

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: CORELITE

Report Number: P183576

Luminaire Tested: **MB-WS-1L35-1D-UNV-4-STD-DM5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26966)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: MB-WS-1L35-1D-UNV-4-STD-DM5
Description: CORELITE MINIGATOR SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.
WaveStream WITH FROSTED LENS. 50% UP / 50% DOWN.
Light Source: (336)3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2823.8 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.37 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')
CIE Type: General Diffuse

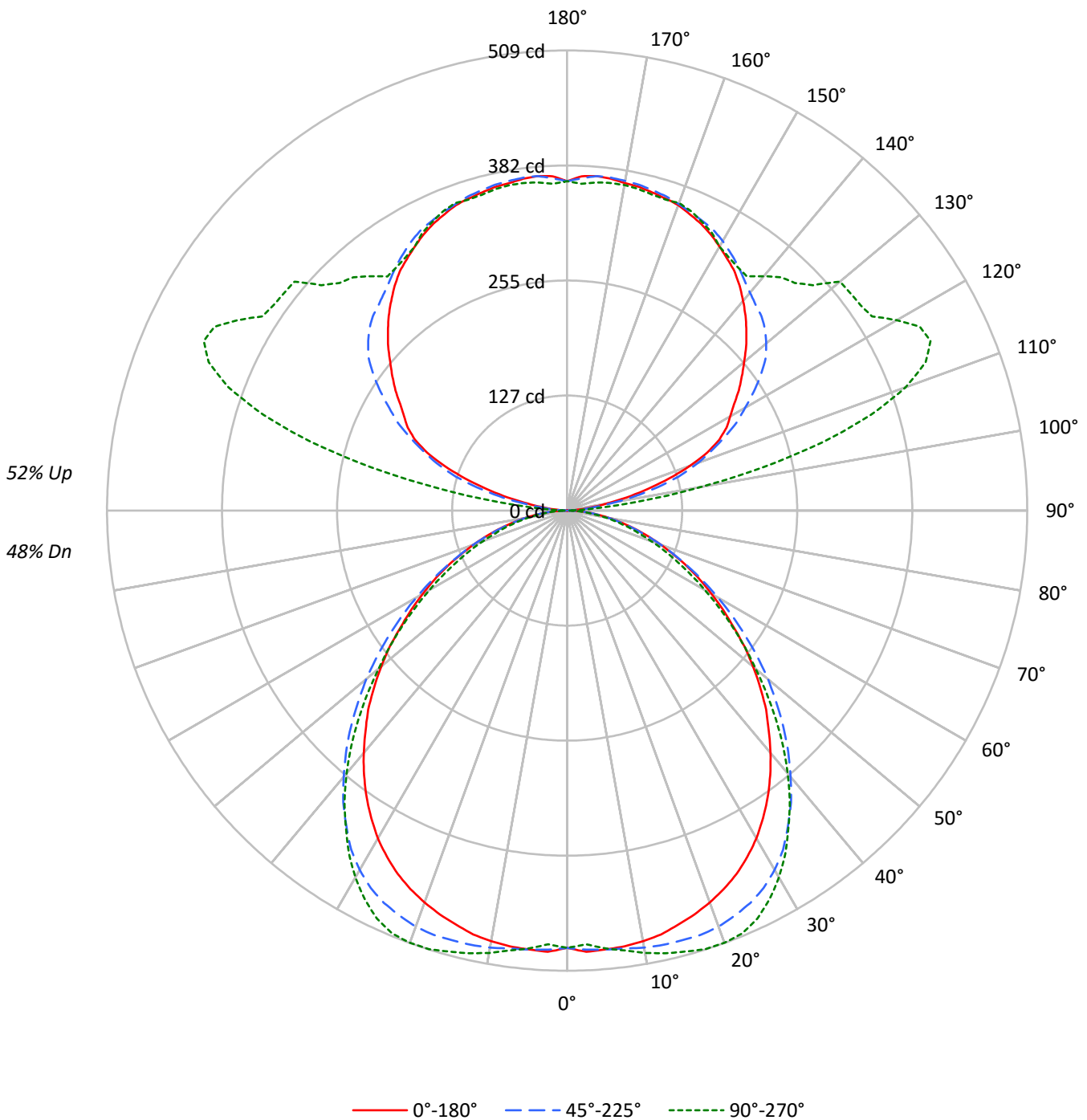
Input Watts (W): 26.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P183576

CATALOG NUMBER: MB-WS-1L35-1D-UNV-4-STD-DM5

Luminous Intensity Polar Plot





TEST NUMBER: P183576

CATALOG NUMBER: MB-WS-1L35-1D-UNV-4-STD-DM5

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 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | | 68 | 68 | 68 | | 55 | 55 | 55 | 48 |
| 1 | 98 | 93 | 89 | 86 | 90 | 86 | 83 | 80 | 72 | 70 | 68 | | 60 | 58 | 57 | | 49 | 47 | 46 | 41 |
| 2 | 89 | 82 | 75 | 70 | 82 | 75 | 70 | 66 | 64 | 60 | 56 | | 53 | 50 | 48 | | 43 | 41 | 39 | 35 |
| 3 | 81 | 72 | 64 | 59 | 74 | 66 | 60 | 55 | 56 | 51 | 48 | | 47 | 43 | 40 | | 38 | 36 | 33 | 29 |
| 4 | 74 | 64 | 56 | 50 | 68 | 59 | 52 | 47 | 50 | 45 | 41 | | 42 | 38 | 35 | | 34 | 31 | 29 | 25 |
| 5 | 68 | 57 | 49 | 43 | 63 | 52 | 45 | 40 | 45 | 39 | 35 | | 37 | 33 | 30 | | 31 | 28 | 25 | 22 |
| 6 | 63 | 51 | 43 | 37 | 58 | 47 | 40 | 35 | 40 | 35 | 30 | | 34 | 30 | 26 | | 28 | 25 | 22 | 19 |
| 7 | 58 | 46 | 38 | 32 | 53 | 43 | 36 | 30 | 36 | 31 | 27 | | 31 | 26 | 23 | | 25 | 22 | 20 | 17 |
| 8 | 54 | 42 | 34 | 29 | 49 | 39 | 32 | 27 | 33 | 28 | 24 | | 28 | 24 | 21 | | 23 | 20 | 18 | 15 |
| 9 | 50 | 38 | 30 | 25 | 46 | 35 | 29 | 24 | 30 | 25 | 21 | | 26 | 22 | 19 | | 21 | 18 | 16 | 14 |
| 10 | 47 | 35 | 28 | 23 | 43 | 32 | 26 | 22 | 28 | 23 | 19 | | 24 | 20 | 17 | | 20 | 17 | 14 | 12 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3875 | 3875 | 3875 |
| 5° | 3899 | 3775 | 3728 |
| 10° | 3894 | 3708 | 3680 |
| 15° | 3873 | 3655 | 3645 |
| 20° | 3851 | 3605 | 3606 |
| 25° | 3816 | 3521 | 3495 |
| 30° | 3747 | 3394 | 3280 |
| 35° | 3635 | 3194 | 3006 |
| 40° | 3491 | 2947 | 2708 |
| 45° | 3331 | 2673 | 2377 |
| 50° | 3129 | 2381 | 2040 |
| 55° | 2898 | 2070 | 1732 |
| 60° | 2685 | 1764 | 1439 |
| 65° | 2472 | 1463 | 1166 |
| 70° | 2221 | 1175 | 922 |
| 75° | 1956 | 894 | 691 |
| 80° | 1641 | 615 | 460 |
| 85° | 1242 | 329 | 221 |



TEST NUMBER: P183576

CATALOG NUMBER: MB-WS-1L35-1D-UNV-4-STD-DM5

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 46.5 | 1.6 |
| 10°-20° | 138.6 | 4.9 |
| 20°-30° | 217.6 | 7.7 |
| 30°-40° | 258.8 | 9.2 |
| 40°-50° | 252.4 | 8.9 |
| 50°-60° | 207.9 | 7.4 |
| 60°-70° | 144.6 | 5.1 |
| 70°-80° | 79.5 | 2.8 |
| 80°-90° | 23.7 | 0.8 |
| 90°-100° | 31.9 | 1.1 |
| 100°-110° | 163.6 | 5.8 |
| 110°-120° | 251.1 | 8.9 |
| 120°-130° | 262.2 | 9.3 |
| 130°-140° | 239.9 | 8.5 |
| 140°-150° | 205.0 | 7.3 |
| 150°-160° | 162.3 | 5.7 |
| 160°-170° | 103.1 | 3.7 |
| 170°-180° | 35.2 | 1.2 |
| 0°-30° | 402.7 | 14.3 |
| 0°-40° | 661.5 | 23.4 |
| 0°-60° | 1121.7 | 39.7 |
| 0°-90° | 1369.5 | 48.5 |
| 90°-120° | 446.6 | 15.8 |
| 90°-150° | 1153.7 | 40.9 |
| 90°-180° | 1454.0 | 51.5 |
| 0°-180° | 2823.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 484 | 484 | 484 | 484 | 484 | |
| 5° | 487 | 483 | 487 | 486 | 486 | 46 |
| 15° | 474 | 476 | 492 | 503 | 505 | 134 |
| 25° | 444 | 451 | 479 | 493 | 498 | 204 |
| 35° | 387 | 396 | 426 | 428 | 427 | 242 |
| 45° | 311 | 323 | 338 | 331 | 326 | 239 |
| 55° | 225 | 235 | 240 | 230 | 222 | 202 |
| 65° | 147 | 151 | 149 | 141 | 135 | 145 |
| 75° | 77 | 79 | 76 | 71 | 69 | 82 |
| 85° | 22 | 24 | 21 | 19 | 18 | 23 |
| 90° | 0 | 1 | 1 | 1 | 1 | 2 |
| 95° | 12 | 13 | 15 | 33 | 37 | 17 |
| 105° | 92 | 92 | 109 | 239 | 293 | 98 |
| 115° | 186 | 183 | 192 | 336 | 444 | 180 |
| 125° | 232 | 246 | 261 | 350 | 396 | 207 |
| 135° | 280 | 285 | 304 | 332 | 356 | 216 |
| 145° | 323 | 324 | 330 | 326 | 329 | 202 |
| 155° | 350 | 349 | 354 | 354 | 352 | 161 |
| 165° | 364 | 364 | 367 | 363 | 362 | 103 |
| 175° | 371 | 368 | 371 | 369 | 364 | 35 |
| 180° | 364 | 364 | 364 | 364 | 364 | |



TEST NUMBER: P183576

CATALOG NUMBER: MB-WS-1L35-1D-UNV-4-STD-DM5

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 483.7 | 483.7 | 483.7 | 483.7 | 483.7 |
| 2.5° | 488.5 | 482.6 | 486.1 | 484.9 | 480.2 |
| 5° | 487.3 | 482.6 | 487.3 | 486.1 | 486.1 |
| 7.5° | 486.1 | 481.4 | 488.5 | 490.8 | 490.8 |
| 10° | 483.7 | 480.2 | 490.8 | 494.4 | 496.8 |
| 12.5° | 480.2 | 477.8 | 492.0 | 499.1 | 501.5 |
| 15° | 474.3 | 475.5 | 492.0 | 502.7 | 505.0 |
| 17.5° | 468.4 | 471.9 | 492.0 | 503.8 | 508.6 |
| 20° | 461.3 | 466.0 | 489.7 | 503.8 | 508.6 |
| 22.5° | 453.0 | 458.9 | 484.9 | 500.3 | 506.2 |
| 25° | 443.5 | 450.6 | 479.0 | 493.2 | 497.9 |
| 27.5° | 431.7 | 440.0 | 470.7 | 482.6 | 484.9 |
| 30° | 418.7 | 427.0 | 458.9 | 467.2 | 468.4 |
| 32.5° | 403.3 | 414.0 | 444.7 | 449.4 | 449.4 |
| 35° | 386.8 | 396.2 | 425.8 | 428.2 | 427.0 |
| 37.5° | 369.0 | 379.7 | 406.9 | 405.7 | 404.5 |
| 40° | 350.1 | 360.7 | 384.4 | 382.0 | 379.7 |
| 42.5° | 330.0 | 341.8 | 361.9 | 357.2 | 353.6 |
| 45° | 311.1 | 322.9 | 338.3 | 331.2 | 326.4 |
| 47.5° | 289.8 | 301.6 | 313.4 | 306.3 | 299.2 |
| 50° | 268.5 | 279.1 | 289.8 | 277.9 | 272.0 |
| 52.5° | 247.2 | 257.8 | 264.9 | 254.3 | 247.2 |
| 55° | 224.7 | 235.4 | 240.1 | 229.5 | 222.4 |
| 57.5° | 204.6 | 212.9 | 216.4 | 205.8 | 198.7 |
| 60° | 184.5 | 191.6 | 192.8 | 183.3 | 176.2 |
| 62.5° | 165.6 | 171.5 | 170.3 | 160.9 | 154.9 |
| 65° | 146.7 | 151.4 | 149.0 | 140.7 | 134.8 |
| 67.5° | 127.7 | 131.3 | 128.9 | 121.8 | 117.1 |
| 70° | 110.0 | 113.5 | 110.0 | 102.9 | 99.4 |
| 72.5° | 93.4 | 95.8 | 92.3 | 86.3 | 82.8 |
| 75° | 76.9 | 79.2 | 75.7 | 71.0 | 68.6 |
| 77.5° | 61.5 | 62.7 | 60.3 | 56.8 | 54.4 |
| 80° | 47.3 | 48.5 | 46.1 | 43.8 | 41.4 |
| 82.5° | 34.3 | 35.5 | 33.1 | 31.9 | 29.6 |
| 85° | 22.5 | 23.7 | 21.3 | 18.9 | 17.7 |
| 87.5° | 10.6 | 11.8 | 9.5 | 8.3 | 7.1 |
| 90° | 0.0 | 1.2 | 1.2 | 1.2 | 1.2 |
| 92.5° | 3.5 | 4.7 | 4.7 | 7.1 | 7.1 |
| 95° | 11.8 | 13.0 | 15.4 | 33.1 | 36.7 |
| 97.5° | 26.0 | 27.2 | 33.1 | 78.1 | 86.3 |
| 100° | 43.8 | 46.1 | 55.6 | 132.5 | 150.2 |
| 102.5° | 67.4 | 68.6 | 82.8 | 189.2 | 222.4 |
| 105° | 92.3 | 92.3 | 108.8 | 238.9 | 293.3 |
| 107.5° | 118.3 | 114.7 | 133.7 | 279.1 | 352.5 |
| 110° | 144.3 | 139.6 | 153.8 | 306.3 | 398.6 |



TEST NUMBER: P183576

CATALOG NUMBER: MB-WS-1L35-1D-UNV-4-STD-DM5

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 167.9 | 162.0 | 172.7 | 322.9 | 429.3 |
| 115° | 185.7 | 183.3 | 191.6 | 335.9 | 443.5 |
| 117.5° | 198.7 | 202.2 | 211.7 | 345.4 | 440.0 |
| 120° | 208.2 | 220.0 | 227.1 | 353.6 | 421.1 |
| 122.5° | 218.8 | 235.4 | 244.8 | 351.3 | 399.8 |
| 125° | 231.8 | 246.0 | 261.4 | 350.1 | 396.2 |
| 127.5° | 243.6 | 253.1 | 276.8 | 351.3 | 395.0 |
| 130° | 255.5 | 263.8 | 287.4 | 343.0 | 393.9 |
| 132.5° | 268.5 | 274.4 | 296.9 | 331.2 | 369.0 |
| 135° | 280.3 | 285.0 | 304.0 | 332.4 | 356.0 |
| 137.5° | 292.1 | 294.5 | 308.7 | 333.5 | 350.1 |
| 140° | 302.8 | 304.0 | 314.6 | 325.3 | 338.3 |
| 142.5° | 313.4 | 314.6 | 321.7 | 322.9 | 326.4 |
| 145° | 322.9 | 324.1 | 330.0 | 326.4 | 328.8 |
| 147.5° | 330.0 | 331.2 | 337.1 | 332.4 | 332.4 |
| 150° | 337.1 | 337.1 | 344.2 | 339.4 | 337.1 |
| 152.5° | 344.2 | 343.0 | 350.1 | 346.5 | 346.5 |
| 155° | 350.1 | 348.9 | 353.6 | 353.6 | 352.5 |
| 157.5° | 354.8 | 353.6 | 357.2 | 359.6 | 358.4 |
| 160° | 359.6 | 358.4 | 360.7 | 360.7 | 361.9 |
| 162.5° | 361.9 | 361.9 | 364.3 | 360.7 | 360.7 |
| 165° | 364.3 | 364.3 | 366.7 | 363.1 | 361.9 |
| 167.5° | 366.7 | 366.7 | 369.0 | 365.5 | 364.3 |
| 170° | 367.8 | 367.8 | 370.2 | 366.7 | 365.5 |
| 172.5° | 370.2 | 369.0 | 371.4 | 367.8 | 365.5 |
| 175° | 371.4 | 367.8 | 371.4 | 369.0 | 364.3 |
| 177.5° | 370.2 | 366.7 | 367.8 | 364.3 | 361.9 |
| 180° | 364.3 | 364.3 | 364.3 | 364.3 | 364.3 |

(END OF REPORT)