

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: P232589

Luminaire Tested: **4SKB1-LD5-6-N-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232589
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-LD5-6-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: 6445.0 lumens
Efficiency: N/A
Efficacy: 136.7 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

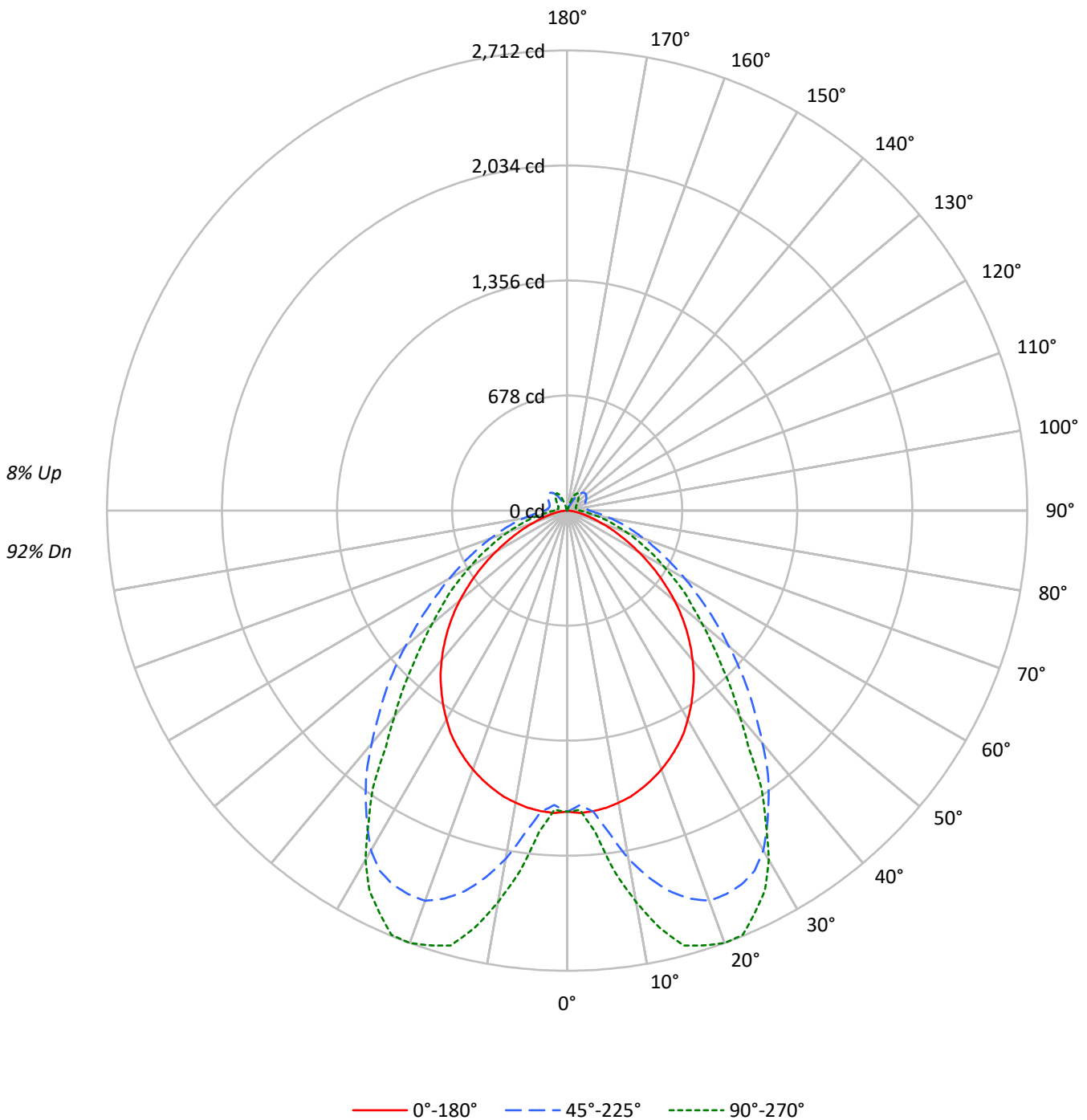
Input Watts (W): 47.16
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	19107	19107	19107
5°	19086	17875	18641
10°	18864	19738	21237
15°	18536	20944	22527
20°	18127	21252	21804
25°	17619	20499	20122
30°	16955	19082	17650
35°	16163	16857	14449
40°	15227	14513	11238
45°	14106	12295	9015
50°	12741	10196	7276
55°	11112	8380	5956
60°	9268	6854	4696
65°	7363	5552	3641
70°	5569	4429	2776
75°	4041	3493	2009
80°	2710	2685	1424
85°	1468	2020	975



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.7	2.8
10°-20°	632.3	9.8
20°-30°	1041.1	16.2
30°-40°	1169.6	18.1
40°-50°	1040.8	16.1
50°-60°	804.9	12.5
60°-70°	546.6	8.5
70°-80°	326.2	5.1
80°-90°	175.0	2.7
90°-100°	115.1	1.8
100°-110°	97.7	1.5
110°-120°	90.4	1.4
120°-130°	84.2	1.3
130°-140°	71.4	1.1
140°-150°	48.8	0.8
150°-160°	18.8	0.3
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	1855.1	28.8
0°-40°	3024.7	46.9
0°-60°	4870.4	75.6
0°-90°	5918.1	91.8
90°-120°	303.2	4.7
90°-150°	507.5	7.9
90°-180°	527.0	8.2
0°-180°	6445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1775	1775	1775	1775	1775	
5°	1778	1753	1781	1876	1901	169
15°	1696	1905	2321	2611	2654	478
25°	1534	1970	2432	2622	2616	706
35°	1293	1774	2070	2051	1998	808
45°	994	1371	1516	1386	1283	765
55°	654	934	1006	912	846	584
65°	334	581	628	566	501	337
75°	124	350	359	309	259	135
85°	22	220	180	141	113	27
90°	2	187	132	96	74	2
95°	1	181	115	81	62	1
105°	1	164	106	69	53	1
115°	1	152	118	75	58	1
125°	1	124	138	91	71	1
135°	1	48	147	118	92	1
145°	1	4	114	133	115	1
155°	1	3	25	88	98	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°	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1
2.5°	1783.8	1776.8	1764.6	1763.8	1755.9	1752.4	1753.3	1750.7	1748.1	1743.7	1736.8
5°	1777.7	1764.6	1744.6	1744.6	1749.0	1753.3	1763.8	1773.3	1776.0	1782.0	1781.2
7.5°	1766.4	1746.4	1727.2	1742.9	1758.5	1764.6	1776.8	1794.2	1821.2	1870.8	1919.6
10°	1748.1	1721.1	1715.0	1740.3	1761.2	1779.4	1807.3	1888.3	1963.1	2037.1	2085.0
12.5°	1727.2	1694.1	1702.8	1735.0	1783.8	1818.6	1890.0	1997.1	2056.3	2142.5	2213.0
15°	1695.9	1664.5	1680.2	1728.1	1829.9	1904.8	1944.8	2075.4	2170.3	2241.7	2320.9
17.5°	1661.9	1634.0	1655.8	1740.3	1878.7	1950.9	2015.4	2125.9	2217.3	2322.7	2397.5
20°	1624.5	1600.1	1628.0	1755.9	1902.2	1976.2	2047.6	2152.9	2273.9	2382.7	2447.2
22.5°	1580.9	1559.2	1601.8	1762.9	1910.9	1984.9	2054.5	2177.3	2302.6	2392.3	2447.2
25°	1533.9	1512.2	1570.5	1749.0	1902.2	1970.1	2045.0	2190.3	2293.1	2363.6	2431.5
27.5°	1483.4	1459.1	1547.0	1720.2	1867.4	1944.0	2028.4	2165.1	2246.1	2324.4	2393.2
30°	1421.6	1399.9	1506.1	1678.4	1818.6	1909.1	1981.4	2104.2	2181.6	2259.1	2312.2
32.5°	1359.8	1338.9	1456.5	1619.2	1762.9	1848.2	1917.9	2013.6	2101.5	2161.6	2194.7
35°	1292.8	1269.3	1399.0	1547.0	1700.2	1774.2	1832.5	1919.6	1993.6	2038.0	2070.2
37.5°	1225.8	1200.5	1325.9	1471.3	1617.5	1685.4	1734.2	1822.1	1878.7	1915.2	1942.2
40°	1150.0	1123.9	1250.1	1385.9	1531.3	1579.2	1629.7	1708.0	1749.8	1779.4	1792.5
42.5°	1073.4	1047.3	1168.3	1296.3	1426.0	1473.0	1525.2	1587.0	1628.0	1645.4	1645.4
45°	994.2	968.9	1083.9	1207.5	1317.2	1371.1	1417.3	1466.9	1500.9	1514.8	1515.7
47.5°	911.5	890.6	1000.3	1112.6	1215.3	1262.3	1298.0	1345.9	1375.5	1379.0	1378.1
50°	827.0	808.8	907.1	1017.7	1109.1	1150.9	1182.2	1226.6	1250.1	1249.3	1244.9
52.5°	738.2	726.9	818.3	919.3	1002.0	1039.5	1067.3	1106.5	1125.6	1125.6	1122.2
55°	653.8	646.8	726.1	823.6	901.0	934.1	960.2	995.1	1010.7	1010.7	1005.5
57.5°	568.5	567.6	641.6	728.7	802.7	832.3	860.1	890.6	904.5	904.5	895.8
60°	484.9	489.3	562.4	642.5	710.4	739.1	763.5	793.1	801.8	803.5	801.8
62.5°	407.4	418.7	488.4	561.5	629.4	653.8	675.6	704.3	711.3	713.9	709.5
65°	334.3	351.7	422.2	491.9	555.4	580.7	599.8	619.8	625.9	628.5	627.7
67.5°	274.2	292.5	363.0	431.8	490.1	510.2	529.3	546.7	547.6	551.9	548.5
70°	212.4	240.3	310.8	376.1	430.9	449.2	464.9	477.1	479.7	480.6	479.7
72.5°	163.7	196.7	263.8	328.2	377.8	395.2	407.4	417.0	417.0	417.9	415.3
75°	123.6	163.7	229.0	288.2	332.6	350.0	359.5	365.6	362.2	361.3	358.7
77.5°	89.7	135.8	197.6	253.3	295.1	308.2	316.9	317.8	312.5	311.7	306.4
80°	61.8	110.6	170.6	222.9	261.2	274.2	278.6	275.1	270.7	265.5	258.6
82.5°	40.9	89.7	148.0	197.6	233.3	243.8	247.2	242.0	235.9	227.2	215.9
85°	21.8	72.3	128.8	176.7	210.7	220.3	222.0	212.4	202.8	191.5	180.2
87.5°	9.6	59.2	114.9	162.8	192.4	199.4	200.2	189.8	177.6	164.5	150.6
90°	1.7	50.5	106.2	152.3	181.1	187.2	187.2	173.2	161.1	147.1	131.5
92.5°	0.9	47.9	103.6	148.9	177.6	183.7	182.8	168.0	153.2	137.5	121.9
95°	0.9	41.8	97.5	145.4	175.0	181.1	180.2	164.5	148.9	132.3	114.9
97.5°	0.9	34.8	91.4	139.3	170.6	176.7	176.7	161.9	146.3	128.8	110.6
100°	0.0	27.0	84.4	133.2	164.5	172.4	173.2	159.3	142.8	125.4	107.9
102.5°	0.0	18.3	78.4	128.0	160.2	168.0	169.8	158.4	141.0	123.6	106.2
105°	0.9	11.3	70.5	121.9	155.8	164.5	167.1	157.6	140.2	123.6	106.2
107.5°	0.9	7.8	62.7	115.8	152.3	161.9	165.4	157.6	141.0	124.5	107.9
110°	0.9	7.0	53.1	109.7	148.0	158.4	163.7	158.4	142.8	127.1	110.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	5.2	40.0	101.9	142.8	155.0	161.9	159.3	145.4	129.7	114.0
115°	0.9	4.4	27.0	94.0	137.5	151.5	160.2	160.2	148.0	133.2	118.4
117.5°	0.9	4.4	18.3	83.6	131.5	147.1	156.7	161.1	151.5	136.7	123.6
120°	0.9	3.5	8.7	71.4	123.6	141.0	153.2	161.1	154.1	141.0	128.0
122.5°	0.9	3.5	7.0	54.8	114.9	134.1	148.0	160.2	156.7	144.5	133.2
125°	0.9	2.6	6.1	36.6	103.6	124.5	141.0	157.6	157.6	148.0	137.5
127.5°	0.9	2.6	5.2	26.1	88.8	114.0	131.5	153.2	157.6	150.6	141.9
130°	0.9	2.6	4.4	7.8	67.9	99.2	120.1	146.3	155.8	152.3	144.5
132.5°	0.9	1.7	4.4	6.1	43.5	77.5	104.5	134.9	150.6	152.3	147.1
135°	0.9	1.7	3.5	5.2	31.3	47.9	83.6	121.0	141.0	147.1	147.1
137.5°	0.9	1.7	3.5	4.4	13.9	35.7	52.2	104.5	128.8	140.2	142.8
140°	0.9	1.7	2.6	3.5	5.2	19.2	37.4	82.7	114.0	129.7	136.7
142.5°	0.9	1.7	2.6	3.5	4.4	4.4	22.6	47.9	95.8	115.8	127.1
145°	0.9	1.7	1.7	2.6	3.5	4.4	4.4	36.6	68.8	99.2	114.0
147.5°	0.9	0.9	1.7	2.6	3.5	3.5	3.5	16.5	40.9	75.7	97.5
150°	0.9	0.9	1.7	1.7	2.6	2.6	3.5	3.5	27.0	42.7	72.3
152.5°	0.9	0.9	1.7	1.7	2.6	2.6	2.6	3.5	3.5	28.7	40.0
155°	0.9	0.9	1.7	1.7	1.7	2.6	2.6	2.6	2.6	3.5	25.2
157.5°	0.9	0.9	1.7	1.7	1.7	1.7	1.7	2.6	2.6	3.5	3.5
160°	0.9	1.7	1.7	1.7	1.7	1.7	1.7	2.6	2.6	2.6	3.5
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°	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1	1775.1
2.5°	1745.5	1758.5	1758.5	1769.9	1776.0	1774.2	1776.0	1779.4	1769.0	1765.5
5°	1800.3	1826.4	1839.5	1869.1	1876.1	1889.1	1893.5	1908.3	1911.8	1901.3
7.5°	1972.7	2026.7	2061.5	2097.2	2112.9	2120.7	2134.6	2144.2	2159.0	2147.7
10°	2134.6	2199.9	2249.5	2288.7	2298.3	2306.1	2322.7	2346.2	2344.4	2342.7
12.5°	2274.8	2332.2	2393.2	2449.8	2478.5	2484.6	2509.0	2537.7	2542.9	2519.4
15°	2390.6	2470.7	2539.4	2599.5	2610.8	2626.5	2644.8	2654.4	2650.0	2653.5
17.5°	2487.2	2555.1	2603.9	2636.1	2643.0	2655.2	2671.8	2683.9	2685.7	2686.6
20°	2525.5	2570.8	2617.8	2662.2	2676.1	2688.3	2708.3	2718.8	2717.0	2711.8
22.5°	2518.5	2584.7	2628.2	2664.8	2678.7	2690.0	2707.5	2714.4	2711.8	2706.6
25°	2508.1	2564.7	2603.0	2622.1	2622.1	2630.8	2626.5	2621.3	2615.2	2616.0
27.5°	2458.5	2491.6	2517.7	2539.4	2542.0	2542.9	2540.3	2535.1	2531.6	2523.8
30°	2357.5	2397.5	2409.7	2408.0	2404.5	2403.6	2393.2	2385.3	2375.8	2376.6
32.5°	2239.1	2247.8	2253.0	2238.2	2229.5	2227.8	2218.2	2205.1	2192.1	2178.2
35°	2086.7	2080.6	2068.5	2058.0	2051.0	2040.6	2026.7	2013.6	1997.1	1997.9
37.5°	1939.6	1920.5	1903.1	1874.3	1869.1	1844.7	1817.7	1796.8	1769.9	1755.1
40°	1786.4	1767.2	1745.5	1714.1	1700.2	1677.6	1648.0	1613.2	1591.4	1582.7
42.5°	1640.1	1616.6	1591.4	1554.0	1536.5	1518.3	1486.9	1453.0	1437.3	1434.7
45°	1497.4	1470.4	1446.0	1404.2	1385.9	1364.2	1332.0	1311.1	1288.4	1283.2
47.5°	1359.8	1336.3	1298.9	1266.7	1249.3	1231.0	1197.9	1178.7	1162.2	1156.1
50°	1226.6	1204.0	1175.3	1139.6	1123.0	1105.6	1082.1	1063.8	1044.7	1038.6
52.5°	1107.4	1084.7	1055.1	1027.3	1010.7	1000.3	978.5	957.6	942.8	933.2
55°	992.4	971.5	944.6	918.4	912.4	898.4	873.2	854.9	845.3	846.2
57.5°	887.1	868.8	847.9	822.7	813.1	800.0	783.5	761.7	750.4	746.9
60°	791.3	773.9	756.5	737.4	725.2	715.6	693.0	675.6	660.8	659.0
62.5°	699.9	686.9	672.1	652.9	642.5	632.0	612.0	595.5	584.1	580.7
65°	620.7	609.4	592.0	576.3	565.9	555.4	536.3	519.7	510.2	500.6
67.5°	542.4	532.8	519.7	503.2	493.6	483.2	466.6	448.3	437.0	434.4
70°	472.7	462.3	451.8	434.4	425.7	419.6	401.3	383.0	374.3	370.9
72.5°	412.6	401.3	386.5	374.3	369.1	357.8	340.4	328.2	316.9	309.9
75°	350.0	343.0	332.6	318.6	309.1	301.2	287.3	275.1	265.5	258.6
77.5°	298.6	289.9	281.2	267.3	260.3	253.3	238.5	228.1	218.5	215.0
80°	250.7	242.9	230.7	220.3	214.2	208.1	196.7	185.4	178.5	175.0
82.5°	207.2	200.2	190.7	181.9	175.0	170.6	160.2	150.6	144.5	139.3
85°	171.5	162.8	154.1	146.3	141.0	137.5	129.7	122.7	114.9	113.2
87.5°	141.0	134.1	126.2	118.4	114.9	110.6	103.6	98.4	92.3	89.7
90°	121.0	112.3	105.3	99.2	95.8	93.2	87.9	81.0	76.6	74.0
92.5°	109.7	101.9	95.8	89.7	87.1	84.4	78.4	73.1	68.8	65.3
95°	102.7	94.9	88.8	83.6	81.0	79.2	74.0	68.8	64.4	61.8
97.5°	97.5	88.8	82.7	78.4	75.7	74.0	69.6	65.3	60.9	58.3
100°	93.2	84.4	78.4	74.0	72.3	70.5	66.2	61.8	58.3	55.7
102.5°	91.4	81.8	75.7	72.3	70.5	68.8	64.4	60.9	56.6	54.0
105°	91.4	81.0	74.9	70.5	68.8	67.0	63.6	60.1	55.7	53.1
107.5°	93.2	81.8	74.9	71.4	69.6	67.9	63.6	60.1	55.7	53.1
110°	95.8	84.4	76.6	72.3	70.5	68.8	64.4	60.9	56.6	54.0



TEST NUMBER: P232589

CATALOG NUMBER: 4SKB1-LD5-6-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	99.2	87.1	79.2	74.0	72.3	70.5	66.2	62.7	58.3	55.7
115°	103.6	90.5	82.7	76.6	74.9	73.1	68.8	64.4	60.9	58.3
117.5°	108.8	95.8	86.2	80.1	78.4	75.7	71.4	67.0	63.6	60.9
120°	114.0	101.9	91.4	84.4	81.8	79.2	74.9	70.5	66.2	63.6
122.5°	120.1	107.1	96.6	89.7	87.1	84.4	79.2	74.9	70.5	67.0
125°	126.2	114.0	102.7	94.9	91.4	88.8	83.6	78.4	74.9	71.4
127.5°	131.5	120.1	108.8	101.0	97.5	94.0	88.8	83.6	79.2	76.6
130°	135.8	126.2	115.8	107.1	103.6	101.0	94.0	88.8	84.4	81.8
132.5°	140.2	131.5	122.7	114.0	110.6	107.1	101.0	94.9	90.5	87.1
135°	142.8	135.8	128.8	121.0	117.5	113.2	107.1	101.0	95.8	92.3
137.5°	142.8	139.3	133.2	127.1	123.6	120.1	113.2	107.1	101.9	99.2
140°	138.4	139.3	136.7	132.3	128.8	126.2	120.1	113.2	107.9	105.3
142.5°	132.3	134.9	136.7	134.1	132.3	130.6	125.4	119.3	114.0	110.6
145°	122.7	128.0	131.5	134.1	133.2	132.3	128.0	123.6	118.4	114.9
147.5°	110.6	118.4	122.7	128.8	130.6	130.6	128.8	125.4	121.0	118.4
150°	93.2	104.5	112.3	118.4	121.0	124.5	124.5	121.9	119.3	116.7
152.5°	66.2	84.4	95.8	104.5	107.9	111.4	115.8	114.0	110.6	108.8
155°	37.4	46.1	69.6	83.6	87.9	92.3	99.2	101.0	100.1	97.5
157.5°	19.2	31.3	39.2	45.3	47.9	54.8	68.8	78.4	77.5	79.2
160°	4.4	5.2	14.8	27.9	31.3	33.1	36.6	39.2	39.2	37.4
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)