

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: P250198

Luminaire Tested: **LSR8B90D010 EC8B90930 8LBM0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P250198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13942)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90930 8LBM0WH
Description: PORTFOLIO 8 INCH MEDIUM DISTRIBUTION 55 DEG CUTOFF RECESSED
DOWNLIGHT- CYLINDEC
97 CRI 3000 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7808.9 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 0.8 / 0.85
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

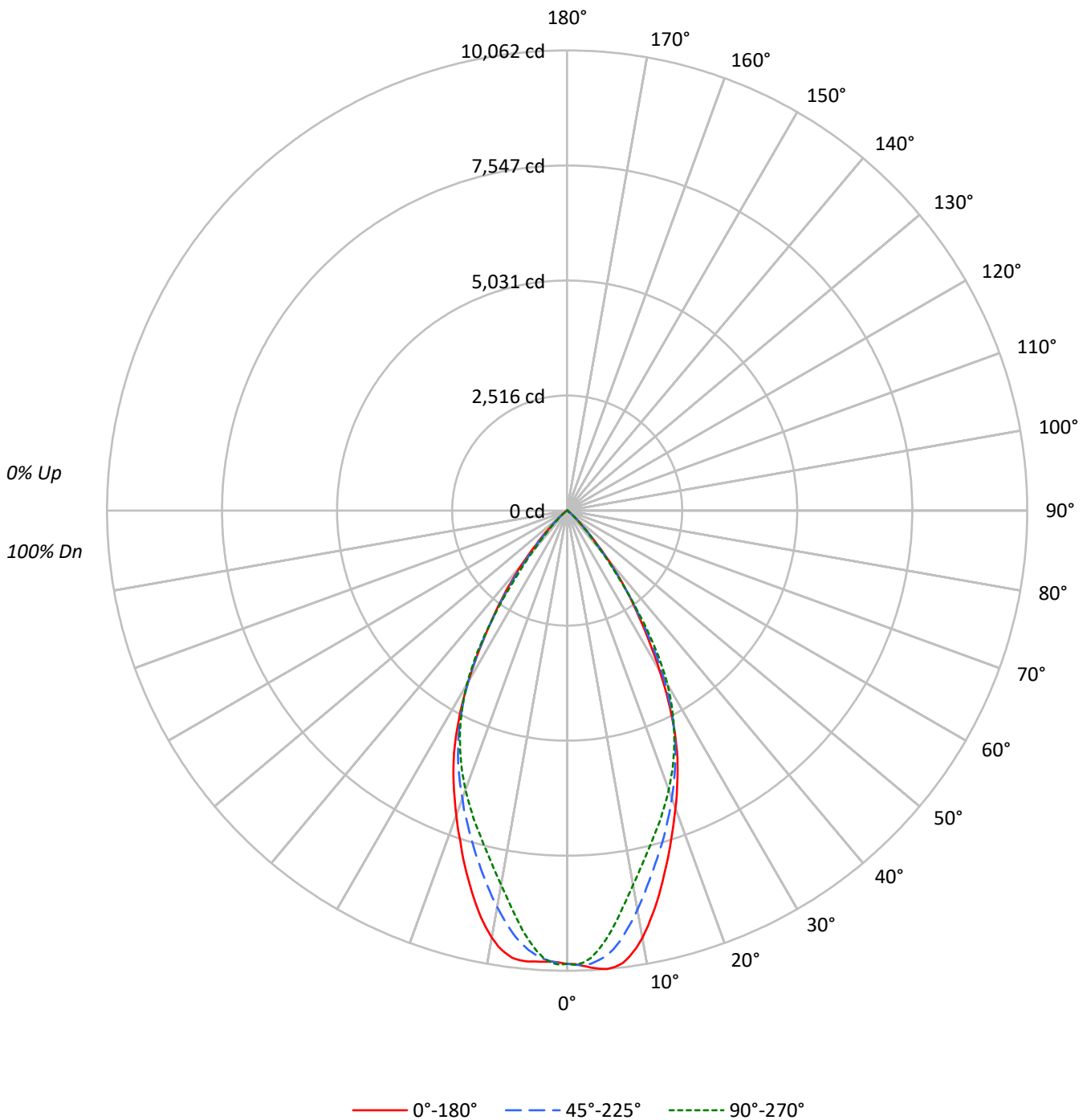
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 106 | 111 | 109 | 107 | 105 | 105 | 103 | 101 | 101 | 100 | 98 | 98 | 97 | 96 | 94 |
| 2 | 108 | 103 | 99 | 96 | 106 | 102 | 98 | 95 | 98 | 95 | 93 | 95 | 93 | 91 | 93 | 91 | 89 | 87 |
| 3 | 103 | 97 | 92 | 88 | 101 | 95 | 91 | 87 | 93 | 89 | 86 | 90 | 87 | 84 | 88 | 85 | 83 | 81 |
| 4 | 98 | 90 | 85 | 81 | 96 | 89 | 84 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 76 |
| 5 | 93 | 85 | 79 | 75 | 91 | 84 | 78 | 74 | 82 | 77 | 74 | 80 | 76 | 73 | 79 | 75 | 72 | 71 |
| 6 | 88 | 80 | 74 | 69 | 87 | 79 | 73 | 69 | 77 | 72 | 69 | 76 | 72 | 68 | 75 | 71 | 68 | 66 |
| 7 | 84 | 75 | 69 | 65 | 83 | 74 | 69 | 65 | 73 | 68 | 64 | 72 | 67 | 64 | 71 | 67 | 64 | 62 |
| 8 | 80 | 71 | 65 | 61 | 79 | 70 | 64 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 |
| 9 | 76 | 67 | 61 | 57 | 75 | 66 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 56 | 64 | 59 | 56 | 55 |
| 10 | 73 | 63 | 57 | 54 | 72 | 63 | 57 | 54 | 62 | 57 | 53 | 61 | 56 | 53 | 60 | 56 | 53 | 52 |

AVERAGE LUMINANCE (cd/sqm):

| | | | |
|-----|--|-----|------|
| | 0° | 90° | 180° |
| 0° | Luminaire represents a point source (luminous area is zero). | | |
| 5° | No luminance values can be calculated. | | |
| 10° | | | |
| 15° | | | |
| 20° | | | |
| 25° | | | |
| 30° | | | |
| 35° | | | |
| 40° | | | |
| 45° | | | |
| 50° | | | |
| 55° | | | |
| 60° | | | |
| 65° | | | |
| 70° | | | |
| 75° | | | |
| 80° | | | |
| 85° | | | |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 899.7 | 11.5 |
| 10°-20° | 2175.9 | 27.9 |
| 20°-30° | 2550.3 | 32.7 |
| 30°-40° | 1678.0 | 21.5 |
| 40°-50° | 437.9 | 5.6 |
| 50°-60° | 53.9 | 0.7 |
| 60°-70° | 11.2 | 0.1 |
| 70°-80° | 2.1 | 0.0 |
| 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° | 5625.9 | 72.0 |
| 0°-40° | 7303.8 | 93.5 |
| 0°-60° | 7795.6 | 99.8 |
| 0°-90° | 7808.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7808.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-------|------|------|------|------|------|
| 0° | 9910 | 9910 | 9910 | 9910 | 9910 | |
| 5° | 10062 | 9775 | 9452 | 9648 | 9898 | 943 |
| 15° | 8214 | 7749 | 7354 | 7749 | 8354 | 2290 |
| 25° | 5643 | 5588 | 5547 | 5641 | 5850 | 2544 |
| 35° | 2566 | 2624 | 2713 | 2740 | 2783 | 1607 |
| 45° | 499 | 470 | 438 | 508 | 593 | 447 |
| 55° | 39 | 41 | 46 | 46 | 43 | 51 |
| 65° | 14 | 12 | 12 | 10 | 10 | 10 |
| 75° | 0 | 2 | 0 | 0 | 0 | 1 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 9910.2 | 9910.2 | 9910.2 | 9910.2 | 9910.2 | 9910.2 | 9910.2 | 9910.2 | 9910.2 |
| 1° | 9917.4 | 9931.8 | 9936.7 | 9951.1 | 9929.5 | 9915.0 | 9895.7 | 9881.3 | 9883.6 |
| 2° | 9960.8 | 9968.0 | 9941.5 | 9931.8 | 9893.3 | 9881.3 | 9866.8 | 9864.4 | 9866.8 |
| 3° | 10006.6 | 9992.0 | 9922.2 | 9857.2 | 9799.3 | 9792.0 | 9818.6 | 9857.2 | 9878.8 |
| 4° | 10042.7 | 10004.1 | 9857.2 | 9736.7 | 9645.1 | 9637.9 | 9744.0 | 9842.7 | 9883.6 |
| 5° | 10062.0 | 9992.0 | 9775.2 | 9572.8 | 9452.4 | 9498.1 | 9647.6 | 9823.4 | 9898.1 |
| 6° | 10035.4 | 9931.8 | 9649.9 | 9380.1 | 9242.8 | 9303.0 | 9522.2 | 9777.6 | 9888.5 |
| 7° | 9968.0 | 9835.4 | 9488.5 | 9170.5 | 9001.7 | 9095.8 | 9375.3 | 9700.6 | 9852.4 |
| 8° | 9842.7 | 9683.6 | 9283.7 | 8927.1 | 8760.8 | 8866.9 | 9194.6 | 9589.7 | 9765.6 |
| 9° | 9678.8 | 9502.9 | 9081.3 | 8705.5 | 8527.1 | 8652.4 | 9006.6 | 9442.7 | 9645.1 |
| 10° | 9483.7 | 9295.8 | 8857.2 | 8474.1 | 8312.7 | 8430.7 | 8804.2 | 9271.7 | 9481.3 |
| 11° | 9254.8 | 9074.0 | 8633.2 | 8257.3 | 8103.0 | 8218.7 | 8601.9 | 9066.9 | 9293.3 |
| 12° | 9006.6 | 8840.3 | 8404.2 | 8047.7 | 7903.0 | 8013.9 | 8385.0 | 8854.8 | 9078.9 |
| 13° | 8758.4 | 8592.1 | 8182.6 | 7845.2 | 7712.7 | 7818.8 | 8172.9 | 8623.5 | 8847.6 |
| 14° | 8491.0 | 8339.2 | 7960.9 | 7652.5 | 7532.0 | 7633.2 | 7956.1 | 8389.8 | 8601.9 |
| 15° | 8213.9 | 8093.4 | 7748.8 | 7467.0 | 7353.8 | 7450.1 | 7748.8 | 8148.8 | 8353.6 |
| 16° | 7953.7 | 7842.9 | 7544.0 | 7283.8 | 7189.9 | 7267.0 | 7539.3 | 7907.9 | 8103.0 |
| 17° | 7688.6 | 7587.5 | 7339.2 | 7103.1 | 7018.8 | 7093.5 | 7324.8 | 7664.5 | 7840.4 |
| 18° | 7423.6 | 7339.2 | 7115.2 | 6912.8 | 6838.1 | 6905.6 | 7112.7 | 7418.8 | 7577.7 |
| 19° | 7177.8 | 7100.8 | 6910.4 | 6739.3 | 6671.9 | 6732.1 | 6927.2 | 7182.7 | 7341.7 |
| 20° | 6924.9 | 6862.2 | 6696.0 | 6556.2 | 6493.5 | 6548.9 | 6700.8 | 6949.0 | 7088.6 |
| 21° | 6681.5 | 6626.0 | 6481.5 | 6363.4 | 6312.8 | 6358.6 | 6498.3 | 6722.4 | 6845.3 |
| 22° | 6428.5 | 6397.2 | 6267.1 | 6168.3 | 6134.6 | 6163.4 | 6291.2 | 6483.9 | 6599.6 |
| 23° | 6180.3 | 6151.4 | 6052.6 | 5970.7 | 5941.7 | 5970.7 | 6083.9 | 6257.4 | 6361.0 |
| 24° | 5929.8 | 5898.4 | 5826.2 | 5773.0 | 5749.0 | 5773.0 | 5869.4 | 6016.4 | 6115.3 |
| 25° | 5643.0 | 5638.2 | 5587.6 | 5558.7 | 5546.6 | 5573.1 | 5640.6 | 5768.3 | 5850.2 |
| 26° | 5368.2 | 5353.8 | 5339.4 | 5334.5 | 5337.0 | 5351.4 | 5406.8 | 5503.2 | 5568.3 |
| 27° | 5030.9 | 5052.7 | 5074.3 | 5103.2 | 5112.9 | 5125.0 | 5151.4 | 5221.3 | 5269.5 |
| 28° | 4708.1 | 4749.1 | 4802.0 | 4859.9 | 4886.4 | 4886.4 | 4888.8 | 4927.4 | 4968.3 |
| 29° | 4387.7 | 4431.0 | 4515.4 | 4602.0 | 4638.2 | 4633.4 | 4614.1 | 4631.0 | 4655.1 |
| 30° | 4052.8 | 4108.1 | 4221.5 | 4334.7 | 4387.7 | 4368.4 | 4332.2 | 4315.4 | 4329.9 |
| 31° | 3725.1 | 3780.5 | 3905.8 | 4028.6 | 4098.5 | 4076.9 | 4014.2 | 4002.2 | 4009.4 |
| 32° | 3411.9 | 3467.3 | 3582.8 | 3713.0 | 3792.5 | 3763.6 | 3698.5 | 3679.2 | 3681.7 |
| 33° | 3108.2 | 3151.6 | 3257.6 | 3378.1 | 3443.2 | 3435.9 | 3382.8 | 3358.9 | 3361.2 |
| 34° | 2821.6 | 2857.7 | 2937.1 | 3028.7 | 3091.4 | 3088.9 | 3050.4 | 3052.8 | 3060.0 |
| 35° | 2566.1 | 2585.4 | 2623.9 | 2674.5 | 2713.0 | 2734.7 | 2739.6 | 2758.8 | 2783.0 |
| 37.5° | 1939.7 | 1946.8 | 1901.1 | 1850.4 | 1840.8 | 1903.5 | 2012.0 | 2105.9 | 2142.0 |
| 40° | 1344.5 | 1327.6 | 1269.8 | 1180.6 | 1154.1 | 1224.0 | 1361.3 | 1493.8 | 1542.0 |
| 42.5° | 836.2 | 828.9 | 792.8 | 725.3 | 701.2 | 742.1 | 845.7 | 946.9 | 995.1 |
| 45° | 498.7 | 489.1 | 469.8 | 443.4 | 438.5 | 455.4 | 508.4 | 566.2 | 592.8 |
| 47.5° | 286.8 | 284.4 | 272.3 | 262.7 | 260.2 | 272.3 | 296.4 | 330.1 | 337.3 |
| 50° | 156.6 | 154.2 | 151.8 | 151.8 | 151.8 | 159.0 | 171.1 | 180.7 | 185.5 |
| 52.5° | 77.1 | 79.5 | 77.1 | 79.5 | 81.9 | 86.8 | 84.3 | 93.9 | 93.9 |
| 55° | 38.6 | 36.1 | 41.0 | 45.8 | 45.8 | 45.8 | 45.8 | 45.8 | 43.4 |
| 57.5° | 28.9 | 31.3 | 26.6 | 28.9 | 26.6 | 26.6 | 24.1 | 26.6 | 28.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|------|-------|------|-------|------|--------|------|--------|------|
| 60° | 19.3 | 16.8 | 19.3 | 21.7 | 24.1 | 21.7 | 16.8 | 19.3 | 21.7 |
| 62.5° | 9.6 | 9.6 | 9.6 | 14.5 | 21.7 | 16.8 | 14.5 | 12.0 | 12.0 |
| 65° | 14.5 | 9.6 | 12.0 | 14.5 | 12.0 | 12.0 | 9.6 | 12.0 | 9.6 |
| 67.5° | 7.3 | 12.0 | 7.3 | 4.8 | 7.3 | 9.6 | 7.3 | 4.8 | 4.8 |
| 70° | 0.0 | 2.5 | 2.5 | 7.3 | 7.3 | 7.3 | 7.3 | 4.8 | 4.8 |
| 72.5° | 2.5 | 2.5 | 2.5 | 4.8 | 2.5 | 4.8 | 2.5 | 2.5 | 4.8 |
| 75° | 0.0 | 0.0 | 2.5 | 2.5 | 0.0 | 2.5 | 0.0 | 0.0 | 0.0 |
| 77.5° | 2.5 | 0.0 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 2.5 | 0.0 |
| 80° | 0.0 | 0.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)