

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: P236424

Luminaire Tested: **SKB2-LD5-18-N-UNV-L835-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236424
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-LD5-18-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

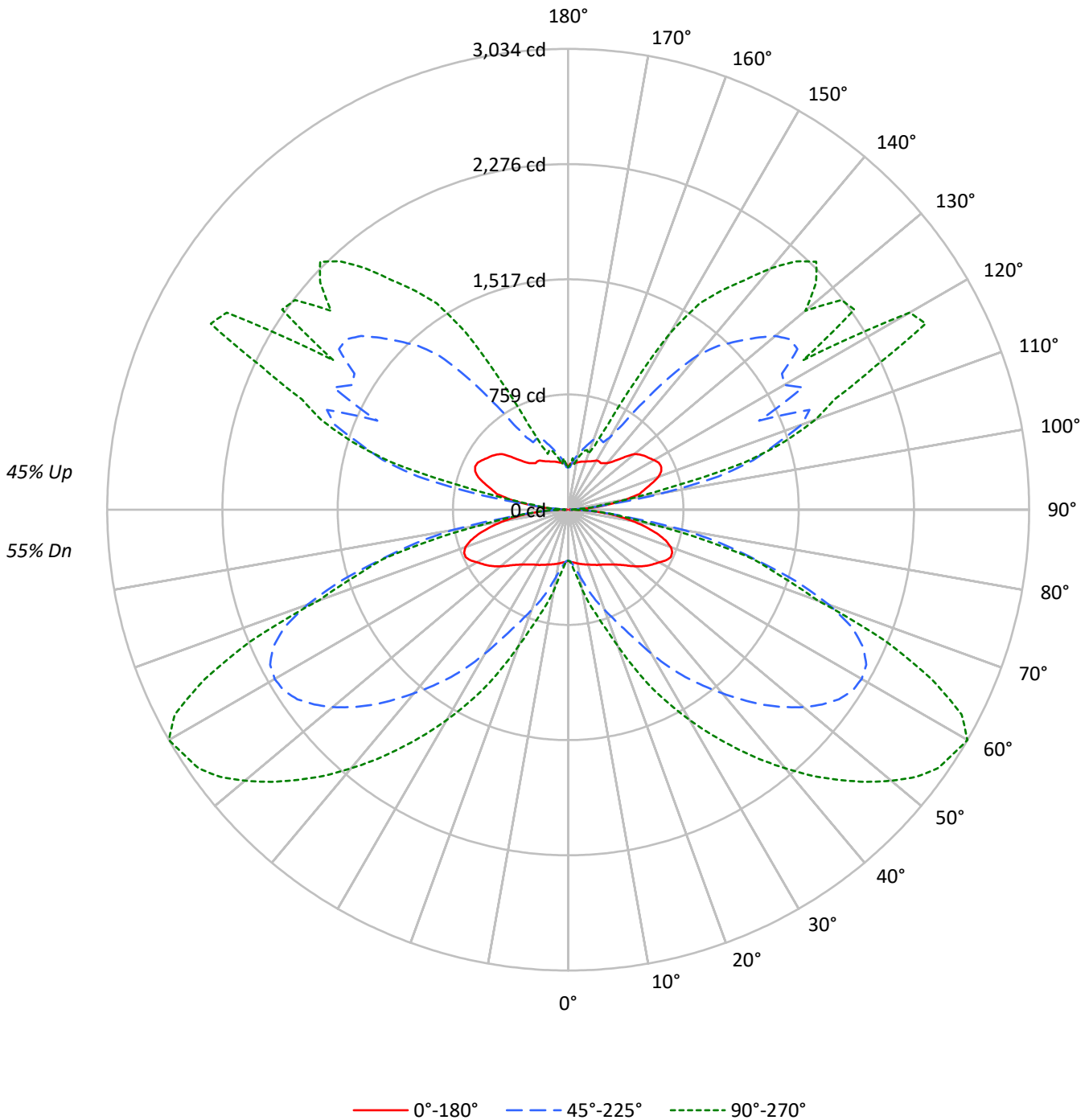
Lumens per Lamp: N/A
Luminaire Lumens: 14268.0 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 2.2 / 4.49 / 3.74
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 168.5
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

TEST NUMBER: P236424

CATALOG NUMBER: SKB2-LD5-18-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°	1444	1444	1444
5°	1501	1571	1676
10°	1572	1934	2340
15°	1657	2548	3169
20°	1759	3211	4368
25°	1900	4097	6113
30°	2079	5423	7944
35°	2314	7061	10044
40°	2645	8867	12488
45°	3136	11057	15313
50°	3883	13544	18590
55°	4806	16330	22289
60°	5966	19203	26126
65°	7573	21835	26897
70°	9052	22962	21996
75°	10048	21338	21036
80°	10667	19181	14274
85°	10977	11476	12172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	0.3
10°-20°	161.8	1.1
20°-30°	406.3	2.8
30°-40°	800.0	5.6
40°-50°	1302.9	9.1
50°-60°	1795.5	12.6
60°-70°	1882.4	13.2
70°-80°	1198.9	8.4
80°-90°	318.4	2.2
90°-100°	214.3	1.5
100°-110°	1098.8	7.7
110°-120°	1552.8	10.9
120°-130°	1379.5	9.7
130°-140°	1095.9	7.7
140°-150°	624.4	4.4
150°-160°	254.2	1.8
160°-170°	113.7	0.8
170°-180°	30.6	0.2
0°-30°	605.5	4.2
0°-40°	1405.5	9.9
0°-60°	4503.9	31.6
0°-90°	7903.7	55.4
90°-120°	2866.0	20.1
90°-150°	5965.8	41.8
90°-180°	6364.0	44.6
0°-180°	14268.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	347	354	364	380	388	34
15°	372	437	572	671	711	106
25°	400	584	862	1172	1287	186
35°	440	754	1343	1783	1911	278
45°	515	1003	1816	2369	2515	404
55°	640	1279	2176	2806	2969	574
65°	743	1409	2143	2537	2640	723
75°	604	1107	1283	1268	1264	627
85°	222	328	232	238	246	224
90°	8	16	18	18	20	24
95°	172	182	115	128	133	181
105°	523	975	1262	1254	1202	552
115°	675	1193	1386	2276	2224	658
125°	616	1021	1842	2163	2299	551
135°	467	573	1566	2164	2309	369
145°	374	501	869	1527	1761	240
155°	352	439	509	582	614	164
165°	327	376	426	440	400	93
175°	307	305	313	296	339	29
180°	279	279	279	279	279	



TEST NUMBER: P236424

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3
2.5°	345.4	345.4	345.4	345.4	343.4	345.4	343.4	343.4	341.4	339.4	339.4
5°	347.4	347.4	349.5	351.5	353.5	353.5	353.5	357.5	359.6	363.6	367.6
7.5°	353.5	353.5	355.5	359.6	363.6	369.7	377.7	387.8	395.9	400.0	406.0
10°	359.6	359.6	365.6	369.7	381.8	397.9	408.0	418.1	430.2	442.4	458.5
12.5°	365.6	367.6	373.7	385.8	406.0	422.2	436.3	458.5	482.8	503.0	527.2
15°	371.7	373.7	383.8	404.0	426.2	448.4	476.7	511.0	543.4	571.6	601.9
17.5°	377.7	381.8	395.9	424.2	448.4	486.8	525.2	567.6	608.0	638.3	668.6
20°	383.8	387.8	408.0	440.3	476.7	527.2	577.7	626.2	666.6	700.9	739.3
22.5°	391.9	395.9	424.2	458.5	509.0	571.6	628.2	678.7	725.2	775.7	826.2
25°	400.0	406.0	440.3	484.8	547.4	620.1	676.7	733.2	795.9	862.5	935.2
27.5°	410.1	416.1	456.5	511.0	587.8	664.6	725.2	797.9	878.7	965.5	1062.5
30°	418.1	428.2	472.7	541.3	628.2	709.0	781.7	874.6	979.7	1090.8	1199.9
32.5°	428.2	442.4	492.9	575.7	668.6	753.4	846.4	963.5	1096.8	1222.1	1333.2
35°	440.3	456.5	515.1	610.0	705.0	803.9	921.1	1068.6	1218.0	1343.3	1460.4
37.5°	454.5	474.7	541.3	648.4	747.4	866.6	1010.0	1179.7	1327.1	1460.4	1585.7
40°	470.6	494.9	571.6	682.7	791.8	935.2	1106.9	1282.7	1438.2	1577.6	1712.9
42.5°	490.8	517.1	606.0	719.1	846.4	1016.0	1203.9	1381.6	1543.2	1696.8	1844.2
45°	515.1	543.4	644.4	757.5	907.0	1098.9	1294.8	1478.6	1650.3	1815.9	1967.4
47.5°	547.4	575.7	686.8	801.9	975.6	1181.7	1379.6	1571.5	1755.3	1923.0	2086.6
50°	579.7	608.0	727.2	850.4	1046.3	1252.4	1458.4	1658.4	1846.2	2022.0	2189.6
52.5°	612.0	644.4	763.5	902.9	1113.0	1319.0	1531.1	1737.2	1927.0	2106.8	2284.6
55°	640.3	678.7	797.9	957.5	1173.6	1383.7	1595.8	1799.8	1993.7	2175.5	2351.2
57.5°	666.6	709.0	828.2	1012.0	1224.1	1438.2	1648.3	1846.2	2038.1	2217.9	2391.6
60°	692.8	741.3	862.5	1060.5	1266.5	1480.6	1682.6	1872.5	2056.3	2230.0	2399.7
62.5°	723.1	773.6	898.9	1096.8	1300.8	1504.9	1692.7	1872.5	2050.3	2211.8	2365.4
65°	743.3	793.8	929.2	1117.0	1315.0	1502.8	1674.5	1840.2	2001.8	2143.2	2274.5
67.5°	741.3	791.8	935.2	1117.0	1296.8	1468.5	1624.0	1767.5	1904.8	2020.0	2108.8
70°	719.1	767.6	917.1	1088.8	1246.3	1399.8	1533.1	1650.3	1755.3	1824.0	1868.5
72.5°	672.6	721.1	872.6	1028.2	1163.5	1294.8	1403.9	1492.7	1545.3	1577.6	1585.7
75°	604.0	660.5	808.0	939.3	1052.4	1161.5	1232.2	1274.6	1300.8	1282.7	1262.5
77.5°	523.2	587.8	719.1	826.2	919.1	991.8	1032.2	1038.3	1032.2	1034.2	1040.3
80°	430.2	500.9	606.0	694.9	753.4	789.8	793.8	801.9	799.9	773.6	729.2
82.5°	331.3	397.9	476.7	535.3	557.5	567.6	575.7	529.2	476.7	426.2	406.0
85°	222.2	274.7	323.2	345.4	345.4	311.1	264.6	246.4	240.4	232.3	234.3
87.5°	113.1	123.2	133.3	119.2	107.1	113.1	113.1	113.1	117.2	117.2	119.2
90°	8.1	8.1	10.1	12.1	14.1	18.2	20.2	20.2	22.2	18.2	18.2
92.5°	48.5	44.4	44.4	40.4	44.4	44.4	44.4	42.4	38.4	38.4	38.4
95°	171.7	210.1	242.4	248.5	200.0	163.6	149.5	137.4	121.2	115.1	117.2
97.5°	278.8	343.4	414.1	460.5	484.8	486.8	446.4	357.5	301.0	276.7	262.6
100°	383.8	448.4	549.4	632.2	692.8	731.2	749.4	745.4	717.1	640.3	565.6
102.5°	480.7	535.3	664.6	773.6	858.5	927.2	963.5	999.9	1016.0	1012.0	1003.9
105°	523.2	561.5	715.1	850.4	945.3	1003.9	1100.9	1173.6	1236.2	1262.5	1280.6
107.5°	577.7	583.8	755.5	900.9	999.9	1078.7	1131.2	1329.1	1387.7	1432.1	1480.6
110°	632.2	616.1	779.7	961.5	1088.8	1129.2	1203.9	1230.2	1559.4	1634.1	1656.4



TEST NUMBER: P236424

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	662.5	634.3	729.2	975.6	1123.1	1230.2	1264.5	1355.4	1310.9	1719.0	1904.8
115°	674.7	642.3	664.6	945.3	1119.1	1266.5	1329.1	1401.8	1527.1	1385.7	1692.7
117.5°	670.6	640.3	620.1	872.6	1096.8	1266.5	1409.9	1432.1	1533.1	1741.2	1547.3
120°	652.4	630.2	608.0	759.5	1058.5	1256.4	1428.1	1567.5	1545.3	1642.2	1872.5
122.5°	632.2	618.1	608.0	666.6	979.7	1226.1	1414.0	1587.7	1710.9	1668.5	1712.9
125°	616.1	604.0	606.0	595.9	864.5	1177.6	1379.6	1567.5	1729.1	1842.2	1815.9
127.5°	595.9	589.8	597.9	573.7	739.3	1078.7	1335.2	1506.9	1692.7	1842.2	1957.3
130°	569.6	567.6	579.7	577.7	638.3	935.2	1254.4	1436.2	1601.8	1779.6	1935.1
132.5°	519.1	521.1	543.4	569.6	553.5	757.5	1102.9	1357.4	1512.9	1674.5	1840.2
135°	466.6	474.7	511.0	551.4	519.1	626.2	900.9	1218.0	1430.1	1565.5	1714.9
137.5°	428.2	438.3	478.7	525.2	529.2	537.3	721.1	1024.1	1300.8	1462.4	1583.6
140°	400.0	412.1	450.4	496.9	529.2	496.9	601.9	816.1	1096.8	1327.1	1470.5
142.5°	385.8	395.9	426.2	472.7	513.1	509.0	525.2	650.4	866.6	1109.0	1325.1
145°	373.7	381.8	406.0	448.4	488.8	513.1	490.8	543.4	672.6	868.6	1082.7
147.5°	377.7	377.7	389.9	422.2	464.6	507.0	515.1	494.9	555.5	662.5	826.2
150°	373.7	371.7	389.9	410.1	448.4	490.8	519.1	511.0	503.0	549.4	624.2
152.5°	361.6	363.6	391.9	412.1	442.4	472.7	503.0	517.1	509.0	500.9	527.2
155°	351.5	353.5	379.8	400.0	426.2	452.5	476.7	503.0	517.1	509.0	492.9
157.5°	345.4	343.4	367.6	387.8	406.0	430.2	454.5	476.7	503.0	515.1	517.1
160°	337.3	335.3	357.5	377.7	391.9	414.1	434.3	452.5	472.7	492.9	505.0
162.5°	331.3	331.3	345.4	367.6	381.8	393.9	414.1	428.2	442.4	456.5	468.6
165°	327.2	327.2	335.3	355.5	371.7	379.8	391.9	406.0	416.1	426.2	432.3
167.5°	321.2	321.2	325.2	341.4	355.5	365.6	373.7	379.8	387.8	393.9	395.9
170°	315.1	315.1	315.1	325.2	339.4	349.5	355.5	359.6	363.6	365.6	363.6
172.5°	311.1	311.1	311.1	311.1	319.2	327.2	333.3	339.4	339.4	341.4	337.3
175°	307.0	307.0	305.0	305.0	305.0	305.0	307.0	309.1	311.1	313.1	311.1
177.5°	303.0	301.0	301.0	299.0	299.0	296.9	292.9	288.9	284.8	280.8	276.7
180°	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8



TEST NUMBER: P236424

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3
2.5°	339.4	339.4	339.4	339.4	339.4	341.4	341.4	343.4
5°	371.7	375.7	379.8	379.8	381.8	385.8	385.8	387.8
7.5°	412.1	420.2	426.2	430.2	434.3	442.4	442.4	446.4
10°	472.7	486.8	498.9	509.0	515.1	527.2	527.2	535.3
12.5°	549.4	567.6	585.8	597.9	606.0	616.1	620.1	626.2
15°	626.2	646.4	664.6	676.7	686.8	700.9	705.0	711.0
17.5°	698.9	721.1	747.4	765.6	783.7	799.9	810.0	818.1
20°	781.7	818.1	854.4	878.7	904.9	927.2	941.3	953.4
22.5°	880.7	935.2	987.8	1028.2	1062.5	1090.8	1111.0	1117.0
25°	1014.0	1084.7	1149.4	1193.8	1232.2	1262.5	1280.6	1286.7
27.5°	1157.4	1236.2	1302.9	1353.4	1393.8	1416.0	1444.3	1442.2
30°	1300.8	1385.7	1456.4	1508.9	1547.3	1575.6	1599.8	1597.8
32.5°	1440.2	1531.1	1601.8	1658.4	1702.8	1733.1	1753.3	1755.3
35°	1573.5	1670.5	1751.3	1813.9	1862.4	1892.7	1908.9	1910.9
37.5°	1710.9	1815.9	1900.8	1967.4	2020.0	2054.3	2070.5	2070.5
40°	1850.3	1957.3	2048.2	2120.9	2173.5	2205.8	2221.9	2221.9
42.5°	1985.6	2100.8	2189.6	2266.4	2320.9	2355.3	2373.4	2375.5
45°	2116.9	2234.1	2329.0	2409.8	2460.3	2494.6	2512.8	2514.8
47.5°	2238.1	2365.4	2460.3	2539.1	2597.7	2634.0	2650.2	2652.2
50°	2351.2	2478.5	2585.5	2664.3	2718.9	2753.2	2773.4	2775.4
52.5°	2444.1	2585.5	2686.5	2769.4	2827.9	2860.3	2884.5	2888.5
55°	2518.9	2652.2	2763.3	2848.1	2908.7	2947.1	2969.3	2969.3
57.5°	2555.2	2688.6	2793.6	2880.5	2945.1	2983.5	2997.6	2999.6
60°	2553.2	2674.4	2775.4	2858.2	2916.8	2963.3	3011.7	3034.0
62.5°	2500.7	2607.8	2694.6	2755.2	2813.8	2874.4	2910.8	2918.8
65°	2377.5	2460.3	2516.9	2557.3	2603.7	2636.0	2638.1	2640.1
67.5°	2167.4	2219.9	2246.2	2260.3	2274.5	2276.5	2264.4	2262.3
70°	1890.7	1902.8	1882.6	1844.2	1805.8	1781.6	1753.3	1747.3
72.5°	1555.4	1519.0	1488.7	1478.6	1478.6	1482.6	1480.6	1478.6
75°	1268.5	1270.5	1270.5	1264.5	1264.5	1266.5	1264.5	1264.5
77.5°	1040.3	1022.1	989.8	953.4	939.3	923.1	913.0	909.0
80°	684.8	642.3	616.1	591.8	585.8	579.7	575.7	575.7
82.5°	395.9	385.8	379.8	377.7	375.7	375.7	375.7	377.7
85°	234.3	236.3	236.3	240.4	242.4	242.4	246.4	246.4
87.5°	123.2	123.2	129.3	129.3	131.3	131.3	137.4	133.3
90°	20.2	20.2	20.2	16.2	18.2	18.2	18.2	20.2
92.5°	32.3	32.3	32.3	34.3	32.3	30.3	28.3	30.3
95°	119.2	123.2	127.3	129.3	133.3	133.3	133.3	133.3
97.5°	244.4	236.3	232.3	226.2	224.2	216.1	212.1	214.1
100°	488.8	452.5	434.3	422.2	408.0	395.9	395.9	391.9
102.5°	955.4	907.0	858.5	820.1	773.6	735.3	725.2	713.0
105°	1268.5	1262.5	1258.4	1250.4	1234.2	1224.1	1210.0	1201.9
107.5°	1498.8	1512.9	1523.0	1527.1	1521.0	1506.9	1504.9	1496.8
110°	1662.4	1692.7	1725.0	1739.2	1745.2	1739.2	1733.1	1729.1



TEST NUMBER: P236424

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1931.1	1935.1	1933.1	1904.8	1884.6	1892.7	1896.7	1896.7
115°	2096.7	2234.1	2274.5	2278.5	2266.4	2242.1	2228.0	2224.0
117.5°	1593.7	1973.5	2341.1	2504.7	2601.7	2632.0	2640.1	2652.2
120°	1846.2	1652.3	1700.8	1935.1	2189.6	2428.0	2561.3	2595.6
122.5°	1902.8	2112.9	2026.0	1868.5	1785.6	1801.8	1830.1	1832.1
125°	1771.5	1902.8	2076.5	2250.2	2337.1	2320.9	2286.6	2298.7
127.5°	1983.6	1892.7	1923.0	2017.9	2100.8	2179.5	2250.2	2266.4
130°	2058.3	2135.1	2114.9	2044.2	2026.0	2030.1	2036.1	2038.1
132.5°	1999.8	2123.0	2215.9	2256.3	2256.3	2232.0	2213.9	2213.9
135°	1856.3	2001.8	2116.9	2211.8	2268.4	2292.6	2304.8	2308.8
137.5°	1714.9	1830.1	1957.3	2068.4	2143.2	2185.6	2213.9	2217.9
140°	1573.5	1686.7	1783.6	1874.5	1971.5	2046.2	2072.5	2074.5
142.5°	1454.4	1541.2	1634.1	1717.0	1775.5	1848.3	1900.8	1902.8
145°	1284.7	1407.9	1492.7	1561.4	1616.0	1670.5	1737.2	1761.4
147.5°	1022.1	1183.7	1315.0	1411.9	1468.5	1521.0	1565.5	1609.9
150°	759.5	904.9	1028.2	1139.3	1224.1	1302.9	1361.4	1345.3
152.5°	573.7	656.5	755.5	846.4	907.0	967.6	977.7	941.3
155°	503.0	521.1	559.5	604.0	638.3	676.7	628.2	614.1
157.5°	503.0	480.7	484.8	488.8	500.9	468.6	458.5	456.5
160°	511.0	505.0	488.8	466.6	438.3	397.9	395.9	391.9
162.5°	482.8	486.8	480.7	472.7	434.3	420.2	412.1	412.1
165°	442.4	444.4	444.4	436.3	418.1	404.0	402.0	400.0
167.5°	400.0	404.0	404.0	395.9	389.9	381.8	367.6	367.6
170°	363.6	363.6	363.6	357.5	359.6	357.5	343.4	335.3
172.5°	333.3	329.3	327.2	323.2	327.2	335.3	335.3	303.0
175°	307.0	301.0	296.9	294.9	301.0	313.1	327.2	339.4
177.5°	272.7	264.6	256.5	256.5	260.6	272.7	290.9	296.9
180°	278.8	278.8	278.8	278.8	278.8	278.8	278.8	278.8

(END OF REPORT)