

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: P776372

Luminaire Tested: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776372
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B061)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K
Description: 6 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4531.4 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.09 / 1.15
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

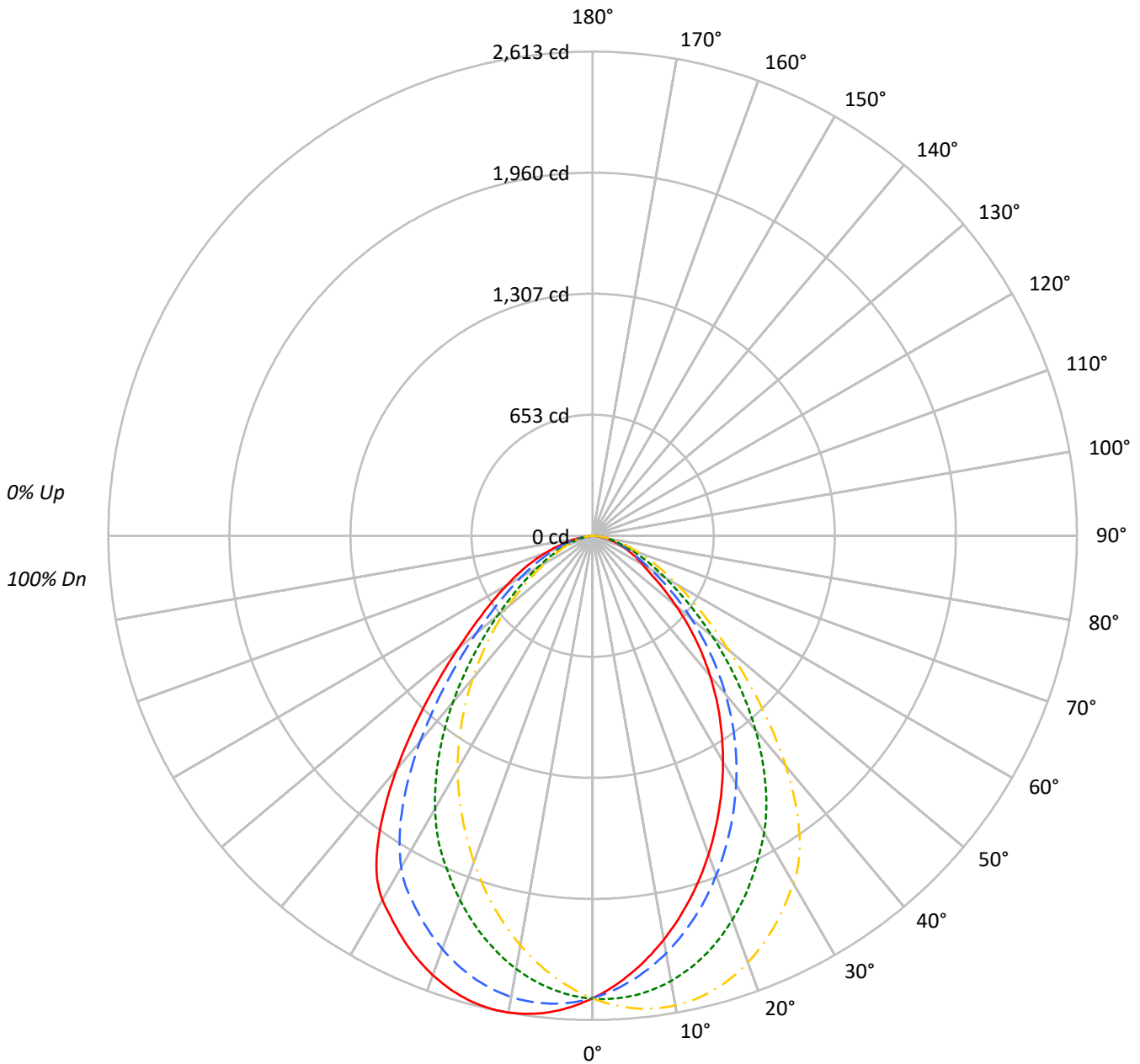
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	77					77			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67					67			
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60					60			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53					53			
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	55	49	45	54	49	45	43					43			
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	40	35	58	46	39	35	45	39	35	44	39	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	136820	136820	136820	136820
5°	130475	137128	141938	135268
10°	123161	135791	145438	132140
15°	115188	132918	147175	127640
20°	106695	128630	147182	122044
25°	97911	123201	145726	115749
30°	89033	117132	143623	107649
35°	79980	108730	135057	96704
40°	70561	97776	117685	83929
45°	60479	85040	98227	70062
50°	50028	71784	81004	57047
55°	40343	59563	68184	46154
60°	34295	49415	58910	37519
65°	31132	41600	51497	30470
70°	27649	34910	43565	24331
75°	24252	29463	34588	19105
80°	20078	25477	23330	14301
85°	12517	24468	8240	7988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 100320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.1	5.2
10°-20°	647.2	14.3
20°-30°	916.7	20.2
30°-40°	976.6	21.6
40°-50°	783.8	17.3
50°-60°	508.9	11.2
60°-70°	295.1	6.5
70°-80°	138.7	3.1
80°-90°	30.2	0.7
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°	1798.0	39.7
0°-40°	2774.6	61.2
0°-60°	4067.3	89.8
0°-90°	4531.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4531.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2496	2496	2496	2496	2496	
5°	2371	2492	2579	2458	2371	221
15°	2030	2342	2593	2249	2030	569
25°	1619	2037	2409	1914	1619	743
35°	1195	1625	2018	1445	1195	746
45°	780	1097	1267	904	780	601
55°	422	623	713	483	422	384
65°	240	321	397	235	240	238
75°	114	139	163	90	114	122
85°	20	39	13	13	20	26
90°	0	6	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°	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8
0.5°	2485.5	2485.5	2488.3	2492.6	2499.8	2502.2	2504.6	2505.8	2507.0	2503.8	2501.0
1°	2474.4	2476.0	2481.5	2489.5	2500.6	2507.0	2512.5	2515.7	2516.5	2512.5	2506.6
1.5°	2462.8	2466.0	2473.6	2485.9	2501.0	2511.7	2520.1	2524.8	2526.0	2520.5	2511.7
2°	2450.9	2455.3	2466.0	2481.5	2501.4	2515.7	2527.2	2533.6	2534.8	2528.0	2516.5
2.5°	2438.2	2444.2	2457.7	2476.8	2500.6	2518.9	2534.0	2541.9	2543.5	2535.2	2520.9
3°	2425.5	2433.0	2448.9	2472.0	2499.8	2522.1	2539.9	2549.9	2551.5	2541.9	2524.4
3.5°	2412.8	2421.1	2439.8	2466.4	2498.6	2524.4	2545.5	2557.4	2559.4	2547.9	2528.0
4°	2399.3	2409.2	2430.3	2460.5	2497.0	2526.8	2550.7	2564.6	2566.2	2553.9	2530.4
4.5°	2385.3	2396.9	2420.3	2454.1	2494.6	2528.4	2555.4	2570.9	2572.9	2559.0	2533.2
5°	2371.0	2383.8	2410.0	2446.9	2491.9	2529.2	2559.8	2577.3	2579.3	2563.8	2534.8
5.5°	2356.7	2370.6	2399.3	2440.2	2488.7	2530.0	2563.4	2582.9	2584.8	2568.2	2536.4
6°	2341.6	2357.1	2388.5	2432.2	2485.1	2530.0	2566.6	2587.6	2590.0	2571.7	2537.2
6.5°	2326.5	2343.2	2377.0	2424.3	2480.7	2529.6	2569.4	2592.0	2594.8	2575.3	2537.6
7°	2311.0	2328.9	2365.1	2415.5	2476.4	2528.8	2571.3	2596.0	2598.8	2577.7	2537.6
7.5°	2295.5	2314.2	2353.2	2406.4	2471.2	2527.6	2572.9	2599.6	2602.3	2580.1	2537.2
8°	2279.6	2299.5	2340.4	2397.3	2465.6	2525.6	2574.1	2602.3	2605.5	2581.7	2536.4
8.5°	2262.9	2284.4	2327.3	2387.7	2459.7	2523.2	2574.9	2605.1	2607.9	2582.9	2534.8
9°	2246.6	2268.5	2314.2	2377.4	2453.3	2520.5	2574.9	2606.7	2610.3	2583.7	2532.8
9.5°	2229.6	2252.6	2300.7	2366.7	2446.5	2517.3	2574.5	2608.3	2611.5	2584.1	2530.4
10°	2212.5	2237.1	2286.8	2355.5	2439.4	2513.3	2573.7	2609.1	2612.7	2583.7	2527.6
10.5°	2195.0	2221.2	2272.5	2344.4	2431.4	2509.3	2572.5	2609.5	2613.1	2582.5	2524.0
11°	2177.9	2204.5	2257.8	2332.5	2423.5	2504.6	2570.5	2609.1	2613.1	2581.3	2520.1
11.5°	2159.6	2187.4	2242.7	2320.6	2414.4	2499.4	2568.2	2608.3	2612.3	2579.3	2515.3
12°	2141.7	2170.7	2227.6	2307.8	2405.6	2493.4	2565.4	2607.1	2611.1	2576.9	2510.5
12.5°	2123.4	2152.8	2212.1	2294.7	2396.5	2487.5	2561.8	2605.1	2609.5	2574.1	2505.4
13°	2105.2	2136.2	2196.6	2281.6	2386.5	2480.7	2557.8	2602.7	2607.1	2570.5	2499.4
13.5°	2086.1	2118.3	2180.3	2268.5	2375.8	2473.6	2553.1	2600.0	2604.3	2567.0	2493.0
14°	2067.8	2100.4	2164.0	2254.6	2365.1	2466.0	2548.3	2596.4	2601.1	2562.6	2486.3
14.5°	2048.3	2081.7	2147.7	2239.9	2353.9	2457.7	2542.7	2592.4	2597.6	2557.4	2479.1
15°	2029.6	2063.8	2130.6	2225.6	2342.0	2448.9	2536.8	2588.0	2593.2	2551.9	2471.6
15.5°	2009.4	2044.7	2113.1	2210.1	2330.5	2440.2	2530.4	2582.9	2588.0	2545.9	2463.2
16°	1990.3	2026.1	2096.4	2195.4	2317.8	2430.6	2523.2	2577.3	2582.9	2539.5	2454.9
16.5°	1970.8	2007.0	2078.9	2179.5	2305.1	2420.7	2515.7	2571.3	2576.9	2532.8	2446.1
17°	1951.0	1988.3	2061.0	2163.6	2291.6	2410.4	2507.7	2564.6	2570.5	2525.6	2437.0
17.5°	1930.7	1968.8	2042.8	2147.3	2278.4	2399.6	2499.4	2557.8	2563.8	2517.7	2427.1
18°	1910.8	1949.8	2024.9	2131.0	2264.1	2387.7	2490.3	2549.9	2556.6	2509.7	2416.7
18.5°	1890.2	1929.9	2006.2	2113.9	2249.8	2376.2	2480.7	2541.9	2548.7	2501.0	2406.0
19°	1870.3	1910.4	1987.9	2096.8	2235.1	2364.3	2471.2	2533.6	2540.3	2491.9	2395.3
19.5°	1849.6	1890.2	1968.8	2079.7	2220.4	2352.0	2460.9	2524.8	2531.6	2482.3	2384.2
20°	1828.9	1870.7	1950.2	2062.6	2204.9	2339.2	2450.1	2515.3	2522.9	2472.8	2372.6
20.5°	1807.9	1850.4	1931.1	2044.4	2189.4	2325.7	2439.0	2505.4	2512.9	2462.4	2360.3
21°	1787.6	1830.1	1911.6	2026.9	2173.1	2312.2	2427.5	2495.4	2503.0	2451.3	2348.0



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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°	1724.4	1768.9	1852.8	1971.6	2124.6	2269.3	2391.3	2462.4	2470.8	2417.5	2309.0
23°	1703.4	1747.9	1832.9	1952.9	2107.1	2254.2	2378.2	2450.9	2459.3	2405.2	2295.1
23.5°	1682.7	1727.6	1813.4	1933.9	2090.1	2239.5	2364.7	2438.2	2447.3	2392.9	2281.2
24°	1661.6	1706.5	1793.2	1915.2	2072.2	2223.2	2351.2	2425.9	2435.0	2379.8	2266.9
24.5°	1640.2	1685.9	1772.9	1895.7	2054.7	2207.7	2337.3	2412.8	2422.3	2366.7	2252.2
25°	1618.7	1665.2	1753.0	1876.2	2036.8	2191.8	2322.5	2400.0	2409.2	2353.2	2236.7
25.5°	1597.6	1643.7	1732.8	1856.4	2018.9	2175.1	2308.2	2386.1	2396.1	2339.2	2222.0
26°	1576.6	1623.1	1712.1	1837.3	2000.2	2158.8	2293.5	2372.2	2382.2	2324.9	2206.9
26.5°	1555.5	1602.0	1692.2	1818.2	1982.4	2142.1	2278.0	2357.5	2367.9	2310.6	2191.8
27°	1534.1	1581.8	1672.0	1798.3	1963.3	2125.0	2262.1	2343.6	2353.5	2295.9	2177.5
27.5°	1512.6	1560.7	1651.7	1778.5	1945.0	2107.5	2246.6	2328.1	2339.2	2282.4	2162.4
28°	1491.1	1538.8	1631.0	1759.0	1925.9	2090.1	2230.7	2313.4	2324.9	2268.5	2146.1
28.5°	1470.5	1517.8	1610.8	1739.5	1907.6	2072.6	2214.5	2298.3	2311.4	2255.0	2127.8
29°	1449.0	1497.1	1590.1	1719.3	1888.6	2055.1	2198.2	2283.6	2298.3	2239.9	2107.9
29.5°	1427.5	1476.0	1569.4	1699.0	1869.9	2038.4	2182.7	2269.3	2284.0	2223.2	2087.3
30°	1406.5	1455.0	1548.8	1679.1	1850.4	2020.1	2167.2	2255.0	2268.9	2204.5	2065.4
30.5°	1385.4	1433.9	1527.7	1658.5	1830.5	2001.8	2150.1	2239.5	2252.6	2183.8	2042.4
31°	1364.0	1412.8	1507.0	1636.6	1809.9	1982.4	2133.0	2223.2	2234.3	2162.0	2017.3
31.5°	1342.9	1392.2	1485.6	1615.9	1788.4	1962.1	2113.9	2204.1	2214.1	2138.9	1991.9
32°	1321.4	1370.3	1464.5	1594.1	1766.9	1940.2	2093.2	2184.2	2192.2	2113.9	1966.1
32.5°	1300.4	1349.3	1443.4	1572.2	1744.3	1917.2	2071.0	2162.8	2168.0	2087.3	1938.6
33°	1279.7	1328.2	1421.6	1550.4	1720.8	1893.7	2048.7	2139.7	2141.7	2058.7	1910.0
33.5°	1258.6	1307.1	1400.5	1527.7	1697.8	1869.9	2024.1	2113.9	2113.1	2028.5	1880.6
34°	1237.6	1285.7	1378.7	1505.0	1673.6	1845.2	1999.0	2086.5	2082.5	1997.9	1851.2
34.5°	1216.5	1265.0	1357.2	1481.6	1649.3	1820.2	1972.4	2057.1	2051.5	1965.7	1819.4
35°	1195.1	1243.5	1335.3	1458.5	1624.7	1793.6	1944.2	2026.1	2018.1	1932.7	1788.0
35.5°	1174.8	1222.5	1313.5	1435.1	1599.6	1767.3	1915.2	1994.3	1983.9	1898.1	1755.8
36°	1154.1	1201.4	1291.6	1411.7	1574.6	1740.3	1885.4	1961.3	1949.0	1863.1	1722.8
36.5°	1133.1	1180.4	1269.8	1387.8	1549.2	1712.9	1854.4	1926.7	1912.4	1828.2	1689.5
37°	1111.6	1158.5	1247.5	1364.4	1523.7	1684.7	1823.0	1891.3	1875.0	1791.6	1654.9
37.5°	1090.9	1137.4	1225.7	1340.9	1497.9	1655.7	1790.0	1855.6	1837.7	1754.6	1620.3
38°	1069.9	1116.4	1203.0	1317.1	1471.3	1628.2	1757.0	1819.8	1799.5	1716.9	1585.7
38.5°	1048.8	1095.3	1181.5	1293.2	1445.8	1597.6	1723.6	1782.8	1761.4	1680.3	1551.1
39°	1028.1	1073.8	1159.7	1269.8	1419.2	1568.2	1689.8	1745.5	1722.0	1641.8	1516.2
39.5°	1007.1	1053.2	1137.4	1245.5	1393.0	1538.0	1654.9	1707.3	1683.5	1604.4	1481.6
40°	986.0	1032.1	1114.8	1221.7	1366.3	1508.6	1619.9	1669.2	1644.5	1566.3	1445.4
40.5°	965.3	1011.0	1093.3	1197.8	1338.9	1476.0	1585.3	1631.0	1605.6	1529.3	1410.5
41°	944.3	990.0	1071.1	1174.0	1312.3	1445.8	1550.4	1592.9	1566.6	1490.3	1375.5
41.5°	923.6	969.7	1049.2	1150.1	1285.3	1414.8	1515.4	1553.9	1527.3	1453.8	1340.9
42°	902.6	948.7	1027.3	1125.9	1258.6	1385.0	1479.2	1515.8	1489.2	1415.2	1305.5
42.5°	882.3	928.4	1005.9	1102.5	1231.6	1352.4	1444.2	1478.4	1451.4	1379.1	1272.2
43°	861.6	907.7	984.0	1077.8	1204.2	1321.8	1409.3	1441.1	1413.2	1341.7	1237.6
43.5°	841.0	887.1	962.6	1055.6	1177.2	1290.0	1374.7	1404.1	1375.9	1305.9	1203.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	780.1	825.8	898.2	984.4	1096.9	1197.8	1271.4	1294.0	1267.0	1200.2	1106.0
45.5°	759.9	806.0	877.1	962.6	1069.9	1166.8	1237.6	1259.8	1231.6	1166.4	1074.6
46°	740.4	786.1	856.5	939.5	1044.0	1136.6	1204.6	1224.9	1197.4	1132.7	1043.6
46.5°	720.5	766.2	835.4	916.5	1017.4	1107.2	1172.0	1191.9	1163.3	1100.1	1013.0
47°	700.7	746.8	814.7	893.0	991.2	1077.8	1138.6	1157.3	1130.3	1068.3	983.2
47.5°	681.2	726.9	794.5	871.6	965.3	1048.0	1107.2	1125.5	1098.1	1036.9	954.6
48°	661.7	707.4	774.2	849.3	940.3	1019.4	1076.6	1093.7	1067.1	1006.7	926.0
48.5°	642.6	688.3	753.9	827.8	914.9	991.6	1046.0	1063.5	1036.9	977.3	898.6
49°	624.0	669.3	734.4	805.2	890.2	964.2	1016.6	1032.1	1006.7	949.1	871.2
49.5°	605.3	650.6	714.6	784.1	865.6	935.9	987.6	1003.5	978.5	920.8	845.3
50°	586.6	631.5	694.7	762.7	841.7	909.3	959.0	974.5	949.8	893.8	819.9
50.5°	568.7	612.4	675.6	741.6	817.1	883.1	930.8	947.1	922.4	867.2	795.2
51°	550.8	594.5	656.5	720.9	794.1	857.2	904.5	919.6	895.8	841.7	771.0
51.5°	533.3	576.7	637.5	699.9	772.2	832.2	878.7	893.4	870.8	817.5	748.0
52°	516.3	559.2	619.2	679.6	749.1	807.2	852.5	868.0	845.7	794.1	725.7
52.5°	499.6	541.3	600.5	659.7	726.5	782.5	827.8	844.1	821.9	771.0	703.4
53°	483.3	524.2	582.6	639.9	705.0	759.5	803.6	819.5	798.8	748.4	682.4
53.5°	467.0	507.1	563.9	620.8	683.6	736.4	780.5	796.4	775.8	727.3	662.1
54°	451.9	491.2	546.9	601.7	663.3	714.2	757.9	773.8	754.3	706.6	641.8
54.5°	436.8	475.3	530.2	583.0	642.6	692.3	735.2	751.9	733.2	686.4	622.8
55°	422.1	459.4	513.1	564.7	623.2	671.3	714.6	730.9	713.4	667.3	604.1
55.5°	407.8	444.3	496.4	547.3	603.7	651.0	693.1	710.2	693.1	647.8	586.2
56°	394.6	429.2	480.5	529.4	584.6	631.1	672.8	689.9	673.6	630.3	568.7
56.5°	381.5	414.5	464.2	512.7	566.3	611.6	653.0	670.1	655.0	612.0	551.2
57°	369.2	401.0	448.3	496.0	548.0	593.0	633.5	651.4	637.1	594.9	534.9
57.5°	357.3	387.1	432.4	479.3	531.0	574.3	615.2	632.7	619.2	577.9	518.6
58°	347.0	374.0	418.1	463.8	513.9	557.2	596.9	615.2	602.1	562.0	503.5
58.5°	336.6	360.9	403.4	448.3	497.6	540.1	579.4	597.7	585.4	545.7	488.0
59°	327.5	349.3	389.1	433.6	481.7	523.0	562.4	580.6	568.7	529.8	472.9
59.5°	319.1	337.8	375.2	418.5	465.8	506.3	544.9	563.9	552.8	514.7	458.6
60°	312.8	327.1	362.5	404.2	450.7	490.4	528.6	547.7	537.3	500.4	444.7
60.5°	306.0	316.7	349.3	390.7	436.0	474.9	513.1	531.8	522.2	484.9	430.8
61°	298.9	308.4	337.0	377.2	421.7	459.8	497.6	516.3	506.7	470.6	417.3
61.5°	291.7	300.5	325.5	363.6	407.8	445.1	482.5	501.2	492.4	457.0	403.8
62°	284.2	294.1	314.4	351.3	394.2	431.2	467.4	486.4	478.5	443.5	391.1
62.5°	276.6	286.9	303.2	338.6	380.7	416.9	452.7	471.7	464.2	429.6	378.0
63°	269.1	279.8	293.3	326.7	368.0	403.0	438.4	457.4	449.9	416.1	365.6
63.5°	261.9	272.6	283.0	314.8	355.3	390.3	424.4	443.1	436.4	403.0	353.3
64°	254.4	265.5	273.4	304.0	343.8	377.2	410.9	429.6	423.3	390.7	341.8
64.5°	247.2	257.9	264.3	292.9	332.2	364.8	397.4	416.5	409.7	377.6	330.3
65°	240.0	251.2	255.9	282.2	320.7	352.1	384.7	403.4	397.0	365.6	318.7
65.5°	232.9	244.4	247.6	271.8	309.2	340.6	372.0	390.3	383.9	352.9	307.2
66°	225.7	237.3	239.6	261.9	297.3	329.1	359.3	377.2	370.8	341.0	295.7



TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	205.1	216.6	218.2	233.3	266.3	294.1	323.9	340.6	333.0	305.6	263.5
68°	198.7	209.8	211.8	224.9	255.9	283.4	312.4	328.7	320.7	293.7	252.8
68.5°	192.0	203.1	205.5	216.2	246.0	272.6	300.5	316.7	308.4	281.8	242.8
69°	185.6	196.7	199.5	207.9	236.5	261.9	289.3	304.8	295.7	270.2	232.9
69.5°	178.8	190.4	193.5	199.9	226.9	252.0	277.8	292.5	283.8	259.1	223.0
70°	172.5	184.0	187.6	192.4	217.8	241.6	267.1	281.4	271.8	247.6	213.0
70.5°	166.1	177.6	181.6	184.8	209.0	232.1	256.7	269.9	260.3	236.9	203.9
71°	160.2	171.3	175.7	177.6	200.3	222.6	246.4	259.1	248.8	226.5	194.7
71.5°	154.2	165.3	170.1	170.5	192.0	213.4	236.1	247.6	237.3	215.8	185.2
72°	148.2	159.4	164.1	164.1	183.6	204.3	226.1	237.3	226.1	205.5	176.5
72.5°	143.5	153.4	158.6	157.4	175.7	195.1	216.2	226.5	215.4	195.1	167.7
73°	137.5	147.4	153.0	151.4	168.1	186.8	206.7	216.2	204.7	185.2	159.0
73.5°	131.9	143.5	147.4	145.5	160.6	178.0	197.1	206.3	193.5	175.7	150.6
74°	126.0	137.9	144.3	139.9	153.4	170.1	188.0	196.3	183.6	166.1	142.3
74.5°	120.0	131.9	138.3	134.3	146.3	161.8	179.2	186.4	173.3	156.6	134.3
75°	114.5	126.0	132.7	129.2	139.1	153.8	170.5	176.9	163.3	147.4	126.4
75.5°	109.3	120.0	127.2	123.6	132.3	146.3	161.8	167.7	153.4	138.7	118.8
76°	103.7	114.5	121.2	118.4	126.0	139.1	153.0	158.6	143.5	130.0	111.3
76.5°	98.6	109.3	116.0	113.3	119.6	131.5	144.7	149.4	134.3	121.6	103.7
77°	93.4	103.7	110.9	108.5	113.7	124.4	136.7	140.7	125.2	113.3	97.0
77.5°	88.2	98.6	106.1	103.7	107.3	117.6	128.8	132.3	116.0	105.3	89.8
78°	83.1	93.4	100.9	99.4	101.7	110.9	121.2	124.4	107.3	97.4	83.5
78.5°	78.3	88.2	96.2	94.6	96.2	104.5	113.7	116.0	98.6	89.8	76.7
79°	73.1	83.5	91.4	90.2	91.0	98.2	106.5	108.1	90.2	82.7	70.3
79.5°	68.4	78.3	86.6	85.8	85.4	92.2	99.4	100.9	81.9	75.5	64.4
80°	63.6	73.5	81.9	81.5	80.7	86.2	92.6	93.4	73.9	68.4	58.4
80.5°	59.2	68.8	77.1	77.5	75.9	80.7	85.8	86.2	66.4	62.0	52.9
81°	54.4	64.0	72.7	73.1	71.1	75.1	79.5	79.1	58.8	55.6	47.3
81.5°	49.7	59.2	68.0	68.8	66.8	69.5	73.1	71.9	51.7	49.3	42.1
82°	45.3	54.8	63.6	64.8	62.4	64.4	66.8	64.8	44.9	43.7	37.8
82.5°	40.9	50.1	59.2	60.4	58.0	59.2	60.8	58.0	39.3	38.6	33.0
83°	36.6	45.7	54.8	56.4	54.0	54.8	55.2	51.7	33.8	33.4	28.6
83.5°	32.6	41.3	50.5	52.5	50.1	50.1	50.1	45.7	28.2	28.2	24.2
84°	28.2	37.0	46.5	48.5	46.1	45.3	44.5	40.1	22.7	23.1	19.5
84.5°	23.8	32.6	42.5	44.9	42.5	41.3	40.1	34.6	17.1	17.9	16.3
85°	19.9	28.2	38.6	40.9	38.9	37.4	35.8	29.4	13.1	13.9	12.7
85.5°	15.9	24.2	34.6	37.0	35.4	33.4	31.0	23.8	10.3	10.3	9.9
86°	13.5	20.3	31.0	33.4	31.8	29.8	26.6	18.7	7.9	7.6	7.2
86.5°	11.1	17.1	27.0	29.4	28.6	25.8	21.9	14.7	6.4	5.2	4.8
87°	8.7	14.3	23.4	25.8	25.0	21.9	18.3	11.5	4.8	3.2	2.8
87.5°	6.0	11.9	19.9	22.3	21.9	18.7	14.7	8.3	3.6	1.6	1.2
88°	4.4	9.1	16.3	18.7	18.7	15.1	11.5	5.6	2.4	0.8	0.4
88.5°	2.4	6.8	13.5	15.1	15.1	12.3	8.3	3.6	1.2	0.4	0.0



TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.4	4.0	5.6	6.0	4.0	1.6	0.4	0.0	0.0	0.0



TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2495.8	2495.8	2495.8	2495.8	2495.8	2495.8
0.5°	2497.8	2496.2	2491.1	2487.5	2485.1	2485.5
1°	2499.8	2493.8	2484.7	2477.9	2474.0	2474.4
1.5°	2501.4	2491.1	2477.9	2468.0	2462.4	2462.8
2°	2502.2	2487.5	2470.8	2458.1	2450.5	2450.9
2.5°	2503.0	2483.9	2463.2	2447.3	2438.6	2438.2
3°	2503.0	2479.5	2455.3	2436.6	2425.9	2425.5
3.5°	2502.2	2474.8	2446.9	2425.1	2412.8	2412.8
4°	2501.4	2469.6	2437.8	2413.6	2399.6	2399.3
4.5°	2500.2	2464.0	2428.7	2401.2	2386.1	2385.3
5°	2498.2	2458.1	2418.7	2388.9	2371.8	2371.0
5.5°	2495.8	2451.7	2408.8	2375.8	2357.1	2356.7
6°	2493.0	2444.6	2398.5	2362.7	2342.8	2341.6
6.5°	2489.9	2437.4	2387.3	2348.8	2327.7	2326.5
7°	2486.3	2429.5	2376.2	2334.9	2312.2	2311.0
7.5°	2481.9	2421.1	2364.3	2320.6	2296.3	2295.5
8°	2477.1	2412.4	2352.0	2305.9	2280.4	2279.6
8.5°	2472.0	2403.2	2339.6	2290.8	2264.1	2262.9
9°	2466.8	2393.7	2326.5	2275.7	2247.8	2246.6
9.5°	2460.9	2383.8	2313.4	2259.8	2230.3	2229.6
10°	2454.5	2373.8	2299.9	2243.9	2213.7	2212.5
10.5°	2447.3	2362.7	2286.0	2227.6	2196.2	2195.0
11°	2440.2	2351.6	2271.3	2210.9	2178.7	2177.9
11.5°	2432.2	2340.0	2256.6	2194.2	2160.8	2159.6
12°	2423.9	2328.1	2241.9	2177.1	2142.5	2141.7
12.5°	2415.5	2316.2	2226.4	2159.6	2124.2	2123.4
13°	2406.4	2303.1	2210.9	2141.7	2105.6	2105.2
13.5°	2397.3	2290.0	2195.0	2123.8	2087.3	2086.1
14°	2386.9	2276.8	2178.7	2106.0	2068.2	2067.8
14.5°	2376.6	2263.3	2162.4	2087.7	2049.1	2048.3
15°	2365.9	2249.0	2145.7	2069.0	2029.6	2029.6
15.5°	2354.7	2234.7	2128.6	2050.3	2009.8	2009.4
16°	2343.6	2220.0	2110.7	2031.2	1990.3	1990.3
16.5°	2331.3	2204.9	2093.2	2012.2	1970.8	1970.8
17°	2319.4	2189.8	2075.4	1992.7	1950.6	1951.0
17.5°	2306.7	2174.3	2057.5	1973.2	1930.7	1930.7
18°	2293.5	2158.0	2039.2	1953.7	1910.0	1910.8
18.5°	2280.4	2142.1	2020.5	1933.5	1890.2	1890.2
19°	2266.9	2125.4	2002.2	1913.6	1869.5	1870.3
19.5°	2253.4	2109.1	1983.1	1893.7	1848.8	1849.6
20°	2238.7	2092.0	1964.5	1873.5	1828.2	1828.9
20.5°	2224.4	2075.0	1945.4	1853.2	1807.1	1807.9
21°	2209.3	2057.5	1925.9	1832.1	1786.4	1787.6

TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2163.2	2003.8	1867.1	1770.9	1723.2	1724.4
23°	2147.3	1985.9	1847.6	1749.9	1702.2	1703.4
23.5°	2131.0	1967.6	1827.8	1729.2	1681.1	1682.7
24°	2114.7	1949.8	1808.3	1708.9	1659.6	1661.6
24.5°	2098.0	1931.5	1788.8	1688.3	1638.6	1640.2
25°	2081.7	1913.6	1769.3	1666.4	1617.5	1618.7
25.5°	2065.4	1894.9	1748.7	1646.9	1596.5	1597.6
26°	2049.1	1876.6	1729.2	1625.1	1575.4	1576.6
26.5°	2032.4	1857.6	1709.3	1605.2	1553.9	1555.5
27°	2014.9	1836.9	1688.7	1584.1	1532.5	1534.1
27.5°	1995.9	1814.6	1666.8	1563.5	1511.4	1512.6
28°	1975.2	1793.2	1644.9	1541.6	1490.3	1491.1
28.5°	1953.7	1770.1	1622.7	1520.9	1469.3	1470.5
29°	1931.9	1747.9	1600.4	1499.5	1447.8	1449.0
29.5°	1909.2	1724.4	1578.2	1478.0	1426.8	1427.5
30°	1885.0	1700.6	1555.1	1455.0	1406.1	1406.5
30.5°	1860.7	1676.3	1532.1	1434.3	1385.0	1385.4
31°	1835.7	1652.1	1508.2	1411.7	1363.2	1364.0
31.5°	1810.3	1627.1	1484.4	1389.4	1342.1	1342.9
32°	1783.6	1601.6	1460.5	1366.3	1320.6	1321.4
32.5°	1757.0	1575.8	1436.7	1344.9	1299.2	1300.4
33°	1730.0	1550.4	1412.4	1322.2	1278.1	1279.7
33.5°	1702.6	1524.1	1387.8	1299.6	1256.7	1258.6
34°	1674.0	1498.3	1364.0	1276.9	1235.2	1237.6
34.5°	1644.9	1470.5	1338.9	1254.3	1213.3	1216.5
35°	1616.3	1445.0	1315.1	1231.6	1191.9	1195.1
35.5°	1587.3	1417.6	1290.0	1209.0	1170.8	1174.8
36°	1557.9	1391.0	1266.6	1186.3	1149.4	1154.1
36.5°	1527.3	1364.0	1242.0	1164.1	1127.9	1133.1
37°	1496.3	1336.9	1218.1	1141.4	1106.4	1111.6
37.5°	1465.7	1309.9	1193.1	1119.5	1085.4	1090.9
38°	1434.7	1282.1	1169.6	1096.5	1063.5	1069.9
38.5°	1403.7	1254.7	1145.0	1074.2	1042.4	1048.8
39°	1372.3	1227.6	1120.7	1052.4	1021.0	1028.1
39.5°	1340.9	1200.6	1096.1	1030.1	999.9	1007.1
40°	1309.5	1172.8	1071.9	1007.1	978.9	986.0
40.5°	1278.1	1145.4	1047.2	984.4	957.8	965.3
41°	1247.1	1118.0	1022.6	962.2	937.1	944.3
41.5°	1215.3	1090.9	998.3	940.3	916.1	923.6
42°	1184.7	1063.9	974.9	918.8	895.4	902.6
42.5°	1153.7	1036.9	951.0	897.8	875.1	882.3
43°	1123.1	1009.9	927.6	876.3	854.9	861.6
43.5°	1092.5	982.8	904.5	855.3	834.6	841.0



TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1004.7	903.7	836.6	792.9	773.4	780.1
45.5°	976.1	878.3	813.9	772.6	753.1	759.9
46°	948.3	853.7	792.5	752.7	733.6	740.4
46.5°	920.0	828.6	770.6	732.5	713.8	720.5
47°	892.2	804.8	749.1	713.0	694.7	700.7
47.5°	866.0	780.5	727.7	693.5	676.0	681.2
48°	840.2	757.1	706.2	673.6	657.3	661.7
48.5°	814.7	734.4	685.2	654.6	638.3	642.6
49°	790.1	711.8	665.3	635.9	620.4	624.0
49.5°	765.4	690.7	645.4	616.8	602.5	605.3
50°	742.4	668.9	625.5	598.5	584.2	586.6
50.5°	718.9	647.8	605.7	580.2	566.3	568.7
51°	696.3	627.5	586.6	562.0	549.6	550.8
51.5°	675.2	608.1	568.3	544.1	532.5	533.3
52°	654.6	588.6	550.4	527.4	515.9	516.3
52.5°	633.5	569.5	532.5	510.3	499.2	499.6
53°	613.6	551.2	515.1	493.2	482.9	483.3
53.5°	594.1	533.3	498.0	476.5	466.6	467.0
54°	575.5	515.9	481.3	460.2	450.7	451.9
54.5°	556.8	499.2	465.4	444.3	435.2	436.8
55°	539.7	482.9	449.9	428.8	420.5	422.1
55.5°	522.2	467.0	434.0	413.7	405.4	407.8
56°	505.5	451.5	419.3	399.0	391.5	394.6
56.5°	489.2	436.4	404.6	384.7	377.2	381.5
57°	473.7	421.7	390.3	370.8	363.6	369.2
57.5°	458.2	407.4	376.8	357.3	350.9	357.3
58°	443.5	393.5	363.2	344.6	338.6	347.0
58.5°	428.8	380.3	350.5	331.8	327.1	336.6
59°	414.5	367.2	337.8	319.9	316.0	327.5
59.5°	401.0	354.5	325.9	308.4	305.6	319.1
60°	387.5	342.2	314.0	296.9	296.1	312.8
60.5°	374.8	329.9	302.0	286.1	286.9	306.0
61°	362.5	318.3	291.3	275.8	278.2	298.9
61.5°	349.7	306.8	280.2	265.9	270.6	291.7
62°	338.2	296.1	269.9	256.7	263.9	284.2
62.5°	326.3	285.0	259.9	247.6	257.1	276.6
63°	314.8	274.2	249.6	238.5	250.4	269.1
63.5°	302.8	263.9	240.0	230.1	243.6	261.9
64°	292.5	254.0	230.9	222.2	236.9	254.4
64.5°	281.8	244.4	222.2	214.6	230.1	247.2
65°	271.0	234.9	213.4	207.1	223.8	240.0
65.5°	260.7	225.3	204.7	199.9	217.4	232.9
66°	250.8	216.2	196.7	193.1	210.6	225.7



TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	221.8	190.4	173.7	174.9	192.0	205.1
68°	212.2	182.4	166.5	169.3	185.6	198.7
68.5°	203.5	174.5	159.8	164.1	179.2	192.0
69°	194.7	166.9	153.0	158.6	173.3	185.6
69.5°	186.0	159.4	146.6	153.4	166.9	178.8
70°	177.6	151.8	141.1	148.2	161.4	172.5
70.5°	169.3	145.1	135.1	142.7	155.4	166.1
71°	161.8	138.7	129.6	137.5	149.4	160.2
71.5°	153.8	131.9	124.0	132.7	143.5	154.2
72°	145.9	125.6	118.0	128.0	137.9	148.2
72.5°	138.7	119.2	112.9	123.2	132.7	143.5
73°	131.5	112.9	107.7	118.4	127.2	137.5
73.5°	124.4	106.5	102.9	113.3	122.0	131.9
74°	117.2	100.9	98.2	108.5	116.4	126.0
74.5°	110.9	95.4	93.8	103.7	111.3	120.0
75°	104.5	90.2	89.4	99.0	106.1	114.5
75.5°	98.2	85.0	85.0	94.6	100.9	109.3
76°	92.2	79.9	80.7	89.8	95.8	103.7
76.5°	86.2	75.1	76.7	85.0	91.0	98.6
77°	80.7	70.3	72.7	80.7	85.8	93.4
77.5°	75.1	66.0	68.8	76.3	81.1	88.2
78°	69.9	61.6	64.8	71.9	76.3	83.1
78.5°	64.4	57.2	60.8	67.6	71.5	78.3
79°	59.6	52.9	57.2	63.2	66.8	73.1
79.5°	54.8	48.9	53.3	58.8	62.0	68.4
80°	50.1	45.3	49.7	54.8	57.6	63.6
80.5°	45.7	41.7	46.1	50.9	52.9	59.2
81°	41.3	38.2	42.5	46.9	48.5	54.4
81.5°	37.4	34.6	38.6	42.9	44.1	49.7
82°	33.8	31.0	35.4	38.9	39.7	45.3
82.5°	29.8	27.8	31.8	35.0	35.4	40.9
83°	25.8	24.6	28.2	31.4	31.0	36.6
83.5°	22.3	21.5	25.0	27.8	27.0	32.6
84°	18.7	18.3	21.5	24.2	23.1	28.2
84.5°	15.5	15.5	18.3	21.1	19.5	23.8
85°	12.7	12.7	15.1	17.5	16.3	19.9
85.5°	9.5	9.9	11.9	14.3	13.9	15.9
86°	7.2	6.8	8.7	11.5	11.5	13.5
86.5°	4.8	4.0	6.0	8.3	9.1	11.1
87°	2.4	1.6	2.8	5.6	6.8	8.7
87.5°	0.8	0.4	0.8	2.4	4.4	6.0
88°	0.0	0.0	0.0	0.4	2.4	4.4
88.5°	0.0	0.0	0.0	0.0	0.8	2.4



TEST NUMBER: P776372

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3500K

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



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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°	1766.6	1809.9	1892.1	2008.2	2157.2	2298.3	2415.9	2484.7	2492.6	2440.6	2335.3
22°	1745.9	1789.6	1872.7	1990.3	2140.9	2283.6	2403.6	2473.6	2481.9	2429.1	2322.5



44°	820.7	866.4	940.7	1031.7	1150.5	1259.8	1339.7	1365.9	1338.5	1269.4	1170.8
44.5°	800.4	846.5	919.2	1008.3	1123.9	1228.0	1304.7	1329.8	1303.2	1234.4	1138.6



66.5°	218.6	230.1	232.1	252.0	286.9	317.1	347.3	364.8	357.7	329.5	284.6
67°	211.8	223.4	224.9	242.8	276.2	305.6	335.8	352.9	345.4	317.5	274.2



89°	1.2	4.4	10.3	11.9	11.9	9.5	5.6	2.0	0.4	0.0	0.0
89.5°	0.0	2.4	7.2	8.7	9.1	6.8	3.6	0.8	0.0	0.0	0.0

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21.5°	2194.6	2039.6	1905.7	1811.9	1765.0	1766.6
22°	2178.7	2022.1	1887.0	1791.6	1744.3	1745.9



44°	1062.7	956.2	881.9	833.8	813.9	820.7
44.5°	1033.7	930.4	859.2	813.5	793.7	800.4

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66.5°	240.8	207.5	188.8	186.8	204.3	218.6
67°	230.9	199.1	181.2	180.8	197.9	211.8

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Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.4	1.2
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)