

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: PORTFOLIO

Report Number: P245668

Luminaire Tested: **LSR8B40D010 EC8B409730 8LBN0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245668  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P201794)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B40D010 EC8B409730 8LBN0GPH  
Description: PORTFOLIO 8 INCH NARROW DISTRIBUTION 50 DEGREE CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
97 CRI 3000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 2183 (1 lamp)  
Luminaire Lumens: 2623.0 lumens  
Efficiency: 120.2%  
Efficacy: 64.1 lumens/watt  
Spacing Criteria (0/90/45): 0.69 / 0.69 / 0.77  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

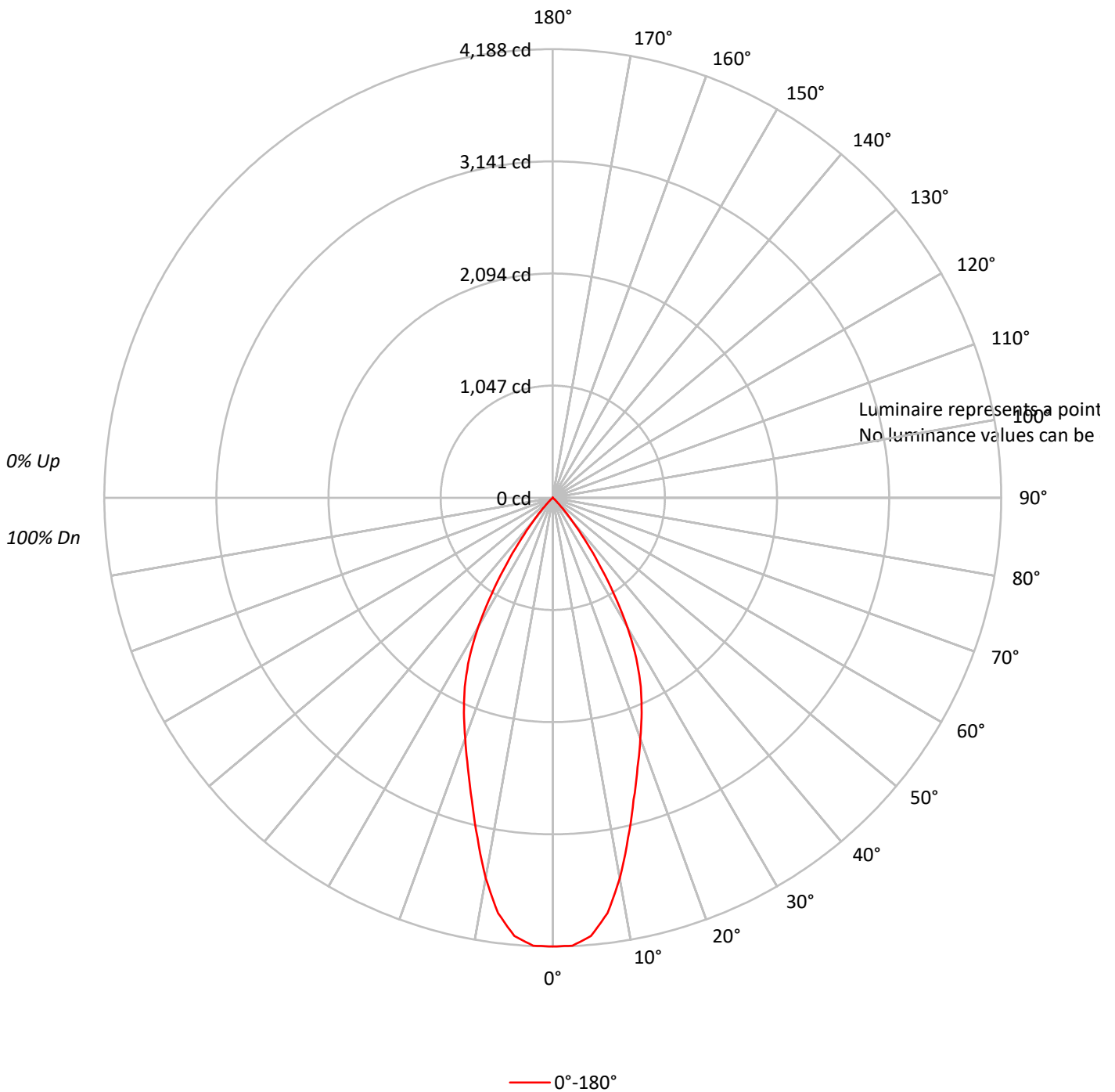
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |     |     |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 143 | 143 | 143 | 143 | 140 | 140 | 140 | 140 | 134 | 134 | 134 | 128 | 128 | 128 | 123 | 123 | 123 | 120 | 120 | 120 |
| 1   | 137 | 134 | 131 | 129 | 134 | 131 | 129 | 126 | 126 | 124 | 123 | 122 | 120 | 119 | 118 | 117 | 116 | 113 | 113 | 113 |
| 2   | 131 | 125 | 121 | 117 | 128 | 123 | 119 | 116 | 119 | 116 | 113 | 116 | 113 | 111 | 113 | 110 | 109 | 107 | 107 | 107 |
| 3   | 125 | 118 | 112 | 108 | 123 | 116 | 111 | 107 | 113 | 109 | 105 | 110 | 107 | 104 | 107 | 105 | 102 | 100 | 100 | 100 |
| 4   | 119 | 111 | 105 | 100 | 117 | 109 | 104 | 99  | 107 | 102 | 98  | 105 | 100 | 97  | 102 | 99  | 96  | 94  | 94  | 94  |
| 5   | 114 | 104 | 98  | 93  | 112 | 103 | 97  | 93  | 101 | 96  | 92  | 99  | 95  | 91  | 97  | 94  | 90  | 89  | 89  | 89  |
| 6   | 109 | 99  | 92  | 87  | 107 | 98  | 92  | 87  | 96  | 91  | 86  | 94  | 90  | 86  | 93  | 89  | 85  | 84  | 84  | 84  |
| 7   | 104 | 93  | 87  | 82  | 102 | 93  | 86  | 82  | 91  | 86  | 81  | 90  | 85  | 81  | 88  | 84  | 81  | 79  | 79  | 79  |
| 8   | 99  | 89  | 82  | 77  | 98  | 88  | 82  | 77  | 87  | 81  | 77  | 85  | 80  | 77  | 84  | 80  | 76  | 75  | 75  | 75  |
| 9   | 95  | 84  | 78  | 73  | 94  | 84  | 77  | 73  | 82  | 77  | 73  | 81  | 76  | 73  | 80  | 76  | 72  | 71  | 71  | 71  |
| 10  | 91  | 80  | 74  | 69  | 90  | 80  | 73  | 69  | 79  | 73  | 69  | 78  | 73  | 69  | 77  | 72  | 69  | 67  | 67  | 67  |

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





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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

| Zone      | Lumens | % Fixture | % Lamp | 0°   | Flux |     |
|-----------|--------|-----------|--------|------|------|-----|
| 0°-10°    | 375.6  | 14.3      | 17.2   | 0°   | 4188 |     |
| 10°-20°   | 818.7  | 31.2      | 37.5   | 5°   | 4105 | 376 |
| 20°-30°   | 877.0  | 33.4      | 40.2   | 15°  | 2918 | 819 |
| 30°-40°   | 475.2  | 18.1      | 21.8   | 25°  | 1945 | 877 |
| 40°-50°   | 74.0   | 2.8       | 3.4    | 35°  | 744  | 475 |
| 50°-60°   | 2.0    | 0.1       | 0.1    | 45°  | 68   | 74  |
| 60°-70°   | 0.4    | 0.0       | 0.0    | 55°  | 0    | 2   |
| 70°-80°   | 0.0    | 0.0       | 0.0    | 65°  | 0    | 0   |
| 80°-90°   | 0.0    | 0.0       | 0.0    | 75°  | 0    | 0   |
| 90°-100°  | 0.0    | 0.0       | 0.0    | 85°  | 0    | 0   |
| 100°-110° | 0.0    | 0.0       | 0.0    | 90°  | 0    | 0   |
| 110°-120° | 0.0    | 0.0       | 0.0    | 95°  | 0    | 0   |
| 120°-130° | 0.0    | 0.0       | 0.0    | 105° | 0    | 0   |
| 130°-140° | 0.0    | 0.0       | 0.0    | 115° | 0    | 0   |
| 140°-150° | 0.0    | 0.0       | 0.0    | 125° | 0    | 0   |
| 150°-160° | 0.0    | 0.0       | 0.0    | 135° | 0    | 0   |
| 160°-170° | 0.0    | 0.0       | 0.0    | 145° | 0    | 0   |
| 170°-180° | 0.0    | 0.0       | 0.0    | 155° | 0    | 0   |
| 0°-30°    | 2071.4 | 79.0      | 94.9   | 165° | 0    | 0   |
| 0°-40°    | 2546.6 | 97.1      | 116.7  | 175° | 0    | 0   |
| 0°-60°    | 2622.6 | 100.0     | 120.1  | 180° | 0    | 0   |
| 0°-90°    | 2623.0 | 100.0     | 120.2  |      |      |     |
| 90°-120°  | 0.0    | 0.0       | 0.0    |      |      |     |
| 90°-150°  | 0.0    | 0.0       | 0.0    |      |      |     |
| 90°-180°  | 0.0    | 0.0       | 0.0    |      |      |     |
| 0°-180°   | 2623.0 | 100.0     | 120.2  |      |      |     |



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**CANDELA DISTRIBUTION (FULL):**

| 0°     |        |
|--------|--------|
| 0°     | 4187.8 |
| 2.5°   | 4184.4 |
| 5°     | 4105.1 |
| 7.5°   | 3909.4 |
| 10°    | 3605.8 |
| 12.5°  | 3250.4 |
| 15°    | 2918.0 |
| 17.5°  | 2635.9 |
| 20°    | 2389.8 |
| 22.5°  | 2169.0 |
| 25°    | 1944.6 |
| 27.5°  | 1690.0 |
| 30°    | 1391.1 |
| 32.5°  | 1061.0 |
| 35°    | 744.2  |
| 37.5°  | 476.6  |
| 40°    | 274.8  |
| 42.5°  | 146.4  |
| 45°    | 68.4   |
| 47.5°  | 37.3   |
| 50°    | 11.9   |
| 52.5°  | 1.2    |
| 55°    | 0.0    |
| 57.5°  | 1.2    |
| 60°    | 1.2    |
| 62.5°  | 0.0    |
| 65°    | 0.0    |
| 67.5°  | 1.2    |
| 70°    | 0.0    |
| 72.5°  | 0.0    |
| 75°    | 0.0    |
| 77.5°  | 0.0    |
| 80°    | 0.0    |
| 82.5°  | 0.0    |
| 85°    | 0.0    |
| 87.5°  | 0.0    |
| 90°    | 0.0    |
| 92.5°  | 0.0    |
| 95°    | 0.0    |
| 97.5°  | 0.0    |
| 100°   | 0.0    |
| 102.5° | 0.0    |
| 105°   | 0.0    |
| 107.5° | 0.0    |
| 110°   | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  |
|--------|-----|
| 112.5° | 0.0 |
| 115°   | 0.0 |
| 117.5° | 0.0 |
| 120°   | 0.0 |
| 122.5° | 0.0 |
| 125°   | 0.0 |
| 127.5° | 0.0 |
| 130°   | 0.0 |
| 132.5° | 0.0 |
| 135°   | 0.0 |
| 137.5° | 0.0 |
| 140°   | 0.0 |
| 142.5° | 0.0 |
| 145°   | 0.0 |
| 147.5° | 0.0 |
| 150°   | 0.0 |
| 152.5° | 0.0 |
| 155°   | 0.0 |
| 157.5° | 0.0 |
| 160°   | 0.0 |
| 162.5° | 0.0 |
| 165°   | 0.0 |
| 167.5° | 0.0 |
| 170°   | 0.0 |
| 172.5° | 0.0 |
| 175°   | 0.0 |
| 177.5° | 0.0 |
| 180°   | 0.0 |

(END OF REPORT)