

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: P776022

Luminaire Tested: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776022
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-HCD4TSQMW-2500lm-3500K
Description: 4 INCH SQUARE MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

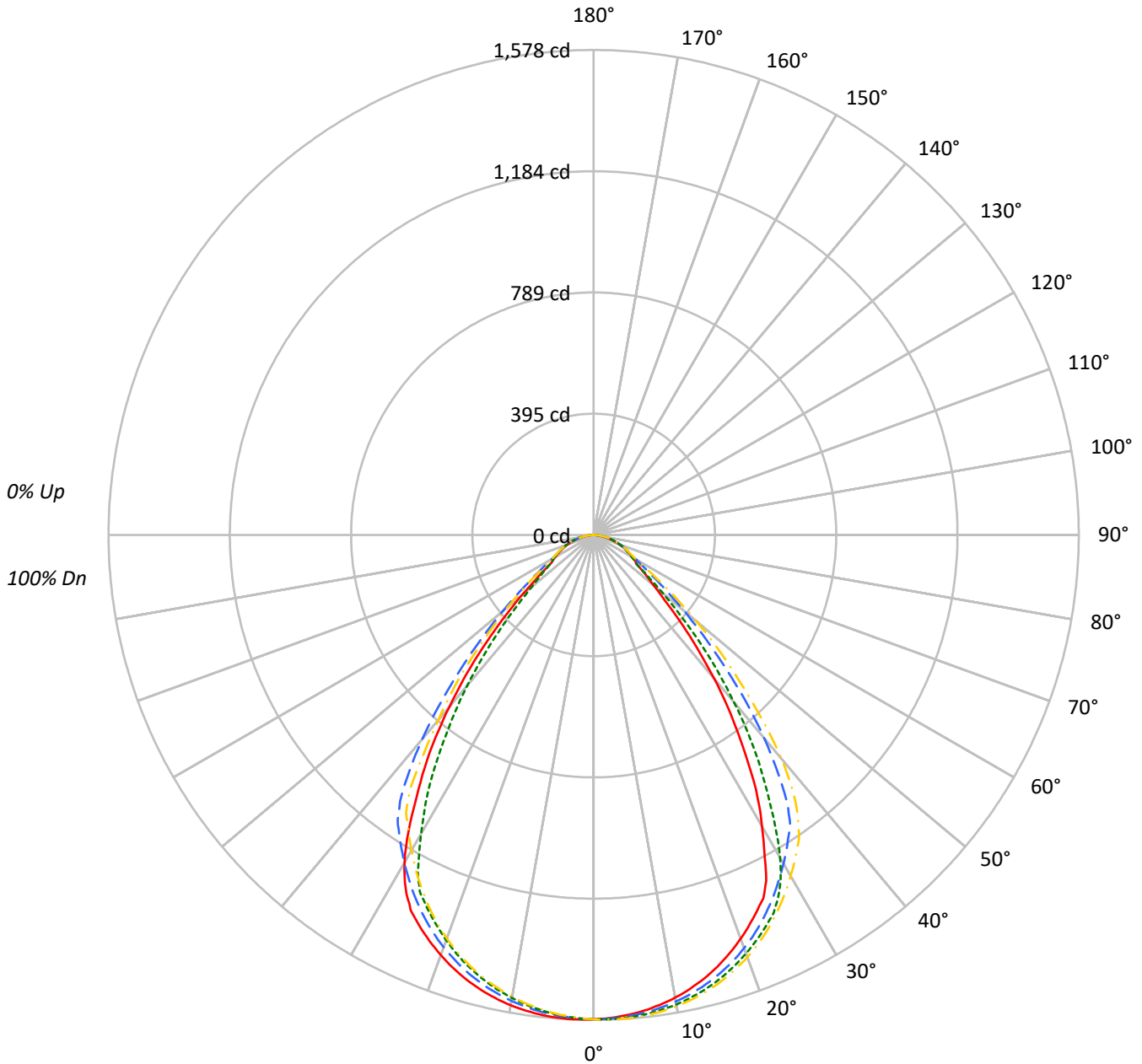
Lumens per Lamp: N/A
Luminaire Lumens: 2606.3 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.13 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P776022
CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P776022

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TSQMW-2500lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	97	92	88	101	96	91	86	92	88	85	89	86	83	86	83	81	79								
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70								
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63								
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	58	57								
6	79	67	60	55	77	67	59	54	65	59	54	63	58	53	62	57	53	51								
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47								
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43								
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39								
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	41	38	36								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	155775	155775	155775	155775
5°	154951	156023	156172	155021
10°	153421	155679	155960	153572
15°	150894	154568	155008	151181
20°	147039	152446	153003	147586
25°	142335	149522	149969	142902
30°	124987	138386	140452	128080
35°	102540	115982	118492	106450
40°	78643	91456	94217	82527
45°	55299	66369	69039	58863
50°	39104	44440	46716	40503
55°	30950	30553	32380	31605
60°	29000	28111	28605	28961
65°	27341	26990	27154	27972
70°	25229	25865	25576	27108
75°	22685	24518	23563	26160
80°	17987	22711	20435	24533
85°	8846	18486	12248	21661

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 93376 cd/sqm



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.8	5.7
10°-20°	421.0	16.2
20°-30°	613.6	23.5
30°-40°	617.2	23.7
40°-50°	404.6	15.5
50°-60°	196.1	7.5
60°-70°	119.2	4.6
70°-80°	68.6	2.6
80°-90°	17.2	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°	1183.3	45.4
0°-40°	1800.5	69.1
0°-60°	2401.2	92.1
0°-90°	2606.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2606.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1576	1576	1576	1576	1576	
5°	1562	1572	1574	1562	1562	148
15°	1475	1510	1515	1477	1475	415
25°	1305	1371	1375	1310	1305	588
35°	850	961	982	882	850	530
45°	396	475	494	421	396	311
55°	180	177	188	183	180	168
65°	117	115	116	120	117	116
75°	59	64	62	68	59	63
85°	8	16	11	19	8	11
90°	0	0	0	0	0	



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0
0.5°	1575.7	1575.2	1575.5	1575.5	1576.5	1576.7	1577.2	1577.5	1577.0	1576.0	1575.2
1°	1575.0	1574.5	1575.2	1575.7	1576.7	1577.2	1577.7	1578.0	1577.2	1576.0	1575.0
1.5°	1573.7	1573.7	1575.0	1575.7	1576.7	1577.5	1578.2	1578.2	1577.5	1576.0	1574.5
2°	1572.5	1572.7	1574.5	1575.7	1576.7	1577.5	1578.2	1578.2	1577.5	1575.7	1573.7
2.5°	1571.2	1571.7	1573.7	1575.2	1576.5	1577.5	1578.2	1578.2	1577.5	1575.5	1573.0
3°	1569.4	1570.2	1572.7	1574.7	1575.7	1577.2	1578.0	1578.2	1577.0	1575.0	1572.0
3.5°	1567.9	1568.7	1571.7	1574.2	1575.2	1576.7	1577.7	1577.7	1576.5	1574.2	1570.7
4°	1566.2	1567.2	1570.5	1573.5	1574.5	1576.2	1577.2	1577.5	1576.0	1573.2	1569.7
4.5°	1563.9	1565.2	1568.9	1572.5	1573.7	1575.2	1576.7	1576.7	1575.2	1572.2	1568.2
5°	1561.7	1563.2	1567.2	1571.2	1572.5	1574.5	1575.7	1575.7	1574.0	1571.0	1566.2
5.5°	1559.4	1560.9	1565.4	1570.0	1571.2	1573.2	1574.7	1574.7	1573.0	1569.7	1564.4
6°	1556.9	1558.7	1563.7	1568.4	1569.7	1571.7	1573.5	1573.5	1571.5	1567.9	1562.4
6.5°	1554.1	1556.2	1561.7	1566.9	1567.9	1570.5	1572.0	1572.0	1569.7	1566.2	1560.2
7°	1550.9	1553.1	1559.4	1565.2	1565.9	1568.7	1570.5	1570.5	1568.2	1564.4	1557.7
7.5°	1547.6	1550.1	1556.9	1563.2	1563.9	1566.9	1568.7	1568.4	1566.2	1562.2	1555.2
8°	1544.4	1547.1	1553.9	1560.9	1561.7	1564.9	1566.7	1566.4	1564.2	1559.9	1552.4
8.5°	1540.6	1543.4	1551.4	1558.7	1559.4	1562.7	1564.4	1564.4	1561.9	1557.4	1549.4
9°	1536.8	1539.9	1548.4	1556.2	1556.9	1560.4	1562.2	1562.2	1559.4	1554.9	1546.4
9.5°	1532.8	1536.1	1545.1	1553.1	1554.1	1557.9	1559.7	1559.4	1556.7	1551.9	1543.1
10°	1528.6	1532.3	1541.6	1550.4	1551.1	1554.9	1557.2	1556.9	1553.9	1548.9	1539.6
10.5°	1524.0	1528.1	1538.1	1547.1	1547.9	1551.9	1554.1	1553.9	1550.9	1545.9	1535.8
11°	1519.5	1523.5	1534.3	1543.9	1544.6	1548.6	1551.1	1550.9	1547.9	1542.4	1531.8
11.5°	1514.8	1519.0	1530.3	1540.4	1540.9	1545.4	1547.9	1547.4	1544.4	1538.8	1527.8
12°	1509.5	1514.3	1526.1	1536.6	1537.1	1542.1	1544.6	1543.9	1540.6	1535.1	1523.5
12.5°	1504.2	1509.2	1521.5	1532.6	1533.1	1538.3	1540.9	1540.1	1536.8	1531.1	1519.0
13°	1498.7	1504.2	1517.0	1528.8	1529.1	1534.1	1537.1	1536.3	1532.8	1527.1	1514.5
13.5°	1493.2	1498.7	1512.5	1524.3	1524.8	1530.3	1533.1	1532.1	1528.6	1522.5	1509.5
14°	1487.4	1492.9	1507.2	1520.0	1520.3	1525.8	1528.8	1527.8	1524.0	1517.8	1504.5
14.5°	1481.2	1486.9	1502.2	1515.3	1515.5	1521.0	1524.3	1523.5	1519.5	1513.0	1499.2
15°	1474.6	1480.9	1496.7	1510.5	1510.5	1516.5	1519.8	1518.5	1514.8	1508.2	1493.7
15.5°	1467.9	1474.6	1491.2	1505.5	1505.5	1511.8	1515.0	1513.8	1509.5	1503.0	1487.9
16°	1461.1	1468.1	1485.2	1500.2	1500.0	1506.2	1510.0	1508.5	1504.2	1497.7	1482.2
16.5°	1453.8	1461.3	1479.1	1494.5	1494.2	1501.0	1504.7	1503.2	1498.7	1491.9	1475.9
17°	1446.5	1454.3	1473.1	1488.9	1488.4	1495.2	1499.2	1498.0	1493.2	1486.2	1469.6
17.5°	1438.8	1447.0	1466.6	1483.2	1482.4	1489.7	1493.4	1492.2	1486.9	1480.2	1463.1
18°	1431.2	1439.8	1459.8	1476.9	1476.1	1483.7	1487.4	1485.9	1480.7	1473.9	1456.3
18.5°	1423.0	1431.7	1453.1	1470.6	1469.9	1477.1	1481.4	1479.7	1474.6	1467.6	1449.3
19°	1414.9	1424.0	1445.8	1464.4	1463.1	1470.4	1475.1	1473.1	1468.1	1460.8	1442.3
19.5°	1406.4	1415.7	1438.5	1457.3	1456.3	1464.4	1468.6	1466.4	1461.6	1453.8	1435.0
20°	1397.9	1407.7	1431.0	1450.3	1449.3	1457.1	1461.6	1459.8	1454.6	1446.8	1427.2
20.5°	1389.4	1399.1	1423.0	1443.0	1442.0	1450.1	1454.8	1452.6	1447.3	1439.5	1419.2
21°	1380.6	1390.4	1414.9	1435.8	1434.5	1442.8	1447.5	1445.3	1440.0	1432.2	1411.4



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL5125CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1352.5	1363.3	1389.6	1412.2	1411.7	1420.0	1424.5	1422.7	1417.2	1408.7	1386.1
23°	1342.9	1354.0	1380.3	1404.4	1403.4	1411.9	1416.4	1414.7	1409.2	1400.4	1377.1
23.5°	1333.4	1344.2	1371.0	1396.1	1395.1	1403.9	1408.2	1406.4	1401.4	1391.9	1367.8
24°	1323.1	1334.4	1361.8	1387.6	1386.8	1395.6	1399.6	1398.1	1393.1	1383.3	1358.5
24.5°	1314.4	1324.9	1352.2	1379.1	1378.3	1387.1	1390.6	1389.6	1384.3	1374.8	1349.0
25°	1305.1	1314.9	1342.2	1370.0	1371.0	1378.6	1381.6	1380.8	1375.1	1366.0	1338.9
25.5°	1290.0	1304.8	1332.2	1361.0	1361.0	1369.8	1372.5	1372.3	1366.5	1357.0	1329.2
26°	1273.5	1295.0	1321.9	1352.0	1347.5	1360.5	1363.0	1363.3	1358.0	1347.7	1318.6
26.5°	1257.9	1285.8	1311.6	1342.7	1335.9	1351.7	1353.5	1353.7	1342.7	1338.2	1308.3
27°	1234.6	1274.0	1301.1	1332.9	1322.6	1343.4	1343.7	1344.2	1330.9	1328.1	1297.8
27.5°	1210.0	1255.9	1290.3	1324.4	1307.6	1331.9	1333.9	1335.4	1317.9	1319.1	1287.0
28°	1185.7	1241.4	1279.2	1314.9	1290.8	1318.1	1323.4	1322.9	1302.8	1307.8	1276.0
28.5°	1162.1	1221.5	1268.2	1300.6	1273.5	1306.6	1313.4	1308.3	1286.8	1293.0	1265.2
29°	1139.3	1198.0	1257.2	1287.8	1254.7	1292.3	1303.1	1296.8	1269.2	1280.7	1253.7
29.5°	1117.2	1174.1	1246.1	1275.0	1234.6	1276.7	1292.5	1282.7	1250.6	1267.2	1242.6
30°	1095.1	1150.3	1234.6	1260.2	1212.5	1260.4	1281.7	1266.9	1230.6	1251.9	1231.1
30.5°	1073.6	1127.0	1223.3	1244.1	1188.9	1243.1	1271.2	1250.6	1209.3	1235.3	1219.5
31°	1052.0	1104.2	1211.8	1226.6	1164.6	1224.1	1260.4	1233.3	1186.2	1218.3	1208.0
31.5°	1029.9	1082.6	1200.0	1208.8	1139.0	1205.0	1249.4	1214.5	1161.1	1199.7	1196.5
32°	1005.8	1060.8	1188.7	1189.4	1113.2	1183.9	1238.1	1194.5	1135.3	1180.4	1184.7
32.5°	982.5	1039.7	1176.6	1169.1	1086.8	1160.8	1227.1	1173.6	1109.4	1159.1	1172.6
33°	957.2	1017.9	1165.6	1146.5	1060.8	1137.0	1215.5	1150.8	1083.6	1137.0	1160.8
33.5°	930.6	996.0	1154.8	1124.5	1035.2	1112.2	1204.7	1127.0	1057.0	1113.2	1149.1
34°	902.7	972.7	1143.8	1100.4	1010.1	1086.8	1194.0	1102.2	1030.9	1088.9	1138.8
34.5°	876.7	949.1	1126.2	1075.1	985.5	1061.5	1179.9	1076.6	1006.1	1063.8	1125.5
35°	849.8	924.6	1106.4	1049.7	961.2	1036.2	1161.8	1050.5	982.0	1037.7	1105.7
35.5°	824.5	898.7	1089.4	1024.6	937.1	1011.1	1146.0	1025.9	958.4	1012.6	1087.6
36°	799.4	872.1	1067.8	999.8	913.0	986.8	1130.2	1000.8	934.1	988.0	1071.0
36.5°	775.8	845.8	1043.2	975.2	888.4	962.4	1111.2	976.2	909.3	963.4	1049.0
37°	752.0	820.0	1018.1	950.4	863.4	938.4	1091.6	951.9	885.7	939.4	1024.1
37.5°	728.9	796.1	992.0	926.8	837.8	915.3	1070.8	928.6	860.3	916.3	999.1
38°	705.8	771.1	966.5	903.2	811.7	891.0	1048.7	904.7	834.5	892.7	973.5
38.5°	682.5	748.0	940.6	879.9	785.9	867.4	1026.4	881.9	807.9	869.9	946.9
39°	658.4	725.2	915.3	856.6	760.5	843.5	1001.8	857.6	781.8	846.6	921.1
39.5°	634.1	702.8	889.7	832.8	734.7	818.7	976.5	833.5	756.3	823.2	894.2
40°	609.5	679.2	863.1	809.4	708.8	794.1	949.9	808.4	730.2	799.1	867.4
40.5°	585.4	657.2	836.5	785.4	684.0	769.0	922.6	783.6	705.1	774.3	839.8
41°	561.9	634.1	809.4	760.8	660.4	743.7	893.7	758.0	680.3	749.5	812.7
41.5°	539.3	611.3	782.8	736.4	636.1	719.4	864.4	732.9	656.9	724.9	785.6
42°	516.7	587.9	755.5	711.9	612.5	695.3	834.8	708.1	632.8	700.6	758.3
42.5°	495.6	565.1	728.2	687.8	589.0	671.2	805.4	683.3	609.5	677.0	731.4
43°	474.8	542.3	700.6	663.9	565.4	647.4	777.1	659.7	586.7	653.4	705.3
43.5°	454.5	520.2	673.2	641.1	542.3	624.3	748.7	636.4	563.1	630.8	677.5



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	395.6	458.0	595.2	573.7	474.8	556.8	668.0	568.1	493.9	564.6	601.2
45.5°	377.2	438.5	570.4	552.1	452.7	533.8	643.1	546.3	472.1	543.8	576.4
46°	359.7	419.1	547.1	530.5	431.7	512.2	618.8	523.7	450.2	521.7	552.8
46.5°	342.9	400.3	524.5	509.2	410.9	491.1	594.0	501.7	429.4	500.2	529.5
47°	326.6	382.0	502.7	488.1	391.3	469.6	570.4	479.6	409.4	479.1	507.4
47.5°	312.0	364.2	481.3	467.3	372.2	449.0	546.8	458.0	390.0	458.5	485.6
48°	298.5	347.1	460.0	446.7	353.9	428.7	523.0	437.7	371.2	438.2	464.0
48.5°	286.2	330.6	439.5	426.2	336.9	408.4	500.7	417.6	353.7	418.6	443.2
49°	274.9	315.0	419.9	406.8	320.1	389.3	477.3	398.3	336.1	399.6	423.2
49.5°	264.1	300.7	400.8	388.3	304.3	370.0	455.0	378.8	319.8	381.5	403.8
50°	254.3	287.0	382.0	370.2	289.0	352.2	433.7	360.9	303.8	363.5	385.3
50.5°	245.6	274.4	363.7	352.7	274.2	334.4	412.6	342.9	288.5	346.4	366.7
51°	237.3	263.1	346.4	336.4	260.4	317.8	392.8	326.1	274.2	329.8	349.7
51.5°	229.3	252.6	329.8	319.8	247.8	302.0	373.5	310.0	260.9	314.3	333.1
52°	221.7	243.3	314.0	304.5	235.8	287.0	355.2	295.0	248.3	299.2	317.3
52.5°	214.2	234.3	299.5	289.2	225.7	272.2	336.9	279.4	236.3	284.2	302.3
53°	207.2	226.0	285.2	274.7	215.7	258.4	320.3	265.1	225.5	270.6	287.7
53.5°	199.7	218.2	271.9	260.4	205.7	245.1	303.8	252.1	216.0	257.1	274.2
54°	192.6	210.9	258.9	247.3	195.6	232.8	288.5	239.5	206.7	244.3	261.1
54.5°	185.9	203.7	247.1	234.8	185.9	222.7	273.4	227.5	197.2	232.3	249.3
55°	179.6	196.7	235.8	223.0	177.3	212.5	259.9	217.5	187.9	222.5	238.0
55.5°	174.1	189.6	225.2	212.5	170.6	202.4	246.1	207.7	179.3	212.7	227.0
56°	170.1	182.9	215.2	202.2	165.3	192.1	233.3	197.9	172.1	202.9	218.0
56.5°	167.1	176.1	205.9	192.9	162.0	182.1	223.0	188.1	166.1	193.4	208.7
57°	164.3	170.3	197.4	184.1	159.0	173.6	212.5	179.3	162.0	183.6	199.4
57.5°	161.3	165.0	189.1	175.8	156.3	166.1	202.2	171.3	159.0	175.3	190.4
58°	158.5	161.5	181.9	168.1	153.5	160.0	191.9	164.5	156.3	167.8	183.1
58.5°	155.8	158.5	175.3	161.8	150.7	156.3	181.4	158.8	153.5	161.8	176.1
59°	152.8	155.5	169.1	157.8	147.7	153.0	173.6	155.0	150.5	157.0	169.6
59.5°	149.7	152.8	163.5	154.5	145.0	150.2	166.6	151.8	147.7	153.8	163.8
60°	146.7	150.0	158.3	151.5	142.2	147.5	160.3	149.0	144.7	150.7	158.3
60.5°	143.5	147.0	153.5	148.7	139.5	144.5	154.8	146.0	142.0	148.0	153.3
61°	140.7	144.0	149.0	145.7	136.7	141.7	150.0	143.2	139.0	145.2	148.7
61.5°	137.7	141.0	144.7	142.7	133.9	139.0	145.2	140.5	136.0	142.2	144.5
62°	134.7	138.0	141.0	140.0	131.4	136.2	141.0	137.5	133.2	139.5	140.5
62.5°	131.4	134.7	137.0	137.2	128.7	133.4	137.0	134.4	130.4	136.5	136.5
63°	128.7	131.7	133.4	134.4	125.9	130.4	133.2	131.7	127.4	133.4	132.9
63.5°	125.7	128.7	129.9	131.4	123.2	127.7	129.7	128.7	124.7	130.7	129.7
64°	122.7	125.7	126.9	128.7	120.6	124.9	126.2	125.7	121.9	127.7	126.4
64.5°	119.6	122.9	123.9	125.9	117.9	122.2	123.2	122.9	118.9	124.7	123.4
65°	116.9	119.6	121.2	123.2	115.4	119.6	120.4	119.9	116.1	121.9	120.4
65.5°	113.9	116.6	118.4	120.4	112.6	116.9	117.4	117.1	113.4	118.9	117.6
66°	110.9	113.9	115.4	117.6	110.1	114.1	114.6	114.1	110.6	116.1	114.9



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL5125CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	102.1	104.8	106.9	109.4	102.3	106.1	106.4	105.6	102.3	107.6	106.6
68°	99.3	101.8	104.1	106.6	99.8	103.3	103.3	102.8	99.6	104.8	103.8
68.5°	96.3	98.8	101.1	103.8	97.1	100.8	100.6	100.1	96.8	101.8	101.1
69°	93.6	96.1	98.3	101.1	94.6	98.1	97.8	97.3	94.1	99.1	98.1
69.5°	90.0	93.1	95.3	98.6	92.1	95.3	95.1	94.3	91.3	96.3	95.3
70°	87.3	91.1	92.6	95.8	89.5	92.8	92.1	91.6	88.5	93.6	92.6
70.5°	84.8	88.0	89.5	93.1	87.0	90.3	89.3	88.8	86.0	90.8	89.8
71°	82.0	85.0	86.8	90.8	84.5	87.5	86.5	86.0	83.3	88.0	87.0
71.5°	79.5	81.8	84.0	88.0	82.0	84.8	83.8	83.3	80.5	85.0	84.3
72°	76.5	78.8	81.3	85.5	79.5	82.3	81.0	80.5	77.8	82.3	81.5
72.5°	73.7	75.8	78.5	82.8	77.0	79.8	78.3	77.8	75.2	79.5	78.8
73°	70.7	73.0	75.8	80.3	74.2	77.3	75.5	75.0	72.5	76.8	76.0
73.5°	68.0	70.0	73.0	77.5	71.7	74.5	73.0	72.2	69.7	74.0	73.2
74°	65.0	67.2	70.2	75.0	69.5	72.0	70.2	69.5	67.2	71.2	70.5
74.5°	62.2	64.2	67.2	72.2	67.0	69.5	67.5	66.7	64.5	68.5	68.0
75°	59.4	61.2	64.5	69.7	64.2	66.7	65.0	64.0	61.7	65.7	65.2
75.5°	56.7	58.4	61.7	67.0	61.7	64.2	62.2	61.2	59.2	63.0	62.5
76°	53.7	55.4	58.9	64.5	59.2	61.7	59.4	58.4	56.4	60.2	59.7
76.5°	50.9	52.7	56.2	62.0	56.9	59.2	56.9	55.7	53.9	57.7	56.9
77°	48.2	49.7	53.4	59.2	54.4	56.7	54.4	52.9	51.2	54.9	54.2
77.5°	45.4	46.9	50.7	56.7	51.9	54.2	51.9	50.2	48.7	52.2	51.7
78°	42.6	43.9	48.2	53.9	49.4	51.4	49.2	47.4	46.2	49.4	48.9
78.5°	39.9	41.1	45.4	51.4	46.9	48.9	46.7	44.6	43.4	46.7	46.2
79°	37.1	38.1	42.9	48.7	44.6	46.4	44.1	41.9	40.9	43.9	43.6
79.5°	34.4	35.4	40.1	46.2	42.1	43.9	41.6	39.1	38.4	41.4	41.1
80°	31.6	32.6	37.6	43.6	39.9	41.4	39.1	36.6	35.9	38.6	38.6
80.5°	29.1	29.8	35.1	40.9	37.4	38.9	36.9	33.9	33.4	35.9	35.9
81°	26.3	26.8	32.6	38.4	35.1	36.4	34.4	31.4	30.9	33.1	33.6
81.5°	23.6	24.1	30.1	35.9	32.6	34.1	32.1	29.1	28.3	30.6	31.1
82°	20.8	21.6	27.6	33.4	30.4	31.6	29.6	26.6	25.6	27.8	28.6
82.5°	18.3	19.1	25.3	31.1	28.1	29.3	27.3	24.3	23.1	25.1	26.3
83°	15.6	16.8	23.1	28.6	25.8	26.8	25.1	22.1	20.8	22.8	24.1
83.5°	12.8	14.3	20.8	26.3	23.3	24.6	23.1	19.8	18.3	20.3	22.1
84°	10.3	12.3	18.6	23.8	21.1	22.1	20.8	17.6	15.8	17.8	20.1
84.5°	9.0	10.3	16.6	21.6	18.8	19.8	18.8	15.6	13.3	15.6	18.1
85°	7.8	8.8	14.5	19.1	16.3	17.6	16.6	13.3	10.8	13.0	16.1
85.5°	6.3	7.3	12.3	16.8	14.0	15.0	14.5	11.3	9.0	11.0	13.8
86°	5.0	6.0	10.3	14.3	11.8	12.8	12.5	9.8	7.5	9.5	12.0
86.5°	3.8	4.8	8.5	12.0	9.5	10.5	10.5	8.3	6.5	8.3	10.0
87°	2.8	3.3	6.5	9.8	7.3	8.3	8.5	6.8	5.5	7.0	8.0
87.5°	1.5	2.0	4.8	7.5	5.0	6.0	6.5	5.3	4.3	5.5	6.0
88°	0.5	0.8	2.8	5.5	3.0	3.8	4.5	4.0	3.3	4.3	4.3
88.5°	0.0	0.3	1.0	3.3	1.0	1.8	2.5	2.5	2.3	3.0	2.3



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.3



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1576.0	1576.0	1576.0	1576.0	1576.0	1576.0
0.5°	1574.2	1575.5	1575.5	1575.7	1576.0	1575.7
1°	1573.7	1574.7	1574.5	1574.7	1575.2	1575.0
1.5°	1572.7	1573.7	1573.2	1573.5	1574.0	1573.7
2°	1571.7	1572.7	1572.0	1572.0	1572.5	1572.5
2.5°	1570.5	1571.5	1570.5	1570.5	1571.0	1571.2
3°	1568.9	1570.0	1568.7	1568.7	1569.2	1569.4
3.5°	1567.2	1568.4	1567.2	1566.9	1567.4	1567.9
4°	1565.4	1566.4	1565.2	1564.9	1565.4	1566.2
4.5°	1563.4	1564.7	1562.9	1562.7	1563.2	1563.9
5°	1561.2	1562.4	1560.4	1560.4	1560.9	1561.7
5.5°	1558.9	1560.2	1557.9	1557.7	1558.4	1559.4
6°	1556.4	1557.4	1555.2	1554.9	1555.7	1556.9
6.5°	1553.6	1554.6	1552.4	1552.1	1552.6	1554.1
7°	1550.6	1551.6	1549.1	1548.9	1549.6	1550.9
7.5°	1547.4	1548.6	1545.9	1545.6	1546.1	1547.6
8°	1544.1	1545.1	1542.4	1542.1	1542.9	1544.4
8.5°	1540.6	1541.6	1538.6	1538.3	1539.1	1540.6
9°	1537.1	1537.8	1534.8	1534.3	1535.1	1536.8
9.5°	1533.1	1533.8	1530.8	1530.3	1531.1	1532.8
10°	1528.8	1530.1	1526.6	1525.8	1526.8	1528.6
10.5°	1524.5	1525.8	1522.0	1521.5	1522.0	1524.0
11°	1520.0	1521.0	1517.5	1516.8	1517.5	1519.5
11.5°	1515.5	1516.3	1512.5	1511.8	1512.8	1514.8
12°	1510.5	1511.5	1507.5	1506.7	1507.5	1509.5
12.5°	1505.5	1506.2	1502.2	1501.5	1502.0	1504.2
13°	1500.2	1501.0	1496.7	1496.0	1496.7	1498.7
13.5°	1494.5	1495.5	1491.2	1490.4	1490.9	1493.2
14°	1488.9	1489.7	1485.2	1484.4	1485.2	1487.4
14.5°	1482.9	1483.7	1479.1	1478.1	1478.6	1481.2
15°	1476.9	1477.4	1472.9	1471.9	1472.1	1474.6
15.5°	1470.4	1470.9	1466.1	1465.4	1465.4	1467.9
16°	1463.8	1464.4	1459.3	1458.6	1458.8	1461.1
16.5°	1456.8	1457.6	1452.6	1451.6	1451.8	1453.8
17°	1449.8	1450.3	1445.5	1444.5	1444.5	1446.5
17.5°	1442.5	1443.0	1438.0	1437.0	1436.8	1438.8
18°	1435.3	1435.3	1430.5	1429.5	1429.2	1431.2
18.5°	1427.2	1427.5	1422.5	1422.0	1421.2	1423.0
19°	1419.5	1419.7	1414.4	1413.7	1412.9	1414.9
19.5°	1411.4	1411.4	1406.2	1405.7	1404.7	1406.4
20°	1402.9	1403.1	1397.6	1397.1	1395.9	1397.9
20.5°	1394.4	1394.6	1389.1	1388.1	1387.1	1389.4
21°	1385.6	1385.8	1380.1	1379.6	1378.1	1380.6



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1358.2	1358.8	1352.2	1351.0	1350.0	1352.5
23°	1348.7	1349.2	1342.7	1341.4	1340.4	1342.9
23.5°	1339.4	1339.4	1333.2	1330.9	1330.7	1333.4
24°	1329.7	1329.9	1323.1	1320.9	1320.6	1323.1
24.5°	1319.6	1319.9	1312.8	1310.3	1310.3	1314.4
25°	1309.3	1310.3	1302.8	1299.8	1299.8	1305.1
25.5°	1299.3	1301.6	1292.3	1288.5	1289.8	1290.0
26°	1289.3	1289.8	1281.7	1278.2	1279.0	1273.5
26.5°	1280.2	1272.0	1271.5	1266.4	1269.7	1257.9
27°	1270.0	1258.2	1262.2	1255.7	1259.7	1234.6
27.5°	1253.7	1238.6	1251.1	1243.9	1243.9	1210.0
28°	1237.3	1215.0	1234.6	1232.3	1227.6	1185.7
28.5°	1221.8	1191.2	1218.5	1220.5	1211.3	1162.1
29°	1200.2	1167.9	1203.0	1209.0	1188.9	1139.3
29.5°	1176.9	1144.5	1180.9	1196.5	1165.4	1117.2
30°	1153.6	1122.2	1158.3	1184.9	1141.0	1095.1
30.5°	1130.7	1099.1	1134.3	1172.9	1118.2	1073.6
31°	1108.4	1077.1	1111.9	1160.8	1095.4	1052.0
31.5°	1085.6	1054.7	1088.9	1148.6	1073.1	1029.9
32°	1063.5	1032.2	1067.0	1136.3	1051.7	1005.8
32.5°	1041.4	1008.6	1045.5	1124.2	1031.2	982.5
33°	1019.6	984.8	1023.6	1112.7	1009.8	957.2
33.5°	997.3	959.9	1001.8	1102.4	989.3	930.6
34°	974.0	934.3	980.2	1091.1	967.5	902.7
34.5°	950.6	908.5	957.4	1072.6	945.1	876.7
35°	926.8	882.2	934.1	1050.5	921.1	849.8
35.5°	902.0	855.8	910.5	1033.9	897.5	824.5
36°	876.9	830.8	885.7	1010.1	871.9	799.4
36.5°	851.3	805.4	861.4	980.5	847.1	775.8
37°	826.2	781.6	836.3	950.9	821.0	752.0
37.5°	801.4	757.5	811.7	921.6	796.6	728.9
38°	777.3	733.9	786.9	892.5	772.6	705.8
38.5°	754.0	710.6	763.8	864.6	749.5	682.5
39°	730.2	687.8	740.2	837.5	726.9	658.4
39.5°	707.3	663.7	718.4	811.4	704.8	634.1
40°	685.0	639.6	695.8	786.4	683.3	609.5
40.5°	663.2	616.3	673.5	762.3	661.7	585.4
41°	640.1	592.5	651.4	738.7	639.9	561.9
41.5°	617.5	569.1	629.6	715.1	617.3	539.3
42°	594.7	546.3	607.0	692.0	595.0	516.7
42.5°	572.6	524.2	584.4	669.7	572.9	495.6
43°	550.1	502.4	562.4	646.6	550.6	474.8
43.5°	527.7	481.3	540.0	623.1	528.8	454.5

TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	465.5	421.1	477.1	552.6	467.0	395.6
45.5°	446.5	402.1	457.8	530.3	448.0	377.2
46°	426.7	383.3	438.5	508.7	428.9	359.7
46.5°	407.9	365.0	419.1	487.4	410.4	342.9
47°	389.5	347.7	400.8	467.3	392.3	326.6
47.5°	371.7	330.6	382.0	448.2	374.7	312.0
48°	353.9	315.5	364.2	430.2	357.4	298.5
48.5°	337.4	300.5	347.4	412.9	340.9	286.2
49°	320.8	287.2	331.1	395.6	325.1	274.9
49.5°	305.8	274.9	315.5	379.3	310.3	264.1
50°	290.7	263.4	300.7	363.2	296.5	254.3
50.5°	277.4	252.8	287.2	347.7	283.4	245.6
51°	264.9	243.6	274.2	332.6	271.6	237.3
51.5°	253.3	234.8	262.9	317.8	260.6	229.3
52°	242.8	226.8	252.6	303.8	250.6	221.7
52.5°	233.3	219.0	242.6	290.2	241.3	214.2
53°	224.5	211.5	233.5	277.4	232.5	207.2
53.5°	217.0	204.2	225.0	265.1	224.2	199.7
54°	209.7	196.9	216.7	253.6	216.5	192.6
54.5°	202.4	190.1	209.7	242.6	208.9	185.9
55°	194.9	183.4	202.2	232.3	202.2	179.6
55.5°	187.6	176.8	194.9	222.5	194.9	174.1
56°	181.1	171.3	188.1	213.5	188.1	170.1
56.5°	174.3	166.8	181.4	204.9	181.4	167.1
57°	168.3	163.3	174.8	196.7	175.1	164.3
57.5°	163.0	160.5	168.8	189.1	169.3	161.3
58°	158.5	157.5	163.8	182.1	164.5	158.5
58.5°	155.3	154.8	159.8	175.6	160.8	155.8
59°	152.5	152.0	156.8	169.6	158.0	152.8
59.5°	149.7	149.5	153.8	163.5	155.0	149.7
60°	147.0	146.5	151.0	158.5	152.3	146.7
60.5°	144.2	144.0	148.2	153.8	149.0	143.5
61°	141.2	141.2	145.2	149.2	146.2	140.7
61.5°	138.5	138.5	142.5	145.0	143.2	137.7
62°	135.7	135.7	139.7	141.0	140.2	134.7
62.5°	132.9	132.9	136.7	137.2	137.0	131.4
63°	130.2	130.4	133.9	133.7	133.9	128.7
63.5°	127.4	127.7	131.2	130.4	130.9	125.7
64°	124.7	125.2	128.4	127.2	127.9	122.7
64.5°	121.9	122.4	125.4	124.4	124.9	119.6
65°	119.4	119.6	122.9	121.7	121.9	116.9
65.5°	116.6	117.1	120.1	118.6	118.9	113.9
66°	113.9	114.4	117.1	115.9	115.9	110.9



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	105.9	106.6	109.1	107.6	106.9	102.1
68°	103.1	104.1	106.4	104.6	103.8	99.3
68.5°	100.6	101.3	103.6	101.6	100.8	96.3
69°	97.8	98.8	100.8	98.8	98.1	93.6
69.5°	95.1	96.3	98.1	95.8	95.1	90.0
70°	92.6	93.8	95.3	93.1	92.1	87.3
70.5°	89.8	90.8	92.8	90.5	89.3	84.8
71°	87.3	88.3	91.1	87.8	86.3	82.0
71.5°	84.5	86.0	88.3	84.8	83.5	79.5
72°	82.0	83.5	85.3	82.0	80.8	76.5
72.5°	79.3	81.0	82.5	79.3	77.8	73.7
73°	76.8	78.8	79.8	76.5	74.7	70.7
73.5°	74.2	76.0	77.0	73.5	72.0	68.0
74°	71.5	73.5	74.5	70.7	69.0	65.0
74.5°	69.0	71.0	71.7	68.0	66.0	62.2
75°	66.2	68.5	69.0	65.2	63.2	59.4
75.5°	63.7	66.0	66.5	62.5	60.2	56.7
76°	61.0	63.5	63.7	59.4	57.4	53.7
76.5°	58.4	60.7	61.2	56.7	54.4	50.9
77°	55.9	58.2	58.4	54.2	51.4	48.2
77.5°	53.2	55.7	55.9	51.4	48.7	45.4
78°	50.7	53.2	53.2	48.7	45.7	42.6
78.5°	47.9	50.7	50.7	45.9	42.9	39.9
79°	45.4	48.2	47.9	43.4	39.9	37.1
79.5°	42.9	45.7	45.4	40.6	37.1	34.4
80°	40.1	43.1	42.6	38.1	34.1	31.6
80.5°	37.6	40.6	40.1	35.6	31.4	29.1
81°	35.1	38.4	37.6	33.1	28.6	26.3
81.5°	32.9	35.9	35.1	30.6	26.1	23.6
82°	30.4	33.4	32.6	28.1	23.3	20.8
82.5°	27.8	31.1	30.1	25.8	21.1	18.3
83°	25.6	28.6	27.6	23.6	18.6	15.6
83.5°	23.1	26.1	25.1	21.3	16.3	12.8
84°	20.8	23.8	22.6	19.1	14.0	10.3
84.5°	18.3	21.6	20.3	17.1	12.0	9.0
85°	16.1	19.1	17.8	14.8	10.3	7.8
85.5°	13.5	16.8	15.3	12.8	8.8	6.3
86°	11.3	14.3	12.8	10.5	7.3	5.0
86.5°	8.8	12.0	10.5	8.5	5.8	3.8
87°	6.5	9.5	8.3	6.5	4.3	2.8
87.5°	4.3	7.5	6.3	4.8	2.8	1.5
88°	2.3	5.3	4.3	2.8	1.3	0.5
88.5°	0.8	3.0	2.3	0.8	0.5	0.0



TEST NUMBER: P776022

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMW-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.3	0.3	0.0



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Cooper Lighting Solutions Photometric Lab
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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°	1371.3	1381.3	1406.7	1428.2	1427.0	1435.3	1440.3	1438.0	1432.7	1424.2	1403.4
22°	1361.8	1372.3	1398.1	1420.2	1419.5	1427.5	1432.5	1430.5	1425.2	1416.7	1394.6



44°	434.7	498.2	646.1	617.5	519.2	601.2	720.4	613.3	539.3	607.8	651.2
44.5°	414.9	478.1	620.6	595.2	496.9	578.9	694.3	591.2	516.7	586.7	625.6



66.5°	108.1	110.9	112.6	114.9	107.4	111.4	111.9	111.4	107.9	113.4	112.1
67°	105.1	107.9	109.9	112.1	104.8	108.6	109.1	108.6	105.1	110.4	109.4



89°	0.0	0.3	0.3	1.3	0.3	0.5	1.0	1.3	1.3	1.8	1.0
89.5°	0.0	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.8	0.3

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21.5°	1376.8	1377.1	1371.0	1370.0	1368.8	1371.3
22°	1367.8	1367.8	1361.8	1360.8	1359.5	1361.8



44°	506.7	460.8	518.7	599.2	507.2	434.7
44.5°	486.4	440.7	498.2	575.9	487.1	414.9

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66.5°	111.1	111.9	114.6	113.1	112.9	108.1
67°	108.6	109.4	111.9	110.4	109.9	105.1

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89°	0.3	1.0	0.5	0.3	0.3	0.0
89.5°	0.0	0.3	0.3	0.3	0.3	0.0

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Scaled Data Report



(END OF REPORT)