

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: P236448

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236448  
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-L835-CD2-U all blades horizontal  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES HORIZONTAL  
Light Source: (476) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

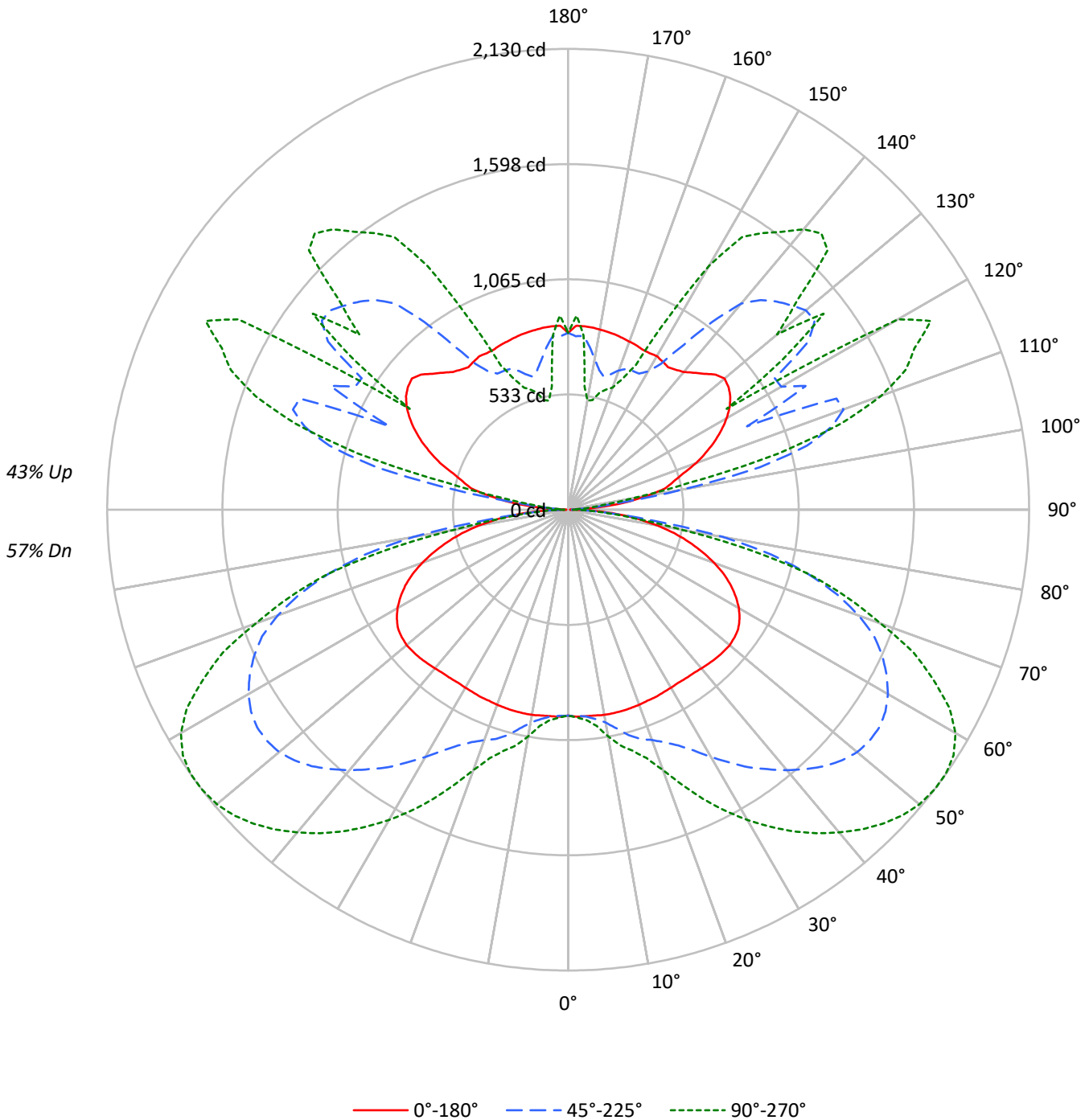
Lumens per Lamp: N/A  
Luminaire Lumens: 12990.0 lumens  
Efficiency: N/A  
Efficacy: 77.1 lumens/watt  
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36  
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')  
CIE Type: General Diffuse

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

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CATALOG NUMBER: SKB2-LD5-18-W-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				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	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°	4098	4098	4098
5°	4138	4147	4219
10°	4211	4366	4651
15°	4293	4809	5142
20°	4396	5191	5867
25°	4540	5710	7005
30°	4723	6561	8231
35°	4993	7642	9536
40°	5382	8833	10941
45°	5898	10206	12501
50°	6526	11677	14190
55°	7202	13170	15986
60°	7843	14691	17792
65°	8462	16315	18977
70°	9022	17974	19337
75°	9625	19096	19189
80°	10275	18048	13235
85°	11155	9589	9129



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.4	0.7
10°-20°	303.7	2.3
20°-30°	566.3	4.4
30°-40°	892.8	6.9
40°-50°	1233.3	9.5
50°-60°	1479.9	11.4
60°-70°	1468.7	11.3
70°-80°	1057.8	8.1
80°-90°	282.9	2.2
90°-100°	178.6	1.4
100°-110°	957.6	7.4
110°-120°	1226.7	9.4
120°-130°	1023.5	7.9
130°-140°	952.6	7.3
140°-150°	650.4	5.0
150°-160°	354.1	2.7
160°-170°	195.1	1.5
170°-180°	72.6	0.6
0°-30°	963.4	7.4
0°-40°	1856.1	14.3
0°-60°	4569.3	35.2
0°-90°	7378.7	56.8
90°-120°	2362.9	18.2
90°-150°	4989.5	38.4
90°-180°	5611.0	43.2
0°-180°	12990.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	958	965	959	971	976	92
15°	963	994	1079	1131	1154	273
25°	956	1057	1202	1397	1474	442
35°	950	1110	1454	1737	1814	597
45°	969	1209	1676	1979	2053	749
55°	959	1297	1754	2049	2130	854
65°	831	1215	1601	1823	1863	817
75°	579	930	1148	1168	1154	606
85°	226	310	194	181	185	221
90°	9	14	17	15	19	24
95°	172	154	88	92	92	177
105°	504	832	1142	1094	1008	533
115°	747	1014	911	1729	1766	736
125°	915	1024	1355	1410	1208	813
135°	888	724	1361	1662	1695	690
145°	804	656	930	1379	1560	512
155°	816	654	707	774	735	379
165°	838	769	636	631	560	237
175°	851	841	806	727	808	81
180°	818	818	818	818	818	



TEST NUMBER: P236448

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

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	951.9	951.9	951.9	951.9	951.9	951.9	951.9	951.9	951.9	951.9	951.9
2.5°	957.5	957.5	957.5	957.5	959.4	963.1	961.2	957.5	955.6	953.8	951.9
5°	957.5	957.5	957.5	959.4	963.1	966.8	966.8	963.1	961.2	959.4	961.2
7.5°	959.4	959.4	961.2	965.0	968.7	972.4	974.3	976.2	976.2	976.2	978.0
10°	963.1	963.1	965.0	970.6	974.3	983.6	987.4	987.4	991.1	998.6	1007.9
12.5°	963.1	963.1	968.7	972.4	983.6	993.0	998.6	1007.9	1021.0	1035.9	1049.0
15°	963.1	963.1	968.7	976.2	987.4	1000.4	1019.1	1037.8	1058.3	1078.8	1093.7
17.5°	961.2	963.1	968.7	981.8	991.1	1019.1	1043.4	1071.4	1093.7	1110.5	1123.6
20°	959.4	961.2	968.7	981.8	1002.3	1041.5	1073.2	1099.3	1118.0	1132.9	1151.6
22.5°	955.6	959.4	968.7	983.6	1015.4	1060.2	1093.7	1116.1	1138.5	1162.8	1190.8
25°	955.6	957.5	970.6	991.1	1032.2	1082.6	1108.7	1131.1	1164.7	1202.0	1244.9
27.5°	951.9	953.8	968.7	1000.4	1049.0	1097.5	1121.7	1157.2	1202.0	1254.3	1312.1
30°	950.0	951.9	966.8	1009.8	1063.9	1106.8	1138.5	1188.9	1252.4	1319.6	1381.2
32.5°	948.2	951.9	970.6	1022.8	1075.1	1118.0	1162.8	1231.9	1312.1	1384.9	1455.8
35°	950.0	951.9	976.2	1035.9	1084.4	1134.8	1194.5	1282.3	1371.9	1454.0	1524.9
37.5°	951.9	955.6	987.4	1049.0	1093.7	1157.2	1237.5	1336.4	1429.7	1511.8	1590.2
40°	957.5	961.2	1000.4	1060.2	1108.7	1188.9	1286.0	1392.4	1487.6	1571.6	1651.8
42.5°	963.1	966.8	1013.5	1069.5	1129.2	1226.3	1332.7	1442.8	1541.7	1625.7	1709.7
45°	968.7	970.6	1026.6	1077.0	1153.5	1263.6	1377.5	1489.4	1590.2	1676.1	1760.1
47.5°	972.4	974.3	1037.8	1086.3	1179.6	1299.1	1416.6	1528.6	1629.4	1715.3	1797.4
50°	974.3	976.2	1041.5	1095.6	1205.7	1328.9	1448.4	1560.4	1659.3	1743.3	1823.5
52.5°	968.7	974.3	1034.0	1101.2	1224.4	1347.6	1468.9	1577.2	1672.4	1754.5	1836.6
55°	959.4	965.0	1021.0	1104.9	1235.6	1358.8	1478.2	1582.8	1672.4	1754.5	1834.7
57.5°	938.8	950.0	1002.3	1103.1	1231.9	1356.9	1472.6	1569.7	1659.3	1737.7	1816.1
60°	910.8	925.8	976.2	1090.0	1218.8	1342.0	1448.4	1541.7	1627.6	1706.0	1784.3
62.5°	873.5	892.2	946.3	1067.6	1194.5	1314.0	1412.9	1500.6	1584.6	1659.3	1735.8
65°	830.6	849.2	914.6	1035.9	1159.1	1271.1	1362.5	1448.4	1528.6	1601.4	1672.4
67.5°	778.3	795.1	871.6	994.8	1110.5	1211.3	1300.9	1383.1	1457.7	1530.5	1588.4
70°	716.7	733.5	823.1	942.6	1047.1	1144.1	1226.3	1304.7	1375.6	1427.8	1468.9
72.5°	649.5	668.2	769.0	879.1	972.4	1062.0	1142.3	1211.3	1259.9	1302.8	1338.3
75°	578.6	602.9	709.3	802.6	888.4	970.6	1039.6	1086.3	1129.2	1147.9	1157.2
77.5°	502.1	533.8	636.5	718.6	793.2	860.4	905.2	938.8	951.9	963.1	965.0
80°	414.4	459.2	546.9	614.1	675.7	720.5	746.6	752.2	748.5	727.9	677.5
82.5°	322.9	377.0	440.5	492.7	522.6	537.5	543.1	507.7	457.3	405.0	375.2
85°	225.8	266.9	309.8	328.5	326.6	293.0	250.1	222.1	207.2	194.1	190.4
87.5°	113.9	123.2	132.5	112.0	93.3	89.6	91.5	87.7	89.6	87.7	87.7
90°	9.3	9.3	11.2	11.2	13.1	14.9	16.8	18.7	18.7	16.8	16.8
92.5°	41.1	37.3	35.5	33.6	35.5	35.5	35.5	31.7	31.7	31.7	29.9
95°	171.7	201.6	222.1	224.0	173.6	134.4	115.7	100.8	91.5	87.7	84.0
97.5°	274.4	322.9	380.8	427.4	453.6	434.9	364.0	283.7	240.8	218.4	197.8
100°	369.6	420.0	498.3	573.0	638.3	675.7	681.3	664.5	601.0	533.8	451.7
102.5°	461.0	494.6	595.4	683.1	759.7	828.7	873.5	905.2	914.6	907.1	869.8
105°	503.9	517.0	632.7	733.5	808.2	856.7	951.9	1043.4	1118.0	1142.3	1140.4
107.5°	556.2	539.4	670.1	774.6	834.3	884.7	925.8	1114.3	1190.8	1276.7	1332.7
110°	629.0	578.6	709.3	838.0	916.4	910.8	946.3	959.4	1271.1	1353.2	1412.9



TEST NUMBER: P236448

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

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	688.7	614.1	694.3	864.2	961.2	983.6	985.5	1013.5	946.3	1342.0	1506.2
115°	746.6	658.9	662.6	866.0	972.4	1054.6	1013.5	1058.3	1104.9	910.8	1220.7
117.5°	798.8	709.3	655.1	847.4	987.4	1082.6	1132.9	1045.2	1116.1	1237.5	946.3
120°	845.5	757.8	675.7	800.7	1000.4	1108.7	1192.7	1213.2	1080.7	1136.7	1306.5
122.5°	884.7	802.6	707.4	761.5	976.2	1127.3	1218.8	1291.6	1282.3	1131.1	1129.2
125°	914.6	839.9	733.5	724.2	918.3	1129.2	1233.7	1321.5	1371.9	1355.1	1205.7
127.5°	933.2	867.9	750.3	707.4	841.8	1075.1	1235.6	1314.0	1388.7	1435.3	1427.8
130°	942.6	888.4	755.9	718.6	778.3	985.5	1202.0	1291.6	1358.8	1433.4	1491.3
132.5°	923.9	881.0	744.7	726.1	716.7	854.8	1095.6	1258.0	1325.2	1398.0	1482.0
135°	888.4	856.7	735.4	718.6	683.1	765.3	953.8	1168.4	1289.7	1360.7	1431.6
137.5°	858.6	836.2	729.8	698.1	681.3	703.7	823.1	1024.7	1224.4	1314.0	1375.6
140°	830.6	817.5	722.3	673.8	681.3	666.3	748.5	884.7	1082.6	1243.1	1321.5
142.5°	815.6	804.4	716.7	653.3	670.1	666.3	696.2	778.3	927.6	1093.7	1241.2
145°	804.4	795.1	713.0	643.9	649.5	662.6	664.5	716.7	802.6	929.5	1069.5
147.5°	811.9	797.0	716.7	642.1	630.9	660.7	675.7	683.1	731.7	798.8	903.4
150°	819.4	804.4	739.1	655.1	623.4	653.3	683.1	690.6	703.7	737.3	778.3
152.5°	815.6	808.2	770.9	692.5	643.9	645.8	673.8	688.7	701.8	709.3	727.9
155°	815.6	810.0	789.5	716.7	666.3	642.1	655.1	679.4	698.1	707.4	709.3
157.5°	823.1	815.6	804.4	744.7	686.9	643.9	642.1	660.7	688.7	703.7	713.0
160°	826.8	819.4	819.4	770.9	716.7	673.8	642.1	647.7	666.3	685.0	699.9
162.5°	832.4	825.0	826.8	800.7	754.1	709.3	673.8	645.8	645.8	657.0	668.2
165°	838.0	832.4	832.4	826.8	789.5	748.5	709.3	677.5	649.5	636.5	634.6
167.5°	841.8	838.0	836.2	838.0	821.2	787.6	752.2	716.7	686.9	660.7	634.6
170°	845.5	843.6	841.8	841.8	841.8	826.8	795.1	765.3	735.4	705.5	675.7
172.5°	849.2	847.4	843.6	841.8	841.8	841.8	830.6	808.2	785.8	759.7	731.7
175°	851.1	851.1	849.2	845.5	841.8	839.9	834.3	825.0	815.6	806.3	787.6
177.5°	851.1	851.1	849.2	847.4	845.5	843.6	834.3	825.0	811.9	802.6	789.5
180°	817.5	817.5	817.5	817.5	817.5	817.5	817.5	817.5	817.5	817.5	817.5



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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	951.9	951.9	951.9	951.9	951.9	951.9	951.9	951.9
2.5°	951.9	951.9	953.8	957.5	957.5	959.4	961.2	961.2
5°	963.1	965.0	968.7	972.4	972.4	974.3	974.3	976.2
7.5°	979.9	983.6	989.2	996.7	1000.4	1000.4	1004.2	1007.9
10°	1019.1	1024.7	1037.8	1047.1	1052.7	1056.4	1062.0	1063.9
12.5°	1065.8	1075.1	1090.0	1099.3	1104.9	1108.7	1112.4	1116.1
15°	1106.8	1116.1	1127.3	1134.8	1140.4	1144.1	1147.9	1153.5
17.5°	1136.7	1147.9	1164.7	1177.7	1187.1	1192.7	1200.1	1203.9
20°	1175.9	1196.4	1220.7	1239.3	1256.1	1263.6	1274.8	1280.4
22.5°	1224.4	1259.9	1295.3	1319.6	1343.9	1353.2	1368.1	1375.6
25°	1295.3	1340.1	1383.1	1411.0	1439.0	1448.4	1467.0	1474.5
27.5°	1371.9	1426.0	1472.6	1502.5	1530.5	1545.4	1562.2	1567.8
30°	1452.1	1511.8	1558.5	1592.1	1622.0	1635.0	1650.0	1655.6
32.5°	1528.6	1594.0	1640.6	1676.1	1706.0	1720.9	1732.1	1737.7
35°	1601.4	1668.6	1719.0	1754.5	1784.3	1799.3	1810.5	1814.2
37.5°	1670.5	1735.8	1788.1	1827.3	1859.0	1873.9	1881.4	1885.1
40°	1737.7	1803.0	1857.1	1894.5	1926.2	1937.4	1946.7	1946.7
42.5°	1793.7	1860.9	1911.3	1950.5	1980.3	1993.4	2000.9	2004.6
45°	1840.3	1905.7	1959.8	1999.0	2028.8	2043.8	2047.5	2053.1
47.5°	1877.7	1943.0	1997.1	2038.2	2066.2	2081.1	2086.7	2092.3
50°	1903.8	1971.0	2023.2	2062.4	2092.3	2109.1	2116.6	2118.4
52.5°	1915.0	1980.3	2032.6	2071.8	2103.5	2122.2	2131.5	2129.6
55°	1911.3	1974.7	2028.8	2069.9	2101.6	2122.2	2129.6	2129.6
57.5°	1892.6	1956.1	2006.5	2049.4	2081.1	2099.8	2107.2	2111.0
60°	1855.3	1918.7	1967.3	2008.3	2036.3	2056.8	2062.4	2066.2
62.5°	1803.0	1864.6	1909.4	1941.1	1965.4	1974.7	1980.3	1985.9
65°	1733.9	1782.5	1810.5	1834.7	1851.5	1855.3	1857.1	1862.7
67.5°	1629.4	1663.0	1691.0	1709.7	1728.3	1728.3	1724.6	1728.3
70°	1506.2	1536.1	1545.4	1543.6	1551.0	1541.7	1534.2	1536.1
72.5°	1345.7	1353.2	1358.8	1355.1	1364.4	1358.8	1353.2	1355.1
75°	1162.8	1168.4	1174.0	1162.8	1172.1	1159.1	1149.7	1153.5
77.5°	953.8	940.7	925.8	890.3	888.4	862.3	853.0	866.0
80°	640.2	610.3	587.9	552.5	545.0	530.1	518.9	533.8
82.5°	347.2	336.0	330.4	315.4	321.0	311.7	309.8	315.4
85°	182.9	182.9	182.9	179.2	184.8	181.0	181.0	184.8
87.5°	85.9	85.9	87.7	84.0	89.6	87.7	89.6	91.5
90°	14.9	14.9	16.8	13.1	18.7	14.9	14.9	18.7
92.5°	28.0	29.9	28.0	28.0	24.3	26.1	24.3	24.3
95°	85.9	89.6	91.5	93.3	93.3	95.2	93.3	91.5
97.5°	184.8	179.2	168.0	168.0	160.5	156.8	154.9	149.3
100°	395.7	369.6	337.8	330.4	315.4	304.2	304.2	294.9
102.5°	810.0	750.3	698.1	670.1	625.3	597.3	591.7	569.3
105°	1131.1	1129.2	1099.3	1088.1	1058.3	1037.8	1030.3	1007.9
107.5°	1349.5	1360.7	1355.1	1358.8	1347.6	1338.3	1336.4	1319.6
110°	1467.0	1517.4	1543.6	1560.4	1558.5	1552.9	1549.2	1538.0





TEST NUMBER: P236448

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1554.8	1597.7	1629.4	1651.8	1668.6	1685.4	1689.2	1687.3
115°	1594.0	1698.5	1724.6	1733.9	1743.3	1758.2	1767.5	1765.7
117.5°	983.6	1347.6	1676.1	1793.7	1840.3	1866.5	1885.1	1888.9
120°	1159.1	899.6	950.0	1151.6	1411.0	1601.4	1698.5	1760.1
122.5°	1293.5	1394.3	1198.3	978.0	860.4	856.7	851.1	867.9
125°	1114.3	1213.2	1364.4	1455.8	1454.0	1360.7	1280.4	1207.6
127.5°	1327.1	1194.5	1174.0	1256.1	1347.6	1409.2	1461.4	1487.6
130°	1515.6	1489.4	1396.1	1297.2	1248.7	1243.1	1250.5	1259.9
132.5°	1549.2	1599.6	1614.5	1597.7	1547.3	1502.5	1465.2	1439.0
135°	1502.5	1577.2	1638.8	1685.4	1696.6	1698.5	1700.4	1694.8
137.5°	1442.8	1506.2	1579.0	1650.0	1702.2	1717.1	1726.5	1732.1
140°	1377.5	1439.0	1498.8	1552.9	1629.4	1672.4	1685.4	1691.0
142.5°	1321.5	1368.1	1424.1	1478.2	1524.9	1575.3	1614.5	1618.2
145°	1218.8	1302.8	1358.8	1399.8	1444.6	1478.2	1532.4	1560.4
147.5°	1030.3	1153.5	1258.0	1319.6	1370.0	1405.4	1442.8	1493.2
150°	860.4	970.6	1056.4	1131.1	1220.7	1269.2	1317.7	1300.9
152.5°	757.8	811.9	871.6	931.4	998.6	1026.6	1024.7	1000.4
155°	726.1	737.3	763.4	783.9	821.2	832.4	759.7	735.4
157.5°	718.6	709.3	718.6	720.5	733.5	679.4	657.0	653.3
160°	707.4	707.4	703.7	688.7	660.7	608.5	601.0	601.0
162.5°	679.4	683.1	679.4	666.3	615.9	587.9	582.3	582.3
165°	638.3	640.2	638.3	623.4	586.1	558.1	558.1	559.9
167.5°	612.2	602.9	599.1	576.7	556.2	533.8	517.0	518.9
170°	649.5	629.0	610.3	582.3	567.4	554.3	522.6	511.4
172.5°	703.7	679.4	660.7	643.9	640.2	647.7	629.0	574.9
175°	765.3	742.9	727.9	726.1	735.4	767.1	782.0	808.2
177.5°	772.7	750.3	741.0	750.3	772.7	817.5	871.6	897.8
180°	817.5	817.5	817.5	817.5	817.5	817.5	817.5	817.5

(END OF REPORT)