

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: P247435

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBS0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P247435  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1801-521-85)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90830 8LBS0WH  
Description: PORTFOLIO 8 INCH WIDE SHALLOW DISTRIBUTION 75 DEGREE CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10107.0 lumens  
Efficiency: N/A  
Efficacy: 117.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.29 / 1.24  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

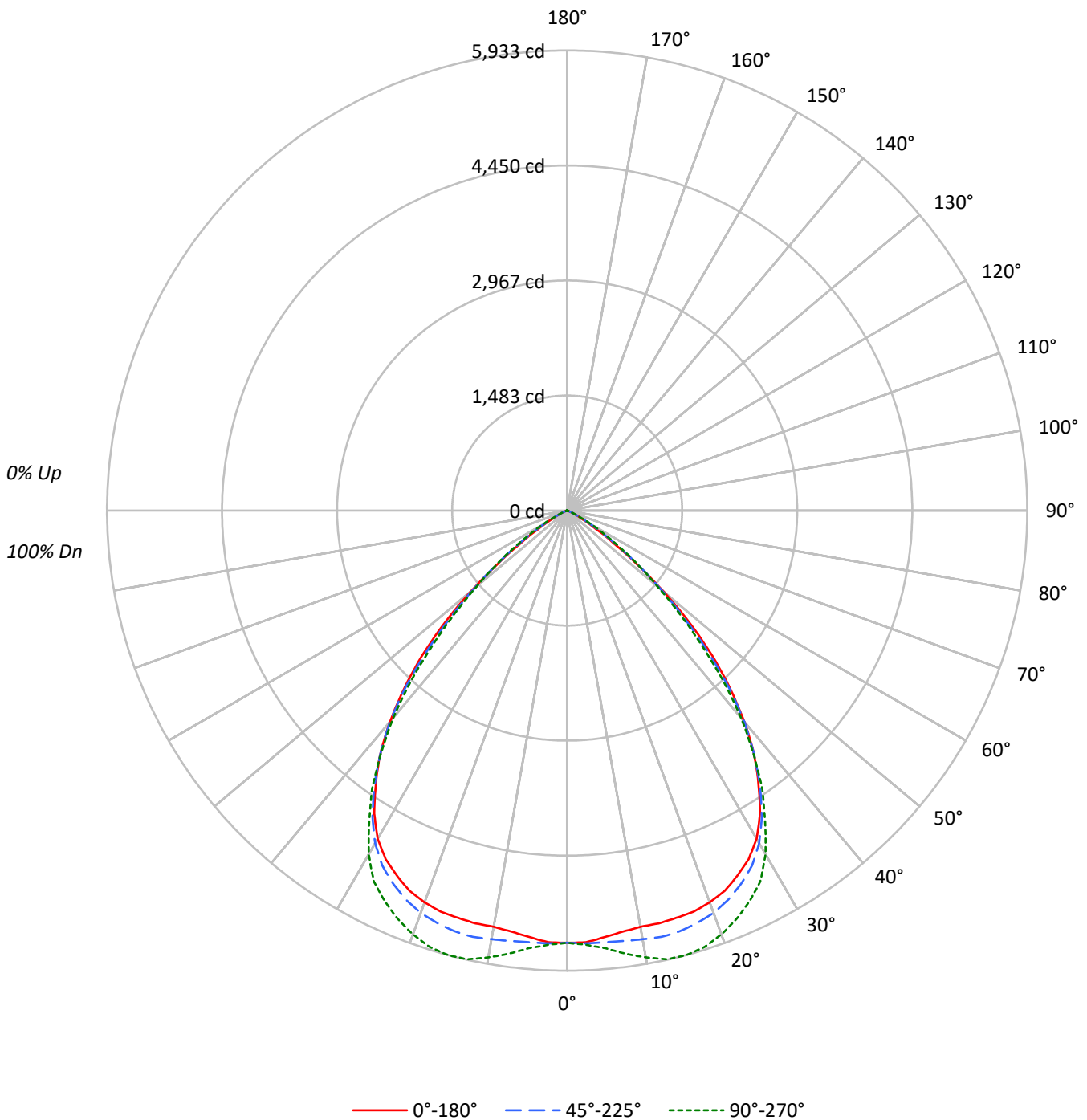
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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 |   |  |   |
| 1   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99  | 99  | 97  | 96  | 96  | 94  | 93  | 91  |    |    |    |    | 91  |   |  |   |
| 2   | 105 | 99  | 94  | 90  | 103 | 98  | 93  | 89  | 94  | 91  | 87  | 91  | 88  | 85  | 88  | 86  | 84  | 82  |    |    |    |    | 82  |   |  |   |
| 3   | 98  | 90  | 84  | 80  | 96  | 89  | 83  | 79  | 86  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |    |    | 73  |   |  |   |
| 4   | 92  | 83  | 76  | 71  | 90  | 81  | 75  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 75  | 71  | 68  | 66  |    |    |    |    | 66  |   |  |   |
| 5   | 86  | 75  | 68  | 63  | 84  | 74  | 68  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |    |    | 59  |   |  |   |
| 6   | 80  | 69  | 62  | 57  | 78  | 68  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 64  | 59  | 55  | 54  |    |    |    |    | 54  |   |  |   |
| 7   | 75  | 64  | 56  | 51  | 73  | 63  | 56  | 51  | 62  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 50  | 49  |    |    |    |    | 49  |   |  |   |
| 8   | 70  | 59  | 52  | 47  | 69  | 58  | 51  | 47  | 57  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 44  |    |    |    |    | 44  |   |  |   |
| 9   | 66  | 54  | 47  | 43  | 65  | 54  | 47  | 43  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |    |    |    |    | 40  |   |  |   |
| 10  | 62  | 51  | 44  | 39  | 61  | 50  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 48  | 42  | 39  | 37  |    |    |    |    | 37  |   |  |   |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 171832 | 171832 | 171832 |
| 5°  | 170879 | 172922 | 175336 |
| 10° | 170582 | 175704 | 183163 |
| 15° | 173571 | 179241 | 189406 |
| 20° | 176389 | 181118 | 190785 |
| 25° | 176697 | 180603 | 189154 |
| 30° | 174003 | 176278 | 182139 |
| 35° | 161942 | 163003 | 165040 |
| 40° | 143131 | 142958 | 140386 |
| 45° | 115294 | 110994 | 106694 |
| 50° | 77418  | 75389  | 72847  |
| 55° | 39305  | 42681  | 45299  |
| 60° | 16097  | 19704  | 22979  |
| 65° | 6005   | 6399   | 7508   |
| 70° | 388    | 388    | 289    |
| 75° | 774    | 1287   | 1680   |
| 80° | 195    | 0      | 0      |
| 85° | 778    | 0      | 778    |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 535.1   | 5.3       |
| 10°-20°   | 1594.7  | 15.8      |
| 20°-30°   | 2453.9  | 24.3      |
| 30°-40°   | 2687.7  | 26.6      |
| 40°-50°   | 1954.2  | 19.3      |
| 50°-60°   | 751.8   | 7.4       |
| 60°-70°   | 117.7   | 1.2       |
| 70°-80°   | 8.4     | 0.1       |
| 80°-90°   | 3.4     | 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°    | 4583.7  | 45.4      |
| 0°-40°    | 7271.4  | 71.9      |
| 0°-60°    | 9977.4  | 98.7      |
| 0°-90°    | 10107.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 10107.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5572 | 5572  | 5572 | 5572  | 5572 |      |
| 5°  | 5520 | 5548  | 5586 | 5640  | 5664 | 525  |
| 15° | 5437 | 5479  | 5615 | 5823  | 5933 | 1538 |
| 25° | 5193 | 5225  | 5308 | 5465  | 5559 | 2389 |
| 35° | 4302 | 4302  | 4330 | 4357  | 4384 | 2671 |
| 45° | 2644 | 2617  | 2545 | 2480  | 2447 | 2010 |
| 55° | 731  | 751   | 794  | 820   | 843  | 714  |
| 65° | 82   | 86    | 88   | 100   | 103  | 101  |
| 75° | 6    | 14    | 11   | 14    | 14   | 8    |
| 85° | 2    | 0     | 0    | 0     | 2    | 5    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 5572.4 | 5572.4 | 5572.4 | 5572.4 | 5572.4 |
| 2.5°  | 5571.3 | 5579.9 | 5585.4 | 5597.3 | 5602.7 |
| 5°    | 5520.4 | 5548.5 | 5586.4 | 5639.5 | 5664.4 |
| 7.5°  | 5476.0 | 5515.0 | 5596.2 | 5711.0 | 5761.9 |
| 10°   | 5447.8 | 5490.1 | 5611.4 | 5767.3 | 5849.6 |
| 12.5° | 5451.1 | 5497.6 | 5628.7 | 5816.1 | 5926.5 |
| 15°   | 5437.0 | 5479.2 | 5614.6 | 5822.6 | 5933.0 |
| 17.5° | 5420.7 | 5455.4 | 5575.6 | 5779.2 | 5898.4 |
| 20°   | 5375.2 | 5404.5 | 5519.3 | 5703.4 | 5813.9 |
| 22.5° | 5307.0 | 5334.1 | 5429.4 | 5600.5 | 5702.3 |
| 25°   | 5193.3 | 5224.7 | 5308.1 | 5465.1 | 5559.4 |
| 27.5° | 5066.6 | 5085.0 | 5161.9 | 5304.8 | 5394.7 |
| 30°   | 4886.8 | 4893.3 | 4950.7 | 5061.2 | 5115.3 |
| 32.5° | 4630.1 | 4629.0 | 4672.3 | 4727.6 | 4748.2 |
| 35°   | 4301.9 | 4301.9 | 4330.1 | 4357.2 | 4384.2 |
| 37.5° | 3960.8 | 3956.4 | 3959.7 | 3966.2 | 3943.4 |
| 40°   | 3555.7 | 3547.0 | 3551.4 | 3512.4 | 3487.5 |
| 42.5° | 3111.6 | 3119.2 | 3075.9 | 3006.6 | 2980.6 |
| 45°   | 2643.8 | 2616.7 | 2545.2 | 2480.2 | 2446.6 |
| 47.5° | 2146.6 | 2104.4 | 2036.2 | 1969.0 | 1963.6 |
| 50°   | 1613.8 | 1615.9 | 1571.5 | 1533.6 | 1518.5 |
| 52.5° | 1119.9 | 1131.8 | 1154.5 | 1158.9 | 1164.3 |
| 55°   | 731.1  | 750.6  | 793.9  | 819.9  | 842.6  |
| 57.5° | 447.3  | 483.0  | 519.9  | 568.6  | 572.9  |
| 60°   | 261.0  | 278.3  | 319.5  | 356.3  | 372.6  |
| 62.5° | 147.3  | 163.5  | 172.2  | 193.9  | 199.3  |
| 65°   | 82.3   | 85.6   | 87.7   | 99.6   | 102.9  |
| 67.5° | 49.8   | 52.0   | 54.2   | 53.1   | 55.2   |
| 70°   | 4.3    | 9.7    | 4.3    | 5.4    | 3.2    |
| 72.5° | 18.4   | 11.9   | 13.0   | 9.7    | 6.5    |
| 75°   | 6.5    | 14.1   | 10.8   | 14.1   | 14.1   |
| 77.5° | 4.3    | 3.2    | 5.4    | 6.5    | 5.4    |
| 80°   | 1.1    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 9.7    | 8.7    | 5.4    | 8.7    | 3.2    |
| 85°   | 2.2    | 0.0    | 0.0    | 0.0    | 2.2    |
| 87.5° | 6.5    | 3.2    | 3.2    | 7.6    | 2.2    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)