

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: P775932

Luminaire Tested: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775932
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B029)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS1525CSD-HCD41TRH-2500lm-3500K
Description: 4 INCH ROUND SHALLOW-WIDE HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

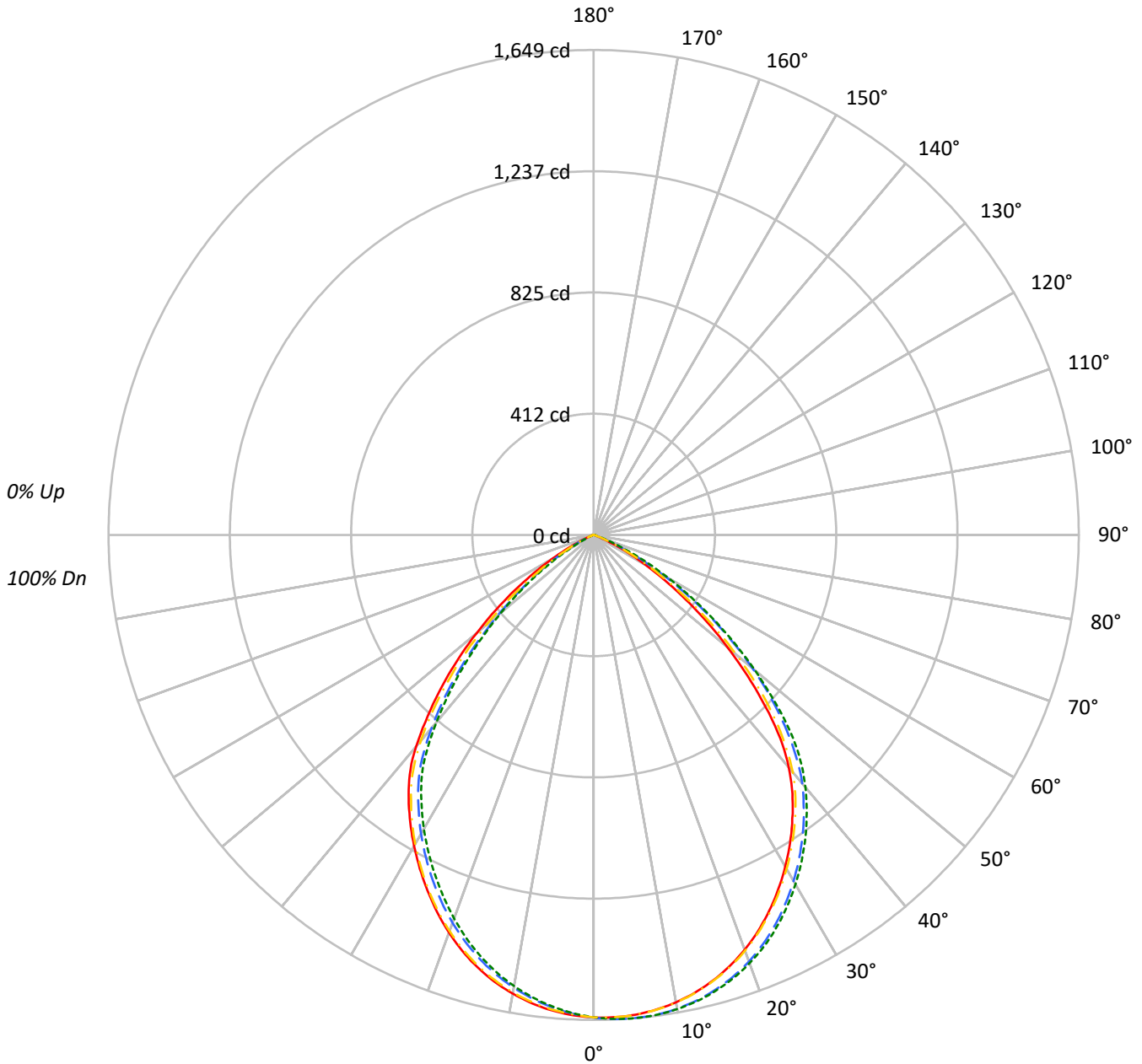
Lumens per Lamp: N/A
Luminaire Lumens: 2934.6 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.22
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 25
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





TEST NUMBER: P775932

CATALOG NUMBER: HCDJBLS1525CSD-HCD41TRH-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	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	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	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	77	95	87	82	77	85	80	76	82	78	74	80	76	73	71								
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63								
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57								
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51								
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	57	52	48	46								
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42								
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38								
10	60	49	42	37	59	48	41	37	47	41	37	46	41	36	46	40	36	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	206457	206457	206457	206457
5°	206854	208319	205047	203316
10°	206178	209245	202421	199022
15°	204359	209062	198405	193271
20°	201024	207573	192694	185836
25°	195917	204346	185475	177116
30°	189249	199348	177478	167712
35°	180889	192796	168445	156768
40°	169526	183917	154034	136603
45°	147046	168029	129871	109599
50°	116298	139871	101712	80195
55°	83552	108083	71441	50904
60°	51070	73672	40901	24440
65°	21441	39367	15306	7236
70°	4783	11554	4416	3128
75°	3306	4279	3063	2091
80°	2392	3261	2174	1449
85°	722	2888	433	433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 168029 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.6	5.3
10°-20°	435.0	14.8
20°-30°	632.0	21.5
30°-40°	708.0	24.1
40°-50°	596.1	20.3
50°-60°	321.0	10.9
60°-70°	79.1	2.7
70°-80°	7.6	0.3
80°-90°	1.3	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°	1221.6	41.6
0°-40°	1929.5	65.8
0°-60°	2846.6	97.0
0°-90°	2934.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2934.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1640	1640	1640	1640	1640	
5°	1637	1649	1623	1609	1637	156
15°	1568	1605	1523	1483	1568	442
25°	1411	1472	1336	1276	1411	649
35°	1177	1255	1096	1020	1177	734
45°	826	944	730	616	826	632
55°	381	493	326	232	381	343
65°	72	132	51	24	72	81
75°	7	9	6	4	7	8
85°	0	2	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL5125CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5
0.5°	1641.5	1642.5	1643.0	1642.5	1642.0	1641.0	1640.5	1640.0	1640.0	1640.0	1639.5
1°	1641.7	1643.7	1644.5	1644.2	1643.5	1642.5	1641.0	1639.7	1639.0	1638.2	1637.2
1.5°	1642.0	1644.5	1646.0	1645.7	1645.0	1643.5	1641.5	1639.5	1637.7	1636.2	1634.9
2°	1642.0	1645.2	1647.0	1647.0	1646.2	1644.2	1641.5	1638.7	1636.4	1634.2	1632.4
2.5°	1641.7	1645.7	1648.0	1648.0	1647.2	1644.7	1641.5	1637.7	1634.7	1631.9	1629.4
3°	1641.2	1646.0	1648.5	1648.7	1648.0	1645.2	1641.0	1636.7	1632.9	1629.4	1626.7
3.5°	1640.5	1646.0	1649.0	1649.5	1648.5	1645.2	1640.5	1635.4	1630.7	1626.4	1623.4
4°	1639.7	1645.7	1649.2	1649.7	1649.0	1645.2	1640.0	1633.9	1628.4	1623.7	1620.1
4.5°	1638.7	1645.2	1649.2	1650.0	1649.2	1645.0	1639.0	1632.2	1625.9	1620.6	1616.4
5°	1637.4	1644.7	1649.0	1650.2	1649.0	1644.5	1637.7	1630.2	1623.1	1617.1	1612.6
5.5°	1635.9	1644.0	1648.5	1650.0	1649.0	1643.7	1636.4	1628.2	1620.1	1613.6	1608.9
6°	1634.2	1643.0	1648.2	1649.5	1648.5	1643.0	1634.7	1625.7	1617.1	1609.9	1604.6
6.5°	1632.2	1641.7	1647.2	1648.7	1647.7	1641.7	1632.9	1623.1	1613.6	1605.8	1600.1
7°	1630.4	1640.2	1646.2	1648.0	1647.0	1640.5	1630.9	1620.4	1610.1	1601.8	1595.3
7.5°	1627.9	1638.7	1645.0	1647.0	1645.7	1639.0	1628.9	1617.4	1606.3	1597.3	1590.5
8°	1625.4	1636.9	1643.5	1645.7	1644.5	1637.2	1626.4	1614.1	1602.3	1592.5	1585.5
8.5°	1622.6	1634.7	1642.0	1644.2	1643.0	1635.4	1623.7	1610.6	1597.8	1587.5	1580.3
9°	1619.9	1632.4	1640.2	1642.5	1641.2	1633.2	1620.9	1606.8	1593.6	1582.5	1574.7
9.5°	1616.6	1629.9	1637.9	1640.7	1639.5	1630.9	1617.9	1603.1	1588.8	1577.5	1569.2
10°	1613.4	1627.4	1635.7	1638.4	1637.4	1628.4	1614.6	1599.1	1584.0	1572.0	1563.5
10.5°	1609.9	1624.4	1633.2	1636.2	1634.9	1625.7	1611.1	1594.6	1578.8	1566.2	1557.2
11°	1606.1	1621.4	1630.4	1633.7	1632.4	1622.6	1607.3	1590.0	1573.5	1560.4	1550.9
11.5°	1602.1	1617.9	1627.7	1630.9	1629.7	1619.4	1603.6	1585.3	1568.0	1554.2	1544.6
12°	1598.1	1614.4	1624.4	1627.9	1626.9	1615.9	1599.6	1580.5	1562.2	1547.9	1537.9
12.5°	1593.6	1610.6	1620.9	1624.7	1623.7	1612.4	1595.1	1575.0	1556.2	1541.6	1530.8
13°	1589.0	1606.6	1617.4	1621.4	1620.4	1608.6	1590.5	1569.7	1549.9	1534.9	1524.1
13.5°	1584.0	1602.3	1613.4	1617.6	1616.6	1604.6	1585.8	1564.2	1543.6	1527.6	1516.5
14°	1579.0	1597.8	1609.6	1613.9	1612.9	1600.6	1581.0	1558.4	1536.6	1520.6	1509.0
14.5°	1573.7	1593.3	1605.3	1609.6	1608.9	1596.1	1575.7	1552.2	1529.8	1513.0	1501.5
15°	1568.5	1588.5	1600.8	1605.3	1604.6	1591.3	1570.5	1545.6	1522.8	1505.8	1493.7
15.5°	1562.7	1583.3	1596.1	1600.8	1600.1	1586.5	1564.7	1539.1	1515.3	1497.5	1485.2
16°	1556.7	1578.0	1591.3	1596.3	1595.3	1581.3	1559.2	1532.6	1507.8	1489.5	1476.9
16.5°	1550.4	1572.5	1586.0	1591.3	1590.5	1576.0	1552.9	1525.3	1499.7	1481.4	1468.4
17°	1544.1	1566.5	1580.8	1586.0	1585.5	1570.5	1546.6	1518.0	1492.0	1472.9	1459.9
17.5°	1537.4	1560.7	1575.0	1580.5	1580.0	1564.7	1540.1	1510.8	1483.4	1464.1	1450.6
18°	1530.6	1554.4	1569.2	1574.7	1574.5	1558.7	1533.4	1503.3	1474.9	1455.1	1441.5
18.5°	1523.6	1547.9	1563.2	1568.7	1568.7	1552.7	1526.6	1495.2	1466.1	1445.8	1432.0
19°	1516.3	1541.1	1556.7	1562.7	1562.7	1546.1	1519.3	1487.2	1457.1	1436.3	1422.7
19.5°	1508.8	1534.1	1550.2	1556.2	1556.4	1539.6	1512.0	1478.7	1448.1	1427.0	1412.7
20°	1501.0	1526.8	1543.4	1549.4	1549.9	1532.6	1504.3	1470.1	1438.8	1417.5	1402.9
20.5°	1493.0	1519.6	1536.1	1542.6	1543.1	1525.6	1496.7	1461.4	1429.3	1407.2	1392.9
21°	1484.7	1511.8	1528.8	1535.6	1536.1	1518.0	1488.7	1452.6	1419.2	1397.1	1382.6



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CATALOG NUMBER: HCDJBL5125CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1458.6	1487.4	1505.3	1512.5	1513.8	1494.7	1463.1	1424.5	1389.1	1365.5	1350.7
23°	1449.8	1478.7	1497.0	1504.3	1506.0	1486.4	1454.3	1415.0	1378.8	1355.0	1340.0
23.5°	1440.3	1469.9	1488.5	1496.2	1497.7	1478.2	1445.1	1404.9	1368.1	1344.0	1328.7
24°	1430.8	1460.9	1479.7	1487.4	1489.2	1469.4	1435.8	1395.1	1357.5	1332.9	1317.4
24.5°	1421.0	1451.3	1470.6	1478.7	1480.4	1460.4	1426.2	1384.6	1346.7	1321.9	1306.1
25°	1410.9	1442.0	1461.4	1469.6	1471.6	1451.3	1416.7	1374.6	1335.7	1310.9	1294.8
25.5°	1400.9	1432.5	1452.1	1460.6	1462.9	1442.3	1406.9	1364.0	1324.7	1299.1	1283.3
26°	1390.6	1422.5	1442.3	1451.1	1453.3	1432.5	1397.1	1353.5	1313.9	1287.5	1271.5
26.5°	1380.1	1412.4	1432.8	1441.5	1443.6	1422.7	1386.9	1342.5	1302.3	1275.7	1259.7
27°	1369.8	1402.2	1422.7	1431.8	1434.0	1412.7	1376.6	1331.9	1290.8	1264.2	1247.7
27.5°	1358.8	1391.6	1412.4	1422.0	1424.0	1402.7	1365.8	1320.9	1279.5	1252.4	1235.6
28°	1347.7	1381.1	1401.9	1411.7	1414.0	1392.1	1355.5	1309.9	1268.0	1240.4	1223.6
28.5°	1336.7	1370.6	1391.4	1401.2	1403.7	1382.1	1344.7	1298.3	1256.2	1228.6	1211.0
29°	1325.4	1359.5	1380.6	1390.6	1393.1	1371.6	1333.7	1287.0	1244.6	1216.5	1198.7
29.5°	1313.9	1348.5	1369.8	1380.1	1382.6	1360.8	1322.4	1275.7	1232.9	1204.0	1186.4
30°	1302.3	1336.9	1358.5	1368.8	1371.8	1349.5	1311.6	1264.5	1221.3	1192.0	1173.7
30.5°	1290.8	1325.7	1347.5	1358.3	1360.8	1338.5	1300.1	1252.7	1209.0	1179.7	1160.9
31°	1278.8	1314.4	1335.9	1347.0	1349.7	1327.4	1288.5	1240.9	1197.0	1167.1	1147.8
31.5°	1267.0	1302.3	1324.7	1335.4	1338.2	1315.9	1276.7	1229.1	1184.9	1154.6	1134.8
32°	1254.7	1290.5	1312.6	1323.7	1326.7	1304.1	1265.5	1217.5	1172.9	1141.8	1121.5
32.5°	1242.6	1278.5	1301.1	1312.4	1315.1	1292.5	1253.4	1205.5	1160.6	1128.8	1107.9
33°	1229.6	1266.2	1289.0	1300.6	1303.3	1281.0	1241.6	1193.7	1147.8	1115.7	1094.6
33.5°	1217.3	1254.2	1276.7	1288.5	1291.3	1268.7	1229.6	1180.9	1135.0	1102.4	1080.6
34°	1204.0	1241.6	1264.2	1276.5	1279.5	1256.9	1217.3	1168.6	1122.2	1089.4	1066.8
34.5°	1191.2	1228.6	1252.2	1264.2	1267.0	1244.6	1205.0	1155.8	1109.4	1075.6	1053.0
35°	1177.4	1215.3	1239.4	1251.9	1254.9	1232.1	1192.2	1143.1	1096.4	1062.0	1038.5
35.5°	1164.9	1202.5	1226.3	1238.9	1242.4	1219.3	1179.2	1130.3	1083.1	1048.2	1023.7
36°	1151.1	1189.2	1213.0	1226.3	1229.6	1206.5	1166.4	1117.2	1069.6	1034.2	1009.4
36.5°	1137.5	1175.7	1200.2	1213.0	1216.3	1193.5	1153.1	1104.2	1056.0	1019.6	993.6
37°	1123.0	1161.9	1186.7	1199.5	1202.8	1179.9	1139.5	1090.4	1042.0	1004.1	976.2
37.5°	1109.7	1148.1	1173.2	1186.2	1189.5	1166.6	1126.2	1076.6	1027.4	987.0	957.9
38°	1094.4	1134.3	1159.1	1172.7	1176.2	1153.1	1112.2	1062.5	1011.6	969.2	938.6
38.5°	1079.3	1120.2	1145.6	1158.6	1162.4	1139.0	1097.9	1047.7	994.8	950.9	918.6
39°	1063.5	1105.2	1131.8	1144.8	1148.6	1125.0	1083.6	1031.7	977.0	931.8	898.2
39.5°	1048.5	1089.9	1117.2	1130.8	1134.5	1110.2	1068.6	1014.4	958.2	911.8	877.9
40°	1031.9	1074.6	1102.2	1115.7	1119.5	1095.6	1052.3	996.8	937.6	891.5	857.4
40.5°	1014.6	1058.5	1086.6	1100.7	1104.7	1079.8	1034.9	978.0	917.3	870.6	835.8
41°	996.8	1041.7	1070.6	1085.4	1089.4	1064.3	1017.1	958.9	897.0	849.3	814.5
41.5°	978.3	1023.7	1053.0	1068.6	1073.6	1047.7	999.1	939.9	876.4	828.8	793.6
42°	959.2	1005.3	1034.9	1051.2	1057.3	1030.4	980.0	920.3	855.3	805.9	771.3
42.5°	938.9	986.3	1016.4	1033.4	1040.2	1012.1	960.9	900.0	834.3	784.1	749.5
43°	917.3	966.5	997.6	1014.6	1022.7	993.1	941.4	878.7	813.7	762.5	726.9
43.5°	895.0	946.1	978.5	995.6	1003.8	973.7	921.3	857.9	793.1	741.0	705.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	826.2	883.4	919.1	936.6	944.1	911.5	858.9	794.6	729.7	675.5	638.4
45.5°	802.4	862.1	899.2	916.5	922.1	890.0	837.3	773.6	709.1	654.2	616.0
46°	778.6	840.0	878.4	896.0	900.2	867.6	815.5	752.3	687.5	632.6	593.5
46.5°	755.3	817.0	857.6	874.9	877.7	845.3	793.4	730.9	666.5	611.3	571.7
47°	731.7	794.6	836.8	853.8	854.3	822.2	770.6	709.1	645.4	590.0	549.6
47.5°	708.4	771.8	814.7	832.3	831.3	798.9	748.0	687.8	624.3	569.9	527.8
48°	684.8	749.0	793.1	810.4	807.4	775.6	725.2	666.5	602.8	548.3	506.4
48.5°	661.7	725.9	771.3	788.4	784.1	752.0	702.3	645.1	581.9	527.5	485.9
49°	639.1	703.1	750.0	766.3	760.5	728.4	679.3	623.1	561.1	506.7	464.5
49.5°	616.0	679.5	727.4	744.0	737.5	704.8	656.4	602.0	540.5	486.6	444.2
50°	594.0	656.4	705.1	720.9	714.4	681.0	633.1	579.9	519.5	466.6	423.9
50.5°	570.9	633.6	682.5	697.8	692.3	657.4	610.0	558.6	498.9	446.5	404.3
51°	549.1	611.0	660.2	675.2	668.5	634.4	587.0	536.5	478.8	426.9	385.0
51.5°	527.0	588.0	637.1	651.9	645.9	612.0	564.6	516.0	459.0	407.6	366.7
52°	505.7	566.1	615.3	629.8	623.8	589.5	542.1	494.6	439.2	388.3	348.2
52.5°	483.9	544.1	592.2	606.5	602.3	566.1	520.0	473.3	419.4	369.2	330.3
53°	462.8	522.0	569.4	583.9	579.2	543.8	497.7	452.3	400.1	350.7	312.3
53.5°	441.7	499.9	546.3	560.4	556.9	522.0	476.3	432.2	381.0	332.6	295.2
54°	421.2	478.3	524.0	538.3	535.0	500.2	454.3	411.6	362.5	314.5	278.7
54.5°	400.6	457.5	501.7	515.7	514.5	478.6	433.7	391.1	343.6	297.0	262.4
55°	380.8	436.5	479.6	494.1	492.6	457.0	412.9	371.5	325.6	280.2	247.1
55.5°	360.7	415.6	457.5	471.6	471.1	436.5	392.8	352.2	307.5	263.4	232.8
56°	341.9	395.3	435.4	451.0	450.0	415.4	372.7	332.9	290.0	247.3	218.2
56.5°	322.6	375.5	414.1	429.4	429.9	395.1	352.9	313.8	272.7	232.3	203.7
57°	304.5	355.7	392.1	408.4	408.9	375.0	333.9	295.7	255.9	217.5	189.4
57.5°	286.2	336.1	371.5	387.0	388.5	355.7	315.3	277.9	239.3	202.4	174.8
58°	268.6	317.3	351.2	367.7	369.0	336.6	297.2	260.1	223.7	187.6	162.0
58.5°	251.6	299.0	331.1	347.4	348.9	318.1	279.7	243.3	208.2	172.6	149.7
59°	235.0	280.2	311.3	327.6	329.8	300.0	262.1	227.5	192.6	159.0	137.7
59.5°	219.0	262.4	292.0	307.8	311.3	282.2	245.3	211.5	177.1	146.2	126.2
60°	202.9	245.1	273.2	289.7	292.7	264.6	230.0	195.7	162.5	133.7	115.4
60.5°	187.6	227.8	254.8	271.2	274.7	248.1	214.7	179.8	148.7	121.9	104.6
61°	172.8	211.0	237.0	252.6	256.9	232.5	199.4	165.6	135.5	110.4	94.6
61.5°	158.8	195.1	220.2	235.3	240.3	217.2	184.1	152.0	122.7	99.8	85.3
62°	145.2	179.6	203.7	218.2	224.0	201.7	168.8	138.7	110.6	89.5	76.5
62.5°	131.7	164.5	187.4	201.4	207.7	186.4	155.0	126.2	98.6	80.0	68.0
63°	118.6	149.7	171.8	185.4	191.4	170.8	141.7	113.6	87.8	70.7	59.7
63.5°	105.9	135.7	157.0	169.3	175.1	157.0	129.2	102.3	77.5	62.5	52.4
64°	93.3	121.9	142.7	154.5	160.0	143.5	116.9	91.8	68.0	54.4	45.7
64.5°	82.5	108.6	129.2	140.0	145.7	130.2	105.9	81.8	59.4	47.2	39.1
65°	72.0	96.1	116.1	126.4	132.2	117.9	94.8	72.2	51.4	40.6	33.6
65.5°	61.5	85.3	103.6	113.4	118.9	105.9	84.8	63.5	43.6	34.6	29.6
66°	50.9	75.3	91.8	100.6	106.1	94.3	74.7	55.4	37.1	29.3	25.6



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	26.3	45.7	63.0	69.7	72.5	63.7	49.9	34.6	24.3	19.3	13.5
68°	21.1	38.4	53.2	60.5	62.7	54.9	42.6	29.3	20.8	15.8	11.8
68.5°	17.3	31.9	43.6	50.9	53.7	46.9	36.1	26.1	17.3	12.5	10.8
69°	15.1	26.3	36.1	41.4	45.2	39.6	30.6	23.1	13.8	11.3	10.0
69.5°	13.8	21.8	29.6	34.4	37.6	33.1	26.8	19.8	12.8	10.5	9.3
70°	13.0	18.1	24.1	28.3	31.4	29.1	23.3	16.6	12.0	9.8	8.8
70.5°	12.3	15.1	19.3	23.1	27.6	25.1	19.8	13.5	11.3	9.3	8.3
71°	11.5	12.8	15.8	18.8	23.8	21.1	16.3	12.3	10.5	8.8	7.5
71.5°	10.8	11.8	13.3	15.6	20.1	17.1	12.8	11.5	9.8	8.0	7.0
72°	10.0	11.0	11.8	13.0	16.3	13.0	11.8	10.8	9.3	7.5	6.8
72.5°	9.5	10.3	10.8	11.8	12.5	11.8	11.0	10.0	8.5	7.0	6.3
73°	9.0	9.5	10.0	11.0	11.5	11.0	10.3	9.5	8.0	6.5	5.8
73.5°	8.3	9.0	9.5	10.3	10.8	10.3	9.5	8.8	7.5	6.3	5.5
74°	7.8	8.5	9.0	9.5	10.0	9.5	9.0	8.3	7.0	5.8	5.0
74.5°	7.3	7.8	8.3	9.0	9.5	9.0	8.3	7.8	6.5	5.3	4.8
75°	6.8	7.3	7.8	8.3	8.8	8.3	7.8	7.3	6.3	5.0	4.3
75.5°	6.3	6.8	7.3	7.8	8.3	7.8	7.3	6.8	5.8	4.8	4.0
76°	6.0	6.5	6.8	7.3	7.8	7.3	6.8	6.3	5.3	4.3	3.8
76.5°	5.5	6.0	6.3	6.8	7.3	6.8	6.3	5.8	5.0	4.0	3.5
77°	5.3	5.5	6.0	6.3	6.8	6.3	6.0	5.5	4.8	3.8	3.3
77.5°	4.8	5.3	5.5	6.0	6.3	6.0	5.5	5.0	4.3	3.5	3.0
78°	4.5	5.0	5.3	5.5	5.8	5.5	5.0	4.8	4.0	3.3	2.8
78.5°	4.3	4.5	4.8	5.3	5.5	5.3	4.8	4.3	3.8	3.0	2.5
79°	3.8	4.3	4.5	4.8	5.0	4.8	4.5	4.0	3.5	2.8	2.3
79.5°	3.5	4.0	4.3	4.5	4.8	4.5	4.0	3.8	3.3	2.5	2.3
80°	3.3	3.5	3.8	4.3	4.5	4.3	3.8	3.5	3.0	2.3	2.0
80.5°	3.0	3.3	3.5	4.0	4.0	4.0	3.5	3.3	2.8	2.0	1.8
81°	2.8	3.0	3.3	3.8	3.8	3.5	3.3	3.0	2.5	1.8	1.5
81.5°	2.5	2.8	3.0	3.5	3.5	3.3	3.0	2.8	2.3	1.5	1.5
82°	2.0	2.5	2.8	3.3	3.3	3.0	2.8	2.5	2.0	1.3	1.3
82.5°	1.8	2.3	2.8	3.0	3.0	3.0	2.5	2.3	1.5	1.0	1.3
83°	1.5	2.0	2.5	2.8	2.8	2.8	2.5	2.0	1.3	1.0	1.0
83.5°	1.0	1.8	2.3	2.5	2.5	2.5	2.3	1.8	1.0	0.8	1.0
84°	0.8	1.5	2.0	2.3	2.5	2.3	2.0	1.5	0.8	0.5	0.8
84.5°	0.5	1.3	1.8	2.0	2.3	2.0	1.8	1.3	0.5	0.5	0.5
85°	0.5	1.0	1.8	2.0	2.0	2.0	1.8	1.0	0.3	0.5	0.5
85.5°	0.3	1.0	1.5	1.8	1.8	1.8	1.5	1.0	0.3	0.3	0.3
86°	0.3	0.8	1.5	1.5	1.8	1.5	1.3	0.8	0.3	0.3	0.3
86.5°	0.3	0.8	1.3	1.5	1.5	1.5	1.3	0.8	0.3	0.3	0.0
87°	0.3	0.8	1.0	1.3	1.3	1.3	1.0	0.5	0.0	0.0	0.0
87.5°	0.0	0.5	1.0	1.0	1.3	1.0	0.8	0.5	0.0	0.0	0.0
88°	0.0	0.3	0.8	1.0	1.0	1.0	0.8	0.3	0.0	0.0	0.0
88.5°	0.0	0.3	0.5	0.8	0.8	0.8	0.5	0.3	0.0	0.0	0.0



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1640.5	1640.5	1640.5	1640.5	1640.5	1640.5
0.5°	1638.4	1637.7	1637.7	1638.7	1639.7	1641.5
1°	1636.2	1635.4	1635.9	1637.4	1639.5	1641.7
1.5°	1633.7	1632.9	1633.7	1635.9	1639.0	1642.0
2°	1630.9	1630.2	1631.4	1634.4	1637.9	1642.0
2.5°	1628.2	1627.4	1628.9	1632.4	1636.9	1641.7
3°	1624.9	1624.2	1626.4	1630.4	1635.7	1641.2
3.5°	1621.4	1620.9	1623.4	1628.2	1634.2	1640.5
4°	1617.9	1617.1	1620.4	1625.7	1632.4	1639.7
4.5°	1614.1	1613.4	1616.9	1622.9	1630.7	1638.7
5°	1610.1	1609.4	1613.4	1620.1	1628.7	1637.4
5.5°	1605.8	1605.1	1609.6	1617.1	1626.2	1635.9
6°	1601.3	1600.8	1605.6	1613.9	1623.7	1634.2
6.5°	1596.8	1596.3	1601.3	1610.4	1620.9	1632.2
7°	1592.0	1591.3	1596.8	1606.3	1618.1	1630.4
7.5°	1587.0	1586.3	1592.3	1602.3	1614.9	1627.9
8°	1581.8	1580.8	1587.3	1598.1	1611.9	1625.4
8.5°	1576.2	1575.5	1582.3	1593.8	1608.3	1622.6
9°	1570.7	1569.7	1576.7	1589.3	1604.6	1619.9
9.5°	1565.0	1563.7	1571.2	1584.3	1600.3	1616.6
10°	1558.9	1557.4	1565.5	1579.3	1596.3	1613.4
10.5°	1552.7	1551.2	1559.4	1574.2	1592.0	1609.9
11°	1546.1	1544.6	1553.4	1569.0	1587.5	1606.1
11.5°	1539.4	1537.9	1546.9	1563.2	1582.8	1602.1
12°	1532.6	1530.8	1540.4	1557.2	1577.7	1598.1
12.5°	1525.3	1523.3	1533.4	1550.9	1572.2	1593.6
13°	1518.0	1516.0	1526.1	1544.9	1567.0	1589.0
13.5°	1510.5	1508.3	1518.8	1538.1	1561.4	1584.0
14°	1502.7	1500.2	1511.3	1531.3	1555.7	1579.0
14.5°	1494.7	1492.2	1503.3	1524.3	1549.4	1573.7
15°	1486.4	1483.4	1495.2	1517.3	1543.1	1568.5
15.5°	1478.2	1474.7	1486.7	1509.8	1536.4	1562.7
16°	1469.4	1465.9	1478.4	1502.0	1529.6	1556.7
16.5°	1460.4	1456.8	1469.4	1494.2	1522.8	1550.4
17°	1451.3	1447.6	1460.6	1486.2	1515.8	1544.1
17.5°	1442.0	1438.0	1451.3	1477.9	1508.0	1537.4
18°	1432.8	1428.3	1442.0	1469.1	1500.5	1530.6
18.5°	1423.0	1418.2	1432.3	1460.4	1492.5	1523.6
19°	1413.2	1408.2	1422.5	1451.3	1484.4	1516.3
19.5°	1402.9	1398.2	1412.7	1442.3	1476.2	1508.8
20°	1392.6	1387.6	1402.7	1432.8	1467.6	1501.0
20.5°	1382.3	1376.8	1392.4	1423.2	1458.9	1493.0
21°	1371.8	1366.0	1381.6	1413.5	1449.8	1484.7



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1339.2	1332.9	1349.7	1383.1	1422.0	1458.6
23°	1327.9	1321.6	1338.5	1372.8	1412.2	1449.8
23.5°	1316.9	1310.4	1327.7	1362.3	1402.4	1440.3
24°	1305.3	1298.8	1316.4	1351.2	1392.1	1430.8
24.5°	1293.8	1287.3	1305.1	1340.5	1382.1	1421.0
25°	1282.3	1275.5	1293.3	1329.4	1371.6	1410.9
25.5°	1270.2	1263.7	1282.0	1318.4	1361.0	1400.9
26°	1258.4	1252.2	1270.2	1307.1	1350.5	1390.6
26.5°	1246.4	1240.1	1258.7	1295.8	1339.7	1380.1
27°	1234.4	1228.3	1246.9	1284.3	1328.7	1369.8
27.5°	1222.3	1216.0	1235.1	1272.7	1317.6	1358.8
28°	1210.0	1203.8	1223.1	1260.9	1306.1	1347.7
28.5°	1197.5	1191.5	1210.8	1249.2	1294.8	1336.7
29°	1185.4	1179.4	1199.0	1237.1	1283.0	1325.4
29.5°	1172.9	1166.9	1186.7	1225.1	1271.5	1313.9
30°	1160.1	1154.1	1174.4	1213.0	1259.7	1302.3
30.5°	1147.1	1141.3	1161.9	1200.5	1247.4	1290.8
31°	1134.0	1128.5	1148.8	1188.2	1235.1	1278.8
31.5°	1121.0	1115.5	1136.0	1175.4	1223.1	1267.0
32°	1107.4	1102.4	1123.2	1162.6	1210.5	1254.7
32.5°	1094.4	1089.1	1110.2	1149.6	1198.0	1242.6
33°	1080.8	1075.6	1096.9	1136.8	1184.7	1229.6
33.5°	1067.3	1062.5	1083.9	1123.5	1171.6	1217.3
34°	1053.5	1048.7	1070.6	1110.2	1158.6	1204.0
34.5°	1039.5	1034.7	1056.5	1096.4	1144.8	1191.2
35°	1024.9	1020.4	1042.5	1083.1	1131.5	1177.4
35.5°	1010.6	1005.8	1028.4	1069.1	1117.7	1164.9
36°	995.8	990.0	1013.9	1055.0	1103.9	1151.1
36.5°	979.0	973.5	998.1	1039.7	1089.9	1137.5
37°	960.9	955.2	980.5	1024.7	1074.8	1123.0
37.5°	942.4	935.6	962.2	1007.9	1059.5	1109.7
38°	922.6	915.5	942.6	990.0	1044.0	1094.4
38.5°	902.5	895.0	922.6	971.5	1027.9	1079.3
39°	881.9	874.4	902.3	952.7	1010.9	1063.5
39.5°	860.9	853.3	881.4	933.6	992.8	1048.5
40°	839.0	831.5	860.9	913.5	973.5	1031.9
40.5°	818.0	809.7	839.5	893.2	954.4	1014.6
41°	795.6	788.1	819.0	872.7	934.6	996.8
41.5°	773.8	766.5	797.7	851.3	914.5	978.3
42°	751.5	745.2	776.6	830.0	894.2	959.2
42.5°	729.7	723.4	755.5	808.7	872.7	938.9
43°	706.9	701.6	734.7	786.6	851.1	917.3
43.5°	685.0	680.3	713.4	764.3	828.8	895.0

TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	619.1	615.8	648.7	697.8	760.8	826.2
45.5°	597.2	594.5	627.1	674.7	737.7	802.4
46°	575.7	573.2	604.8	653.4	714.4	778.6
46.5°	554.6	551.8	582.4	630.8	690.3	755.3
47°	532.8	530.8	561.4	608.5	666.7	731.7
47.5°	512.0	509.9	539.3	585.7	643.1	708.4
48°	491.6	489.4	518.5	564.1	619.8	684.8
48.5°	471.1	469.1	497.2	541.3	596.0	661.7
49°	450.7	449.2	476.1	520.0	573.2	639.1
49.5°	430.4	429.2	455.8	497.9	550.3	616.0
50°	410.9	409.6	435.2	476.3	527.3	594.0
50.5°	391.3	390.0	414.9	453.5	504.7	570.9
51°	372.5	371.2	394.6	433.7	482.9	549.1
51.5°	354.2	352.7	375.2	412.4	461.3	527.0
52°	335.4	334.4	355.9	391.8	440.2	505.7
52.5°	317.6	316.6	337.1	370.2	419.1	483.9
53°	300.0	298.7	318.3	351.4	398.6	462.8
53.5°	282.9	281.4	299.7	331.9	378.8	441.7
54°	266.4	264.6	281.7	312.0	358.9	421.2
54.5°	250.1	248.3	264.6	293.5	340.1	400.6
55°	235.5	232.0	247.6	275.4	321.3	380.8
55.5°	220.7	216.5	230.5	257.9	303.0	360.7
56°	206.2	200.9	214.5	240.8	285.2	341.9
56.5°	191.4	186.1	198.7	224.0	268.1	322.6
57°	176.6	171.8	183.6	207.9	251.1	304.5
57.5°	163.5	157.8	168.8	192.9	234.5	286.2
58°	151.0	144.5	154.5	178.1	218.5	268.6
58.5°	138.7	131.7	141.2	164.0	203.2	251.6
59°	127.4	119.6	128.2	150.2	188.1	235.0
59.5°	115.9	108.1	116.1	137.5	173.6	219.0
60°	105.1	97.1	104.6	125.4	159.5	202.9
60.5°	94.8	86.8	93.6	113.4	146.0	187.6
61°	85.5	78.0	84.5	102.1	132.9	172.8
61.5°	76.0	69.2	75.8	91.8	120.7	158.8
62°	67.5	60.7	67.0	83.3	109.1	145.2
62.5°	59.7	51.9	58.2	74.5	97.6	131.7
63°	52.4	44.9	49.4	66.0	86.8	118.6
63.5°	45.2	38.9	42.6	57.4	77.8	105.9
64°	38.9	33.1	36.6	48.9	69.0	93.3
64.5°	33.1	28.6	31.6	42.1	60.2	82.5
65°	29.6	24.3	27.1	36.1	51.4	72.0
65.5°	26.1	20.8	23.3	30.6	44.1	61.5
66°	22.6	17.6	19.8	25.8	37.4	50.9



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	12.3	11.8	12.8	15.3	21.8	26.3
68°	11.0	11.0	11.5	13.3	18.3	21.1
68.5°	10.3	10.3	10.8	11.8	15.3	17.3
69°	9.8	9.5	10.0	11.0	13.3	15.1
69.5°	9.0	9.0	9.5	10.3	12.0	13.8
70°	8.5	8.5	9.0	9.8	11.3	13.0
70.5°	8.0	8.0	8.3	9.0	10.5	12.3
71°	7.3	7.3	7.8	8.5	9.8	11.5
71.5°	6.8	6.8	7.3	8.0	9.3	10.8
72°	6.5	6.5	6.8	7.5	8.8	10.0
72.5°	6.0	6.0	6.3	7.0	8.0	9.5
73°	5.5	5.5	5.8	6.5	7.5	9.0
73.5°	5.3	5.3	5.5	6.0	7.0	8.3
74°	4.8	4.8	5.0	5.5	6.5	7.8
74.5°	4.5	4.5	4.8	5.3	6.0	7.3
75°	4.3	4.3	4.5	5.0	5.8	6.8
75.5°	4.0	4.0	4.3	4.5	5.3	6.3
76°	3.8	3.8	3.8	4.3	5.0	6.0
76.5°	3.5	3.5	3.5	4.0	4.5	5.5
77°	3.3	3.3	3.3	3.8	4.3	5.3
77.5°	3.0	3.0	3.0	3.5	4.0	4.8
78°	2.8	2.8	3.0	3.3	3.8	4.5
78.5°	2.5	2.5	2.8	3.0	3.3	4.3
79°	2.3	2.3	2.5	2.8	3.0	3.8
79.5°	2.3	2.3	2.3	2.5	2.8	3.5
80°	2.0	2.0	2.0	2.3	2.5	3.3
80.5°	1.8	1.8	2.0	2.0	2.3	3.0
81°	1.8	1.8	1.8	1.8	2.0	2.8
81.5°	1.5	1.5	1.5	1.8	1.8	2.5
82°	1.3	1.3	1.5	1.5	1.5	2.0
82.5°	1.3	1.3	1.3	1.3	1.3	1.8
83°	1.0	1.0	1.0	1.3	1.0	1.5
83.5°	1.0	0.8	1.0	1.0	1.0	1.0
84°	0.8	0.8	0.8	1.0	0.8	0.8
84.5°	0.5	0.5	0.5	0.8	0.8	0.5
85°	0.5	0.3	0.5	0.5	0.5	0.5
85.5°	0.3	0.3	0.3	0.5	0.5	0.3
86°	0.0	0.0	0.0	0.3	0.3	0.3
86.5°	0.0	0.0	0.0	0.0	0.3	0.3
87°	0.0	0.0	0.0	0.0	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.3	0.0	0.0	0.0	0.0
88.5°	0.3	0.3	0.3	0.0	0.0	0.0



TEST NUMBER: P775932

CATALOG NUMBER: HCDJBL51525CSD-HCD41TRH-2500lm-3500K

CANDELA DISTRIBUTION (continued):

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



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Cooper Lighting Solutions Photometric Lab
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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°

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Scaled Data Report





21.5°	1476.2	1504.0	1521.3	1527.8	1529.1	1510.5	1480.2	1443.3	1409.4	1386.6	1372.1
22°	1467.6	1495.7	1513.5	1520.3	1521.3	1502.7	1471.6	1433.8	1399.4	1376.3	1361.5



44°	872.4	925.6	959.2	976.2	984.5	953.4	901.0	837.3	771.8	718.6	682.5
44.5°	849.8	904.8	939.4	956.4	965.0	932.6	879.9	816.2	750.7	697.3	660.2



66.5°	40.4	65.5	82.3	88.8	94.3	83.5	65.7	47.7	31.4	25.8	21.6
67°	32.6	55.4	72.5	79.3	83.0	73.2	57.4	40.6	27.8	22.6	17.6



89°	0.0	0.0	0.5	0.5	0.8	0.5	0.3	0.0	0.0	0.0	0.3
89.5°	0.0	0.0	0.3	0.3	0.5	0.3	0.3	0.0	0.0	0.0	0.3

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21.5°	1360.8	1355.3	1371.1	1403.7	1440.8	1476.2
22°	1350.0	1344.0	1360.5	1393.4	1431.3	1467.6



44°	663.0	658.9	691.8	742.2	806.7	872.4
44.5°	641.1	637.1	669.7	719.4	784.4	849.8

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66.5°	19.3	15.3	16.8	21.6	31.6	40.4
67°	15.8	13.0	14.5	18.1	26.3	32.6

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89°	0.3	0.3	0.0	0.3	0.0	0.0
89.5°	0.3	0.0	0.0	0.3	0.0	0.0

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Scaled Data Report



(END OF REPORT)