

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: P13474

Luminaire Tested: **ASAS301011E4TW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P13474  
Test Lab: PEACHTREE CITY  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: RSA  
Catalog Number: ASAS301011E4TW  
Description: RSA RECESSED LED SQUARE FIXTURE WITH DOWNLIGHT, ADJUSTABLE  
BRACKET AT 0 DEGREE, 3000K LED LIGHT ENGINE, 10 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

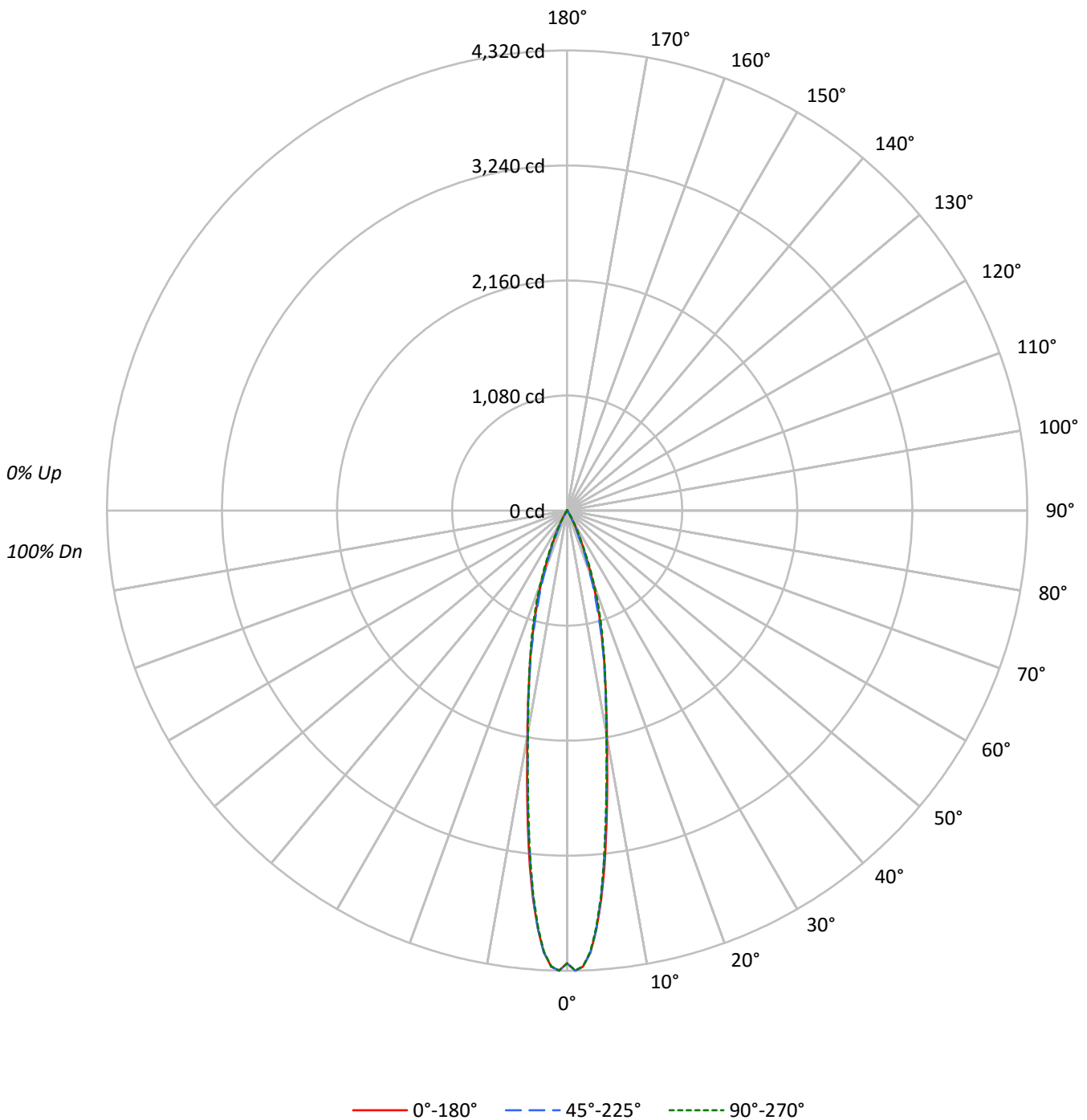
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 796.5 lumens  
Efficiency: N/A  
Efficacy: 37.9 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.34 / 0.39  
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<sub>in</sub>): 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





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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 | 100 | 100 | 100 | 100 | 100 |  |   |
| 1   | 115 | 113 | 111 | 109 | 113 | 111 | 109 | 108 | 107 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 97  | 96  | 95  | 94  | 93  | 92  |  |   |
| 2   | 111 | 108 | 105 | 102 | 109 | 106 | 104 | 101 | 103 | 101 | 99  | 100 | 99  | 97  | 98  | 96  | 95  | 94  | 93  | 92  | 91  | 90  | 89  | 88  |  |   |
| 3   | 108 | 103 | 100 | 97  | 106 | 102 | 99  | 96  | 100 | 97  | 95  | 97  | 95  | 93  | 95  | 94  | 92  | 91  | 90  | 89  | 88  | 87  | 86  | 85  |  |   |
| 4   | 105 | 100 | 96  | 93  | 103 | 99  | 95  | 92  | 97  | 94  | 91  | 95  | 92  | 90  | 93  | 91  | 89  | 88  | 87  | 86  | 85  | 84  | 83  | 82  |  |   |
| 5   | 102 | 96  | 92  | 89  | 100 | 95  | 92  | 89  | 94  | 90  | 88  | 92  | 89  | 87  | 91  | 88  | 87  | 86  | 85  | 84  | 83  | 82  | 81  | 80  |  |   |
| 6   | 99  | 93  | 89  | 86  | 98  | 92  | 88  | 86  | 91  | 88  | 85  | 90  | 87  | 85  | 89  | 86  | 84  | 83  | 82  | 81  | 80  | 79  | 78  | 77  |  |   |
| 7   | 96  | 90  | 86  | 83  | 95  | 90  | 86  | 83  | 88  | 85  | 83  | 87  | 84  | 82  | 86  | 84  | 82  | 81  | 80  | 79  | 78  | 77  | 76  | 75  |  |   |
| 8   | 94  | 87  | 83  | 81  | 93  | 87  | 83  | 81  | 86  | 83  | 80  | 85  | 82  | 80  | 84  | 82  | 80  | 79  | 78  | 77  | 76  | 75  | 74  | 73  |  |   |
| 9   | 91  | 85  | 81  | 78  | 91  | 85  | 81  | 78  | 84  | 80  | 78  | 83  | 80  | 78  | 82  | 80  | 78  | 77  | 76  | 75  | 74  | 73  | 72  | 71  |  |   |
| 10  | 89  | 83  | 79  | 76  | 88  | 82  | 79  | 76  | 82  | 78  | 76  | 81  | 78  | 76  | 81  | 78  | 76  | 75  | 74  | 73  | 72  | 71  | 70  | 69  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 468335 | 468335 | 468335 |
| 5°  | 405398 | 403849 | 402300 |
| 10° | 240410 | 238060 | 237165 |
| 15° | 145605 | 143209 | 148914 |
| 20° | 80348  | 72372  | 86447  |
| 25° | 33323  | 27607  | 37458  |
| 30° | 10564  | 7636   | 12091  |
| 35° | 2287   | 1615   | 2960   |
| 40° | 1151   | 576    | 863    |
| 45° | 468    | 468    | 312    |
| 50° | 0      | 0      | 0      |
| 55° | 384    | 192    | 384    |
| 60° | 0      | 0      | 0      |
| 65° | 261    | 261    | 261    |
| 70° | 322    | 645    | 322    |
| 75° | 852    | 852    | 426    |
| 80° | 0      | 0      | 0      |
| 85° | 1265   | 1265   | 1265   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 294.0  | 36.9      |
| 10°-20°   | 351.8  | 44.2      |
| 20°-30°   | 130.9  | 16.4      |
| 30°-40°   | 15.3   | 1.9       |
| 40°-50°   | 1.8    | 0.2       |
| 50°-60°   | 0.5    | 0.1       |
| 60°-70°   | 0.9    | 0.1       |
| 70°-80°   | 0.7    | 0.1       |
| 80°-90°   | 0.6    | 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°    | 776.6  | 97.5      |
| 0°-40°    | 791.9  | 99.4      |
| 0°-60°    | 794.2  | 99.7      |
| 0°-90°    | 796.5  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 796.5  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4249 | 4249  | 4249 | 4249  | 4249 |      |
| 5°  | 3664 | 3657  | 3650 | 3636  | 3636 | 296  |
| 15° | 1276 | 1263  | 1255 | 1285  | 1305 | 355  |
| 25° | 274  | 250   | 227  | 272   | 308  | 137  |
| 35° | 17   | 14    | 12   | 18    | 22   | 17   |
| 45° | 3    | 3     | 3    | 3     | 2    | 2    |
| 55° | 2    | 2     | 1    | 2     | 2    | 0    |
| 65° | 1    | 1     | 1    | 1     | 1    | 1    |
| 75° | 2    | 3     | 2    | 2     | 1    | 1    |
| 85° | 1    | 2     | 1    | 1     | 1    | 1    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|-------|------|-------|------|-------|------|
| 0°    | 4249 | 4249  | 4249 | 4249  | 4249 |
| 1°    | 4320 | 4320  | 4320 | 4318  | 4317 |
| 2°    | 4283 | 4286  | 4284 | 4282  | 4281 |
| 3°    | 4155 | 4157  | 4154 | 4150  | 4147 |
| 4°    | 3939 | 3940  | 3940 | 3924  | 3917 |
| 5°    | 3664 | 3657  | 3650 | 3636  | 3636 |
| 6°    | 3347 | 3337  | 3308 | 3296  | 3302 |
| 7°    | 3014 | 3001  | 2977 | 2961  | 2962 |
| 8°    | 2696 | 2678  | 2652 | 2644  | 2642 |
| 9°    | 2397 | 2391  | 2368 | 2362  | 2361 |
| 10°   | 2148 | 2144  | 2127 | 2116  | 2119 |
| 11°   | 1930 | 1924  | 1916 | 1911  | 1915 |
| 12.5° | 1656 | 1642  | 1637 | 1646  | 1655 |
| 15°   | 1276 | 1263  | 1255 | 1285  | 1305 |
| 17.5° | 962  | 936   | 913  | 969   | 1009 |
| 20°   | 685  | 649   | 617  | 688   | 737  |
| 22.5° | 442  | 413   | 386  | 445   | 486  |
| 25°   | 274  | 250   | 227  | 272   | 308  |
| 27.5° | 155  | 134   | 113  | 152   | 181  |
| 30°   | 83   | 69    | 60   | 81    | 95   |
| 32.5° | 39   | 34    | 28   | 41    | 48   |
| 35°   | 17   | 14    | 12   | 18    | 22   |
| 37.5° | 11   | 9     | 8    | 11    | 13   |
| 40°   | 8    | 5     | 4    | 6     | 6    |
| 42.5° | 3    | 1     | 1    | 2     | 1    |
| 45°   | 3    | 3     | 3    | 3     | 2    |
| 47.5° | 2    | 3     | 2    | 2     | 1    |
| 50°   | 0    | 0     | 0    | 0     | 0    |
| 52.5° | 0    | 1     | 0    | 1     | 0    |
| 55°   | 2    | 2     | 1    | 2     | 2    |
| 57.5° | 0    | 0     | 0    | 0     | 0    |
| 60°   | 0    | 0     | 0    | 0     | 0    |
| 62.5° | 2    | 2     | 1    | 1     | 1    |
| 65°   | 1    | 1     | 1    | 1     | 1    |
| 67.5° | 0    | 1     | 1    | 1     | 0    |
| 70°   | 1    | 0     | 2    | 0     | 1    |
| 72.5° | 0    | 1     | 0    | 0     | 0    |
| 75°   | 2    | 3     | 2    | 2     | 1    |
| 77.5° | 0    | 0     | 0    | 0     | 0    |
| 80°   | 0    | 0     | 0    | 0     | 0    |
| 82.5° | 1    | 1     | 1    | 1     | 1    |
| 85°   | 1    | 2     | 1    | 1     | 1    |
| 87.5° | 1    | 0     | 0    | 0     | 0    |
| 90°   | 0    | 0     | 0    | 0     | 0    |

(END OF REPORT)