

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: H23443

Luminaire Tested: **H803E-810WB**

Issue Date: 3/3/2020



Test Information

Test Method: LM-46-04
Report Number: H23443
Test Lab: Peachtree City
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H803E-810WB
Description: HALO 8 IN FLUORESCENT RECESSED DOWNLIGHT
WITH SPECULAR REFLECTOR WITH WHITE BAFFLE TRIM
Light Source: TWO 4 PIN DTT COMPACT FLUORESCENT LAMPS
TWO CFQ26WG24D/827 26WATTS
Ballast/Driver: -

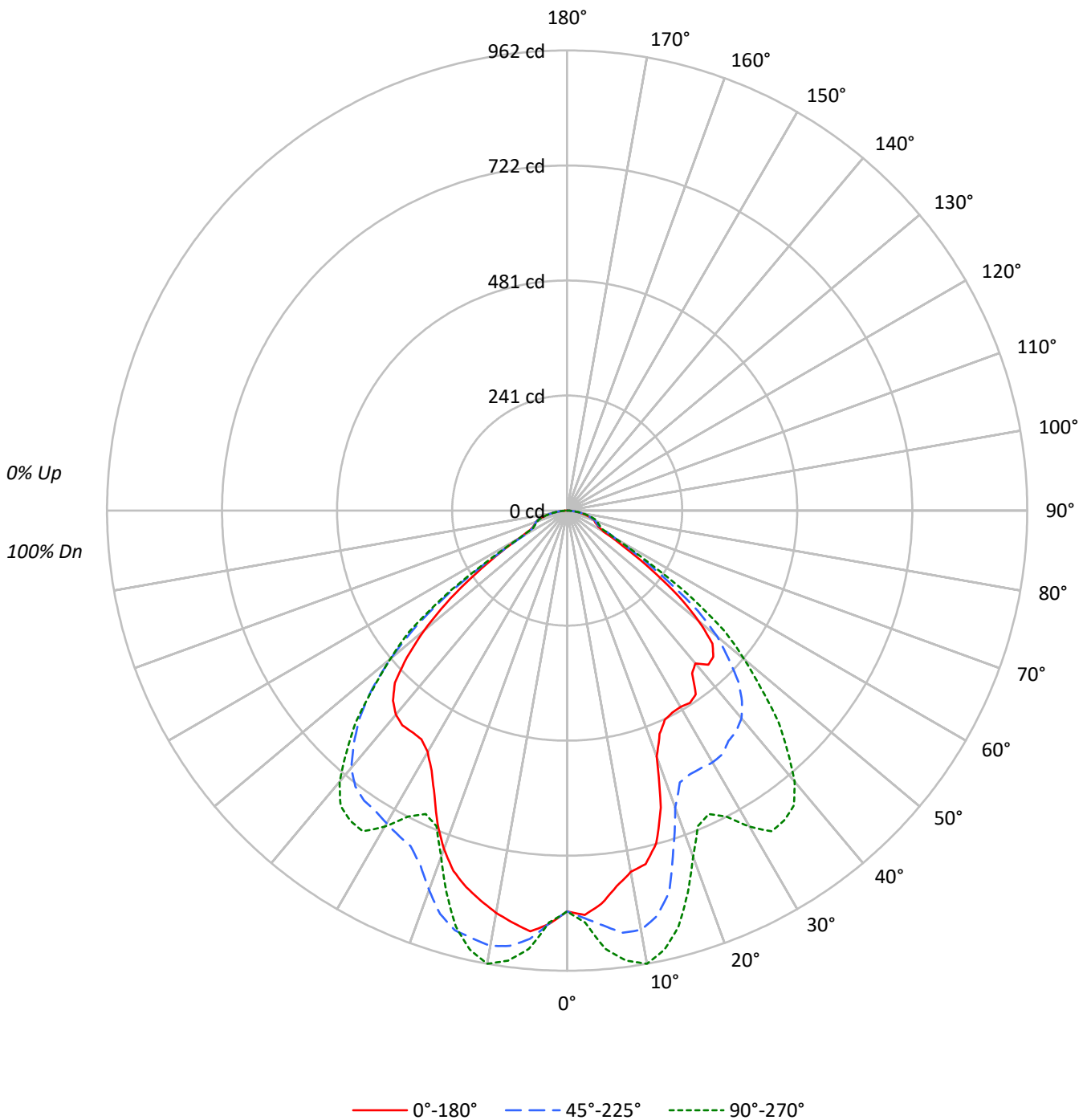
Summary

Lumens per Lamp: 1800 (2 lamps)
Luminaire Lumens: 1849.1 lumens
Efficiency: 51.4%
Efficacy: 40.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.44 / 1.38
Luminous Opening: Circular (Dia: 0.58' x H: 0')
CIE Type: Direct

Input Watts (W): 46
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

TEST NUMBER: H23443
CATALOG NUMBER: H803E-810WB

Luminous Intensity Polar Plot





TEST NUMBER: H23443
 CATALOG NUMBER: H803E-810WB

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 60 | 57 | 57 | 57 | 55 | 55 | 55 | 52 | 52 | 52 | 51 |
| 1 | 57 | 55 | 53 | 51 | 56 | 54 | 52 | 51 | 52 | 50 | 49 | 50 | 49 | 48 | 48 | 47 | 46 | 45 |
| 2 | 53 | 49 | 46 | 44 | 51 | 48 | 45 | 43 | 46 | 44 | 42 | 45 | 43 | 41 | 43 | 42 | 40 | 39 |
| 3 | 49 | 44 | 40 | 37 | 47 | 43 | 40 | 37 | 42 | 39 | 36 | 40 | 38 | 36 | 39 | 37 | 35 | 34 |
| 4 | 45 | 40 | 36 | 33 | 44 | 39 | 35 | 32 | 38 | 34 | 32 | 36 | 34 | 31 | 35 | 33 | 31 | 30 |
| 5 | 42 | 36 | 32 | 29 | 41 | 35 | 31 | 28 | 34 | 31 | 28 | 33 | 30 | 28 | 32 | 30 | 28 | 27 |
| 6 | 39 | 32 | 28 | 25 | 38 | 32 | 28 | 25 | 31 | 28 | 25 | 30 | 27 | 25 | 29 | 27 | 25 | 24 |
| 7 | 36 | 30 | 25 | 23 | 35 | 29 | 25 | 22 | 28 | 25 | 22 | 28 | 25 | 22 | 27 | 24 | 22 | 21 |
| 8 | 34 | 27 | 23 | 20 | 33 | 27 | 23 | 20 | 26 | 23 | 20 | 26 | 22 | 20 | 25 | 22 | 20 | 19 |
| 9 | 31 | 25 | 21 | 18 | 31 | 25 | 21 | 18 | 24 | 21 | 18 | 24 | 20 | 18 | 23 | 20 | 18 | 17 |
| 10 | 29 | 23 | 19 | 17 | 29 | 23 | 19 | 17 | 22 | 19 | 17 | 22 | 19 | 17 | 21 | 19 | 16 | 16 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 33751 | 33751 | 33751 |
| 5° | 33355 | 37196 | 35700 |
| 10° | 31368 | 39343 | 34926 |
| 15° | 30022 | 37527 | 33983 |
| 20° | 23445 | 33003 | 32274 |
| 25° | 21464 | 31108 | 29152 |
| 30° | 22044 | 35485 | 27113 |
| 35° | 23060 | 38892 | 27780 |
| 40° | 21924 | 38907 | 29285 |
| 45° | 24606 | 35599 | 28992 |
| 50° | 22494 | 30264 | 24499 |
| 55° | 14957 | 22400 | 17133 |
| 60° | 7089 | 9183 | 9102 |
| 65° | 6480 | 7148 | 7434 |
| 70° | 7183 | 7890 | 8125 |
| 75° | 7158 | 8248 | 8248 |
| 80° | 6494 | 7422 | 7422 |
| 85° | 5083 | 6008 | 6008 |



TEST NUMBER: H23443
 CATALOG NUMBER: H803E-810WB

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 84.7 | 4.6 | 2.4 |
| 10°-20° | 234.4 | 12.7 | 6.5 |
| 20°-30° | 313.5 | 17.0 | 8.7 |
| 30°-40° | 412.6 | 22.3 | 11.5 |
| 40°-50° | 416.7 | 22.5 | 11.6 |
| 50°-60° | 242.5 | 13.1 | 6.7 |
| 60°-70° | 77.4 | 4.2 | 2.1 |
| 70°-80° | 52.7 | 2.9 | 1.5 |
| 80°-90° | 14.7 | 0.8 | 0.4 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 632.6 | 34.2 | 17.6 |
| 0°-40° | 1045.2 | 56.5 | 29.0 |
| 0°-60° | 1704.4 | 92.2 | 47.3 |
| 0°-90° | 1849.1 | 100.0 | 51.4 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 1849.1 | 100.0 | 51.4 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 838 | 838 | 838 | 838 | 838 | |
| 5° | 825 | 871 | 920 | 899 | 883 | 77 |
| 15° | 720 | 825 | 900 | 908 | 815 | 194 |
| 25° | 483 | 608 | 700 | 774 | 656 | 228 |
| 35° | 469 | 588 | 791 | 740 | 565 | 285 |
| 45° | 432 | 506 | 625 | 613 | 509 | 323 |
| 55° | 213 | 256 | 319 | 302 | 244 | 193 |
| 65° | 68 | 71 | 75 | 77 | 78 | 69 |
| 75° | 46 | 48 | 53 | 54 | 53 | 48 |
| 85° | 11 | 11 | 13 | 13 | 13 | 13 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: H23443
 CATALOG NUMBER: H803E-810WB

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|
| 0° | 838 | 838 | 838 | 838 | 838 | 838 | 838 | 838 | 838 |
| 2.5° | 846 | 848 | 853 | 857 | 862 | 865 | 864 | 863 | 865 |
| 5° | 825 | 839 | 871 | 899 | 920 | 917 | 899 | 887 | 883 |
| 7.5° | 792 | 825 | 890 | 932 | 949 | 944 | 918 | 885 | 869 |
| 10° | 767 | 817 | 890 | 943 | 962 | 953 | 924 | 881 | 854 |
| 12.5° | 757 | 800 | 868 | 918 | 940 | 939 | 916 | 873 | 835 |
| 15° | 720 | 760 | 825 | 861 | 900 | 913 | 908 | 863 | 815 |
| 17.5° | 651 | 679 | 739 | 788 | 838 | 880 | 884 | 837 | 790 |
| 20° | 547 | 587 | 661 | 718 | 770 | 827 | 844 | 796 | 753 |
| 22.5° | 505 | 546 | 615 | 669 | 714 | 781 | 802 | 753 | 708 |
| 25° | 483 | 532 | 608 | 658 | 700 | 769 | 774 | 713 | 656 |
| 27.5° | 476 | 530 | 607 | 668 | 721 | 782 | 765 | 692 | 613 |
| 30° | 474 | 531 | 608 | 696 | 763 | 801 | 755 | 679 | 583 |
| 32.5° | 477 | 534 | 604 | 719 | 795 | 806 | 745 | 673 | 567 |
| 35° | 469 | 502 | 588 | 711 | 791 | 794 | 740 | 661 | 565 |
| 37.5° | 429 | 470 | 581 | 700 | 778 | 779 | 727 | 643 | 566 |
| 40° | 417 | 453 | 567 | 673 | 740 | 746 | 702 | 618 | 557 |
| 42.5° | 437 | 433 | 541 | 628 | 682 | 689 | 660 | 590 | 539 |
| 45° | 432 | 411 | 506 | 576 | 625 | 629 | 613 | 552 | 509 |
| 47.5° | 412 | 388 | 457 | 519 | 549 | 564 | 554 | 503 | 454 |
| 50° | 359 | 351 | 409 | 459 | 483 | 491 | 482 | 440 | 391 |
| 52.5° | 293 | 295 | 344 | 387 | 416 | 418 | 400 | 360 | 320 |
| 55° | 213 | 224 | 256 | 287 | 319 | 312 | 302 | 271 | 244 |
| 57.5° | 140 | 163 | 178 | 190 | 201 | 191 | 185 | 177 | 174 |
| 60° | 88 | 115 | 117 | 117 | 114 | 107 | 102 | 108 | 113 |
| 62.5° | 74 | 80 | 83 | 81 | 81 | 80 | 82 | 84 | 86 |
| 65° | 68 | 69 | 71 | 74 | 75 | 76 | 77 | 78 | 78 |
| 67.5° | 63 | 64 | 66 | 68 | 70 | 72 | 72 | 73 | 72 |
| 70° | 61 | 62 | 63 | 65 | 67 | 69 | 69 | 69 | 69 |
| 72.5° | 54 | 55 | 56 | 59 | 61 | 63 | 63 | 63 | 64 |
| 75° | 46 | 46 | 48 | 50 | 53 | 54 | 54 | 53 | 53 |
| 77.5° | 37 | 37 | 38 | 40 | 42 | 43 | 43 | 42 | 42 |
| 80° | 28 | 28 | 29 | 31 | 32 | 33 | 33 | 32 | 32 |
| 82.5° | 19 | 19 | 20 | 21 | 22 | 23 | 23 | 22 | 22 |
| 85° | 11 | 11 | 11 | 12 | 13 | 14 | 13 | 13 | 13 |
| 87.5° | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)