

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: P232582

Luminaire Tested: **4SKB1-LD5-4-N-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232582
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-LD5-4-N-UNV-L835-CD1-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS
Light Source: (196) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4004.0 lumens
Efficiency: N/A
Efficacy: 138.1 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

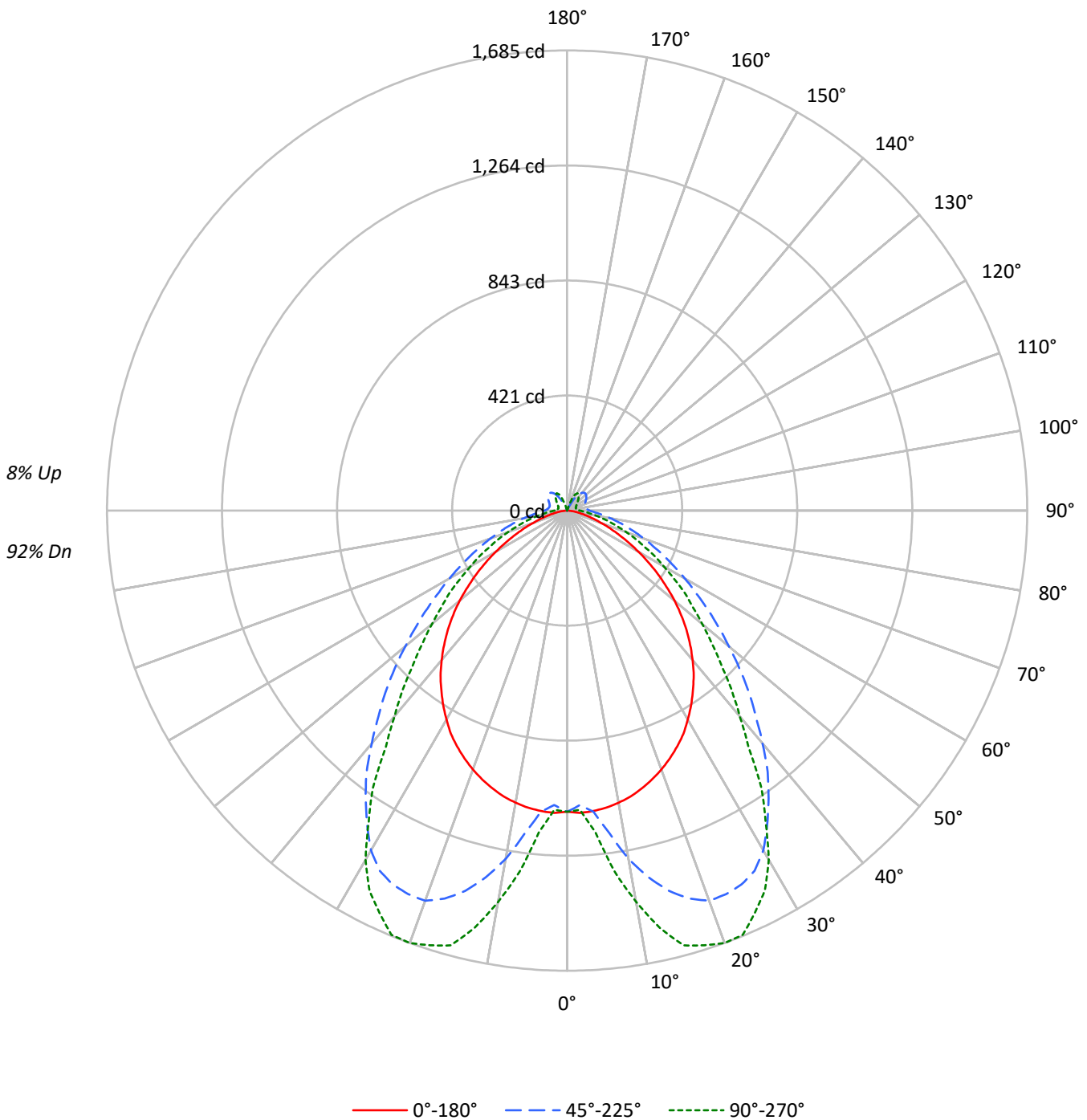
Input Watts (W): 29
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	11870	11870	11870
5°	11857	11105	11581
10°	11719	12262	13193
15°	11516	13012	13995
20°	11261	13203	13546
25°	10946	12735	12501
30°	10534	11855	10965
35°	10042	10472	8977
40°	9461	9016	6982
45°	8762	7638	5601
50°	7916	6334	4520
55°	6904	5206	3700
60°	5759	4258	2918
65°	4575	3448	2262
70°	3461	2752	1724
75°	2511	2169	1247
80°	1684	1667	885
85°	909	1255	606



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	2.8
10°-20°	392.8	9.8
20°-30°	646.8	16.2
30°-40°	726.6	18.1
40°-50°	646.6	16.1
50°-60°	500.0	12.5
60°-70°	339.6	8.5
70°-80°	202.7	5.1
80°-90°	108.7	2.7
90°-100°	71.5	1.8
100°-110°	60.7	1.5
110°-120°	56.1	1.4
120°-130°	52.3	1.3
130°-140°	44.3	1.1
140°-150°	30.3	0.8
150°-160°	11.7	0.3
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	1152.5	28.8
0°-40°	1879.1	46.9
0°-60°	3025.8	75.6
0°-90°	3676.7	91.8
90°-120°	188.3	4.7
90°-150°	315.3	7.9
90°-180°	327.0	8.2
0°-180°	4004.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1104	1089	1107	1166	1181	105
15°	1054	1183	1442	1622	1648	297
25°	953	1224	1511	1629	1625	438
35°	803	1102	1286	1274	1241	502
45°	618	852	942	861	797	475
55°	406	580	625	567	526	363
65°	208	361	390	352	311	209
75°	77	217	223	192	161	84
85°	14	137	112	88	70	17
90°	1	116	82	60	46	1
95°	0	112	71	50	38	0
105°	0	102	66	43	33	0
115°	0	94	74	46	36	0
125°	0	77	86	57	44	0
135°	0	30	91	73	57	0
145°	0	3	71	83	71	0
155°	0	2	16	55	61	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°	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8
2.5°	1108.2	1103.9	1096.3	1095.7	1090.9	1088.7	1089.3	1087.6	1086.0	1083.3	1079.0
5°	1104.4	1096.3	1083.9	1083.9	1086.6	1089.3	1095.7	1101.7	1103.3	1107.1	1106.6
7.5°	1097.4	1084.9	1073.0	1082.8	1092.5	1096.3	1103.9	1114.7	1131.4	1162.3	1192.6
10°	1086.0	1069.2	1065.5	1081.1	1094.1	1105.5	1122.8	1173.1	1219.6	1265.6	1295.3
12.5°	1073.0	1052.5	1057.9	1077.9	1108.2	1129.8	1174.2	1240.7	1277.5	1331.0	1374.8
15°	1053.6	1034.1	1043.8	1073.6	1136.9	1183.4	1208.2	1289.4	1348.3	1392.7	1441.9
17.5°	1032.5	1015.2	1028.7	1081.1	1167.1	1212.0	1252.1	1320.7	1377.5	1443.0	1489.5
20°	1009.2	994.1	1011.4	1090.9	1181.7	1227.7	1272.1	1337.5	1412.7	1480.3	1520.3
22.5°	982.2	968.7	995.2	1095.2	1187.2	1233.1	1276.4	1352.7	1430.5	1486.2	1520.3
25°	953.0	939.4	975.7	1086.6	1181.7	1223.9	1270.4	1360.8	1424.6	1468.4	1510.6
27.5°	921.6	906.5	961.1	1068.7	1160.1	1207.7	1260.2	1345.1	1395.4	1444.1	1486.8
30°	883.2	869.7	935.7	1042.7	1129.8	1186.1	1231.0	1307.2	1355.4	1403.5	1436.5
32.5°	844.8	831.8	904.8	1006.0	1095.2	1148.2	1191.5	1251.0	1305.6	1342.9	1363.5
35°	803.2	788.6	869.1	961.1	1056.3	1102.2	1138.5	1192.6	1238.5	1266.1	1286.1
37.5°	761.5	745.8	823.7	914.0	1004.9	1047.1	1077.4	1132.0	1167.1	1189.9	1206.6
40°	714.5	698.2	776.7	861.0	951.3	981.1	1012.5	1061.1	1087.1	1105.5	1113.6
42.5°	666.9	650.6	725.8	805.3	885.9	915.1	947.6	986.0	1011.4	1022.2	1022.2
45°	617.6	602.0	673.4	750.2	818.3	851.8	880.5	911.3	932.4	941.1	941.6
47.5°	566.3	553.3	621.4	691.2	755.0	784.2	806.4	836.1	854.5	856.7	856.2
50°	513.8	502.4	563.6	632.2	689.0	715.0	734.5	762.0	776.7	776.1	773.4
52.5°	458.6	451.6	508.4	571.1	622.5	645.8	663.1	687.4	699.3	699.3	697.1
55°	406.2	401.8	451.1	511.6	559.8	580.3	596.6	618.2	627.9	627.9	624.7
57.5°	353.2	352.6	398.6	452.7	498.7	517.0	534.4	553.3	561.9	561.9	556.5
60°	301.3	304.0	349.4	399.1	441.3	459.2	474.3	492.7	498.1	499.2	498.1
62.5°	253.1	260.1	303.4	348.8	391.0	406.2	419.7	437.5	441.9	443.5	440.8
65°	207.7	218.5	262.3	305.6	345.1	360.7	372.6	385.1	388.9	390.5	389.9
67.5°	170.4	181.7	225.5	268.3	304.5	316.9	328.8	339.6	340.2	342.9	340.7
70°	132.0	149.3	193.1	233.6	267.7	279.1	288.8	296.4	298.0	298.5	298.0
72.5°	101.7	122.2	163.9	203.9	234.7	245.5	253.1	259.1	259.1	259.6	258.0
75°	76.8	101.7	142.2	179.0	206.6	217.4	223.4	227.2	225.0	224.5	222.8
77.5°	55.7	84.4	122.8	157.4	183.3	191.5	196.9	197.4	194.2	193.6	190.4
80°	38.4	68.7	106.0	138.5	162.3	170.4	173.1	170.9	168.2	165.0	160.6
82.5°	25.4	55.7	91.9	122.8	144.9	151.4	153.6	150.4	146.6	141.2	134.1
85°	13.5	44.9	80.0	109.8	130.9	136.8	137.9	132.0	126.0	119.0	112.0
87.5°	5.9	36.8	71.4	101.1	119.5	123.9	124.4	117.9	110.3	102.2	93.6
90°	1.1	31.4	66.0	94.6	112.5	116.3	116.3	107.6	100.1	91.4	81.7
92.5°	0.5	29.7	64.4	92.5	110.3	114.1	113.6	104.4	95.2	85.5	75.7
95°	0.5	26.0	60.6	90.3	108.7	112.5	112.0	102.2	92.5	82.2	71.4
97.5°	0.5	21.6	56.8	86.5	106.0	109.8	109.8	100.6	90.9	80.0	68.7
100°	0.0	16.8	52.5	82.7	102.2	107.1	107.6	99.0	88.7	77.9	67.1
102.5°	0.0	11.4	48.7	79.5	99.5	104.4	105.5	98.4	87.6	76.8	66.0
105°	0.5	7.0	43.8	75.7	96.8	102.2	103.8	97.9	87.1	76.8	66.0
107.5°	0.5	4.9	38.9	71.9	94.6	100.6	102.8	97.9	87.6	77.3	67.1
110°	0.5	4.3	33.0	68.1	91.9	98.4	101.7	98.4	88.7	79.0	68.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.5	3.2	24.9	63.3	88.7	96.3	100.6	99.0	90.3	80.6	70.9
115°	0.5	2.7	16.8	58.4	85.5	94.1	99.5	99.5	91.9	82.7	73.6
117.5°	0.5	2.7	11.4	51.9	81.7	91.4	97.4	100.1	94.1	84.9	76.8
120°	0.5	2.2	5.4	44.3	76.8	87.6	95.2	100.1	95.7	87.6	79.5
122.5°	0.5	2.2	4.3	34.1	71.4	83.3	91.9	99.5	97.4	89.8	82.7
125°	0.5	1.6	3.8	22.7	64.4	77.3	87.6	97.9	97.9	91.9	85.5
127.5°	0.5	1.6	3.2	16.2	55.2	70.9	81.7	95.2	97.9	93.6	88.2
130°	0.5	1.6	2.7	4.9	42.2	61.7	74.6	90.9	96.8	94.6	89.8
132.5°	0.5	1.1	2.7	3.8	27.0	48.1	64.9	83.8	93.6	94.6	91.4
135°	0.5	1.1	2.2	3.2	19.5	29.7	51.9	75.2	87.6	91.4	91.4
137.5°	0.5	1.1	2.2	2.7	8.7	22.2	32.5	64.9	80.0	87.1	88.7
140°	0.5	1.1	1.6	2.2	3.2	11.9	23.3	51.4	70.9	80.6	84.9
142.5°	0.5	1.1	1.6	2.2	2.7	2.7	14.1	29.7	59.5	71.9	79.0
145°	0.5	1.1	1.1	1.6	2.2	2.7	2.7	22.7	42.7	61.7	70.9
147.5°	0.5	0.5	1.1	1.6	2.2	2.2	2.2	10.3	25.4	47.1	60.6
150°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.2	16.8	26.5	44.9
152.5°	0.5	0.5	1.1	1.1	1.6	1.6	1.6	2.2	2.2	17.8	24.9
155°	0.5	0.5	1.1	1.1	1.1	1.6	1.6	1.6	1.6	2.2	15.7
157.5°	0.5	0.5	1.1	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2
160°	0.5	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.6	1.6	2.2
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°	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8	1102.8
2.5°	1084.4	1092.5	1092.5	1099.5	1103.3	1102.2	1103.3	1105.5	1099.0	1096.8
5°	1118.5	1134.7	1142.8	1161.2	1165.5	1173.6	1176.3	1185.5	1187.7	1181.2
7.5°	1225.6	1259.1	1280.7	1302.9	1312.6	1317.5	1326.1	1332.1	1341.3	1334.3
10°	1326.1	1366.7	1397.5	1421.9	1427.8	1432.7	1443.0	1457.6	1456.5	1455.4
12.5°	1413.2	1448.9	1486.8	1521.9	1539.8	1543.6	1558.7	1576.6	1579.8	1565.2
15°	1485.2	1534.9	1577.6	1615.0	1622.0	1631.7	1643.1	1649.0	1646.3	1648.5
17.5°	1545.2	1587.4	1617.7	1637.7	1642.0	1649.6	1659.8	1667.4	1668.5	1669.0
20°	1569.0	1597.1	1626.3	1653.9	1662.6	1670.1	1682.6	1689.1	1688.0	1684.7
22.5°	1564.7	1605.8	1632.8	1655.5	1664.2	1671.2	1682.0	1686.4	1684.7	1681.5
25°	1558.2	1593.3	1617.1	1629.0	1629.0	1634.4	1631.7	1628.5	1624.7	1625.2
27.5°	1527.3	1547.9	1564.1	1577.6	1579.3	1579.8	1578.2	1574.9	1572.8	1567.9
30°	1464.6	1489.5	1497.1	1496.0	1493.8	1493.3	1486.8	1481.9	1476.0	1476.5
32.5°	1391.1	1396.5	1399.7	1390.5	1385.1	1384.0	1378.1	1370.0	1361.8	1353.2
35°	1296.4	1292.6	1285.0	1278.6	1274.2	1267.7	1259.1	1251.0	1240.7	1241.2
37.5°	1205.0	1193.1	1182.3	1164.4	1161.2	1146.0	1129.3	1116.3	1099.5	1090.3
40°	1109.8	1097.9	1084.4	1064.9	1056.3	1042.2	1023.8	1002.2	988.7	983.3
42.5°	1018.9	1004.3	988.7	965.4	954.6	943.2	923.8	902.7	892.9	891.3
45°	930.3	913.5	898.3	872.4	861.0	847.5	827.5	814.5	800.4	797.2
47.5°	844.8	830.2	806.9	786.9	776.1	764.8	744.2	732.3	722.0	718.2
50°	762.0	748.0	730.1	708.0	697.7	686.9	672.3	660.9	649.0	645.2
52.5°	688.0	673.9	655.5	638.2	627.9	621.4	607.9	594.9	585.7	579.8
55°	616.6	603.6	586.8	570.6	566.8	558.2	542.5	531.1	525.2	525.7
57.5°	551.1	539.8	526.8	511.1	505.1	497.0	486.8	473.2	466.2	464.0
60°	491.6	480.8	470.0	458.1	450.5	444.6	430.5	419.7	410.5	409.4
62.5°	434.8	426.7	417.5	405.6	399.1	392.7	380.2	369.9	362.9	360.7
65°	385.6	378.6	367.8	358.0	351.5	345.1	333.2	322.9	316.9	311.0
67.5°	336.9	331.0	322.9	312.6	306.7	300.2	289.9	278.5	271.5	269.9
70°	293.7	287.2	280.7	269.9	264.5	260.7	249.3	238.0	232.6	230.4
72.5°	256.4	249.3	240.1	232.6	229.3	222.3	211.5	203.9	196.9	192.5
75°	217.4	213.1	206.6	197.9	192.0	187.1	178.5	170.9	165.0	160.6
77.5°	185.5	180.1	174.7	166.0	161.7	157.4	148.2	141.7	135.8	133.6
80°	155.8	150.9	143.3	136.8	133.0	129.3	122.2	115.2	110.9	108.7
82.5°	128.7	124.4	118.4	113.0	108.7	106.0	99.5	93.6	89.8	86.5
85°	106.5	101.1	95.7	90.9	87.6	85.5	80.6	76.3	71.4	70.3
87.5°	87.6	83.3	78.4	73.6	71.4	68.7	64.4	61.1	57.3	55.7
90°	75.2	69.8	65.4	61.7	59.5	57.9	54.6	50.3	47.6	46.0
92.5°	68.1	63.3	59.5	55.7	54.1	52.5	48.7	45.4	42.7	40.6
95°	63.8	59.0	55.2	51.9	50.3	49.2	46.0	42.7	40.0	38.4
97.5°	60.6	55.2	51.4	48.7	47.1	46.0	43.3	40.6	37.9	36.2
100°	57.9	52.5	48.7	46.0	44.9	43.8	41.1	38.4	36.2	34.6
102.5°	56.8	50.8	47.1	44.9	43.8	42.7	40.0	37.9	35.2	33.5
105°	56.8	50.3	46.5	43.8	42.7	41.6	39.5	37.3	34.6	33.0
107.5°	57.9	50.8	46.5	44.3	43.3	42.2	39.5	37.3	34.6	33.0
110°	59.5	52.5	47.6	44.9	43.8	42.7	40.0	37.9	35.2	33.5



TEST NUMBER: P232582

CATALOG NUMBER: 4SKB1-LD5-4-N-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	61.7	54.1	49.2	46.0	44.9	43.8	41.1	38.9	36.2	34.6
115°	64.4	56.2	51.4	47.6	46.5	45.4	42.7	40.0	37.9	36.2
117.5°	67.6	59.5	53.5	49.8	48.7	47.1	44.3	41.6	39.5	37.9
120°	70.9	63.3	56.8	52.5	50.8	49.2	46.5	43.8	41.1	39.5
122.5°	74.6	66.5	60.0	55.7	54.1	52.5	49.2	46.5	43.8	41.6
125°	78.4	70.9	63.8	59.0	56.8	55.2	51.9	48.7	46.5	44.3
127.5°	81.7	74.6	67.6	62.7	60.6	58.4	55.2	51.9	49.2	47.6
130°	84.4	78.4	71.9	66.5	64.4	62.7	58.4	55.2	52.5	50.8
132.5°	87.1	81.7	76.3	70.9	68.7	66.5	62.7	59.0	56.2	54.1
135°	88.7	84.4	80.0	75.2	73.0	70.3	66.5	62.7	59.5	57.3
137.5°	88.7	86.5	82.7	79.0	76.8	74.6	70.3	66.5	63.3	61.7
140°	86.0	86.5	84.9	82.2	80.0	78.4	74.6	70.3	67.1	65.4
142.5°	82.2	83.8	84.9	83.3	82.2	81.1	77.9	74.1	70.9	68.7
145°	76.3	79.5	81.7	83.3	82.7	82.2	79.5	76.8	73.6	71.4
147.5°	68.7	73.6	76.3	80.0	81.1	81.1	80.0	77.9	75.2	73.6
150°	57.9	64.9	69.8	73.6	75.2	77.3	77.3	75.7	74.1	72.5
152.5°	41.1	52.5	59.5	64.9	67.1	69.2	71.9	70.9	68.7	67.6
155°	23.3	28.7	43.3	51.9	54.6	57.3	61.7	62.7	62.2	60.6
157.5°	11.9	19.5	24.3	28.1	29.7	34.1	42.7	48.7	48.1	49.2
160°	2.7	3.2	9.2	17.3	19.5	20.6	22.7	24.3	24.3	23.3
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)