

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: P221832

Luminaire Tested: **9004-W2-[RW, RI]-LED3590-S-WT-L1-UNV**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P221832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29487)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 9004-W2-[RW, RI]-LED3590-S-WT-L1-UNV
Description: LUMIERE LANTERRA 9004 LED WALL LUMINAIRE, RECESSED LENS, SPOT OPTIC, WHITE HOUSING.
Light Source: (1) 3500K CCT, 90 CRI LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

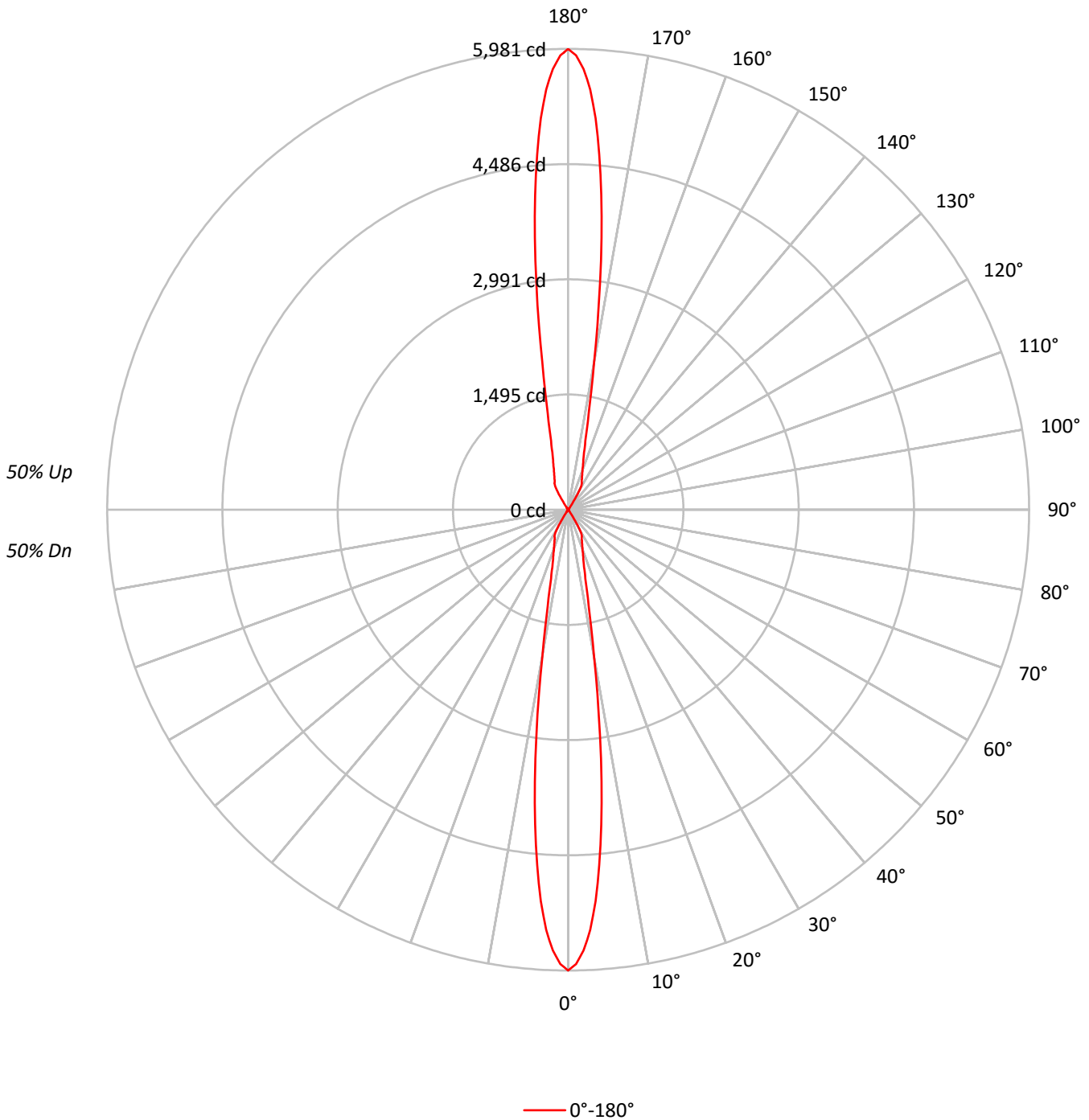
Lumens per Lamp: N/A
Luminaire Lumens: 1785.1 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 0.27 / 0.27
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 19.7
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





TEST NUMBER: P221832

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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 | 100 | 97 | 94 | 92 | 93 | 90 | 88 | 86 | 77 | 75 | 74 | 65 | 64 | 63 | 54 | 53 | 53 | 48 |
| 2 | 94 | 89 | 85 | 81 | 87 | 83 | 79 | 76 | 72 | 69 | 67 | 61 | 60 | 58 | 52 | 51 | 50 | 46 |
| 3 | 89 | 82 | 77 | 72 | 83 | 77 | 72 | 69 | 67 | 64 | 61 | 58 | 56 | 54 | 50 | 48 | 47 | 44 |
| 4 | 84 | 76 | 70 | 66 | 78 | 72 | 67 | 63 | 63 | 60 | 57 | 55 | 53 | 51 | 48 | 46 | 45 | 42 |
| 5 | 79 | 71 | 65 | 61 | 74 | 67 | 62 | 58 | 60 | 56 | 53 | 53 | 50 | 48 | 46 | 45 | 43 | 41 |
| 6 | 75 | 67 | 61 | 56 | 71 | 63 | 58 | 54 | 57 | 53 | 50 | 50 | 48 | 46 | 45 | 43 | 42 | 39 |
| 7 | 72 | 63 | 57 | 53 | 67 | 60 | 54 | 51 | 54 | 50 | 47 | 48 | 46 | 44 | 43 | 42 | 40 | 38 |
| 8 | 68 | 59 | 54 | 50 | 65 | 57 | 52 | 48 | 51 | 48 | 45 | 47 | 44 | 42 | 42 | 40 | 39 | 37 |
| 9 | 66 | 56 | 51 | 47 | 62 | 54 | 49 | 46 | 49 | 46 | 43 | 45 | 42 | 40 | 41 | 39 | 38 | 36 |
| 10 | 63 | 54 | 48 | 45 | 59 | 52 | 47 | 43 | 47 | 44 | 41 | 43 | 41 | 39 | 40 | 38 | 36 | 35 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 737743 |
| 5° | 573284 |
| 10° | 242932 |
| 15° | 103869 |
| 20° | 70921 |
| 25° | 56521 |
| 30° | 42258 |
| 35° | 5601 |
| 40° | 2995 |
| 45° | 2180 |
| 50° | 2341 |
| 55° | 2538 |
| 60° | 2837 |
| 65° | 3269 |
| 70° | 3787 |
| 75° | 4527 |
| 80° | 5256 |
| 85° | 5236 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 349.4 | 19.6 |
| 10°-20° | 250.4 | 14.0 |
| 20°-30° | 193.2 | 10.8 |
| 30°-40° | 53.5 | 3.0 |
| 40°-50° | 10.4 | 0.6 |
| 50°-60° | 10.6 | 0.6 |
| 60°-70° | 11.0 | 0.6 |
| 70°-80° | 9.9 | 0.6 |
| 80°-90° | 4.1 | 0.2 |
| 90°-100° | 4.1 | 0.2 |
| 100°-110° | 9.9 | 0.6 |
| 110°-120° | 11.0 | 0.6 |
| 120°-130° | 10.6 | 0.6 |
| 130°-140° | 10.4 | 0.6 |
| 140°-150° | 53.5 | 3.0 |
| 150°-160° | 193.2 | 10.8 |
| 160°-170° | 250.4 | 14.0 |
| 170°-180° | 349.4 | 19.6 |
| 0°-30° | 793.0 | 44.4 |
| 0°-40° | 846.5 | 47.4 |
| 0°-60° | 867.5 | 48.6 |
| 0°-90° | 892.5 | 50.0 |
| 90°-120° | 25.0 | 1.4 |
| 90°-150° | 99.6 | 5.6 |
| 90°-180° | 893.0 | 50.0 |
| 0°-180° | 1785.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|------|------|------|
| 0° | 5981 | |
| 5° | 4630 | 349 |
| 15° | 813 | 250 |
| 25° | 415 | 193 |
| 35° | 37 | 54 |
| 45° | 12 | 10 |
| 55° | 12 | 11 |
| 65° | 11 | 11 |
| 75° | 10 | 10 |
| 85° | 4 | 4 |
| 90° | 0 | 0 |
| 95° | 4 | 4 |
| 105° | 10 | 10 |
| 115° | 11 | 11 |
| 125° | 12 | 11 |
| 135° | 12 | 10 |
| 145° | 37 | 54 |
| 155° | 415 | 193 |
| 165° | 813 | 250 |
| 175° | 4630 | 349 |
| 180° | 5981 | |



TEST NUMBER: P221832

CATALOG NUMBER: 9004-W2-[RW, RI]-LED3590-S-WT-L1-UNV

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 5981.1 |
| 1° | 5897.3 |
| 2° | 5723.6 |
| 3° | 5459.7 |
| 4° | 5092.7 |
| 5° | 4630.1 |
| 6° | 4107.7 |
| 7° | 3556.2 |
| 8° | 2959.1 |
| 9° | 2417.8 |
| 10° | 1939.6 |
| 11° | 1562.8 |
| 12° | 1277.0 |
| 13° | 1070.2 |
| 14° | 923.9 |
| 15° | 813.4 |
| 16° | 731.2 |
| 17° | 669.7 |
| 18° | 621.4 |
| 19° | 579.2 |
| 20° | 540.3 |
| 22.5° | 468.0 |
| 25° | 415.3 |
| 26° | 401.8 |
| 27° | 390.3 |
| 28° | 376.4 |
| 29° | 346.4 |
| 30° | 296.7 |
| 32.5° | 142.6 |
| 35° | 37.2 |
| 37.5° | 24.0 |
| 40° | 18.6 |
| 42.5° | 13.9 |
| 45° | 12.5 |
| 47.5° | 12.2 |
| 50° | 12.2 |
| 52.5° | 11.8 |
| 55° | 11.8 |
| 57.5° | 11.8 |
| 60° | 11.5 |
| 62.5° | 11.5 |
| 65° | 11.2 |
| 67.5° | 10.8 |
| 70° | 10.5 |
| 72.5° | 10.1 |



TEST NUMBER: P221832

CATALOG NUMBER: 9004-W2-[RW, RI]-LED3590-S-WT-L1-UNV

CANDELA DISTRIBUTION (continued):

| | 0° |
|--------|--------|
| 75° | 9.5 |
| 77.5° | 8.8 |
| 80° | 7.4 |
| 82.5° | 6.1 |
| 85° | 3.7 |
| 87.5° | 1.7 |
| 90° | 0.0 |
| 92.5° | 1.7 |
| 95° | 3.7 |
| 97.5° | 6.1 |
| 100° | 7.4 |
| 102.5° | 8.8 |
| 105° | 9.5 |
| 107.5° | 10.1 |
| 110° | 10.5 |
| 112.5° | 10.8 |
| 115° | 11.2 |
| 117.5° | 11.5 |
| 120° | 11.5 |
| 122.5° | 11.8 |
| 125° | 11.8 |
| 127.5° | 11.8 |
| 130° | 12.2 |
| 132.5° | 12.2 |
| 135° | 12.5 |
| 137.5° | 13.9 |
| 140° | 18.6 |
| 142.5° | 24.0 |
| 145° | 37.2 |
| 147.5° | 142.6 |
| 150° | 296.7 |
| 151° | 346.4 |
| 152° | 376.4 |
| 153° | 390.3 |
| 154° | 401.8 |
| 155° | 415.3 |
| 157.5° | 468.0 |
| 160° | 540.3 |
| 161° | 579.2 |
| 162° | 621.4 |
| 163° | 669.7 |
| 164° | 731.2 |
| 165° | 813.4 |
| 166° | 923.9 |
| 167° | 1070.2 |



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CATALOG NUMBER: 9004-W2-[RW, RI]-LED3590-S-WT-L1-UNV

CANDELA DISTRIBUTION (continued):

| | 0° |
|------|--------|
| 168° | 1277.0 |
| 169° | 1562.8 |
| 170° | 1939.6 |
| 171° | 2417.8 |
| 172° | 2959.1 |
| 173° | 3556.2 |
| 174° | 4107.7 |
| 175° | 4630.1 |
| 176° | 5092.7 |
| 177° | 5459.7 |
| 178° | 5723.6 |
| 179° | 5897.3 |
| 180° | 5981.1 |

(END OF REPORT)