

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: P776476

Luminaire Tested: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776476
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: HCDJBS3040CSD-HCD82TRMB-4000lm-3000K
Description: 8 INCH ROUND NARROW MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

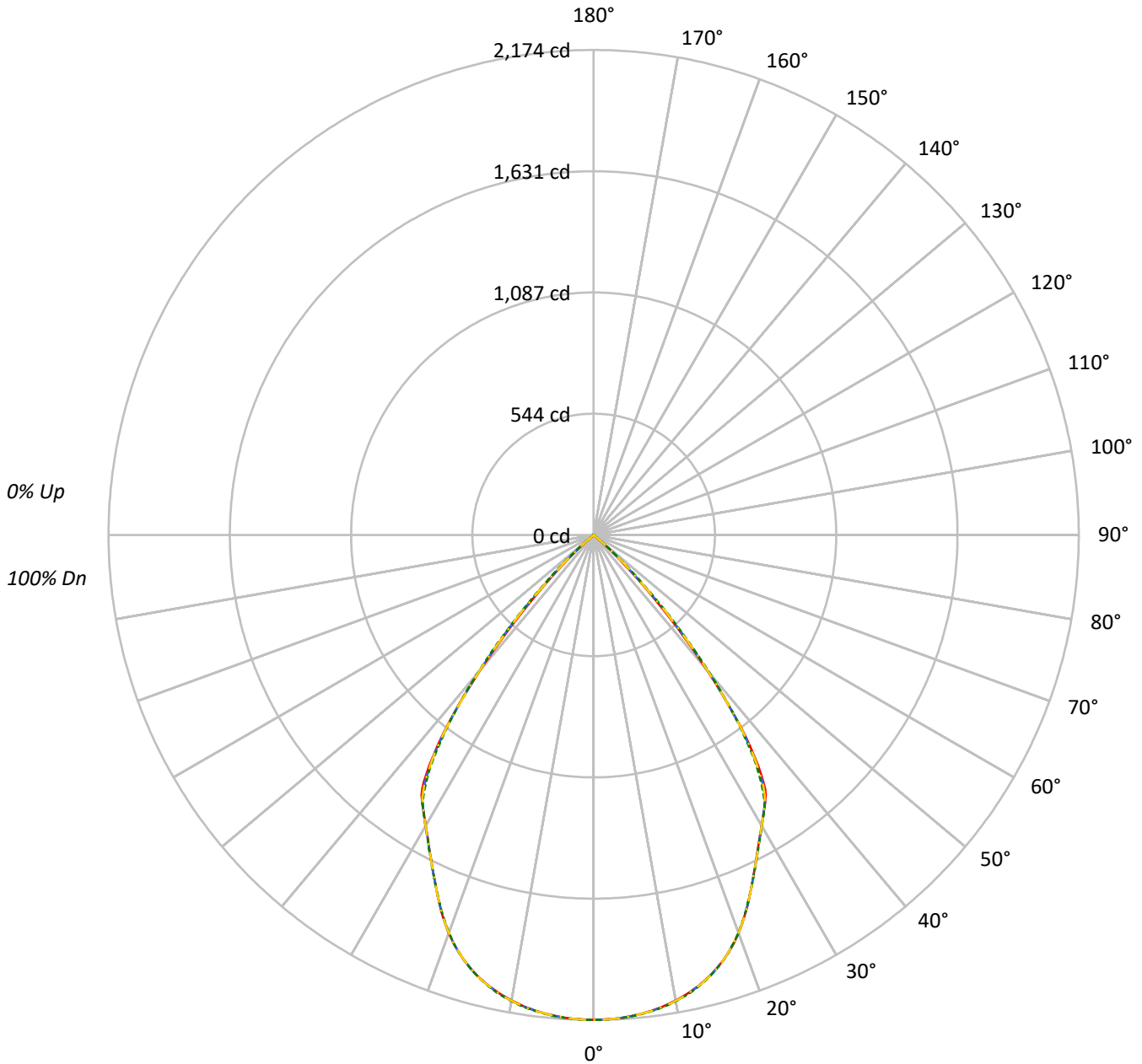
Lumens per Lamp: N/A
Luminaire Lumens: 2585.7 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.06 / 1.08
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (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									
RC	80									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			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°	66373	66373	66373	66373
5°	66219	66280	66219	66280
10°	65698	65794	65698	65794
15°	64431	64495	64431	64495
20°	61701	61636	61701	61636
25°	56991	57045	56991	57045
30°	53056	53137	53056	53137
35°	48705	47710	48705	47710
40°	31425	32302	31425	32302
45°	11537	13868	11537	13868
50°	1320	2123	1320	2123
55°	208	208	208	208
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: 13868 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.1	7.9
10°-20°	571.9	22.1
20°-30°	779.5	30.1
30°-40°	769.7	29.8
40°-50°	252.1	9.7
50°-60°	5.9	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°	1556.4	60.2
0°-40°	2326.2	90.0
0°-60°	2584.1	99.9
0°-90°	2585.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2585.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2174	2174	2174	2174	2174	
5°	2161	2163	2161	2163	2161	205
15°	2038	2040	2038	2040	2038	572
25°	1692	1693	1692	1693	1692	779
35°	1307	1280	1307	1280	1307	773
45°	267	321	267	321	267	236
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°	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0
0.5°	2173.6	2173.6	2174.0	2173.6	2174.0	2173.6	2174.0	2173.6	2173.6	2173.6	2174.0
1°	2173.3	2173.3	2173.6	2173.3	2174.0	2173.3	2173.6	2173.3	2173.3	2173.3	2173.6
1.5°	2172.5	2172.9	2172.9	2172.9	2173.3	2172.9	2172.9	2172.9	2172.5	2172.9	2172.9
2°	2171.7	2171.7	2172.1	2172.1	2172.5	2172.1	2172.1	2171.7	2171.7	2171.7	2172.1
2.5°	2170.5	2170.9	2170.9	2170.9	2171.3	2170.9	2170.9	2170.9	2170.5	2170.9	2170.9
3°	2169.3	2169.3	2169.7	2169.7	2170.1	2169.7	2169.7	2169.3	2169.3	2169.3	2169.7
3.5°	2167.8	2167.8	2168.2	2168.2	2168.6	2168.2	2168.2	2167.8	2167.8	2167.8	2168.2
4°	2165.8	2165.8	2166.2	2166.2	2167.0	2166.2	2166.2	2165.8	2165.8	2165.8	2166.2
4.5°	2163.5	2163.5	2163.9	2164.2	2164.6	2164.2	2163.9	2163.5	2163.5	2163.5	2163.9
5°	2160.7	2161.1	2161.5	2161.9	2162.7	2161.9	2161.5	2161.1	2160.7	2161.1	2161.5
5.5°	2158.4	2158.4	2158.8	2159.2	2159.9	2159.2	2158.8	2158.4	2158.4	2158.4	2158.8
6°	2155.2	2155.2	2156.0	2156.4	2157.2	2156.4	2156.0	2155.2	2155.2	2155.2	2156.0
6.5°	2151.7	2152.1	2152.9	2153.3	2154.1	2153.3	2152.9	2152.1	2151.7	2152.1	2152.9
7°	2148.2	2148.2	2149.4	2149.8	2150.5	2149.8	2149.4	2148.2	2148.2	2148.2	2149.4
7.5°	2144.3	2144.3	2145.4	2145.8	2146.6	2145.8	2145.4	2144.3	2144.3	2144.3	2145.4
8°	2140.0	2140.4	2141.1	2141.9	2142.7	2141.9	2141.1	2140.4	2140.0	2140.4	2141.1
8.5°	2135.3	2135.7	2136.4	2137.2	2138.0	2137.2	2136.4	2135.7	2135.3	2135.7	2136.4
9°	2130.2	2130.6	2131.7	2132.5	2133.3	2132.5	2131.7	2130.6	2130.2	2130.6	2131.7
9.5°	2124.7	2125.1	2126.3	2127.4	2128.2	2127.4	2126.3	2125.1	2124.7	2125.1	2126.3
10°	2119.2	2119.6	2120.4	2121.5	2122.3	2121.5	2120.4	2119.6	2119.2	2119.6	2120.4
10.5°	2112.9	2113.3	2114.5	2115.7	2116.5	2115.7	2114.5	2113.3	2112.9	2113.3	2114.5
11°	2106.7	2107.1	2108.2	2109.0	2109.8	2109.0	2108.2	2107.1	2106.7	2107.1	2108.2
11.5°	2099.6	2100.0	2101.2	2102.0	2103.1	2102.0	2101.2	2100.0	2099.6	2100.0	2101.2
12°	2092.6	2092.6	2093.7	2094.9	2095.7	2094.9	2093.7	2092.6	2092.6	2092.6	2093.7
12.5°	2084.7	2084.7	2085.9	2087.1	2087.9	2087.1	2085.9	2084.7	2084.7	2084.7	2085.9
13°	2076.5	2076.9	2077.7	2078.9	2079.2	2078.9	2077.7	2076.9	2076.5	2076.9	2077.7
13.5°	2067.5	2067.9	2069.1	2069.8	2070.6	2069.8	2069.1	2067.9	2067.5	2067.9	2069.1
14°	2058.5	2058.9	2059.7	2060.4	2061.2	2060.4	2059.7	2058.9	2058.5	2058.9	2059.7
14.5°	2048.7	2049.1	2049.9	2050.6	2051.4	2050.6	2049.9	2049.1	2048.7	2049.1	2049.9
15°	2038.5	2038.5	2039.3	2040.1	2040.5	2040.1	2039.3	2038.5	2038.5	2038.5	2039.3
15.5°	2027.5	2027.5	2028.3	2029.1	2029.5	2029.1	2028.3	2027.5	2027.5	2027.5	2028.3
16°	2015.8	2016.2	2016.6	2017.0	2017.7	2017.0	2016.6	2016.2	2015.8	2016.2	2016.6
16.5°	2004.0	2004.0	2004.4	2004.8	2005.2	2004.8	2004.4	2004.0	2004.0	2004.0	2004.4
17°	1991.1	1991.1	1991.5	1991.9	1992.3	1991.9	1991.5	1991.1	1991.1	1991.1	1991.5
17.5°	1977.4	1977.4	1977.8	1977.8	1978.2	1977.8	1977.8	1977.4	1977.4	1977.4	1977.8
18°	1963.7	1963.3	1963.3	1963.3	1963.7	1963.3	1963.3	1963.3	1963.7	1963.3	1963.3
18.5°	1948.4	1948.4	1948.0	1948.0	1948.0	1948.0	1948.0	1948.4	1948.4	1948.4	1948.0
19°	1932.7	1932.7	1932.3	1932.0	1932.0	1932.0	1932.3	1932.7	1932.7	1932.7	1932.3
19.5°	1916.3	1915.9	1915.5	1915.1	1915.1	1915.1	1915.5	1915.9	1916.3	1915.9	1915.5
20°	1899.1	1898.7	1898.3	1897.5	1897.1	1897.5	1898.3	1898.7	1899.1	1898.7	1898.3
20.5°	1880.6	1880.3	1879.5	1878.7	1878.3	1878.7	1879.5	1880.3	1880.6	1880.3	1879.5
21°	1861.4	1861.4	1860.7	1859.1	1858.3	1859.1	1860.7	1861.4	1861.4	1861.4	1860.7



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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°	1799.9	1799.9	1799.2	1798.0	1798.0	1798.0	1799.2	1799.9	1799.9	1799.9	1799.2
23°	1778.4	1778.4	1778.0	1776.8	1776.8	1776.8	1778.0	1778.4	1778.4	1778.4	1778.0
23.5°	1756.5	1756.9	1756.5	1755.7	1755.7	1755.7	1756.5	1756.9	1756.5	1756.9	1756.5
24°	1734.5	1734.9	1734.9	1734.5	1734.9	1734.5	1734.9	1734.9	1734.5	1734.9	1734.9
24.5°	1713.4	1713.4	1713.8	1713.4	1714.2	1713.4	1713.8	1713.4	1713.4	1713.4	1713.8
25°	1691.8	1692.2	1692.6	1692.6	1693.4	1692.6	1692.6	1692.2	1691.8	1692.2	1692.6
25.5°	1671.5	1671.5	1671.9	1672.2	1673.0	1672.2	1671.9	1671.5	1671.5	1671.5	1671.9
26°	1651.1	1651.5	1651.9	1652.3	1653.1	1652.3	1651.9	1651.5	1651.1	1651.5	1651.9
26.5°	1631.1	1631.5	1631.9	1632.3	1633.5	1632.3	1631.9	1631.5	1631.1	1631.5	1631.9
27°	1611.9	1611.9	1612.7	1612.7	1613.9	1612.7	1612.7	1611.9	1611.9	1611.9	1612.7
27.5°	1592.7	1593.1	1593.5	1594.3	1595.1	1594.3	1593.5	1593.1	1592.7	1593.1	1593.5
28°	1573.9	1574.3	1575.1	1575.5	1576.7	1575.5	1575.1	1574.3	1573.9	1574.3	1575.1
28.5°	1555.9	1556.7	1557.1	1557.5	1558.6	1557.5	1557.1	1556.7	1555.9	1556.7	1557.1
29°	1538.7	1539.1	1539.5	1539.8	1541.0	1539.8	1539.5	1539.1	1538.7	1539.1	1539.5
29.5°	1521.4	1521.8	1522.6	1523.0	1523.8	1523.0	1522.6	1521.8	1521.4	1521.8	1522.6
30°	1505.0	1505.0	1505.8	1506.2	1507.3	1506.2	1505.8	1505.0	1505.0	1505.0	1505.8
30.5°	1488.5	1488.9	1489.3	1490.1	1490.9	1490.1	1489.3	1488.9	1488.5	1488.9	1489.3
31°	1472.9	1473.3	1474.0	1474.4	1475.6	1474.4	1474.0	1473.3	1472.9	1473.3	1474.0
31.5°	1458.0	1458.4	1458.4	1458.8	1459.5	1458.8	1458.4	1458.4	1458.0	1458.4	1458.4
32°	1443.5	1443.5	1443.5	1443.1	1443.9	1443.1	1443.5	1443.5	1443.5	1443.5	1443.5
32.5°	1429.4	1429.0	1428.2	1426.6	1425.1	1426.6	1428.2	1429.0	1429.4	1429.0	1428.2
33°	1414.1	1413.3	1409.4	1405.5	1401.2	1405.5	1409.4	1413.3	1414.1	1413.3	1409.4
33.5°	1397.7	1393.7	1386.3	1379.6	1374.1	1379.6	1386.3	1393.7	1397.7	1393.7	1386.3
34°	1374.1	1369.1	1358.9	1350.3	1344.4	1350.3	1358.9	1369.1	1374.1	1369.1	1358.9
34.5°	1343.2	1338.9	1327.5	1319.3	1313.4	1319.3	1327.5	1338.9	1343.2	1338.9	1327.5
35°	1306.8	1302.5	1292.3	1285.6	1280.1	1285.6	1292.3	1302.5	1306.8	1302.5	1292.3
35.5°	1266.8	1264.5	1255.1	1248.0	1242.5	1248.0	1255.1	1264.5	1266.8	1264.5	1255.1
36°	1224.1	1222.2	1214.3	1207.3	1201.4	1207.3	1214.3	1222.2	1224.1	1222.2	1214.3
36.5°	1178.7	1177.1	1170.5	1163.0	1156.7	1163.0	1170.5	1177.1	1178.7	1177.1	1170.5
37°	1127.8	1126.6	1122.7	1117.2	1110.9	1117.2	1122.7	1126.6	1127.8	1126.6	1122.7
37.5°	1075.3	1073.7	1072.1	1068.6	1063.5	1068.6	1072.1	1073.7	1075.3	1073.7	1072.1
38°	1019.6	1017.3	1018.1	1017.7	1015.3	1017.7	1018.1	1017.3	1019.6	1017.3	1018.1
38.5°	965.6	962.1	962.8	964.8	966.8	964.8	962.8	962.1	965.6	962.1	962.8
39°	907.2	906.0	906.8	911.5	916.6	911.5	906.8	906.0	907.2	906.0	906.8
39.5°	849.2	850.0	851.6	857.5	864.5	857.5	851.6	850.0	849.2	850.0	851.6
40°	788.5	792.4	796.0	803.8	810.5	803.8	796.0	792.4	788.5	792.4	796.0
40.5°	730.2	735.6	742.3	750.9	756.8	750.9	742.3	735.6	730.2	735.6	742.3
41°	670.2	677.7	688.6	698.4	704.3	698.4	688.6	677.7	670.2	677.7	688.6
41.5°	613.4	621.3	634.6	646.3	651.8	646.3	634.6	621.3	613.4	621.3	634.6
42°	557.8	564.9	580.5	594.6	599.7	594.6	580.5	564.9	557.8	564.9	580.5
42.5°	503.8	512.4	530.0	544.1	548.8	544.1	530.0	512.4	503.8	512.4	530.0
43°	451.7	461.4	479.1	494.0	499.0	494.0	479.1	461.4	451.7	461.4	479.1
43.5°	403.1	412.5	429.7	445.0	452.0	445.0	429.7	412.5	403.1	412.5	429.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	267.2	275.4	293.4	311.4	321.2	311.4	293.4	275.4	267.2	275.4	293.4
45.5°	226.0	235.8	254.2	273.0	282.0	273.0	254.2	235.8	226.0	235.8	254.2
46°	190.0	198.2	219.0	237.4	248.3	237.4	219.0	198.2	190.0	198.2	219.0
46.5°	157.5	166.1	185.7	203.3	215.1	203.3	185.7	166.1	157.5	166.1	185.7
47°	132.0	137.1	153.6	171.2	181.4	171.2	153.6	137.1	132.0	137.1	153.6
47.5°	107.7	110.9	125.7	141.0	147.7	141.0	125.7	110.9	107.7	110.9	125.7
48°	85.8	88.9	100.3	114.0	121.0	114.0	100.3	88.9	85.8	88.9	100.3
48.5°	68.9	70.5	80.3	90.5	96.8	90.5	80.3	70.5	68.9	70.5	80.3
49°	51.7	53.7	61.9	71.7	75.2	71.7	61.9	53.7	51.7	53.7	61.9
49.5°	39.2	40.0	45.4	54.1	58.8	54.1	45.4	40.0	39.2	40.0	45.4
50°	27.8	27.0	34.5	42.3	44.7	42.3	34.5	27.0	27.8	27.0	34.5
50.5°	17.2	18.8	24.3	31.7	36.0	31.7	24.3	18.8	17.2	18.8	24.3
51°	9.4	12.5	16.8	21.2	27.4	21.2	16.8	12.5	9.4	12.5	16.8
51.5°	7.4	7.8	11.0	13.7	20.4	13.7	11.0	7.8	7.4	7.8	11.0
52°	6.3	6.7	7.1	8.6	13.3	8.6	7.1	6.7	6.3	6.7	7.1
52.5°	5.1	5.9	5.9	6.7	6.3	6.7	5.9	5.9	5.1	5.9	5.9
53°	5.1	5.1	5.5	5.5	5.1	5.5	5.5	5.1	5.1	5.1	5.5
53.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
54°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
54.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
55°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
55.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
56°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
56.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
57°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
57.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
58°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
58.5°	2.4	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.4	2.7	2.7
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: P776476

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

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: P776476
CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

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: P776476

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2174.0	2174.0	2174.0	2174.0	2174.0	2174.0
0.5°	2173.6	2174.0	2173.6	2174.0	2173.6	2173.6
1°	2173.3	2174.0	2173.3	2173.6	2173.3	2173.3
1.5°	2172.9	2173.3	2172.9	2172.9	2172.9	2172.5
2°	2172.1	2172.5	2172.1	2172.1	2171.7	2171.7
2.5°	2170.9	2171.3	2170.9	2170.9	2170.9	2170.5
3°	2169.7	2170.1	2169.7	2169.7	2169.3	2169.3
3.5°	2168.2	2168.6	2168.2	2168.2	2167.8	2167.8
4°	2166.2	2167.0	2166.2	2166.2	2165.8	2165.8
4.5°	2164.2	2164.6	2164.2	2163.9	2163.5	2163.5
5°	2161.9	2162.7	2161.9	2161.5	2161.1	2160.7
5.5°	2159.2	2159.9	2159.2	2158.8	2158.4	2158.4
6°	2156.4	2157.2	2156.4	2156.0	2155.2	2155.2
6.5°	2153.3	2154.1	2153.3	2152.9	2152.1	2151.7
7°	2149.8	2150.5	2149.8	2149.4	2148.2	2148.2
7.5°	2145.8	2146.6	2145.8	2145.4	2144.3	2144.3
8°	2141.9	2142.7	2141.9	2141.1	2140.4	2140.0
8.5°	2137.2	2138.0	2137.2	2136.4	2135.7	2135.3
9°	2132.5	2133.3	2132.5	2131.7	2130.6	2130.2
9.5°	2127.4	2128.2	2127.4	2126.3	2125.1	2124.7
10°	2121.5	2122.3	2121.5	2120.4	2119.6	2119.2
10.5°	2115.7	2116.5	2115.7	2114.5	2113.3	2112.9
11°	2109.0	2109.8	2109.0	2108.2	2107.1	2106.7
11.5°	2102.0	2103.1	2102.0	2101.2	2100.0	2099.6
12°	2094.9	2095.7	2094.9	2093.7	2092.6	2092.6
12.5°	2087.1	2087.9	2087.1	2085.9	2084.7	2084.7
13°	2078.9	2079.2	2078.9	2077.7	2076.9	2076.5
13.5°	2069.8	2070.6	2069.8	2069.1	2067.9	2067.5
14°	2060.4	2061.2	2060.4	2059.7	2058.9	2058.5
14.5°	2050.6	2051.4	2050.6	2049.9	2049.1	2048.7
15°	2040.1	2040.5	2040.1	2039.3	2038.5	2038.5
15.5°	2029.1	2029.5	2029.1	2028.3	2027.5	2027.5
16°	2017.0	2017.7	2017.0	2016.6	2016.2	2015.8
16.5°	2004.8	2005.2	2004.8	2004.4	2004.0	2004.0
17°	1991.9	1992.3	1991.9	1991.5	1991.1	1991.1
17.5°	1977.8	1978.2	1977.8	1977.8	1977.4	1977.4
18°	1963.3	1963.7	1963.3	1963.3	1963.3	1963.7
18.5°	1948.0	1948.0	1948.0	1948.0	1948.4	1948.4
19°	1932.0	1932.0	1932.0	1932.3	1932.7	1932.7
19.5°	1915.1	1915.1	1915.1	1915.5	1915.9	1916.3
20°	1897.5	1897.1	1897.5	1898.3	1898.7	1899.1
20.5°	1878.7	1878.3	1878.7	1879.5	1880.3	1880.6
21°	1859.1	1858.3	1859.1	1860.7	1861.4	1861.4



TEST NUMBER: P776476

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1798.0	1798.0	1798.0	1799.2	1799.9	1799.9
23°	1776.8	1776.8	1776.8	1778.0	1778.4	1778.4
23.5°	1755.7	1755.7	1755.7	1756.5	1756.9	1756.5
24°	1734.5	1734.9	1734.5	1734.9	1734.9	1734.5
24.5°	1713.4	1714.2	1713.4	1713.8	1713.4	1713.4
25°	1692.6	1693.4	1692.6	1692.6	1692.2	1691.8
25.5°	1672.2	1673.0	1672.2	1671.9	1671.5	1671.5
26°	1652.3	1653.1	1652.3	1651.9	1651.5	1651.1
26.5°	1632.3	1633.5	1632.3	1631.9	1631.5	1631.1
27°	1612.7	1613.9	1612.7	1612.7	1611.9	1611.9
27.5°	1594.3	1595.1	1594.3	1593.5	1593.1	1592.7
28°	1575.5	1576.7	1575.5	1575.1	1574.3	1573.9
28.5°	1557.5	1558.6	1557.5	1557.1	1556.7	1555.9
29°	1539.8	1541.0	1539.8	1539.5	1539.1	1538.7
29.5°	1523.0	1523.8	1523.0	1522.6	1521.8	1521.4
30°	1506.2	1507.3	1506.2	1505.8	1505.0	1505.0
30.5°	1490.1	1490.9	1490.1	1489.3	1488.9	1488.5
31°	1474.4	1475.6	1474.4	1474.0	1473.3	1472.9
31.5°	1458.8	1459.5	1458.8	1458.4	1458.4	1458.0
32°	1443.1	1443.9	1443.1	1443.5	1443.5	1443.5
32.5°	1426.6	1425.1	1426.6	1428.2	1429.0	1429.4
33°	1405.5	1401.2	1405.5	1409.4	1413.3	1414.1
33.5°	1379.6	1374.1	1379.6	1386.3	1393.7	1397.7
34°	1350.3	1344.4	1350.3	1358.9	1369.1	1374.1
34.5°	1319.3	1313.4	1319.3	1327.5	1338.9	1343.2
35°	1285.6	1280.1	1285.6	1292.3	1302.5	1306.8
35.5°	1248.0	1242.5	1248.0	1255.1	1264.5	1266.8
36°	1207.3	1201.4	1207.3	1214.3	1222.2	1224.1
36.5°	1163.0	1156.7	1163.0	1170.5	1177.1	1178.7
37°	1117.2	1110.9	1117.2	1122.7	1126.6	1127.8
37.5°	1068.6	1063.5	1068.6	1072.1	1073.7	1075.3
38°	1017.7	1015.3	1017.7	1018.1	1017.3	1019.6
38.5°	964.8	966.8	964.8	962.8	962.1	965.6
39°	911.5	916.6	911.5	906.8	906.0	907.2
39.5°	857.5	864.5	857.5	851.6	850.0	849.2
40°	803.8	810.5	803.8	796.0	792.4	788.5
40.5°	750.9	756.8	750.9	742.3	735.6	730.2
41°	698.4	704.3	698.4	688.6	677.7	670.2
41.5°	646.3	651.8	646.3	634.6	621.3	613.4
42°	594.6	599.7	594.6	580.5	564.9	557.8
42.5°	544.1	548.8	544.1	530.0	512.4	503.8
43°	494.0	499.0	494.0	479.1	461.4	451.7
43.5°	445.0	452.0	445.0	429.7	412.5	403.1



TEST NUMBER: P776476

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	311.4	321.2	311.4	293.4	275.4	267.2
45.5°	273.0	282.0	273.0	254.2	235.8	226.0
46°	237.4	248.3	237.4	219.0	198.2	190.0
46.5°	203.3	215.1	203.3	185.7	166.1	157.5
47°	171.2	181.4	171.2	153.6	137.1	132.0
47.5°	141.0	147.7	141.0	125.7	110.9	107.7
48°	114.0	121.0	114.0	100.3	88.9	85.8
48.5°	90.5	96.8	90.5	80.3	70.5	68.9
49°	71.7	75.2	71.7	61.9	53.7	51.7
49.5°	54.1	58.8	54.1	45.4	40.0	39.2
50°	42.3	44.7	42.3	34.5	27.0	27.8
50.5°	31.7	36.0	31.7	24.3	18.8	17.2
51°	21.2	27.4	21.2	16.8	12.5	9.4
51.5°	13.7	20.4	13.7	11.0	7.8	7.4
52°	8.6	13.3	8.6	7.1	6.7	6.3
52.5°	6.7	6.3	6.7	5.9	5.9	5.1
53°	5.5	5.1	5.5	5.5	5.1	5.1
53.5°	4.7	4.7	4.7	4.7	4.7	4.7
54°	4.3	4.3	4.3	4.3	4.3	4.3
54.5°	4.3	4.3	4.3	4.3	4.3	4.3
55°	3.9	3.9	3.9	3.9	3.9	3.9
55.5°	3.9	3.9	3.9	3.9	3.9	3.9
56°	3.5	3.5	3.5	3.5	3.5	3.5
56.5°	3.1	3.1	3.1	3.1	3.1	3.1
57°	3.1	3.1	3.1	3.1	3.1	3.1
57.5°	2.7	2.7	2.7	2.7	2.7	2.7
58°	2.7	2.7	2.7	2.7	2.7	2.7
58.5°	2.7	2.7	2.7	2.7	2.7	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: P776476
 CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

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: P776476

CATALOG NUMBER: HCDJBL3040CSD-HCD82TRMB-4000lm-3000K

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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Scaled Data Report





21.5°	1841.5	1841.1	1840.3	1839.1	1838.7	1839.1	1840.3	1841.1	1841.5	1841.1	1840.3
22°	1821.1	1820.7	1819.9	1818.8	1818.4	1818.8	1819.9	1820.7	1821.1	1820.7	1819.9



44°	356.1	363.5	381.5	397.6	407.0	397.6	381.5	363.5	356.1	363.5	381.5
44.5°	311.0	318.1	336.1	353.7	363.1	353.7	336.1	318.1	311.0	318.1	336.1



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°	1839.1	1838.7	1839.1	1840.3	1841.1	1841.5
22°	1818.8	1818.4	1818.8	1819.9	1820.7	1821.1



44°	397.6	407.0	397.6	381.5	363.5	356.1
44.5°	353.7	363.1	353.7	336.1	318.1	311.0

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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)