

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: P232568

Luminaire Tested: **4SKB1-LD5-5-W-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232568  
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-LD5-5-W-UNV-L840-CD1-U  
Description: METALUX SKYBAR 4' WAVESTREAM STRIP  
WITH WIDE LENS  
Light Source: (196) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5061.0 lumens  
Efficiency: N/A  
Efficacy: 133.2 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

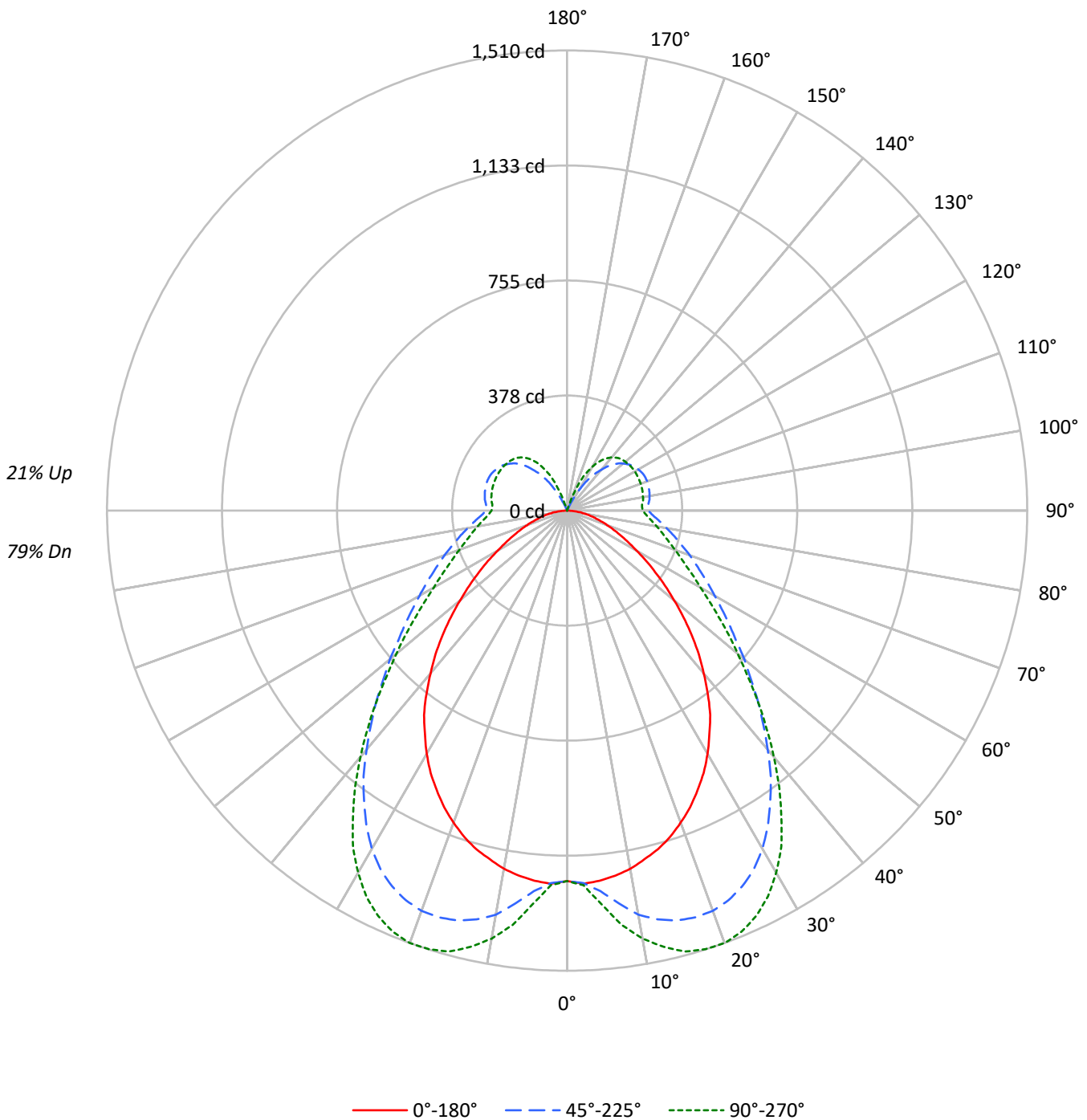
Input Watts (W): 38  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	13084	13084	13084
5°	13090	12578	12709
10°	12881	12748	12926
15°	12578	12565	12717
20°	12158	12136	12143
25°	11630	11469	11293
30°	10991	10578	10189
35°	10237	9465	8859
40°	9233	8291	7494
45°	8189	7180	6213
50°	7066	6211	5119
55°	6000	5399	4258
60°	5036	4785	3595
65°	4264	4306	3139
70°	3665	3952	2816
75°	3119	3650	2583
80°	2552	3431	2428
85°	1718	3296	2314



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.7	2.4
10°-20°	385.8	7.6
20°-30°	604.6	11.9
30°-40°	692.3	13.7
40°-50°	637.7	12.6
50°-60°	523.3	10.3
60°-70°	418.4	8.3
70°-80°	336.1	6.6
80°-90°	267.3	5.3
90°-100°	238.9	4.7
100°-110°	232.7	4.6
110°-120°	210.9	4.2
120°-130°	174.3	3.4
130°-140°	125.0	2.5
140°-150°	69.5	1.4
150°-160°	20.9	0.4
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-30°	1113.1	22.0
0°-40°	1805.4	35.7
0°-60°	2966.4	58.6
0°-90°	3988.2	78.8
90°-120°	682.6	13.5
90°-150°	1051.4	20.8
90°-180°	1073.0	21.2
0°-180°	5061.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1219	1232	1253	1296	1296	116
15°	1151	1267	1392	1480	1498	324
25°	1012	1205	1360	1456	1468	465
35°	819	1018	1162	1231	1225	509
45°	577	769	885	908	884	445
55°	353	552	648	631	605	318
65°	194	405	487	454	432	194
75°	95	309	375	346	333	102
85°	26	234	294	276	269	28
90°	2	207	266	254	248	2
95°	1	206	268	254	247	1
105°	1	202	278	264	256	1
115°	1	182	277	269	257	1
125°	1	142	258	267	254	1
135°	1	52	215	250	242	1
145°	1	2	132	202	204	0
155°	1	1	20	94	118	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°	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5
2.5°	1225.7	1220.6	1217.0	1220.6	1222.1	1223.5	1227.2	1226.5	1227.2	1225.7	1223.5
5°	1219.2	1214.8	1213.4	1220.6	1227.9	1231.5	1236.6	1241.7	1246.1	1251.9	1253.4
7.5°	1208.3	1206.1	1207.5	1220.6	1232.3	1241.0	1248.3	1261.4	1274.5	1287.6	1300.0
10°	1193.7	1192.2	1198.8	1218.4	1237.4	1249.7	1262.1	1286.1	1308.7	1329.1	1346.6
12.5°	1171.9	1175.5	1186.4	1212.6	1242.5	1259.9	1279.6	1309.4	1333.5	1356.7	1374.2
15°	1150.8	1152.9	1174.0	1205.3	1240.3	1267.2	1287.6	1325.4	1350.2	1374.2	1392.4
17.5°	1123.1	1128.2	1151.5	1195.9	1238.8	1262.8	1287.6	1317.4	1347.3	1374.9	1399.7
20°	1089.6	1100.5	1131.8	1180.6	1229.4	1253.4	1275.2	1311.6	1342.2	1369.1	1397.5
22.5°	1054.0	1066.3	1101.3	1159.5	1209.7	1233.7	1254.8	1294.9	1326.2	1353.1	1383.7
25°	1012.5	1028.5	1070.0	1132.6	1180.6	1205.3	1227.9	1268.7	1301.4	1328.4	1360.4
27.5°	970.2	988.4	1033.6	1096.9	1146.4	1169.7	1193.0	1233.7	1266.5	1293.4	1326.9
30°	921.5	941.1	992.1	1053.2	1102.0	1127.5	1148.6	1188.6	1224.3	1248.3	1281.8
32.5°	869.1	891.6	946.2	1005.2	1054.0	1078.0	1099.1	1137.7	1169.7	1195.2	1225.7
35°	818.8	837.0	892.4	949.9	996.4	1018.3	1043.0	1080.2	1108.5	1134.7	1162.4
37.5°	758.4	780.3	836.3	890.9	937.5	960.8	981.2	1015.4	1041.6	1066.3	1097.6
40°	697.3	721.3	779.5	828.3	876.4	894.5	914.9	946.2	971.0	1001.5	1024.1
42.5°	639.8	662.4	717.7	767.2	812.3	830.5	850.1	882.9	904.0	930.2	952.8
45°	577.2	600.5	659.4	706.0	749.0	768.6	789.0	815.9	840.0	861.1	885.1
47.5°	517.5	545.2	601.9	645.6	689.3	707.5	725.0	753.3	777.4	799.9	816.7
50°	458.6	488.4	543.7	591.0	632.5	650.7	668.2	696.6	721.3	741.0	758.4
52.5°	404.7	436.0	492.8	542.3	579.4	598.3	615.8	643.4	668.2	686.4	698.0
55°	353.0	388.0	446.9	494.9	532.1	552.5	566.3	595.4	620.1	636.9	647.8
57.5°	307.9	346.5	402.5	452.0	490.6	508.8	525.5	553.2	576.5	592.5	601.2
60°	263.5	306.4	364.7	412.7	452.0	469.5	487.7	515.3	537.2	551.7	559.7
62.5°	226.4	271.5	331.9	378.5	418.5	436.0	452.0	479.7	500.8	515.3	521.9
65°	193.6	240.9	302.1	348.6	387.2	405.4	422.2	450.5	470.2	484.0	486.9
67.5°	165.2	213.3	275.1	321.0	361.0	377.8	394.5	422.9	441.8	453.5	455.6
70°	139.8	188.5	250.4	296.2	335.5	353.7	370.5	396.0	415.6	425.1	428.0
72.5°	116.5	167.4	227.1	274.4	313.7	330.5	346.5	373.4	391.6	400.3	399.6
75°	95.4	147.8	207.4	254.0	291.1	308.6	324.6	350.8	369.0	376.3	374.9
77.5°	77.2	131.0	188.5	233.6	271.5	289.0	303.5	329.7	346.5	354.5	353.0
80°	58.2	112.8	170.3	214.7	252.6	268.6	284.6	309.3	326.1	334.1	330.5
82.5°	42.2	96.1	153.6	197.3	234.4	251.1	265.7	291.1	307.2	313.7	311.5
85°	25.5	79.3	135.4	180.5	217.6	233.6	249.7	273.7	289.7	296.2	294.1
87.5°	10.9	64.1	120.1	165.2	202.3	218.4	233.6	257.7	272.9	279.5	277.3
90°	1.5	53.9	110.6	155.0	191.4	207.4	222.7	246.7	262.0	268.6	266.4
92.5°	0.7	51.7	107.7	152.1	188.5	205.3	219.8	244.6	260.6	266.4	265.7
95°	0.7	48.0	106.3	152.1	189.2	206.0	221.3	246.0	262.0	268.6	267.9
97.5°	0.7	42.9	104.1	151.4	190.0	207.4	222.7	248.9	265.7	272.9	272.2
100°	0.7	34.9	99.7	149.2	188.5	206.7	222.0	248.9	266.4	274.4	274.4
102.5°	0.7	24.0	94.6	145.6	187.1	204.5	220.5	248.2	266.4	275.1	276.6
105°	0.7	14.6	88.1	141.2	183.4	201.6	218.4	246.7	265.7	275.9	278.0
107.5°	0.7	9.5	80.1	136.1	179.8	198.7	215.4	244.6	264.2	275.9	278.8
110°	0.7	8.0	69.9	130.3	174.7	193.6	211.1	241.7	262.0	275.1	279.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	6.6	53.9	122.3	168.9	188.5	206.7	236.6	259.1	272.2	278.8
115°	0.7	5.1	34.9	112.8	161.6	182.0	200.2	231.5	254.0	269.3	277.3
117.5°	0.7	4.4	22.6	101.9	153.6	174.0	192.9	224.9	248.9	264.9	274.4
120°	0.7	3.6	9.5	87.3	143.4	165.2	184.2	216.2	241.7	259.1	270.0
122.5°	0.7	2.9	7.3	65.5	131.7	154.3	174.0	207.4	232.9	252.6	264.2
125°	0.7	2.9	5.8	42.2	117.2	141.9	163.0	197.3	224.2	244.6	258.4
127.5°	0.7	2.2	5.1	28.4	99.7	127.4	149.9	185.6	213.3	234.4	249.7
130°	0.7	2.2	4.4	12.4	74.2	109.2	133.9	171.8	200.9	223.5	240.2
132.5°	0.7	1.5	3.6	5.1	45.9	84.4	113.5	154.3	186.3	210.4	229.3
135°	0.7	1.5	2.9	4.4	30.6	51.7	88.8	134.7	167.4	192.9	214.7
137.5°	0.7	1.5	2.2	3.6	12.4	34.2	54.6	112.8	147.0	174.0	196.5
140°	0.7	1.5	2.2	2.9	3.6	16.0	37.1	85.9	124.5	153.6	175.4
142.5°	0.7	1.5	2.2	2.2	2.9	3.6	18.2	50.2	99.7	131.0	155.0
145°	0.7	0.7	1.5	2.2	2.2	2.2	2.9	34.2	64.8	106.3	131.7
147.5°	0.7	0.7	1.5	1.5	2.2	2.2	2.2	13.8	40.0	75.0	106.3
150°	0.7	0.7	1.5	1.5	1.5	1.5	1.5	1.5	20.4	40.8	72.1
152.5°	0.7	0.7	0.7	1.5	1.5	1.5	1.5	1.5	2.2	23.3	40.0
155°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	20.4
157.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
160°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5	1215.5
2.5°	1227.2	1233.7	1236.6	1239.6	1240.3	1241.0	1239.6	1238.8	1233.7	1230.8
5°	1263.6	1279.6	1286.1	1295.6	1296.3	1297.1	1301.4	1299.2	1300.0	1296.3
7.5°	1316.7	1340.0	1350.2	1362.6	1365.5	1369.1	1376.4	1377.1	1376.4	1371.3
10°	1366.2	1385.9	1401.1	1412.8	1417.2	1420.1	1428.8	1431.0	1429.5	1425.9
12.5°	1396.0	1421.5	1436.8	1453.5	1457.9	1462.3	1469.6	1473.2	1468.8	1466.7
15°	1421.5	1448.5	1460.8	1479.0	1479.8	1487.8	1500.1	1501.6	1499.4	1497.9
17.5°	1428.1	1455.7	1473.9	1489.9	1495.8	1500.9	1508.1	1514.0	1514.7	1508.9
20°	1426.6	1452.8	1474.7	1491.4	1497.9	1501.6	1511.1	1515.4	1513.2	1510.3
22.5°	1415.0	1441.2	1463.0	1477.6	1483.4	1489.2	1497.9	1501.6	1501.6	1495.8
25°	1391.0	1417.2	1436.1	1451.4	1456.5	1462.3	1471.0	1473.2	1471.7	1468.1
27.5°	1356.7	1380.0	1399.0	1412.1	1417.2	1422.3	1431.7	1433.9	1431.0	1427.3
30°	1306.5	1330.5	1349.5	1361.1	1365.5	1369.1	1374.9	1380.0	1375.7	1372.0
32.5°	1251.9	1273.8	1286.9	1297.8	1300.7	1303.6	1309.4	1311.6	1307.2	1308.0
35°	1187.9	1206.8	1222.1	1229.4	1230.8	1230.1	1233.0	1233.7	1234.5	1225.0
37.5°	1118.0	1134.7	1142.0	1152.2	1150.0	1153.7	1156.6	1153.7	1146.4	1142.7
40°	1043.0	1054.0	1066.3	1070.0	1067.8	1072.9	1071.4	1066.3	1058.3	1055.4
42.5°	968.8	981.2	985.5	988.4	986.3	987.0	984.1	982.6	974.6	968.1
45°	898.2	906.9	909.1	908.4	908.4	904.7	901.1	895.3	888.0	884.4
47.5°	829.0	834.9	835.6	832.0	829.0	824.7	825.4	815.2	806.5	802.1
50°	765.0	767.2	765.0	758.4	757.0	751.9	749.0	741.0	733.0	730.8
52.5°	707.5	706.8	702.4	695.1	692.2	687.1	682.0	674.7	666.7	666.7
55°	651.4	649.3	643.4	635.4	631.1	628.9	622.3	614.3	608.5	604.9
57.5°	602.7	598.3	591.0	583.7	577.9	572.1	567.7	561.9	554.6	553.2
60°	559.0	550.3	543.7	535.7	531.3	526.2	520.4	516.1	510.2	504.4
62.5°	518.2	511.0	502.2	494.2	489.9	485.5	479.7	473.1	469.5	468.0
65°	482.6	475.3	465.1	457.1	453.5	449.1	444.7	437.4	435.3	431.6
67.5°	450.5	441.1	431.6	424.3	420.7	419.3	414.9	410.5	405.4	402.5
70°	420.7	411.2	402.5	397.4	393.0	391.6	388.0	382.1	378.5	376.3
72.5°	392.3	384.3	377.0	369.8	366.8	366.1	363.2	358.8	355.2	353.0
75°	368.3	360.3	353.0	349.4	346.5	344.3	342.8	338.5	336.3	332.6
77.5°	347.2	337.7	331.2	327.5	325.4	323.9	322.4	320.3	317.3	315.2
80°	324.6	317.3	312.3	308.6	307.2	305.7	304.2	302.8	300.6	298.4
82.5°	305.7	299.2	294.8	291.9	291.9	290.4	289.7	288.2	286.1	283.1
85°	287.5	281.7	278.0	276.6	275.9	275.1	274.4	272.9	270.8	268.6
87.5°	272.2	267.9	264.2	263.5	263.5	262.8	262.0	261.3	259.1	256.9
90°	262.0	257.7	255.5	254.8	254.0	254.0	254.0	252.6	250.4	248.2
92.5°	260.6	256.2	254.0	252.6	252.6	252.6	252.6	251.1	248.9	246.0
95°	262.8	258.4	256.2	254.8	254.0	254.0	253.3	251.8	249.7	246.7
97.5°	267.9	263.5	260.6	258.4	257.7	257.7	256.9	255.5	253.3	251.1
100°	270.8	266.4	263.5	261.3	260.6	259.8	259.1	257.7	255.5	252.6
102.5°	272.9	268.6	264.9	263.5	262.8	262.0	260.6	259.1	256.9	254.0
105°	274.4	270.8	267.9	264.9	264.2	263.5	262.0	260.6	257.7	255.5
107.5°	276.6	272.9	269.3	267.1	265.7	264.9	263.5	262.0	259.1	256.2
110°	277.3	274.4	270.8	268.6	267.1	266.4	264.2	262.0	259.1	256.9





TEST NUMBER: P232568

CATALOG NUMBER: 4SKB1-LD5-5-W-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	278.0	275.9	272.2	269.3	268.6	267.1	264.9	262.8	259.8	256.9
115°	278.0	275.9	272.9	270.0	269.3	267.9	265.7	262.8	259.8	256.9
117.5°	277.3	275.9	273.7	270.8	269.3	267.9	265.7	262.8	259.1	256.9
120°	275.1	275.1	272.9	270.8	269.3	267.9	264.9	262.0	259.1	256.2
122.5°	271.5	272.9	271.5	269.3	268.6	267.1	264.9	261.3	257.7	255.5
125°	266.4	270.0	269.3	267.9	267.1	265.7	263.5	260.6	256.9	254.0
127.5°	259.8	264.9	266.4	265.7	264.9	264.2	261.3	258.4	255.5	251.8
130°	251.8	258.4	261.3	261.3	261.3	260.6	259.1	256.2	252.6	249.7
132.5°	241.7	249.7	254.0	256.2	256.2	256.2	254.8	252.6	249.7	246.0
135°	230.0	240.2	246.0	248.9	249.7	249.7	249.7	248.2	245.3	242.4
137.5°	216.2	227.8	235.8	240.2	241.7	242.4	243.1	241.7	238.7	235.8
140°	195.8	212.5	222.7	228.5	230.0	232.2	233.6	232.2	230.0	227.8
142.5°	175.4	192.9	207.4	215.4	216.9	219.1	221.3	221.3	219.1	216.9
145°	153.6	171.0	186.3	199.4	201.6	203.8	206.7	208.2	206.0	203.8
147.5°	128.1	146.3	162.3	176.9	183.4	186.3	189.2	190.7	190.0	187.8
150°	101.2	120.8	136.1	150.7	157.2	166.0	169.6	170.3	169.6	167.4
152.5°	61.1	89.5	107.0	121.6	127.4	135.4	145.6	147.8	146.3	144.8
155°	34.2	46.6	65.5	87.3	93.9	101.2	113.5	118.6	117.9	117.9
157.5°	10.2	25.5	34.9	42.9	45.9	50.2	64.8	77.2	80.8	81.5
160°	0.7	0.7	8.7	17.5	21.8	26.2	33.5	37.8	38.6	39.3
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)