

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: P584684

Luminaire Tested: **HCC8W45D010MB-HM82555835-81RWWC**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584684  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCC8W45D010MB-HM82555835-81RWWC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4854.2 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.17  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

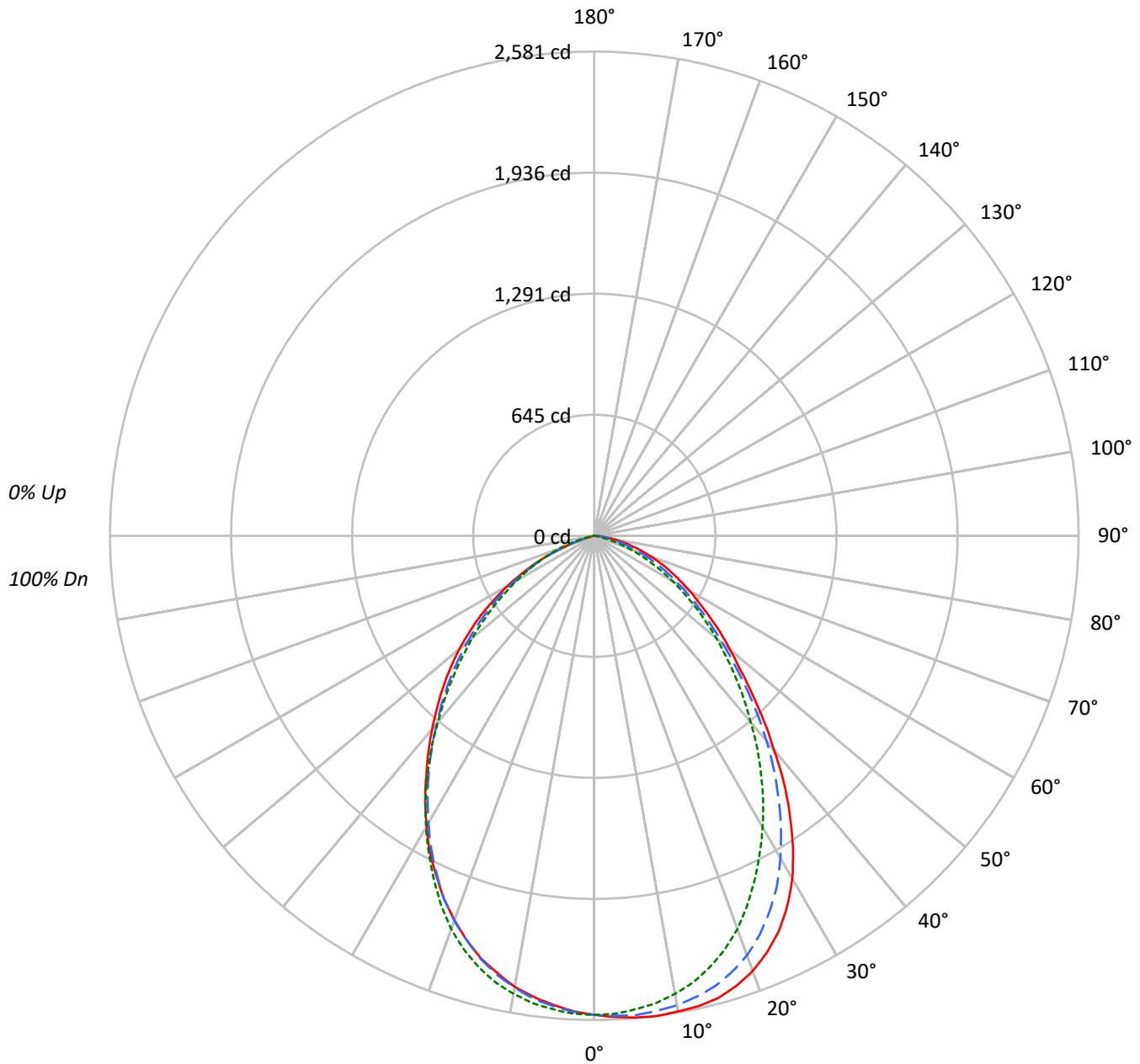
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P584684

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### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |    | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |    |    |
| 2   | 103 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 91  | 86  | 82  | 87  | 84  | 81  | 85  | 82  | 79  | 77  |    |    |
| 3   | 95  | 86  | 79  | 73  | 93  | 84  | 78  | 73  | 82  | 76  | 72  | 79  | 74  | 70  | 76  | 73  | 69  | 67  |    |    |
| 4   | 88  | 77  | 70  | 64  | 86  | 76  | 69  | 64  | 74  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |
| 5   | 81  | 70  | 62  | 56  | 80  | 69  | 62  | 56  | 67  | 61  | 56  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |    |    |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 55  | 50  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |    |    |
| 7   | 71  | 59  | 51  | 45  | 69  | 58  | 50  | 45  | 56  | 50  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |    |    |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35  |    |    |
| 10  | 58  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 78759 | 78759 | 78759 |
| 5°  | 79800 | 78428 | 77689 |
| 10° | 80616 | 77626 | 76451 |
| 15° | 81429 | 75989 | 74463 |
| 20° | 81014 | 73181 | 71505 |
| 25° | 79126 | 68800 | 67875 |
| 30° | 75159 | 63864 | 63622 |
| 35° | 68422 | 58277 | 58793 |
| 40° | 59986 | 52161 | 54085 |
| 45° | 51751 | 46396 | 49671 |
| 50° | 45315 | 40734 | 44989 |
| 55° | 40149 | 35020 | 39595 |
| 60° | 36171 | 29443 | 32810 |
| 65° | 32593 | 23641 | 25129 |
| 70° | 28599 | 17220 | 13830 |
| 75° | 24377 | 8948  | 3658  |
| 80° | 18770 | 2415  | 604   |
| 85° | 12065 | 0     | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 241.0  | 5.0       |
| 10°-20°   | 677.4  | 14.0      |
| 20°-30°   | 961.5  | 19.8      |
| 30°-40°   | 1012.1 | 20.9      |
| 40°-50°   | 861.0  | 17.7      |
| 50°-60°   | 622.2  | 12.8      |
| 60°-70°   | 353.9  | 7.3       |
| 70°-80°   | 111.5  | 2.3       |
| 80°-90°   | 13.5   | 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°    | 1879.9 | 38.7      |
| 0°-40°    | 2892.1 | 59.6      |
| 0°-60°    | 4375.3 | 90.1      |
| 0°-90°    | 4854.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4854.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2554 | 2554 | 2554 | 2554 | 2554 |      |
| 5°  | 2578 | 2564 | 2534 | 2517 | 2510 | 246  |
| 15° | 2551 | 2486 | 2380 | 2336 | 2332 | 718  |
| 25° | 2326 | 2210 | 2022 | 1988 | 1995 | 1065 |
| 35° | 1818 | 1712 | 1548 | 1538 | 1562 | 1131 |
| 45° | 1187 | 1142 | 1064 | 1091 | 1139 | 922  |
| 55° | 747  | 692  | 651  | 689  | 736  | 673  |
| 65° | 447  | 385  | 324  | 321  | 344  | 443  |
| 75° | 205  | 157  | 75   | 34   | 31   | 220  |
| 85° | 34   | 20   | 0    | 0    | 0    | 44   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 |
| 2.5°  | 2567.8 | 2571.2 | 2564.3 | 2564.3 | 2571.2 | 2564.3 | 2567.8 | 2567.8 | 2564.3 | 2564.3 | 2560.9 |
| 5°    | 2578.0 | 2574.6 | 2574.6 | 2574.6 | 2578.0 | 2571.2 | 2567.8 | 2571.2 | 2564.3 | 2564.3 | 2564.3 |
| 7.5°  | 2581.4 | 2581.4 | 2578.0 | 2574.6 | 2574.6 | 2574.6 | 2571.2 | 2567.8 | 2564.3 | 2557.5 | 2554.1 |
| 10°   | 2574.6 | 2574.6 | 2578.0 | 2571.2 | 2571.2 | 2564.3 | 2564.3 | 2557.5 | 2557.5 | 2550.7 | 2540.5 |
| 12.5° | 2567.8 | 2564.3 | 2564.3 | 2557.5 | 2557.5 | 2550.7 | 2550.7 | 2540.5 | 2537.1 | 2526.9 | 2516.6 |
| 15°   | 2550.7 | 2547.3 | 2540.5 | 2537.1 | 2533.7 | 2530.3 | 2523.5 | 2520.1 | 2509.8 | 2496.1 | 2485.9 |
| 17.5° | 2516.6 | 2513.2 | 2509.8 | 2502.9 | 2496.1 | 2492.7 | 2489.3 | 2479.1 | 2465.4 | 2455.2 | 2438.2 |
| 20°   | 2468.8 | 2465.4 | 2465.4 | 2455.2 | 2451.8 | 2441.6 | 2438.2 | 2424.6 | 2414.3 | 2393.9 | 2380.3 |
| 22.5° | 2404.1 | 2407.5 | 2400.7 | 2393.9 | 2387.1 | 2376.8 | 2369.9 | 2356.3 | 2339.3 | 2318.8 | 2301.8 |
| 25°   | 2325.6 | 2329.1 | 2322.2 | 2315.4 | 2305.2 | 2298.4 | 2291.6 | 2271.0 | 2254.0 | 2230.1 | 2209.7 |
| 27.5° | 2226.7 | 2226.7 | 2226.7 | 2219.9 | 2202.9 | 2199.5 | 2192.7 | 2172.2 | 2148.3 | 2127.8 | 2107.4 |
| 30°   | 2110.8 | 2107.4 | 2107.4 | 2097.2 | 2090.4 | 2076.7 | 2066.5 | 2049.5 | 2032.3 | 2008.5 | 1984.6 |
| 32.5° | 1971.0 | 1974.4 | 1964.2 | 1957.4 | 1947.2 | 1947.2 | 1933.5 | 1919.8 | 1899.4 | 1875.5 | 1851.7 |
| 35°   | 1817.6 | 1821.0 | 1814.2 | 1810.8 | 1793.6 | 1790.2 | 1786.8 | 1769.8 | 1756.2 | 1739.1 | 1711.9 |
| 37.5° | 1660.7 | 1657.3 | 1653.8 | 1653.8 | 1643.6 | 1636.8 | 1630.0 | 1619.8 | 1599.3 | 1585.7 | 1572.1 |
| 40°   | 1490.2 | 1490.2 | 1490.2 | 1486.8 | 1483.4 | 1476.6 | 1473.2 | 1466.4 | 1452.6 | 1439.0 | 1428.8 |
| 42.5° | 1336.8 | 1336.8 | 1333.3 | 1329.9 | 1323.1 | 1326.5 | 1319.6 | 1312.8 | 1299.2 | 1289.0 | 1282.2 |
| 45°   | 1186.7 | 1186.7 | 1186.7 | 1190.1 | 1183.3 | 1173.0 | 1173.0 | 1166.2 | 1159.4 | 1152.6 | 1142.4 |
| 47.5° | 1053.7 | 1063.9 | 1057.1 | 1053.7 | 1057.1 | 1043.5 | 1043.5 | 1036.7 | 1029.8 | 1023.0 | 1009.4 |
| 50°   | 944.6  | 944.6  | 944.6  | 937.8  | 934.3  | 934.3  | 924.1  | 917.3  | 913.9  | 907.1  | 893.5  |
| 52.5° | 845.7  | 838.8  | 838.8  | 835.4  | 832.0  | 825.2  | 825.2  | 818.4  | 804.8  | 798.0  | 787.7  |
| 55°   | 746.8  | 746.8  | 743.3  | 739.9  | 736.5  | 733.1  | 729.7  | 719.5  | 712.7  | 702.5  | 692.2  |
| 57.5° | 658.2  | 665.0  | 661.6  | 654.8  | 648.0  | 648.0  | 641.0  | 634.2  | 624.0  | 613.8  | 603.6  |
| 60°   | 586.5  | 583.1  | 583.1  | 579.7  | 572.9  | 569.5  | 566.1  | 555.9  | 545.6  | 535.4  | 525.2  |
| 62.5° | 511.5  | 511.5  | 511.5  | 504.7  | 497.8  | 494.4  | 491.0  | 484.2  | 470.6  | 460.4  | 453.5  |
| 65°   | 446.7  | 443.3  | 439.9  | 436.5  | 433.1  | 426.3  | 422.9  | 416.1  | 405.7  | 395.5  | 385.3  |
| 67.5° | 381.9  | 378.5  | 378.5  | 375.1  | 364.9  | 361.5  | 361.5  | 351.2  | 341.0  | 330.8  | 320.6  |
| 70°   | 317.2  | 317.2  | 317.2  | 310.3  | 306.9  | 303.5  | 300.1  | 293.2  | 283.0  | 272.8  | 262.5  |
| 72.5° | 262.5  | 259.1  | 259.1  | 255.7  | 245.5  | 242.1  | 238.7  | 231.9  | 221.7  | 214.8  | 208.0  |
| 75°   | 204.6  | 204.6  | 201.2  | 197.8  | 194.4  | 191.0  | 187.6  | 180.8  | 170.6  | 160.2  | 156.8  |
| 77.5° | 156.8  | 153.4  | 153.4  | 150.0  | 143.2  | 139.8  | 139.8  | 133.0  | 122.8  | 115.9  | 109.1  |
| 80°   | 105.7  | 109.1  | 105.7  | 102.3  | 98.9   | 95.5   | 92.1   | 88.7   | 81.9   | 75.1   | 68.2   |
| 82.5° | 64.7   | 68.2   | 64.7   | 64.7   | 61.3   | 57.9   | 57.9   | 51.1   | 47.7   | 44.3   | 40.9   |
| 85°   | 34.1   | 34.1   | 34.1   | 34.1   | 30.7   | 30.7   | 30.7   | 27.3   | 23.8   | 20.4   | 20.4   |
| 87.5° | 10.2   | 13.6   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   | 6.8    | 6.8    | 6.8    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 50°    | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 |
| 2.5°  | 2564.3 | 2560.9 | 2557.5 | 2557.5 | 2557.5 | 2557.5 | 2557.5 | 2554.1 | 2550.7 | 2550.7 | 2550.7 |
| 5°    | 2557.5 | 2557.5 | 2557.5 | 2554.1 | 2550.7 | 2550.7 | 2543.9 | 2540.5 | 2537.1 | 2533.7 | 2530.3 |
| 7.5°  | 2550.7 | 2543.9 | 2540.5 | 2537.1 | 2533.7 | 2533.7 | 2526.9 | 2520.1 | 2520.1 | 2513.2 | 2506.3 |
| 10°   | 2530.3 | 2526.9 | 2520.1 | 2513.2 | 2509.8 | 2506.3 | 2499.5 | 2489.3 | 2485.9 | 2479.1 | 2472.3 |
| 12.5° | 2506.3 | 2499.5 | 2492.7 | 2479.1 | 2475.7 | 2472.3 | 2458.6 | 2448.4 | 2441.6 | 2438.2 | 2421.1 |
| 15°   | 2475.7 | 2462.0 | 2451.8 | 2434.8 | 2431.4 | 2424.6 | 2414.3 | 2404.1 | 2390.5 | 2380.3 | 2373.3 |
| 17.5° | 2421.1 | 2407.5 | 2390.5 | 2373.3 | 2366.5 | 2366.5 | 2349.5 | 2335.9 | 2318.8 | 2312.0 | 2298.4 |
| 20°   | 2356.3 | 2339.3 | 2325.6 | 2305.2 | 2295.0 | 2284.8 | 2274.4 | 2254.0 | 2240.4 | 2230.1 | 2213.1 |
| 22.5° | 2281.4 | 2257.4 | 2240.4 | 2219.9 | 2202.9 | 2192.7 | 2175.6 | 2158.6 | 2141.5 | 2131.2 | 2117.6 |
| 25°   | 2185.9 | 2165.4 | 2138.1 | 2117.6 | 2107.4 | 2093.8 | 2073.3 | 2056.3 | 2039.1 | 2022.1 | 2015.3 |
| 27.5° | 2080.1 | 2052.9 | 2028.9 | 2005.1 | 1994.9 | 1984.6 | 1960.8 | 1940.3 | 1926.7 | 1909.6 | 1902.8 |
| 30°   | 1964.2 | 1936.9 | 1909.6 | 1889.1 | 1878.9 | 1861.9 | 1848.3 | 1824.4 | 1807.4 | 1793.6 | 1776.6 |
| 32.5° | 1831.2 | 1810.8 | 1786.8 | 1756.2 | 1749.3 | 1735.7 | 1715.3 | 1705.1 | 1684.5 | 1674.3 | 1660.7 |
| 35°   | 1687.9 | 1674.3 | 1650.4 | 1626.6 | 1616.4 | 1609.6 | 1592.5 | 1572.1 | 1558.3 | 1548.1 | 1541.3 |
| 37.5° | 1551.5 | 1534.5 | 1510.6 | 1493.6 | 1486.8 | 1476.6 | 1456.0 | 1445.8 | 1432.2 | 1425.4 | 1411.7 |
| 40°   | 1404.9 | 1387.9 | 1370.9 | 1360.6 | 1350.4 | 1343.6 | 1329.9 | 1319.6 | 1306.0 | 1295.8 | 1292.4 |
| 42.5° | 1261.7 | 1251.5 | 1237.9 | 1224.3 | 1220.7 | 1210.5 | 1203.7 | 1193.5 | 1183.3 | 1179.9 | 1169.6 |
| 45°   | 1132.2 | 1121.9 | 1108.3 | 1094.6 | 1091.2 | 1084.4 | 1081.0 | 1070.7 | 1063.9 | 1063.9 | 1063.9 |
| 47.5° | 1002.6 | 992.4  | 978.6  | 971.8  | 975.2  | 961.6  | 961.6  | 958.2  | 951.4  | 951.4  | 954.8  |
| 50°   | 886.6  | 872.9  | 869.5  | 862.7  | 855.9  | 849.1  | 852.5  | 842.3  | 842.3  | 849.1  | 845.7  |
| 52.5° | 777.5  | 763.9  | 760.5  | 753.7  | 750.3  | 750.3  | 746.8  | 746.8  | 743.3  | 746.8  | 746.8  |
| 55°   | 678.6  | 668.4  | 661.6  | 654.8  | 651.4  | 651.4  | 651.4  | 648.0  | 644.4  | 651.4  | 654.8  |
| 57.5° | 589.9  | 586.5  | 579.7  | 569.5  | 566.1  | 562.7  | 559.3  | 559.3  | 559.3  | 559.3  | 562.7  |
| 60°   | 511.5  | 504.7  | 497.8  | 487.6  | 487.6  | 484.2  | 480.8  | 477.4  | 477.4  | 477.4  | 477.4  |
| 62.5° | 443.3  | 433.1  | 422.9  | 416.1  | 412.7  | 409.3  | 405.7  | 398.9  | 398.9  | 398.9  | 398.9  |
| 65°   | 375.1  | 364.9  | 358.0  | 351.2  | 344.4  | 344.4  | 337.6  | 334.2  | 327.4  | 324.0  | 317.2  |
| 67.5° | 310.3  | 303.5  | 296.7  | 286.4  | 283.0  | 279.6  | 272.8  | 269.4  | 259.1  | 255.7  | 252.3  |
| 70°   | 252.3  | 242.1  | 235.3  | 228.5  | 225.1  | 218.3  | 211.4  | 204.6  | 197.8  | 191.0  | 184.2  |
| 72.5° | 197.8  | 187.6  | 180.8  | 174.0  | 167.0  | 167.0  | 156.8  | 150.0  | 139.8  | 133.0  | 122.8  |
| 75°   | 146.6  | 136.4  | 129.6  | 119.3  | 115.9  | 112.5  | 102.3  | 95.5   | 85.3   | 75.1   | 68.2   |
| 77.5° | 98.9   | 92.1   | 85.3   | 75.1   | 68.2   | 68.2   | 57.9   | 51.1   | 44.3   | 34.1   | 30.7   |
| 80°   | 61.3   | 54.5   | 47.7   | 40.9   | 40.9   | 34.1   | 30.7   | 23.8   | 17.0   | 13.6   | 10.2   |
| 82.5° | 34.1   | 30.7   | 27.3   | 20.4   | 20.4   | 17.0   | 13.6   | 10.2   | 6.8    | 3.4    | 3.4    |
| 85°   | 17.0   | 13.6   | 10.2   | 10.2   | 6.8    | 6.8    | 6.8    | 3.4    | 3.4    | 0.0    | 0.0    |
| 87.5° | 6.8    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 100°   | 105°   | 110°   | 112.5° | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 |
| 2.5°  | 2547.3 | 2547.3 | 2543.9 | 2543.9 | 2543.9 | 2540.5 | 2543.9 | 2540.5 | 2540.5 | 2540.5 | 2543.9 |
| 5°    | 2533.7 | 2526.9 | 2526.9 | 2523.5 | 2523.5 | 2520.1 | 2523.5 | 2520.1 | 2516.6 | 2513.2 | 2516.6 |
| 7.5°  | 2506.3 | 2499.5 | 2496.1 | 2492.7 | 2492.7 | 2492.7 | 2489.3 | 2485.9 | 2489.3 | 2479.1 | 2485.9 |
| 10°   | 2468.8 | 2465.4 | 2458.6 | 2455.2 | 2451.8 | 2455.2 | 2451.8 | 2445.0 | 2445.0 | 2445.0 | 2441.6 |
| 12.5° | 2421.1 | 2414.3 | 2410.9 | 2407.5 | 2400.7 | 2400.7 | 2404.1 | 2397.3 | 2397.3 | 2390.5 | 2390.5 |
| 15°   | 2363.1 | 2356.3 | 2349.5 | 2349.5 | 2342.7 | 2342.7 | 2339.3 | 2339.3 | 2335.9 | 2332.5 | 2332.5 |
| 17.5° | 2291.6 | 2281.4 | 2274.4 | 2277.8 | 2274.4 | 2271.0 | 2271.0 | 2264.2 | 2260.8 | 2264.2 | 2264.2 |
| 20°   | 2206.3 | 2199.5 | 2192.7 | 2196.1 | 2189.3 | 2185.9 | 2189.3 | 2179.0 | 2182.4 | 2182.4 | 2182.4 |
| 22.5° | 2110.8 | 2107.4 | 2097.2 | 2097.2 | 2090.4 | 2086.9 | 2090.4 | 2090.4 | 2093.8 | 2090.4 | 2090.4 |
| 25°   | 2005.1 | 1998.3 | 1991.4 | 1991.4 | 1988.0 | 1984.6 | 1988.0 | 1991.4 | 1988.0 | 1991.4 | 1991.4 |
| 27.5° | 1892.5 | 1882.3 | 1882.3 | 1875.5 | 1875.5 | 1878.9 | 1875.5 | 1878.9 | 1882.3 | 1882.3 | 1889.1 |
| 30°   | 1769.8 | 1766.4 | 1763.0 | 1759.6 | 1759.6 | 1763.0 | 1763.0 | 1763.0 | 1766.4 | 1773.2 | 1773.2 |
| 32.5° | 1653.8 | 1647.0 | 1640.2 | 1640.2 | 1647.0 | 1643.6 | 1647.0 | 1647.0 | 1653.8 | 1653.8 | 1660.7 |
| 35°   | 1527.7 | 1527.7 | 1520.9 | 1524.3 | 1524.3 | 1524.3 | 1524.3 | 1531.1 | 1537.9 | 1541.3 | 1548.1 |
| 37.5° | 1411.7 | 1401.5 | 1404.9 | 1404.9 | 1408.3 | 1404.9 | 1415.1 | 1415.1 | 1422.0 | 1422.0 | 1428.8 |
| 40°   | 1285.6 | 1285.6 | 1289.0 | 1285.6 | 1289.0 | 1289.0 | 1295.8 | 1302.6 | 1306.0 | 1312.8 | 1316.2 |
| 42.5° | 1166.2 | 1173.0 | 1166.2 | 1169.6 | 1173.0 | 1176.5 | 1179.9 | 1183.3 | 1196.9 | 1203.7 | 1213.9 |
| 45°   | 1057.1 | 1060.5 | 1063.9 | 1067.3 | 1063.9 | 1070.7 | 1074.1 | 1081.0 | 1091.2 | 1094.6 | 1098.0 |
| 47.5° | 951.4  | 954.8  | 958.2  | 961.6  | 961.6  | 968.4  | 971.8  | 978.6  | 985.6  | 989.0  | 992.4  |
| 50°   | 849.1  | 855.9  | 859.3  | 859.3  | 862.7  | 869.5  | 876.3  | 876.3  | 883.2  | 893.5  | 896.9  |
| 52.5° | 757.1  | 757.1  | 763.9  | 767.3  | 770.7  | 770.7  | 780.9  | 784.3  | 787.7  | 794.6  | 801.4  |
| 55°   | 654.8  | 665.0  | 668.4  | 668.4  | 675.2  | 682.0  | 685.4  | 688.8  | 688.8  | 702.5  | 702.5  |
| 57.5° | 566.1  | 569.5  | 576.3  | 576.3  | 576.3  | 586.5  | 586.5  | 593.3  | 596.7  | 600.2  | 607.0  |
| 60°   | 477.4  | 484.2  | 484.2  | 487.6  | 484.2  | 491.0  | 494.4  | 501.2  | 504.7  | 508.1  | 511.5  |
| 62.5° | 395.5  | 395.5  | 398.9  | 398.9  | 398.9  | 398.9  | 405.7  | 405.7  | 412.7  | 416.1  | 419.5  |
| 65°   | 317.2  | 317.2  | 317.2  | 317.2  | 317.2  | 317.2  | 317.2  | 317.2  | 320.6  | 320.6  | 327.4  |
| 67.5° | 245.5  | 242.1  | 235.3  | 238.7  | 235.3  | 235.3  | 231.9  | 231.9  | 235.3  | 235.3  | 242.1  |
| 70°   | 177.4  | 174.0  | 167.0  | 167.0  | 163.6  | 160.2  | 156.8  | 153.4  | 150.0  | 150.0  | 150.0  |
| 72.5° | 115.9  | 109.1  | 98.9   | 95.5   | 95.5   | 88.7   | 81.9   | 78.5   | 78.5   | 78.5   | 78.5   |
| 75°   | 57.9   | 51.1   | 44.3   | 40.9   | 40.9   | 34.1   | 37.5   | 34.1   | 34.1   | 34.1   | 34.1   |
| 77.5° | 23.8   | 17.0   | 13.6   | 13.6   | 13.6   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   |
| 80°   | 6.8    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    |
| 82.5° | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



TEST NUMBER: P584684

CATALOG NUMBER: HCC8W45D010MB-HM82555835-81RWWC

**CANDELA DISTRIBUTION (continued):**

|       | 150°   | 155°   | 157.5° | 160°   | 165°   | 170°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 | 2554.1 |
| 2.5°  | 2540.5 | 2540.5 | 2533.7 | 2537.1 | 2537.1 | 2537.1 | 2537.1 | 2537.1 |
| 5°    | 2509.8 | 2513.2 | 2509.8 | 2513.2 | 2513.2 | 2509.8 | 2509.8 | 2509.8 |
| 7.5°  | 2479.1 | 2482.5 | 2479.1 | 2482.5 | 2482.5 | 2482.5 | 2479.1 | 2479.1 |
| 10°   | 2441.6 | 2441.6 | 2441.6 | 2441.6 | 2441.6 | 2438.2 | 2441.6 | 2441.6 |
| 12.5° | 2390.5 | 2390.5 | 2390.5 | 2393.9 | 2393.9 | 2390.5 | 2390.5 | 2387.1 |
| 15°   | 2335.9 | 2329.1 | 2332.5 | 2335.9 | 2332.5 | 2332.5 | 2332.5 | 2332.5 |
| 17.5° | 2260.8 | 2264.2 | 2260.8 | 2260.8 | 2260.8 | 2260.8 | 2264.2 | 2260.8 |
| 20°   | 2182.4 | 2182.4 | 2185.9 | 2182.4 | 2182.4 | 2182.4 | 2182.4 | 2179.0 |
| 22.5° | 2093.8 | 2090.4 | 2090.4 | 2093.8 | 2093.8 | 2090.4 | 2093.8 | 2093.8 |
| 25°   | 1994.9 | 1998.3 | 1994.9 | 1994.9 | 1998.3 | 1998.3 | 1998.3 | 1994.9 |
| 27.5° | 1889.1 | 1892.5 | 1896.0 | 1892.5 | 1892.5 | 1892.5 | 1896.0 | 1899.4 |
| 30°   | 1780.0 | 1786.8 | 1780.0 | 1780.0 | 1786.8 | 1783.4 | 1786.8 | 1786.8 |
| 32.5° | 1664.1 | 1674.3 | 1667.5 | 1674.3 | 1674.3 | 1677.7 | 1674.3 | 1677.7 |
| 35°   | 1548.1 | 1558.3 | 1558.3 | 1558.3 | 1561.8 | 1565.3 | 1565.3 | 1561.8 |
| 37.5° | 1439.0 | 1442.4 | 1442.4 | 1449.2 | 1452.6 | 1456.0 | 1456.0 | 1452.6 |
| 40°   | 1326.5 | 1333.3 | 1336.8 | 1336.8 | 1336.8 | 1343.6 | 1350.4 | 1343.6 |
| 42.5° | 1217.3 | 1220.7 | 1224.3 | 1224.3 | 1231.1 | 1234.5 | 1237.9 | 1237.9 |
| 45°   | 1111.7 | 1118.5 | 1121.9 | 1125.3 | 1128.8 | 1135.6 | 1132.2 | 1139.0 |
| 47.5° | 1002.6 | 1012.8 | 1016.2 | 1019.6 | 1026.4 | 1029.8 | 1033.3 | 1036.7 |
| 50°   | 903.7  | 910.5  | 910.5  | 917.3  | 927.5  | 927.5  | 934.3  | 937.8  |
| 52.5° | 804.8  | 808.2  | 811.6  | 815.0  | 821.8  | 828.6  | 828.6  | 835.4  |
| 55°   | 709.3  | 712.7  | 712.7  | 716.1  | 719.5  | 733.1  | 736.5  | 736.5  |
| 57.5° | 610.4  | 610.4  | 617.2  | 620.6  | 624.0  | 630.8  | 630.8  | 630.8  |
| 60°   | 514.9  | 518.3  | 518.3  | 521.8  | 525.2  | 532.0  | 535.4  | 532.0  |
| 62.5° | 419.5  | 422.9  | 422.9  | 426.3  | 433.1  | 436.5  | 433.1  | 433.1  |
| 65°   | 330.8  | 334.2  | 334.2  | 337.6  | 344.4  | 344.4  | 341.0  | 344.4  |
| 67.5° | 242.1  | 242.1  | 242.1  | 242.1  | 242.1  | 242.1  | 242.1  | 242.1  |
| 70°   | 153.4  | 150.0  | 146.6  | 150.0  | 150.0  | 150.0  | 146.6  | 153.4  |
| 72.5° | 75.1   | 78.5   | 78.5   | 78.5   | 78.5   | 78.5   | 78.5   | 75.1   |
| 75°   | 34.1   | 34.1   | 30.7   | 30.7   | 30.7   | 34.1   | 34.1   | 30.7   |
| 77.5° | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   | 10.2   |
| 80°   | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



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

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