

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: P250681

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBN0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P250681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P131425)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90940 8LBN0MW
Description: PORTFOLIO 8 INCH NARROW DISTRIBUTION 50 DEGREE CUTOFF RECESSED
DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7761.0 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.85
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

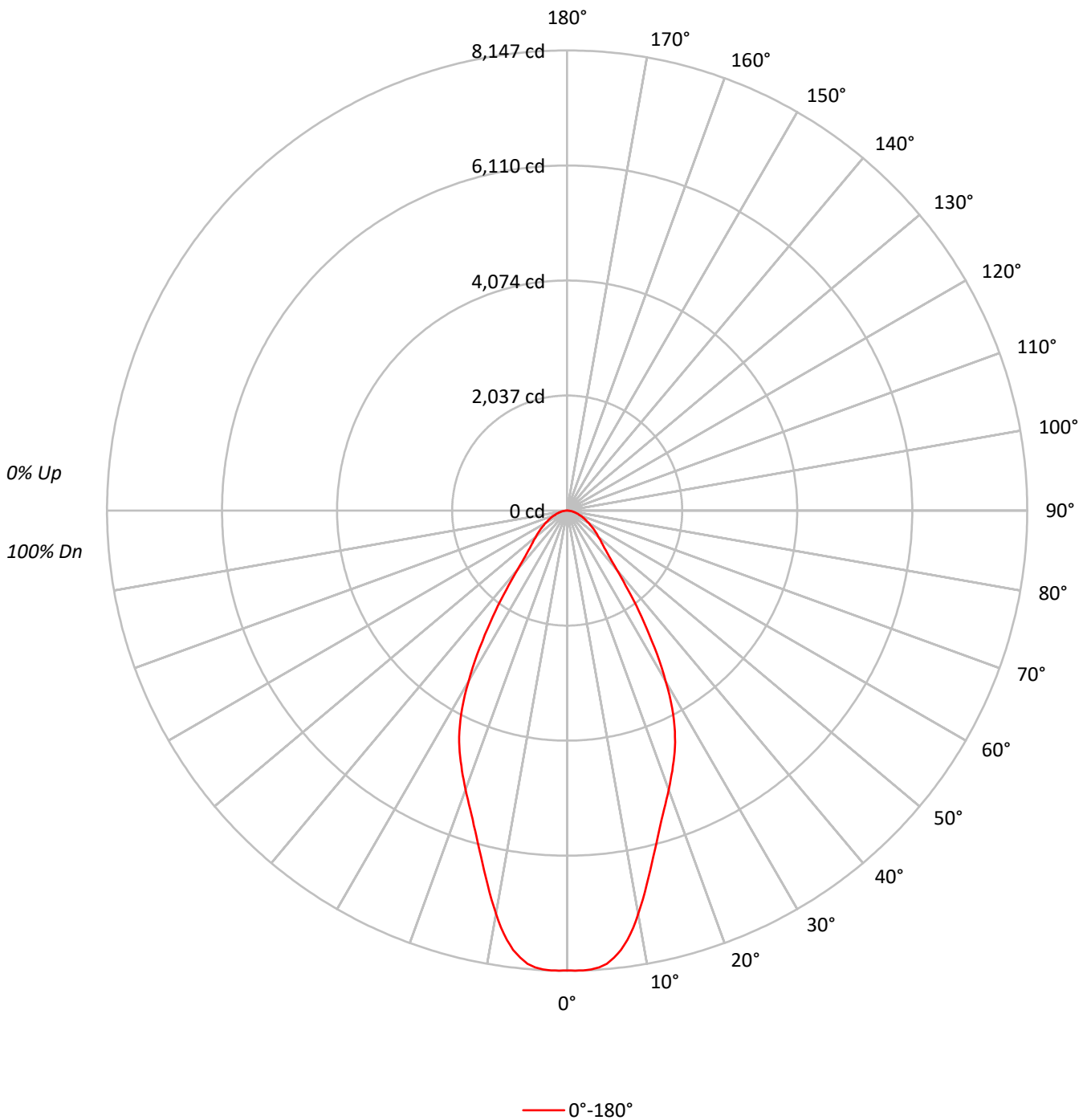
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 112 | 109 | 106 | 103 | 109 | 106 | 104 | 101 | 102 | 100 | 98 | | 98 | 97 | 95 | | 95 | 94 | 92 | 90 |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | | 91 | 88 | 85 | | 88 | 86 | 83 | 82 |
| 3 | 99 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 87 | 82 | 78 | | 84 | 80 | 77 | | 82 | 78 | 76 | 74 |
| 4 | 93 | 84 | 77 | 72 | 91 | 83 | 76 | 72 | 80 | 75 | 71 | | 78 | 74 | 70 | | 76 | 72 | 69 | 67 |
| 5 | 87 | 78 | 71 | 66 | 85 | 77 | 70 | 65 | 75 | 69 | 65 | | 73 | 68 | 64 | | 71 | 67 | 64 | 62 |
| 6 | 82 | 72 | 65 | 60 | 81 | 71 | 65 | 60 | 70 | 64 | 60 | | 68 | 63 | 59 | | 67 | 62 | 59 | 57 |
| 7 | 78 | 67 | 60 | 56 | 76 | 67 | 60 | 55 | 65 | 59 | 55 | | 64 | 59 | 55 | | 63 | 58 | 54 | 53 |
| 8 | 74 | 63 | 56 | 52 | 72 | 62 | 56 | 51 | 61 | 55 | 51 | | 60 | 55 | 51 | | 59 | 54 | 51 | 49 |
| 9 | 70 | 59 | 53 | 48 | 69 | 59 | 52 | 48 | 58 | 52 | 48 | | 57 | 51 | 48 | | 56 | 51 | 47 | 46 |
| 10 | 66 | 56 | 49 | 45 | 65 | 55 | 49 | 45 | 54 | 49 | 45 | | 54 | 48 | 45 | | 53 | 48 | 45 | 43 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 251079 |
| 5° | 249276 |
| 10° | 227115 |
| 15° | 194718 |
| 20° | 172520 |
| 25° | 153939 |
| 30° | 124324 |
| 35° | 86326 |
| 40° | 54729 |
| 45° | 40604 |
| 50° | 34689 |
| 55° | 30488 |
| 60° | 27185 |
| 65° | 24392 |
| 70° | 20989 |
| 75° | 19182 |
| 80° | 18024 |
| 85° | 15780 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 743.3 | 9.6 |
| 10°-20° | 1715.0 | 22.1 |
| 20°-30° | 2044.0 | 26.3 |
| 30°-40° | 1442.9 | 18.6 |
| 40°-50° | 745.1 | 9.6 |
| 50°-60° | 511.3 | 6.6 |
| 60°-70° | 332.4 | 4.3 |
| 70°-80° | 174.0 | 2.2 |
| 80°-90° | 52.9 | 0.7 |
| 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° | 4502.3 | 58.0 |
| 0°-40° | 5945.2 | 76.6 |
| 0°-60° | 7201.7 | 92.8 |
| 0°-90° | 7761.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7761.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 8142 | |
| 5° | 8053 | 743 |
| 15° | 6099 | 1715 |
| 25° | 4524 | 2044 |
| 35° | 2293 | 1443 |
| 45° | 931 | 745 |
| 55° | 567 | 511 |
| 65° | 334 | 332 |
| 75° | 161 | 174 |
| 85° | 45 | 53 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 8142.3 |
| 1° | 8147.3 |
| 2° | 8147.3 |
| 3° | 8134.9 |
| 4° | 8107.7 |
| 5° | 8053.1 |
| 6° | 7956.6 |
| 7° | 7837.7 |
| 8° | 7674.2 |
| 9° | 7476.2 |
| 10° | 7253.3 |
| 11° | 7018.0 |
| 12° | 6772.8 |
| 13° | 6537.6 |
| 14° | 6309.8 |
| 15° | 6099.4 |
| 16° | 5903.7 |
| 17° | 5722.9 |
| 18° | 5559.5 |
| 19° | 5405.9 |
| 20° | 5257.3 |
| 21° | 5111.2 |
| 22° | 4967.6 |
| 23° | 4824.0 |
| 24° | 4677.9 |
| 25° | 4524.4 |
| 26° | 4350.9 |
| 27° | 4162.7 |
| 28° | 3957.2 |
| 29° | 3739.3 |
| 30° | 3491.6 |
| 31° | 3251.5 |
| 32° | 3006.3 |
| 33° | 2753.7 |
| 34° | 2520.9 |
| 35° | 2293.2 |
| 37.5° | 1765.7 |
| 40° | 1359.6 |
| 42.5° | 1094.6 |
| 45° | 931.1 |
| 47.5° | 814.7 |
| 50° | 723.1 |
| 52.5° | 643.9 |
| 55° | 567.1 |
| 57.5° | 497.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|-------|-------|
| 60° | 440.8 |
| 62.5° | 383.9 |
| 65° | 334.3 |
| 67.5° | 289.7 |
| 70° | 232.8 |
| 72.5° | 200.6 |
| 75° | 161.0 |
| 77.5° | 131.2 |
| 80° | 101.5 |
| 82.5° | 74.3 |
| 85° | 44.6 |
| 87.5° | 24.7 |
| 90° | 0.0 |

(END OF REPORT)