

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: P236425

Luminaire Tested: **SKB2-LD5-18-N-UNV-L840-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236425
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-L840-CD2-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

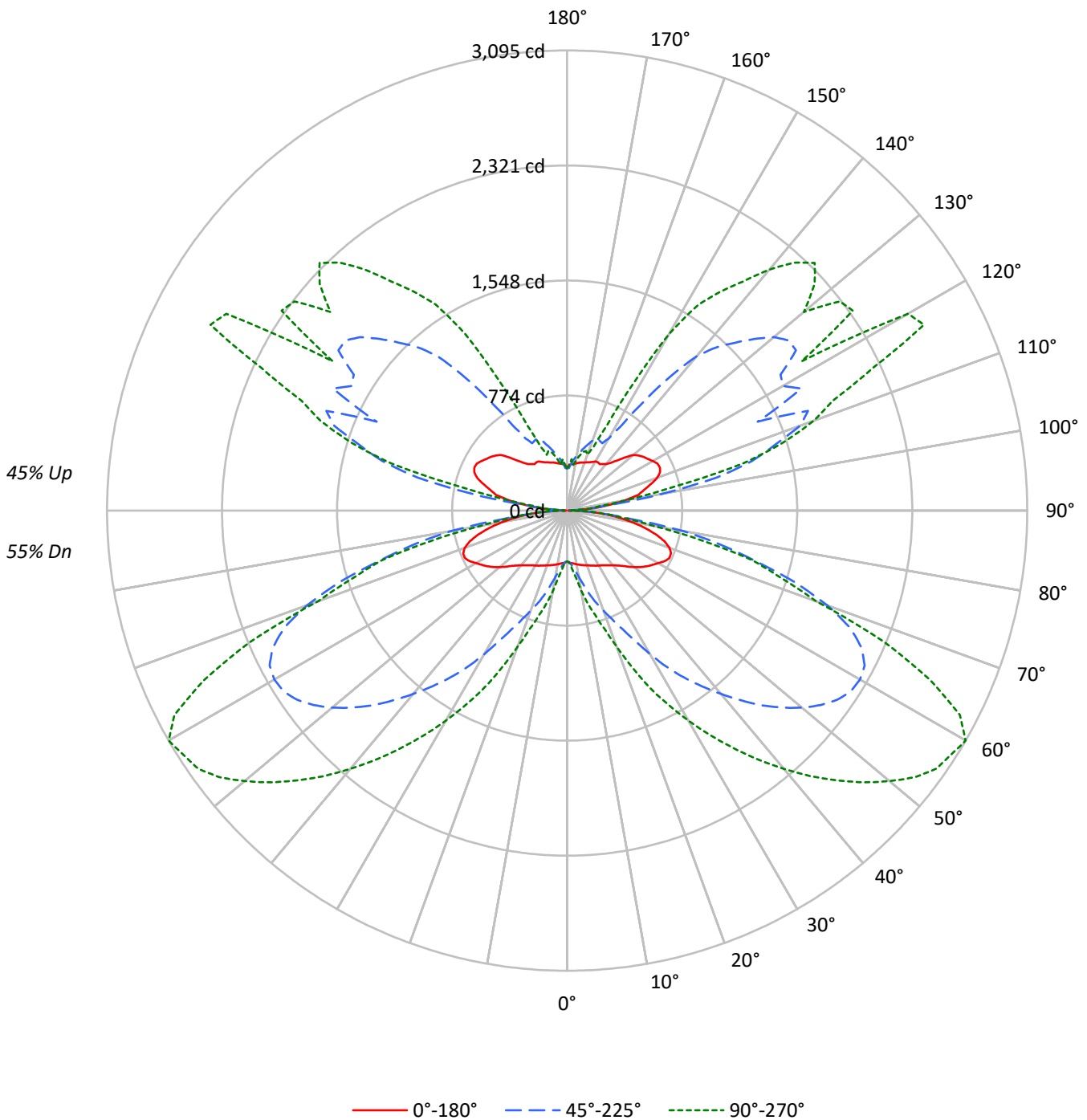
Lumens per Lamp: N/A
Luminaire Lumens: 14553.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 2.2 / 4.49 / 3.74
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

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

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CATALOG NUMBER: SKB2-LD5-18-N-UNV-L840-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°	1473	1473	1473
5°	1532	1603	1710
10°	1603	1973	2387
15°	1690	2599	3233
20°	1794	3276	4456
25°	1938	4179	6235
30°	2120	5531	8102
35°	2361	7201	10244
40°	2698	9044	12738
45°	3199	11278	15619
50°	3961	13815	18962
55°	4903	16656	22734
60°	6085	19587	26648
65°	7724	22271	27434
70°	9234	23421	22435
75°	10247	21764	21455
80°	10880	19566	14559
85°	11194	11703	12419



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.1	0.3
10°-20°	165.0	1.1
20°-30°	414.5	2.8
30°-40°	815.9	5.6
40°-50°	1329.0	9.1
50°-60°	1831.4	12.6
60°-70°	1920.0	13.2
70°-80°	1222.8	8.4
80°-90°	324.8	2.2
90°-100°	218.6	1.5
100°-110°	1120.8	7.7
110°-120°	1583.9	10.9
120°-130°	1407.1	9.7
130°-140°	1117.8	7.7
140°-150°	636.9	4.4
150°-160°	259.3	1.8
160°-170°	116.0	0.8
170°-180°	31.2	0.2
0°-30°	617.6	4.2
0°-40°	1433.5	9.9
0°-60°	4593.9	31.6
0°-90°	8061.5	55.4
90°-120°	2923.2	20.1
90°-150°	6085.0	41.8
90°-180°	6491.0	44.6
0°-180°	14553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	342	342	342	342	342	
5°	354	361	371	387	396	34
15°	379	446	583	684	725	108
25°	408	595	880	1195	1312	190
35°	449	770	1370	1818	1949	284
45°	525	1023	1852	2417	2565	412
55°	653	1304	2219	2862	3029	586
65°	758	1437	2186	2588	2693	738
75°	616	1129	1308	1293	1290	639
85°	227	335	237	243	251	229
90°	8	16	18	19	21	25
95°	175	185	117	131	136	185
105°	534	994	1288	1279	1226	563
115°	688	1217	1413	2322	2268	671
125°	628	1042	1879	2207	2345	562
135°	476	584	1597	2208	2355	377
145°	381	511	886	1558	1797	244
155°	358	448	519	593	626	167
165°	334	383	435	449	408	95
175°	313	311	319	302	346	30
180°	284	284	284	284	284	



TEST NUMBER: P236425

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0
2.5°	352.3	352.3	352.3	352.3	350.3	352.3	350.3	350.3	348.2	346.1	346.1
5°	354.4	354.4	356.4	358.5	360.6	360.6	360.6	364.7	366.7	370.9	375.0
7.5°	360.6	360.6	362.6	366.7	370.9	377.0	385.3	395.6	403.8	407.9	414.1
10°	366.7	366.7	372.9	377.0	389.4	405.9	416.2	426.5	438.8	451.2	467.7
12.5°	372.9	375.0	381.2	393.5	414.1	430.6	445.0	467.7	492.4	513.0	537.7
15°	379.1	381.2	391.5	412.1	434.7	457.4	486.2	521.3	554.2	583.1	614.0
17.5°	385.3	389.4	403.8	432.7	457.4	496.5	535.7	578.9	620.2	651.1	682.0
20°	391.5	395.6	416.2	449.1	486.2	537.7	589.2	638.7	679.9	714.9	754.1
22.5°	399.7	403.8	432.7	467.7	519.2	583.1	640.8	692.3	739.6	791.2	842.7
25°	407.9	414.1	449.1	494.5	558.3	632.5	690.2	747.9	811.8	879.7	953.9
27.5°	418.2	424.4	465.6	521.3	599.5	677.8	739.6	813.8	896.2	984.8	1083.7
30°	426.5	436.8	482.1	552.2	640.8	723.2	797.3	892.1	999.2	1112.6	1223.8
32.5°	436.8	451.2	502.7	587.2	682.0	768.5	863.3	982.8	1118.7	1246.5	1359.8
35°	449.1	465.6	525.4	622.2	719.0	820.0	939.5	1089.9	1242.4	1370.1	1489.6
37.5°	463.6	484.2	552.2	661.4	762.3	883.9	1030.2	1203.2	1353.6	1489.6	1617.3
40°	480.0	504.8	583.1	696.4	807.6	953.9	1129.0	1308.3	1466.9	1609.1	1747.1
42.5°	500.7	527.4	618.1	733.5	863.3	1036.3	1227.9	1409.2	1574.1	1730.7	1881.1
45°	525.4	554.2	657.2	772.6	925.1	1120.8	1320.7	1508.1	1683.3	1852.2	2006.7
47.5°	558.3	587.2	700.5	817.9	995.1	1205.3	1407.2	1602.9	1790.4	1961.4	2128.3
50°	591.3	620.2	741.7	867.4	1067.2	1277.4	1487.5	1691.5	1883.1	2062.4	2233.4
52.5°	624.3	657.2	778.8	921.0	1135.2	1345.4	1561.7	1771.9	1965.5	2148.9	2330.2
55°	653.1	692.3	813.8	976.6	1197.0	1411.3	1627.6	1835.7	2033.5	2218.9	2398.2
57.5°	679.9	723.2	844.7	1032.2	1248.5	1466.9	1681.2	1883.1	2078.8	2262.2	2439.4
60°	706.7	756.1	879.7	1081.7	1291.8	1510.2	1716.2	1909.9	2097.4	2274.6	2447.6
62.5°	737.6	789.1	916.8	1118.7	1326.8	1534.9	1726.5	1909.9	2091.2	2256.0	2412.6
65°	758.2	809.7	947.7	1139.3	1341.3	1532.9	1708.0	1876.9	2041.8	2186.0	2319.9
67.5°	756.1	807.6	953.9	1139.3	1322.7	1497.8	1656.5	1802.8	1942.9	2060.3	2151.0
70°	733.5	782.9	935.4	1110.5	1271.2	1427.8	1563.8	1683.3	1790.4	1860.5	1905.8
72.5°	686.1	735.5	890.0	1048.7	1186.7	1320.7	1431.9	1522.6	1576.1	1609.1	1617.3
75°	616.0	673.7	824.1	958.0	1073.4	1184.7	1256.8	1300.0	1326.8	1308.3	1287.7
77.5°	533.6	599.5	733.5	842.7	937.4	1011.6	1052.8	1059.0	1052.8	1054.9	1061.1
80°	438.8	511.0	618.1	708.7	768.5	805.6	809.7	817.9	815.9	789.1	743.8
82.5°	337.9	405.9	486.2	546.0	568.6	578.9	587.2	539.8	486.2	434.7	414.1
85°	226.6	280.2	329.6	352.3	352.3	317.3	269.9	251.4	245.2	236.9	239.0
87.5°	115.4	125.7	136.0	121.6	109.2	115.4	115.4	115.4	119.5	119.5	121.6
90°	8.2	8.2	10.3	12.4	14.4	18.5	20.6	20.6	22.7	18.5	18.5
92.5°	49.4	45.3	45.3	41.2	45.3	45.3	45.3	43.3	39.1	39.1	39.1
95°	175.1	214.3	247.2	253.4	204.0	166.9	152.5	140.1	123.6	117.4	119.5
97.5°	284.3	350.3	422.4	469.7	494.5	496.5	455.3	364.7	307.0	282.3	267.8
100°	391.5	457.4	560.4	644.9	706.7	745.8	764.4	760.3	731.4	653.1	576.9
102.5°	490.4	546.0	677.8	789.1	875.6	945.7	982.8	1019.8	1036.3	1032.2	1024.0
105°	533.6	572.8	729.3	867.4	964.2	1024.0	1122.9	1197.0	1260.9	1287.7	1306.2
107.5°	589.2	595.4	770.6	918.9	1019.8	1100.2	1153.8	1355.7	1415.4	1460.8	1510.2
110°	644.9	628.4	795.3	980.7	1110.5	1151.7	1227.9	1254.7	1590.6	1666.8	1689.4



TEST NUMBER: P236425

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	675.8	646.9	743.8	995.1	1145.5	1254.7	1289.7	1382.5	1337.1	1753.3	1942.9
115°	688.1	655.2	677.8	964.2	1141.4	1291.8	1355.7	1429.8	1557.6	1413.4	1726.5
117.5°	684.0	653.1	632.5	890.0	1118.7	1291.8	1438.1	1460.8	1563.8	1776.0	1578.2
120°	665.5	642.8	620.2	774.7	1079.6	1281.5	1456.6	1598.8	1576.1	1675.0	1909.9
122.5°	644.9	630.5	620.2	679.9	999.2	1250.6	1442.2	1619.4	1745.1	1701.8	1747.1
125°	628.4	616.0	618.1	607.8	881.8	1201.2	1407.2	1598.8	1763.6	1879.0	1852.2
127.5°	607.8	601.6	609.8	585.1	754.1	1100.2	1361.9	1537.0	1726.5	1879.0	1996.4
130°	581.0	578.9	591.3	589.2	651.1	953.9	1279.4	1464.9	1633.8	1815.1	1973.8
132.5°	529.5	531.6	554.2	581.0	564.5	772.6	1124.9	1384.5	1543.2	1708.0	1876.9
135°	475.9	484.2	521.3	562.5	529.5	638.7	918.9	1242.4	1458.7	1596.7	1749.2
137.5°	436.8	447.1	488.3	535.7	539.8	548.0	735.5	1044.6	1326.8	1491.7	1615.3
140°	407.9	420.3	459.4	506.8	539.8	506.8	614.0	832.4	1118.7	1353.6	1499.9
142.5°	393.5	403.8	434.7	482.1	523.3	519.2	535.7	663.4	883.9	1131.1	1351.6
145°	381.2	389.4	414.1	457.4	498.6	523.3	500.7	554.2	686.1	885.9	1104.3
147.5°	385.3	385.3	397.6	430.6	473.9	517.1	525.4	504.8	566.6	675.8	842.7
150°	381.2	379.1	397.6	418.2	457.4	500.7	529.5	521.3	513.0	560.4	636.6
152.5°	368.8	370.9	399.7	420.3	451.2	482.1	513.0	527.4	519.2	511.0	537.7
155°	358.5	360.6	387.3	407.9	434.7	461.5	486.2	513.0	527.4	519.2	502.7
157.5°	352.3	350.3	375.0	395.6	414.1	438.8	463.6	486.2	513.0	525.4	527.4
160°	344.1	342.0	364.7	385.3	399.7	422.4	443.0	461.5	482.1	502.7	515.1
162.5°	337.9	337.9	352.3	375.0	389.4	401.8	422.4	436.8	451.2	465.6	478.0
165°	333.8	333.8	342.0	362.6	379.1	387.3	399.7	414.1	424.4	434.7	440.9
167.5°	327.6	327.6	331.7	348.2	362.6	372.9	381.2	387.3	395.6	401.8	403.8
170°	321.4	321.4	321.4	331.7	346.1	356.4	362.6	366.7	370.9	372.9	370.9
172.5°	317.3	317.3	317.3	317.3	325.5	333.8	339.9	346.1	346.1	348.2	344.1
175°	313.2	313.2	311.1	311.1	311.1	311.1	313.2	315.2	317.3	319.3	317.3
177.5°	309.0	307.0	307.0	304.9	304.9	302.9	298.7	294.6	290.5	286.4	282.3
180°	284.3	284.3	284.3	284.3	284.3	284.3	284.3	284.3	284.3	284.3	284.3



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CATALOG NUMBER: SKB2-LD5-18-N-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0
2.5°	346.1	346.1	346.1	346.1	346.1	348.2	348.2	350.3
5°	379.1	383.2	387.3	387.3	389.4	393.5	393.5	395.6
7.5°	420.3	428.5	434.7	438.8	443.0	451.2	451.2	455.3
10°	482.1	496.5	508.9	519.2	525.4	537.7	537.7	546.0
12.5°	560.4	578.9	597.5	609.8	618.1	628.4	632.5	638.7
15°	638.7	659.3	677.8	690.2	700.5	714.9	719.0	725.2
17.5°	712.9	735.5	762.3	780.9	799.4	815.9	826.2	834.4
20°	797.3	834.4	871.5	896.2	923.0	945.7	960.1	972.5
22.5°	898.3	953.9	1007.5	1048.7	1083.7	1112.6	1133.2	1139.3
25°	1034.3	1106.4	1172.3	1217.6	1256.8	1287.7	1306.2	1312.4
27.5°	1180.6	1260.9	1328.9	1380.4	1421.6	1444.3	1473.1	1471.1
30°	1326.8	1413.4	1485.5	1539.0	1578.2	1607.0	1631.8	1629.7
32.5°	1469.0	1561.7	1633.8	1691.5	1736.8	1767.7	1788.3	1790.4
35°	1605.0	1703.9	1786.3	1850.1	1899.6	1930.5	1947.0	1949.0
37.5°	1745.1	1852.2	1938.7	2006.7	2060.3	2095.3	2111.8	2111.8
40°	1887.2	1996.4	2089.1	2163.3	2216.9	2249.8	2266.3	2266.3
42.5°	2025.3	2142.7	2233.4	2311.7	2367.3	2402.3	2420.9	2422.9
45°	2159.2	2278.7	2375.5	2457.9	2509.4	2544.5	2563.0	2565.1
47.5°	2282.8	2412.6	2509.4	2589.8	2649.5	2686.6	2703.1	2705.2
50°	2398.2	2528.0	2637.2	2717.5	2773.2	2808.2	2828.8	2830.9
52.5°	2493.0	2637.2	2740.2	2824.7	2884.4	2917.4	2942.1	2946.2
55°	2569.2	2705.2	2818.5	2905.0	2966.8	3006.0	3028.6	3028.6
57.5°	2606.3	2742.3	2849.4	2938.0	3003.9	3043.1	3057.5	3059.5
60°	2604.2	2727.8	2830.9	2915.3	2975.1	3022.5	3071.9	3094.6
62.5°	2550.7	2659.8	2748.4	2810.2	2870.0	2931.8	2968.9	2977.1
65°	2425.0	2509.4	2567.1	2608.3	2655.7	2688.7	2690.8	2692.8
67.5°	2210.7	2264.3	2291.1	2305.5	2319.9	2322.0	2309.6	2307.5
70°	1928.4	1940.8	1920.2	1881.1	1841.9	1817.2	1788.3	1782.2
72.5°	1586.4	1549.3	1518.4	1508.1	1508.1	1512.3	1510.2	1508.1
75°	1293.9	1295.9	1295.9	1289.7	1289.7	1291.8	1289.7	1289.7
77.5°	1061.1	1042.5	1009.5	972.5	958.0	941.6	931.3	927.1
80°	698.4	655.2	628.4	603.7	597.5	591.3	587.2	587.2
82.5°	403.8	393.5	387.3	385.3	383.2	383.2	383.2	385.3
85°	239.0	241.1	241.1	245.2	247.2	247.2	251.4	251.4
87.5°	125.7	125.7	131.9	131.9	133.9	133.9	140.1	136.0
90°	20.6	20.6	20.6	16.5	18.5	18.5	18.5	20.6
92.5°	33.0	33.0	33.0	35.0	33.0	30.9	28.8	30.9
95°	121.6	125.7	129.8	131.9	136.0	136.0	136.0	136.0
97.5°	249.3	241.1	236.9	230.8	228.7	220.5	216.3	218.4
100°	498.6	461.5	443.0	430.6	416.2	403.8	403.8	399.7
102.5°	974.5	925.1	875.6	836.5	789.1	749.9	739.6	727.3
105°	1293.9	1287.7	1283.6	1275.3	1258.8	1248.5	1234.1	1225.9
107.5°	1528.7	1543.2	1553.5	1557.6	1551.4	1537.0	1534.9	1526.7
110°	1695.6	1726.5	1759.5	1773.9	1780.1	1773.9	1767.7	1763.6



TEST NUMBER: P236425

CATALOG NUMBER: SKB2-LD5-18-N-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1969.6	1973.8	1971.7	1942.9	1922.3	1930.5	1934.6	1934.6
115°	2138.6	2278.7	2319.9	2324.0	2311.7	2286.9	2272.5	2268.4
117.5°	1625.6	2012.9	2387.9	2554.8	2653.7	2684.6	2692.8	2705.2
120°	1883.1	1685.3	1734.8	1973.8	2233.4	2476.5	2612.5	2647.5
122.5°	1940.8	2155.1	2066.5	1905.8	1821.3	1837.8	1866.6	1868.7
125°	1806.9	1940.8	2118.0	2295.2	2383.8	2367.3	2332.3	2344.6
127.5°	2023.2	1930.5	1961.4	2058.2	2142.7	2223.1	2295.2	2311.7
130°	2099.4	2177.7	2157.1	2085.0	2066.5	2070.6	2076.8	2078.8
132.5°	2039.7	2165.4	2260.1	2301.4	2301.4	2276.6	2258.1	2258.1
135°	1893.4	2041.8	2159.2	2256.0	2313.7	2338.4	2350.8	2354.9
137.5°	1749.2	1866.6	1996.4	2109.7	2186.0	2229.2	2258.1	2262.2
140°	1605.0	1720.4	1819.2	1912.0	2010.9	2087.1	2113.9	2115.9
142.5°	1483.4	1572.0	1666.8	1751.3	1811.0	1885.2	1938.7	1940.8
145°	1310.4	1436.0	1522.6	1592.6	1648.2	1703.9	1771.9	1796.6
147.5°	1042.5	1207.3	1341.3	1440.1	1497.8	1551.4	1596.7	1642.1
150°	774.7	923.0	1048.7	1162.0	1248.5	1328.9	1388.6	1372.2
152.5°	585.1	669.6	770.6	863.3	925.1	986.9	997.2	960.1
155°	513.0	531.6	570.7	616.0	651.1	690.2	640.8	626.3
157.5°	513.0	490.4	494.5	498.6	511.0	478.0	467.7	465.6
160°	521.3	515.1	498.6	475.9	447.1	405.9	403.8	399.7
162.5°	492.4	496.5	490.4	482.1	443.0	428.5	420.3	420.3
165°	451.2	453.3	453.3	445.0	426.5	412.1	410.0	407.9
167.5°	407.9	412.1	412.1	403.8	397.6	389.4	375.0	375.0
170°	370.9	370.9	370.9	364.7	366.7	364.7	350.3	342.0
172.5°	339.9	335.8	333.8	329.6	333.8	342.0	342.0	309.0
175°	313.2	307.0	302.9	300.8	307.0	319.3	333.8	346.1
177.5°	278.1	269.9	261.7	261.7	265.8	278.1	296.7	302.9
180°	284.3	284.3	284.3	284.3	284.3	284.3	284.3	284.3

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