

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: P247424

Luminaire Tested: **LSR8B100D010 EC8B1009727 8LBW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P247424  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13927)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B100D010 EC8B1009727 8LBW0WH  
Description: PORTFOLIO 8 INCH WIDE DISTRIBUTION 60 DEGREE CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7873.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.12  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

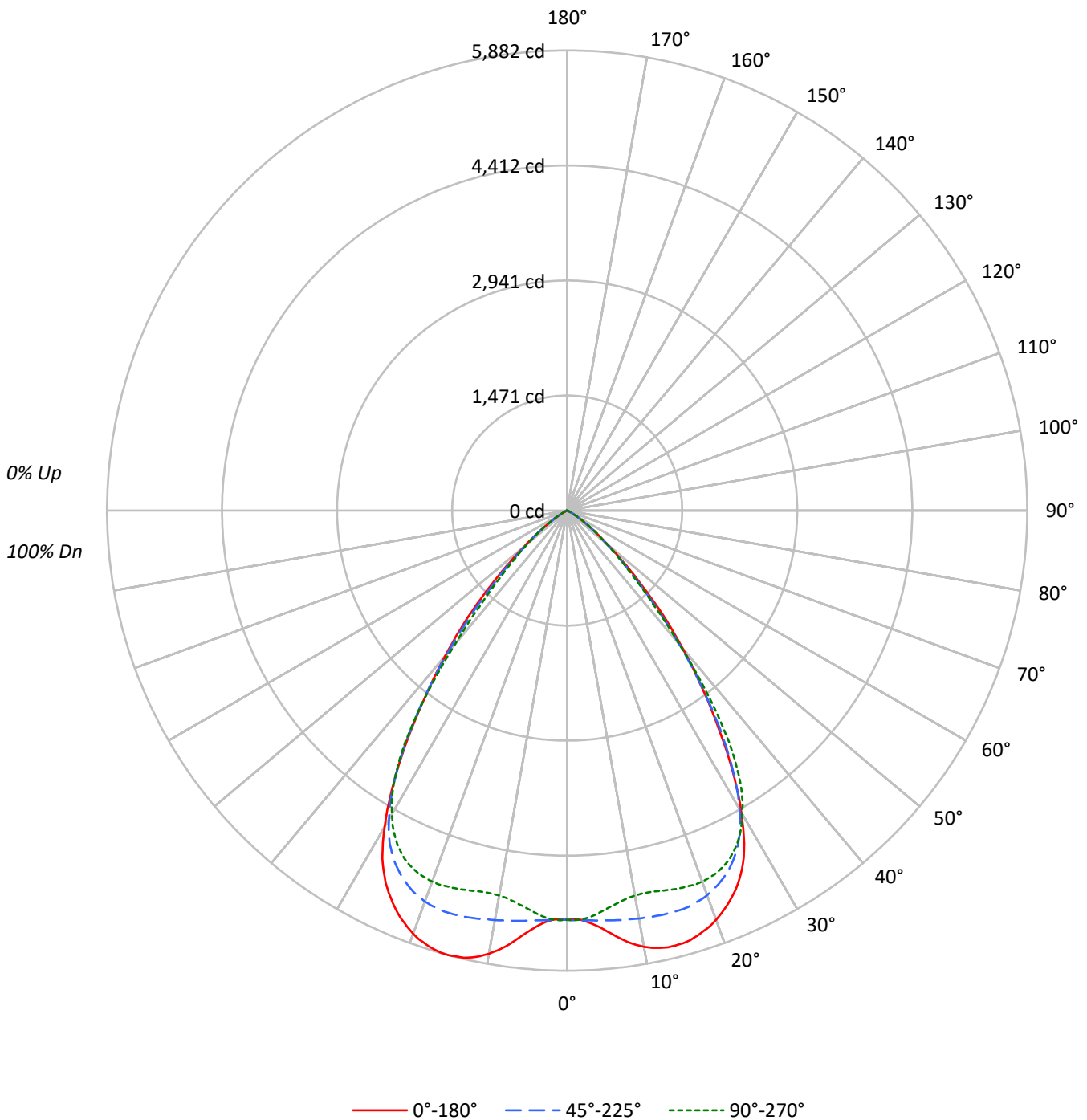
Input Watts (W): 106.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  |
| 2   | 106 | 101 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 92  | 90  | 93  | 90  | 88  | 90  | 88  | 86  | 84  |
| 3   | 100 | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 89  | 84  | 81  | 86  | 83  | 79  | 84  | 81  | 78  | 76  |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 79  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  | 70  |
| 5   | 88  | 79  | 72  | 67  | 87  | 78  | 72  | 67  | 76  | 71  | 66  | 74  | 70  | 66  | 73  | 69  | 65  | 64  |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 71  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 58  |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 63  | 59  | 55  | 53  |
| 8   | 74  | 63  | 56  | 52  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 49  |
| 9   | 70  | 59  | 52  | 48  | 68  | 58  | 52  | 48  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  |
| 10  | 66  | 55  | 48  | 44  | 65  | 54  | 48  | 44  | 54  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 44  | 42  |

**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°    | 504.4  | 6.4       |
| 10°-20°   | 1517.6 | 19.3      |
| 20°-30°   | 2309.9 | 29.3      |
| 30°-40°   | 2149.7 | 27.3      |
| 40°-50°   | 1046.2 | 13.3      |
| 50°-60°   | 298.1  | 3.8       |
| 60°-70°   | 39.0   | 0.5       |
| 70°-80°   | 6.2    | 0.1       |
| 80°-90°   | 1.9    | 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°    | 4332.0 | 55.0      |
| 0°-40°    | 6481.7 | 82.3      |
| 0°-60°    | 7826.0 | 99.4      |
| 0°-90°    | 7873.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7873.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 5233 | 5233 | 5233 | 5233 | 5233 |      |
| 5°  | 5373 | 5255 | 5140 | 5260 | 5382 | 523  |
| 15° | 5725 | 5309 | 5020 | 5360 | 5882 | 1611 |
| 25° | 5207 | 4980 | 4913 | 5089 | 5393 | 2363 |
| 35° | 3355 | 3401 | 3606 | 3568 | 3541 | 2086 |
| 45° | 1352 | 1252 | 1205 | 1349 | 1470 | 1068 |
| 55° | 304  | 304  | 316  | 309  | 304  | 299  |
| 65° | 20   | 24   | 27   | 24   | 22   | 38   |
| 75° | 0    | 2    | 7    | 2    | 0    | 4    |
| 85° | 0    | 2    | 2    | 4    | 0    | 1    |
| 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°    | 5233.2 | 5233.2 | 5233.2 | 5233.2 | 5233.2 | 5233.2 | 5233.2 | 5233.2 | 5233.2 |
| 1°    | 5226.5 | 5233.2 | 5237.7 | 5235.5 | 5237.7 | 5235.5 | 5231.0 | 5222.1 | 5222.1 |
| 2°    | 5235.5 | 5244.3 | 5242.1 | 5237.7 | 5231.0 | 5231.0 | 5244.3 | 5226.5 | 5231.0 |
| 3°    | 5271.0 | 5271.0 | 5244.3 | 5219.9 | 5210.9 | 5219.9 | 5242.1 | 5255.4 | 5266.6 |
| 4°    | 5315.4 | 5306.6 | 5253.2 | 5197.7 | 5179.8 | 5202.1 | 5251.0 | 5293.2 | 5315.4 |
| 5°    | 5373.3 | 5346.6 | 5255.4 | 5171.0 | 5139.8 | 5173.2 | 5259.9 | 5339.9 | 5382.2 |
| 6°    | 5440.0 | 5399.9 | 5268.8 | 5142.0 | 5102.1 | 5148.7 | 5273.3 | 5395.5 | 5459.9 |
| 7°    | 5506.7 | 5442.2 | 5275.5 | 5119.8 | 5068.7 | 5133.2 | 5284.3 | 5457.7 | 5542.2 |
| 8°    | 5568.9 | 5482.2 | 5282.1 | 5099.9 | 5037.5 | 5104.3 | 5293.2 | 5513.3 | 5624.5 |
| 9°    | 5620.1 | 5520.0 | 5286.5 | 5084.3 | 5010.9 | 5086.5 | 5304.4 | 5562.2 | 5693.4 |
| 10°   | 5662.3 | 5548.9 | 5295.5 | 5075.3 | 4995.4 | 5077.6 | 5315.4 | 5604.5 | 5751.2 |
| 11°   | 5695.7 | 5568.9 | 5297.7 | 5070.9 | 4988.7 | 5070.9 | 5324.3 | 5646.7 | 5800.1 |
| 12°   | 5715.6 | 5586.7 | 5304.4 | 5073.1 | 4990.9 | 5077.6 | 5337.7 | 5664.5 | 5840.1 |
| 13°   | 5729.0 | 5593.3 | 5308.8 | 5079.8 | 4995.4 | 5082.0 | 5346.6 | 5680.1 | 5866.8 |
| 14°   | 5729.0 | 5589.0 | 5308.8 | 5086.5 | 5008.7 | 5090.9 | 5353.2 | 5691.2 | 5873.4 |
| 15°   | 5724.6 | 5586.7 | 5308.8 | 5097.6 | 5019.8 | 5099.9 | 5359.9 | 5697.8 | 5882.3 |
| 16°   | 5711.2 | 5573.3 | 5306.6 | 5104.3 | 5030.9 | 5108.7 | 5362.1 | 5693.4 | 5875.7 |
| 17°   | 5684.5 | 5566.7 | 5297.7 | 5110.9 | 5042.0 | 5117.6 | 5362.1 | 5682.3 | 5860.1 |
| 18°   | 5648.9 | 5520.0 | 5275.5 | 5104.3 | 5044.2 | 5115.4 | 5348.8 | 5653.4 | 5831.3 |
| 19°   | 5617.8 | 5493.3 | 5259.9 | 5099.9 | 5053.1 | 5122.1 | 5339.9 | 5633.3 | 5800.1 |
| 20°   | 5568.9 | 5448.9 | 5233.2 | 5086.5 | 5046.5 | 5108.7 | 5317.7 | 5597.8 | 5757.9 |
| 21°   | 5508.9 | 5397.7 | 5195.4 | 5064.3 | 5035.3 | 5090.9 | 5286.5 | 5548.9 | 5700.0 |
| 22°   | 5448.9 | 5339.9 | 5155.4 | 5042.0 | 5017.6 | 5075.3 | 5253.2 | 5497.7 | 5640.0 |
| 23°   | 5377.7 | 5275.5 | 5104.3 | 5004.2 | 4990.9 | 5039.8 | 5206.6 | 5442.2 | 5568.9 |
| 24°   | 5297.7 | 5199.9 | 5048.7 | 4962.0 | 4957.6 | 5002.0 | 5153.2 | 5368.8 | 5484.5 |
| 25°   | 5206.6 | 5119.8 | 4979.8 | 4908.6 | 4913.1 | 4950.9 | 5088.7 | 5286.5 | 5393.3 |
| 26°   | 5097.6 | 5017.6 | 4899.7 | 4844.2 | 4850.9 | 4888.7 | 5015.3 | 5191.0 | 5293.2 |
| 27°   | 4975.3 | 4901.9 | 4806.4 | 4766.3 | 4784.2 | 4817.5 | 4926.5 | 5086.5 | 5168.8 |
| 28°   | 4822.0 | 4764.1 | 4695.2 | 4677.5 | 4699.7 | 4737.5 | 4828.6 | 4959.8 | 5033.2 |
| 29°   | 4644.1 | 4613.0 | 4559.6 | 4568.5 | 4599.6 | 4630.7 | 4706.3 | 4801.9 | 4859.8 |
| 30°   | 4452.9 | 4439.6 | 4408.4 | 4444.0 | 4479.5 | 4506.3 | 4557.4 | 4621.8 | 4666.3 |
| 31°   | 4257.3 | 4241.7 | 4246.1 | 4303.9 | 4357.3 | 4375.0 | 4404.0 | 4435.1 | 4468.5 |
| 32°   | 4037.2 | 4032.7 | 4050.5 | 4135.0 | 4203.9 | 4212.8 | 4215.0 | 4223.9 | 4241.7 |
| 33°   | 3812.7 | 3806.0 | 3841.6 | 3946.1 | 4023.9 | 4030.5 | 4012.7 | 4003.8 | 4017.2 |
| 34°   | 3579.2 | 3579.2 | 3625.9 | 3734.9 | 3826.0 | 3832.6 | 3797.1 | 3792.6 | 3779.3 |
| 35°   | 3354.7 | 3348.0 | 3401.3 | 3503.6 | 3605.9 | 3608.1 | 3568.1 | 3543.6 | 3541.4 |
| 37.5° | 2798.9 | 2787.8 | 2805.6 | 2858.9 | 2934.5 | 2974.6 | 2970.1 | 2961.2 | 2954.5 |
| 40°   | 2292.0 | 2265.4 | 2229.8 | 2207.6 | 2229.8 | 2312.1 | 2383.2 | 2416.6 | 2423.1 |
| 42.5° | 1814.1 | 1776.3 | 1700.7 | 1638.4 | 1647.4 | 1723.0 | 1831.8 | 1907.4 | 1945.2 |
| 45°   | 1351.6 | 1313.8 | 1251.6 | 1204.9 | 1204.9 | 1258.3 | 1349.4 | 1427.2 | 1469.5 |
| 47.5° | 964.8  | 940.4  | 904.8  | 884.8  | 898.1  | 920.4  | 971.5  | 1029.3 | 1047.1 |
| 50°   | 664.7  | 658.0  | 638.1  | 638.1  | 651.3  | 669.2  | 678.1  | 707.0  | 713.6  |
| 52.5° | 464.7  | 453.5  | 455.7  | 458.0  | 469.1  | 471.3  | 484.6  | 477.9  | 489.1  |
| 55°   | 304.5  | 304.5  | 304.5  | 311.2  | 315.7  | 315.7  | 309.0  | 304.5  | 304.5  |
| 57.5° | 193.4  | 189.0  | 191.2  | 195.6  | 195.6  | 189.0  | 177.9  | 175.6  | 164.5  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|------|--------|------|
| 60°   | 115.6 | 115.6 | 117.9 | 117.9 | 115.6 | 108.9  | 97.8 | 88.9   | 84.5 |
| 62.5° | 60.0  | 62.2  | 62.2  | 73.4  | 62.2  | 55.5   | 51.2 | 40.0   | 37.8 |
| 65°   | 20.0  | 24.4  | 24.4  | 24.4  | 26.7  | 24.4   | 24.4 | 22.2   | 22.2 |
| 67.5° | 13.4  | 15.6  | 15.6  | 17.8  | 17.8  | 17.8   | 17.8 | 22.2   | 15.6 |
| 70°   | 11.1  | 11.1  | 13.4  | 15.6  | 15.6  | 17.8   | 13.4 | 11.1   | 17.8 |
| 72.5° | 6.7   | 8.9   | 6.7   | 11.1  | 8.9   | 8.9    | 8.9  | 8.9    | 8.9  |
| 75°   | 0.0   | 4.5   | 2.2   | 0.0   | 6.7   | 4.5    | 2.2  | 4.5    | 0.0  |
| 77.5° | 2.2   | 2.2   | 2.2   | 2.2   | 4.5   | 4.5    | 4.5  | 4.5    | 2.2  |
| 80°   | 2.2   | 2.2   | 4.5   | 2.2   | 2.2   | 4.5    | 0.0  | 0.0    | 8.9  |
| 82.5° | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2    | 0.0  | 2.2    | 2.2  |
| 85°   | 0.0   | 2.2   | 2.2   | 2.2   | 2.2   | 2.2    | 4.5  | 4.5    | 0.0  |
| 87.5° | 0.0   | 2.2   | 0.0   | 2.2   | 0.0   | 0.0    | 0.0  | 4.5    | 0.0  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)