

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: P22057

Luminaire Tested: **ARAC301511E1TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P22057
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: ARAC301511E1TW
Description: RSA 130 MILLIMETER LED ROUND ADJUSTABLE ACCENT FIXTURE WITH
SPECULAR CLEAR ANGLE CUT REFLECTOR, CLEAR GLASS LENS AND 15 DEGREE LED
Light Source: (1) SMT 3000K LED
SLM-1100
Ballast/Driver: (1) PHILIPS ELECTRONIC DRIVER
NV2I5AE40205

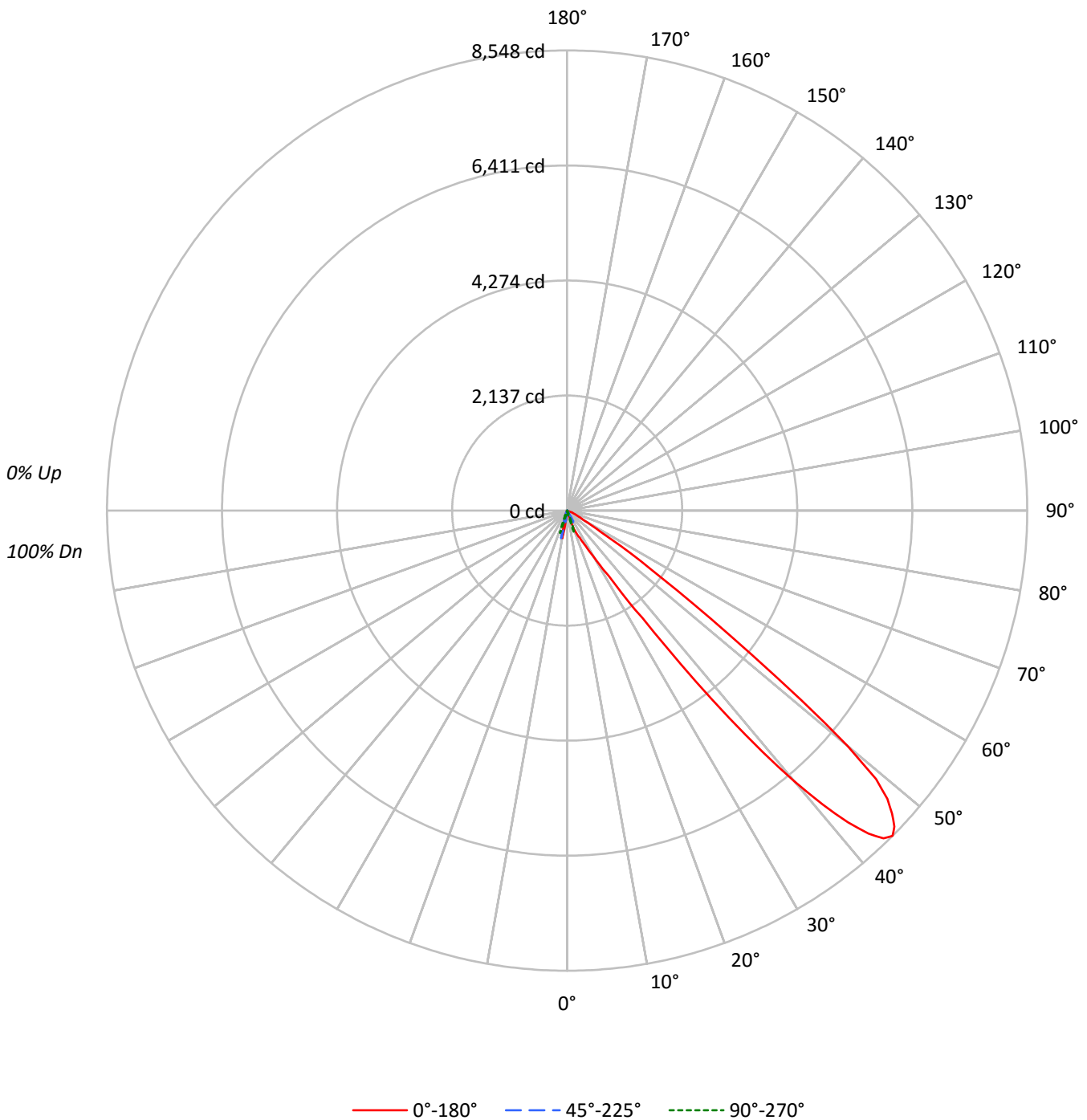
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 932.1 lumens
Efficiency: N/A
Efficacy: 48.3 lumens/watt
Spacing Criteria (0/90/45): 4.11 / 1.44 / 1.48
Luminous Opening: Vertical Cylinder (Dia: 0.29' x H: 0.1')
CIE Type: Direct

Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (Ain): 0.16285
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P22057
CATALOG NUMBER: ARAC301511E1TW

Luminous Intensity Polar Plot





TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	83	75	69	90	81	74	69	78	72	67	76	71	66	73	69	65	63
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	59	45	36	30	57	44	36	30	43	35	30	41	35	29	40	34	29	27
9	54	40	32	26	53	39	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	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2578	2578	2578
5°	2648	2492	10437
10°	3342	4405	78986
15°	5525	17620	34194
20°	50447	40239	15238
25°	82708	10634	4579
30°	149768	3863	1189
35°	366179	2561	904
40°	1010048	616	0
45°	1355714	317	0
50°	1119917	330	0
55°	329589	346	0
60°	66603	367	0
65°	31305	394	0
70°	16705	428	0
75°	0	473	0
80°	0	534	0
85°	0	617	0



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.0	0.8
10°-20°	45.7	4.9
20°-30°	74.2	8.0
30°-40°	185.4	19.9
40°-50°	433.0	46.5
50°-60°	162.1	17.4
60°-70°	21.4	2.3
70°-80°	2.1	0.2
80°-90°	1.2	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°	126.9	13.6
0°-40°	312.3	33.5
0°-60°	907.3	97.3
0°-90°	932.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	932.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	17	16	16	33	67	2
15°	37	16	118	249	229	29
25°	560	66	72	41	31	291
35°	2431	51	17	4	6	1967
45°	8548	26	2	1	0	6140
55°	1905	11	2	1	0	2171
65°	159	1	2	1	0	181
75°	0	1	2	1	0	14
85°	0	1	2	2	0	0
90°	0	0	0	0	0	



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	16	16	16	16	16	16	16	16	16	16	16
2.5°	15	15	15	15	15	15	15	15	15	15	15
5°	17	17	17	17	17	17	17	17	17	17	17
7.5°	19	19	19	19	19	19	19	19	19	19	19
10°	22	22	21	21	21	21	21	22	22	22	21
12.5°	29	28	28	27	27	27	28	28	27	27	26
15°	37	36	36	36	37	36	36	35	34	34	34
17.5°	113	107	106	105	103	99	96	90	86	81	77
20°	341	335	333	332	330	326	319	313	305	299	291
22.5°	476	475	473	473	472	471	469	467	464	462	459
25°	560	555	553	551	549	547	543	539	535	530	525
27.5°	736	725	720	716	710	704	694	682	671	659	648
30°	1008	992	981	973	963	950	932	910	887	867	844
32.5°	1442	1418	1406	1389	1368	1343	1307	1265	1221	1178	1138
35°	2431	2372	2331	2280	2219	2144	2047	1939	1836	1740	1646
36°	3120	3037	2969	2888	2796	2680	2524	2361	2207	2061	1889
37°	3980	3873	3776	3661	3521	3342	3113	2874	2647	2436	2203
38°	4888	4779	4675	4533	4351	4117	3804	3479	3167	2870	2550
39°	5766	5667	5572	5435	5244	4970	4583	4172	3751	3357	2987
40°	6562	6475	6378	6244	6058	5791	5385	4904	4389	3883	3414
41°	7231	7158	7065	6925	6734	6464	6074	5573	5005	4410	3838
42°	7790	7716	7601	7462	7252	6965	6569	6070	5486	4846	4206
43°	8203	8143	8019	7846	7608	7298	6884	6377	5782	5125	4452
44°	8464	8413	8287	8110	7851	7523	7091	6553	5929	5251	4568
45°	8548	8521	8418	8240	7989	7663	7199	6628	5967	5268	4581
46°	8450	8440	8367	8227	7983	7651	7174	6571	5886	5178	4493
47°	8252	8240	8167	8043	7812	7469	6974	6357	5670	4962	4290
48°	8006	7982	7879	7730	7482	7126	6622	5996	5299	4606	3972
49°	7605	7592	7453	7264	6993	6604	6072	5451	4778	4132	3564
50°	6793	6819	6693	6493	6179	5763	5244	4675	4091	3528	3047
51°	5593	5652	5553	5357	5035	4646	4198	3733	3264	2819	2510
52°	4344	4396	4305	4116	3828	3504	3154	2815	2493	2183	1922
53°	3342	3374	3280	3113	2892	2655	2419	2190	1978	1770	1590
54°	2526	2551	2479	2367	2223	2071	1919	1770	1627	1483	1354
55°	1905	1927	1882	1817	1730	1631	1525	1417	1305	1192	1087
57.5°	736	749	744	730	706	679	646	611	572	532	509
60°	363	369	368	363	355	348	336	324	312	299	287
62.5°	246	253	248	244	238	231	224	217	208	199	193
65°	159	160	160	156	153	148	143	137	132	127	126
67.5°	111	111	110	109	106	104	101	99	96	94	93
70°	78	80	77	76	75	74	71	69	66	64	61
72.5°	13	28	16	14	21	10	13	9	3	2	2
75°	0	0	0	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

CANDELA DISTRIBUTION (continued):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
82.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	17.5°	20°	22.5°	45°	67.5°	90°
0°	16	16	16	16	16	16	16	16	16	16	16
2.5°	15	15	15	15	15	15	15	15	16	15	16
5°	17	17	17	17	17	17	17	17	16	15	16
7.5°	19	19	19	19	19	19	19	19	16	14	18
10°	21	21	21	21	21	20	20	19	17	15	29
12.5°	26	26	26	26	25	25	24	22	17	16	85
15°	33	33	34	33	32	31	30	27	16	25	118
17.5°	72	66	60	64	57	45	41	37	16	49	437
20°	281	268	256	255	221	193	156	122	21	96	272
22.5°	454	447	440	431	412	375	334	281	42	363	119
25°	520	513	507	501	492	479	453	419	66	227	72
27.5°	632	614	600	580	566	536	511	491	242	72	30
30°	815	786	759	725	699	637	589	553	221	26	26
32.5°	1092	1049	990	957	925	849	796	745	105	17	23
35°	1551	1461	1380	1291	1222	1059	920	810	51	19	17
36°	1778	1647	1534	1411	1319	1118	957	828	41	19	14
37°	2041	1861	1705	1552	1433	1178	992	846	38	18	11
38°	2330	2097	1873	1702	1551	1236	1024	865	36	16	8
39°	2642	2342	2065	1853	1666	1297	1054	880	35	15	6
40°	2977	2602	2261	2005	1786	1357	1082	892	34	14	4
41°	3314	2856	2453	2149	1896	1414	1102	898	32	12	3
42°	3607	3084	2626	2277	1987	1461	1120	898	30	10	3
43°	3816	3243	2745	2353	2034	1475	1115	889	29	9	2
44°	3919	3321	2803	2378	2038	1461	1097	879	27	8	2
45°	3926	3327	2808	2370	2017	1437	1079	866	26	7	2
46°	3842	3255	2753	2316	1968	1397	1053	850	23	7	2
47°	3670	3108	2631	2217	1882	1340	1019	827	21	6	2
48°	3437	2891	2461	2072	1768	1275	975	798	20	6	2
49°	3100	2611	2237	1897	1632	1200	928	760	18	6	2
50°	2677	2253	1956	1674	1455	1089	862	721	16	5	2
51°	2167	1837	1617	1405	1237	975	807	686	15	5	2
52°	1724	1501	1350	1203	1091	903	757	640	14	4	2
53°	1453	1292	1184	1078	996	839	681	528	13	3	2
54°	1257	1149	1053	969	892	712	515	365	12	2	2
55°	1023	931	848	766	692	521	346	248	11	2	2
57.5°	476	445	414	383	354	286	217	161	8	2	2
60°	275	258	242	226	212	172	138	122	4	2	2
62.5°	183	173	163	153	144	126	113	99	1	1	2
65°	122	119	116	112	108	100	87	66	1	1	2
67.5°	91	89	87	84	81	69	49	28	1	1	2
70°	60	56	52	47	42	26	12	3	0	1	2
72.5°	1	1	1	0	0	0	0	0	1	2	2
75°	0	0	0	0	0	0	0	0	1	2	2
77.5°	0	0	0	0	0	0	0	0	1	2	2
80°	0	0	0	0	0	0	0	0	1	2	2



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	17.5°	20°	22.5°	45°	67.5°	90°
82.5°	0	0	0	0	0	0	0	0	1	2	2
85°	0	0	0	0	0	0	0	0	1	2	2
87.5°	0	0	0	0	0	0	0	0	1	2	2
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	16	16	16	16
2.5°	17	19	19	20
5°	21	33	54	67
7.5°	47	171	215	232
10°	145	297	484	520
12.5°	289	527	378	341
15°	514	249	237	229
17.5°	202	176	143	131
20°	153	119	105	103
22.5°	94	71	57	53
25°	48	41	35	31
27.5°	31	25	18	14
30°	22	14	9	8
32.5°	14	8	6	6
35°	8	4	5	6
36°	6	3	4	8
37°	5	3	3	9
38°	4	2	2	4
39°	3	2	0	0
40°	3	2	0	0
41°	2	2	0	0
42°	2	2	0	0
43°	2	2	0	0
44°	2	1	0	0
45°	2	1	0	0
46°	2	2	0	0
47°	2	2	0	0
48°	2	1	0	0
49°	2	2	0	0
50°	2	2	0	0
51°	2	2	0	0
52°	2	2	0	0
53°	2	2	0	0
54°	2	2	0	0
55°	2	1	0	0
57.5°	2	1	0	0
60°	2	1	0	0
62.5°	2	1	0	0
65°	2	1	0	0
67.5°	2	1	0	0
70°	2	1	0	0
72.5°	2	1	0	0
75°	2	1	0	0
77.5°	2	2	0	0
80°	3	2	0	0



TEST NUMBER: P22057

CATALOG NUMBER: ARAC301511E1TW

CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)