

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: iO LED

Report Number: P622389

Luminaire Tested: **SELDWTA50PSBKSD_ Always On**

Issue Date: 9/27/2022

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P622389
 Test Lab: COOPER LIGHTING SOLUTIONS
 Issue Date: 9/27/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: iO LED
 Catalog Number: SELDWTA50PSBKSD_ Always On
 Description: ARCHITECTURAL OUTDOOR CAPABLE EMERGENCY LIGHT WITH PHOTOSENSOR,
 5000K, ALWAYS ON MODE, SINGLE LAMP HEAD
 Light Source: HIGH LUMEN LED 5000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 440.9 lumens
 Efficiency: N/A
 Efficacy: 133.6 lumens/watt
 Spacing Criteria (0/90/45): 1.35 / 2.61 / 1.46
 Luminous Opening: Circular (Dia: 0.17' x H: 0')
 CIE Type: Direct

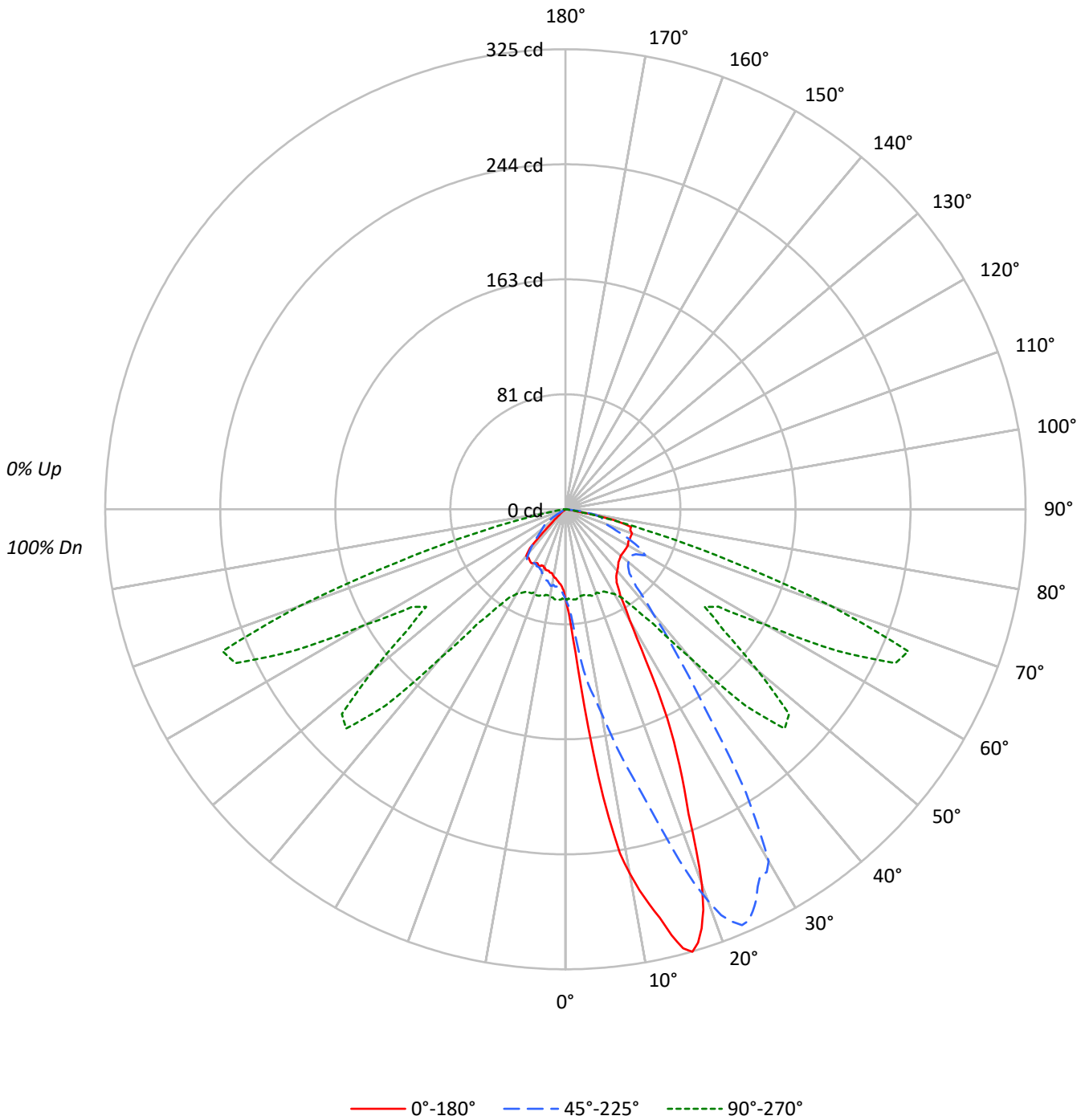
Input Watts (W): 3.3
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



| Meas | | Calibration Due Date | |
|------------------|-----------------------|----------------------|------------|
| Instrument | Identificatio | | |
| Photometer | GONIO 1 11111111 | 4/22/2021 | 10/22/2021 |
| Power Meter | XITRON 2801 IN0197 | 12/1/2020 | 12/1/2021 |
| AC Power Source | CHROMA 61505 IN0196 | 12/1/2020 | 12/1/2021 |
| DC Power Supply | AGILENT E3634A IN0198 | 11/30/2020 | 11/30/2021 |
| Room Thermometer | ONSET IN0143 | 12/1/2020 | 12/1/2021 |

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CATALOG NUMBER: SELDWTA50PSBKSD_ Always On

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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 98 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 79 | 75 | 82 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 69 | 60 | 53 | 79 | 68 | 60 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 55 | 51 | 49 |
| 5 | 75 | 62 | 52 | 45 | 73 | 60 | 52 | 45 | 58 | 51 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 42 |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 44 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 36 |
| 7 | 63 | 50 | 41 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 46 | 39 | 34 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 30 | 28 |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 26 | 24 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 34 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|-------|
| 0° | 31083 | 31083 | 31083 |
| 5° | 61958 | 31697 | 25754 |
| 10° | 130809 | 31061 | 24048 |
| 15° | 164064 | 32179 | 22985 |
| 20° | 148115 | 33078 | 23102 |
| 25° | 98588 | 34841 | 23953 |
| 30° | 51843 | 39310 | 25067 |
| 35° | 37945 | 51196 | 26501 |
| 40° | 36711 | 87657 | 27695 |
| 45° | 36980 | 152876 | 9071 |
| 50° | 39146 | 135935 | 1535 |
| 55° | 43869 | 103308 | 860 |
| 60° | 50325 | 160940 | 987 |
| 65° | 58372 | 300148 | 1167 |
| 70° | 72127 | 287211 | 1443 |
| 75° | 91501 | 125814 | 1906 |
| 80° | 19889 | 28413 | 0 |
| 85° | 5661 | 5661 | 0 |

TEST NUMBER: P622389
 CATALOG NUMBER: SELDWTA50PSBKSD_ Always On

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------------|--------------|--------------|
| 0°-10° | 8.3 | 1.9 |
| 10°-20° | 36.6 | 8.3 |
| 20°-30° | 61.8 | 14.0 |
| 30°-40° | 73.4 | 16.6 |
| 40°-50° | 93.6 | 21.2 |
| 50°-60° | 72.8 | 16.5 |
| 60°-70° | 60.7 | 13.8 |
| 70°-80° | 30.4 | 6.9 |
| 80°-90° | 3.3 | 0.8 |
| 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° | 106.7 | 24.2 |
| 0°-40° | 180.1 | 40.8 |
| 0°-60° | 346.5 | 78.6 |
| 0°-90° | 440.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 440.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 63 | 63 | 63 | 63 | 63 | |
| 5° | 125 | 96 | 64 | 55 | 52 | 17 |
| 15° | 321 | 207 | 63 | 52 | 45 | 86 |
| 25° | 181 | 313 | 64 | 45 | 44 | 81 |
| 35° | 63 | 172 | 85 | 45 | 44 | 42 |
| 45° | 53 | 64 | 219 | 29 | 13 | 41 |
| 55° | 51 | 57 | 120 | 16 | 1 | 46 |
| 65° | 50 | 49 | 257 | 1 | 1 | 50 |
| 75° | 48 | 27 | 66 | 0 | 1 | 42 |
| 85° | 1 | 3 | 1 | 0 | 0 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P622389
 CATALOG NUMBER: SELDWTA50PSBKSD_ Always On

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|------|--------|------|
| 0° | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 |
| 1° | 68.0 | 68.0 | 66.0 | 64.0 | 64.0 | 62.0 | 61.0 | 60.0 | 58.0 |
| 2° | 74.0 | 74.0 | 69.0 | 66.0 | 63.0 | 61.0 | 59.0 | 58.0 | 56.0 |
| 3° | 85.0 | 84.0 | 75.0 | 68.0 | 64.0 | 60.0 | 58.0 | 56.0 | 54.0 |
| 4° | 101.1 | 99.1 | 84.0 | 70.0 | 64.0 | 59.0 | 56.0 | 55.0 | 53.0 |
| 5° | 125.1 | 119.1 | 96.0 | 73.0 | 64.0 | 58.0 | 55.0 | 54.0 | 52.0 |
| 6° | 155.1 | 140.1 | 109.1 | 77.0 | 64.0 | 58.0 | 55.0 | 53.0 | 51.0 |
| 7° | 190.1 | 162.1 | 120.1 | 82.0 | 64.0 | 58.0 | 55.0 | 52.0 | 50.0 |
| 8° | 220.1 | 178.1 | 129.1 | 86.0 | 63.0 | 58.0 | 55.0 | 51.0 | 49.0 |
| 9° | 246.1 | 195.1 | 136.1 | 89.0 | 63.0 | 57.0 | 54.0 | 50.0 | 49.0 |
| 10° | 261.1 | 212.1 | 146.1 | 93.0 | 62.0 | 56.0 | 55.0 | 50.0 | 48.0 |
| 11° | 274.1 | 228.1 | 157.1 | 98.1 | 62.0 | 56.0 | 55.0 | 49.0 | 47.0 |
| 12° | 285.1 | 241.1 | 170.1 | 105.1 | 62.0 | 56.0 | 54.0 | 49.0 | 46.0 |
| 13° | 296.2 | 256.1 | 182.1 | 113.1 | 62.0 | 55.0 | 53.0 | 49.0 | 46.0 |
| 14° | 310.2 | 273.1 | 194.1 | 121.1 | 63.0 | 55.0 | 52.0 | 49.0 | 46.0 |
| 15° | 321.2 | 290.1 | 207.1 | 131.1 | 63.0 | 55.0 | 52.0 | 49.0 | 45.0 |
| 16° | 325.2 | 302.2 | 223.1 | 142.1 | 63.0 | 54.0 | 51.0 | 48.0 | 45.0 |
| 17° | 320.2 | 310.2 | 241.1 | 153.1 | 64.0 | 52.0 | 50.0 | 48.0 | 45.0 |
| 18° | 311.2 | 310.2 | 261.1 | 166.1 | 64.0 | 52.0 | 49.0 | 47.0 | 45.0 |
| 19° | 299.2 | 300.2 | 279.1 | 179.1 | 64.0 | 51.0 | 48.0 | 47.0 | 44.0 |
| 20° | 282.1 | 286.1 | 294.2 | 195.1 | 63.0 | 51.0 | 48.0 | 46.0 | 44.0 |
| 21° | 258.1 | 268.1 | 307.2 | 209.1 | 63.0 | 50.0 | 47.0 | 46.0 | 43.0 |
| 22° | 232.1 | 245.1 | 314.2 | 221.1 | 64.0 | 50.0 | 46.0 | 45.0 | 43.0 |
| 23° | 215.1 | 221.1 | 319.2 | 233.1 | 64.0 | 49.0 | 46.0 | 45.0 | 43.0 |
| 24° | 198.1 | 201.1 | 318.2 | 246.1 | 64.0 | 49.0 | 45.0 | 45.0 | 44.0 |
| 25° | 181.1 | 183.1 | 313.2 | 259.1 | 64.0 | 48.0 | 45.0 | 45.0 | 44.0 |
| 26° | 164.1 | 169.1 | 307.2 | 273.1 | 65.0 | 48.0 | 45.0 | 44.0 | 44.0 |
| 27° | 143.1 | 156.1 | 299.2 | 287.1 | 66.0 | 48.0 | 45.0 | 44.0 | 43.0 |
| 28° | 121.1 | 144.1 | 293.1 | 299.2 | 67.0 | 48.0 | 44.0 | 44.0 | 43.0 |
| 29° | 104.1 | 131.1 | 293.1 | 311.2 | 68.0 | 48.0 | 44.0 | 44.0 | 44.0 |
| 30° | 91.0 | 117.1 | 287.1 | 324.2 | 69.0 | 48.0 | 44.0 | 44.0 | 44.0 |
| 32.5° | 72.0 | 88.0 | 237.1 | 359.2 | 74.0 | 47.0 | 44.0 | 44.0 | 45.0 |
| 35° | 63.0 | 71.0 | 172.1 | 392.2 | 85.0 | 49.0 | 45.0 | 44.0 | 44.0 |
| 37.5° | 59.0 | 62.0 | 129.1 | 425.2 | 102.1 | 51.0 | 45.0 | 44.0 | 43.0 |
| 40° | 57.0 | 58.0 | 97.0 | 456.2 | 136.1 | 60.0 | 40.0 | 40.0 | 43.0 |
| 42.5° | 55.0 | 54.0 | 74.0 | 494.3 | 188.1 | 57.0 | 35.0 | 35.0 | 37.0 |
| 45° | 53.0 | 52.0 | 64.0 | 541.3 | 219.1 | 52.0 | 29.0 | 28.0 | 13.0 |
| 47.5° | 52.0 | 51.0 | 60.0 | 531.3 | 214.1 | 42.0 | 24.0 | 20.0 | 6.0 |
| 50° | 51.0 | 50.0 | 58.0 | 483.2 | 177.1 | 33.0 | 21.0 | 7.0 | 2.0 |
| 52.5° | 51.0 | 49.0 | 58.0 | 414.2 | 141.1 | 30.0 | 19.0 | 3.0 | 1.0 |
| 55° | 51.0 | 49.0 | 57.0 | 329.2 | 120.1 | 29.0 | 16.0 | 1.0 | 1.0 |
| 57.5° | 51.0 | 48.0 | 59.0 | 253.1 | 128.1 | 31.0 | 9.0 | 1.0 | 1.0 |
| 60° | 51.0 | 48.0 | 65.0 | 185.1 | 163.1 | 30.0 | 3.0 | 1.0 | 1.0 |
| 62.5° | 50.0 | 48.0 | 59.0 | 140.1 | 217.1 | 25.0 | 1.0 | 1.0 | 1.0 |
| 65° | 50.0 | 48.0 | 49.0 | 108.1 | 257.1 | 18.0 | 1.0 | 0.0 | 1.0 |

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 CATALOG NUMBER: SELDWTA50PSBKSD_ Always On

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|------|-------|------|-------|-------|--------|------|--------|------|
| 67.5° | 50.0 | 47.0 | 38.0 | 96.0 | 262.1 | 9.0 | 0.0 | 0.0 | 1.0 |
| 70° | 50.0 | 43.0 | 30.0 | 94.0 | 199.1 | 5.0 | 0.0 | 1.0 | 1.0 |
| 72.5° | 48.0 | 38.0 | 28.0 | 86.0 | 124.1 | 3.0 | 0.0 | 1.0 | 1.0 |
| 75° | 48.0 | 30.0 | 27.0 | 73.0 | 66.0 | 1.0 | 0.0 | 1.0 | 1.0 |
| 77.5° | 35.0 | 23.0 | 26.0 | 59.0 | 27.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| 80° | 7.0 | 19.0 | 20.0 | 39.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 4.0 | 7.0 | 10.0 | 14.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 1.0 | 2.0 | 3.0 | 4.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 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)