

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: P776477

Luminaire Tested: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776477
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B065-HCD82TRMB)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K
Description: 8 INCH ROUND NARROW MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

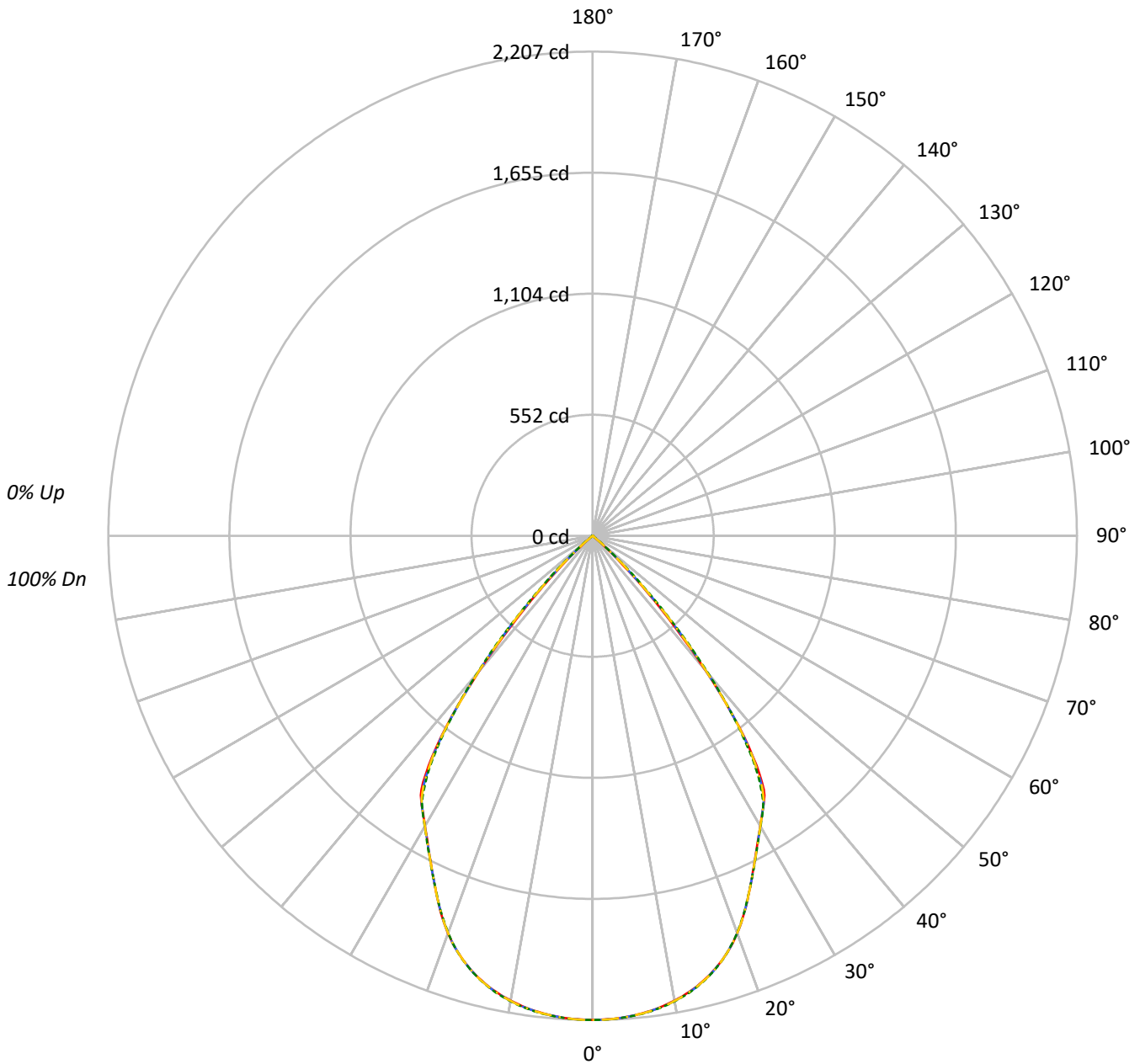
Lumens per Lamp: N/A
Luminaire Lumens: 2625.1 lumens
Efficiency: N/A
Efficacy: 68.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.06 / 1.08
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
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					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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93					93			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	85	91	86	83	88	85	82	86	83	81	79					79			
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	81	77	74	73					73			
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67					67			
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62					62			
7	81	71	64	60	79	70	64	60	69	63	59	68	63	59	66	62	59	57					57			
8	76	66	60	55	75	66	60	55	64	59	55	63	58	55	62	58	55	53					53			
9	72	62	56	51	71	61	55	51	60	55	51	60	55	51	59	54	51	49					49			
10	68	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46					46			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	67386	67386	67386	67386
5°	67230	67288	67230	67288
10°	66699	66798	66699	66798
15°	65414	65478	65414	65478
20°	62640	62575	62640	62575
25°	57860	57914	57860	57914
30°	53864	53948	53864	53948
35°	49447	48441	49447	48441
40°	31907	32792	31907	32792
45°	11709	14080	11709	14080
50°	1339	2152	1339	2152
55°	213	213	213	213
60°	122	122	122	122
65°	87	87	87	87
70°	71	71	71	71
75°	47	47	47	47
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14080 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.2	7.9
10°-20°	580.6	22.1
20°-30°	791.4	30.1
30°-40°	781.4	29.8
40°-50°	255.9	9.7
50°-60°	6.0	0.2
60°-70°	1.2	0.0
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	1580.2	60.2
0°-40°	2361.6	90.0
0°-60°	2623.5	99.9
0°-90°	2625.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2625.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2207	2207	2207	2207	2207	
5°	2194	2196	2194	2196	2194	208
15°	2070	2072	2070	2072	2070	580
25°	1718	1719	1718	1719	1718	791
35°	1327	1300	1327	1300	1327	784
45°	271	326	271	326	271	240
55°	4	4	4	4	4	5
65°	1	1	1	1	1	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
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°	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2
0.5°	2206.8	2206.8	2207.2	2206.8	2207.2	2206.8	2207.2	2206.8	2206.8	2206.8	2207.2
1°	2206.4	2206.4	2206.8	2206.4	2207.2	2206.4	2206.8	2206.4	2206.4	2206.4	2206.8
1.5°	2205.6	2206.0	2206.0	2206.0	2206.4	2206.0	2206.0	2206.0	2205.6	2206.0	2206.0
2°	2204.8	2204.8	2205.2	2205.2	2205.6	2205.2	2205.2	2204.8	2204.8	2204.8	2205.2
2.5°	2203.6	2204.0	2204.0	2204.0	2204.4	2204.0	2204.0	2204.0	2203.6	2204.0	2204.0
3°	2202.4	2202.4	2202.8	2202.8	2203.2	2202.8	2202.8	2202.4	2202.4	2202.4	2202.8
3.5°	2200.8	2200.8	2201.2	2201.2	2201.6	2201.2	2201.2	2200.8	2200.8	2200.8	2201.2
4°	2198.8	2198.8	2199.2	2199.2	2200.0	2199.2	2199.2	2198.8	2198.8	2198.8	2199.2
4.5°	2196.4	2196.4	2196.8	2197.2	2197.6	2197.2	2196.8	2196.4	2196.4	2196.4	2196.8
5°	2193.7	2194.1	2194.5	2194.9	2195.6	2194.9	2194.5	2194.1	2193.7	2194.1	2194.5
5.5°	2191.3	2191.3	2191.7	2192.1	2192.9	2192.1	2191.7	2191.3	2191.3	2191.3	2191.7
6°	2188.1	2188.1	2188.9	2189.3	2190.1	2189.3	2188.9	2188.1	2188.1	2188.1	2188.9
6.5°	2184.5	2184.9	2185.7	2186.1	2186.9	2186.1	2185.7	2184.9	2184.5	2184.9	2185.7
7°	2180.9	2180.9	2182.1	2182.5	2183.3	2182.5	2182.1	2180.9	2180.9	2180.9	2182.1
7.5°	2177.0	2177.0	2178.1	2178.5	2179.3	2178.5	2178.1	2177.0	2177.0	2177.0	2178.1
8°	2172.6	2173.0	2173.8	2174.6	2175.4	2174.6	2173.8	2173.0	2172.6	2173.0	2173.8
8.5°	2167.8	2168.2	2169.0	2169.8	2170.6	2169.8	2169.0	2168.2	2167.8	2168.2	2169.0
9°	2162.6	2163.0	2164.2	2165.0	2165.8	2165.0	2164.2	2163.0	2162.6	2163.0	2164.2
9.5°	2157.1	2157.5	2158.7	2159.9	2160.7	2159.9	2158.7	2157.5	2157.1	2157.5	2158.7
10°	2151.5	2151.9	2152.7	2153.9	2154.7	2153.9	2152.7	2151.9	2151.5	2151.9	2152.7
10.5°	2145.1	2145.5	2146.7	2147.9	2148.7	2147.9	2146.7	2145.5	2145.1	2145.5	2146.7
11°	2138.8	2139.2	2140.4	2141.2	2142.0	2141.2	2140.4	2139.2	2138.8	2139.2	2140.4
11.5°	2131.6	2132.0	2133.2	2134.0	2135.2	2134.0	2133.2	2132.0	2131.6	2132.0	2133.2
12°	2124.5	2124.5	2125.7	2126.8	2127.6	2126.8	2125.7	2124.5	2124.5	2124.5	2125.7
12.5°	2116.5	2116.5	2117.7	2118.9	2119.7	2118.9	2117.7	2116.5	2116.5	2116.5	2117.7
13°	2108.2	2108.6	2109.3	2110.5	2110.9	2110.5	2109.3	2108.6	2108.2	2108.6	2109.3
13.5°	2099.0	2099.4	2100.6	2101.4	2102.2	2101.4	2100.6	2099.4	2099.0	2099.4	2100.6
14°	2089.9	2090.3	2091.1	2091.9	2092.6	2091.9	2091.1	2090.3	2089.9	2090.3	2091.1
14.5°	2079.9	2080.3	2081.1	2081.9	2082.7	2081.9	2081.1	2080.3	2079.9	2080.3	2081.1
15°	2069.6	2069.6	2070.4	2071.2	2071.6	2071.2	2070.4	2069.6	2069.6	2069.6	2070.4
15.5°	2058.4	2058.4	2059.2	2060.0	2060.4	2060.0	2059.2	2058.4	2058.4	2058.4	2059.2
16°	2046.5	2046.9	2047.3	2047.7	2048.5	2047.7	2047.3	2046.9	2046.5	2046.9	2047.3
16.5°	2034.6	2034.6	2035.0	2035.4	2035.8	2035.4	2035.0	2034.6	2034.6	2034.6	2035.0
17°	2021.5	2021.5	2021.9	2022.3	2022.7	2022.3	2021.9	2021.5	2021.5	2021.5	2021.9
17.5°	2007.5	2007.5	2007.9	2007.9	2008.3	2007.9	2007.9	2007.5	2007.5	2007.5	2007.9
18°	1993.6	1993.2	1993.2	1993.2	1993.6	1993.2	1993.2	1993.2	1993.6	1993.2	1993.2
18.5°	1978.1	1978.1	1977.7	1977.7	1977.7	1977.7	1977.7	1978.1	1978.1	1978.1	1977.7
19°	1962.2	1962.2	1961.8	1961.4	1961.4	1961.4	1961.8	1962.2	1962.2	1962.2	1961.8
19.5°	1945.5	1945.1	1944.7	1944.3	1944.3	1944.3	1944.7	1945.1	1945.5	1945.1	1944.7
20°	1928.0	1927.6	1927.2	1926.4	1926.0	1926.4	1927.2	1927.6	1928.0	1927.6	1927.2
20.5°	1909.3	1908.9	1908.1	1907.3	1906.9	1907.3	1908.1	1908.9	1909.3	1908.9	1908.1
21°	1889.8	1889.8	1889.0	1887.4	1886.6	1887.4	1889.0	1889.8	1889.8	1889.8	1889.0



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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°	1827.4	1827.4	1826.6	1825.4	1825.4	1825.4	1826.6	1827.4	1827.4	1827.4	1826.6
23°	1805.5	1805.5	1805.1	1803.9	1803.9	1803.9	1805.1	1805.5	1805.5	1805.5	1805.1
23.5°	1783.2	1783.6	1783.2	1782.4	1782.4	1782.4	1783.2	1783.6	1783.2	1783.6	1783.2
24°	1761.0	1761.4	1761.4	1761.0	1761.4	1761.0	1761.4	1761.4	1761.0	1761.4	1761.4
24.5°	1739.5	1739.5	1739.9	1739.5	1740.3	1739.5	1739.9	1739.5	1739.5	1739.5	1739.9
25°	1717.6	1718.0	1718.4	1718.4	1719.2	1718.4	1718.4	1718.0	1717.6	1718.0	1718.4
25.5°	1696.9	1696.9	1697.3	1697.7	1698.5	1697.7	1697.3	1696.9	1696.9	1696.9	1697.3
26°	1676.3	1676.7	1677.1	1677.5	1678.3	1677.5	1677.1	1676.7	1676.3	1676.7	1677.1
26.5°	1656.0	1656.4	1656.8	1657.2	1658.4	1657.2	1656.8	1656.4	1656.0	1656.4	1656.8
27°	1636.5	1636.5	1637.3	1637.3	1638.5	1637.3	1637.3	1636.5	1636.5	1636.5	1637.3
27.5°	1617.0	1617.4	1617.8	1618.6	1619.4	1618.6	1617.8	1617.4	1617.0	1617.4	1617.8
28°	1597.9	1598.3	1599.1	1599.5	1600.7	1599.5	1599.1	1598.3	1597.9	1598.3	1599.1
28.5°	1579.6	1580.4	1580.8	1581.2	1582.4	1581.2	1580.8	1580.4	1579.6	1580.4	1580.8
29°	1562.1	1562.5	1562.9	1563.3	1564.5	1563.3	1562.9	1562.5	1562.1	1562.5	1562.9
29.5°	1544.6	1545.0	1545.8	1546.2	1547.0	1546.2	1545.8	1545.0	1544.6	1545.0	1545.8
30°	1527.9	1527.9	1528.7	1529.1	1530.3	1529.1	1528.7	1527.9	1527.9	1527.9	1528.7
30.5°	1511.2	1511.6	1512.0	1512.8	1513.6	1512.8	1512.0	1511.6	1511.2	1511.6	1512.0
31°	1495.3	1495.7	1496.5	1496.9	1498.1	1496.9	1496.5	1495.7	1495.3	1495.7	1496.5
31.5°	1480.2	1480.6	1480.6	1481.0	1481.8	1481.0	1480.6	1480.6	1480.2	1480.6	1480.6
32°	1465.5	1465.5	1465.5	1465.1	1465.9	1465.1	1465.5	1465.5	1465.5	1465.5	1465.5
32.5°	1451.2	1450.8	1450.0	1448.4	1446.8	1448.4	1450.0	1450.8	1451.2	1450.8	1450.0
33°	1435.7	1434.9	1430.9	1426.9	1422.5	1426.9	1430.9	1434.9	1435.7	1434.9	1430.9
33.5°	1419.0	1415.0	1407.4	1400.7	1395.1	1400.7	1407.4	1415.0	1419.0	1415.0	1407.4
34°	1395.1	1389.9	1379.6	1370.8	1364.9	1370.8	1379.6	1389.9	1395.1	1389.9	1379.6
34.5°	1363.7	1359.3	1347.8	1339.4	1333.5	1339.4	1347.8	1359.3	1363.7	1359.3	1347.8
35°	1326.7	1322.3	1312.0	1305.2	1299.7	1305.2	1312.0	1322.3	1326.7	1322.3	1312.0
35.5°	1286.1	1283.7	1274.2	1267.0	1261.5	1267.0	1274.2	1283.7	1286.1	1283.7	1274.2
36°	1242.8	1240.8	1232.8	1225.7	1219.7	1225.7	1232.8	1240.8	1242.8	1240.8	1232.8
36.5°	1196.6	1195.1	1188.3	1180.7	1174.4	1180.7	1188.3	1195.1	1196.6	1195.1	1188.3
37°	1145.0	1143.8	1139.8	1134.2	1127.8	1134.2	1139.8	1143.8	1145.0	1143.8	1139.8
37.5°	1091.7	1090.1	1088.5	1084.9	1079.7	1084.9	1088.5	1090.1	1091.7	1090.1	1088.5
38°	1035.2	1032.8	1033.6	1033.2	1030.8	1033.2	1033.6	1032.8	1035.2	1032.8	1033.6
38.5°	980.3	976.7	977.5	979.5	981.5	979.5	977.5	976.7	980.3	976.7	977.5
39°	921.1	919.9	920.7	925.4	930.6	925.4	920.7	919.9	921.1	919.9	920.7
39.5°	862.2	863.0	864.6	870.5	877.7	870.5	864.6	863.0	862.2	863.0	864.6
40°	800.6	804.5	808.1	816.1	822.8	816.1	808.1	804.5	800.6	804.5	808.1
40.5°	741.3	746.9	753.6	762.4	768.3	762.4	753.6	746.9	741.3	746.9	753.6
41°	680.4	688.0	699.1	709.1	715.0	709.1	699.1	688.0	680.4	688.0	699.1
41.5°	622.8	630.7	644.3	656.2	661.8	656.2	644.3	630.7	622.8	630.7	644.3
42°	566.3	573.5	589.4	603.7	608.9	603.7	589.4	573.5	566.3	573.5	589.4
42.5°	511.4	520.2	538.1	552.4	557.2	552.4	538.1	520.2	511.4	520.2	538.1
43°	458.5	468.5	486.4	501.5	506.7	501.5	486.4	468.5	458.5	468.5	486.4
43.5°	409.2	418.8	436.3	451.8	458.9	451.8	436.3	418.8	409.2	418.8	436.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	271.2	279.6	297.9	316.2	326.1	316.2	297.9	279.6	271.2	279.6	297.9
45.5°	229.5	239.4	258.1	277.2	286.3	277.2	258.1	239.4	229.5	239.4	258.1
46°	192.9	201.2	222.3	241.0	252.1	241.0	222.3	201.2	192.9	201.2	222.3
46.5°	159.9	168.6	188.5	206.4	218.3	206.4	188.5	168.6	159.9	168.6	188.5
47°	134.0	139.2	155.9	173.8	184.1	173.8	155.9	139.2	134.0	139.2	155.9
47.5°	109.4	112.5	127.7	143.2	149.9	143.2	127.7	112.5	109.4	112.5	127.7
48°	87.1	90.3	101.8	115.7	122.9	115.7	101.8	90.3	87.1	90.3	101.8
48.5°	70.0	71.6	81.5	91.9	98.2	91.9	81.5	71.6	70.0	71.6	81.5
49°	52.5	54.5	62.8	72.8	76.4	72.8	62.8	54.5	52.5	54.5	62.8
49.5°	39.8	40.6	46.1	54.9	59.7	54.9	46.1	40.6	39.8	40.6	46.1
50°	28.2	27.4	35.0	43.0	45.3	43.0	35.0	27.4	28.2	27.4	35.0
50.5°	17.5	19.1	24.7	32.2	36.6	32.2	24.7	19.1	17.5	19.1	24.7
51°	9.5	12.7	17.1	21.5	27.8	21.5	17.1	12.7	9.5	12.7	17.1
51.5°	7.6	8.0	11.1	13.9	20.7	13.9	11.1	8.0	7.6	8.0	11.1
52°	6.4	6.8	7.2	8.7	13.5	8.7	7.2	6.8	6.4	6.8	7.2
52.5°	5.2	6.0	6.0	6.8	6.4	6.8	6.0	6.0	5.2	6.0	6.0
53°	5.2	5.2	5.6	5.6	5.2	5.6	5.6	5.2	5.2	5.2	5.6
53.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
54°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
54.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
55°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
55.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
56°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
56.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
57°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
57.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
58°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
58.5°	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.4	2.8	2.8
59°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
59.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
60°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
60.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
61°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
61.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
62°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
62.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
63°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
63.5°	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.6	1.6
64°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
64.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
65°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
65.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
66°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P776477

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
68°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
68.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
69°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70.5°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.8
71°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
77°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
77.5°	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4
78°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	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
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	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
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776477
CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P776477

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2207.2	2207.2	2207.2	2207.2	2207.2	2207.2
0.5°	2206.8	2207.2	2206.8	2207.2	2206.8	2206.8
1°	2206.4	2207.2	2206.4	2206.8	2206.4	2206.4
1.5°	2206.0	2206.4	2206.0	2206.0	2206.0	2205.6
2°	2205.2	2205.6	2205.2	2205.2	2204.8	2204.8
2.5°	2204.0	2204.4	2204.0	2204.0	2204.0	2203.6
3°	2202.8	2203.2	2202.8	2202.8	2202.4	2202.4
3.5°	2201.2	2201.6	2201.2	2201.2	2200.8	2200.8
4°	2199.2	2200.0	2199.2	2199.2	2198.8	2198.8
4.5°	2197.2	2197.6	2197.2	2196.8	2196.4	2196.4
5°	2194.9	2195.6	2194.9	2194.5	2194.1	2193.7
5.5°	2192.1	2192.9	2192.1	2191.7	2191.3	2191.3
6°	2189.3	2190.1	2189.3	2188.9	2188.1	2188.1
6.5°	2186.1	2186.9	2186.1	2185.7	2184.9	2184.5
7°	2182.5	2183.3	2182.5	2182.1	2180.9	2180.9
7.5°	2178.5	2179.3	2178.5	2178.1	2177.0	2177.0
8°	2174.6	2175.4	2174.6	2173.8	2173.0	2172.6
8.5°	2169.8	2170.6	2169.8	2169.0	2168.2	2167.8
9°	2165.0	2165.8	2165.0	2164.2	2163.0	2162.6
9.5°	2159.9	2160.7	2159.9	2158.7	2157.5	2157.1
10°	2153.9	2154.7	2153.9	2152.7	2151.9	2151.5
10.5°	2147.9	2148.7	2147.9	2146.7	2145.5	2145.1
11°	2141.2	2142.0	2141.2	2140.4	2139.2	2138.8
11.5°	2134.0	2135.2	2134.0	2133.2	2132.0	2131.6
12°	2126.8	2127.6	2126.8	2125.7	2124.5	2124.5
12.5°	2118.9	2119.7	2118.9	2117.7	2116.5	2116.5
13°	2110.5	2110.9	2110.5	2109.3	2108.6	2108.2
13.5°	2101.4	2102.2	2101.4	2100.6	2099.4	2099.0
14°	2091.9	2092.6	2091.9	2091.1	2090.3	2089.9
14.5°	2081.9	2082.7	2081.9	2081.1	2080.3	2079.9
15°	2071.2	2071.6	2071.2	2070.4	2069.6	2069.6
15.5°	2060.0	2060.4	2060.0	2059.2	2058.4	2058.4
16°	2047.7	2048.5	2047.7	2047.3	2046.9	2046.5
16.5°	2035.4	2035.8	2035.4	2035.0	2034.6	2034.6
17°	2022.3	2022.7	2022.3	2021.9	2021.5	2021.5
17.5°	2007.9	2008.3	2007.9	2007.9	2007.5	2007.5
18°	1993.2	1993.6	1993.2	1993.2	1993.2	1993.6
18.5°	1977.7	1977.7	1977.7	1977.7	1978.1	1978.1
19°	1961.4	1961.4	1961.4	1961.8	1962.2	1962.2
19.5°	1944.3	1944.3	1944.3	1944.7	1945.1	1945.5
20°	1926.4	1926.0	1926.4	1927.2	1927.6	1928.0
20.5°	1907.3	1906.9	1907.3	1908.1	1908.9	1909.3
21°	1887.4	1886.6	1887.4	1889.0	1889.8	1889.8

TEST NUMBER: P776477

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1825.4	1825.4	1825.4	1826.6	1827.4	1827.4
23°	1803.9	1803.9	1803.9	1805.1	1805.5	1805.5
23.5°	1782.4	1782.4	1782.4	1783.2	1783.6	1783.2
24°	1761.0	1761.4	1761.0	1761.4	1761.4	1761.0
24.5°	1739.5	1740.3	1739.5	1739.9	1739.5	1739.5
25°	1718.4	1719.2	1718.4	1718.4	1718.0	1717.6
25.5°	1697.7	1698.5	1697.7	1697.3	1696.9	1696.9
26°	1677.5	1678.3	1677.5	1677.1	1676.7	1676.3
26.5°	1657.2	1658.4	1657.2	1656.8	1656.4	1656.0
27°	1637.3	1638.5	1637.3	1637.3	1636.5	1636.5
27.5°	1618.6	1619.4	1618.6	1617.8	1617.4	1617.0
28°	1599.5	1600.7	1599.5	1599.1	1598.3	1597.9
28.5°	1581.2	1582.4	1581.2	1580.8	1580.4	1579.6
29°	1563.3	1564.5	1563.3	1562.9	1562.5	1562.1
29.5°	1546.2	1547.0	1546.2	1545.8	1545.0	1544.6
30°	1529.1	1530.3	1529.1	1528.7	1527.9	1527.9
30.5°	1512.8	1513.6	1512.8	1512.0	1511.6	1511.2
31°	1496.9	1498.1	1496.9	1496.5	1495.7	1495.3
31.5°	1481.0	1481.8	1481.0	1480.6	1480.6	1480.2
32°	1465.1	1465.9	1465.1	1465.5	1465.5	1465.5
32.5°	1448.4	1446.8	1448.4	1450.0	1450.8	1451.2
33°	1426.9	1422.5	1426.9	1430.9	1434.9	1435.7
33.5°	1400.7	1395.1	1400.7	1407.4	1415.0	1419.0
34°	1370.8	1364.9	1370.8	1379.6	1389.9	1395.1
34.5°	1339.4	1333.5	1339.4	1347.8	1359.3	1363.7
35°	1305.2	1299.7	1305.2	1312.0	1322.3	1326.7
35.5°	1267.0	1261.5	1267.0	1274.2	1283.7	1286.1
36°	1225.7	1219.7	1225.7	1232.8	1240.8	1242.8
36.5°	1180.7	1174.4	1180.7	1188.3	1195.1	1196.6
37°	1134.2	1127.8	1134.2	1139.8	1143.8	1145.0
37.5°	1084.9	1079.7	1084.9	1088.5	1090.1	1091.7
38°	1033.2	1030.8	1033.2	1033.6	1032.8	1035.2
38.5°	979.5	981.5	979.5	977.5	976.7	980.3
39°	925.4	930.6	925.4	920.7	919.9	921.1
39.5°	870.5	877.7	870.5	864.6	863.0	862.2
40°	816.1	822.8	816.1	808.1	804.5	800.6
40.5°	762.4	768.3	762.4	753.6	746.9	741.3
41°	709.1	715.0	709.1	699.1	688.0	680.4
41.5°	656.2	661.8	656.2	644.3	630.7	622.8
42°	603.7	608.9	603.7	589.4	573.5	566.3
42.5°	552.4	557.2	552.4	538.1	520.2	511.4
43°	501.5	506.7	501.5	486.4	468.5	458.5
43.5°	451.8	458.9	451.8	436.3	418.8	409.2



TEST NUMBER: P776477

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	316.2	326.1	316.2	297.9	279.6	271.2
45.5°	277.2	286.3	277.2	258.1	239.4	229.5
46°	241.0	252.1	241.0	222.3	201.2	192.9
46.5°	206.4	218.3	206.4	188.5	168.6	159.9
47°	173.8	184.1	173.8	155.9	139.2	134.0
47.5°	143.2	149.9	143.2	127.7	112.5	109.4
48°	115.7	122.9	115.7	101.8	90.3	87.1
48.5°	91.9	98.2	91.9	81.5	71.6	70.0
49°	72.8	76.4	72.8	62.8	54.5	52.5
49.5°	54.9	59.7	54.9	46.1	40.6	39.8
50°	43.0	45.3	43.0	35.0	27.4	28.2
50.5°	32.2	36.6	32.2	24.7	19.1	17.5
51°	21.5	27.8	21.5	17.1	12.7	9.5
51.5°	13.9	20.7	13.9	11.1	8.0	7.6
52°	8.7	13.5	8.7	7.2	6.8	6.4
52.5°	6.8	6.4	6.8	6.0	6.0	5.2
53°	5.6	5.2	5.6	5.6	5.2	5.2
53.5°	4.8	4.8	4.8	4.8	4.8	4.8
54°	4.4	4.4	4.4	4.4	4.4	4.4
54.5°	4.4	4.4	4.4	4.4	4.4	4.4
55°	4.0	4.0	4.0	4.0	4.0	4.0
55.5°	4.0	4.0	4.0	4.0	4.0	4.0
56°	3.6	3.6	3.6	3.6	3.6	3.6
56.5°	3.2	3.2	3.2	3.2	3.2	3.2
57°	3.2	3.2	3.2	3.2	3.2	3.2
57.5°	2.8	2.8	2.8	2.8	2.8	2.8
58°	2.8	2.8	2.8	2.8	2.8	2.8
58.5°	2.8	2.8	2.8	2.8	2.8	2.4
59°	2.4	2.4	2.4	2.4	2.4	2.4
59.5°	2.4	2.4	2.4	2.4	2.4	2.4
60°	2.0	2.0	2.0	2.0	2.0	2.0
60.5°	2.0	2.0	2.0	2.0	2.0	2.0
61°	2.0	2.0	2.0	2.0	2.0	2.0
61.5°	1.6	1.6	1.6	1.6	1.6	1.6
62°	1.6	1.6	1.6	1.6	1.6	1.6
62.5°	1.6	1.6	1.6	1.6	1.6	1.6
63°	1.6	1.6	1.6	1.6	1.6	1.6
63.5°	1.6	1.6	1.6	1.6	1.6	1.2
64°	1.2	1.2	1.2	1.2	1.2	1.2
64.5°	1.2	1.2	1.2	1.2	1.2	1.2
65°	1.2	1.2	1.2	1.2	1.2	1.2
65.5°	1.2	1.2	1.2	1.2	1.2	1.2
66°	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P776477

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.8	0.8	0.8	0.8	0.8	0.8
68°	0.8	0.8	0.8	0.8	0.8	0.8
68.5°	0.8	0.8	0.8	0.8	0.8	0.8
69°	0.8	0.8	0.8	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.8	0.8
70.5°	0.8	0.8	0.8	0.8	0.8	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.4	0.4	0.4	0.4	0.4	0.4
76°	0.4	0.4	0.4	0.4	0.4	0.4
76.5°	0.4	0.4	0.4	0.4	0.4	0.4
77°	0.4	0.4	0.4	0.4	0.4	0.4
77.5°	0.4	0.4	0.4	0.4	0.4	0.0
78°	0.4	0.4	0.4	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	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
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	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
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776477

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-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



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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Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





21.5°	1869.5	1869.1	1868.3	1867.2	1866.8	1867.2	1868.3	1869.1	1869.5	1869.1	1868.3
22°	1848.9	1848.5	1847.7	1846.5	1846.1	1846.5	1847.7	1848.5	1848.9	1848.5	1847.7



44°	361.5	369.1	387.4	403.7	413.2	403.7	387.4	369.1	361.5	369.1	387.4
44.5°	315.8	322.9	341.2	359.1	368.7	359.1	341.2	322.9	315.8	322.9	341.2



66.5°	0.8	0.8	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	1.2
67°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	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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21.5°	1867.2	1866.8	1867.2	1868.3	1869.1	1869.5
22°	1846.5	1846.1	1846.5	1847.7	1848.5	1848.9



44°	403.7	413.2	403.7	387.4	369.1	361.5
44.5°	359.1	368.7	359.1	341.2	322.9	315.8

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66.5°	1.2	1.2	1.2	1.2	0.8	0.8
67°	0.8	0.8	0.8	0.8	0.8	0.8

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Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)