

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: P13484

Luminaire Tested: **ASAS304011E4TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P13484
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: ASAS304011E4TW
Description: RSA RECESSED LED SQUARE FIXTURE WITH ADJUSTABLE BRACKET AT 45 DEGREE, 3000K LED LIGHT ENGINE, 40 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

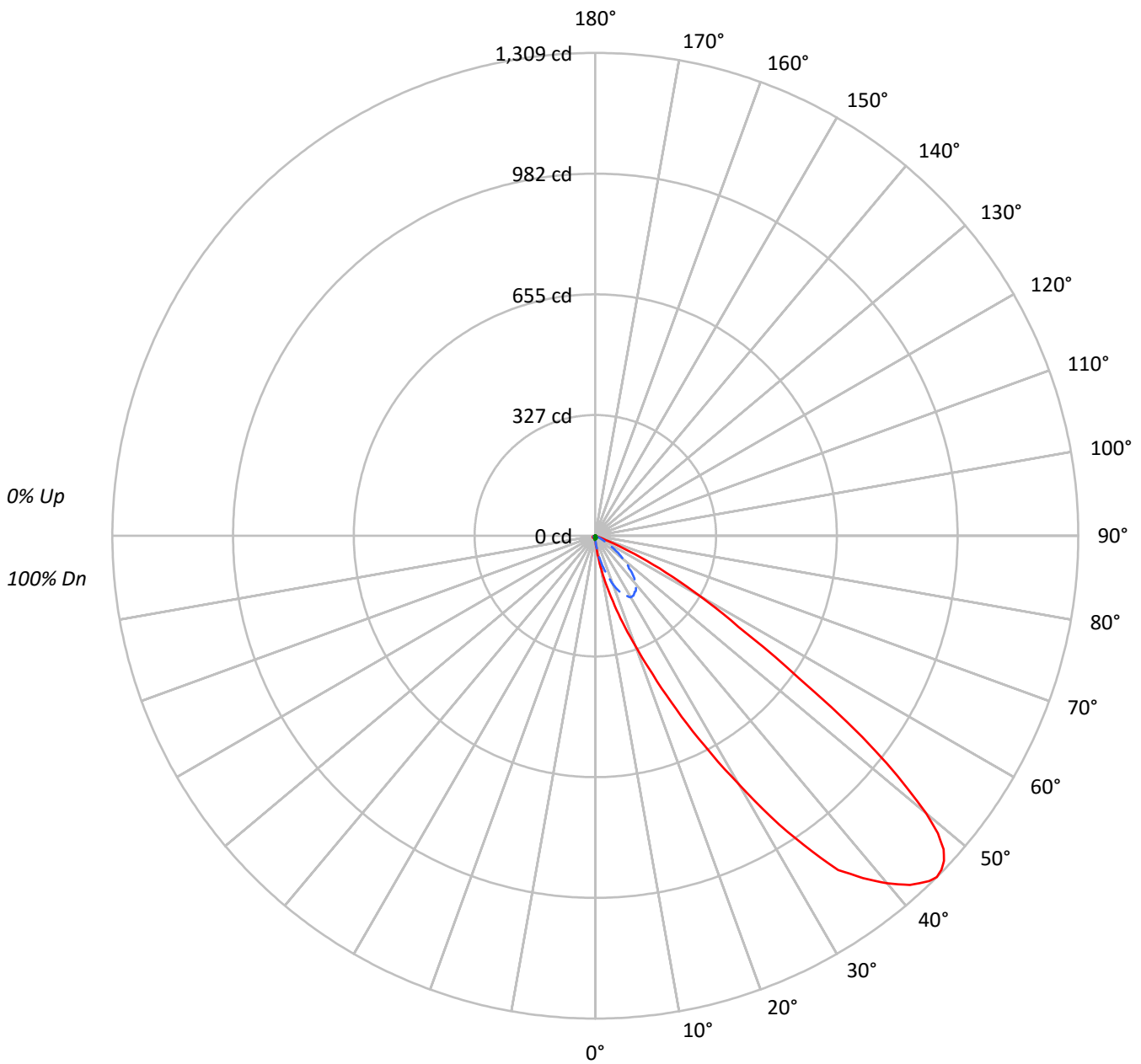
Lumens per Lamp: N/A
Luminaire Lumens: 455.6 lumens
Efficiency: N/A
Efficacy: 21.7 lumens/watt
Spacing Criteria (0/90/45): 4.3 / 1.01 / 2.34
Luminous Opening: Rectangular (W 0.31' x L: 0.31' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	101	94	88	82	99	92	86	81	88	84	80	85	81	78	82	79	76	74
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	54	40	32	26	53	40	31	26	38	31	26	37	30	25	36	30	25	23
10	50	36	28	22	49	36	28	22	35	27	22	34	27	22	33	27	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	992	992	992
5°	3762	1328	664
10°	10409	1119	672
15°	20996	1027	685
20°	37418	704	469
25°	62998	851	851
30°	98892	891	764
35°	143572	269	269
40°	176979	576	863
45°	204044	624	779
50°	200627	514	1029
55°	129521	384	1153
60°	72306	661	1323
65°	30775	782	1304
70°	1289	645	2256
75°	0	0	426
80°	635	1269	1904
85°	0	1265	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.4
10°-20°	15.7	3.5
20°-30°	53.0	11.6
30°-40°	115.2	25.3
40°-50°	151.0	33.1
50°-60°	94.6	20.8
60°-70°	21.2	4.7
70°-80°	1.7	0.4
80°-90°	1.0	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°	70.8	15.5
0°-40°	186.0	40.8
0°-60°	431.7	94.8
0°-90°	455.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	455.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	34	25	12	6	6	5
15°	184	96	9	5	6	58
25°	518	174	7	4	7	251
35°	1067	186	2	0	2	661
45°	1309	138	4	5	5	985
55°	674	59	2	5	6	630
65°	118	4	3	5	5	131
75°	0	0	0	2	1	1
85°	0	2	1	1	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°	9	9	9	9	9	9	9	9	9	9	9
2.5°	17	16	18	16	16	16	17	15	16	16	15
5°	34	34	33	33	32	32	32	31	30	30	25
7.5°	57	58	58	58	58	56	56	55	54	52	38
10°	93	92	91	91	90	90	88	86	83	81	55
12.5°	134	133	136	131	131	129	127	122	123	119	76
15°	184	184	182	181	178	175	171	168	162	156	96
17.5°	247	245	245	241	238	232	227	219	212	203	118
20°	319	319	316	312	304	298	288	278	267	253	140
22.5°	406	405	401	395	385	376	360	345	330	310	159
25°	518	516	507	497	483	466	446	424	398	371	174
27.5°	643	635	626	611	593	566	536	504	472	437	184
30°	777	773	758	736	706	670	631	590	545	501	193
32.5°	929	925	909	879	843	798	745	687	629	572	192
35°	1067	1058	1048	1013	972	918	857	790	722	653	186
36°	1120	1107	1090	1062	1021	964	902	833	759	687	186
37°	1148	1144	1127	1097	1054	998	932	863	789	712	183
38°	1178	1173	1155	1126	1081	1024	955	885	810	729	179
39°	1204	1201	1182	1151	1107	1047	977	901	825	739	175
40°	1230	1227	1207	1175	1128	1066	996	916	836	741	173
41°	1252	1247	1227	1194	1143	1081	1006	925	836	736	166
42°	1274	1265	1245	1208	1155	1089	1014	927	830	725	159
43°	1288	1280	1260	1218	1167	1100	1021	928	821	712	153
44°	1302	1294	1268	1228	1172	1103	1021	923	808	696	146
45°	1309	1299	1274	1231	1172	1102	1016	911	792	678	138
46°	1304	1293	1270	1222	1165	1089	1000	889	769	656	127
47°	1292	1283	1258	1208	1150	1073	982	865	746	637	122
48°	1270	1264	1237	1190	1128	1052	958	840	718	615	116
49°	1230	1224	1200	1156	1097	1021	922	803	690	590	107
50°	1170	1163	1141	1101	1046	979	880	763	658	566	99
51°	1090	1085	1068	1030	979	912	821	715	621	534	91
52°	1002	1001	983	950	904	840	755	663	581	500	85
53°	906	903	886	861	822	759	677	602	530	461	77
54°	791	787	774	757	725	671	599	536	478	418	68
55°	674	673	660	642	618	573	517	462	418	369	59
57.5°	460	455	450	430	410	385	349	316	283	253	38
60°	328	323	318	305	290	270	248	226	200	180	22
62.5°	215	213	211	204	196	180	167	149	135	117	9
65°	118	118	115	116	113	106	97	87	78	65	4
67.5°	37	36	39	36	37	36	31	28	24	21	0
70°	4	3	2	3	5	3	4	5	4	5	2
72.5°	1	1	2	2	1	2	2	2	1	2	0
75°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	1
80°	1	0	0	1	1	1	1	0	1	1	0



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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°	0	0	0	0	0	0	0	0	0	0	2
87.5°	0	1	2	0	0	2	1	1	1	1	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°	9	9	9	9	9	9
2.5°	12	11	9	8	9	6
5°	20	12	10	6	7	6
7.5°	24	11	7	8	6	5
10°	28	10	6	7	5	6
12.5°	32	10	8	6	6	4
15°	37	9	6	5	5	6
17.5°	42	8	6	7	6	4
20°	45	6	4	4	4	4
22.5°	46	6	5	4	4	3
25°	50	7	5	4	5	7
27.5°	49	6	4	6	5	5
30°	47	7	7	5	6	6
32.5°	42	7	6	6	6	5
35°	30	2	2	0	1	2
36°	32	4	3	4	4	5
37°	29	4	3	4	5	3
38°	25	2	3	3	3	3
39°	23	4	3	4	5	3
40°	25	4	6	6	6	6
41°	22	5	6	5	4	6
42°	18	4	4	4	5	6
43°	17	3	3	4	5	5
44°	15	3	4	4	7	4
45°	13	4	4	5	6	5
46°	9	2	1	1	2	1
47°	9	1	1	2	4	3
48°	10	3	4	5	6	5
49°	8	3	3	5	5	6
50°	8	3	4	5	7	6
51°	6	2	5	5	6	6
52°	5	4	6	6	10	8
53°	6	3	4	6	6	8
54°	3	2	5	5	7	6
55°	2	2	3	5	6	6
57.5°	0	0	3	1	1	2
60°	2	3	5	5	7	6
62.5°	3	3	7	4	5	5
65°	1	3	3	5	6	5
67.5°	0	1	0	0	0	0
70°	2	2	3	4	6	7
72.5°	1	3	2	4	5	5
75°	0	0	0	2	1	1
77.5°	0	1	1	2	2	2
80°	2	2	1	2	4	3



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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)