

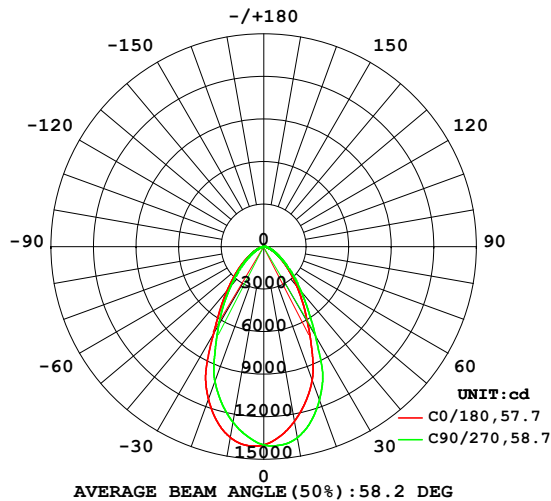
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

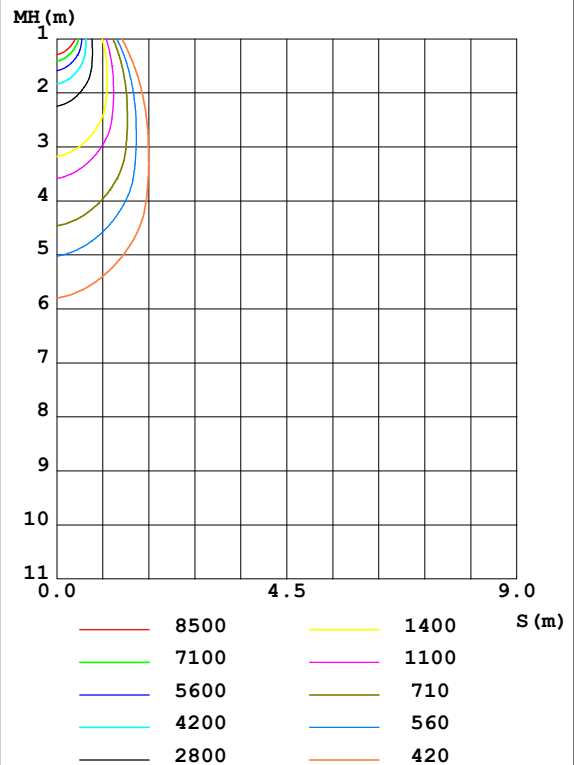
Test:U:229.6V I:0.5447A P:123.1W PF:0.9843 Freq:50.01Hz UTHDi:0.5178% ITHDi:8.341% Lamp Flux:16632.2x1 lm		
NAME: HB39-120-5080-H00129	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.11 lm/W			
MODEL	SE303	I _{max} (cd)	14174	S/MH(C0/180)	0.92
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	0.86
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	16632	η UP,DN(C0-180)	0.0,51.5
NOMINAL FLUX(lm)	16632.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.95

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LI
Test Date:2020-04-17

γ Range: 0 - 90DEG
γ Interval: 0.1DEG
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	1250	1307	1368	1401	1366	1305	1257	1241	0- 10	1292	1292	7.77,7.77
20	999.9	1075	1150	1196	1143	1067	1010	990.4	10- 20	3385	4677	28.1,28.1
30	618.3	682.7	733.2	778.4	710.0	673.7	636.5	626.3	20- 30	4070	8747	52.6,52.6
40	363.2	388.1	410.9	442.9	401.5	385.5	361.0	390.3	30- 40	3269	12015	72.2,72.2
50	198.3	196.9	212.7	234.7	214.7	201.1	196.5	209.3	40- 50	2270	14285	85.9,85.9
60	98.19	95.23	101.9	109.7	102.8	96.75	95.99	101.8	50- 60	1339	15624	93.9,93.9
70	42.42	42.15	43.46	47.24	43.86	42.48	40.64	43.20	60- 70	682.6	16306	98,98
80	12.85	13.11	12.78	13.71	13.20	12.64	11.93	12.55	70- 80	279.3	16586	99.7,99.7
90	0.0383	0.0363	0.0353	0.0368	0.0523	0.0526	0.0530	0.0558	80- 90	46.54	16632	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): 13276 lm

%lum = 79.8%

%lamp = 79.8%

Conical surface Flux(120deg): 15624 lm

%lum = 93.9%

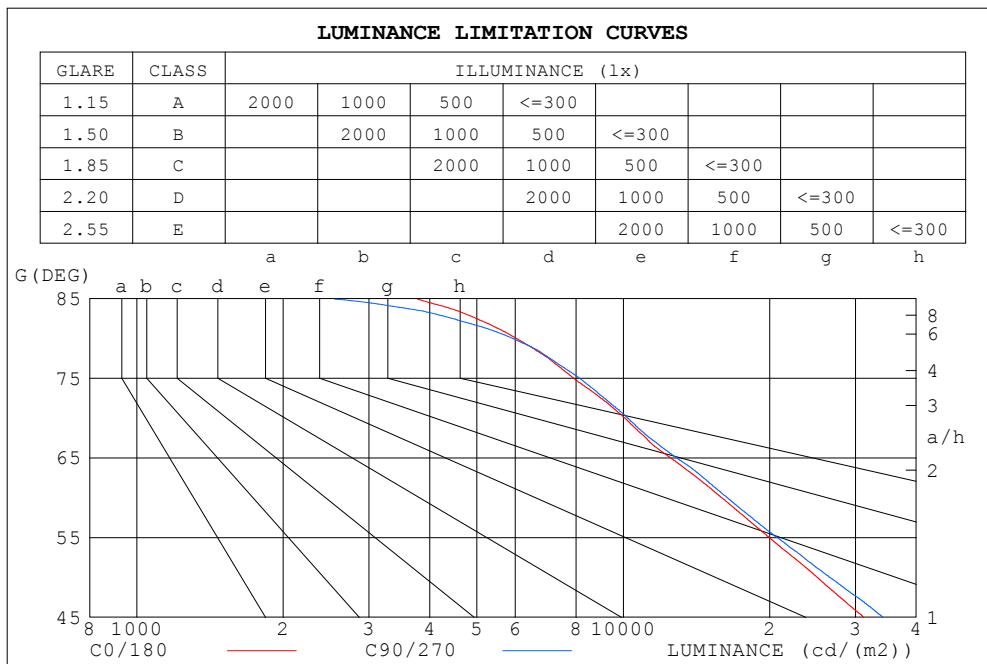
%lamp = 93.9%

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γ Range: 0 - 90DEG
 γ Interval: 0.1DEG
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

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3850	2602
80	6123	6022
75	7992	8219
70	10155	10296
65	12616	12984
60	16059	16484
55	20090	20874
50	25210	26780
45	31459	34410

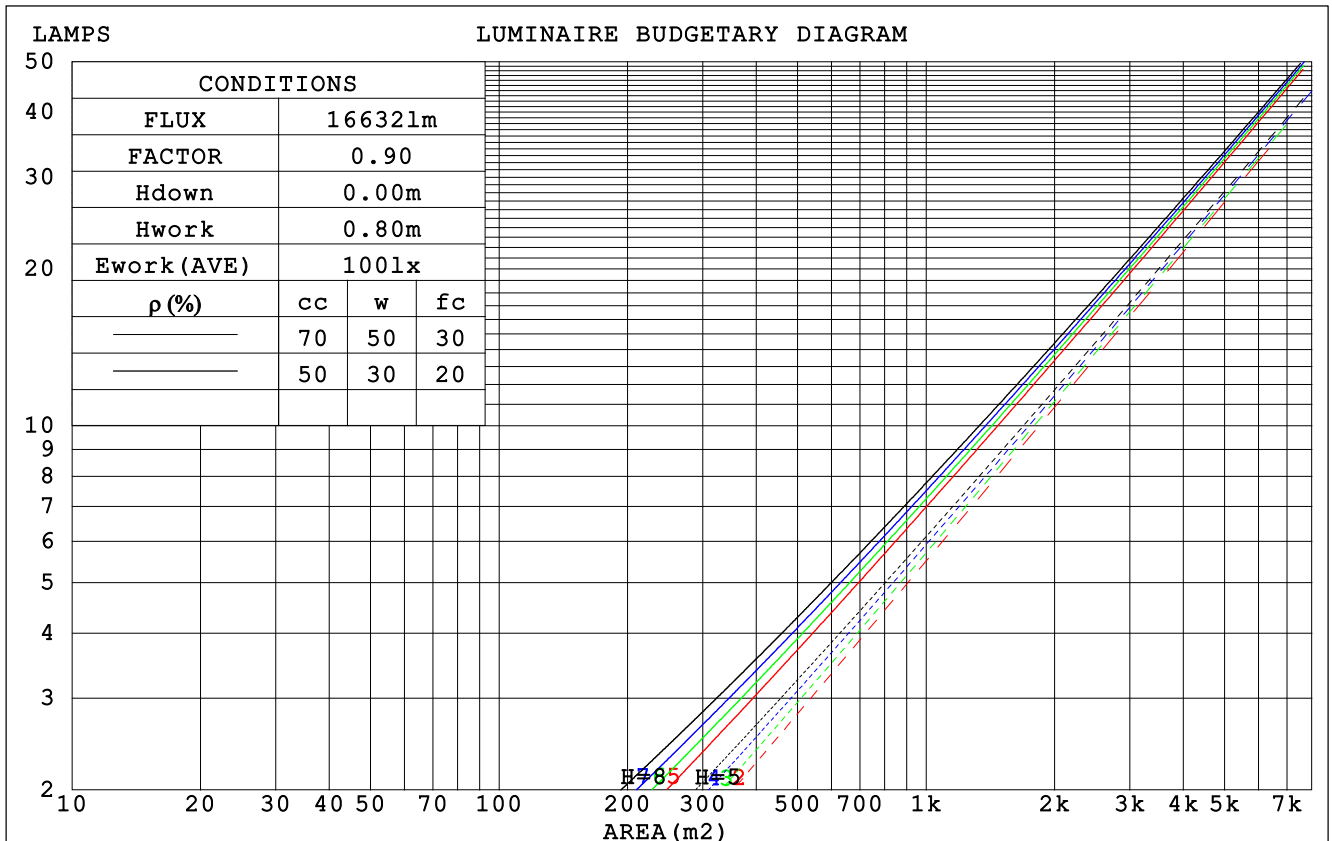
C Range: 0 - 360DEG
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 Operators: LI
 Test Date: 2020-04-17

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 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
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 Test Distance: 26.000m [K=0.4589]
 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	.00
1.0	1.09	1.06	1.03	1.06	1.04	1.01	1.02	1.00	.98	.98	.97	.95	.95	.94	.92	.90
2.0	.99	.94	.90	.97	.92	.89	.94	.90	.87	.91	.87	.85	.88	.85	.83	.81
3.0	.90	.84	.79	.89	.83	.78	.86	.81	.77	.83	.79	.76	.81	.78	.75	.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	.56	.55
7.0	.65	.58	.53	.64	.58	.53	.63	.57	.53	.62	.56	.52	.61	.56	.52	.50
8.0	.61	.54	.49	.60	.53	.49	.59	.53	.49	.58	.52	.48	.57	.52	.48	.46
9.0	.57	.50	.45	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.48	.45	.43
10.0	.53	.47	.42	.53	.46	.42	.52	.46	.42	.51	.46	.42	.50	.45	.42	.40



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 γ Interval: 0.1DEG
 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	.220	.125	.040	.213	.121	.039	.200	.115	.037	.188	.109	.035	.177	.103	.033															
2.0	.212	.116	.036	.206	.114	.035	.195	.109	.034	.185	.104	.032	.176	.099	.031															
3.0	.201	.107	.032	.196	.105	.032	.187	.101	.031	.178	.097	.030	.170	.094	.029															
4.0	.190	.099	.029	.186	.097	.029	.177	.094	.028	.169	.091	.027	.162	.088	.027															
5.0	.179	.091	.026	.175	.090	.026	.168	.088	.026	.161	.085	.025	.155	.083	.025															
6.0	.169	.085	.024	.166	.084	.024	.159	.082	.024	.153	.080	.023	.148	.078	.023															
7.0	.160	.079	.022	.157	.078	.022	.151	.077	.022	.146	.075	.022	.141	.073	.022															
8.0	.152	.074	.021	.149	.073	.021	.144	.072	.021	.139	.070	.020	.134	.069	.020															
9.0	.144	.070	.019	.142	.069	.019	.137	.068	.019	.133	.066	.019	.129	.065	.019															
10.0	.137	.066	.018	.135	.065	.018	.131	.064	.018	.127	.063	.018	.123	.062	.018															

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	.174	.157	.141	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016		
2.0	.162	.132	.108	.138	.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	.038	.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	.110	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004		
10.0	.105	.057	.025	.090	.050	.022	.063	.035	.016	.037	.021	.009	.012	.007	.003		

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 Test Date:2020-04-17

γ Range: 0 - 90DEG
 γ Interval: 0.1DEG
 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	20.1	21.4	20.5	21.7	22.0	19.9	21.2	20.3	21.5	21.8
3H	20.9	22.0	21.3	22.4	22.7	20.7	21.8	21.1	22.1	22.5
4H	21.1	22.2	21.5	22.5	22.9	20.9	22.0	21.3	22.3	22.7
6H	21.2	22.2	21.7	22.6	23.0	21.0	22.0	21.4	22.4	22.8
8H	21.2	22.2	21.7	22.6	23.0	21.0	21.9	21.5	22.3	22.7
12H	21.2	22.1	21.7	22.5	22.9	21.0	21.9	21.4	22.3	22.7
4H 2H	20.3	21.4	20.7	21.7	22.1	20.2	21.3	20.6	21.6	22.0
3H	21.3	22.1	21.7	22.5	22.9	21.2	22.0	21.6	22.5	22.9
4H	21.6	22.3	22.0	22.8	23.2	21.5	22.3	21.9	22.7	23.1
6H	21.8	22.4	22.2	22.9	23.3	21.7	22.3	22.1	22.8	23.2
8H	21.8	22.4	22.2	22.8	23.3	21.7	22.3	22.1	22.7	23.2
12H	21.8	22.3	22.3	22.8	23.3	21.7	22.2	22.1	22.7	23.2
8H 4H	21.6	22.2	22.1	22.7	23.1	21.6	22.2	22.0	22.6	23.1
6H	21.8	22.3	22.4	22.8	23.3	21.8	22.3	22.3	22.8	23.3
8H	21.9	22.3	22.4	22.9	23.4	21.8	22.3	22.3	22.8	23.3
12H	21.9	22.3	22.4	22.8	23.4	21.8	22.2	22.3	22.7	23.3
12H 4H	21.6	22.1	22.1	22.6	23.1	21.5	22.1	22.0	22.6	23.0
6H	21.8	22.3	22.4	22.7	23.3	21.8	22.2	22.3	22.7	23.2
8H	21.9	22.3	22.4	22.8	23.4	21.8	22.2	22.3	22.7	23.3
CIE190: 2010										

CIE190: 2010
Area: 0.1244 m2

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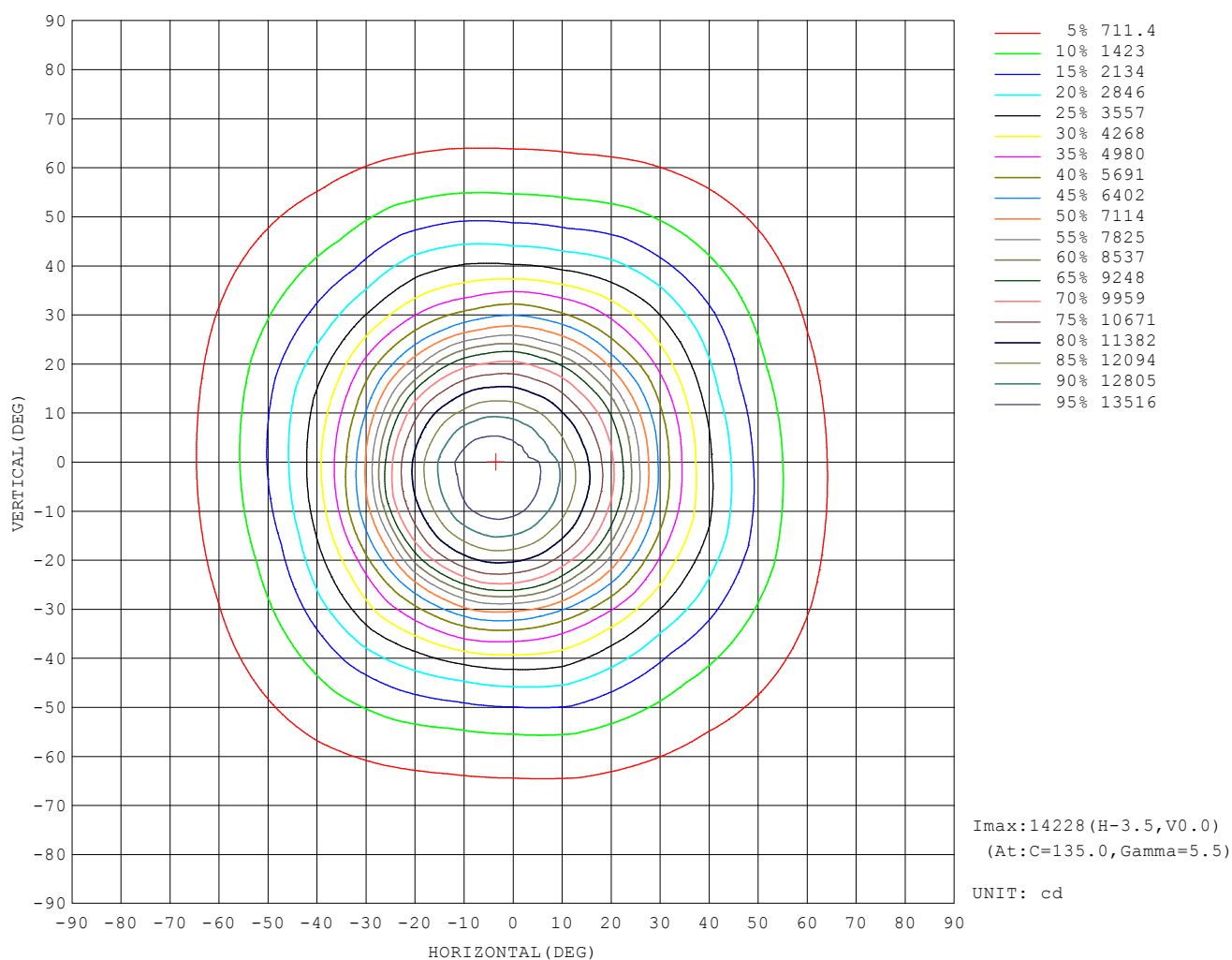
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	74	65	60	73	65	60	72	65	60	55
0.80	83	75	69	82	74	69	81	74	69	64
1.00	90	82	77	89	81	77	87	82	76	71
1.25	95	88	83	94	87	83	92	86	82	77
1.50	99	92	88	98	92	87	95	90	86	80
2.00	104	98	93	102	97	93	99	95	91	85
2.50	106	101	97	104	100	96	101	97	94	87
3.00	108	104	100	106	102	99	103	99	97	90
4.00	111	107	104	109	106	103	105	102	100	92
5.00	113	109	107	110	108	105	106	104	102	94
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 Humidity: 65.0%
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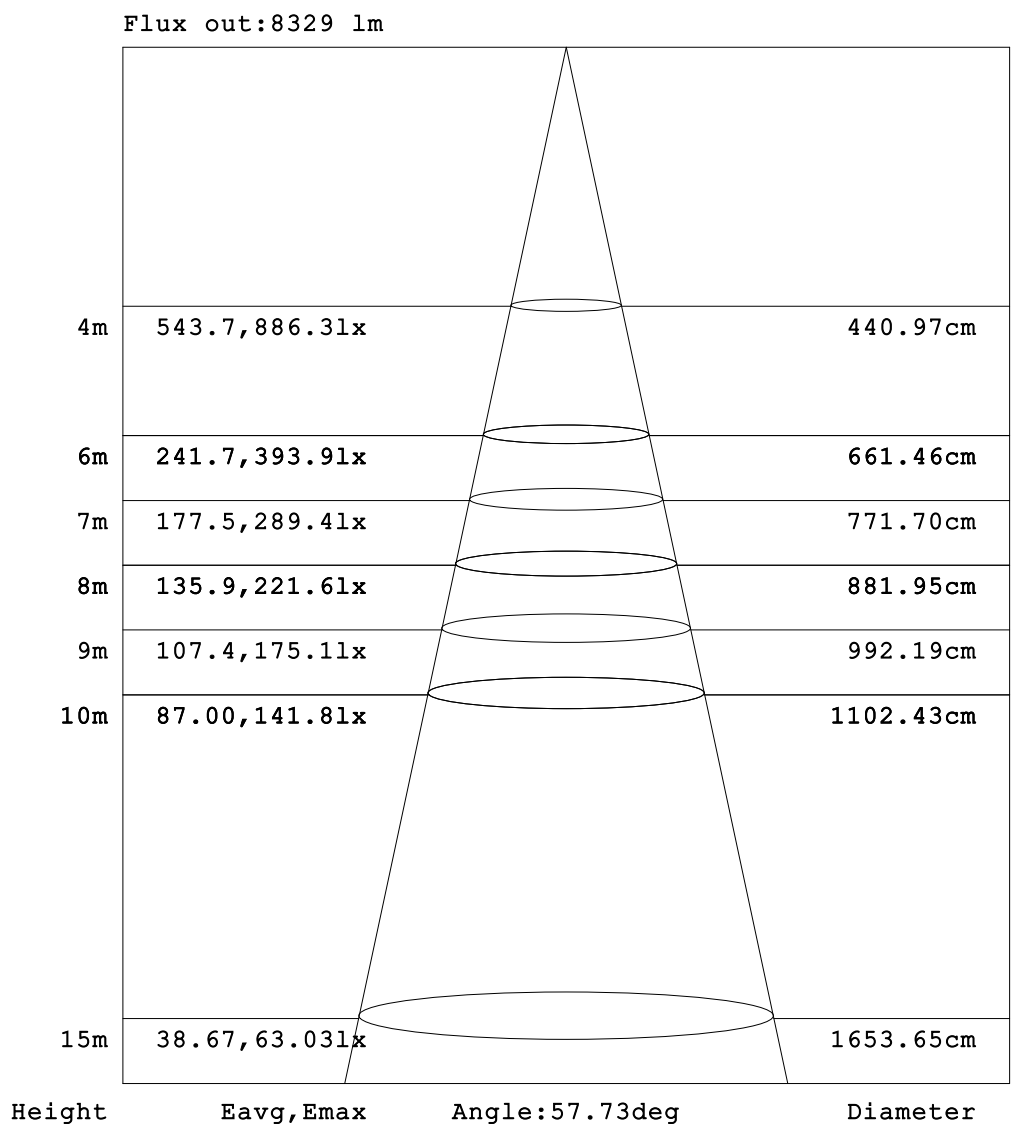
ISOCANDELA DIAGRAM



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Humidity:65.0%
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Remarks:

AAI Figure



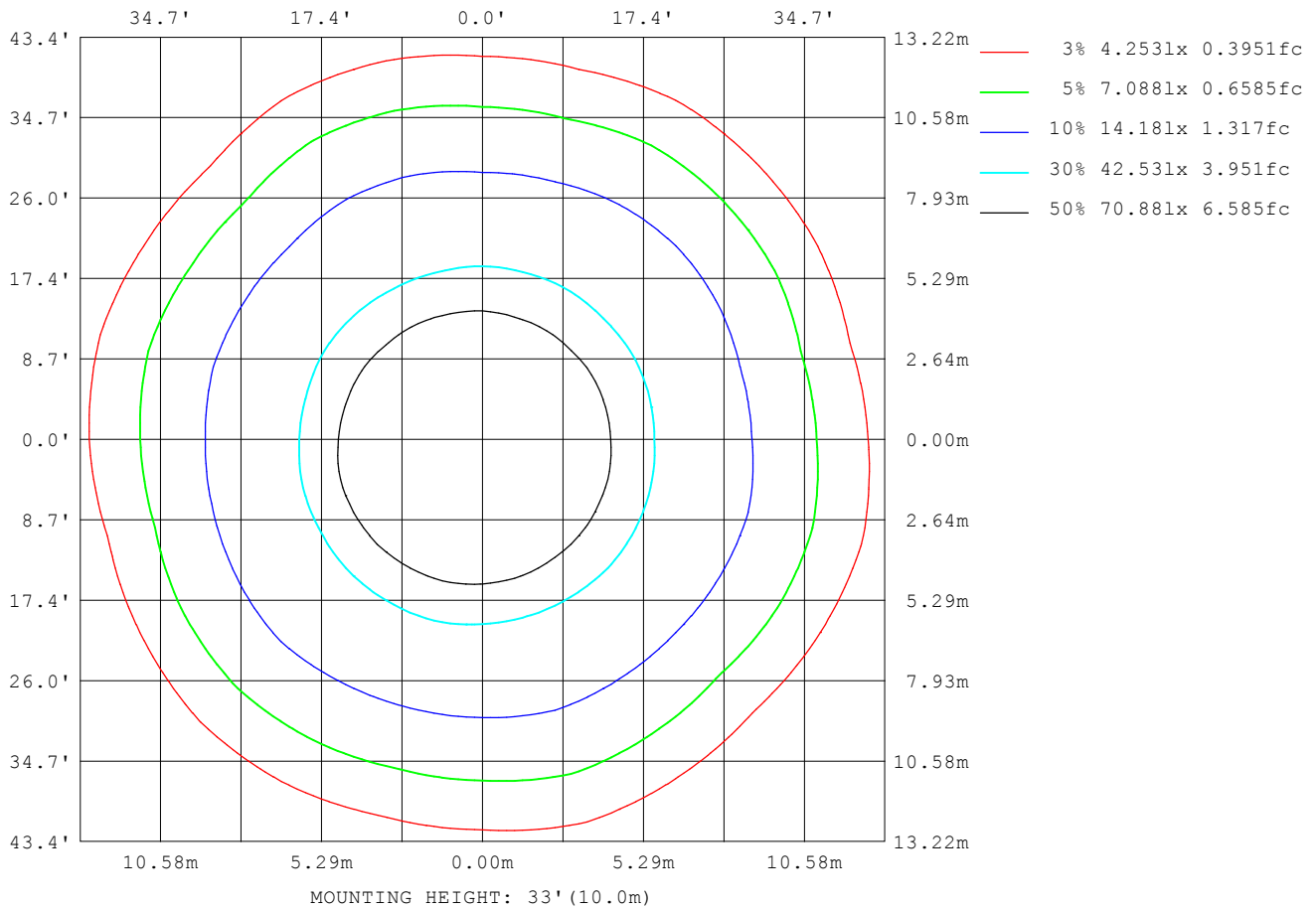
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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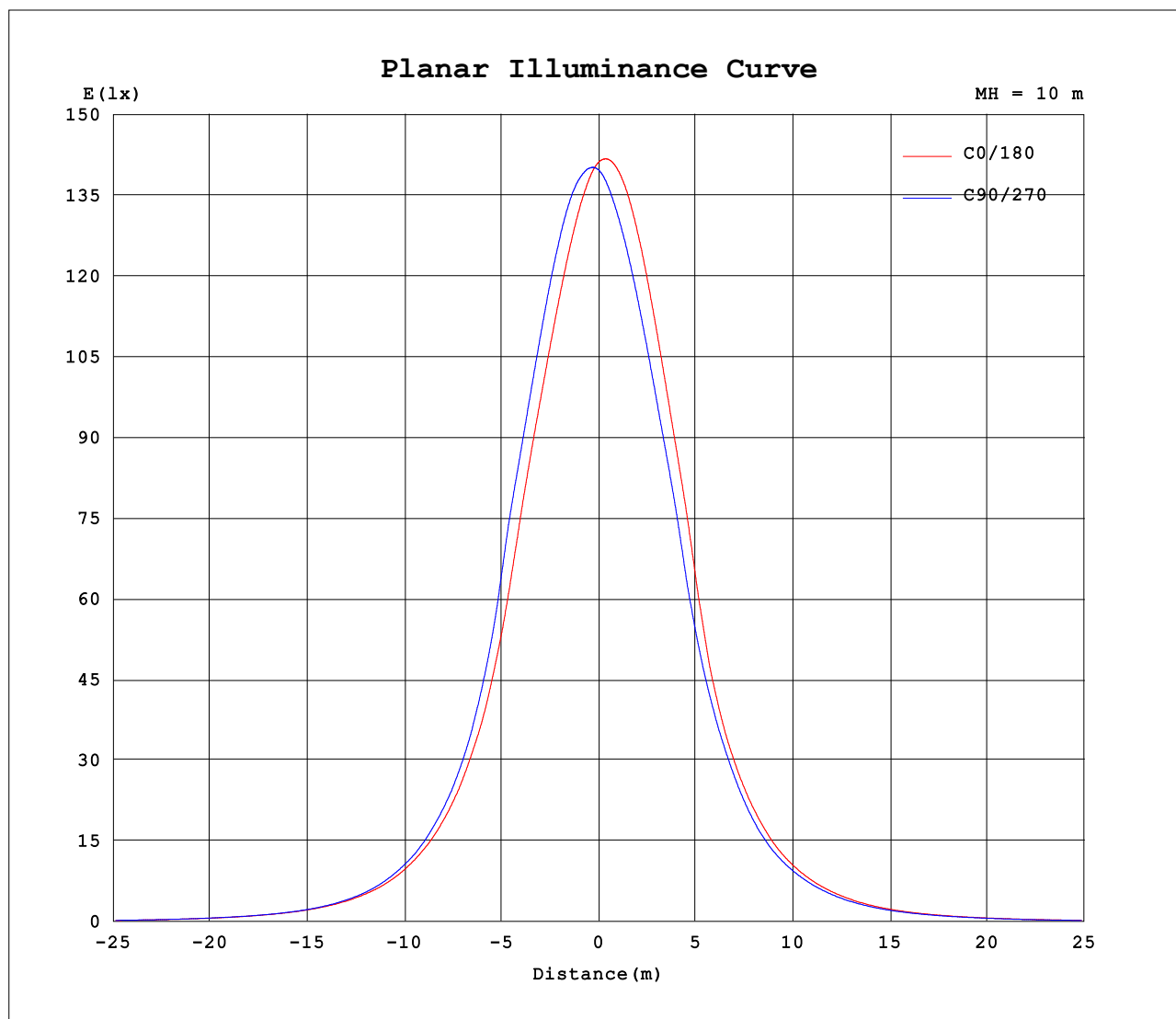
ISOLUX DIAGRAM



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Temperature: 25.3DEG
Operators: LI
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γ Range: 0 - 90DEG
 γ Interval: 0.1DEG
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Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks:

Planar Illuminance Curve



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Operators: LI
Test Date: 2020-04-17

γ Range: 0 - 90DEG
 γ Interval: 0.1DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 26.000m [K=0.4589]
Remarks: