

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: P236418

Luminaire Tested: **SKB2-LD5-12-N-UNV-L835-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236418
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-L835-CD2-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

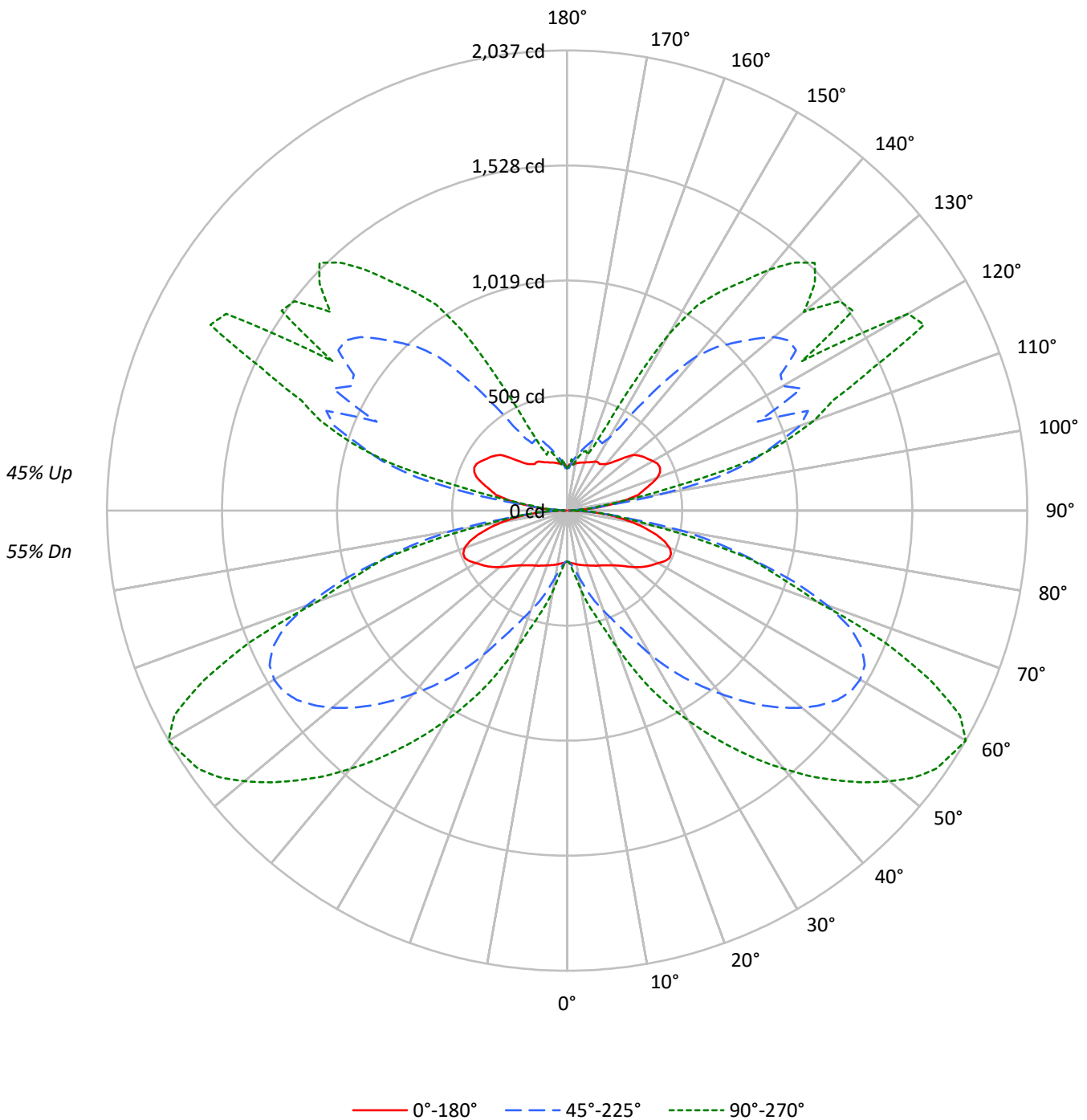
Lumens per Lamp: N/A
Luminaire Lumens: 9580.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 2.2 / 4.49 / 3.74
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

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-L835-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°	969	969	969
5°	1008	1055	1125
10°	1055	1298	1571
15°	1113	1711	2128
20°	1181	2156	2933
25°	1276	2751	4104
30°	1396	3641	5334
35°	1554	4740	6744
40°	1776	5953	8385
45°	2106	7424	10281
50°	2607	9094	12482
55°	3227	10965	14966
60°	4006	12893	17542
65°	5085	14660	18059
70°	6078	15417	14769
75°	6746	14326	14123
80°	7163	12878	9583
85°	7371	7707	8176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.1	0.3
10°-20°	108.6	1.1
20°-30°	272.8	2.8
30°-40°	537.1	5.6
40°-50°	874.8	9.1
50°-60°	1205.6	12.6
60°-70°	1263.9	13.2
70°-80°	805.0	8.4
80°-90°	213.8	2.2
90°-100°	143.9	1.5
100°-110°	737.8	7.7
110°-120°	1042.6	10.9
120°-130°	926.3	9.7
130°-140°	735.8	7.7
140°-150°	419.3	4.4
150°-160°	170.7	1.8
160°-170°	76.4	0.8
170°-180°	20.5	0.2
0°-30°	406.6	4.2
0°-40°	943.7	9.9
0°-60°	3024.1	31.6
0°-90°	5306.8	55.4
90°-120°	1924.3	20.1
90°-150°	4005.7	41.8
90°-180°	4273.0	44.6
0°-180°	9580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	225	225	225	225	225	
5°	233	237	244	255	260	23
15°	250	294	384	450	477	71
25°	268	392	579	787	864	125
35°	296	507	902	1197	1283	187
45°	346	673	1219	1591	1688	271
55°	430	858	1461	1884	1994	385
65°	499	946	1439	1703	1773	486
75°	406	743	861	851	849	421
85°	149	220	156	160	166	151
90°	5	11	12	12	14	16
95°	115	122	77	86	90	122
105°	351	654	848	842	807	371
115°	453	801	930	1529	1493	442
125°	414	686	1237	1453	1543	370
135°	313	384	1051	1453	1550	248
145°	251	336	583	1025	1183	161
155°	236	295	342	391	412	110
165°	220	252	286	296	268	62
175°	206	205	210	199	228	20
180°	187	187	187	187	187	



TEST NUMBER: P236418

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	225.1	225.1	225.1	225.1	225.1	225.1	225.1	225.1	225.1	225.1	225.1
2.5°	231.9	231.9	231.9	231.9	230.6	231.9	230.6	230.6	229.2	227.9	227.9
5°	233.3	233.3	234.6	236.0	237.3	237.3	237.3	240.1	241.4	244.1	246.8
7.5°	237.3	237.3	238.7	241.4	244.1	248.2	253.6	260.4	265.8	268.5	272.6
10°	241.4	241.4	245.5	248.2	256.3	267.2	274.0	280.7	288.9	297.0	307.9
12.5°	245.5	246.8	250.9	259.0	272.6	283.5	293.0	307.9	324.1	337.7	354.0
15°	249.6	250.9	257.7	271.3	286.2	301.1	320.1	343.1	364.8	383.8	404.2
17.5°	253.6	256.3	265.8	284.8	301.1	326.9	352.6	381.1	408.2	428.6	448.9
20°	257.7	260.4	274.0	295.7	320.1	354.0	387.9	420.4	447.6	470.6	496.4
22.5°	263.1	265.8	284.8	307.9	341.8	383.8	421.8	455.7	486.9	520.8	554.7
25°	268.5	272.6	295.7	325.5	367.5	416.4	454.3	492.3	534.4	579.1	627.9
27.5°	275.3	279.4	306.5	343.1	394.7	446.2	486.9	535.7	590.0	648.3	713.4
30°	280.7	287.5	317.4	363.5	421.8	476.0	524.9	587.3	657.8	732.4	805.6
32.5°	287.5	297.0	330.9	386.5	448.9	505.9	568.3	646.9	736.5	820.5	895.1
35°	295.7	306.5	345.8	409.6	473.3	539.8	618.5	717.5	817.8	901.9	980.6
37.5°	305.2	318.7	363.5	435.4	501.8	581.8	678.1	792.1	891.1	980.6	1064.7
40°	316.0	332.3	383.8	458.4	531.7	627.9	743.2	861.2	965.7	1059.2	1150.1
42.5°	329.6	347.2	406.9	482.8	568.3	682.2	808.3	927.7	1036.2	1139.3	1238.3
45°	345.8	364.8	432.6	508.6	609.0	737.8	869.4	992.8	1108.1	1219.3	1321.0
47.5°	367.5	386.5	461.1	538.4	655.1	793.4	926.3	1055.2	1178.6	1291.2	1401.0
50°	389.2	408.2	488.3	571.0	702.5	840.9	979.2	1113.5	1239.6	1357.6	1470.2
52.5°	410.9	432.6	512.7	606.2	747.3	885.6	1028.0	1166.4	1293.9	1414.6	1533.9
55°	429.9	455.7	535.7	642.9	788.0	929.0	1071.4	1208.4	1338.6	1460.7	1578.7
57.5°	447.6	476.0	556.1	679.5	821.9	965.7	1106.7	1239.6	1368.5	1489.2	1605.8
60°	465.2	497.7	579.1	712.0	850.4	994.1	1129.8	1257.3	1380.7	1497.3	1611.2
62.5°	485.5	519.4	603.5	736.5	873.4	1010.4	1136.5	1257.3	1376.6	1485.1	1588.2
65°	499.1	533.0	623.9	750.0	882.9	1009.1	1124.3	1235.6	1344.1	1439.0	1527.2
67.5°	497.7	531.7	627.9	750.0	870.7	986.0	1090.4	1186.7	1279.0	1356.3	1415.9
70°	482.8	515.4	615.7	731.0	836.8	939.9	1029.4	1108.1	1178.6	1224.7	1254.5
72.5°	451.6	484.2	585.9	690.3	781.2	869.4	942.6	1002.3	1037.5	1059.2	1064.7
75°	405.5	443.5	542.5	630.7	706.6	779.9	827.3	855.8	873.4	861.2	847.7
77.5°	351.3	394.7	482.8	554.7	617.1	665.9	693.0	697.1	693.0	694.4	698.5
80°	288.9	336.4	406.9	466.6	505.9	530.3	533.0	538.4	537.1	519.4	489.6
82.5°	222.4	267.2	320.1	359.4	374.3	381.1	386.5	355.3	320.1	286.2	272.6
85°	149.2	184.5	217.0	231.9	231.9	208.9	177.7	165.5	161.4	156.0	157.3
87.5°	76.0	82.7	89.5	80.0	71.9	76.0	76.0	76.0	78.7	78.7	80.0
90°	5.4	5.4	6.8	8.1	9.5	12.2	13.6	13.6	14.9	12.2	12.2
92.5°	32.6	29.8	29.8	27.1	29.8	29.8	29.8	28.5	25.8	25.8	25.8
95°	115.3	141.1	162.8	166.8	134.3	109.9	100.4	92.2	81.4	77.3	78.7
97.5°	187.2	230.6	278.0	309.2	325.5	326.9	299.7	240.1	202.1	185.8	176.3
100°	257.7	301.1	368.9	424.5	465.2	491.0	503.2	500.5	481.5	429.9	379.8
102.5°	322.8	359.4	446.2	519.4	576.4	622.5	646.9	671.3	682.2	679.5	674.1
105°	351.3	377.0	480.1	571.0	634.7	674.1	739.2	788.0	830.0	847.7	859.9
107.5°	387.9	392.0	507.2	604.9	671.3	724.2	759.5	892.4	931.8	961.6	994.1
110°	424.5	413.7	523.5	645.6	731.0	758.2	808.3	826.0	1047.0	1097.2	1112.1



TEST NUMBER: P236418

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	444.9	425.9	489.6	655.1	754.1	826.0	849.0	910.1	880.2	1154.2	1279.0
115°	453.0	431.3	446.2	634.7	751.4	850.4	892.4	941.2	1025.3	930.4	1136.5
117.5°	450.3	429.9	416.4	585.9	736.5	850.4	946.7	961.6	1029.4	1169.1	1038.9
120°	438.1	423.2	408.2	510.0	710.7	843.6	958.9	1052.5	1037.5	1102.6	1257.3
122.5°	424.5	415.0	408.2	447.6	657.8	823.3	949.4	1066.0	1148.8	1120.3	1150.1
125°	413.7	405.5	406.9	400.1	580.5	790.7	926.3	1052.5	1161.0	1236.9	1219.3
127.5°	400.1	396.0	401.5	385.2	496.4	724.2	896.5	1011.8	1136.5	1236.9	1314.2
130°	382.5	381.1	389.2	387.9	428.6	627.9	842.2	964.3	1075.5	1194.9	1299.3
132.5°	348.6	349.9	364.8	382.5	371.6	508.6	740.5	911.4	1015.8	1124.3	1235.6
135°	313.3	318.7	343.1	370.3	348.6	420.4	604.9	817.8	960.2	1051.1	1151.5
137.5°	287.5	294.3	321.4	352.6	355.3	360.8	484.2	687.6	873.4	981.9	1063.3
140°	268.5	276.7	302.4	333.6	355.3	333.6	404.2	547.9	736.5	891.1	987.4
142.5°	259.0	265.8	286.2	317.4	344.5	341.8	352.6	436.7	581.8	744.6	889.7
145°	250.9	256.3	272.6	301.1	328.2	344.5	329.6	364.8	451.6	583.2	727.0
147.5°	253.6	253.6	261.8	283.5	311.9	340.4	345.8	332.3	373.0	444.9	554.7
150°	250.9	249.6	261.8	275.3	301.1	329.6	348.6	343.1	337.7	368.9	419.1
152.5°	242.8	244.1	263.1	276.7	297.0	317.4	337.7	347.2	341.8	336.4	354.0
155°	236.0	237.3	255.0	268.5	286.2	303.8	320.1	337.7	347.2	341.8	330.9
157.5°	231.9	230.6	246.8	260.4	272.6	288.9	305.2	320.1	337.7	345.8	347.2
160°	226.5	225.1	240.1	253.6	263.1	278.0	291.6	303.8	317.4	330.9	339.1
162.5°	222.4	222.4	231.9	246.8	256.3	264.5	278.0	287.5	297.0	306.5	314.7
165°	219.7	219.7	225.1	238.7	249.6	255.0	263.1	272.6	279.4	286.2	290.2
167.5°	215.6	215.6	218.4	229.2	238.7	245.5	250.9	255.0	260.4	264.5	265.8
170°	211.6	211.6	211.6	218.4	227.9	234.6	238.7	241.4	244.1	245.5	244.1
172.5°	208.9	208.9	208.9	208.9	214.3	219.7	223.8	227.9	227.9	229.2	226.5
175°	206.2	206.2	204.8	204.8	204.8	204.8	206.2	207.5	208.9	210.2	208.9
177.5°	203.4	202.1	202.1	200.7	200.7	199.4	196.7	193.9	191.2	188.5	185.8
180°	187.2	187.2	187.2	187.2	187.2	187.2	187.2	187.2	187.2	187.2	187.2



TEST NUMBER: P236418

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	225.1	225.1	225.1	225.1	225.1	225.1	225.1	225.1
2.5°	227.9	227.9	227.9	227.9	227.9	229.2	229.2	230.6
5°	249.6	252.3	255.0	255.0	256.3	259.0	259.0	260.4
7.5°	276.7	282.1	286.2	288.9	291.6	297.0	297.0	299.7
10°	317.4	326.9	335.0	341.8	345.8	354.0	354.0	359.4
12.5°	368.9	381.1	393.3	401.5	406.9	413.7	416.4	420.4
15°	420.4	434.0	446.2	454.3	461.1	470.6	473.3	477.4
17.5°	469.3	484.2	501.8	514.0	526.2	537.1	543.9	549.3
20°	524.9	549.3	573.7	590.0	607.6	622.5	632.0	640.2
22.5°	591.3	627.9	663.2	690.3	713.4	732.4	745.9	750.0
25°	680.8	728.3	771.7	801.6	827.3	847.7	859.9	863.9
27.5°	777.1	830.0	874.8	908.7	935.8	950.7	969.7	968.4
30°	873.4	930.4	977.9	1013.1	1038.9	1057.9	1074.2	1072.8
32.5°	967.0	1028.0	1075.5	1113.5	1143.3	1163.7	1177.2	1178.6
35°	1056.5	1121.6	1175.9	1217.9	1250.5	1270.8	1281.7	1283.0
37.5°	1148.8	1219.3	1276.2	1321.0	1356.3	1379.3	1390.2	1390.2
40°	1242.3	1314.2	1375.2	1424.1	1459.3	1481.0	1491.9	1491.9
42.5°	1333.2	1410.5	1470.2	1521.7	1558.3	1581.4	1593.6	1595.0
45°	1421.4	1500.0	1563.8	1618.0	1651.9	1675.0	1687.2	1688.5
47.5°	1502.7	1588.2	1651.9	1704.8	1744.2	1768.6	1779.4	1780.8
50°	1578.7	1664.1	1736.0	1788.9	1825.5	1848.6	1862.1	1863.5
52.5°	1641.1	1736.0	1803.8	1859.4	1898.8	1920.5	1936.7	1939.5
55°	1691.3	1780.8	1855.4	1912.3	1953.0	1978.8	1993.7	1993.7
57.5°	1715.7	1805.2	1875.7	1934.0	1977.4	2003.2	2012.7	2014.0
60°	1714.3	1795.7	1863.5	1919.1	1958.4	1989.6	2022.2	2037.1
62.5°	1679.1	1750.9	1809.3	1849.9	1889.3	1930.0	1954.4	1959.8
65°	1596.3	1651.9	1689.9	1717.0	1748.2	1769.9	1771.3	1772.6
67.5°	1455.3	1490.5	1508.2	1517.7	1527.2	1528.5	1520.4	1519.0
70°	1269.5	1277.6	1264.0	1238.3	1212.5	1196.2	1177.2	1173.2
72.5°	1044.3	1019.9	999.6	992.8	992.8	995.5	994.1	992.8
75°	851.7	853.1	853.1	849.0	849.0	850.4	849.0	849.0
77.5°	698.5	686.3	664.6	640.2	630.7	619.8	613.0	610.3
80°	459.8	431.3	413.7	397.4	393.3	389.2	386.5	386.5
82.5°	265.8	259.0	255.0	253.6	252.3	252.3	252.3	253.6
85°	157.3	158.7	158.7	161.4	162.8	162.8	165.5	165.5
87.5°	82.7	82.7	86.8	86.8	88.2	88.2	92.2	89.5
90°	13.6	13.6	13.6	10.9	12.2	12.2	12.2	13.6
92.5°	21.7	21.7	21.7	23.1	21.7	20.3	19.0	20.3
95°	80.0	82.7	85.4	86.8	89.5	89.5	89.5	89.5
97.5°	164.1	158.7	156.0	151.9	150.5	145.1	142.4	143.8
100°	328.2	303.8	291.6	283.5	274.0	265.8	265.8	263.1
102.5°	641.5	609.0	576.4	550.6	519.4	493.7	486.9	478.8
105°	851.7	847.7	845.0	839.5	828.7	821.9	812.4	807.0
107.5°	1006.3	1015.8	1022.6	1025.3	1021.3	1011.8	1010.4	1005.0
110°	1116.2	1136.5	1158.2	1167.7	1171.8	1167.7	1163.7	1161.0



TEST NUMBER: P236418

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1296.6	1299.3	1297.9	1279.0	1265.4	1270.8	1273.5	1273.5
115°	1407.8	1500.0	1527.2	1529.9	1521.7	1505.5	1496.0	1493.2
117.5°	1070.1	1325.1	1571.9	1681.8	1746.9	1767.2	1772.6	1780.8
120°	1239.6	1109.4	1142.0	1299.3	1470.2	1630.2	1719.7	1742.8
122.5°	1277.6	1418.6	1360.3	1254.5	1198.9	1209.8	1228.8	1230.1
125°	1189.4	1277.6	1394.2	1510.9	1569.2	1558.3	1535.3	1543.4
127.5°	1331.8	1270.8	1291.2	1354.9	1410.5	1463.4	1510.9	1521.7
130°	1382.0	1433.6	1420.0	1372.5	1360.3	1363.0	1367.1	1368.5
132.5°	1342.7	1425.4	1487.8	1514.9	1514.9	1498.7	1486.5	1486.5
135°	1246.4	1344.1	1421.4	1485.1	1523.1	1539.4	1547.5	1550.2
137.5°	1151.5	1228.8	1314.2	1388.8	1439.0	1467.5	1486.5	1489.2
140°	1056.5	1132.5	1197.6	1258.6	1323.7	1373.9	1391.5	1392.9
142.5°	976.5	1034.8	1097.2	1152.8	1192.2	1241.0	1276.2	1277.6
145°	862.6	945.3	1002.3	1048.4	1085.0	1121.6	1166.4	1182.7
147.5°	686.3	794.8	882.9	948.0	986.0	1021.3	1051.1	1080.9
150°	510.0	607.6	690.3	764.9	821.9	874.8	914.1	903.3
152.5°	385.2	440.8	507.2	568.3	609.0	649.6	656.4	632.0
155°	337.7	349.9	375.7	405.5	428.6	454.3	421.8	412.3
157.5°	337.7	322.8	325.5	328.2	336.4	314.7	307.9	306.5
160°	343.1	339.1	328.2	313.3	294.3	267.2	265.8	263.1
162.5°	324.1	326.9	322.8	317.4	291.6	282.1	276.7	276.7
165°	297.0	298.4	298.4	293.0	280.7	271.3	269.9	268.5
167.5°	268.5	271.3	271.3	265.8	261.8	256.3	246.8	246.8
170°	244.1	244.1	244.1	240.1	241.4	240.1	230.6	225.1
172.5°	223.8	221.1	219.7	217.0	219.7	225.1	225.1	203.4
175°	206.2	202.1	199.4	198.0	202.1	210.2	219.7	227.9
177.5°	183.1	177.7	172.2	172.2	175.0	183.1	195.3	199.4
180°	187.2	187.2	187.2	187.2	187.2	187.2	187.2	187.2

(END OF REPORT)