

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: P236420

Luminaire Tested: **SKB2-LD5-12-N-UNV-L850-CD2-U all blades horizontal**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236420  
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-LD5-12-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

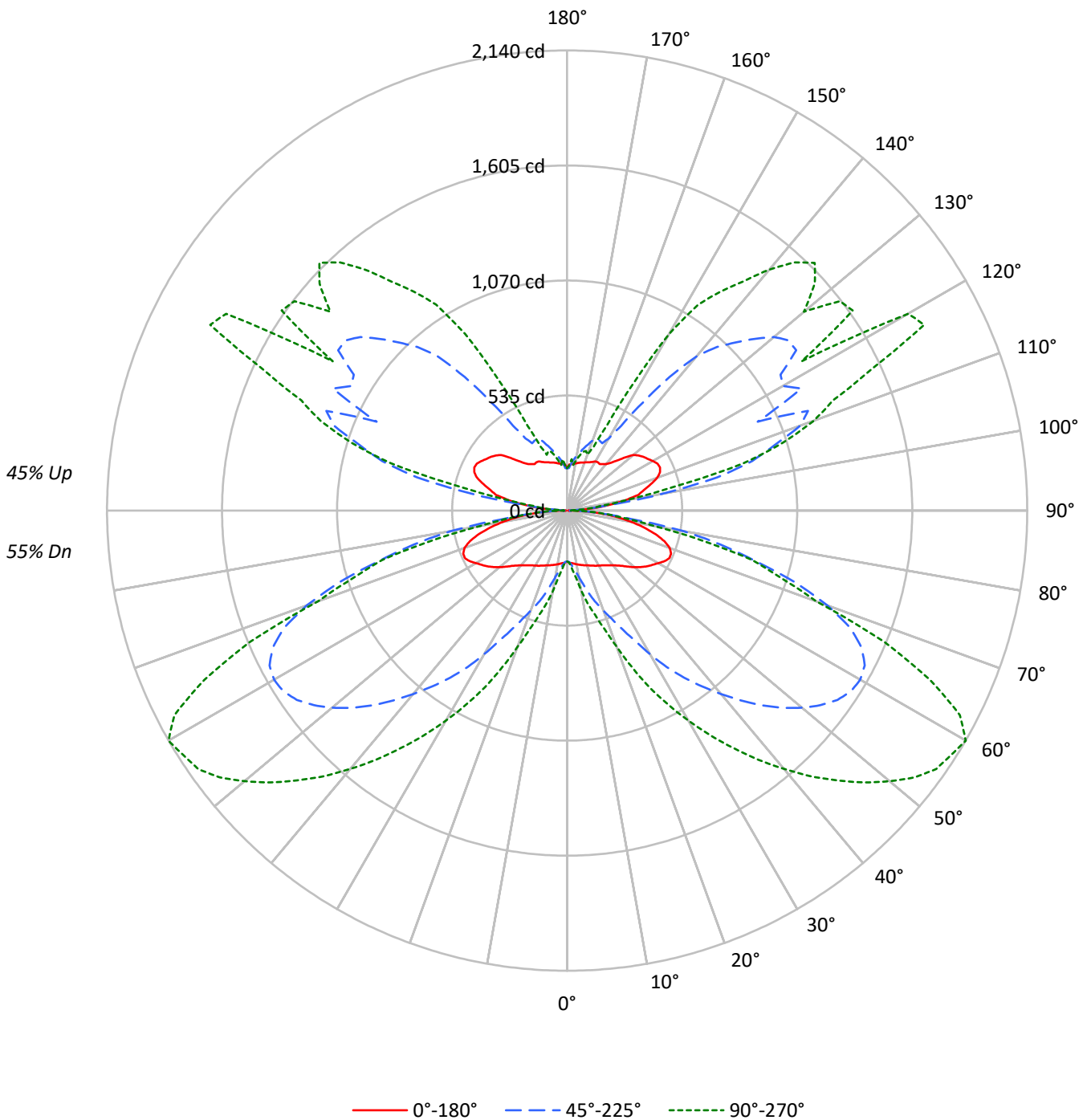
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10066.0 lumens  
Efficiency: N/A  
Efficacy: 96.0 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): 104.9  
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-LD5-12-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°	1019	1019	1019
5°	1059	1109	1183
10°	1109	1364	1651
15°	1169	1798	2236
20°	1241	2266	3082
25°	1341	2891	4313
30°	1467	3826	5604
35°	1633	4981	7086
40°	1866	6256	8811
45°	2213	7801	10803
50°	2740	9555	13115
55°	3391	11521	15725
60°	4209	13548	18431
65°	5343	15404	18976
70°	6386	16199	15518
75°	7088	15053	14840
80°	7525	13533	10069
85°	7746	8097	8591



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	0.3
10°-20°	114.1	1.1
20°-30°	286.7	2.8
30°-40°	564.4	5.6
40°-50°	919.2	9.1
50°-60°	1266.7	12.6
60°-70°	1328.0	13.2
70°-80°	845.8	8.4
80°-90°	224.6	2.2
90°-100°	151.2	1.5
100°-110°	775.2	7.7
110°-120°	1095.5	10.9
120°-130°	973.2	9.7
130°-140°	773.2	7.7
140°-150°	440.5	4.4
150°-160°	179.3	1.8
160°-170°	80.2	0.8
170°-180°	21.6	0.2
0°-30°	427.2	4.2
0°-40°	991.5	9.9
0°-60°	3177.5	31.6
0°-90°	5576.0	55.4
90°-120°	2022.0	20.1
90°-150°	4208.9	41.8
90°-180°	4490.0	44.6
0°-180°	10066.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	237	237	237	237	237	
5°	245	249	256	268	274	24
15°	262	309	403	473	502	75
25°	282	412	608	827	908	131
35°	311	532	948	1258	1348	196
45°	363	708	1281	1672	1774	285
55°	452	902	1535	1979	2095	405
65°	524	994	1512	1790	1863	510
75°	426	781	905	894	892	442
85°	157	232	164	168	174	158
90°	6	11	13	13	14	17
95°	121	128	81	90	94	128
105°	369	688	891	885	848	389
115°	476	842	978	1606	1569	464
125°	435	720	1300	1526	1622	389
135°	329	404	1104	1527	1629	261
145°	264	353	613	1077	1243	169
155°	248	310	359	410	433	116
165°	231	265	301	311	282	66
175°	217	215	221	209	239	21
180°	197	197	197	197	197	



TEST NUMBER: P236420

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L850-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	236.6	236.6	236.6	236.6	236.6	236.6	236.6	236.6	236.6	236.6	236.6
2.5°	243.7	243.7	243.7	243.7	242.3	243.7	242.3	242.3	240.8	239.4	239.4
5°	245.1	245.1	246.5	248.0	249.4	249.4	249.4	252.2	253.7	256.5	259.4
7.5°	249.4	249.4	250.8	253.7	256.5	260.8	266.5	273.6	279.3	282.2	286.4
10°	253.7	253.7	257.9	260.8	269.3	280.7	287.9	295.0	303.5	312.1	323.5
12.5°	257.9	259.4	263.6	272.2	286.4	297.8	307.8	323.5	340.6	354.8	371.9
15°	262.2	263.6	270.8	285.0	300.7	316.4	336.3	360.5	383.3	403.3	424.7
17.5°	266.5	269.3	279.3	299.3	316.4	343.4	370.5	400.4	428.9	450.3	471.7
20°	270.8	273.6	287.9	310.7	336.3	371.9	407.6	441.8	470.3	494.5	521.6
22.5°	276.5	279.3	299.3	323.5	359.1	403.3	443.2	478.8	511.6	547.2	582.9
25°	282.2	286.4	310.7	342.0	386.2	437.5	477.4	517.3	561.5	608.5	659.8
27.5°	289.3	293.6	322.1	360.5	414.7	468.8	511.6	562.9	619.9	681.2	749.6
30°	295.0	302.1	333.5	381.9	443.2	500.2	551.5	617.1	691.2	769.5	846.5
32.5°	302.1	312.1	347.7	406.1	471.7	531.5	597.1	679.8	773.8	862.2	940.5
35°	310.7	322.1	363.4	430.4	497.3	567.2	649.8	753.9	859.3	947.7	1030.3
37.5°	320.6	334.9	381.9	457.4	527.3	611.4	712.5	832.2	936.3	1030.3	1118.7
40°	332.0	349.1	403.3	481.7	558.6	659.8	780.9	904.9	1014.6	1113.0	1208.5
42.5°	346.3	364.8	427.5	507.3	597.1	716.8	849.3	974.7	1088.8	1197.1	1301.1
45°	363.4	383.3	454.6	534.4	639.9	775.2	913.5	1043.1	1164.3	1281.1	1388.0
47.5°	386.2	406.1	484.5	565.8	688.3	833.7	973.3	1108.7	1238.4	1356.7	1472.1
50°	409.0	428.9	513.0	600.0	738.2	883.5	1028.9	1170.0	1302.5	1426.5	1544.8
52.5°	431.8	454.6	538.7	637.0	785.2	930.6	1080.2	1225.6	1359.5	1486.3	1611.7
55°	451.7	478.8	562.9	675.5	828.0	976.2	1125.8	1269.7	1406.5	1534.8	1658.8
57.5°	470.3	500.2	584.3	714.0	863.6	1014.6	1162.9	1302.5	1437.9	1564.7	1687.3
60°	488.8	523.0	608.5	748.2	893.5	1044.6	1187.1	1321.0	1450.7	1573.3	1693.0
62.5°	510.2	545.8	634.2	773.8	917.7	1061.7	1194.2	1321.0	1446.4	1560.4	1668.8
65°	524.4	560.1	655.5	788.1	927.7	1060.2	1181.4	1298.2	1412.2	1512.0	1604.6
67.5°	523.0	558.6	659.8	788.1	914.9	1036.0	1145.8	1246.9	1343.8	1425.1	1487.8
70°	507.3	541.5	647.0	768.1	879.3	987.6	1081.6	1164.3	1238.4	1286.8	1318.2
72.5°	474.5	508.7	615.6	725.4	820.8	913.5	990.4	1053.1	1090.2	1113.0	1118.7
75°	426.1	466.0	570.0	662.7	742.5	819.4	869.3	899.2	917.7	904.9	890.7
77.5°	369.1	414.7	507.3	582.9	648.4	699.7	728.2	732.5	728.2	729.6	733.9
80°	303.5	353.4	427.5	490.2	531.5	557.2	560.1	565.8	564.3	545.8	514.4
82.5°	233.7	280.7	336.3	377.6	393.3	400.4	406.1	373.4	336.3	300.7	286.4
85°	156.8	193.8	228.0	243.7	243.7	219.5	186.7	173.9	169.6	163.9	165.3
87.5°	79.8	86.9	94.1	84.1	75.5	79.8	79.8	79.8	82.7	82.7	84.1
90°	5.7	5.7	7.1	8.6	10.0	12.8	14.3	14.3	15.7	12.8	12.8
92.5°	34.2	31.4	31.4	28.5	31.4	31.4	31.4	29.9	27.1	27.1	27.1
95°	121.1	148.2	171.0	175.3	141.1	115.4	105.5	96.9	85.5	81.2	82.7
97.5°	196.7	242.3	292.1	324.9	342.0	343.4	314.9	252.2	212.3	195.2	185.3
100°	270.8	316.4	387.6	446.0	488.8	515.9	528.7	525.8	505.9	451.7	399.0
102.5°	339.2	377.6	468.8	545.8	605.7	654.1	679.8	705.4	716.8	714.0	708.3
105°	369.1	396.2	504.5	600.0	666.9	708.3	776.7	828.0	872.1	890.7	903.5
107.5°	407.6	411.8	533.0	635.6	705.4	761.0	798.0	937.7	979.0	1010.4	1044.6
110°	446.0	434.6	550.1	678.3	768.1	796.6	849.3	867.9	1100.2	1152.9	1168.6



TEST NUMBER: P236420

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L850-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	467.4	447.5	514.4	688.3	792.3	867.9	892.1	956.2	924.9	1212.7	1343.8
115°	476.0	453.2	468.8	666.9	789.5	893.5	937.7	989.0	1077.3	977.6	1194.2
117.5°	473.1	451.7	437.5	615.6	773.8	893.5	994.7	1010.4	1081.6	1228.4	1091.6
120°	460.3	444.6	428.9	535.8	746.7	886.4	1007.5	1105.9	1090.2	1158.6	1321.0
122.5°	446.0	436.1	428.9	470.3	691.2	865.0	997.5	1120.1	1207.0	1177.1	1208.5
125°	434.6	426.1	427.5	420.4	609.9	830.8	973.3	1105.9	1219.9	1299.7	1281.1
127.5°	420.4	416.1	421.8	404.7	521.6	761.0	942.0	1063.1	1194.2	1299.7	1380.9
130°	401.9	400.4	409.0	407.6	450.3	659.8	885.0	1013.2	1130.1	1255.5	1365.2
132.5°	366.2	367.7	383.3	401.9	390.5	534.4	778.1	957.6	1067.4	1181.4	1298.2
135°	329.2	334.9	360.5	389.0	366.2	441.8	635.6	859.3	1008.9	1104.4	1209.9
137.5°	302.1	309.2	337.7	370.5	373.4	379.1	508.7	722.5	917.7	1031.7	1117.3
140°	282.2	290.7	317.8	350.6	373.4	350.6	424.7	575.7	773.8	936.3	1037.4
142.5°	272.2	279.3	300.7	333.5	362.0	359.1	370.5	458.9	611.4	782.4	934.8
145°	263.6	269.3	286.4	316.4	344.9	362.0	346.3	383.3	474.5	612.8	763.8
147.5°	266.5	266.5	275.0	297.8	327.8	357.7	363.4	349.1	391.9	467.4	582.9
150°	263.6	262.2	275.0	289.3	316.4	346.3	366.2	360.5	354.8	387.6	440.3
152.5°	255.1	256.5	276.5	290.7	312.1	333.5	354.8	364.8	359.1	353.4	371.9
155°	248.0	249.4	267.9	282.2	300.7	319.2	336.3	354.8	364.8	359.1	347.7
157.5°	243.7	242.3	259.4	273.6	286.4	303.5	320.6	336.3	354.8	363.4	364.8
160°	238.0	236.6	252.2	266.5	276.5	292.1	306.4	319.2	333.5	347.7	356.3
162.5°	233.7	233.7	243.7	259.4	269.3	277.9	292.1	302.1	312.1	322.1	330.6
165°	230.9	230.9	236.6	250.8	262.2	267.9	276.5	286.4	293.6	300.7	305.0
167.5°	226.6	226.6	229.4	240.8	250.8	257.9	263.6	267.9	273.6	277.9	279.3
170°	222.3	222.3	222.3	229.4	239.4	246.5	250.8	253.7	256.5	257.9	256.5
172.5°	219.5	219.5	219.5	219.5	225.2	230.9	235.1	239.4	239.4	240.8	238.0
175°	216.6	216.6	215.2	215.2	215.2	215.2	216.6	218.0	219.5	220.9	219.5
177.5°	213.8	212.3	212.3	210.9	210.9	209.5	206.6	203.8	200.9	198.1	195.2
180°	196.7	196.7	196.7	196.7	196.7	196.7	196.7	196.7	196.7	196.7	196.7



TEST NUMBER: P236420

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L850-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	236.6	236.6	236.6	236.6	236.6	236.6	236.6	236.6
2.5°	239.4	239.4	239.4	239.4	239.4	240.8	240.8	242.3
5°	262.2	265.1	267.9	267.9	269.3	272.2	272.2	273.6
7.5°	290.7	296.4	300.7	303.5	306.4	312.1	312.1	314.9
10°	333.5	343.4	352.0	359.1	363.4	371.9	371.9	377.6
12.5°	387.6	400.4	413.3	421.8	427.5	434.6	437.5	441.8
15°	441.8	456.0	468.8	477.4	484.5	494.5	497.3	501.6
17.5°	493.1	508.7	527.3	540.1	552.9	564.3	571.5	577.2
20°	551.5	577.2	602.8	619.9	638.4	654.1	664.1	672.6
22.5°	621.3	659.8	696.9	725.4	749.6	769.5	783.8	788.1
25°	715.4	765.3	810.9	842.2	869.3	890.7	903.5	907.8
27.5°	816.6	872.1	919.2	954.8	983.3	999.0	1018.9	1017.5
30°	917.7	977.6	1027.5	1064.5	1091.6	1111.6	1128.7	1127.2
32.5°	1016.1	1080.2	1130.1	1170.0	1201.3	1222.7	1237.0	1238.4
35°	1110.1	1178.5	1235.5	1279.7	1313.9	1335.3	1346.7	1348.1
37.5°	1207.0	1281.1	1341.0	1388.0	1425.1	1449.3	1460.7	1460.7
40°	1305.4	1380.9	1445.0	1496.3	1533.4	1556.2	1567.6	1567.6
42.5°	1400.8	1482.1	1544.8	1598.9	1637.4	1661.6	1674.5	1675.9
45°	1493.5	1576.1	1643.1	1700.1	1735.7	1760.0	1772.8	1774.2
47.5°	1579.0	1668.8	1735.7	1791.3	1832.6	1858.3	1869.7	1871.1
50°	1658.8	1748.6	1824.1	1879.7	1918.1	1942.4	1956.6	1958.0
52.5°	1724.3	1824.1	1895.3	1953.8	1995.1	2017.9	2035.0	2037.8
55°	1777.1	1871.1	1949.5	2009.3	2052.1	2079.2	2094.8	2094.8
57.5°	1802.7	1896.8	1970.9	2032.1	2077.7	2104.8	2114.8	2116.2
60°	1801.3	1886.8	1958.0	2016.5	2057.8	2090.6	2124.8	2140.4
62.5°	1764.2	1839.8	1901.0	1943.8	1985.1	2027.9	2053.5	2059.2
65°	1677.3	1735.7	1775.6	1804.1	1836.9	1859.7	1861.1	1862.6
67.5°	1529.1	1566.1	1584.7	1594.6	1604.6	1606.0	1597.5	1596.1
70°	1333.9	1342.4	1328.2	1301.1	1274.0	1256.9	1237.0	1232.7
72.5°	1097.3	1071.6	1050.3	1043.1	1043.1	1046.0	1044.6	1043.1
75°	894.9	896.4	896.4	892.1	892.1	893.5	892.1	892.1
77.5°	733.9	721.1	698.3	672.6	662.7	651.3	644.1	641.3
80°	483.1	453.2	434.6	417.5	413.3	409.0	406.1	406.1
82.5°	279.3	272.2	267.9	266.5	265.1	265.1	265.1	266.5
85°	165.3	166.7	166.7	169.6	171.0	171.0	173.9	173.9
87.5°	86.9	86.9	91.2	91.2	92.6	92.6	96.9	94.1
90°	14.3	14.3	14.3	11.4	12.8	12.8	12.8	14.3
92.5°	22.8	22.8	22.8	24.2	22.8	21.4	20.0	21.4
95°	84.1	86.9	89.8	91.2	94.1	94.1	94.1	94.1
97.5°	172.4	166.7	163.9	159.6	158.2	152.5	149.6	151.1
100°	344.9	319.2	306.4	297.8	287.9	279.3	279.3	276.5
102.5°	674.1	639.9	605.7	578.6	545.8	518.7	511.6	503.0
105°	894.9	890.7	887.8	882.1	870.7	863.6	853.6	847.9
107.5°	1057.4	1067.4	1074.5	1077.3	1073.1	1063.1	1061.7	1056.0
110°	1172.8	1194.2	1217.0	1227.0	1231.3	1227.0	1222.7	1219.9





TEST NUMBER: P236420

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L850-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1362.4	1365.2	1363.8	1343.8	1329.6	1335.3	1338.1	1338.1
115°	1479.2	1576.1	1604.6	1607.5	1598.9	1581.8	1571.8	1569.0
117.5°	1124.4	1392.3	1651.7	1767.1	1835.5	1856.9	1862.6	1871.1
120°	1302.5	1165.7	1199.9	1365.2	1544.8	1712.9	1807.0	1831.2
122.5°	1342.4	1490.6	1429.3	1318.2	1259.8	1271.2	1291.1	1292.5
125°	1249.8	1342.4	1465.0	1587.5	1648.8	1637.4	1613.2	1621.7
127.5°	1399.4	1335.3	1356.7	1423.6	1482.1	1537.6	1587.5	1598.9
130°	1452.1	1506.3	1492.0	1442.2	1429.3	1432.2	1436.5	1437.9
132.5°	1410.8	1497.7	1563.3	1591.8	1591.8	1574.7	1561.9	1561.9
135°	1309.6	1412.2	1493.5	1560.4	1600.3	1617.4	1626.0	1628.9
137.5°	1209.9	1291.1	1380.9	1459.3	1512.0	1541.9	1561.9	1564.7
140°	1110.1	1189.9	1258.3	1322.5	1390.9	1443.6	1462.1	1463.5
142.5°	1026.0	1087.3	1152.9	1211.3	1252.6	1303.9	1341.0	1342.4
145°	906.3	993.3	1053.1	1101.6	1140.1	1178.5	1225.6	1242.7
147.5°	721.1	835.1	927.7	996.1	1036.0	1073.1	1104.4	1135.8
150°	535.8	638.4	725.4	803.7	863.6	919.2	960.5	949.1
152.5°	404.7	463.1	533.0	597.1	639.9	682.6	689.7	664.1
155°	354.8	367.7	394.7	426.1	450.3	477.4	443.2	433.2
157.5°	354.8	339.2	342.0	344.9	353.4	330.6	323.5	322.1
160°	360.5	356.3	344.9	329.2	309.2	280.7	279.3	276.5
162.5°	340.6	343.4	339.2	333.5	306.4	296.4	290.7	290.7
165°	312.1	313.5	313.5	307.8	295.0	285.0	283.6	282.2
167.5°	282.2	285.0	285.0	279.3	275.0	269.3	259.4	259.4
170°	256.5	256.5	256.5	252.2	253.7	252.2	242.3	236.6
172.5°	235.1	232.3	230.9	228.0	230.9	236.6	236.6	213.8
175°	216.6	212.3	209.5	208.1	212.3	220.9	230.9	239.4
177.5°	192.4	186.7	181.0	181.0	183.8	192.4	205.2	209.5
180°	196.7	196.7	196.7	196.7	196.7	196.7	196.7	196.7

(END OF REPORT)