

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: P584969

Luminaire Tested: **HC855D010-HM82555840-81NDC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584969
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC855D010-HM82555840-81NDC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6045.1 lumens
Efficiency: N/A
Efficacy: 116.3 lumens/watt
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.27
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

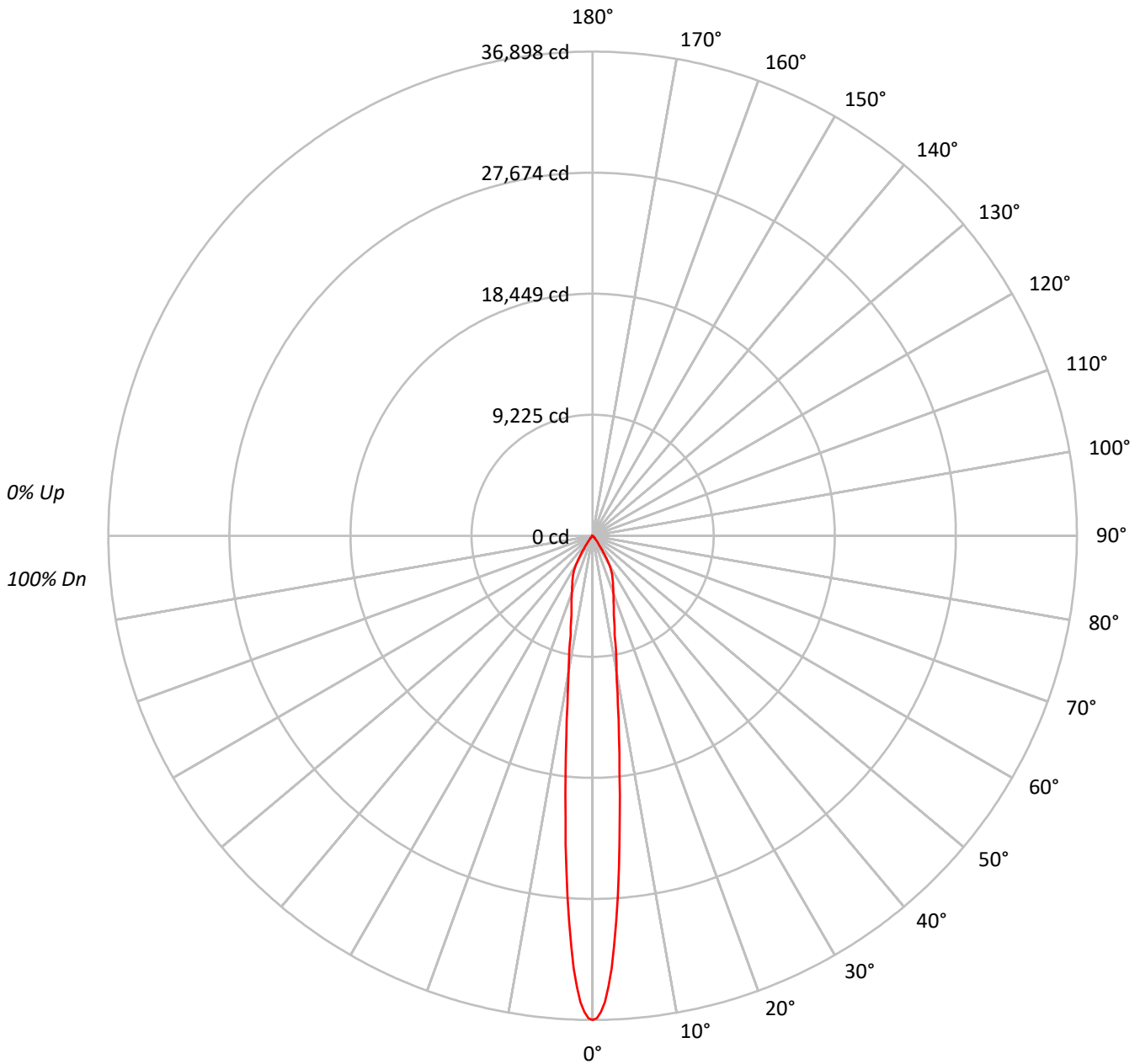
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 96 | 96 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 99 | 101 | 99 | 97 | 98 | 96 | 95 | 96 | 94 | 93 | 91 | 91 | 91 | 91 |
| 3 | 106 | 101 | 97 | 93 | 104 | 99 | 96 | 93 | 97 | 94 | 91 | 95 | 92 | 90 | 92 | 90 | 89 | 87 | 87 | 87 | 87 |
| 4 | 102 | 96 | 91 | 88 | 100 | 95 | 91 | 88 | 93 | 89 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 | 83 | 83 | 83 |
| 5 | 98 | 92 | 87 | 83 | 97 | 91 | 86 | 83 | 89 | 85 | 82 | 87 | 84 | 82 | 86 | 83 | 81 | 80 | 80 | 80 | 80 |
| 6 | 95 | 88 | 83 | 79 | 93 | 87 | 82 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 78 | 76 | 76 | 76 | 76 |
| 7 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 75 | 81 | 78 | 75 | 80 | 77 | 75 | 73 | 73 | 73 | 73 |
| 8 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 75 | 72 | 77 | 74 | 72 | 71 | 71 | 71 | 71 |
| 9 | 85 | 78 | 73 | 70 | 84 | 77 | 73 | 70 | 76 | 72 | 70 | 76 | 72 | 69 | 75 | 72 | 69 | 68 | 68 | 68 | 68 |
| 10 | 83 | 75 | 70 | 67 | 82 | 75 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 67 | 73 | 69 | 67 | 66 | 66 | 66 | 66 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 1137789 |
| 5° | 729802 |
| 10° | 329678 |
| 15° | 198922 |
| 20° | 151584 |
| 25° | 122412 |
| 30° | 89700 |
| 35° | 32479 |
| 40° | 12124 |
| 45° | 5503 |
| 50° | 1761 |
| 55° | 435 |
| 60° | 253 |
| 65° | 299 |
| 70° | 0 |
| 75° | 0 |
| 80° | 728 |
| 85° | 1451 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 1798.2 | 29.7 |
| 10°-20° | 1826.4 | 30.2 |
| 20°-30° | 1635.0 | 27.0 |
| 30°-40° | 658.6 | 10.9 |
| 40°-50° | 108.0 | 1.8 |
| 50°-60° | 9.8 | 0.2 |
| 60°-70° | 3.5 | 0.1 |
| 70°-80° | 2.7 | 0.0 |
| 80°-90° | 3.9 | 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° | 5259.6 | 87.0 |
| 0°-40° | 5918.1 | 97.9 |
| 0°-60° | 6036.0 | 99.8 |
| 0°-90° | 6046.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6045.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 36898 | |
| 5° | 23577 | ### |
| 15° | 6231 | 1826 |
| 25° | 3598 | 1635 |
| 35° | 863 | 659 |
| 45° | 126 | 108 |
| 55° | 8 | 10 |
| 65° | 4 | 4 |
| 75° | 0 | 3 |
| 85° | 4 | 4 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 36897.7 |
| 0.5° | 36783.7 |
| 1° | 36307.5 |
| 1.5° | 35542.4 |
| 2° | 34382.5 |
| 2.5° | 33010.9 |
| 3° | 31293.5 |
| 3.5° | 29409.1 |
| 4° | 27545.0 |
| 4.5° | 25457.2 |
| 5° | 23576.9 |
| 5.5° | 21529.8 |
| 6° | 19869.3 |
| 6.5° | 18139.5 |
| 7° | 16780.2 |
| 7.5° | 15343.5 |
| 8° | 14187.6 |
| 8.5° | 13027.7 |
| 9° | 12156.8 |
| 9.5° | 11196.2 |
| 10° | 10528.8 |
| 12.5° | 7765.3 |
| 15° | 6231.1 |
| 17.5° | 5323.5 |
| 20° | 4619.3 |
| 22.5° | 4057.7 |
| 25° | 3597.8 |
| 27.5° | 3137.9 |
| 30° | 2519.2 |
| 32.5° | 1619.8 |
| 35° | 862.8 |
| 37.5° | 476.2 |
| 40° | 301.2 |
| 42.5° | 199.5 |
| 45° | 126.2 |
| 47.5° | 77.4 |
| 50° | 36.7 |
| 52.5° | 12.2 |
| 55° | 8.1 |
| 57.5° | 4.1 |
| 60° | 4.1 |
| 62.5° | 4.1 |
| 65° | 4.1 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|-------|-----|
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 4.1 |
| 80° | 4.1 |
| 82.5° | 4.1 |
| 85° | 4.1 |
| 87.5° | 4.1 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







| | | |
|-------|--|-----|
| 67.5° | | 4.1 |
| 70° | | 0.0 |



(END OF REPORT)