

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: P13486

Luminaire Tested: **AXSA32511D4W20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P13486
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: AXSA32511D4W20
Description: RSA RECESSED LED SQUARE FIXTURE WITH FIXED BRACKET AT 30 DEGREE, 3000K LED LIGHT ENGINE, 25 DEGREE REFLECTOR, WHITE TRIM WITH CLEAR TRIM WITH CLEAR GLASS LENS.
Light Source: (1) PHILIPS FORTIMO SLM 3000K LED
87182911 8708000
Ballast/Driver: (1) PHILIPS ADVANCE ELECTRONIC DRIVER
XR025C100V036XPM1

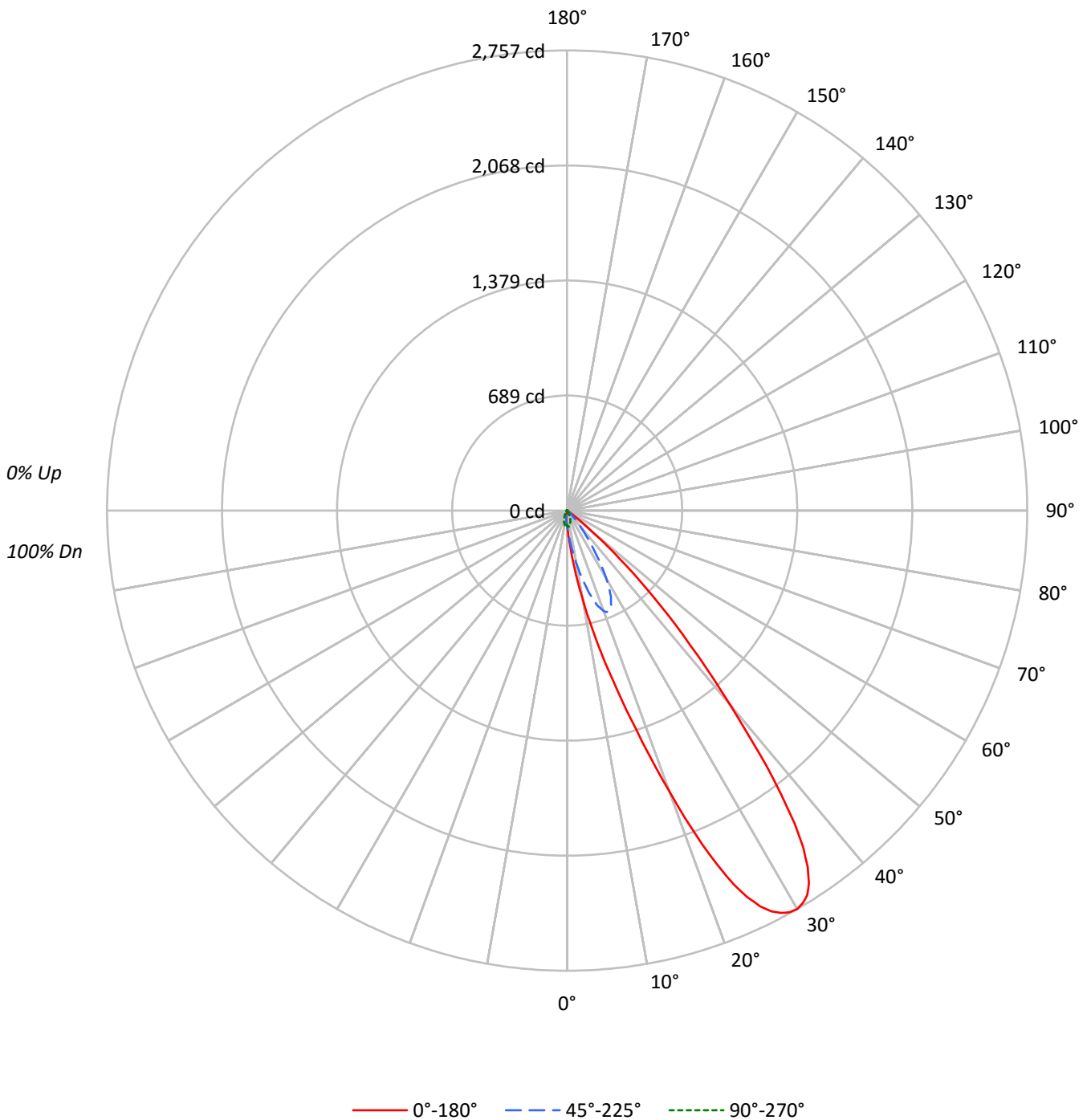
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 632.1 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 2.29 / 0.76 / 1.23
Luminous Opening: Rectangular (W 0.29' x L: 0.29' 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





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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	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	94	92					92			
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	89	87	85	83					83			
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75					75			
4	93	84	78	73	91	83	77	72	81	76	71	79	74	71	77	73	70	68					68			
5	87	77	70	65	85	76	70	65	74	69	64	73	68	64	71	67	63	61					61			
6	81	71	64	59	80	70	63	59	68	63	58	67	62	58	66	61	57	56					56			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	55	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42					42			
10	63	51	44	40	62	51	44	40	50	44	40	49	44	40	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10882	10882	10882
5°	27816	12320	5716
10°	69638	10921	1927
15°	136496	9432	655
20°	241295	7271	673
25°	356846	4607	558
30°	402811	2338	0
35°	381066	927	0
40°	250073	826	165
45°	129375	358	358
50°	36220	197	197
55°	5736	0	0
60°	1518	253	0
65°	299	599	599
70°	0	0	0
75°	0	489	1467
80°	0	729	1457
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.0	2.1
10°-20°	83.6	13.2
20°-30°	215.5	34.1
30°-40°	222.3	35.2
40°-50°	87.2	13.8
50°-60°	8.6	1.4
60°-70°	1.1	0.2
70°-80°	0.5	0.1
80°-90°	0.3	0.0
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°	312.1	49.4
0°-40°	534.4	84.5
0°-60°	630.2	99.7
0°-90°	632.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	632.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	86	86	86	86	86	
5°	219	171	97	58	45	31
15°	1042	511	72	11	5	326
25°	2556	625	33	4	4	1149
35°	2467	260	6	1	0	1454
45°	723	45	2	0	2	584
55°	26	6	0	0	0	43
65°	1	2	2	2	2	1
75°	0	0	1	0	3	0
85°	0	0	0	2	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	86	86	86	86	86	86	86	86	86	86	86
2.5°	130	131	130	131	129	130	130	130	130	130	130
5°	219	221	221	221	219	220	219	219	218	219	218
7.5°	360	359	358	358	358	359	356	356	354	354	351
10°	542	539	538	538	538	538	536	534	533	528	527
12.5°	773	774	774	773	769	765	764	762	757	752	750
15°	1042	1046	1045	1042	1035	1032	1028	1022	1019	1010	1002
17.5°	1370	1368	1365	1363	1358	1352	1342	1336	1324	1316	1301
20°	1792	1788	1779	1772	1766	1758	1746	1730	1710	1693	1674
21°	1975	1971	1967	1959	1954	1940	1924	1906	1885	1861	1841
22°	2152	2144	2139	2135	2124	2114	2092	2076	2055	2025	2000
23°	2309	2304	2305	2294	2285	2269	2251	2233	2209	2178	2147
24°	2450	2441	2437	2433	2416	2402	2381	2364	2337	2308	2276
25°	2556	2552	2547	2538	2527	2509	2493	2470	2444	2415	2380
26°	2637	2632	2624	2615	2605	2587	2566	2542	2515	2486	2452
27°	2696	2695	2689	2679	2666	2651	2631	2607	2581	2546	2513
28°	2730	2729	2723	2715	2702	2687	2666	2644	2617	2586	2550
29°	2751	2750	2742	2736	2723	2708	2687	2664	2636	2604	2570
30°	2757	2756	2750	2741	2730	2713	2693	2668	2640	2606	2566
31°	2743	2741	2737	2728	2712	2694	2674	2650	2620	2584	2544
32°	2715	2711	2705	2694	2677	2660	2638	2614	2583	2544	2503
33°	2660	2658	2650	2639	2624	2604	2581	2555	2518	2480	2439
34°	2577	2574	2570	2560	2544	2524	2499	2471	2434	2397	2350
35°	2467	2459	2456	2446	2431	2414	2391	2360	2330	2288	2244
36°	2318	2315	2309	2298	2286	2274	2249	2219	2188	2150	2109
37°	2132	2130	2126	2122	2113	2099	2077	2048	2025	1984	1947
38°	1936	1932	1927	1922	1907	1897	1878	1863	1827	1801	1764
39°	1717	1717	1710	1703	1694	1685	1671	1652	1630	1602	1572
40°	1514	1508	1508	1507	1495	1488	1476	1454	1435	1411	1388
42.5°	1089	1083	1085	1079	1073	1063	1056	1045	1029	1013	993
45°	723	718	718	716	712	710	702	696	693	683	675
47.5°	428	431	428	426	426	422	419	417	413	410	406
50°	184	186	186	185	185	187	188	187	186	186	187
52.5°	68	68	69	69	69	68	68	71	69	72	72
55°	26	27	27	27	28	27	27	28	28	29	28
57.5°	10	8	9	9	9	9	12	11	9	9	9
60°	6	5	4	4	4	5	4	4	5	5	5
62.5°	2	1	0	1	0	1	0	0	3	1	1
65°	1	0	1	2	1	1	2	1	1	1	1
67.5°	0	1	1	2	0	3	2	0	1	1	1
70°	0	0	2	0	0	0	0	0	0	0	0
72.5°	1	0	1	0	0	1	1	0	1	0	0
75°	0	1	0	0	1	1	0	1	1	0	0
77.5°	0	0	0	0	0	1	1	1	1	2	0
80°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
82.5°	0	0	0	0	0	0	0	0	1	1	0
85°	0	0	0	0	0	0	0	0	0	0	0
87.5°	1	0	0	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):

	12.5°	15°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	45°
0°	86	86	86	86	86	86	86	86	86	86	86
2.5°	129	131	127	128	128	127	125	125	123	123	121
5°	217	215	207	204	200	197	192	190	187	181	171
7.5°	346	341	326	317	308	301	292	283	272	265	242
10°	517	509	473	458	442	428	412	394	376	358	323
12.5°	737	721	661	638	615	588	559	532	503	474	415
15°	986	959	867	832	795	754	714	675	634	593	511
17.5°	1264	1221	1073	1018	964	909	855	799	745	693	592
20°	1612	1544	1301	1213	1129	1047	968	896	824	760	641
21°	1770	1684	1395	1292	1191	1097	1011	927	849	781	651
22°	1916	1821	1487	1366	1250	1143	1045	954	864	788	652
23°	2060	1949	1574	1435	1304	1182	1070	968	875	792	648
24°	2180	2064	1640	1490	1342	1209	1088	973	875	789	640
25°	2280	2155	1697	1530	1371	1224	1093	975	870	780	625
26°	2346	2217	1728	1547	1372	1218	1080	958	850	760	598
27°	2405	2271	1751	1555	1372	1208	1069	942	836	745	577
28°	2442	2301	1744	1543	1354	1185	1041	913	806	712	543
29°	2457	2306	1725	1512	1319	1149	1007	881	775	678	507
30°	2448	2294	1686	1472	1277	1108	965	842	735	637	466
31°	2417	2255	1630	1417	1228	1058	921	799	689	592	422
32°	2373	2205	1563	1355	1168	1010	876	751	641	545	380
33°	2304	2133	1488	1285	1107	953	822	701	593	494	337
34°	2215	2037	1408	1210	1043	896	767	646	539	447	297
35°	2103	1931	1325	1139	975	834	711	592	488	403	260
36°	1976	1812	1235	1063	908	773	650	538	437	357	227
37°	1828	1667	1142	981	838	706	590	483	388	312	194
38°	1654	1516	1049	902	765	642	529	427	341	271	165
39°	1480	1359	952	819	695	575	469	375	295	234	137
40°	1307	1210	861	740	625	513	416	328	255	198	115
42.5°	945	886	642	547	454	364	285	219	166	124	71
45°	648	616	453	381	309	245	188	139	105	80	45
47.5°	391	375	279	237	193	152	117	87	66	50	28
50°	186	185	151	128	106	87	68	52	41	30	16
52.5°	73	73	67	62	51	42	35	27	19	15	6
55°	30	31	30	28	25	22	17	14	12	9	6
57.5°	10	11	11	11	10	8	10	5	7	4	4
60°	5	5	4	4	5	4	4	3	3	3	1
62.5°	3	3	2	1	3	0	2	1	1	1	3
65°	1	1	1	1	1	1	1	1	1	2	2
67.5°	0	1	1	0	1	1	2	0	2	3	1
70°	0	0	0	0	0	0	1	1	0	0	0
72.5°	0	1	0	0	0	1	0	0	0	1	2
75°	1	0	1	0	0	0	0	1	1	1	0
77.5°	1	1	1	1	2	0	1	1	0	2	1
80°	1	0	0	0	0	1	1	1	0	0	0



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CANDELA DISTRIBUTION (continued):

	12.5°	15°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	45°
82.5°	0	0	0	0	0	0	0	0	0	1	0
85°	0	0	0	0	1	0	0	0	1	0	0
87.5°	0	0	0	0	0	1	1	0	0	0	0
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°	86	86	86	86	86	86
2.5°	110	98	89	81	76	74
5°	130	97	72	58	47	45
7.5°	153	94	57	39	30	27
10°	176	85	42	24	16	15
12.5°	196	79	32	16	8	6
15°	211	72	24	11	6	5
17.5°	220	66	21	8	5	4
20°	217	54	14	5	3	5
21°	212	52	14	6	3	5
22°	204	45	12	4	2	2
23°	197	45	9	3	2	3
24°	180	36	9	2	2	2
25°	167	33	9	4	3	4
26°	146	25	3	1	0	0
27°	134	27	7	4	3	3
28°	117	22	5	2	1	1
29°	100	19	4	2	2	1
30°	87	16	3	2	1	0
31°	73	13	2	0	0	0
32°	63	12	3	2	0	4
33°	54	10	4	1	1	0
34°	46	12	2	2	1	2
35°	38	6	4	1	0	0
36°	31	6	2	2	0	0
37°	25	4	2	0	0	0
38°	22	4	2	0	0	0
39°	16	3	0	0	0	0
40°	15	5	2	1	1	1
42.5°	6	1	0	0	0	0
45°	5	2	3	0	0	2
47.5°	8	2	1	0	0	2
50°	3	1	1	0	0	1
52.5°	0	0	0	0	0	0
55°	0	0	1	0	0	0
57.5°	0	3	0	0	1	0
60°	0	1	1	1	0	0
62.5°	0	0	0	1	2	0
65°	0	2	1	2	2	2
67.5°	0	1	1	2	2	2
70°	0	0	0	0	1	0
72.5°	0	0	0	0	2	0
75°	0	1	0	0	0	3
77.5°	0	0	1	1	1	1
80°	0	1	1	0	1	2



TEST NUMBER: P13486

CATALOG NUMBER: AXSA32511D4W20

CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)