

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: P585078

Luminaire Tested: **HC860D010-HM86080830-81WDC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P585078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC860D010-HM86080830-81WDC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5815.1 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.05
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

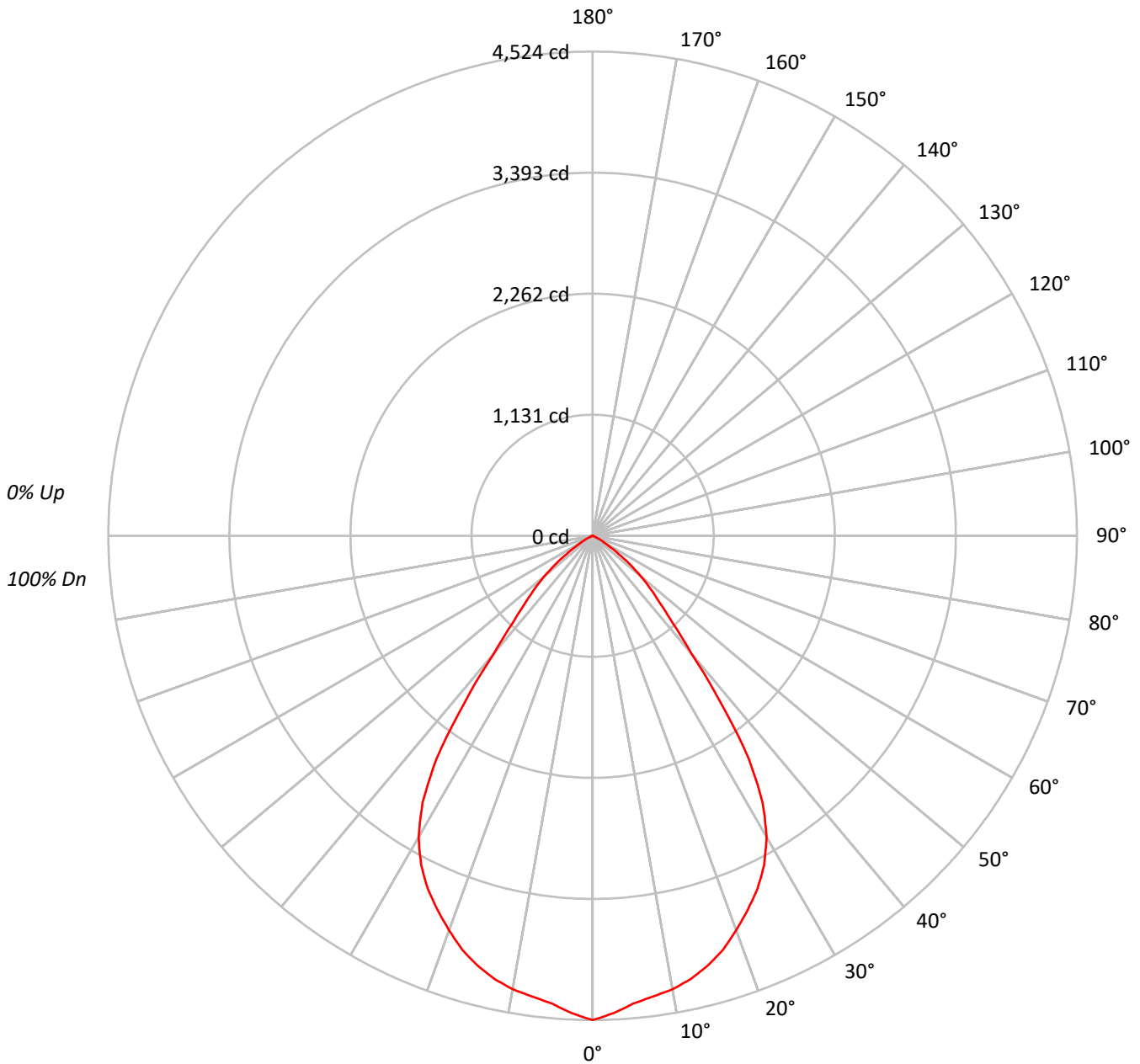
Input Watts (W): 56
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 | 92 | 92 | 92 |
| 2 | 106 | 101 | 96 | 93 | 104 | 99 | 95 | 92 | 96 | 92 | 90 | 93 | 90 | 88 | 90 | 88 | 86 | 84 | 84 | 84 | 84 |
| 3 | 100 | 93 | 87 | 83 | 98 | 91 | 86 | 82 | 89 | 84 | 81 | 86 | 83 | 79 | 84 | 81 | 78 | 77 | 77 | 77 | 77 |
| 4 | 94 | 86 | 79 | 75 | 92 | 84 | 79 | 74 | 82 | 77 | 73 | 80 | 76 | 72 | 78 | 75 | 71 | 70 | 70 | 70 | 70 |
| 5 | 88 | 79 | 72 | 68 | 87 | 78 | 72 | 67 | 76 | 71 | 67 | 74 | 70 | 66 | 73 | 69 | 65 | 64 | 64 | 64 | 64 |
| 6 | 83 | 73 | 66 | 62 | 82 | 72 | 66 | 61 | 71 | 65 | 61 | 69 | 64 | 61 | 68 | 64 | 60 | 59 | 59 | 59 | 59 |
| 7 | 78 | 68 | 61 | 57 | 77 | 67 | 61 | 56 | 66 | 60 | 56 | 65 | 60 | 56 | 63 | 59 | 55 | 54 | 54 | 54 | 54 |
| 8 | 74 | 63 | 57 | 52 | 73 | 63 | 56 | 52 | 62 | 56 | 52 | 60 | 55 | 51 | 59 | 55 | 51 | 50 | 50 | 50 | 50 |
| 9 | 70 | 59 | 53 | 48 | 69 | 59 | 52 | 48 | 58 | 52 | 48 | 57 | 51 | 48 | 56 | 51 | 47 | 46 | 46 | 46 | 46 |
| 10 | 66 | 55 | 49 | 45 | 65 | 55 | 49 | 45 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 48 | 44 | 43 | 43 | 43 | 43 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 139513 |
| 5° | 135762 |
| 10° | 134732 |
| 15° | 132721 |
| 20° | 128702 |
| 25° | 123902 |
| 30° | 115740 |
| 35° | 95778 |
| 40° | 57829 |
| 45° | 38947 |
| 50° | 28064 |
| 55° | 16005 |
| 60° | 7043 |
| 65° | 2525 |
| 70° | 938 |
| 75° | 417 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 416.7 | 7.2 |
| 10°-20° | 1168.4 | 20.1 |
| 20°-30° | 1666.7 | 28.7 |
| 30°-40° | 1517.7 | 26.1 |
| 40°-50° | 716.0 | 12.3 |
| 50°-60° | 281.6 | 4.8 |
| 60°-70° | 44.8 | 0.8 |
| 70°-80° | 3.2 | 0.1 |
| 80°-90° | 0.0 | 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° | 3251.8 | 55.9 |
| 0°-40° | 4769.5 | 82.0 |
| 0°-60° | 5767.0 | 99.2 |
| 0°-90° | 5815.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5815.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 4524 | |
| 5° | 4386 | 417 |
| 15° | 4157 | 1168 |
| 25° | 3642 | 1667 |
| 35° | 2544 | 1518 |
| 45° | 893 | 716 |
| 55° | 298 | 282 |
| 65° | 35 | 45 |
| 75° | 4 | 3 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 4524.3 |
| 2.5° | 4465.5 |
| 5° | 4385.9 |
| 7.5° | 4340.9 |
| 10° | 4302.9 |
| 12.5° | 4240.5 |
| 15° | 4157.4 |
| 17.5° | 4053.6 |
| 20° | 3922.0 |
| 22.5° | 3783.6 |
| 25° | 3641.6 |
| 27.5° | 3468.6 |
| 30° | 3250.5 |
| 32.5° | 2956.3 |
| 35° | 2544.3 |
| 37.5° | 1966.2 |
| 40° | 1436.6 |
| 42.5° | 1104.3 |
| 45° | 893.1 |
| 47.5° | 733.9 |
| 50° | 585.0 |
| 52.5° | 439.7 |
| 55° | 297.7 |
| 57.5° | 187.0 |
| 60° | 114.2 |
| 62.5° | 69.2 |
| 65° | 34.6 |
| 67.5° | 17.3 |
| 70° | 10.4 |
| 72.5° | 3.5 |
| 75° | 3.5 |
| 77.5° | 0.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)