

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: P232595

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232595  
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-LD5-8-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: 8610.0 lumens  
Efficiency: N/A  
Efficacy: 132.0 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

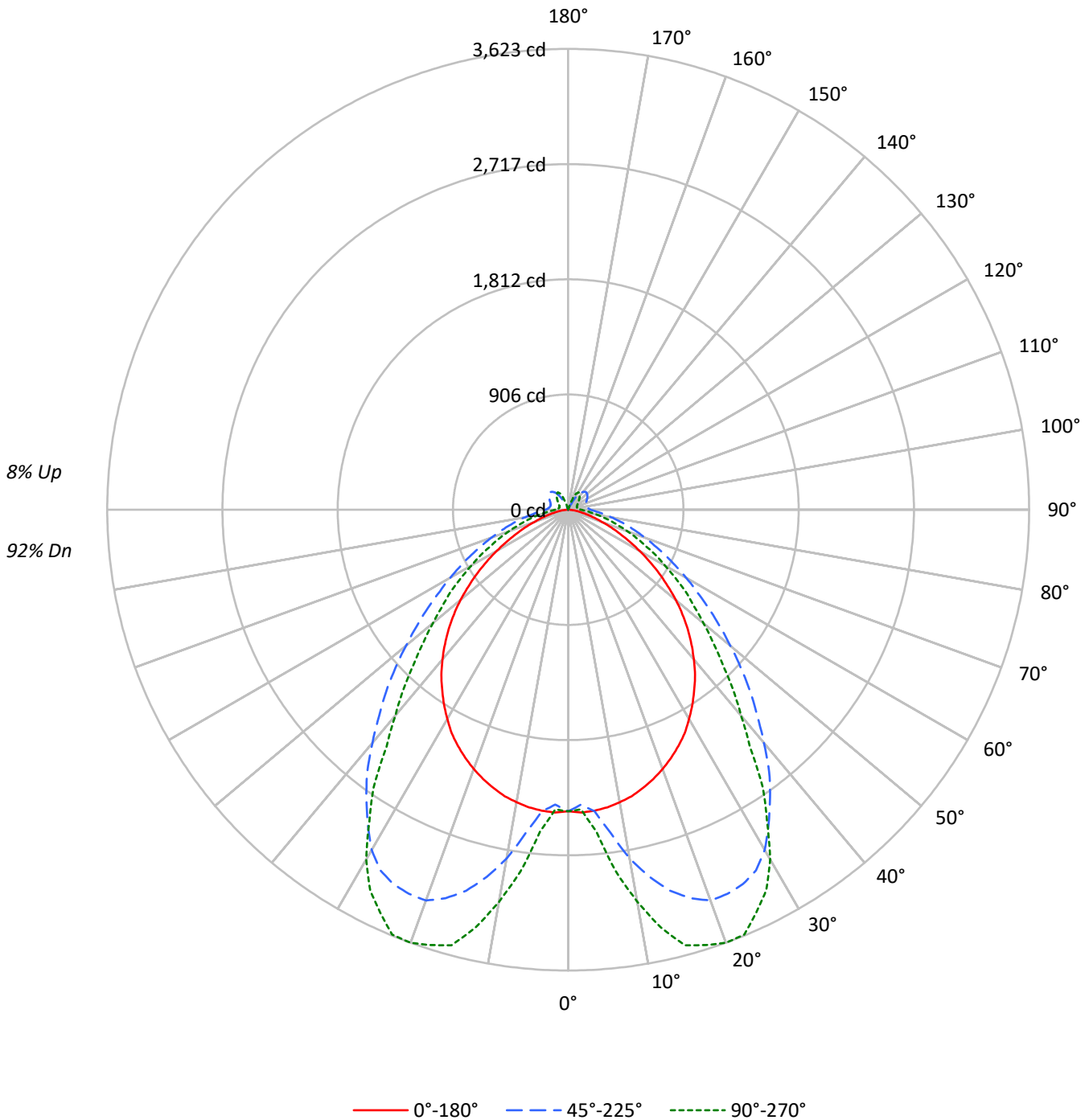
Input Watts (W): 65.23  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	25526	25526	25526
5°	25498	23879	24903
10°	25201	26369	28370
15°	24762	27980	30094
20°	24216	28390	29129
25°	23537	27385	26882
30°	22652	25492	23579
35°	21592	22519	19303
40°	20342	19387	15012
45°	18843	16425	12044
50°	17023	13621	9720
55°	14845	11195	7956
60°	12382	9157	6274
65°	9837	7416	4863
70°	7441	5917	3707
75°	5397	4666	2683
80°	3622	3586	1903
85°	1960	2698	1303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.8	2.8
10°-20°	844.8	9.8
20°-30°	1390.8	16.2
30°-40°	1562.5	18.1
40°-50°	1390.4	16.1
50°-60°	1075.3	12.5
60°-70°	730.2	8.5
70°-80°	435.8	5.1
80°-90°	233.7	2.7
90°-100°	153.8	1.8
100°-110°	130.5	1.5
110°-120°	120.7	1.4
120°-130°	112.4	1.3
130°-140°	95.4	1.1
140°-150°	65.1	0.8
150°-160°	25.2	0.3
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	2478.3	28.8
0°-40°	4040.8	46.9
0°-60°	6506.5	75.6
0°-90°	7906.1	91.8
90°-120°	405.0	4.7
90°-150°	677.9	7.9
90°-180°	704.0	8.2
0°-180°	8610.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2371	2371	2371	2371	2371	
5°	2375	2342	2380	2506	2540	225
15°	2266	2545	3101	3488	3545	639
25°	2049	2632	3248	3503	3495	943
35°	1727	2370	2766	2740	2669	1079
45°	1328	1832	2025	1852	1714	1022
55°	873	1248	1343	1219	1130	780
65°	447	776	838	756	669	450
75°	165	468	479	413	345	181
85°	29	294	241	188	151	36
90°	2	250	176	128	99	3
95°	1	242	154	108	83	1
105°	1	220	142	92	71	1
115°	1	202	158	100	78	1
125°	1	166	184	122	95	1
135°	1	64	196	157	123	1
145°	1	6	152	178	154	1
155°	1	4	34	118	130	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232595

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

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4
2.5°	2383.0	2373.7	2357.4	2356.2	2345.8	2341.1	2342.3	2338.8	2335.3	2329.5	2320.2
5°	2374.9	2357.4	2330.7	2330.7	2336.5	2342.3	2356.2	2369.0	2372.5	2380.7	2379.5
7.5°	2359.7	2333.0	2307.4	2328.3	2349.3	2357.4	2373.7	2397.0	2433.0	2499.3	2564.4
10°	2335.3	2299.3	2291.1	2324.8	2352.8	2377.2	2414.4	2522.6	2622.6	2721.4	2785.4
12.5°	2307.4	2263.2	2274.8	2317.9	2383.0	2429.5	2524.9	2667.9	2747.0	2862.2	2956.4
15°	2265.5	2223.7	2244.6	2308.6	2444.6	2544.7	2598.1	2772.6	2899.4	2994.7	3100.6
17.5°	2220.2	2183.0	2212.0	2324.8	2509.8	2606.3	2692.4	2840.1	2962.2	3102.9	3202.9
20°	2170.2	2137.6	2174.8	2345.8	2541.2	2640.0	2735.4	2876.1	3037.8	3183.1	3269.2
22.5°	2112.0	2082.9	2139.9	2355.1	2552.8	2651.6	2744.7	2908.7	3076.1	3195.9	3269.2
25°	2049.2	2020.1	2098.1	2336.5	2541.2	2631.9	2731.9	2926.1	3063.4	3157.6	3248.3
27.5°	1981.8	1949.2	2066.7	2298.1	2494.6	2597.0	2709.8	2892.4	3000.5	3105.2	3197.1
30°	1899.2	1870.1	2012.0	2242.3	2429.5	2550.5	2647.0	2811.0	2914.5	3018.0	3088.9
32.5°	1816.6	1788.7	1945.7	2163.2	2355.1	2469.1	2562.1	2690.0	2807.5	2887.7	2931.9
35°	1727.1	1695.7	1868.9	2066.7	2271.3	2370.2	2448.1	2564.4	2663.3	2722.6	2765.6
37.5°	1637.5	1603.8	1771.3	1965.5	2160.9	2251.6	2316.7	2434.2	2509.8	2558.6	2594.7
40°	1536.3	1501.4	1670.1	1851.5	2045.7	2109.7	2177.1	2281.8	2337.6	2377.2	2394.6
42.5°	1434.0	1399.1	1560.8	1731.7	1905.0	1967.8	2037.6	2120.2	2174.8	2198.1	2198.1
45°	1328.1	1294.4	1447.9	1613.1	1759.6	1831.7	1893.4	1959.7	2005.0	2023.6	2024.8
47.5°	1217.7	1189.8	1336.3	1486.3	1623.6	1686.4	1734.0	1798.0	1837.5	1842.2	1841.0
50°	1104.9	1080.4	1211.8	1359.6	1481.7	1537.5	1579.4	1638.7	1670.1	1668.9	1663.1
52.5°	986.2	971.1	1093.2	1228.1	1338.6	1388.6	1425.8	1478.2	1503.8	1503.8	1499.1
55°	873.4	864.1	969.9	1100.2	1203.7	1247.9	1282.8	1329.3	1350.2	1350.2	1343.3
57.5°	759.4	758.3	857.1	973.4	1072.3	1111.8	1149.0	1189.8	1208.4	1208.4	1196.7
60°	647.8	653.6	751.3	858.3	949.0	987.4	1020.0	1059.5	1071.1	1073.5	1071.1
62.5°	544.3	559.4	652.4	750.1	840.9	873.4	902.5	940.9	950.2	953.7	947.8
65°	446.6	469.9	564.1	657.1	742.0	775.7	801.3	828.1	836.2	839.7	838.5
67.5°	366.3	390.8	485.0	576.8	654.8	681.5	707.1	730.4	731.5	737.3	732.7
70°	283.8	321.0	415.2	502.4	575.7	600.1	621.0	637.3	640.8	642.0	640.8
72.5°	218.6	262.8	352.4	438.5	504.7	528.0	544.3	557.1	557.1	558.2	554.8
75°	165.1	218.6	305.9	385.0	444.3	467.5	480.3	488.5	483.8	482.6	479.2
77.5°	119.8	181.4	264.0	338.4	394.3	411.7	423.3	424.5	417.5	416.4	409.4
80°	82.6	147.7	227.9	297.7	348.9	366.3	372.2	367.5	361.7	354.7	345.4
82.5°	54.7	119.8	197.7	264.0	311.7	325.6	330.3	323.3	315.2	303.5	288.4
85°	29.1	96.5	172.1	236.1	281.4	294.2	296.6	283.8	271.0	255.9	240.7
87.5°	12.8	79.1	153.5	217.5	257.0	266.3	267.5	253.5	237.3	219.8	201.2
90°	2.3	67.5	141.9	203.5	241.9	250.0	250.0	231.4	215.2	196.5	175.6
92.5°	1.2	64.0	138.4	198.9	237.3	245.4	244.2	224.5	204.7	183.8	162.8
95°	1.2	55.8	130.3	194.2	233.8	241.9	240.7	219.8	198.9	176.8	153.5
97.5°	1.2	46.5	122.1	186.1	227.9	236.1	236.1	216.3	195.4	172.1	147.7
100°	0.0	36.1	112.8	177.9	219.8	230.3	231.4	212.8	190.7	167.5	144.2
102.5°	0.0	24.4	104.7	171.0	214.0	224.5	226.8	211.7	188.4	165.1	141.9
105°	1.2	15.1	94.2	162.8	208.2	219.8	223.3	210.5	187.2	165.1	141.9
107.5°	1.2	10.5	83.7	154.7	203.5	216.3	221.0	210.5	188.4	166.3	144.2
110°	1.2	9.3	70.9	146.5	197.7	211.7	218.6	211.7	190.7	169.8	147.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.2	7.0	53.5	136.1	190.7	207.0	216.3	212.8	194.2	173.3	152.4
115°	1.2	5.8	36.1	125.6	183.8	202.4	214.0	214.0	197.7	177.9	158.2
117.5°	1.2	5.8	24.4	111.6	175.6	196.5	209.3	215.2	202.4	182.6	165.1
120°	1.2	4.7	11.6	95.4	165.1	188.4	204.7	215.2	205.9	188.4	171.0
122.5°	1.2	4.7	9.3	73.3	153.5	179.1	197.7	214.0	209.3	193.1	177.9
125°	1.2	3.5	8.1	48.8	138.4	166.3	188.4	210.5	210.5	197.7	183.8
127.5°	1.2	3.5	7.0	34.9	118.6	152.4	175.6	204.7	210.5	201.2	189.6
130°	1.2	3.5	5.8	10.5	90.7	132.6	160.5	195.4	208.2	203.5	193.1
132.5°	1.2	2.3	5.8	8.1	58.2	103.5	139.6	180.3	201.2	203.5	196.5
135°	1.2	2.3	4.7	7.0	41.9	64.0	111.6	161.7	188.4	196.5	196.5
137.5°	1.2	2.3	4.7	5.8	18.6	47.7	69.8	139.6	172.1	187.2	190.7
140°	1.2	2.3	3.5	4.7	7.0	25.6	50.0	110.5	152.4	173.3	182.6
142.5°	1.2	2.3	3.5	4.7	5.8	5.8	30.2	64.0	127.9	154.7	169.8
145°	1.2	2.3	2.3	3.5	4.7	5.8	5.8	48.8	91.9	132.6	152.4
147.5°	1.2	1.2	2.3	3.5	4.7	4.7	4.7	22.1	54.7	101.2	130.3
150°	1.2	1.2	2.3	2.3	3.5	3.5	4.7	4.7	36.1	57.0	96.5
152.5°	1.2	1.2	2.3	2.3	3.5	3.5	3.5	4.7	4.7	38.4	53.5
155°	1.2	1.2	2.3	2.3	2.3	3.5	3.5	3.5	3.5	4.7	33.7
157.5°	1.2	1.2	2.3	2.3	2.3	2.3	2.3	3.5	3.5	4.7	4.7
160°	1.2	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	3.5	4.7
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°	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4	2371.4
2.5°	2331.8	2349.3	2349.3	2364.4	2372.5	2370.2	2372.5	2377.2	2363.2	2358.6
5°	2405.1	2440.0	2457.4	2497.0	2506.3	2523.7	2529.5	2549.3	2554.0	2540.0
7.5°	2635.4	2707.5	2754.0	2801.7	2822.6	2833.1	2851.7	2864.5	2884.2	2869.1
10°	2851.7	2938.9	3005.2	3057.5	3070.3	3080.8	3102.9	3134.3	3132.0	3129.6
12.5°	3038.9	3115.7	3197.1	3272.7	3311.1	3319.2	3351.8	3390.2	3397.1	3365.7
15°	3193.6	3300.6	3392.5	3472.7	3487.8	3508.8	3533.2	3546.0	3540.2	3544.8
17.5°	3322.7	3413.4	3478.5	3521.6	3530.9	3547.2	3569.3	3585.5	3587.9	3589.0
20°	3373.9	3434.3	3497.2	3556.5	3575.1	3591.4	3618.1	3632.1	3629.7	3622.8
22.5°	3364.6	3453.0	3511.1	3560.0	3578.6	3593.7	3616.9	3626.2	3622.8	3615.8
25°	3350.6	3426.2	3477.4	3503.0	3503.0	3514.6	3508.8	3501.8	3493.7	3494.8
27.5°	3284.3	3328.5	3363.4	3392.5	3396.0	3397.1	3393.6	3386.7	3382.0	3371.5
30°	3149.4	3202.9	3219.2	3216.9	3212.2	3211.1	3197.1	3186.6	3173.8	3175.0
32.5°	2991.2	3002.9	3009.9	2990.1	2978.5	2976.1	2963.3	2945.9	2928.4	2909.8
35°	2787.7	2779.6	2763.3	2749.3	2740.0	2726.1	2707.5	2690.0	2667.9	2669.1
37.5°	2591.2	2565.6	2542.3	2503.9	2497.0	2464.4	2428.4	2400.4	2364.4	2344.6
40°	2386.5	2360.9	2331.8	2290.0	2271.3	2241.1	2201.6	2155.0	2126.0	2114.3
42.5°	2191.1	2159.7	2126.0	2076.0	2052.7	2028.3	1986.4	1941.1	1920.1	1916.6
45°	2000.4	1964.3	1931.7	1875.9	1851.5	1822.4	1779.4	1751.5	1721.2	1714.3
47.5°	1816.6	1785.2	1735.2	1692.2	1668.9	1644.5	1600.3	1574.7	1552.6	1544.5
50°	1638.7	1608.4	1570.1	1522.4	1500.3	1477.0	1445.6	1421.2	1395.6	1387.5
52.5°	1479.3	1449.1	1409.6	1372.3	1350.2	1336.3	1307.2	1279.3	1259.5	1246.7
55°	1325.8	1297.9	1261.9	1227.0	1218.8	1200.2	1166.5	1142.1	1129.3	1130.4
57.5°	1185.1	1160.7	1132.8	1099.0	1086.2	1068.8	1046.7	1017.6	1002.5	997.9
60°	1057.2	1033.9	1010.7	985.1	968.8	956.0	925.8	902.5	882.7	880.4
62.5°	935.1	917.6	897.8	872.3	858.3	844.3	817.6	795.5	780.4	775.7
65°	829.2	814.1	790.8	769.9	756.0	742.0	716.4	694.3	681.5	668.7
67.5°	724.6	711.8	694.3	672.2	659.4	645.5	623.4	598.9	583.8	580.3
70°	631.5	617.6	603.6	580.3	568.7	560.6	536.1	511.7	500.1	495.4
72.5°	551.3	536.1	516.4	500.1	493.1	478.0	454.7	438.5	423.3	414.0
75°	467.5	458.2	444.3	425.7	412.9	402.4	383.8	367.5	354.7	345.4
77.5°	398.9	387.3	375.7	357.0	347.7	338.4	318.7	304.7	291.9	287.3
80°	334.9	324.5	308.2	294.2	286.1	278.0	262.8	247.7	238.4	233.8
82.5°	276.8	267.5	254.7	243.1	233.8	227.9	214.0	201.2	193.1	186.1
85°	229.1	217.5	205.9	195.4	188.4	183.8	173.3	164.0	153.5	151.2
87.5°	188.4	179.1	168.6	158.2	153.5	147.7	138.4	131.4	123.3	119.8
90°	161.7	150.0	140.7	132.6	127.9	124.4	117.5	108.2	102.3	98.9
92.5°	146.5	136.1	127.9	119.8	116.3	112.8	104.7	97.7	91.9	87.2
95°	137.2	126.8	118.6	111.6	108.2	105.8	98.9	91.9	86.1	82.6
97.5°	130.3	118.6	110.5	104.7	101.2	98.9	93.0	87.2	81.4	77.9
100°	124.4	112.8	104.7	98.9	96.5	94.2	88.4	82.6	77.9	74.4
102.5°	122.1	109.3	101.2	96.5	94.2	91.9	86.1	81.4	75.6	72.1
105°	122.1	108.2	100.0	94.2	91.9	89.6	84.9	80.2	74.4	70.9
107.5°	124.4	109.3	100.0	95.4	93.0	90.7	84.9	80.2	74.4	70.9
110°	127.9	112.8	102.3	96.5	94.2	91.9	86.1	81.4	75.6	72.1





TEST NUMBER: P232595

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	132.6	116.3	105.8	98.9	96.5	94.2	88.4	83.7	77.9	74.4
115°	138.4	121.0	110.5	102.3	100.0	97.7	91.9	86.1	81.4	77.9
117.5°	145.4	127.9	115.1	107.0	104.7	101.2	95.4	89.6	84.9	81.4
120°	152.4	136.1	122.1	112.8	109.3	105.8	100.0	94.2	88.4	84.9
122.5°	160.5	143.0	129.1	119.8	116.3	112.8	105.8	100.0	94.2	89.6
125°	168.6	152.4	137.2	126.8	122.1	118.6	111.6	104.7	100.0	95.4
127.5°	175.6	160.5	145.4	134.9	130.3	125.6	118.6	111.6	105.8	102.3
130°	181.4	168.6	154.7	143.0	138.4	134.9	125.6	118.6	112.8	109.3
132.5°	187.2	175.6	164.0	152.4	147.7	143.0	134.9	126.8	121.0	116.3
135°	190.7	181.4	172.1	161.7	157.0	151.2	143.0	134.9	127.9	123.3
137.5°	190.7	186.1	177.9	169.8	165.1	160.5	151.2	143.0	136.1	132.6
140°	184.9	186.1	182.6	176.8	172.1	168.6	160.5	151.2	144.2	140.7
142.5°	176.8	180.3	182.6	179.1	176.8	174.5	167.5	159.3	152.4	147.7
145°	164.0	171.0	175.6	179.1	177.9	176.8	171.0	165.1	158.2	153.5
147.5°	147.7	158.2	164.0	172.1	174.5	174.5	172.1	167.5	161.7	158.2
150°	124.4	139.6	150.0	158.2	161.7	166.3	166.3	162.8	159.3	155.8
152.5°	88.4	112.8	127.9	139.6	144.2	148.9	154.7	152.4	147.7	145.4
155°	50.0	61.6	93.0	111.6	117.5	123.3	132.6	134.9	133.7	130.3
157.5°	25.6	41.9	52.3	60.5	64.0	73.3	91.9	104.7	103.5	105.8
160°	5.8	7.0	19.8	37.2	41.9	44.2	48.8	52.3	52.3	50.0
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)