

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: P232593

Luminaire Tested: **4SKB1-LD5-7-N-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232593
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-LD5-7-N-UNV-L850-CD1-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS
Light Source: (238) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7637.0 lumens
Efficiency: N/A
Efficacy: 144.9 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

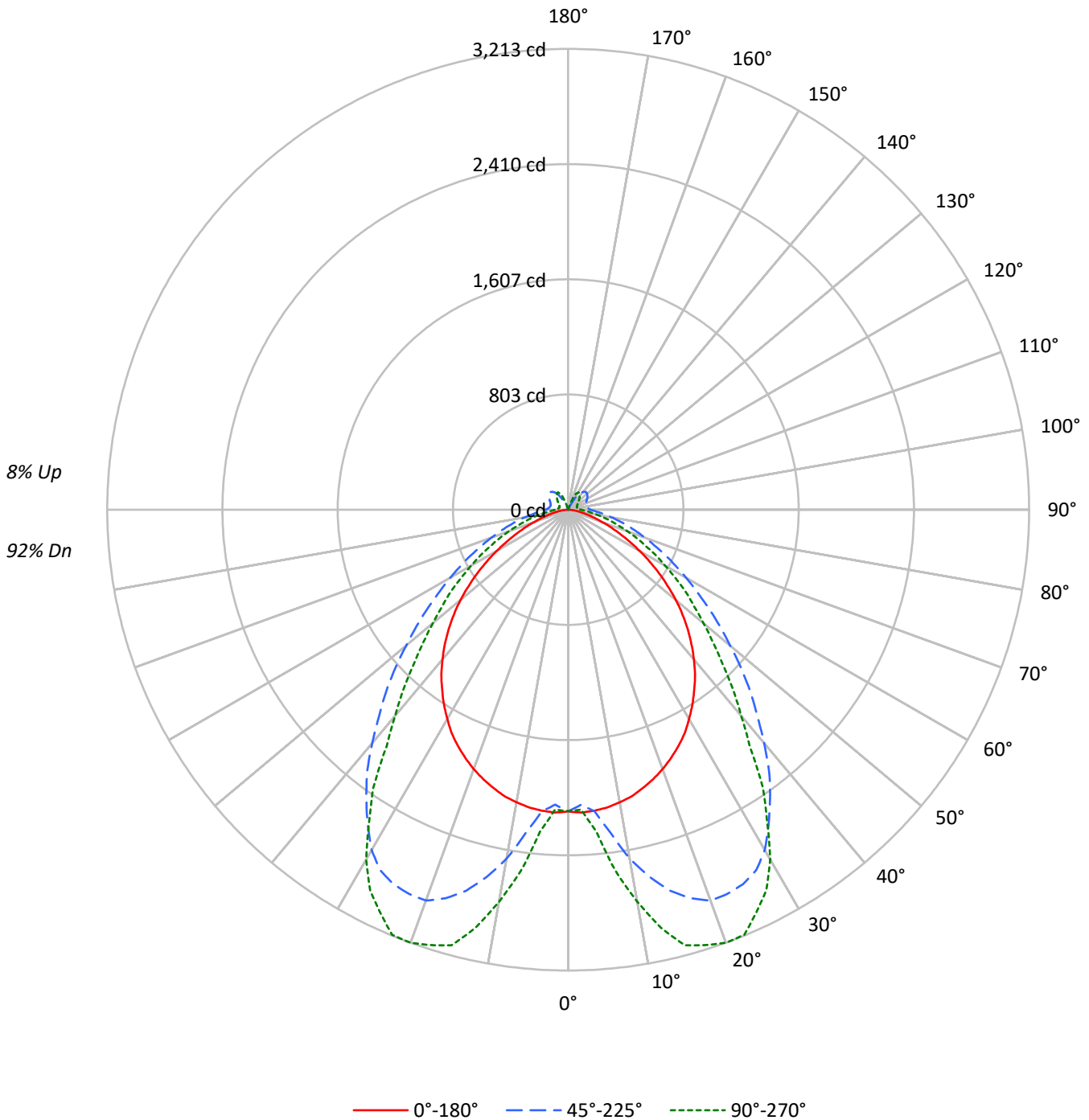
Input Watts (W): 52.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	22641	22641	22641
5°	22617	21181	22089
10°	22353	23389	25165
15°	21964	24818	26693
20°	21479	25182	25837
25°	20877	24291	23844
30°	20092	22611	20915
35°	19152	19975	17122
40°	18044	17197	13316
45°	16715	14569	10682
50°	15099	12082	8621
55°	13167	9930	7058
60°	10983	8122	5565
65°	8724	6578	4314
70°	6599	5248	3289
75°	4789	4138	2380
80°	3210	3181	1687
85°	1738	2393	1155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.3	2.8
10°-20°	749.3	9.8
20°-30°	1233.6	16.2
30°-40°	1385.9	18.1
40°-50°	1233.3	16.1
50°-60°	953.8	12.5
60°-70°	647.7	8.5
70°-80°	386.5	5.1
80°-90°	207.3	2.7
90°-100°	136.4	1.8
100°-110°	115.7	1.5
110°-120°	107.1	1.4
120°-130°	99.7	1.3
130°-140°	84.6	1.1
140°-150°	57.8	0.8
150°-160°	22.3	0.3
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	2198.2	28.8
0°-40°	3584.1	46.9
0°-60°	5771.2	75.6
0°-90°	7012.7	91.8
90°-120°	359.2	4.7
90°-150°	601.3	7.9
90°-180°	624.0	8.2
0°-180°	7637.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2103	2103	2103	2103	2103	
5°	2106	2078	2111	2223	2253	200
15°	2010	2257	2750	3094	3144	566
25°	1818	2334	2881	3107	3100	836
35°	1532	2102	2453	2430	2368	957
45°	1178	1625	1796	1642	1520	906
55°	775	1107	1192	1081	1003	692
65°	396	688	744	670	593	399
75°	146	415	425	366	306	160
85°	26	261	214	167	134	32
90°	2	222	156	114	88	2
95°	1	215	136	96	73	1
105°	1	195	126	82	63	1
115°	1	180	140	89	69	1
125°	1	148	163	108	85	1
135°	1	57	174	139	109	1
145°	1	5	135	158	136	1
155°	1	3	30	104	116	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°	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4
2.5°	2113.7	2105.4	2091.0	2090.0	2080.7	2076.6	2077.6	2074.5	2071.4	2066.2	2058.0
5°	2106.5	2091.0	2067.3	2067.3	2072.4	2077.6	2090.0	2101.3	2104.4	2111.6	2110.6
7.5°	2093.1	2069.3	2046.6	2065.2	2083.8	2091.0	2105.4	2126.1	2158.1	2216.9	2274.6
10°	2071.4	2039.4	2032.2	2062.1	2086.9	2108.5	2141.5	2237.5	2326.2	2413.9	2470.6
12.5°	2046.6	2007.4	2017.8	2055.9	2113.7	2155.0	2239.5	2366.4	2436.6	2538.7	2622.3
15°	2009.5	1972.4	1990.9	2047.7	2168.4	2257.1	2304.5	2459.3	2571.7	2656.3	2750.2
17.5°	1969.3	1936.3	1962.1	2062.1	2226.1	2311.8	2388.1	2519.1	2627.4	2752.2	2841.0
20°	1924.9	1896.0	1929.0	2080.7	2254.0	2341.7	2426.3	2551.1	2694.5	2823.4	2899.8
22.5°	1873.3	1847.6	1898.1	2088.9	2264.3	2352.0	2434.5	2580.0	2728.5	2834.8	2899.8
25°	1817.6	1791.8	1861.0	2072.4	2254.0	2334.5	2423.2	2595.4	2717.2	2800.7	2881.2
27.5°	1757.8	1728.9	1833.1	2038.4	2212.7	2303.5	2403.6	2565.5	2661.5	2754.3	2835.8
30°	1684.6	1658.8	1784.6	1988.9	2155.0	2262.2	2347.9	2493.3	2585.1	2676.9	2739.9
32.5°	1611.3	1586.6	1725.8	1918.7	2088.9	2190.0	2272.6	2386.0	2490.2	2561.4	2600.6
35°	1531.9	1504.0	1657.7	1833.1	2014.7	2102.3	2171.5	2274.6	2362.3	2414.9	2453.1
37.5°	1452.5	1422.5	1571.1	1743.4	1916.7	1997.1	2054.9	2159.1	2226.1	2269.5	2301.4
40°	1362.7	1331.8	1481.3	1642.3	1814.5	1871.3	1931.1	2023.9	2073.5	2108.5	2124.0
42.5°	1271.9	1241.0	1384.4	1536.0	1689.7	1745.4	1807.3	1880.6	1929.0	1949.7	1949.7
45°	1178.1	1148.1	1284.3	1430.8	1560.8	1624.7	1679.4	1738.2	1778.4	1794.9	1796.0
47.5°	1080.1	1055.3	1185.3	1318.4	1440.1	1495.8	1538.1	1594.8	1629.9	1634.0	1633.0
50°	980.0	958.3	1074.9	1205.9	1314.2	1363.7	1400.9	1453.5	1481.3	1480.3	1475.2
52.5°	874.8	861.4	969.7	1089.3	1187.3	1231.7	1264.7	1311.1	1333.8	1333.8	1329.7
55°	774.7	766.5	860.3	975.9	1067.7	1106.9	1137.8	1179.1	1197.7	1197.7	1191.5
57.5°	673.6	672.6	760.3	863.4	951.1	986.2	1019.2	1055.3	1071.8	1071.8	1061.5
60°	574.6	579.7	666.4	761.3	841.8	875.8	904.7	939.8	950.1	952.1	950.1
62.5°	482.8	496.2	578.7	665.4	745.8	774.7	800.5	834.5	842.8	845.9	840.7
65°	396.1	416.8	500.3	582.8	658.1	688.1	710.8	734.5	741.7	744.8	743.8
67.5°	324.9	346.6	430.2	511.7	580.8	604.5	627.2	647.8	648.9	654.0	649.9
70°	251.7	284.7	368.3	445.6	510.6	532.3	550.9	565.3	568.4	569.4	568.4
72.5°	193.9	233.1	312.6	388.9	447.7	468.3	482.8	494.1	494.1	495.2	492.1
75°	146.5	193.9	271.3	341.5	394.1	414.7	426.0	433.3	429.1	428.1	425.0
77.5°	106.3	160.9	234.2	300.2	349.7	365.2	375.5	376.5	370.3	369.3	363.1
80°	73.2	131.0	202.2	264.1	309.5	324.9	330.1	326.0	320.8	314.6	306.4
82.5°	48.5	106.3	175.4	234.2	276.5	288.8	293.0	286.8	279.6	269.2	255.8
85°	25.8	85.6	152.7	209.4	249.6	261.0	263.1	251.7	240.4	226.9	213.5
87.5°	11.3	70.1	136.2	192.9	228.0	236.2	237.3	224.9	210.4	195.0	178.5
90°	2.1	59.8	125.9	180.5	214.6	221.8	221.8	205.3	190.8	174.3	155.8
92.5°	1.0	56.7	122.8	176.4	210.4	217.7	216.6	199.1	181.6	163.0	144.4
95°	1.0	49.5	115.5	172.3	207.3	214.6	213.5	195.0	176.4	156.8	136.2
97.5°	1.0	41.3	108.3	165.1	202.2	209.4	209.4	191.9	173.3	152.7	131.0
100°	0.0	32.0	100.1	157.8	195.0	204.3	205.3	188.8	169.2	148.5	127.9
102.5°	0.0	21.7	92.8	151.6	189.8	199.1	201.2	187.7	167.1	146.5	125.9
105°	1.0	13.4	83.6	144.4	184.7	195.0	198.1	186.7	166.1	146.5	125.9
107.5°	1.0	9.3	74.3	137.2	180.5	191.9	196.0	186.7	167.1	147.5	127.9
110°	1.0	8.3	62.9	130.0	175.4	187.7	193.9	187.7	169.2	150.6	131.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.0	6.2	47.5	120.7	169.2	183.6	191.9	188.8	172.3	153.7	135.1
115°	1.0	5.2	32.0	111.4	163.0	179.5	189.8	189.8	175.4	157.8	140.3
117.5°	1.0	5.2	21.7	99.0	155.8	174.3	185.7	190.8	179.5	162.0	146.5
120°	1.0	4.1	10.3	84.6	146.5	167.1	181.6	190.8	182.6	167.1	151.6
122.5°	1.0	4.1	8.3	65.0	136.2	158.9	175.4	189.8	185.7	171.2	157.8
125°	1.0	3.1	7.2	43.3	122.8	147.5	167.1	186.7	186.7	175.4	163.0
127.5°	1.0	3.1	6.2	30.9	105.2	135.1	155.8	181.6	186.7	178.5	168.1
130°	1.0	3.1	5.2	9.3	80.5	117.6	142.4	173.3	184.7	180.5	171.2
132.5°	1.0	2.1	5.2	7.2	51.6	91.8	123.8	159.9	178.5	180.5	174.3
135°	1.0	2.1	4.1	6.2	37.1	56.7	99.0	143.4	167.1	174.3	174.3
137.5°	1.0	2.1	4.1	5.2	16.5	42.3	61.9	123.8	152.7	166.1	169.2
140°	1.0	2.1	3.1	4.1	6.2	22.7	44.4	98.0	135.1	153.7	162.0
142.5°	1.0	2.1	3.1	4.1	5.2	5.2	26.8	56.7	113.5	137.2	150.6
145°	1.0	2.1	2.1	3.1	4.1	5.2	5.2	43.3	81.5	117.6	135.1
147.5°	1.0	1.0	2.1	3.1	4.1	4.1	4.1	19.6	48.5	89.7	115.5
150°	1.0	1.0	2.1	2.1	3.1	3.1	4.1	4.1	32.0	50.5	85.6
152.5°	1.0	1.0	2.1	2.1	3.1	3.1	3.1	4.1	4.1	34.0	47.5
155°	1.0	1.0	2.1	2.1	2.1	3.1	3.1	3.1	3.1	4.1	29.9
157.5°	1.0	1.0	2.1	2.1	2.1	2.1	2.1	3.1	3.1	4.1	4.1
160°	1.0	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1	3.1	4.1
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°	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4	2103.4
2.5°	2068.3	2083.8	2083.8	2097.2	2104.4	2102.3	2104.4	2108.5	2096.2	2092.0
5°	2133.3	2164.2	2179.7	2214.8	2223.0	2238.5	2243.7	2261.2	2265.3	2253.0
7.5°	2337.5	2401.5	2442.8	2485.1	2503.6	2512.9	2529.4	2540.8	2558.3	2544.9
10°	2529.4	2606.8	2665.6	2712.0	2723.4	2732.6	2752.2	2780.1	2778.0	2776.0
12.5°	2695.5	2763.6	2835.8	2902.9	2936.9	2944.1	2973.0	3007.0	3013.2	2985.4
15°	2832.7	2927.6	3009.1	3080.3	3093.7	3112.3	3133.9	3145.3	3140.1	3144.2
17.5°	2947.2	3027.7	3085.4	3123.6	3131.9	3146.3	3165.9	3180.3	3182.4	3183.4
20°	2992.6	3046.2	3101.9	3154.6	3171.1	3185.5	3209.2	3221.6	3219.5	3213.4
22.5°	2984.3	3062.7	3114.3	3157.6	3174.2	3187.6	3208.2	3216.4	3213.4	3207.2
25°	2972.0	3039.0	3084.4	3107.1	3107.1	3117.4	3112.3	3106.1	3098.9	3099.9
27.5°	2913.2	2952.4	2983.3	3009.1	3012.2	3013.2	3010.1	3003.9	2999.8	2990.5
30°	2793.5	2841.0	2855.4	2853.3	2849.2	2848.2	2835.8	2826.5	2815.2	2816.2
32.5°	2653.2	2663.5	2669.7	2652.2	2641.9	2639.8	2628.5	2613.0	2597.5	2581.0
35°	2472.7	2465.5	2451.0	2438.6	2430.4	2418.0	2401.5	2386.0	2366.4	2367.5
37.5°	2298.3	2275.7	2255.0	2221.0	2214.8	2185.9	2153.9	2129.2	2097.2	2079.7
40°	2116.8	2094.1	2068.3	2031.2	2014.7	1987.8	1952.8	1911.5	1885.7	1875.4
42.5°	1943.5	1915.6	1885.7	1841.4	1820.7	1799.1	1761.9	1721.7	1703.1	1700.0
45°	1774.3	1742.3	1713.4	1663.9	1642.3	1616.5	1578.3	1553.6	1526.7	1520.5
47.5°	1611.3	1583.5	1539.1	1500.9	1480.3	1458.6	1419.4	1396.8	1377.2	1369.9
50°	1453.5	1426.7	1392.6	1350.3	1330.7	1310.1	1282.2	1260.6	1237.9	1230.7
52.5°	1312.2	1285.3	1250.3	1217.3	1197.7	1185.3	1159.5	1134.7	1117.2	1105.8
55°	1176.0	1151.2	1119.3	1088.3	1081.1	1064.6	1034.7	1013.0	1001.7	1002.7
57.5°	1051.2	1029.5	1004.8	974.8	963.5	948.0	928.4	902.6	889.2	885.1
60°	937.7	917.1	896.4	873.7	859.3	848.0	821.1	800.5	783.0	780.9
62.5°	829.4	813.9	796.4	773.7	761.3	748.9	725.2	705.6	692.2	688.1
65°	735.5	722.1	701.5	682.9	670.5	658.1	635.4	615.9	604.5	593.2
67.5°	642.7	631.3	615.9	596.3	584.9	572.5	552.9	531.3	517.9	514.8
70°	560.1	547.8	535.4	514.8	504.4	497.2	475.6	453.9	443.6	439.5
72.5°	489.0	475.6	458.0	443.6	437.4	424.0	403.3	388.9	375.5	367.2
75°	414.7	406.4	394.1	377.6	366.2	356.9	340.4	326.0	314.6	306.4
77.5°	353.8	343.5	333.2	316.7	308.4	300.2	282.7	270.3	258.9	254.8
80°	297.1	287.8	273.4	261.0	253.8	246.5	233.1	219.7	211.5	207.3
82.5°	245.5	237.3	225.9	215.6	207.3	202.2	189.8	178.5	171.2	165.1
85°	203.2	192.9	182.6	173.3	167.1	163.0	153.7	145.5	136.2	134.1
87.5°	167.1	158.9	149.6	140.3	136.2	131.0	122.8	116.6	109.3	106.3
90°	143.4	133.1	124.8	117.6	113.5	110.4	104.2	95.9	90.8	87.7
92.5°	130.0	120.7	113.5	106.3	103.2	100.1	92.8	86.7	81.5	77.4
95°	121.7	112.4	105.2	99.0	95.9	93.9	87.7	81.5	76.3	73.2
97.5°	115.5	105.2	98.0	92.8	89.7	87.7	82.5	77.4	72.2	69.1
100°	110.4	100.1	92.8	87.7	85.6	83.6	78.4	73.2	69.1	66.0
102.5°	108.3	97.0	89.7	85.6	83.6	81.5	76.3	72.2	67.1	64.0
105°	108.3	95.9	88.7	83.6	81.5	79.4	75.3	71.2	66.0	62.9
107.5°	110.4	97.0	88.7	84.6	82.5	80.5	75.3	71.2	66.0	62.9
110°	113.5	100.1	90.8	85.6	83.6	81.5	76.3	72.2	67.1	64.0



TEST NUMBER: P232593

CATALOG NUMBER: 4SKB1-LD5-7-N-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	117.6	103.2	93.9	87.7	85.6	83.6	78.4	74.3	69.1	66.0
115°	122.8	107.3	98.0	90.8	88.7	86.7	81.5	76.3	72.2	69.1
117.5°	128.9	113.5	102.1	94.9	92.8	89.7	84.6	79.4	75.3	72.2
120°	135.1	120.7	108.3	100.1	97.0	93.9	88.7	83.6	78.4	75.3
122.5°	142.4	126.9	114.5	106.3	103.2	100.1	93.9	88.7	83.6	79.4
125°	149.6	135.1	121.7	112.4	108.3	105.2	99.0	92.8	88.7	84.6
127.5°	155.8	142.4	128.9	119.7	115.5	111.4	105.2	99.0	93.9	90.8
130°	160.9	149.6	137.2	126.9	122.8	119.7	111.4	105.2	100.1	97.0
132.5°	166.1	155.8	145.5	135.1	131.0	126.9	119.7	112.4	107.3	103.2
135°	169.2	160.9	152.7	143.4	139.3	134.1	126.9	119.7	113.5	109.3
137.5°	169.2	165.1	157.8	150.6	146.5	142.4	134.1	126.9	120.7	117.6
140°	164.0	165.1	162.0	156.8	152.7	149.6	142.4	134.1	127.9	124.8
142.5°	156.8	159.9	162.0	158.9	156.8	154.7	148.5	141.3	135.1	131.0
145°	145.5	151.6	155.8	158.9	157.8	156.8	151.6	146.5	140.3	136.2
147.5°	131.0	140.3	145.5	152.7	154.7	154.7	152.7	148.5	143.4	140.3
150°	110.4	123.8	133.1	140.3	143.4	147.5	147.5	144.4	141.3	138.2
152.5°	78.4	100.1	113.5	123.8	127.9	132.0	137.2	135.1	131.0	128.9
155°	44.4	54.7	82.5	99.0	104.2	109.3	117.6	119.7	118.6	115.5
157.5°	22.7	37.1	46.4	53.6	56.7	65.0	81.5	92.8	91.8	93.9
160°	5.2	6.2	17.5	33.0	37.1	39.2	43.3	46.4	46.4	44.4
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)