

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: P581577

Luminaire Tested: **HC610D010-HM60525830-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P581577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC610D010-HM60525830-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1166.7 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

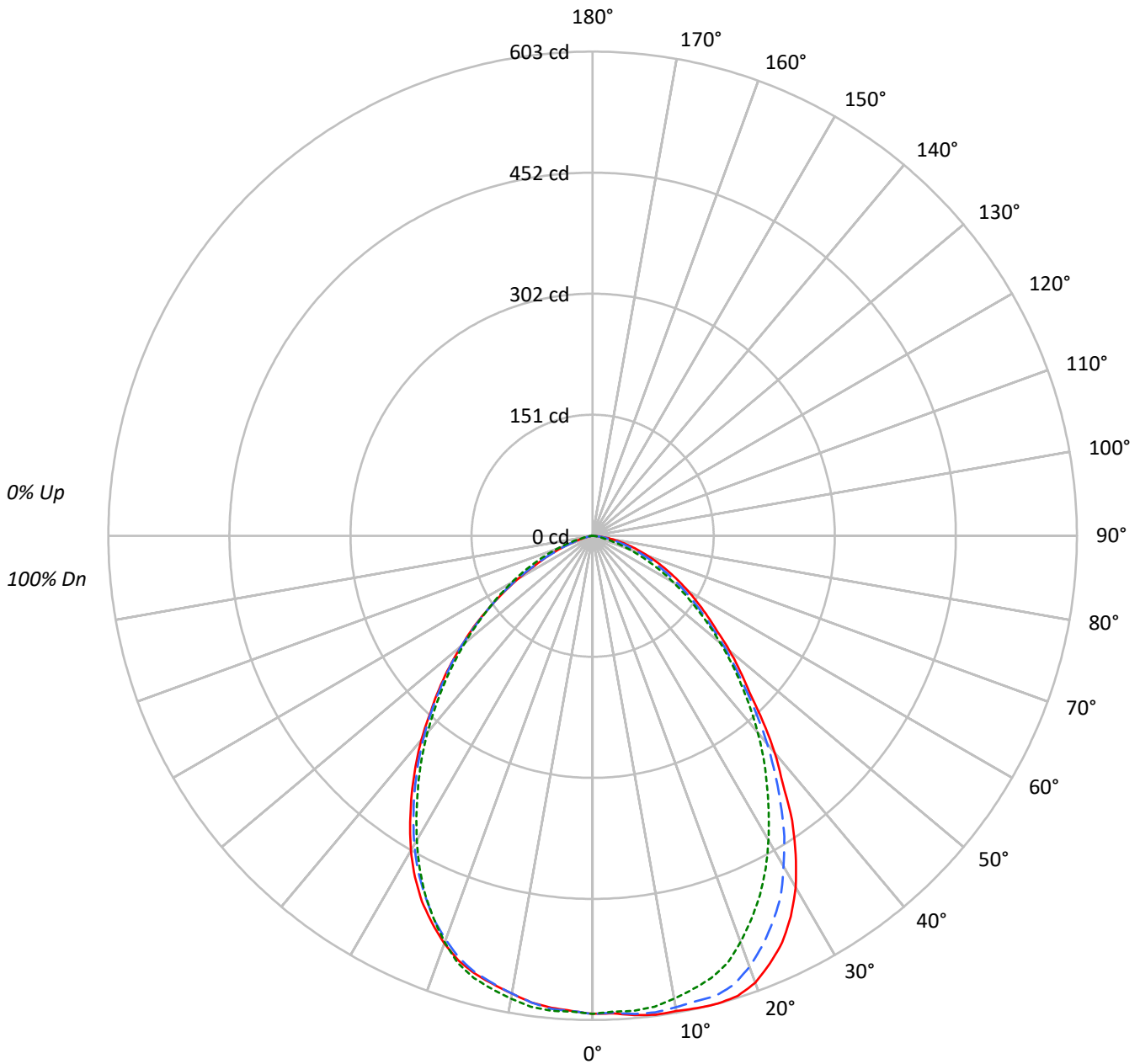
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| 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 | 93 | 92 | 90 | 88 | | | | | | | | | | | | | | | | | | | |
| 2 | 103 | 96 | 90 | 85 | 100 | 94 | 89 | 84 | 91 | 86 | 83 | 87 | 84 | 81 | 85 | 82 | 79 | 77 | | | | | | | | | | | | | | | | | | | |
| 3 | 95 | 86 | 79 | 74 | 93 | 84 | 78 | 73 | 82 | 76 | 72 | 79 | 74 | 70 | 77 | 73 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 4 | 88 | 78 | 70 | 64 | 86 | 76 | 69 | 64 | 74 | 68 | 63 | 72 | 66 | 62 | 70 | 65 | 61 | 59 | | | | | | | | | | | | | | | | | | | |
| 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 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 47 | | | | | | | | | | | | | | | | | | | |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 50 | 45 | 56 | 50 | 45 | 55 | 49 | 44 | 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° | 32640 | 32640 | 32640 |
| 5° | 32979 | 32677 | 32467 |
| 10° | 33450 | 32576 | 32231 |
| 15° | 34234 | 32372 | 32066 |
| 20° | 34554 | 31415 | 31509 |
| 25° | 33800 | 29832 | 30401 |
| 30° | 32011 | 27707 | 28650 |
| 35° | 28984 | 25324 | 26274 |
| 40° | 25240 | 22893 | 23737 |
| 45° | 21413 | 20266 | 20994 |
| 50° | 18967 | 17705 | 18166 |
| 55° | 16707 | 15139 | 15072 |
| 60° | 14966 | 12751 | 11721 |
| 65° | 13361 | 10222 | 8406 |
| 70° | 11765 | 7389 | 5257 |
| 75° | 9934 | 4469 | 2965 |
| 80° | 7640 | 1957 | 1200 |
| 85° | 4403 | 503 | 503 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.5 | 4.8 |
| 10°-20° | 162.4 | 13.9 |
| 20°-30° | 234.8 | 20.1 |
| 30°-40° | 247.1 | 21.2 |
| 40°-50° | 207.7 | 17.8 |
| 50°-60° | 145.8 | 12.5 |
| 60°-70° | 80.2 | 6.9 |
| 70°-80° | 28.5 | 2.4 |
| 80°-90° | 3.7 | 0.3 |
| 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° | 453.8 | 38.9 |
| 0°-40° | 700.8 | 60.1 |
| 0°-60° | 1054.3 | 90.4 |
| 0°-90° | 1166.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1166.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 595 | 595 | 595 | 595 | 595 | |
| 5° | 599 | 598 | 594 | 592 | 590 | 57 |
| 15° | 603 | 593 | 570 | 563 | 565 | 170 |
| 25° | 559 | 531 | 493 | 494 | 503 | 256 |
| 35° | 433 | 408 | 378 | 386 | 393 | 268 |
| 45° | 276 | 268 | 261 | 268 | 271 | 217 |
| 55° | 175 | 165 | 158 | 158 | 158 | 157 |
| 65° | 103 | 92 | 79 | 65 | 65 | 103 |
| 75° | 47 | 38 | 21 | 14 | 14 | 50 |
| 85° | 7 | 4 | 1 | 1 | 1 | 10 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P581577

CATALOG NUMBER: HC610D010-HM60525830-61RWWH

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0° | 595.4 | 595.4 | 595.4 | 595.4 | 595.4 | 595.4 | 595.4 | 595.4 | 595.4 |
| 2.5° | 595.4 | 595.4 | 594.6 | 594.6 | 593.1 | 593.1 | 592.3 | 592.3 | 592.3 |
| 5° | 599.3 | 599.3 | 597.8 | 595.4 | 593.8 | 591.6 | 591.6 | 590.8 | 590.0 |
| 7.5° | 601.7 | 600.9 | 598.6 | 595.4 | 591.6 | 587.6 | 586.0 | 586.8 | 586.0 |
| 10° | 600.9 | 599.3 | 596.2 | 590.0 | 585.2 | 579.8 | 579.0 | 578.2 | 579.0 |
| 12.5° | 602.5 | 600.1 | 593.8 | 586.0 | 578.2 | 572.0 | 571.2 | 571.2 | 572.0 |
| 15° | 603.2 | 600.9 | 593.1 | 581.4 | 570.4 | 564.2 | 563.4 | 564.2 | 565.0 |
| 17.5° | 600.9 | 597.8 | 586.0 | 570.4 | 558.0 | 551.7 | 551.7 | 553.3 | 554.8 |
| 20° | 592.3 | 587.6 | 571.2 | 552.5 | 538.5 | 533.7 | 535.3 | 538.5 | 540.1 |
| 22.5° | 576.8 | 571.2 | 552.5 | 531.5 | 516.6 | 512.7 | 516.6 | 520.5 | 522.1 |
| 25° | 558.8 | 552.5 | 530.7 | 508.8 | 493.2 | 488.6 | 494.0 | 500.2 | 502.6 |
| 27.5° | 534.5 | 527.5 | 507.2 | 482.2 | 466.6 | 464.3 | 470.6 | 477.6 | 479.2 |
| 30° | 505.7 | 497.9 | 475.2 | 451.9 | 437.7 | 437.1 | 444.1 | 450.3 | 452.6 |
| 32.5° | 470.6 | 463.6 | 444.1 | 420.7 | 408.1 | 408.1 | 415.2 | 420.7 | 422.9 |
| 35° | 433.1 | 425.3 | 408.1 | 388.6 | 378.4 | 379.2 | 386.2 | 390.2 | 392.6 |
| 37.5° | 388.6 | 386.2 | 373.0 | 356.6 | 349.6 | 351.1 | 356.6 | 359.7 | 362.1 |
| 40° | 352.7 | 346.5 | 337.9 | 324.7 | 319.9 | 321.5 | 327.0 | 330.1 | 331.7 |
| 42.5° | 313.7 | 309.8 | 302.8 | 293.4 | 290.2 | 292.6 | 297.4 | 299.6 | 298.8 |
| 45° | 276.2 | 275.5 | 268.4 | 263.0 | 261.4 | 264.5 | 267.7 | 270.0 | 270.8 |
| 47.5° | 248.9 | 245.9 | 239.5 | 235.7 | 234.1 | 237.3 | 240.3 | 241.9 | 241.9 |
| 50° | 222.4 | 219.3 | 213.0 | 209.2 | 207.6 | 210.7 | 213.0 | 214.6 | 213.0 |
| 52.5° | 195.8 | 192.8 | 187.3 | 182.6 | 181.8 | 183.4 | 184.2 | 185.0 | 186.6 |
| 55° | 174.8 | 171.7 | 165.4 | 160.0 | 158.4 | 159.2 | 158.4 | 158.4 | 157.7 |
| 57.5° | 154.5 | 151.3 | 145.1 | 138.9 | 136.5 | 135.8 | 133.5 | 132.7 | 131.9 |
| 60° | 136.5 | 132.7 | 126.4 | 119.4 | 116.3 | 113.2 | 109.2 | 106.9 | 106.9 |
| 62.5° | 119.4 | 115.5 | 108.4 | 102.2 | 97.6 | 92.0 | 85.8 | 82.7 | 82.7 |
| 65° | 103.0 | 99.8 | 92.0 | 85.0 | 78.8 | 71.8 | 64.8 | 63.2 | 64.8 |
| 67.5° | 87.4 | 84.3 | 76.5 | 69.5 | 61.7 | 53.1 | 46.9 | 46.9 | 48.3 |
| 70° | 73.4 | 70.2 | 63.2 | 54.7 | 46.1 | 37.5 | 32.8 | 32.8 | 32.8 |
| 72.5° | 60.1 | 56.9 | 49.1 | 41.3 | 32.8 | 24.2 | 21.8 | 22.6 | 21.8 |
| 75° | 46.9 | 44.5 | 37.5 | 28.9 | 21.1 | 14.8 | 14.0 | 13.2 | 14.0 |
| 77.5° | 35.1 | 32.8 | 26.5 | 18.7 | 11.7 | 8.6 | 7.8 | 7.8 | 7.8 |
| 80° | 24.2 | 21.8 | 17.2 | 11.0 | 6.2 | 3.8 | 3.8 | 3.8 | 3.8 |
| 82.5° | 14.8 | 12.5 | 9.4 | 5.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| 85° | 7.0 | 5.4 | 3.8 | 1.6 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 87.5° | 1.6 | 1.6 | 0.8 | 0.8 | 0.0 | 0.8 | 0.8 | 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)