

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: P593587

Luminaire Tested: **HCC8S20D010BZ-HM80520850-81NDH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC8S20D010BZ-HM80520850-81NDH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

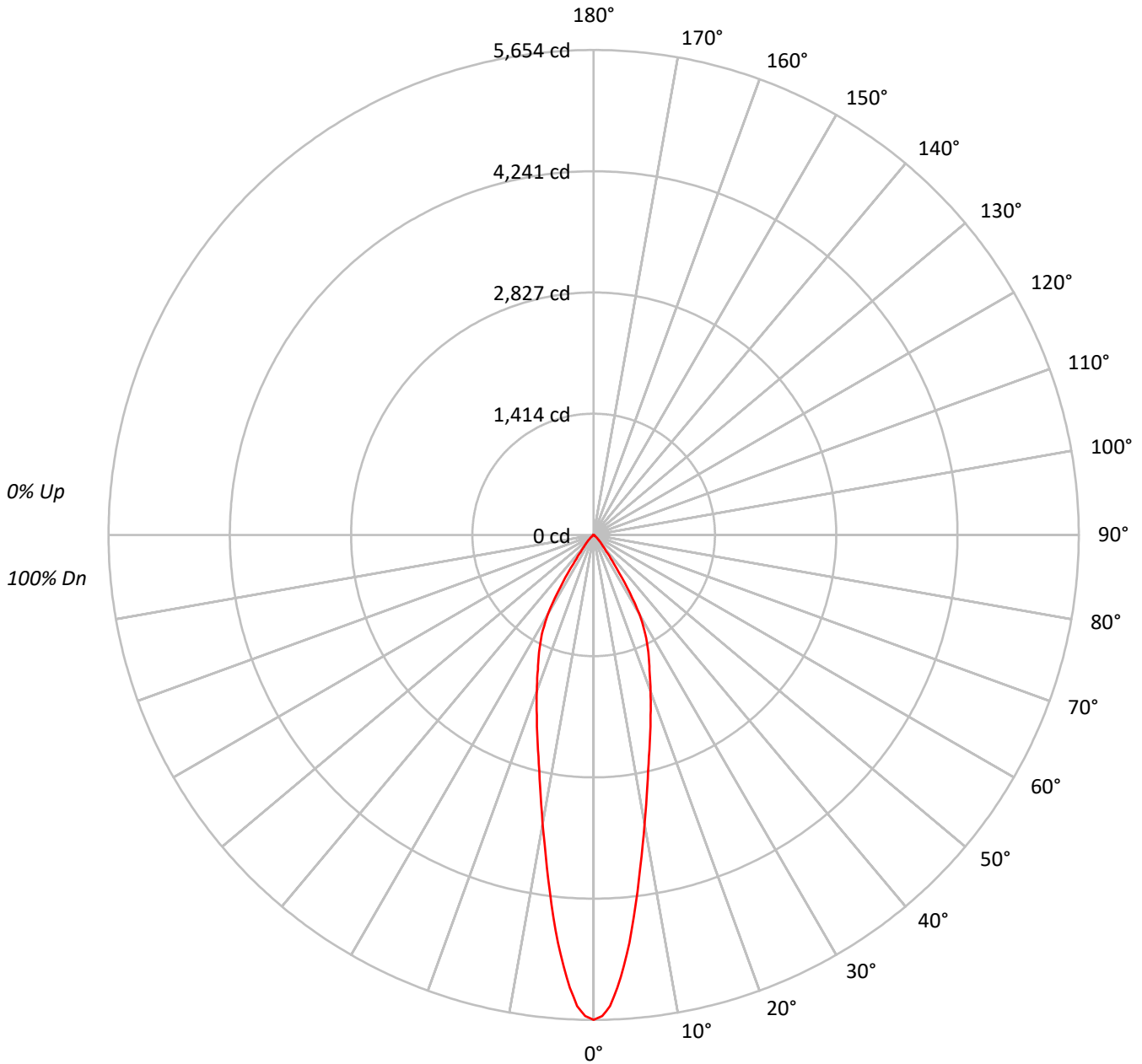
Lumens per Lamp: N/A
Luminaire Lumens: 2191.3 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.57
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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 | | | | | | | | | | | | | | | | | | |
| 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 | 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 | 114 | 112 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 | 102 | 100 | 99 | 98 | 97 | 96 | 95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 109 | 105 | 101 | 98 | 107 | 103 | 100 | 97 | 100 | 97 | 95 | 97 | 95 | 93 | 94 | 92 | 91 | 89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 104 | 99 | 94 | 91 | 102 | 97 | 93 | 90 | 95 | 91 | 88 | 92 | 90 | 87 | 90 | 88 | 86 | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 100 | 93 | 88 | 84 | 98 | 92 | 87 | 84 | 90 | 86 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 96 | 88 | 83 | 79 | 94 | 87 | 82 | 79 | 86 | 81 | 78 | 84 | 80 | 77 | 82 | 79 | 77 | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 92 | 84 | 78 | 75 | 90 | 83 | 78 | 74 | 81 | 77 | 74 | 80 | 76 | 73 | 79 | 76 | 73 | 72 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 88 | 80 | 74 | 70 | 87 | 79 | 74 | 70 | 78 | 73 | 70 | 77 | 73 | 70 | 76 | 72 | 69 | 68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 84 | 76 | 70 | 67 | 83 | 75 | 70 | 67 | 74 | 70 | 66 | 73 | 69 | 66 | 72 | 69 | 66 | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 81 | 72 | 67 | 64 | 80 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 69 | 66 | 63 | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 78 | 69 | 64 | 61 | 77 | 69 | 64 | 61 | 68 | 63 | 60 | 67 | 63 | 60 | 67 | 63 | 60 | 59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 174355 |
| 5° | 147716 |
| 10° | 107175 |
| 15° | 80484 |
| 20° | 63504 |
| 25° | 51223 |
| 30° | 37957 |
| 35° | 15378 |
| 40° | 6485 |
| 45° | 3480 |
| 50° | 1559 |
| 55° | 790 |
| 60° | 506 |
| 65° | 350 |
| 70° | 298 |
| 75° | 203 |
| 80° | 302 |
| 85° | 601 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 409.7 | 18.7 |
| 10°-20° | 708.1 | 32.3 |
| 20°-30° | 684.6 | 31.2 |
| 30°-40° | 300.7 | 13.7 |
| 40°-50° | 65.0 | 3.0 |
| 50°-60° | 14.6 | 0.7 |
| 60°-70° | 5.0 | 0.2 |
| 70°-80° | 2.0 | 0.1 |
| 80°-90° | 1.6 | 0.1 |
| 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° | 1802.4 | 82.3 |
| 0°-40° | 2103.1 | 96.0 |
| 0°-60° | 2182.7 | 99.6 |
| 0°-90° | 2191.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2191.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 5654 | |
| 5° | 4772 | 410 |
| 15° | 2521 | 708 |
| 25° | 1506 | 685 |
| 35° | 408 | 301 |
| 45° | 80 | 65 |
| 55° | 15 | 15 |
| 65° | 5 | 5 |
| 75° | 2 | 2 |
| 85° | 2 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 5654.2 |
| 1° | 5611.9 |
| 2° | 5496.4 |
| 3° | 5288.0 |
| 4° | 5039.0 |
| 5° | 4772.1 |
| 6° | 4480.7 |
| 7° | 4187.8 |
| 8° | 3912.8 |
| 9° | 3657.2 |
| 10° | 3422.8 |
| 11° | 3201.4 |
| 12° | 3002.9 |
| 13° | 2822.3 |
| 14° | 2662.7 |
| 15° | 2521.1 |
| 17.5° | 2203.7 |
| 20° | 1935.2 |
| 22.5° | 1699.2 |
| 25° | 1505.5 |
| 27.5° | 1308.6 |
| 30° | 1066.0 |
| 32.5° | 724.3 |
| 35° | 408.5 |
| 37.5° | 240.9 |
| 40° | 161.1 |
| 42.5° | 113.9 |
| 45° | 79.8 |
| 47.5° | 52.1 |
| 50° | 32.5 |
| 52.5° | 19.5 |
| 55° | 14.7 |
| 57.5° | 11.3 |
| 60° | 8.2 |
| 62.5° | 6.5 |
| 65° | 4.8 |
| 67.5° | 3.3 |
| 70° | 3.3 |
| 72.5° | 1.7 |
| 75° | 1.7 |
| 77.5° | 1.7 |
| 80° | 1.7 |
| 82.5° | 1.7 |

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CANDELA DISTRIBUTION (continued):

0°
90° | 0.0

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— 0°-180°

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| | |
|-------|-----|
| 85° | 1.7 |
| 87.5° | 1.7 |

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(END OF REPORT)