

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: P580582

Luminaire Tested: **HCC4W40D010MW-HM43040835-41NDH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC4W40D010MW-HM43040835-41NDH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

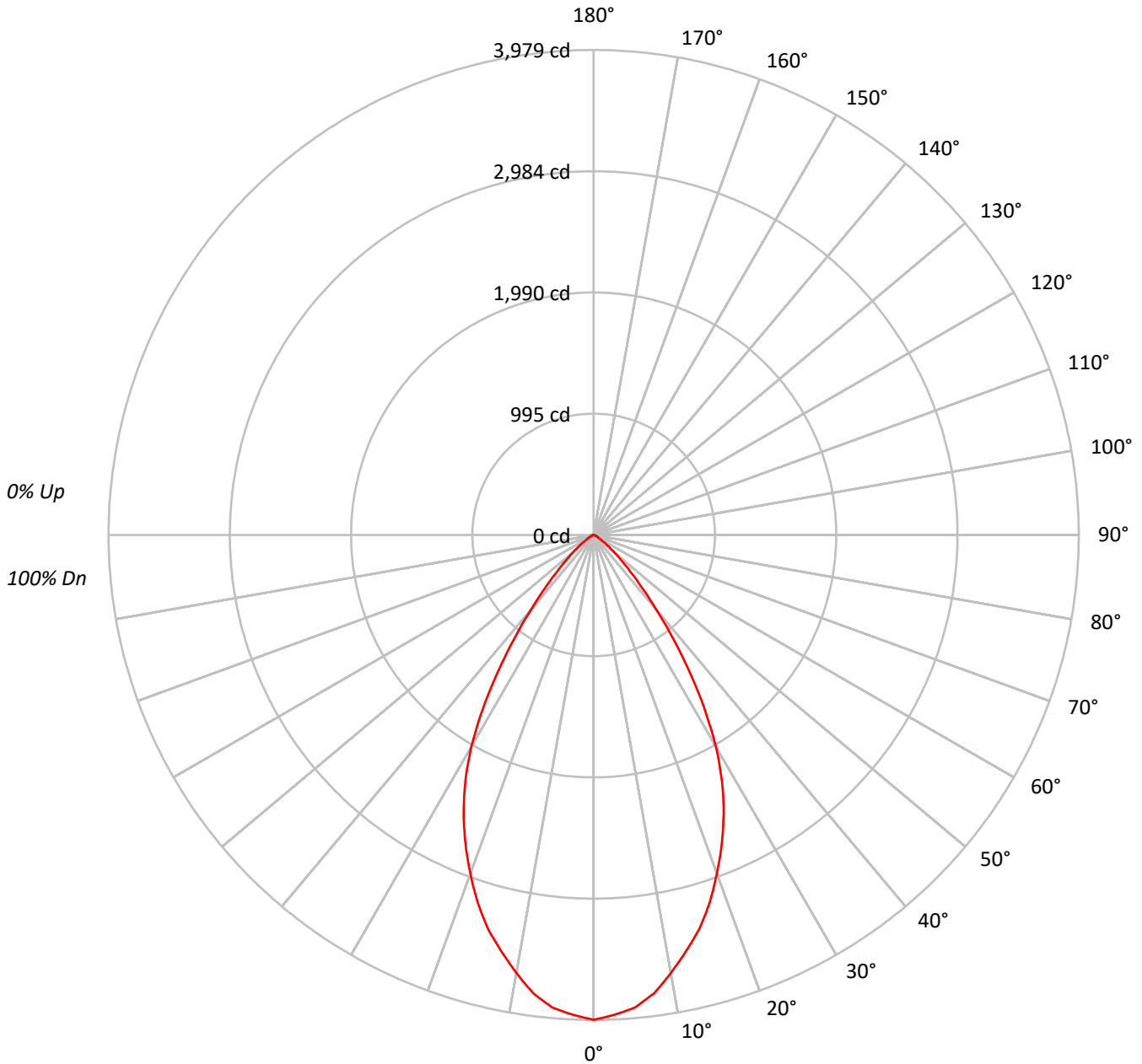
Lumens per Lamp: N/A
Luminaire Lumens: 3783.7 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.91
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
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 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 95 | 93 | 93 | 93 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 96 | 93 | 97 | 94 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 86 | 86 | 86 | 86 |
| 3 | 101 | 95 | 89 | 85 | 99 | 93 | 88 | 84 | 91 | 86 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 79 | 79 | 79 | 79 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | 82 | 79 | 75 | 81 | 77 | 74 | 73 | 73 | 73 | 73 |
| 5 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 76 | 72 | 69 | 67 | 67 | 67 | 67 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 63 | 63 | 63 | 63 |
| 7 | 81 | 72 | 65 | 61 | 80 | 71 | 65 | 61 | 70 | 64 | 60 | 68 | 64 | 60 | 67 | 63 | 60 | 58 | 58 | 58 | 58 |
| 8 | 77 | 67 | 61 | 57 | 76 | 67 | 61 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 | 54 | 54 | 54 | 54 |
| 9 | 73 | 63 | 57 | 53 | 72 | 63 | 57 | 53 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 51 | 51 | 51 | 51 |
| 10 | 70 | 59 | 53 | 49 | 69 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 57 | 52 | 49 | 48 | 48 | 48 | 48 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 490755 |
| 5° | 481845 |
| 10° | 457032 |
| 15° | 427337 |
| 20° | 388101 |
| 25° | 343440 |
| 30° | 285666 |
| 35° | 206005 |
| 40° | 128572 |
| 45° | 74153 |
| 50° | 41832 |
| 55° | 19935 |
| 60° | 11422 |
| 65° | 8727 |
| 70° | 5914 |
| 75° | 3908 |
| 80° | 3907 |
| 85° | 3821 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 363.7 | 9.6 |
| 10°-20° | 933.5 | 24.7 |
| 20°-30° | 1148.2 | 30.3 |
| 30°-40° | 852.7 | 22.5 |
| 40°-50° | 346.6 | 9.2 |
| 50°-60° | 96.0 | 2.5 |
| 60°-70° | 29.8 | 0.8 |
| 70°-80° | 10.1 | 0.3 |
| 80°-90° | 3.0 | 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° | 2445.4 | 64.6 |
| 0°-40° | 3298.2 | 87.2 |
| 0°-60° | 3740.8 | 98.9 |
| 0°-90° | 3783.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3783.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3979 | |
| 5° | 3892 | 364 |
| 15° | 3346 | 934 |
| 25° | 2524 | 1148 |
| 35° | 1368 | 853 |
| 45° | 425 | 347 |
| 55° | 93 | 96 |
| 65° | 30 | 30 |
| 75° | 8 | 10 |
| 85° | 3 | 3 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 3978.7 |
| 2.5° | 3940.5 |
| 5° | 3891.6 |
| 7.5° | 3793.4 |
| 10° | 3649.0 |
| 12.5° | 3499.1 |
| 15° | 3346.5 |
| 17.5° | 3163.9 |
| 20° | 2956.7 |
| 22.5° | 2746.9 |
| 25° | 2523.5 |
| 27.5° | 2280.9 |
| 30° | 2005.7 |
| 32.5° | 1692.3 |
| 35° | 1368.1 |
| 37.5° | 1062.8 |
| 40° | 798.5 |
| 42.5° | 583.1 |
| 45° | 425.1 |
| 47.5° | 305.2 |
| 50° | 218.0 |
| 52.5° | 149.9 |
| 55° | 92.7 |
| 57.5° | 60.0 |
| 60° | 46.3 |
| 62.5° | 38.1 |
| 65° | 29.9 |
| 67.5° | 21.7 |
| 70° | 16.4 |
| 72.5° | 13.7 |
| 75° | 8.2 |
| 77.5° | 5.5 |
| 80° | 5.5 |
| 82.5° | 2.7 |
| 85° | 2.7 |
| 87.5° | 2.7 |
| 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)