

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: P232586

Luminaire Tested: **4SKB1-LD5-5-N-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232586
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-L840-CD1-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS
Light Source: (196) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5389.0 lumens
Efficiency: N/A
Efficacy: 141.8 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

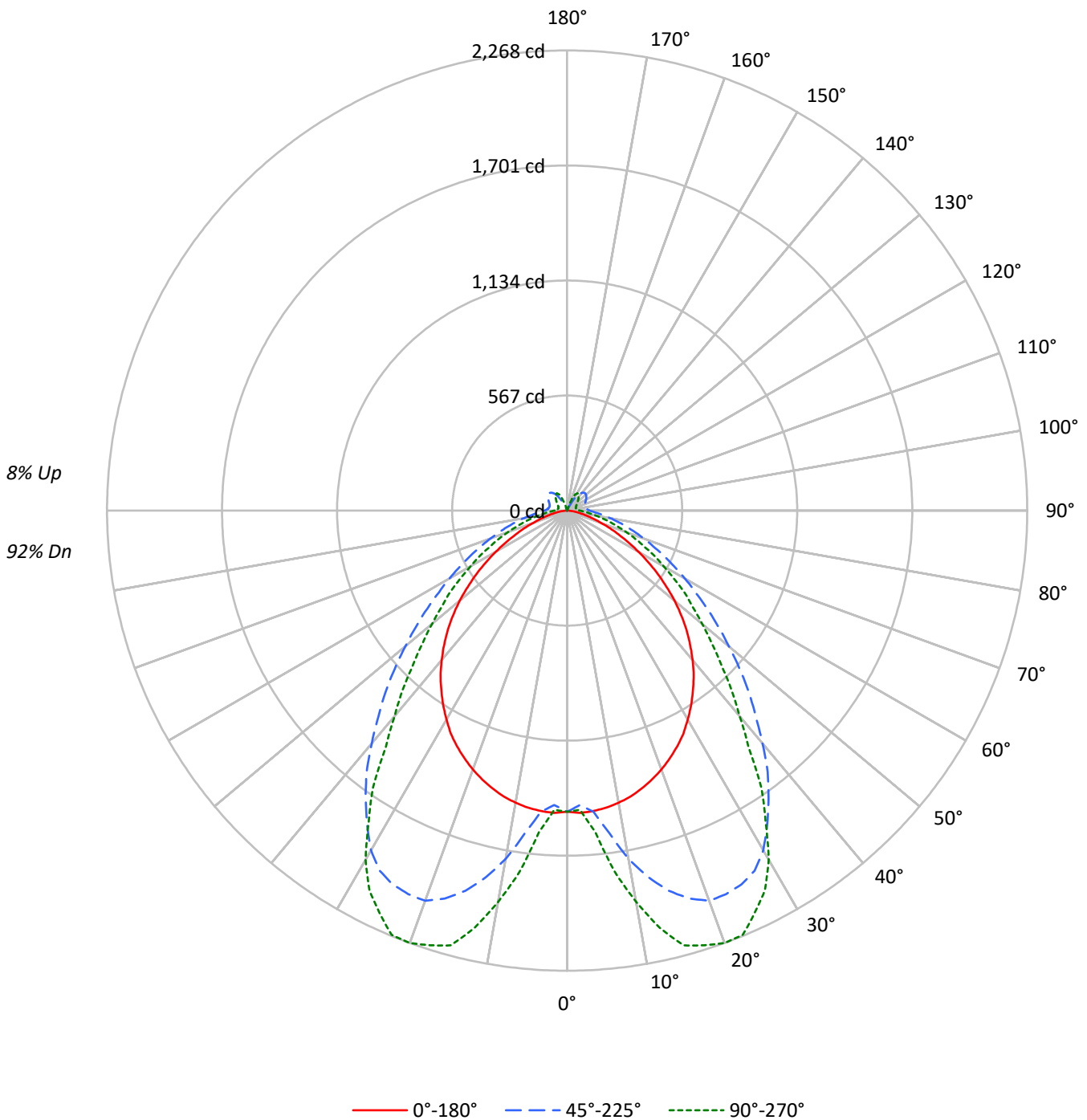
Input Watts (W): 38
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

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°	15976	15976	15976
5°	15959	14946	15587
10°	15774	16504	17757
15°	15499	17512	18836
20°	15157	17770	18232
25°	14732	17140	16825
30°	14178	15956	14758
35°	13515	14095	12082
40°	12733	12135	9396
45°	11794	10280	7538
50°	10654	8525	6083
55°	9292	7007	4980
60°	7751	5731	3927
65°	6156	4642	3044
70°	4656	3704	2321
75°	3380	2920	1679
80°	2267	2244	1191
85°	1226	1689	815



TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.0	2.8
10°-20°	528.7	9.8
20°-30°	870.5	16.2
30°-40°	977.9	18.1
40°-50°	870.3	16.1
50°-60°	673.0	12.5
60°-70°	457.0	8.5
70°-80°	272.7	5.1
80°-90°	146.3	2.7
90°-100°	96.3	1.8
100°-110°	81.7	1.5
110°-120°	75.6	1.4
120°-130°	70.4	1.3
130°-140°	59.7	1.1
140°-150°	40.8	0.8
150°-160°	15.8	0.3
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-30°	1551.2	28.8
0°-40°	2529.1	46.9
0°-60°	4072.4	75.6
0°-90°	4948.4	91.8
90°-120°	253.5	4.7
90°-150°	424.3	7.9
90°-180°	441.0	8.2
0°-180°	5389.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1484	1484	1484	1484	1484	
5°	1486	1466	1489	1569	1590	141
15°	1418	1593	1941	2183	2219	400
25°	1283	1647	2033	2192	2187	590
35°	1081	1484	1731	1715	1671	675
45°	831	1146	1267	1159	1073	639
55°	547	781	841	763	708	488
65°	280	486	525	473	419	282
75°	103	293	300	258	216	113
85°	18	184	151	118	95	22
90°	2	156	110	80	62	2
95°	1	151	96	68	52	0
105°	1	138	89	58	44	0
115°	1	127	99	63	49	1
125°	1	104	115	76	60	1
135°	1	40	123	98	77	1
145°	1	4	95	111	96	0
155°	1	2	21	74	82	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2
2.5°	1491.5	1485.7	1475.5	1474.8	1468.2	1465.3	1466.0	1463.9	1461.7	1458.0	1452.2
5°	1486.4	1475.5	1458.8	1458.8	1462.4	1466.0	1474.8	1482.8	1485.0	1490.1	1489.3
7.5°	1477.0	1460.2	1444.2	1457.3	1470.4	1475.5	1485.7	1500.3	1522.8	1564.3	1605.1
10°	1461.7	1439.1	1434.0	1455.1	1472.6	1487.9	1511.2	1578.9	1641.5	1703.3	1743.4
12.5°	1444.2	1416.5	1423.8	1450.8	1491.5	1520.6	1580.3	1669.9	1719.4	1791.4	1850.4
15°	1418.0	1391.8	1404.9	1444.9	1530.1	1592.7	1626.2	1735.4	1814.7	1874.4	1940.6
17.5°	1389.6	1366.3	1384.5	1455.1	1570.9	1631.3	1685.1	1777.6	1854.0	1942.1	2004.7
20°	1358.3	1337.9	1361.2	1468.2	1590.5	1652.4	1712.1	1800.2	1901.3	1992.3	2046.2
22.5°	1321.9	1303.7	1339.4	1474.0	1597.8	1659.7	1717.9	1820.5	1925.4	2000.3	2046.2
25°	1282.6	1264.4	1313.2	1462.4	1590.5	1647.3	1709.9	1831.5	1917.4	1976.3	2033.1
27.5°	1240.4	1220.0	1293.5	1438.4	1561.4	1625.5	1696.1	1810.3	1878.0	1943.6	2001.1
30°	1188.7	1170.5	1259.3	1403.4	1520.6	1596.3	1656.8	1759.4	1824.2	1889.0	1933.4
32.5°	1137.0	1119.5	1217.8	1353.9	1474.0	1545.4	1603.6	1683.7	1757.2	1807.4	1835.1
35°	1081.0	1061.3	1169.8	1293.5	1421.6	1483.5	1532.3	1605.1	1666.9	1704.1	1731.0
37.5°	1024.9	1003.8	1108.6	1230.2	1352.5	1409.3	1450.0	1523.5	1570.9	1601.4	1624.0
40°	961.6	939.7	1045.3	1158.9	1280.4	1320.5	1362.7	1428.2	1463.1	1487.9	1498.8
42.5°	897.5	875.7	976.9	1083.9	1192.3	1231.6	1275.3	1327.0	1361.2	1375.8	1375.8
45°	831.3	810.2	906.3	1009.6	1101.3	1146.5	1185.1	1226.6	1254.9	1266.6	1267.3
47.5°	762.1	744.7	836.4	930.3	1016.2	1055.5	1085.3	1125.4	1150.1	1153.0	1152.3
50°	691.5	676.2	758.5	850.9	927.4	962.3	988.5	1025.6	1045.3	1044.6	1040.9
52.5°	617.3	607.8	684.2	768.7	837.8	869.1	892.4	925.2	941.2	941.2	938.3
55°	546.7	540.8	607.1	688.6	753.4	781.1	802.9	832.0	845.1	845.1	840.8
57.5°	475.3	474.6	536.5	609.3	671.1	695.9	719.2	744.7	756.3	756.3	749.0
60°	405.5	409.1	470.2	537.2	594.0	618.0	638.4	663.1	670.4	671.9	670.4
62.5°	340.7	350.1	408.4	469.5	526.3	546.7	564.9	588.9	594.7	596.9	593.3
65°	279.5	294.1	353.0	411.3	464.4	485.5	501.5	518.3	523.4	525.6	524.8
67.5°	229.3	244.6	303.5	361.1	409.8	426.6	442.6	457.1	457.9	461.5	458.6
70°	177.6	200.9	259.9	314.5	360.3	375.6	388.7	398.9	401.1	401.8	401.1
72.5°	136.8	164.5	220.6	274.4	315.9	330.5	340.7	348.7	348.7	349.4	347.2
75°	103.4	136.8	191.4	240.9	278.1	292.6	300.6	305.7	302.8	302.1	299.9
77.5°	75.0	113.6	165.2	211.8	246.8	257.7	265.0	265.7	261.3	260.6	256.2
80°	51.7	92.4	142.7	186.3	218.4	229.3	232.9	230.0	226.4	222.0	216.2
82.5°	34.2	75.0	123.7	165.2	195.1	203.8	206.7	202.4	197.3	190.0	180.5
85°	18.2	60.4	107.7	147.8	176.2	184.2	185.6	177.6	169.6	160.1	150.7
87.5°	8.0	49.5	96.1	136.1	160.9	166.7	167.4	158.7	148.5	137.6	125.9
90°	1.5	42.2	88.8	127.4	151.4	156.5	156.5	144.9	134.7	123.0	109.9
92.5°	0.7	40.0	86.6	124.5	148.5	153.6	152.9	140.5	128.1	115.0	101.9
95°	0.7	34.9	81.5	121.6	146.3	151.4	150.7	137.6	124.5	110.6	96.1
97.5°	0.7	29.1	76.4	116.5	142.7	147.8	147.8	135.4	122.3	107.7	92.4
100°	0.0	22.6	70.6	111.4	137.6	144.1	144.9	133.2	119.4	104.8	90.3
102.5°	0.0	15.3	65.5	107.0	133.9	140.5	141.9	132.5	117.9	103.4	88.8
105°	0.7	9.5	59.0	101.9	130.3	137.6	139.8	131.8	117.2	103.4	88.8
107.5°	0.7	6.6	52.4	96.8	127.4	135.4	138.3	131.8	117.9	104.1	90.3
110°	0.7	5.8	44.4	91.7	123.7	132.5	136.8	132.5	119.4	106.3	92.4



TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	4.4	33.5	85.2	119.4	129.6	135.4	133.2	121.6	108.5	95.4
115°	0.7	3.6	22.6	78.6	115.0	126.7	133.9	133.9	123.7	111.4	99.0
117.5°	0.7	3.6	15.3	69.9	109.9	123.0	131.0	134.7	126.7	114.3	103.4
120°	0.7	2.9	7.3	59.7	103.4	117.9	128.1	134.7	128.8	117.9	107.0
122.5°	0.7	2.9	5.8	45.9	96.1	112.1	123.7	133.9	131.0	120.8	111.4
125°	0.7	2.2	5.1	30.6	86.6	104.1	117.9	131.8	131.8	123.7	115.0
127.5°	0.7	2.2	4.4	21.8	74.2	95.4	109.9	128.1	131.8	125.9	118.7
130°	0.7	2.2	3.6	6.6	56.8	83.0	100.5	122.3	130.3	127.4	120.8
132.5°	0.7	1.5	3.6	5.1	36.4	64.8	87.4	112.8	125.9	127.4	123.0
135°	0.7	1.5	2.9	4.4	26.2	40.0	69.9	101.2	117.9	123.0	123.0
137.5°	0.7	1.5	2.9	3.6	11.6	29.8	43.7	87.4	107.7	117.2	119.4
140°	0.7	1.5	2.2	2.9	4.4	16.0	31.3	69.2	95.4	108.5	114.3
142.5°	0.7	1.5	2.2	2.9	3.6	3.6	18.9	40.0	80.1	96.8	106.3
145°	0.7	1.5	1.5	2.2	2.9	3.6	3.6	30.6	57.5	83.0	95.4
147.5°	0.7	0.7	1.5	2.2	2.9	2.9	2.9	13.8	34.2	63.3	81.5
150°	0.7	0.7	1.5	1.5	2.2	2.2	2.9	2.9	22.6	35.7	60.4
152.5°	0.7	0.7	1.5	1.5	2.2	2.2	2.2	2.9	2.9	24.0	33.5
155°	0.7	0.7	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.9	21.1
157.5°	0.7	0.7	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.9	2.9
160°	0.7	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9
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



TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2	1484.2
2.5°	1459.5	1470.4	1470.4	1479.9	1485.0	1483.5	1485.0	1487.9	1479.1	1476.2
5°	1505.3	1527.2	1538.1	1562.9	1568.7	1579.6	1583.2	1595.6	1598.5	1589.8
7.5°	1649.5	1694.6	1723.7	1753.6	1766.7	1773.2	1784.9	1792.9	1805.3	1795.8
10°	1784.9	1839.5	1881.0	1913.7	1921.7	1928.3	1942.1	1961.8	1960.3	1958.8
12.5°	1902.1	1950.1	2001.1	2048.4	2072.4	2077.5	2097.9	2121.9	2126.3	2106.6
15°	1998.9	2065.8	2123.4	2173.6	2183.0	2196.1	2211.4	2219.4	2215.8	2218.7
17.5°	2079.7	2136.5	2177.2	2204.2	2210.0	2220.2	2234.0	2244.2	2245.6	2246.4
20°	2111.7	2149.6	2188.9	2226.0	2237.6	2247.8	2264.6	2273.3	2271.9	2267.5
22.5°	2105.9	2161.2	2197.6	2228.2	2239.8	2249.3	2263.8	2269.7	2267.5	2263.1
25°	2097.1	2144.5	2176.5	2192.5	2192.5	2199.8	2196.1	2191.8	2186.7	2187.4
27.5°	2055.7	2083.3	2105.2	2123.4	2125.5	2126.3	2124.1	2119.7	2116.8	2110.3
30°	1971.2	2004.7	2014.9	2013.4	2010.5	2009.8	2001.1	1994.5	1986.5	1987.2
32.5°	1872.2	1879.5	1883.9	1871.5	1864.2	1862.8	1854.8	1843.8	1832.9	1821.3
35°	1744.8	1739.7	1729.5	1720.8	1715.0	1706.3	1694.6	1683.7	1669.9	1670.6
37.5°	1621.8	1605.8	1591.2	1567.2	1562.9	1542.5	1519.9	1502.4	1479.9	1467.5
40°	1493.7	1477.7	1459.5	1433.3	1421.6	1402.7	1378.0	1348.8	1330.6	1323.4
42.5°	1371.4	1351.8	1330.6	1299.3	1284.8	1269.5	1243.3	1214.9	1201.8	1199.6
45°	1252.0	1229.5	1209.1	1174.1	1158.9	1140.7	1113.7	1096.3	1077.3	1073.0
47.5°	1137.0	1117.4	1086.1	1059.1	1044.6	1029.3	1001.6	985.6	971.8	966.7
50°	1025.6	1006.7	982.7	952.9	939.0	924.5	904.8	889.5	873.5	868.4
52.5°	925.9	907.0	882.2	859.0	845.1	836.4	818.2	800.7	788.3	780.3
55°	829.8	812.4	789.8	768.0	762.9	751.2	730.1	714.8	706.8	707.5
57.5°	741.8	726.5	709.0	687.9	679.9	669.0	655.1	636.9	627.5	624.6
60°	661.7	647.1	632.6	616.6	606.4	598.4	579.4	564.9	552.5	551.0
62.5°	585.3	574.3	562.0	545.9	537.2	528.5	511.7	497.9	488.4	485.5
65°	519.0	509.5	495.0	481.9	473.2	464.4	448.4	434.6	426.6	418.6
67.5°	453.5	445.5	434.6	420.7	412.7	404.0	390.2	374.9	365.4	363.2
70°	395.3	386.5	377.8	363.2	356.0	350.9	335.6	320.3	313.0	310.1
72.5°	345.0	335.6	323.2	313.0	308.6	299.2	284.6	274.4	265.0	259.1
75°	292.6	286.8	278.1	266.4	258.4	251.9	240.2	230.0	222.0	216.2
77.5°	249.7	242.4	235.1	223.5	217.6	211.8	199.5	190.7	182.7	179.8
80°	209.6	203.1	192.9	184.2	179.1	174.0	164.5	155.0	149.2	146.3
82.5°	173.2	167.4	159.4	152.1	146.3	142.7	133.9	125.9	120.8	116.5
85°	143.4	136.1	128.8	122.3	117.9	115.0	108.5	102.6	96.1	94.6
87.5°	117.9	112.1	105.5	99.0	96.1	92.4	86.6	82.3	77.2	75.0
90°	101.2	93.9	88.1	83.0	80.1	77.9	73.5	67.7	64.1	61.9
92.5°	91.7	85.2	80.1	75.0	72.8	70.6	65.5	61.1	57.5	54.6
95°	85.9	79.3	74.2	69.9	67.7	66.2	61.9	57.5	53.9	51.7
97.5°	81.5	74.2	69.2	65.5	63.3	61.9	58.2	54.6	51.0	48.8
100°	77.9	70.6	65.5	61.9	60.4	59.0	55.3	51.7	48.8	46.6
102.5°	76.4	68.4	63.3	60.4	59.0	57.5	53.9	51.0	47.3	45.1
105°	76.4	67.7	62.6	59.0	57.5	56.1	53.1	50.2	46.6	44.4
107.5°	77.9	68.4	62.6	59.7	58.2	56.8	53.1	50.2	46.6	44.4
110°	80.1	70.6	64.1	60.4	59.0	57.5	53.9	51.0	47.3	45.1



TEST NUMBER: P232586

CATALOG NUMBER: 4SKB1-LD5-5-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	83.0	72.8	66.2	61.9	60.4	59.0	55.3	52.4	48.8	46.6
115°	86.6	75.7	69.2	64.1	62.6	61.1	57.5	53.9	51.0	48.8
117.5°	91.0	80.1	72.1	67.0	65.5	63.3	59.7	56.1	53.1	51.0
120°	95.4	85.2	76.4	70.6	68.4	66.2	62.6	59.0	55.3	53.1
122.5°	100.5	89.5	80.8	75.0	72.8	70.6	66.2	62.6	59.0	56.1
125°	105.5	95.4	85.9	79.3	76.4	74.2	69.9	65.5	62.6	59.7
127.5°	109.9	100.5	91.0	84.4	81.5	78.6	74.2	69.9	66.2	64.1
130°	113.6	105.5	96.8	89.5	86.6	84.4	78.6	74.2	70.6	68.4
132.5°	117.2	109.9	102.6	95.4	92.4	89.5	84.4	79.3	75.7	72.8
135°	119.4	113.6	107.7	101.2	98.3	94.6	89.5	84.4	80.1	77.2
137.5°	119.4	116.5	111.4	106.3	103.4	100.5	94.6	89.5	85.2	83.0
140°	115.7	116.5	114.3	110.6	107.7	105.5	100.5	94.6	90.3	88.1
142.5°	110.6	112.8	114.3	112.1	110.6	109.2	104.8	99.7	95.4	92.4
145°	102.6	107.0	109.9	112.1	111.4	110.6	107.0	103.4	99.0	96.1
147.5°	92.4	99.0	102.6	107.7	109.2	109.2	107.7	104.8	101.2	99.0
150°	77.9	87.4	93.9	99.0	101.2	104.1	104.1	101.9	99.7	97.5
152.5°	55.3	70.6	80.1	87.4	90.3	93.2	96.8	95.4	92.4	91.0
155°	31.3	38.6	58.2	69.9	73.5	77.2	83.0	84.4	83.7	81.5
157.5°	16.0	26.2	32.8	37.9	40.0	45.9	57.5	65.5	64.8	66.2
160°	3.6	4.4	12.4	23.3	26.2	27.7	30.6	32.8	32.8	31.3
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)