

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: P233384

Luminaire Tested: **HGL-S-FR-80L840-UNV-12**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233384  
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-80L840-UNV-12  
Description: HUGO 12 FOOT LINEAR LED LUMINAIRE WITH FROSTED LENS  
Light Source: (504) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23314.2 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.23 / 1.33  
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 12' x H: 0.01')  
CIE Type: Direct

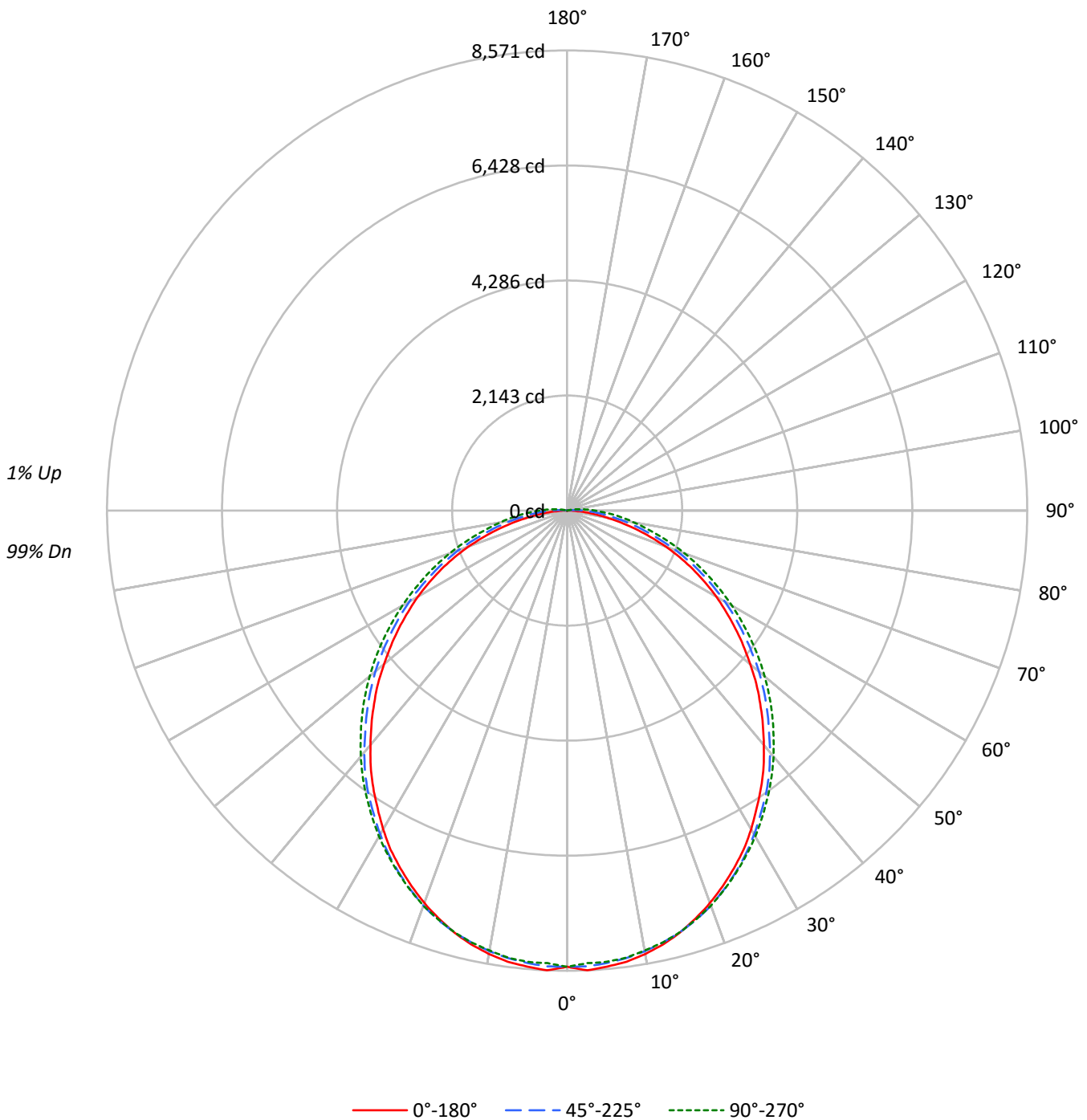
Input Watts (W): 212  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |  | 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°  | 33257 | 33257 | 33257 |
| 5°  | 33498 | 33148 | 33026 |
| 10° | 33324 | 32941 | 32812 |
| 15° | 32954 | 32656 | 32551 |
| 20° | 32392 | 32248 | 32107 |
| 25° | 31729 | 31629 | 31515 |
| 30° | 30961 | 30916 | 30900 |
| 35° | 30079 | 30175 | 30199 |
| 40° | 29099 | 29255 | 29477 |
| 45° | 28123 | 28281 | 28657 |
| 50° | 27060 | 27368 | 27804 |
| 55° | 26081 | 26247 | 26815 |
| 60° | 25110 | 25221 | 25803 |
| 65° | 23881 | 23953 | 24760 |
| 70° | 22225 | 22610 | 23749 |
| 75° | 19861 | 20837 | 22620 |
| 80° | 16770 | 19680 | 22734 |
| 85° | 13502 | 20294 | 25506 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 803.0   | 3.4       |
| 10°-20°   | 2284.7  | 9.8       |
| 20°-30°   | 3402.4  | 14.6      |
| 30°-40°   | 4004.4  | 17.2      |
| 40°-50°   | 4044.6  | 17.3      |
| 50°-60°   | 3584.2  | 15.4      |
| 60°-70°   | 2727.2  | 11.7      |
| 70°-80°   | 1637.3  | 7.0       |
| 80°-90°   | 672.8   | 2.9       |
| 90°-100°  | 146.4   | 0.6       |
| 100°-110° | 7.1     | 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°    | 6490.2  | 27.8      |
| 0°-40°    | 10494.6 | 45.0      |
| 0°-60°    | 18123.4 | 77.7      |
| 0°-90°    | 23160.7 | 99.3      |
| 90°-120°  | 153.5   | 0.7       |
| 90°-150°  | 153.5   | 0.7       |
| 90°-180°  | 153.0   | 0.7       |
| 0°-180°   | 23314.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 8497 | 8497  | 8497 | 8497  | 8497 |      |
| 5°   | 8526 | 8430  | 8460 | 8445  | 8438 | 810  |
| 15°  | 8134 | 8053  | 8127 | 8119  | 8127 | 2291 |
| 25°  | 7350 | 7290  | 7431 | 7424  | 7446 | 3385 |
| 35°  | 6298 | 6276  | 6454 | 6484  | 6513 | 3937 |
| 45°  | 5085 | 5107  | 5270 | 5344  | 5403 | 3924 |
| 55°  | 3826 | 3878  | 4019 | 4122  | 4174 | 3421 |
| 65°  | 2583 | 2620  | 2761 | 2872  | 2924 | 2553 |
| 75°  | 1317 | 1377  | 1540 | 1695  | 1739 | 1399 |
| 85°  | 304  | 400   | 614  | 792   | 851  | 341  |
| 90°  | 7    | 126   | 304  | 459   | 518  | 20   |
| 95°  | 0    | 7     | 111  | 222   | 266  | 0    |
| 105° | 7    | 0     | 0    | 0     | 7    | 4    |
| 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    |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 8496.7 | 8496.7 | 8496.7 | 8496.7 | 8496.7 |
| 2.5°   | 8570.7 | 8474.5 | 8496.7 | 8481.9 | 8437.5 |
| 5°     | 8526.3 | 8430.1 | 8459.7 | 8444.9 | 8437.5 |
| 7.5°   | 8474.5 | 8378.3 | 8407.9 | 8393.1 | 8400.5 |
| 10°    | 8385.7 | 8289.5 | 8333.9 | 8319.1 | 8319.1 |
| 12.5°  | 8274.7 | 8193.3 | 8237.7 | 8222.9 | 8237.7 |
| 15°    | 8134.1 | 8052.6 | 8126.7 | 8119.3 | 8126.7 |
| 17.5°  | 7963.8 | 7889.8 | 7993.4 | 7978.6 | 7986.0 |
| 20°    | 7778.8 | 7704.8 | 7830.6 | 7801.0 | 7830.6 |
| 22.5°  | 7571.6 | 7512.3 | 7638.2 | 7616.0 | 7645.6 |
| 25°    | 7349.5 | 7290.3 | 7430.9 | 7423.5 | 7445.7 |
| 27.5°  | 7120.1 | 7068.3 | 7208.9 | 7223.7 | 7231.1 |
| 30°    | 6853.6 | 6816.6 | 6964.6 | 6986.9 | 7009.1 |
| 32.5°  | 6572.4 | 6550.2 | 6705.6 | 6742.6 | 6764.8 |
| 35°    | 6298.5 | 6276.3 | 6454.0 | 6483.6 | 6513.2 |
| 37.5°  | 6009.9 | 5995.1 | 6180.1 | 6209.7 | 6254.1 |
| 40°    | 5699.0 | 5706.4 | 5876.7 | 5928.5 | 5980.3 |
| 42.5°  | 5395.6 | 5410.4 | 5565.8 | 5639.8 | 5691.6 |
| 45°    | 5084.7 | 5106.9 | 5269.7 | 5343.8 | 5403.0 |
| 47.5°  | 4781.3 | 4803.5 | 4966.3 | 5047.7 | 5106.9 |
| 50°    | 4448.2 | 4500.0 | 4662.8 | 4736.8 | 4803.5 |
| 52.5°  | 4137.3 | 4189.2 | 4337.2 | 4433.4 | 4492.6 |
| 55°    | 3826.5 | 3878.3 | 4018.9 | 4122.5 | 4174.3 |
| 57.5°  | 3508.2 | 3582.2 | 3708.1 | 3811.7 | 3863.5 |
| 60°    | 3212.2 | 3256.6 | 3397.2 | 3500.8 | 3545.2 |
| 62.5°  | 2893.9 | 2938.3 | 3071.6 | 3197.4 | 3227.0 |
| 65°    | 2583.1 | 2620.1 | 2760.7 | 2871.7 | 2923.5 |
| 67.5°  | 2264.8 | 2309.2 | 2449.8 | 2568.3 | 2620.1 |
| 70°    | 1946.5 | 1991.0 | 2146.4 | 2279.6 | 2324.0 |
| 72.5°  | 1620.9 | 1672.7 | 1828.1 | 1983.6 | 2035.4 |
| 75°    | 1317.4 | 1376.6 | 1539.5 | 1694.9 | 1739.3 |
| 77.5°  | 1021.4 | 1095.4 | 1273.0 | 1435.9 | 1495.1 |
| 80°    | 747.5  | 836.3  | 1028.8 | 1206.4 | 1258.2 |
| 82.5°  | 510.7  | 606.9  | 806.7  | 991.8  | 1058.4 |
| 85°    | 303.5  | 399.7  | 614.3  | 791.9  | 851.2  |
| 87.5°  | 133.2  | 236.8  | 444.1  | 614.3  | 666.1  |
| 90°    | 7.4    | 125.8  | 303.5  | 458.9  | 518.1  |
| 92.5°  | 0.0    | 51.8   | 192.4  | 325.7  | 384.9  |
| 95°    | 0.0    | 7.4    | 111.0  | 222.0  | 266.4  |
| 97.5°  | 0.0    | 0.0    | 51.8   | 133.2  | 170.2  |
| 100°   | 0.0    | 0.0    | 7.4    | 66.6   | 96.2   |
| 102.5° | 7.4    | 0.0    | 0.0    | 14.8   | 37.0   |
| 105°   | 7.4    | 0.0    | 0.0    | 0.0    | 7.4    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**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)