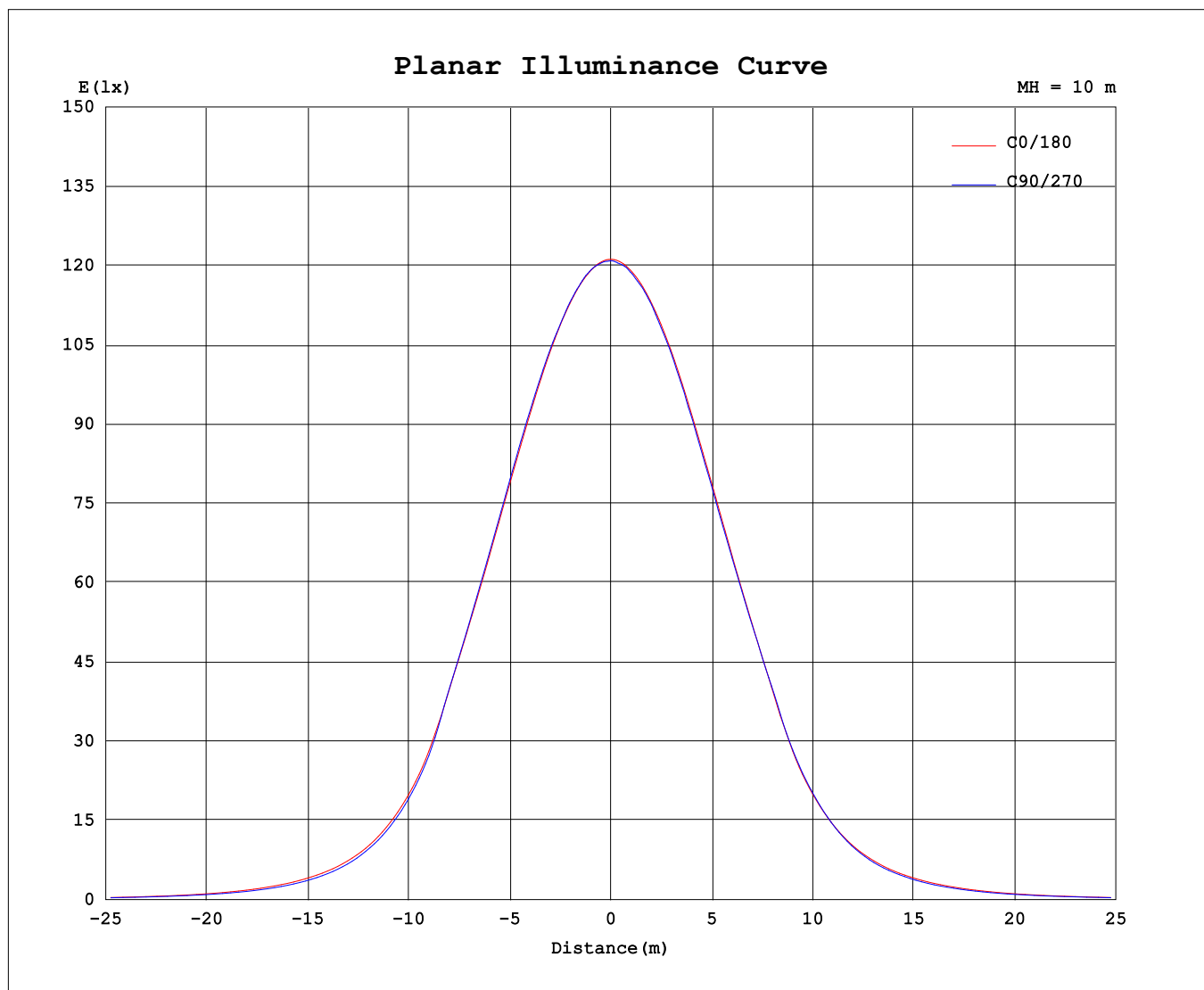
ISOLUX DIAGRAM



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Temperature: 25.3°C
Operators: LYJ
Test Date: 2023-06-02

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=0.4556]
Remarks:

Planar Illuminance Curve



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Operators: LYJ
Test Date: 2023-06-02

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=0.4556]
Remarks: