

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: P580159

Luminaire Tested: **HCC4W25D010BZ-HM40525835-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580159
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: HCC4W25D010BZ-HM40525835-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

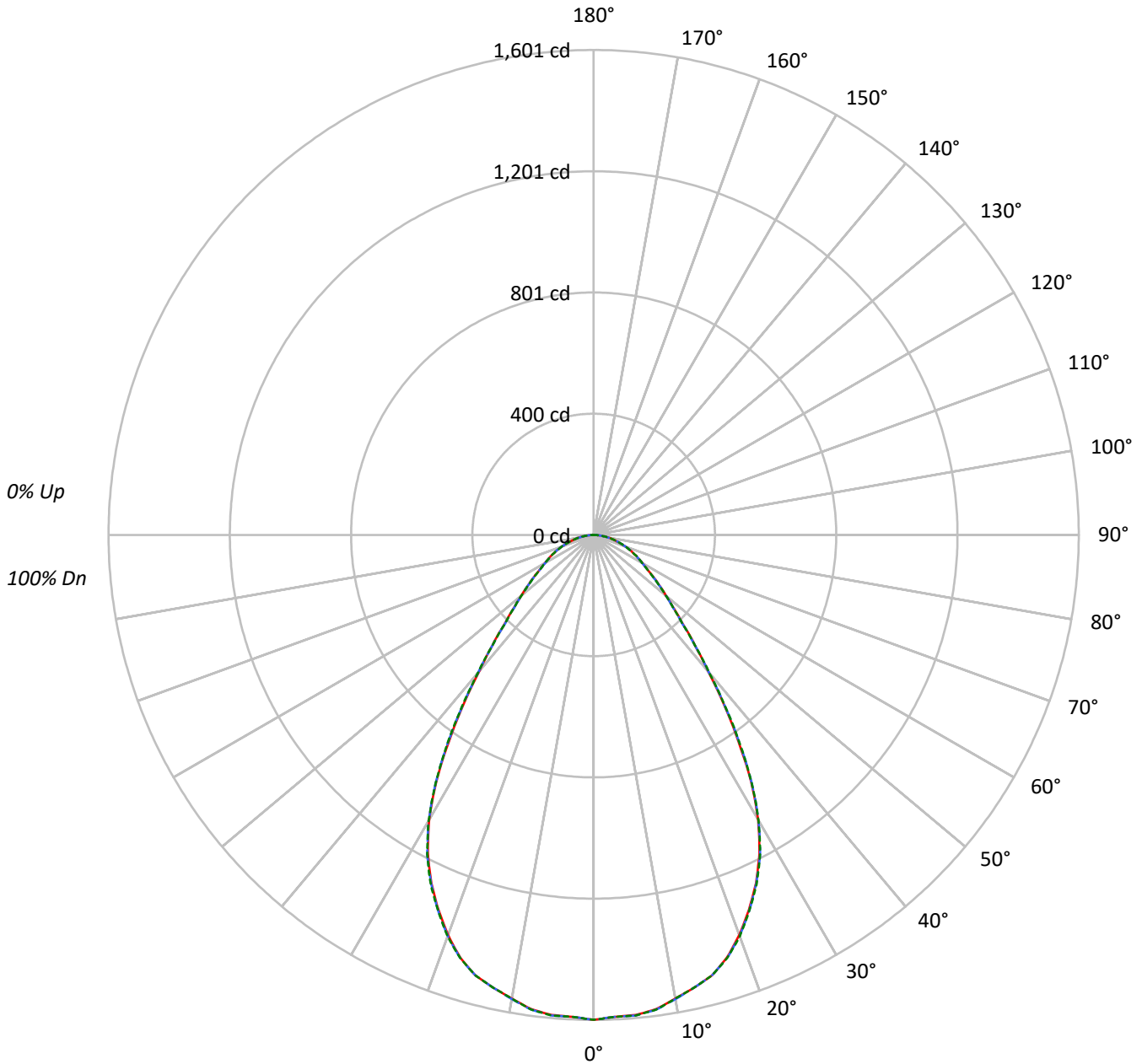
Lumens per Lamp: N/A
Luminaire Lumens: 2469.6 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (A_{in}): 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 | 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° | 197427 | 197427 | 197427 |
| 5° | 196943 | 197153 | 197153 |
| 10° | 194674 | 194874 | 194674 |
| 15° | 192337 | 192337 | 192337 |
| 20° | 184449 | 184869 | 185092 |
| 25° | 172516 | 172734 | 173197 |
| 30° | 154576 | 155046 | 155046 |
| 35° | 125491 | 126500 | 126756 |
| 40° | 94710 | 95257 | 95515 |
| 45° | 72548 | 72252 | 72252 |
| 50° | 59774 | 59467 | 59467 |
| 55° | 51310 | 50966 | 50966 |
| 60° | 45786 | 45367 | 45367 |
| 65° | 43020 | 43020 | 43020 |
| 70° | 40031 | 40031 | 40031 |
| 75° | 36315 | 37125 | 36315 |
| 80° | 34166 | 32959 | 34166 |
| 85° | 28163 | 28163 | 28163 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 150.8 | 6.1 |
| 10°-20° | 422.0 | 17.1 |
| 20°-30° | 579.9 | 23.5 |
| 30°-40° | 521.4 | 21.1 |
| 40°-50° | 329.5 | 13.3 |
| 50°-60° | 215.1 | 8.7 |
| 60°-70° | 145.7 | 5.9 |
| 70°-80° | 82.0 | 3.3 |
| 80°-90° | 23.0 | 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° | 1152.8 | 46.7 |
| 0°-40° | 1674.2 | 67.8 |
| 0°-60° | 2218.8 | 89.8 |
| 0°-90° | 2469.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2469.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1601 | 1601 | 1601 | 1601 | 1601 | |
| 5° | 1591 | 1591 | 1592 | 1592 | 1592 | 151 |
| 15° | 1506 | 1506 | 1506 | 1506 | 1506 | 422 |
| 25° | 1268 | 1269 | 1269 | 1273 | 1273 | 579 |
| 35° | 833 | 837 | 840 | 843 | 842 | 519 |
| 45° | 416 | 414 | 414 | 414 | 414 | 330 |
| 55° | 239 | 239 | 237 | 239 | 237 | 216 |
| 65° | 147 | 147 | 147 | 147 | 147 | 146 |
| 75° | 76 | 78 | 78 | 78 | 76 | 82 |
| 85° | 20 | 20 | 20 | 20 | 20 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1600.6 | 1600.6 | 1600.6 | 1600.6 | 1600.6 |
| 2.5° | 1592.3 | 1592.3 | 1592.3 | 1592.3 | 1592.3 |
| 5° | 1590.6 | 1590.6 | 1592.3 | 1592.3 | 1592.3 |
| 7.5° | 1579.1 | 1580.7 | 1580.7 | 1580.7 | 1580.7 |
| 10° | 1554.3 | 1554.3 | 1555.9 | 1555.9 | 1554.3 |
| 12.5° | 1531.0 | 1531.0 | 1531.0 | 1532.7 | 1531.0 |
| 15° | 1506.2 | 1506.2 | 1506.2 | 1506.2 | 1506.2 |
| 17.5° | 1463.1 | 1464.8 | 1464.8 | 1464.8 | 1464.8 |
| 20° | 1405.2 | 1408.4 | 1408.4 | 1410.1 | 1410.1 |
| 22.5° | 1338.9 | 1340.5 | 1342.2 | 1343.8 | 1342.2 |
| 25° | 1267.6 | 1269.2 | 1269.2 | 1272.6 | 1272.6 |
| 27.5° | 1184.8 | 1186.4 | 1189.7 | 1189.7 | 1189.7 |
| 30° | 1085.3 | 1087.0 | 1088.6 | 1088.6 | 1088.6 |
| 32.5° | 967.7 | 967.7 | 970.9 | 972.6 | 970.9 |
| 35° | 833.4 | 836.8 | 840.1 | 843.4 | 841.8 |
| 37.5° | 705.9 | 709.2 | 710.8 | 710.8 | 712.5 |
| 40° | 588.2 | 591.6 | 591.6 | 594.9 | 593.2 |
| 42.5° | 495.4 | 493.8 | 493.8 | 497.1 | 495.4 |
| 45° | 415.9 | 414.2 | 414.2 | 414.2 | 414.2 |
| 47.5° | 357.9 | 356.2 | 356.2 | 356.2 | 356.2 |
| 50° | 311.5 | 309.9 | 309.9 | 309.9 | 309.9 |
| 52.5° | 273.4 | 271.8 | 271.8 | 271.8 | 270.1 |
| 55° | 238.6 | 238.6 | 237.0 | 238.6 | 237.0 |
| 57.5° | 207.2 | 207.2 | 207.2 | 207.2 | 207.2 |
| 60° | 185.6 | 183.9 | 183.9 | 183.9 | 183.9 |
| 62.5° | 165.7 | 165.7 | 165.7 | 165.7 | 165.7 |
| 65° | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 |
| 67.5° | 129.3 | 127.6 | 129.3 | 129.3 | 127.6 |
| 70° | 111.0 | 109.4 | 111.0 | 111.0 | 111.0 |
| 72.5° | 92.8 | 92.8 | 92.8 | 94.5 | 92.8 |
| 75° | 76.2 | 77.9 | 77.9 | 77.9 | 76.2 |
| 77.5° | 61.3 | 63.0 | 61.3 | 61.3 | 61.3 |
| 80° | 48.1 | 46.4 | 46.4 | 46.4 | 48.1 |
| 82.5° | 33.2 | 33.2 | 33.2 | 33.2 | 33.2 |
| 85° | 19.9 | 19.9 | 19.9 | 19.9 | 19.9 |
| 87.5° | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Report Generated By 670245859 / DESKTOP-T8S5UU9

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

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