

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: P21962

Luminaire Tested: **ARAC301511E1TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P21962
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 ADJUSTABLE ROUND 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

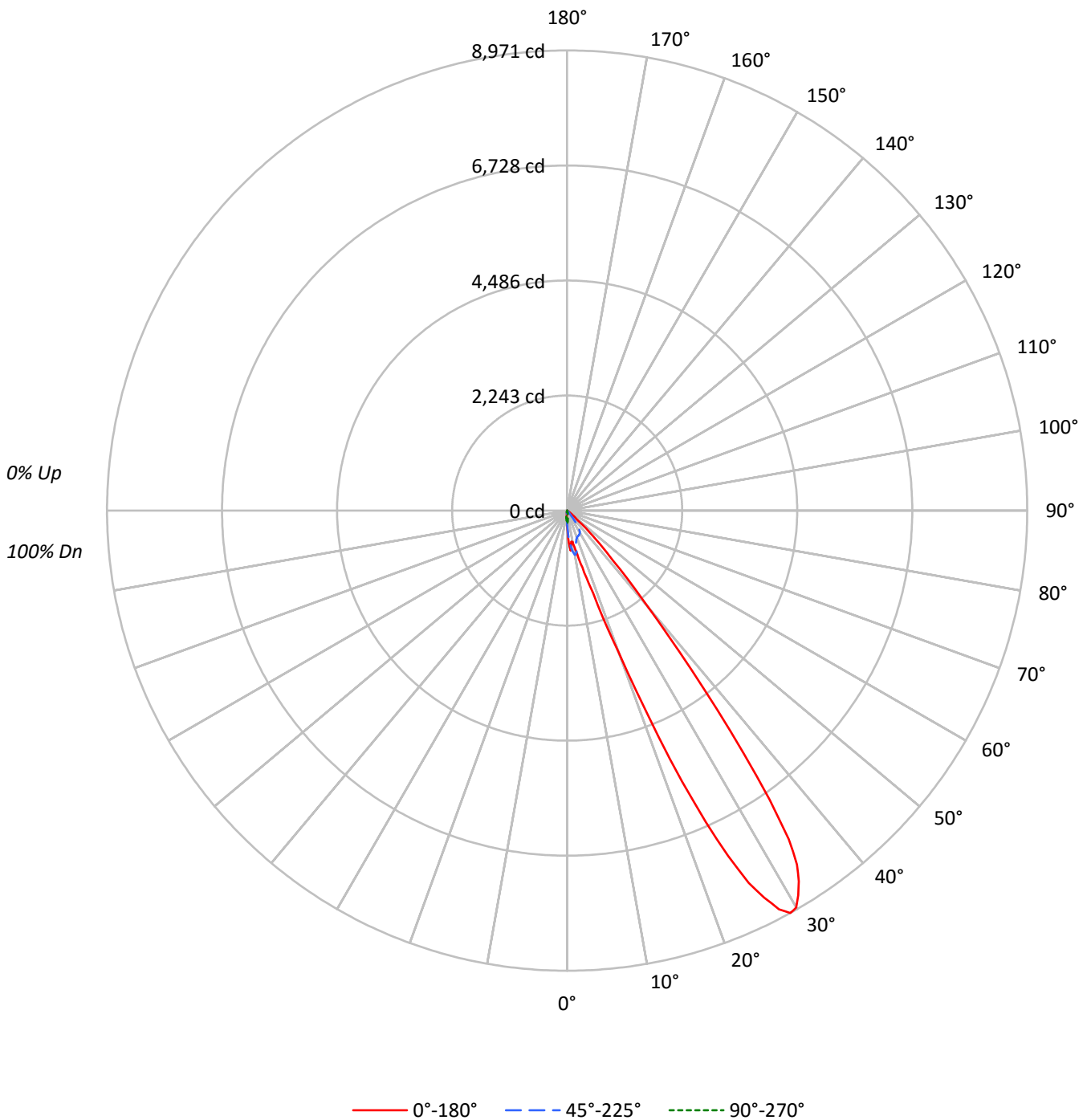
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 972.5 lumens
Efficiency: N/A
Efficacy: 50.6 lumens/watt
Spacing Criteria (0/90/45): 2.03 / 0.25 / 1.05
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 (Ain): 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	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	104	110	107	105	103	103	101	99	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	78	76					76			
4	93	85	78	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69					69			
5	88	78	71	66	86	77	71	66	75	70	65	73	68	65	72	67	64	62					62			
6	82	72	65	60	80	71	64	60	69	63	59	68	63	59	66	62	58	57					57			
7	77	66	59	54	75	65	59	54	64	58	54	63	57	53	61	57	53	51					51			
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47					47			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	40920	40920	40920
5°	121968	25702	14642
10°	94632	13367	4557
15°	171271	3285	448
20°	435381	1331	592
25°	1097216	738	295
30°	1327556	446	0
35°	1036779	301	0
40°	374651	308	0
45°	127673	159	0
50°	26048	165	0
55°	13495	173	0
60°	1651	367	0
65°	0	394	0
70°	0	428	0
75°	0	473	0
80°	0	534	0
85°	0	617	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.4	3.1
10°-20°	96.9	10.0
20°-30°	370.7	38.1
30°-40°	380.6	39.1
40°-50°	80.7	8.3
50°-60°	9.7	1.0
60°-70°	1.2	0.1
70°-80°	1.2	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°	498.0	51.2
0°-40°	878.6	90.4
0°-60°	969.0	99.6
0°-90°	972.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	972.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	254	254	254	254	254	
5°	783	658	165	107	94	61
15°	1147	665	22	6	3	415
25°	7429	535	5	3	2	3268
35°	6883	352	2	1	0	3898
45°	805	12	1	1	0	700
55°	78	3	1	1	0	69
65°	0	1	2	1	0	2
75°	0	1	2	1	0	0
85°	0	1	2	1	0	0
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°	254	254	254	254	254	254	254	254	254	254	254
2.5°	592	585	585	585	583	582	582	582	582	580	579
5°	783	782	782	782	782	781	783	782	782	781	780
7.5°	609	613	614	615	618	621	623	626	629	633	640
10°	623	619	619	619	617	615	615	616	616	613	611
12.5°	808	801	802	801	797	794	792	791	787	781	775
15°	1147	1136	1137	1133	1124	1117	1112	1106	1094	1081	1067
17.5°	1693	1670	1671	1662	1642	1625	1610	1594	1570	1538	1510
20°	2943	2885	2881	2849	2795	2738	2683	2634	2570	2488	2414
21°	3774	3702	3695	3654	3583	3501	3424	3348	3242	3121	3004
22°	4755	4688	4671	4619	4527	4421	4315	4197	4043	3865	3682
23°	5740	5674	5655	5601	5501	5386	5260	5110	4910	4676	4426
24°	6647	6586	6564	6498	6390	6266	6128	5957	5740	5472	5174
25°	7429	7377	7347	7273	7158	7022	6869	6695	6474	6189	5876
26°	8074	8021	7917	7917	7796	7650	7476	7284	7041	6739	6412
27°	8472	8526	8440	8406	8275	8124	7920	7689	7414	7095	6741
28°	8802	8827	8768	8721	8586	8441	8231	7976	7668	7318	6934
29°	8971	8962	8935	8882	8784	8641	8443	8178	7837	7453	7030
30°	8935	8921	8911	8871	8804	8693	8508	8237	7870	7450	6987
31°	8747	8735	8726	8683	8638	8536	8348	8066	7697	7260	6768
32°	8523	8505	8479	8403	8327	8204	7992	7701	7339	6898	6400
33°	8230	8192	8132	7996	7876	7712	7486	7177	6805	6369	5873
34°	7725	7659	7573	7370	7217	7033	6787	6449	6064	5631	5169
35°	6883	6809	6729	6492	6343	6142	5882	5547	5288	4787	4382
36°	5857	5781	5710	5476	5334	5150	4905	4601	4391	4059	3637
37°	4856	4782	4713	4492	4359	4191	3978	3725	3565	3307	2981
38°	3932	3860	3794	3596	3485	3345	3170	2976	2863	2676	2434
39°	3100	3034	2981	2824	2747	2643	2513	2379	2248	2170	1992
40°	2434	2388	2351	2230	2176	2108	2019	1921	1825	1773	1637
42.5°	1330	1312	1301	1258	1235	1210	1174	1140	1124	1087	1051
45°	805	790	784	746	731	719	698	675	650	653	626
47.5°	305	299	298	282	273	268	259	253	253	245	235
50°	158	155	154	149	145	143	138	136	135	131	128
52.5°	113	111	110	108	106	104	102	100	100	97	96
55°	78	77	76	74	73	72	71	69	69	67	65
57.5°	38	37	37	36	35	32	32	29	30	28	26
60°	9	9	9	9	8	8	8	8	8	7	7
62.5°	3	3	3	3	3	3	3	3	3	3	2
65°	0	0	0	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	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	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	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



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CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	17.5°	20°	22.5°	45°	67.5°	90°
0°	254	254	254	254	254	254	254	254	254	254	254
2.5°	578	578	577	575	559	556	565	548	485	354	225
5°	780	780	780	779	777	768	769	764	658	402	165
7.5°	644	659	656	663	682	699	720	740	797	376	122
10°	610	605	610	609	609	606	614	634	880	317	88
12.5°	771	757	752	745	739	727	718	709	839	272	59
15°	1055	1027	1016	1000	984	947	913	896	665	205	22
17.5°	1482	1431	1403	1371	1342	1287	1273	1285	591	126	14
20°	2348	2230	2168	2098	2042	1921	1808	1671	557	80	9
21°	2895	2725	2622	2513	2415	2182	1955	1727	552	65	8
22°	3514	3272	3105	2933	2767	2396	2063	1770	546	50	7
23°	4181	3842	3593	3347	3109	2602	2180	1823	541	36	6
24°	4870	4458	4132	3806	3500	2837	2301	1880	537	26	5
25°	5524	5079	4680	4277	3901	3073	2424	1944	535	20	5
26°	6034	5589	5144	4692	4258	3287	2537	2005	529	17	4
27°	6356	5916	5457	4982	4516	3446	2620	2043	523	14	4
28°	6517	6063	5599	5119	4637	3531	2652	2042	514	12	4
29°	6568	6093	5607	5123	4643	3533	2625	2001	507	11	3
30°	6483	5997	5498	5015	4540	3442	2544	1928	495	9	3
31°	6248	5771	5273	4796	4327	3264	2408	1827	478	8	3
32°	5879	5415	4922	4459	4014	3020	2228	1706	453	7	2
33°	5361	4926	4454	4025	3620	2734	2028	1573	429	7	2
34°	4699	4324	3902	3521	3172	2405	1821	1435	398	6	2
35°	4072	3676	3325	3006	2714	2082	1617	1307	352	6	2
36°	3393	3077	2791	2536	2296	1805	1440	1191	298	6	2
37°	2803	2559	2336	2137	1953	1574	1290	1093	223	5	2
38°	2304	2123	1960	1814	1675	1381	1163	1000	146	5	2
39°	1900	1771	1654	1547	1444	1219	1045	904	87	5	2
40°	1580	1488	1400	1319	1243	1061	923	816	70	4	2
42.5°	1014	979	944	914	883	807	724	621	35	4	1
45°	592	559	524	487	451	355	271	208	12	3	1
47.5°	226	215	204	193	184	160	140	126	6	3	1
50°	125	122	120	117	115	110	104	98	5	2	1
52.5°	94	93	91	90	88	83	77	65	4	2	1
55°	63	61	59	56	53	44	35	25	3	2	1
57.5°	25	23	21	19	17	13	9	7	2	2	2
60°	7	7	6	6	5	4	4	3	1	2	2
62.5°	2	2	2	2	1	1	1	1	1	2	1
65°	0	0	0	0	0	0	0	0	1	2	2
67.5°	0	0	0	0	0	0	0	0	1	2	2
70°	0	0	0	0	0	0	0	0	1	2	2
72.5°	0	0	0	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



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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



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	254	254	254	254
2.5°	167	145	136	132
5°	124	107	98	94
7.5°	85	73	68	66
10°	64	44	33	30
12.5°	26	13	8	7
15°	11	6	3	3
17.5°	7	4	3	2
20°	7	5	4	4
21°	6	5	5	5
22°	6	4	4	3
23°	5	4	3	3
24°	4	3	3	2
25°	4	3	2	2
26°	3	2	2	1
27°	3	2	1	1
28°	3	2	1	0
29°	3	1	0	0
30°	2	1	0	0
31°	2	1	0	0
32°	2	1	0	0
33°	2	1	0	0
34°	2	1	0	0
35°	2	1	0	0
36°	2	1	0	0
37°	2	1	0	0
38°	2	1	0	0
39°	2	1	0	0
40°	2	1	0	0
42.5°	2	1	0	0
45°	2	1	0	0
47.5°	2	1	0	0
50°	2	1	0	0
52.5°	2	1	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	1	0
72.5°	2	1	1	0
75°	2	1	1	0
77.5°	2	1	1	0
80°	2	1	1	0



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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)