

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: P242607

Luminaire Tested: **CL4DR-F-120D835-UNV-STD-W-4**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P242607
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CL4DR-F-120D835-UNV-STD-W-4
Description: CL 4" DIRECT RECESSED WITH FROSTED FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

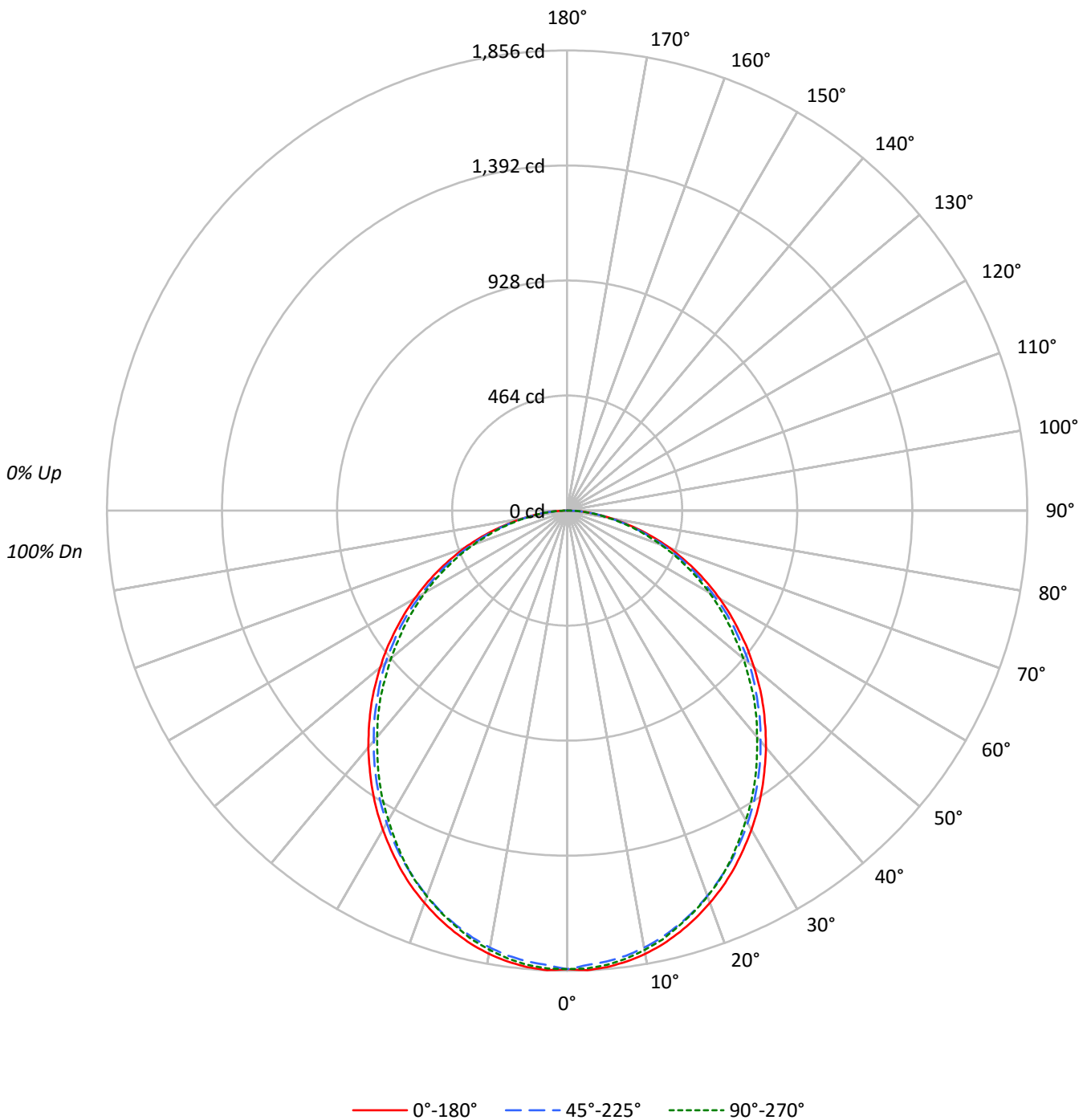
Lumens per Lamp: N/A
Luminaire Lumens: 4747.5 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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 | 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 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 73 | 70 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 67 | 63 | 70 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 77 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 44 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16441 | 16441 | 16441 |
| 5° | 16491 | 16292 | 16412 |
| 10° | 16387 | 16160 | 16240 |
| 15° | 16189 | 15930 | 15971 |
| 20° | 15926 | 15646 | 15660 |
| 25° | 15626 | 15321 | 15278 |
| 30° | 15257 | 14938 | 14802 |
| 35° | 14876 | 14539 | 14345 |
| 40° | 14480 | 14085 | 13827 |
| 45° | 14067 | 13638 | 13377 |
| 50° | 13609 | 13240 | 12830 |
| 55° | 13115 | 12725 | 12311 |
| 60° | 12620 | 12146 | 11778 |
| 65° | 12065 | 11595 | 11129 |
| 70° | 11441 | 10861 | 10437 |
| 75° | 10485 | 9977 | 9723 |
| 80° | 9332 | 8953 | 8723 |
| 85° | 8159 | 7863 | 7710 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 174.3 | 3.7 |
| 10°-20° | 491.2 | 10.3 |
| 20°-30° | 722.9 | 15.2 |
| 30°-40° | 840.3 | 17.7 |
| 40°-50° | 840.2 | 17.7 |
| 50°-60° | 734.9 | 15.5 |
| 60°-70° | 545.6 | 11.5 |
| 70°-80° | 309.5 | 6.5 |
| 80°-90° | 88.7 | 1.9 |
| 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° | 1388.3 | 29.2 |
| 0°-40° | 2228.6 | 46.9 |
| 0°-60° | 3803.7 | 80.1 |
| 0°-90° | 4747.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4747.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1850 | 1850 | 1850 | 1850 | 1850 | |
| 5° | 1848 | 1842 | 1826 | 1842 | 1839 | 175 |
| 15° | 1759 | 1753 | 1731 | 1740 | 1736 | 496 |
| 25° | 1593 | 1583 | 1562 | 1564 | 1558 | 733 |
| 35° | 1371 | 1360 | 1340 | 1329 | 1322 | 857 |
| 45° | 1119 | 1109 | 1085 | 1069 | 1064 | 863 |
| 55° | 846 | 842 | 821 | 803 | 794 | 758 |
| 65° | 574 | 566 | 551 | 536 | 529 | 568 |
| 75° | 305 | 298 | 290 | 285 | 283 | 324 |
| 85° | 80 | 80 | 77 | 77 | 76 | 91 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1849.6 | 1849.6 | 1849.6 | 1849.6 | 1849.6 |
| 2.5° | 1855.6 | 1851.1 | 1834.8 | 1849.6 | 1848.2 |
| 5° | 1848.2 | 1842.2 | 1825.9 | 1842.2 | 1839.3 |
| 7.5° | 1834.8 | 1828.9 | 1811.1 | 1824.4 | 1823.0 |
| 10° | 1815.5 | 1809.6 | 1790.4 | 1802.2 | 1799.2 |
| 12.5° | 1790.4 | 1784.4 | 1763.7 | 1777.0 | 1772.6 |
| 15° | 1759.2 | 1753.3 | 1731.1 | 1740.0 | 1735.5 |
| 17.5° | 1723.7 | 1716.2 | 1695.5 | 1701.4 | 1698.5 |
| 20° | 1683.6 | 1676.2 | 1654.0 | 1658.4 | 1655.5 |
| 22.5° | 1640.7 | 1630.3 | 1608.1 | 1616.9 | 1611.0 |
| 25° | 1593.2 | 1582.9 | 1562.1 | 1563.6 | 1557.7 |
| 27.5° | 1539.9 | 1529.5 | 1510.2 | 1507.3 | 1499.9 |
| 30° | 1486.5 | 1474.7 | 1455.4 | 1449.5 | 1442.1 |
| 32.5° | 1430.2 | 1419.8 | 1399.1 | 1391.7 | 1384.3 |
| 35° | 1370.9 | 1360.5 | 1339.8 | 1329.4 | 1322.0 |
| 37.5° | 1308.7 | 1299.8 | 1277.6 | 1267.2 | 1256.8 |
| 40° | 1247.9 | 1236.1 | 1213.8 | 1199.0 | 1191.6 |
| 42.5° | 1182.7 | 1176.8 | 1151.6 | 1133.8 | 1129.3 |
| 45° | 1119.0 | 1108.6 | 1084.9 | 1068.6 | 1064.1 |
| 47.5° | 1052.3 | 1044.9 | 1022.6 | 1004.9 | 993.0 |
| 50° | 984.1 | 978.2 | 957.4 | 936.7 | 927.8 |
| 52.5° | 917.4 | 910.0 | 887.8 | 870.0 | 858.1 |
| 55° | 846.3 | 841.8 | 821.1 | 803.3 | 794.4 |
| 57.5° | 779.6 | 775.1 | 754.4 | 736.6 | 727.7 |
| 60° | 709.9 | 702.5 | 683.2 | 669.9 | 662.5 |
| 62.5° | 641.7 | 635.8 | 615.1 | 603.2 | 595.8 |
| 65° | 573.6 | 566.2 | 551.3 | 536.5 | 529.1 |
| 67.5° | 503.9 | 498.0 | 483.2 | 468.3 | 466.9 |
| 70° | 440.2 | 429.8 | 417.9 | 406.1 | 401.6 |
| 72.5° | 372.0 | 361.6 | 352.7 | 343.8 | 339.4 |
| 75° | 305.3 | 297.9 | 290.5 | 284.6 | 283.1 |
| 77.5° | 240.1 | 237.1 | 229.7 | 228.2 | 223.8 |
| 80° | 182.3 | 177.8 | 174.9 | 171.9 | 170.4 |
| 82.5° | 126.0 | 124.5 | 124.5 | 123.0 | 121.5 |
| 85° | 80.0 | 80.0 | 77.1 | 77.1 | 75.6 |
| 87.5° | 38.5 | 37.1 | 35.6 | 35.6 | 35.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)