

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: P232585

Luminaire Tested: **4SKB1-LD5-5-N-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232585
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-317-6)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SKB1-LD5-5-N-UNV-L835-CD1-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS
Light Source: (196) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5038.0 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.53 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.29')
CIE Type: Direct

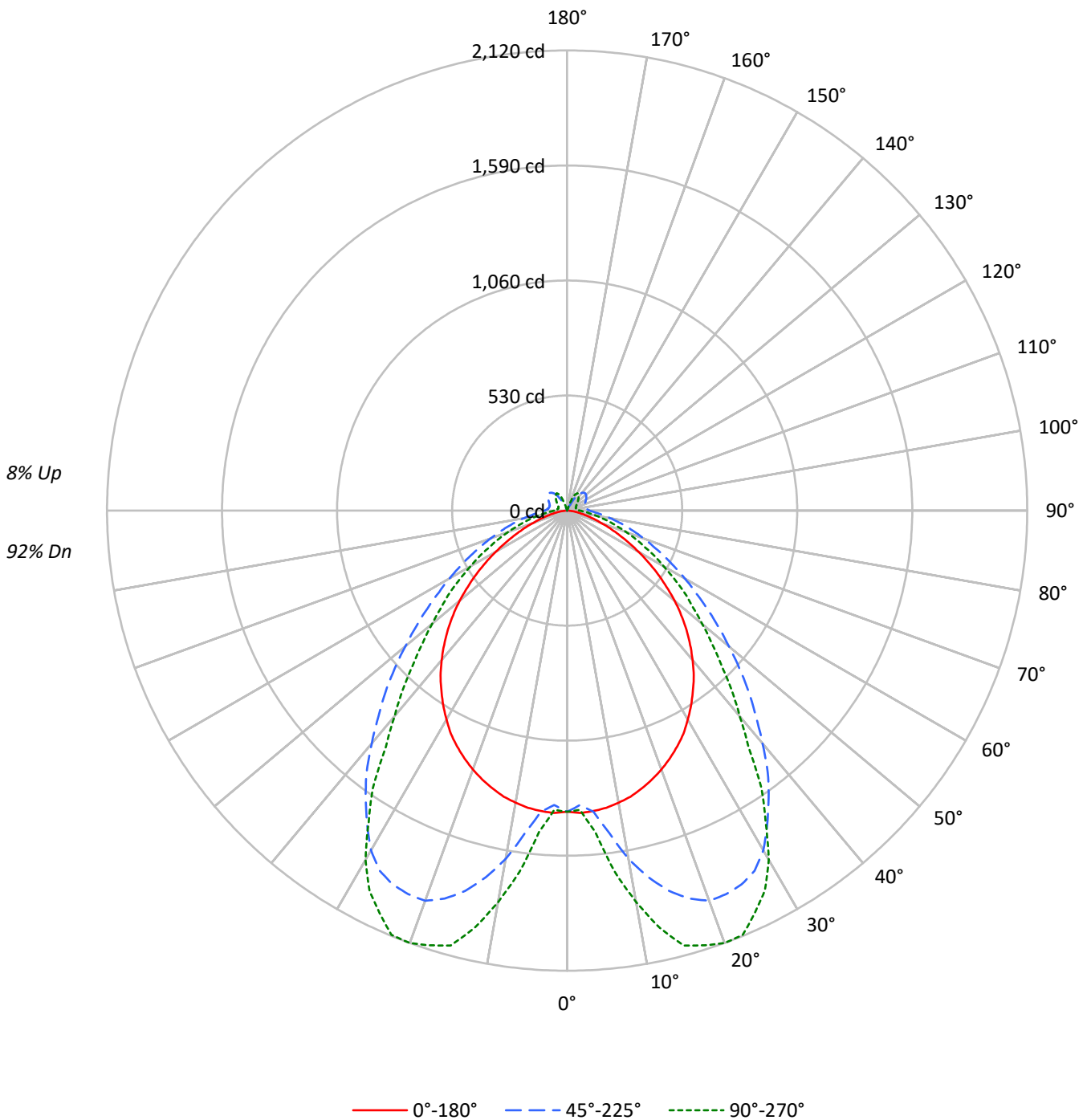
Input Watts (W): 38
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	113	113	113	113	107	107	107	100	100	100	95	95	95	92
1	107	103	98	95	104	99	96	92	94	91	88	88	86	84	84	82	80	77
2	98	90	84	78	95	88	82	77	83	78	74	78	74	71	74	71	68	65
3	90	80	72	66	87	78	70	65	74	68	63	70	65	61	66	62	58	56
4	83	71	63	56	80	69	62	56	66	59	54	63	57	52	60	55	51	48
5	76	64	55	49	74	62	54	48	59	52	47	56	51	46	54	49	45	42
6	70	58	49	43	68	56	48	42	54	47	41	51	45	40	49	44	40	37
7	65	52	44	38	63	51	43	38	49	42	37	47	41	36	45	39	35	33
8	61	48	40	34	59	47	39	34	45	38	33	43	37	32	41	36	32	30
9	57	44	36	31	55	43	36	30	41	35	30	40	34	29	38	33	29	27
10	53	41	33	28	52	40	33	28	38	32	27	37	31	27	35	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14936	14936	14936
5°	14919	13972	14571
10°	14746	15429	16601
15°	14489	16372	17609
20°	14169	16612	17044
25°	13773	16024	15729
30°	13254	14916	13797
35°	12635	13177	11295
40°	11904	11345	8784
45°	11025	9611	7047
50°	9960	7970	5688
55°	8687	6550	4656
60°	7244	5358	3671
65°	5755	4339	2846
70°	4352	3463	2169
75°	3158	2730	1570
80°	2118	2098	1113
85°	1145	1579	762



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.1	2.8
10°-20°	494.3	9.8
20°-30°	813.8	16.2
30°-40°	914.2	18.1
40°-50°	813.6	16.1
50°-60°	629.2	12.5
60°-70°	427.3	8.5
70°-80°	255.0	5.1
80°-90°	136.8	2.7
90°-100°	90.0	1.8
100°-110°	76.3	1.5
110°-120°	70.6	1.4
120°-130°	65.8	1.3
130°-140°	55.8	1.1
140°-150°	38.1	0.8
150°-160°	14.7	0.3
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-30°	1450.1	28.8
0°-40°	2364.4	46.9
0°-60°	3807.1	75.6
0°-90°	4626.2	91.8
90°-120°	237.0	4.7
90°-150°	396.7	7.9
90°-180°	412.0	8.2
0°-180°	5038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1390	1371	1392	1466	1486	132
15°	1326	1489	1814	2041	2074	374
25°	1199	1540	1901	2050	2045	552
35°	1011	1387	1618	1603	1562	631
45°	777	1072	1185	1083	1003	598
55°	511	730	786	713	662	456
65°	261	454	491	442	391	263
75°	97	274	280	242	202	106
85°	17	172	141	110	88	21
90°	1	146	103	75	58	2
95°	1	142	90	63	48	0
105°	1	129	83	54	42	0
115°	1	118	92	58	46	1
125°	1	97	108	72	56	1
135°	1	37	115	92	72	1
145°	1	3	89	104	90	0
155°	1	2	20	69	76	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°	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6
2.5°	1394.4	1388.9	1379.4	1378.7	1372.6	1369.9	1370.6	1368.5	1366.5	1363.1	1357.6
5°	1389.6	1379.4	1363.7	1363.7	1367.1	1370.6	1378.7	1386.2	1388.2	1393.0	1392.3
7.5°	1380.8	1365.1	1350.1	1362.4	1374.6	1379.4	1388.9	1402.5	1423.6	1462.4	1500.5
10°	1366.5	1345.4	1340.6	1360.3	1376.7	1391.0	1412.7	1476.0	1534.6	1592.4	1629.8
12.5°	1350.1	1324.3	1331.1	1356.3	1394.4	1421.6	1477.4	1561.1	1607.4	1674.7	1729.9
15°	1325.6	1301.1	1313.4	1350.8	1430.4	1489.0	1520.3	1622.3	1696.5	1752.3	1814.2
17.5°	1299.1	1277.3	1294.3	1360.3	1468.5	1525.0	1575.4	1661.8	1733.3	1815.6	1874.1
20°	1269.8	1250.8	1272.6	1372.6	1486.9	1544.8	1600.6	1682.9	1777.5	1862.6	1912.9
22.5°	1235.8	1218.8	1252.1	1378.0	1493.7	1551.6	1606.0	1702.0	1800.0	1870.0	1912.9
25°	1199.1	1182.0	1227.6	1367.1	1486.9	1540.0	1598.5	1712.2	1792.5	1847.6	1900.7
27.5°	1159.6	1140.5	1209.3	1344.7	1459.7	1519.6	1585.6	1692.4	1755.7	1817.0	1870.7
30°	1111.3	1094.3	1177.3	1312.0	1421.6	1492.4	1548.8	1644.8	1705.4	1765.9	1807.4
32.5°	1063.0	1046.6	1138.5	1265.8	1378.0	1444.7	1499.2	1574.0	1642.8	1689.7	1715.6
35°	1010.6	992.2	1093.6	1209.3	1329.0	1386.9	1432.5	1500.5	1558.4	1593.1	1618.3
37.5°	958.2	938.4	1036.4	1150.1	1264.4	1317.5	1355.6	1424.3	1468.5	1497.1	1518.2
40°	899.0	878.5	977.2	1083.4	1197.0	1234.4	1273.9	1335.2	1367.8	1391.0	1401.2
42.5°	839.1	818.7	913.2	1013.3	1114.7	1151.4	1192.3	1240.6	1272.6	1286.2	1286.2
45°	777.1	757.4	847.2	943.9	1029.6	1071.8	1107.9	1146.7	1173.2	1184.1	1184.8
47.5°	712.5	696.2	781.9	869.7	950.0	986.7	1014.6	1052.1	1075.2	1077.9	1077.3
50°	646.5	632.2	709.1	795.5	867.0	899.6	924.1	958.8	977.2	976.5	973.1
52.5°	577.1	568.2	639.7	718.6	783.3	812.5	834.3	864.9	879.9	879.9	877.2
55°	511.1	505.6	567.5	643.8	704.3	730.2	750.6	777.8	790.1	790.1	786.0
57.5°	444.4	443.7	501.5	569.6	627.4	650.6	672.3	696.2	707.1	707.1	700.2
60°	379.0	382.4	439.6	502.2	555.3	577.8	596.8	619.9	626.8	628.1	626.8
62.5°	318.5	327.3	381.8	438.9	492.0	511.1	528.1	550.5	556.0	558.0	554.6
65°	261.3	274.9	330.0	384.5	434.2	453.9	468.9	484.5	489.3	491.3	490.6
67.5°	214.4	228.7	283.8	337.5	383.1	398.8	413.8	427.4	428.0	431.4	428.7
70°	166.0	187.8	242.9	294.0	336.9	351.1	363.4	372.9	375.0	375.6	375.0
72.5°	127.9	153.8	206.2	256.6	295.3	309.0	318.5	326.0	326.0	326.6	324.6
75°	96.6	127.9	179.0	225.2	260.0	273.6	281.1	285.8	283.1	282.4	280.4
77.5°	70.1	106.2	154.5	198.0	230.7	240.9	247.7	248.4	244.3	243.6	239.5
80°	48.3	86.4	133.4	174.2	204.2	214.4	217.8	215.0	211.6	207.6	202.1
82.5°	32.0	70.1	115.7	154.5	182.4	190.5	193.3	189.2	184.4	177.6	168.8
85°	17.0	56.5	100.7	138.1	164.7	172.2	173.5	166.0	158.6	149.7	140.9
87.5°	7.5	46.3	89.8	127.3	150.4	155.8	156.5	148.4	138.8	128.6	117.7
90°	1.4	39.5	83.0	119.1	141.5	146.3	146.3	135.4	125.9	115.0	102.8
92.5°	0.7	37.4	81.0	116.4	138.8	143.6	142.9	131.3	119.8	107.5	95.3
95°	0.7	32.7	76.2	113.6	136.8	141.5	140.9	128.6	116.4	103.4	89.8
97.5°	0.7	27.2	71.5	108.9	133.4	138.1	138.1	126.6	114.3	100.7	86.4
100°	0.0	21.1	66.0	104.1	128.6	134.7	135.4	124.5	111.6	98.0	84.4
102.5°	0.0	14.3	61.2	100.0	125.2	131.3	132.7	123.9	110.2	96.6	83.0
105°	0.7	8.8	55.1	95.3	121.8	128.6	130.7	123.2	109.6	96.6	83.0
107.5°	0.7	6.1	49.0	90.5	119.1	126.6	129.3	123.2	110.2	97.3	84.4
110°	0.7	5.4	41.5	85.7	115.7	123.9	127.9	123.9	111.6	99.4	86.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	4.1	31.3	79.6	111.6	121.1	126.6	124.5	113.6	101.4	89.1
115°	0.7	3.4	21.1	73.5	107.5	118.4	125.2	125.2	115.7	104.1	92.5
117.5°	0.7	3.4	14.3	65.3	102.8	115.0	122.5	125.9	118.4	106.8	96.6
120°	0.7	2.7	6.8	55.8	96.6	110.2	119.8	125.9	120.5	110.2	100.0
122.5°	0.7	2.7	5.4	42.9	89.8	104.8	115.7	125.2	122.5	113.0	104.1
125°	0.7	2.0	4.8	28.6	81.0	97.3	110.2	123.2	123.2	115.7	107.5
127.5°	0.7	2.0	4.1	20.4	69.4	89.1	102.8	119.8	123.2	117.7	110.9
130°	0.7	2.0	3.4	6.1	53.1	77.6	93.9	114.3	121.8	119.1	113.0
132.5°	0.7	1.4	3.4	4.8	34.0	60.6	81.7	105.5	117.7	119.1	115.0
135°	0.7	1.4	2.7	4.1	24.5	37.4	65.3	94.6	110.2	115.0	115.0
137.5°	0.7	1.4	2.7	3.4	10.9	27.9	40.8	81.7	100.7	109.6	111.6
140°	0.7	1.4	2.0	2.7	4.1	15.0	29.3	64.6	89.1	101.4	106.8
142.5°	0.7	1.4	2.0	2.7	3.4	3.4	17.7	37.4	74.9	90.5	99.4
145°	0.7	1.4	1.4	2.0	2.7	3.4	3.4	28.6	53.8	77.6	89.1
147.5°	0.7	0.7	1.4	2.0	2.7	2.7	2.7	12.9	32.0	59.2	76.2
150°	0.7	0.7	1.4	1.4	2.0	2.0	2.7	2.7	21.1	33.3	56.5
152.5°	0.7	0.7	1.4	1.4	2.0	2.0	2.0	2.7	2.7	22.5	31.3
155°	0.7	0.7	1.4	1.4	1.4	2.0	2.0	2.0	2.0	2.7	19.7
157.5°	0.7	0.7	1.4	1.4	1.4	1.4	1.4	2.0	2.0	2.7	2.7
160°	0.7	1.4	1.4	1.4	1.4	1.4	1.4	2.0	2.0	2.0	2.7
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°	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6	1387.6
2.5°	1364.4	1374.6	1374.6	1383.5	1388.2	1386.9	1388.2	1391.0	1382.8	1380.1
5°	1407.3	1427.7	1437.9	1461.1	1466.5	1476.7	1480.1	1491.7	1494.4	1486.2
7.5°	1542.0	1584.2	1611.5	1639.4	1651.6	1657.7	1668.6	1676.1	1687.7	1678.8
10°	1668.6	1719.7	1758.4	1789.1	1796.6	1802.7	1815.6	1834.0	1832.6	1831.3
12.5°	1778.2	1823.1	1870.7	1915.0	1937.4	1942.2	1961.2	1983.7	1987.8	1969.4
15°	1868.7	1931.3	1985.1	2032.0	2040.9	2053.1	2067.4	2074.9	2071.5	2074.2
17.5°	1944.2	1997.3	2035.4	2060.6	2066.0	2075.6	2088.5	2098.0	2099.4	2100.1
20°	1974.2	2009.6	2046.3	2081.0	2091.9	2101.4	2117.1	2125.2	2123.9	2119.8
22.5°	1968.7	2020.4	2054.5	2083.0	2093.9	2102.8	2116.4	2121.8	2119.8	2115.7
25°	1960.6	2004.8	2034.7	2049.7	2049.7	2056.5	2053.1	2049.0	2044.3	2044.9
27.5°	1921.8	1947.6	1968.0	1985.1	1987.1	1987.8	1985.7	1981.7	1978.9	1972.8
30°	1842.8	1874.1	1883.7	1882.3	1879.6	1878.9	1870.7	1864.6	1857.1	1857.8
32.5°	1750.3	1757.1	1761.2	1749.6	1742.8	1741.4	1733.9	1723.7	1713.5	1702.6
35°	1631.2	1626.4	1616.9	1608.7	1603.3	1595.1	1584.2	1574.0	1561.1	1561.8
37.5°	1516.2	1501.2	1487.6	1465.1	1461.1	1442.0	1420.9	1404.6	1383.5	1371.9
40°	1396.4	1381.4	1364.4	1339.9	1329.0	1311.3	1288.2	1261.0	1244.0	1237.2
42.5°	1282.1	1263.7	1244.0	1214.7	1201.1	1186.8	1162.3	1135.8	1123.5	1121.5
45°	1170.5	1149.4	1130.3	1097.7	1083.4	1066.4	1041.2	1024.9	1007.2	1003.1
47.5°	1063.0	1044.6	1015.3	990.1	976.5	962.2	936.4	921.4	908.5	903.7
50°	958.8	941.1	918.7	890.8	877.9	864.3	845.9	831.6	816.6	811.9
52.5°	865.6	847.9	824.8	803.0	790.1	781.9	764.9	748.6	737.0	729.5
55°	775.8	759.5	738.4	717.9	713.2	702.3	682.6	668.3	660.8	661.5
57.5°	693.4	679.2	662.8	643.1	635.6	625.4	612.5	595.4	586.6	583.9
60°	618.6	605.0	591.4	576.4	566.9	559.4	541.7	528.1	516.5	515.1
62.5°	547.1	536.9	525.4	510.4	502.2	494.1	478.4	465.5	456.6	453.9
65°	485.2	476.4	462.7	450.5	442.3	434.2	419.2	406.3	398.8	391.3
67.5°	424.0	416.5	406.3	393.3	385.9	377.7	364.8	350.5	341.6	339.6
70°	369.5	361.4	353.2	339.6	332.8	328.0	313.7	299.4	292.6	289.9
72.5°	322.6	313.7	302.1	292.6	288.5	279.7	266.1	256.6	247.7	242.3
75°	273.6	268.1	260.0	249.1	241.6	235.5	224.6	215.0	207.6	202.1
77.5°	233.4	226.6	219.8	208.9	203.5	198.0	186.5	178.3	170.8	168.1
80°	196.0	189.9	180.3	172.2	167.4	162.6	153.8	144.9	139.5	136.8
82.5°	162.0	156.5	149.0	142.2	136.8	133.4	125.2	117.7	113.0	108.9
85°	134.1	127.3	120.5	114.3	110.2	107.5	101.4	96.0	89.8	88.5
87.5°	110.2	104.8	98.7	92.5	89.8	86.4	81.0	76.9	72.1	70.1
90°	94.6	87.8	82.3	77.6	74.9	72.8	68.7	63.3	59.9	57.8
92.5°	85.7	79.6	74.9	70.1	68.1	66.0	61.2	57.2	53.8	51.0
95°	80.3	74.2	69.4	65.3	63.3	61.9	57.8	53.8	50.4	48.3
97.5°	76.2	69.4	64.6	61.2	59.2	57.8	54.4	51.0	47.6	45.6
100°	72.8	66.0	61.2	57.8	56.5	55.1	51.7	48.3	45.6	43.6
102.5°	71.5	64.0	59.2	56.5	55.1	53.8	50.4	47.6	44.2	42.2
105°	71.5	63.3	58.5	55.1	53.8	52.4	49.7	47.0	43.6	41.5
107.5°	72.8	64.0	58.5	55.8	54.4	53.1	49.7	47.0	43.6	41.5
110°	74.9	66.0	59.9	56.5	55.1	53.8	50.4	47.6	44.2	42.2



TEST NUMBER: P232585

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	77.6	68.1	61.9	57.8	56.5	55.1	51.7	49.0	45.6	43.6
115°	81.0	70.8	64.6	59.9	58.5	57.2	53.8	50.4	47.6	45.6
117.5°	85.1	74.9	67.4	62.6	61.2	59.2	55.8	52.4	49.7	47.6
120°	89.1	79.6	71.5	66.0	64.0	61.9	58.5	55.1	51.7	49.7
122.5°	93.9	83.7	75.5	70.1	68.1	66.0	61.9	58.5	55.1	52.4
125°	98.7	89.1	80.3	74.2	71.5	69.4	65.3	61.2	58.5	55.8
127.5°	102.8	93.9	85.1	78.9	76.2	73.5	69.4	65.3	61.9	59.9
130°	106.2	98.7	90.5	83.7	81.0	78.9	73.5	69.4	66.0	64.0
132.5°	109.6	102.8	96.0	89.1	86.4	83.7	78.9	74.2	70.8	68.1
135°	111.6	106.2	100.7	94.6	91.9	88.5	83.7	78.9	74.9	72.1
137.5°	111.6	108.9	104.1	99.4	96.6	93.9	88.5	83.7	79.6	77.6
140°	108.2	108.9	106.8	103.4	100.7	98.7	93.9	88.5	84.4	82.3
142.5°	103.4	105.5	106.8	104.8	103.4	102.1	98.0	93.2	89.1	86.4
145°	96.0	100.0	102.8	104.8	104.1	103.4	100.0	96.6	92.5	89.8
147.5°	86.4	92.5	96.0	100.7	102.1	102.1	100.7	98.0	94.6	92.5
150°	72.8	81.7	87.8	92.5	94.6	97.3	97.3	95.3	93.2	91.2
152.5°	51.7	66.0	74.9	81.7	84.4	87.1	90.5	89.1	86.4	85.1
155°	29.3	36.1	54.4	65.3	68.7	72.1	77.6	78.9	78.3	76.2
157.5°	15.0	24.5	30.6	35.4	37.4	42.9	53.8	61.2	60.6	61.9
160°	3.4	4.1	11.6	21.8	24.5	25.9	28.6	30.6	30.6	29.3
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)