

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: P232580

Luminaire Tested: **4SKB1-LD5-3-N-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232580
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-L840-CD1-U
Description: METALUX SKYBAR 4' WAVESTREAM STRIP
WITH NARROW LENS
Light Source: (196) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3217.0 lumens
Efficiency: N/A
Efficacy: 150.0 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

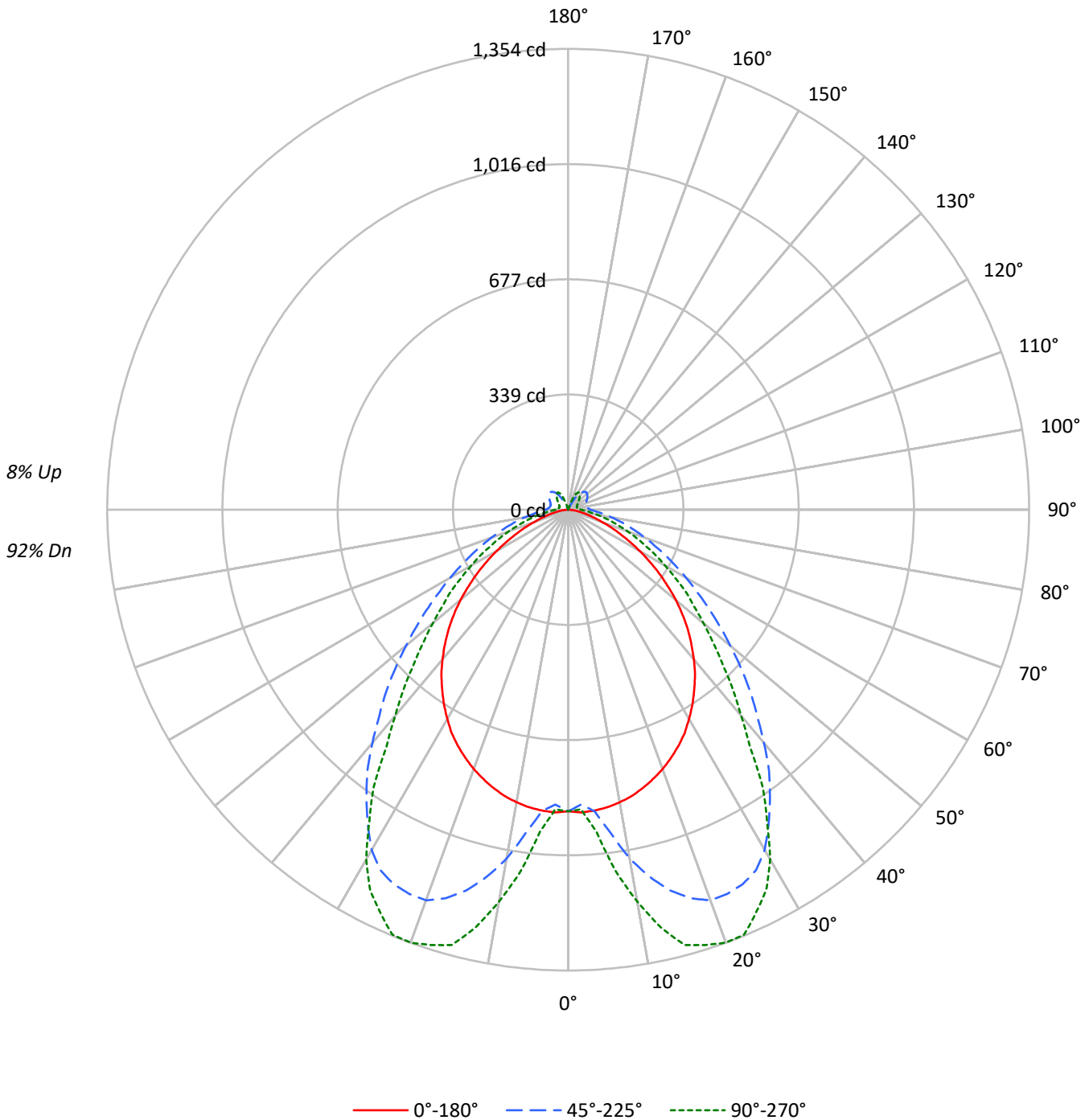
Input Watts (W): 21.44
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9537	9537	9537
5°	9527	8923	9304
10°	9416	9852	10600
15°	9252	10454	11244
20°	9048	10608	10883
25°	8795	10232	10044
30°	8463	9524	8810
35°	8068	8414	7213
40°	7600	7244	5609
45°	7040	6137	4500
50°	6360	5089	3632
55°	5546	4183	2973
60°	4626	3421	2344
65°	3676	2771	1817
70°	2779	2211	1385
75°	2017	1743	1003
80°	1355	1340	710
85°	734	1008	487



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	2.8
10°-20°	315.6	9.8
20°-30°	519.6	16.2
30°-40°	583.8	18.1
40°-50°	519.5	16.1
50°-60°	401.8	12.5
60°-70°	272.8	8.5
70°-80°	162.8	5.1
80°-90°	87.3	2.7
90°-100°	57.5	1.8
100°-110°	48.7	1.5
110°-120°	45.1	1.4
120°-130°	42.0	1.3
130°-140°	35.6	1.1
140°-150°	24.3	0.8
150°-160°	9.4	0.3
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	926.0	28.8
0°-40°	1509.8	46.9
0°-60°	2431.0	75.6
0°-90°	2954.0	91.8
90°-120°	151.3	4.7
90°-150°	253.3	7.9
90°-180°	263.0	8.2
0°-180°	3217.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	887	875	889	936	949	84
15°	846	951	1158	1303	1324	239
25°	766	983	1214	1309	1306	352
35°	645	886	1033	1024	997	403
45°	496	684	756	692	640	382
55°	326	466	502	455	422	291
65°	167	290	313	282	250	168
75°	62	175	179	154	129	68
85°	11	110	90	70	56	13
90°	1	93	66	48	37	1
95°	0	90	57	40	31	0
105°	0	82	53	34	26	0
115°	0	76	59	37	29	0
125°	0	62	69	46	36	0
135°	0	24	73	59	46	0
145°	0	2	57	66	57	0
155°	0	1	13	44	49	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°	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0
2.5°	890.4	886.9	880.8	880.4	876.5	874.7	875.2	873.9	872.6	870.4	866.9
5°	887.3	880.8	870.8	870.8	873.0	875.2	880.4	885.2	886.5	889.5	889.1
7.5°	881.7	871.7	862.1	869.9	877.8	880.8	886.9	895.6	909.1	933.8	958.2
10°	872.6	859.1	856.0	868.6	879.1	888.2	902.1	942.5	979.9	1016.8	1040.7
12.5°	862.1	845.6	850.0	866.0	890.4	907.8	943.4	996.8	1026.4	1069.4	1104.6
15°	846.5	830.8	838.7	862.6	913.4	950.8	970.8	1035.9	1083.3	1118.9	1158.5
17.5°	829.5	815.6	826.5	868.6	937.7	973.8	1006.0	1061.1	1106.8	1159.4	1196.7
20°	810.9	798.7	812.6	876.5	949.5	986.4	1022.0	1074.6	1135.0	1189.3	1221.5
22.5°	789.1	778.3	799.6	879.9	953.8	990.7	1025.5	1086.8	1149.4	1194.1	1221.5
25°	765.7	754.8	783.9	873.0	949.5	983.4	1020.7	1093.3	1144.6	1179.8	1213.7
27.5°	740.5	728.3	772.2	858.6	932.1	970.3	1012.5	1080.7	1121.1	1160.2	1194.5
30°	709.6	698.7	751.8	837.8	907.8	952.9	989.0	1050.3	1089.0	1127.6	1154.1
32.5°	678.8	668.3	727.0	808.2	879.9	922.5	957.3	1005.1	1049.0	1079.0	1095.5
35°	645.3	633.6	698.3	772.2	848.7	885.6	914.7	958.2	995.1	1017.3	1033.3
37.5°	611.8	599.2	661.8	734.4	807.4	841.3	865.6	909.5	937.7	956.0	969.5
40°	574.0	561.0	624.0	691.8	764.4	788.3	813.5	852.6	873.4	888.2	894.7
42.5°	535.8	522.8	583.2	647.0	711.8	735.2	761.3	792.2	812.6	821.3	821.3
45°	496.2	483.6	541.0	602.7	657.5	684.4	707.4	732.2	749.1	756.1	756.5
47.5°	455.0	444.5	499.3	555.3	606.6	630.1	647.9	671.8	686.6	688.3	687.9
50°	412.8	403.7	452.8	508.0	553.6	574.5	590.1	612.3	624.0	623.6	621.4
52.5°	368.5	362.8	408.5	458.9	500.2	518.8	532.7	552.3	561.9	561.9	560.1
55°	326.3	322.9	362.4	411.1	449.7	466.3	479.3	496.7	504.5	504.5	501.9
57.5°	283.8	283.3	320.3	363.7	400.6	415.4	429.3	444.5	451.5	451.5	447.1
60°	242.0	244.2	280.7	320.7	354.6	368.9	381.1	395.9	400.2	401.1	400.2
62.5°	203.4	209.0	243.8	280.3	314.2	326.3	337.2	351.5	355.0	356.3	354.1
65°	166.9	175.6	210.8	245.5	277.2	289.8	299.4	309.4	312.4	313.7	313.3
67.5°	136.9	146.0	181.2	215.5	244.6	254.6	264.2	272.9	273.3	275.5	273.8
70°	106.0	119.9	155.1	187.7	215.1	224.2	232.0	238.1	239.4	239.9	239.4
72.5°	81.7	98.2	131.7	163.8	188.6	197.3	203.4	208.1	208.1	208.6	207.3
75°	61.7	81.7	114.3	143.8	166.0	174.7	179.5	182.5	180.8	180.3	179.0
77.5°	44.8	67.8	98.6	126.5	147.3	153.8	158.2	158.6	156.0	155.6	153.0
80°	30.9	55.2	85.2	111.2	130.4	136.9	139.1	137.3	135.1	132.5	129.1
82.5°	20.4	44.8	73.9	98.6	116.5	121.7	123.4	120.8	117.8	113.4	107.8
85°	10.9	36.1	64.3	88.2	105.2	109.9	110.8	106.0	101.2	95.6	89.9
87.5°	4.8	29.5	57.4	81.3	96.0	99.5	99.9	94.7	88.6	82.1	75.2
90°	0.9	25.2	53.0	76.0	90.4	93.4	93.4	86.5	80.4	73.4	65.6
92.5°	0.4	23.9	51.7	74.3	88.6	91.7	91.3	83.9	76.5	68.7	60.8
95°	0.4	20.9	48.7	72.6	87.3	90.4	89.9	82.1	74.3	66.0	57.4
97.5°	0.4	17.4	45.6	69.5	85.2	88.2	88.2	80.8	73.0	64.3	55.2
100°	0.0	13.5	42.2	66.5	82.1	86.0	86.5	79.5	71.3	62.6	53.9
102.5°	0.0	9.1	39.1	63.9	80.0	83.9	84.7	79.1	70.4	61.7	53.0
105°	0.4	5.6	35.2	60.8	77.8	82.1	83.4	78.7	70.0	61.7	53.0
107.5°	0.4	3.9	31.3	57.8	76.0	80.8	82.6	78.7	70.4	62.1	53.9
110°	0.4	3.5	26.5	54.8	73.9	79.1	81.7	79.1	71.3	63.4	55.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.4	2.6	20.0	50.8	71.3	77.3	80.8	79.5	72.6	64.7	56.9
115°	0.4	2.2	13.5	46.9	68.7	75.6	80.0	80.0	73.9	66.5	59.1
117.5°	0.4	2.2	9.1	41.7	65.6	73.4	78.2	80.4	75.6	68.2	61.7
120°	0.4	1.7	4.3	35.6	61.7	70.4	76.5	80.4	76.9	70.4	63.9
122.5°	0.4	1.7	3.5	27.4	57.4	66.9	73.9	80.0	78.2	72.1	66.5
125°	0.4	1.3	3.0	18.3	51.7	62.1	70.4	78.7	78.7	73.9	68.7
127.5°	0.4	1.3	2.6	13.0	44.3	56.9	65.6	76.5	78.7	75.2	70.8
130°	0.4	1.3	2.2	3.9	33.9	49.5	60.0	73.0	77.8	76.0	72.1
132.5°	0.4	0.9	2.2	3.0	21.7	38.7	52.1	67.4	75.2	76.0	73.4
135°	0.4	0.9	1.7	2.6	15.6	23.9	41.7	60.4	70.4	73.4	73.4
137.5°	0.4	0.9	1.7	2.2	7.0	17.8	26.1	52.1	64.3	70.0	71.3
140°	0.4	0.9	1.3	1.7	2.6	9.6	18.7	41.3	56.9	64.7	68.2
142.5°	0.4	0.9	1.3	1.7	2.2	2.2	11.3	23.9	47.8	57.8	63.4
145°	0.4	0.9	0.9	1.3	1.7	2.2	2.2	18.3	34.3	49.5	56.9
147.5°	0.4	0.4	0.9	1.3	1.7	1.7	1.7	8.3	20.4	37.8	48.7
150°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	1.7	13.5	21.3	36.1
152.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.3	1.7	1.7	14.3	20.0
155°	0.4	0.4	0.9	0.9	0.9	1.3	1.3	1.3	1.3	1.7	12.6
157.5°	0.4	0.4	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7
160°	0.4	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.3	1.7
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°	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0	886.0
2.5°	871.3	877.8	877.8	883.4	886.5	885.6	886.5	888.2	883.0	881.2
5°	898.6	911.7	918.2	933.0	936.4	942.9	945.1	952.5	954.2	949.0
7.5°	984.7	1011.6	1029.0	1046.8	1054.6	1058.5	1065.5	1070.3	1077.7	1072.0
10°	1065.5	1098.1	1122.8	1142.4	1147.2	1151.1	1159.4	1171.1	1170.2	1169.3
12.5°	1135.5	1164.1	1194.5	1222.8	1237.1	1240.2	1252.3	1266.7	1269.3	1257.6
15°	1193.2	1233.2	1267.6	1297.5	1303.2	1311.0	1320.1	1324.9	1322.7	1324.5
17.5°	1241.5	1275.4	1299.7	1315.8	1319.3	1325.3	1333.6	1339.7	1340.6	1341.0
20°	1260.6	1283.2	1306.7	1328.8	1335.8	1341.9	1351.9	1357.1	1356.2	1353.6
22.5°	1257.1	1290.1	1311.9	1330.1	1337.1	1342.7	1351.4	1354.9	1353.6	1351.0
25°	1251.9	1280.2	1299.3	1308.8	1308.8	1313.2	1311.0	1308.4	1305.4	1305.8
27.5°	1227.1	1243.7	1256.7	1267.6	1268.9	1269.3	1268.0	1265.4	1263.6	1259.7
30°	1176.7	1196.7	1202.8	1201.9	1200.2	1199.8	1194.5	1190.6	1185.9	1186.3
32.5°	1117.6	1122.0	1124.6	1117.2	1112.9	1112.0	1107.2	1100.7	1094.2	1087.2
35°	1041.6	1038.5	1032.5	1027.3	1023.8	1018.6	1011.6	1005.1	996.8	997.3
37.5°	968.2	958.6	949.9	935.6	933.0	920.8	907.3	896.9	883.4	876.0
40°	891.7	882.1	871.3	855.6	848.7	837.4	822.6	805.2	794.3	790.0
42.5°	818.7	806.9	794.3	775.7	767.0	757.8	742.2	725.2	717.4	716.1
45°	747.4	733.9	721.8	700.9	691.8	680.9	664.8	654.4	643.1	640.5
47.5°	678.8	667.0	648.3	632.3	623.6	614.4	597.9	588.4	580.1	577.1
50°	612.3	601.0	586.6	568.8	560.6	551.9	540.1	531.0	521.4	518.4
52.5°	552.7	541.4	526.7	512.8	504.5	499.3	488.4	478.0	470.6	465.8
55°	495.4	484.9	471.5	458.4	455.4	448.4	435.8	426.7	421.9	422.4
57.5°	442.8	433.7	423.2	410.6	405.9	399.3	391.1	380.2	374.6	372.8
60°	395.0	386.3	377.6	368.1	362.0	357.2	345.9	337.2	329.8	328.9
62.5°	349.4	342.9	335.5	325.9	320.7	315.5	305.5	297.2	291.6	289.8
65°	309.8	304.2	295.5	287.7	282.5	277.2	267.7	259.4	254.6	249.9
67.5°	270.7	265.9	259.4	251.2	246.4	241.2	232.9	223.8	218.1	216.8
70°	236.0	230.7	225.5	216.8	212.5	209.4	200.3	191.2	186.9	185.1
72.5°	206.0	200.3	192.9	186.9	184.2	178.6	169.9	163.8	158.2	154.7
75°	174.7	171.2	166.0	159.0	154.3	150.4	143.4	137.3	132.5	129.1
77.5°	149.0	144.7	140.4	133.4	129.9	126.5	119.1	113.8	109.1	107.3
80°	125.1	121.2	115.2	109.9	106.9	103.9	98.2	92.6	89.1	87.3
82.5°	103.4	99.9	95.2	90.8	87.3	85.2	80.0	75.2	72.1	69.5
85°	85.6	81.3	76.9	73.0	70.4	68.7	64.7	61.3	57.4	56.5
87.5°	70.4	66.9	63.0	59.1	57.4	55.2	51.7	49.1	46.1	44.8
90°	60.4	56.1	52.6	49.5	47.8	46.5	43.9	40.4	38.2	36.9
92.5°	54.8	50.8	47.8	44.8	43.5	42.2	39.1	36.5	34.3	32.6
95°	51.3	47.4	44.3	41.7	40.4	39.5	36.9	34.3	32.2	30.9
97.5°	48.7	44.3	41.3	39.1	37.8	36.9	34.8	32.6	30.4	29.1
100°	46.5	42.2	39.1	36.9	36.1	35.2	33.0	30.9	29.1	27.8
102.5°	45.6	40.8	37.8	36.1	35.2	34.3	32.2	30.4	28.2	26.9
105°	45.6	40.4	37.4	35.2	34.3	33.5	31.7	30.0	27.8	26.5
107.5°	46.5	40.8	37.4	35.6	34.8	33.9	31.7	30.0	27.8	26.5
110°	47.8	42.2	38.2	36.1	35.2	34.3	32.2	30.4	28.2	26.9



TEST NUMBER: P232580

CATALOG NUMBER: 4SKB1-LD5-3-N-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	49.5	43.5	39.5	36.9	36.1	35.2	33.0	31.3	29.1	27.8
115°	51.7	45.2	41.3	38.2	37.4	36.5	34.3	32.2	30.4	29.1
117.5°	54.3	47.8	43.0	40.0	39.1	37.8	35.6	33.5	31.7	30.4
120°	56.9	50.8	45.6	42.2	40.8	39.5	37.4	35.2	33.0	31.7
122.5°	60.0	53.4	48.2	44.8	43.5	42.2	39.5	37.4	35.2	33.5
125°	63.0	56.9	51.3	47.4	45.6	44.3	41.7	39.1	37.4	35.6
127.5°	65.6	60.0	54.3	50.4	48.7	46.9	44.3	41.7	39.5	38.2
130°	67.8	63.0	57.8	53.4	51.7	50.4	46.9	44.3	42.2	40.8
132.5°	70.0	65.6	61.3	56.9	55.2	53.4	50.4	47.4	45.2	43.5
135°	71.3	67.8	64.3	60.4	58.7	56.5	53.4	50.4	47.8	46.1
137.5°	71.3	69.5	66.5	63.4	61.7	60.0	56.5	53.4	50.8	49.5
140°	69.1	69.5	68.2	66.0	64.3	63.0	60.0	56.5	53.9	52.6
142.5°	66.0	67.4	68.2	66.9	66.0	65.2	62.6	59.5	56.9	55.2
145°	61.3	63.9	65.6	66.9	66.5	66.0	63.9	61.7	59.1	57.4
147.5°	55.2	59.1	61.3	64.3	65.2	65.2	64.3	62.6	60.4	59.1
150°	46.5	52.1	56.1	59.1	60.4	62.1	62.1	60.8	59.5	58.2
152.5°	33.0	42.2	47.8	52.1	53.9	55.6	57.8	56.9	55.2	54.3
155°	18.7	23.0	34.8	41.7	43.9	46.1	49.5	50.4	50.0	48.7
157.5°	9.6	15.6	19.6	22.6	23.9	27.4	34.3	39.1	38.7	39.5
160°	2.2	2.6	7.4	13.9	15.6	16.5	18.3	19.6	19.6	18.7
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)