

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: P236423

Luminaire Tested: **SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24071)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

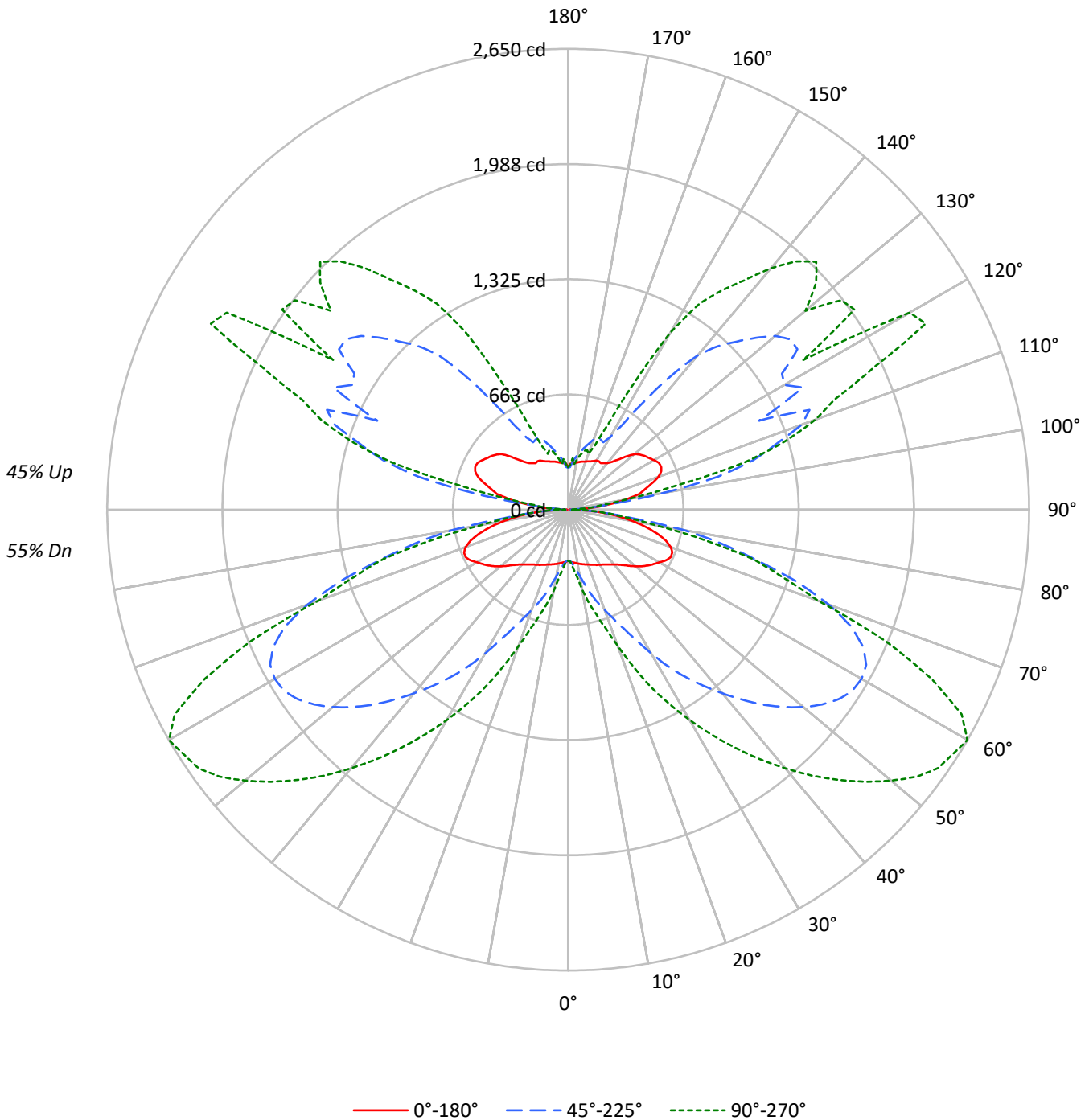
Lumens per Lamp: N/A
Luminaire Lumens: 12460.0 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 2.2 / 4.49 / 3.74
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 132.4
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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CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	97	91	86	82	89	85	80	77	72	69	66	61	58	56	50	49	47	42
2	86	77	69	63	79	71	65	59	60	55	51	50	47	43	41	38	36	31
3	77	66	57	50	71	61	53	46	51	45	40	43	38	34	34	31	28	24
4	69	57	47	40	63	52	44	37	44	37	32	36	31	27	29	25	22	18
5	63	49	40	33	57	45	37	31	38	31	26	32	26	22	25	21	18	14
6	57	43	34	27	52	40	32	25	34	27	22	28	22	18	22	18	15	12
7	52	38	29	23	48	36	27	22	30	23	18	25	19	15	20	15	12	9
8	48	34	26	20	44	32	24	18	27	20	16	22	17	13	18	13	10	8
9	45	31	23	17	41	29	21	16	24	18	14	20	15	11	16	12	9	7
10	42	28	20	15	38	26	19	14	22	16	12	18	13	10	15	11	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1261	1261	1261
5°	1311	1372	1464
10°	1373	1689	2044
15°	1447	2225	2768
20°	1536	2805	3815
25°	1659	3578	5338
30°	1815	4736	6937
35°	2021	6166	8771
40°	2310	7743	10906
45°	2739	9656	13373
50°	3391	11828	16235
55°	4198	14261	19465
60°	5210	16769	22815
65°	6613	19068	23488
70°	7906	20052	19209
75°	8774	18633	18371
80°	9315	16751	12464
85°	9584	10023	10631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.6	0.3
10°-20°	141.3	1.1
20°-30°	354.9	2.8
30°-40°	698.6	5.6
40°-50°	1137.8	9.1
50°-60°	1568.0	12.6
60°-70°	1643.9	13.2
70°-80°	1047.0	8.4
80°-90°	278.1	2.2
90°-100°	187.2	1.5
100°-110°	959.6	7.7
110°-120°	1356.1	10.9
120°-130°	1204.7	9.7
130°-140°	957.0	7.7
140°-150°	545.3	4.4
150°-160°	222.0	1.8
160°-170°	99.3	0.8
170°-180°	26.7	0.2
0°-30°	528.8	4.2
0°-40°	1227.4	9.9
0°-60°	3933.2	31.6
0°-90°	6902.1	55.4
90°-120°	2502.8	20.1
90°-150°	5209.9	41.8
90°-180°	5558.0	44.6
0°-180°	12460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	303	309	318	332	339	29
15°	325	382	499	586	621	92
25°	349	510	753	1023	1124	162
35°	384	659	1173	1557	1669	243
45°	450	876	1586	2069	2196	352
55°	559	1117	1900	2450	2593	501
65°	649	1230	1872	2216	2306	632
75°	527	967	1120	1107	1104	547
85°	194	287	203	208	215	196
90°	7	14	16	16	18	21
95°	150	159	100	112	116	158
105°	457	851	1102	1095	1050	482
115°	589	1042	1210	1988	1942	574
125°	538	892	1609	1889	2007	481
135°	408	500	1367	1890	2016	323
145°	326	438	758	1334	1538	209
155°	307	384	444	508	536	143
165°	286	328	372	385	349	81
175°	268	266	273	258	296	26
180°	243	243	243	243	243	



TEST NUMBER: P236423

CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	292.8	292.8	292.8	292.8	292.8	292.8	292.8	292.8	292.8	292.8	292.8
2.5°	301.6	301.6	301.6	301.6	299.9	301.6	299.9	299.9	298.1	296.4	296.4
5°	303.4	303.4	305.2	306.9	308.7	308.7	308.7	312.2	314.0	317.5	321.0
7.5°	308.7	308.7	310.5	314.0	317.5	322.8	329.9	338.7	345.7	349.3	354.6
10°	314.0	314.0	319.3	322.8	333.4	347.5	356.3	365.1	375.7	386.3	400.4
12.5°	319.3	321.0	326.3	336.9	354.6	368.7	381.0	400.4	421.6	439.2	460.4
15°	324.6	326.3	335.2	352.8	372.2	391.6	416.3	446.3	474.5	499.2	525.7
17.5°	329.9	333.4	345.7	370.4	391.6	425.1	458.6	495.7	531.0	557.4	583.9
20°	335.2	338.7	356.3	384.5	416.3	460.4	504.5	546.8	582.1	612.1	645.6
22.5°	342.2	345.7	370.4	400.4	444.5	499.2	548.6	592.7	633.3	677.4	721.5
25°	349.3	354.6	384.5	423.4	478.0	541.5	590.9	640.3	695.0	753.2	816.7
27.5°	358.1	363.4	398.7	446.3	513.3	580.4	633.3	696.8	767.3	843.2	927.9
30°	365.1	374.0	412.8	472.7	548.6	619.2	682.7	763.8	855.5	952.6	1047.8
32.5°	374.0	386.3	430.4	502.7	583.9	658.0	739.1	841.4	957.8	1067.2	1164.2
35°	384.5	398.7	449.8	532.7	615.6	702.1	804.4	933.2	1063.7	1173.1	1275.4
37.5°	396.9	414.5	472.7	566.2	652.7	756.8	882.0	1030.2	1158.9	1275.4	1384.7
40°	411.0	432.2	499.2	596.2	691.5	816.7	966.7	1120.1	1256.0	1377.7	1495.9
42.5°	428.6	451.6	529.2	628.0	739.1	887.3	1051.3	1206.6	1347.7	1481.8	1610.5
45°	449.8	474.5	562.7	661.5	792.0	959.6	1130.7	1291.2	1441.2	1585.8	1718.1
47.5°	478.0	502.7	599.8	700.3	852.0	1031.9	1204.8	1372.4	1532.9	1679.3	1822.2
50°	506.3	531.0	635.0	742.6	913.7	1093.7	1273.6	1448.2	1612.3	1765.8	1912.2
52.5°	534.5	562.7	666.8	788.5	972.0	1151.9	1337.1	1517.0	1682.8	1839.8	1995.1
55°	559.2	592.7	696.8	836.1	1024.9	1208.3	1393.6	1571.7	1741.1	1899.8	2053.3
57.5°	582.1	619.2	723.2	883.8	1069.0	1256.0	1439.4	1612.3	1779.9	1936.9	2088.6
60°	605.0	647.4	753.2	926.1	1106.0	1293.0	1469.4	1635.2	1795.7	1947.4	2095.6
62.5°	631.5	675.6	785.0	957.8	1136.0	1314.2	1478.2	1635.2	1790.4	1931.6	2065.6
65°	649.1	693.2	811.4	975.5	1148.4	1312.4	1462.3	1607.0	1748.1	1871.6	1986.3
67.5°	647.4	691.5	816.7	975.5	1132.5	1282.4	1418.2	1543.5	1663.4	1764.0	1841.6
70°	628.0	670.3	800.9	950.8	1088.4	1222.4	1338.9	1441.2	1532.9	1592.9	1631.7
72.5°	587.4	629.7	762.0	897.9	1016.1	1130.7	1226.0	1303.6	1349.5	1377.7	1384.7
75°	527.4	576.8	705.6	820.3	919.0	1014.3	1076.0	1113.1	1136.0	1120.1	1102.5
77.5°	456.9	513.3	628.0	721.5	802.6	866.1	901.4	906.7	901.4	903.2	908.5
80°	375.7	437.5	529.2	606.8	658.0	689.7	693.2	700.3	698.5	675.6	636.8
82.5°	289.3	347.5	416.3	467.5	486.9	495.7	502.7	462.2	416.3	372.2	354.6
85°	194.0	239.9	282.2	301.6	301.6	271.7	231.1	215.2	209.9	202.9	204.6
87.5°	98.8	107.6	116.4	104.1	93.5	98.8	98.8	98.8	102.3	102.3	104.1
90°	7.1	7.1	8.8	10.6	12.3	15.9	17.6	17.6	19.4	15.9	15.9
92.5°	42.3	38.8	38.8	35.3	38.8	38.8	38.8	37.0	33.5	33.5	33.5
95°	149.9	183.5	211.7	217.0	174.6	142.9	130.5	120.0	105.8	100.5	102.3
97.5°	243.4	299.9	361.6	402.2	423.4	425.1	389.8	312.2	262.8	241.7	229.3
100°	335.2	391.6	479.8	552.1	605.0	638.6	654.4	650.9	626.2	559.2	493.9
102.5°	419.8	467.5	580.4	675.6	749.7	809.7	841.4	873.2	887.3	883.8	876.7
105°	456.9	490.4	624.5	742.6	825.5	876.7	961.4	1024.9	1079.6	1102.5	1118.4
107.5°	504.5	509.8	659.7	786.7	873.2	942.0	987.8	1160.7	1211.9	1250.7	1293.0
110°	552.1	538.0	680.9	839.7	950.8	986.1	1051.3	1074.3	1361.8	1427.1	1446.5



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CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	578.6	553.9	636.8	852.0	980.8	1074.3	1104.3	1183.6	1144.8	1501.2	1663.4
115°	589.2	560.9	580.4	825.5	977.3	1106.0	1160.7	1224.2	1333.6	1210.1	1478.2
117.5°	585.6	559.2	541.5	762.0	957.8	1106.0	1231.3	1250.7	1338.9	1520.6	1351.2
120°	569.8	550.4	531.0	663.3	924.3	1097.2	1247.1	1368.9	1349.5	1434.1	1635.2
122.5°	552.1	539.8	531.0	582.1	855.5	1070.7	1234.8	1386.5	1494.1	1457.1	1495.9
125°	538.0	527.4	529.2	520.4	755.0	1028.4	1204.8	1368.9	1510.0	1608.8	1585.8
127.5°	520.4	515.1	522.1	501.0	645.6	942.0	1166.0	1315.9	1478.2	1608.8	1709.3
130°	497.4	495.7	506.3	504.5	557.4	816.7	1095.4	1254.2	1398.8	1554.1	1689.9
132.5°	453.3	455.1	474.5	497.4	483.3	661.5	963.1	1185.4	1321.2	1462.3	1607.0
135°	407.5	414.5	446.3	481.6	453.3	546.8	786.7	1063.7	1248.9	1367.1	1497.6
137.5°	374.0	382.8	418.1	458.6	462.2	469.2	629.7	894.3	1136.0	1277.1	1383.0
140°	349.3	359.9	393.4	433.9	462.2	433.9	525.7	712.7	957.8	1158.9	1284.2
142.5°	336.9	345.7	372.2	412.8	448.1	444.5	458.6	568.0	756.8	968.4	1157.2
145°	326.3	333.4	354.6	391.6	426.9	448.1	428.6	474.5	587.4	758.5	945.5
147.5°	329.9	329.9	340.4	368.7	405.7	442.8	449.8	432.2	485.1	578.6	721.5
150°	326.3	324.6	340.4	358.1	391.6	428.6	453.3	446.3	439.2	479.8	545.1
152.5°	315.8	317.5	342.2	359.9	386.3	412.8	439.2	451.6	444.5	437.5	460.4
155°	306.9	308.7	331.6	349.3	372.2	395.1	416.3	439.2	451.6	444.5	430.4
157.5°	301.6	299.9	321.0	338.7	354.6	375.7	396.9	416.3	439.2	449.8	451.6
160°	294.6	292.8	312.2	329.9	342.2	361.6	379.3	395.1	412.8	430.4	441.0
162.5°	289.3	289.3	301.6	321.0	333.4	344.0	361.6	374.0	386.3	398.7	409.2
165°	285.8	285.8	292.8	310.5	324.6	331.6	342.2	354.6	363.4	372.2	377.5
167.5°	280.5	280.5	284.0	298.1	310.5	319.3	326.3	331.6	338.7	344.0	345.7
170°	275.2	275.2	275.2	284.0	296.4	305.2	310.5	314.0	317.5	319.3	317.5
172.5°	271.7	271.7	271.7	271.7	278.7	285.8	291.1	296.4	296.4	298.1	294.6
175°	268.1	268.1	266.4	266.4	266.4	266.4	268.1	269.9	271.7	273.4	271.7
177.5°	264.6	262.8	262.8	261.1	261.1	259.3	255.8	252.3	248.7	245.2	241.7
180°	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4



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CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	292.8	292.8	292.8	292.8	292.8	292.8	292.8	292.8
2.5°	296.4	296.4	296.4	296.4	296.4	298.1	298.1	299.9
5°	324.6	328.1	331.6	331.6	333.4	336.9	336.9	338.7
7.5°	359.9	366.9	372.2	375.7	379.3	386.3	386.3	389.8
10°	412.8	425.1	435.7	444.5	449.8	460.4	460.4	467.5
12.5°	479.8	495.7	511.6	522.1	529.2	538.0	541.5	546.8
15°	546.8	564.5	580.4	590.9	599.8	612.1	615.6	620.9
17.5°	610.3	629.7	652.7	668.6	684.4	698.5	707.4	714.4
20°	682.7	714.4	746.2	767.3	790.3	809.7	822.0	832.6
22.5°	769.1	816.7	862.6	897.9	927.9	952.6	970.2	975.5
25°	885.5	947.3	1003.7	1042.5	1076.0	1102.5	1118.4	1123.7
27.5°	1010.8	1079.6	1137.8	1181.9	1217.2	1236.6	1261.3	1259.5
30°	1136.0	1210.1	1271.8	1317.7	1351.2	1375.9	1397.1	1395.3
32.5°	1257.7	1337.1	1398.8	1448.2	1487.0	1513.5	1531.1	1532.9
35°	1374.1	1458.8	1529.4	1584.1	1626.4	1652.9	1667.0	1668.7
37.5°	1494.1	1585.8	1659.9	1718.1	1764.0	1794.0	1808.1	1808.1
40°	1615.8	1709.3	1788.7	1852.2	1898.1	1926.3	1940.4	1940.4
42.5°	1734.0	1834.5	1912.2	1979.2	2026.8	2056.8	2072.7	2074.5
45°	1848.7	1951.0	2033.9	2104.4	2148.5	2178.5	2194.4	2196.2
47.5°	1954.5	2065.6	2148.5	2217.3	2268.5	2300.2	2314.4	2316.1
50°	2053.3	2164.4	2257.9	2326.7	2374.3	2404.3	2422.0	2423.7
52.5°	2134.4	2257.9	2346.1	2418.4	2469.6	2497.8	2519.0	2522.5
55°	2199.7	2316.1	2413.1	2487.2	2540.1	2573.7	2593.1	2593.1
57.5°	2231.4	2347.9	2439.6	2515.4	2571.9	2605.4	2617.8	2619.5
60°	2229.7	2335.5	2423.7	2496.0	2547.2	2587.8	2630.1	2649.5
62.5°	2183.8	2277.3	2353.2	2406.1	2457.2	2510.2	2541.9	2549.0
65°	2076.2	2148.5	2197.9	2233.2	2273.8	2302.0	2303.8	2305.5
67.5°	1892.8	1938.6	1961.6	1973.9	1986.3	1988.0	1977.4	1975.7
70°	1651.1	1661.7	1644.0	1610.5	1577.0	1555.8	1531.1	1525.9
72.5°	1358.3	1326.5	1300.1	1291.2	1291.2	1294.8	1293.0	1291.2
75°	1107.8	1109.5	1109.5	1104.3	1104.3	1106.0	1104.3	1104.3
77.5°	908.5	892.6	864.4	832.6	820.3	806.1	797.3	793.8
80°	598.0	560.9	538.0	516.8	511.6	506.3	502.7	502.7
82.5°	345.7	336.9	331.6	329.9	328.1	328.1	328.1	329.9
85°	204.6	206.4	206.4	209.9	211.7	211.7	215.2	215.2
87.5°	107.6	107.6	112.9	112.9	114.7	114.7	120.0	116.4
90°	17.6	17.6	17.6	14.1	15.9	15.9	15.9	17.6
92.5°	28.2	28.2	28.2	30.0	28.2	26.5	24.7	26.5
95°	104.1	107.6	111.1	112.9	116.4	116.4	116.4	116.4
97.5°	213.4	206.4	202.9	197.6	195.8	188.7	185.2	187.0
100°	426.9	395.1	379.3	368.7	356.3	345.7	345.7	342.2
102.5°	834.4	792.0	749.7	716.2	675.6	642.1	633.3	622.7
105°	1107.8	1102.5	1099.0	1091.9	1077.8	1069.0	1056.6	1049.6
107.5°	1308.9	1321.2	1330.0	1333.6	1328.3	1315.9	1314.2	1307.1
110°	1451.8	1478.2	1506.4	1518.8	1524.1	1518.8	1513.5	1510.0



TEST NUMBER: P236423

CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1686.4	1689.9	1688.1	1663.4	1645.8	1652.9	1656.4	1656.4
115°	1831.0	1951.0	1986.3	1989.8	1979.2	1958.0	1945.7	1942.2
117.5°	1391.8	1723.4	2044.5	2187.3	2272.0	2298.5	2305.5	2316.1
120°	1612.3	1442.9	1485.3	1689.9	1912.2	2120.3	2236.7	2266.7
122.5°	1661.7	1845.1	1769.3	1631.7	1559.4	1573.5	1598.2	1599.9
125°	1547.0	1661.7	1813.4	1965.1	2040.9	2026.8	1996.8	2007.4
127.5°	1732.2	1652.9	1679.3	1762.2	1834.5	1903.3	1965.1	1979.2
130°	1797.5	1864.5	1846.9	1785.2	1769.3	1772.8	1778.1	1779.9
132.5°	1746.3	1854.0	1935.1	1970.4	1970.4	1949.2	1933.3	1933.3
135°	1621.1	1748.1	1848.7	1931.6	1981.0	2002.1	2012.7	2016.2
137.5°	1497.6	1598.2	1709.3	1806.3	1871.6	1908.6	1933.3	1936.9
140°	1374.1	1472.9	1557.6	1637.0	1721.7	1786.9	1809.9	1811.6
142.5°	1270.1	1345.9	1427.1	1499.4	1550.5	1614.1	1659.9	1661.7
145°	1121.9	1229.5	1303.6	1363.6	1411.2	1458.8	1517.0	1538.2
147.5°	892.6	1033.7	1148.4	1233.0	1282.4	1328.3	1367.1	1405.9
150°	663.3	790.3	897.9	994.9	1069.0	1137.8	1188.9	1174.8
152.5°	501.0	573.3	659.7	739.1	792.0	845.0	853.8	822.0
155°	439.2	455.1	488.6	527.4	557.4	590.9	548.6	536.3
157.5°	439.2	419.8	423.4	426.9	437.5	409.2	400.4	398.7
160°	446.3	441.0	426.9	407.5	382.8	347.5	345.7	342.2
162.5°	421.6	425.1	419.8	412.8	379.3	366.9	359.9	359.9
165°	386.3	388.1	388.1	381.0	365.1	352.8	351.0	349.3
167.5°	349.3	352.8	352.8	345.7	340.4	333.4	321.0	321.0
170°	317.5	317.5	317.5	312.2	314.0	312.2	299.9	292.8
172.5°	291.1	287.5	285.8	282.2	285.8	292.8	292.8	264.6
175°	268.1	262.8	259.3	257.5	262.8	273.4	285.8	296.4
177.5°	238.1	231.1	224.0	224.0	227.6	238.1	254.0	259.3
180°	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4

(END OF REPORT)