

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: P776665

Luminaire Tested: HCDJBS4050CSD-HCD61TRMW-5000lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776665
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B037)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD61TRMW-5000lm-2700K
Description: 6 INCH ROUND SHALLOW-WIDE MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

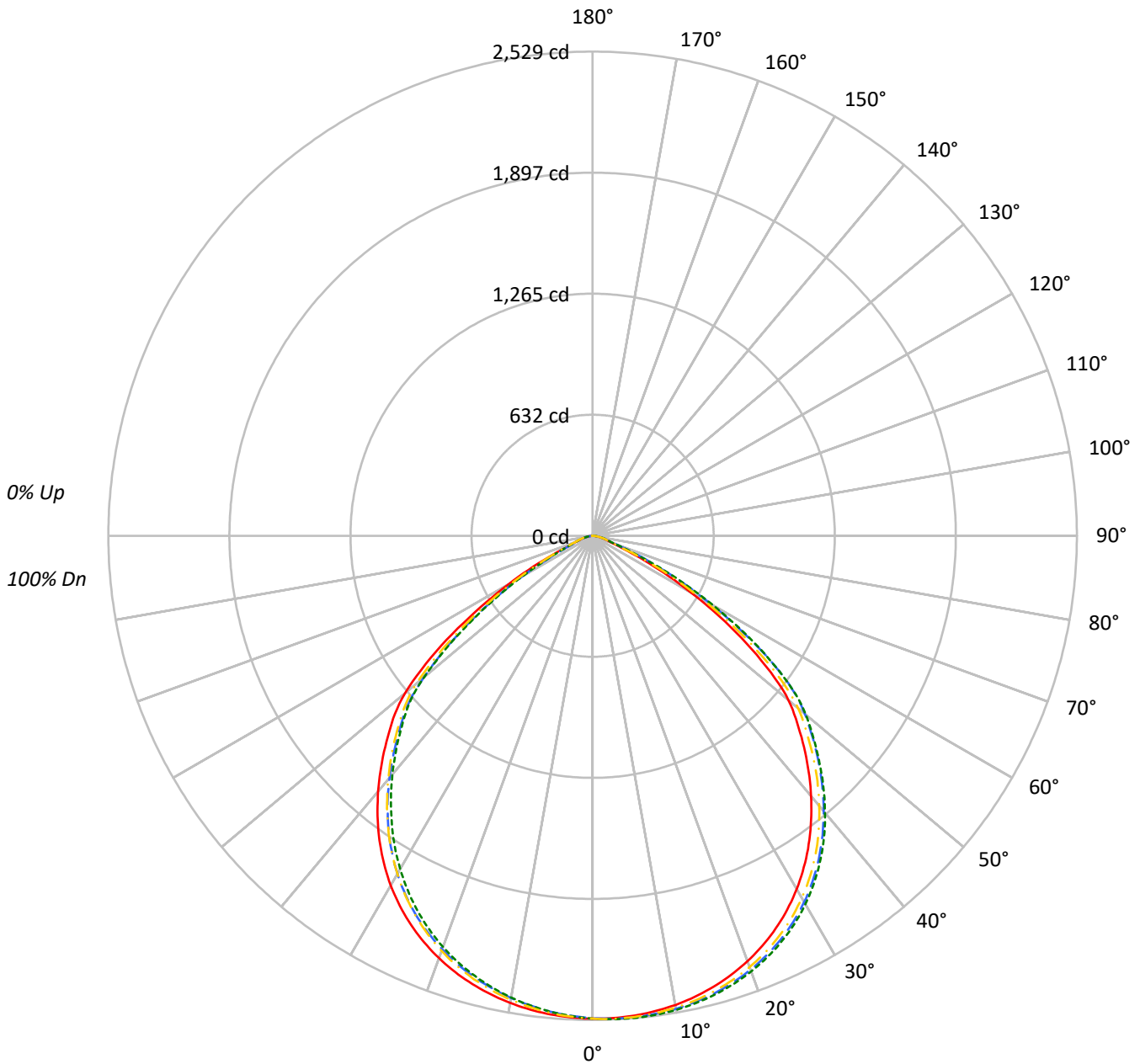
Lumens per Lamp: N/A
Luminaire Lumens: 5564.2 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.32
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 48
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



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Luminous Intensity Polar Plot





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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	0					
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	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77								
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67								
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59								
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52								
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46								
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34								
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	138224	138224	138224	138224
5°	138421	139126	138124	137343
10°	138530	139972	137918	136320
15°	138417	140716	137589	135058
20°	137947	141272	136938	133297
25°	136883	141377	135697	130792
30°	134888	140655	133476	127247
35°	131658	138705	129891	122422
40°	127031	135117	124684	116397
45°	121013	129913	118082	109360
50°	113847	124030	108875	98001
55°	93884	108039	85521	73202
60°	65137	79478	55851	46104
65°	35283	46931	26657	23582
70°	16798	19939	14682	14602
75°	13513	15250	11205	11777
80°	10197	12502	7608	8903
85°	6290	10001	3145	5158

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 133556 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.8	4.3
10°-20°	685.6	12.3
20°-30°	1036.1	18.6
30°-40°	1218.5	21.9
40°-50°	1186.6	21.3
50°-60°	837.0	15.0
60°-70°	280.4	5.0
70°-80°	67.7	1.2
80°-90°	13.5	0.2
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°	1960.5	35.2
0°-40°	3179.0	57.1
0°-60°	5202.6	93.5
0°-90°	5564.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5564.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2521	2521	2521	2521	2521	
5°	2515	2528	2510	2496	2515	239
15°	2439	2479	2424	2380	2439	688
25°	2263	2337	2243	2162	2263	1042
35°	1967	2073	1941	1829	1967	1228
45°	1561	1676	1523	1411	1561	1203
55°	982	1130	895	766	982	870
65°	272	362	206	182	272	292
75°	64	72	53	56	64	69
85°	10	16	5	8	10	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4
0.5°	2522.7	2522.3	2520.9	2518.6	2523.6	2524.1	2523.6	2523.6	2522.3	2520.5	2518.2
1°	2522.7	2522.7	2522.3	2520.5	2525.0	2525.0	2524.6	2523.6	2521.8	2519.5	2516.4
1.5°	2522.7	2523.2	2522.7	2521.8	2525.9	2525.9	2525.0	2523.2	2520.5	2517.7	2514.5
2°	2522.3	2523.2	2523.6	2523.2	2526.8	2526.4	2525.0	2522.7	2519.5	2516.4	2512.2
2.5°	2521.4	2523.2	2524.1	2524.1	2527.7	2526.4	2525.0	2522.3	2518.6	2514.5	2510.4
3°	2520.9	2523.2	2524.6	2525.0	2527.7	2526.8	2525.0	2521.4	2516.8	2512.7	2507.7
3.5°	2519.5	2523.2	2525.0	2525.9	2528.2	2526.8	2524.6	2520.5	2515.4	2510.4	2505.0
4°	2518.6	2522.3	2524.6	2526.4	2528.2	2526.8	2524.1	2519.5	2514.1	2508.1	2502.2
4.5°	2516.8	2521.4	2524.6	2526.8	2528.7	2526.4	2523.6	2517.7	2511.8	2505.4	2498.6
5°	2515.4	2520.5	2524.1	2526.8	2528.2	2525.9	2522.3	2516.4	2510.0	2502.7	2495.8
5.5°	2513.6	2519.5	2523.2	2526.4	2527.7	2525.0	2521.4	2514.5	2507.7	2499.9	2492.2
6°	2511.8	2517.7	2522.7	2526.4	2526.8	2524.1	2520.5	2512.7	2505.0	2496.8	2488.6
6.5°	2509.5	2516.4	2521.4	2525.9	2525.9	2523.2	2518.6	2510.4	2502.2	2493.1	2484.5
7°	2507.2	2514.5	2520.0	2525.0	2525.0	2521.4	2517.3	2508.1	2499.5	2489.9	2480.4
7.5°	2504.5	2512.7	2518.6	2524.1	2523.6	2520.0	2515.4	2505.4	2496.3	2486.3	2475.8
8°	2501.8	2510.4	2516.8	2523.2	2522.3	2518.2	2513.2	2502.7	2493.1	2482.2	2471.7
8.5°	2498.6	2508.1	2515.4	2522.3	2520.5	2516.4	2510.4	2499.9	2489.5	2478.1	2466.7
9°	2495.4	2505.4	2513.2	2520.5	2518.6	2514.1	2508.1	2496.8	2485.8	2473.5	2462.1
9.5°	2491.7	2502.7	2510.9	2518.6	2516.8	2511.8	2505.9	2493.6	2481.7	2469.0	2456.7
10°	2488.6	2499.5	2508.6	2516.8	2514.5	2509.1	2502.7	2489.5	2477.6	2464.4	2451.7
10.5°	2484.5	2496.3	2505.9	2515.0	2511.8	2505.9	2499.5	2485.8	2473.1	2459.4	2445.7
11°	2480.4	2492.7	2502.7	2512.2	2509.1	2503.1	2496.3	2481.7	2468.5	2454.4	2440.3
11.5°	2475.8	2489.0	2499.9	2510.0	2505.9	2499.5	2492.7	2477.6	2464.0	2448.9	2434.3
12°	2471.2	2484.9	2496.3	2507.2	2502.7	2496.3	2489.0	2473.1	2458.9	2443.5	2428.4
12.5°	2466.2	2480.8	2492.7	2504.0	2499.5	2492.7	2484.9	2468.5	2453.5	2437.5	2422.0
13°	2461.2	2476.3	2489.0	2500.9	2495.8	2489.0	2480.8	2463.5	2448.0	2431.6	2415.2
13.5°	2455.8	2472.2	2484.9	2497.7	2492.2	2484.5	2476.3	2458.5	2442.5	2425.2	2408.4
14°	2450.3	2467.1	2480.8	2494.0	2488.1	2480.4	2471.7	2453.0	2436.6	2418.8	2401.5
14.5°	2444.8	2462.1	2476.3	2490.4	2483.5	2475.8	2466.7	2447.6	2430.2	2412.0	2393.8
15°	2438.9	2456.7	2471.7	2485.8	2479.4	2471.2	2461.7	2441.6	2424.3	2405.6	2386.5
15.5°	2432.5	2451.2	2466.7	2481.7	2474.9	2465.8	2456.2	2435.7	2417.5	2398.3	2378.8
16°	2426.1	2445.3	2461.7	2477.2	2469.9	2460.8	2450.3	2429.3	2411.1	2391.1	2371.0
16.5°	2419.3	2439.4	2455.8	2473.1	2464.4	2455.3	2444.8	2422.9	2403.8	2383.3	2362.8
17°	2412.0	2433.0	2450.7	2467.6	2459.4	2449.4	2438.9	2416.1	2396.5	2375.6	2354.2
17.5°	2404.7	2426.6	2444.8	2462.6	2453.5	2443.5	2432.5	2408.8	2388.8	2367.4	2345.5
18°	2397.4	2419.8	2438.9	2457.1	2447.6	2437.5	2425.7	2401.5	2381.0	2359.2	2336.8
18.5°	2389.7	2412.9	2432.5	2451.2	2441.2	2430.7	2418.8	2394.2	2373.3	2350.5	2327.3
19°	2381.5	2405.6	2425.7	2445.3	2435.3	2424.3	2412.0	2386.5	2364.6	2341.9	2318.2
19.5°	2373.3	2397.9	2418.8	2439.4	2428.4	2417.0	2404.7	2378.3	2356.0	2332.7	2308.6
20°	2364.6	2390.1	2411.6	2433.0	2421.6	2409.7	2397.4	2370.1	2347.3	2323.2	2298.6
20.5°	2356.0	2382.4	2404.7	2426.1	2414.3	2402.0	2389.2	2361.4	2338.2	2313.6	2288.1
21°	2346.9	2373.7	2397.0	2419.3	2407.0	2394.2	2381.0	2352.3	2329.1	2304.0	2278.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2317.2	2347.3	2372.4	2397.4	2382.9	2369.2	2355.1	2324.5	2299.0	2272.6	2245.3
23°	2307.2	2338.2	2363.7	2389.2	2374.2	2360.5	2346.0	2314.5	2288.1	2261.7	2233.0
23.5°	2296.7	2328.2	2354.6	2381.0	2365.5	2351.4	2336.4	2304.0	2277.6	2250.3	2221.6
24°	2285.8	2318.2	2345.0	2372.8	2356.4	2341.9	2326.4	2293.6	2266.2	2238.9	2209.3
24.5°	2274.9	2307.7	2335.5	2363.7	2346.9	2331.8	2316.3	2282.6	2254.8	2226.6	2197.0
25°	2263.0	2296.7	2325.4	2354.6	2337.3	2321.8	2306.3	2271.7	2243.4	2214.7	2184.2
25.5°	2251.2	2285.8	2315.4	2345.0	2327.3	2311.3	2295.4	2259.8	2231.1	2202.4	2170.5
26°	2238.9	2274.4	2304.5	2335.5	2316.8	2300.8	2284.4	2248.0	2218.8	2189.7	2157.3
26.5°	2227.0	2263.0	2294.0	2325.4	2306.3	2289.5	2273.5	2236.1	2206.1	2176.0	2143.7
27°	2213.8	2250.7	2282.6	2315.0	2295.4	2278.5	2261.7	2223.4	2193.3	2163.3	2129.5
27.5°	2201.1	2238.9	2271.2	2304.5	2284.0	2266.7	2249.4	2210.6	2180.1	2149.6	2115.4
28°	2187.4	2226.6	2259.8	2293.6	2272.1	2254.4	2237.5	2197.9	2166.4	2135.0	2100.4
28.5°	2174.2	2213.4	2247.5	2282.6	2260.3	2242.1	2224.8	2184.7	2152.3	2120.9	2085.8
29°	2160.1	2200.2	2235.2	2270.8	2248.0	2229.3	2211.5	2171.0	2138.2	2105.8	2070.3
29.5°	2145.5	2186.9	2222.0	2258.9	2235.2	2216.1	2198.3	2156.9	2123.2	2090.8	2054.8
30°	2130.9	2172.8	2209.3	2246.6	2222.0	2203.3	2185.1	2142.3	2108.6	2075.3	2038.4
30.5°	2116.3	2158.7	2196.1	2233.9	2208.8	2189.2	2170.5	2127.7	2093.1	2059.4	2022.0
31°	2100.8	2144.6	2181.9	2221.6	2195.1	2175.1	2156.4	2112.7	2077.6	2043.4	2005.6
31.5°	2085.3	2129.5	2167.8	2207.9	2181.0	2160.5	2142.3	2097.2	2061.6	2027.0	1988.3
32°	2069.4	2114.0	2153.2	2194.2	2166.9	2145.9	2126.8	2081.2	2045.2	2010.2	1971.0
32.5°	2053.0	2099.0	2138.6	2180.1	2151.9	2130.9	2111.3	2065.3	2028.8	1992.9	1952.8
33°	2036.6	2083.1	2123.2	2166.0	2136.8	2115.0	2095.8	2049.3	2012.0	1975.5	1935.0
33.5°	2019.7	2066.7	2107.7	2150.9	2121.3	2099.0	2079.9	2032.5	1994.2	1957.3	1917.2
34°	2002.4	2050.7	2092.2	2136.4	2105.8	2083.1	2063.5	2015.2	1976.4	1939.1	1898.1
34.5°	1985.6	2033.9	2075.8	2120.9	2089.4	2066.7	2046.6	1997.9	1958.7	1920.9	1879.4
35°	1967.3	2017.0	2059.4	2104.9	2072.6	2049.8	2029.8	1980.5	1940.9	1902.2	1859.8
35.5°	1949.6	1999.2	2042.5	2089.0	2055.7	2032.9	2012.0	1962.3	1922.2	1882.6	1840.2
36°	1930.4	1981.5	2025.2	2072.6	2038.9	2014.7	1994.7	1944.1	1903.1	1863.5	1819.7
36.5°	1912.2	1963.7	2007.9	2055.7	2021.1	1996.5	1976.4	1925.4	1883.5	1843.4	1799.7
37°	1894.0	1945.5	1989.7	2038.9	2002.9	1978.3	1957.8	1906.7	1864.4	1823.4	1779.2
37.5°	1874.4	1927.2	1972.3	2021.1	1984.2	1959.6	1939.1	1887.1	1844.8	1803.3	1758.7
38°	1854.8	1908.1	1953.7	2003.3	1966.0	1940.9	1920.4	1867.6	1825.2	1782.8	1737.3
38.5°	1835.2	1889.0	1935.0	1985.1	1946.4	1921.8	1900.8	1848.0	1804.2	1761.9	1715.4
39°	1815.2	1869.4	1915.9	1966.9	1927.7	1901.7	1881.2	1827.5	1783.7	1740.4	1694.0
39.5°	1795.6	1849.8	1896.7	1947.7	1907.7	1882.1	1861.2	1807.0	1763.2	1718.6	1672.1
40°	1775.1	1830.2	1877.1	1928.6	1888.1	1862.1	1841.1	1786.9	1742.3	1697.2	1649.8
40.5°	1754.1	1809.7	1857.5	1909.0	1867.6	1841.6	1820.6	1766.0	1721.3	1675.3	1628.4
41°	1733.6	1789.2	1837.0	1889.4	1847.5	1820.6	1800.1	1745.0	1699.4	1653.0	1605.1
41.5°	1712.6	1768.7	1816.5	1868.9	1827.0	1800.1	1778.7	1723.1	1678.0	1631.1	1582.8
42°	1691.2	1748.2	1796.0	1848.9	1806.0	1779.2	1757.8	1701.7	1656.2	1608.8	1560.0
42.5°	1669.8	1727.2	1775.5	1828.4	1784.6	1757.8	1737.3	1680.3	1634.3	1586.4	1537.2
43°	1648.4	1705.8	1754.1	1807.9	1763.2	1736.3	1715.4	1658.4	1612.4	1563.2	1513.5
43.5°	1627.0	1684.4	1733.2	1786.5	1741.8	1714.9	1693.1	1636.6	1590.1	1540.4	1490.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1560.9	1619.2	1668.5	1722.7	1675.7	1648.4	1627.0	1569.1	1523.1	1472.5	1423.3
45.5°	1538.6	1596.9	1647.0	1700.8	1653.4	1626.1	1604.7	1546.8	1500.8	1450.7	1401.5
46°	1516.3	1574.6	1624.7	1678.9	1631.5	1603.3	1581.9	1524.5	1478.0	1428.3	1380.1
46.5°	1493.5	1552.3	1602.4	1656.6	1608.8	1581.0	1559.1	1501.7	1455.7	1406.0	1358.2
47°	1471.6	1530.4	1580.1	1634.3	1586.0	1559.1	1537.2	1479.8	1434.3	1384.6	1334.9
47.5°	1449.8	1508.1	1558.2	1612.0	1564.1	1537.2	1515.4	1458.0	1412.4	1361.4	1310.3
48°	1427.9	1485.8	1535.4	1589.2	1542.7	1514.9	1493.5	1436.1	1388.7	1336.3	1283.5
48.5°	1405.1	1463.9	1513.5	1567.3	1520.4	1494.0	1471.2	1412.9	1363.6	1309.0	1252.9
49°	1383.7	1442.0	1491.2	1545.0	1498.5	1471.2	1449.3	1386.9	1337.2	1278.9	1220.6
49.5°	1359.5	1419.2	1469.8	1522.2	1476.6	1449.3	1426.1	1360.5	1308.1	1246.6	1185.5
50°	1334.9	1396.5	1447.5	1500.3	1454.3	1424.7	1400.6	1332.2	1276.6	1212.4	1150.4
50.5°	1308.1	1371.4	1424.2	1478.5	1429.7	1399.2	1374.1	1302.1	1243.8	1178.7	1115.3
51°	1277.5	1344.5	1399.2	1456.1	1403.7	1370.9	1345.4	1269.8	1210.1	1142.7	1078.4
51.5°	1243.4	1314.4	1372.3	1432.4	1376.4	1338.6	1313.5	1234.7	1173.2	1106.2	1041.5
52°	1208.7	1282.6	1344.1	1406.9	1345.4	1305.8	1279.4	1197.4	1135.4	1068.9	1003.7
52.5°	1172.7	1248.4	1312.6	1380.1	1311.7	1272.5	1245.6	1159.1	1097.1	1031.1	966.4
53°	1135.8	1212.4	1279.8	1351.3	1278.0	1237.0	1208.7	1119.9	1057.9	991.4	928.5
53.5°	1097.6	1175.0	1244.3	1320.4	1242.0	1201.0	1171.8	1079.3	1018.3	952.2	890.7
54°	1059.8	1138.1	1206.9	1286.7	1205.6	1164.5	1133.6	1039.3	977.3	913.5	853.4
54.5°	1021.0	1099.4	1167.3	1250.7	1167.7	1128.1	1094.8	999.6	936.7	874.3	815.1
55°	982.3	1060.2	1127.6	1212.4	1130.4	1090.3	1054.7	957.7	894.8	833.8	776.4
55.5°	943.1	1019.2	1087.1	1173.2	1091.6	1051.6	1015.1	917.6	853.8	794.6	739.0
56°	904.8	978.7	1045.6	1132.7	1052.5	1011.9	975.0	876.6	812.4	755.4	701.2
56.5°	864.8	937.7	1003.3	1091.6	1012.4	971.8	934.5	837.4	771.8	716.2	663.8
57°	826.0	895.7	960.4	1050.2	971.8	931.7	893.5	797.8	732.2	678.0	627.4
57.5°	786.8	854.7	919.0	1008.3	930.4	891.6	853.4	759.1	693.0	639.7	591.8
58°	747.2	812.8	877.5	967.3	889.8	850.6	813.3	719.9	654.3	601.9	556.3
58.5°	708.5	770.9	835.1	925.8	848.4	808.7	773.6	681.1	616.0	565.4	521.2
59°	670.2	730.8	793.7	884.8	806.9	767.3	733.5	642.4	579.5	528.5	487.5
59.5°	632.4	690.7	753.6	844.7	765.9	725.8	694.4	606.0	544.0	493.4	455.2
60°	594.1	651.1	714.4	804.2	724.9	685.2	655.6	568.6	509.4	458.8	424.2
60.5°	556.8	612.8	675.2	764.5	684.8	644.7	617.4	533.1	475.7	428.3	393.2
61°	521.7	575.0	635.1	724.4	645.6	605.1	580.0	497.1	442.4	397.8	362.2
61.5°	485.7	538.1	597.8	687.1	607.3	566.3	543.1	463.4	411.4	367.7	331.2
62°	452.0	502.1	561.3	647.4	569.1	528.1	506.2	431.9	380.4	337.2	300.2
62.5°	419.2	467.5	525.8	610.1	531.2	490.2	470.2	400.0	349.0	306.6	273.8
63°	387.7	434.2	490.7	573.2	494.8	454.7	437.8	368.6	318.0	280.7	248.8
63.5°	356.7	401.4	456.1	536.7	459.3	421.4	405.0	337.2	286.6	256.5	225.5
64°	327.6	370.4	423.3	500.7	426.5	388.6	372.2	305.7	257.9	233.3	204.1
64.5°	299.3	340.3	391.4	465.2	394.1	355.4	339.9	277.5	230.5	211.4	184.5
65°	272.0	312.1	360.8	431.5	361.8	322.6	307.1	251.0	205.5	191.4	167.2
65.5°	246.0	284.8	331.7	398.7	329.0	293.4	277.5	226.0	181.8	172.7	151.7
66°	221.4	260.2	303.4	366.3	296.6	265.2	250.1	202.7	161.7	156.7	139.0



TEST NUMBER: P776665

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	159.9	193.2	226.0	276.6	217.3	192.7	179.5	145.3	117.5	118.5	110.7
68°	147.6	174.0	203.2	250.1	193.6	172.2	160.8	131.2	109.3	109.8	104.3
68.5°	135.8	158.6	182.2	224.6	173.6	153.5	144.4	119.4	104.3	102.5	99.8
69°	123.5	146.3	164.0	201.4	154.5	137.6	130.8	109.8	100.2	97.5	95.7
69.5°	111.2	134.4	151.7	179.5	138.5	123.9	118.9	103.0	96.1	93.4	92.0
70°	104.8	122.1	139.4	159.5	124.4	113.4	109.8	98.0	91.6	89.3	87.9
70.5°	100.2	110.3	127.6	146.7	113.9	104.8	103.0	93.9	87.5	85.2	84.3
71°	96.1	102.5	115.7	133.5	105.2	99.8	98.4	89.8	82.9	81.6	80.6
71.5°	92.0	97.0	103.4	120.7	99.3	95.7	94.3	85.7	78.8	77.5	76.5
72°	87.9	92.9	98.4	108.0	95.2	91.6	90.7	81.6	74.7	73.4	72.9
72.5°	83.4	88.8	94.8	101.1	91.1	87.5	86.6	77.5	70.6	69.7	69.3
73°	79.3	84.7	90.7	97.0	87.5	83.8	82.5	73.4	67.0	66.1	65.6
73.5°	75.2	80.6	86.6	92.9	83.4	79.7	78.8	69.7	63.3	62.4	62.4
74°	71.5	76.5	82.5	89.3	79.3	76.1	74.7	65.6	59.7	58.8	58.8
74.5°	67.4	72.9	78.8	85.2	75.6	72.0	71.1	62.0	56.0	55.1	55.6
75°	63.8	68.8	74.7	81.1	72.0	68.3	67.4	58.3	52.9	51.9	52.4
75.5°	60.1	65.2	71.1	77.5	68.3	64.7	63.8	55.1	49.7	48.8	49.2
76°	56.5	61.5	67.0	73.4	64.7	61.5	60.1	51.5	46.5	45.6	46.5
76.5°	53.3	57.9	63.8	69.7	61.1	57.9	57.0	48.3	43.3	42.4	43.3
77°	49.7	54.7	60.1	66.1	57.9	54.7	53.8	45.1	40.1	39.6	40.5
77.5°	46.5	51.0	56.5	62.4	54.7	51.5	50.6	41.9	37.4	36.9	37.8
78°	43.7	47.8	53.3	59.2	51.5	48.3	47.4	39.2	34.6	34.2	35.1
78.5°	40.5	44.7	50.1	55.6	48.3	45.6	44.2	36.4	31.9	31.0	32.3
79°	37.8	41.9	46.9	52.4	45.1	42.4	41.5	33.7	29.2	28.2	30.1
79.5°	35.1	38.7	43.7	49.7	42.4	40.1	38.7	31.0	26.4	26.0	27.3
80°	32.3	36.0	41.0	46.5	39.6	37.4	36.0	28.2	24.1	23.2	24.6
80.5°	29.6	33.3	38.3	43.3	36.9	34.6	33.3	25.5	21.9	21.0	22.3
81°	27.3	30.5	35.5	40.5	34.2	31.9	30.5	23.2	19.6	18.7	20.5
81.5°	25.1	28.2	32.8	37.8	31.4	29.6	27.8	20.5	17.3	16.4	18.2
82°	22.3	25.5	30.1	35.1	28.7	26.9	25.5	18.7	15.5	14.1	15.9
82.5°	20.0	23.2	27.8	32.8	26.4	24.6	23.2	16.4	13.2	12.3	14.1
83°	18.2	21.0	25.5	30.1	24.1	22.3	21.0	14.1	11.4	10.5	12.3
83.5°	15.9	19.1	23.2	27.8	22.3	20.0	18.7	12.3	9.6	8.7	10.5
84°	14.1	16.9	21.0	25.5	20.0	18.2	16.9	10.5	7.7	6.8	8.7
84.5°	12.3	15.0	18.7	23.2	17.8	15.9	14.6	8.7	6.4	5.5	7.3
85°	10.0	12.8	16.9	21.0	15.9	14.1	12.8	7.3	5.0	4.6	5.9
85.5°	8.2	10.9	14.6	18.7	14.1	12.3	10.9	5.9	3.6	3.6	4.6
86°	6.8	9.1	12.8	16.9	12.3	10.5	9.6	5.0	3.2	2.7	3.2
86.5°	5.0	7.3	11.4	15.0	10.5	8.7	7.7	3.6	2.3	1.8	1.8
87°	4.1	5.9	9.6	13.2	8.7	7.3	6.4	2.7	1.4	0.9	0.9
87.5°	3.2	5.0	8.2	11.4	6.8	5.5	5.0	1.8	0.9	0.5	0.0
88°	2.3	4.1	6.4	9.6	5.5	4.1	3.6	0.9	0.5	0.0	0.0
88.5°	1.4	2.7	5.0	7.7	4.1	2.7	2.3	0.5	0.0	0.0	0.0



TEST NUMBER: P776665
CATALOG NUMBER: HCDJBL4050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.5	1.4	3.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776665

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2521.4	2521.4	2521.4	2521.4	2521.4	2521.4
0.5°	2515.0	2520.5	2521.4	2521.4	2522.7	2522.7
1°	2512.7	2518.6	2519.5	2520.0	2522.3	2522.7
1.5°	2510.0	2516.4	2517.7	2518.6	2521.4	2522.7
2°	2507.2	2514.1	2515.9	2516.8	2520.5	2522.3
2.5°	2504.5	2511.3	2513.6	2515.0	2519.1	2521.4
3°	2501.3	2508.6	2511.3	2513.2	2517.7	2520.9
3.5°	2498.1	2505.9	2508.6	2510.4	2516.4	2519.5
4°	2494.9	2502.7	2505.9	2508.1	2514.1	2518.6
4.5°	2491.3	2499.5	2502.7	2505.4	2512.2	2516.8
5°	2487.2	2495.8	2499.0	2502.2	2510.0	2515.4
5.5°	2483.1	2492.2	2495.8	2499.0	2507.7	2513.6
6°	2478.5	2488.1	2492.2	2495.8	2505.0	2511.8
6.5°	2474.0	2484.0	2488.6	2492.2	2502.2	2509.5
7°	2469.4	2479.4	2484.5	2488.6	2499.0	2507.2
7.5°	2464.4	2474.9	2479.9	2484.5	2495.8	2504.5
8°	2459.4	2470.3	2475.3	2480.4	2492.7	2501.8
8.5°	2453.9	2465.3	2470.8	2475.8	2489.0	2498.6
9°	2448.5	2460.3	2465.8	2471.2	2484.9	2495.4
9.5°	2443.0	2454.8	2460.8	2466.2	2480.8	2491.7
10°	2436.6	2448.9	2455.3	2461.2	2476.3	2488.6
10.5°	2430.7	2443.5	2449.8	2455.8	2471.7	2484.5
11°	2423.9	2437.1	2443.9	2450.3	2466.7	2480.4
11.5°	2417.5	2430.7	2437.5	2444.4	2462.1	2475.8
12°	2410.6	2424.3	2431.2	2438.4	2457.1	2471.2
12.5°	2403.4	2417.5	2424.8	2432.1	2451.2	2466.2
13°	2395.6	2410.2	2417.9	2425.7	2445.7	2461.2
13.5°	2388.3	2402.9	2410.6	2418.8	2439.4	2455.8
14°	2380.6	2395.6	2403.4	2412.0	2433.0	2450.3
14.5°	2372.4	2387.9	2395.6	2404.3	2426.6	2444.8
15°	2364.2	2379.7	2388.3	2397.4	2420.2	2438.9
15.5°	2355.5	2371.5	2380.1	2389.2	2412.9	2432.5
16°	2346.9	2362.8	2371.9	2381.0	2405.6	2426.1
16.5°	2337.7	2354.2	2362.8	2372.8	2397.9	2419.3
17°	2328.2	2345.0	2354.2	2364.2	2390.1	2412.0
17.5°	2319.1	2335.5	2345.0	2355.5	2382.4	2404.7
18°	2309.0	2326.4	2335.5	2346.4	2374.2	2397.4
18.5°	2299.0	2315.9	2325.9	2336.8	2365.5	2389.7
19°	2288.5	2306.3	2315.9	2327.3	2356.4	2381.5
19.5°	2277.6	2295.8	2305.9	2317.2	2347.3	2373.3
20°	2266.7	2284.9	2295.4	2307.2	2338.2	2364.6
20.5°	2255.7	2274.4	2284.0	2296.7	2328.6	2356.0
21°	2244.3	2262.6	2273.1	2285.8	2318.6	2346.9

TEST NUMBER: P776665

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2207.9	2227.0	2238.4	2251.6	2287.2	2317.2
23°	2195.6	2215.2	2225.7	2239.3	2276.2	2307.2
23.5°	2182.4	2202.4	2213.4	2227.0	2264.9	2296.7
24°	2169.2	2189.2	2200.6	2214.3	2253.5	2285.8
24.5°	2156.0	2176.0	2187.4	2201.5	2241.6	2274.9
25°	2141.8	2162.3	2173.7	2188.8	2228.9	2263.0
25.5°	2127.7	2148.7	2159.6	2175.1	2216.1	2251.2
26°	2113.6	2134.1	2145.9	2161.4	2203.3	2238.9
26.5°	2098.6	2120.0	2131.4	2146.8	2190.1	2227.0
27°	2083.5	2104.9	2116.8	2132.3	2176.5	2213.8
27.5°	2068.5	2089.9	2101.3	2118.1	2162.8	2201.1
28°	2053.0	2074.4	2086.3	2103.1	2148.7	2187.4
28.5°	2036.6	2058.5	2070.8	2087.6	2134.1	2174.2
29°	2020.2	2042.5	2054.4	2071.7	2119.5	2160.1
29.5°	2003.8	2026.1	2038.4	2056.2	2104.0	2145.5
30°	1986.5	2010.2	2021.6	2039.3	2088.5	2130.9
30.5°	1969.6	1992.9	2004.7	2023.4	2073.0	2116.3
31°	1951.8	1975.5	1987.8	2006.1	2057.1	2100.8
31.5°	1933.6	1958.7	1971.0	1989.2	2040.7	2085.3
32°	1915.4	1940.9	1953.2	1971.4	2023.8	2069.4
32.5°	1897.2	1922.7	1935.0	1954.1	2007.0	2053.0
33°	1878.0	1904.9	1917.7	1936.4	1989.7	2036.6
33.5°	1858.9	1886.7	1899.5	1918.1	1971.9	2019.7
34°	1839.8	1867.6	1880.8	1899.5	1954.1	2002.4
34.5°	1819.7	1848.4	1861.6	1881.2	1935.9	1985.6
35°	1800.1	1829.3	1843.0	1861.6	1917.7	1967.3
35.5°	1779.6	1809.7	1823.8	1842.5	1899.0	1949.6
36°	1759.6	1790.1	1804.2	1822.9	1879.9	1930.4
36.5°	1738.6	1770.5	1785.1	1803.3	1860.7	1912.2
37°	1718.1	1750.5	1765.0	1783.7	1840.7	1894.0
37.5°	1696.7	1730.0	1745.0	1763.7	1821.5	1874.4
38°	1675.7	1709.5	1725.0	1743.2	1801.5	1854.8
38.5°	1653.4	1689.4	1704.4	1722.2	1781.4	1835.2
39°	1632.5	1668.0	1684.4	1702.2	1760.5	1815.2
39.5°	1610.1	1647.0	1663.9	1681.7	1740.0	1795.6
40°	1588.3	1626.5	1642.9	1660.7	1719.5	1775.1
40.5°	1566.4	1605.6	1622.0	1639.3	1698.5	1754.1
41°	1544.1	1583.7	1600.6	1618.3	1677.6	1733.6
41.5°	1521.3	1562.3	1579.6	1596.9	1655.7	1712.6
42°	1499.0	1540.9	1558.2	1575.5	1634.7	1691.2
42.5°	1476.2	1519.5	1536.8	1554.1	1612.9	1669.8
43°	1454.3	1498.1	1515.4	1532.7	1591.5	1648.4
43.5°	1431.5	1475.7	1494.0	1510.4	1569.6	1627.0

TEST NUMBER: P776665

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1367.3	1410.6	1428.8	1444.7	1503.5	1560.9
45.5°	1345.9	1389.2	1406.9	1422.9	1480.7	1538.6
46°	1323.1	1367.3	1385.5	1401.5	1458.9	1516.3
46.5°	1299.4	1345.9	1363.6	1379.1	1436.5	1493.5
47°	1273.9	1324.0	1342.7	1357.7	1415.1	1471.6
47.5°	1244.7	1299.9	1320.4	1335.9	1393.3	1449.8
48°	1212.8	1275.7	1296.2	1312.2	1371.4	1427.9
48.5°	1178.2	1248.4	1271.2	1287.6	1349.1	1405.1
49°	1142.7	1217.9	1245.6	1262.5	1325.4	1383.7
49.5°	1106.7	1184.6	1214.2	1233.3	1301.2	1359.5
50°	1070.7	1149.1	1181.4	1201.0	1274.8	1334.9
50.5°	1032.9	1112.2	1144.5	1165.5	1244.7	1308.1
51°	995.1	1075.2	1108.1	1129.0	1211.0	1277.5
51.5°	957.2	1037.0	1069.3	1091.6	1175.0	1243.4
52°	919.0	999.2	1032.0	1053.4	1138.6	1208.7
52.5°	881.6	960.0	993.7	1014.7	1101.7	1172.7
53°	843.3	919.9	954.1	975.9	1064.8	1135.8
53.5°	806.4	881.2	913.0	935.8	1026.5	1097.6
54°	769.1	842.0	874.3	896.6	988.2	1059.8
54.5°	731.7	804.6	834.7	857.5	949.5	1021.0
55°	695.3	765.9	794.6	820.1	910.3	982.3
55.5°	658.8	728.1	756.3	781.4	871.6	943.1
56°	623.7	691.2	718.0	743.6	832.9	904.8
56.5°	590.0	654.3	680.2	706.7	794.6	864.8
57°	554.9	618.3	643.3	670.7	756.3	826.0
57.5°	521.2	583.2	606.9	633.3	719.0	786.8
58°	487.5	548.1	571.3	597.8	681.6	747.2
58.5°	456.5	514.8	538.1	564.0	644.7	708.5
59°	426.0	482.5	505.3	529.9	609.6	670.2
59.5°	395.9	450.6	473.8	497.1	574.5	632.4
60°	365.4	420.5	442.9	465.2	540.4	594.1
60.5°	335.3	390.0	413.2	433.7	507.1	556.8
61°	304.8	361.3	384.5	403.7	473.4	521.7
61.5°	278.4	334.4	357.7	374.1	441.0	485.7
62°	252.9	308.9	331.2	346.7	409.6	452.0
62.5°	229.6	283.8	306.2	319.8	379.1	419.2
63°	207.8	260.6	282.5	293.9	349.5	387.7
63.5°	188.6	238.7	260.2	270.2	321.7	356.7
64°	170.4	218.2	239.2	247.4	294.3	327.6
64.5°	154.9	199.1	218.7	226.4	267.9	299.3
65°	142.2	181.8	200.5	206.4	243.3	272.0
65.5°	130.8	165.4	183.2	188.2	220.5	246.0
66°	121.2	154.0	167.2	171.3	200.0	221.4



TEST NUMBER: P776665

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	100.7	120.3	132.6	132.6	153.1	159.9
68°	97.0	108.9	121.2	124.8	142.6	147.6
68.5°	92.9	102.5	109.8	116.6	131.7	135.8
69°	89.3	98.4	103.0	108.4	121.2	123.5
69.5°	85.7	94.8	98.4	100.2	110.3	111.2
70°	82.0	91.1	94.8	96.6	103.4	104.8
70.5°	78.4	87.0	91.1	92.5	98.4	100.2
71°	74.7	83.4	87.5	88.8	94.3	96.1
71.5°	71.1	79.7	83.8	85.2	90.2	92.0
72°	67.4	76.1	79.7	81.6	86.1	87.9
72.5°	64.2	72.4	76.1	77.9	82.5	83.4
73°	61.1	68.8	72.4	74.3	78.4	79.3
73.5°	57.4	65.6	69.3	70.6	74.7	75.2
74°	54.2	62.0	65.6	67.0	70.6	71.5
74.5°	51.5	58.8	62.4	63.3	67.0	67.4
75°	48.3	55.6	59.2	60.1	63.3	63.8
75.5°	45.6	52.4	56.0	57.0	59.7	60.1
76°	42.4	49.7	52.9	53.8	56.5	56.5
76.5°	39.6	46.5	49.7	50.6	52.9	53.3
77°	37.4	43.7	46.9	47.4	49.7	49.7
77.5°	34.6	41.0	43.7	44.2	46.5	46.5
78°	32.3	38.3	41.0	41.5	43.3	43.7
78.5°	29.6	35.5	38.3	38.7	40.5	40.5
79°	27.3	33.3	35.5	36.0	37.8	37.8
79.5°	25.1	30.5	33.3	33.3	34.6	35.1
80°	22.8	28.2	30.5	31.0	32.3	32.3
80.5°	20.5	26.0	28.2	28.2	29.6	29.6
81°	18.7	23.7	26.0	26.0	26.9	27.3
81.5°	16.4	21.4	23.7	23.7	24.6	25.1
82°	14.6	19.6	21.4	21.4	22.3	22.3
82.5°	12.8	17.3	19.6	19.6	20.0	20.0
83°	10.9	15.5	17.3	17.3	17.8	18.2
83.5°	9.1	13.7	15.5	15.5	15.5	15.9
84°	7.3	11.8	13.7	13.7	13.7	14.1
84.5°	5.5	10.0	11.8	11.8	11.8	12.3
85°	4.1	8.2	10.0	10.0	9.6	10.0
85.5°	2.7	6.4	8.2	8.2	8.2	8.2
86°	1.4	4.6	6.4	6.8	6.8	6.8
86.5°	0.5	3.2	5.0	5.0	5.5	5.0
87°	0.0	1.8	3.2	3.6	4.1	4.1
87.5°	0.0	0.9	1.8	2.3	3.2	3.2
88°	0.0	0.0	0.9	0.9	2.3	2.3
88.5°	0.0	0.0	0.0	0.5	1.4	1.4



TEST NUMBER: P776665

CATALOG NUMBER: HCDJBS4050CSD-HCD61TRMW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	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

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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°

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Scaled Data Report



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21.5°	2337.3	2365.1	2388.8	2412.5	2399.3	2386.0	2372.8	2343.7	2319.1	2293.6	2267.1
22°	2327.3	2356.4	2380.6	2405.2	2391.5	2378.3	2364.2	2334.1	2309.0	2283.5	2256.2



44°	1605.6	1663.0	1712.2	1766.0	1719.9	1692.6	1671.2	1614.2	1567.8	1517.6	1468.0
44.5°	1582.8	1640.7	1689.9	1744.5	1697.6	1671.2	1648.9	1591.9	1545.0	1495.3	1445.7



66.5°	199.1	236.0	276.6	336.2	268.4	239.7	224.2	181.8	144.0	142.2	128.0
67°	179.1	213.7	250.6	305.3	241.5	215.0	200.9	162.2	129.4	129.4	118.5



89°	0.9	1.8	3.6	6.4	2.7	1.4	0.9	0.0	0.0	0.0	0.0
89.5°	0.5	0.9	2.3	4.6	1.4	0.5	0.5	0.0	0.0	0.0	0.0

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21.5°	2232.5	2251.2	2261.7	2274.4	2308.6	2337.3
22°	2220.2	2239.8	2250.3	2263.0	2298.1	2327.3



44°	1410.1	1453.9	1472.1	1488.9	1547.7	1605.6
44.5°	1388.7	1432.0	1450.2	1466.6	1525.4	1582.8



66.5°	113.0	142.6	155.8	155.8	180.9	199.1
67°	106.2	131.2	144.0	142.6	164.0	179.1

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Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.5	0.9
89.5°	0.0	0.0	0.0	0.0	0.0	0.5

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)