

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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 COMMERCIAL

Report Number: P838473

Luminaire Tested: HCSQ625D010-HM60525840-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838473
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ625D010-HM60525840-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

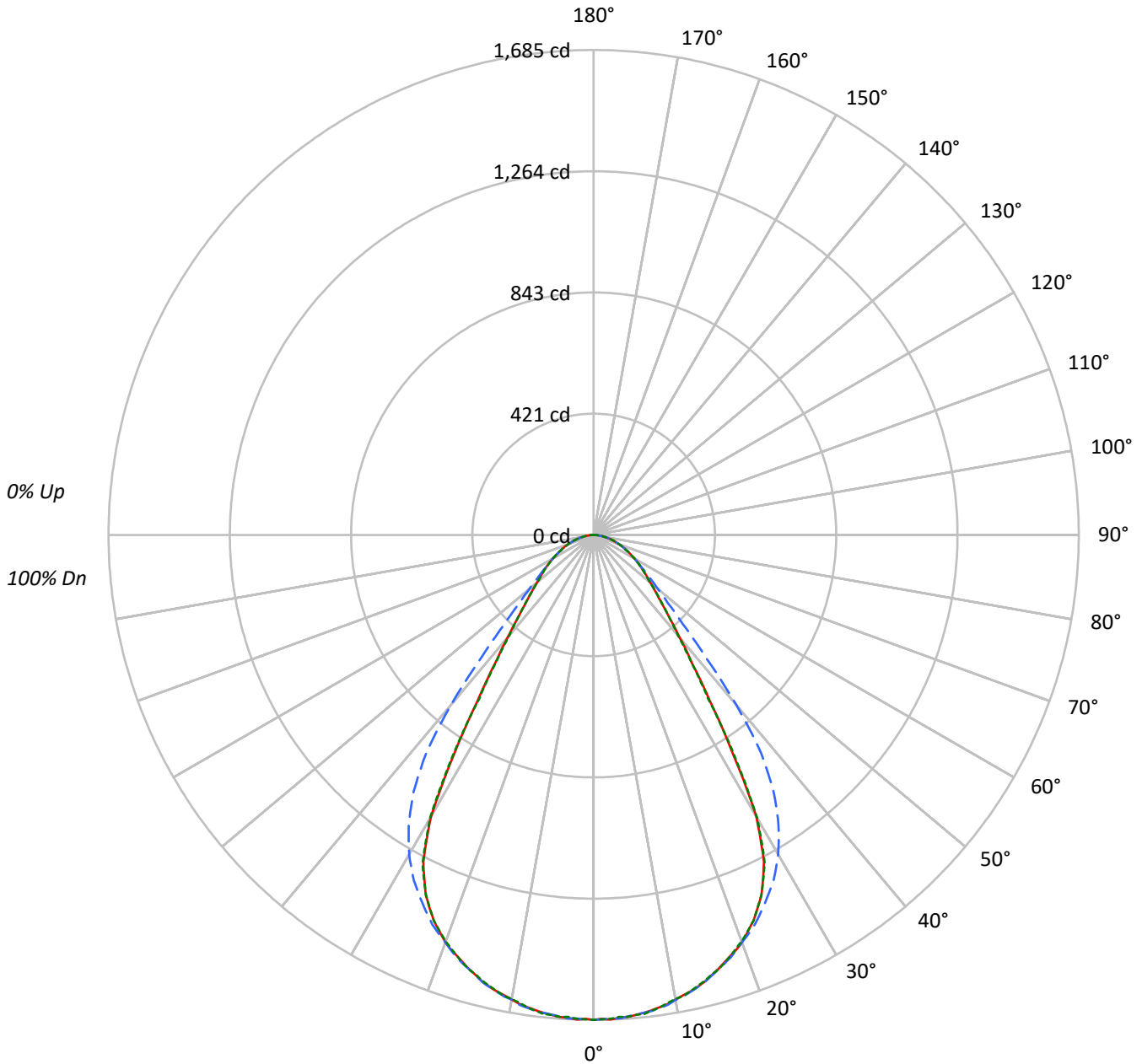
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2485.3 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
Input Voltage (V): NR
Input Current (A_{in}): 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: 24 FT

TEST NUMBER: P838473
CATALOG NUMBER: HCSQ625D010-HM60525840-61SQMW

Luminous Intensity Polar Plot





TEST NUMBER: P838473

CATALOG NUMBER: HCSQ625D010-HM60525840-61SQMW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF | 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 | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | | 89 | | | |
| 2 | 104 | 98 | 92 | 88 | 102 | 96 | 91 | 87 | 92 | 88 | 85 | 89 | 86 | 83 | 86 | 84 | 81 | 79 | | | | | 79 | | | |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 77 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | 71 | | | | | 71 | | | |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 73 | 68 | 77 | 72 | 67 | 75 | 70 | 67 | 73 | 69 | 66 | 64 | | | | | 64 | | | |
| 5 | 85 | 74 | 67 | 62 | 83 | 73 | 66 | 61 | 71 | 65 | 61 | 70 | 64 | 60 | 68 | 63 | 60 | 58 | | | | | 58 | | | |
| 6 | 80 | 69 | 61 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 55 | 63 | 58 | 54 | 53 | | | | | 53 | | | |
| 7 | 75 | 63 | 56 | 51 | 73 | 63 | 56 | 51 | 61 | 55 | 51 | 60 | 54 | 50 | 59 | 54 | 50 | 48 | | | | | 48 | | | |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | | | 44 | | | |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 51 | 46 | 43 | 41 | | | | | 41 | | | |
| 10 | 63 | 51 | 45 | 40 | 62 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 48 | 43 | 40 | 38 | | | | | 38 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 72544 | 72544 | 72544 |
| 5° | 72363 | 72312 | 72363 |
| 10° | 71657 | 71705 | 71552 |
| 15° | 70588 | 70642 | 70486 |
| 20° | 68999 | 69054 | 68838 |
| 25° | 65554 | 66956 | 65502 |
| 30° | 56135 | 63746 | 56488 |
| 35° | 36882 | 57308 | 36325 |
| 40° | 26074 | 43216 | 25613 |
| 45° | 20215 | 26597 | 20362 |
| 50° | 17194 | 19398 | 17034 |
| 55° | 15463 | 15906 | 15463 |
| 60° | 13993 | 13993 | 13993 |
| 65° | 12837 | 12714 | 12714 |
| 70° | 11707 | 11707 | 11858 |
| 75° | 10963 | 10580 | 10780 |
| 80° | 9645 | 9645 | 9645 |
| 85° | 8151 | 8151 | 8151 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 26597 cd/sqm



TEST NUMBER: P838473

CATALOG NUMBER: HCSQ625D010-HM60525840-61SQMW

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 158.8 | 6.4 |
| 10°-20° | 446.1 | 17.9 |
| 20°-30° | 635.7 | 25.6 |
| 30°-40° | 542.0 | 21.8 |
| 40°-50° | 299.9 | 12.1 |
| 50°-60° | 188.9 | 7.6 |
| 60°-70° | 125.4 | 5.0 |
| 70°-80° | 68.9 | 2.8 |
| 80°-90° | 19.6 | 0.8 |
| 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° | 1240.6 | 49.9 |
| 0°-40° | 1782.6 | 71.7 |
| 0°-60° | 2271.3 | 91.4 |
| 0°-90° | 2485.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2485.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1685 | 1685 | 1685 | 1685 | 1685 | |
| 5° | 1674 | 1677 | 1673 | 1671 | 1674 | 159 |
| 15° | 1584 | 1584 | 1585 | 1584 | 1581 | 446 |
| 25° | 1380 | 1396 | 1409 | 1395 | 1379 | 623 |
| 35° | 702 | 828 | 1090 | 829 | 691 | 456 |
| 45° | 332 | 364 | 437 | 362 | 334 | 263 |
| 55° | 206 | 210 | 212 | 208 | 206 | 185 |
| 65° | 126 | 127 | 125 | 126 | 125 | 125 |
| 75° | 66 | 65 | 64 | 65 | 65 | 69 |
| 85° | 16 | 16 | 16 | 18 | 16 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P838473

CATALOG NUMBER: HCSQ625D010-HM60525840-61SQMW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1684.9 | 1684.9 | 1684.9 | 1684.9 | 1684.9 |
| 1° | 1681.4 | 1683.7 | 1683.7 | 1682.5 | 1683.7 |
| 2° | 1684.9 | 1681.4 | 1681.4 | 1681.4 | 1682.5 |
| 3° | 1680.2 | 1682.5 | 1682.5 | 1679.0 | 1676.6 |
| 4° | 1679.0 | 1677.8 | 1677.8 | 1681.4 | 1679.0 |
| 5° | 1674.3 | 1676.6 | 1673.1 | 1670.8 | 1674.3 |
| 6° | 1669.6 | 1670.8 | 1669.6 | 1670.8 | 1674.3 |
| 7° | 1663.7 | 1667.2 | 1666.1 | 1664.9 | 1664.9 |
| 8° | 1656.6 | 1661.3 | 1659.0 | 1659.0 | 1657.8 |
| 9° | 1649.6 | 1650.7 | 1653.1 | 1653.1 | 1646.0 |
| 10° | 1639.0 | 1642.5 | 1640.1 | 1641.3 | 1636.6 |
| 11° | 1629.6 | 1634.3 | 1633.1 | 1630.7 | 1631.9 |
| 12° | 1621.3 | 1623.7 | 1622.5 | 1619.0 | 1620.1 |
| 13° | 1610.7 | 1613.1 | 1611.9 | 1611.9 | 1608.4 |
| 14° | 1598.9 | 1596.6 | 1600.1 | 1597.8 | 1596.6 |
| 15° | 1583.6 | 1583.6 | 1584.8 | 1583.6 | 1581.3 |
| 16° | 1569.5 | 1570.7 | 1570.7 | 1569.5 | 1570.7 |
| 17° | 1553.0 | 1557.7 | 1556.6 | 1554.2 | 1555.4 |
| 18° | 1537.7 | 1541.2 | 1542.4 | 1541.2 | 1537.7 |
| 19° | 1523.6 | 1525.9 | 1524.8 | 1520.1 | 1520.1 |
| 20° | 1505.9 | 1507.1 | 1507.1 | 1504.7 | 1502.4 |
| 22.5° | 1450.6 | 1458.8 | 1464.7 | 1460.0 | 1450.6 |
| 25° | 1379.9 | 1396.4 | 1409.4 | 1395.2 | 1378.8 |
| 27.5° | 1281.0 | 1314.0 | 1352.9 | 1317.5 | 1286.9 |
| 30° | 1129.1 | 1204.5 | 1282.2 | 1211.6 | 1136.2 |
| 32.5° | 898.4 | 1046.7 | 1195.1 | 1060.9 | 912.5 |
| 35° | 701.7 | 827.7 | 1090.3 | 828.9 | 691.1 |
| 37.5° | 560.5 | 649.9 | 956.1 | 644.0 | 554.6 |
| 40° | 463.9 | 524.0 | 768.9 | 521.6 | 455.7 |
| 42.5° | 387.4 | 433.3 | 575.8 | 428.6 | 387.4 |
| 45° | 332.0 | 363.8 | 436.8 | 361.5 | 334.4 |
| 47.5° | 290.8 | 310.8 | 349.7 | 309.7 | 290.8 |
| 50° | 256.7 | 268.5 | 289.6 | 267.3 | 254.3 |
| 52.5° | 229.6 | 236.7 | 244.9 | 234.3 | 227.2 |
| 55° | 206.0 | 209.6 | 211.9 | 208.4 | 206.0 |
| 57.5° | 183.7 | 186.0 | 184.9 | 183.7 | 182.5 |
| 60° | 162.5 | 163.7 | 162.5 | 163.7 | 162.5 |
| 62.5° | 143.6 | 144.8 | 142.5 | 143.6 | 142.5 |
| 65° | 126.0 | 127.2 | 124.8 | 126.0 | 124.8 |
| 67.5° | 109.5 | 109.5 | 109.5 | 109.5 | 108.3 |
| 70° | 93.0 | 94.2 | 93.0 | 94.2 | 94.2 |
| 72.5° | 78.9 | 78.9 | 77.7 | 78.9 | 78.9 |
| 75° | 65.9 | 64.8 | 63.6 | 64.8 | 64.8 |



TEST NUMBER: P838473

CATALOG NUMBER: HCSQ625D010-HM60525840-61SQMW

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 82.5° | 28.3 | 28.3 | 27.1 | 28.3 | 28.3 |
| 85° | 16.5 | 16.5 | 16.5 | 17.7 | 16.5 |
| 87.5° | 8.2 | 7.1 | 7.1 | 8.2 | 8.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | |
|-------|------|------|------|------|------|
| 77.5° | 51.8 | 51.8 | 50.6 | 51.8 | 51.8 |
| 80° | 38.9 | 40.0 | 38.9 | 40.0 | 38.9 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)