

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: P13475

Luminaire Tested: **ASAS301511E4TW**

Issue Date: 3/3/2020

**Test Information**

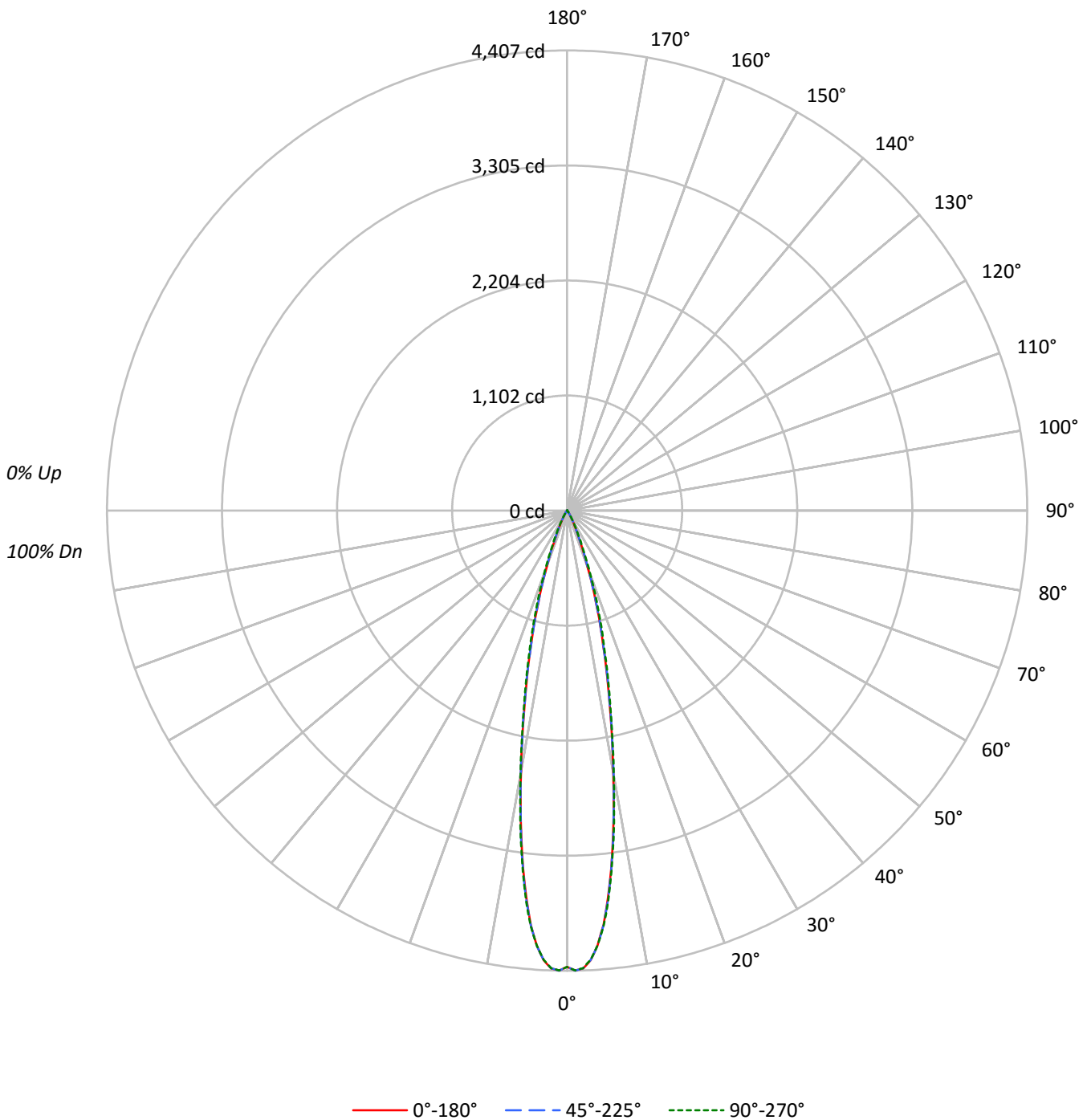
Test Method: LM-79-08  
Report Number: P13475  
Test Lab: PEACHTREE CITY  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: RSA  
Catalog Number: ASAS301511E4TW  
Description: RSA RECESSED LED SQUARE FIXTURE WITH DOWNLIGHT, ADJUSTABLE  
BRACKET AT 0 DEGREE, 3000K LED LIGHT ENGINE, 15 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: 844.3 lumens  
Efficiency: N/A  
Efficacy: 40.2 lumens/watt  
Spacing Criteria (0/90/45): 0.38 / 0.39 / 0.4  
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 | 110 | 113 | 111 | 109 | 108 | 107 | 106 | 105 | 103 | 102 | 102 | 100 | 99  | 99  | 97  | 97  | 97  | 97  | 97  | 97  | 97  |  |   |
| 2   | 112 | 108 | 105 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 100 | 101 | 99  | 98  | 98  | 97  | 96  | 94  | 94  | 94  | 94  | 94  | 94  | 94  |  |   |
| 3   | 108 | 104 | 100 | 98  | 107 | 103 | 100 | 97  | 100 | 98  | 96  | 98  | 96  | 94  | 96  | 94  | 93  | 91  | 91  | 91  | 91  | 91  | 91  | 91  |  |   |
| 4   | 105 | 100 | 96  | 94  | 104 | 99  | 96  | 93  | 97  | 94  | 92  | 95  | 93  | 91  | 94  | 92  | 90  | 89  | 89  | 89  | 89  | 89  | 89  | 89  |  |   |
| 5   | 102 | 97  | 93  | 90  | 101 | 96  | 92  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 92  | 89  | 88  | 86  | 86  | 86  | 86  | 86  | 86  | 86  |  |   |
| 6   | 100 | 94  | 90  | 87  | 98  | 93  | 89  | 87  | 92  | 89  | 86  | 91  | 88  | 86  | 89  | 87  | 85  | 84  | 84  | 84  | 84  | 84  | 84  | 84  |  |   |
| 7   | 97  | 91  | 87  | 84  | 96  | 90  | 87  | 84  | 89  | 86  | 84  | 88  | 85  | 83  | 87  | 85  | 83  | 82  | 82  | 82  | 82  | 82  | 82  | 82  |  |   |
| 8   | 95  | 88  | 85  | 82  | 94  | 88  | 84  | 82  | 87  | 84  | 81  | 86  | 83  | 81  | 85  | 83  | 81  | 80  | 80  | 80  | 80  | 80  | 80  | 80  |  |   |
| 9   | 92  | 86  | 82  | 80  | 92  | 86  | 82  | 80  | 85  | 82  | 79  | 84  | 81  | 79  | 84  | 81  | 79  | 78  | 78  | 78  | 78  | 78  | 78  | 78  |  |   |
| 10  | 90  | 84  | 80  | 78  | 89  | 84  | 80  | 78  | 83  | 80  | 77  | 82  | 79  | 77  | 82  | 79  | 77  | 76  | 76  | 76  | 76  | 76  | 76  | 76  |  |   |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 481672 | 481672 | 481672 |
| 5°  | 440693 | 441025 | 442242 |
| 10° | 285067 | 286075 | 288537 |
| 15° | 151881 | 152338 | 158386 |
| 20° | 67445  | 66976  | 75422  |
| 25° | 23594  | 24323  | 28823  |
| 30° | 8527   | 8909   | 10309  |
| 35° | 3095   | 3095   | 3498   |
| 40° | 1295   | 1583   | 1583   |
| 45° | 468    | 468    | 468    |
| 50° | 171    | 171    | 343    |
| 55° | 0      | 0      | 0      |
| 60° | 0      | 0      | 0      |
| 65° | 261    | 0      | 261    |
| 70° | 645    | 0      | 0      |
| 75° | 0      | 0      | 426    |
| 80° | 0      | 0      | 0      |
| 85° | 0      | 0      | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 331.9  | 39.3      |
| 10°-20°   | 377.6  | 44.7      |
| 20°-30°   | 112.2  | 13.3      |
| 30°-40°   | 18.4   | 2.2       |
| 40°-50°   | 3.0    | 0.4       |
| 50°-60°   | 0.2    | 0.0       |
| 60°-70°   | 0.5    | 0.1       |
| 70°-80°   | 0.2    | 0.0       |
| 80°-90°   | 0.2    | 0.0       |
| 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°    | 821.7  | 97.3      |
| 0°-40°    | 840.1  | 99.5      |
| 0°-60°    | 843.3  | 99.9      |
| 0°-90°    | 844.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 844.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4370 | 4370  | 4370 | 4370  | 4370 |      |
| 5°  | 3983 | 3983  | 3986 | 3992  | 3997 | 331  |
| 15° | 1331 | 1326  | 1335 | 1375  | 1388 | 372  |
| 25° | 194  | 199   | 200  | 230   | 237  | 105  |
| 35° | 23   | 21    | 23   | 24    | 26   | 18   |
| 45° | 3    | 2     | 3    | 3     | 3    | 3    |
| 55° | 0    | 0     | 0    | 0     | 0    | 0    |
| 65° | 1    | 0     | 0    | 0     | 1    | 1    |
| 75° | 0    | 0     | 0    | 0     | 1    | 1    |
| 85° | 0    | 1     | 0    | 0     | 0    | 1    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|-------|------|-------|------|-------|------|
| 0°    | 4370 | 4370  | 4370 | 4370  | 4370 |
| 1°    | 4406 | 4408  | 4407 | 4407  | 4405 |
| 2°    | 4388 | 4390  | 4385 | 4386  | 4384 |
| 3°    | 4311 | 4309  | 4309 | 4308  | 4306 |
| 4°    | 4173 | 4172  | 4176 | 4176  | 4173 |
| 5°    | 3983 | 3983  | 3986 | 3992  | 3997 |
| 6°    | 3734 | 3745  | 3746 | 3757  | 3765 |
| 7°    | 3454 | 3461  | 3469 | 3476  | 3483 |
| 8°    | 3152 | 3160  | 3166 | 3175  | 3185 |
| 9°    | 2849 | 2852  | 2854 | 2863  | 2877 |
| 10°   | 2547 | 2545  | 2556 | 2562  | 2578 |
| 11°   | 2260 | 2258  | 2268 | 2278  | 2289 |
| 12.5° | 1868 | 1859  | 1871 | 1888  | 1900 |
| 15°   | 1331 | 1326  | 1335 | 1375  | 1388 |
| 17.5° | 905  | 908   | 910  | 962   | 987  |
| 20°   | 575  | 582   | 571  | 636   | 643  |
| 22.5° | 333  | 347   | 336  | 391   | 388  |
| 25°   | 194  | 199   | 200  | 230   | 237  |
| 27.5° | 115  | 115   | 118  | 132   | 140  |
| 30°   | 67   | 67    | 70   | 77    | 81   |
| 32.5° | 39   | 38    | 40   | 43    | 46   |
| 35°   | 23   | 21    | 23   | 24    | 26   |
| 37.5° | 17   | 16    | 16   | 17    | 18   |
| 40°   | 9    | 9     | 11   | 9     | 11   |
| 42.5° | 5    | 5     | 5    | 6     | 6    |
| 45°   | 3    | 2     | 3    | 3     | 3    |
| 47.5° | 2    | 2     | 2    | 4     | 2    |
| 50°   | 1    | 1     | 1    | 1     | 2    |
| 52.5° | 0    | 1     | 0    | 1     | 0    |
| 55°   | 0    | 0     | 0    | 0     | 0    |
| 57.5° | 0    | 0     | 0    | 0     | 0    |
| 60°   | 0    | 0     | 0    | 0     | 0    |
| 62.5° | 0    | 1     | 1    | 0     | 0    |
| 65°   | 1    | 0     | 0    | 0     | 1    |
| 67.5° | 1    | 1     | 1    | 1     | 1    |
| 70°   | 2    | 0     | 0    | 2     | 0    |
| 72.5° | 1    | 0     | 0    | 0     | 0    |
| 75°   | 0    | 0     | 0    | 0     | 1    |
| 77.5° | 0    | 0     | 1    | 0     | 0    |
| 80°   | 0    | 0     | 0    | 0     | 0    |
| 82.5° | 0    | 0     | 0    | 0     | 0    |
| 85°   | 0    | 1     | 0    | 0     | 0    |
| 87.5° | 1    | 0     | 0    | 1     | 0    |
| 90°   | 0    | 0     | 0    | 0     | 0    |

(END OF REPORT)