

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: P13483

Luminaire Tested: **ASAS301511E4TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P13483
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: ASAS301511E4TW
Description: RSA RECESSED LED SQUARE FIXTURE WITH ADJUSTABLE BRACKET AT 45 DEGREE, 3000K LED LIGHT ENGINE, 15 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

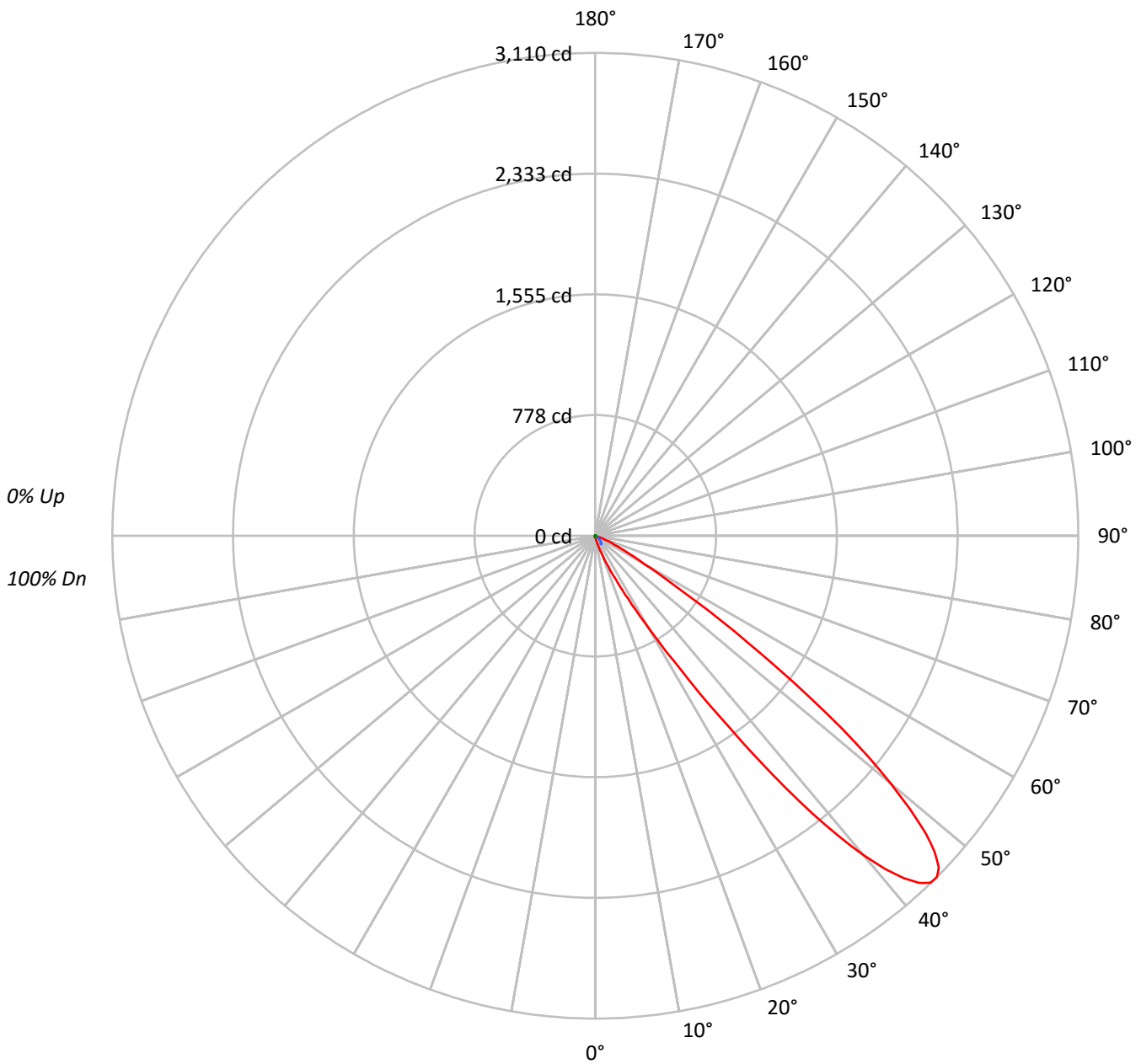
Lumens per Lamp: N/A
Luminaire Lumens: 536.5 lumens
Efficiency: N/A
Efficacy: 25.5 lumens/watt
Spacing Criteria (0/90/45): 4.48 / 0.9 / 2
Luminous Opening: Rectangular (W 0.31' x L: 0.31' x H: 0')
CIE Type: Direct

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	100	100	100	100	100		
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73	73	73	73	73	73	73		
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60	60	60	60	60	60	60		
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50	50	50	50	50	50	50		
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41	41	41	41	41	41	41		
6	67	53	44	37	65	52	43	37	50	43	37	49	42	36	47	41	36	34	34	34	34	34	34	34		
7	61	47	37	31	59	46	37	31	44	36	31	43	36	30	41	35	30	28	28	28	28	28	28	28		
8	56	41	32	26	54	41	32	26	39	31	26	38	31	25	37	30	25	23	23	23	23	23	23	23		
9	51	37	28	22	50	36	28	22	35	27	22	34	27	21	33	26	21	19	19	19	19	19	19	19		
10	47	33	24	18	46	32	24	18	31	24	18	30	23	18	29	23	18	16	16	16	16	16	16	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	882	882	882
5°	1328	885	443
10°	2798	895	783
15°	6504	913	571
20°	15366	586	352
25°	37093	608	608
30°	86164	0	0
35°	204257	538	404
40°	386188	432	719
45°	484781	468	1091
50°	425946	0	686
55°	229640	192	961
60°	80242	220	1102
65°	34948	0	1304
70°	13213	645	1934
75°	0	0	852
80°	0	635	2539
85°	1265	1265	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.2
10°-20°	5.5	1.0
20°-30°	27.4	5.1
30°-40°	121.4	22.6
40°-50°	233.2	43.5
50°-60°	124.6	23.2
60°-70°	21.2	4.0
70°-80°	1.9	0.4
80°-90°	0.5	0.1
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°	33.7	6.3
0°-40°	155.1	28.9
0°-60°	512.8	95.6
0°-90°	536.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	536.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	12	10	8	5	4	2
15°	57	25	8	5	5	20
25°	305	46	5	3	5	166
35°	1518	67	4	3	3	1027
45°	3110	46	3	4	7	2266
55°	1195	17	1	3	5	1135
65°	134	1	0	2	5	158
75°	0	0	0	0	2	5
85°	1	0	1	0	0	0
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°	10	11	11	10	10	11	11	10	11	10	10
5°	12	10	12	11	11	11	11	12	11	14	10
7.5°	17	16	17	16	17	16	16	17	16	15	13
10°	25	25	25	25	25	24	24	24	23	23	17
12.5°	38	38	37	38	38	35	34	33	33	32	20
15°	57	56	56	56	55	52	51	49	47	45	25
17.5°	86	85	84	83	80	78	75	75	68	64	28
20°	131	130	129	126	122	116	111	105	98	92	35
22.5°	203	201	200	193	186	174	164	153	142	130	42
25°	305	302	294	287	273	258	239	220	198	180	46
27.5°	459	453	443	426	405	375	348	314	280	247	53
30°	677	671	653	623	585	541	489	435	384	333	55
32.5°	1011	1001	968	916	847	768	687	606	525	446	63
35°	1518	1496	1424	1317	1196	1062	928	803	680	568	67
36°	1769	1727	1642	1505	1353	1193	1040	891	751	621	65
37°	2025	1977	1863	1699	1518	1327	1147	975	817	675	64
38°	2270	2220	2089	1895	1680	1459	1254	1063	888	726	62
39°	2490	2444	2299	2079	1831	1580	1348	1137	943	775	62
40°	2684	2635	2482	2241	1965	1686	1428	1198	993	810	62
41°	2844	2791	2633	2375	2078	1772	1493	1239	1027	835	56
42°	2968	2910	2749	2476	2160	1835	1534	1271	1048	850	51
43°	3058	3001	2829	2555	2224	1882	1567	1290	1061	861	51
44°	3107	3047	2870	2590	2255	1903	1579	1301	1061	857	49
45°	3110	3050	2871	2585	2252	1901	1575	1291	1051	844	46
46°	3074	3012	2829	2548	2221	1870	1555	1274	1033	819	45
47°	2989	2926	2747	2466	2153	1819	1515	1238	997	781	39
48°	2862	2803	2623	2361	2059	1750	1456	1193	955	740	36
49°	2686	2634	2465	2220	1940	1653	1380	1128	900	690	32
50°	2484	2439	2286	2061	1809	1548	1296	1060	838	632	27
51°	2263	2219	2089	1892	1673	1436	1213	990	774	574	25
52°	2014	1980	1872	1716	1526	1320	1122	915	711	517	26
53°	1728	1707	1627	1504	1359	1194	1019	834	636	458	21
54°	1448	1428	1377	1285	1177	1045	902	738	561	400	19
55°	1195	1176	1140	1072	997	897	780	639	481	347	17
57.5°	653	652	636	616	583	528	463	381	292	220	11
60°	364	364	356	344	327	297	259	216	175	141	8
62.5°	227	224	217	207	194	176	157	134	112	90	7
65°	134	133	130	122	114	105	94	81	69	56	1
67.5°	80	80	76	73	68	60	54	46	39	31	0
70°	41	39	38	36	33	30	25	21	18	15	0
72.5°	0	0	1	0	3	0	1	1	2	2	0
75°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	1	1	0	0	0	0
80°	0	1	0	0	0	0	0	1	0	0	1



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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	0	0	0	0	0	0	0	0	0	0
85°	1	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	1	1	0	0	1	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°	10	10	8	8	8	8
5°	8	8	7	5	4	4
7.5°	10	7	5	4	4	5
10°	12	8	6	5	6	7
12.5°	13	9	6	5	5	5
15°	13	8	5	5	5	5
17.5°	13	6	4	5	6	8
20°	13	5	6	5	4	3
22.5°	12	6	5	5	5	6
25°	11	5	3	3	2	5
27.5°	11	5	4	4	5	5
30°	8	0	2	2	1	0
32.5°	10	4	4	5	5	5
35°	7	4	2	3	3	3
36°	8	4	4	4	5	5
37°	7	2	4	3	4	6
38°	8	4	3	4	4	5
39°	7	3	4	4	4	6
40°	7	3	4	4	4	5
41°	5	1	2	3	3	4
42°	3	1	0	1	2	0
43°	6	3	3	3	4	5
44°	5	3	3	4	5	5
45°	5	3	4	4	6	7
46°	5	3	4	5	7	8
47°	4	2	4	5	6	6
48°	4	3	5	6	5	8
49°	2	1	2	3	3	4
50°	0	0	1	2	2	4
51°	3	0	1	4	5	4
52°	3	2	3	6	5	5
53°	2	2	4	3	4	6
54°	2	1	3	5	6	5
55°	1	1	2	3	4	5
57.5°	0	0	1	1	2	3
60°	0	1	1	3	5	5
62.5°	0	2	2	5	5	6
65°	0	0	1	2	3	5
67.5°	0	1	2	3	4	4
70°	0	2	4	4	4	6
72.5°	1	0	2	3	3	5
75°	0	0	0	0	2	2
77.5°	0	1	1	2	3	3
80°	1	1	1	3	3	4



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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)