

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: P775849

Luminaire Tested: HCDJBL510CSD-HCD82TRH-1000lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775849
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-5000K
Description: 8 INCH ROUND NARROW HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

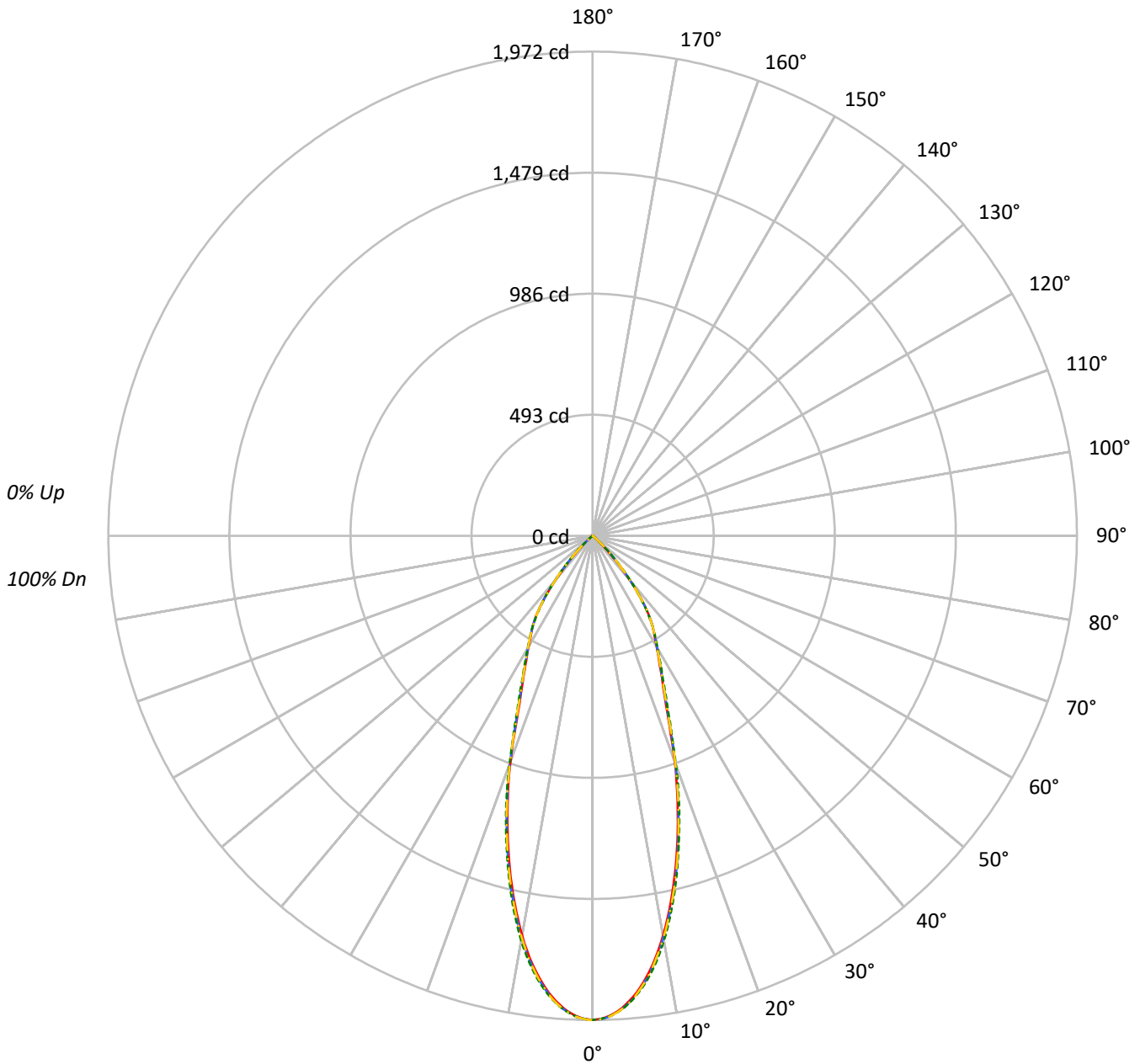
Lumens per Lamp: N/A
Luminaire Lumens: 1187.8 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.65 / 0.67
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (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





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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	60206	60206	60206	60206
5°	57794	58057	57794	58057
10°	51245	51887	51245	51887
15°	41883	42559	41883	42559
20°	31775	32171	31775	32171
25°	22910	23530	22910	23530
30°	18378	18660	18378	18660
35°	15042	14916	15042	14916
40°	9438	9637	9438	9637
45°	3597	4171	3597	4171
50°	537	755	537	755
55°	112	117	112	117
60°	73	73	73	73
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: 4171 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.2	14.6
10°-20°	367.5	30.9
20°-30°	322.7	27.2
30°-40°	243.7	20.5
40°-50°	76.8	6.5
50°-60°	2.9	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°	863.4	72.7
0°-40°	1107.1	93.2
0°-60°	1186.8	99.9
0°-90°	1187.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1187.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1972	1972	1972	1972	1972	
5°	1886	1894	1886	1894	1886	173
15°	1325	1346	1325	1346	1325	364
25°	680	698	680	698	680	320
35°	404	400	404	400	404	243
45°	83	97	83	97	83	73
55°	2	2	2	2	2	3
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°	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0
0.5°	1970.2	1970.6	1971.7	1972.1	1970.2	1972.1	1971.7	1970.6	1970.2	1970.6	1971.7
1°	1967.5	1968.1	1969.1	1969.9	1968.0	1969.9	1969.1	1968.1	1967.5	1968.1	1969.1
1.5°	1963.1	1963.7	1965.1	1966.0	1964.0	1966.0	1965.1	1963.7	1963.1	1963.7	1965.1
2°	1957.1	1957.6	1959.4	1960.5	1958.7	1960.5	1959.4	1957.6	1957.1	1957.6	1959.4
2.5°	1948.9	1950.0	1952.1	1953.4	1951.7	1953.4	1952.1	1950.0	1948.9	1950.0	1952.1
3°	1939.6	1940.7	1943.2	1944.8	1943.2	1944.8	1943.2	1940.7	1939.6	1940.7	1943.2
3.5°	1928.5	1929.8	1932.7	1934.7	1933.5	1934.7	1932.7	1929.8	1928.5	1929.8	1932.7
4°	1915.6	1917.2	1920.6	1923.1	1922.0	1923.1	1920.6	1917.2	1915.6	1917.2	1920.6
4.5°	1901.4	1902.9	1907.0	1910.0	1908.9	1910.0	1907.0	1902.9	1901.4	1902.9	1907.0
5°	1885.8	1887.4	1891.9	1895.4	1894.4	1895.4	1891.9	1887.4	1885.8	1887.4	1891.9
5.5°	1868.5	1870.2	1874.9	1879.0	1878.5	1879.0	1874.9	1870.2	1868.5	1870.2	1874.9
6°	1849.6	1851.4	1856.6	1861.3	1861.4	1861.3	1856.6	1851.4	1849.6	1851.4	1856.6
6.5°	1829.9	1831.4	1837.1	1842.3	1842.6	1842.3	1837.1	1831.4	1829.9	1831.4	1837.1
7°	1808.4	1810.1	1815.9	1821.8	1823.0	1821.8	1815.9	1810.1	1808.4	1810.1	1815.9
7.5°	1785.8	1787.2	1793.2	1799.4	1801.1	1799.4	1793.2	1787.2	1785.8	1787.2	1793.2
8°	1761.5	1763.1	1769.5	1776.2	1778.3	1776.2	1769.5	1763.1	1761.5	1763.1	1769.5
8.5°	1736.3	1737.7	1744.1	1751.7	1754.1	1751.7	1744.1	1737.7	1736.3	1737.7	1744.1
9°	1709.3	1711.1	1717.9	1726.0	1728.7	1726.0	1717.9	1711.1	1709.3	1711.1	1717.9
9.5°	1681.8	1683.7	1690.1	1698.7	1701.9	1698.7	1690.1	1683.7	1681.8	1683.7	1690.1
10°	1653.0	1655.2	1661.8	1671.1	1673.7	1671.1	1661.8	1655.2	1653.0	1655.2	1661.8
10.5°	1623.3	1625.4	1632.3	1642.1	1644.6	1642.1	1632.3	1625.4	1623.3	1625.4	1632.3
11°	1591.5	1594.9	1601.9	1612.1	1614.3	1612.1	1601.9	1594.9	1591.5	1594.9	1601.9
11.5°	1560.9	1563.7	1570.6	1580.5	1583.2	1580.5	1570.6	1563.7	1560.9	1563.7	1570.6
12°	1528.4	1531.7	1538.9	1548.9	1551.3	1548.9	1538.9	1531.7	1528.4	1531.7	1538.9
12.5°	1495.8	1499.2	1506.4	1515.9	1518.1	1515.9	1506.4	1499.2	1495.8	1499.2	1506.4
13°	1462.3	1466.1	1473.9	1483.4	1485.1	1483.4	1473.9	1466.1	1462.3	1466.1	1473.9
13.5°	1428.8	1432.7	1440.8	1449.1	1451.5	1449.1	1440.8	1432.7	1428.8	1432.7	1440.8
14°	1394.5	1398.7	1406.9	1414.4	1417.1	1414.4	1406.9	1398.7	1394.5	1398.7	1406.9
14.5°	1359.9	1364.1	1372.4	1379.6	1381.8	1379.6	1372.4	1364.1	1359.9	1364.1	1372.4
15°	1325.1	1329.5	1337.7	1344.9	1346.5	1344.9	1337.7	1329.5	1325.1	1329.5	1337.7
15.5°	1290.2	1294.5	1302.7	1309.6	1312.1	1309.6	1302.7	1294.5	1290.2	1294.5	1302.7
16°	1255.6	1259.3	1267.5	1274.5	1277.3	1274.5	1267.5	1259.3	1255.6	1259.3	1267.5
16.5°	1221.4	1224.6	1232.8	1239.5	1242.6	1239.5	1232.8	1224.6	1221.4	1224.6	1232.8
17°	1186.2	1189.7	1197.2	1205.1	1207.4	1205.1	1197.2	1189.7	1186.2	1189.7	1197.2
17.5°	1151.1	1154.6	1162.1	1170.1	1172.9	1170.1	1162.1	1154.6	1151.1	1154.6	1162.1
18°	1116.7	1119.3	1127.3	1135.1	1137.9	1135.1	1127.3	1119.3	1116.7	1119.3	1127.3
18.5°	1082.2	1084.9	1092.0	1099.6	1102.6	1099.6	1092.0	1084.9	1082.2	1084.9	1092.0
19°	1047.7	1050.2	1057.3	1063.7	1067.1	1063.7	1057.3	1050.2	1047.7	1050.2	1057.3
19.5°	1013.1	1015.9	1021.7	1027.1	1029.8	1027.1	1021.7	1015.9	1013.1	1015.9	1021.7
20°	978.0	980.3	984.9	990.1	990.2	990.1	984.9	980.3	978.0	980.3	984.9
20.5°	942.4	943.8	948.8	953.7	953.0	953.7	948.8	943.8	942.4	943.8	948.8
21°	906.0	908.5	913.1	917.9	917.8	917.9	913.1	908.5	906.0	908.5	913.1



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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°	804.9	807.9	812.2	820.0	823.4	820.0	812.2	807.9	804.9	807.9	812.2
23°	775.8	778.1	783.2	789.8	793.6	789.8	783.2	778.1	775.8	778.1	783.2
23.5°	747.0	752.6	756.6	762.1	765.8	762.1	756.6	752.6	747.0	752.6	756.6
24°	724.4	726.6	732.2	738.1	743.0	738.1	732.2	726.6	724.4	726.6	732.2
24.5°	701.1	703.6	709.2	715.1	720.9	715.1	709.2	703.6	701.1	703.6	709.2
25°	680.1	682.8	688.0	693.0	698.5	693.0	688.0	682.8	680.1	682.8	688.0
25.5°	662.1	663.2	667.5	671.8	676.6	671.8	667.5	663.2	662.1	663.2	667.5
26°	644.3	645.3	648.1	652.2	655.0	652.2	648.1	645.3	644.3	645.3	648.1
26.5°	625.8	627.4	630.7	634.2	636.1	634.2	630.7	627.4	625.8	627.4	630.7
27°	608.0	609.9	614.2	618.0	619.9	618.0	614.2	609.9	608.0	609.9	614.2
27.5°	591.7	593.5	597.7	601.7	604.3	601.7	597.7	593.5	591.7	593.5	597.7
28°	576.7	578.2	581.6	585.3	587.4	585.3	581.6	578.2	576.7	578.2	581.6
28.5°	562.4	563.7	566.5	569.6	572.0	569.6	566.5	563.7	562.4	563.7	566.5
29°	548.5	549.6	552.4	555.3	556.8	555.3	552.4	549.6	548.5	549.6	552.4
29.5°	534.7	535.8	538.6	541.4	542.8	541.4	538.6	535.8	534.7	535.8	538.6
30°	521.3	522.4	525.1	527.7	529.3	527.7	525.1	522.4	521.3	522.4	525.1
30.5°	508.4	509.3	512.1	514.7	516.3	514.7	512.1	509.3	508.4	509.3	512.1
31°	495.8	497.1	499.6	502.4	503.7	502.4	499.6	497.1	495.8	497.1	499.6
31.5°	484.1	485.0	487.6	490.2	491.9	490.2	487.6	485.0	484.1	485.0	487.6
32°	472.6	473.7	476.1	478.6	480.1	478.6	476.1	473.7	472.6	473.7	476.1
32.5°	462.0	463.0	465.3	467.0	467.8	467.0	465.3	463.0	462.0	463.0	465.3
33°	452.0	452.6	454.0	454.8	454.7	454.8	454.0	452.6	452.0	452.6	454.0
33.5°	441.8	441.7	441.8	441.8	441.6	441.8	441.8	441.7	441.8	441.7	441.8
34°	430.4	429.7	428.8	430.0	427.6	430.0	428.8	429.7	430.4	429.7	428.8
34.5°	417.3	417.1	416.9	416.0	413.9	416.0	416.9	417.1	417.3	417.1	416.9
35°	403.6	402.7	402.7	401.8	400.2	401.8	402.7	402.7	403.6	402.7	402.7
35.5°	389.6	388.4	388.4	386.9	385.9	386.9	388.4	388.4	389.6	388.4	388.4
36°	374.1	373.5	373.8	371.3	371.1	371.3	373.8	373.5	374.1	373.5	373.8
36.5°	358.1	358.0	358.0	355.7	355.2	355.7	358.0	358.0	358.1	358.0	358.0
37°	341.6	341.6	341.7	339.9	339.1	339.9	341.7	341.6	341.6	341.6	341.7
37.5°	325.1	324.7	326.1	323.9	323.4	323.9	326.1	324.7	325.1	324.7	326.1
38°	308.2	307.5	307.9	307.3	307.4	307.3	307.9	307.5	308.2	307.5	307.9
38.5°	290.6	290.0	289.8	290.7	291.1	290.7	289.8	290.0	290.6	290.0	289.8
39°	272.8	272.5	272.0	274.1	274.2	274.1	272.0	272.5	272.8	272.5	272.0
39.5°	254.7	254.7	254.7	257.4	258.0	257.4	254.7	254.7	254.7	254.7	254.7
40°	236.8	237.3	238.4	240.7	241.8	240.7	238.4	237.3	236.8	237.3	238.4
40.5°	219.2	219.8	222.2	224.0	225.9	224.0	222.2	219.8	219.2	219.8	222.2
41°	201.8	202.8	205.9	207.8	209.8	207.8	205.9	202.8	201.8	202.8	205.9
41.5°	184.4	186.0	189.7	191.8	194.1	191.8	189.7	186.0	184.4	186.0	189.7
42°	167.8	169.6	173.9	176.3	178.6	176.3	173.9	169.6	167.8	169.6	173.9
42.5°	151.7	153.7	158.5	161.7	163.8	161.7	158.5	153.7	151.7	153.7	158.5
43°	136.0	138.9	143.8	147.4	149.2	147.4	143.8	138.9	136.0	138.9	143.8
43.5°	121.3	124.7	129.5	133.5	135.0	133.5	129.5	124.7	121.3	124.7	129.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	83.3	85.1	89.4	94.7	96.6	94.7	89.4	85.1	83.3	85.1	89.4
45.5°	71.8	73.6	77.9	83.2	85.3	83.2	77.9	73.6	71.8	73.6	77.9
46°	60.7	62.9	67.4	72.7	76.1	72.7	67.4	62.9	60.7	62.9	67.4
46.5°	51.3	53.0	58.1	63.1	67.0	63.1	58.1	53.0	51.3	53.0	58.1
47°	43.0	44.9	49.4	53.9	57.8	53.9	49.4	44.9	43.0	44.9	49.4
47.5°	35.6	37.2	41.0	45.0	48.6	45.0	41.0	37.2	35.6	37.2	41.0
48°	29.5	30.5	33.7	36.9	39.4	36.9	33.7	30.5	29.5	30.5	33.7
48.5°	23.9	25.1	27.2	30.1	32.3	30.1	27.2	25.1	23.9	25.1	27.2
49°	18.7	19.9	22.2	24.0	25.9	24.0	22.2	19.9	18.7	19.9	22.2
49.5°	14.6	15.6	17.5	19.2	20.6	19.2	17.5	15.6	14.6	15.6	17.5
50°	11.3	11.9	13.3	14.8	15.9	14.8	13.3	11.9	11.3	11.9	13.3
50.5°	8.4	8.5	10.1	11.6	12.4	11.6	10.1	8.5	8.4	8.5	10.1
51°	5.9	6.3	7.6	9.2	10.4	9.2	7.6	6.3	5.9	6.3	7.6
51.5°	3.8	4.7	5.9	6.9	8.6	6.9	5.9	4.7	3.8	4.7	5.9
52°	3.3	3.5	4.4	5.3	6.7	5.3	4.4	3.5	3.3	3.5	4.4
52.5°	3.0	3.1	3.2	4.1	4.9	4.1	3.2	3.1	3.0	3.1	3.2
53°	2.8	2.9	2.9	3.1	3.1	3.1	2.9	2.9	2.8	2.9	2.9
53.5°	2.6	2.7	2.8	2.8	2.7	2.8	2.8	2.7	2.6	2.7	2.8
54°	2.5	2.5	2.6	2.6	2.5	2.6	2.6	2.5	2.5	2.5	2.6
54.5°	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3
55°	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2
55.5°	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1
56°	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0
56.5°	1.8	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.9
57°	1.7	1.7	1.8	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.8
57.5°	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.7
58°	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6
58.5°	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.5
59°	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.4
59.5°	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3
60°	1.2	1.2	1.3	1.3	1.2	1.3	1.3	1.2	1.2	1.2	1.3
60.5°	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.2
61°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
61.5°	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1
62°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
62.5°	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	1.0
63°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
63.5°	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.9
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: P775849

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

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: P775849
CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

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: P775849

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1972.0	1972.0	1972.0	1972.0	1972.0	1972.0
0.5°	1972.1	1970.2	1972.1	1971.7	1970.6	1970.2
1°	1969.9	1968.0	1969.9	1969.1	1968.1	1967.5
1.5°	1966.0	1964.0	1966.0	1965.1	1963.7	1963.1
2°	1960.5	1958.7	1960.5	1959.4	1957.6	1957.1
2.5°	1953.4	1951.7	1953.4	1952.1	1950.0	1948.9
3°	1944.8	1943.2	1944.8	1943.2	1940.7	1939.6
3.5°	1934.7	1933.5	1934.7	1932.7	1929.8	1928.5
4°	1923.1	1922.0	1923.1	1920.6	1917.2	1915.6
4.5°	1910.0	1908.9	1910.0	1907.0	1902.9	1901.4
5°	1895.4	1894.4	1895.4	1891.9	1887.4	1885.8
5.5°	1879.0	1878.5	1879.0	1874.9	1870.2	1868.5
6°	1861.3	1861.4	1861.3	1856.6	1851.4	1849.6
6.5°	1842.3	1842.6	1842.3	1837.1	1831.4	1829.9
7°	1821.8	1823.0	1821.8	1815.9	1810.1	1808.4
7.5°	1799.4	1801.1	1799.4	1793.2	1787.2	1785.8
8°	1776.2	1778.3	1776.2	1769.5	1763.1	1761.5
8.5°	1751.7	1754.1	1751.7	1744.1	1737.7	1736.3
9°	1726.0	1728.7	1726.0	1717.9	1711.1	1709.3
9.5°	1698.7	1701.9	1698.7	1690.1	1683.7	1681.8
10°	1671.1	1673.7	1671.1	1661.8	1655.2	1653.0
10.5°	1642.1	1644.6	1642.1	1632.3	1625.4	1623.3
11°	1612.1	1614.3	1612.1	1601.9	1594.9	1591.5
11.5°	1580.5	1583.2	1580.5	1570.6	1563.7	1560.9
12°	1548.9	1551.3	1548.9	1538.9	1531.7	1528.4
12.5°	1515.9	1518.1	1515.9	1506.4	1499.2	1495.8
13°	1483.4	1485.1	1483.4	1473.9	1466.1	1462.3
13.5°	1449.1	1451.5	1449.1	1440.8	1432.7	1428.8
14°	1414.4	1417.1	1414.4	1406.9	1398.7	1394.5
14.5°	1379.6	1381.8	1379.6	1372.4	1364.1	1359.9
15°	1344.9	1346.5	1344.9	1337.7	1329.5	1325.1
15.5°	1309.6	1312.1	1309.6	1302.7	1294.5	1290.2
16°	1274.5	1277.3	1274.5	1267.5	1259.3	1255.6
16.5°	1239.5	1242.6	1239.5	1232.8	1224.6	1221.4
17°	1205.1	1207.4	1205.1	1197.2	1189.7	1186.2
17.5°	1170.1	1172.9	1170.1	1162.1	1154.6	1151.1
18°	1135.1	1137.9	1135.1	1127.3	1119.3	1116.7
18.5°	1099.6	1102.6	1099.6	1092.0	1084.9	1082.2
19°	1063.7	1067.1	1063.7	1057.3	1050.2	1047.7
19.5°	1027.1	1029.8	1027.1	1021.7	1015.9	1013.1
20°	990.1	990.2	990.1	984.9	980.3	978.0
20.5°	953.7	953.0	953.7	948.8	943.8	942.4
21°	917.9	917.8	917.9	913.1	908.5	906.0



TEST NUMBER: P775849

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	820.0	823.4	820.0	812.2	807.9	804.9
23°	789.8	793.6	789.8	783.2	778.1	775.8
23.5°	762.1	765.8	762.1	756.6	752.6	747.0
24°	738.1	743.0	738.1	732.2	726.6	724.4
24.5°	715.1	720.9	715.1	709.2	703.6	701.1
25°	693.0	698.5	693.0	688.0	682.8	680.1
25.5°	671.8	676.6	671.8	667.5	663.2	662.1
26°	652.2	655.0	652.2	648.1	645.3	644.3
26.5°	634.2	636.1	634.2	630.7	627.4	625.8
27°	618.0	619.9	618.0	614.2	609.9	608.0
27.5°	601.7	604.3	601.7	597.7	593.5	591.7
28°	585.3	587.4	585.3	581.6	578.2	576.7
28.5°	569.6	572.0	569.6	566.5	563.7	562.4
29°	555.3	556.8	555.3	552.4	549.6	548.5
29.5°	541.4	542.8	541.4	538.6	535.8	534.7
30°	527.7	529.3	527.7	525.1	522.4	521.3
30.5°	514.7	516.3	514.7	512.1	509.3	508.4
31°	502.4	503.7	502.4	499.6	497.1	495.8
31.5°	490.2	491.9	490.2	487.6	485.0	484.1
32°	478.6	480.1	478.6	476.1	473.7	472.6
32.5°	467.0	467.8	467.0	465.3	463.0	462.0
33°	454.8	454.7	454.8	454.0	452.6	452.0
33.5°	441.8	441.6	441.8	441.8	441.7	441.8
34°	430.0	427.6	430.0	428.8	429.7	430.4
34.5°	416.0	413.9	416.0	416.9	417.1	417.3
35°	401.8	400.2	401.8	402.7	402.7	403.6
35.5°	386.9	385.9	386.9	388.4	388.4	389.6
36°	371.3	371.1	371.3	373.8	373.5	374.1
36.5°	355.7	355.2	355.7	358.0	358.0	358.1
37°	339.9	339.1	339.9	341.7	341.6	341.6
37.5°	323.9	323.4	323.9	326.1	324.7	325.1
38°	307.3	307.4	307.3	307.9	307.5	308.2
38.5°	290.7	291.1	290.7	289.8	290.0	290.6
39°	274.1	274.2	274.1	272.0	272.5	272.8
39.5°	257.4	258.0	257.4	254.7	254.7	254.7
40°	240.7	241.8	240.7	238.4	237.3	236.8
40.5°	224.0	225.9	224.0	222.2	219.8	219.2
41°	207.8	209.8	207.8	205.9	202.8	201.8
41.5°	191.8	194.1	191.8	189.7	186.0	184.4
42°	176.3	178.6	176.3	173.9	169.6	167.8
42.5°	161.7	163.8	161.7	158.5	153.7	151.7
43°	147.4	149.2	147.4	143.8	138.9	136.0
43.5°	133.5	135.0	133.5	129.5	124.7	121.3



TEST NUMBER: P775849

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	94.7	96.6	94.7	89.4	85.1	83.3
45.5°	83.2	85.3	83.2	77.9	73.6	71.8
46°	72.7	76.1	72.7	67.4	62.9	60.7
46.5°	63.1	67.0	63.1	58.1	53.0	51.3
47°	53.9	57.8	53.9	49.4	44.9	43.0
47.5°	45.0	48.6	45.0	41.0	37.2	35.6
48°	36.9	39.4	36.9	33.7	30.5	29.5
48.5°	30.1	32.3	30.1	27.2	25.1	23.9
49°	24.0	25.9	24.0	22.2	19.9	18.7
49.5°	19.2	20.6	19.2	17.5	15.6	14.6
50°	14.8	15.9	14.8	13.3	11.9	11.3
50.5°	11.6	12.4	11.6	10.1	8.5	8.4
51°	9.2	10.4	9.2	7.6	6.3	5.9
51.5°	6.9	8.6	6.9	5.9	4.7	3.8
52°	5.3	6.7	5.3	4.4	3.5	3.3
52.5°	4.1	4.9	4.1	3.2	3.1	3.0
53°	3.1	3.1	3.1	2.9	2.9	2.8
53.5°	2.8	2.7	2.8	2.8	2.7	2.6
54°	2.6	2.5	2.6	2.6	2.5	2.5
54.5°	2.3	2.3	2.3	2.3	2.3	2.2
55°	2.2	2.2	2.2	2.2	2.2	2.1
55.5°	2.1	2.1	2.1	2.1	2.0	2.0
56°	2.0	2.0	2.0	2.0	1.9	1.9
56.5°	1.9	1.8	1.9	1.9	1.8	1.8
57°	1.8	1.7	1.8	1.8	1.7	1.7
57.5°	1.7	1.7	1.7	1.7	1.6	1.6
58°	1.6	1.6	1.6	1.6	1.5	1.5
58.5°	1.5	1.5	1.5	1.5	1.4	1.4
59°	1.4	1.4	1.4	1.4	1.4	1.3
59.5°	1.3	1.3	1.3	1.3	1.3	1.2
60°	1.3	1.2	1.3	1.3	1.2	1.2
60.5°	1.2	1.2	1.2	1.2	1.1	1.1
61°	1.1	1.1	1.1	1.1	1.1	1.1
61.5°	1.1	1.1	1.1	1.1	1.0	1.0
62°	1.0	1.0	1.0	1.0	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	0.9	0.9
63°	0.9	0.9	0.9	0.9	0.9	0.9
63.5°	0.9	0.9	0.9	0.9	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: P775849

CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

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: P775849
CATALOG NUMBER: HCDJBL510CSD-HCD82TRH-1000lm-5000K

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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21.5°	868.4	873.6	878.8	883.7	885.0	883.7	878.8	873.6	868.4	873.6	878.8
22°	835.6	839.0	845.1	850.1	852.7	850.1	845.1	839.0	835.6	839.0	845.1



44°	108.0	111.0	115.8	119.8	121.4	119.8	115.8	111.0	108.0	111.0	115.8
44.5°	95.4	97.8	102.2	106.6	108.5	106.6	102.2	97.8	95.4	97.8	102.2



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°	883.7	885.0	883.7	878.8	873.6	868.4
22°	850.1	852.7	850.1	845.1	839.0	835.6

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44°	119.8	121.4	119.8	115.8	111.0	108.0
44.5°	106.6	108.5	106.6	102.2	97.8	95.4

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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)