

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: P232579

Luminaire Tested: **4SKB1-LD5-3-N-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232579
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-LD5-3-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: 3007.0 lumens
Efficiency: N/A
Efficacy: 140.3 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

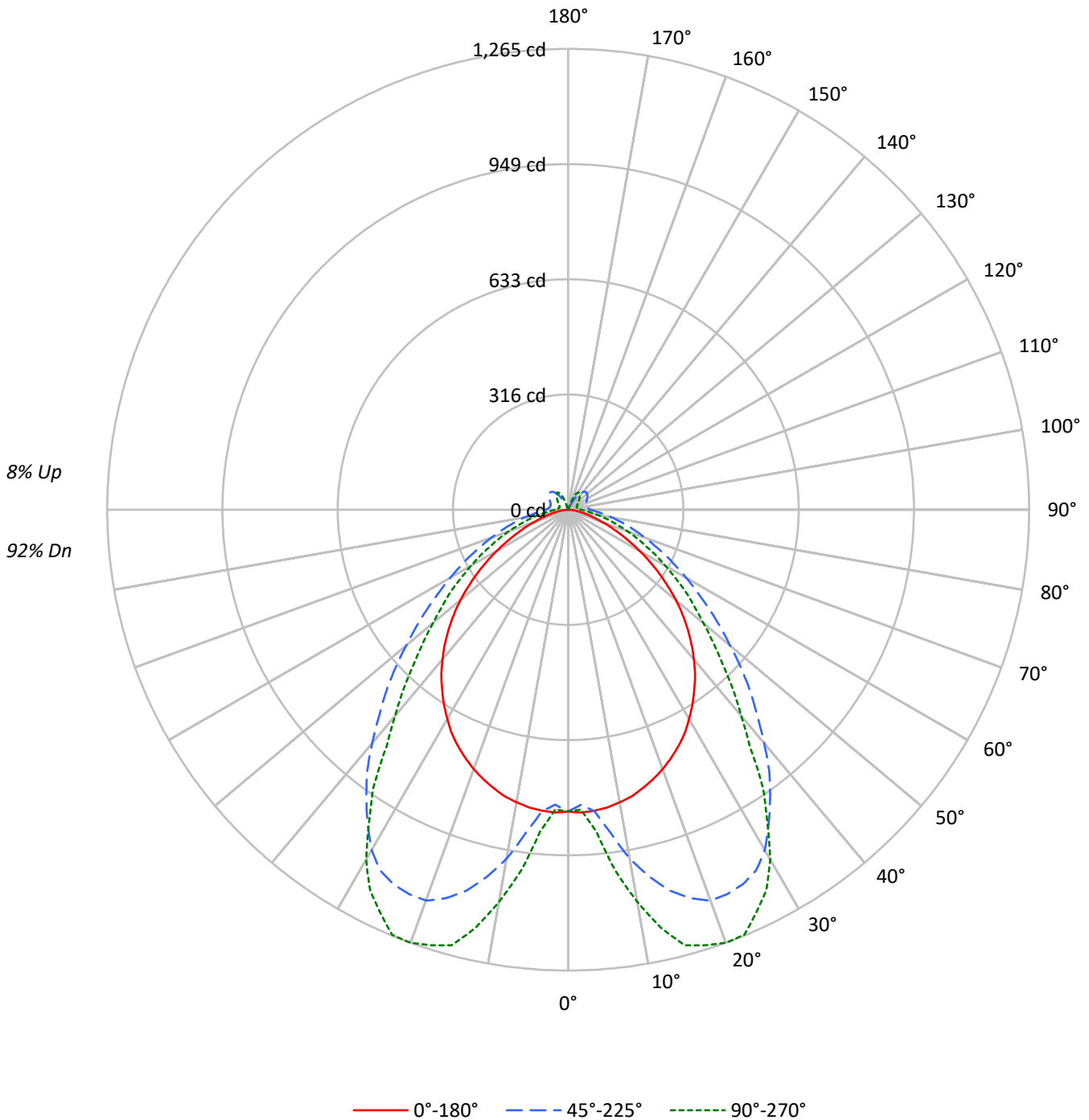
Input Watts (W): 21.44
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

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°	8915	8915	8915
5°	8905	8339	8697
10°	8801	9209	9908
15°	8648	9772	10510
20°	8457	9916	10173
25°	8221	9564	9389
30°	7911	8903	8235
35°	7541	7865	6742
40°	7105	6771	5243
45°	6580	5736	4206
50°	5945	4757	3395
55°	5184	3909	2779
60°	4324	3198	2191
65°	3436	2591	1698
70°	2598	2067	1295
75°	1886	1629	937
80°	1263	1252	664
85°	687	943	455



TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	2.8
10°-20°	295.0	9.8
20°-30°	485.7	16.2
30°-40°	545.7	18.1
40°-50°	485.6	16.1
50°-60°	375.5	12.5
60°-70°	255.0	8.5
70°-80°	152.2	5.1
80°-90°	81.6	2.7
90°-100°	53.7	1.8
100°-110°	45.6	1.5
110°-120°	42.1	1.4
120°-130°	39.3	1.3
130°-140°	33.3	1.1
140°-150°	22.7	0.8
150°-160°	8.8	0.3
160°-170°	0.3	0.0
170°-180°	0.0	0.0
<hr/>		
0°-30°	865.5	28.8
0°-40°	1411.2	46.9
0°-60°	2272.4	75.6
0°-90°	2761.2	91.8
90°-120°	141.4	4.7
90°-150°	236.7	7.9
90°-180°	246.0	8.2
0°-180°	3007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	829	818	831	875	887	79
15°	791	889	1083	1218	1238	223
25°	716	919	1134	1223	1221	329
35°	603	828	966	957	932	377
45°	464	640	707	647	599	357
55°	305	436	469	426	395	272
65°	156	271	293	264	234	157
75°	58	163	167	144	121	63
85°	10	103	84	66	53	12
90°	1	87	61	45	34	1
95°	0	84	54	38	29	0
105°	0	77	50	32	25	0
115°	0	71	55	35	27	0
125°	0	58	64	43	33	0
135°	0	22	69	55	43	0
145°	0	2	53	62	54	0
155°	0	1	12	41	46	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2
2.5°	832.2	829.0	823.3	822.9	819.3	817.6	818.0	816.8	815.6	813.6	810.3
5°	829.4	823.3	814.0	814.0	816.0	818.0	822.9	827.4	828.6	831.4	831.0
7.5°	824.1	814.8	805.8	813.2	820.5	823.3	829.0	837.1	849.7	872.9	895.6
10°	815.6	803.0	800.2	811.9	821.7	830.2	843.2	881.0	915.9	950.4	972.8
12.5°	805.8	790.4	794.5	809.5	832.2	848.5	881.8	931.8	959.4	999.6	1032.5
15°	791.2	776.6	783.9	806.3	853.8	888.7	907.4	968.3	1012.6	1045.9	1082.9
17.5°	775.4	762.4	772.5	811.9	876.5	910.2	940.3	991.9	1034.5	1083.7	1118.6
20°	757.9	746.5	759.5	819.3	887.5	922.0	955.3	1004.5	1060.9	1111.7	1141.8
22.5°	737.6	727.5	747.4	822.5	891.6	926.1	958.6	1015.8	1074.3	1116.2	1141.8
25°	715.7	705.5	732.7	816.0	887.5	919.2	954.1	1021.9	1069.9	1102.8	1134.4
27.5°	692.1	680.7	721.8	802.6	871.2	907.0	946.4	1010.2	1047.9	1084.5	1116.6
30°	663.3	653.1	702.7	783.1	848.5	890.7	924.5	981.7	1017.9	1054.0	1078.8
32.5°	634.4	624.7	679.5	755.5	822.5	862.3	894.8	939.5	980.5	1008.5	1024.0
35°	603.2	592.2	652.7	721.8	793.3	827.8	855.0	895.6	930.1	950.9	965.9
37.5°	571.9	560.1	618.6	686.4	754.7	786.4	809.1	850.1	876.5	893.6	906.2
40°	536.6	524.4	583.3	646.6	714.5	736.8	760.4	796.9	816.4	830.2	836.3
42.5°	500.8	488.6	545.1	604.8	665.3	687.2	711.6	740.5	759.5	767.7	767.7
45°	463.8	452.1	505.7	563.4	614.5	639.7	661.3	684.4	700.2	706.7	707.1
47.5°	425.3	415.5	466.7	519.1	567.0	589.0	605.6	627.9	641.8	643.4	643.0
50°	385.9	377.3	423.2	474.8	517.5	537.0	551.6	572.3	583.3	582.9	580.8
52.5°	344.4	339.2	381.8	428.9	467.5	485.0	498.0	516.2	525.2	525.2	523.6
55°	305.0	301.8	338.7	384.2	420.4	435.8	448.0	464.3	471.6	471.6	469.1
57.5°	265.2	264.8	299.3	340.0	374.5	388.3	401.3	415.5	422.0	422.0	418.0
60°	226.2	228.3	262.4	299.8	331.4	344.8	356.2	370.0	374.1	374.9	374.1
62.5°	190.1	195.4	227.9	262.0	293.7	305.0	315.2	328.6	331.8	333.1	331.0
65°	156.0	164.1	197.0	229.5	259.1	270.9	279.9	289.2	292.0	293.3	292.9
67.5°	127.9	136.5	169.4	201.5	228.7	238.0	247.0	255.1	255.5	257.5	255.9
70°	99.1	112.1	145.0	175.5	201.1	209.6	216.9	222.6	223.8	224.2	223.8
72.5°	76.4	91.8	123.1	153.1	176.3	184.4	190.1	194.6	194.6	195.0	193.7
75°	57.7	76.4	106.8	134.4	155.2	163.3	167.7	170.6	169.0	168.6	167.3
77.5°	41.8	63.4	92.2	118.2	137.7	143.8	147.8	148.3	145.8	145.4	143.0
80°	28.8	51.6	79.6	104.0	121.9	127.9	130.0	128.4	126.3	123.9	120.6
82.5°	19.1	41.8	69.0	92.2	108.9	113.7	115.4	112.9	110.1	106.0	100.7
85°	10.2	33.7	60.1	82.5	98.3	102.8	103.6	99.1	94.6	89.4	84.1
87.5°	4.5	27.6	53.6	76.0	89.8	93.0	93.4	88.5	82.9	76.8	70.3
90°	0.8	23.6	49.6	71.1	84.5	87.3	87.3	80.8	75.1	68.6	61.3
92.5°	0.4	22.3	48.3	69.5	82.9	85.7	85.3	78.4	71.5	64.2	56.9
95°	0.4	19.5	45.5	67.8	81.6	84.5	84.1	76.8	69.5	61.7	53.6
97.5°	0.4	16.2	42.6	65.0	79.6	82.5	82.5	75.5	68.2	60.1	51.6
100°	0.0	12.6	39.4	62.1	76.8	80.4	80.8	74.3	66.6	58.5	50.4
102.5°	0.0	8.5	36.6	59.7	74.7	78.4	79.2	73.9	65.8	57.7	49.6
105°	0.4	5.3	32.9	56.9	72.7	76.8	78.0	73.5	65.4	57.7	49.6
107.5°	0.4	3.7	29.2	54.0	71.1	75.5	77.2	73.5	65.8	58.1	50.4
110°	0.4	3.2	24.8	51.2	69.0	73.9	76.4	73.9	66.6	59.3	51.6



TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.4	2.4	18.7	47.5	66.6	72.3	75.5	74.3	67.8	60.5	53.2
115°	0.4	2.0	12.6	43.9	64.2	70.7	74.7	74.7	69.0	62.1	55.2
117.5°	0.4	2.0	8.5	39.0	61.3	68.6	73.1	75.1	70.7	63.8	57.7
120°	0.4	1.6	4.1	33.3	57.7	65.8	71.5	75.1	71.9	65.8	59.7
122.5°	0.4	1.6	3.2	25.6	53.6	62.6	69.0	74.7	73.1	67.4	62.1
125°	0.4	1.2	2.8	17.1	48.3	58.1	65.8	73.5	73.5	69.0	64.2
127.5°	0.4	1.2	2.4	12.2	41.4	53.2	61.3	71.5	73.5	70.3	66.2
130°	0.4	1.2	2.0	3.7	31.7	46.3	56.1	68.2	72.7	71.1	67.4
132.5°	0.4	0.8	2.0	2.8	20.3	36.1	48.7	63.0	70.3	71.1	68.6
135°	0.4	0.8	1.6	2.4	14.6	22.3	39.0	56.5	65.8	68.6	68.6
137.5°	0.4	0.8	1.6	2.0	6.5	16.7	24.4	48.7	60.1	65.4	66.6
140°	0.4	0.8	1.2	1.6	2.4	8.9	17.5	38.6	53.2	60.5	63.8
142.5°	0.4	0.8	1.2	1.6	2.0	2.0	10.6	22.3	44.7	54.0	59.3
145°	0.4	0.8	0.8	1.2	1.6	2.0	2.0	17.1	32.1	46.3	53.2
147.5°	0.4	0.4	0.8	1.2	1.6	1.6	1.6	7.7	19.1	35.3	45.5
150°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	1.6	12.6	19.9	33.7
152.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.2	1.6	1.6	13.4	18.7
155°	0.4	0.4	0.8	0.8	0.8	1.2	1.2	1.2	1.2	1.6	11.8
157.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6
160°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	1.2	1.2	1.2	1.6
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



TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2	828.2
2.5°	814.4	820.5	820.5	825.8	828.6	827.8	828.6	830.2	825.3	823.7
5°	840.0	852.2	858.2	872.1	875.3	881.4	883.4	890.3	892.0	887.1
7.5°	920.4	945.6	961.8	978.5	985.8	989.4	995.9	1000.4	1007.3	1002.0
10°	995.9	1026.4	1049.6	1067.8	1072.3	1076.0	1083.7	1094.6	1093.8	1093.0
12.5°	1061.3	1088.1	1116.6	1143.0	1156.4	1159.2	1170.6	1184.0	1186.4	1175.5
15°	1115.4	1152.7	1184.8	1212.8	1218.1	1225.4	1234.0	1238.4	1236.4	1238.0
17.5°	1160.4	1192.1	1214.9	1229.9	1233.1	1238.8	1246.5	1252.2	1253.0	1253.5
20°	1178.3	1199.4	1221.4	1242.1	1248.6	1254.3	1263.6	1268.5	1267.7	1265.2
22.5°	1175.1	1205.9	1226.2	1243.3	1249.8	1255.1	1263.2	1266.4	1265.2	1262.8
25°	1170.2	1196.6	1214.5	1223.4	1223.4	1227.5	1225.4	1223.0	1220.1	1220.6
27.5°	1147.0	1162.5	1174.7	1184.8	1186.0	1186.4	1185.2	1182.8	1181.2	1177.5
30°	1099.9	1118.6	1124.3	1123.5	1121.9	1121.4	1116.6	1112.9	1108.4	1108.9
32.5°	1044.7	1048.7	1051.2	1044.3	1040.2	1039.4	1034.9	1028.8	1022.7	1016.2
35°	973.6	970.8	965.1	960.2	956.9	952.1	945.6	939.5	931.8	932.2
37.5°	905.0	896.0	887.9	874.5	872.1	860.7	848.1	838.3	825.8	818.8
40°	833.5	824.5	814.4	799.8	793.3	782.7	768.9	752.6	742.5	738.4
42.5°	765.2	754.3	742.5	725.0	716.9	708.4	693.7	677.9	670.6	669.4
45°	698.6	686.0	674.7	655.2	646.6	636.5	621.4	611.7	601.1	598.7
47.5°	634.4	623.5	606.0	591.0	582.9	574.3	558.9	550.0	542.2	539.4
50°	572.3	561.7	548.3	531.7	524.0	515.8	504.9	496.3	487.4	484.6
52.5°	516.7	506.1	492.3	479.3	471.6	466.7	456.5	446.8	439.9	435.4
55°	463.0	453.3	440.7	428.5	425.7	419.2	407.4	398.9	394.4	394.8
57.5°	413.9	405.4	395.6	383.8	379.4	373.3	365.6	355.4	350.1	348.5
60°	369.2	361.1	353.0	344.0	338.3	333.9	323.3	315.2	308.3	307.5
62.5°	326.6	320.5	313.6	304.6	299.8	294.9	285.5	277.8	272.5	270.9
65°	289.6	284.3	276.2	268.9	264.0	259.1	250.2	242.5	238.0	233.5
67.5°	253.0	248.6	242.5	234.8	230.3	225.4	217.7	209.2	203.9	202.7
70°	220.6	215.7	210.8	202.7	198.6	195.8	187.2	178.7	174.7	173.0
72.5°	192.5	187.2	180.3	174.7	172.2	166.9	158.8	153.1	147.8	144.6
75°	163.3	160.0	155.2	148.7	144.2	140.5	134.0	128.4	123.9	120.6
77.5°	139.3	135.3	131.2	124.7	121.4	118.2	111.3	106.4	101.9	100.3
80°	117.0	113.3	107.6	102.8	99.9	97.1	91.8	86.5	83.3	81.6
82.5°	96.7	93.4	89.0	84.9	81.6	79.6	74.7	70.3	67.4	65.0
85°	80.0	76.0	71.9	68.2	65.8	64.2	60.5	57.3	53.6	52.8
87.5°	65.8	62.6	58.9	55.2	53.6	51.6	48.3	45.9	43.1	41.8
90°	56.5	52.4	49.1	46.3	44.7	43.5	41.0	37.8	35.7	34.5
92.5°	51.2	47.5	44.7	41.8	40.6	39.4	36.6	34.1	32.1	30.5
95°	47.9	44.3	41.4	39.0	37.8	37.0	34.5	32.1	30.1	28.8
97.5°	45.5	41.4	38.6	36.6	35.3	34.5	32.5	30.5	28.4	27.2
100°	43.5	39.4	36.6	34.5	33.7	32.9	30.9	28.8	27.2	26.0
102.5°	42.6	38.2	35.3	33.7	32.9	32.1	30.1	28.4	26.4	25.2
105°	42.6	37.8	34.9	32.9	32.1	31.3	29.7	28.0	26.0	24.8
107.5°	43.5	38.2	34.9	33.3	32.5	31.7	29.7	28.0	26.0	24.8
110°	44.7	39.4	35.7	33.7	32.9	32.1	30.1	28.4	26.4	25.2



TEST NUMBER: P232579

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	46.3	40.6	37.0	34.5	33.7	32.9	30.9	29.2	27.2	26.0
115°	48.3	42.2	38.6	35.7	34.9	34.1	32.1	30.1	28.4	27.2
117.5°	50.8	44.7	40.2	37.4	36.6	35.3	33.3	31.3	29.7	28.4
120°	53.2	47.5	42.6	39.4	38.2	37.0	34.9	32.9	30.9	29.7
122.5°	56.1	50.0	45.1	41.8	40.6	39.4	37.0	34.9	32.9	31.3
125°	58.9	53.2	47.9	44.3	42.6	41.4	39.0	36.6	34.9	33.3
127.5°	61.3	56.1	50.8	47.1	45.5	43.9	41.4	39.0	37.0	35.7
130°	63.4	58.9	54.0	50.0	48.3	47.1	43.9	41.4	39.4	38.2
132.5°	65.4	61.3	57.3	53.2	51.6	50.0	47.1	44.3	42.2	40.6
135°	66.6	63.4	60.1	56.5	54.8	52.8	50.0	47.1	44.7	43.1
137.5°	66.6	65.0	62.1	59.3	57.7	56.1	52.8	50.0	47.5	46.3
140°	64.6	65.0	63.8	61.7	60.1	58.9	56.1	52.8	50.4	49.1
142.5°	61.7	63.0	63.8	62.6	61.7	60.9	58.5	55.6	53.2	51.6
145°	57.3	59.7	61.3	62.6	62.1	61.7	59.7	57.7	55.2	53.6
147.5°	51.6	55.2	57.3	60.1	60.9	60.9	60.1	58.5	56.5	55.2
150°	43.5	48.7	52.4	55.2	56.5	58.1	58.1	56.9	55.6	54.4
152.5°	30.9	39.4	44.7	48.7	50.4	52.0	54.0	53.2	51.6	50.8
155°	17.5	21.5	32.5	39.0	41.0	43.1	46.3	47.1	46.7	45.5
157.5°	8.9	14.6	18.3	21.1	22.3	25.6	32.1	36.6	36.1	37.0
160°	2.0	2.4	6.9	13.0	14.6	15.4	17.1	18.3	18.3	17.5
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)