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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 SQ

Order Number

10732520

Test Number

1004986

Test Date

2015-04-01

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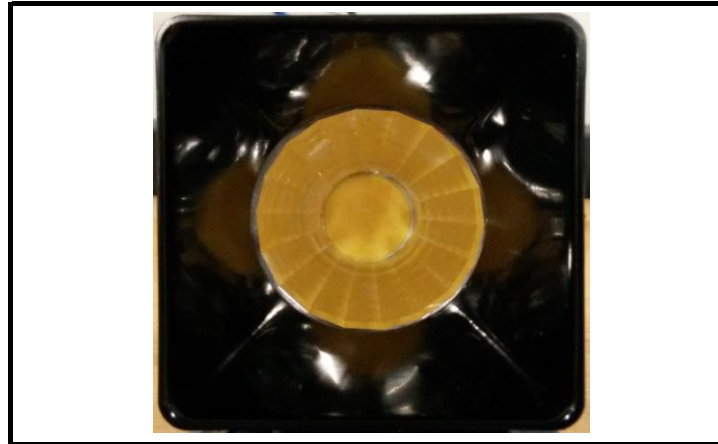
Laboratory results may not be representative of field performance
Ballast factors have not been applied

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, specular faceted reflector, no enclosure
Lamp: One white LED array
Mounting: Recessed
Ballast/Driver: One eldoLED SOLOdrive 566/S

Luminaire



Luminaire Characteristics

Luminous Length: 2.38 in.
Luminous Width: 2.375 in.

Summary of Results

Integrating Sphere

Total Output: 509 Lumens
Efficacy: 47.4 lm/w
CCT: 2891 K
CRI (Ra): 82.2

Distribution

Total Luminaire Output: 503.4 Lumens
Luminaire Efficacy: 46.8 lm/w
Maximum Candela: 1270 Candela

Electrical Data at 120 VAC

Test Temperature: 25.8 °C
Voltage: 120.0 VAC
Current: 0.09736 A
Power: 10.74 W
Power Factor: 0.919
Frequency: 60 Hz
Current THD: 16.6 %



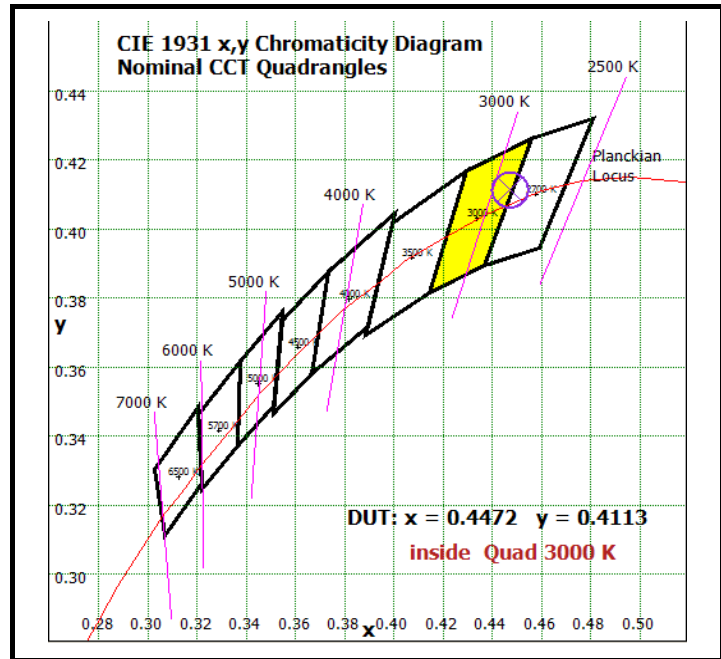
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.8 °C	120.0 VAC	0.09736 A	10.74 W	0.919	60 Hz	16.6 %

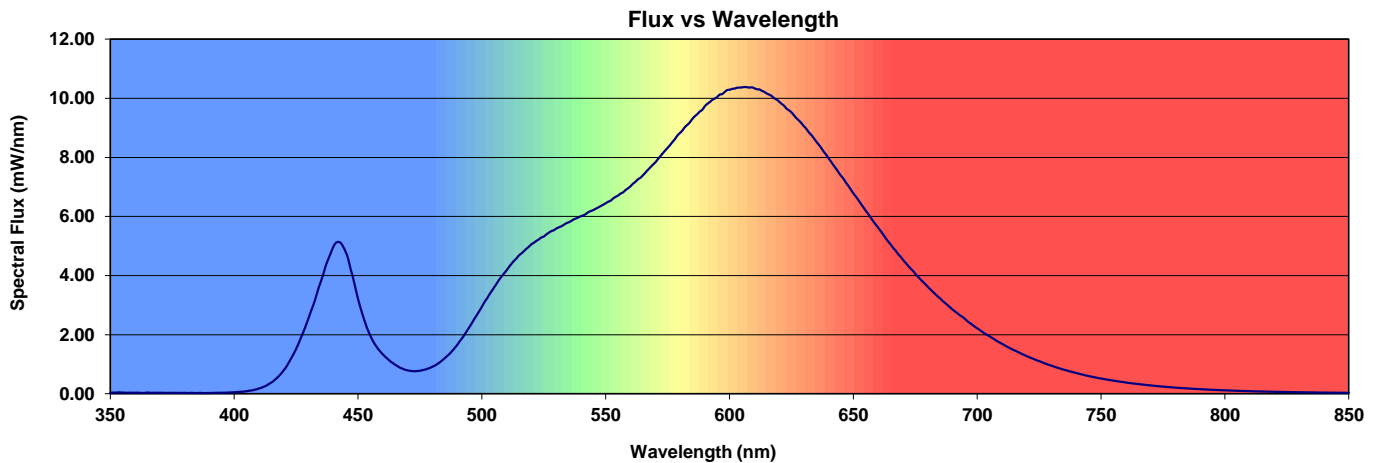
Summary of Results

Luminous Flux:	509 Lumens
Efficacy:	47.4 lm/w
CCT:	2891 K
CRI (Ra):	82.2
CRI (R9):	13.0
Chromaticity (x):	0.4472
Chromaticity (y):	0.4113
Chromaticity (u):	0.2540
Chromaticity (v):	0.3505
Chromaticity (u')	0.2540
Chromaticity (v')	0.5257
Duv:	0.0011



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
82.2	81.0	87.0	93.4	83.3	80.5	84.1	85.0	63.1	13.0	70.7	84.2	67.5	81.9	95.8





Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.6 °C	120.0 VAC	0.09756 A	10.77 W	0.919	60 Hz	16.1 %

Summary of Results

Spacing Criteria

0-180: 0.66
90-270: 0.66

Total Lumen Output:

503 Lumens

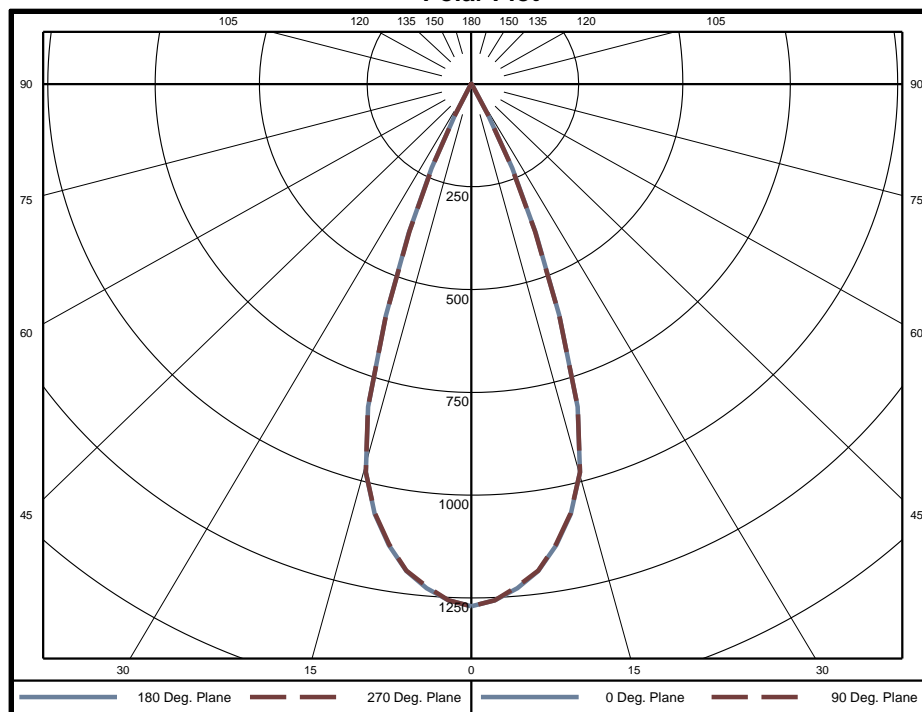
Luminaire Efficacy:

46.8 lm/w

Maximum Candela:

1270 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	31.6	6.3%	60-65	0.1	0.0%	120-125	0.0	0.0%
5-10	84.7	16.8%	65-70	0.1	0.0%	125-130	0.0	0.0%
10-15	125.0	24.8%	70-75	0.1	0.0%	130-135	0.0	0.0%
15-20	131.5	26.1%	75-80	0.1	0.0%	135-140	0.0	0.0%
20-25	88.0	17.5%	80-85	0.1	0.0%	140-145	0.0	0.0%
25-30	33.9	6.7%	85-90	0.1	0.0%	145-150	0.0	0.0%
30-35	5.7	1.1%	90-95	0.0	0.0%	150-155	0.0	0.0%
35-40	1.3	0.3%	95-100	0.0	0.0%	155-160	0.0	0.0%
40-45	0.7	0.1%	100-105	0.0	0.0%	160-165	0.0	0.0%
45-50	0.4	0.1%	105-110	0.0	0.0%	165-170	0.0	0.0%
50-55	0.2	0.0%	110-115	0.0	0.0%	170-175	0.0	0.0%
55-60	0.1	0.0%	115-120	0.0	0.0%	175-180	0.0	0.0%

Zone	Lumens	% of Luminaire
0-40	501.7	99.7%
0-60	503.0	99.9%
0-90	503.4	100.0%
90-180	0.0	0.0%



Candela Tabulation

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	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270
5	1231	1232	1233	1231	1227	1231	1233	1232	1231	1232	1233	1231	1227	1231	1233	1232
10	1139	1141	1141	1140	1136	1140	1141	1141	1139	1141	1141	1140	1136	1140	1141	1141
15	978	971	974	971	978	971	974	971	978	971	974	971	978	971	974	971
20	599	617	626	617	598	617	626	617	599	617	626	617	598	617	626	617
25	225	260	302	258	219	258	302	260	225	260	302	258	219	258	302	260
30	13	40	81	41	15	41	81	40	13	40	81	41	15	41	81	40
35	5	5	9	5	5	5	9	5	5	5	9	5	5	5	9	5
40	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
45	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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

Vertical Angle (Degrees)

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

	0	45	90
0	349100	349100	349100
45	449	520	525
55	104	143	109
65	85	86	76
75	73	131	121
85	377	422	497

Vertical Angle (Degrees)



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	602	602	602	602	588	588	588	588	562	562	562	538	538	538	516	516	516	506
1	581	569	559	550	568	559	550	541	538	531	525	520	514	509	503	499	495	486
2	560	541	525	512	550	533	518	506	517	505	495	502	493	485	489	481	475	467
3	541	516	497	482	532	509	492	478	497	482	470	485	473	463	474	465	456	450
4	523	494	473	457	515	488	469	454	478	462	449	469	455	444	460	449	439	433
5	505	474	452	435	498	469	449	433	461	443	430	453	438	426	446	433	423	417
6	489	455	433	417	482	452	431	415	445	426	413	438	422	410	433	418	407	402
7	473	438	416	400	467	435	414	399	430	411	397	424	407	395	419	404	393	388
8	458	422	400	385	453	420	399	384	415	396	382	411	393	381	406	391	380	374
9	444	408	386	371	439	406	384	370	402	382	369	398	380	368	394	378	367	362
10	431	394	372	358	426	392	371	357	389	370	356	385	368	355	382	366	355	350

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	79.4	2.67
6.00	35.3	4.01
8.00	19.8	5.35
10.0	12.7	6.69
12.0	8.82	8.02
14.0	6.48	9.36
16.0	4.96	10.7

Cone of Light Plot

