

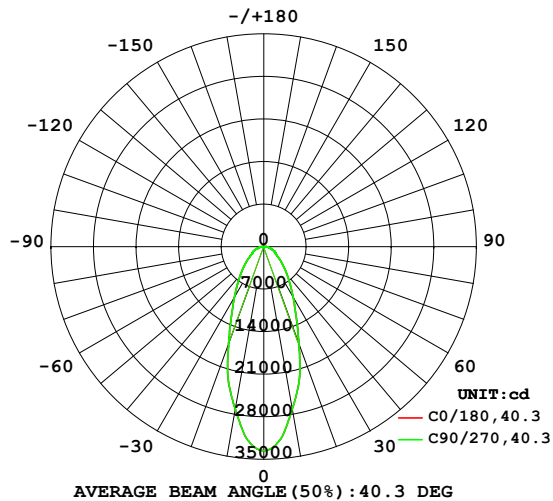
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

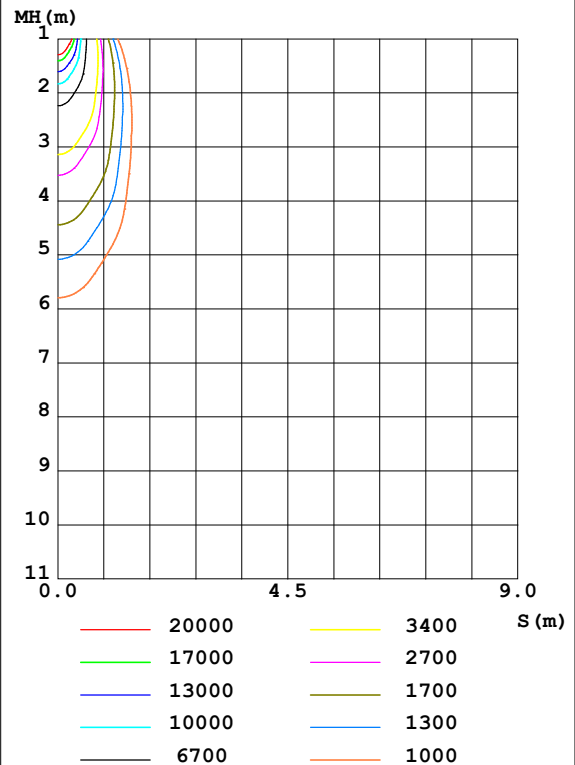
Test:U:229.8V I:0.8252A P:186.60W PF:0.9840 Freq:50.00Hz Lamp Flux:29224.3x1 lm		
NAME: HB44-200-3080+5080-H00121	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.62 lm/W			
MODEL	/	I _{max} (cd)	33555	S/MH(C0/180)	0.64
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	0.64
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	29224	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	29224.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	/	η down(%)	100.0	CIBSE SHR MAX	0.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 2.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LYJ
Test Date:2020-07-25

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:9.470m [K=1.0000]
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	2712	2712	2712	2712	2712	2712	2712	2712	0- 10	2875	2875	9.84,9.84
20	1694	1694	1694	1694	1694	1694	1694	1694	10- 20	6180	9055	31,31
30	970.9	970.9	970.9	970.9	970.9	970.9	970.9	970.9	20- 30	5853	14908	51,51
40	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	30- 40	4738	19647	67.2,67.2
50	358.5	358.5	358.5	358.5	358.5	358.5	358.5	358.5	40- 50	3586	23233	79.5,79.5
60	221.8	221.8	221.8	221.8	221.8	221.8	221.8	221.8	50- 60	2498	25731	88,88
70	149.3	149.3	149.3	149.3	149.3	149.3	149.3	149.3	60- 70	1891	27622	94.5,94.5
80	74.63	74.63	74.63	74.63	74.63	74.63	74.63	74.63	70- 80	1157	28779	98.5,98.5
90	4.246	4.246	4.246	4.246	4.246	4.246	4.246	4.246	80- 90	445.3	29224	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): 21584 lm

%lum = 73.9%

%lamp = 73.9%

Conical surface Flux(120deg): 25731 lm

%lum = 88.0%

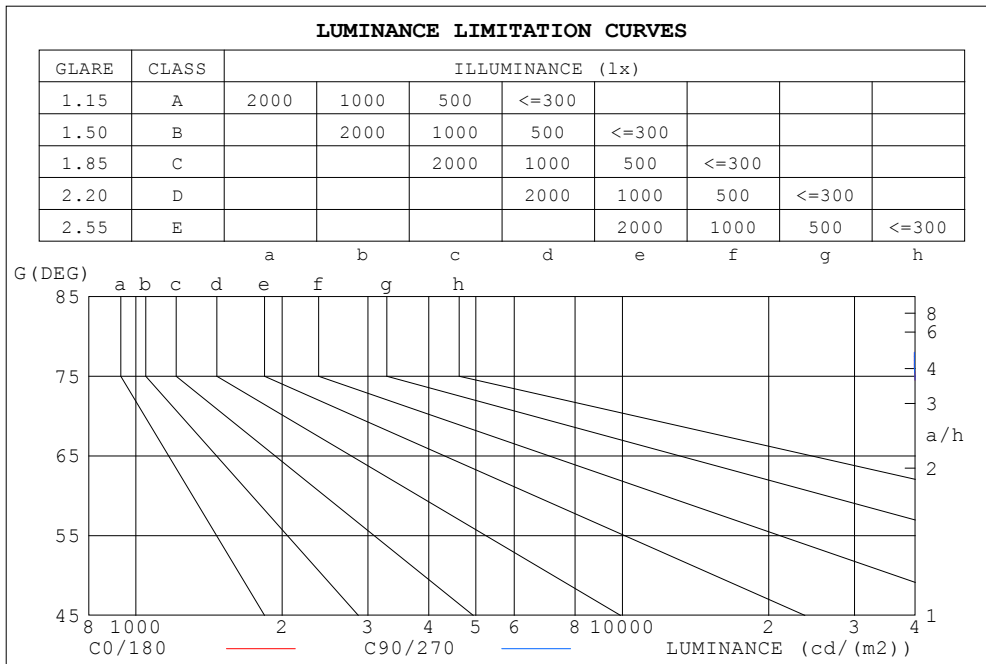
%lamp = 88.0%

C Range: 0 - 360DEG
C Interval: 2.5DEG
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Temperature:25.3DEG
Operators:LYJ
Test Date:2020-07-25

γ Range: 0 - 90DEG
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES



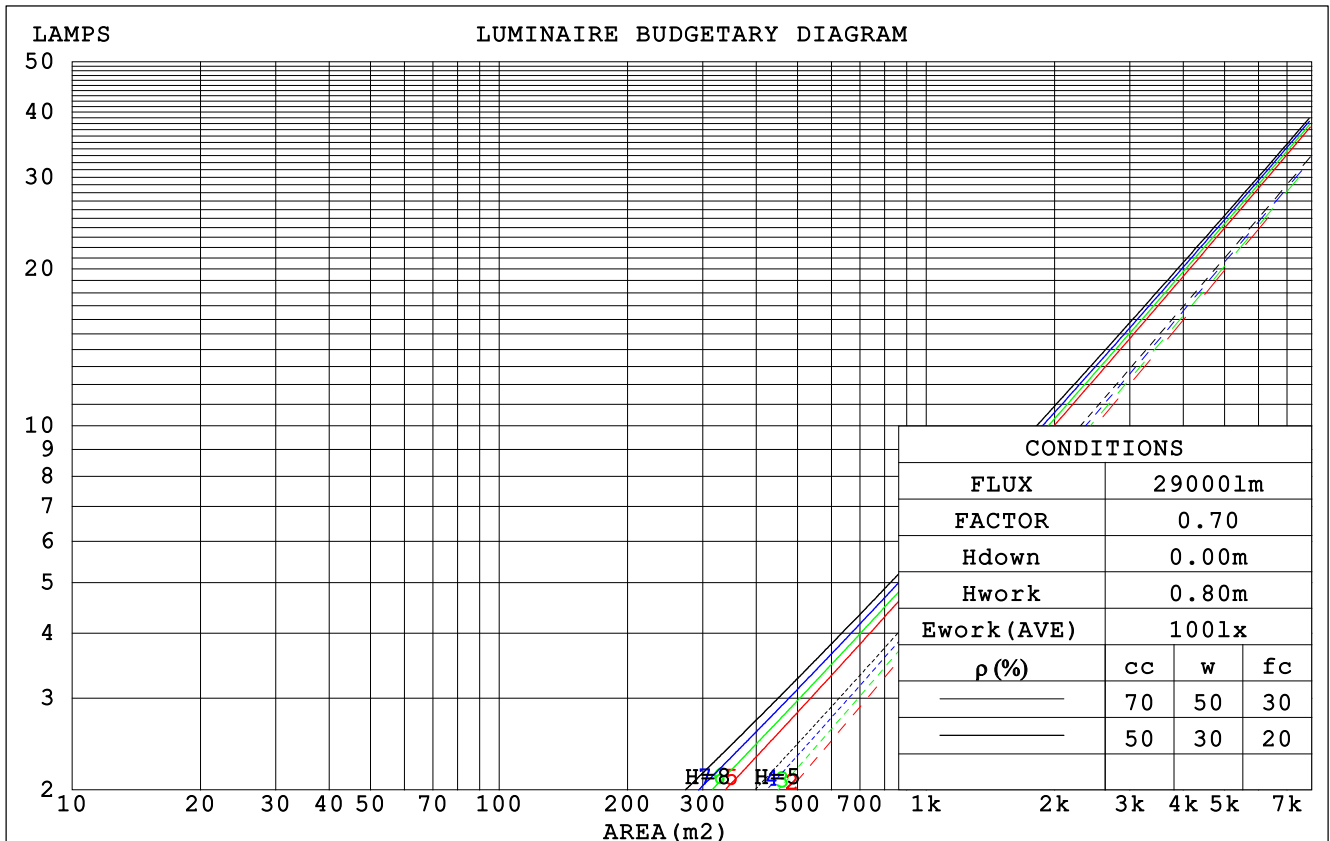
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 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LYJ
 Test Date: 2020-07-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.470m [K=1.0000]
 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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.97	.91	.87	.95	.90	.86	.91	.87	.84	.88	.85	.82	.85	.83	.80	.78
3.0	.88	.81	.76	.86	.80	.75	.84	.78	.74	.81	.77	.73	.79	.75	.72	.70
4.0	.80	.73	.68	.79	.73	.67	.77	.71	.67	.75	.70	.66	.73	.68	.65	.63
5.0	.74	.67	.61	.73	.66	.61	.71	.65	.60	.69	.64	.60	.68	.63	.59	.58
6.0	.69	.61	.56	.68	.61	.56	.66	.60	.55	.65	.59	.55	.63	.58	.55	.53
7.0	.64	.57	.52	.63	.56	.51	.62	.56	.51	.60	.55	.51	.59	.54	.50	.49
8.0	.60	.53	.48	.59	.52	.48	.58	.52	.47	.57	.51	.47	.56	.51	.47	.45
9.0	.56	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.53	.48	.44	.42
10.0	.53	.46	.42	.52	.46	.42	.51	.45	.41	.51	.45	.41	.50	.45	.41	.40



C Range: 0 - 360DEG
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.470m [K=1.0000]
 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	.248	.141	.045	.241	.137	.044	.228	.131	.042	.216	.125	.040	.205	.119	.038	
2.0	.232	.127	.039	.226	.124	.038	.215	.119	.037	.204	.115	.036	.195	.110	.035	
3.0	.215	.115	.034	.210	.113	.034	.200	.109	.033	.191	.105	.032	.183	.101	.031	
4.0	.200	.104	.031	.196	.102	.030	.187	.099	.030	.179	.096	.029	.172	.093	.028	
5.0	.187	.095	.028	.183	.094	.027	.175	.091	.027	.168	.089	.026	.162	.086	.026	
6.0	.174	.087	.025	.171	.086	.025	.164	.084	.025	.158	.082	.024	.153	.080	.024	
7.0	.164	.081	.023	.161	.080	.023	.155	.078	.023	.149	.077	.022	.144	.075	.022	
8.0	.154	.075	.021	.151	.075	.021	.146	.073	.021	.141	.072	.021	.137	.070	.020	
9.0	.146	.070	.020	.143	.070	.020	.139	.068	.019	.134	.067	.019	.130	.066	.019	
10.0	.138	.066	.018	.136	.066	.018	.131	.064	.018	.128	.063	.018	.124	.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	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.105	.141	.114	.091	.096	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.145	.100	.066	.124	.086	.057	.085	.060	.040	.049	.035	.024	.016	.011	.008	
5.0	.136	.089	.054	.117	.077	.047	.081	.054	.033	.047	.032	.020	.015	.010	.006	
6.0	.129	.080	.045	.111	.069	.039	.076	.048	.028	.044	.029	.016	.014	.009	.005	
7.0	.122	.073	.038	.105	.063	.033	.073	.044	.023	.042	.026	.014	.014	.009	.005	
8.0	.116	.067	.033	.100	.058	.029	.069	.041	.020	.040	.024	.012	.013	.008	.004	
9.0	.110	.061	.029	.095	.053	.025	.066	.038	.018	.038	.022	.011	.012	.007	.003	
10.0	.105	.057	.025	.091	.050	.022	.063	.035	.016	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 2.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LYJ
 Test Date:2020-07-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:9.470m [K=1.0000]
 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	23.2	24.5	23.5	24.8	25.1	23.2	24.5	23.5	24.8	25.1
3H	25.2	26.4	25.6	26.7	27.1	25.2	26.4	25.6	26.7	27.1
4H	26.0	27.1	26.4	27.4	27.8	26.0	27.1	26.4	27.4	27.8
6H	26.6	27.6	27.0	28.0	28.4	26.6	27.6	27.0	28.0	28.4
8H	26.9	27.9	27.3	28.3	28.7	26.9	27.9	27.3	28.3	28.7
12H	27.1	28.1	27.5	28.4	28.9	27.1	28.1	27.5	28.4	28.9
4H 2H	23.9	25.0	24.3	25.4	25.7	23.9	25.0	24.3	25.4	25.7
3H	26.1	27.0	26.5	27.4	27.8	26.1	27.0	26.5	27.4	27.8
4H	27.0	27.8	27.4	28.2	28.7	27.0	27.8	27.4	28.2	28.7
6H	27.8	28.5	28.2	28.9	29.4	27.8	28.5	28.2	28.9	29.4
8H	28.1	28.8	28.6	29.2	29.7	28.1	28.8	28.6	29.2	29.7
12H	28.4	29.0	28.9	29.5	30.0	28.4	29.0	28.9	29.5	30.0
8H 4H	27.3	28.0	27.8	28.4	28.9	27.3	28.0	27.8	28.4	28.9
6H	28.3	28.8	28.8	29.3	29.8	28.3	28.8	28.8	29.3	29.8
8H	28.7	29.2	29.2	29.7	30.2	28.7	29.2	29.2	29.7	30.2
12H	29.1	29.6	29.6	30.1	30.6	29.1	29.6	29.6	30.1	30.6
12H 4H	27.3	27.9	27.8	28.4	28.9	27.3	27.9	27.8	28.4	28.9
6H	28.3	28.9	28.9	29.3	29.9	28.3	28.9	28.9	29.3	29.9
8H	28.9	29.3	29.4	29.8	30.4	28.9	29.3	29.4	29.8	30.4
CIE190: 2010										

CIE190: 2010
Area: 0.1052 m2

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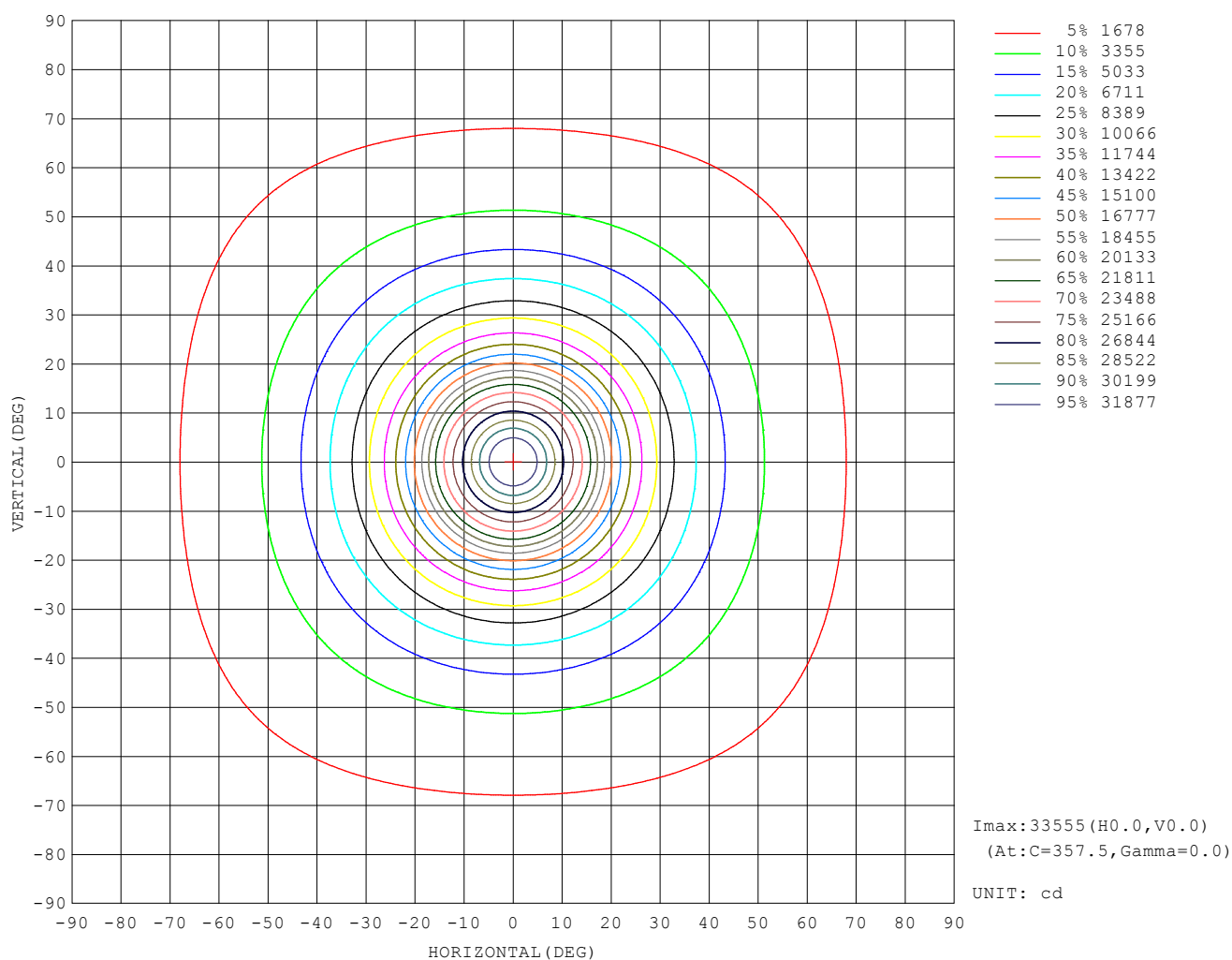
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	71	62	57	71	62	57	70	62	57	51
0.80	80	71	66	79	71	65	78	70	65	60
1.00	87	78	73	86	78	72	84	78	72	66
1.25	92	84	79	91	84	79	89	82	78	72
1.50	96	89	84	95	88	83	92	86	82	76
2.00	101	95	90	100	94	89	96	91	87	81
2.50	104	98	93	102	97	92	99	94	91	83
3.00	107	101	97	105	100	96	101	97	94	86
4.00	110	105	102	107	103	100	103	100	98	89
5.00	111	108	105	109	106	103	105	102	100	92
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
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 Operators: LYJ
 Test Date: 2020-07-25

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 9.470m [K=1.0000]
 Remarks:

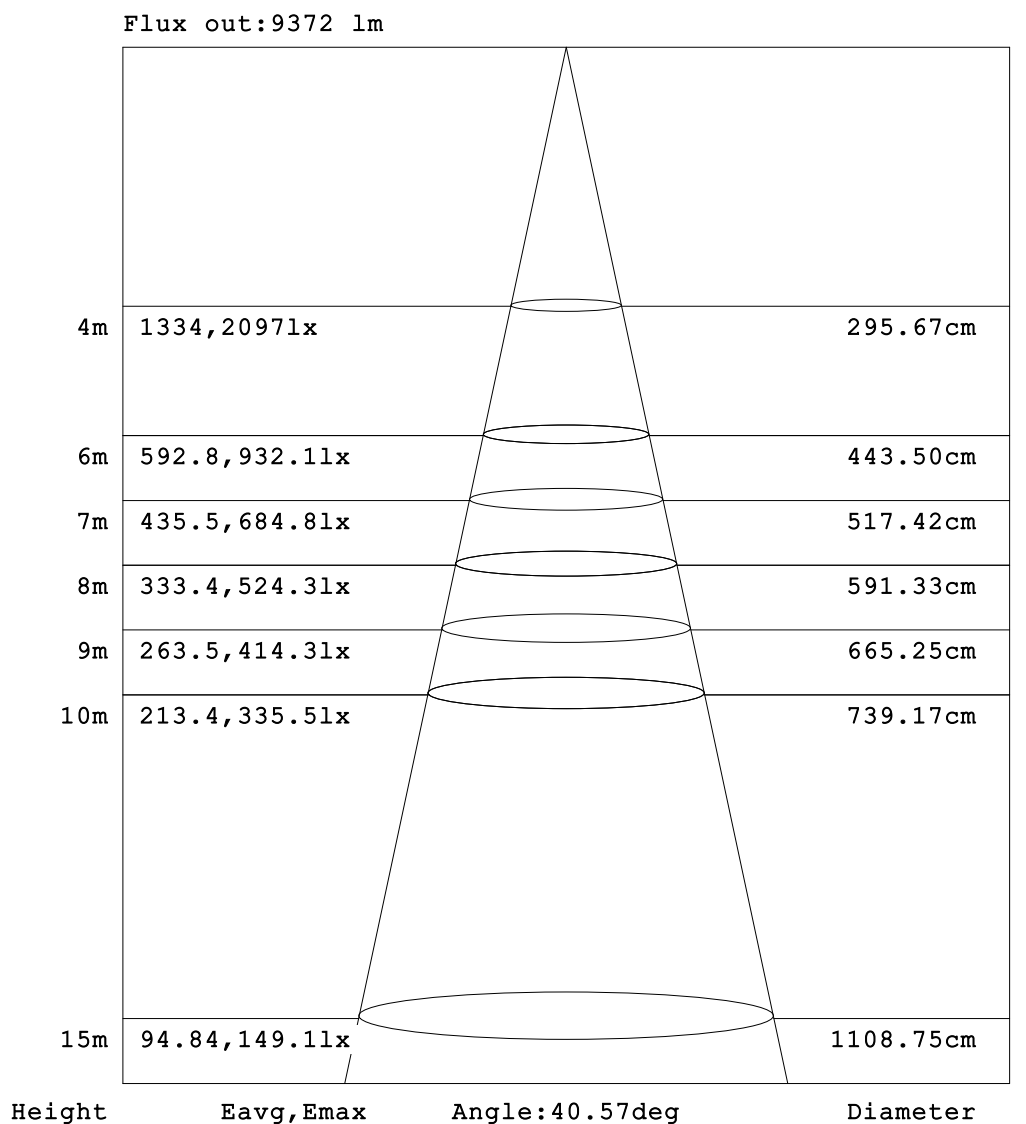
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature: 25.3DEG
Operators: LYJ
Test Date: 2020-07-25

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Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 9.470m [K=1.0000]
Remarks:

AAI Figure



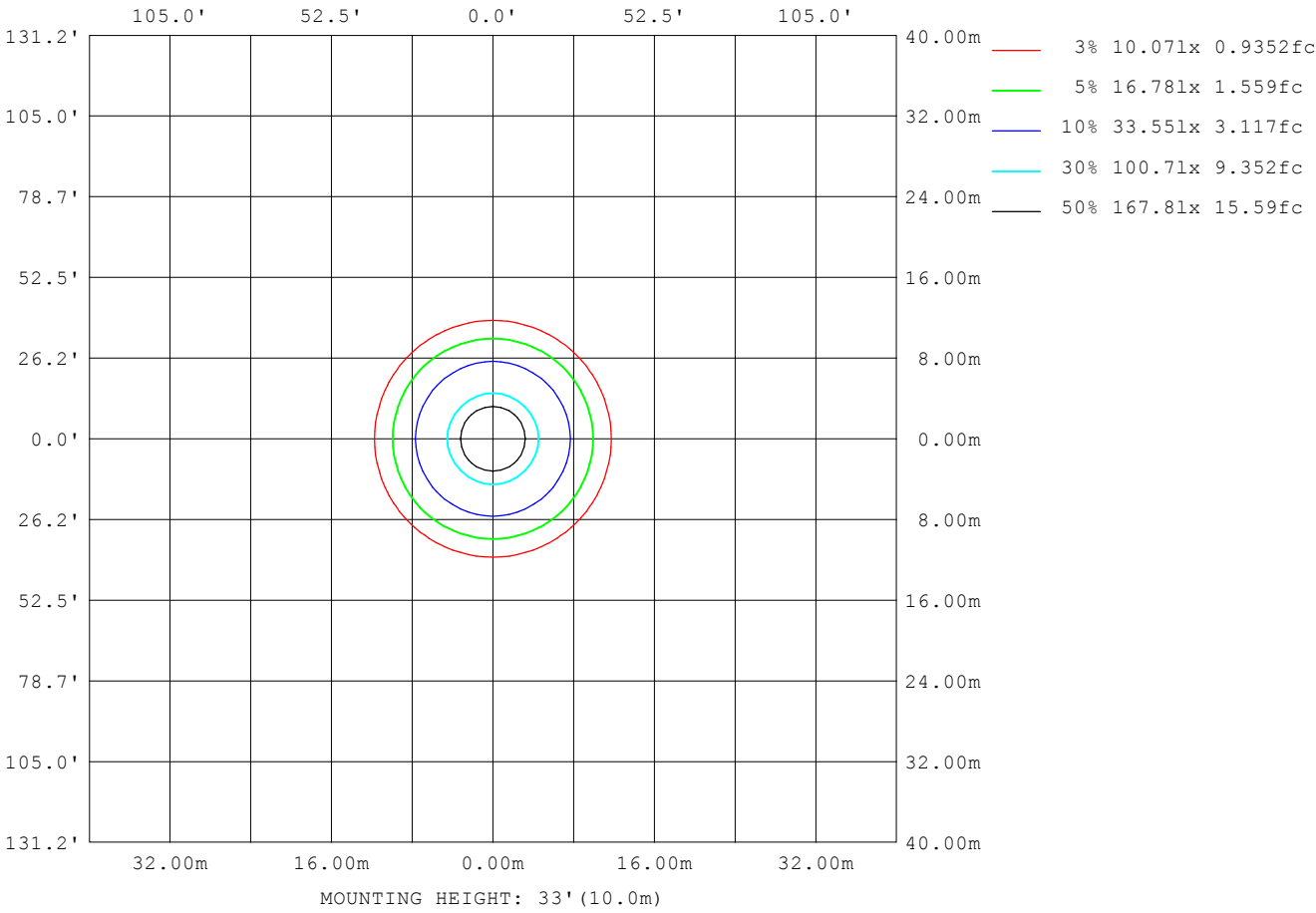
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

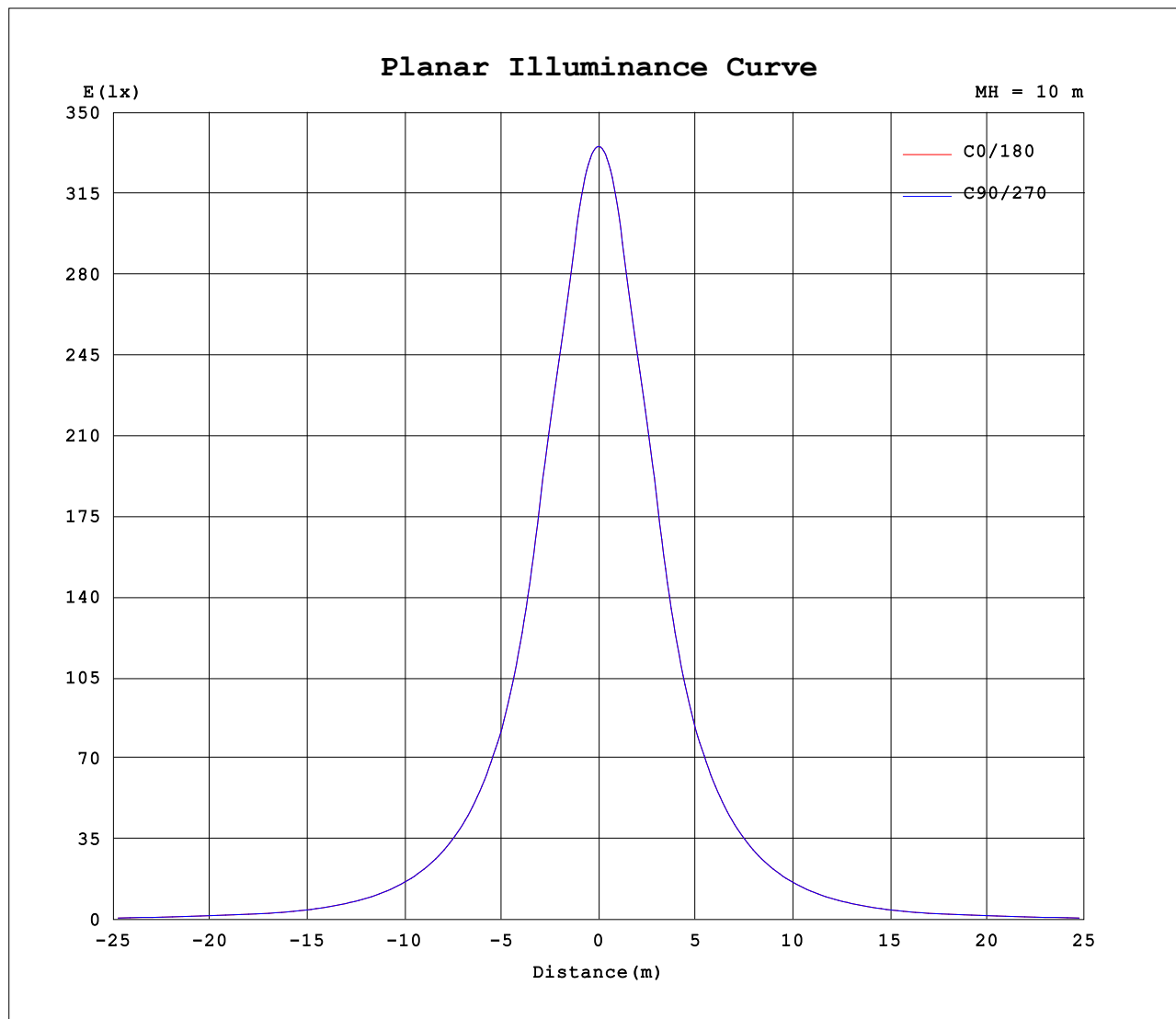
ISOLUX DIAGRAM



C Range: 0 - 360DEG
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Temperature:25.3DEG
Operators:LYJ
Test Date:2020-07-25

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γ Interval: 0.5DEG
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Humidity:65.0%
Test Distance:9.470m [K=1.0000]
Remarks:

Planar Illuminance Curve



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Operators: LYJ
Test Date: 2020-07-25

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Remarks: