

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: P232592

Luminaire Tested: **4SKB1-LD5-7-N-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232592
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-L840-CD1-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS
Light Source: (238) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7403.1 lumens
Efficiency: N/A
Efficacy: 140.5 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

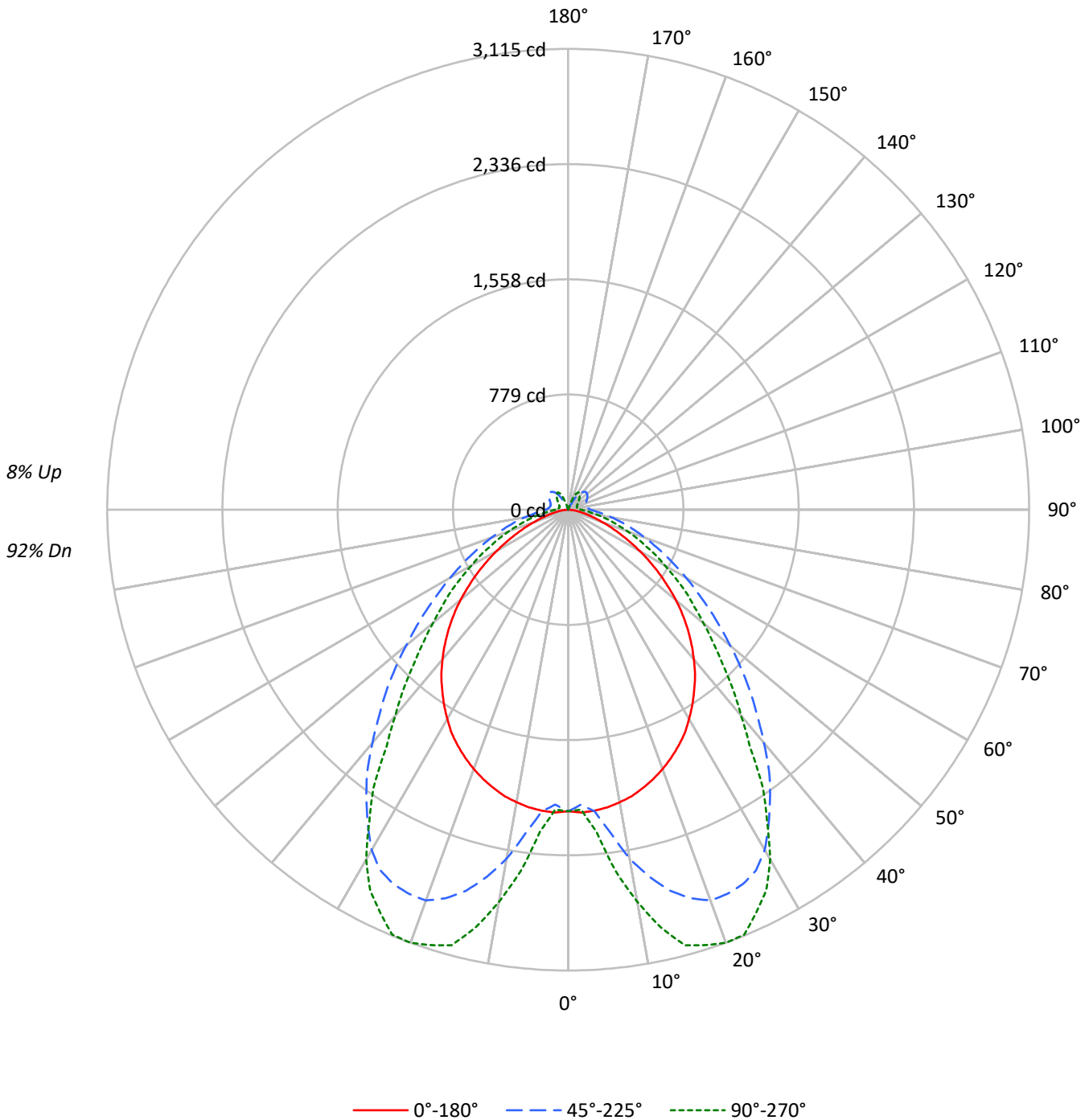
Input Watts (W): 52.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	21947	21947	21947
5°	21923	20531	21412
10°	21668	22672	24393
15°	21291	24057	25875
20°	20821	24410	25045
25°	20237	23546	23113
30°	19476	21918	20274
35°	18565	19362	16597
40°	17492	16670	12908
45°	16203	14122	10356
50°	14636	11712	8357
55°	12764	9625	6841
60°	10646	7873	5395
65°	8458	6377	4182
70°	6397	5088	3188
75°	4642	4012	2307
80°	3113	3083	1636
85°	1684	2320	1120



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.7	2.8
10°-20°	726.3	9.8
20°-30°	1195.8	16.2
30°-40°	1343.4	18.1
40°-50°	1195.5	16.1
50°-60°	924.6	12.5
60°-70°	627.8	8.5
70°-80°	374.7	5.1
80°-90°	201.0	2.7
90°-100°	132.3	1.8
100°-110°	112.2	1.5
110°-120°	103.8	1.4
120°-130°	96.7	1.3
130°-140°	82.0	1.1
140°-150°	56.0	0.8
150°-160°	21.6	0.3
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	2130.9	28.8
0°-40°	3474.3	46.9
0°-60°	5594.3	75.6
0°-90°	6797.8	91.8
90°-120°	348.2	4.7
90°-150°	582.9	7.9
90°-180°	605.0	8.2
0°-180°	7403.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2039	2039	2039	2039	2039	
5°	2042	2014	2046	2155	2184	194
15°	1948	2188	2666	2999	3048	549
25°	1762	2263	2793	3012	3005	811
35°	1485	2038	2378	2356	2295	928
45°	1142	1575	1741	1592	1474	878
55°	751	1073	1155	1048	972	671
65°	384	667	721	650	575	387
75°	142	402	412	355	297	156
85°	25	253	207	162	130	31
90°	2	215	151	110	85	2
95°	1	208	132	93	71	1
105°	1	189	122	79	61	1
115°	1	174	136	86	67	1
125°	1	143	158	105	82	1
135°	1	55	169	135	106	1
145°	1	5	131	153	132	1
155°	1	3	29	101	112	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°	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9
2.5°	2048.9	2040.9	2026.9	2025.9	2016.9	2012.9	2013.9	2010.9	2007.9	2002.9	1994.9
5°	2041.9	2026.9	2003.9	2003.9	2008.9	2013.9	2025.9	2036.9	2039.9	2046.9	2045.9
7.5°	2028.9	2005.9	1983.9	2001.9	2019.9	2026.9	2040.9	2060.9	2091.9	2148.9	2204.9
10°	2007.9	1976.9	1969.9	1998.9	2022.9	2043.9	2075.9	2168.9	2254.9	2339.9	2394.9
12.5°	1983.9	1945.9	1955.9	1992.9	2048.9	2088.9	2170.9	2293.9	2361.9	2460.9	2541.9
15°	1947.9	1911.9	1929.9	1984.9	2101.9	2187.9	2233.9	2383.9	2492.9	2574.9	2665.9
17.5°	1908.9	1876.9	1901.9	1998.9	2157.9	2240.9	2314.9	2441.9	2546.9	2667.9	2753.9
20°	1865.9	1837.9	1869.9	2016.9	2184.9	2269.9	2351.9	2472.9	2611.9	2736.9	2810.9
22.5°	1815.9	1790.9	1839.9	2024.9	2194.9	2279.9	2359.9	2500.9	2644.9	2747.9	2810.9
25°	1761.9	1736.9	1803.9	2008.9	2184.9	2262.9	2348.9	2515.9	2633.9	2714.9	2792.9
27.5°	1703.9	1675.9	1776.9	1975.9	2144.9	2232.9	2329.9	2486.9	2579.9	2669.9	2748.9
30°	1632.9	1607.9	1729.9	1927.9	2088.9	2192.9	2275.9	2416.9	2505.9	2594.9	2655.9
32.5°	1561.9	1537.9	1672.9	1859.9	2024.9	2122.9	2202.9	2312.9	2413.9	2482.9	2520.9
35°	1485.0	1458.0	1606.9	1776.9	1952.9	2037.9	2104.9	2204.9	2289.9	2340.9	2377.9
37.5°	1408.0	1379.0	1522.9	1689.9	1857.9	1935.9	1991.9	2092.9	2157.9	2199.9	2230.9
40°	1321.0	1291.0	1436.0	1591.9	1758.9	1813.9	1871.9	1961.9	2009.9	2043.9	2058.9
42.5°	1233.0	1203.0	1342.0	1489.0	1637.9	1691.9	1751.9	1822.9	1869.9	1889.9	1889.9
45°	1142.0	1113.0	1245.0	1387.0	1512.9	1574.9	1627.9	1684.9	1723.9	1739.9	1740.9
47.5°	1047.0	1023.0	1149.0	1278.0	1396.0	1450.0	1491.0	1545.9	1579.9	1583.9	1582.9
50°	950.0	929.0	1042.0	1169.0	1274.0	1322.0	1358.0	1409.0	1436.0	1435.0	1430.0
52.5°	848.0	835.0	940.0	1056.0	1151.0	1194.0	1226.0	1271.0	1293.0	1293.0	1289.0
55°	751.0	743.0	834.0	946.0	1035.0	1073.0	1103.0	1143.0	1161.0	1161.0	1155.0
57.5°	653.0	652.0	737.0	837.0	922.0	956.0	988.0	1023.0	1039.0	1039.0	1029.0
60°	557.0	562.0	646.0	738.0	816.0	849.0	877.0	911.0	921.0	923.0	921.0
62.5°	468.0	481.0	561.0	645.0	723.0	751.0	776.0	809.0	817.0	820.0	815.0
65°	384.0	404.0	485.0	565.0	638.0	667.0	689.0	712.0	719.0	722.0	721.0
67.5°	315.0	336.0	417.0	496.0	563.0	586.0	608.0	628.0	629.0	634.0	630.0
70°	244.0	276.0	357.0	432.0	495.0	516.0	534.0	548.0	551.0	552.0	551.0
72.5°	188.0	226.0	303.0	377.0	434.0	454.0	468.0	479.0	479.0	480.0	477.0
75°	142.0	188.0	263.0	331.0	382.0	402.0	413.0	420.0	416.0	415.0	412.0
77.5°	103.0	156.0	227.0	291.0	339.0	354.0	364.0	365.0	359.0	358.0	352.0
80°	71.0	127.0	196.0	256.0	300.0	315.0	320.0	316.0	311.0	305.0	297.0
82.5°	47.0	103.0	170.0	227.0	268.0	280.0	284.0	278.0	271.0	261.0	248.0
85°	25.0	83.0	148.0	203.0	242.0	253.0	255.0	244.0	233.0	220.0	207.0
87.5°	11.0	68.0	132.0	187.0	221.0	229.0	230.0	218.0	204.0	189.0	173.0
90°	2.0	58.0	122.0	175.0	208.0	215.0	215.0	199.0	185.0	169.0	151.0
92.5°	1.0	55.0	119.0	171.0	204.0	211.0	210.0	193.0	176.0	158.0	140.0
95°	1.0	48.0	112.0	167.0	201.0	208.0	207.0	189.0	171.0	152.0	132.0
97.5°	1.0	40.0	105.0	160.0	196.0	203.0	203.0	186.0	168.0	148.0	127.0
100°	0.0	31.0	97.0	153.0	189.0	198.0	199.0	183.0	164.0	144.0	124.0
102.5°	0.0	21.0	90.0	147.0	184.0	193.0	195.0	182.0	162.0	142.0	122.0
105°	1.0	13.0	81.0	140.0	179.0	189.0	192.0	181.0	161.0	142.0	122.0
107.5°	1.0	9.0	72.0	133.0	175.0	186.0	190.0	181.0	162.0	143.0	124.0
110°	1.0	8.0	61.0	126.0	170.0	182.0	188.0	182.0	164.0	146.0	127.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.0	6.0	46.0	117.0	164.0	178.0	186.0	183.0	167.0	149.0	131.0
115°	1.0	5.0	31.0	108.0	158.0	174.0	184.0	184.0	170.0	153.0	136.0
117.5°	1.0	5.0	21.0	96.0	151.0	169.0	180.0	185.0	174.0	157.0	142.0
120°	1.0	4.0	10.0	82.0	142.0	162.0	176.0	185.0	177.0	162.0	147.0
122.5°	1.0	4.0	8.0	63.0	132.0	154.0	170.0	184.0	180.0	166.0	153.0
125°	1.0	3.0	7.0	42.0	119.0	143.0	162.0	181.0	181.0	170.0	158.0
127.5°	1.0	3.0	6.0	30.0	102.0	131.0	151.0	176.0	181.0	173.0	163.0
130°	1.0	3.0	5.0	9.0	78.0	114.0	138.0	168.0	179.0	175.0	166.0
132.5°	1.0	2.0	5.0	7.0	50.0	89.0	120.0	155.0	173.0	175.0	169.0
135°	1.0	2.0	4.0	6.0	36.0	55.0	96.0	139.0	162.0	169.0	169.0
137.5°	1.0	2.0	4.0	5.0	16.0	41.0	60.0	120.0	148.0	161.0	164.0
140°	1.0	2.0	3.0	4.0	6.0	22.0	43.0	95.0	131.0	149.0	157.0
142.5°	1.0	2.0	3.0	4.0	5.0	5.0	26.0	55.0	110.0	133.0	146.0
145°	1.0	2.0	2.0	3.0	4.0	5.0	5.0	42.0	79.0	114.0	131.0
147.5°	1.0	1.0	2.0	3.0	4.0	4.0	4.0	19.0	47.0	87.0	112.0
150°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	4.0	31.0	49.0	83.0
152.5°	1.0	1.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	33.0	46.0
155°	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	4.0	29.0
157.5°	1.0	1.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0
160°	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0
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°	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9	2038.9
2.5°	2004.9	2019.9	2019.9	2032.9	2039.9	2037.9	2039.9	2043.9	2031.9	2027.9
5°	2067.9	2097.9	2112.9	2146.9	2154.9	2169.9	2174.9	2191.9	2195.9	2183.9
7.5°	2265.9	2327.9	2367.9	2408.9	2426.9	2435.9	2451.9	2462.9	2479.9	2466.9
10°	2451.9	2526.9	2583.9	2628.9	2639.9	2648.9	2667.9	2694.9	2692.9	2690.9
12.5°	2612.9	2678.9	2748.9	2813.9	2846.9	2853.9	2881.9	2914.9	2920.9	2893.9
15°	2745.9	2837.9	2916.9	2985.9	2998.9	3016.9	3037.9	3048.9	3043.9	3047.9
17.5°	2856.9	2934.9	2990.9	3027.9	3035.9	3049.9	3068.9	3082.9	3084.9	3085.9
20°	2900.9	2952.9	3006.9	3057.9	3073.9	3087.9	3110.9	3122.9	3120.9	3114.9
22.5°	2892.9	2968.9	3018.9	3060.9	3076.9	3089.9	3109.9	3117.9	3114.9	3108.9
25°	2880.9	2945.9	2989.9	3011.9	3011.9	3021.9	3016.9	3010.9	3003.9	3004.9
27.5°	2823.9	2861.9	2891.9	2916.9	2919.9	2920.9	2917.9	2911.9	2907.9	2898.9
30°	2707.9	2753.9	2767.9	2765.9	2761.9	2760.9	2748.9	2739.9	2728.9	2729.9
32.5°	2571.9	2581.9	2587.9	2570.9	2560.9	2558.9	2547.9	2532.9	2517.9	2501.9
35°	2396.9	2389.9	2375.9	2363.9	2355.9	2343.9	2327.9	2312.9	2293.9	2294.9
37.5°	2227.9	2205.9	2185.9	2152.9	2146.9	2118.9	2087.9	2063.9	2032.9	2015.9
40°	2051.9	2029.9	2004.9	1968.9	1952.9	1926.9	1892.9	1852.9	1827.9	1817.9
42.5°	1883.9	1856.9	1827.9	1784.9	1764.9	1743.9	1707.9	1668.9	1650.9	1647.9
45°	1719.9	1688.9	1660.9	1612.9	1591.9	1566.9	1529.9	1506.0	1480.0	1474.0
47.5°	1561.9	1534.9	1492.0	1455.0	1435.0	1414.0	1376.0	1354.0	1335.0	1328.0
50°	1409.0	1383.0	1350.0	1309.0	1290.0	1270.0	1243.0	1222.0	1200.0	1193.0
52.5°	1272.0	1246.0	1212.0	1180.0	1161.0	1149.0	1124.0	1100.0	1083.0	1072.0
55°	1140.0	1116.0	1085.0	1055.0	1048.0	1032.0	1003.0	982.0	971.0	972.0
57.5°	1019.0	998.0	974.0	945.0	934.0	919.0	900.0	875.0	862.0	858.0
60°	909.0	889.0	869.0	847.0	833.0	822.0	796.0	776.0	759.0	757.0
62.5°	804.0	789.0	772.0	750.0	738.0	726.0	703.0	684.0	671.0	667.0
65°	713.0	700.0	680.0	662.0	650.0	638.0	616.0	597.0	586.0	575.0
67.5°	623.0	612.0	597.0	578.0	567.0	555.0	536.0	515.0	502.0	499.0
70°	543.0	531.0	519.0	499.0	489.0	482.0	461.0	440.0	430.0	426.0
72.5°	474.0	461.0	444.0	430.0	424.0	411.0	391.0	377.0	364.0	356.0
75°	402.0	394.0	382.0	366.0	355.0	346.0	330.0	316.0	305.0	297.0
77.5°	343.0	333.0	323.0	307.0	299.0	291.0	274.0	262.0	251.0	247.0
80°	288.0	279.0	265.0	253.0	246.0	239.0	226.0	213.0	205.0	201.0
82.5°	238.0	230.0	219.0	209.0	201.0	196.0	184.0	173.0	166.0	160.0
85°	197.0	187.0	177.0	168.0	162.0	158.0	149.0	141.0	132.0	130.0
87.5°	162.0	154.0	145.0	136.0	132.0	127.0	119.0	113.0	106.0	103.0
90°	139.0	129.0	121.0	114.0	110.0	107.0	101.0	93.0	88.0	85.0
92.5°	126.0	117.0	110.0	103.0	100.0	97.0	90.0	84.0	79.0	75.0
95°	118.0	109.0	102.0	96.0	93.0	91.0	85.0	79.0	74.0	71.0
97.5°	112.0	102.0	95.0	90.0	87.0	85.0	80.0	75.0	70.0	67.0
100°	107.0	97.0	90.0	85.0	83.0	81.0	76.0	71.0	67.0	64.0
102.5°	105.0	94.0	87.0	83.0	81.0	79.0	74.0	70.0	65.0	62.0
105°	105.0	93.0	86.0	81.0	79.0	77.0	73.0	69.0	64.0	61.0
107.5°	107.0	94.0	86.0	82.0	80.0	78.0	73.0	69.0	64.0	61.0
110°	110.0	97.0	88.0	83.0	81.0	79.0	74.0	70.0	65.0	62.0



TEST NUMBER: P232592

CATALOG NUMBER: 4SKB1-LD5-7-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	114.0	100.0	91.0	85.0	83.0	81.0	76.0	72.0	67.0	64.0
115°	119.0	104.0	95.0	88.0	86.0	84.0	79.0	74.0	70.0	67.0
117.5°	125.0	110.0	99.0	92.0	90.0	87.0	82.0	77.0	73.0	70.0
120°	131.0	117.0	105.0	97.0	94.0	91.0	86.0	81.0	76.0	73.0
122.5°	138.0	123.0	111.0	103.0	100.0	97.0	91.0	86.0	81.0	77.0
125°	145.0	131.0	118.0	109.0	105.0	102.0	96.0	90.0	86.0	82.0
127.5°	151.0	138.0	125.0	116.0	112.0	108.0	102.0	96.0	91.0	88.0
130°	156.0	145.0	133.0	123.0	119.0	116.0	108.0	102.0	97.0	94.0
132.5°	161.0	151.0	141.0	131.0	127.0	123.0	116.0	109.0	104.0	100.0
135°	164.0	156.0	148.0	139.0	135.0	130.0	123.0	116.0	110.0	106.0
137.5°	164.0	160.0	153.0	146.0	142.0	138.0	130.0	123.0	117.0	114.0
140°	159.0	160.0	157.0	152.0	148.0	145.0	138.0	130.0	124.0	121.0
142.5°	152.0	155.0	157.0	154.0	152.0	150.0	144.0	137.0	131.0	127.0
145°	141.0	147.0	151.0	154.0	153.0	152.0	147.0	142.0	136.0	132.0
147.5°	127.0	136.0	141.0	148.0	150.0	150.0	148.0	144.0	139.0	136.0
150°	107.0	120.0	129.0	136.0	139.0	143.0	143.0	140.0	137.0	134.0
152.5°	76.0	97.0	110.0	120.0	124.0	128.0	133.0	131.0	127.0	125.0
155°	43.0	53.0	80.0	96.0	101.0	106.0	114.0	116.0	115.0	112.0
157.5°	22.0	36.0	45.0	52.0	55.0	63.0	79.0	90.0	89.0	91.0
160°	5.0	6.0	17.0	32.0	36.0	38.0	42.0	45.0	45.0	43.0
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)