

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: P236450

Luminaire Tested: **SKB2-LD5-18-W-UNV-L850-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24072)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB2-LD5-18-W-UNV-L850-CD2-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

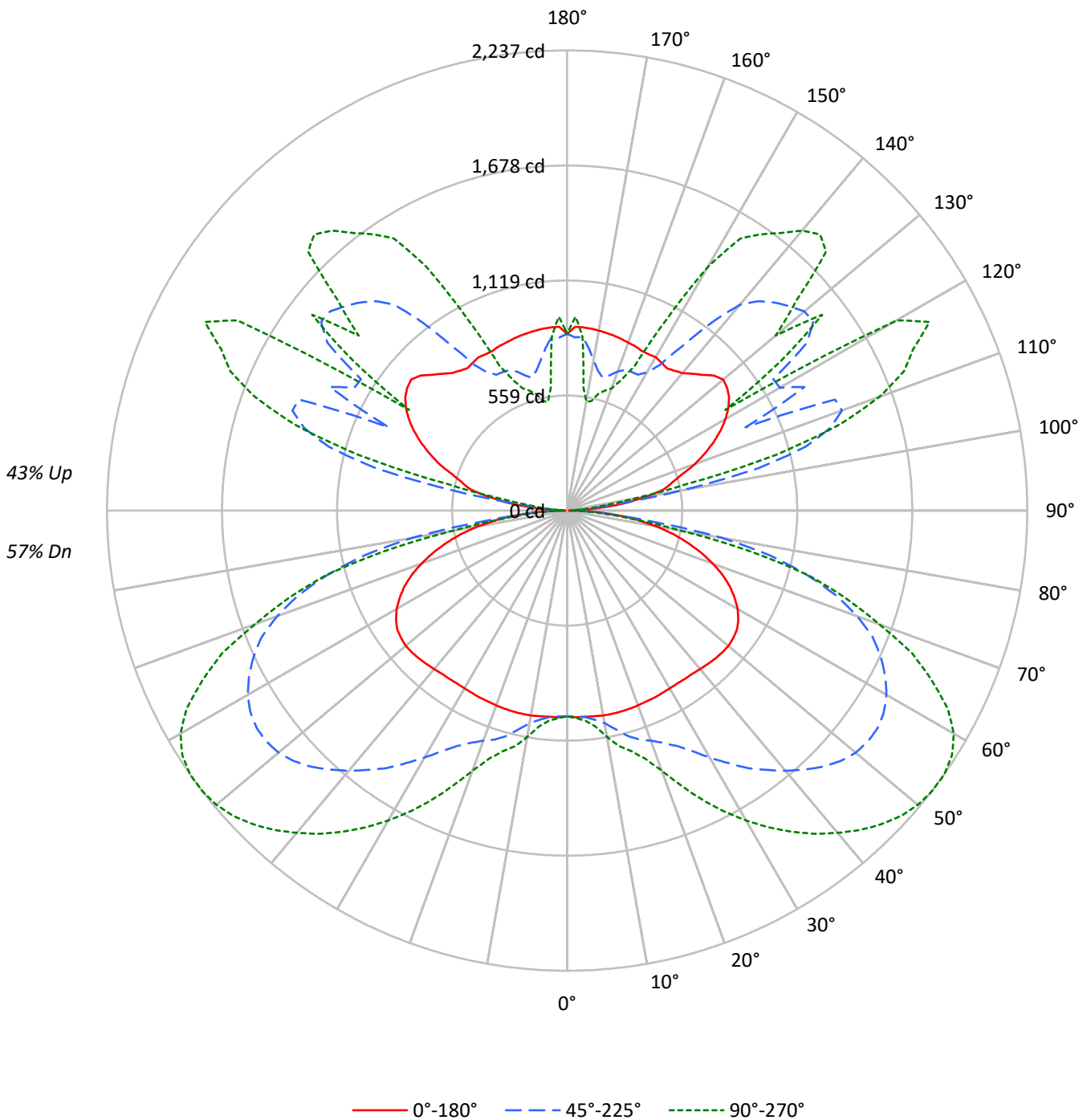
Lumens per Lamp: N/A
Luminaire Lumens: 13647.0 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

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: P236450

CATALOG NUMBER: SKB2-LD5-18-W-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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	97	92	87	83	90	86	82	78	73	70	67	62	60	58	52	50	49	44
2	87	78	71	65	80	73	66	61	62	57	53	52	49	45	43	41	38	34
3	78	67	59	52	72	62	55	49	53	47	42	45	40	36	37	33	30	26
4	71	58	49	42	65	54	46	40	46	40	35	39	34	30	32	28	25	21
5	64	51	42	35	59	48	39	33	41	34	29	34	29	25	28	24	20	17
6	59	45	36	30	54	42	34	28	36	29	24	30	25	21	25	21	17	14
7	54	40	32	25	50	38	30	24	32	26	21	27	22	18	22	18	15	12
8	50	36	28	22	46	34	26	21	29	23	18	24	19	15	20	16	13	10
9	46	33	25	19	43	31	23	18	26	20	16	22	17	13	18	14	11	9
10	43	30	22	17	40	28	21	16	24	18	14	20	15	12	17	13	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4306	4306	4306
5°	4348	4356	4432
10°	4424	4587	4887
15°	4510	5052	5402
20°	4618	5453	6164
25°	4770	5999	7359
30°	4962	6892	8647
35°	5246	8029	10018
40°	5654	9280	11495
45°	6197	10722	13134
50°	6856	12267	14908
55°	7566	13836	16794
60°	8240	15433	18692
65°	8890	17140	19937
70°	9479	18884	20316
75°	10113	20061	20159
80°	10793	18961	13905
85°	11723	10073	9589



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	0.7
10°-20°	319.0	2.3
20°-30°	594.9	4.4
30°-40°	937.9	6.9
40°-50°	1295.7	9.5
50°-60°	1554.7	11.4
60°-70°	1543.0	11.3
70°-80°	1111.2	8.1
80°-90°	297.2	2.2
90°-100°	187.6	1.4
100°-110°	1006.1	7.4
110°-120°	1288.8	9.4
120°-130°	1075.3	7.9
130°-140°	1000.8	7.3
140°-150°	683.3	5.0
150°-160°	372.0	2.7
160°-170°	204.9	1.5
170°-180°	76.3	0.6
0°-30°	1012.1	7.4
0°-40°	1950.0	14.3
0°-60°	4800.4	35.2
0°-90°	7751.9	56.8
90°-120°	2482.4	18.2
90°-150°	5241.8	38.4
90°-180°	5895.0	43.2
0°-180°	13647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1000	1000	1000	1000	1000	
5°	1006	1014	1008	1020	1026	96
15°	1012	1044	1133	1188	1212	286
25°	1004	1111	1263	1468	1549	464
35°	998	1166	1528	1825	1906	628
45°	1018	1270	1761	2080	2157	787
55°	1008	1363	1843	2153	2237	897
65°	873	1277	1682	1915	1957	858
75°	608	977	1206	1228	1212	637
85°	237	326	204	190	194	232
90°	10	15	18	16	20	25
95°	180	162	92	97	96	186
105°	529	875	1200	1149	1059	560
115°	784	1065	957	1817	1855	773
125°	961	1076	1424	1481	1269	854
135°	933	761	1430	1746	1780	725
145°	845	689	976	1449	1639	537
155°	857	687	743	813	773	398
165°	880	808	669	663	588	249
175°	894	883	847	764	849	85
180°	859	859	859	859	859	



TEST NUMBER: P236450

CATALOG NUMBER: SKB2-LD5-18-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0
2.5°	1005.9	1005.9	1005.9	1005.9	1007.9	1011.8	1009.8	1005.9	1004.0	1002.0	1000.0
5°	1005.9	1005.9	1005.9	1007.9	1011.8	1015.7	1015.7	1011.8	1009.8	1007.9	1009.8
7.5°	1007.9	1007.9	1009.8	1013.8	1017.7	1021.6	1023.6	1025.5	1025.5	1025.5	1027.5
10°	1011.8	1011.8	1013.8	1019.7	1023.6	1033.4	1037.3	1037.3	1041.2	1049.1	1058.9
12.5°	1011.8	1011.8	1017.7	1021.6	1033.4	1043.2	1049.1	1058.9	1072.6	1088.3	1102.0
15°	1011.8	1011.8	1017.7	1025.5	1037.3	1051.0	1070.6	1090.2	1111.8	1133.4	1149.1
17.5°	1009.8	1011.8	1017.7	1031.4	1041.2	1070.6	1096.1	1125.5	1149.1	1166.7	1180.4
20°	1007.9	1009.8	1017.7	1031.4	1053.0	1094.2	1127.5	1155.0	1174.6	1190.2	1209.9
22.5°	1004.0	1007.9	1017.7	1033.4	1066.7	1113.8	1149.1	1172.6	1196.1	1221.6	1251.0
25°	1004.0	1005.9	1019.7	1041.2	1084.4	1137.3	1164.8	1188.3	1223.6	1262.8	1307.9
27.5°	1000.0	1002.0	1017.7	1051.0	1102.0	1153.0	1178.5	1215.7	1262.8	1317.7	1378.5
30°	998.1	1000.0	1015.7	1060.8	1117.7	1162.8	1196.1	1249.1	1315.7	1386.3	1451.0
32.5°	996.1	1000.0	1019.7	1074.6	1129.5	1174.6	1221.6	1294.2	1378.5	1455.0	1529.5
35°	998.1	1000.0	1025.5	1088.3	1139.3	1192.2	1255.0	1347.1	1441.2	1527.5	1602.0
37.5°	1000.0	1004.0	1037.3	1102.0	1149.1	1215.7	1300.1	1404.0	1502.0	1588.3	1670.7
40°	1005.9	1009.8	1051.0	1113.8	1164.8	1249.1	1351.0	1462.8	1562.8	1651.1	1735.4
42.5°	1011.8	1015.7	1064.8	1123.6	1186.3	1288.3	1400.1	1515.8	1619.7	1707.9	1796.2
45°	1017.7	1019.7	1078.5	1131.4	1211.8	1327.5	1447.1	1564.8	1670.7	1760.9	1849.1
47.5°	1021.6	1023.6	1090.2	1141.2	1239.3	1364.8	1488.3	1606.0	1711.8	1802.0	1888.3
50°	1023.6	1025.5	1094.2	1151.0	1266.7	1396.1	1521.6	1639.3	1743.2	1831.4	1915.8
52.5°	1017.7	1023.6	1086.3	1156.9	1286.3	1415.7	1543.2	1656.9	1756.9	1843.2	1929.5
55°	1007.9	1013.8	1072.6	1160.8	1298.1	1427.5	1553.0	1662.8	1756.9	1843.2	1927.5
57.5°	986.3	998.1	1053.0	1158.9	1294.2	1425.6	1547.1	1649.1	1743.2	1825.6	1907.9
60°	956.9	972.6	1025.5	1145.1	1280.4	1409.9	1521.6	1619.7	1709.9	1792.2	1874.6
62.5°	917.7	937.3	994.2	1121.6	1255.0	1380.5	1484.4	1576.5	1664.8	1743.2	1823.6
65°	872.6	892.2	960.8	1088.3	1217.7	1335.4	1431.4	1521.6	1606.0	1682.4	1756.9
67.5°	817.7	835.3	915.7	1045.1	1166.7	1272.6	1366.7	1453.0	1531.4	1607.9	1668.7
70°	753.0	770.6	864.7	990.2	1100.0	1202.0	1288.3	1370.6	1445.2	1500.1	1543.2
72.5°	682.4	702.0	807.9	923.6	1021.6	1115.7	1200.1	1272.6	1323.6	1368.7	1405.9
75°	607.9	633.4	745.1	843.2	933.4	1019.7	1092.2	1141.2	1186.3	1205.9	1215.7
77.5°	527.5	560.8	668.7	754.9	833.4	904.0	951.0	986.3	1000.0	1011.8	1013.8
80°	435.3	482.4	574.5	645.1	709.8	756.9	784.3	790.2	786.3	764.7	711.8
82.5°	339.2	396.1	462.8	517.7	549.0	564.7	570.6	533.4	480.4	425.5	394.1
85°	237.3	280.4	325.5	345.1	343.2	307.9	262.8	233.3	217.7	203.9	200.0
87.5°	119.6	129.4	139.2	117.7	98.0	94.1	96.1	92.2	94.1	92.2	92.2
90°	9.8	9.8	11.8	11.8	13.7	15.7	17.6	19.6	19.6	17.6	17.6
92.5°	43.1	39.2	37.3	35.3	37.3	37.3	37.3	33.3	33.3	33.3	31.4
95°	180.4	211.8	233.3	235.3	182.4	141.2	121.6	105.9	96.1	92.2	88.2
97.5°	288.2	339.2	400.0	449.0	476.5	456.9	382.4	298.1	253.0	229.4	207.9
100°	388.3	441.2	523.6	602.0	670.6	709.8	715.7	698.1	631.4	560.8	474.5
102.5°	484.3	519.6	625.5	717.7	798.1	870.6	917.7	951.0	960.8	953.0	913.8
105°	529.4	543.2	664.7	770.6	849.1	900.0	1000.0	1096.1	1174.6	1200.1	1198.1
107.5°	584.3	566.7	704.0	813.8	876.5	929.5	972.6	1170.6	1251.0	1341.2	1400.1
110°	660.8	607.9	745.1	880.4	962.8	956.9	994.2	1007.9	1335.4	1421.6	1484.4



TEST NUMBER: P236450

CATALOG NUMBER: SKB2-LD5-18-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	723.6	645.1	729.4	907.9	1009.8	1033.4	1035.3	1064.8	994.2	1409.9	1582.4
115°	784.3	692.2	696.1	909.8	1021.6	1107.9	1064.8	1111.8	1160.8	956.9	1282.4
117.5°	839.3	745.1	688.3	890.2	1037.3	1137.3	1190.2	1098.1	1172.6	1300.1	994.2
120°	888.3	796.1	709.8	841.2	1051.0	1164.8	1253.0	1274.6	1135.3	1194.2	1372.6
122.5°	929.5	843.2	743.2	800.0	1025.5	1184.4	1280.4	1356.9	1347.1	1188.3	1186.3
125°	960.8	882.4	770.6	760.8	964.7	1186.3	1296.1	1388.3	1441.2	1423.6	1266.7
127.5°	980.4	911.8	788.3	743.2	884.4	1129.5	1298.1	1380.5	1458.9	1507.9	1500.1
130°	990.2	933.4	794.2	754.9	817.7	1035.3	1262.8	1356.9	1427.5	1505.9	1566.7
132.5°	970.6	925.5	782.4	762.8	753.0	898.1	1151.0	1321.6	1392.2	1468.7	1556.9
135°	933.4	900.0	772.6	754.9	717.7	804.0	1002.0	1227.5	1355.0	1429.5	1504.0
137.5°	902.0	878.5	766.7	733.4	715.7	739.2	864.7	1076.5	1286.3	1380.5	1445.2
140°	872.6	858.9	758.9	707.9	715.7	700.0	786.3	929.5	1137.3	1305.9	1388.3
142.5°	856.9	845.1	753.0	686.3	704.0	700.0	731.4	817.7	974.6	1149.1	1304.0
145°	845.1	835.3	749.1	676.5	682.4	696.1	698.1	753.0	843.2	976.5	1123.6
147.5°	853.0	837.3	753.0	674.5	662.8	694.1	709.8	717.7	768.7	839.3	949.1
150°	860.8	845.1	776.5	688.3	654.9	686.3	717.7	725.5	739.2	774.5	817.7
152.5°	856.9	849.1	809.8	727.5	676.5	678.5	707.9	723.6	737.3	745.1	764.7
155°	856.9	851.0	829.4	753.0	700.0	674.5	688.3	713.8	733.4	743.2	745.1
157.5°	864.7	856.9	845.1	782.4	721.6	676.5	674.5	694.1	723.6	739.2	749.1
160°	868.7	860.8	860.8	809.8	753.0	707.9	674.5	680.4	700.0	719.6	735.3
162.5°	874.5	866.7	868.7	841.2	792.2	745.1	707.9	678.5	678.5	690.2	702.0
165°	880.4	874.5	874.5	868.7	829.4	786.3	745.1	711.8	682.4	668.7	666.7
167.5°	884.4	880.4	878.5	880.4	862.8	827.5	790.2	753.0	721.6	694.1	666.7
170°	888.3	886.3	884.4	884.4	884.4	868.7	835.3	804.0	772.6	741.2	709.8
172.5°	892.2	890.2	886.3	884.4	884.4	884.4	872.6	849.1	825.5	798.1	768.7
175°	894.2	894.2	892.2	888.3	884.4	882.4	876.5	866.7	856.9	847.1	827.5
177.5°	894.2	894.2	892.2	890.2	888.3	886.3	876.5	866.7	853.0	843.2	829.4
180°	858.9	858.9	858.9	858.9	858.9	858.9	858.9	858.9	858.9	858.9	858.9



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CATALOG NUMBER: SKB2-LD5-18-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0
2.5°	1000.0	1000.0	1002.0	1005.9	1005.9	1007.9	1009.8	1009.8
5°	1011.8	1013.8	1017.7	1021.6	1021.6	1023.6	1023.6	1025.5
7.5°	1029.5	1033.4	1039.3	1047.1	1051.0	1051.0	1054.9	1058.9
10°	1070.6	1076.5	1090.2	1100.0	1105.9	1109.9	1115.7	1117.7
12.5°	1119.7	1129.5	1145.1	1155.0	1160.8	1164.8	1168.7	1172.6
15°	1162.8	1172.6	1184.4	1192.2	1198.1	1202.0	1205.9	1211.8
17.5°	1194.2	1205.9	1223.6	1237.3	1247.1	1253.0	1260.8	1264.8
20°	1235.3	1256.9	1282.4	1302.0	1319.7	1327.5	1339.3	1345.2
22.5°	1286.3	1323.6	1360.8	1386.3	1411.8	1421.6	1437.3	1445.2
25°	1360.8	1407.9	1453.0	1482.4	1511.8	1521.6	1541.2	1549.1
27.5°	1441.2	1498.1	1547.1	1578.5	1607.9	1623.6	1641.2	1647.1
30°	1525.6	1588.3	1637.3	1672.6	1704.0	1717.7	1733.4	1739.3
32.5°	1606.0	1674.6	1723.6	1760.9	1792.2	1807.9	1819.7	1825.6
35°	1682.4	1753.0	1806.0	1843.2	1874.6	1890.3	1902.0	1906.0
37.5°	1755.0	1823.6	1878.5	1919.7	1953.0	1968.7	1976.6	1980.5
40°	1825.6	1894.2	1951.1	1990.3	2023.6	2035.4	2045.2	2045.2
42.5°	1884.4	1955.0	2007.9	2049.1	2080.5	2094.2	2102.0	2106.0
45°	1933.4	2002.0	2058.9	2100.1	2131.5	2147.1	2151.1	2157.0
47.5°	1972.6	2041.3	2098.1	2141.3	2170.7	2186.4	2192.2	2198.1
50°	2000.1	2070.7	2125.6	2166.8	2198.1	2215.8	2223.6	2225.6
52.5°	2011.8	2080.5	2135.4	2176.6	2209.9	2229.5	2239.3	2237.3
55°	2007.9	2074.6	2131.5	2174.6	2207.9	2229.5	2237.3	2237.3
57.5°	1988.3	2055.0	2107.9	2153.0	2186.4	2206.0	2213.8	2217.7
60°	1949.1	2015.8	2066.8	2109.9	2139.3	2160.9	2166.8	2170.7
62.5°	1894.2	1958.9	2006.0	2039.3	2064.8	2074.6	2080.5	2086.4
65°	1821.6	1872.6	1902.0	1927.5	1945.2	1949.1	1951.1	1956.9
67.5°	1711.8	1747.1	1776.5	1796.2	1815.8	1815.8	1811.8	1815.8
70°	1582.4	1613.8	1623.6	1621.6	1629.5	1619.7	1611.8	1613.8
72.5°	1413.8	1421.6	1427.5	1423.6	1433.4	1427.5	1421.6	1423.6
75°	1221.6	1227.5	1233.4	1221.6	1231.4	1217.7	1207.9	1211.8
77.5°	1002.0	988.3	972.6	935.3	933.4	905.9	896.1	909.8
80°	672.6	641.2	617.7	580.4	572.6	556.9	545.1	560.8
82.5°	364.7	353.0	347.1	331.4	337.3	327.5	325.5	331.4
85°	192.2	192.2	192.2	188.2	194.1	190.2	190.2	194.1
87.5°	90.2	90.2	92.2	88.2	94.1	92.2	94.1	96.1
90°	15.7	15.7	17.6	13.7	19.6	15.7	15.7	19.6
92.5°	29.4	31.4	29.4	29.4	25.5	27.5	25.5	25.5
95°	90.2	94.1	96.1	98.0	98.0	100.0	98.0	96.1
97.5°	194.1	188.2	176.5	176.5	168.6	164.7	162.8	156.9
100°	415.7	388.3	354.9	347.1	331.4	319.6	319.6	309.8
102.5°	851.0	788.3	733.4	704.0	656.9	627.5	621.6	598.1
105°	1188.3	1186.3	1155.0	1143.2	1111.8	1090.2	1082.4	1058.9
107.5°	1417.7	1429.5	1423.6	1427.5	1415.7	1405.9	1404.0	1386.3
110°	1541.2	1594.2	1621.6	1639.3	1637.3	1631.4	1627.5	1615.8



TEST NUMBER: P236450

CATALOG NUMBER: SKB2-LD5-18-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1633.4	1678.5	1711.8	1735.4	1753.0	1770.7	1774.6	1772.6
115°	1674.6	1784.4	1811.8	1821.6	1831.4	1847.1	1856.9	1855.0
117.5°	1033.4	1415.7	1760.9	1884.4	1933.4	1960.9	1980.5	1984.4
120°	1217.7	945.1	998.1	1209.9	1482.4	1682.4	1784.4	1849.1
122.5°	1358.9	1464.8	1258.9	1027.5	904.0	900.0	894.2	911.8
125°	1170.6	1274.6	1433.4	1529.5	1527.5	1429.5	1345.2	1268.7
127.5°	1394.2	1255.0	1233.4	1319.7	1415.7	1480.5	1535.4	1562.8
130°	1592.2	1564.8	1466.7	1362.8	1311.8	1305.9	1313.8	1323.6
132.5°	1627.5	1680.5	1696.2	1678.5	1625.6	1578.5	1539.3	1511.8
135°	1578.5	1656.9	1721.6	1770.7	1782.4	1784.4	1786.3	1780.5
137.5°	1515.8	1582.4	1658.9	1733.4	1788.3	1804.0	1813.8	1819.7
140°	1447.1	1511.8	1574.6	1631.4	1711.8	1756.9	1770.7	1776.5
142.5°	1388.3	1437.3	1496.1	1553.0	1602.0	1655.0	1696.2	1700.1
145°	1280.4	1368.7	1427.5	1470.7	1517.7	1553.0	1609.9	1639.3
147.5°	1082.4	1211.8	1321.6	1386.3	1439.3	1476.5	1515.8	1568.7
150°	904.0	1019.7	1109.9	1188.3	1282.4	1333.4	1384.4	1366.7
152.5°	796.1	853.0	915.7	978.5	1049.1	1078.5	1076.5	1051.0
155°	762.8	774.5	802.0	823.6	862.8	874.5	798.1	772.6
157.5°	754.9	745.1	754.9	756.9	770.6	713.8	690.2	686.3
160°	743.2	743.2	739.2	723.6	694.1	639.2	631.4	631.4
162.5°	713.8	717.7	713.8	700.0	647.1	617.7	611.8	611.8
165°	670.6	672.6	670.6	654.9	615.7	586.3	586.3	588.3
167.5°	643.2	633.4	629.4	605.9	584.3	560.8	543.2	545.1
170°	682.4	660.8	641.2	611.8	596.1	582.4	549.0	537.3
172.5°	739.2	713.8	694.1	676.5	672.6	680.4	660.8	603.9
175°	804.0	780.4	764.7	762.8	772.6	805.9	821.6	849.1
177.5°	811.8	788.3	778.5	788.3	811.8	858.9	915.7	943.2
180°	858.9	858.9	858.9	858.9	858.9	858.9	858.9	858.9

(END OF REPORT)