

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: P245624

Luminaire Tested: **LD8B20D010 ER8B20850 8LBN0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245624  
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: LD8B20D010 ER8B20850 8LBN0GPH  
Description: PORTFOLIO 8 INCH NARROW DISTRIBUTION 50 DEGREE CUTOFF RECESSED  
DOWNLIGHT  
80 CRI 5000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 2183 (1 lamp)  
Luminaire Lumens: 1829.0 lumens  
Efficiency: 83.8%  
Efficacy: 85.9 lumens/watt  
Spacing Criteria (0/90/45): 0.69 / 0.69 / 0.77  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

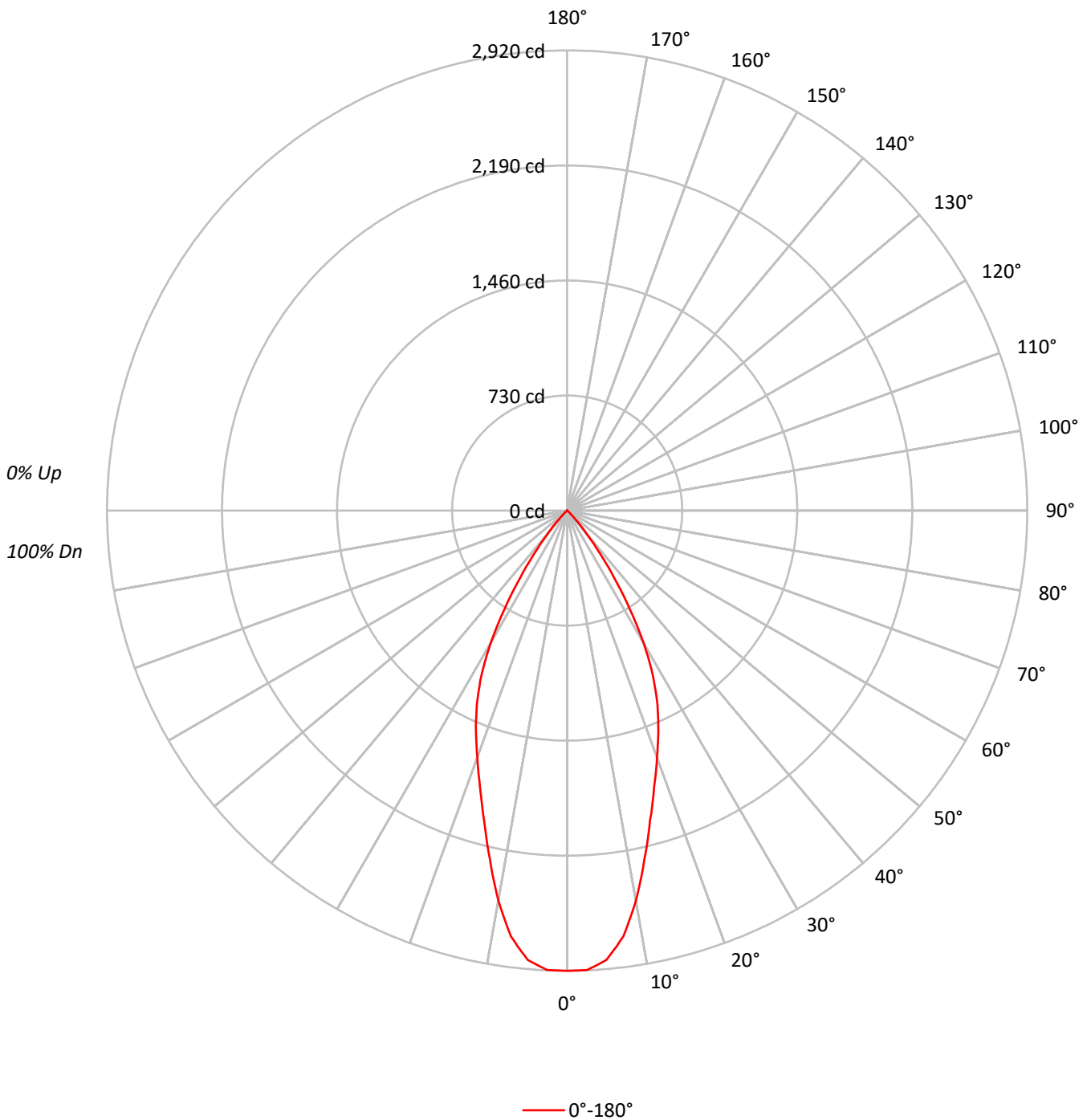
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 50 | 30 | 10 | 0  |    |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 100 | 100 | 100 | 100 | 97 | 97 | 97 | 97 | 93 | 93 | 93 | 89 | 89 | 89 | 85 | 85 | 85 | 84 |    |    |    | 84 |
| 1   | 95  | 93  | 91  | 90  | 93 | 91 | 90 | 88 | 88 | 87 | 85 | 85 | 84 | 83 | 82 | 81 | 81 | 79 |    |    |    | 79 |
| 2   | 91  | 87  | 84  | 82  | 89 | 86 | 83 | 81 | 83 | 81 | 79 | 81 | 79 | 77 | 79 | 77 | 76 | 74 |    |    |    | 74 |
| 3   | 87  | 82  | 78  | 75  | 85 | 81 | 77 | 75 | 79 | 76 | 73 | 77 | 74 | 72 | 75 | 73 | 71 | 70 |    |    |    | 70 |
| 4   | 83  | 77  | 73  | 70  | 82 | 76 | 72 | 69 | 75 | 71 | 68 | 73 | 70 | 68 | 71 | 69 | 67 | 66 |    |    |    | 66 |
| 5   | 79  | 73  | 68  | 65  | 78 | 72 | 68 | 65 | 71 | 67 | 64 | 69 | 66 | 64 | 68 | 65 | 63 | 62 |    |    |    | 62 |
| 6   | 76  | 69  | 64  | 61  | 75 | 68 | 64 | 61 | 67 | 63 | 60 | 66 | 62 | 60 | 65 | 62 | 59 | 58 |    |    |    | 58 |
| 7   | 72  | 65  | 60  | 57  | 71 | 65 | 60 | 57 | 64 | 60 | 57 | 63 | 59 | 56 | 62 | 59 | 56 | 55 |    |    |    | 55 |
| 8   | 69  | 62  | 57  | 54  | 68 | 61 | 57 | 54 | 60 | 56 | 54 | 60 | 56 | 53 | 59 | 56 | 53 | 52 |    |    |    | 52 |
| 9   | 66  | 59  | 54  | 51  | 65 | 58 | 54 | 51 | 58 | 54 | 51 | 57 | 53 | 51 | 56 | 53 | 50 | 49 |    |    |    | 49 |
| 10  | 63  | 56  | 51  | 48  | 63 | 55 | 51 | 48 | 55 | 51 | 48 | 54 | 51 | 48 | 54 | 50 | 48 | 47 |    |    |    | 47 |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 90045 |
| 5°  | 88603 |
| 10° | 78728 |
| 15° | 64956 |
| 20° | 54683 |
| 25° | 46137 |
| 30° | 34539 |
| 35° | 19534 |
| 40° | 7713  |
| 45° | 2080  |
| 50° | 398   |
| 55° | 0     |
| 60° | 49    |
| 65° | 0     |
| 70° | 0     |
| 75° | 0     |
| 80° | 0     |
| 85° | 0     |



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

| Zone      | Lumens | % Fixture | % Lamp | 0°   | Flux |     |
|-----------|--------|-----------|--------|------|------|-----|
| 0°-10°    | 261.9  | 14.3      | 12.0   | 0°   | 2920 |     |
| 10°-20°   | 570.9  | 31.2      | 26.2   | 5°   | 2862 | 262 |
| 20°-30°   | 611.5  | 33.4      | 28.0   | 15°  | 2035 | 571 |
| 30°-40°   | 331.4  | 18.1      | 15.2   | 25°  | 1356 | 612 |
| 40°-50°   | 51.6   | 2.8       | 2.4    | 35°  | 519  | 331 |
| 50°-60°   | 1.3    | 0.1       | 0.1    | 45°  | 48   | 52  |
| 60°-70°   | 0.3    | 0.0       | 0.0    | 55°  | 0    | 1   |
| 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°    | 1444.4 | 79.0      | 66.2   | 165° | 0    | 0   |
| 0°-40°    | 1775.8 | 97.1      | 81.3   | 175° | 0    | 0   |
| 0°-60°    | 1828.7 | 100.0     | 83.8   | 180° | 0    | 0   |
| 0°-90°    | 1829.0 | 100.0     | 83.8   |      |      |     |
| 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°   | 1829.0 | 100.0     | 83.8   |      |      |     |



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**CANDELA DISTRIBUTION (FULL):**

| 0°     |        |
|--------|--------|
| 0°     | 2920.1 |
| 2.5°   | 2917.8 |
| 5°     | 2862.4 |
| 7.5°   | 2726.0 |
| 10°    | 2514.3 |
| 12.5°  | 2266.5 |
| 15°    | 2034.7 |
| 17.5°  | 1838.0 |
| 20°    | 1666.4 |
| 22.5°  | 1512.4 |
| 25°    | 1356.0 |
| 27.5°  | 1178.4 |
| 30°    | 970.0  |
| 32.5°  | 739.9  |
| 35°    | 518.9  |
| 37.5°  | 332.3  |
| 40°    | 191.6  |
| 42.5°  | 102.1  |
| 45°    | 47.7   |
| 47.5°  | 26.0   |
| 50°    | 8.3    |
| 52.5°  | 0.8    |
| 55°    | 0.0    |
| 57.5°  | 0.8    |
| 60°    | 0.8    |
| 62.5°  | 0.0    |
| 65°    | 0.0    |
| 67.5°  | 0.8    |
| 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)