

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: P231389

Luminaire Tested: **HGL-S-FR-50L830-UNV-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231389  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-204-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: HGL-S-FR-50L830-UNV-4  
Description: HUGO 4 FOOT LINEAR LED LUMINAIRE WITH FROSTED LENS  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4799.2 lumens  
Efficiency: N/A  
Efficacy: 124.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.23 / 1.33  
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 4' x H: 0.01')  
CIE Type: Direct

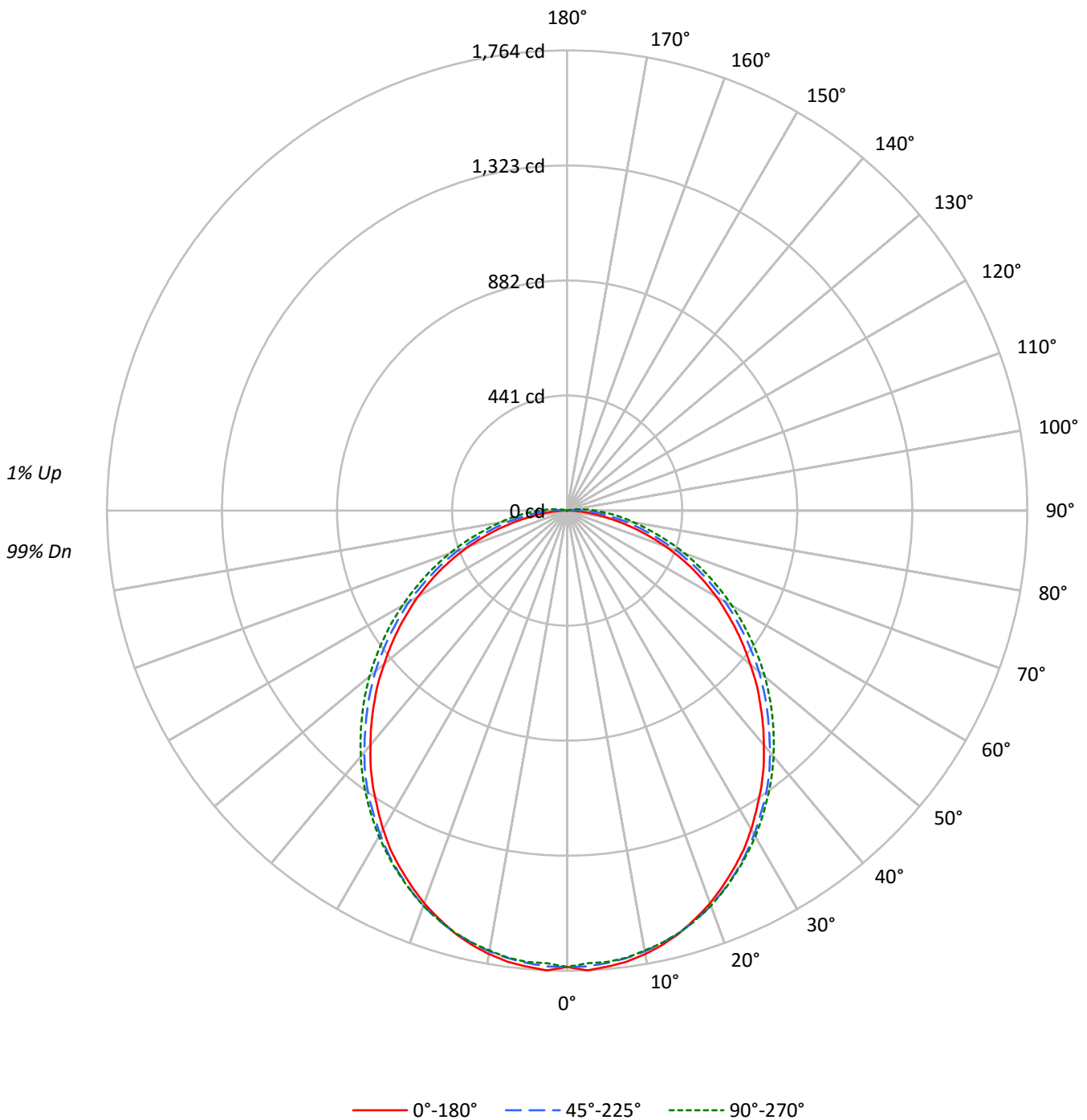
Input Watts (W): 38.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231389

CATALOG NUMBER: HGL-S-FR-50L830-UNV-4

### Luminous Intensity Polar Plot





TEST NUMBER: P231389

CATALOG NUMBER: HGL-S-FR-50L830-UNV-4

**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 | 101 | 101 | 101 | 99 |
| 1   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 87  | 89  | 87  | 85  | 82 |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69 |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 64  | 74  | 68  | 62  | 72  | 66  | 61  | 69  | 64  | 60  | 58 |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50 |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 55  | 50  | 45  | 43 |
| 6   | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 50  | 44  | 40  | 38 |
| 7   | 65  | 51  | 43  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33 |
| 8   | 60  | 47  | 38  | 33  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30 |
| 9   | 56  | 43  | 35  | 29  | 55  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27 |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 20538 | 20538 | 20538 |
| 5°  | 20683 | 20468 | 20395 |
| 10° | 20573 | 20338 | 20263 |
| 15° | 20341 | 20161 | 20102 |
| 20° | 19992 | 19906 | 19827 |
| 25° | 19579 | 19521 | 19462 |
| 30° | 19101 | 19080 | 19082 |
| 35° | 18553 | 18619 | 18649 |
| 40° | 17944 | 18049 | 18203 |
| 45° | 17338 | 17445 | 17697 |
| 50° | 16678 | 16877 | 17170 |
| 55° | 16069 | 16183 | 16560 |
| 60° | 15461 | 15545 | 15935 |
| 65° | 14694 | 14758 | 15290 |
| 70° | 13663 | 13920 | 14666 |
| 75° | 12190 | 12817 | 13968 |
| 80° | 10262 | 12086 | 14040 |
| 85° | 8187  | 12414 | 15749 |



TEST NUMBER: P231389

CATALOG NUMBER: HGL-S-FR-50L830-UNV-4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 165.3  | 3.4       |
| 10°-20°   | 470.3  | 9.8       |
| 20°-30°   | 700.4  | 14.6      |
| 30°-40°   | 824.3  | 17.2      |
| 40°-50°   | 832.6  | 17.3      |
| 50°-60°   | 737.8  | 15.4      |
| 60°-70°   | 561.4  | 11.7      |
| 70°-80°   | 337.0  | 7.0       |
| 80°-90°   | 138.5  | 2.9       |
| 90°-100°  | 30.1   | 0.6       |
| 100°-110° | 1.4    | 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°    | 1336.0 | 27.8      |
| 0°-40°    | 2160.3 | 45.0      |
| 0°-60°    | 3730.7 | 77.7      |
| 0°-90°    | 4767.6 | 99.3      |
| 90°-120°  | 31.6   | 0.7       |
| 90°-150°  | 31.6   | 0.7       |
| 90°-180°  | 32.0   | 0.7       |
| 0°-180°   | 4799.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1749 | 1749  | 1749 | 1749  | 1749 |      |
| 5°   | 1755 | 1735  | 1741 | 1738  | 1737 | 167  |
| 15°  | 1674 | 1658  | 1673 | 1671  | 1673 | 472  |
| 25°  | 1513 | 1501  | 1530 | 1528  | 1533 | 697  |
| 35°  | 1296 | 1292  | 1328 | 1335  | 1341 | 810  |
| 45°  | 1047 | 1051  | 1085 | 1100  | 1112 | 808  |
| 55°  | 788  | 798   | 827  | 849   | 859  | 704  |
| 65°  | 532  | 539   | 568  | 591   | 602  | 526  |
| 75°  | 271  | 283   | 317  | 349   | 358  | 288  |
| 85°  | 62   | 82    | 126  | 163   | 175  | 70   |
| 90°  | 2    | 26    | 62   | 94    | 107  | 4    |
| 95°  | 0    | 2     | 23   | 46    | 55   | 0    |
| 105° | 2    | 0     | 0    | 0     | 2    | 1    |
| 115° | 0    | 0     | 0    | 0     | 0    | 0    |
| 125° | 0    | 0     | 0    | 0     | 0    | 0    |
| 135° | 0    | 0     | 0    | 0     | 0    | 0    |
| 145° | 0    | 0     | 0    | 0     | 0    | 0    |
| 155° | 0    | 0     | 0    | 0     | 0    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P231389

CATALOG NUMBER: HGL-S-FR-50L830-UNV-4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1749.0 | 1749.0 | 1749.0 | 1749.0 | 1749.0 |
| 2.5°   | 1764.3 | 1744.5 | 1749.0 | 1746.0 | 1736.9 |
| 5°     | 1755.1 | 1735.3 | 1741.4 | 1738.4 | 1736.9 |
| 7.5°   | 1744.5 | 1724.7 | 1730.8 | 1727.7 | 1729.2 |
| 10°    | 1726.2 | 1706.4 | 1715.5 | 1712.5 | 1712.5 |
| 12.5°  | 1703.3 | 1686.6 | 1695.7 | 1692.7 | 1695.7 |
| 15°    | 1674.4 | 1657.6 | 1672.9 | 1671.3 | 1672.9 |
| 17.5°  | 1639.3 | 1624.1 | 1645.4 | 1642.4 | 1643.9 |
| 20°    | 1601.3 | 1586.0 | 1611.9 | 1605.8 | 1611.9 |
| 22.5°  | 1558.6 | 1546.4 | 1572.3 | 1567.7 | 1573.8 |
| 25°    | 1512.9 | 1500.7 | 1529.6 | 1528.1 | 1532.7 |
| 27.5°  | 1465.7 | 1455.0 | 1483.9 | 1487.0 | 1488.5 |
| 30°    | 1410.8 | 1403.2 | 1433.7 | 1438.2 | 1442.8 |
| 32.5°  | 1352.9 | 1348.3 | 1380.3 | 1388.0 | 1392.5 |
| 35°    | 1296.5 | 1292.0 | 1328.5 | 1334.6 | 1340.7 |
| 37.5°  | 1237.1 | 1234.1 | 1272.2 | 1278.3 | 1287.4 |
| 40°    | 1173.1 | 1174.7 | 1209.7 | 1220.4 | 1231.0 |
| 42.5°  | 1110.7 | 1113.7 | 1145.7 | 1160.9 | 1171.6 |
| 45°    | 1046.7 | 1051.3 | 1084.8 | 1100.0 | 1112.2 |
| 47.5°  | 984.2  | 988.8  | 1022.3 | 1039.1 | 1051.3 |
| 50°    | 915.7  | 926.3  | 959.8  | 975.1  | 988.8  |
| 52.5°  | 851.7  | 862.3  | 892.8  | 912.6  | 924.8  |
| 55°    | 787.7  | 798.3  | 827.3  | 848.6  | 859.3  |
| 57.5°  | 722.2  | 737.4  | 763.3  | 784.6  | 795.3  |
| 60°    | 661.2  | 670.4  | 699.3  | 720.6  | 729.8  |
| 62.5°  | 595.7  | 604.9  | 632.3  | 658.2  | 664.3  |
| 65°    | 531.7  | 539.3  | 568.3  | 591.1  | 601.8  |
| 67.5°  | 466.2  | 475.3  | 504.3  | 528.7  | 539.3  |
| 70°    | 400.7  | 409.8  | 441.8  | 469.3  | 478.4  |
| 72.5°  | 333.7  | 344.3  | 376.3  | 408.3  | 419.0  |
| 75°    | 271.2  | 283.4  | 316.9  | 348.9  | 358.0  |
| 77.5°  | 210.3  | 225.5  | 262.1  | 295.6  | 307.8  |
| 80°    | 153.9  | 172.2  | 211.8  | 248.3  | 259.0  |
| 82.5°  | 105.1  | 124.9  | 166.1  | 204.2  | 217.9  |
| 85°    | 62.5   | 82.3   | 126.5  | 163.0  | 175.2  |
| 87.5°  | 27.4   | 48.8   | 91.4   | 126.5  | 137.1  |
| 90°    | 1.5    | 25.9   | 62.5   | 94.5   | 106.6  |
| 92.5°  | 0.0    | 10.7   | 39.6   | 67.0   | 79.2   |
| 95°    | 0.0    | 1.5    | 22.9   | 45.7   | 54.8   |
| 97.5°  | 0.0    | 0.0    | 10.7   | 27.4   | 35.0   |
| 100°   | 0.0    | 0.0    | 1.5    | 13.7   | 19.8   |
| 102.5° | 1.5    | 0.0    | 0.0    | 3.0    | 7.6    |
| 105°   | 1.5    | 0.0    | 0.0    | 0.0    | 1.5    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



TEST NUMBER: P231389

CATALOG NUMBER: HGL-S-FR-50L830-UNV-4

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 115°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 117.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 132.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 135°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 137.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 140°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 142.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 145°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 147.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 150°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 152.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 155°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 157.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 160°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 162.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 165°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 167.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 170°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 172.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 175°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 177.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 180°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |

(END OF REPORT)