

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P232573

Luminaire Tested: **4SKB1-LD5-7-W-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232573  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-317-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SKB1-LD5-7-W-UNV-L835-CD1-U  
Description: METALUX SKYBAR 4' WAVESTREAM STRIP  
WITH WIDE LENS  
Light Source: (238) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6501.0 lumens  
Efficiency: N/A  
Efficacy: 123.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.48 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.29')  
CIE Type: Semi-Direct

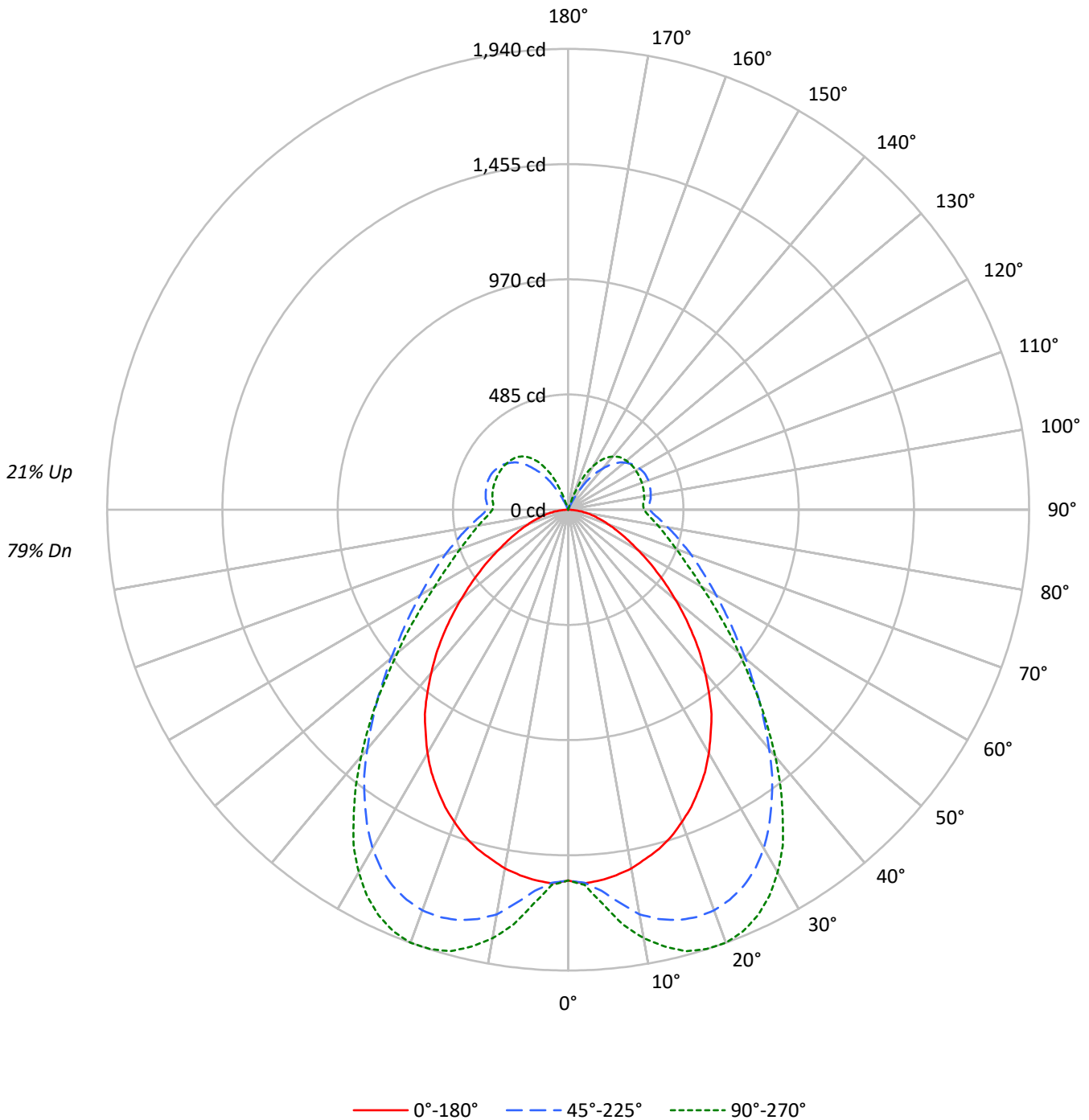
Input Watts (W): 52.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	0
RCR																		
0	114	114	114	114	109	109	109	109	99	99	99	91	91	91	83	83	83	79
1	103	97	93	88	98	93	89	85	85	82	78	77	75	72	70	68	67	63
2	93	85	78	72	89	81	75	69	74	69	64	68	63	60	62	58	55	52
3	85	74	66	60	81	71	64	58	65	59	54	60	55	51	55	51	47	44
4	78	66	57	51	74	63	55	49	58	51	46	53	48	43	49	44	41	38
5	72	59	50	44	68	57	49	42	52	45	40	48	42	38	44	39	36	33
6	66	53	44	38	63	51	43	37	47	40	35	44	38	33	40	35	31	29
7	61	48	40	34	58	46	38	33	43	36	31	40	34	30	37	32	28	26
8	57	44	36	30	54	42	35	29	39	33	28	36	31	26	34	29	25	23
9	53	40	32	27	51	39	31	26	36	30	25	34	28	24	31	26	23	21
10	50	37	29	24	48	36	29	24	33	27	23	31	26	22	29	24	21	19

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

	0°	45°	90°
0°	16807	16807	16807
5°	16814	16157	16326
10°	16546	16375	16604
15°	16157	16141	16336
20°	15618	15589	15599
25°	14938	14732	14505
30°	14118	13588	13089
35°	13150	12158	11380
40°	11860	10651	9626
45°	10519	9222	7981
50°	9075	7979	6576
55°	7708	6935	5469
60°	6470	6147	4617
65°	5478	5532	4032
70°	4706	5077	3617
75°	4005	4688	3319
80°	3280	4407	3119
85°	2203	4233	2972



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.6	2.4
10°-20°	495.6	7.6
20°-30°	776.6	11.9
30°-40°	889.3	13.7
40°-50°	819.1	12.6
50°-60°	672.2	10.3
60°-70°	537.4	8.3
70°-80°	431.7	6.6
80°-90°	343.4	5.3
90°-100°	306.9	4.7
100°-110°	298.9	4.6
110°-120°	270.9	4.2
120°-130°	223.9	3.4
130°-140°	160.6	2.5
140°-150°	89.2	1.4
150°-160°	26.9	0.4
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	1429.8	22.0
0°-40°	2319.1	35.7
0°-60°	3810.4	58.6
0°-90°	5123.0	78.8
90°-120°	876.8	13.5
90°-150°	1350.5	20.8
90°-180°	1378.0	21.2
0°-180°	6501.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1561	1561	1561	1561	1561	
5°	1566	1582	1610	1665	1665	148
15°	1478	1628	1789	1901	1924	416
25°	1300	1548	1747	1871	1886	598
35°	1052	1308	1493	1581	1574	653
45°	741	987	1137	1167	1136	572
55°	454	710	832	811	777	409
65°	249	521	626	582	554	250
75°	122	396	482	445	427	131
85°	33	300	378	354	345	36
90°	2	266	342	326	319	3
95°	1	265	344	326	317	1
105°	1	259	357	339	328	1
115°	1	234	356	346	330	1
125°	1	182	332	343	326	1
135°	1	66	276	321	311	1
145°	1	3	169	259	262	1
155°	1	1	26	121	152	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4
2.5°	1574.5	1567.9	1563.3	1567.9	1569.8	1571.7	1576.4	1575.4	1576.4	1574.5	1571.7
5°	1566.1	1560.5	1558.6	1567.9	1577.3	1582.0	1588.5	1595.1	1600.7	1608.1	1610.0
7.5°	1552.0	1549.2	1551.1	1567.9	1582.9	1594.1	1603.5	1620.3	1637.1	1654.0	1669.8
10°	1533.3	1531.5	1539.9	1565.1	1589.4	1605.3	1621.2	1652.1	1681.1	1707.2	1729.7
12.5°	1505.3	1510.0	1524.0	1557.7	1596.0	1618.4	1643.7	1682.0	1712.9	1742.8	1765.2
15°	1478.2	1481.0	1508.1	1548.3	1593.2	1627.8	1654.0	1702.6	1734.4	1765.2	1788.6
17.5°	1442.7	1449.2	1479.1	1536.1	1591.3	1622.2	1654.0	1692.3	1730.6	1766.1	1797.9
20°	1399.6	1413.7	1453.9	1516.5	1579.2	1610.0	1638.1	1684.8	1724.1	1758.7	1795.1
22.5°	1353.8	1369.7	1414.6	1489.4	1553.9	1584.8	1611.9	1663.3	1703.5	1738.1	1777.4
25°	1300.5	1321.1	1374.4	1454.8	1516.5	1548.3	1577.3	1629.6	1671.7	1706.3	1747.4
27.5°	1246.3	1269.7	1327.7	1409.0	1472.6	1502.5	1532.4	1584.8	1626.8	1661.4	1704.4
30°	1183.7	1208.9	1274.4	1352.9	1415.5	1448.3	1475.4	1526.8	1572.6	1603.5	1646.5
32.5°	1116.3	1145.3	1215.5	1291.2	1353.8	1384.7	1411.8	1461.4	1502.5	1535.2	1574.5
35°	1051.8	1075.2	1146.3	1220.1	1280.0	1308.0	1339.8	1387.5	1424.0	1457.6	1493.1
37.5°	974.2	1002.3	1074.3	1144.4	1204.2	1234.2	1260.3	1304.3	1337.9	1369.7	1409.9
40°	895.7	926.6	1001.3	1064.0	1125.7	1149.1	1175.3	1215.5	1247.2	1286.5	1315.5
42.5°	821.8	850.8	921.9	985.5	1043.4	1066.8	1092.0	1134.1	1161.2	1194.9	1223.9
45°	741.4	771.3	847.1	906.9	962.1	987.3	1013.5	1048.1	1078.9	1106.1	1136.9
47.5°	664.8	700.3	773.2	829.3	885.4	908.8	931.2	967.7	998.5	1027.5	1049.0
50°	589.0	627.4	698.4	759.2	812.5	835.9	858.3	894.8	926.6	951.8	974.2
52.5°	519.8	560.0	633.0	696.5	744.2	768.5	791.0	826.5	858.3	881.7	896.6
55°	453.5	498.3	574.1	635.8	683.5	709.6	727.4	764.8	796.6	818.1	832.1
57.5°	395.5	445.0	517.0	580.6	630.2	653.5	675.0	710.6	740.5	761.1	772.3
60°	338.5	393.6	468.4	530.1	580.6	603.1	626.4	662.0	690.0	708.7	719.0
62.5°	290.8	348.7	426.3	486.2	537.6	560.0	580.6	616.1	643.3	662.0	670.4
65°	248.7	309.5	388.0	447.8	497.4	520.8	542.3	578.7	604.0	621.8	625.5
67.5°	212.2	273.9	353.4	412.3	463.7	485.2	506.8	543.2	567.5	582.5	585.3
70°	179.5	242.2	321.6	380.5	431.0	454.4	475.9	508.6	533.9	546.0	549.8
72.5°	149.6	215.0	291.7	352.5	403.0	424.5	445.0	479.6	503.0	514.2	513.3
75°	122.5	189.8	266.5	326.3	374.0	396.4	417.0	450.7	474.0	483.4	481.5
77.5°	99.1	168.3	242.2	300.1	348.7	371.2	389.9	423.5	445.0	455.3	453.5
80°	74.8	144.9	218.8	275.8	324.4	345.0	365.6	397.4	418.9	429.1	424.5
82.5°	54.2	123.4	197.3	253.4	301.1	322.6	341.3	374.0	394.6	403.0	400.2
85°	32.7	101.9	173.9	231.9	279.6	300.1	320.7	351.5	372.1	380.5	377.7
87.5°	14.0	82.3	154.3	212.2	259.9	280.5	300.1	331.0	350.6	359.0	356.2
90°	1.9	69.2	142.1	199.1	245.9	266.5	286.1	317.0	336.6	345.0	342.2
92.5°	0.9	66.4	138.4	195.4	242.2	263.7	282.4	314.1	334.7	342.2	341.3
95°	0.9	61.7	136.5	195.4	243.1	264.6	284.2	316.0	336.6	345.0	344.1
97.5°	0.9	55.2	133.7	194.5	244.0	266.5	286.1	319.8	341.3	350.6	349.7
100°	0.9	44.9	128.1	191.7	242.2	265.5	285.2	319.8	342.2	352.5	352.5
102.5°	0.9	30.9	121.5	187.0	240.3	262.7	283.3	318.8	342.2	353.4	355.3
105°	0.9	18.7	113.1	181.4	235.6	259.0	280.5	317.0	341.3	354.4	357.2
107.5°	0.9	12.2	102.8	174.8	230.9	255.2	276.7	314.1	339.4	354.4	358.1
110°	0.9	10.3	89.8	167.4	224.4	248.7	271.1	310.4	336.6	353.4	359.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	8.4	69.2	157.1	216.9	242.2	265.5	303.9	332.8	349.7	358.1
115°	0.9	6.5	44.9	144.9	207.6	233.7	257.1	297.3	326.3	345.9	356.2
117.5°	0.9	5.6	29.0	130.9	197.3	223.5	247.8	288.9	319.8	340.3	352.5
120°	0.9	4.7	12.2	112.2	184.2	212.2	236.5	277.7	310.4	332.8	346.9
122.5°	0.9	3.7	9.3	84.1	169.2	198.2	223.5	266.5	299.2	324.4	339.4
125°	0.9	3.7	7.5	54.2	150.5	182.3	209.4	253.4	288.0	314.1	331.9
127.5°	0.9	2.8	6.5	36.5	128.1	163.6	192.6	238.4	273.9	301.1	320.7
130°	0.9	2.8	5.6	15.9	95.4	140.2	172.0	220.7	258.1	287.0	308.5
132.5°	0.9	1.9	4.7	6.5	58.9	108.5	145.9	198.2	239.4	270.2	294.5
135°	0.9	1.9	3.7	5.6	39.3	66.4	114.1	173.0	215.0	247.8	275.8
137.5°	0.9	1.9	2.8	4.7	15.9	43.9	70.1	144.9	188.9	223.5	252.4
140°	0.9	1.9	2.8	3.7	4.7	20.6	47.7	110.3	159.9	197.3	225.3
142.5°	0.9	1.9	2.8	2.8	3.7	4.7	23.4	64.5	128.1	168.3	199.1
145°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	43.9	83.2	136.5	169.2
147.5°	0.9	0.9	1.9	1.9	2.8	2.8	2.8	17.8	51.4	96.3	136.5
150°	0.9	0.9	1.9	1.9	1.9	1.9	1.9	1.9	26.2	52.4	92.6
152.5°	0.9	0.9	0.9	1.9	1.9	1.9	1.9	1.9	2.8	29.9	51.4
155°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8	26.2
157.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
160°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4	1561.4
2.5°	1576.4	1584.8	1588.5	1592.2	1593.2	1594.1	1592.2	1591.3	1584.8	1581.0
5°	1623.1	1643.7	1652.1	1664.2	1665.2	1666.1	1671.7	1668.9	1669.8	1665.2
7.5°	1691.4	1721.3	1734.4	1750.3	1754.0	1758.7	1768.0	1769.0	1768.0	1761.5
10°	1754.9	1780.2	1799.8	1814.8	1820.4	1824.1	1835.3	1838.1	1836.3	1831.6
12.5°	1793.3	1826.0	1845.6	1867.1	1872.7	1878.3	1887.7	1892.4	1886.8	1884.0
15°	1826.0	1860.6	1876.5	1899.8	1900.8	1911.1	1927.0	1928.8	1926.0	1924.2
17.5°	1834.4	1869.9	1893.3	1913.9	1921.4	1927.9	1937.2	1944.7	1945.7	1938.2
20°	1832.5	1866.2	1894.2	1915.7	1924.2	1928.8	1941.0	1946.6	1943.8	1940.1
22.5°	1817.6	1851.2	1879.3	1898.0	1905.5	1912.9	1924.2	1928.8	1928.8	1921.4
25°	1786.7	1820.4	1844.7	1864.3	1870.9	1878.3	1889.6	1892.4	1890.5	1885.8
27.5°	1742.8	1772.7	1797.0	1813.8	1820.4	1826.9	1839.1	1841.9	1838.1	1833.5
30°	1678.3	1709.1	1733.4	1748.4	1754.0	1758.7	1766.1	1772.7	1767.1	1762.4
32.5°	1608.1	1636.2	1653.0	1667.0	1670.8	1674.5	1682.0	1684.8	1679.2	1680.1
35°	1525.9	1550.2	1569.8	1579.2	1581.0	1580.1	1583.8	1584.8	1585.7	1573.5
37.5°	1436.1	1457.6	1467.0	1480.0	1477.2	1481.9	1485.7	1481.9	1472.6	1467.9
40°	1339.8	1353.8	1369.7	1374.4	1371.6	1378.1	1376.3	1369.7	1359.4	1355.7
42.5°	1244.4	1260.3	1265.9	1269.7	1266.9	1267.8	1264.1	1262.2	1251.9	1243.5
45°	1153.7	1165.0	1167.8	1166.8	1166.8	1162.2	1157.5	1150.0	1140.7	1136.0
47.5°	1064.9	1072.4	1073.3	1068.7	1064.9	1059.3	1060.3	1047.2	1035.9	1030.3
50°	982.6	985.5	982.6	974.2	972.4	965.8	962.1	951.8	941.5	938.7
52.5°	908.8	907.9	902.2	892.9	889.2	882.6	876.1	866.7	856.4	856.4
55°	836.8	834.0	826.5	816.2	810.6	807.8	799.4	789.1	781.6	777.0
57.5°	774.2	768.5	759.2	749.8	742.4	734.9	729.3	721.8	712.4	710.6
60°	718.1	706.8	698.4	688.1	682.5	676.0	668.5	662.9	655.4	647.9
62.5°	665.7	656.3	645.1	634.8	629.2	623.6	616.1	607.7	603.1	601.2
65°	619.9	610.5	597.4	587.2	582.5	576.9	571.3	561.9	559.1	554.4
67.5°	578.7	566.6	554.4	545.1	540.4	538.5	532.9	527.3	520.8	517.0
70°	540.4	528.3	517.0	510.5	504.9	503.0	498.3	490.9	486.2	483.4
72.5°	503.9	493.7	484.3	475.0	471.2	470.3	466.5	460.9	456.3	453.5
75°	473.1	462.8	453.5	448.8	445.0	442.2	440.4	434.8	432.0	427.3
77.5°	446.0	433.8	425.4	420.7	417.9	416.1	414.2	411.4	407.6	404.8
80°	417.0	407.6	401.1	396.4	394.6	392.7	390.8	388.9	386.1	383.3
82.5°	392.7	384.3	378.7	374.9	374.9	373.1	372.1	370.2	367.4	363.7
85°	369.3	361.8	357.2	355.3	354.4	353.4	352.5	350.6	347.8	345.0
87.5°	349.7	344.1	339.4	338.5	338.5	337.5	336.6	335.7	332.8	330.0
90°	336.6	331.0	328.2	327.2	326.3	326.3	326.3	324.4	321.6	318.8
92.5°	334.7	329.1	326.3	324.4	324.4	324.4	324.4	322.6	319.8	316.0
95°	337.5	331.9	329.1	327.2	326.3	326.3	325.4	323.5	320.7	317.0
97.5°	344.1	338.5	334.7	331.9	331.0	331.0	330.0	328.2	325.4	322.6
100°	347.8	342.2	338.5	335.7	334.7	333.8	332.8	331.0	328.2	324.4
102.5°	350.6	345.0	340.3	338.5	337.5	336.6	334.7	332.8	330.0	326.3
105°	352.5	347.8	344.1	340.3	339.4	338.5	336.6	334.7	331.0	328.2
107.5°	355.3	350.6	345.9	343.1	341.3	340.3	338.5	336.6	332.8	329.1
110°	356.2	352.5	347.8	345.0	343.1	342.2	339.4	336.6	332.8	330.0





TEST NUMBER: P232573

CATALOG NUMBER: 4SKB1-LD5-7-W-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	357.2	354.4	349.7	345.9	345.0	343.1	340.3	337.5	333.8	330.0
115°	357.2	354.4	350.6	346.9	345.9	344.1	341.3	337.5	333.8	330.0
117.5°	356.2	354.4	351.5	347.8	345.9	344.1	341.3	337.5	332.8	330.0
120°	353.4	353.4	350.6	347.8	345.9	344.1	340.3	336.6	332.8	329.1
122.5°	348.7	350.6	348.7	345.9	345.0	343.1	340.3	335.7	331.0	328.2
125°	342.2	346.9	345.9	344.1	343.1	341.3	338.5	334.7	330.0	326.3
127.5°	333.8	340.3	342.2	341.3	340.3	339.4	335.7	331.9	328.2	323.5
130°	323.5	331.9	335.7	335.7	335.7	334.7	332.8	329.1	324.4	320.7
132.5°	310.4	320.7	326.3	329.1	329.1	329.1	327.2	324.4	320.7	316.0
135°	295.4	308.5	316.0	319.8	320.7	320.7	320.7	318.8	315.1	311.3
137.5°	277.7	292.6	302.9	308.5	310.4	311.3	312.3	310.4	306.7	302.9
140°	251.5	273.0	286.1	293.6	295.4	298.3	300.1	298.3	295.4	292.6
142.5°	225.3	247.8	266.5	276.7	278.6	281.4	284.2	284.2	281.4	278.6
145°	197.3	219.7	239.4	256.2	259.0	261.8	265.5	267.4	264.6	261.8
147.5°	164.6	187.9	208.5	227.2	235.6	239.4	243.1	245.0	244.0	241.2
150°	130.0	155.2	174.8	193.5	202.0	213.2	217.8	218.8	217.8	215.0
152.5°	78.5	115.0	137.4	156.1	163.6	173.9	187.0	189.8	187.9	186.1
155°	43.9	59.8	84.1	112.2	120.6	130.0	145.9	152.4	151.5	151.5
157.5°	13.1	32.7	44.9	55.2	58.9	64.5	83.2	99.1	103.8	104.7
160°	0.9	0.9	11.2	22.4	28.0	33.7	43.0	48.6	49.6	50.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)