

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: P21963

Luminaire Tested: **ARAC302511E1TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P21963
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: ARAC302511E1TW
Description: RSA 130 MILLIMETER LED ROUND ADJUSTABLE ACCENT FIXTURE WITH SPECULAR CLEAR ANGLE CUT REFLECTOR, CLEAR GLASS LENS AND 25 DEGREE LED
Light Source: (1) SMT 3000K LED
SLM-1100
Ballast/Driver: (1) PHILIPS ELECTRONIC DRIVER
NV2I5AE40205

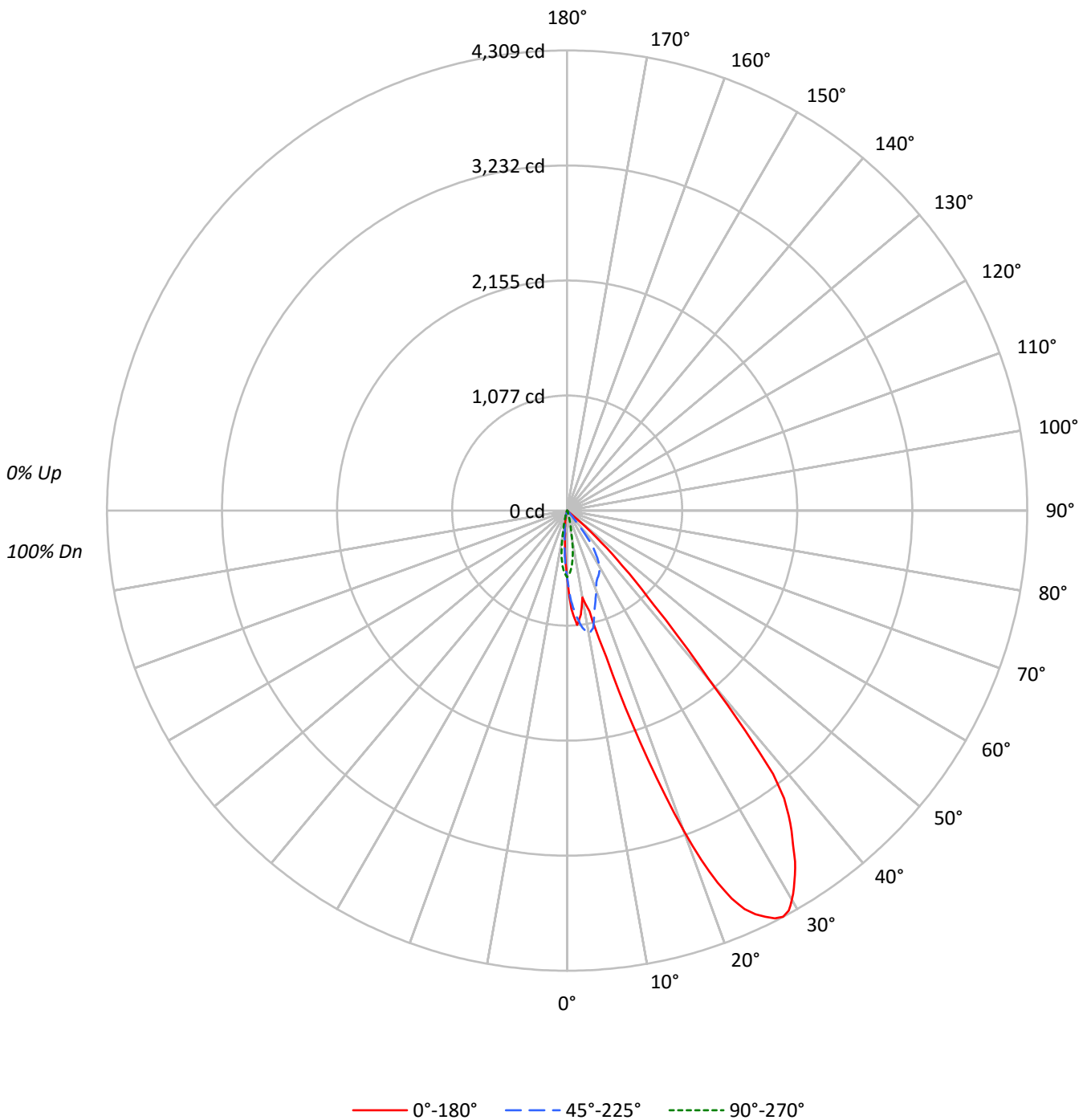
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 893.8 lumens
Efficiency: N/A
Efficacy: 46.6 lumens/watt
Spacing Criteria (0/90/45): 1.78 / 0.31 / 0.91
Luminous Opening: Vertical Cylinder (Dia: 0.29' x H: 0.1')
CIE Type: Direct

Input Watts (W): 19.2
Input Voltage (V): NR
Input Current (A_{in}): 0.1622
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

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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92				92
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85				85
3	101	94	88	84	99	92	87	83	89	85	82	87	83	80	85	82	79	78				78
4	95	86	80	76	93	85	80	75	83	78	74	81	77	73	79	76	73	71				71
5	89	80	73	69	87	79	73	68	77	72	68	75	71	67	74	70	67	65				65
6	84	74	67	63	82	73	67	62	72	66	62	70	65	62	69	64	61	60				60
7	79	69	62	57	78	68	62	57	67	61	57	65	60	57	64	60	56	55				55
8	74	64	57	53	73	63	57	53	62	56	52	61	56	52	60	55	52	50				50
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46				46
10	66	55	49	45	65	55	49	45	54	48	45	53	48	44	53	48	44	43				43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	100529	100529	100529
5°	167609	79754	33646
10°	125467	39038	13975
15°	212036	11647	896
20°	472513	3994	740
25°	615883	1920	443
30°	625519	743	149
35°	551603	452	0
40°	318315	462	0
45°	116412	317	0
50°	1649	165	0
55°	1038	346	0
60°	1101	367	0
65°	0	197	0
70°	0	428	0
75°	0	237	0
80°	0	534	0
85°	0	617	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	6.1
10°-20°	142.0	15.9
20°-30°	306.6	34.3
30°-40°	303.8	34.0
40°-50°	81.0	9.1
50°-60°	2.4	0.3
60°-70°	1.3	0.1
70°-80°	1.3	0.1
80°-90°	1.1	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°	502.8	56.3
0°-40°	806.7	90.3
0°-60°	890.1	99.6
0°-90°	893.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	624	624	624	624	624	
5°	1076	993	512	274	216	91
15°	1420	983	78	17	6	508
25°	4170	685	13	4	3	1878
35°	3662	430	3	1	0	2197
45°	734	14	2	1	0	627
55°	6	5	2	1	0	6
65°	0	1	1	1	0	2
75°	0	1	1	1	0	0
85°	0	1	2	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°	25°
0°	624	624	624	624	624	624	624	624	624	624	624
2.5°	922	924	926	924	921	919	917	916	930	918	918
5°	1076	1076	1079	1081	1080	1079	1073	1067	1068	1074	1054
7.5°	981	989	1004	1022	1037	1034	1031	1031	1026	1050	1060
10°	826	829	837	844	847	859	882	903	910	945	960
12.5°	968	963	958	946	940	941	945	946	950	984	945
15°	1420	1413	1388	1351	1319	1296	1251	1200	1185	1238	1123
17.5°	2271	2267	2232	2173	2088	1976	1855	1727	1685	1727	1602
20°	3194	3171	3113	3018	2915	2809	2690	2554	2471	2181	2075
21°	3506	3481	3432	3352	3252	3143	3005	2844	2681	2286	2126
22°	3758	3747	3713	3644	3546	3428	3258	3043	2777	2359	2167
23°	3947	3946	3919	3849	3746	3610	3425	3194	2921	2425	2214
24°	4086	4086	4033	3953	3848	3731	3553	3321	3009	2482	2230
25°	4170	4148	4100	4025	3924	3807	3625	3390	3054	2531	2241
26°	4233	4215	4164	4065	3950	3828	3645	3405	3058	2563	2241
27°	4286	4263	4194	4094	3970	3832	3638	3380	3045	2578	2217
28°	4309	4272	4193	4094	3968	3821	3614	3350	3016	2563	2183
29°	4282	4241	4160	4053	3930	3787	3584	3321	2963	2520	2138
30°	4210	4157	4075	3973	3861	3727	3526	3259	2889	2445	2052
31°	4124	4051	3949	3866	3760	3630	3432	3159	2774	2327	1946
32°	4025	3925	3830	3740	3632	3507	3309	3026	2644	2214	1816
33°	3919	3812	3706	3604	3491	3364	3163	2871	2493	2058	1672
34°	3785	3681	3559	3457	3341	3205	2996	2701	2314	1876	1499
35°	3662	3552	3420	3327	3204	3054	2816	2512	2116	1687	1324
36°	3532	3438	3307	3195	3062	2887	2619	2298	1904	1498	1175
37°	3375	3297	3163	3040	2880	2680	2390	2059	1687	1302	1045
38°	3131	3086	2975	2844	2654	2426	2122	1798	1461	1131	918
39°	2653	2646	2598	2470	2267	2040	1757	1472	1193	982	828
40°	2068	2089	2052	1951	1786	1593	1380	1181	1006	893	774
42.5°	1205	1205	1175	1137	1082	1013	941	871	794	679	621
45°	734	738	720	693	650	592	528	461	388	308	271
47.5°	363	366	359	349	327	301	270	232	182	64	47
50°	10	10	10	9	9	8	8	7	7	7	7
52.5°	6	6	6	6	6	6	6	6	7	6	7
55°	6	6	6	6	6	6	6	6	7	7	7
57.5°	6	5	6	6	6	6	6	7	7	6	7
60°	6	6	6	6	6	6	6	6	6	6	6
62.5°	5	5	5	5	4	3	2	1	1	1	1
65°	0	0	0	0	1	1	1	1	1	0	1
67.5°	0	0	0	0	0	0	1	1	1	0	1
70°	0	0	0	0	0	1	1	1	1	0	1
72.5°	0	0	0	0	0	1	1	1	1	0	1
75°	0	0	0	0	0	0	0	1	1	0	1
77.5°	0	0	0	0	0	0	1	1	1	0	1
80°	0	0	0	0	0	0	0	1	1	0	1



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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°	0	0	0	0	0	0	0	1	1	0	1
85°	0	0	0	0	0	0	0	0	1	0	1
87.5°	0	0	0	0	0	0	0	1	1	0	1
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	624	624	624	624	624	624	624	624	624	624	624
2.5°	912	905	897	887	880	871	864	849	731	584	494
5°	1048	1044	1038	1031	1025	1016	1009	993	776	512	382
7.5°	1087	1110	1118	1123	1126	1127	1123	1108	764	404	218
10°	998	1032	1065	1120	1186	1228	1236	1172	700	257	150
12.5°	976	1052	1147	1221	1292	1342	1327	1126	595	148	87
15°	1175	1285	1376	1418	1397	1306	1178	983	438	78	43
17.5°	1613	1591	1506	1363	1208	1066	978	882	309	44	14
20°	1811	1527	1309	1133	1019	944	894	793	208	27	9
21°	1809	1498	1258	1092	986	912	856	762	172	24	8
22°	1826	1497	1233	1060	951	870	805	730	140	21	7
23°	1842	1492	1214	1030	912	825	761	709	111	18	6
24°	1847	1485	1198	996	874	786	727	695	84	16	5
25°	1853	1477	1175	968	844	761	709	685	62	13	5
26°	1842	1450	1152	942	819	746	696	671	46	11	4
27°	1814	1415	1117	908	795	728	679	658	40	9	3
28°	1776	1366	1072	874	771	710	663	644	35	7	3
29°	1712	1298	1026	839	746	690	650	629	30	6	3
30°	1627	1225	974	804	725	675	638	609	25	5	2
31°	1527	1146	916	775	707	660	623	578	23	4	2
32°	1407	1062	862	748	689	643	609	544	22	4	2
33°	1280	983	809	720	668	625	592	507	22	3	2
34°	1155	892	761	694	648	607	575	467	21	3	2
35°	1037	824	729	670	629	591	560	430	20	3	2
36°	943	773	701	650	611	576	544	369	18	3	2
37°	853	741	675	630	594	558	510	288	16	3	2
38°	783	707	650	611	576	516	398	205	13	3	2
39°	740	669	627	590	521	390	263	133	11	3	2
40°	707	647	598	510	381	250	161	89	8	3	2
42.5°	509	349	258	192	151	109	69	16	5	2	2
45°	229	166	118	56	13	12	12	14	4	2	1
47.5°	12	9	8	9	10	12	15	12	3	2	1
50°	7	8	9	10	11	11	11	8	2	1	1
52.5°	8	8	8	8	8	8	8	6	2	1	1
55°	7	7	7	6	7	7	7	5	2	2	2
57.5°	6	6	6	6	5	5	5	2	2	2	1
60°	6	5	4	3	2	2	2	1	2	2	1
62.5°	1	1	1	2	2	2	2	1	2	2	1
65°	1	1	1	2	2	2	2	1	2	1	2
67.5°	1	1	1	2	2	2	2	1	2	1	2
70°	1	1	1	2	2	2	2	1	2	2	2
72.5°	1	1	1	2	2	2	2	1	2	2	2
75°	1	1	1	2	2	2	2	1	2	1	2
77.5°	1	1	1	2	2	2	2	1	2	2	2
80°	1	1	1	1	2	2	2	1	2	2	2



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
82.5°	1	1	1	1	1	2	2	1	2	2	2
85°	1	1	1	1	1	2	2	1	2	2	2
87.5°	1	1	1	1	2	2	2	1	2	2	2
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	624	624	624
2.5°	458	424	424
5°	274	228	216
7.5°	169	151	145
10°	115	94	92
12.5°	60	49	47
15°	17	8	6
17.5°	5	3	3
20°	6	6	5
21°	6	8	8
22°	6	6	5
23°	5	5	4
24°	5	4	4
25°	4	4	3
26°	4	3	3
27°	3	3	3
28°	2	1	1
29°	2	1	1
30°	1	1	1
31°	1	1	0
32°	1	0	0
33°	1	0	0
34°	1	0	0
35°	1	0	0
36°	1	0	0
37°	1	0	0
38°	1	0	0
39°	1	0	0
40°	1	0	0
42.5°	1	0	0
45°	1	0	0
47.5°	1	0	0
50°	1	0	0
52.5°	1	0	0
55°	1	0	0
57.5°	1	0	0
60°	1	0	0
62.5°	1	0	0
65°	1	0	0
67.5°	1	0	0
70°	1	1	0
72.5°	1	1	0
75°	1	1	0
77.5°	1	1	0
80°	1	1	0



TEST NUMBER: P21963

CATALOG NUMBER: ARAC302511E1TW

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
82.5°	1	1	0
85°	1	0	0
87.5°	1	1	0
90°	0	0	0

(END OF REPORT)