

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: P592532

Luminaire Tested: **HC405D010-HM40525850-41MDH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592532
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525850-41MDH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 677.1 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.91
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

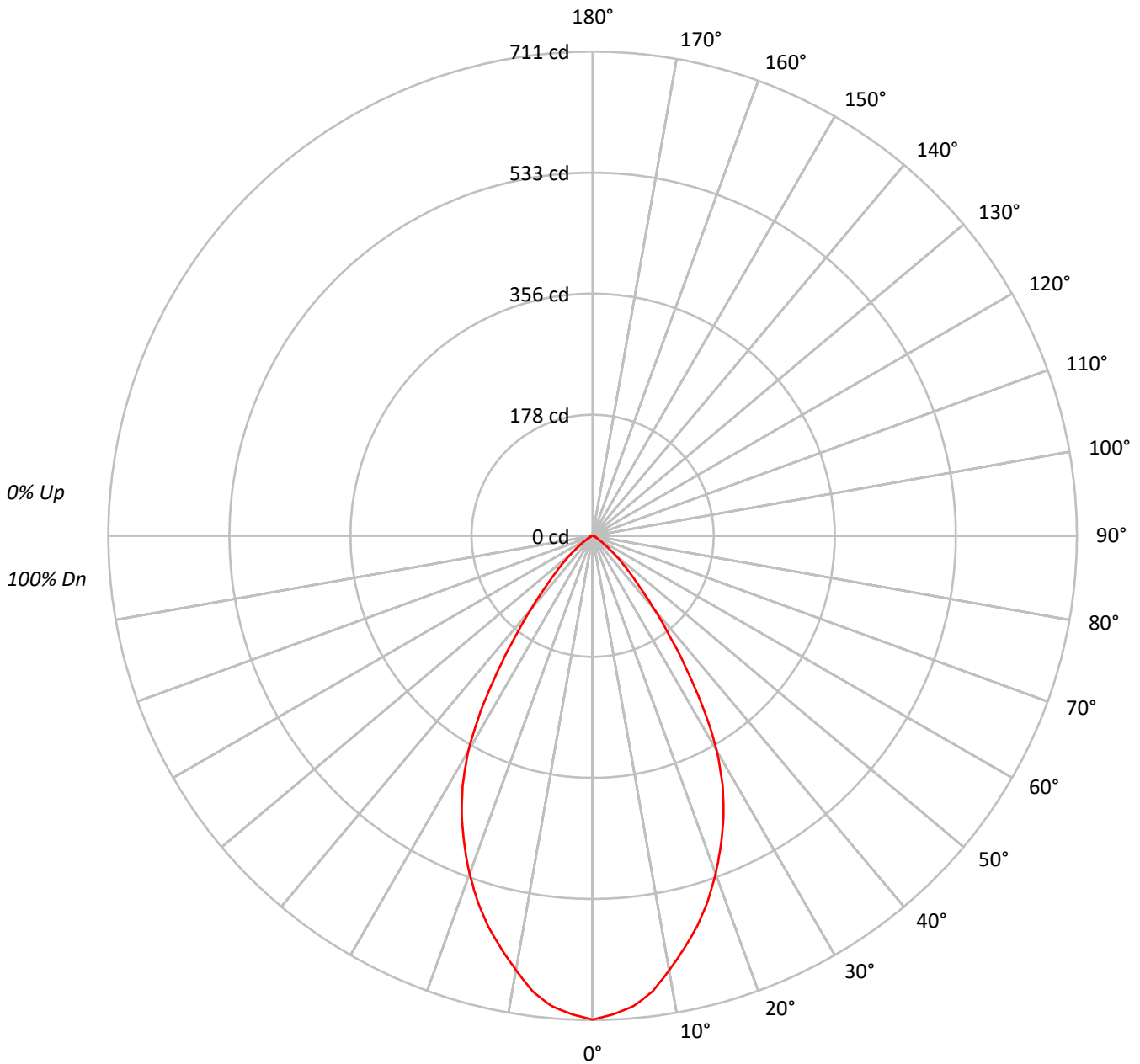
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 62 | 62 | 62 | 62 |
| 7 | 81 | 71 | 65 | 61 | 80 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 | 58 | 58 | 58 |
| 8 | 77 | 67 | 61 | 56 | 76 | 66 | 60 | 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 | 47 | 47 | 47 | 47 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 87649 |
| 5° | 85817 |
| 10° | 81098 |
| 15° | 75750 |
| 20° | 69280 |
| 25° | 61870 |
| 30° | 51957 |
| 35° | 36545 |
| 40° | 22558 |
| 45° | 13501 |
| 50° | 7944 |
| 55° | 3957 |
| 60° | 2048 |
| 65° | 1372 |
| 70° | 829 |
| 75° | 667 |
| 80° | 355 |
| 85° | 708 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 64.7 | 9.6 |
| 10°-20° | 165.8 | 24.5 |
| 20°-30° | 206.8 | 30.5 |
| 30°-40° | 152.3 | 22.5 |
| 40°-50° | 62.6 | 9.3 |
| 50°-60° | 18.3 | 2.7 |
| 60°-70° | 4.7 | 0.7 |
| 70°-80° | 1.4 | 0.2 |
| 80°-90° | 0.3 | 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° | 437.3 | 64.6 |
| 0°-40° | 589.6 | 87.1 |
| 0°-60° | 670.6 | 99.0 |
| 0°-90° | 677.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 677.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 711 | |
| 5° | 693 | 65 |
| 15° | 593 | 166 |
| 25° | 455 | 207 |
| 35° | 243 | 152 |
| 45° | 77 | 63 |
| 55° | 18 | 18 |
| 65° | 5 | 5 |
| 75° | 1 | 1 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|-------|
| 0° | 710.6 |
| 2.5° | 703.2 |
| 5° | 693.1 |
| 7.5° | 674.6 |
| 10° | 647.5 |
| 12.5° | 620.8 |
| 15° | 593.2 |
| 17.5° | 562.3 |
| 20° | 527.8 |
| 22.5° | 491.9 |
| 25° | 454.6 |
| 27.5° | 413.1 |
| 30° | 364.8 |
| 32.5° | 306.2 |
| 35° | 242.7 |
| 37.5° | 186.5 |
| 40° | 140.1 |
| 42.5° | 103.6 |
| 45° | 77.4 |
| 47.5° | 57.1 |
| 50° | 41.4 |
| 52.5° | 28.6 |
| 55° | 18.4 |
| 57.5° | 11.0 |
| 60° | 8.3 |
| 62.5° | 6.0 |
| 65° | 4.7 |
| 67.5° | 3.2 |
| 70° | 2.3 |
| 72.5° | 1.8 |
| 75° | 1.4 |
| 77.5° | 0.9 |
| 80° | 0.5 |
| 82.5° | 0.5 |
| 85° | 0.5 |
| 87.5° | 0.0 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)