

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

Report Number: P20228

Luminaire Tested: **ML709835T120DEM – 493WBS06 – H750TEM912**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P20228  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P20228)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML709835T120DEM – 493WBS06 – H750TEM912  
Description: HALO 6" RECESSED LED DOWNLIGHT WITH WHITE BAFFLED DESIGN  
LOWER TRIM REFLECTOR, SPECULAR UPPER TRIM REFLECTOR AND  
SOLITE GLASS LENS WITH MODULE  
Light Source: HIGH OUTPUT LED  
Ballast/Driver: IOTA BATTERY PACK

**Summary**

Lumens per Lamp: 540 (1 lamp)  
Luminaire Lumens: 539.8 lumens  
Efficiency: 100.0%  
Efficacy: 58.0 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.97  
Luminous Opening: Vertical Cylinder (Dia: 0.5' x H: 0.1')  
CIE Type: Direct

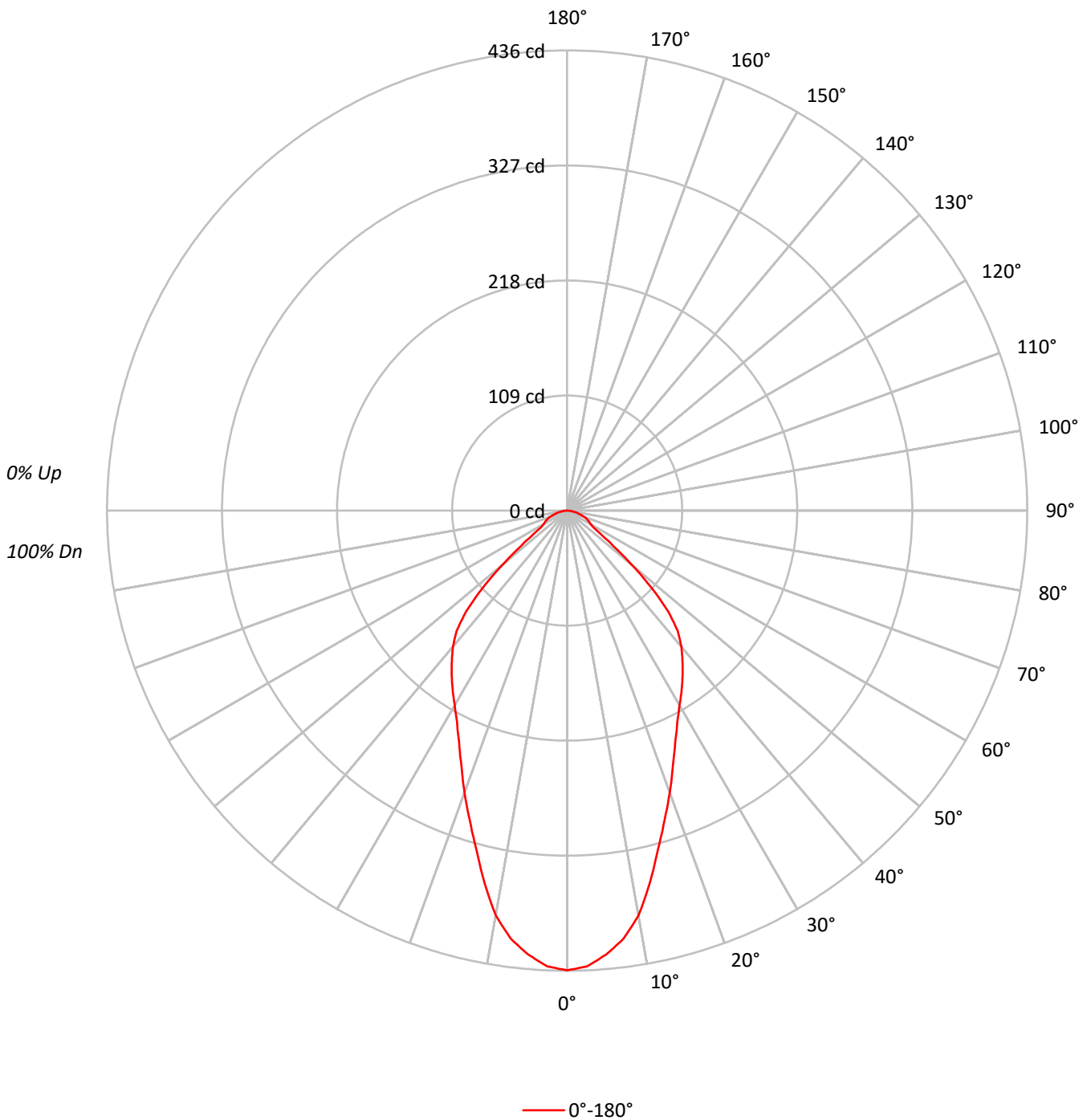
Input Watts (W): 9.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 90  |
| 2   | 104 | 98  | 93  | 88  | 102 | 96  | 91  | 87  | 93  | 89  | 85  | 89  | 86  | 83  | 87  | 84  | 82  | 80  |
| 3   | 97  | 89  | 82  | 77  | 95  | 87  | 81  | 77  | 84  | 79  | 75  | 82  | 78  | 74  | 80  | 76  | 73  | 71  |
| 4   | 91  | 81  | 74  | 69  | 88  | 80  | 73  | 68  | 77  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 64  |
| 5   | 85  | 74  | 67  | 61  | 83  | 73  | 66  | 61  | 71  | 65  | 60  | 69  | 64  | 60  | 68  | 63  | 59  | 58  |
| 6   | 79  | 68  | 61  | 55  | 78  | 67  | 60  | 55  | 66  | 59  | 55  | 64  | 59  | 54  | 63  | 58  | 54  | 52  |
| 7   | 74  | 63  | 56  | 50  | 73  | 62  | 55  | 50  | 61  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 49  | 48  |
| 8   | 70  | 58  | 51  | 46  | 68  | 58  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 54  | 49  | 45  | 44  |
| 9   | 66  | 54  | 47  | 42  | 65  | 54  | 47  | 42  | 53  | 46  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |
| 10  | 62  | 51  | 44  | 39  | 61  | 50  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 48  | 42  | 39  | 37  |

**AVERAGE LUMINANCE (cd/sqm):**

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 23880 |
| 5°  | 22733 |
| 10° | 20750 |
| 15° | 17655 |
| 20° | 15173 |
| 25° | 13095 |
| 30° | 11749 |
| 35° | 10825 |
| 40° | 9918  |
| 45° | 8367  |
| 50° | 5254  |
| 55° | 2691  |
| 60° | 1963  |
| 65° | 1812  |
| 70° | 1575  |
| 75° | 1205  |
| 80° | 801   |
| 85° | 450   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 39.3   | 7.3       | 7.3    |
| 10°-20°   | 93.3   | 17.3      | 17.3   |
| 20°-30°   | 112.3  | 20.8      | 20.8   |
| 30°-40°   | 119.2  | 22.1      | 22.1   |
| 40°-50°   | 100.4  | 18.6      | 18.6   |
| 50°-60°   | 39.0   | 7.2       | 7.2    |
| 60°-70°   | 21.3   | 4.0       | 3.9    |
| 70°-80°   | 12.0   | 2.2       | 2.2    |
| 80°-90°   | 2.9    | 0.5       | 0.5    |
| 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°    | 244.9  | 45.4      | 45.3   |
| 0°-40°    | 364.0  | 67.4      | 67.4   |
| 0°-60°    | 503.5  | 93.3      | 93.2   |
| 0°-90°    | 539.8  | 100.0     | 100.0  |
| 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°   | 539.8  | 100.0     | 100.0  |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 436 |      |
| 5°  | 422 | 39   |
| 15° | 332 | 93   |
| 25° | 242 | 112  |
| 35° | 191 | 119  |
| 45° | 135 | 100  |
| 55° | 38  | 39   |
| 65° | 22  | 21   |
| 75° | 11  | 12   |
| 85° | 3   | 3    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |       |
|-------|-------|
| 0°    | 435.6 |
| 2.5°  | 432.2 |
| 5°    | 422.3 |
| 7.5°  | 409.1 |
| 10°   | 389.5 |
| 12.5° | 361.6 |
| 15°   | 332.3 |
| 17.5° | 307.1 |
| 20°   | 284.2 |
| 22.5° | 261.8 |
| 25°   | 242.2 |
| 27.5° | 226.1 |
| 30°   | 212.9 |
| 32.5° | 201.8 |
| 35°   | 190.6 |
| 37.5° | 179.4 |
| 40°   | 168.2 |
| 42.5° | 155.0 |
| 45°   | 135.4 |
| 47.5° | 108.9 |
| 50°   | 80.3  |
| 52.5° | 55.2  |
| 55°   | 38.4  |
| 57.5° | 29.3  |
| 60°   | 25.8  |
| 62.5° | 23.7  |
| 65°   | 21.6  |
| 67.5° | 19.6  |
| 70°   | 16.7  |
| 72.5° | 14.0  |
| 75°   | 11.1  |
| 77.5° | 9.1   |
| 80°   | 6.2   |
| 82.5° | 4.2   |
| 85°   | 2.8   |
| 87.5° | 0.7   |
| 90°   | 0.0   |

(END OF REPORT)