

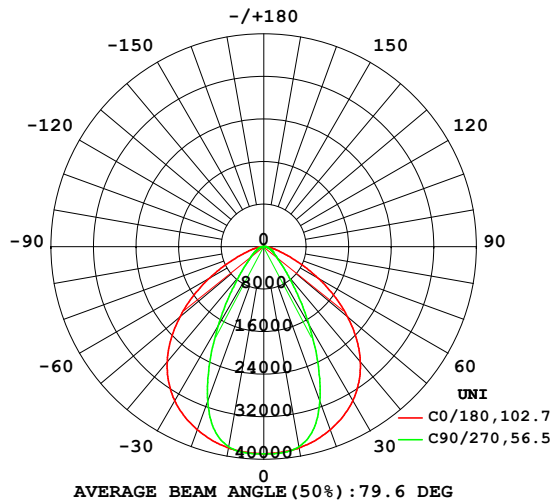
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

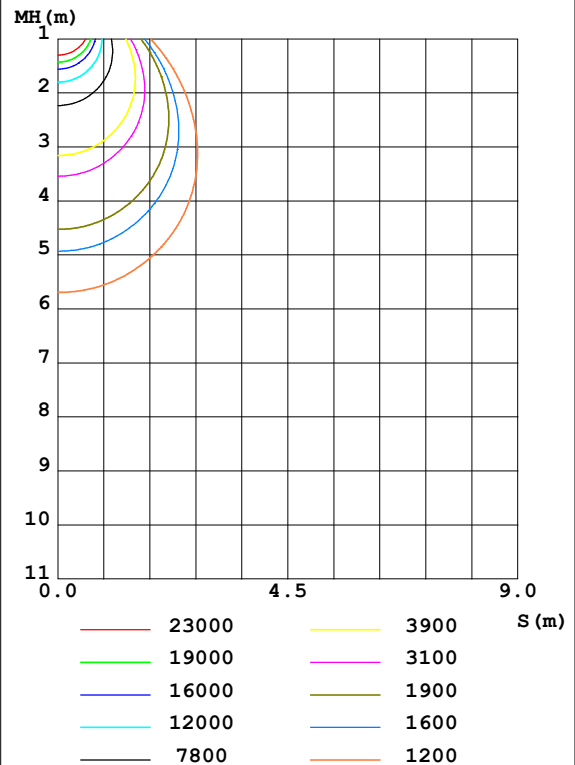
Test:U:229.6V I:1.758A P:397.9W PF:0.9858 Freq:50.00Hz UTHDi:0% ITHDi:0% Lamp Flux:60566.8x1 lm		
NAME: LHB09-400-5070-L00402	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 152.22 lm/W			
MODEL	/	I _{max} (cd)	38978	S/MH (C0/180)	1.27
NOMINAL POWER(W)	400	LOR(%)	100.0	S/MH (C90/270)	0.86
RATED VOLTAGE(V)	230	TOTAL FLUX (lm)	60567	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX(lm)	60566.8	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-06-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
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	3841	3843	3819	3843	3841	3843	3819	3843	0- 10	3695	3695	6.1,6.1
20	3662	3454	3089	3454	3662	3454	3089	3454	10- 20	10346	14040	23.2,23.2
30	3348	2463	1715	2463	3348	2463	1715	2463	20- 30	13702	27742	45.8,45.8
40	2826	1373	721.4	1373	2826	1373	721.4	1373	30- 40	12550	40291	66.5,66.5
50	2061	768.1	334.9	768.1	2061	768.1	334.9	768.1	40- 50	9204	49496	81.7,81.7
60	1172	407.4	196.3	407.4	1172	407.4	196.3	407.4	50- 60	5850	55346	91.4,91.4
70	443.3	208.8	113.1	208.8	443.3	208.8	113.1	208.8	60- 70	3271	58617	96.8,96.8
80	130.0	80.80	49.54	80.80	130.0	80.80	49.54	80.80	70- 80	1547	60163	99.3,99.3
90	0.4449	0.3187	0.2812	0.3187	0.4449	0.3187	0.2812	0.3187	80- 90	403.2	60567	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 45345 lm

%lum = 74.9%

%lamp = 74.9%

Conical surface Flux(120deg): 55346 lm

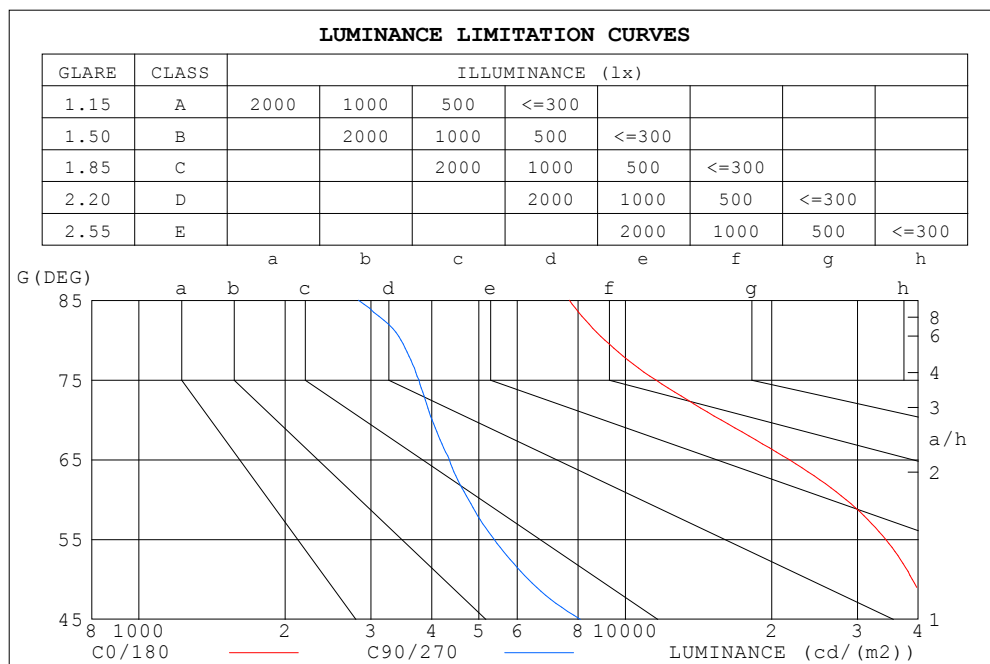
%lum = 91.4%

%lamp = 91.4%

C Range: 0 - 360DEG
C Interval: 10.0DEG
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Temperature:25.3DEG
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7680	2828
80	9089	3460
75	11558	3764
70	15733	4009
65	21741	4347
60	28442	4760
55	34314	5374
50	38914	6318
45	42401	8087

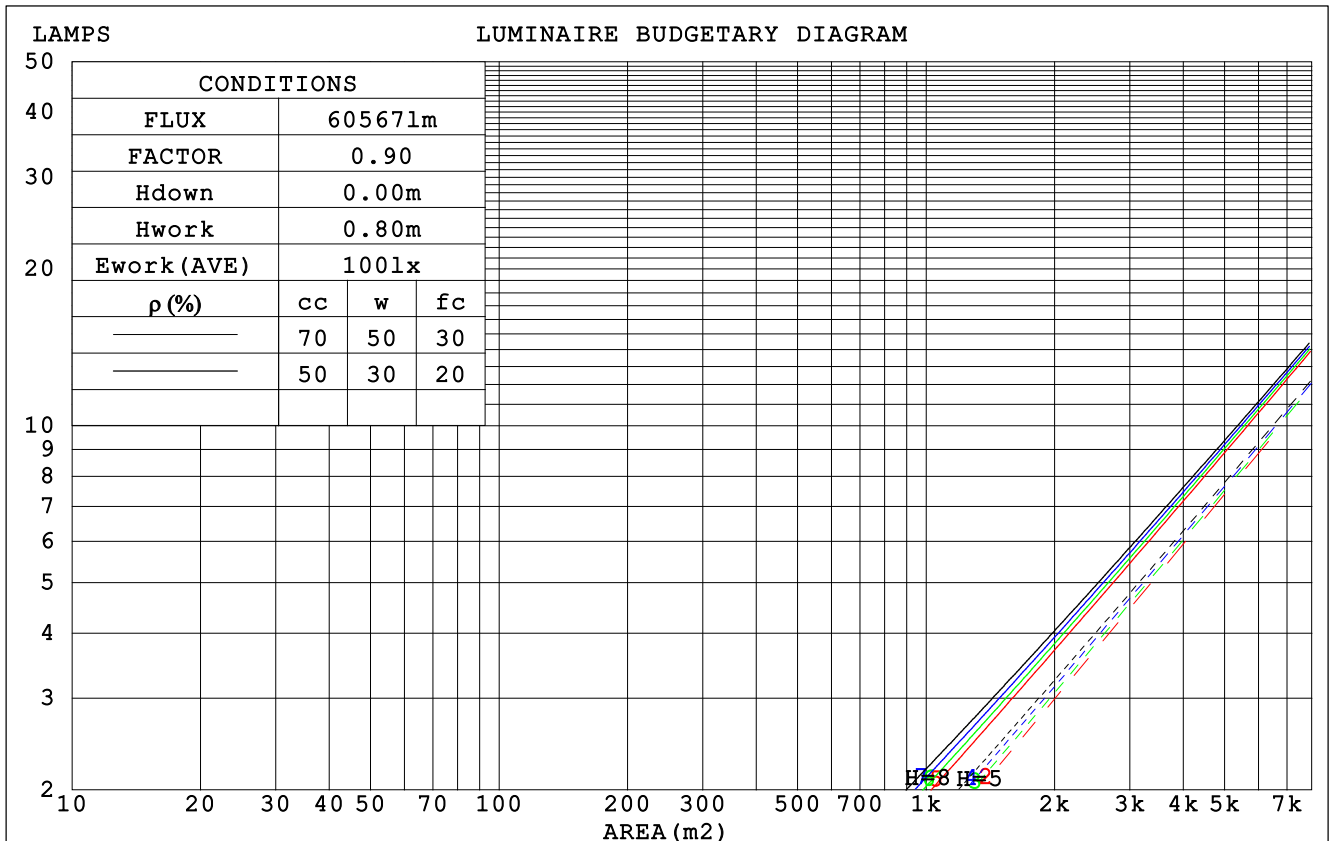
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C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-06-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	.00
1.0	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.97	.97	.95	.94	.94	.92	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.80	.79
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.73	.78	.75	.72	.70
4.0	.80	.73	.67	.79	.72	.67	.76	.70	.66	.74	.69	.65	.72	.68	.64	.62
5.0	.73	.65	.60	.72	.65	.60	.70	.64	.59	.68	.63	.58	.66	.62	.58	.56
6.0	.67	.59	.54	.66	.59	.54	.64	.58	.53	.63	.57	.53	.61	.56	.53	.51
7.0	.62	.54	.49	.61	.54	.49	.60	.53	.49	.58	.53	.48	.57	.52	.48	.46
8.0	.57	.50	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.53	.48	.44	.42
9.0	.53	.46	.41	.53	.46	.41	.52	.45	.41	.51	.45	.41	.50	.44	.41	.39
10.0	.50	.43	.38	.49	.42	.38	.48	.42	.38	.47	.42	.38	.47	.41	.38	.36



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
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Operators: LYJ
Test Date: 2020-06-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

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	.239	.136	.043	.232	.132	.042	.219	.126	.040	.207	.119	.038	.196	.114	.037															
2.0	.229	.125	.038	.223	.123	.038	.212	.118	.037	.202	.113	.035	.192	.109	.034															
3.0	.216	.115	.034	.211	.113	.034	.201	.109	.033	.192	.105	.032	.184	.102	.032															
4.0	.203	.106	.031	.199	.104	.031	.190	.101	.030	.182	.098	.030	.175	.095	.029															
5.0	.191	.097	.028	.187	.096	.028	.180	.093	.028	.173	.091	.027	.166	.089	.027															
6.0	.180	.090	.026	.176	.089	.026	.170	.087	.025	.163	.085	.025	.158	.083	.025															
7.0	.170	.084	.024	.166	.083	.024	.160	.081	.023	.155	.079	.023	.150	.078	.023															
8.0	.160	.078	.022	.157	.078	.022	.152	.076	.022	.147	.075	.021	.142	.073	.021															
9.0	.152	.073	.020	.149	.073	.020	.144	.071	.020	.140	.070	.020	.136	.069	.020															
10.0	.144	.069	.019	.142	.068	.019	.137	.067	.019	.133	.066	.019	.129	.065	.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	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016		
2.0	.164	.132	.106	.140	.114	.091	.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	.118	.077	.046	.082	.054	.033	.047	.032	.019	.015	.010	.006		
6.0	.131	.080	.044	.112	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005		
7.0	.124	.073	.037	.107	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005		
8.0	.118	.067	.032	.102	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004		
9.0	.113	.062	.028	.097	.054	.024	.067	.038	.017	.039	.022	.010	.013	.007	.003		
10.0	.108	.058	.025	.093	.050	.021	.065	.035	.015	.038	.021	.009	.012	.007	.003		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-06-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity:65.0%
 Test Distance:26.000m [K=0.4589]
 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	21.3	22.7	21.7	23.0	23.3	13.6	14.9	14.0	15.2	15.6
3H	22.6	23.8	23.0	24.1	24.5	14.9	16.1	15.3	16.4	16.8
4H	23.0	24.1	23.4	24.5	24.9	15.4	16.5	15.8	16.9	17.3
6H	23.3	24.3	23.7	24.7	25.1	15.8	16.8	16.2	17.2	17.6
8H	23.4	24.3	23.8	24.7	25.1	15.9	16.9	16.4	17.3	17.7
12H	23.4	24.3	23.8	24.7	25.2	16.0	16.9	16.4	17.3	17.8
4H 2H	21.4	22.5	21.8	22.8	23.2	15.2	16.3	15.6	16.7	17.1
3H	22.9	23.8	23.3	24.2	24.6	16.5	17.4	16.9	17.8	18.2
4H	23.4	24.2	23.8	24.6	25.1	17.0	17.9	17.5	18.3	18.7
6H	23.8	24.5	24.2	24.9	25.4	17.5	18.2	17.9	18.6	19.1
8H	23.9	24.5	24.3	25.0	25.5	17.6	18.3	18.1	18.7	19.2
12H	24.0	24.6	24.5	25.0	25.5	17.7	18.3	18.2	18.8	19.2
8H 4H	23.4	24.0	23.8	24.5	25.0	17.8	18.4	18.2	18.9	19.3
6H	23.8	24.4	24.3	24.9	25.4	18.3	18.8	18.8	19.3	19.8
8H	24.0	24.5	24.5	25.0	25.5	18.4	18.9	19.0	19.4	19.9
12H	24.2	24.6	24.7	25.1	25.7	18.6	19.0	19.1	19.5	20.1
12H 4H	23.3	23.9	23.8	24.4	24.9	17.9	18.5	18.4	18.9	19.4
6H	23.8	24.3	24.3	24.8	25.3	18.4	18.9	18.9	19.4	19.9
8H	24.0	24.5	24.5	24.9	25.5	18.6	19.1	19.2	19.6	20.1
CIE190: 2010										

CIE190: 2010
Area: 0.823728 m2

C Range: 0 - 360DEG
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Operators:LYJ
Test Date:2020-06-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:26.000m [K=0.4589]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

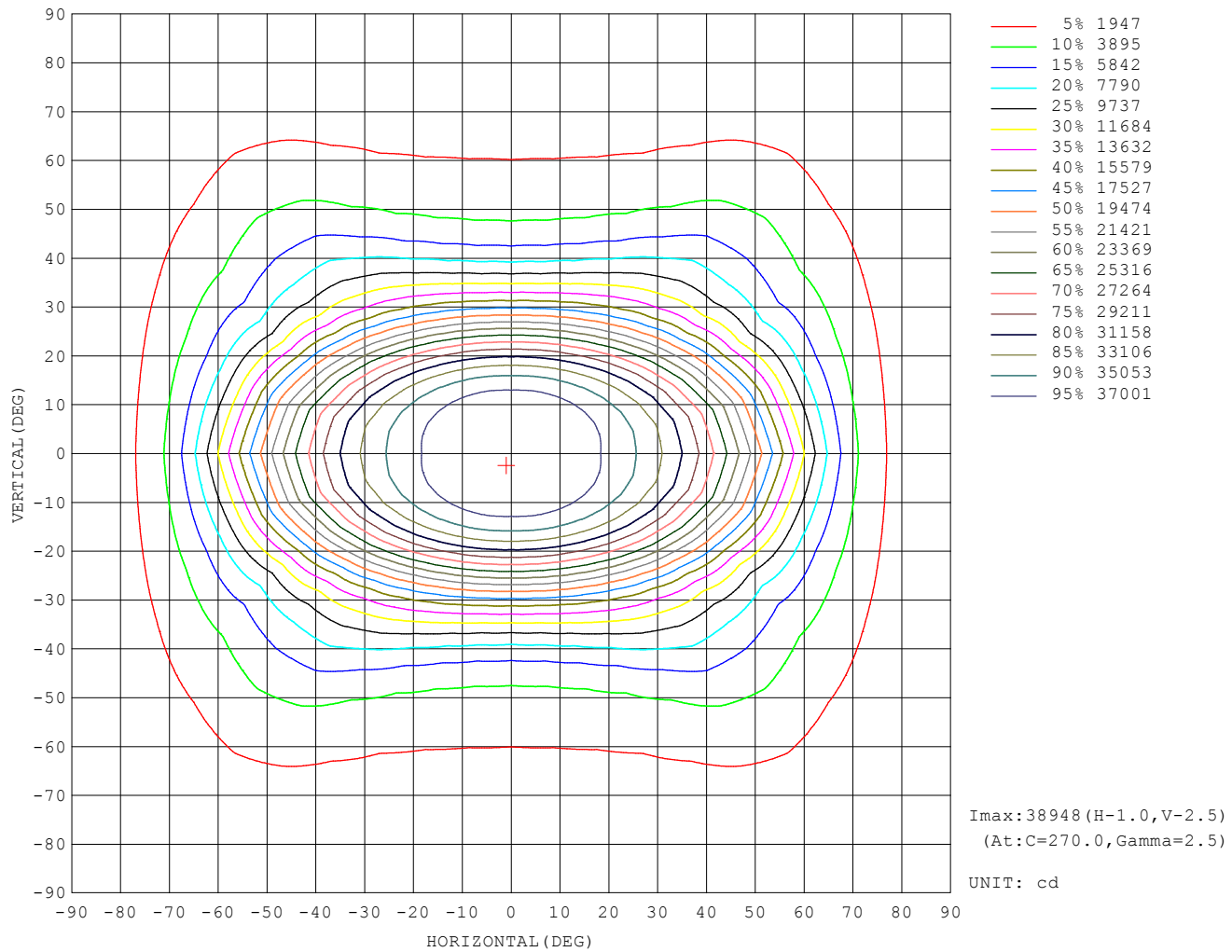
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	71	61	56	70	61	56	69	61	55	50
0.80	80	71	65	79	71	65	78	70	65	59
1.00	87	79	73	86	78	73	84	79	72	67
1.25	93	85	80	92	84	79	89	83	79	73
1.50	97	90	84	95	89	84	93	87	83	77
2.00	102	96	91	100	95	90	97	92	89	82
2.50	105	99	94	103	98	94	99	95	92	85
3.00	107	102	98	105	101	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	110	106	104	105	103	101	92
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 Operators: LYJ
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4589]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

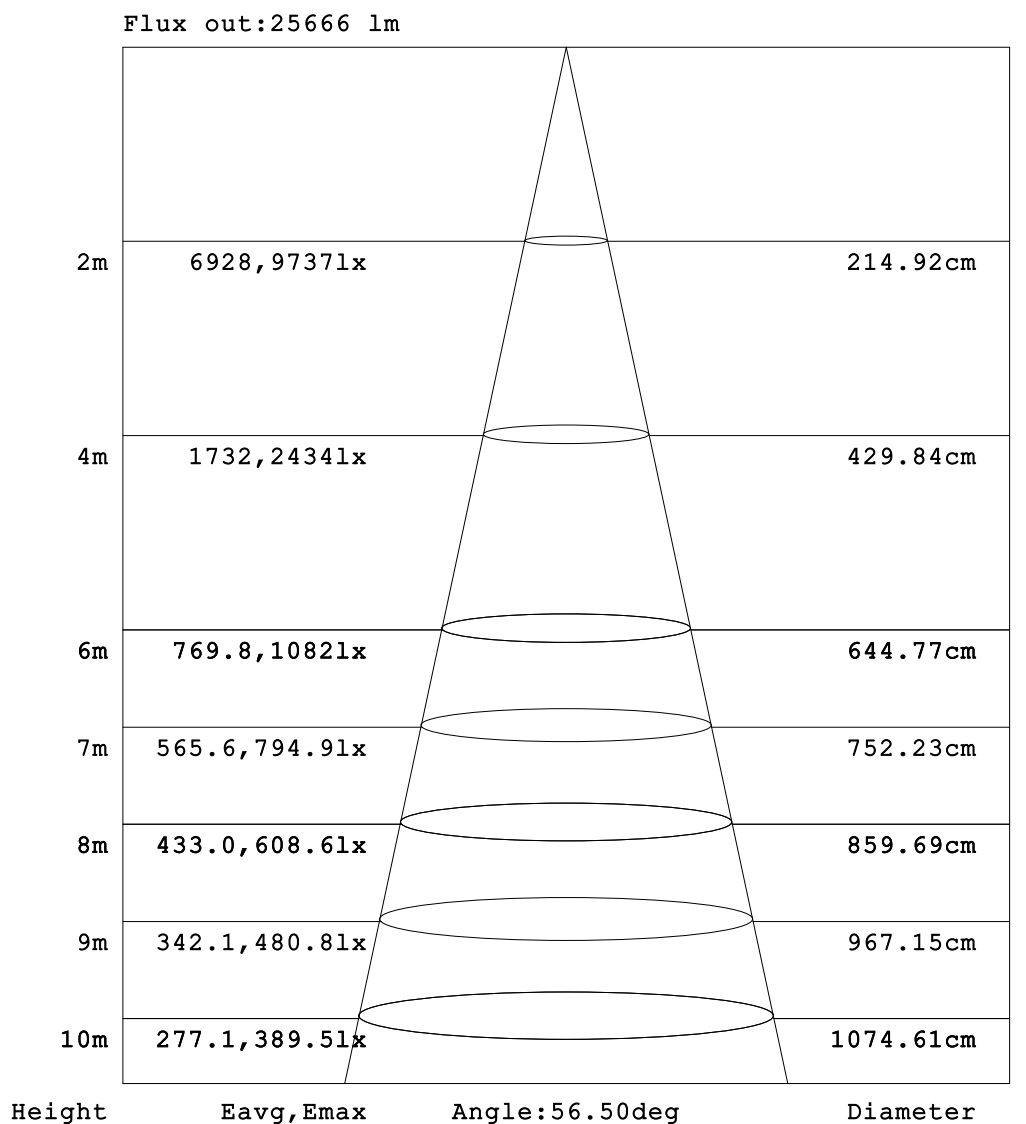
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Remarks:

AAI Figure



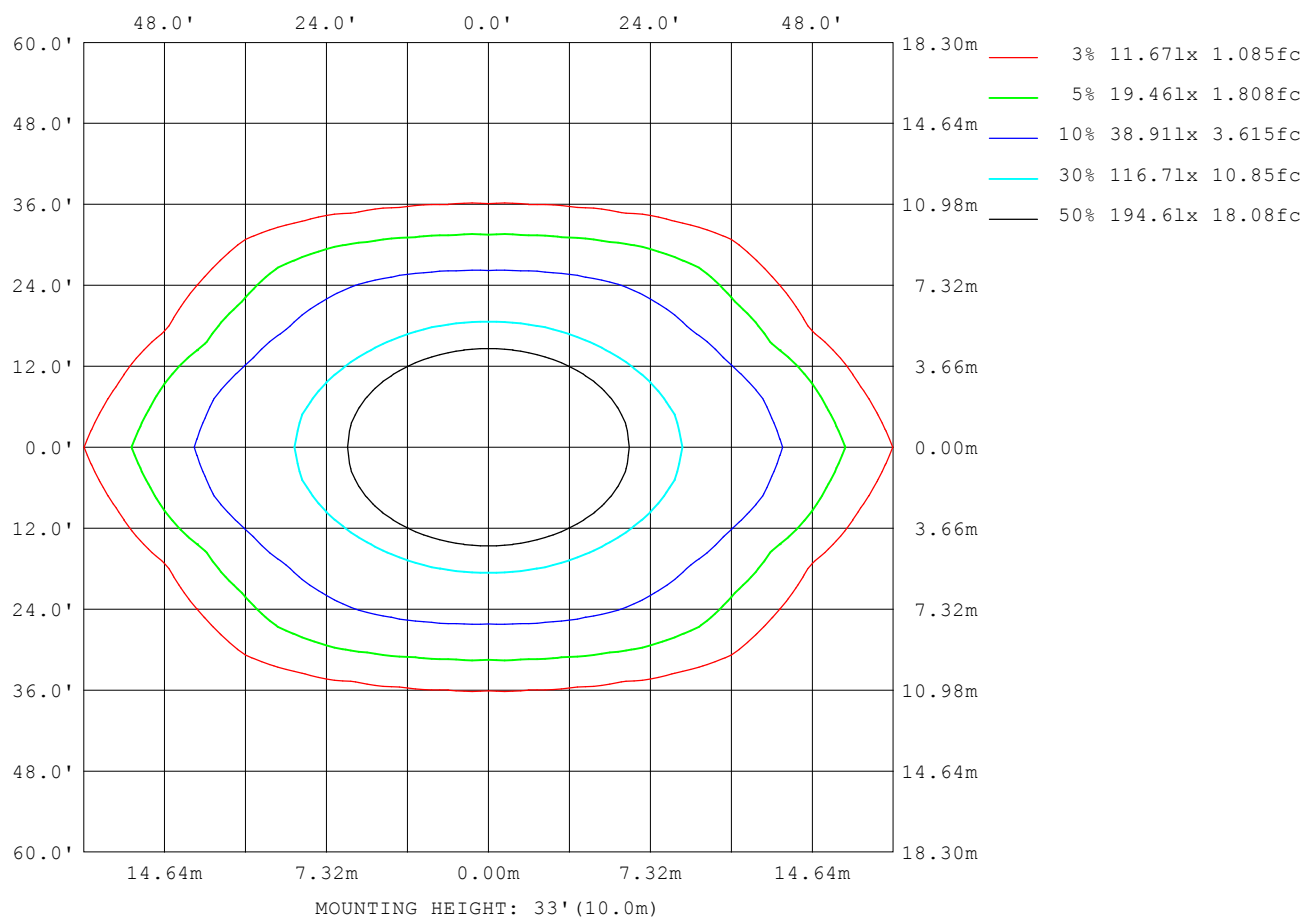
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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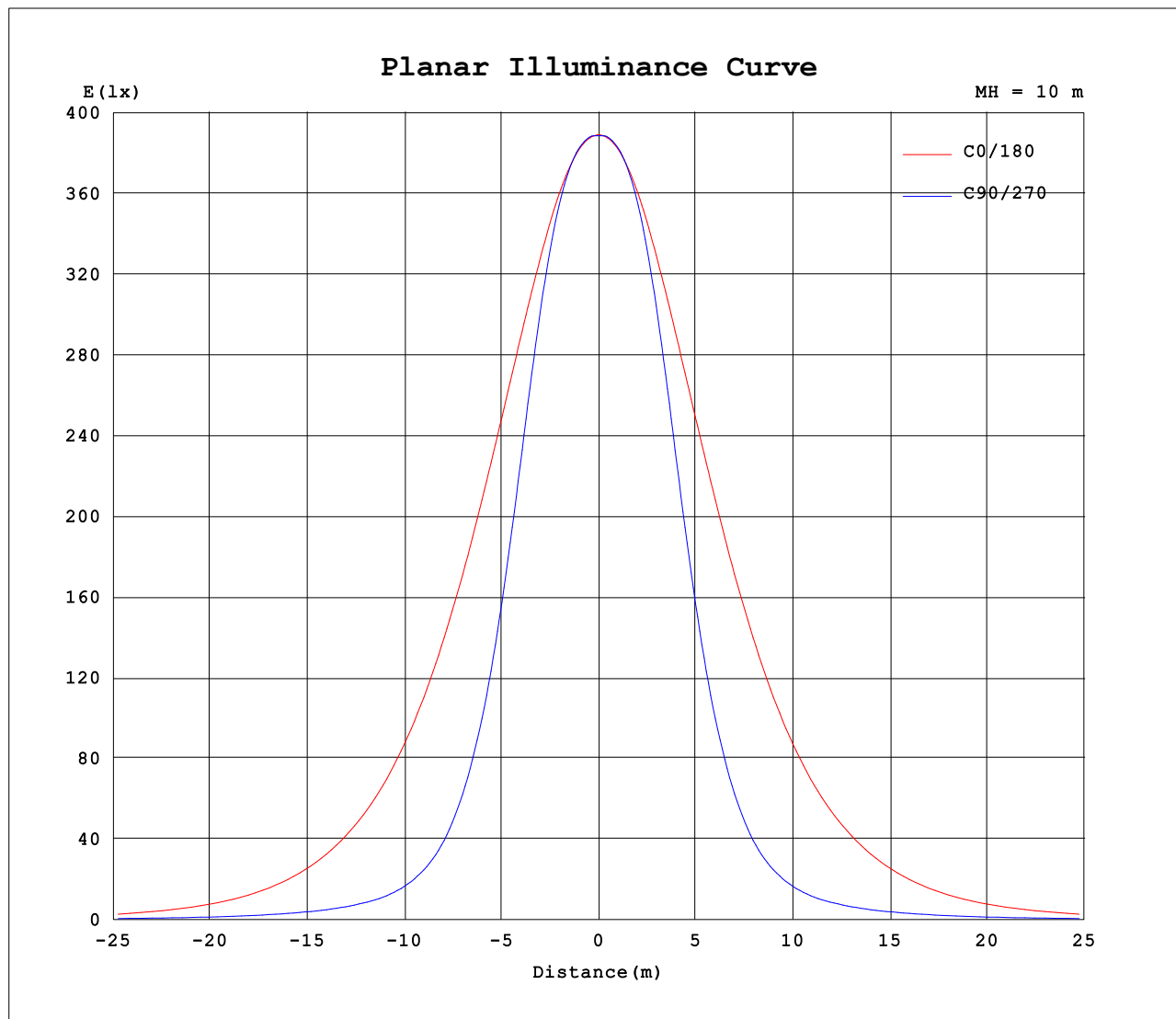
ISOLUX DIAGRAM



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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-06-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

Planar Illuminance Curve



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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-06-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks: