

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: P434608

Luminaire Tested: **HCM2R15935ED010MB**

Issue Date: 11/24/2020

Test Information

Test Method: LM-41-14
Report Number: P434608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-933-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/24/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCM2R15935ED010MB
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 15 DEG REFLECTOR OPTIC
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2397.3 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 0.25 / 0.25 / 0.25
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

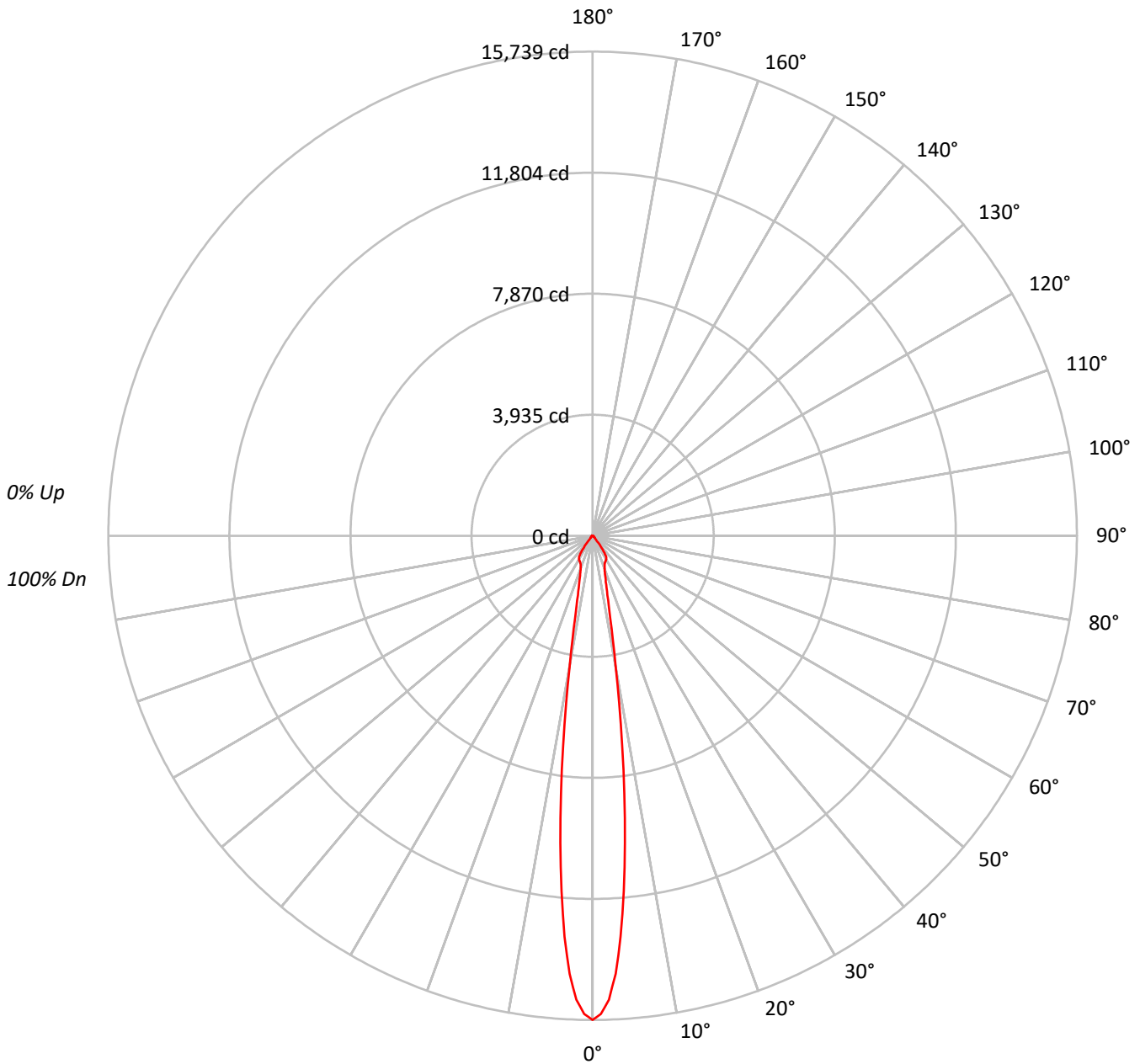
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P434608

CATALOG NUMBER: HCM2R15935ED010MB

Luminous Intensity Polar Plot





TEST NUMBER: P434608

CATALOG NUMBER: HCM2R15935ED010MB

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 | | | |
| 1 | 114 | 111 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 | 102 | 100 | 99 | 98 | 97 | 96 | 95 | | | |
| 2 | 109 | 105 | 101 | 98 | 107 | 103 | 100 | 97 | 100 | 97 | 95 | 97 | 95 | 93 | 94 | 93 | 91 | 89 | | | |
| 3 | 105 | 99 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 92 | 89 | 93 | 90 | 88 | 91 | 88 | 86 | 85 | | | |
| 4 | 101 | 94 | 89 | 86 | 99 | 93 | 88 | 85 | 91 | 87 | 84 | 89 | 86 | 83 | 87 | 84 | 82 | 81 | | | |
| 5 | 97 | 90 | 85 | 81 | 95 | 89 | 84 | 81 | 87 | 83 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | 77 | | | |
| 6 | 93 | 86 | 81 | 77 | 92 | 85 | 80 | 77 | 83 | 79 | 76 | 82 | 79 | 76 | 81 | 78 | 75 | 74 | | | |
| 7 | 90 | 82 | 77 | 74 | 89 | 82 | 77 | 73 | 80 | 76 | 73 | 79 | 75 | 73 | 78 | 75 | 72 | 71 | | | |
| 8 | 87 | 79 | 74 | 71 | 86 | 78 | 74 | 70 | 77 | 73 | 70 | 77 | 73 | 70 | 76 | 72 | 70 | 68 | | | |
| 9 | 84 | 76 | 71 | 68 | 83 | 76 | 71 | 68 | 75 | 71 | 68 | 74 | 70 | 67 | 73 | 70 | 67 | 66 | | | |
| 10 | 81 | 74 | 69 | 66 | 81 | 73 | 69 | 66 | 72 | 68 | 65 | 72 | 68 | 65 | 71 | 68 | 65 | 64 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 7765498 |
| 5° | 5745263 |
| 10° | 2166685 |
| 15° | 890654 |
| 20° | 597552 |
| 25° | 519506 |
| 30° | 503221 |
| 35° | 392402 |
| 40° | 131839 |
| 45° | 64123 |
| 50° | 56109 |
| 55° | 39482 |
| 60° | 35030 |
| 65° | 34089 |
| 70° | 36208 |
| 75° | 47847 |
| 80° | 59382 |
| 85° | 11888 |



TEST NUMBER: P434608

CATALOG NUMBER: HCM2R15935ED010MB

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 854.4 | 35.6 |
| 10°-20° | 537.3 | 22.4 |
| 20°-30° | 447.4 | 18.7 |
| 30°-40° | 373.6 | 15.6 |
| 40°-50° | 79.3 | 3.3 |
| 50°-60° | 43.7 | 1.8 |
| 60°-70° | 29.2 | 1.2 |
| 70°-80° | 25.4 | 1.1 |
| 80°-90° | 6.8 | 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° | 1839.2 | 76.7 |
| 0°-40° | 2212.8 | 92.3 |
| 0°-60° | 2335.8 | 97.4 |
| 0°-90° | 2397.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2397.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-------|------|
| 0° | 15739 | |
| 5° | 11600 | 854 |
| 15° | 1744 | 537 |
| 25° | 954 | 447 |
| 35° | 652 | 374 |
| 45° | 92 | 79 |
| 55° | 46 | 44 |
| 65° | 29 | 29 |
| 75° | 25 | 25 |
| 85° | 2 | 7 |
| 90° | 0 | |



TEST NUMBER: P434608

CATALOG NUMBER: HCM2R15935ED010MB

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|---------|
| 0° | 15739.4 |
| 1° | 15549.4 |
| 2° | 15087.9 |
| 3° | 14263.0 |
| 4° | 13062.2 |
| 5° | 11600.4 |
| 6° | 10036.3 |
| 7° | 8445.0 |
| 8° | 6889.3 |
| 9° | 5513.1 |
| 10° | 4324.8 |
| 11° | 3410.2 |
| 12° | 2762.8 |
| 13° | 2309.6 |
| 14° | 1986.0 |
| 15° | 1743.7 |
| 16° | 1557.9 |
| 17° | 1413.8 |
| 18° | 1301.0 |
| 19° | 1213.3 |
| 20° | 1138.1 |
| 22.5° | 1010.7 |
| 25° | 954.3 |
| 26° | 937.6 |
| 27° | 925.1 |
| 28° | 912.6 |
| 29° | 898.0 |
| 30° | 883.3 |
| 32.5° | 824.9 |
| 35° | 651.5 |
| 37.5° | 415.6 |
| 40° | 204.7 |
| 42.5° | 98.1 |
| 45° | 91.9 |
| 47.5° | 85.6 |
| 50° | 73.1 |
| 52.5° | 56.4 |
| 55° | 45.9 |
| 57.5° | 39.7 |
| 60° | 35.5 |
| 62.5° | 31.3 |
| 65° | 29.2 |
| 67.5° | 27.1 |



TEST NUMBER: P434608

CATALOG NUMBER: HCM2R15935ED010MB

CANDELA DISTRIBUTION (continued):

| | 0° |
|-------|------|
| 75° | 25.1 |
| 77.5° | 23.0 |
| 80° | 20.9 |
| 82.5° | 12.5 |
| 85° | 2.1 |
| 87.5° | 0.0 |
| 90° | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°







| | | |
|-------|--|------|
| 70° | | 25.1 |
| 72.5° | | 25.1 |



(END OF REPORT)