

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: P244328

Luminaire Tested: **LSR8B20D010 EC8B20850 8LBN0H**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244328  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27944)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B20D010 EC8B20850 8LBN0H  
Description: PORTFOLIO 8 INCH NARROW DISTRIBUTION 50 DEGREE CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH SEMI-SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2037.0 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 0.69 / 0.69 / 0.79  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

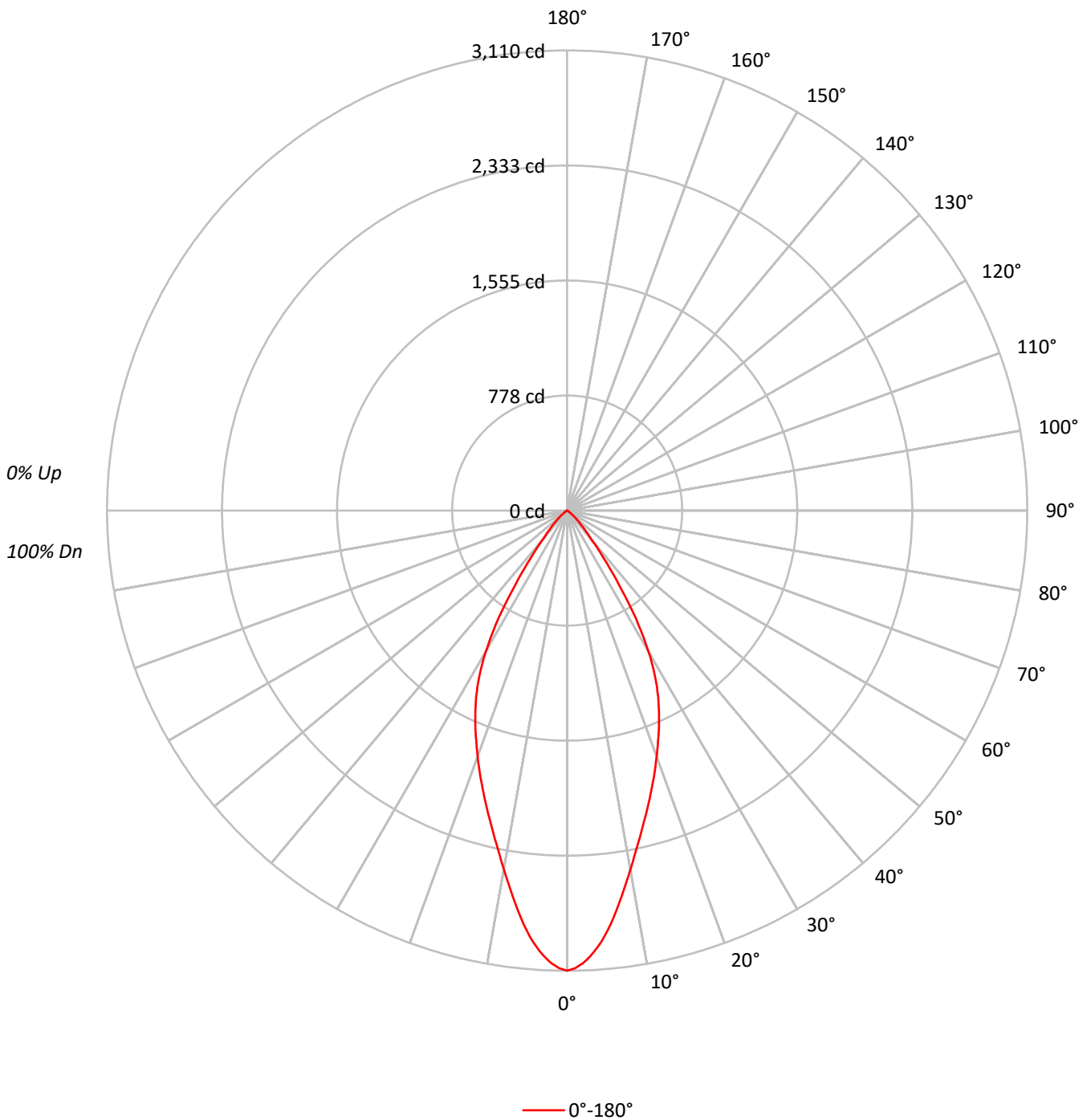
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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   | 114 | 111 | 109 | 106 | 111 | 109 | 107 | 105 | 105 | 103 | 101 |  | 101 | 100 | 98  |  | 98  | 97  | 96  | 94  |
| 2   | 108 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 99  | 96  | 93  |  | 96  | 93  | 91  |  | 93  | 91  | 89  | 88  |
| 3   | 103 | 97  | 92  | 88  | 101 | 95  | 91  | 87  | 93  | 89  | 86  |  | 90  | 87  | 85  |  | 88  | 86  | 83  | 82  |
| 4   | 98  | 91  | 85  | 81  | 96  | 90  | 85  | 81  | 87  | 83  | 80  |  | 85  | 82  | 79  |  | 84  | 80  | 78  | 76  |
| 5   | 93  | 85  | 79  | 75  | 92  | 84  | 79  | 75  | 82  | 78  | 74  |  | 81  | 77  | 74  |  | 79  | 76  | 73  | 72  |
| 6   | 89  | 80  | 74  | 70  | 87  | 79  | 74  | 70  | 78  | 73  | 69  |  | 76  | 72  | 69  |  | 75  | 71  | 69  | 67  |
| 7   | 85  | 76  | 70  | 66  | 83  | 75  | 69  | 65  | 74  | 69  | 65  |  | 72  | 68  | 65  |  | 71  | 67  | 64  | 63  |
| 8   | 81  | 71  | 66  | 62  | 79  | 71  | 65  | 61  | 70  | 65  | 61  |  | 69  | 64  | 61  |  | 68  | 64  | 61  | 59  |
| 9   | 77  | 68  | 62  | 58  | 76  | 67  | 62  | 58  | 66  | 61  | 58  |  | 65  | 61  | 58  |  | 64  | 60  | 57  | 56  |
| 10  | 74  | 64  | 59  | 55  | 73  | 64  | 58  | 55  | 63  | 58  | 55  |  | 62  | 58  | 54  |  | 61  | 57  | 54  | 53  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 95886 |
| 5°  | 89439 |
| 10° | 77093 |
| 15° | 66721 |
| 20° | 58040 |
| 25° | 49879 |
| 30° | 39192 |
| 35° | 22869 |
| 40° | 10551 |
| 45° | 5460  |
| 50° | 2739  |
| 55° | 1333  |
| 60° | 678   |
| 65° | 401   |
| 70° | 189   |
| 75° | 167   |
| 80° | 124   |
| 85° | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 261.5  | 12.8      |
| 10°-20°   | 584.4  | 28.7      |
| 20°-30°   | 664.4  | 32.6      |
| 30°-40°   | 390.2  | 19.2      |
| 40°-50°   | 104.7  | 5.1       |
| 50°-60°   | 24.8   | 1.2       |
| 60°-70°   | 5.7    | 0.3       |
| 70°-80°   | 1.3    | 0.1       |
| 80°-90°   | 0.1    | 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°    | 1510.2 | 74.1      |
| 0°-40°    | 1900.4 | 93.3      |
| 0°-60°    | 2030.0 | 99.7      |
| 0°-90°    | 2037.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2037.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3110 |      |
| 5°  | 2889 | 261  |
| 15° | 2090 | 584  |
| 25° | 1466 | 664  |
| 35° | 608  | 390  |
| 45° | 125  | 105  |
| 55° | 25   | 25   |
| 65° | 6    | 6    |
| 75° | 1    | 1    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 3109.5 |
| 1°    | 3092.3 |
| 2°    | 3060.7 |
| 3°    | 3015.9 |
| 4°    | 2958.2 |
| 5°    | 2889.4 |
| 6°    | 2811.6 |
| 7°    | 2723.6 |
| 8°    | 2635.5 |
| 9°    | 2546.8 |
| 10°   | 2462.1 |
| 11°   | 2379.6 |
| 12°   | 2301.9 |
| 13°   | 2229.6 |
| 14°   | 2157.4 |
| 15°   | 2090.0 |
| 16°   | 2023.9 |
| 17°   | 1958.6 |
| 18°   | 1895.3 |
| 19°   | 1831.3 |
| 20°   | 1768.7 |
| 21°   | 1706.1 |
| 22°   | 1646.2 |
| 23°   | 1587.1 |
| 24°   | 1526.5 |
| 25°   | 1466.0 |
| 26°   | 1403.4 |
| 27°   | 1335.3 |
| 28°   | 1263.8 |
| 29°   | 1185.3 |
| 30°   | 1100.7 |
| 32.5° | 863.4  |
| 35°   | 607.5  |
| 37.5° | 400.4  |
| 40°   | 262.1  |
| 42.5° | 180.9  |
| 45°   | 125.2  |
| 47.5° | 86.0   |
| 50°   | 57.1   |
| 52.5° | 37.1   |
| 55°   | 24.8   |
| 57.5° | 16.5   |
| 60°   | 11.0   |
| 62.5° | 7.6    |
| 65°   | 5.5    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  |
|-------|-----|
| 67.5° | 3.4 |
| 70°   | 2.1 |
| 72.5° | 1.4 |
| 75°   | 1.4 |
| 77.5° | 0.7 |
| 80°   | 0.7 |
| 82.5° | 0.0 |
| 85°   | 0.0 |
| 87.5° | 0.0 |
| 90°   | 0.0 |

(END OF REPORT)