

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: P592682

Luminaire Tested: **HCC4S20D010BZ-HM40525950-41WDC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592682
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4S20D010BZ-HM40525950-41WDC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

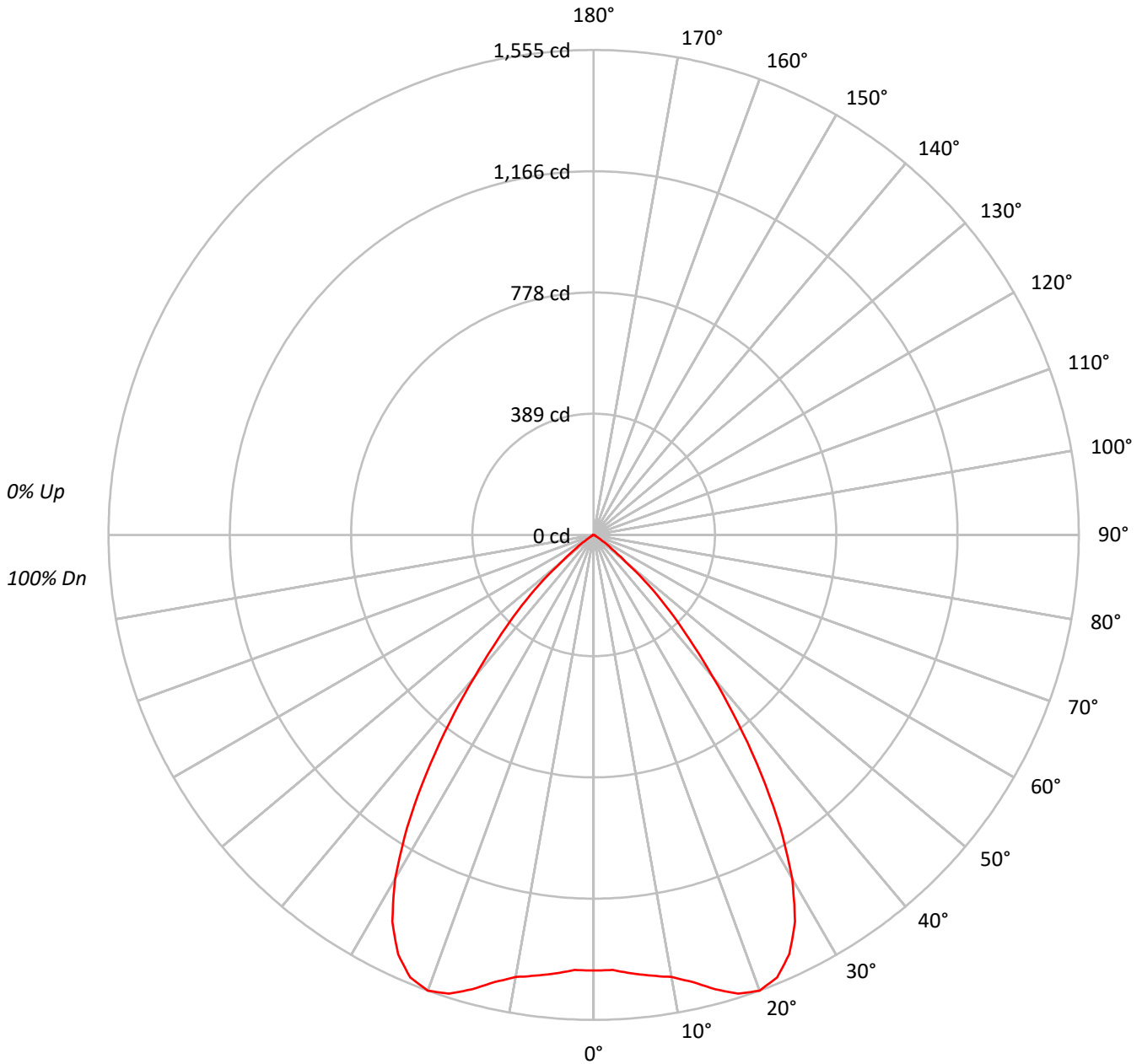
Lumens per Lamp: N/A
Luminaire Lumens: 2132.3 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.11
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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 | 100 | 100 | 100 |
| 1 | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98 | 97 | 97 | 95 | 94 | 92 | 92 | 92 | 92 |
| 2 | 107 | 101 | 97 | 93 | 104 | 100 | 96 | 92 | 96 | 93 | 90 | 93 | 91 | 88 | 91 | 88 | 86 | 85 | 85 | 85 | 85 |
| 3 | 101 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 89 | 85 | 82 | 87 | 83 | 80 | 85 | 82 | 79 | 77 | 77 | 77 | 77 |
| 4 | 95 | 86 | 80 | 76 | 93 | 85 | 79 | 75 | 83 | 78 | 74 | 81 | 77 | 73 | 79 | 75 | 72 | 71 | 71 | 71 | 71 |
| 5 | 89 | 80 | 73 | 69 | 87 | 79 | 73 | 68 | 77 | 72 | 68 | 75 | 71 | 67 | 74 | 70 | 66 | 65 | 65 | 65 | 65 |
| 6 | 84 | 74 | 67 | 63 | 82 | 73 | 67 | 62 | 72 | 66 | 62 | 70 | 65 | 62 | 69 | 65 | 61 | 60 | 60 | 60 | 60 |
| 7 | 79 | 69 | 62 | 57 | 78 | 68 | 62 | 57 | 67 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 56 | 55 | 55 | 55 | 55 |
| 8 | 75 | 64 | 57 | 53 | 73 | 63 | 57 | 53 | 62 | 57 | 53 | 61 | 56 | 52 | 60 | 56 | 52 | 51 | 51 | 51 | 51 |
| 9 | 70 | 60 | 53 | 49 | 69 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 48 | 56 | 52 | 48 | 47 | 47 | 47 | 47 |
| 10 | 67 | 56 | 50 | 45 | 66 | 55 | 49 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 44 | 44 | 44 | 44 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 172252 |
| 5° | 174767 |
| 10° | 180270 |
| 15° | 192605 |
| 20° | 204099 |
| 25° | 201859 |
| 30° | 181167 |
| 35° | 141000 |
| 40° | 95515 |
| 45° | 59640 |
| 50° | 25809 |
| 55° | 8666 |
| 60° | 2171 |
| 65° | 1459 |
| 70° | 902 |
| 75° | 620 |
| 80° | 923 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 135.6 | 6.4 |
| 10°-20° | 428.2 | 20.1 |
| 20°-30° | 670.9 | 31.5 |
| 30°-40° | 579.0 | 27.2 |
| 40°-50° | 266.3 | 12.5 |
| 50°-60° | 45.2 | 2.1 |
| 60°-70° | 5.1 | 0.2 |
| 70°-80° | 1.8 | 0.1 |
| 80°-90° | 0.2 | 0.0 |
| 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° | 1234.6 | 57.9 |
| 0°-40° | 1813.6 | 85.1 |
| 0°-60° | 2125.1 | 99.7 |
| 0°-90° | 2132.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2132.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1396 | |
| 5° | 1412 | 136 |
| 15° | 1508 | 428 |
| 25° | 1483 | 671 |
| 35° | 936 | 579 |
| 45° | 342 | 266 |
| 55° | 40 | 45 |
| 65° | 5 | 5 |
| 75° | 1 | 2 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1396.5 |
| 2.5° | 1396.5 |
| 5° | 1411.5 |
| 7.5° | 1425.4 |
| 10° | 1439.3 |
| 12.5° | 1468.2 |
| 15° | 1508.3 |
| 17.5° | 1542.3 |
| 20° | 1554.9 |
| 22.5° | 1535.9 |
| 25° | 1483.2 |
| 27.5° | 1397.7 |
| 30° | 1272.0 |
| 32.5° | 1113.6 |
| 35° | 936.4 |
| 37.5° | 757.9 |
| 40° | 593.2 |
| 42.5° | 453.8 |
| 45° | 341.9 |
| 47.5° | 240.1 |
| 50° | 134.5 |
| 52.5° | 74.2 |
| 55° | 40.3 |
| 57.5° | 20.1 |
| 60° | 8.8 |
| 62.5° | 6.3 |
| 65° | 5.0 |
| 67.5° | 3.8 |
| 70° | 2.5 |
| 72.5° | 2.5 |
| 75° | 1.3 |
| 77.5° | 1.3 |
| 80° | 1.3 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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(END OF REPORT)