

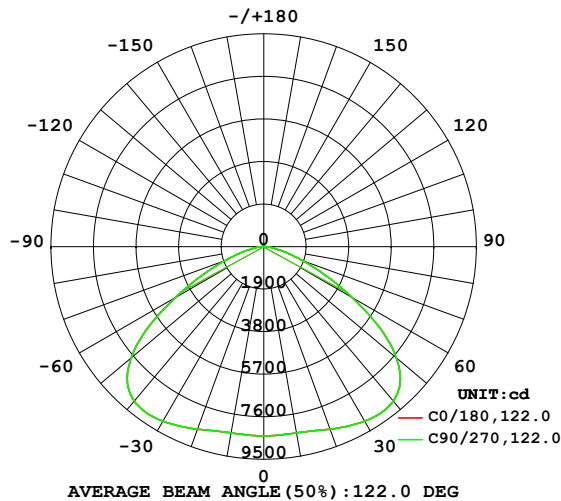
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

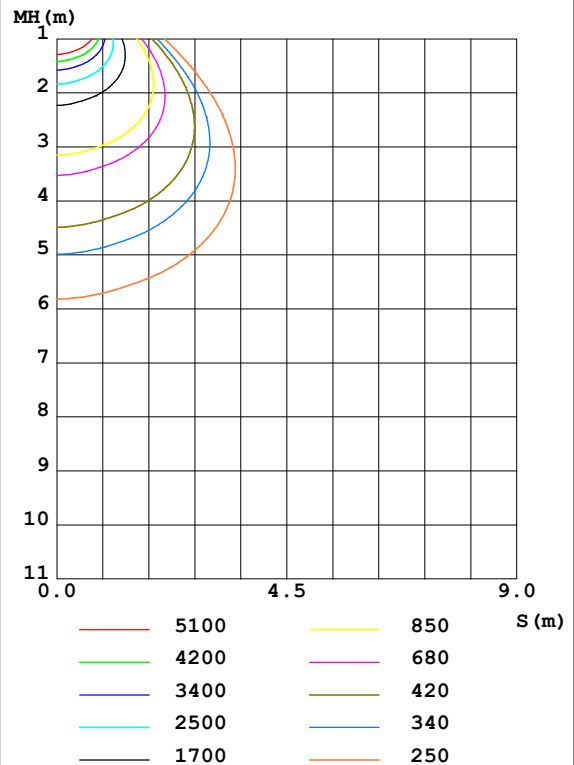
Test:U:229.8V I:0.8249A P:186.53W PF:0.9841 Freq:50.01Hz UTHDi:0.70% ITHDi:5.71%		
Lamp Flux:29600.5x1 lm		
NAME: HB44-200-3080+5080-H00115	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 158.69 lm/W			
MODEL	/	I _{max} (cd)	9088	S/MH(C0/180)	1.63
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.63
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	29600	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	29600.5	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	8447	8447	8447	8447	8447	8447	8447	8447	0- 10	805.9	805.9	2.72,2.72
20	8677	8677	8677	8677	8677	8677	8677	8677	10- 20	2422	3228	10.9,10.9
30	9000	9000	9000	9000	9000	9000	9000	9000	20- 30	4099	7327	24.8,24.8
40	9001	9001	9001	9001	9001	9001	9001	9001	30- 40	5691	13018	44,44
50	7727	7727	7727	7727	7727	7727	7727	7727	40- 50	6590	19608	66.2,66.2
60	4569	4569	4569	4569	4569	4569	4569	4569	50- 60	5588	25196	85.1,85.1
70	1856	1856	1856	1856	1856	1856	1856	1856	60- 70	3055	28252	95.4,95.4
80	513.3	513.3	513.3	513.3	513.3	513.3	513.3	513.3	70- 80	1144	29395	99.3,99.3
90	1.672	1.672	1.672	1.672	1.672	1.672	1.672	1.672	80- 90	205.1	29600	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): 16290 lm

%lum = 55.0%

%lamp = 55.0%

Conical surface Flux(120deg): 25196 lm

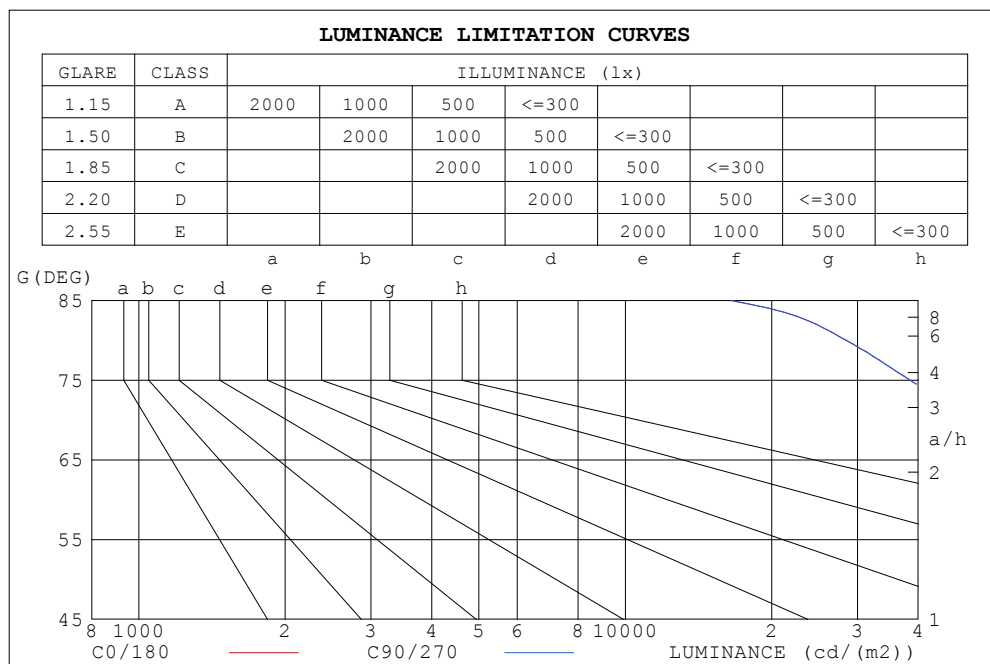
%lum = 85.1%

%lamp = 85.1%

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γ Range: 0 - 90DEG
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Humidity:65.0%
Test Distance:26.000m [K=0.4589]
Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	16513	16513
80	28424	28424
75	38484	38484
70	52189	52189
65	69154	69154
60	87866	87866
55	106209	106209
50	115586	115586
45	117107	117107

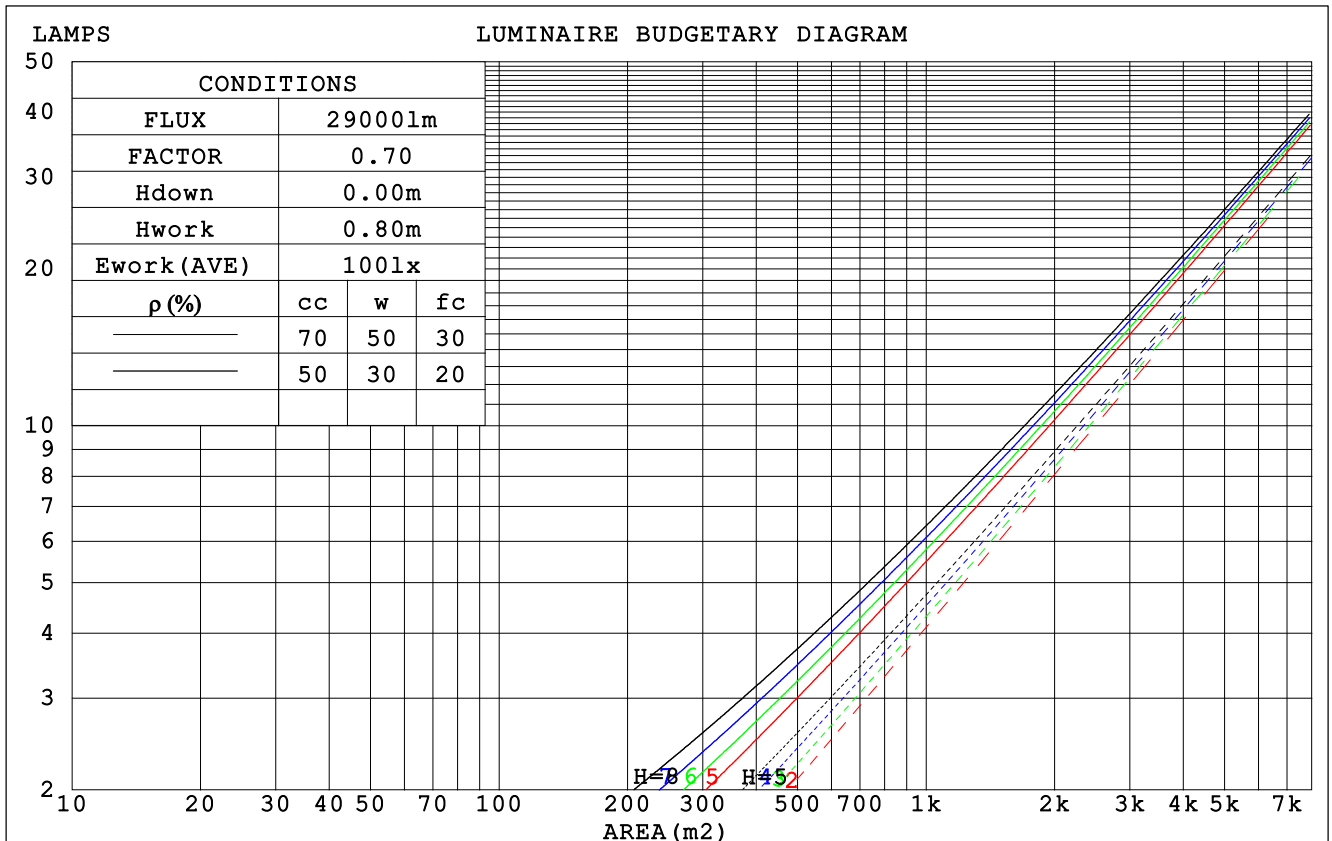
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Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-05-25

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 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
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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	1.05	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



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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

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	28.4	30.1	28.8	30.4	30.7	28.4	30.1	28.8	30.4	30.7
3H	29.2	30.7	29.6	31.0	31.4	29.2	30.7	29.6	31.0	31.4
4H	29.4	30.8	29.8	31.2	31.5	29.4	30.8	29.8	31.2	31.5
6H	29.5	30.8	30.0	31.2	31.6	29.5	30.8	30.0	31.2	31.6
8H	29.6	30.8	30.0	31.2	31.6	29.6	30.8	30.0	31.2	31.6
12H	29.6	30.7	30.0	31.1	31.5	29.6	30.7	30.0	31.1	31.5
4H 2H	28.8	30.1	29.2	30.5	30.9	28.8	30.1	29.2	30.5	30.9
3H	29.7	30.9	30.1	31.3	31.7	29.7	30.9	30.1	31.3	31.7
4H	30.0	31.0	30.4	31.4	31.9	30.0	31.0	30.4	31.4	31.9
6H	30.2	31.0	30.6	31.5	31.9	30.2	31.0	30.6	31.5	31.9
8H	30.2	31.0	30.7	31.5	31.9	30.2	31.0	30.7	31.5	31.9
12H	30.2	30.9	30.7	31.4	31.9	30.2	30.9	30.7	31.4	31.9
8H 4H	30.1	30.9	30.5	31.3	31.8	30.1	30.9	30.5	31.3	31.8
6H	30.3	31.0	30.8	31.5	31.9	30.3	31.0	30.8	31.5	31.9
8H	30.3	30.9	30.8	31.4	31.9	30.3	30.9	30.8	31.4	31.9
12H	30.4	30.9	30.9	31.4	31.9	30.4	30.9	30.9	31.4	31.9
12H 4H	30.1	30.8	30.5	31.3	31.8	30.1	30.8	30.5	31.3	31.8
6H	30.3	30.9	30.8	31.4	31.9	30.3	30.9	30.8	31.4	31.9
8H	30.3	30.9	30.8	31.4	31.9	30.3	30.9	30.8	31.4	31.9
CIE190: 2010										

CIE190: 2010
Area: 0.104 m2

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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]
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

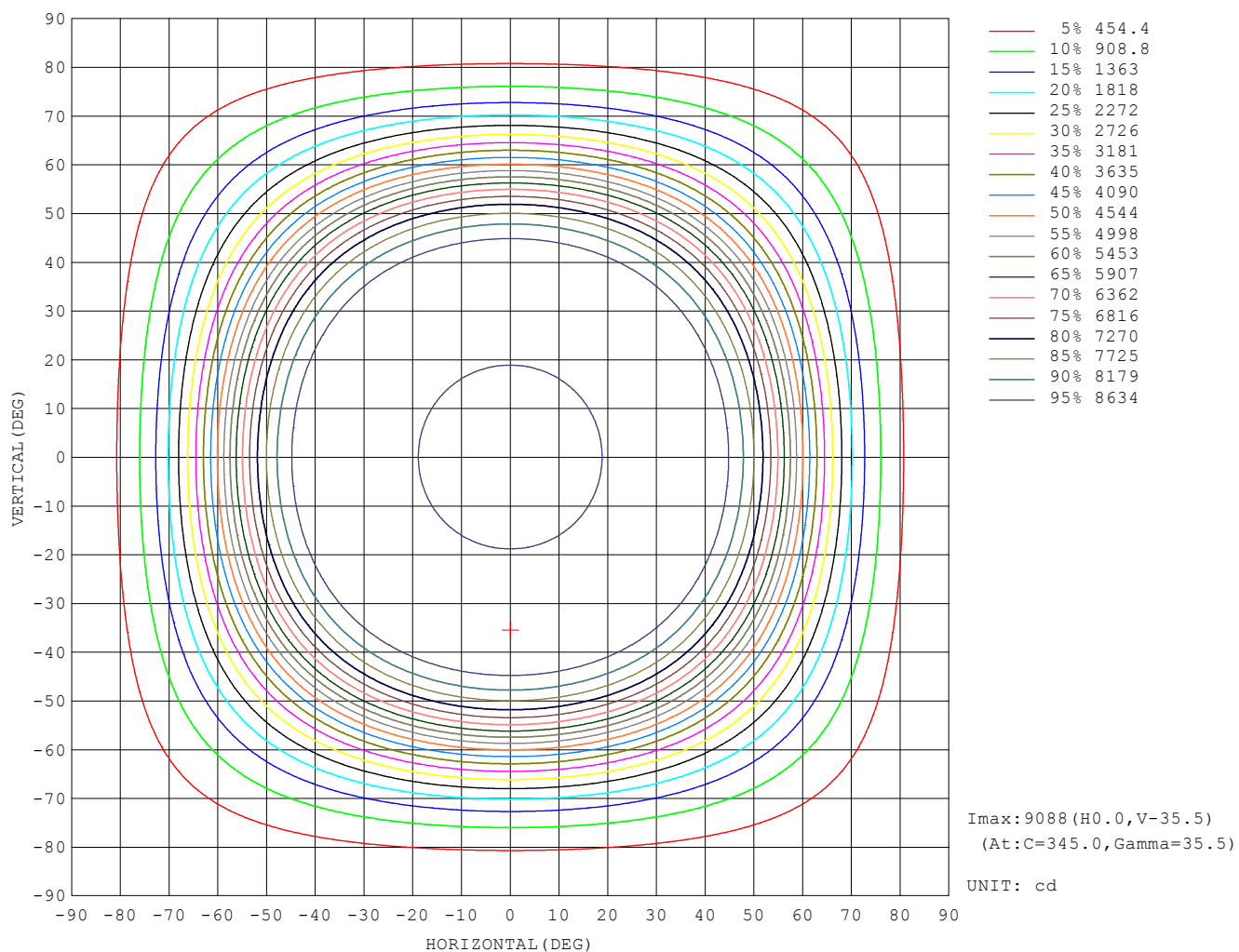
UTILIZATION FACTORS TABLE

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		

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

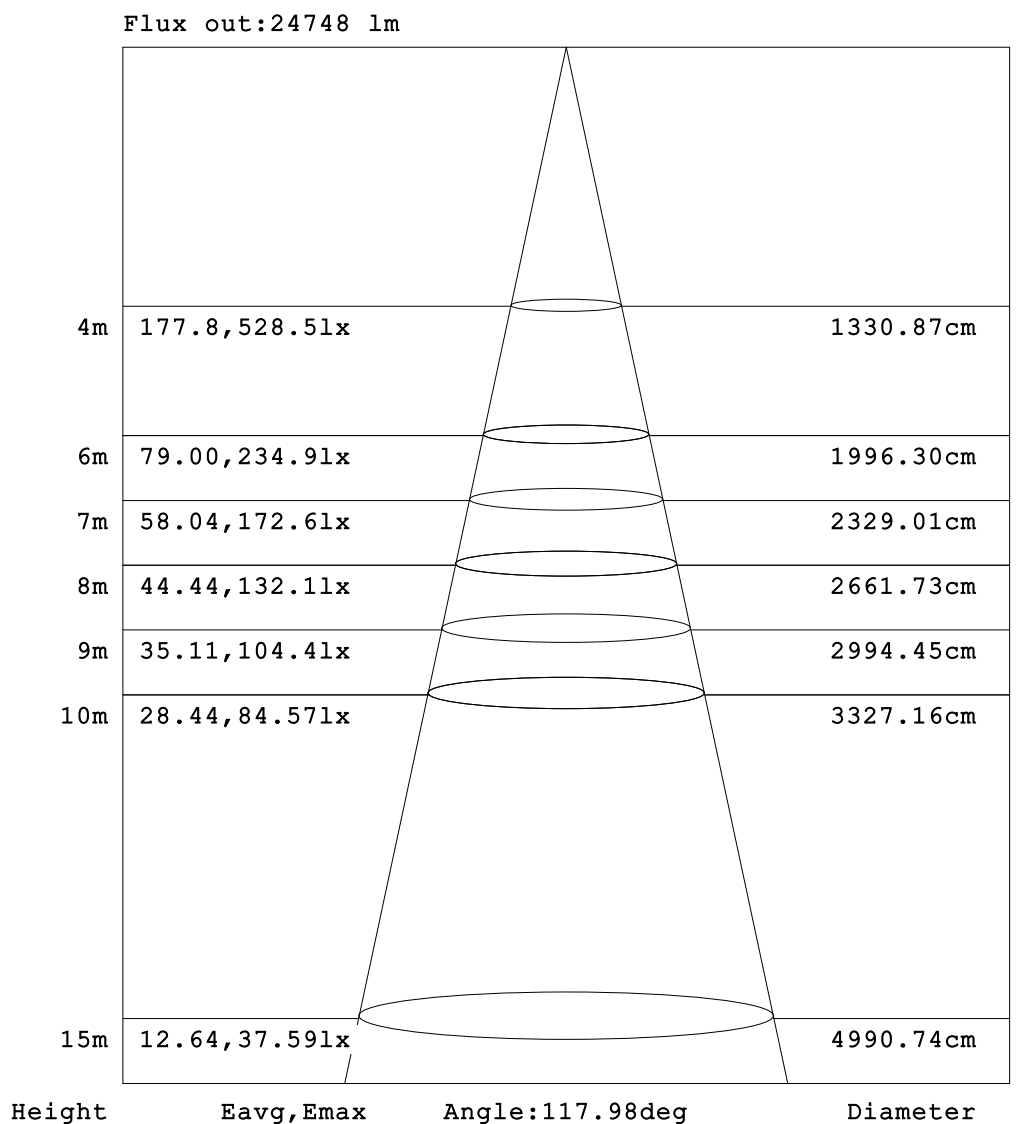
ISOCANDELA DIAGRAM



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
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Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.426
Humidity: 65.0%
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Remarks:

AAI Figure



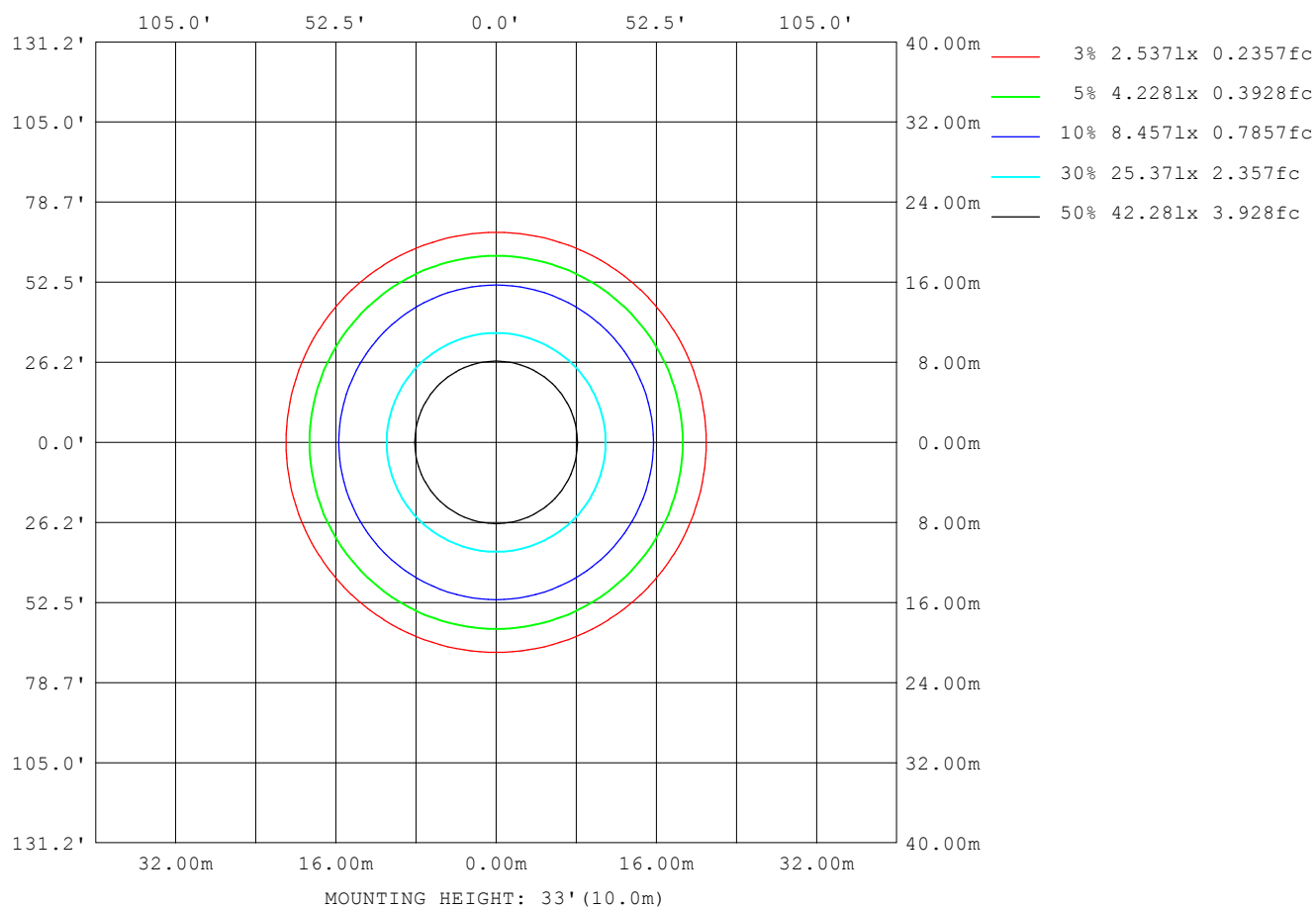
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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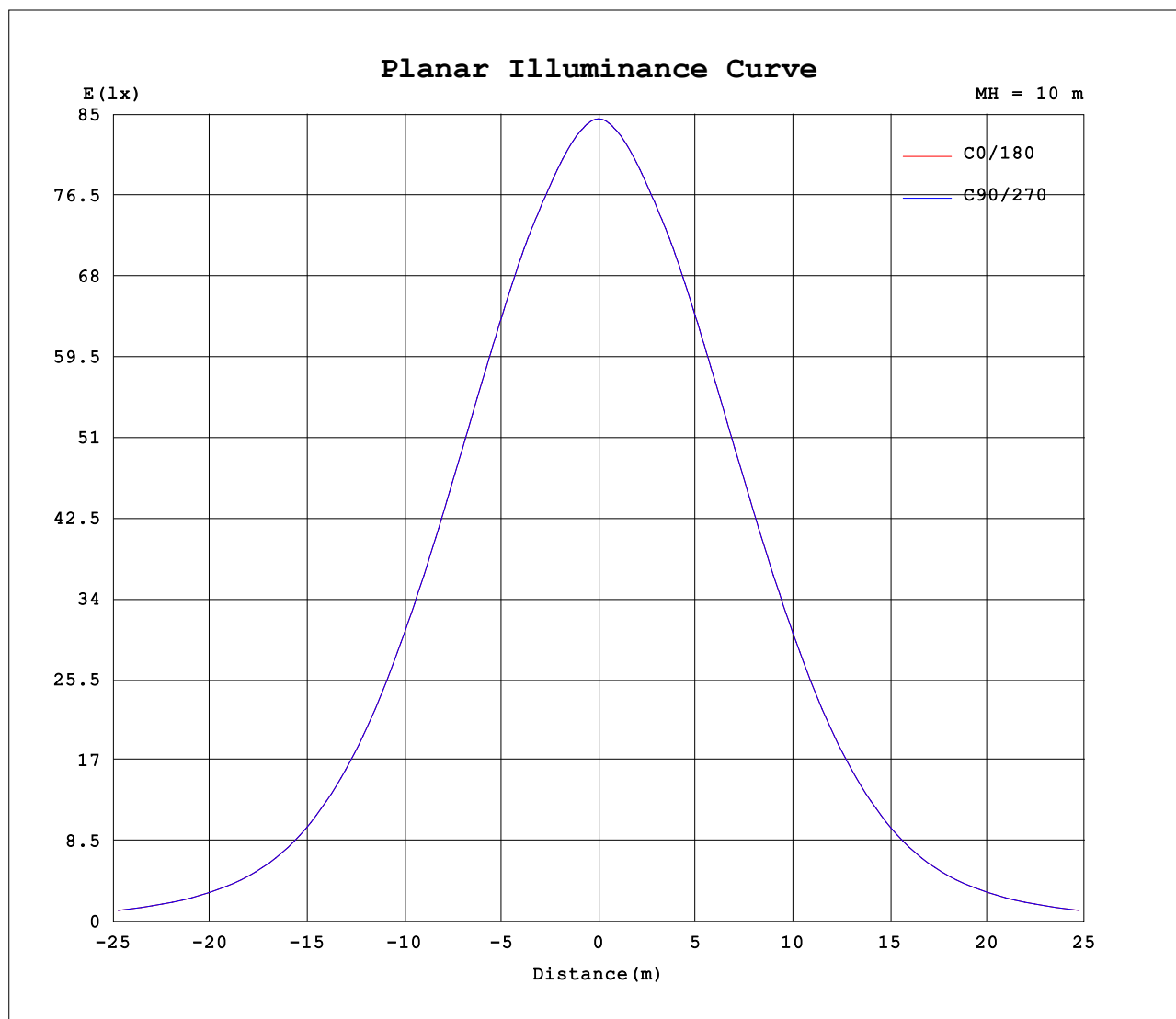
ISOLUX DIAGRAM



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

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
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Test Distance: 26.000m [K=0.4589]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
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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: