

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: P593588

Luminaire Tested: **HC820D010-HM80520850-81WDH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593588
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-8)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC820D010-HM80520850-81WDH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2574.9 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.06
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

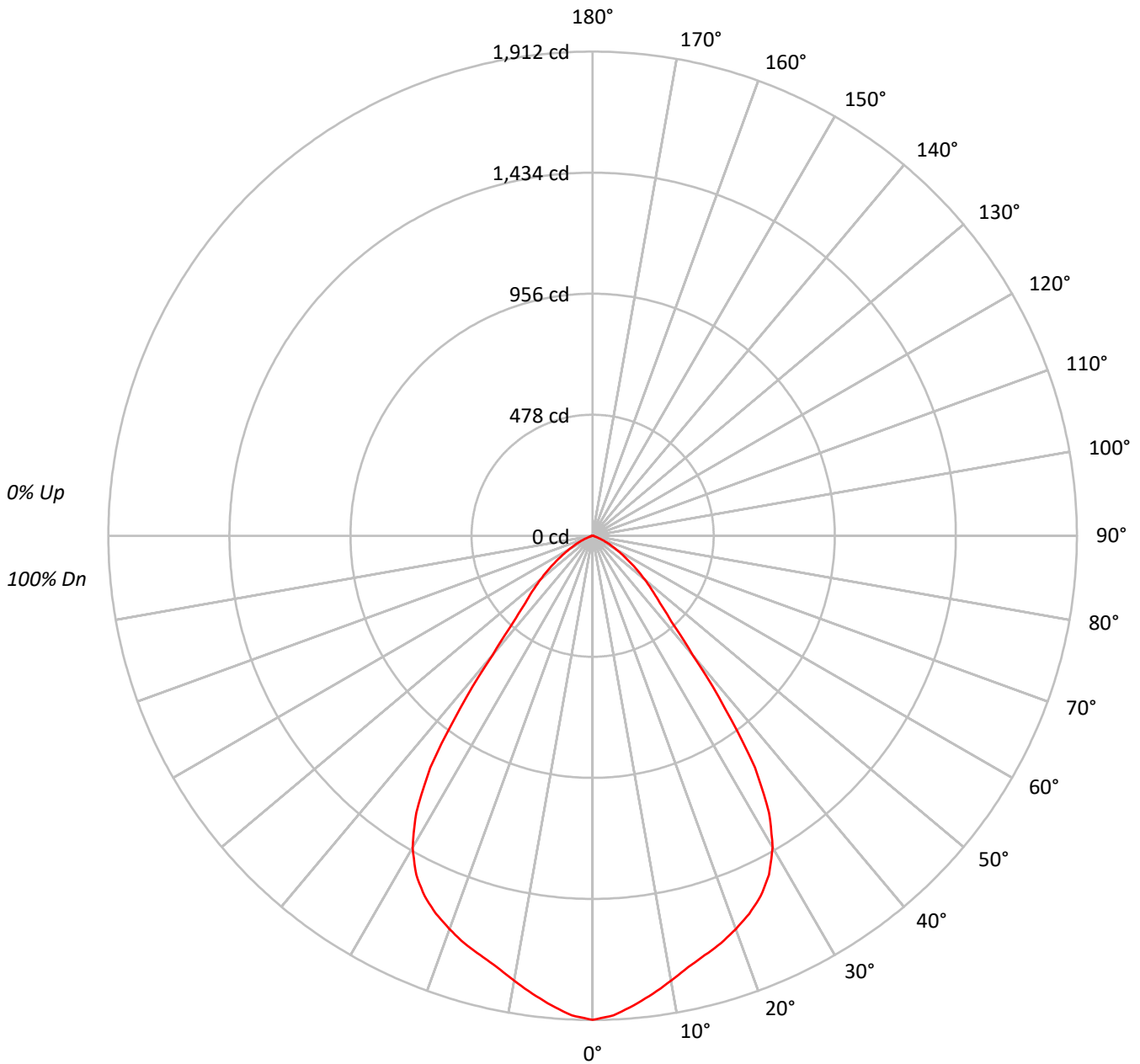
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | |
| 1 | 113 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 95 | 93 | 92 | | | |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 | | | |
| 3 | 99 | 92 | 86 | 81 | 97 | 90 | 85 | 81 | 88 | 83 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 75 | | | |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 76 | 72 | 79 | 74 | 71 | 77 | 73 | 70 | 68 | | | |
| 5 | 87 | 78 | 71 | 66 | 86 | 77 | 70 | 66 | 75 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 62 | | | |
| 6 | 82 | 72 | 65 | 60 | 80 | 71 | 64 | 60 | 69 | 64 | 59 | 68 | 63 | 59 | 66 | 62 | 58 | 57 | | | |
| 7 | 77 | 67 | 60 | 55 | 76 | 66 | 59 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 52 | | | |
| 8 | 73 | 62 | 55 | 50 | 71 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 54 | 50 | 58 | 53 | 49 | 48 | | | |
| 9 | 69 | 58 | 51 | 46 | 67 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 46 | 44 | | | |
| 10 | 65 | 54 | 47 | 43 | 64 | 53 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 43 | 51 | 46 | 42 | 41 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 58947 |
| 5° | 57618 |
| 10° | 55854 |
| 15° | 54721 |
| 20° | 54234 |
| 25° | 53421 |
| 30° | 50601 |
| 35° | 42045 |
| 40° | 24760 |
| 45° | 16375 |
| 50° | 12890 |
| 55° | 9489 |
| 60° | 6593 |
| 65° | 4020 |
| 70° | 1749 |
| 75° | 774 |
| 80° | 568 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 175.3 | 6.8 |
| 10°-20° | 484.6 | 18.8 |
| 20°-30° | 718.0 | 27.9 |
| 30°-40° | 663.5 | 25.8 |
| 40°-50° | 305.9 | 11.9 |
| 50°-60° | 160.9 | 6.2 |
| 60°-70° | 56.9 | 2.2 |
| 70°-80° | 8.9 | 0.3 |
| 80°-90° | 0.9 | 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° | 1377.9 | 53.5 |
| 0°-40° | 2041.3 | 79.3 |
| 0°-60° | 2508.2 | 97.4 |
| 0°-90° | 2574.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2574.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1912 | |
| 5° | 1861 | 175 |
| 15° | 1714 | 485 |
| 25° | 1570 | 718 |
| 35° | 1117 | 663 |
| 45° | 376 | 306 |
| 55° | 176 | 161 |
| 65° | 55 | 57 |
| 75° | 6 | 9 |
| 85° | 0 | 1 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 1911.6 |
| 2.5° | 1895.5 |
| 5° | 1861.4 |
| 7.5° | 1824.2 |
| 10° | 1783.8 |
| 12.5° | 1744.9 |
| 15° | 1714.1 |
| 17.5° | 1686.6 |
| 20° | 1652.7 |
| 22.5° | 1615.4 |
| 25° | 1570.1 |
| 27.5° | 1508.6 |
| 30° | 1421.1 |
| 32.5° | 1296.5 |
| 35° | 1116.9 |
| 37.5° | 857.9 |
| 40° | 615.1 |
| 42.5° | 461.3 |
| 45° | 375.5 |
| 47.5° | 318.9 |
| 50° | 268.7 |
| 52.5° | 220.1 |
| 55° | 176.5 |
| 57.5° | 139.2 |
| 60° | 106.9 |
| 62.5° | 81.0 |
| 65° | 55.1 |
| 67.5° | 32.4 |
| 70° | 19.4 |
| 72.5° | 11.3 |
| 75° | 6.5 |
| 77.5° | 4.8 |
| 80° | 3.2 |
| 82.5° | 1.7 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°







(END OF REPORT)