

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: P22178-R2

Luminaire Tested: **CSHIW30SML11**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P22178-R2
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: RSA
Catalog Number: CSHIW30SML11
Description: ***THIS IS A REVISION OF P22178 TO UPDATE CATALOG
NUMBER***COMBOLIGHT ONE 8W LED HEAD, 3 LED UNIT FLOOD
DISTRIBUTION,3000K
Light Source: (3) 3000K SMT LEDS
XPG
Ballast/Driver: (1) MAGTECH HIGH PERFECTION ELECTRONIC DRIVER
LP1020-12-C700

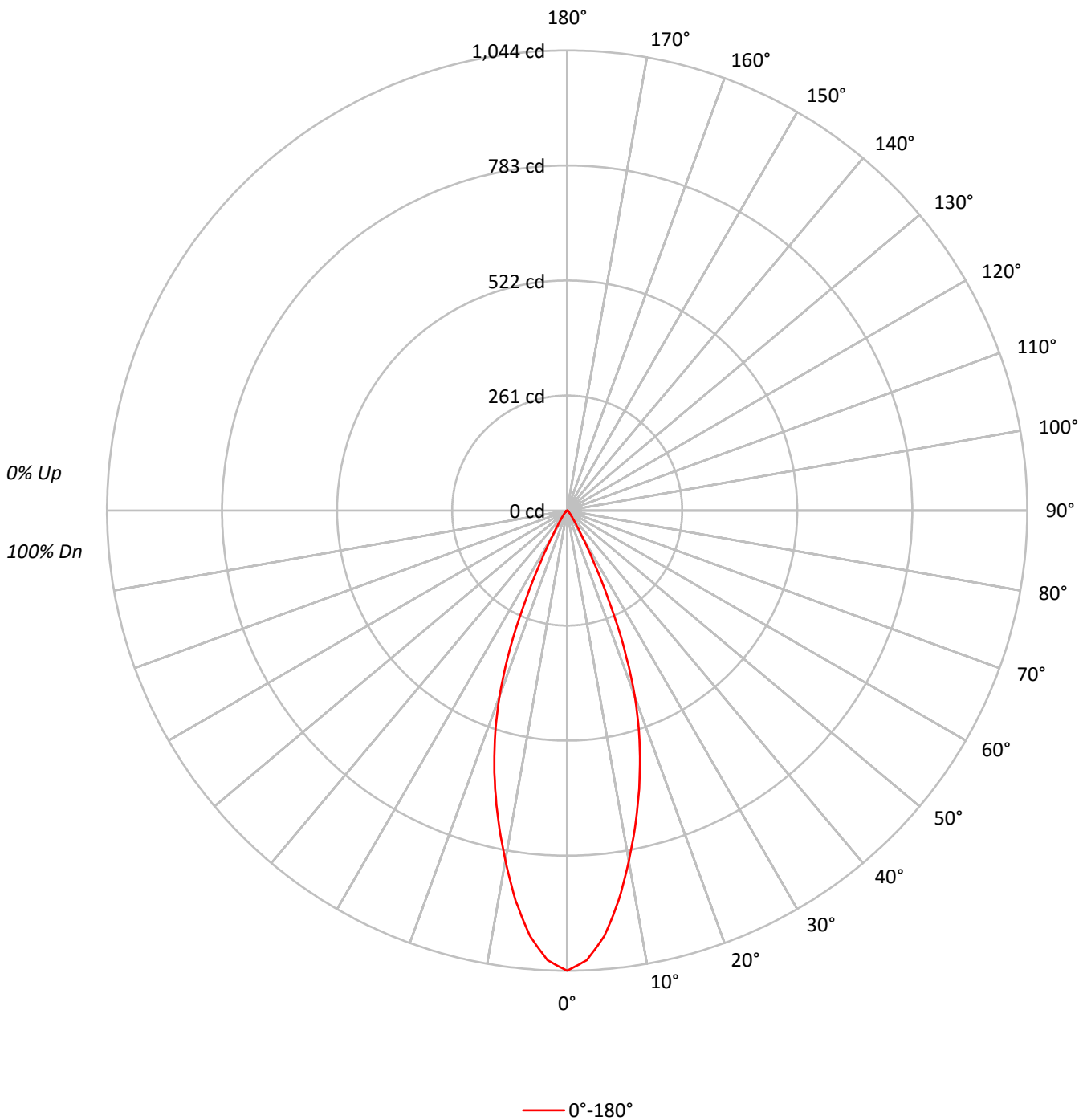
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 391.3 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.59
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.9
Input Voltage (V): NR
Input Current (Ain): 0.06837
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 99 | 97 | 99 | 97 | 95 | 96 | 94 | 93 | 91 |
| 3 | 106 | 101 | 97 | 94 | 104 | 100 | 96 | 93 | 97 | 94 | 91 | 95 | 92 | 90 | 93 | 91 | 89 | 87 |
| 4 | 102 | 96 | 92 | 88 | 101 | 95 | 91 | 88 | 93 | 90 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 84 |
| 5 | 98 | 92 | 87 | 84 | 97 | 91 | 87 | 83 | 89 | 86 | 83 | 88 | 85 | 82 | 86 | 84 | 81 | 80 |
| 6 | 95 | 88 | 83 | 80 | 94 | 87 | 83 | 80 | 86 | 82 | 79 | 85 | 81 | 79 | 83 | 80 | 78 | 77 |
| 7 | 92 | 84 | 80 | 76 | 91 | 84 | 79 | 76 | 83 | 79 | 76 | 81 | 78 | 75 | 80 | 77 | 75 | 74 |
| 8 | 89 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 80 | 75 | 73 | 79 | 75 | 72 | 78 | 74 | 72 | 71 |
| 9 | 86 | 78 | 73 | 70 | 85 | 78 | 73 | 70 | 77 | 73 | 70 | 76 | 72 | 70 | 75 | 72 | 69 | 68 |
| 10 | 83 | 75 | 71 | 67 | 82 | 75 | 70 | 67 | 74 | 70 | 67 | 73 | 70 | 67 | 73 | 69 | 67 | 66 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 228929 |
| 5° | 213295 |
| 10° | 179467 |
| 15° | 144155 |
| 20° | 104776 |
| 25° | 52987 |
| 30° | 16965 |
| 35° | 6692 |
| 40° | 3435 |
| 45° | 2171 |
| 50° | 1365 |
| 55° | 765 |
| 60° | 439 |
| 65° | 519 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.2 | 22.3 |
| 10°-20° | 174.1 | 44.5 |
| 20°-30° | 103.0 | 26.3 |
| 30°-40° | 18.5 | 4.7 |
| 40°-50° | 5.5 | 1.4 |
| 50°-60° | 2.1 | 0.5 |
| 60°-70° | 0.9 | 0.2 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 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° | 364.4 | 93.1 |
| 0°-40° | 382.8 | 97.8 |
| 0°-60° | 390.5 | 99.8 |
| 0°-90° | 391.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 391.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1044 | |
| 5° | 969 | 87 |
| 15° | 635 | 174 |
| 25° | 219 | 103 |
| 35° | 25 | 18 |
| 45° | 7 | 6 |
| 55° | 2 | 2 |
| 65° | 1 | 1 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|------|
| 0° | 1044 |
| 2.5° | 1021 |
| 5° | 969 |
| 7.5° | 893 |
| 10° | 806 |
| 12.5° | 721 |
| 15° | 635 |
| 17.5° | 546 |
| 20° | 449 |
| 22.5° | 337 |
| 25° | 219 |
| 27.5° | 123 |
| 30° | 67 |
| 32.5° | 40 |
| 35° | 25 |
| 37.5° | 17 |
| 40° | 12 |
| 42.5° | 9 |
| 45° | 7 |
| 47.5° | 5 |
| 50° | 4 |
| 52.5° | 3 |
| 55° | 2 |
| 57.5° | 2 |
| 60° | 1 |
| 62.5° | 1 |
| 65° | 1 |
| 67.5° | 1 |
| 70° | 0 |
| 72.5° | 0 |
| 75° | 0 |
| 77.5° | 0 |
| 80° | 0 |
| 82.5° | 0 |
| 85° | 0 |
| 87.5° | 0 |
| 90° | 0 |

(END OF REPORT)