

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: LUMIERE

Report Number: P221245

Luminaire Tested: **9002-W2-[RW, RI]-LED3097-S-BK-L1-UNV**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P221245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29413)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 9002-W2-[RW, RI]-LED3097-S-BK-L1-UNV
Description: LUMIERE LANTERRA 9002 LED WALL LUMINAIRE, RECESSED LENS, SPOT OPTIC, BLACK HOUSING.
Light Source: (1) 3000K CCT, 97 CRI LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 730.6 lumens
Efficiency: N/A
Efficacy: 36.5 lumens/watt
Spacing Criteria (0/90/45): 0.25 / 0.25 / 0.25
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: General Diffuse

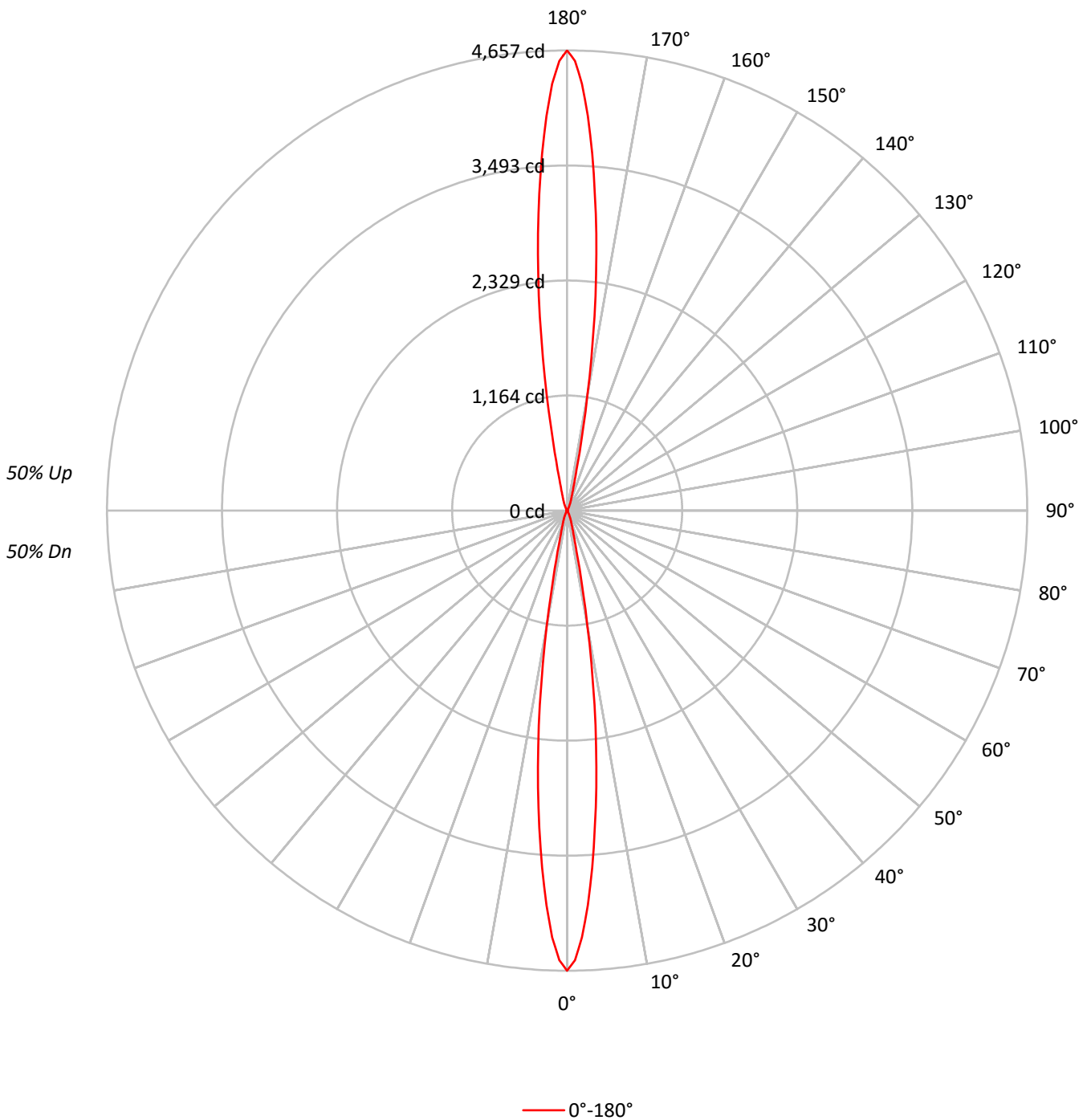
Input Watts (W): 20
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | | 69 | 69 | 69 | | 56 | 56 | 56 | 50 |
| 1 | 101 | 98 | 96 | 93 | 94 | 91 | 89 | 87 | 78 | 77 | 76 | | 66 | 65 | 65 | | 55 | 55 | 54 | 49 |
| 2 | 96 | 91 | 87 | 84 | 89 | 85 | 82 | 79 | 74 | 72 | 70 | | 63 | 62 | 61 | | 54 | 53 | 53 | 48 |
| 3 | 91 | 85 | 80 | 76 | 85 | 80 | 76 | 73 | 70 | 67 | 65 | | 61 | 59 | 58 | | 53 | 52 | 51 | 48 |
| 4 | 87 | 80 | 75 | 71 | 81 | 75 | 71 | 68 | 67 | 64 | 62 | | 59 | 57 | 56 | | 52 | 51 | 50 | 47 |
| 5 | 83 | 75 | 70 | 66 | 78 | 71 | 67 | 64 | 64 | 61 | 59 | | 57 | 55 | 54 | | 51 | 50 | 49 | 46 |
| 6 | 79 | 72 | 66 | 63 | 75 | 68 | 64 | 60 | 62 | 59 | 56 | | 56 | 54 | 52 | | 50 | 49 | 48 | 46 |
| 7 | 76 | 68 | 63 | 59 | 72 | 65 | 61 | 58 | 60 | 56 | 54 | | 54 | 52 | 50 | | 49 | 48 | 47 | 45 |
| 8 | 74 | 66 | 60 | 57 | 70 | 63 | 58 | 55 | 58 | 55 | 52 | | 53 | 51 | 49 | | 48 | 47 | 46 | 44 |
| 9 | 71 | 63 | 58 | 55 | 68 | 61 | 56 | 53 | 56 | 53 | 51 | | 52 | 50 | 48 | | 48 | 46 | 45 | 44 |
| 10 | 69 | 61 | 56 | 53 | 66 | 59 | 55 | 52 | 55 | 52 | 49 | | 51 | 49 | 47 | | 47 | 46 | 45 | 43 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 2297718 |
| 5° | 1595543 |
| 10° | 592572 |
| 15° | 127083 |
| 20° | 56810 |
| 25° | 27764 |
| 30° | 9229 |
| 35° | 4216 |
| 40° | 2512 |
| 45° | 1605 |
| 50° | 1151 |
| 55° | 0 |
| 60° | 0 |
| 65° | 0 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 241.2 | 33.0 |
| 10°-20° | 92.8 | 12.7 |
| 20°-30° | 24.3 | 3.3 |
| 30°-40° | 5.0 | 0.7 |
| 40°-50° | 1.7 | 0.2 |
| 50°-60° | 0.3 | 0.0 |
| 60°-70° | 0.0 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.5 | 0.1 |
| 130°-140° | 1.7 | 0.2 |
| 140°-150° | 5.0 | 0.7 |
| 150°-160° | 24.3 | 3.3 |
| 160°-170° | 92.8 | 12.7 |
| 170°-180° | 241.2 | 33.0 |
| 0°-30° | 358.3 | 49.0 |
| 0°-40° | 363.3 | 49.7 |
| 0°-60° | 365.3 | 50.0 |
| 0°-90° | 365.3 | 50.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 7.2 | 1.0 |
| 90°-180° | 365.0 | 50.0 |
| 0°-180° | 730.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|------|------|------|
| 0° | 4657 | |
| 5° | 3222 | 241 |
| 15° | 249 | 93 |
| 25° | 51 | 24 |
| 35° | 7 | 5 |
| 45° | 2 | 2 |
| 55° | 0 | 0 |
| 65° | 0 | 0 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | 0 |
| 95° | 0 | 0 |
| 105° | 0 | 0 |
| 115° | 0 | 0 |
| 125° | 0 | 1 |
| 135° | 2 | 2 |
| 145° | 7 | 5 |
| 155° | 51 | 24 |
| 165° | 249 | 93 |
| 175° | 3222 | 241 |
| 180° | 4657 | |



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CATALOG NUMBER: 9002-W2-[RW, RI]-LED3097-S-BK-L1-UNV

CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 4657.1 |
| 1° | 4550.5 |
| 2° | 4321.8 |
| 3° | 3999.6 |
| 4° | 3624.2 |
| 5° | 3221.6 |
| 6° | 2819.1 |
| 7° | 2405.0 |
| 8° | 1981.7 |
| 9° | 1566.8 |
| 10° | 1182.8 |
| 11° | 854.5 |
| 12° | 601.8 |
| 13° | 428.0 |
| 14° | 318.3 |
| 15° | 248.8 |
| 17.5° | 153.0 |
| 20° | 108.2 |
| 22.5° | 78.8 |
| 25° | 51.0 |
| 27.5° | 29.4 |
| 30° | 16.2 |
| 32.5° | 10.0 |
| 35° | 7.0 |
| 37.5° | 5.4 |
| 40° | 3.9 |
| 42.5° | 2.3 |
| 45° | 2.3 |
| 47.5° | 1.5 |
| 50° | 1.5 |
| 52.5° | 0.8 |
| 55° | 0.0 |
| 57.5° | 0.0 |
| 60° | 0.0 |
| 62.5° | 0.0 |
| 65° | 0.0 |
| 67.5° | 0.0 |
| 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 |



TEST NUMBER: P221245

CATALOG NUMBER: 9002-W2-[RW, RI]-LED3097-S-BK-L1-UNV

CANDELA DISTRIBUTION (continued):

| | 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 |
| 112.5° | 0.0 |
| 115° | 0.0 |
| 117.5° | 0.0 |
| 120° | 0.0 |
| 122.5° | 0.0 |
| 125° | 0.0 |
| 127.5° | 0.8 |
| 130° | 1.5 |
| 132.5° | 1.5 |
| 135° | 2.3 |
| 137.5° | 2.3 |
| 140° | 3.9 |
| 142.5° | 5.4 |
| 145° | 7.0 |
| 147.5° | 10.0 |
| 150° | 16.2 |
| 152.5° | 29.4 |
| 155° | 51.0 |
| 157.5° | 78.8 |
| 160° | 108.2 |
| 162.5° | 153.0 |
| 165° | 248.8 |
| 166° | 318.3 |
| 167° | 428.0 |
| 168° | 601.8 |
| 169° | 854.5 |
| 170° | 1182.8 |
| 171° | 1566.8 |
| 172° | 1981.7 |
| 173° | 2405.0 |
| 174° | 2819.1 |
| 175° | 3221.6 |
| 176° | 3624.2 |
| 177° | 3999.6 |
| 178° | 4321.8 |
| 179° | 4550.5 |



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CANDELA DISTRIBUTION (continued):

180° $\overbrace{\quad\quad\quad}^{0^\circ}$
4657.1

(END OF REPORT)