

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: P236381

Luminaire Tested: **SKB2-LD5-9-W-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236381  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-365-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB2-LD5-9-W-UNV-L850-CD1-U  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES VERTICAL  
Light Source: (476) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

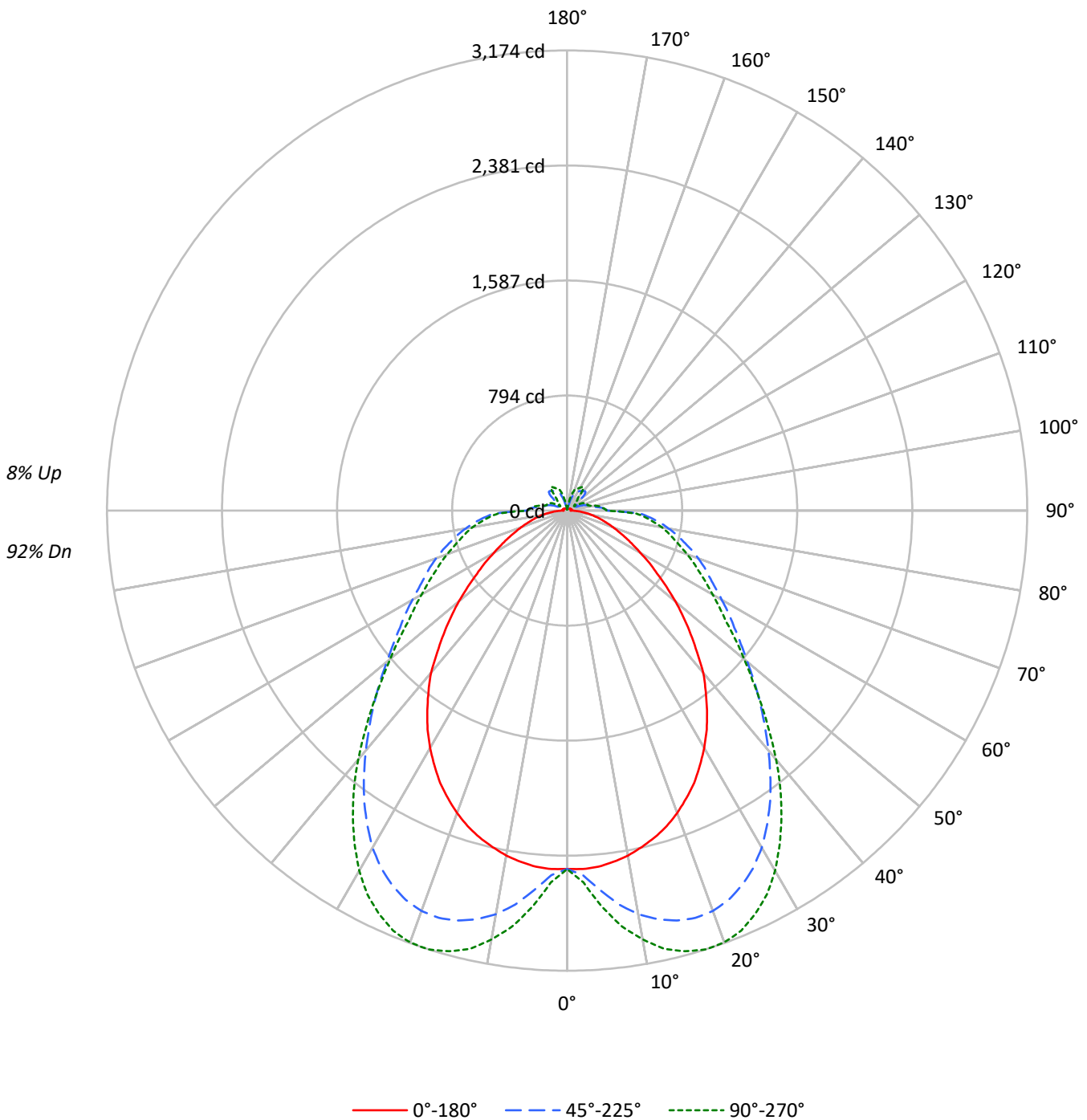
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9235.9 lumens  
Efficiency: N/A  
Efficacy: 122.5 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.51 / 1.46  
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')  
CIE Type: Direct

Input Watts (W): 75.4  
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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CATALOG NUMBER: SKB2-LD5-9-W-UNV-L850-CD1-U

### 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	105	100	95	91	102	97	92	88	91	87	84	86	83	80	81	78	76	74
2	95	87	79	73	92	84	77	72	79	74	69	75	70	66	70	67	63	61
3	87	76	68	61	84	74	66	60	70	63	58	66	60	56	62	58	54	51
4	80	67	58	52	77	66	57	51	62	55	49	59	53	48	56	50	46	44
5	73	60	51	45	71	59	50	44	56	48	43	53	46	41	50	45	40	38
6	68	54	45	39	65	53	45	38	50	43	37	48	41	36	46	40	36	33
7	63	49	41	34	61	48	40	34	46	39	33	44	37	32	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	38	33	28	26
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22

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

	0°	45°	90°
0°	10643	10643	10643
5°	10561	11174	11676
10°	10374	11953	12756
15°	10121	12411	13426
20°	9798	12587	13691
25°	9389	12439	13530
30°	8863	12016	13005
35°	8235	11314	12130
40°	7549	10459	11062
45°	6646	9627	9891
50°	5806	8847	8899
55°	4960	8299	8132
60°	4268	7966	7750
65°	3731	7818	7560
70°	3306	7919	7595
75°	2973	8074	7817
80°	2665	8447	8442
85°	2230	8968	9231



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.7	2.8
10°-20°	805.0	8.7
20°-30°	1261.0	13.7
30°-40°	1450.5	15.7
40°-50°	1356.2	14.7
50°-60°	1141.5	12.4
60°-70°	941.4	10.2
70°-80°	756.3	8.2
80°-90°	517.8	5.6
90°-100°	208.4	2.3
100°-110°	127.4	1.4
110°-120°	92.5	1.0
120°-130°	80.1	0.9
130°-140°	89.2	1.0
140°-150°	85.1	0.9
150°-160°	50.6	0.5
160°-170°	16.6	0.2
170°-180°	1.5	0.0
0°-30°	2320.7	25.1
0°-40°	3771.3	40.8
0°-60°	6269.0	67.9
0°-90°	8484.5	91.9
90°-120°	428.3	4.6
90°-150°	682.8	7.4
90°-180°	751.0	8.1
0°-180°	9235.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2472	2472	2472	2472	2472	
5°	2466	2520	2629	2720	2741	234
15°	2334	2647	2927	3098	3147	657
25°	2072	2515	2852	3022	3069	951
35°	1681	2139	2441	2564	2577	1050
45°	1205	1624	1884	1925	1895	931
55°	759	1190	1408	1383	1341	686
65°	448	899	1082	1032	1007	448
75°	248	692	832	778	762	264
85°	99	488	579	544	543	96
90°	25	219	279	273	274	20
95°	31	150	234	240	241	25
105°	31	75	142	148	146	33
115°	26	120	64	110	123	26
125°	23	143	94	67	60	20
135°	18	133	179	107	95	14
145°	14	103	165	195	197	9
155°	13	41	141	160	164	6
165°	13	18	48	91	104	4
175°	12	12	14	15	12	1
180°	11	11	11	11	11	



TEST NUMBER: P236381

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0
2.5°	2475.1	2477.1	2482.3	2490.5	2491.6	2488.5	2484.4	2491.6	2488.5	2503.9	2516.3
5°	2465.8	2467.9	2479.2	2502.9	2511.1	2520.4	2523.5	2549.2	2569.8	2599.7	2628.6
7.5°	2444.2	2456.5	2475.1	2515.3	2549.2	2563.7	2579.1	2619.3	2660.5	2703.7	2740.8
10°	2416.4	2431.8	2469.9	2528.6	2581.2	2606.9	2629.6	2687.3	2732.6	2780.0	2826.3
12.5°	2377.2	2399.9	2451.4	2534.8	2604.9	2632.7	2661.5	2725.4	2780.0	2837.6	2887.1
15°	2334.0	2363.8	2431.8	2533.8	2611.0	2647.1	2678.0	2746.0	2808.8	2870.6	2927.3
17.5°	2282.5	2317.5	2405.0	2517.3	2602.8	2640.9	2674.9	2747.0	2816.0	2880.9	2945.8
20°	2219.6	2263.9	2369.0	2487.4	2575.0	2617.2	2652.2	2730.5	2804.7	2876.8	2938.6
22.5°	2147.5	2201.1	2315.4	2442.1	2533.8	2575.0	2612.1	2697.6	2776.9	2843.8	2907.7
25°	2072.4	2130.0	2254.7	2382.4	2477.1	2515.3	2556.5	2646.1	2720.2	2789.2	2852.1
27.5°	1982.7	2045.6	2182.6	2311.3	2403.0	2447.3	2487.4	2571.9	2648.1	2720.2	2778.9
30°	1890.0	1958.0	2098.1	2216.6	2312.3	2362.8	2398.9	2480.2	2560.6	2626.5	2684.2
32.5°	1791.2	1856.1	1998.2	2120.8	2211.4	2258.8	2293.8	2374.1	2448.3	2509.1	2567.8
35°	1681.0	1753.1	1892.1	2008.5	2097.1	2139.3	2174.3	2261.9	2326.8	2388.6	2441.1
37.5°	1570.7	1638.7	1771.6	1892.1	1978.6	2017.8	2049.7	2136.2	2197.0	2252.6	2302.0
40°	1460.5	1519.2	1651.1	1759.2	1848.8	1882.8	1920.9	1994.1	2060.0	2116.6	2159.9
42.5°	1325.6	1398.7	1529.5	1635.6	1716.0	1757.2	1793.2	1869.4	1925.1	1975.5	2017.8
45°	1205.1	1281.3	1401.8	1508.9	1591.3	1624.3	1660.4	1732.5	1795.3	1839.6	1883.9
47.5°	1087.7	1163.9	1284.4	1384.3	1466.7	1508.9	1537.8	1610.9	1668.6	1717.0	1750.0
50°	974.4	1051.6	1167.0	1272.0	1350.3	1389.5	1426.5	1492.5	1556.3	1595.5	1622.2
52.5°	863.1	942.4	1066.0	1163.9	1246.3	1282.3	1316.3	1390.5	1449.2	1488.3	1510.0
55°	759.1	847.7	969.2	1069.1	1149.5	1189.6	1225.7	1298.8	1348.3	1382.3	1408.0
57.5°	672.6	757.0	879.6	983.6	1066.0	1102.1	1141.2	1212.3	1259.7	1295.7	1320.5
60°	585.0	676.7	803.4	902.3	987.8	1030.0	1066.0	1129.9	1182.4	1218.5	1231.9
62.5°	512.9	607.7	731.3	832.2	922.9	960.0	997.0	1060.9	1113.4	1141.2	1151.5
65°	448.0	544.9	668.5	769.4	861.1	899.2	932.1	1001.2	1041.3	1070.2	1082.5
67.5°	388.3	488.2	614.9	715.8	803.4	838.4	874.5	939.4	984.7	1013.5	1025.9
70°	337.8	438.8	561.3	669.5	751.9	790.0	827.1	887.9	931.1	960.0	960.0
72.5°	289.4	392.4	516.0	620.1	706.6	743.7	773.5	840.5	880.6	900.2	898.2
75°	248.2	349.2	475.9	571.6	659.2	692.2	731.3	792.1	825.0	838.4	832.2
77.5°	208.1	309.0	436.7	534.6	615.9	660.2	689.1	738.5	767.3	779.7	772.5
80°	171.0	269.9	393.5	490.3	574.7	606.7	633.4	680.8	706.6	716.9	710.7
82.5°	134.9	233.8	354.3	449.1	520.1	546.9	574.7	620.1	647.9	657.1	649.9
85°	98.9	194.7	311.1	394.5	460.4	488.2	515.0	555.2	577.8	588.1	578.9
87.5°	66.9	157.6	261.6	336.8	395.5	420.2	445.0	480.0	505.7	511.9	508.8
90°	24.7	74.2	136.0	172.0	205.0	219.4	230.7	255.4	272.9	281.2	279.1
92.5°	27.8	58.7	104.0	141.1	171.0	187.5	205.0	229.7	249.3	258.5	259.6
95°	30.9	51.5	73.1	108.1	139.0	150.4	162.7	189.5	212.2	228.7	233.8
97.5°	29.9	52.5	70.0	79.3	112.3	126.7	138.0	158.6	173.0	183.3	193.6
100°	30.9	54.6	78.3	75.2	82.4	99.9	115.4	139.0	154.5	163.8	165.8
102.5°	30.9	55.6	87.5	82.4	75.2	76.2	82.4	117.4	137.0	149.3	154.5
105°	30.9	55.6	89.6	90.6	79.3	75.2	73.1	84.5	114.3	132.9	142.1
107.5°	30.9	55.6	90.6	110.2	88.6	82.4	77.2	71.1	78.3	108.1	125.7
110°	29.9	53.6	91.7	116.4	96.8	90.6	86.5	74.2	68.0	76.2	100.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	27.8	46.3	90.6	117.4	114.3	100.9	94.8	82.4	71.1	64.9	71.1
115°	25.7	41.2	89.6	117.4	132.9	119.5	104.0	90.6	79.3	69.0	63.9
117.5°	25.7	39.1	91.7	116.4	138.0	142.1	125.7	98.9	87.5	77.2	68.0
120°	24.7	34.0	85.5	116.4	137.0	147.3	147.3	111.2	94.8	86.5	77.2
122.5°	23.7	27.8	85.5	116.4	136.0	146.3	154.5	147.3	106.1	93.7	85.5
125°	22.7	26.8	77.2	115.4	133.9	143.2	152.4	160.7	126.7	104.0	93.7
127.5°	21.6	25.7	65.9	115.4	131.8	141.1	149.3	163.8	156.6	121.5	104.0
130°	20.6	23.7	58.7	107.1	128.7	137.0	146.3	160.7	174.1	159.6	121.5
132.5°	19.6	22.7	47.4	102.0	127.7	133.9	141.1	156.6	169.9	177.2	161.7
135°	17.5	20.6	40.2	91.7	128.7	132.9	138.0	152.4	165.8	177.2	179.2
137.5°	16.5	19.6	31.9	79.3	119.5	133.9	136.0	147.3	160.7	171.0	181.3
140°	15.4	18.5	23.7	66.9	112.3	124.6	137.0	143.2	155.5	166.9	176.1
142.5°	15.4	17.5	20.6	57.7	99.9	117.4	127.7	140.1	149.3	160.7	171.0
145°	14.4	16.5	19.6	41.2	81.4	103.0	120.5	141.1	145.2	154.5	164.8
147.5°	14.4	15.4	19.6	35.0	69.0	86.5	105.1	128.7	145.2	149.3	158.6
150°	13.4	15.4	18.5	22.7	55.6	72.1	86.5	123.6	137.0	147.3	152.4
152.5°	13.4	14.4	18.5	19.6	40.2	57.7	71.1	102.0	127.7	141.1	150.4
155°	13.4	14.4	17.5	19.6	29.9	41.2	56.6	79.3	108.1	130.8	141.1
157.5°	13.4	14.4	16.5	19.6	20.6	27.8	39.1	63.9	85.5	108.1	131.8
160°	13.4	13.4	16.5	18.5	19.6	20.6	25.7	42.2	65.9	81.4	102.0
162.5°	13.4	13.4	15.4	17.5	19.6	19.6	19.6	28.8	41.2	62.8	76.2
165°	13.4	13.4	14.4	16.5	18.5	18.5	19.6	19.6	23.7	37.1	48.4
167.5°	13.4	13.4	13.4	15.4	16.5	17.5	18.5	18.5	19.6	19.6	24.7
170°	12.4	13.4	13.4	14.4	15.4	15.4	16.5	17.5	18.5	18.5	19.6
172.5°	12.4	12.4	12.4	13.4	13.4	14.4	14.4	15.4	16.5	16.5	17.5
175°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	13.4	13.4	13.4	14.4
177.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
180°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0	2472.0
2.5°	2523.5	2528.6	2540.0	2546.2	2550.3	2551.3	2563.7	2559.5	2566.8	2566.8
5°	2649.2	2667.7	2689.3	2712.0	2720.2	2727.4	2737.7	2740.8	2749.1	2740.8
7.5°	2773.8	2794.4	2819.1	2841.8	2855.2	2865.5	2879.9	2887.1	2894.3	2892.2
10°	2862.4	2889.1	2921.1	2950.9	2964.3	2974.6	2991.1	2999.4	3006.6	3003.5
12.5°	2926.2	2962.3	2997.3	3031.3	3044.7	3055.0	3071.5	3081.8	3087.9	3097.2
15°	2972.6	3006.6	3047.8	3084.8	3098.2	3112.7	3129.1	3137.4	3142.5	3146.6
17.5°	2991.1	3035.4	3071.5	3105.4	3119.9	3134.3	3154.9	3163.1	3169.3	3174.5
20°	2984.9	3026.1	3066.3	3102.4	3117.8	3133.3	3149.7	3164.2	3168.3	3169.3
22.5°	2950.9	2998.3	3042.6	3079.7	3086.9	3100.3	3115.7	3131.2	3135.3	3136.3
25°	2899.4	2941.7	2982.9	3011.7	3022.0	3038.5	3052.9	3065.3	3067.3	3069.4
27.5°	2821.2	2861.3	2897.4	2933.4	2946.8	2958.2	2971.5	2979.8	2980.8	2984.9
30°	2720.2	2763.5	2798.5	2829.4	2836.6	2841.8	2856.2	2867.5	2864.4	2867.5
32.5°	2604.9	2646.1	2680.1	2698.6	2707.9	2719.2	2728.5	2733.6	2733.6	2728.5
35°	2477.1	2513.2	2541.0	2556.5	2563.7	2572.9	2580.1	2583.2	2585.3	2577.1
37.5°	2335.0	2371.1	2392.7	2409.2	2413.3	2421.5	2413.3	2422.6	2419.5	2415.3
40°	2192.9	2222.7	2237.2	2255.7	2248.5	2252.6	2247.5	2256.7	2245.4	2243.3
42.5°	2052.8	2068.2	2082.7	2081.6	2083.7	2080.6	2076.5	2069.3	2067.2	2062.1
45°	1912.7	1928.2	1925.1	1924.0	1925.1	1919.9	1911.7	1910.6	1902.4	1895.2
47.5°	1769.5	1773.7	1777.8	1772.6	1771.6	1765.4	1760.3	1746.9	1740.7	1735.5
50°	1640.8	1645.9	1642.8	1637.7	1628.4	1625.3	1614.0	1604.7	1599.6	1592.4
52.5°	1521.3	1525.4	1516.2	1508.9	1499.7	1492.5	1482.2	1473.9	1463.6	1463.6
55°	1416.2	1414.2	1399.8	1392.6	1383.3	1377.1	1363.7	1353.4	1349.3	1341.1
57.5°	1318.4	1312.2	1296.8	1285.4	1279.3	1271.0	1263.8	1254.5	1249.4	1246.3
60°	1229.8	1218.5	1208.2	1197.9	1194.8	1184.5	1180.4	1163.9	1160.8	1159.8
62.5°	1149.5	1144.3	1132.0	1112.4	1106.2	1103.1	1093.9	1086.6	1079.4	1081.5
65°	1085.6	1068.1	1051.6	1039.3	1032.1	1026.9	1020.7	1013.5	1009.4	1007.3
67.5°	1015.6	999.1	982.6	970.3	965.1	961.0	953.8	947.6	945.5	944.5
70°	947.6	933.2	920.8	904.3	898.2	897.1	888.9	884.8	881.7	879.6
72.5°	883.7	867.3	851.8	840.5	835.3	832.2	828.1	825.0	821.9	817.8
75°	818.8	803.4	790.0	779.7	777.6	774.6	769.4	766.3	765.3	762.2
77.5°	756.0	743.7	730.3	726.1	722.0	720.0	720.0	715.8	713.8	713.8
80°	698.3	684.9	674.6	669.5	668.5	666.4	665.4	661.3	659.2	662.3
82.5°	634.5	622.1	614.9	607.7	606.7	604.6	604.6	601.5	602.5	600.5
85°	567.5	557.2	550.0	545.9	543.8	544.9	544.9	543.8	543.8	542.8
87.5°	493.4	487.2	481.0	477.9	478.9	481.0	478.9	477.9	477.9	480.0
90°	274.0	271.9	271.9	271.9	272.9	270.9	272.9	274.0	272.9	274.0
92.5°	257.5	255.4	256.5	257.5	259.6	257.5	259.6	259.6	258.5	259.6
95°	233.8	237.9	235.9	239.0	240.0	239.0	242.0	244.1	242.0	241.0
97.5°	201.9	206.0	211.1	215.3	219.4	219.4	220.4	222.5	222.5	224.5
100°	163.8	167.9	169.9	176.1	183.3	183.3	187.5	190.5	190.5	192.6
102.5°	155.5	155.5	154.5	153.5	153.5	152.4	152.4	154.5	154.5	157.6
105°	146.3	147.3	147.3	147.3	148.3	147.3	147.3	148.3	147.3	146.3
107.5°	133.9	139.0	141.1	142.1	142.1	142.1	143.2	144.2	144.2	144.2
110°	115.4	126.7	130.8	133.9	137.0	134.9	138.0	140.1	140.1	140.1





TEST NUMBER: P236381

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	89.6	106.1	116.4	122.6	125.7	126.7	129.8	132.9	132.9	132.9
115°	62.8	72.1	88.6	106.1	110.2	112.3	117.4	122.6	122.6	122.6
117.5°	61.8	58.7	64.9	71.1	73.1	80.3	97.8	104.0	107.1	105.1
120°	68.0	62.8	58.7	56.6	57.7	61.8	65.9	70.0	73.1	72.1
122.5°	78.3	69.0	63.9	60.8	60.8	58.7	58.7	57.7	56.6	55.6
125°	85.5	80.3	73.1	68.0	66.9	64.9	63.9	61.8	61.8	59.7
127.5°	93.7	87.5	83.4	80.3	77.2	75.2	73.1	70.0	68.0	65.9
130°	105.1	96.8	90.6	87.5	86.5	85.5	83.4	81.4	78.3	76.2
132.5°	122.6	110.2	102.0	97.8	95.8	93.7	90.6	89.6	87.5	85.5
135°	166.9	131.8	116.4	110.2	107.1	104.0	100.9	98.9	95.8	94.8
137.5°	181.3	171.0	149.3	129.8	122.6	119.5	114.3	111.2	108.1	107.1
140°	185.4	192.6	178.2	175.1	171.0	159.6	140.1	131.8	128.7	126.7
142.5°	178.2	187.5	193.6	197.8	185.4	184.4	180.2	177.2	177.2	172.0
145°	173.0	180.2	187.5	192.6	194.7	196.7	199.8	201.9	198.8	196.7
147.5°	165.8	174.1	178.2	185.4	186.4	188.5	191.6	192.6	193.6	192.6
150°	157.6	165.8	169.9	177.2	177.2	180.2	182.3	185.4	185.4	183.3
152.5°	151.4	157.6	162.7	167.9	169.9	171.0	173.0	175.1	175.1	175.1
155°	151.4	151.4	153.5	157.6	159.6	160.7	162.7	163.8	164.8	163.8
157.5°	136.0	146.3	153.5	153.5	152.4	152.4	153.5	155.5	156.6	155.5
160°	116.4	131.8	137.0	143.2	145.2	146.3	153.5	153.5	153.5	152.4
162.5°	87.5	102.0	113.3	124.6	126.7	131.8	134.9	133.9	137.0	131.8
165°	62.8	72.1	78.3	85.5	90.6	95.8	100.9	103.0	106.1	104.0
167.5°	34.0	40.2	50.5	57.7	60.8	62.8	66.9	69.0	73.1	70.0
170°	19.6	19.6	20.6	26.8	29.9	30.9	34.0	34.0	33.0	35.0
172.5°	17.5	18.5	18.5	18.5	18.5	18.5	17.5	17.5	16.5	15.4
175°	14.4	15.4	15.4	15.4	15.4	15.4	14.4	14.4	13.4	12.4
177.5°	12.4	12.4	12.4	12.4	11.3	11.3	11.3	10.3	9.3	8.2
180°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3

(END OF REPORT)