

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: P775996

Luminaire Tested: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P775996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K
Description: 4 INCH ROUND MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

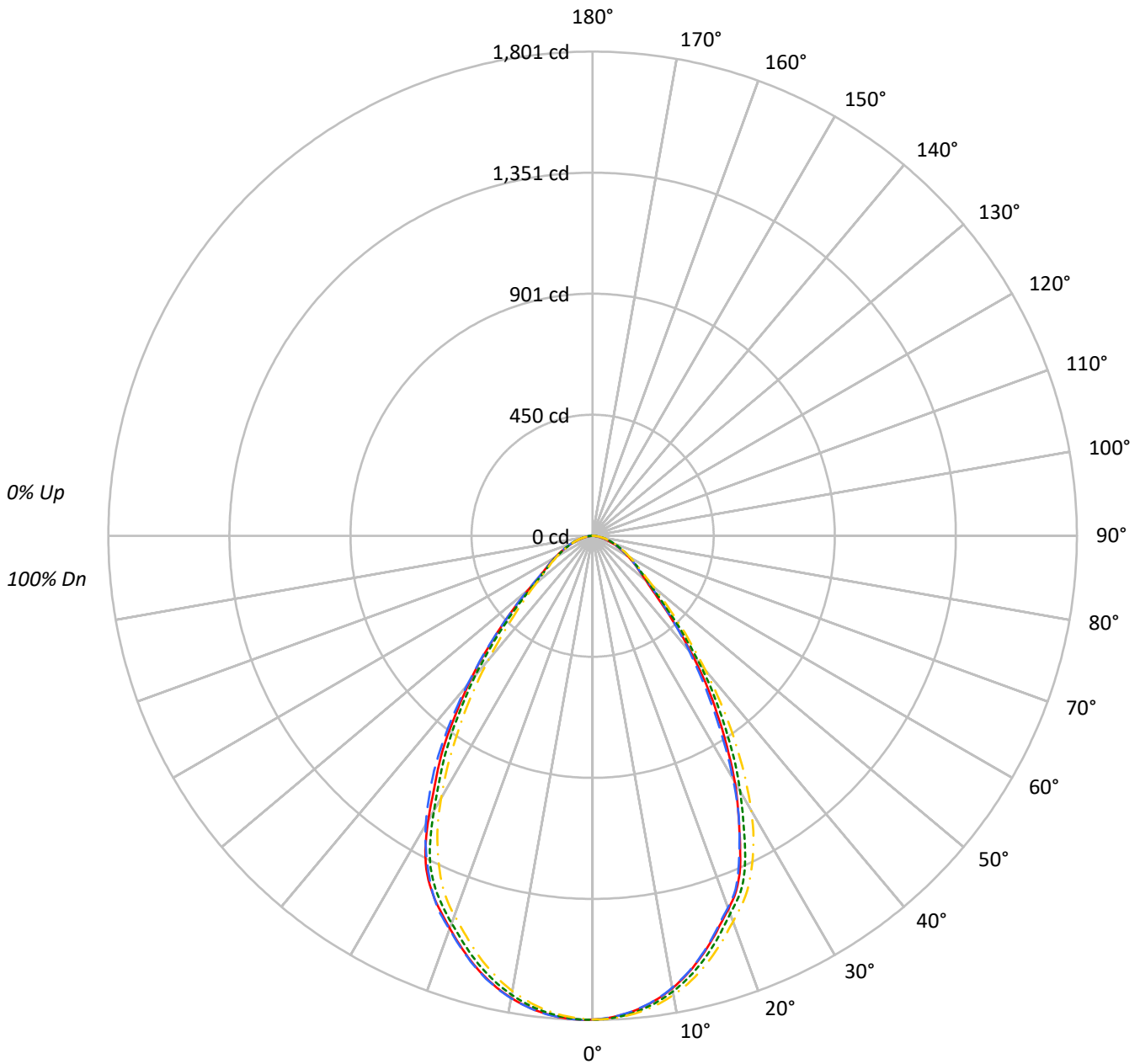
Lumens per Lamp: N/A
Luminaire Lumens: 2510.3 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.02
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 25
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





TEST NUMBER: P775996
 CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRMW-2500lm-3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90		
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80		
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72		
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65		
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58		
6	80	69	62	56	78	68	61	56	66	60	56	65	60	55	64	59	55	53		
7	75	64	57	51	74	63	56	51	62	56	51	60	55	51	59	54	50	49		
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45		
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41		
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	226492	226492	226492	226492
5°	224047	224894	226144	225449
10°	218370	219954	223047	221552
15°	208997	211473	216880	214599
20°	197863	200408	208082	205336
25°	180421	186322	199042	195445
30°	153573	159458	177696	171476
35°	123998	130635	148964	142711
40°	94333	101150	117300	111418
45°	66635	72437	86373	80927
50°	50826	53822	60733	56583
55°	43290	45133	46647	44497
60°	37856	39920	40524	38787
65°	32369	35228	34633	33828
70°	27450	31350	29547	29989
75°	22076	27959	24750	26403
80°	15364	24351	18988	22539
85°	5343	19205	8519	16461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 202.5°
 Vertical Angle: 45°
 Luminance: 87565 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.3	6.7
10°-20°	458.5	18.3
20°-30°	621.6	24.8
30°-40°	552.1	22.0
40°-50°	338.0	13.5
50°-60°	187.5	7.5
60°-70°	115.0	4.6
70°-80°	56.9	2.3
80°-90°	12.3	0.5
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°	1248.5	49.7
0°-40°	1800.6	71.7
0°-60°	2326.1	92.7
0°-90°	2510.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2510.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1800	1800	1800	1800	1800	
5°	1774	1780	1790	1785	1774	167
15°	1604	1623	1665	1647	1604	450
25°	1299	1342	1433	1408	1299	590
35°	807	850	970	929	807	503
45°	374	407	485	455	374	299
55°	197	206	213	203	197	178
65°	109	118	116	114	109	109
75°	45	58	51	54	45	49
85°	4	13	6	11	4	7
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°	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7
0.5°	1798.9	1799.2	1798.7	1797.7	1800.2	1799.4	1799.4	1799.9	1800.4	1800.9	1800.4
1°	1797.7	1798.0	1797.5	1796.5	1799.4	1799.2	1799.2	1800.2	1800.7	1801.2	1800.7
1.5°	1796.0	1796.0	1795.5	1794.7	1798.2	1798.5	1798.5	1799.9	1800.7	1801.2	1800.7
2°	1794.0	1793.8	1793.3	1792.8	1796.7	1797.2	1797.7	1798.9	1800.2	1800.9	1800.2
2.5°	1791.5	1791.3	1790.8	1790.3	1794.7	1795.7	1796.5	1798.2	1799.4	1800.2	1799.4
3°	1788.6	1788.6	1788.1	1787.6	1792.5	1793.8	1795.0	1797.0	1798.2	1798.9	1798.2
3.5°	1785.4	1785.4	1784.6	1784.6	1790.1	1791.5	1793.0	1795.2	1796.7	1797.5	1796.7
4°	1781.9	1781.7	1780.9	1781.2	1787.1	1789.1	1790.6	1793.3	1795.0	1795.7	1795.0
4.5°	1778.2	1777.7	1777.0	1777.5	1783.9	1785.9	1787.8	1790.8	1792.8	1793.8	1792.8
5°	1773.5	1773.3	1772.8	1773.3	1780.2	1782.6	1784.9	1788.1	1790.1	1791.3	1790.3
5.5°	1768.8	1768.3	1767.8	1768.6	1775.7	1778.7	1781.2	1785.1	1787.1	1788.3	1787.6
6°	1763.9	1763.1	1762.6	1763.4	1771.3	1774.7	1777.7	1781.7	1783.9	1785.1	1784.6
6.5°	1758.2	1757.5	1757.5	1758.2	1766.3	1770.1	1773.5	1777.7	1780.4	1781.7	1781.2
7°	1752.5	1751.8	1751.5	1752.5	1761.2	1765.1	1769.1	1773.5	1776.7	1778.0	1777.2
7.5°	1746.1	1745.1	1744.9	1746.3	1755.5	1759.9	1764.1	1769.1	1772.3	1773.8	1773.0
8°	1739.7	1738.7	1738.2	1739.7	1749.1	1754.2	1758.9	1764.1	1767.3	1769.1	1768.3
8.5°	1732.5	1731.5	1731.0	1732.5	1742.9	1748.3	1753.3	1758.9	1762.4	1763.9	1763.6
9°	1725.1	1723.9	1723.4	1725.3	1736.0	1741.9	1747.3	1753.0	1757.2	1758.9	1758.4
9.5°	1717.0	1715.5	1715.2	1717.4	1728.6	1735.2	1740.9	1747.3	1751.5	1753.3	1752.8
10°	1708.8	1707.1	1706.8	1709.0	1721.2	1728.1	1734.2	1740.9	1745.4	1747.6	1746.8
10.5°	1700.2	1698.4	1698.2	1700.4	1713.2	1720.7	1727.1	1734.2	1738.7	1741.2	1740.7
11°	1691.0	1689.3	1688.8	1691.5	1704.4	1712.5	1719.4	1727.3	1732.0	1734.5	1734.0
11.5°	1681.4	1679.2	1679.2	1682.1	1696.0	1704.1	1711.8	1719.4	1725.1	1727.3	1727.1
12°	1671.5	1669.5	1669.3	1672.3	1686.8	1695.5	1703.4	1711.8	1717.7	1720.2	1719.4
12.5°	1661.1	1658.9	1658.9	1661.6	1676.7	1686.1	1694.5	1703.6	1709.5	1712.3	1711.5
13°	1650.5	1648.3	1647.8	1651.3	1666.8	1676.7	1685.6	1695.2	1701.4	1704.4	1703.6
13.5°	1638.9	1636.4	1636.9	1640.1	1656.7	1666.6	1676.2	1686.3	1692.7	1695.7	1695.2
14°	1628.0	1625.3	1625.1	1628.5	1645.8	1656.2	1666.1	1676.7	1683.9	1686.8	1685.8
14.5°	1616.2	1613.5	1613.2	1617.2	1634.5	1645.6	1656.2	1667.1	1674.7	1677.4	1676.4
15°	1604.1	1600.9	1600.6	1604.8	1623.1	1634.5	1645.8	1656.9	1664.6	1667.8	1666.8
15.5°	1591.5	1588.5	1588.5	1592.5	1611.0	1623.1	1634.7	1646.8	1654.5	1657.9	1657.2
16°	1578.6	1575.7	1575.4	1579.6	1598.9	1611.5	1623.6	1636.4	1644.3	1647.8	1646.8
16.5°	1565.8	1562.3	1562.3	1567.0	1586.6	1599.4	1612.2	1625.3	1633.7	1637.2	1636.2
17°	1553.0	1549.0	1549.3	1554.0	1573.7	1587.0	1600.6	1614.2	1622.6	1626.3	1625.6
17.5°	1539.9	1535.7	1535.7	1540.6	1560.6	1574.7	1588.5	1602.6	1611.5	1615.4	1614.2
18°	1526.0	1522.1	1521.8	1527.0	1547.8	1561.9	1576.4	1590.7	1600.1	1604.1	1603.1
18.5°	1513.2	1508.8	1508.3	1513.7	1534.4	1548.8	1563.8	1578.9	1588.5	1592.5	1591.5
19°	1500.9	1496.2	1495.4	1500.6	1521.1	1536.2	1551.2	1566.8	1576.9	1581.1	1579.9
19.5°	1489.0	1484.1	1483.3	1488.5	1508.5	1523.6	1538.6	1554.9	1564.8	1569.5	1568.5
20°	1477.4	1472.2	1471.7	1476.6	1496.4	1511.7	1527.3	1543.1	1553.7	1558.1	1557.7
20.5°	1465.0	1459.9	1459.4	1464.5	1484.6	1499.9	1515.4	1531.5	1542.1	1547.3	1546.8
21°	1452.7	1447.5	1447.3	1452.7	1472.7	1488.8	1504.1	1519.9	1531.0	1536.7	1536.2



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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°	1408.2	1400.8	1400.3	1408.7	1435.4	1452.2	1468.5	1485.3	1496.7	1502.6	1501.8
23°	1390.0	1382.3	1380.6	1390.7	1420.6	1437.9	1454.7	1473.2	1485.0	1490.5	1488.5
23.5°	1370.5	1362.5	1359.3	1371.7	1403.5	1422.1	1440.3	1460.6	1472.9	1477.1	1474.7
24°	1348.5	1340.8	1336.6	1350.9	1384.5	1405.3	1424.8	1447.0	1460.3	1463.3	1459.6
24.5°	1324.8	1318.6	1313.9	1329.0	1364.3	1387.2	1408.2	1432.9	1447.0	1448.5	1444.0
25°	1299.3	1295.1	1290.7	1306.0	1341.8	1368.0	1390.9	1417.6	1433.4	1432.9	1427.5
25.5°	1274.4	1270.4	1268.2	1282.0	1318.3	1346.5	1372.7	1401.8	1418.9	1416.4	1410.0
26°	1249.2	1245.2	1246.0	1257.3	1293.9	1324.3	1354.2	1384.8	1402.8	1399.3	1392.4
26.5°	1224.0	1218.6	1223.5	1232.1	1267.7	1301.1	1334.4	1366.3	1385.5	1380.8	1374.4
27°	1199.1	1192.6	1200.3	1207.0	1242.0	1277.1	1315.1	1347.2	1367.2	1362.3	1356.9
27.5°	1175.3	1166.5	1176.6	1180.8	1217.3	1252.9	1295.1	1327.5	1347.2	1343.0	1339.1
28°	1151.9	1139.8	1151.1	1155.1	1192.6	1227.9	1274.1	1306.5	1325.5	1324.3	1320.3
28.5°	1128.7	1114.6	1125.0	1129.9	1168.7	1204.5	1252.2	1285.2	1301.5	1304.3	1301.8
29°	1104.5	1089.4	1098.0	1104.5	1145.0	1181.5	1228.4	1262.5	1276.4	1283.8	1282.8
29.5°	1081.0	1064.5	1071.1	1079.0	1121.3	1158.8	1204.2	1238.8	1250.2	1262.5	1262.5
30°	1056.8	1039.3	1043.7	1053.6	1097.3	1136.1	1179.0	1214.1	1222.8	1240.8	1241.8
30.5°	1032.3	1014.8	1015.8	1027.9	1073.8	1113.6	1153.6	1187.2	1194.9	1217.1	1219.3
31°	1006.9	989.4	988.6	1002.2	1050.1	1090.4	1127.2	1159.8	1167.2	1193.6	1196.8
31.5°	981.7	964.2	961.7	977.0	1025.4	1066.9	1100.5	1131.1	1140.5	1169.2	1172.9
32°	955.0	939.5	934.5	951.8	1001.2	1043.2	1074.8	1102.2	1115.3	1144.0	1149.4
32.5°	929.4	914.0	907.4	926.4	976.8	1019.0	1049.1	1073.6	1090.6	1117.3	1125.9
33°	904.2	888.9	881.2	901.7	950.8	993.6	1022.0	1044.7	1066.2	1090.1	1102.5
33.5°	879.2	864.9	855.0	877.2	925.2	968.1	994.8	1017.0	1042.0	1063.2	1077.5
34°	855.0	839.7	829.1	852.5	899.7	942.0	967.6	991.3	1018.5	1036.8	1053.6
34.5°	830.8	815.0	803.6	827.9	875.0	915.0	941.0	964.4	994.1	1010.1	1027.2
35°	807.1	789.8	778.0	803.4	850.3	888.1	914.0	937.3	969.6	984.7	1001.0
35.5°	783.9	766.4	753.8	779.0	826.9	862.4	887.6	911.3	943.9	959.7	973.6
36°	760.9	741.4	730.5	754.3	802.4	836.0	860.2	885.1	917.3	934.8	946.6
36.5°	737.5	717.2	707.8	729.1	779.4	810.6	834.3	859.0	890.8	909.6	918.7
37°	713.8	694.0	685.6	704.9	756.0	784.9	806.9	832.3	863.9	884.2	890.8
37.5°	690.0	670.8	663.4	680.7	732.8	760.2	780.4	805.9	837.2	859.7	863.4
38°	666.3	648.1	641.4	656.9	709.8	735.5	753.5	779.9	811.8	833.8	835.8
38.5°	642.6	625.1	619.4	635.0	686.6	711.3	727.8	754.5	787.8	808.3	807.6
39°	619.9	603.8	598.4	613.2	661.4	687.1	702.1	729.1	762.4	782.4	780.4
39.5°	596.7	582.6	577.7	592.0	638.4	662.9	678.2	705.1	738.4	756.7	753.3
40°	574.2	561.6	556.7	570.8	615.7	638.7	652.7	681.2	714.0	730.8	726.6
40.5°	552.5	541.1	537.2	550.5	592.0	613.5	628.5	658.2	692.0	705.4	699.9
41°	531.5	521.1	518.4	530.5	569.5	589.5	604.6	635.2	667.8	680.4	674.7
41.5°	510.2	501.4	499.9	511.2	547.8	566.1	582.1	613.2	643.1	655.7	650.0
42°	489.3	482.6	482.8	492.2	527.0	543.1	559.6	592.0	618.9	631.3	625.8
42.5°	469.2	464.6	465.8	473.7	505.8	520.4	538.4	570.8	596.4	607.6	602.4
43°	449.2	447.0	449.2	455.9	485.3	498.9	517.7	549.5	572.5	583.3	578.7
43.5°	429.5	429.7	432.7	438.6	464.8	478.1	498.1	529.3	549.5	559.9	555.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	374.4	382.6	387.5	391.0	407.0	421.1	440.6	468.8	485.3	492.0	490.0
45.5°	358.6	368.0	373.4	376.4	389.2	403.6	423.6	449.5	465.5	470.5	469.0
46°	343.8	354.2	360.3	362.6	372.2	386.3	406.5	430.7	445.8	449.5	448.7
46.5°	329.7	340.8	347.0	349.0	356.1	370.7	390.0	412.7	427.0	429.0	429.2
47°	316.9	328.0	334.9	335.9	341.6	355.1	374.4	395.4	408.5	408.7	410.2
47.5°	305.3	315.6	322.8	323.5	328.0	340.6	359.6	378.4	390.5	390.2	392.4
48°	294.9	304.5	311.2	311.9	315.1	327.2	345.8	362.6	373.4	372.4	374.7
48.5°	285.0	293.7	300.1	300.8	303.5	314.6	332.4	347.5	356.6	355.6	357.9
49°	276.1	283.5	290.2	290.2	293.2	303.3	319.3	332.9	340.3	339.3	341.6
49.5°	267.5	273.9	280.1	280.1	283.5	292.2	307.5	319.3	325.0	324.3	326.5
50°	259.6	264.8	270.4	270.4	274.9	282.0	295.9	306.2	310.2	310.0	311.7
50.5°	252.2	256.1	260.8	261.5	266.2	272.7	285.0	293.9	296.9	296.9	297.8
51°	245.0	248.2	252.4	252.9	258.1	264.0	274.6	282.3	284.3	284.5	285.0
51.5°	237.8	240.3	244.0	245.0	250.7	255.9	264.8	271.4	272.7	273.2	272.7
52°	231.2	232.9	236.1	237.1	243.8	248.0	255.6	261.3	261.8	262.3	261.3
52.5°	224.5	225.7	228.4	229.9	236.6	240.6	246.7	251.4	251.9	252.2	250.7
53°	218.1	219.3	221.3	222.8	229.7	233.4	238.6	242.3	243.0	242.8	240.8
53.5°	212.1	213.1	214.6	216.1	223.0	226.5	230.7	234.1	234.4	234.1	232.2
54°	206.7	207.5	208.4	209.9	216.8	220.3	223.3	226.2	226.5	226.0	224.3
54.5°	202.0	202.5	203.3	204.7	210.7	213.6	216.3	218.8	219.3	218.3	216.8
55°	197.3	197.8	198.6	199.8	205.7	208.7	210.9	212.1	212.6	211.9	211.4
55.5°	192.6	193.1	193.9	195.1	200.8	203.5	205.7	207.0	207.5	206.7	206.0
56°	187.9	188.4	189.2	190.2	195.8	198.6	200.5	201.8	202.0	201.3	200.5
56.5°	183.0	183.7	184.5	185.7	190.9	193.4	195.1	196.6	196.6	196.1	195.4
57°	178.3	179.1	179.8	180.8	186.5	188.4	189.9	191.2	191.2	190.7	189.9
57.5°	173.6	174.4	174.9	176.1	181.5	183.5	185.0	186.2	186.7	185.7	184.7
58°	168.9	169.7	170.2	171.4	176.8	178.8	180.0	181.3	181.5	180.8	179.5
58.5°	164.2	165.0	165.7	167.0	172.1	173.9	175.1	176.6	176.3	175.8	174.6
59°	159.8	160.5	161.3	162.5	167.4	169.2	170.4	171.6	171.2	170.7	169.7
59.5°	155.1	156.1	156.8	157.8	163.0	164.5	165.5	166.7	166.2	165.7	164.7
60°	150.4	151.9	152.4	153.6	158.6	160.3	161.0	162.0	161.0	161.0	160.0
60.5°	146.0	147.4	148.2	149.2	154.4	155.6	156.6	157.3	156.1	156.1	155.3
61°	141.5	143.0	144.0	145.0	149.9	151.4	152.1	152.9	151.4	151.4	150.9
61.5°	137.3	138.8	140.0	141.0	145.7	147.2	147.7	148.4	146.7	146.7	146.5
62°	132.9	134.6	136.1	136.8	141.5	143.0	143.5	144.2	142.0	142.3	142.3
62.5°	128.7	130.6	131.9	132.9	137.3	138.8	139.5	139.8	137.6	137.8	138.1
63°	124.5	126.4	128.2	129.2	133.4	134.8	135.3	135.6	133.1	133.4	133.9
63.5°	120.5	122.5	124.2	125.2	129.4	130.9	131.4	131.1	128.7	129.2	129.9
64°	116.6	118.5	120.8	121.5	125.7	126.9	127.4	126.9	124.5	125.0	126.0
64.5°	112.6	114.8	117.1	118.1	122.0	123.2	123.7	123.0	120.3	121.0	122.3
65°	108.7	110.9	113.6	114.3	118.3	119.5	120.0	119.0	116.3	117.1	118.3
65.5°	105.0	107.2	109.9	110.9	114.8	115.8	116.6	115.1	112.1	113.1	114.6
66°	101.3	103.7	106.4	107.4	111.1	112.4	112.9	111.4	108.4	109.4	111.1



TEST NUMBER: P775996

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	90.6	93.1	96.3	97.6	101.0	102.0	102.5	100.3	97.3	98.3	100.5
68°	87.4	89.7	93.1	94.3	97.8	98.8	99.3	96.8	93.8	94.8	97.1
68.5°	84.2	86.7	90.1	91.1	94.6	95.6	95.8	93.4	90.1	91.4	93.8
69°	81.0	83.5	86.9	88.2	91.4	92.4	92.6	89.9	86.9	88.2	90.6
69.5°	77.8	80.3	84.0	85.2	88.4	89.4	89.4	86.7	83.5	85.0	87.4
70°	74.6	77.1	81.0	82.5	85.2	86.2	86.4	83.5	80.3	81.7	84.2
70.5°	71.4	73.8	78.0	79.5	82.5	83.2	83.5	80.3	77.1	78.5	81.3
71°	68.4	70.9	75.1	76.6	79.5	80.3	80.3	77.1	74.1	75.3	78.3
71.5°	65.4	67.9	72.1	73.8	76.6	77.5	77.3	73.8	70.9	72.4	75.3
72°	62.2	65.0	69.2	70.9	73.6	74.6	74.3	70.9	67.9	69.4	72.4
72.5°	59.3	62.0	66.4	68.2	70.9	71.9	71.6	67.9	65.0	66.4	69.6
73°	56.3	59.0	63.5	65.4	68.2	68.9	68.7	65.0	62.0	63.5	66.7
73.5°	53.6	56.1	60.8	62.7	65.4	66.2	65.7	62.0	59.0	60.5	64.0
74°	50.9	53.3	58.0	60.3	62.7	63.7	63.2	59.3	56.3	57.8	61.2
74.5°	48.2	50.6	55.3	57.5	60.0	61.0	60.3	56.6	53.6	55.1	58.5
75°	45.4	47.9	52.6	55.1	57.5	58.3	57.8	53.6	50.9	52.4	55.8
75.5°	42.7	45.2	50.1	52.4	55.1	55.8	55.1	51.1	48.2	49.6	53.3
76°	40.3	42.7	47.4	50.1	52.4	53.3	52.4	48.2	45.4	46.9	50.9
76.5°	37.8	40.0	44.9	47.4	49.9	50.9	49.9	45.7	43.0	44.5	48.2
77°	35.3	37.5	42.5	45.2	47.4	48.4	47.4	43.0	40.3	41.7	45.7
77.5°	32.8	35.1	40.0	42.7	45.2	46.2	44.9	40.5	37.8	39.3	43.2
78°	30.4	32.6	37.8	40.5	42.7	43.7	42.5	38.0	35.3	37.0	40.8
78.5°	27.9	30.1	35.3	38.0	40.5	41.2	40.0	35.6	33.1	34.6	38.5
79°	25.7	27.7	33.1	35.8	38.0	39.0	37.8	33.1	30.6	32.1	36.3
79.5°	23.5	25.4	30.6	33.6	35.8	36.8	35.6	30.9	28.4	29.6	33.8
80°	21.2	23.2	28.4	31.4	33.6	34.6	33.1	28.4	26.2	27.4	31.6
80.5°	19.0	21.0	26.4	29.4	31.6	32.4	31.1	26.2	24.0	25.2	29.4
81°	16.8	18.8	24.2	27.2	29.4	30.1	28.9	24.0	21.7	23.2	27.4
81.5°	14.8	16.5	22.2	24.9	27.2	28.2	26.7	22.0	19.8	21.0	25.2
82°	12.6	14.6	20.3	23.0	25.2	25.9	24.7	20.0	17.5	18.8	23.2
82.5°	10.6	12.6	18.3	21.0	23.0	24.0	22.7	18.0	15.6	16.8	21.5
83°	8.6	10.9	16.5	19.0	21.2	22.0	21.0	16.1	13.3	14.6	19.8
83.5°	7.4	9.1	14.6	17.0	19.3	20.0	19.0	13.8	11.4	12.8	17.8
84°	6.2	8.2	13.1	15.3	17.3	18.0	17.0	12.1	9.4	11.1	16.1
84.5°	4.9	7.2	11.4	13.3	15.3	16.1	15.3	10.6	7.7	9.4	14.3
85°	3.7	5.9	9.6	11.4	13.3	14.1	13.3	9.1	5.9	8.2	12.6
85.5°	3.0	4.9	8.2	9.6	11.4	12.3	11.9	7.9	4.9	7.2	10.9
86°	2.2	4.0	6.7	7.9	9.6	10.6	10.1	6.9	4.2	6.2	9.4
86.5°	1.7	3.0	5.2	6.2	7.9	8.6	8.6	5.7	3.5	5.2	7.9
87°	1.0	2.0	3.5	4.4	6.2	6.9	6.9	4.7	2.7	4.2	6.4
87.5°	0.5	1.2	2.0	2.7	4.4	5.4	5.4	3.7	2.2	3.2	4.9
88°	0.2	0.5	0.7	1.2	3.0	3.7	4.0	2.7	1.5	2.5	3.5
88.5°	0.0	0.2	0.2	0.5	1.5	2.0	2.5	1.7	1.0	1.5	2.0



TEST NUMBER: P775996
CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0



TEST NUMBER: P775996

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1799.7	1799.7	1799.7	1799.7	1799.7	1799.7
0.5°	1799.2	1800.4	1799.4	1798.5	1798.7	1798.9
1°	1799.4	1800.2	1798.7	1797.5	1797.5	1797.7
1.5°	1798.9	1799.4	1797.7	1796.2	1796.0	1796.0
2°	1798.5	1798.5	1796.5	1794.5	1794.0	1794.0
2.5°	1797.5	1797.0	1795.0	1792.8	1791.8	1791.5
3°	1796.2	1795.2	1792.8	1790.6	1789.1	1788.6
3.5°	1794.7	1793.3	1790.6	1787.8	1786.1	1785.4
4°	1792.8	1791.0	1787.6	1785.1	1782.9	1781.9
4.5°	1790.6	1787.8	1784.6	1781.4	1779.2	1778.2
5°	1788.1	1784.6	1780.9	1777.7	1775.0	1773.5
5.5°	1784.9	1781.2	1777.2	1773.5	1770.5	1768.8
6°	1781.4	1777.5	1772.8	1769.1	1765.9	1763.9
6.5°	1778.0	1773.5	1768.3	1764.4	1760.4	1758.2
7°	1774.0	1768.8	1763.4	1758.9	1754.7	1752.5
7.5°	1769.8	1763.6	1758.2	1753.3	1748.8	1746.1
8°	1764.9	1758.7	1752.5	1747.1	1742.4	1739.7
8.5°	1759.9	1753.0	1746.6	1740.9	1735.7	1732.5
9°	1754.5	1746.8	1740.2	1733.7	1728.1	1725.1
9.5°	1748.8	1740.7	1733.5	1726.8	1720.7	1717.0
10°	1742.6	1733.7	1726.3	1719.4	1712.8	1708.8
10.5°	1736.2	1726.8	1718.7	1711.5	1704.6	1700.2
11°	1729.1	1719.4	1710.8	1703.1	1695.7	1691.0
11.5°	1721.9	1711.8	1702.6	1694.5	1686.1	1681.4
12°	1714.2	1703.4	1694.0	1684.8	1676.7	1671.5
12.5°	1706.3	1694.7	1684.8	1675.2	1666.6	1661.1
13°	1697.9	1685.8	1675.7	1665.6	1656.4	1650.5
13.5°	1689.3	1676.9	1665.8	1655.5	1645.3	1638.9
14°	1680.2	1667.3	1656.0	1644.8	1634.0	1628.0
14.5°	1670.8	1657.4	1645.6	1634.0	1622.6	1616.2
15°	1660.9	1647.1	1634.7	1622.4	1610.8	1604.1
15.5°	1650.8	1636.2	1623.6	1611.0	1598.9	1591.5
16°	1640.4	1625.6	1612.2	1599.1	1586.8	1578.6
16.5°	1629.8	1614.5	1600.6	1587.3	1574.0	1565.8
17°	1618.7	1602.6	1588.8	1575.2	1561.4	1553.0
17.5°	1607.5	1591.5	1576.7	1562.3	1548.3	1539.9
18°	1596.2	1579.6	1564.8	1550.0	1535.4	1526.0
18.5°	1584.6	1567.5	1552.7	1537.7	1522.8	1513.2
19°	1572.5	1556.4	1540.9	1525.8	1511.0	1500.9
19.5°	1561.4	1544.6	1529.3	1514.4	1499.4	1489.0
20°	1550.5	1533.2	1518.4	1502.8	1487.8	1477.4
20.5°	1539.6	1522.3	1506.5	1491.2	1475.7	1465.0
21°	1528.5	1510.7	1495.2	1479.4	1463.6	1452.7



TEST NUMBER: P775996

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1494.4	1475.7	1458.4	1438.4	1420.1	1408.2
23°	1481.8	1463.6	1445.5	1423.3	1403.5	1390.0
23.5°	1468.5	1450.5	1431.5	1406.8	1385.0	1370.5
24°	1453.9	1437.6	1416.4	1389.5	1365.3	1348.5
24.5°	1438.9	1422.6	1400.6	1370.9	1344.3	1324.8
25°	1422.8	1407.5	1383.5	1352.2	1322.5	1299.3
25.5°	1406.0	1390.9	1365.8	1332.9	1299.6	1274.4
26°	1388.5	1373.9	1347.0	1313.6	1275.9	1249.2
26.5°	1369.5	1353.9	1326.7	1293.1	1251.4	1224.0
27°	1350.9	1333.7	1305.7	1271.9	1227.5	1199.1
27.5°	1332.2	1310.7	1284.0	1250.2	1203.2	1175.3
28°	1312.7	1286.5	1261.3	1227.2	1179.8	1151.9
28.5°	1292.7	1260.8	1237.3	1203.2	1156.6	1128.7
29°	1271.9	1234.9	1212.4	1178.3	1133.6	1104.5
29.5°	1251.2	1207.4	1186.5	1152.9	1110.9	1081.0
30°	1228.7	1180.0	1159.5	1126.9	1088.2	1056.8
30.5°	1205.5	1153.4	1131.4	1101.0	1064.7	1032.3
31°	1181.3	1127.2	1102.0	1074.8	1040.2	1006.9
31.5°	1156.3	1102.0	1073.8	1047.7	1016.0	981.7
32°	1130.9	1077.3	1045.9	1021.0	991.6	955.0
32.5°	1104.5	1053.1	1018.5	994.1	966.4	929.4
33°	1077.5	1029.1	992.3	967.4	939.2	904.2
33.5°	1050.4	1005.2	965.7	940.2	913.1	879.2
34°	1023.9	981.0	940.2	913.6	885.6	855.0
34.5°	997.8	954.8	914.3	886.1	858.7	830.8
35°	972.1	928.9	888.4	859.2	831.3	807.1
35.5°	946.9	902.7	862.2	832.8	805.9	783.9
36°	921.7	876.3	835.8	806.9	779.9	760.9
36.5°	896.5	850.3	809.6	780.9	755.0	737.5
37°	871.6	823.7	783.4	754.3	730.3	713.8
37.5°	845.6	798.2	757.7	728.6	706.8	690.0
38°	819.9	773.5	732.3	702.9	682.1	666.3
38.5°	794.5	749.6	707.3	677.9	658.2	642.6
39°	769.3	725.9	683.9	652.7	633.7	619.9
39.5°	743.1	701.9	660.4	628.3	609.0	596.7
40°	717.7	678.2	637.7	604.1	584.8	574.2
40.5°	692.0	654.5	615.5	580.6	561.1	552.5
41°	668.3	630.3	593.2	557.7	537.7	531.5
41.5°	643.1	607.1	571.7	536.2	515.2	510.2
42°	619.2	583.3	550.0	514.7	493.9	489.3
42.5°	595.0	560.4	530.2	494.9	473.7	469.2
43°	572.2	537.7	509.0	475.2	453.9	449.2
43.5°	548.3	516.2	488.8	455.9	434.9	429.5



TEST NUMBER: P775996

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	482.3	454.7	430.2	403.1	382.8	374.4
45.5°	460.6	435.4	412.2	387.0	367.2	358.6
46°	440.4	416.9	394.9	371.9	352.2	343.8
46.5°	420.1	398.4	377.9	357.1	338.1	329.7
47°	400.8	380.8	361.6	342.6	324.8	316.9
47.5°	382.6	363.5	346.5	329.2	312.4	305.3
48°	364.8	347.2	331.4	316.9	301.1	294.9
48.5°	348.7	331.2	317.6	305.0	290.2	285.0
49°	332.4	316.4	304.8	293.7	280.3	276.1
49.5°	317.9	302.3	292.4	282.8	271.2	267.5
50°	304.0	289.0	280.6	272.4	262.5	259.6
50.5°	290.9	276.4	269.4	262.8	254.4	252.2
51°	278.6	265.2	259.3	253.6	246.5	245.0
51.5°	267.5	254.9	249.7	245.2	239.1	237.8
52°	256.9	245.2	241.0	236.8	232.2	231.2
52.5°	247.0	236.6	232.6	229.2	225.2	224.5
53°	237.8	228.4	224.7	221.8	218.8	218.1
53.5°	229.2	221.0	217.3	215.1	212.6	212.1
54°	221.3	214.1	210.9	208.9	207.2	206.7
54.5°	214.4	208.2	205.5	203.8	202.3	202.0
55°	209.2	202.8	200.5	199.1	197.6	197.3
55.5°	203.8	198.1	195.6	194.1	192.6	192.6
56°	198.6	193.1	190.7	189.4	187.9	187.9
56.5°	193.4	188.2	186.0	184.5	183.0	183.0
57°	187.9	183.0	181.0	179.5	178.3	178.3
57.5°	183.0	177.8	175.8	174.6	173.6	173.6
58°	178.1	173.1	171.2	169.9	168.9	168.9
58.5°	173.1	168.2	166.2	165.2	164.2	164.2
59°	167.9	163.5	161.5	160.5	159.8	159.8
59.5°	163.2	158.6	156.8	156.1	155.3	155.1
60°	158.6	154.1	152.4	151.6	150.9	150.4
60.5°	153.9	149.4	147.9	147.4	146.7	146.0
61°	149.4	145.2	143.7	143.0	142.5	141.5
61.5°	145.0	141.0	139.5	138.8	138.1	137.3
62°	140.8	136.8	135.6	134.8	134.1	132.9
62.5°	136.6	132.6	131.1	130.9	129.9	128.7
63°	132.4	128.7	127.4	126.9	126.0	124.5
63.5°	128.7	124.7	123.5	123.2	122.0	120.5
64°	124.7	121.0	119.8	119.5	118.1	116.6
64.5°	120.8	117.3	116.1	115.8	114.3	112.6
65°	117.1	113.6	112.6	112.4	110.6	108.7
65.5°	113.4	110.1	109.2	108.7	106.9	105.0
66°	109.9	106.7	105.7	105.5	103.2	101.3



TEST NUMBER: P775996

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	99.8	96.6	95.8	95.3	92.6	90.6
68°	96.3	93.4	92.6	92.4	88.9	87.4
68.5°	93.4	90.4	89.2	88.9	85.9	84.2
69°	90.1	87.4	86.4	85.9	83.0	81.0
69.5°	86.9	84.5	83.5	83.0	79.8	77.8
70°	84.0	81.5	80.8	80.3	76.8	74.6
70.5°	81.0	78.8	77.8	77.3	73.6	71.4
71°	78.3	75.8	74.8	74.3	70.6	68.4
71.5°	75.3	72.9	72.1	71.4	67.7	65.4
72°	72.6	70.1	69.4	68.7	64.7	62.2
72.5°	69.6	67.4	66.7	65.7	61.7	59.3
73°	66.9	64.7	64.0	63.0	59.0	56.3
73.5°	64.2	62.0	61.2	60.3	56.1	53.6
74°	61.7	59.5	58.8	57.5	53.3	50.9
74.5°	59.0	56.8	56.1	55.1	50.6	48.2
75°	56.6	54.3	53.6	52.4	47.9	45.4
75.5°	54.1	51.9	51.1	49.9	45.4	42.7
76°	51.6	49.4	48.7	47.2	42.7	40.3
76.5°	49.1	46.9	46.2	44.7	40.0	37.8
77°	46.7	44.7	44.0	42.2	37.5	35.3
77.5°	44.5	42.2	41.5	40.0	35.1	32.8
78°	42.0	40.0	39.3	37.5	32.6	30.4
78.5°	39.8	37.8	37.0	35.3	30.4	27.9
79°	37.5	35.6	34.8	32.8	27.9	25.7
79.5°	35.3	33.3	32.6	30.6	25.7	23.5
80°	33.1	31.1	30.4	28.6	23.5	21.2
80.5°	30.9	29.1	28.4	26.4	21.2	19.0
81°	28.9	26.9	26.2	24.2	19.0	16.8
81.5°	26.7	24.9	24.2	22.2	17.0	14.8
82°	24.7	23.0	22.2	20.3	15.1	12.6
82.5°	22.7	21.0	20.3	18.5	13.1	10.6
83°	21.0	19.0	18.3	16.5	11.4	8.6
83.5°	19.0	17.0	16.3	14.8	9.9	7.4
84°	17.0	15.1	14.3	13.1	8.6	6.2
84.5°	15.1	13.3	12.6	11.4	7.7	4.9
85°	13.3	11.4	10.9	9.6	6.4	3.7
85.5°	11.4	9.6	8.9	8.2	5.2	3.0
86°	9.6	8.2	7.4	6.4	4.2	2.2
86.5°	7.9	6.4	5.7	4.9	3.2	1.7
87°	6.4	4.7	4.0	3.2	2.2	1.0
87.5°	4.7	3.0	2.2	1.7	1.2	0.5
88°	3.0	1.5	1.0	0.7	0.5	0.2
88.5°	1.5	0.5	0.2	0.2	0.2	0.0



TEST NUMBER: P775996
CATALOG NUMBER: HCDJBL51525CSD-HCD4TRMW-2500lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.2	0.0



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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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°	1439.8	1433.2	1433.7	1439.6	1461.1	1476.9	1492.7	1508.5	1519.4	1525.3	1525.1
22°	1425.0	1417.6	1418.1	1424.8	1449.0	1465.3	1481.6	1496.9	1508.3	1514.4	1513.9



44°	410.2	413.4	417.4	422.3	444.8	458.6	478.1	508.5	527.3	536.9	533.2
44.5°	392.2	397.6	401.6	406.5	425.8	439.6	458.6	488.8	506.5	513.9	511.2



66.5°	97.8	100.0	103.2	104.0	107.7	108.9	109.2	107.4	104.5	105.5	107.4
67°	94.1	96.6	99.8	100.8	104.5	105.5	106.0	104.0	101.0	102.0	104.0



89°	0.0	0.2	0.0	0.0	0.5	0.7	1.0	1.0	0.5	0.7	0.7
89.5°	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.2

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21.5°	1517.2	1498.9	1483.3	1466.8	1450.2	1439.8
22°	1506.3	1487.8	1471.2	1452.9	1435.9	1425.0



44°	526.1	494.7	469.0	437.6	416.6	410.2
44.5°	503.6	474.4	449.7	419.9	399.4	392.2



66.5°	106.4	103.2	102.2	102.0	99.5	97.8
67°	103.0	99.8	99.0	98.8	96.1	94.1

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Scaled Data Report



89°	0.5	0.0	0.0	0.0	0.2	0.0
89.5°	0.0	0.0	0.0	0.0	0.2	0.0

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Scaled Data Report



(END OF REPORT)