

Classified  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P580177

Luminaire Tested: **HCC4W25D010SL-HM40525840-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580177  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC4W25D010SL-HM40525840-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

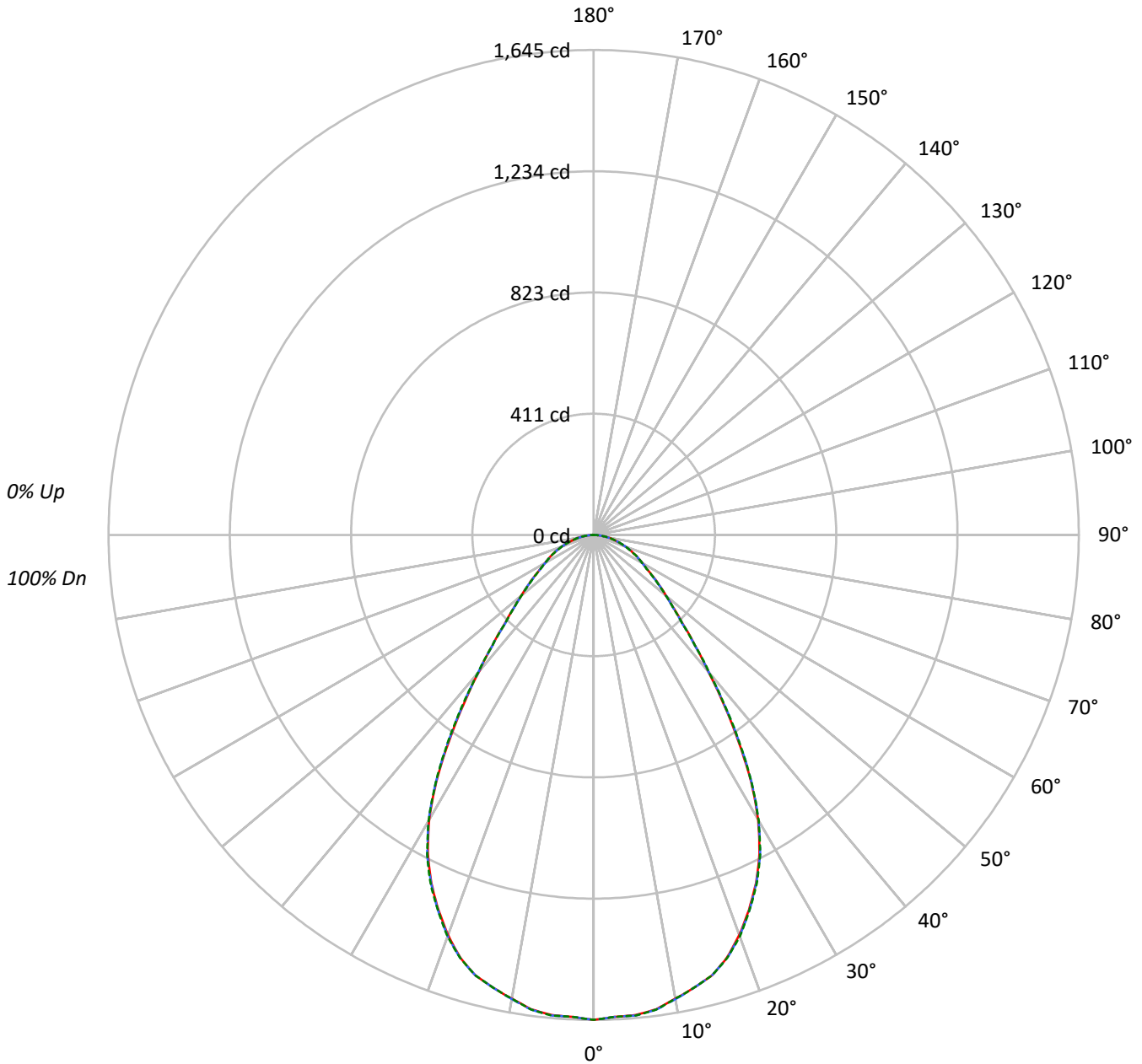
Lumens per Lamp: N/A  
Luminaire Lumens: 2537.7 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.8  
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



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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |   |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |     | 30 |    |   |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 94  | 92  | 90  | 89  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 103 | 97  | 91  | 87  | 101 | 95  | 90  | 86  | 91  | 87  | 84  | 88  | 85  | 82  | 85  | 83  | 80  | 78  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 96  | 87  | 81  | 76  | 94  | 86  | 80  | 75  | 83  | 78  | 74  | 81  | 76  | 72  | 78  | 74  | 71  | 69  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 90  | 80  | 72  | 67  | 87  | 78  | 72  | 66  | 76  | 70  | 66  | 74  | 69  | 65  | 72  | 68  | 64  | 62  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 84  | 73  | 65  | 60  | 82  | 72  | 65  | 59  | 70  | 64  | 59  | 68  | 63  | 58  | 66  | 62  | 58  | 56  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 78  | 67  | 59  | 54  | 77  | 66  | 59  | 54  | 64  | 58  | 53  | 63  | 57  | 53  | 61  | 56  | 53  | 51  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 73  | 62  | 54  | 49  | 72  | 61  | 54  | 49  | 60  | 53  | 49  | 58  | 53  | 48  | 57  | 52  | 48  | 46  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 69  | 57  | 50  | 45  | 68  | 57  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 44  | 53  | 48  | 44  | 42  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 65  | 53  | 46  | 41  | 64  | 53  | 46  | 41  | 52  | 45  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 61  | 50  | 43  | 38  | 60  | 49  | 43  | 38  | 48  | 42  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 202879 | 202879 | 202879 |
| 5°  | 202403 | 202614 | 202614 |
| 10° | 200047 | 200260 | 200047 |
| 15° | 197636 | 197636 | 197636 |
| 20° | 189529 | 189988 | 190211 |
| 25° | 177280 | 177511 | 177974 |
| 30° | 158849 | 159333 | 159333 |
| 35° | 128969 | 129978 | 130249 |
| 40° | 97334  | 97882  | 98139  |
| 45° | 74554  | 74240  | 74240  |
| 50° | 61425  | 61098  | 61098  |
| 55° | 52729  | 52364  | 52364  |
| 60° | 47044  | 46625  | 46625  |
| 65° | 44217  | 44217  | 44217  |
| 70° | 41113  | 41113  | 41113  |
| 75° | 37363  | 38126  | 37363  |
| 80° | 35019  | 33811  | 35019  |
| 85° | 28871  | 28871  | 28871  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 155.0  | 6.1       |
| 10°-20°   | 433.7  | 17.1      |
| 20°-30°   | 595.9  | 23.5      |
| 30°-40°   | 535.8  | 21.1      |
| 40°-50°   | 338.6  | 13.3      |
| 50°-60°   | 221.0  | 8.7       |
| 60°-70°   | 149.7  | 5.9       |
| 70°-80°   | 84.3   | 3.3       |
| 80°-90°   | 23.7   | 0.9       |
| 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°    | 1184.6 | 46.7      |
| 0°-40°    | 1720.4 | 67.8      |
| 0°-60°    | 2280.0 | 89.8      |
| 0°-90°    | 2537.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2537.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1645 | 1645  | 1645 | 1645  | 1645 |      |
| 5°  | 1635 | 1635  | 1636 | 1636  | 1636 | 155  |
| 15° | 1548 | 1548  | 1548 | 1548  | 1548 | 433  |
| 25° | 1303 | 1304  | 1304 | 1308  | 1308 | 594  |
| 35° | 856  | 860   | 863  | 867   | 865  | 533  |
| 45° | 427  | 426   | 426  | 426   | 426  | 339  |
| 55° | 245  | 245   | 244  | 245   | 244  | 222  |
| 65° | 152  | 152   | 152  | 152   | 152  | 150  |
| 75° | 78   | 80    | 80   | 80    | 78   | 84   |
| 85° | 20   | 20    | 20   | 20    | 20   | 24   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1644.8 | 1644.8 | 1644.8 | 1644.8 | 1644.8 |
| 2.5°  | 1636.4 | 1636.4 | 1636.4 | 1636.4 | 1636.4 |
| 5°    | 1634.7 | 1634.7 | 1636.4 | 1636.4 | 1636.4 |
| 7.5°  | 1622.7 | 1624.4 | 1624.4 | 1624.4 | 1624.4 |
| 10°   | 1597.2 | 1597.2 | 1598.9 | 1598.9 | 1597.2 |
| 12.5° | 1573.4 | 1573.4 | 1573.4 | 1575.1 | 1573.4 |
| 15°   | 1547.7 | 1547.7 | 1547.7 | 1547.7 | 1547.7 |
| 17.5° | 1503.5 | 1505.2 | 1505.2 | 1505.2 | 1505.2 |
| 20°   | 1443.9 | 1447.4 | 1447.4 | 1449.1 | 1449.1 |
| 22.5° | 1375.8 | 1377.5 | 1379.2 | 1380.9 | 1379.2 |
| 25°   | 1302.6 | 1304.3 | 1304.3 | 1307.7 | 1307.7 |
| 27.5° | 1217.4 | 1219.2 | 1222.6 | 1222.6 | 1222.6 |
| 30°   | 1115.3 | 1117.0 | 1118.7 | 1118.7 | 1118.7 |
| 32.5° | 994.4  | 994.4  | 997.8  | 999.5  | 997.8  |
| 35°   | 856.5  | 859.8  | 863.2  | 866.7  | 865.0  |
| 37.5° | 725.4  | 728.8  | 730.5  | 730.5  | 732.2  |
| 40°   | 604.5  | 607.9  | 607.9  | 611.2  | 609.5  |
| 42.5° | 509.1  | 507.4  | 507.4  | 510.9  | 509.1  |
| 45°   | 427.4  | 425.6  | 425.6  | 425.6  | 425.6  |
| 47.5° | 367.8  | 366.1  | 366.1  | 366.1  | 366.1  |
| 50°   | 320.1  | 318.4  | 318.4  | 318.4  | 318.4  |
| 52.5° | 280.9  | 279.2  | 279.2  | 279.2  | 277.5  |
| 55°   | 245.2  | 245.2  | 243.5  | 245.2  | 243.5  |
| 57.5° | 212.8  | 212.8  | 212.8  | 212.8  | 212.8  |
| 60°   | 190.7  | 189.0  | 189.0  | 189.0  | 189.0  |
| 62.5° | 170.3  | 170.3  | 170.3  | 170.3  | 170.3  |
| 65°   | 151.5  | 151.5  | 151.5  | 151.5  | 151.5  |
| 67.5° | 132.8  | 131.1  | 132.8  | 132.8  | 131.1  |
| 70°   | 114.0  | 112.3  | 114.0  | 114.0  | 114.0  |
| 72.5° | 95.4   | 95.4   | 95.4   | 97.1   | 95.4   |
| 75°   | 78.4   | 80.0   | 80.0   | 80.0   | 78.4   |
| 77.5° | 63.0   | 64.7   | 63.0   | 63.0   | 63.0   |
| 80°   | 49.3   | 47.6   | 47.6   | 47.6   | 49.3   |
| 82.5° | 34.1   | 34.1   | 34.1   | 34.1   | 34.1   |
| 85°   | 20.4   | 20.4   | 20.4   | 20.4   | 20.4   |
| 87.5° | 8.5    | 8.5    | 8.5    | 8.5    | 8.5    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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Scaled Data Report



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— 0°-180°    - - 45°-225°    - - - - 90°-270°

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