

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: P232571

Luminaire Tested: **4SKB1-LD5-6-W-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232571  
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-LD5-6-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: 6053.0 lumens  
Efficiency: N/A  
Efficacy: 128.4 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

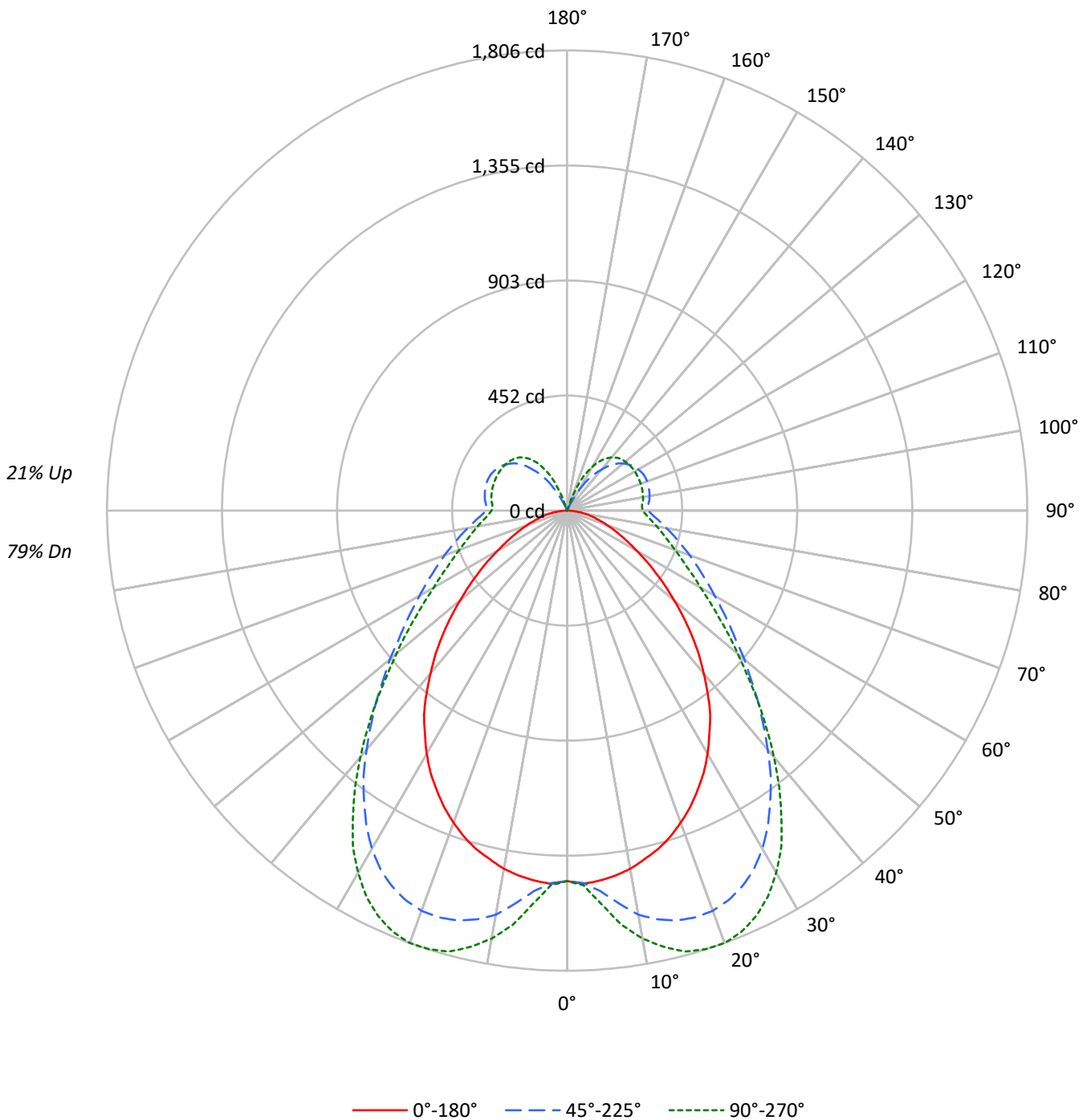
Input Watts (W): 47.16  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	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°	15649	15649	15649
5°	15655	15044	15201
10°	15407	15246	15460
15°	15043	15028	15210
20°	14542	14515	14524
25°	13909	13717	13506
30°	13145	12651	12187
35°	12244	11320	10596
40°	11043	9916	8963
45°	9794	8587	7431
50°	8449	7429	6123
55°	7176	6457	5092
60°	6023	5723	4299
65°	5101	5151	3754
70°	4381	4727	3368
75°	3727	4365	3090
80°	3052	4103	2905
85°	2054	3942	2767



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.7	2.4
10°-20°	461.4	7.6
20°-30°	723.1	11.9
30°-40°	828.0	13.7
40°-50°	762.6	12.6
50°-60°	625.9	10.3
60°-70°	500.4	8.3
70°-80°	402.0	6.6
80°-90°	319.7	5.3
90°-100°	285.8	4.7
100°-110°	278.3	4.6
110°-120°	252.3	4.2
120°-130°	208.5	3.4
130°-140°	149.5	2.5
140°-150°	83.1	1.4
150°-160°	25.0	0.4
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	1331.3	22.0
0°-40°	2159.3	35.7
0°-60°	3547.8	58.6
0°-90°	4770.0	78.8
90°-120°	816.4	13.5
90°-150°	1257.5	20.8
90°-180°	1283.0	21.2
0°-180°	6053.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1454	1454	1454	1454	1454	
5°	1458	1473	1499	1550	1550	138
15°	1376	1516	1665	1770	1792	387
25°	1211	1442	1627	1742	1756	557
35°	979	1218	1390	1472	1465	608
45°	690	919	1059	1086	1058	532
55°	422	661	775	755	723	381
65°	232	485	582	542	516	233
75°	114	369	448	414	398	122
85°	30	279	352	330	321	33
90°	2	248	319	304	297	2
95°	1	246	320	304	295	1
105°	1	241	332	316	306	1
115°	1	218	332	322	307	1
125°	1	170	309	320	304	1
135°	1	62	257	299	290	1
145°	1	3	158	241	244	1
155°	1	1	24	112	141	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°	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8
2.5°	1466.0	1459.9	1455.5	1459.9	1461.6	1463.4	1467.7	1466.9	1467.7	1466.0	1463.4
5°	1458.1	1452.9	1451.2	1459.9	1468.6	1472.9	1479.0	1485.1	1490.4	1497.3	1499.1
7.5°	1445.1	1442.5	1444.2	1459.9	1473.8	1484.3	1493.0	1508.6	1524.3	1540.0	1554.8
10°	1427.7	1425.9	1433.8	1457.3	1479.9	1494.7	1509.5	1538.2	1565.2	1589.6	1610.5
12.5°	1401.6	1405.9	1419.0	1450.3	1486.0	1506.9	1530.4	1566.1	1594.8	1622.7	1643.6
15°	1376.3	1378.9	1404.2	1441.6	1483.4	1515.6	1540.0	1585.2	1614.8	1643.6	1665.3
17.5°	1343.2	1349.3	1377.2	1430.3	1481.6	1510.4	1540.0	1575.7	1611.4	1644.4	1674.0
20°	1303.2	1316.2	1353.7	1412.0	1470.3	1499.1	1525.2	1568.7	1605.3	1637.5	1671.4
22.5°	1260.5	1275.3	1317.1	1386.8	1446.8	1475.6	1500.8	1548.7	1586.1	1618.3	1654.9
25°	1210.9	1230.1	1279.7	1354.6	1412.0	1441.6	1468.6	1517.3	1556.5	1588.7	1627.0
27.5°	1160.4	1182.2	1236.2	1311.9	1371.1	1398.9	1426.8	1475.6	1514.7	1546.9	1587.0
30°	1102.1	1125.6	1186.5	1259.7	1318.0	1348.5	1373.7	1421.6	1464.2	1493.0	1533.0
32.5°	1039.4	1066.4	1131.7	1202.2	1260.5	1289.3	1314.5	1360.6	1398.9	1429.4	1466.0
35°	979.4	1001.1	1067.3	1136.0	1191.8	1217.9	1247.5	1291.9	1325.8	1357.2	1390.2
37.5°	907.1	933.2	1000.2	1065.5	1121.2	1149.1	1173.5	1214.4	1245.7	1275.3	1312.8
40°	834.0	862.7	932.3	990.7	1048.1	1069.9	1094.3	1131.7	1161.3	1197.9	1224.8
42.5°	765.2	792.2	858.3	917.5	971.5	993.3	1016.8	1056.0	1081.2	1112.5	1139.5
45°	690.3	718.2	788.7	844.4	895.8	919.3	943.7	975.9	1004.6	1029.8	1058.6
47.5°	618.9	652.0	719.9	772.2	824.4	846.2	867.1	901.0	929.7	956.7	976.7
50°	548.4	584.1	650.3	706.9	756.5	778.3	799.2	833.1	862.7	886.2	907.1
52.5°	484.0	521.5	589.4	648.5	692.9	715.6	736.5	769.6	799.2	820.9	834.8
55°	422.2	464.0	534.5	592.0	636.4	660.7	677.3	712.1	741.7	761.7	774.8
57.5°	368.2	414.4	481.4	540.6	586.7	608.5	628.5	661.6	689.5	708.6	719.1
60°	315.1	366.5	436.1	493.6	540.6	561.5	583.3	616.3	642.5	659.9	669.4
62.5°	270.7	324.7	397.0	452.7	500.6	521.5	540.6	573.7	598.9	616.3	624.2
65°	231.6	288.1	361.3	417.0	463.1	484.9	504.9	538.9	562.4	578.9	582.4
67.5°	197.6	255.1	329.1	383.9	431.8	451.8	471.8	505.8	528.4	542.3	545.0
70°	167.1	225.5	299.5	354.3	401.3	423.1	443.1	473.6	497.1	508.4	511.9
72.5°	139.3	200.2	271.6	328.2	375.2	395.2	414.4	446.6	468.3	478.8	477.9
75°	114.0	176.7	248.1	303.8	348.2	369.1	388.3	419.6	441.4	450.1	448.3
77.5°	92.3	156.7	225.5	279.4	324.7	345.6	363.0	394.4	414.4	424.0	422.2
80°	69.6	134.9	203.7	256.8	302.1	321.2	340.4	370.0	390.0	399.6	395.2
82.5°	50.5	114.9	183.7	235.9	280.3	300.3	317.7	348.2	367.4	375.2	372.6
85°	30.5	94.9	161.9	215.9	260.3	279.4	298.6	327.3	346.5	354.3	351.7
87.5°	13.1	76.6	143.6	197.6	242.0	261.2	279.4	308.2	326.5	334.3	331.7
90°	1.7	64.4	132.3	185.4	229.0	248.1	266.4	295.1	313.4	321.2	318.6
92.5°	0.9	61.8	128.8	181.9	225.5	245.5	262.9	292.5	311.7	318.6	317.7
95°	0.9	57.5	127.1	181.9	226.3	246.4	264.6	294.2	313.4	321.2	320.4
97.5°	0.9	51.4	124.5	181.1	227.2	248.1	266.4	297.7	317.7	326.5	325.6
100°	0.9	41.8	119.3	178.5	225.5	247.2	265.5	297.7	318.6	328.2	328.2
102.5°	0.9	28.7	113.2	174.1	223.7	244.6	263.8	296.9	318.6	329.1	330.8
105°	0.9	17.4	105.3	168.9	219.4	241.1	261.2	295.1	317.7	329.9	332.5
107.5°	0.9	11.3	95.8	162.8	215.0	237.7	257.7	292.5	316.0	329.9	333.4
110°	0.9	9.6	83.6	155.8	208.9	231.6	252.5	289.0	313.4	329.1	334.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	7.8	64.4	146.2	202.0	225.5	247.2	282.9	309.9	325.6	333.4
115°	0.9	6.1	41.8	134.9	193.3	217.6	239.4	276.8	303.8	322.1	331.7
117.5°	0.9	5.2	27.0	121.9	183.7	208.1	230.7	269.0	297.7	316.9	328.2
120°	0.9	4.4	11.3	104.5	171.5	197.6	220.2	258.5	289.0	309.9	323.0
122.5°	0.9	3.5	8.7	78.3	157.6	184.6	208.1	248.1	278.6	302.1	316.0
125°	0.9	3.5	7.0	50.5	140.2	169.8	195.0	235.9	268.1	292.5	309.0
127.5°	0.9	2.6	6.1	34.0	119.3	152.3	179.3	222.0	255.1	280.3	298.6
130°	0.9	2.6	5.2	14.8	88.8	130.6	160.2	205.4	240.3	267.3	287.3
132.5°	0.9	1.7	4.4	6.1	54.8	101.0	135.8	184.6	222.9	251.6	274.2
135°	0.9	1.7	3.5	5.2	36.6	61.8	106.2	161.0	200.2	230.7	256.8
137.5°	0.9	1.7	2.6	4.4	14.8	40.9	65.3	134.9	175.8	208.1	235.0
140°	0.9	1.7	2.6	3.5	4.4	19.2	44.4	102.7	148.9	183.7	209.8
142.5°	0.9	1.7	2.6	2.6	3.5	4.4	21.8	60.1	119.3	156.7	185.4
145°	0.9	0.9	1.7	2.6	2.6	2.6	3.5	40.9	77.5	127.1	157.6
147.5°	0.9	0.9	1.7	1.7	2.6	2.6	2.6	16.5	47.9	89.7	127.1
150°	0.9	0.9	1.7	1.7	1.7	1.7	1.7	1.7	24.4	48.7	86.2
152.5°	0.9	0.9	0.9	1.7	1.7	1.7	1.7	1.7	2.6	27.9	47.9
155°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.6	24.4
157.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
160°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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°	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8	1453.8
2.5°	1467.7	1475.6	1479.0	1482.5	1483.4	1484.3	1482.5	1481.6	1475.6	1472.1
5°	1511.2	1530.4	1538.2	1549.6	1550.4	1551.3	1556.5	1553.9	1554.8	1550.4
7.5°	1574.8	1602.7	1614.8	1629.6	1633.1	1637.5	1646.2	1647.1	1646.2	1640.1
10°	1634.0	1657.5	1675.8	1689.7	1694.9	1698.4	1708.9	1711.5	1709.7	1705.4
12.5°	1669.7	1700.2	1718.4	1738.5	1743.7	1748.9	1757.6	1762.0	1756.7	1754.1
15°	1700.2	1732.4	1747.2	1768.9	1769.8	1779.4	1794.2	1795.9	1793.3	1791.6
17.5°	1708.0	1741.1	1762.8	1782.0	1788.9	1795.0	1803.7	1810.7	1811.6	1804.6
20°	1706.2	1737.6	1763.7	1783.7	1791.6	1795.9	1807.2	1812.5	1809.8	1806.4
22.5°	1692.3	1723.7	1749.8	1767.2	1774.1	1781.1	1791.6	1795.9	1795.9	1788.9
25°	1663.6	1694.9	1717.6	1735.8	1741.9	1748.9	1759.3	1762.0	1760.2	1755.9
27.5°	1622.7	1650.5	1673.2	1688.8	1694.9	1701.0	1712.3	1715.0	1711.5	1707.1
30°	1562.6	1591.3	1614.0	1627.9	1633.1	1637.5	1644.4	1650.5	1645.3	1641.0
32.5°	1497.3	1523.4	1539.1	1552.2	1555.6	1559.1	1566.1	1568.7	1563.5	1564.4
35°	1420.7	1443.3	1461.6	1470.3	1472.1	1471.2	1474.7	1475.6	1476.4	1465.1
37.5°	1337.1	1357.2	1365.9	1378.1	1375.4	1379.8	1383.3	1379.8	1371.1	1366.7
40°	1247.5	1260.5	1275.3	1279.7	1277.1	1283.2	1281.4	1275.3	1265.8	1262.3
42.5°	1158.7	1173.5	1178.7	1182.2	1179.6	1180.4	1177.0	1175.2	1165.6	1157.8
45°	1074.2	1084.7	1087.3	1086.4	1086.4	1082.1	1077.7	1070.8	1062.1	1057.7
47.5°	991.5	998.5	999.4	995.0	991.5	986.3	987.2	975.0	964.6	959.3
50°	914.9	917.5	914.9	907.1	905.4	899.3	895.8	886.2	876.6	874.0
52.5°	846.2	845.3	840.1	831.4	827.9	821.8	815.7	807.0	797.4	797.4
55°	779.1	776.5	769.6	760.0	754.8	752.1	744.3	734.7	727.8	723.4
57.5°	720.8	715.6	706.9	698.2	691.2	684.2	679.0	672.1	663.3	661.6
60°	668.6	658.1	650.3	640.7	635.5	629.4	622.4	617.2	610.2	603.3
62.5°	619.8	611.1	600.7	591.1	585.9	580.6	573.7	565.8	561.5	559.8
65°	577.2	568.5	556.3	546.7	542.3	537.1	531.9	523.2	520.6	516.2
67.5°	538.9	527.5	516.2	507.5	503.2	501.4	496.2	491.0	484.9	481.4
70°	503.2	491.9	481.4	475.3	470.1	468.3	464.0	457.0	452.7	450.1
72.5°	469.2	459.6	450.9	442.2	438.7	437.9	434.4	429.2	424.8	422.2
75°	440.5	430.9	422.2	417.9	414.4	411.8	410.0	404.8	402.2	397.8
77.5°	415.2	403.9	396.1	391.7	389.1	387.4	385.6	383.0	379.6	376.9
80°	388.3	379.6	373.5	369.1	367.4	365.6	363.9	362.1	359.5	356.9
82.5°	365.6	357.8	352.6	349.1	349.1	347.3	346.5	344.7	342.1	338.6
85°	343.9	336.9	332.5	330.8	329.9	329.1	328.2	326.5	323.8	321.2
87.5°	325.6	320.4	316.0	315.1	315.1	314.3	313.4	312.5	309.9	307.3
90°	313.4	308.2	305.6	304.7	303.8	303.8	303.8	302.1	299.5	296.9
92.5°	311.7	306.4	303.8	302.1	302.1	302.1	302.1	300.3	297.7	294.2
95°	314.3	309.0	306.4	304.7	303.8	303.8	302.9	301.2	298.6	295.1
97.5°	320.4	315.1	311.7	309.0	308.2	308.2	307.3	305.6	302.9	300.3
100°	323.8	318.6	315.1	312.5	311.7	310.8	309.9	308.2	305.6	302.1
102.5°	326.5	321.2	316.9	315.1	314.3	313.4	311.7	309.9	307.3	303.8
105°	328.2	323.8	320.4	316.9	316.0	315.1	313.4	311.7	308.2	305.6
107.5°	330.8	326.5	322.1	319.5	317.7	316.9	315.1	313.4	309.9	306.4
110°	331.7	328.2	323.8	321.2	319.5	318.6	316.0	313.4	309.9	307.3





TEST NUMBER: P232571

CATALOG NUMBER: 4SKB1-LD5-6-W-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	332.5	329.9	325.6	322.1	321.2	319.5	316.9	314.3	310.8	307.3
115°	332.5	329.9	326.5	323.0	322.1	320.4	317.7	314.3	310.8	307.3
117.5°	331.7	329.9	327.3	323.8	322.1	320.4	317.7	314.3	309.9	307.3
120°	329.1	329.1	326.5	323.8	322.1	320.4	316.9	313.4	309.9	306.4
122.5°	324.7	326.5	324.7	322.1	321.2	319.5	316.9	312.5	308.2	305.6
125°	318.6	323.0	322.1	320.4	319.5	317.7	315.1	311.7	307.3	303.8
127.5°	310.8	316.9	318.6	317.7	316.9	316.0	312.5	309.0	305.6	301.2
130°	301.2	309.0	312.5	312.5	312.5	311.7	309.9	306.4	302.1	298.6
132.5°	289.0	298.6	303.8	306.4	306.4	306.4	304.7	302.1	298.6	294.2
135°	275.1	287.3	294.2	297.7	298.6	298.6	298.6	296.9	293.4	289.9
137.5°	258.5	272.5	282.1	287.3	289.0	289.9	290.8	289.0	285.5	282.1
140°	234.2	254.2	266.4	273.3	275.1	277.7	279.4	277.7	275.1	272.5
142.5°	209.8	230.7	248.1	257.7	259.4	262.0	264.6	264.6	262.0	259.4
145°	183.7	204.6	222.9	238.5	241.1	243.7	247.2	249.0	246.4	243.7
147.5°	153.2	175.0	194.1	211.5	219.4	222.9	226.3	228.1	227.2	224.6
150°	121.0	144.5	162.8	180.2	188.0	198.5	202.8	203.7	202.8	200.2
152.5°	73.1	107.1	128.0	145.4	152.3	161.9	174.1	176.7	175.0	173.2
155°	40.9	55.7	78.3	104.5	112.3	121.0	135.8	141.9	141.0	141.0
157.5°	12.2	30.5	41.8	51.4	54.8	60.1	77.5	92.3	96.6	97.5
160°	0.9	0.9	10.4	20.9	26.1	31.3	40.0	45.3	46.1	47.0
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)