

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: P232577

Luminaire Tested: **4SKB1-LD5-8-W-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232577  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-317-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SKB1-LD5-8-W-UNV-L840-CD1-U  
Description: METALUX SKYBAR 4' WAVESTREAM STRIP  
WITH WIDE LENS  
Light Source: (238) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8087.0 lumens  
Efficiency: N/A  
Efficacy: 124.0 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.48 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.29')  
CIE Type: Semi-Direct

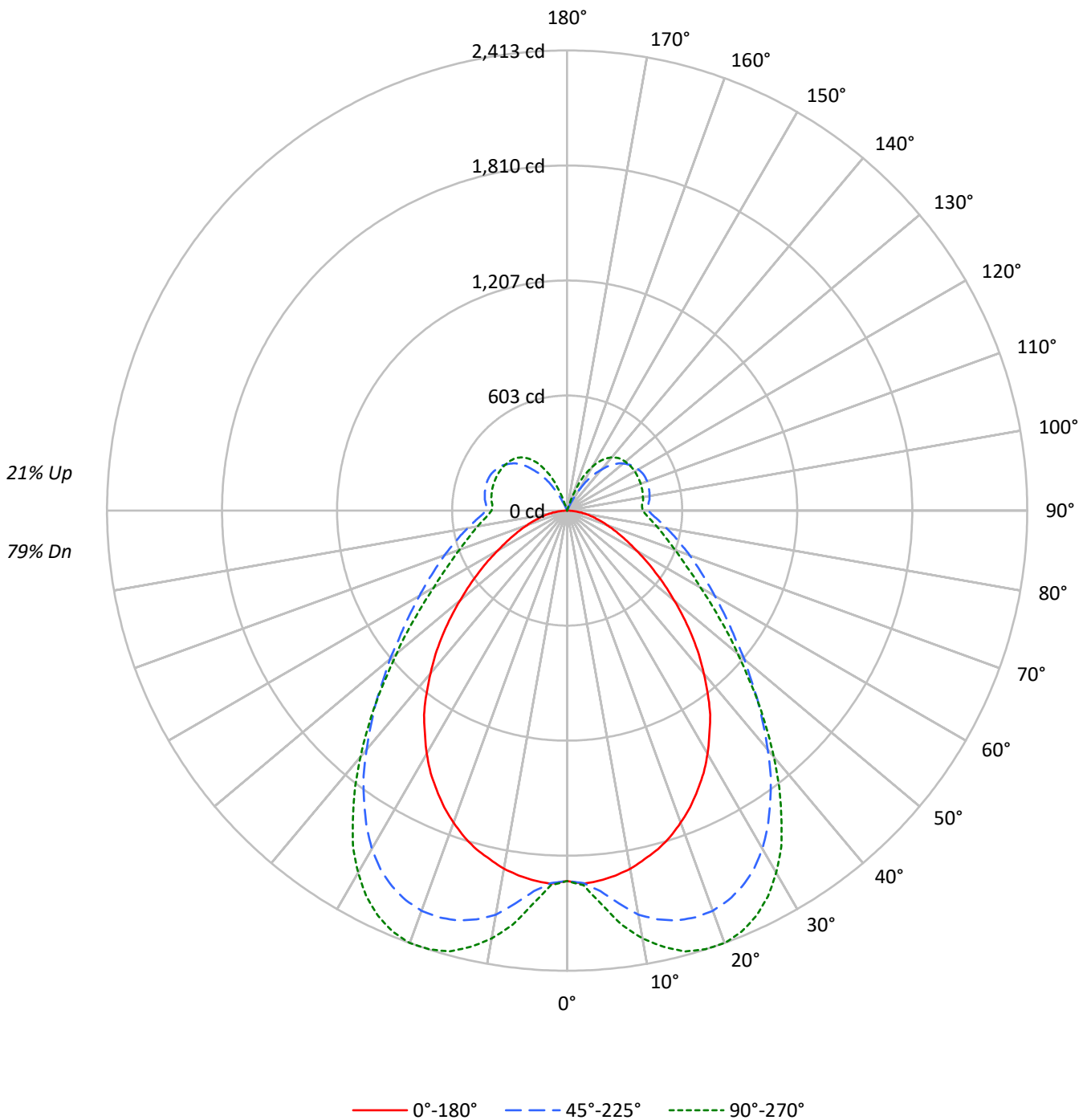
Input Watts (W): 65.23  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	114	114	114	114	109	109	109	109	99	99	99	91	91	91	83	83	83	79
1	103	97	93	88	98	93	89	85	85	82	78	77	75	72	70	68	67	63
2	93	85	78	72	89	81	75	69	74	69	64	68	63	60	62	58	55	52
3	85	74	66	60	81	71	64	58	65	59	54	60	55	51	55	51	47	44
4	78	66	57	51	74	63	55	49	58	51	46	53	48	43	49	44	41	38
5	72	59	50	44	68	57	49	42	52	45	40	48	42	38	44	39	36	33
6	66	53	44	38	63	51	43	37	47	40	35	44	38	33	40	35	31	29
7	61	48	40	34	58	46	38	33	43	36	31	40	34	30	37	32	28	26
8	57	44	36	30	54	42	35	29	39	33	28	36	31	26	34	29	25	23
9	53	40	32	27	51	39	31	26	36	30	25	34	28	24	31	26	23	21
10	50	37	29	24	48	36	29	24	33	27	23	31	26	22	29	24	21	19

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	20907	20907	20907
5°	20916	20099	20309
10°	20583	20370	20654
15°	20098	20078	20321
20°	19428	19393	19405
25°	18582	18327	18044
30°	17561	16903	16282
35°	16358	15124	14156
40°	14753	13249	11974
45°	13086	11473	9928
50°	11289	9926	8180
55°	9588	8626	6803
60°	8047	7646	5744
65°	6815	6882	5016
70°	5855	6315	4500
75°	4982	5832	4128
80°	4078	5481	3881
85°	2742	5267	3698



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.1	2.4
10°-20°	616.5	7.6
20°-30°	966.1	11.9
30°-40°	1106.3	13.7
40°-50°	1018.9	12.6
50°-60°	836.2	10.3
60°-70°	668.6	8.3
70°-80°	537.1	6.6
80°-90°	427.2	5.3
90°-100°	381.8	4.7
100°-110°	371.9	4.6
110°-120°	337.0	4.2
120°-130°	278.5	3.4
130°-140°	199.8	2.5
140°-150°	111.0	1.4
150°-160°	33.4	0.4
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	1778.6	22.0
0°-40°	2884.9	35.7
0°-60°	4740.0	58.6
0°-90°	6372.8	78.8
90°-120°	1090.7	13.5
90°-150°	1680.0	20.8
90°-180°	1714.0	21.2
0°-180°	8087.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1942	1942	1942	1942	1942	
5°	1948	1968	2003	2071	2071	185
15°	1839	2025	2225	2364	2394	517
25°	1618	1926	2174	2327	2346	744
35°	1308	1627	1857	1967	1957	813
45°	922	1228	1414	1452	1413	711
55°	564	883	1035	1008	966	509
65°	309	648	778	725	690	311
75°	152	493	599	554	532	163
85°	41	373	470	441	429	44
90°	2	332	426	406	397	3
95°	1	329	428	406	394	1
105°	1	322	444	422	408	1
115°	1	291	443	430	411	1
125°	1	227	413	427	406	1
135°	1	83	343	399	387	1
145°	1	4	210	322	326	1
155°	1	1	33	150	188	1
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°	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3
2.5°	1958.6	1950.5	1944.6	1950.5	1952.8	1955.1	1960.9	1959.8	1960.9	1958.6	1955.1
5°	1948.1	1941.1	1938.8	1950.5	1962.1	1967.9	1976.0	1984.2	1991.2	2000.5	2002.8
7.5°	1930.7	1927.2	1929.5	1950.5	1969.1	1983.0	1994.7	2015.6	2036.5	2057.5	2077.2
10°	1907.4	1905.1	1915.6	1947.0	1977.2	1997.0	2016.7	2055.1	2091.2	2123.8	2151.7
12.5°	1872.5	1878.3	1895.8	1937.7	1985.3	2013.3	2044.7	2092.3	2130.7	2167.9	2195.9
15°	1838.8	1842.3	1876.0	1926.0	1981.9	2024.9	2057.5	2117.9	2157.5	2195.9	2224.9
17.5°	1794.6	1802.7	1840.0	1910.9	1979.5	2017.9	2057.5	2105.1	2152.8	2197.0	2236.6
20°	1741.1	1758.5	1808.6	1886.5	1964.4	2002.8	2037.7	2095.8	2144.7	2187.7	2233.1
22.5°	1684.1	1703.9	1759.7	1852.8	1933.0	1971.4	2005.1	2069.1	2119.1	2162.1	2211.0
25°	1617.8	1643.4	1709.7	1809.7	1886.5	1926.0	1962.1	2027.2	2079.6	2122.6	2173.8
27.5°	1550.4	1579.4	1651.5	1752.7	1831.8	1869.0	1906.3	1971.4	2023.7	2066.8	2120.3
30°	1472.4	1503.8	1585.3	1682.9	1760.9	1801.6	1835.3	1899.3	1956.3	1994.7	2048.2
32.5°	1388.7	1424.8	1512.0	1606.2	1684.1	1722.5	1756.2	1817.9	1869.0	1909.7	1958.6
35°	1308.4	1337.5	1425.9	1517.8	1592.2	1627.1	1666.7	1726.0	1771.3	1813.2	1857.4
37.5°	1211.9	1246.8	1336.4	1423.6	1498.0	1535.2	1567.8	1622.5	1664.3	1703.9	1753.9
40°	1114.2	1152.6	1245.6	1323.6	1400.3	1429.4	1462.0	1512.0	1551.5	1600.4	1636.4
42.5°	1022.3	1058.4	1146.8	1225.9	1298.0	1327.1	1358.5	1410.8	1444.5	1486.4	1522.4
45°	922.3	959.5	1053.7	1128.2	1196.8	1228.2	1260.8	1303.8	1342.2	1375.9	1414.3
47.5°	826.9	871.1	961.9	1031.6	1101.4	1130.5	1158.4	1203.8	1242.1	1278.2	1305.0
50°	732.7	780.4	868.8	944.4	1010.7	1039.8	1067.7	1113.0	1152.6	1184.0	1211.9
52.5°	646.7	696.7	787.4	866.5	925.8	956.0	983.9	1028.1	1067.7	1096.8	1115.4
55°	564.1	619.9	714.1	790.9	850.2	882.8	904.9	951.4	990.9	1017.7	1035.1
57.5°	492.0	553.6	643.2	722.3	783.9	813.0	839.7	883.9	921.1	946.7	960.7
60°	421.0	489.6	582.7	659.5	722.3	750.2	779.3	823.4	858.3	881.6	894.4
62.5°	361.7	433.8	530.4	604.8	668.8	696.7	722.3	766.5	800.2	823.4	833.9
65°	309.4	385.0	482.7	557.1	618.7	647.8	674.6	719.9	751.3	773.4	778.1
67.5°	264.0	340.8	439.6	512.9	576.9	603.6	630.4	675.7	706.0	724.6	728.1
70°	223.3	301.2	400.1	473.4	536.2	565.2	592.0	632.7	664.1	679.2	683.9
72.5°	186.1	267.5	362.9	438.5	501.3	528.0	553.6	596.7	625.7	639.7	638.5
75°	152.4	236.1	331.5	405.9	465.2	493.1	518.7	560.6	589.7	601.3	599.0
77.5°	123.3	209.4	301.2	373.3	433.8	461.7	485.0	526.9	553.6	566.4	564.1
80°	93.0	180.3	272.2	343.1	403.6	429.2	454.8	494.3	521.1	533.8	528.0
82.5°	67.5	153.5	245.4	315.2	374.5	401.3	424.5	465.2	490.8	501.3	497.8
85°	40.7	126.8	216.3	288.4	347.8	373.3	398.9	437.3	462.9	473.4	469.9
87.5°	17.4	102.3	191.9	264.0	323.3	348.9	373.3	411.7	436.1	446.6	443.1
90°	2.3	86.1	176.8	247.7	305.9	331.5	355.9	394.3	418.7	429.2	425.7
92.5°	1.2	82.6	172.1	243.1	301.2	328.0	351.2	390.8	416.4	425.7	424.5
95°	1.2	76.8	169.8	243.1	302.4	329.1	353.6	393.1	418.7	429.2	428.0
97.5°	1.2	68.6	166.3	241.9	303.6	331.5	355.9	397.8	424.5	436.1	435.0
100°	1.2	55.8	159.3	238.4	301.2	330.3	354.7	397.8	425.7	438.5	438.5
102.5°	1.2	38.4	151.2	232.6	298.9	326.8	352.4	396.6	425.7	439.6	442.0
105°	1.2	23.3	140.7	225.6	293.1	322.2	348.9	394.3	424.5	440.8	444.3
107.5°	1.2	15.1	127.9	217.5	287.3	317.5	344.3	390.8	422.2	440.8	445.5
110°	1.2	12.8	111.7	208.2	279.1	309.4	337.3	386.1	418.7	439.6	446.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.2	10.5	86.1	195.4	269.8	301.2	330.3	378.0	414.0	435.0	445.5
115°	1.2	8.1	55.8	180.3	258.2	290.8	319.8	369.9	405.9	430.3	443.1
117.5°	1.2	7.0	36.1	162.8	245.4	278.0	308.2	359.4	397.8	423.4	438.5
120°	1.2	5.8	15.1	139.6	229.1	264.0	294.3	345.4	386.1	414.0	431.5
122.5°	1.2	4.7	11.6	104.7	210.5	246.6	278.0	331.5	372.2	403.6	422.2
125°	1.2	4.7	9.3	67.5	187.3	226.8	260.5	315.2	358.2	390.8	412.9
127.5°	1.2	3.5	8.1	45.4	159.3	203.5	239.6	296.6	340.8	374.5	398.9
130°	1.2	3.5	7.0	19.8	118.6	174.5	214.0	274.5	321.0	357.1	383.8
132.5°	1.2	2.3	5.8	8.1	73.3	134.9	181.4	246.6	297.7	336.1	366.4
135°	1.2	2.3	4.7	7.0	48.8	82.6	141.9	215.2	267.5	308.2	343.1
137.5°	1.2	2.3	3.5	5.8	19.8	54.7	87.2	180.3	234.9	278.0	314.0
140°	1.2	2.3	3.5	4.7	5.8	25.6	59.3	137.2	198.9	245.4	280.3
142.5°	1.2	2.3	3.5	3.5	4.7	5.8	29.1	80.3	159.3	209.4	247.7
145°	1.2	1.2	2.3	3.5	3.5	3.5	4.7	54.7	103.5	169.8	210.5
147.5°	1.2	1.2	2.3	2.3	3.5	3.5	3.5	22.1	64.0	119.8	169.8
150°	1.2	1.2	2.3	2.3	2.3	2.3	2.3	2.3	32.6	65.1	115.1
152.5°	1.2	1.2	1.2	2.3	2.3	2.3	2.3	2.3	3.5	37.2	64.0
155°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	3.5	32.6
157.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
160°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3	1942.3
2.5°	1960.9	1971.4	1976.0	1980.7	1981.9	1983.0	1980.7	1979.5	1971.4	1966.7
5°	2019.1	2044.7	2055.1	2070.2	2071.4	2072.6	2079.6	2076.1	2077.2	2071.4
7.5°	2104.0	2141.2	2157.5	2177.3	2181.9	2187.7	2199.3	2200.5	2199.3	2191.2
10°	2183.1	2214.5	2238.9	2257.5	2264.5	2269.1	2283.1	2286.6	2284.3	2278.4
12.5°	2230.8	2271.5	2295.9	2322.6	2329.6	2336.6	2348.2	2354.0	2347.1	2343.6
15°	2271.5	2314.5	2334.3	2363.3	2364.5	2377.3	2397.1	2399.4	2395.9	2393.6
17.5°	2281.9	2326.1	2355.2	2380.8	2390.1	2398.2	2409.9	2419.2	2420.3	2411.0
20°	2279.6	2321.5	2356.4	2383.1	2393.6	2399.4	2414.5	2421.5	2418.0	2413.4
22.5°	2261.0	2302.9	2337.8	2361.0	2370.3	2379.6	2393.6	2399.4	2399.4	2390.1
25°	2222.6	2264.5	2294.7	2319.1	2327.3	2336.6	2350.5	2354.0	2351.7	2345.9
27.5°	2167.9	2205.2	2235.4	2256.3	2264.5	2272.6	2287.7	2291.2	2286.6	2280.8
30°	2087.7	2126.1	2156.3	2174.9	2181.9	2187.7	2197.0	2205.2	2198.2	2192.4
32.5°	2000.5	2035.4	2056.3	2073.7	2078.4	2083.0	2092.3	2095.8	2088.9	2090.0
35°	1898.1	1928.4	1952.8	1964.4	1966.7	1965.6	1970.2	1971.4	1972.6	1957.4
37.5°	1786.5	1813.2	1824.8	1841.1	1837.6	1843.5	1848.1	1843.5	1831.8	1826.0
40°	1666.7	1684.1	1703.9	1709.7	1706.2	1714.4	1712.0	1703.9	1691.1	1686.4
42.5°	1548.0	1567.8	1574.8	1579.4	1575.9	1577.1	1572.5	1570.1	1557.3	1546.9
45°	1435.2	1449.2	1452.7	1451.5	1451.5	1445.7	1439.9	1430.6	1418.9	1413.1
47.5°	1324.7	1334.0	1335.2	1329.4	1324.7	1317.7	1318.9	1302.6	1288.7	1281.7
50°	1222.4	1225.9	1222.4	1211.9	1209.6	1201.4	1196.8	1184.0	1171.2	1167.7
52.5°	1130.5	1129.3	1122.4	1110.7	1106.1	1097.9	1089.8	1078.2	1065.4	1065.4
55°	1040.9	1037.5	1028.1	1015.4	1008.4	1004.9	994.4	981.6	972.3	966.5
57.5°	963.0	956.0	944.4	932.8	923.5	914.2	907.2	897.9	886.3	883.9
60°	893.2	879.3	868.8	856.0	849.0	840.9	831.6	824.6	815.3	806.0
62.5°	828.1	816.5	802.5	789.7	782.7	775.8	766.5	756.0	750.2	747.8
65°	771.1	759.5	743.2	730.4	724.6	717.6	710.6	699.0	695.5	689.7
67.5°	719.9	704.8	689.7	678.1	672.2	669.9	662.9	656.0	647.8	643.2
70°	672.2	657.1	643.2	635.0	628.1	625.7	619.9	610.6	604.8	601.3
72.5°	626.9	614.1	602.5	590.8	586.2	585.0	580.4	573.4	567.6	564.1
75°	588.5	575.7	564.1	558.3	553.6	550.1	547.8	540.8	537.3	531.5
77.5°	554.8	539.7	529.2	523.4	519.9	517.6	515.2	511.7	507.1	503.6
80°	518.7	507.1	499.0	493.1	490.8	488.5	486.2	483.8	480.3	476.9
82.5°	488.5	478.0	471.0	466.4	466.4	464.1	462.9	460.6	457.1	452.4
85°	459.4	450.1	444.3	442.0	440.8	439.6	438.5	436.1	432.7	429.2
87.5°	435.0	428.0	422.2	421.0	421.0	419.9	418.7	417.5	414.0	410.6
90°	418.7	411.7	408.2	407.1	405.9	405.9	405.9	403.6	400.1	396.6
92.5°	416.4	409.4	405.9	403.6	403.6	403.6	403.6	401.3	397.8	393.1
95°	419.9	412.9	409.4	407.1	405.9	405.9	404.7	402.4	398.9	394.3
97.5°	428.0	421.0	416.4	412.9	411.7	411.7	410.6	408.2	404.7	401.3
100°	432.7	425.7	421.0	417.5	416.4	415.2	414.0	411.7	408.2	403.6
102.5°	436.1	429.2	423.4	421.0	419.9	418.7	416.4	414.0	410.6	405.9
105°	438.5	432.7	428.0	423.4	422.2	421.0	418.7	416.4	411.7	408.2
107.5°	442.0	436.1	430.3	426.8	424.5	423.4	421.0	418.7	414.0	409.4
110°	443.1	438.5	432.7	429.2	426.8	425.7	422.2	418.7	414.0	410.6





TEST NUMBER: P232577

CATALOG NUMBER: 4SKB1-LD5-8-W-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	444.3	440.8	435.0	430.3	429.2	426.8	423.4	419.9	415.2	410.6
115°	444.3	440.8	436.1	431.5	430.3	428.0	424.5	419.9	415.2	410.6
117.5°	443.1	440.8	437.3	432.7	430.3	428.0	424.5	419.9	414.0	410.6
120°	439.6	439.6	436.1	432.7	430.3	428.0	423.4	418.7	414.0	409.4
122.5°	433.8	436.1	433.8	430.3	429.2	426.8	423.4	417.5	411.7	408.2
125°	425.7	431.5	430.3	428.0	426.8	424.5	421.0	416.4	410.6	405.9
127.5°	415.2	423.4	425.7	424.5	423.4	422.2	417.5	412.9	408.2	402.4
130°	402.4	412.9	417.5	417.5	417.5	416.4	414.0	409.4	403.6	398.9
132.5°	386.1	398.9	405.9	409.4	409.4	409.4	407.1	403.6	398.9	393.1
135°	367.5	383.8	393.1	397.8	398.9	398.9	398.9	396.6	392.0	387.3
137.5°	345.4	364.0	376.8	383.8	386.1	387.3	388.5	386.1	381.5	376.8
140°	312.9	339.6	355.9	365.2	367.5	371.0	373.3	371.0	367.5	364.0
142.5°	280.3	308.2	331.5	344.3	346.6	350.1	353.6	353.6	350.1	346.6
145°	245.4	273.3	297.7	318.7	322.2	325.7	330.3	332.6	329.1	325.7
147.5°	204.7	233.8	259.4	282.6	293.1	297.7	302.4	304.7	303.6	300.1
150°	161.7	193.1	217.5	240.8	251.2	265.2	271.0	272.2	271.0	267.5
152.5°	97.7	143.1	171.0	194.2	203.5	216.3	232.6	236.1	233.8	231.4
155°	54.7	74.4	104.7	139.6	150.0	161.7	181.4	189.6	188.4	188.4
157.5°	16.3	40.7	55.8	68.6	73.3	80.3	103.5	123.3	129.1	130.3
160°	1.2	1.2	14.0	27.9	34.9	41.9	53.5	60.5	61.6	62.8
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)