

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: P775845

Luminaire Tested: HCDJBL510CSD-HCD82TRH-1000lm-2700K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775845  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B063-HCD82TRH)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL510CSD-HCD82TRH-1000lm-2700K  
Description: 8 INCH ROUND NARROW HAZE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

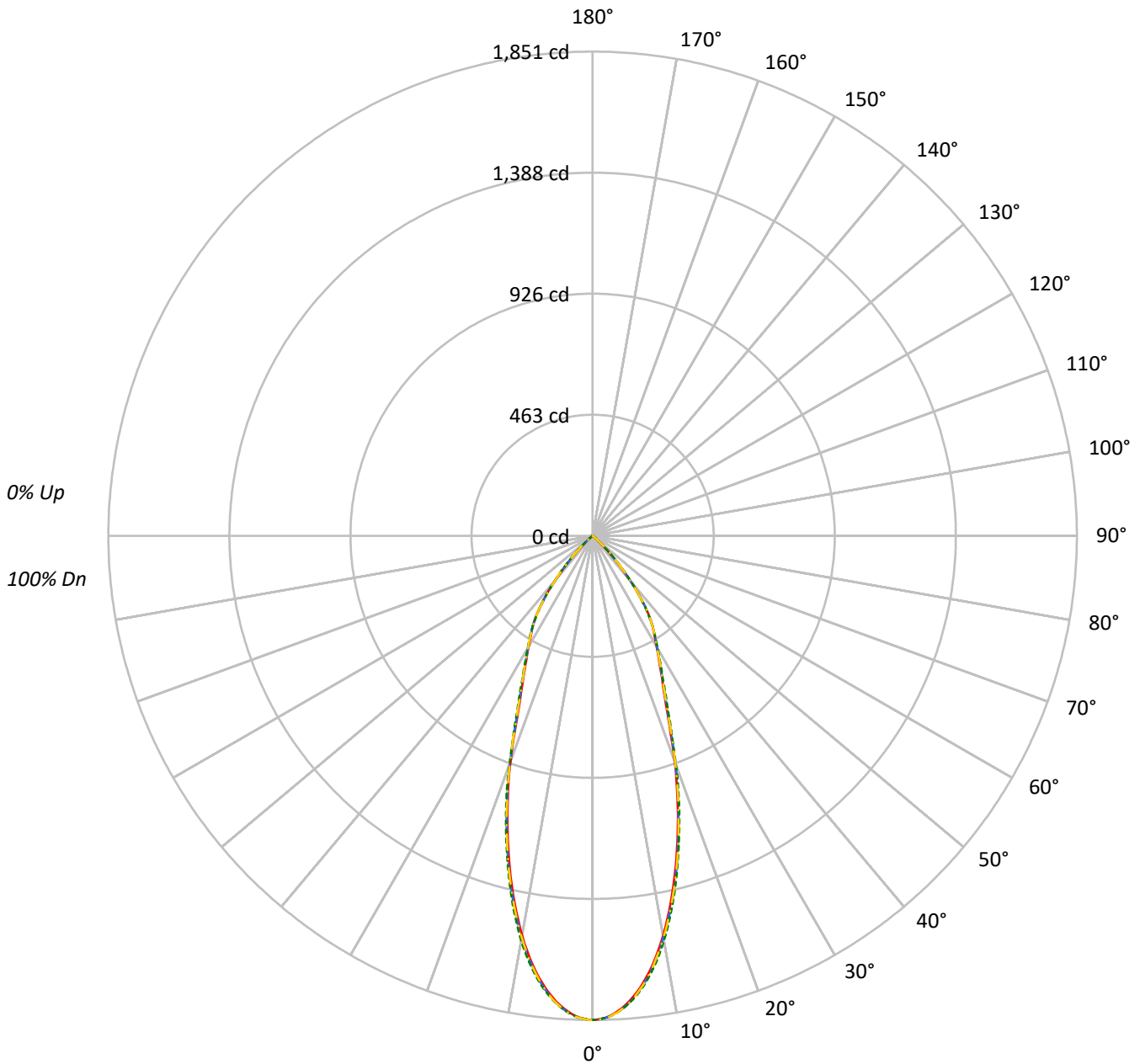
Lumens per Lamp: N/A  
Luminaire Lumens: 1115.0 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.65 / 0.67  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 10  
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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CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

### 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																			
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88																			
3	103	97	93	89	101	96	92	88	93	90	87	91	88	85	89	86	84	82																			
4	98	91	86	82	97	90	85	82	88	84	81	86	82	80	84	81	79	77																			
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	72																			
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68																			
7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64																			
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61																			
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57																			
10	74	65	60	56	73	65	60	56	64	59	56	63	59	56	63	58	56	54																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	56518	56518	56518	56518
5°	54251	54499	54251	54499
10°	48105	48709	48105	48709
15°	39316	39952	39316	39952
20°	29825	30199	29825	30199
25°	21505	22088	21505	22088
30°	17253	17517	17253	17517
35°	14122	14003	14122	14003
40°	8860	9047	8860	9047
45°	3376	3916	3376	3916
50°	503	708	503	708
55°	106	112	106	112
60°	67	67	67	67
65°	43	43	43	43
70°	27	36	27	36
75°	24	24	24	24
80°	18	18	18	18
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3916 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.6	14.6
10°-20°	345.0	30.9
20°-30°	302.9	27.2
30°-40°	228.8	20.5
40°-50°	72.1	6.5
50°-60°	2.8	0.2
60°-70°	0.7	0.1
70°-80°	0.2	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°	810.5	72.7
0°-40°	1039.2	93.2
0°-60°	1114.1	99.9
0°-90°	1115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1115.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1851	1851	1851	1851	1851	
5°	1770	1778	1770	1778	1770	162
15°	1244	1264	1244	1264	1244	342
25°	638	656	638	656	638	300
35°	379	376	379	376	379	228
45°	78	91	78	91	78	68
55°	2	2	2	2	2	2
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°	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2
0.5°	1849.5	1849.9	1850.9	1851.3	1849.5	1851.3	1850.9	1849.9	1849.5	1849.9	1850.9
1°	1847.0	1847.5	1848.5	1849.2	1847.4	1849.2	1848.5	1847.5	1847.0	1847.5	1848.5
1.5°	1842.8	1843.4	1844.7	1845.5	1843.7	1845.5	1844.7	1843.4	1842.8	1843.4	1844.7
2°	1837.2	1837.7	1839.4	1840.4	1838.7	1840.4	1839.4	1837.7	1837.2	1837.7	1839.4
2.5°	1829.5	1830.5	1832.5	1833.7	1832.1	1833.7	1832.5	1830.5	1829.5	1830.5	1832.5
3°	1820.7	1821.7	1824.2	1825.7	1824.2	1825.7	1824.2	1821.7	1820.7	1821.7	1824.2
3.5°	1810.3	1811.5	1814.2	1816.1	1815.0	1816.1	1814.2	1811.5	1810.3	1811.5	1814.2
4°	1798.2	1799.7	1802.9	1805.2	1804.2	1805.2	1802.9	1799.7	1798.2	1799.7	1802.9
4.5°	1784.9	1786.3	1790.1	1792.9	1791.9	1792.9	1790.1	1786.3	1784.9	1786.3	1790.1
5°	1770.2	1771.7	1775.9	1779.2	1778.3	1779.2	1775.9	1771.7	1770.2	1771.7	1775.9
5.5°	1754.0	1755.6	1760.0	1763.8	1763.4	1763.8	1760.0	1755.6	1754.0	1755.6	1760.0
6°	1736.3	1738.0	1742.8	1747.2	1747.3	1747.2	1742.8	1738.0	1736.3	1738.0	1742.8
6.5°	1717.8	1719.2	1724.5	1729.4	1729.7	1729.4	1724.5	1719.2	1717.8	1719.2	1724.5
7°	1697.6	1699.2	1704.7	1710.2	1711.3	1710.2	1704.7	1699.2	1697.6	1699.2	1704.7
7.5°	1676.3	1677.6	1683.3	1689.1	1690.7	1689.1	1683.3	1677.6	1676.3	1677.6	1683.3
8°	1653.5	1655.0	1661.0	1667.3	1669.3	1667.3	1661.0	1655.0	1653.5	1655.0	1661.0
8.5°	1629.9	1631.2	1637.2	1644.3	1646.6	1644.3	1637.2	1631.2	1629.9	1631.2	1637.2
9°	1604.6	1606.3	1612.6	1620.2	1622.8	1620.2	1612.6	1606.3	1604.6	1606.3	1612.6
9.5°	1578.8	1580.6	1586.6	1594.6	1597.6	1594.6	1586.6	1580.6	1578.8	1580.6	1586.6
10°	1551.7	1553.7	1559.9	1568.6	1571.2	1568.6	1559.9	1553.7	1551.7	1553.7	1559.9
10.5°	1523.8	1525.8	1532.2	1541.4	1543.8	1541.4	1532.2	1525.8	1523.8	1525.8	1532.2
11°	1494.0	1497.2	1503.7	1513.3	1515.4	1513.3	1503.7	1497.2	1494.0	1497.2	1503.7
11.5°	1465.3	1467.9	1474.4	1483.7	1486.2	1483.7	1474.4	1467.9	1465.3	1467.9	1474.4
12°	1434.7	1437.8	1444.5	1454.0	1456.3	1454.0	1444.5	1437.8	1434.7	1437.8	1444.5
12.5°	1404.1	1407.3	1414.1	1423.0	1425.0	1423.0	1414.1	1407.3	1404.1	1407.3	1414.1
13°	1372.7	1376.3	1383.6	1392.5	1394.1	1392.5	1383.6	1376.3	1372.7	1376.3	1383.6
13.5°	1341.3	1344.9	1352.5	1360.3	1362.6	1360.3	1352.5	1344.9	1341.3	1344.9	1352.5
14°	1309.0	1312.9	1320.7	1327.8	1330.3	1327.8	1320.7	1312.9	1309.0	1312.9	1320.7
14.5°	1276.5	1280.5	1288.3	1295.0	1297.1	1295.0	1288.3	1280.5	1276.5	1280.5	1288.3
15°	1243.9	1248.0	1255.7	1262.5	1264.0	1262.5	1255.7	1248.0	1243.9	1248.0	1255.7
15.5°	1211.2	1215.2	1222.9	1229.4	1231.7	1229.4	1222.9	1215.2	1211.2	1215.2	1222.9
16°	1178.6	1182.1	1189.8	1196.4	1199.1	1196.4	1189.8	1182.1	1178.6	1182.1	1189.8
16.5°	1146.5	1149.5	1157.2	1163.5	1166.4	1163.5	1157.2	1149.5	1146.5	1149.5	1157.2
17°	1113.5	1116.8	1123.8	1131.2	1133.4	1131.2	1123.8	1116.8	1113.5	1116.8	1123.8
17.5°	1080.6	1083.9	1090.9	1098.4	1101.0	1098.4	1090.9	1083.9	1080.6	1083.9	1090.9
18°	1048.2	1050.7	1058.2	1065.5	1068.2	1065.5	1058.2	1050.7	1048.2	1050.7	1058.2
18.5°	1015.9	1018.4	1025.1	1032.2	1035.0	1032.2	1025.1	1018.4	1015.9	1018.4	1025.1
19°	983.5	985.9	992.5	998.5	1001.7	998.5	992.5	985.9	983.5	985.9	992.5
19.5°	951.1	953.7	959.1	964.2	966.7	964.2	959.1	953.7	951.1	953.7	959.1
20°	918.0	920.2	924.5	929.4	929.5	929.4	924.5	920.2	918.0	920.2	924.5
20.5°	884.6	886.0	890.6	895.2	894.6	895.2	890.6	886.0	884.6	886.0	890.6
21°	850.5	852.8	857.2	861.7	861.6	861.7	857.2	852.8	850.5	852.8	857.2



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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°	755.6	758.4	762.4	769.7	772.9	769.7	762.4	758.4	755.6	758.4	762.4
23°	728.3	730.4	735.2	741.4	745.0	741.4	735.2	730.4	728.3	730.4	735.2
23.5°	701.3	706.5	710.3	715.4	718.9	715.4	710.3	706.5	701.3	706.5	710.3
24°	680.0	682.0	687.3	692.9	697.5	692.9	687.3	682.0	680.0	682.0	687.3
24.5°	658.1	660.5	665.7	671.2	676.7	671.2	665.7	660.5	658.1	660.5	665.7
25°	638.4	640.9	645.8	650.5	655.7	650.5	645.8	640.9	638.4	640.9	645.8
25.5°	621.5	622.6	626.6	630.6	635.1	630.6	626.6	622.6	621.5	622.6	626.6
26°	604.8	605.8	608.4	612.2	614.9	612.2	608.4	605.8	604.8	605.8	608.4
26.5°	587.5	589.0	592.1	595.4	597.1	595.4	592.1	589.0	587.5	589.0	592.1
27°	570.8	572.6	576.6	580.2	581.9	580.2	576.6	572.6	570.8	572.6	576.6
27.5°	555.4	557.1	561.0	564.8	567.3	564.8	561.0	557.1	555.4	557.1	561.0
28°	541.3	542.7	545.9	549.4	551.4	549.4	545.9	542.7	541.3	542.7	545.9
28.5°	527.9	529.1	531.8	534.7	536.9	534.7	531.8	529.1	527.9	529.1	531.8
29°	514.9	515.9	518.5	521.3	522.7	521.3	518.5	515.9	514.9	515.9	518.5
29.5°	501.9	503.0	505.6	508.2	509.5	508.2	505.6	503.0	501.9	503.0	505.6
30°	489.4	490.4	492.9	495.4	496.9	495.4	492.9	490.4	489.4	490.4	492.9
30.5°	477.3	478.1	480.7	483.2	484.7	483.2	480.7	478.1	477.3	478.1	480.7
31°	465.4	466.7	469.0	471.6	472.9	471.6	469.0	466.7	465.4	466.7	469.0
31.5°	454.5	455.3	457.8	460.2	461.8	460.2	457.8	455.3	454.5	455.3	457.8
32°	443.7	444.7	447.0	449.3	450.7	449.3	447.0	444.7	443.7	444.7	447.0
32.5°	433.6	434.6	436.7	438.3	439.1	438.3	436.7	434.6	433.6	434.6	436.7
33°	424.3	424.8	426.1	426.9	426.8	426.9	426.1	424.8	424.3	424.8	426.1
33.5°	414.7	414.6	414.7	414.7	414.5	414.7	414.7	414.6	414.7	414.6	414.7
34°	404.0	403.3	402.5	403.6	401.4	403.6	402.5	403.3	404.0	403.3	402.5
34.5°	391.7	391.5	391.3	390.5	388.5	390.5	391.3	391.5	391.7	391.5	391.3
35°	378.9	378.0	378.0	377.2	375.7	377.2	378.0	378.0	378.9	378.0	378.0
35.5°	365.7	364.6	364.6	363.2	362.3	363.2	364.6	364.6	365.7	364.6	364.6
36°	351.2	350.6	350.9	348.6	348.4	348.6	350.9	350.6	351.2	350.6	350.9
36.5°	336.2	336.1	336.1	333.9	333.5	333.9	336.1	336.1	336.2	336.1	336.1
37°	320.7	320.7	320.8	319.1	318.4	319.1	320.8	320.7	320.7	320.7	320.8
37.5°	305.1	304.8	306.1	304.0	303.5	304.0	306.1	304.8	305.1	304.8	306.1
38°	289.3	288.6	289.0	288.4	288.5	288.4	289.0	288.6	289.3	288.6	289.0
38.5°	272.8	272.2	272.0	272.9	273.2	272.9	272.0	272.2	272.8	272.2	272.0
39°	256.1	255.8	255.3	257.3	257.4	257.3	255.3	255.8	256.1	255.8	255.3
39.5°	239.1	239.1	239.1	241.6	242.2	241.6	239.1	239.1	239.1	239.1	239.1
40°	222.3	222.8	223.8	226.0	227.0	226.0	223.8	222.8	222.3	222.8	223.8
40.5°	205.8	206.4	208.6	210.3	212.1	210.3	208.6	206.4	205.8	206.4	208.6
41°	189.5	190.4	193.3	195.1	197.0	195.1	193.3	190.4	189.5	190.4	193.3
41.5°	173.1	174.6	178.0	180.0	182.2	180.0	178.0	174.6	173.1	174.6	178.0
42°	157.5	159.2	163.2	165.5	167.6	165.5	163.2	159.2	157.5	159.2	163.2
42.5°	142.4	144.3	148.8	151.8	153.7	151.8	148.8	144.3	142.4	144.3	148.8
43°	127.7	130.4	135.0	138.4	140.0	138.4	135.0	130.4	127.7	130.4	135.0
43.5°	113.9	117.1	121.6	125.3	126.7	125.3	121.6	117.1	113.9	117.1	121.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	78.2	79.9	84.0	88.9	90.7	88.9	84.0	79.9	78.2	79.9	84.0
45.5°	67.4	69.1	73.2	78.1	80.1	78.1	73.2	69.1	67.4	69.1	73.2
46°	56.9	59.0	63.3	68.3	71.5	68.3	63.3	59.0	56.9	59.0	63.3
46.5°	48.1	49.7	54.5	59.2	62.9	59.2	54.5	49.7	48.1	49.7	54.5
47°	40.3	42.1	46.3	50.6	54.2	50.6	46.3	42.1	40.3	42.1	46.3
47.5°	33.4	34.9	38.5	42.2	45.6	42.2	38.5	34.9	33.4	34.9	38.5
48°	27.7	28.6	31.6	34.6	37.0	34.6	31.6	28.6	27.7	28.6	31.6
48.5°	22.4	23.5	25.5	28.2	30.3	28.2	25.5	23.5	22.4	23.5	25.5
49°	17.5	18.7	20.8	22.5	24.3	22.5	20.8	18.7	17.5	18.7	20.8
49.5°	13.7	14.6	16.4	18.0	19.3	18.0	16.4	14.6	13.7	14.6	16.4
50°	10.6	11.2	12.5	13.9	14.9	13.9	12.5	11.2	10.6	11.2	12.5
50.5°	7.9	8.0	9.5	10.9	11.6	10.9	9.5	8.0	7.9	8.0	9.5
51°	5.5	5.9	7.1	8.6	9.8	8.6	7.1	5.9	5.5	5.9	7.1
51.5°	3.6	4.4	5.5	6.5	8.1	6.5	5.5	4.4	3.6	4.4	5.5
52°	3.1	3.3	4.1	5.0	6.3	5.0	4.1	3.3	3.1	3.3	4.1
52.5°	2.8	2.9	3.0	3.8	4.6	3.8	3.0	2.9	2.8	2.9	3.0
53°	2.6	2.7	2.7	2.9	2.9	2.9	2.7	2.7	2.6	2.7	2.7
53.5°	2.4	2.5	2.6	2.6	2.5	2.6	2.6	2.5	2.4	2.5	2.6
54°	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.4
54.5°	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2
55°	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1
55.5°	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0
56°	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9
56.5°	1.7	1.7	1.8	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.8
57°	1.6	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.7
57.5°	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6
58°	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.5
58.5°	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.4
59°	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3
59.5°	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2
60°	1.1	1.1	1.2	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.2
60.5°	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1
61°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
61.5°	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	1.0
62°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
62.5°	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9
63°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
63.5°	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8
64°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
64.5°	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7
65°	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.7
65.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
66°	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6





TEST NUMBER: P775845

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5
68.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
69°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
69.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
70°	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
70.5°	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3
71°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
71.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
72°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
72.5°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
73°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
73.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
76°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
76.5°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
77°	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
77.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
78°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
78.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
79°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
79.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
80.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
81°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
81.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
82.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
83°	0.0	0.0	0.0	0.1	0.1	0.1	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: P775845  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**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: P775845

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2
0.5°	1851.3	1849.5	1851.3	1850.9	1849.9	1849.5
1°	1849.2	1847.4	1849.2	1848.5	1847.5	1847.0
1.5°	1845.5	1843.7	1845.5	1844.7	1843.4	1842.8
2°	1840.4	1838.7	1840.4	1839.4	1837.7	1837.2
2.5°	1833.7	1832.1	1833.7	1832.5	1830.5	1829.5
3°	1825.7	1824.2	1825.7	1824.2	1821.7	1820.7
3.5°	1816.1	1815.0	1816.1	1814.2	1811.5	1810.3
4°	1805.2	1804.2	1805.2	1802.9	1799.7	1798.2
4.5°	1792.9	1791.9	1792.9	1790.1	1786.3	1784.9
5°	1779.2	1778.3	1779.2	1775.9	1771.7	1770.2
5.5°	1763.8	1763.4	1763.8	1760.0	1755.6	1754.0
6°	1747.2	1747.3	1747.2	1742.8	1738.0	1736.3
6.5°	1729.4	1729.7	1729.4	1724.5	1719.2	1717.8
7°	1710.2	1711.3	1710.2	1704.7	1699.2	1697.6
7.5°	1689.1	1690.7	1689.1	1683.3	1677.6	1676.3
8°	1667.3	1669.3	1667.3	1661.0	1655.0	1653.5
8.5°	1644.3	1646.6	1644.3	1637.2	1631.2	1629.9
9°	1620.2	1622.8	1620.2	1612.6	1606.3	1604.6
9.5°	1594.6	1597.6	1594.6	1586.6	1580.6	1578.8
10°	1568.6	1571.2	1568.6	1559.9	1553.7	1551.7
10.5°	1541.4	1543.8	1541.4	1532.2	1525.8	1523.8
11°	1513.3	1515.4	1513.3	1503.7	1497.2	1494.0
11.5°	1483.7	1486.2	1483.7	1474.4	1467.9	1465.3
12°	1454.0	1456.3	1454.0	1444.5	1437.8	1434.7
12.5°	1423.0	1425.0	1423.0	1414.1	1407.3	1404.1
13°	1392.5	1394.1	1392.5	1383.6	1376.3	1372.7
13.5°	1360.3	1362.6	1360.3	1352.5	1344.9	1341.3
14°	1327.8	1330.3	1327.8	1320.7	1312.9	1309.0
14.5°	1295.0	1297.1	1295.0	1288.3	1280.5	1276.5
15°	1262.5	1264.0	1262.5	1255.7	1248.0	1243.9
15.5°	1229.4	1231.7	1229.4	1222.9	1215.2	1211.2
16°	1196.4	1199.1	1196.4	1189.8	1182.1	1178.6
16.5°	1163.5	1166.4	1163.5	1157.2	1149.5	1146.5
17°	1131.2	1133.4	1131.2	1123.8	1116.8	1113.5
17.5°	1098.4	1101.0	1098.4	1090.9	1083.9	1080.6
18°	1065.5	1068.2	1065.5	1058.2	1050.7	1048.2
18.5°	1032.2	1035.0	1032.2	1025.1	1018.4	1015.9
19°	998.5	1001.7	998.5	992.5	985.9	983.5
19.5°	964.2	966.7	964.2	959.1	953.7	951.1
20°	929.4	929.5	929.4	924.5	920.2	918.0
20.5°	895.2	894.6	895.2	890.6	886.0	884.6
21°	861.7	861.6	861.7	857.2	852.8	850.5

TEST NUMBER: P775845

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	769.7	772.9	769.7	762.4	758.4	755.6
23°	741.4	745.0	741.4	735.2	730.4	728.3
23.5°	715.4	718.9	715.4	710.3	706.5	701.3
24°	692.9	697.5	692.9	687.3	682.0	680.0
24.5°	671.2	676.7	671.2	665.7	660.5	658.1
25°	650.5	655.7	650.5	645.8	640.9	638.4
25.5°	630.6	635.1	630.6	626.6	622.6	621.5
26°	612.2	614.9	612.2	608.4	605.8	604.8
26.5°	595.4	597.1	595.4	592.1	589.0	587.5
27°	580.2	581.9	580.2	576.6	572.6	570.8
27.5°	564.8	567.3	564.8	561.0	557.1	555.4
28°	549.4	551.4	549.4	545.9	542.7	541.3
28.5°	534.7	536.9	534.7	531.8	529.1	527.9
29°	521.3	522.7	521.3	518.5	515.9	514.9
29.5°	508.2	509.5	508.2	505.6	503.0	501.9
30°	495.4	496.9	495.4	492.9	490.4	489.4
30.5°	483.2	484.7	483.2	480.7	478.1	477.3
31°	471.6	472.9	471.6	469.0	466.7	465.4
31.5°	460.2	461.8	460.2	457.8	455.3	454.5
32°	449.3	450.7	449.3	447.0	444.7	443.7
32.5°	438.3	439.1	438.3	436.7	434.6	433.6
33°	426.9	426.8	426.9	426.1	424.8	424.3
33.5°	414.7	414.5	414.7	414.7	414.6	414.7
34°	403.6	401.4	403.6	402.5	403.3	404.0
34.5°	390.5	388.5	390.5	391.3	391.5	391.7
35°	377.2	375.7	377.2	378.0	378.0	378.9
35.5°	363.2	362.3	363.2	364.6	364.6	365.7
36°	348.6	348.4	348.6	350.9	350.6	351.2
36.5°	333.9	333.5	333.9	336.1	336.1	336.2
37°	319.1	318.4	319.1	320.8	320.7	320.7
37.5°	304.0	303.5	304.0	306.1	304.8	305.1
38°	288.4	288.5	288.4	289.0	288.6	289.3
38.5°	272.9	273.2	272.9	272.0	272.2	272.8
39°	257.3	257.4	257.3	255.3	255.8	256.1
39.5°	241.6	242.2	241.6	239.1	239.1	239.1
40°	226.0	227.0	226.0	223.8	222.8	222.3
40.5°	210.3	212.1	210.3	208.6	206.4	205.8
41°	195.1	197.0	195.1	193.3	190.4	189.5
41.5°	180.0	182.2	180.0	178.0	174.6	173.1
42°	165.5	167.6	165.5	163.2	159.2	157.5
42.5°	151.8	153.7	151.8	148.8	144.3	142.4
43°	138.4	140.0	138.4	135.0	130.4	127.7
43.5°	125.3	126.7	125.3	121.6	117.1	113.9



TEST NUMBER: P775845

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	88.9	90.7	88.9	84.0	79.9	78.2
45.5°	78.1	80.1	78.1	73.2	69.1	67.4
46°	68.3	71.5	68.3	63.3	59.0	56.9
46.5°	59.2	62.9	59.2	54.5	49.7	48.1
47°	50.6	54.2	50.6	46.3	42.1	40.3
47.5°	42.2	45.6	42.2	38.5	34.9	33.4
48°	34.6	37.0	34.6	31.6	28.6	27.7
48.5°	28.2	30.3	28.2	25.5	23.5	22.4
49°	22.5	24.3	22.5	20.8	18.7	17.5
49.5°	18.0	19.3	18.0	16.4	14.6	13.7
50°	13.9	14.9	13.9	12.5	11.2	10.6
50.5°	10.9	11.6	10.9	9.5	8.0	7.9
51°	8.6	9.8	8.6	7.1	5.9	5.5
51.5°	6.5	8.1	6.5	5.5	4.4	3.6
52°	5.0	6.3	5.0	4.1	3.3	3.1
52.5°	3.8	4.6	3.8	3.0	2.9	2.8
53°	2.9	2.9	2.9	2.7	2.7	2.6
53.5°	2.6	2.5	2.6	2.6	2.5	2.4
54°	2.4	2.3	2.4	2.4	2.3	2.3
54.5°	2.2	2.2	2.2	2.2	2.2	2.1
55°	2.1	2.1	2.1	2.1	2.1	2.0
55.5°	2.0	2.0	2.0	2.0	1.9	1.9
56°	1.9	1.9	1.9	1.9	1.8	1.8
56.5°	1.8	1.7	1.8	1.8	1.7	1.7
57°	1.7	1.6	1.7	1.7	1.6	1.6
57.5°	1.6	1.6	1.6	1.6	1.5	1.5
58°	1.5	1.5	1.5	1.5	1.4	1.4
58.5°	1.4	1.4	1.4	1.4	1.3	1.3
59°	1.3	1.3	1.3	1.3	1.3	1.2
59.5°	1.2	1.2	1.2	1.2	1.2	1.1
60°	1.2	1.1	1.2	1.2	1.1	1.1
60.5°	1.1	1.1	1.1	1.1	1.0	1.0
61°	1.0	1.0	1.0	1.0	1.0	1.0
61.5°	1.0	1.0	1.0	1.0	0.9	0.9
62°	0.9	0.9	0.9	0.9	0.9	0.9
62.5°	0.9	0.9	0.9	0.9	0.8	0.8
63°	0.8	0.8	0.8	0.8	0.8	0.8
63.5°	0.8	0.8	0.8	0.8	0.7	0.7
64°	0.7	0.7	0.7	0.7	0.7	0.7
64.5°	0.7	0.7	0.7	0.7	0.7	0.6
65°	0.7	0.6	0.7	0.7	0.6	0.6
65.5°	0.6	0.6	0.6	0.6	0.6	0.6
66°	0.6	0.6	0.6	0.6	0.6	0.5



TEST NUMBER: P775845

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.4	0.4
68.5°	0.4	0.4	0.4	0.4	0.4	0.4
69°	0.4	0.4	0.4	0.4	0.4	0.4
69.5°	0.4	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.3	0.3
70.5°	0.4	0.3	0.4	0.3	0.3	0.3
71°	0.3	0.3	0.3	0.3	0.3	0.3
71.5°	0.3	0.3	0.3	0.3	0.3	0.3
72°	0.3	0.3	0.3	0.3	0.3	0.3
72.5°	0.3	0.3	0.3	0.3	0.3	0.2
73°	0.3	0.3	0.3	0.3	0.2	0.2
73.5°	0.2	0.2	0.2	0.2	0.2	0.2
74°	0.2	0.2	0.2	0.2	0.2	0.2
74.5°	0.2	0.2	0.2	0.2	0.2	0.2
75°	0.2	0.2	0.2	0.2	0.2	0.2
75.5°	0.2	0.2	0.2	0.2	0.2	0.2
76°	0.2	0.2	0.2	0.2	0.2	0.2
76.5°	0.2	0.2	0.2	0.2	0.1	0.1
77°	0.2	0.2	0.2	0.1	0.1	0.1
77.5°	0.1	0.1	0.1	0.1	0.1	0.1
78°	0.1	0.1	0.1	0.1	0.1	0.1
78.5°	0.1	0.1	0.1	0.1	0.1	0.1
79°	0.1	0.1	0.1	0.1	0.1	0.1
79.5°	0.1	0.1	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1
80.5°	0.1	0.1	0.1	0.1	0.1	0.1
81°	0.1	0.1	0.1	0.1	0.1	0.1
81.5°	0.1	0.1	0.1	0.1	0.1	0.1
82°	0.1	0.1	0.1	0.1	0.1	0.0
82.5°	0.1	0.1	0.1	0.1	0.0	0.0
83°	0.1	0.1	0.1	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: P775845  
CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-2700K

**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

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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





21.5°	815.1	820.1	825.0	829.6	830.8	829.6	825.0	820.1	815.1	820.1	825.0
22°	784.4	787.6	793.3	798.0	800.4	798.0	793.3	787.6	784.4	787.6	793.3



44°	101.4	104.2	108.7	112.5	114.0	112.5	108.7	104.2	101.4	104.2	108.7
44.5°	89.6	91.8	96.0	100.1	101.9	100.1	96.0	91.8	89.6	91.8	96.0



66.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



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°	829.6	830.8	829.6	825.0	820.1	815.1
22°	798.0	800.4	798.0	793.3	787.6	784.4

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44°	112.5	114.0	112.5	108.7	104.2	101.4
44.5°	100.1	101.9	100.1	96.0	91.8	89.6

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66.5°	0.5	0.5	0.5	0.5	0.5	0.5
67°	0.5	0.5	0.5	0.5	0.5	0.5

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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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(END OF REPORT)