

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P645287

Luminaire Tested: **RLNL4079FSD2W1EWH-3500K**

Issue Date: 02/28/2023

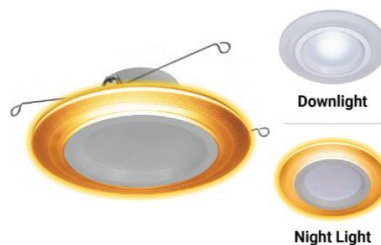
Test Information

Test Method: LM-79-08
Report Number: P645287
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ETA23010002P-001)
Test Lab: ETA Testing Technology
Issue Date: 02/28/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RLNL4079FSD2W1EWH-3500K
Description: 4" 90 CRI COLOR TUNING RECESSED DOWNLIGHT RETROFIT DIM TO WARM
FIXTURE w/ NIGHTLIGHT
Light Source: 90 CRI 3500K LEDS
Ballast/Driver: ELECTRICAL DRIVER

Summary

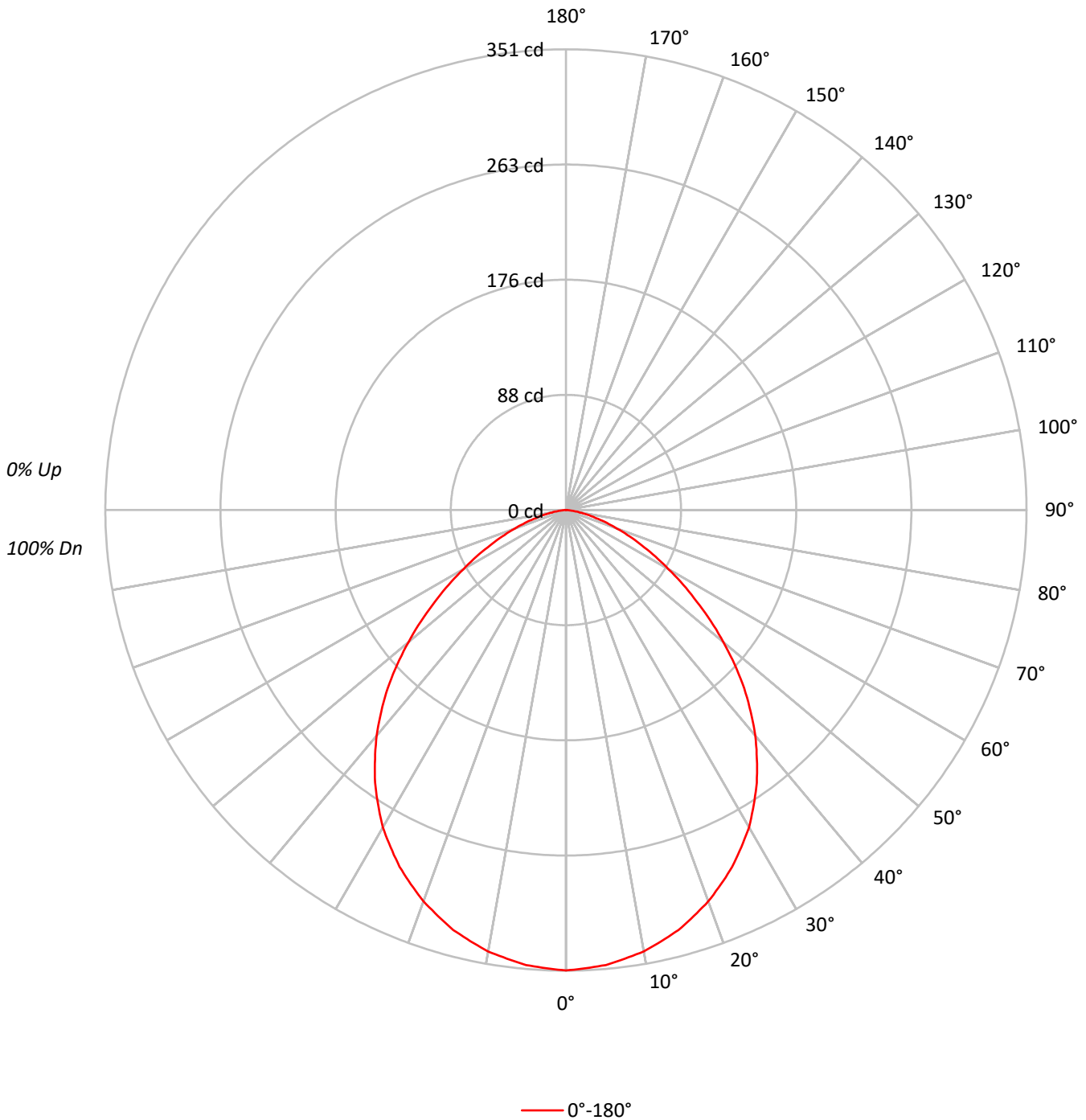
Lumens per Lamp: N/A
Luminaire Lumens: 774.6 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.27
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 8.2
Input Voltage (V): 120
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





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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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 |
| 2 | 102 | 94 | 88 | 83 | 99 | 93 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 75 |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 65 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 |
| 6 | 74 | 62 | 53 | 47 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 38 | 63 | 51 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 40 | 34 | 59 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 41 | 35 | 31 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 43278 |
| 5° | 43097 |
| 10° | 42781 |
| 15° | 42314 |
| 20° | 41658 |
| 25° | 40824 |
| 30° | 39759 |
| 35° | 38194 |
| 40° | 36155 |
| 45° | 33516 |
| 50° | 30075 |
| 55° | 26176 |
| 60° | 22281 |
| 65° | 18566 |
| 70° | 15006 |
| 75° | 11345 |
| 80° | 7531 |
| 85° | 4105 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 33.0 | 4.3 |
| 10°-20° | 93.4 | 12.1 |
| 20°-30° | 138.0 | 17.8 |
| 30°-40° | 158.2 | 20.4 |
| 40°-50° | 147.6 | 19.1 |
| 50°-60° | 109.5 | 14.1 |
| 60°-70° | 64.1 | 8.3 |
| 70°-80° | 26.3 | 3.4 |
| 80°-90° | 4.5 | 0.6 |
| 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° | 264.4 | 34.1 |
| 0°-40° | 422.6 | 54.6 |
| 0°-60° | 679.8 | 87.8 |
| 0°-90° | 774.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 774.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 351 | |
| 5° | 348 | 33 |
| 15° | 331 | 93 |
| 25° | 300 | 138 |
| 35° | 254 | 158 |
| 45° | 192 | 148 |
| 55° | 122 | 110 |
| 65° | 64 | 64 |
| 75° | 24 | 26 |
| 85° | 3 | 4 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-----|-------|
| 0° | 350.8 |
| 5° | 348.0 |
| 10° | 341.5 |
| 15° | 331.3 |
| 20° | 317.3 |
| 25° | 299.9 |
| 30° | 279.1 |
| 35° | 253.6 |
| 40° | 224.5 |
| 45° | 192.1 |
| 50° | 156.7 |
| 55° | 121.7 |
| 60° | 90.3 |
| 65° | 63.6 |
| 70° | 41.6 |
| 75° | 23.8 |
| 80° | 10.6 |
| 85° | 2.9 |
| 90° | 0.0 |

(END OF REPORT)