

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: P13477

Luminaire Tested: **ASAS302511E4TW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P13477  
Test Lab: PEACHTREE CITY  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: RSA  
Catalog Number: ASAS302511E4TW  
Description: RSA RECESSED LED SQUARE FIXTURE WITH ADJUSTABLE BRACKET AT 30 DEGREE, 3000K LED LIGHT ENGINE, 25 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

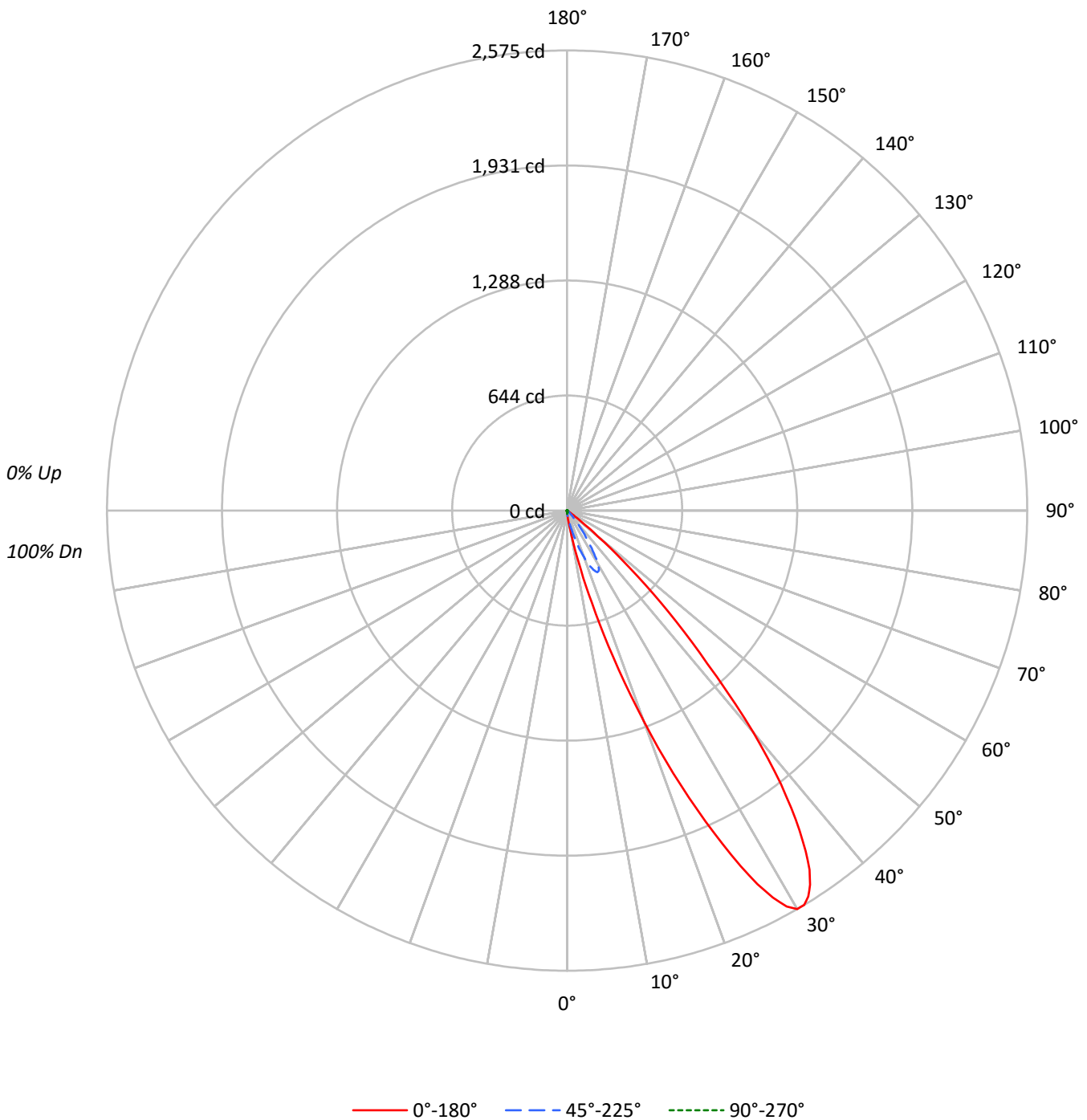
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 504.9 lumens  
Efficiency: N/A  
Efficacy: 24.0 lumens/watt  
Spacing Criteria (0/90/45): 2.69 / 0.69 / 1.5  
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<sub>in</sub>): 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





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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	91	82	75	70	89	81	74	70	79	73	69	76	72	68	74	70	67	65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42
9	64	52	44	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	40	36	58	47	40	35	46	40	35	45	39	35	44	39	35	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	1433	1433	1433
5°	4094	1660	664
10°	15557	1119	112
15°	61049	1255	114
20°	146855	821	117
25°	250288	243	0
30°	327730	255	0
35°	313114	0	0
40°	233094	0	0
45°	124391	0	0
50°	38239	0	0
55°	4996	0	0
60°	1102	0	0
65°	261	261	261
70°	967	645	1289
75°	1278	1278	852
80°	0	0	0
85°	0	1265	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.3	0.5
10°-20°	37.0	7.3
20°-30°	164.6	32.6
30°-40°	202.7	40.1
40°-50°	86.8	17.2
50°-60°	9.0	1.8
60°-70°	1.0	0.2
70°-80°	1.0	0.2
80°-90°	0.4	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°	203.9	40.4
0°-40°	406.6	80.5
0°-60°	502.5	99.5
0°-90°	504.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	504.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	13	13	13	13	13	
5°	37	27	15	7	6	7
15°	535	149	11	2	1	185
25°	2058	374	2	0	0	954
35°	2327	187	0	0	0	1400
45°	798	24	0	0	0	635
55°	26	1	0	0	0	50
65°	1	2	1	1	1	1
75°	3	2	3	3	2	1
85°	0	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°	25°
0°	13	13	13	13	13	13	13	13	13	13	13
2.5°	20	20	19	22	20	20	19	20	19	19	20
5°	37	37	39	36	36	36	35	35	34	34	32
7.5°	72	71	71	71	69	67	67	65	64	61	60
10°	139	140	138	136	135	130	126	123	118	112	107
12.5°	290	294	288	283	275	268	259	249	233	220	207
15°	535	531	526	516	501	486	465	443	420	393	363
17.5°	856	852	841	824	800	776	740	702	658	614	565
20°	1252	1249	1228	1203	1169	1123	1075	1014	947	879	804
21°	1423	1415	1391	1365	1324	1278	1219	1149	1074	991	906
22°	1585	1578	1561	1527	1485	1424	1359	1281	1193	1100	1001
23°	1746	1738	1720	1684	1636	1569	1495	1409	1305	1199	1090
24°	1905	1892	1875	1832	1779	1709	1624	1521	1407	1286	1164
25°	2058	2048	2025	1984	1924	1842	1749	1635	1498	1365	1229
26°	2214	2200	2178	2130	2061	1972	1866	1733	1584	1434	1286
27°	2346	2336	2318	2258	2185	2084	1963	1816	1651	1485	1324
28°	2453	2442	2417	2361	2285	2173	2038	1878	1702	1527	1347
29°	2534	2518	2489	2435	2350	2234	2088	1915	1728	1540	1351
30°	2575	2558	2527	2468	2380	2255	2102	1918	1723	1530	1332
31°	2575	2560	2528	2464	2373	2244	2084	1896	1694	1497	1294
32°	2547	2531	2494	2428	2337	2203	2035	1844	1642	1440	1245
33°	2496	2481	2444	2374	2277	2137	1969	1780	1573	1375	1181
34°	2425	2410	2367	2297	2195	2050	1882	1690	1488	1295	1110
35°	2327	2316	2266	2195	2092	1948	1781	1591	1398	1204	1034
36°	2213	2204	2157	2080	1976	1835	1667	1488	1301	1123	958
37°	2085	2073	2028	1949	1845	1705	1544	1377	1201	1036	878
38°	1944	1927	1881	1805	1705	1567	1419	1261	1102	947	800
39°	1786	1768	1725	1653	1558	1432	1293	1154	1007	862	722
40°	1620	1606	1568	1502	1409	1298	1178	1046	912	782	645
42.5°	1162	1153	1135	1103	1050	985	909	818	708	594	481
45°	798	793	784	770	749	713	665	604	513	419	324
47.5°	473	479	478	478	475	464	447	409	345	273	204
50°	223	224	226	227	230	226	221	208	185	152	117
52.5°	78	79	81	86	86	90	90	90	83	72	63
55°	26	25	27	28	29	29	29	30	29	27	23
57.5°	11	12	11	10	13	12	11	12	10	10	10
60°	5	4	5	4	5	4	5	4	5	4	5
62.5°	0	0	1	0	0	1	0	1	0	0	0
65°	1	1	1	1	2	0	1	2	1	1	1
67.5°	0	2	1	0	2	3	1	0	0	1	0
70°	3	0	3	1	1	0	2	2	2	2	5
72.5°	0	0	1	1	1	0	0	1	1	0	0
75°	3	2	1	2	3	0	3	3	1	3	2
77.5°	0	1	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
82.5°	1	2	1	0	0	0	0	0	1	1	0
85°	0	0	1	1	0	1	1	1	1	0	1
87.5°	0	0	1	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	30°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	13	13	13	13	13	13	13	13
2.5°	19	18	16	16	13	11	10	10
5°	32	27	20	15	9	7	7	6
7.5°	56	41	23	13	7	4	6	4
10°	97	63	28	10	5	2	1	1
12.5°	177	99	36	12	6	3	2	5
15°	307	149	41	11	2	2	1	1
17.5°	469	215	43	9	2	2	0	0
20°	653	279	47	7	2	0	0	1
21°	727	303	49	6	2	1	0	0
22°	803	328	48	6	2	0	0	0
23°	869	346	49	6	2	0	1	0
24°	927	363	47	4	0	0	0	0
25°	972	374	42	2	0	0	0	0
26°	1003	384	44	4	0	0	0	2
27°	1021	383	41	4	0	0	0	0
28°	1024	378	39	3	1	0	0	0
29°	1016	364	36	3	0	0	0	1
30°	992	343	33	2	1	0	3	0
31°	957	316	28	5	1	2	0	0
32°	911	283	26	2	1	0	0	0
33°	857	251	24	3	0	0	0	1
34°	795	218	20	2	0	0	0	0
35°	732	187	13	0	0	0	0	0
36°	668	164	17	0	0	0	0	2
37°	606	137	10	0	0	0	0	0
38°	542	116	9	0	0	0	0	0
39°	479	95	8	1	0	0	0	1
40°	416	79	6	0	0	0	0	0
42.5°	280	47	6	0	0	0	0	1
45°	175	24	0	0	0	0	0	0
47.5°	108	17	1	1	1	1	0	0
50°	61	8	0	0	0	0	0	0
52.5°	34	6	0	0	0	0	0	2
55°	14	1	1	0	0	0	0	0
57.5°	9	4	1	1	0	0	4	0
60°	3	1	1	0	0	0	0	0
62.5°	1	0	0	0	0	0	0	0
65°	1	2	1	1	2	1	1	1
67.5°	2	1	1	2	0	2	1	2
70°	0	2	1	2	2	2	1	4
72.5°	2	1	0	1	1	1	0	2
75°	0	2	1	3	1	3	2	2
77.5°	1	1	0	1	0	0	0	1
80°	0	0	0	0	0	0	0	0





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**CANDELA DISTRIBUTION (continued):**

	30°	45°	67.5°	90°	112.5°	135°	157.5°	180°
82.5°	0	1	1	1	1	0	1	1
85°	1	0	1	1	1	0	0	0
87.5°	0	0	0	0	0	0	2	0
90°	0	0	0	0	0	0	0	0

(END OF REPORT)