

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: P581782

Luminaire Tested: **HC615D010-HM60525927-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P581782
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC615D010-HM60525927-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1158.9 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

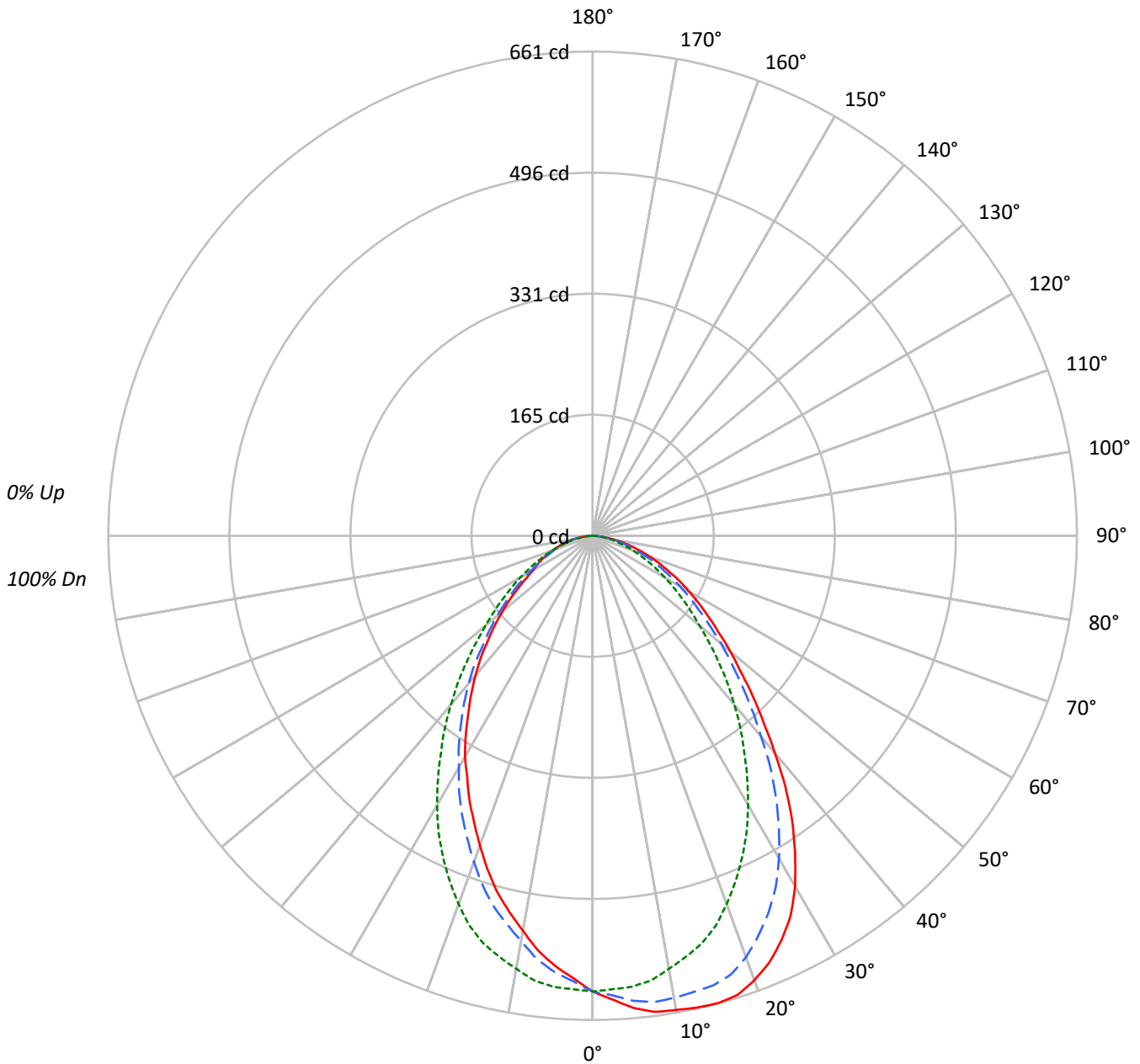
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P581782

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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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | | | | | | | | | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 83 | 80 | 78 | 76 | | | | | | | | | | | | | | | | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 71 | 80 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 | | | | | | | | | | | | | | | | | | | |
| 4 | 87 | 76 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 55 | 64 | 59 | 54 | 63 | 58 | 53 | 51 | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 43 | 42 | | | | | | | | | | | | | | | | | | | |
| 8 | 66 | 53 | 46 | 40 | 64 | 53 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 39 | 38 | | | | | | | | | | | | | | | | | | | |
| 9 | 62 | 49 | 42 | 37 | 60 | 49 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | | | | | | | | | | | | | | | |
| 10 | 58 | 46 | 39 | 34 | 57 | 45 | 38 | 34 | 44 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 32 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 34104 | 34104 | 34104 |
| 5° | 35615 | 34003 | 32434 |
| 10° | 36589 | 33416 | 30483 |
| 15° | 37492 | 32690 | 28564 |
| 20° | 37663 | 31211 | 26229 |
| 25° | 36867 | 29227 | 24056 |
| 30° | 34980 | 26871 | 22048 |
| 35° | 31775 | 24153 | 19782 |
| 40° | 27680 | 21505 | 17798 |
| 45° | 23948 | 18824 | 15645 |
| 50° | 20920 | 16213 | 13705 |
| 55° | 18484 | 14241 | 11756 |
| 60° | 16611 | 12477 | 10197 |
| 65° | 14878 | 10870 | 9884 |
| 70° | 13287 | 9264 | 9264 |
| 75° | 11544 | 7816 | 8684 |
| 80° | 9250 | 6598 | 7924 |
| 85° | 6353 | 5787 | 6856 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 58.5 | 5.0 |
| 10°-20° | 162.5 | 14.0 |
| 20°-30° | 226.5 | 19.5 |
| 30°-40° | 233.4 | 20.1 |
| 40°-50° | 193.4 | 16.7 |
| 50°-60° | 139.0 | 12.0 |
| 60°-70° | 88.5 | 7.6 |
| 70°-80° | 45.5 | 3.9 |
| 80°-90° | 11.6 | 1.0 |
| 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° | 447.5 | 38.6 |
| 0°-40° | 680.9 | 58.8 |
| 0°-60° | 1013.3 | 87.4 |
| 0°-90° | 1158.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1158.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 622 | 622 | 622 | 622 | 622 | |
| 5° | 647 | 637 | 618 | 598 | 589 | 62 |
| 15° | 661 | 636 | 576 | 523 | 503 | 186 |
| 25° | 610 | 568 | 483 | 421 | 398 | 279 |
| 35° | 475 | 436 | 361 | 313 | 296 | 295 |
| 45° | 309 | 287 | 243 | 212 | 202 | 239 |
| 55° | 193 | 178 | 149 | 132 | 123 | 174 |
| 65° | 115 | 102 | 84 | 73 | 76 | 115 |
| 75° | 54 | 47 | 37 | 38 | 41 | 58 |
| 85° | 10 | 9 | 9 | 10 | 11 | 13 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P581782

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0° | 622.1 | 622.1 | 622.1 | 622.1 | 622.1 | 622.1 | 622.1 | 622.1 | 622.1 |
| 2.5° | 633.8 | 631.3 | 628.0 | 624.6 | 619.6 | 613.7 | 608.7 | 607.0 | 604.5 |
| 5° | 647.2 | 643.9 | 637.2 | 628.8 | 617.9 | 607.0 | 597.8 | 592.0 | 589.4 |
| 7.5° | 655.6 | 651.4 | 642.2 | 628.0 | 612.1 | 596.1 | 582.7 | 574.4 | 571.0 |
| 10° | 657.3 | 653.1 | 640.5 | 621.3 | 600.3 | 578.6 | 561.8 | 551.7 | 547.6 |
| 12.5° | 659.8 | 653.9 | 638.0 | 615.4 | 588.6 | 563.5 | 542.5 | 530.0 | 525.8 |
| 15° | 660.6 | 653.9 | 635.5 | 607.9 | 576.0 | 545.9 | 523.3 | 508.3 | 503.3 |
| 17.5° | 657.3 | 649.8 | 628.0 | 594.5 | 558.4 | 526.6 | 499.9 | 484.0 | 477.3 |
| 20° | 645.6 | 637.2 | 612.1 | 574.4 | 535.0 | 501.6 | 473.9 | 457.2 | 449.6 |
| 22.5° | 630.5 | 619.6 | 591.1 | 550.9 | 510.0 | 474.8 | 447.1 | 430.4 | 422.8 |
| 25° | 609.5 | 599.5 | 567.7 | 524.9 | 483.2 | 446.3 | 421.2 | 403.6 | 397.7 |
| 27.5° | 585.3 | 573.5 | 540.9 | 498.2 | 455.5 | 418.7 | 394.4 | 378.4 | 370.9 |
| 30° | 552.6 | 541.7 | 509.0 | 466.4 | 424.5 | 390.2 | 365.0 | 351.6 | 348.3 |
| 32.5° | 514.2 | 504.8 | 473.1 | 432.9 | 392.7 | 360.9 | 339.9 | 325.7 | 322.3 |
| 35° | 474.8 | 463.9 | 436.2 | 398.5 | 360.9 | 332.4 | 313.1 | 300.5 | 295.6 |
| 37.5° | 432.1 | 422.0 | 398.5 | 365.0 | 331.5 | 304.7 | 288.1 | 277.2 | 272.2 |
| 40° | 386.8 | 379.3 | 357.5 | 330.7 | 300.5 | 277.2 | 262.9 | 253.7 | 248.7 |
| 42.5° | 344.9 | 337.4 | 322.3 | 297.3 | 272.2 | 251.2 | 238.6 | 230.3 | 226.1 |
| 45° | 308.9 | 302.3 | 287.2 | 265.5 | 242.8 | 225.2 | 211.8 | 206.0 | 201.8 |
| 47.5° | 273.0 | 269.6 | 256.2 | 236.1 | 215.2 | 200.1 | 190.9 | 184.2 | 180.8 |
| 50° | 245.3 | 241.2 | 228.6 | 207.7 | 190.1 | 178.3 | 170.0 | 164.1 | 160.7 |
| 52.5° | 216.9 | 212.7 | 200.9 | 183.4 | 169.1 | 158.2 | 149.8 | 144.8 | 141.5 |
| 55° | 193.4 | 190.1 | 177.5 | 161.6 | 149.0 | 139.8 | 132.3 | 126.4 | 123.0 |
| 57.5° | 171.6 | 168.3 | 156.6 | 141.5 | 130.6 | 122.2 | 115.5 | 110.5 | 106.3 |
| 60° | 151.5 | 149.0 | 137.3 | 123.0 | 113.8 | 105.6 | 99.7 | 95.5 | 93.0 |
| 62.5° | 133.9 | 128.9 | 118.9 | 106.3 | 98.0 | 91.3 | 85.4 | 82.9 | 84.6 |
| 65° | 114.7 | 112.3 | 102.2 | 91.3 | 83.8 | 77.1 | 72.9 | 74.6 | 76.2 |
| 67.5° | 98.7 | 95.5 | 87.1 | 77.1 | 70.4 | 65.3 | 62.8 | 66.2 | 67.0 |
| 70° | 82.9 | 79.6 | 72.0 | 63.7 | 57.8 | 54.5 | 54.5 | 57.0 | 57.8 |
| 72.5° | 67.9 | 65.3 | 58.6 | 51.9 | 47.7 | 45.2 | 46.9 | 48.6 | 49.4 |
| 75° | 54.5 | 51.9 | 46.9 | 41.0 | 36.9 | 36.9 | 38.5 | 40.2 | 41.0 |
| 77.5° | 41.9 | 40.2 | 35.2 | 31.0 | 29.3 | 29.3 | 31.0 | 31.8 | 32.7 |
| 80° | 29.3 | 27.6 | 25.1 | 22.6 | 20.9 | 22.6 | 24.3 | 24.3 | 25.1 |
| 82.5° | 19.3 | 18.4 | 16.8 | 15.1 | 15.1 | 15.9 | 16.8 | 17.6 | 17.6 |
| 85° | 10.1 | 10.1 | 9.2 | 8.4 | 9.2 | 10.1 | 10.1 | 10.9 | 10.9 |
| 87.5° | 3.4 | 3.4 | 3.4 | 3.4 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 |
| 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)