

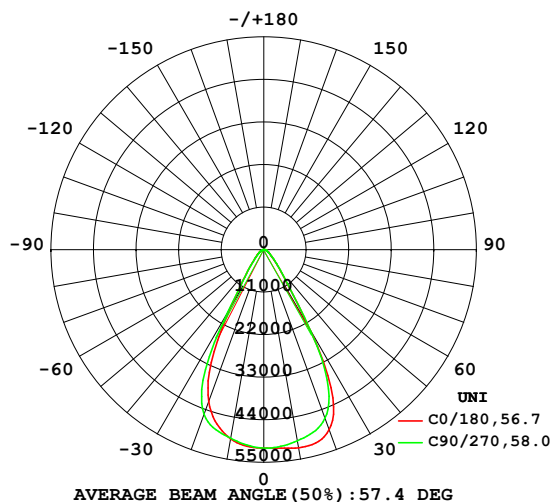
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

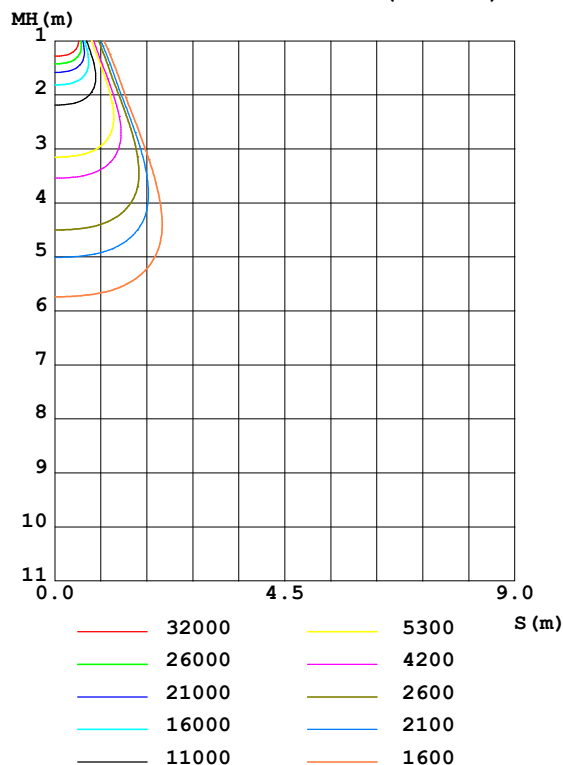
Test:U:229.9V I:1.323A P:299.1W PF:0.9833 Freq:49.99Hz Lamp Flux:47335.3x1 lm		
NAME: FL23-300-5070-F38402	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 158.23 lm/W			
MODEL	-	I _{max} (cd)	52070	S/MH (C0/180)	0.79
NOMINAL POWER(W)	300	LOR(%)	100.0	S/MH (C90/270)	0.81
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	47335	η UP,DN(C0-180)	0.0,52.0
NOMINAL FLUX(lm)	47335.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η down (%)	100.0	CIBSE SHR MAX	0.80

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: WJH
 Test Date: 2020-07-06

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 9.350m [K=1.0000]
 Remarks:

Assessor:

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	5202	5093	5018	5002	4964	4949	4952	5066	0- 10	4851	4851	10.2,10.2
20	4955	4869	4638	4348	4172	4251	4524	4771	10- 20	13700	18550	39.2,39.2
30	2431	2650	2447	2030	1689	1693	1857	2016	20- 30	16362	34913	73.8,73.8
40	607.8	633.8	619.9	568.9	511.9	492.6	510.2	531.6	30- 40	6564	41477	87.6,87.6
50	257.6	260.0	261.7	243.5	228.5	222.0	226.5	234.6	40- 50	2806	44283	93.6,93.6
60	134.9	140.7	133.4	135.1	124.2	123.9	119.2	128.5	50- 60	1587	45869	96.9,96.9
70	68.18	70.44	67.78	68.94	66.65	62.02	60.33	63.77	60- 70	948.3	46818	98.9,98.9
80	22.18	19.90	21.10	20.88	20.95	18.26	19.47	18.26	70- 80	451.0	47269	99.9,99.9
90	0.5976	0.5481	0.5290	0.5789	0.6417	0.7254	0.7596	0.7010	80- 90	66.59	47335	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): 43114 lm

%lum = 91.1%

%lamp = 91.1%

Conical surface Flux(120deg): 45869 lm

%lum = 96.9%

%lamp = 96.9%

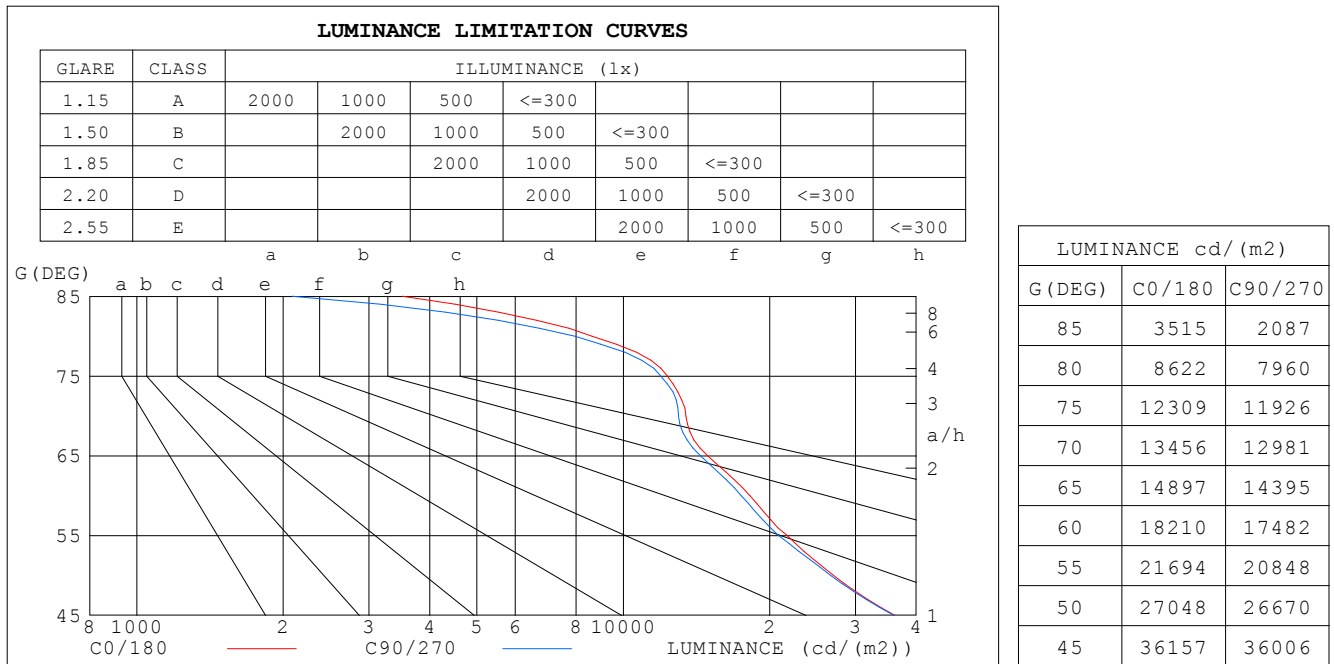
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Temperature:25.3DEG
Operators:WJH
Test Date:2020-07-06

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

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LUMINANCE LIMITATION CURVES



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Checker: LI

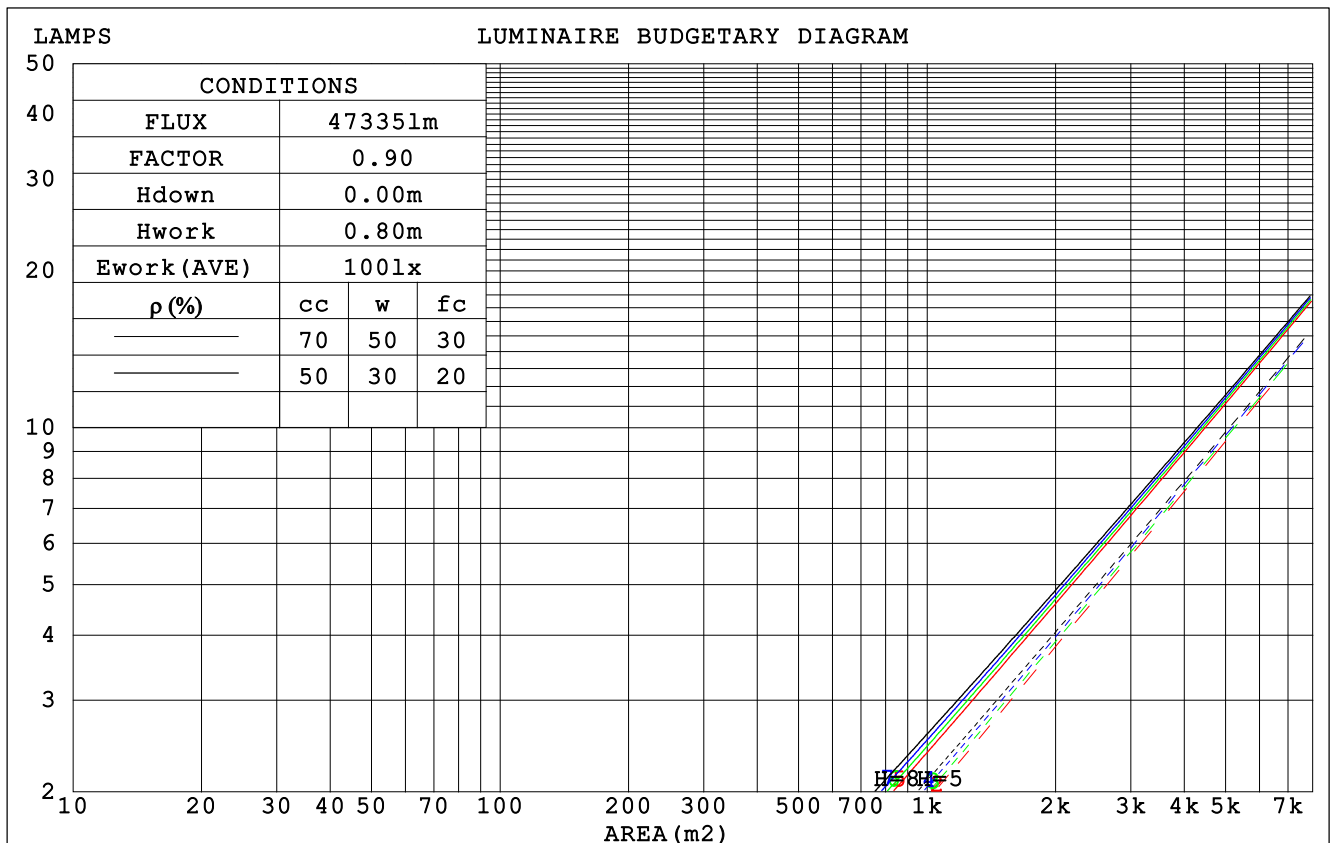
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Assessor:

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	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	.99	.97	.97	.96	.95	.93
2.0	1.02	.98	.94	1.00	.97	.93	.97	.94	.91	.94	.92	.89	.91	.89	.87	.86
3.0	.95	.90	.86	.94	.89	.85	.91	.87	.84	.88	.85	.82	.86	.83	.81	.79
4.0	.89	.83	.78	.87	.82	.78	.85	.81	.77	.83	.79	.76	.81	.78	.75	.74
5.0	.83	.77	.72	.82	.76	.72	.80	.75	.71	.78	.74	.71	.77	.73	.70	.69
6.0	.78	.72	.67	.77	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.64
7.0	.73	.67	.63	.72	.67	.63	.71	.66	.62	.70	.65	.62	.69	.65	.62	.60
8.0	.69	.63	.59	.68	.63	.59	.67	.62	.58	.66	.62	.58	.65	.61	.58	.57
9.0	.65	.59	.55	.65	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.53
10.0	.62	.56	.52	.61	.56	.52	.61	.55	.52	.60	.55	.52	.59	.55	.52	.50



C Range: 0 - 360DEG
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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor:

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	.188	.107	.034	.182	.104	.033	.169	.097	.031	.157	.091	.029	.147	.085	.027															
2.0	.180	.099	.030	.174	.096	.030	.163	.091	.028	.154	.086	.027	.145	.082	.026															
3.0	.170	.091	.027	.165	.089	.027	.156	.085	.026	.148	.081	.025	.140	.078	.024															
4.0	.161	.084	.025	.157	.082	.024	.149	.079	.024	.142	.076	.023	.135	.073	.022															
5.0	.153	.078	.023	.149	.077	.022	.142	.074	.022	.136	.072	.021	.130	.069	.021															
6.0	.145	.073	.021	.142	.072	.021	.136	.070	.020	.130	.068	.020	.125	.066	.020															
7.0	.138	.068	.019	.135	.067	.019	.130	.066	.019	.125	.064	.019	.120	.062	.018															
8.0	.132	.064	.018	.129	.064	.018	.124	.062	.018	.120	.061	.018	.116	.059	.017															
9.0	.126	.061	.017	.124	.060	.017	.119	.059	.017	.115	.058	.017	.111	.057	.016															
10.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.111	.055	.016	.107	.054	.015															

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	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016		
2.0	.157	.132	.112	.135	.114	.096	.092	.079	.067	.053	.046	.039	.017	.015	.013		
3.0	.145	.114	.088	.125	.098	.077	.086	.068	.054	.049	.040	.032	.016	.013	.010		
4.0	.135	.099	.071	.116	.086	.062	.080	.060	.044	.046	.035	.026	.015	.011	.008		
5.0	.127	.088	.059	.109	.076	.051	.075	.053	.036	.043	.031	.021	.014	.010	.007		
6.0	.119	.078	.049	.102	.068	.043	.071	.047	.030	.041	.028	.018	.013	.009	.006		
7.0	.112	.071	.041	.097	.061	.036	.067	.043	.026	.039	.025	.015	.013	.008	.005		
8.0	.107	.065	.036	.092	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004		
9.0	.101	.059	.031	.087	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004		
10.0	.097	.055	.027	.083	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WJH
 Test Date:2020-07-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
 Humidity:65.0%
 Test Distance:9.350m [K=1.0000]
 Remarks:

Checker: LI

Assessor:

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	17.8	18.9	18.2	19.2	19.5	17.5	18.5	17.8	18.8	19.1
3H	18.9	19.8	19.3	20.2	20.5	18.6	19.5	18.9	19.8	20.2
4H	19.3	20.1	19.7	20.5	20.9	19.0	19.8	19.4	20.2	20.6
6H	19.5	20.3	19.9	20.6	21.0	19.2	20.0	19.6	20.3	20.7
8H	19.5	20.2	19.9	20.6	21.0	19.2	19.9	19.6	20.3	20.7
12H	19.4	20.2	19.9	20.5	21.0	19.1	19.8	19.6	20.2	20.6
4H 2H	18.2	19.0	18.6	19.4	19.8	17.8	18.7	18.2	19.0	19.4
3H	19.5	20.2	19.9	20.6	21.0	19.1	19.8	19.6	20.3	20.7
4H	19.9	20.6	20.4	21.0	21.5	19.6	20.3	20.1	20.7	21.1
6H	20.2	20.7	20.7	21.2	21.7	19.9	20.4	20.4	20.9	21.3
8H	20.2	20.7	20.7	21.2	21.6	19.9	20.4	20.4	20.8	21.3
12H	20.2	20.6	20.7	21.1	21.6	19.8	20.3	20.3	20.8	21.2
8H 4H	20.0	20.5	20.5	21.0	21.5	19.7	20.2	20.2	20.7	21.2
6H	20.3	20.7	20.8	21.2	21.7	20.0	20.4	20.5	20.9	21.4
8H	20.4	20.7	20.9	21.3	21.7	20.0	20.4	20.6	20.9	21.4
12H	20.4	20.7	20.9	21.2	21.8	20.0	20.3	20.5	20.8	21.4
12H 4H	20.0	20.4	20.5	20.9	21.4	19.7	20.1	20.2	20.6	21.1
6H	20.3	20.7	20.8	21.1	21.7	20.0	20.4	20.5	20.8	21.4
8H	20.4	20.7	20.9	21.2	21.8	20.0	20.4	20.6	20.9	21.4
CIE190: 2010										

CIE190: 2010
Area: 0.1521 m2

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 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.426
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Remarks:

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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) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	83	77	73	82	76	72	69
0.80	92	85	81	91	85	81	90	84	80	76
1.00	97	90	86	96	90	86	94	90	85	81
1.25	101	95	91	100	95	91	98	93	90	86
1.50	104	99	95	103	98	94	100	96	93	88
2.00	107	102	99	106	101	98	103	99	97	91
2.50	109	105	101	107	104	101	104	101	99	93
3.00	111	107	104	109	106	103	105	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	107	105	97
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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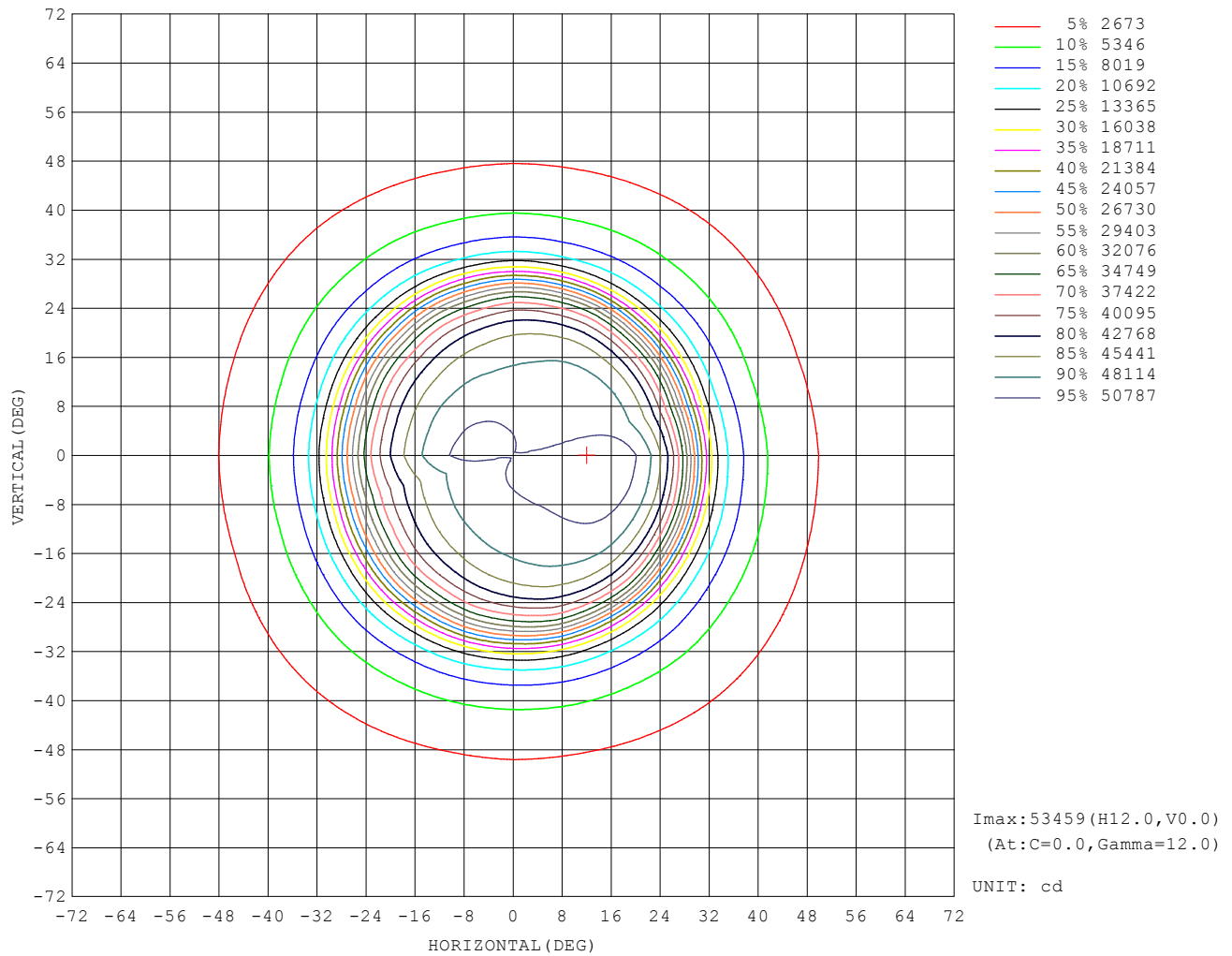
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 9.350m [K=1.0000]
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM



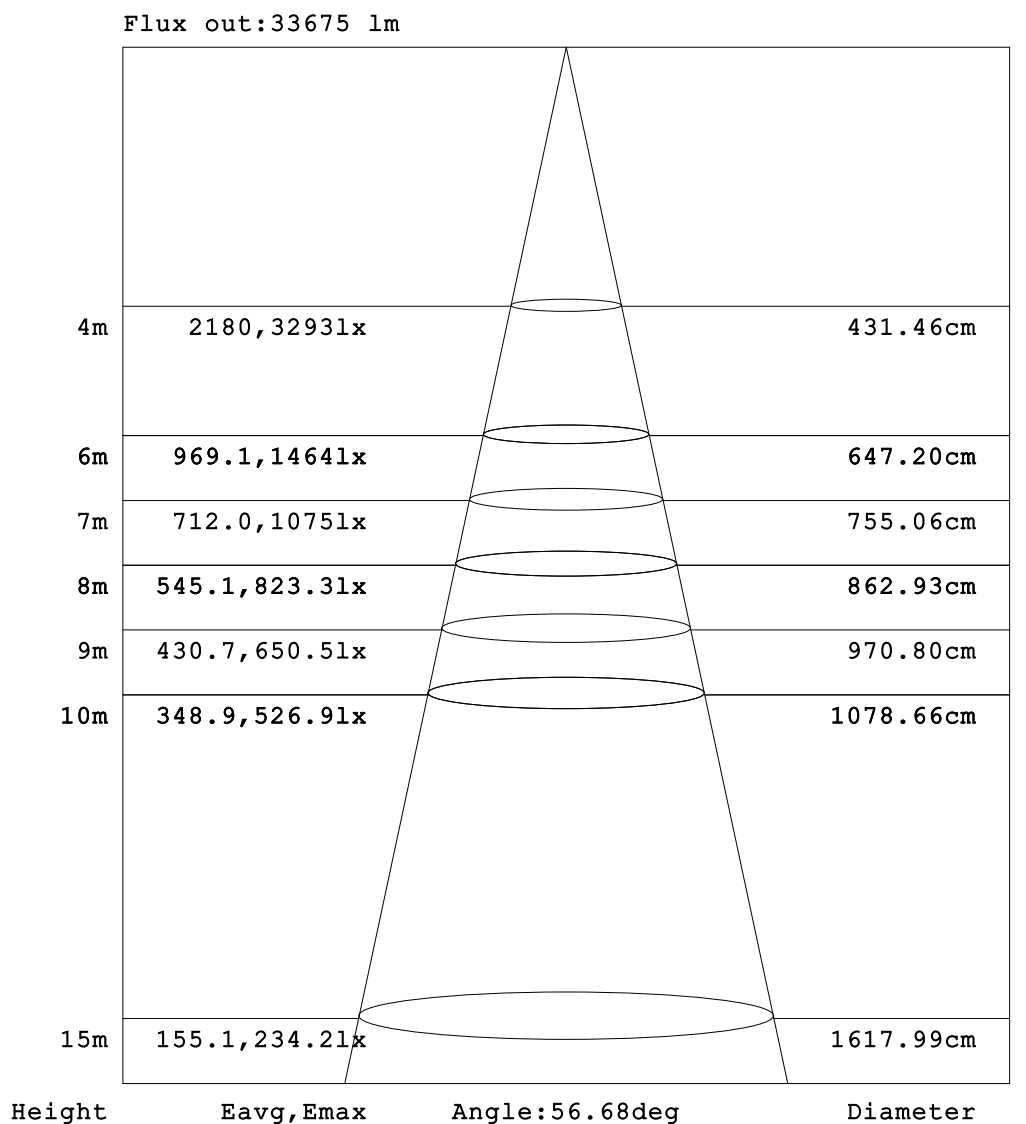
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Remarks:

Checker: LI

Assessor:

AAI Figure



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

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Test Speed: HIGH
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Operators: WJH
Test Date: 2020-07-06

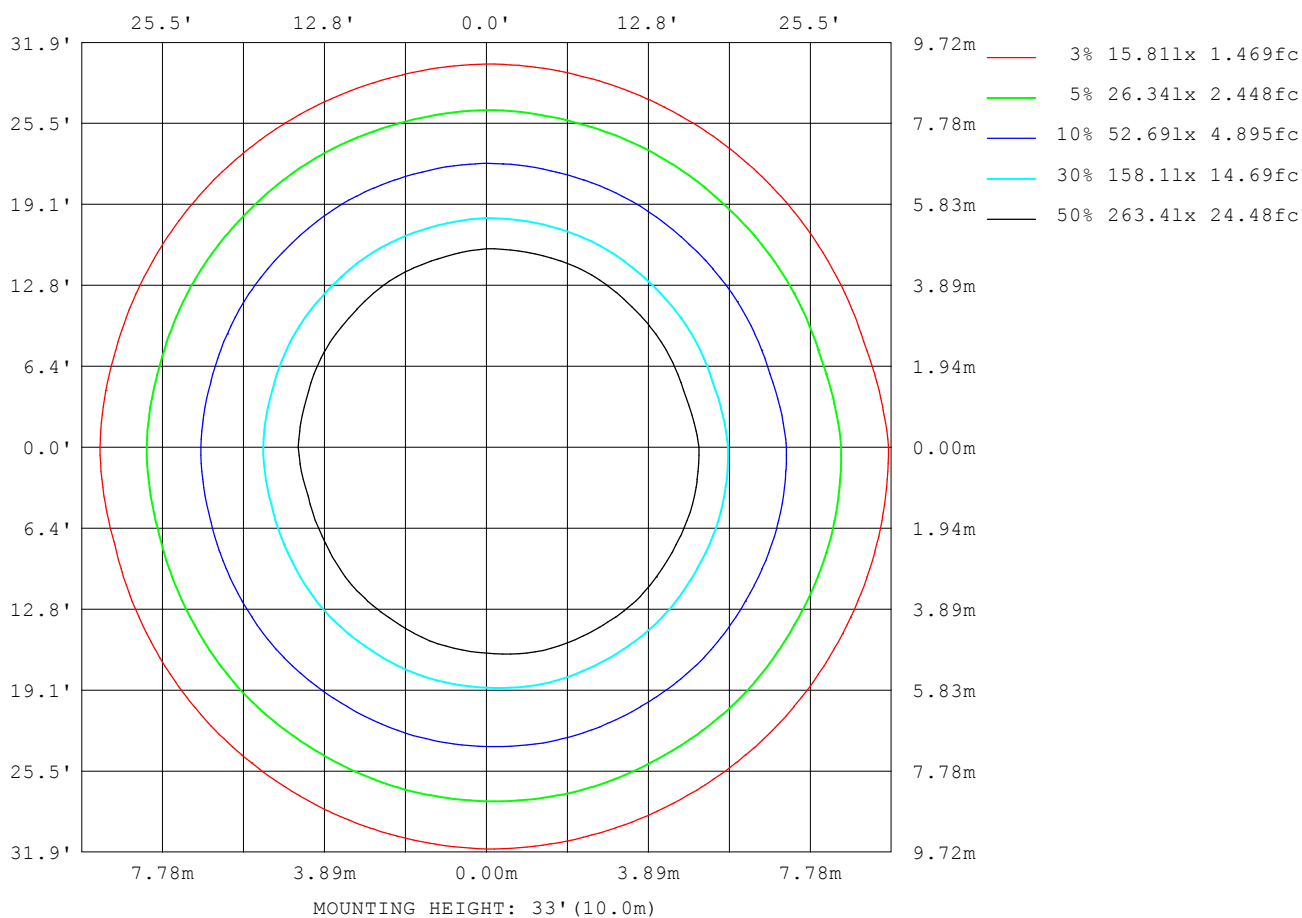
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
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ISOLUX DIAGRAM



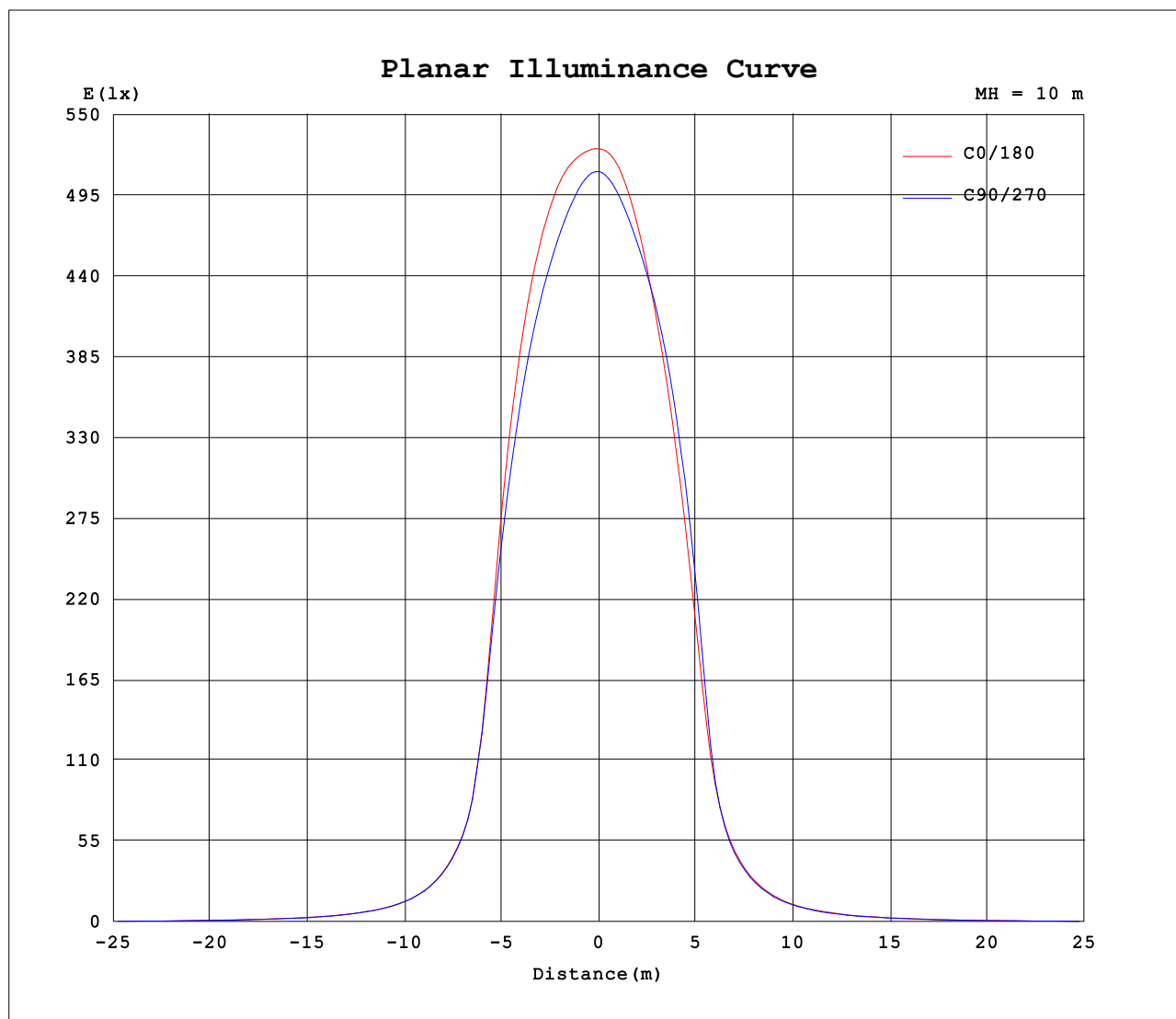
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Operators: WJH
Test Date: 2020-07-06

Checker: LI

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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Assessor:

Planar Illuminance Curve



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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 9.350m [K=1.0000]
Remarks:

Checker: LI

Assessor: