

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: P581953

Luminaire Tested: **HC620D010-HM60525935-61RWWC**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P581953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC620D010-HM60525935-61RWWC
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1935.7 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

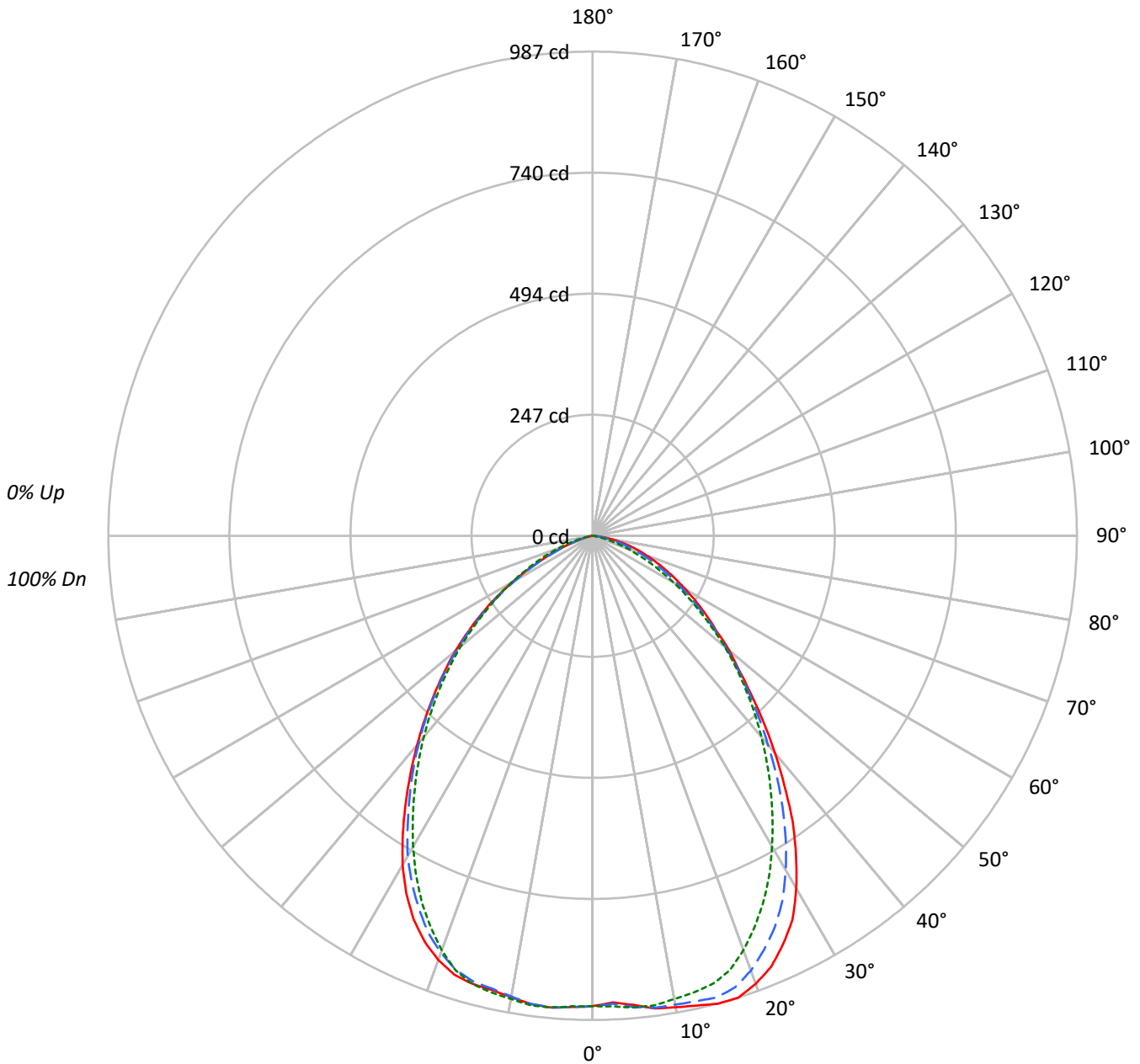
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 90 | 88 | | | | | | | | | | | | | | | | | | | |
| 2 | 103 | 96 | 90 | 86 | 100 | 94 | 89 | 85 | 91 | 86 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 77 | | | | | | | | | | | | | | | | | | | |
| 3 | 95 | 86 | 79 | 74 | 93 | 85 | 78 | 73 | 82 | 76 | 72 | 79 | 75 | 71 | 77 | 73 | 69 | 68 | | | | | | | | | | | | | | | | | | | |
| 4 | 88 | 78 | 70 | 64 | 86 | 76 | 69 | 64 | 74 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 60 | | | | | | | | | | | | | | | | | | | |
| 5 | 82 | 70 | 62 | 57 | 80 | 69 | 62 | 56 | 67 | 61 | 56 | 65 | 60 | 55 | 64 | 59 | 55 | 53 | | | | | | | | | | | | | | | | | | | |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 62 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 47 | | | | | | | | | | | | | | | | | | | |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 50 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 48 | 44 | 42 | | | | | | | | | | | | | | | | | | | |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | | | | | | | | | | | | | | | |
| 9 | 62 | 50 | 42 | 37 | 61 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 46 | 41 | 37 | 35 | | | | | | | | | | | | | | | | | | | |
| 10 | 59 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 43 | 38 | 34 | 32 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 52567 | 52567 | 52567 |
| 5° | 52834 | 53120 | 53120 |
| 10° | 54313 | 53378 | 53155 |
| 15° | 56039 | 53678 | 53678 |
| 20° | 56693 | 52446 | 53665 |
| 25° | 55558 | 49823 | 52182 |
| 30° | 52546 | 46305 | 49014 |
| 35° | 47556 | 42342 | 44430 |
| 40° | 41378 | 38300 | 39796 |
| 45° | 35353 | 34143 | 35353 |
| 50° | 31027 | 29918 | 31138 |
| 55° | 27067 | 25213 | 26207 |
| 60° | 23924 | 20941 | 20656 |
| 65° | 21234 | 16513 | 14152 |
| 70° | 18737 | 11653 | 8543 |
| 75° | 15949 | 6608 | 4130 |
| 80° | 11902 | 2052 | 1231 |
| 85° | 6542 | 755 | 755 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 92.0 | 4.8 |
| 10°-20° | 269.1 | 13.9 |
| 20°-30° | 393.0 | 20.3 |
| 30°-40° | 412.2 | 21.3 |
| 40°-50° | 347.2 | 17.9 |
| 50°-60° | 243.3 | 12.6 |
| 60°-70° | 130.4 | 6.7 |
| 70°-80° | 43.7 | 2.3 |
| 80°-90° | 4.7 | 0.2 |
| 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° | 754.1 | 39.0 |
| 0°-40° | 1166.2 | 60.2 |
| 0°-60° | 1756.8 | 90.8 |
| 0°-90° | 1935.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1935.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 959 | 959 | 959 | 959 | 959 | |
| 5° | 960 | 964 | 965 | 965 | 965 | 92 |
| 15° | 987 | 974 | 946 | 941 | 946 | 279 |
| 25° | 918 | 880 | 824 | 838 | 863 | 421 |
| 35° | 711 | 674 | 633 | 651 | 664 | 441 |
| 45° | 456 | 448 | 440 | 452 | 456 | 355 |
| 55° | 283 | 274 | 264 | 269 | 274 | 255 |
| 65° | 164 | 149 | 127 | 105 | 109 | 163 |
| 75° | 75 | 58 | 31 | 20 | 20 | 80 |
| 85° | 10 | 5 | 1 | 1 | 1 | 14 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P581953

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0° | 958.9 | 958.9 | 958.9 | 958.9 | 958.9 | 958.9 | 958.9 | 958.9 | 958.9 |
| 2.5° | 952.3 | 952.3 | 954.9 | 957.5 | 960.1 | 960.1 | 961.4 | 962.7 | 961.4 |
| 5° | 960.1 | 960.1 | 964.0 | 965.3 | 965.3 | 964.0 | 965.3 | 965.3 | 965.3 |
| 7.5° | 971.8 | 969.2 | 970.5 | 967.9 | 965.3 | 964.0 | 962.7 | 962.7 | 962.7 |
| 10° | 975.7 | 973.1 | 970.5 | 965.3 | 958.9 | 954.9 | 953.6 | 954.9 | 954.9 |
| 12.5° | 980.8 | 978.3 | 971.8 | 961.4 | 953.6 | 947.1 | 945.8 | 948.4 | 948.4 |
| 15° | 987.4 | 984.8 | 974.4 | 957.5 | 945.8 | 939.4 | 940.6 | 943.2 | 945.8 |
| 17.5° | 987.4 | 982.2 | 965.3 | 943.2 | 928.9 | 922.4 | 927.6 | 934.2 | 938.0 |
| 20° | 971.8 | 966.6 | 943.2 | 915.9 | 899.0 | 895.2 | 904.2 | 915.9 | 919.9 |
| 22.5° | 951.0 | 940.6 | 913.3 | 880.9 | 862.7 | 862.7 | 875.7 | 890.0 | 895.2 |
| 25° | 918.5 | 910.7 | 879.5 | 841.9 | 823.7 | 822.4 | 838.0 | 857.5 | 862.7 |
| 27.5° | 882.2 | 871.7 | 838.0 | 799.0 | 779.5 | 780.9 | 797.7 | 817.2 | 822.4 |
| 30° | 830.1 | 817.2 | 787.3 | 749.6 | 731.5 | 736.7 | 753.6 | 767.8 | 774.3 |
| 32.5° | 771.7 | 760.0 | 732.7 | 697.7 | 682.1 | 687.3 | 701.6 | 714.6 | 719.8 |
| 35° | 710.6 | 697.7 | 674.2 | 643.1 | 632.7 | 637.9 | 650.9 | 661.3 | 663.9 |
| 37.5° | 641.8 | 632.7 | 615.8 | 591.1 | 583.4 | 589.8 | 600.3 | 606.7 | 609.3 |
| 40° | 578.2 | 570.4 | 556.1 | 537.8 | 535.2 | 540.4 | 550.9 | 554.7 | 556.1 |
| 42.5° | 515.7 | 509.3 | 500.2 | 487.2 | 487.2 | 492.4 | 501.5 | 504.1 | 505.4 |
| 45° | 456.0 | 452.1 | 448.2 | 437.8 | 440.4 | 447.0 | 452.1 | 456.0 | 456.0 |
| 47.5° | 404.0 | 405.4 | 400.2 | 392.4 | 395.0 | 401.4 | 405.4 | 409.2 | 409.2 |
| 50° | 363.8 | 359.8 | 354.6 | 346.9 | 350.8 | 356.0 | 361.2 | 363.8 | 365.1 |
| 52.5° | 317.0 | 315.7 | 311.8 | 302.7 | 305.3 | 307.9 | 313.2 | 317.0 | 318.3 |
| 55° | 283.2 | 279.3 | 274.2 | 263.8 | 263.8 | 266.4 | 269.0 | 271.6 | 274.2 |
| 57.5° | 250.7 | 246.9 | 239.1 | 227.4 | 226.0 | 226.0 | 224.8 | 227.4 | 231.2 |
| 60° | 218.2 | 217.0 | 205.3 | 194.9 | 191.0 | 187.1 | 181.8 | 183.2 | 188.4 |
| 62.5° | 189.7 | 187.1 | 176.6 | 163.7 | 155.9 | 149.4 | 142.9 | 141.6 | 146.8 |
| 65° | 163.7 | 161.1 | 149.4 | 136.4 | 127.3 | 115.7 | 105.3 | 105.3 | 109.1 |
| 67.5° | 140.3 | 135.2 | 124.7 | 110.5 | 98.7 | 84.4 | 74.1 | 76.7 | 78.0 |
| 70° | 116.9 | 113.1 | 101.3 | 87.0 | 72.7 | 58.5 | 52.0 | 53.3 | 53.3 |
| 72.5° | 96.2 | 91.0 | 79.2 | 64.9 | 50.6 | 37.7 | 35.1 | 33.8 | 33.8 |
| 75° | 75.3 | 70.1 | 58.5 | 44.2 | 31.2 | 22.1 | 19.5 | 19.5 | 19.5 |
| 77.5° | 54.6 | 50.6 | 40.2 | 27.3 | 16.9 | 10.4 | 9.1 | 7.8 | 7.8 |
| 80° | 37.7 | 33.8 | 24.7 | 14.3 | 6.5 | 3.9 | 3.9 | 3.9 | 3.9 |
| 82.5° | 22.1 | 18.2 | 11.7 | 6.5 | 2.6 | 1.2 | 1.2 | 1.2 | 1.2 |
| 85° | 10.4 | 7.8 | 5.2 | 2.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 87.5° | 1.2 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)