

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: P580493

Luminaire Tested: **HC435D010-HM43040930-41WDH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580493
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC435D010-HM43040930-41WDH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3217.3 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.11
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

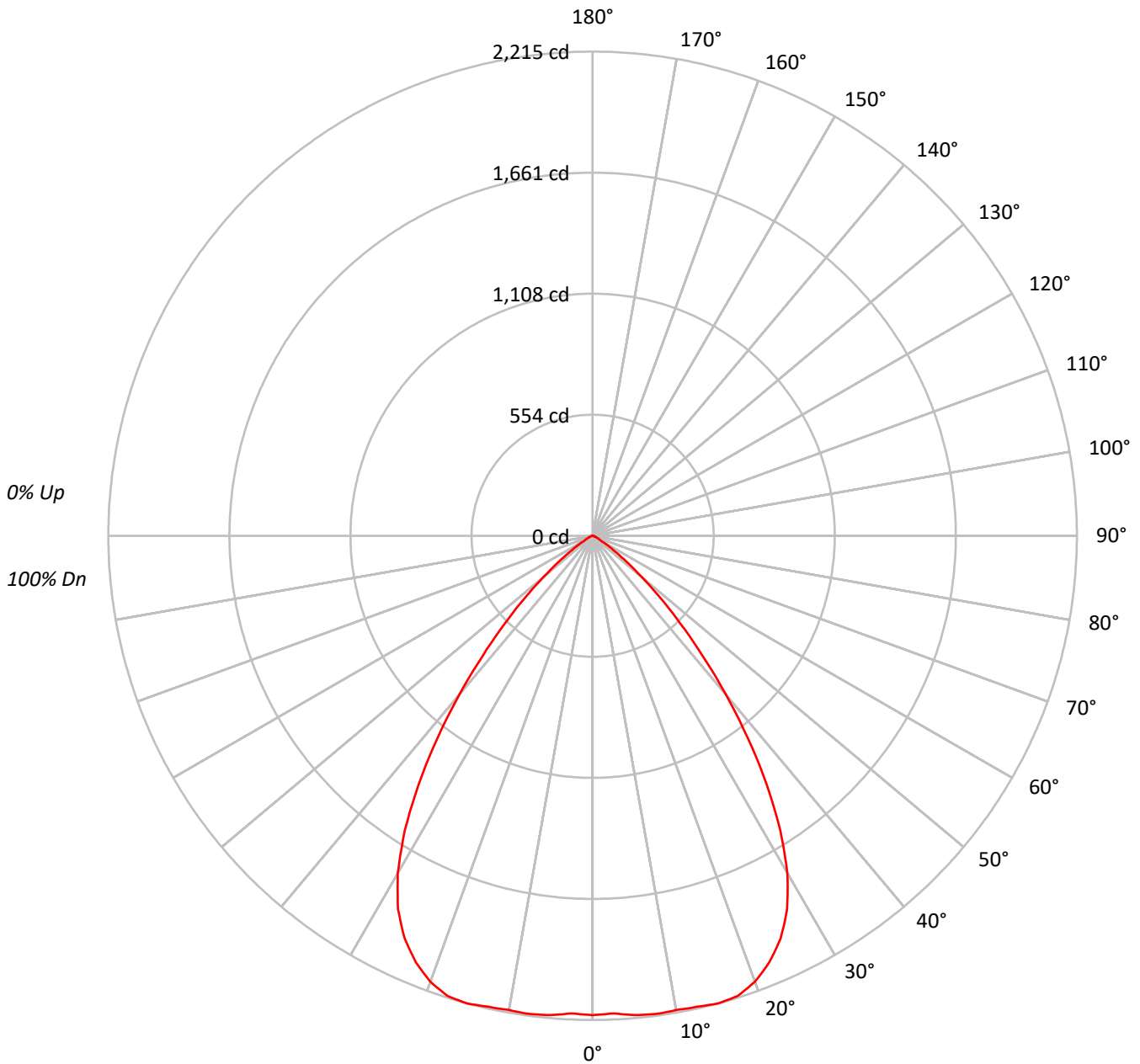
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 104 | 110 | 108 | 105 | 103 | 103 | 101 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 | 92 | 92 | 92 |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 88 | 86 | 84 | 84 | 84 | 84 |
| 3 | 100 | 93 | 87 | 82 | 98 | 91 | 86 | 82 | 88 | 84 | 80 | 86 | 82 | 79 | 84 | 81 | 78 | 76 | 76 | 76 | 76 |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 75 | 72 | 78 | 74 | 71 | 69 | 69 | 69 | 69 |
| 5 | 88 | 79 | 72 | 67 | 86 | 78 | 72 | 67 | 76 | 70 | 66 | 74 | 69 | 66 | 72 | 68 | 65 | 63 | 63 | 63 | 63 |
| 6 | 83 | 73 | 66 | 61 | 81 | 72 | 66 | 61 | 70 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 58 | 58 | 58 | 58 |
| 7 | 78 | 68 | 61 | 56 | 77 | 67 | 60 | 56 | 65 | 60 | 55 | 64 | 59 | 55 | 63 | 58 | 55 | 53 | 53 | 53 | 53 |
| 8 | 74 | 63 | 56 | 51 | 72 | 62 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 49 | 49 | 49 | 49 |
| 9 | 69 | 59 | 52 | 47 | 68 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 | 45 | 45 | 45 |
| 10 | 66 | 55 | 48 | 44 | 65 | 54 | 48 | 44 | 53 | 48 | 44 | 53 | 47 | 44 | 52 | 47 | 43 | 42 | 42 | 42 | 42 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 270497 |
| 5° | 272533 |
| 10° | 275947 |
| 15° | 282874 |
| 20° | 284956 |
| 25° | 276794 |
| 30° | 253791 |
| 35° | 208820 |
| 40° | 152225 |
| 45° | 98801 |
| 50° | 55687 |
| 55° | 26451 |
| 60° | 10460 |
| 65° | 6450 |
| 70° | 4364 |
| 75° | 2907 |
| 80° | 1421 |
| 85° | 2830 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 210.2 | 6.5 |
| 10°-20° | 624.5 | 19.4 |
| 20°-30° | 926.3 | 28.8 |
| 30°-40° | 855.6 | 26.6 |
| 40°-50° | 446.7 | 13.9 |
| 50°-60° | 122.5 | 3.8 |
| 60°-70° | 23.5 | 0.7 |
| 70°-80° | 6.6 | 0.2 |
| 80°-90° | 1.4 | 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° | 1761.0 | 54.7 |
| 0°-40° | 2616.6 | 81.3 |
| 0°-60° | 3185.8 | 99.0 |
| 0°-90° | 3217.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3217.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2193 | |
| 5° | 2201 | 210 |
| 15° | 2215 | 625 |
| 25° | 2034 | 926 |
| 35° | 1387 | 856 |
| 45° | 566 | 447 |
| 55° | 123 | 122 |
| 65° | 22 | 24 |
| 75° | 6 | 7 |
| 85° | 2 | 1 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2193.0 |
| 2.5° | 2187.0 |
| 5° | 2201.1 |
| 7.5° | 2207.2 |
| 10° | 2203.2 |
| 12.5° | 2207.2 |
| 15° | 2215.2 |
| 17.5° | 2207.2 |
| 20° | 2170.9 |
| 22.5° | 2112.4 |
| 25° | 2033.8 |
| 27.5° | 1927.0 |
| 30° | 1781.9 |
| 32.5° | 1598.4 |
| 35° | 1386.8 |
| 37.5° | 1165.0 |
| 40° | 945.4 |
| 42.5° | 743.8 |
| 45° | 566.4 |
| 47.5° | 415.2 |
| 50° | 290.2 |
| 52.5° | 193.6 |
| 55° | 123.0 |
| 57.5° | 72.6 |
| 60° | 42.4 |
| 62.5° | 30.2 |
| 65° | 22.1 |
| 67.5° | 16.1 |
| 70° | 12.1 |
| 72.5° | 8.1 |
| 75° | 6.1 |
| 77.5° | 4.0 |
| 80° | 2.0 |
| 82.5° | 2.0 |
| 85° | 2.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)