

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: HALO

Report Number: P626454

Luminaire Tested: HLBC6099FSD2W1EMW-2700K

Issue Date: 11/17/2022

Test Information

Test Method: LM-79-2019
Report Number: P626454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2210273B001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/17/2022
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLBC6099FSD2W1EMW-2700K
Description: 6IN CANLESS LED DOWNLIGHT WITH SELECTABLE CCT
Light Source: (1) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

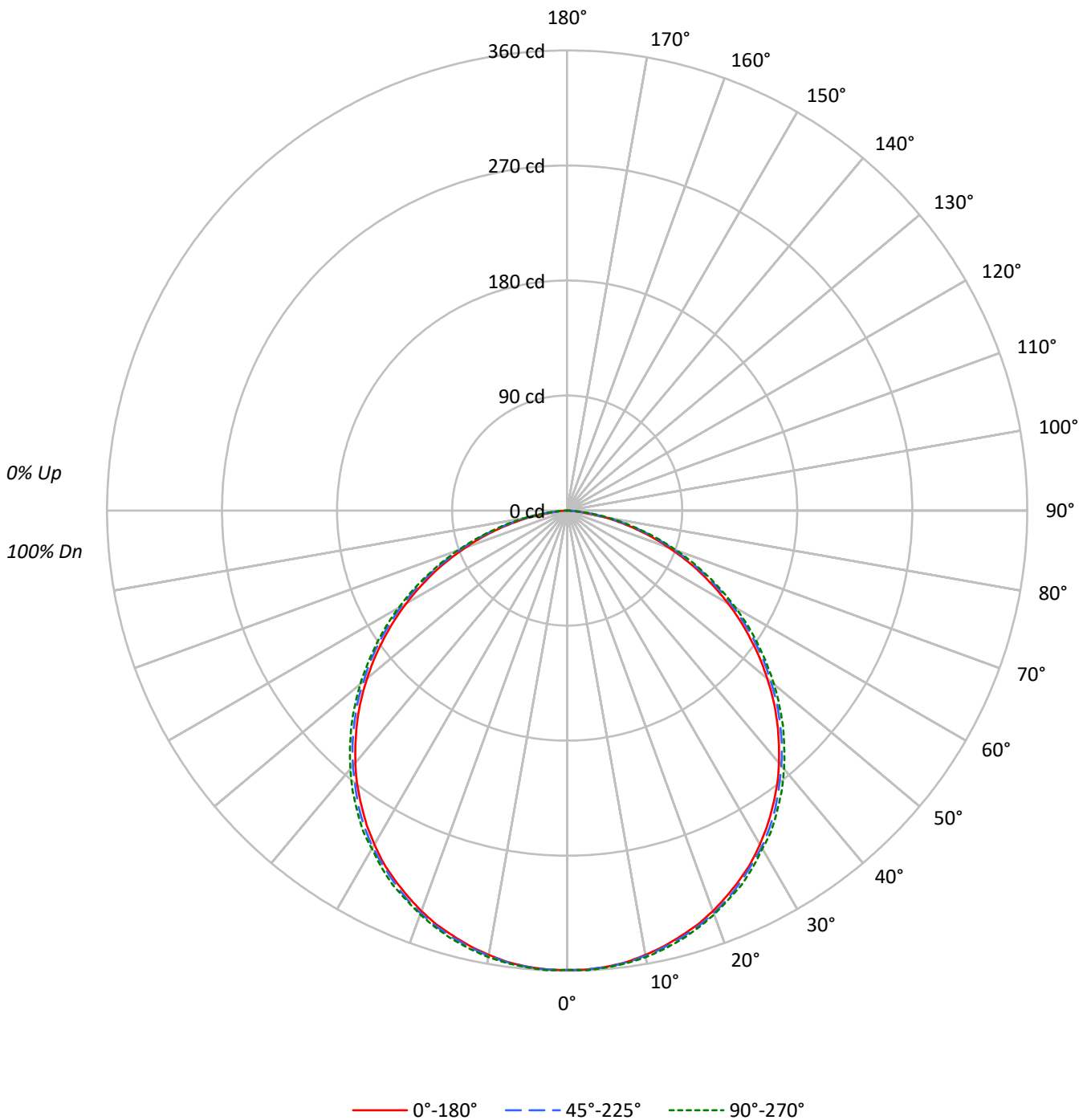
Lumens per Lamp: N/A
Luminaire Lumens: 990.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.36
Luminous Opening: Circular (Dia: 0.5m x H: 0m)
CIE Type: Direct

Input Watts (W): 12.3
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





TEST NUMBER: P626454
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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 | 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 | | | | | 100 | | | |
| 1 | 109 | 104 | 100 | 97 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 88 | 87 | | | | | 85 | | | | |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 74 | 80 | 76 | 73 | | | | | 71 | | | | |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 70 | 66 | 62 | | | | | 60 | | | | |
| 4 | 83 | 71 | 62 | 56 | 81 | 70 | 62 | 55 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | | | | | 51 | | | | |
| 5 | 76 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 57 | 51 | 46 | | | | | 44 | | | | |
| 6 | 71 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 55 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | | | | | 39 | | | | |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | | | | | 34 | | | | |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 32 | | | | | 31 | | | | |
| 9 | 57 | 44 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | | | | | 27 | | | | |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | | | | | 25 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1830 | 1830 | 1830 |
| 5° | 1831 | 1832 | 1834 |
| 10° | 1826 | 1829 | 1835 |
| 15° | 1816 | 1823 | 1831 |
| 20° | 1807 | 1817 | 1822 |
| 25° | 1793 | 1802 | 1815 |
| 30° | 1774 | 1789 | 1797 |
| 35° | 1746 | 1766 | 1781 |
| 40° | 1714 | 1733 | 1755 |
| 45° | 1672 | 1696 | 1720 |
| 50° | 1619 | 1648 | 1674 |
| 55° | 1556 | 1594 | 1618 |
| 60° | 1482 | 1525 | 1551 |
| 65° | 1387 | 1436 | 1467 |
| 70° | 1260 | 1321 | 1351 |
| 75° | 1088 | 1165 | 1202 |
| 80° | 845 | 927 | 985 |
| 85° | 339 | 479 | 614 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1720 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.0 | 3.4 |
| 10°-20° | 97.5 | 9.9 |
| 20°-30° | 147.8 | 14.9 |
| 30°-40° | 177.4 | 17.9 |
| 40°-50° | 181.4 | 18.3 |
| 50°-60° | 160.0 | 16.2 |
| 60°-70° | 117.4 | 11.9 |
| 70°-80° | 62.2 | 6.3 |
| 80°-90° | 12.3 | 1.2 |
| 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° | 279.4 | 28.2 |
| 0°-40° | 456.8 | 46.1 |
| 0°-60° | 798.1 | 80.6 |
| 0°-90° | 990.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 990.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 359 | 359 | 359 | 359 | 359 | |
| 5° | 358 | 358 | 358 | 358 | 359 | 34 |
| 15° | 344 | 345 | 346 | 346 | 347 | 97 |
| 25° | 319 | 320 | 321 | 322 | 323 | 147 |
| 35° | 281 | 283 | 284 | 285 | 286 | 176 |
| 45° | 232 | 234 | 236 | 237 | 239 | 179 |
| 55° | 175 | 178 | 180 | 181 | 182 | 157 |
| 65° | 115 | 117 | 119 | 120 | 122 | 114 |
| 75° | 55 | 57 | 59 | 60 | 61 | 59 |
| 85° | 6 | 7 | 8 | 9 | 10 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P626454

CATALOG NUMBER: HLBC6099FSD2W1EMW-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 359.4 | 359.4 | 359.4 | 359.4 | 359.4 |
| 2.5° | 359.3 | 358.7 | 359.3 | 358.7 | 359.9 |
| 5° | 358.2 | 357.7 | 358.4 | 357.8 | 358.7 |
| 7.5° | 356.2 | 355.8 | 356.5 | 356.1 | 357.2 |
| 10° | 353.0 | 353.2 | 353.7 | 353.2 | 354.8 |
| 12.5° | 349.2 | 349.4 | 350.0 | 350.0 | 351.2 |
| 15° | 344.5 | 344.9 | 345.8 | 346.0 | 347.2 |
| 17.5° | 339.6 | 340.0 | 340.9 | 340.6 | 342.0 |
| 20° | 333.4 | 333.7 | 335.2 | 335.6 | 336.2 |
| 22.5° | 326.3 | 328.0 | 328.6 | 328.6 | 329.5 |
| 25° | 319.0 | 319.5 | 320.6 | 321.6 | 323.0 |
| 27.5° | 311.0 | 311.7 | 312.5 | 313.5 | 314.7 |
| 30° | 301.6 | 302.5 | 304.2 | 304.7 | 305.5 |
| 32.5° | 291.8 | 293.3 | 294.6 | 295.1 | 297.3 |
| 35° | 280.9 | 282.8 | 284.1 | 285.2 | 286.5 |
| 37.5° | 270.0 | 271.5 | 272.3 | 273.7 | 275.8 |
| 40° | 257.8 | 258.8 | 260.7 | 261.4 | 264.0 |
| 42.5° | 245.1 | 246.7 | 248.6 | 249.7 | 251.4 |
| 45° | 232.1 | 233.7 | 235.5 | 236.6 | 238.8 |
| 47.5° | 218.6 | 220.2 | 222.3 | 223.2 | 225.1 |
| 50° | 204.3 | 206.1 | 208.0 | 209.0 | 211.3 |
| 52.5° | 190.1 | 192.1 | 194.1 | 195.0 | 196.8 |
| 55° | 175.2 | 177.7 | 179.5 | 180.7 | 182.2 |
| 57.5° | 160.6 | 162.5 | 164.5 | 166.0 | 167.6 |
| 60° | 145.5 | 147.5 | 149.7 | 150.8 | 152.3 |
| 62.5° | 130.2 | 132.7 | 134.5 | 135.6 | 137.1 |
| 65° | 115.1 | 116.9 | 119.2 | 120.1 | 121.7 |
| 67.5° | 99.8 | 101.9 | 103.7 | 104.7 | 106.2 |
| 70° | 84.6 | 86.6 | 88.7 | 89.0 | 90.7 |
| 72.5° | 69.8 | 71.7 | 73.8 | 74.2 | 75.8 |
| 75° | 55.3 | 57.3 | 59.2 | 59.5 | 61.1 |
| 77.5° | 41.5 | 43.3 | 45.1 | 45.4 | 46.9 |
| 80° | 28.8 | 30.3 | 31.6 | 32.2 | 33.6 |
| 82.5° | 16.4 | 17.9 | 19.3 | 19.9 | 21.1 |
| 85° | 5.8 | 7.0 | 8.2 | 8.8 | 10.5 |
| 87.5° | 2.0 | 2.3 | 2.6 | 2.7 | 3.1 |
| 90° | 0.1 | 0.1 | 0.1 | 0.2 | 0.5 |

(END OF REPORT)