

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: RSA

Report Number: P13481

Luminaire Tested: **ASAS301011E4TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P13481
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: ASAS301011E4TW
Description: RSA RECESSED LED SQUARE FIXTURE WITH ADJUSTABLE BRACKET AT 45 DEGREE, 3000K LED LIGHT ENGINE, 10 DEGREE REFLECTOR, WHITE TRIM WITH CLEAR GLASS LENS.
Light Source: (1) PHILIPS FORTIMO SLM 3000K LED
87182911 8708000
Ballast/Driver: (1) PHILIPS ADVANCE ELECTRONIC DRIVER
XR025C100V036XPM1

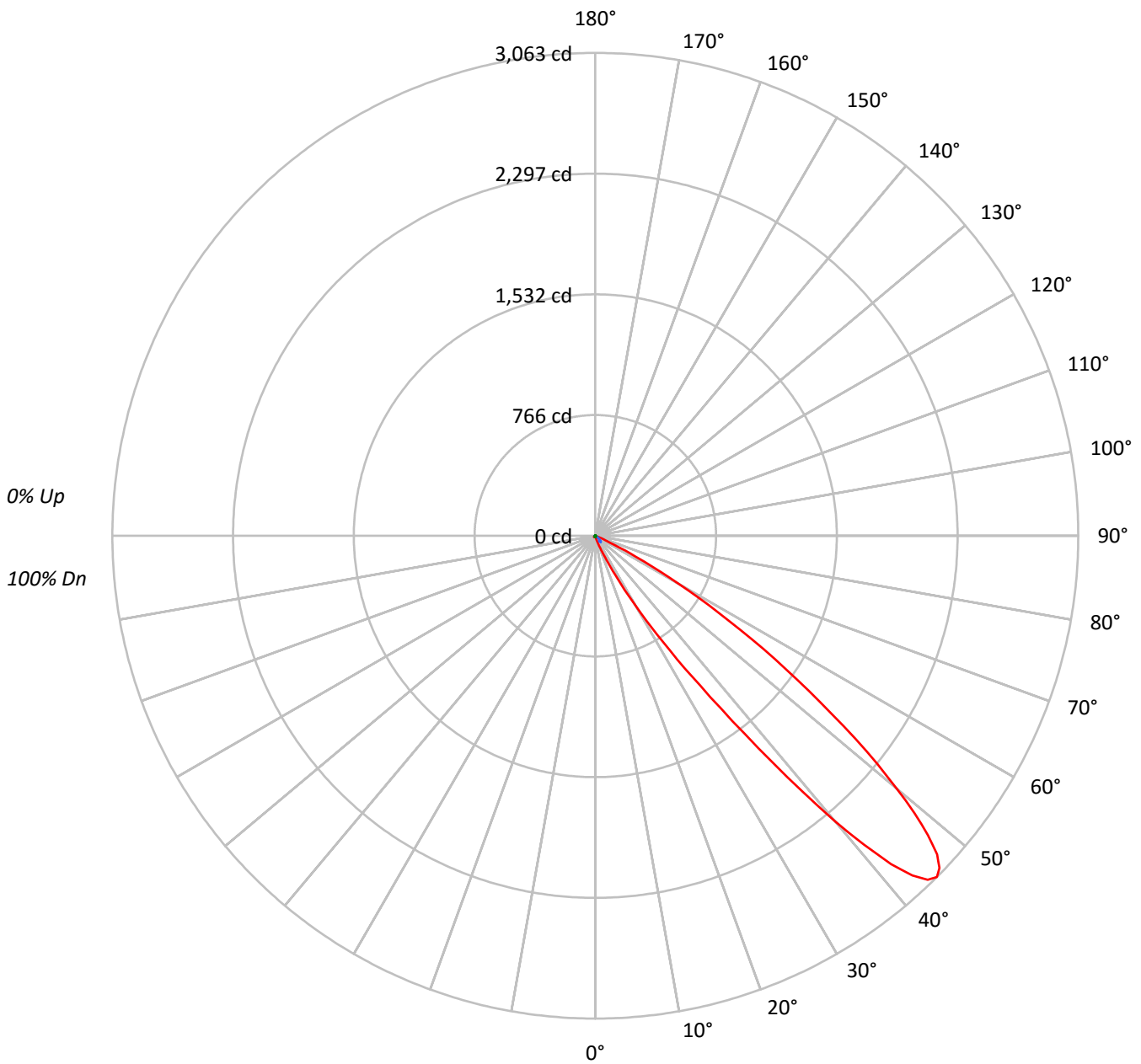
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 513.8 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 4.29 / 0.87 / 2.04
Luminous Opening: Rectangular (W 0.31' x L: 0.31' x H: 0')
CIE Type: Direct

Input Watts (W): 21
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88					86				
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73					71				
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60					58				
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49					47				
5	73	59	49	42	71	58	49	42	56	48	41	54	47	41	52	45	41					38				
6	66	51	41	35	64	50	41	34	48	40	34	47	39	34	45	38	33					31				
7	60	45	35	28	58	44	35	28	42	34	28	41	33	28	39	33	27					25				
8	54	39	30	23	52	39	30	23	37	29	23	36	28	23	35	28	23					21				
9	50	35	26	19	48	34	25	19	33	25	19	32	24	19	31	24	19					17				
10	46	31	22	16	44	30	22	16	29	22	16	28	21	16	27	21	16					14				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	882	882	882
5°	664	664	664
10°	1231	783	1007
15°	2054	685	571
20°	6334	704	821
25°	20553	486	608
30°	65673	382	509
35°	156220	404	538
40°	339857	576	1583
45°	477455	624	1091
50°	427832	343	1715
55°	283446	577	1537
60°	134471	661	1764
65°	26081	522	1826
70°	1934	645	1611
75°	0	426	1278
80°	1269	635	2539
85°	1265	1265	3794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.1
10°-20°	2.9	0.6
20°-30°	16.6	3.2
30°-40°	96.0	18.7
40°-50°	218.9	42.6
50°-60°	151.5	29.5
60°-70°	24.0	4.7
70°-80°	1.9	0.4
80°-90°	1.2	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	20.2	3.9
0°-40°	116.3	22.6
0°-60°	486.6	94.7
0°-90°	513.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	513.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	6	9	6	7	6	1
15°	18	9	6	6	5	7
25°	169	20	4	6	5	105
35°	1161	41	3	5	4	820
45°	3063	50	4	6	7	2200
55°	1475	17	3	6	8	1333
65°	100	0	2	5	7	176
75°	0	0	1	2	3	1
85°	1	1	1	3	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	8	8	8	8	8	8	8	8	8	8	8
2.5°	7	7	8	7	8	8	7	7	7	6	8
5°	6	8	10	6	6	6	6	7	6	7	9
7.5°	10	10	9	9	9	9	10	11	11	10	9
10°	11	11	11	10	10	10	10	10	10	9	9
12.5°	13	13	13	16	13	14	11	12	11	14	10
15°	18	18	17	17	17	16	15	15	14	14	9
17.5°	32	30	30	30	29	28	28	26	23	22	12
20°	54	55	52	51	49	46	44	41	37	34	13
22.5°	98	96	94	92	86	81	75	69	61	57	17
25°	169	169	164	159	148	139	125	112	100	87	20
27.5°	307	303	295	279	260	237	215	190	164	141	25
30°	516	509	491	462	430	389	349	304	262	221	27
32.5°	794	781	753	709	653	592	527	462	395	331	36
35°	1161	1143	1090	1008	919	825	726	632	539	450	41
36°	1354	1328	1257	1158	1045	925	816	706	600	501	43
37°	1572	1541	1452	1317	1178	1036	905	782	665	553	46
38°	1824	1780	1661	1496	1319	1150	999	857	726	607	48
39°	2093	2034	1886	1677	1459	1261	1090	933	793	661	52
40°	2362	2290	2106	1848	1591	1361	1174	1000	851	710	52
41°	2598	2514	2298	1996	1698	1445	1236	1060	901	754	51
42°	2802	2705	2471	2133	1794	1516	1296	1111	945	793	53
43°	2947	2852	2601	2235	1867	1567	1334	1144	977	821	51
44°	3034	2941	2678	2297	1915	1602	1361	1170	999	841	51
45°	3063	2971	2701	2320	1937	1620	1377	1182	1011	848	50
46°	3034	2935	2668	2304	1934	1625	1383	1185	1012	844	46
47°	2963	2861	2601	2258	1907	1609	1377	1181	1002	830	43
48°	2839	2743	2507	2188	1863	1585	1360	1165	983	808	38
49°	2683	2598	2385	2104	1811	1552	1335	1142	958	779	37
50°	2495	2426	2247	2000	1739	1502	1296	1104	919	740	31
51°	2300	2251	2100	1892	1663	1443	1246	1057	874	697	30
52°	2093	2054	1943	1770	1572	1371	1182	1000	820	647	26
53°	1878	1852	1759	1627	1461	1283	1112	937	762	594	22
54°	1675	1648	1584	1472	1338	1181	1033	868	702	543	19
55°	1475	1462	1407	1320	1207	1074	938	789	633	490	17
57.5°	1002	989	963	914	850	779	685	580	466	355	9
60°	610	605	584	551	510	461	409	355	295	226	5
62.5°	287	282	274	256	235	213	190	166	138	109	3
65°	100	98	94	89	83	74	67	59	52	43	0
67.5°	27	26	26	27	24	25	22	20	18	15	1
70°	6	4	5	6	4	3	4	3	4	3	0
72.5°	1	1	2	2	1	1	1	0	0	1	2
75°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	1	1	0	2	0	1	0	0	1
80°	2	3	1	1	1	1	2	1	1	1	2



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
82.5°	0	1	0	0	0	1	0	0	0	0	0
85°	1	1	0	1	0	1	2	1	1	0	1
87.5°	1	0	0	1	0	0	0	0	0	0	1
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	8	8	8	8	8	8
2.5°	8	8	7	7	6	5
5°	6	6	5	7	5	6
7.5°	8	8	7	7	10	9
10°	8	7	7	8	7	9
12.5°	8	8	7	8	7	8
15°	6	6	6	6	6	5
17.5°	7	7	8	8	7	8
20°	8	6	6	7	6	7
22.5°	7	6	7	7	7	6
25°	5	4	4	6	5	5
27.5°	7	5	5	8	6	5
30°	6	3	3	4	4	4
32.5°	7	5	5	6	7	5
35°	5	3	4	5	5	4
36°	5	4	4	5	5	5
37°	5	6	4	5	5	5
38°	5	3	3	4	5	5
39°	6	5	5	6	8	9
40°	5	4	5	7	7	11
41°	4	1	2	4	5	3
42°	5	3	5	5	5	6
43°	3	3	4	5	5	5
44°	4	3	3	5	6	6
45°	4	4	5	6	7	7
46°	3	4	4	6	6	6
47°	3	3	5	5	5	6
48°	2	2	3	3	5	5
49°	3	4	5	6	7	7
50°	2	2	3	5	5	10
51°	4	3	4	6	8	7
52°	2	2	3	6	8	5
53°	1	1	2	4	5	5
54°	3	3	5	6	8	7
55°	2	3	4	6	8	8
57.5°	1	3	4	6	7	9
60°	1	3	4	6	7	8
62.5°	2	1	4	7	9	6
65°	1	2	3	5	7	7
67.5°	1	3	3	5	7	6
70°	0	2	2	3	4	5
72.5°	0	0	2	2	5	4
75°	0	1	1	2	3	3
77.5°	1	2	2	3	5	4
80°	3	1	2	3	4	4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
82.5°	1	0	0	1	3	2
85°	1	1	1	3	4	3
87.5°	1	1	1	1	2	0
90°	0	0	0	0	0	0

(END OF REPORT)