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Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Specialty Lighting Industries, Inc

Awi Salomon
1306 Doris Ave.
Ocean, NJ 07712-4041

Catalog Number

4500

Order Number

10732520

Test Number

1004985

Test Date

2015-04-01 - 2015-04-02

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.
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Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	Page 5
Conditions / Summary of Results / Polar Plot / Zonal / Luminance	Page 5
Candela Tabulation	Page 6
Coefficients of Utilization	Page 7

Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for Sphere measurement



Luminaire Description: Black aluminum housing / heatsink, semi-specular reflector, no enclosure
Lamp: One white LED array with prismatic lens below
Mounting: Recessed
Ballast/Driver: One eldoLED SOLOdrive 566/S

Luminaire



Luminaire Characteristics
Luminous Diameter: 2.38 in.

Summary of Results

Integrating Sphere

Total Output: 579 Lumens
Efficacy: 53.5 lm/w
CCT: 2945 K
CRI (Ra): 82.0

Distribution

Total Luminaire Output: 571.2 Lumens
Luminaire Efficacy: 52.8 lm/w
Maximum Candela: 1329 Candela

Electrical Data at 120 VAC

Test Temperature: 24.8 °C
Voltage: 120.0 VAC
Current: 0.09788 A
Power: 10.81 W
Power Factor: 0.919
Frequency: 60 Hz
Current THD: 16.6 %



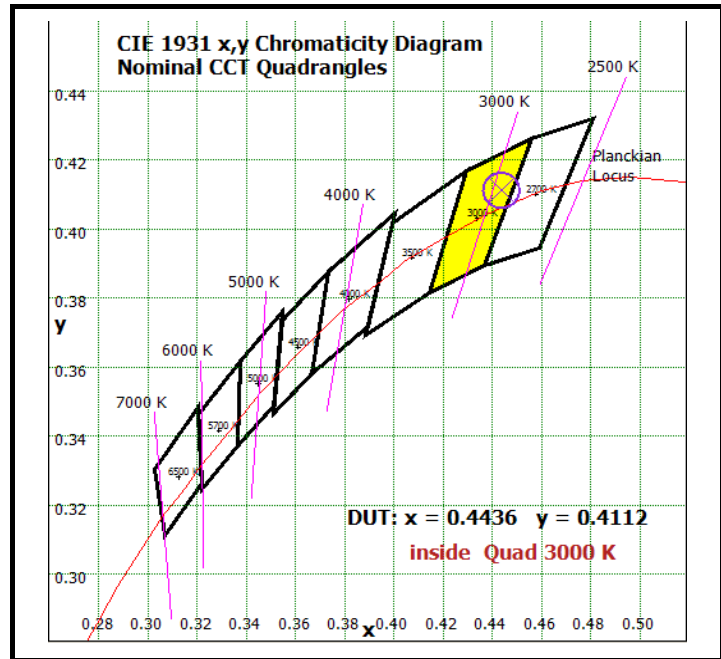
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.09788 A	10.81 W	0.919	60 Hz	16.6 %

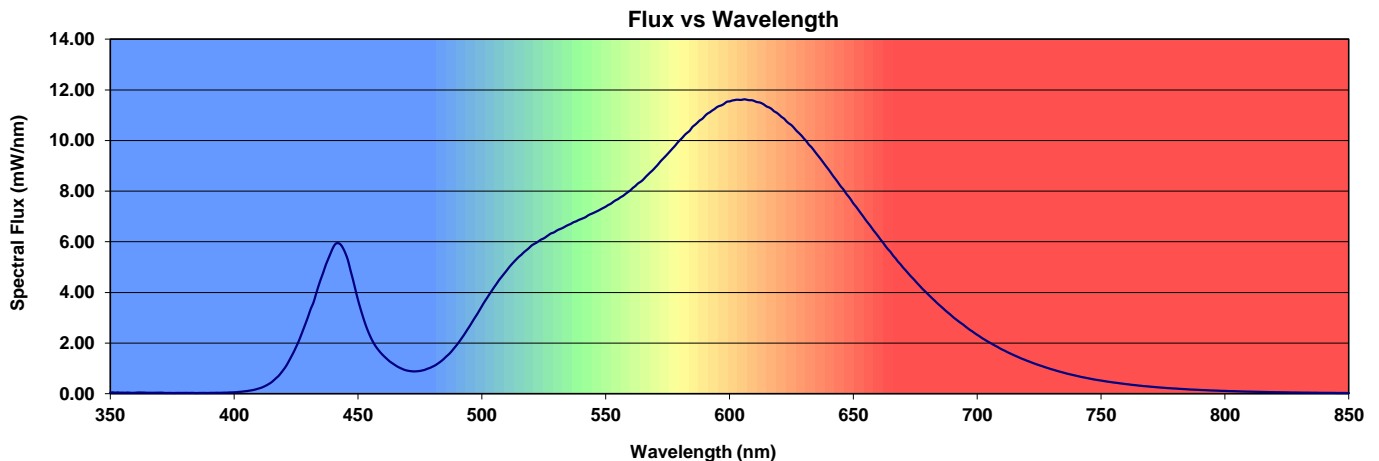
Summary of Results

Luminous Flux:	579 Lumens
Efficacy:	53.5 lm/w
CCT:	2945 K
CRI (Ra):	82.0
CRI (R9):	12.2
Chromaticity (x):	0.4436
Chromaticity (y):	0.4112
Chromaticity (u):	0.2518
Chromaticity (v):	0.3501
Chromaticity (u')	0.2518
Chromaticity (v')	0.5251
Duv:	0.0016



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
82.0	80.7	86.7	93.1	83.2	80.3	83.6	85.1	63.1	12.2	70.0	84.1	67.0	81.5	95.7





Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.09801 A	10.82 W	0.920	60 Hz	16.1 %

Summary of Results

Spacing Criteria

0-180: 0.63
90-270: 0.63

Total Lumen Output:

571 Lumens

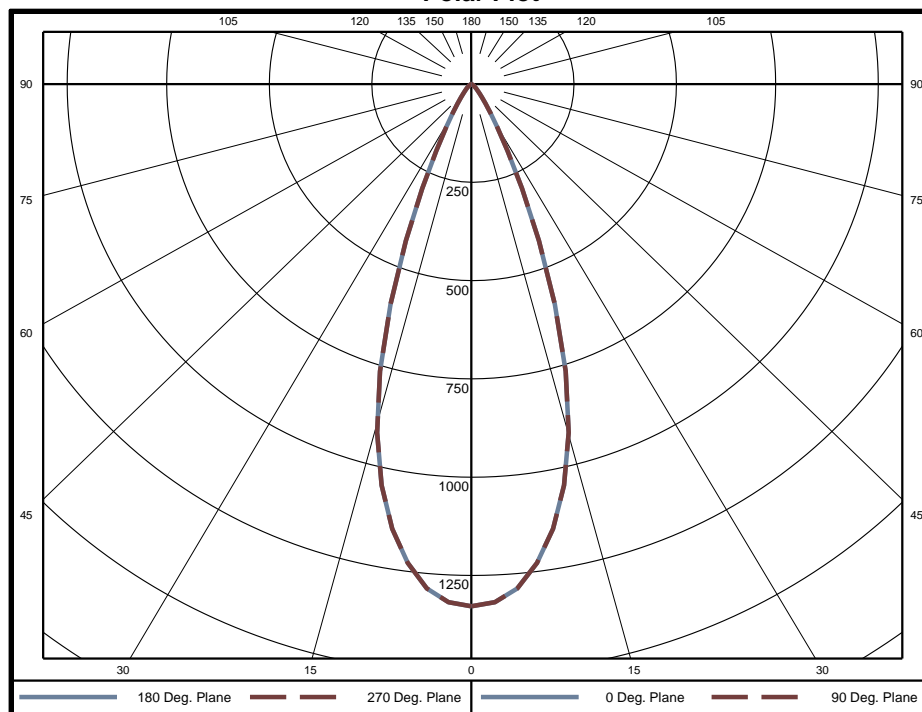
Luminaire Efficacy:

52.8 lm/w

Maximum Candela:

1329 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	33.2	5.8%	60-65	1.4	0.2%	120-125	0.0	0.0%
5-10	86.7	15.2%	65-70	0.8	0.1%	125-130	0.0	0.0%
10-15	122.0	21.4%	70-75	0.5	0.1%	130-135	0.0	0.0%
15-20	123.6	21.6%	75-80	0.3	0.0%	135-140	0.0	0.0%
20-25	90.2	15.8%	80-85	0.2	0.0%	140-145	0.0	0.0%
25-30	49.9	8.7%	85-90	0.1	0.0%	145-150	0.0	0.0%
30-35	26.2	4.6%	90-95	0.0	0.0%	150-155	0.0	0.0%
35-40	14.8	2.6%	95-100	0.0	0.0%	155-160	0.0	0.0%
40-45	9.1	1.6%	100-105	0.0	0.0%	160-165	0.0	0.0%
45-50	6.1	1.1%	105-110	0.0	0.0%	165-170	0.0	0.0%
50-55	4.0	0.7%	110-115	0.0	0.0%	170-175	0.0	0.0%
55-60	2.4	0.4%	115-120	0.0	0.0%	175-180	0.0	0.0%

Zone	Lumens	% of Luminaire
0-40	546.5	95.7%
0-60	568.1	99.5%
0-90	571.2	100.0%
90-180	0.0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)															
	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329	1329
5	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288
10	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149
15	918	918	918	918	918	918	918	918	918	918	918	918	918	918	918	918
20	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596
25	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293
30	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127
35	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
40	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
45	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
50	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
60	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
65	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	464900	464900	464900
45	9335	9335	9335
55	4163	4163	4163
65	1693	1693	1693
75	887	887	887
85	903	903	903



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	682	682	682	682	666	666	666	666	637	637	637	610	610	610	585	585	585	573
1	655	641	629	618	641	629	618	608	606	597	589	585	578	572	566	560	556	546
2	629	605	585	569	617	596	578	563	577	563	550	561	549	539	545	536	528	519
3	604	573	549	530	593	565	544	526	551	533	518	538	522	510	525	513	502	494
4	581	545	518	498	571	538	514	495	527	506	489	516	498	484	506	491	478	471
5	558	519	491	471	550	514	488	469	504	482	465	495	476	461	487	470	457	450
6	538	495	467	447	530	491	465	445	483	460	442	476	455	440	469	451	437	430
7	518	474	446	426	511	471	444	425	464	440	423	458	436	421	452	433	418	412
8	499	455	426	407	493	452	425	406	446	422	405	440	419	403	435	416	401	395
9	482	436	409	390	476	434	407	389	429	405	388	424	403	387	420	400	386	379
10	465	420	393	374	460	418	392	374	413	390	373	409	388	372	406	386	371	365

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	83.0	2.52
6.00	36.9	3.78
8.00	20.8	5.05
10.0	13.3	6.31
12.0	9.23	7.57
14.0	6.78	8.83
16.0	5.19	10.1

Cone of Light Plot

