

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: P21961

Luminaire Tested: **ARAC301011E1TW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P21961
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: ARAC301011E1TW
Description: RSA 130 MILLIMETER LED ROUND ADJUSTABLE ACCENT FIXTURE WITH
SPECULAR CLEARANGLE CUT REFLECTOR, CLEAR GLASS LENS AND 10 DEGREE LED
Light Source: (1) SMT 3000K LED
SLM-1100
Ballast/Driver: (1) PHILIPS ELECTRONIC DRIVER
NV2I5AE40205

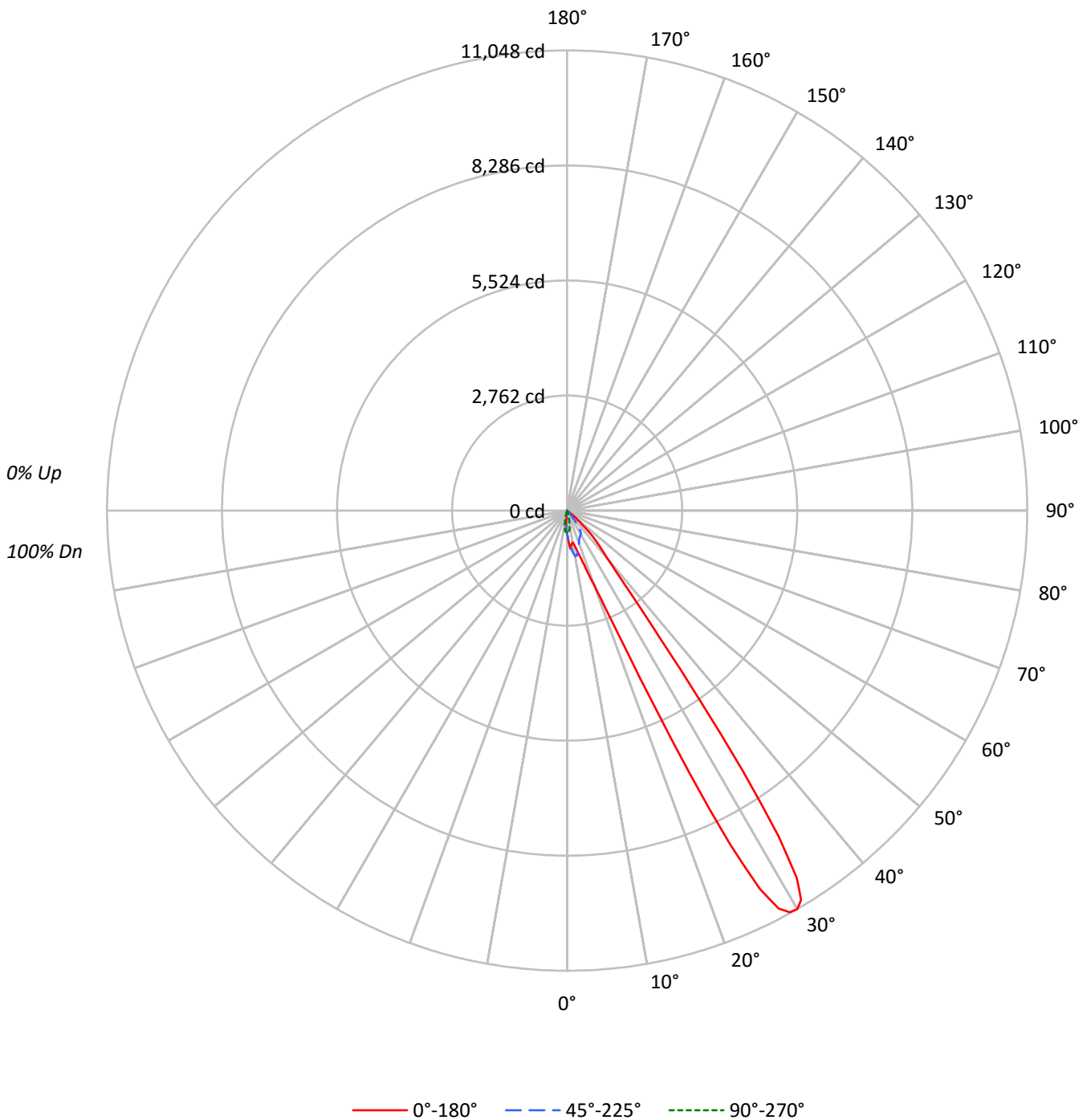
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 950.7 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 1.77 / 0.38 / 0.98
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}): 0.1621
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	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92					92			
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	88	83	98	92	87	82	89	85	81	86	83	80	84	81	79	77					77			
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	78	75	72	70					70			
5	89	79	73	68	87	78	72	67	76	71	67	75	70	66	73	69	66	64					64			
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	73	63	56	51	72	62	56	51	61	55	51	60	54	51	59	54	50	49					49			
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45					45			
10	65	54	48	43	64	54	47	43	53	47	43	52	47	43	51	46	43	41					41			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	87157	87157	87157
5°	144243	77573	30375
10°	117720	49670	11240
15°	159773	15828	1792
20°	283744	1331	148
25°	1029572	591	148
30°	1641505	446	0
35°	830568	301	0
40°	234118	308	0
45°	130686	317	0
50°	42864	165	0
55°	519	173	0
60°	183	367	0
65°	0	197	0
70°	0	214	0
75°	0	473	0
80°	0	534	0
85°	0	617	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	5.2
10°-20°	121.6	12.8
20°-30°	343.7	36.2
30°-40°	338.5	35.6
40°-50°	91.7	9.6
50°-60°	3.0	0.3
60°-70°	0.9	0.1
70°-80°	1.0	0.1
80°-90°	1.0	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°	514.5	54.1
0°-40°	852.9	89.7
0°-60°	947.7	99.7
0°-90°	950.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	950.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	541	541	541	541	541	
5°	926	834	498	321	195	78
15°	1070	961	106	25	12	346
25°	6971	713	4	2	1	3326
35°	5514	475	2	1	0	3655
45°	824	5	2	1	0	622
55°	3	2	1	0	0	31
65°	0	1	1	1	0	0
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°	541	541	541	541	541	541	541	541	541	541	541
2.5°	738	754	754	754	745	745	743	742	741	743	742
5°	926	933	933	933	929	929	928	927	927	928	927
7.5°	812	798	798	800	809	811	815	817	820	823	827
10°	775	781	781	782	777	777	777	776	777	777	777
12.5°	882	885	884	884	878	883	882	880	879	878	877
15°	1070	1090	1076	1087	1063	1072	1068	1063	1061	1057	1052
17.5°	1367	1360	1377	1354	1351	1368	1359	1351	1347	1341	1333
20°	1918	1910	1900	1889	1876	1891	1871	1852	1835	1820	1809
21°	2266	2253	2240	2226	2210	2238	2211	2182	2159	2130	2105
22°	2812	2785	2770	2741	2709	2734	2682	2623	2566	2501	2442
23°	3684	3639	3608	3543	3471	3478	3366	3236	3114	2974	2851
24°	5082	5010	4937	4805	4648	4604	4381	4118	3881	3613	3389
25°	6971	6889	6758	6545	6279	6137	5773	5333	4937	4487	4113
26°	8896	8808	8641	8391	8053	7793	7312	6699	6139	5496	4941
27°	10199	10148	10018	9817	9507	9190	8675	7977	7293	6481	5756
28°	10819	10791	10718	10569	10329	10006	9534	8856	8126	7232	6382
29°	11027	10987	10911	10771	10572	10271	9856	9233	8508	7564	6647
30°	11048	10994	10893	10753	10565	10237	9814	9169	8426	7458	6513
31°	10904	10875	10769	10596	10357	9911	9412	8677	7883	6898	5985
32°	10397	10362	10242	10020	9713	9087	8486	7699	6903	5992	5194
33°	9318	9280	9123	8826	8446	7689	7070	6347	5658	4923	4309
34°	7541	7506	7341	7041	6696	5983	5470	4903	4395	3881	3452
35°	5514	5493	5370	5144	4904	4558	4046	3686	3460	3042	2780
36°	3861	3854	3782	3656	3522	3327	3117	2900	2716	2484	2332
37°	2830	2829	2787	2725	2659	2556	2397	2339	2240	2101	2009
38°	2202	2202	2183	2154	2121	2071	1978	1958	1902	1810	1753
39°	1801	1801	1790	1775	1755	1726	1666	1667	1638	1584	1549
40°	1521	1525	1520	1512	1502	1466	1448	1431	1419	1406	1389
42.5°	1124	1126	1127	1128	1127	1124	1120	1114	1098	1092	1085
45°	824	826	823	823	821	815	807	795	760	751	736
47.5°	446	445	444	444	444	442	441	439	434	432	428
50°	260	263	257	253	251	241	225	206	166	153	136
52.5°	10	10	10	10	10	9	9	8	8	7	7
55°	3	3	3	3	3	3	3	3	3	3	3
57.5°	2	2	2	2	2	2	2	2	2	2	2
60°	1	1	1	1	1	1	1	1	1	1	1
62.5°	1	1	1	1	1	1	1	1	1	1	1
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):

	12.5°	15°	17.5°	20°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0°	541	541	541	541	541	541	541	541	541	541	541
2.5°	739	736	734	732	728	683	612	524	480	464	445
5°	923	921	918	916	910	834	670	498	423	321	220
7.5°	841	857	874	892	913	990	688	448	264	142	125
10°	778	781	788	802	827	1116	691	327	129	92	77
12.5°	872	867	862	860	869	1097	667	197	68	56	55
15°	1039	1027	1018	1019	1038	961	474	106	37	25	14
17.5°	1314	1300	1305	1350	1436	913	324	33	11	4	3
20°	1789	1782	1789	1784	1731	832	232	9	5	3	2
21°	2043	1989	1929	1838	1705	795	201	7	5	3	2
22°	2295	2155	1996	1837	1671	763	178	6	4	3	2
23°	2538	2288	2060	1853	1651	741	161	5	4	2	2
24°	2863	2466	2139	1873	1645	727	148	5	4	2	1
25°	3255	2657	2223	1902	1649	713	136	4	4	2	1
26°	3687	2853	2311	1935	1656	701	126	4	3	2	1
27°	4092	3023	2373	1953	1652	688	114	3	3	2	1
28°	4372	3123	2398	1952	1643	674	100	3	3	1	1
29°	4473	3142	2378	1932	1626	662	80	3	3	1	1
30°	4331	3051	2321	1886	1586	650	51	3	2	1	0
31°	3985	2860	2213	1812	1530	637	20	2	2	1	0
32°	3531	2608	2065	1722	1472	620	8	2	2	1	0
33°	3048	2352	1911	1626	1408	584	6	2	2	1	0
34°	2608	2120	1767	1524	1333	529	4	2	2	1	0
35°	2254	1910	1632	1424	1259	475	4	2	2	1	0
36°	1987	1727	1507	1334	1189	412	3	2	2	1	0
37°	1774	1571	1394	1247	1121	335	3	2	2	1	0
38°	1588	1435	1287	1166	1050	235	3	2	2	1	0
39°	1440	1321	1204	1090	984	190	3	2	2	1	0
40°	1315	1225	1126	1021	926	167	3	2	2	1	0
42.5°	1054	1009	946	870	771	46	3	2	2	1	0
45°	681	607	522	442	374	5	3	2	2	1	0
47.5°	409	379	339	289	231	4	2	2	2	1	0
50°	85	35	16	12	9	3	2	1	2	1	0
52.5°	6	5	4	4	3	2	2	1	2	1	0
55°	2	2	2	2	2	2	2	1	2	0	0
57.5°	1	1	1	1	1	2	2	2	2	1	0
60°	1	1	1	1	1	1	2	2	2	1	0
62.5°	1	1	1	0	1	1	2	1	2	1	0
65°	0	0	0	0	0	1	2	1	2	1	0
67.5°	0	0	0	0	0	1	2	1	2	1	0
70°	0	0	0	0	0	1	2	1	2	1	0
72.5°	0	0	0	0	0	1	2	1	2	1	0
75°	0	0	0	0	0	1	2	2	2	1	0
77.5°	0	0	0	0	0	1	2	2	2	1	0
80°	0	0	0	0	0	1	2	2	2	1	1



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CANDELA DISTRIBUTION (continued):

	12.5°	15°	17.5°	20°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
82.5°	0	0	0	0	0	1	2	2	2	1	0
85°	0	0	0	0	0	1	2	2	2	1	1
87.5°	0	0	0	0	0	1	2	2	2	1	0
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	180°
0°	541
2.5°	439
5°	195
7.5°	121
10°	74
12.5°	56
15°	12
17.5°	2
20°	1
21°	1
22°	1
23°	1
24°	1
25°	1
26°	1
27°	1
28°	0
29°	0
30°	0
31°	0
32°	0
33°	0
34°	0
35°	0
36°	0
37°	0
38°	0
39°	0
40°	0
42.5°	0
45°	0
47.5°	0
50°	0
52.5°	0
55°	0
57.5°	0
60°	0
62.5°	0
65°	0
67.5°	0
70°	0
72.5°	0
75°	0
77.5°	0
80°	0



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CANDELA DISTRIBUTION (continued):

	180°
82.5°	0
85°	0
87.5°	0
90°	0

(END OF REPORT)