

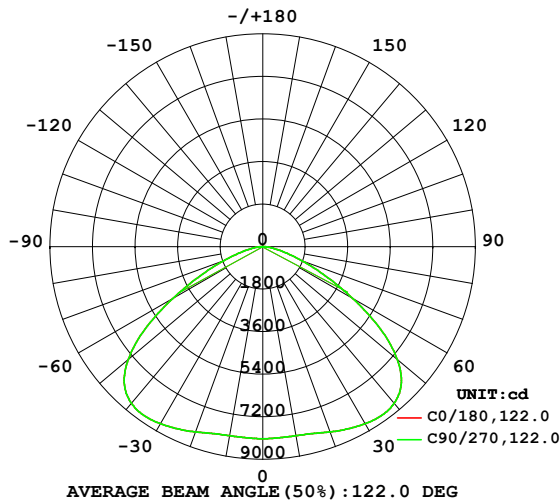
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

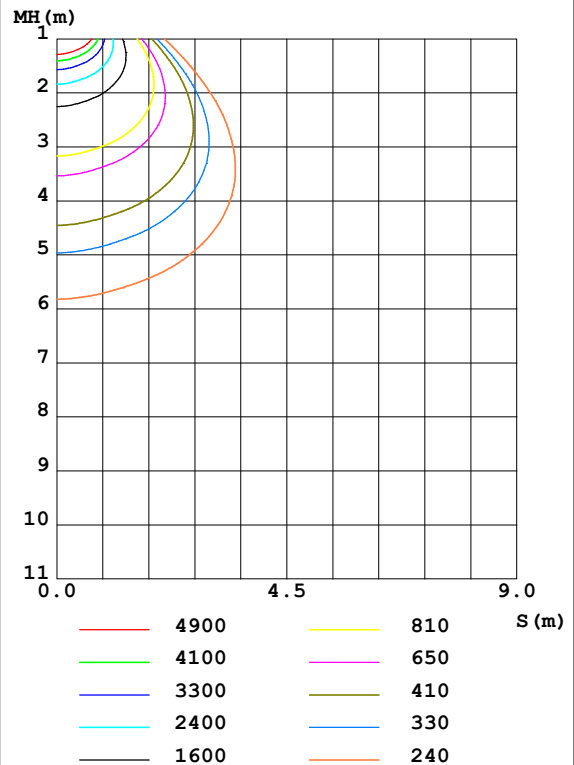
Test:U:229.8V I:0.8657A P:195.93W PF:0.9849 Freq:50.01Hz UTHDi:0.70% ITHDi:5.71% Lamp Flux:28454.2x1 lm		
NAME: HB44-200-5080-H00115	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.23 lm/W			
MODEL	/	I _{max} (cd)	8736	S/MH(C0/180)	1.63
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.63
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	28454	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	28454.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	/	η down(%)	100.0	CIBSE SHR MAX	1.75

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:LYJ
Test Date:2020-05-25

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	8120	8120	8120	8120	8120	8120	8120	8120	0- 10	774.7	774.7	2.72,2.72
20	8341	8341	8341	8341	8341	8341	8341	8341	10- 20	2328	3103	10.9,10.9
30	8652	8652	8652	8652	8652	8652	8652	8652	20- 30	3941	7044	24.8,24.8
40	8652	8652	8652	8652	8652	8652	8652	8652	30- 40	5470	12514	44,44
50	7428	7428	7428	7428	7428	7428	7428	7428	40- 50	6335	18849	66.2,66.2
60	4392	4392	4392	4392	4392	4392	4392	4392	50- 60	5372	24221	85.1,85.1
70	1784	1784	1784	1784	1784	1784	1784	1784	60- 70	2937	27158	95.4,95.4
80	493.4	493.4	493.4	493.4	493.4	493.4	493.4	493.4	70- 80	1099	28257	99.3,99.3
90	1.608	1.608	1.608	1.608	1.608	1.608	1.608	1.608	80- 90	197.1	28454	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): 15659 lm

%lum = 55.0%

%lamp = 55.0%

Conical surface Flux(120deg): 24221 lm

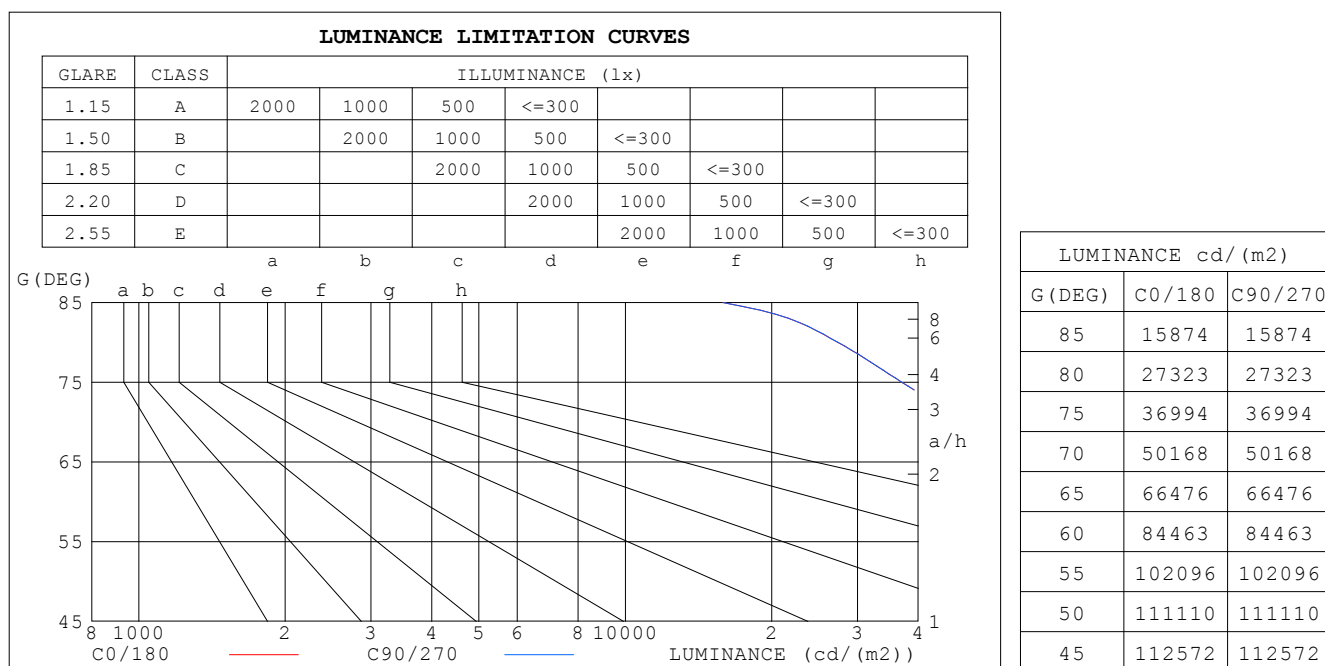
%lum = 85.1%

%lamp = 85.1%

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C Interval: 15.0DEG
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Temperature:25.3DEG
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:

LUMINANCE LIMITATION CURVES



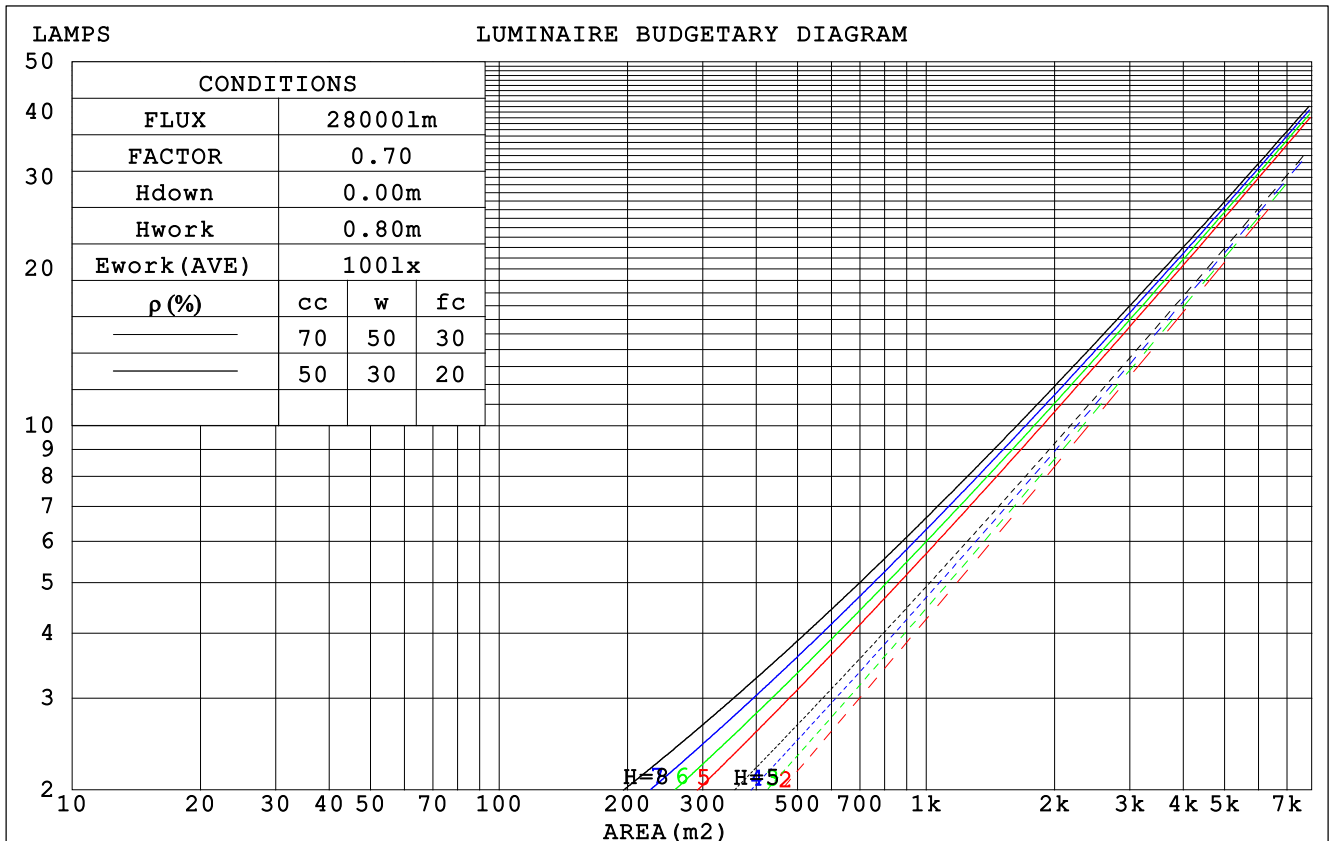
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-05-25

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	1.00
1.0	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.77	.84	.79	.76	.81	.77	.74	.72
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.67	.63	.61
4.0	.72	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.52
5.0	.64	.55	.48	.63	.54	.48	.60	.53	.47	.58	.52	.47	.57	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.41	.54	.47	.41	.53	.46	.41	.51	.45	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.41	.36	.48	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.31	.30
9.0	.43	.34	.29	.42	.34	.29	.41	.33	.28	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.26	.37	.30	.25	.36	.30	.25	.24



C Range: 0 - 360DEG
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Test Date:2020-05-25

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	.284	.161	.051	.276	.158	.050	.263	.151	.048	.251	.145	.047	.240	.139	.045															
2.0	.275	.151	.046	.269	.148	.046	.257	.143	.044	.247	.138	.043	.237	.134	.042															
3.0	.260	.138	.041	.254	.136	.041	.244	.132	.040	.235	.129	.039	.226	.125	.039															
4.0	.243	.126	.037	.238	.125	.037	.229	.122	.036	.221	.119	.036	.213	.116	.035															
5.0	.227	.116	.033	.223	.114	.033	.215	.112	.033	.207	.109	.032	.200	.107	.032															
6.0	.212	.106	.030	.208	.105	.030	.201	.103	.030	.194	.101	.030	.188	.099	.029															
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.177	.092	.027															
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.172	.087	.025	.166	.085	.025															
9.0	.175	.085	.024	.172	.084	.024	.167	.082	.023	.162	.081	.023	.157	.080	.023															
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.149	.075	.021															

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	.178	.156	.136	.153	.134	.117	.104	.092	.081	.060	.053	.047	.019	.017	.015		
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.012		
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009		
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007		
5.0	.148	.090	.048	.127	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.003		
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.118	.060	.022	.101	.052	.019	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-05-25

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	28.3	29.9	28.7	30.2	30.5	28.3	29.9	28.7	30.2	30.5
3H	29.1	30.6	29.5	30.9	31.3	29.1	30.6	29.5	30.9	31.3
4H	29.3	30.7	29.7	31.0	31.4	29.3	30.7	29.7	31.0	31.4
6H	29.4	30.7	29.8	31.0	31.4	29.4	30.7	29.8	31.0	31.4
8H	29.4	30.6	29.8	31.0	31.4	29.4	30.6	29.8	31.0	31.4
12H	29.4	30.6	29.8	31.0	31.4	29.4	30.6	29.8	31.0	31.4
4H 2H	28.6	30.0	29.0	30.3	30.7	28.6	30.0	29.0	30.3	30.7
3H	29.6	30.7	30.0	31.1	31.5	29.6	30.7	30.0	31.1	31.5
4H	29.9	30.9	30.3	31.3	31.7	29.9	30.9	30.3	31.3	31.7
6H	30.0	30.9	30.5	31.4	31.8	30.0	30.9	30.5	31.4	31.8
8H	30.1	30.9	30.5	31.3	31.8	30.1	30.9	30.5	31.3	31.8
12H	30.1	30.8	30.5	31.3	31.7	30.1	30.8	30.5	31.3	31.7
8H 4H	29.9	30.8	30.4	31.2	31.7	29.9	30.8	30.4	31.2	31.7
6H	30.1	30.8	30.6	31.3	31.8	30.1	30.8	30.6	31.3	31.8
8H	30.2	30.8	30.7	31.3	31.8	30.2	30.8	30.7	31.3	31.8
12H	30.2	30.8	30.7	31.2	31.8	30.2	30.8	30.7	31.2	31.8
12H 4H	29.9	30.7	30.4	31.1	31.6	29.9	30.7	30.4	31.1	31.6
6H	30.1	30.8	30.7	31.2	31.8	30.1	30.8	30.7	31.2	31.8
8H	30.2	30.7	30.7	31.2	31.8	30.2	30.7	30.7	31.2	31.8
CIE190: 2010										

CIE190: 2010
Area: 0.104 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-05-25

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

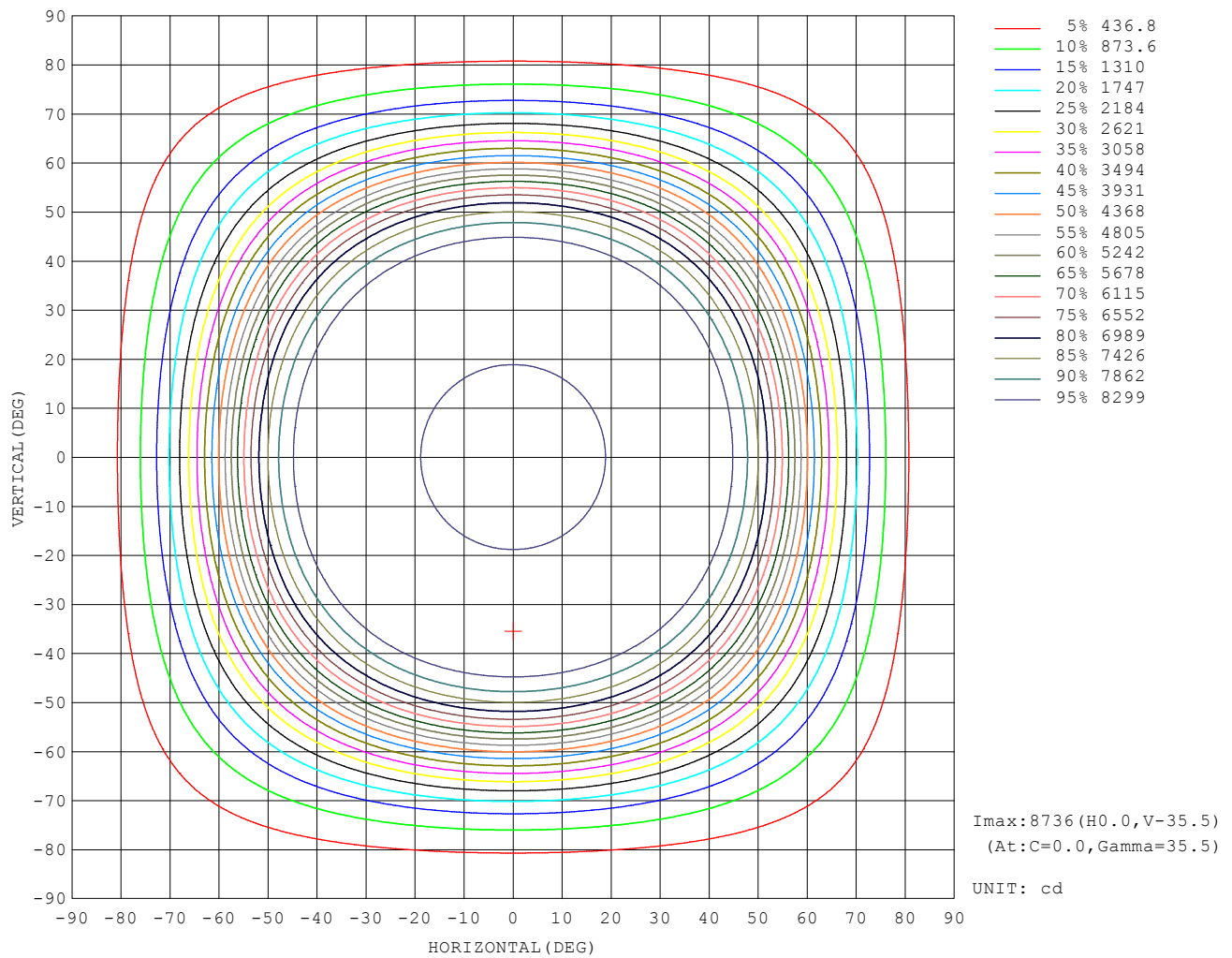
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	44	37	30
0.80	67	56	48	66	55	48	64	54	48	41
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	95	87	82	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	93	89	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 C Interval: 15.0DEG
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 Operators: LYJ
 Test Date: 2020-05-25

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

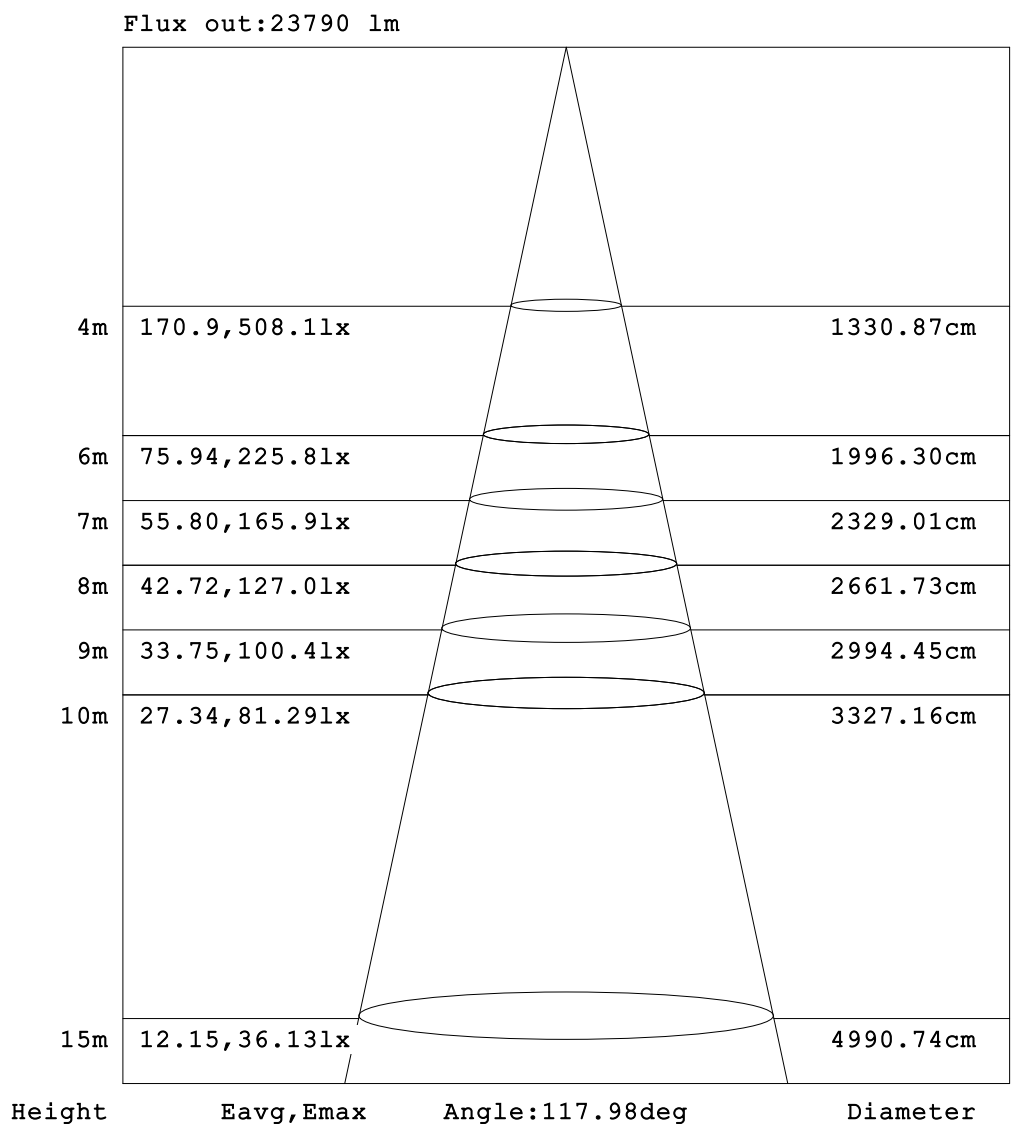
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-05-25

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:

AAI Figure



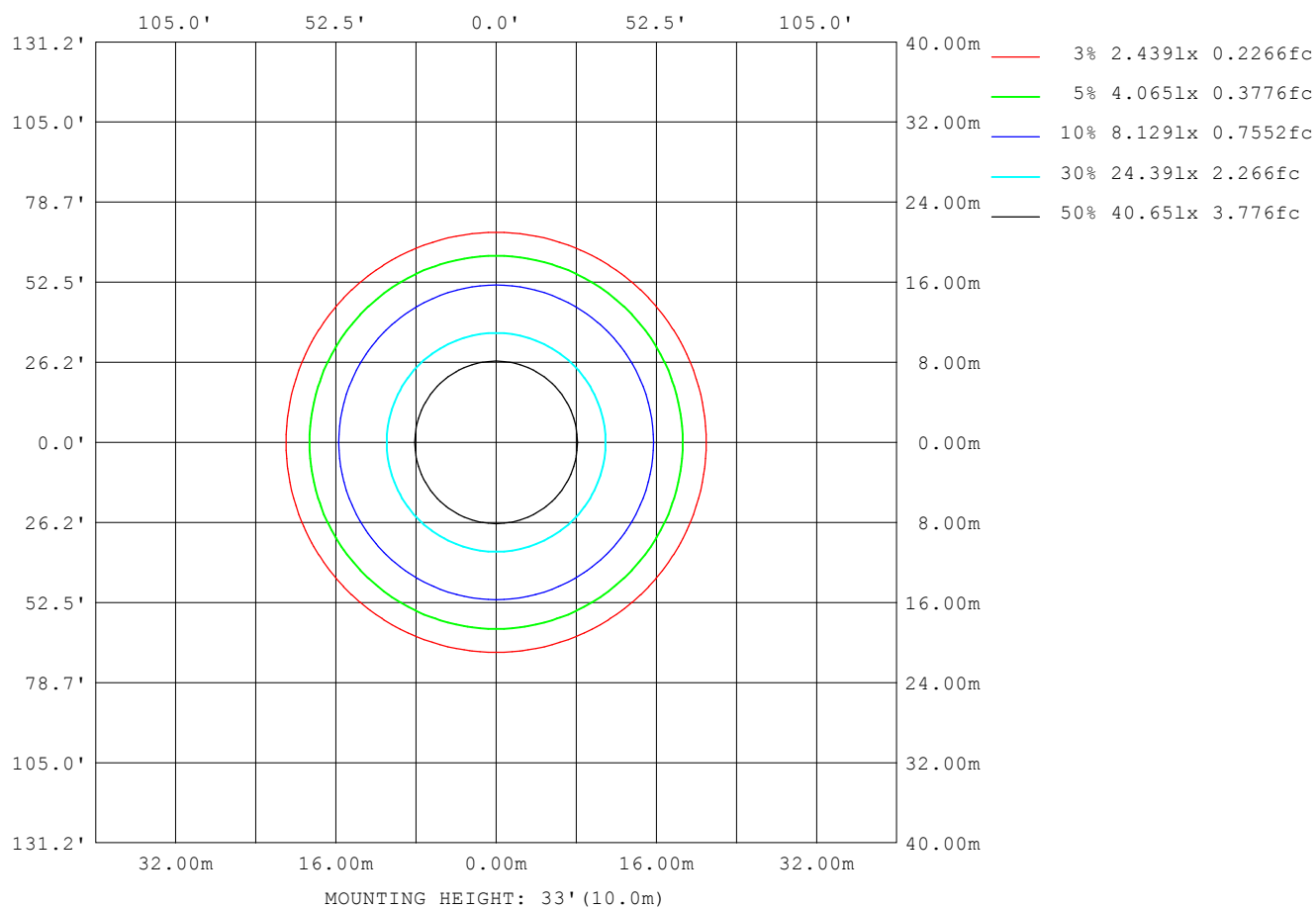
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
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γ Range: 0 - 90DEG
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Humidity:65.0%
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

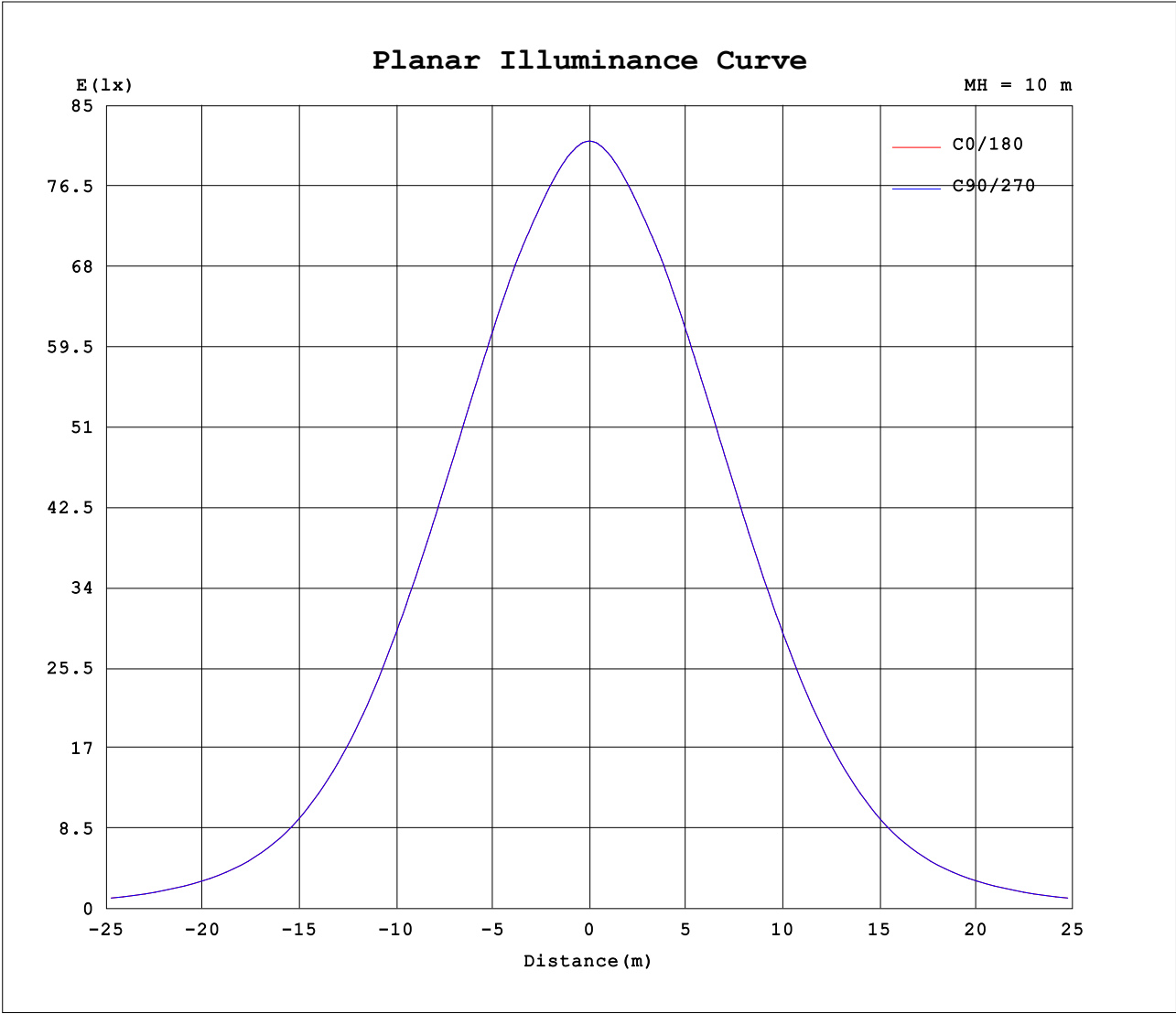
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-05-25

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



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-05-25

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: