

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: P236523

Luminaire Tested: **SKB4-LD5-18-W-UNV-L835-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24075)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-18-W-UNV-L835-CD2-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (952) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

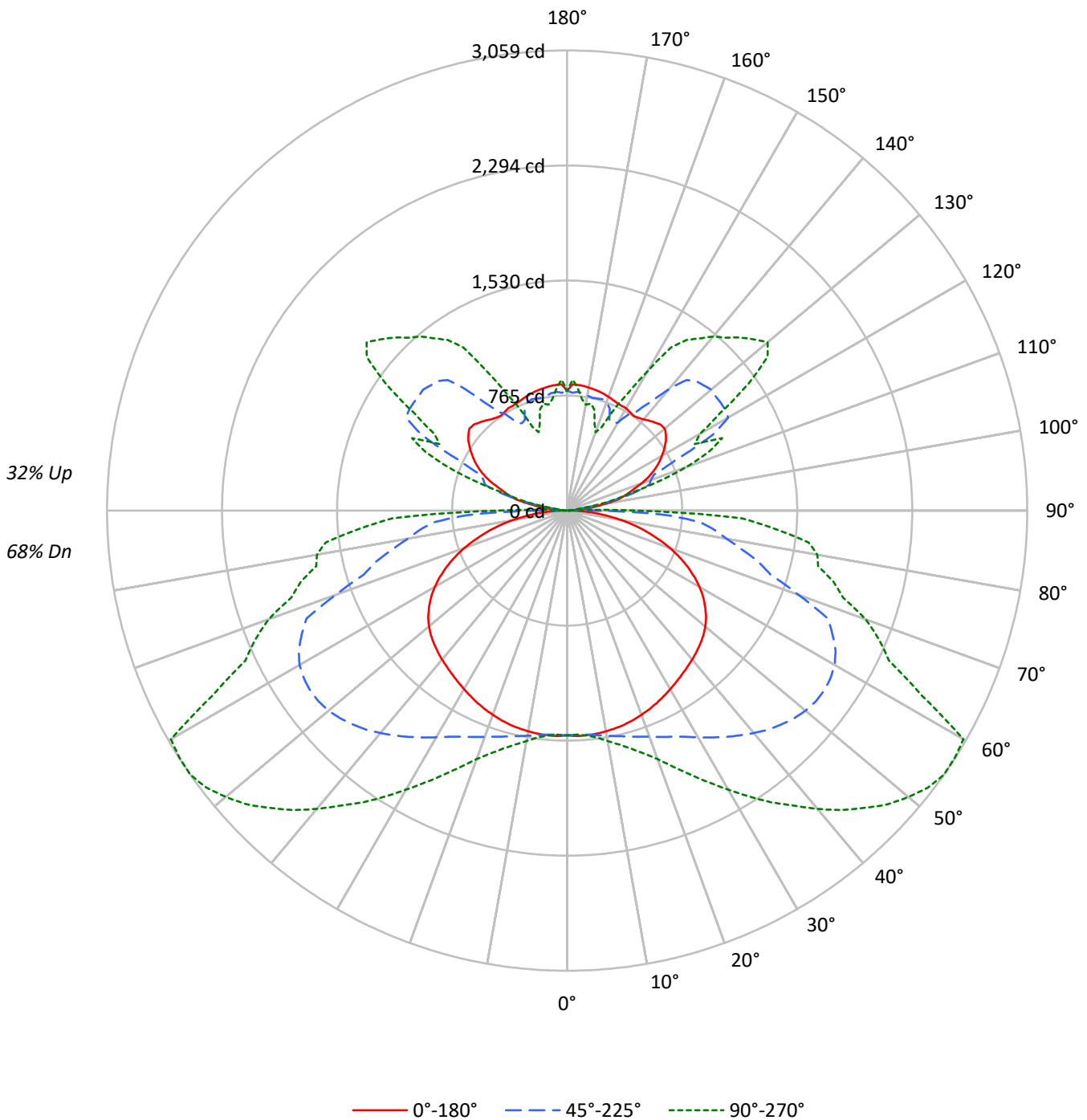
Lumens per Lamp: N/A
Luminaire Lumens: 14500.0 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 2.46 / 2.11
Luminous Opening: Rectangular (W 1.88' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 143.4
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: P236523

CATALOG NUMBER: SKB4-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
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73
1	99	93	87	83	93	87	83	78	77	74	70	68	65	62	59	57	55
2	88	78	71	64	82	74	67	61	65	59	55	57	53	49	50	46	43
3	79	67	58	51	74	63	55	48	56	49	44	49	43	39	42	38	34
4	71	58	49	42	67	55	46	40	48	41	36	42	37	32	37	32	28
5	65	51	42	35	61	48	40	33	43	35	30	37	31	27	32	27	23
6	60	45	36	29	56	43	34	28	38	31	25	33	27	22	29	24	20
7	55	41	32	25	51	38	30	24	34	27	22	30	24	19	26	21	17
8	51	37	28	22	47	35	26	21	31	24	19	27	21	17	23	19	15
9	47	33	25	19	44	31	24	18	28	21	17	25	19	15	21	17	13
10	44	30	22	17	41	29	21	16	26	19	15	23	17	13	20	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2144	2144	2144
5°	2160	2154	2162
10°	2171	2215	2267
15°	2187	2310	2434
20°	2206	2444	2685
25°	2234	2626	3065
30°	2271	2884	3549
35°	2331	3217	4148
40°	2422	3616	4850
45°	2540	4083	5673
50°	2676	4620	6612
55°	2803	5218	7655
60°	2920	5894	8731
65°	2999	6611	8017
70°	3047	6865	8859
75°	3066	7297	10171
80°	3034	8874	13957
85°	2987	14613	22756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	1.0
10°-20°	443.3	3.1
20°-30°	776.8	5.4
30°-40°	1162.5	8.0
40°-50°	1566.6	10.8
50°-60°	1870.3	12.9
60°-70°	1768.4	12.2
70°-80°	1350.8	9.3
80°-90°	842.8	5.8
90°-100°	90.0	0.6
100°-110°	473.3	3.3
110°-120°	830.9	5.7
120°-130°	1036.8	7.2
130°-140°	902.5	6.2
140°-150°	602.7	4.2
150°-160°	346.8	2.4
160°-170°	216.0	1.5
170°-180°	75.4	0.5
0°-30°	1364.1	9.4
0°-40°	2526.5	17.4
0°-60°	5963.5	41.1
0°-90°	9925.6	68.5
90°-120°	1394.2	9.6
90°-150°	3936.3	27.1
90°-180°	4574.0	31.5
0°-180°	14500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1499	1507	1495	1500	1500	143
15°	1472	1505	1554	1614	1638	416
25°	1411	1490	1659	1860	1935	651
35°	1330	1473	1836	2231	2368	835
45°	1251	1468	2012	2594	2795	967
55°	1120	1423	2085	2803	3059	1000
65°	883	1233	1947	2258	2361	870
75°	553	904	1316	1678	1834	581
85°	181	395	887	1230	1382	186
90°	8	48	183	356	456	16
95°	95	51	9	5	3	111
105°	405	461	463	445	409	423
115°	641	789	798	896	1138	629
125°	801	839	1248	1532	1476	713
135°	827	684	1216	1506	1627	640
145°	769	724	803	1259	1384	489
155°	788	761	665	726	748	366
165°	820	805	771	772	696	232
175°	838	830	791	733	814	80
180°	796	796	796	796	796	



TEST NUMBER: P236523

CATALOG NUMBER: SKB4-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°	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2
2.5°	1500.5	1500.5	1504.2	1504.2	1506.7	1506.7	1504.9	1500.5	1497.3	1491.1	1487.3
5°	1499.2	1498.6	1503.6	1503.6	1506.7	1506.7	1504.9	1502.4	1499.2	1494.8	1492.9
7.5°	1496.1	1496.1	1500.5	1501.7	1505.5	1508.0	1508.6	1507.4	1507.4	1505.5	1504.9
10°	1489.8	1491.1	1496.1	1500.5	1509.9	1516.2	1519.3	1520.6	1521.2	1519.9	1521.2
12.5°	1482.3	1483.5	1491.7	1498.0	1503.6	1511.1	1517.4	1523.7	1530.6	1535.6	1541.9
15°	1472.2	1473.5	1481.6	1487.3	1498.6	1511.1	1521.8	1532.5	1545.0	1554.4	1563.9
17.5°	1460.3	1461.6	1469.1	1478.5	1494.8	1511.1	1526.2	1542.5	1560.7	1575.8	1591.5
20°	1444.6	1446.5	1455.9	1468.5	1488.5	1509.9	1530.6	1553.2	1578.3	1600.3	1622.8
22.5°	1428.9	1430.2	1442.1	1457.8	1481.6	1508.0	1534.4	1564.5	1597.1	1627.9	1659.9
25°	1410.7	1412.0	1426.4	1445.9	1474.1	1506.1	1540.0	1576.4	1619.7	1658.6	1701.3
27.5°	1390.6	1392.5	1410.1	1433.3	1466.0	1504.2	1545.7	1591.5	1643.6	1695.0	1751.5
30°	1370.6	1372.5	1392.5	1419.5	1457.8	1503.0	1552.6	1607.2	1674.3	1740.2	1808.6
32.5°	1350.5	1353.6	1376.2	1406.3	1450.3	1502.4	1561.3	1628.5	1711.3	1787.9	1868.8
35°	1330.4	1333.5	1359.3	1393.2	1443.4	1503.0	1571.4	1653.6	1749.0	1836.2	1929.1
37.5°	1311.0	1315.3	1343.0	1381.2	1436.5	1505.5	1586.4	1680.6	1785.4	1883.9	1988.7
40°	1292.8	1297.1	1326.6	1369.3	1430.8	1508.6	1603.4	1707.6	1823.7	1930.3	2047.1
42.5°	1273.3	1278.3	1310.3	1356.8	1424.5	1514.9	1619.1	1734.5	1858.2	1975.5	2098.5
45°	1251.3	1257.6	1290.9	1341.7	1416.4	1519.9	1632.9	1757.8	1887.0	2011.9	2148.1
47.5°	1228.1	1233.8	1268.9	1324.8	1407.6	1521.8	1641.7	1770.9	1908.4	2045.2	2191.4
50°	1198.6	1204.9	1241.9	1302.8	1396.3	1518.7	1641.7	1779.1	1924.7	2069.0	2224.0
52.5°	1164.1	1171.0	1210.5	1276.4	1379.4	1509.3	1636.0	1778.5	1929.7	2083.5	2246.0
55°	1120.2	1129.6	1171.6	1245.1	1357.4	1489.2	1617.2	1767.2	1925.3	2085.3	2254.8
57.5°	1073.1	1080.6	1126.5	1207.4	1326.6	1458.4	1591.5	1745.2	1907.8	2075.3	2251.6
60°	1017.3	1024.8	1075.0	1162.8	1285.2	1413.9	1554.4	1709.4	1880.8	2053.3	2230.3
62.5°	953.2	961.4	1015.4	1111.4	1232.5	1361.8	1506.1	1666.8	1841.9	2011.9	2181.4
65°	883.0	891.1	950.7	1052.4	1166.0	1300.9	1450.3	1613.4	1786.0	1946.7	2120.5
67.5°	807.0	817.1	884.2	985.3	1097.0	1231.3	1383.1	1545.7	1706.9	1875.7	1951.1
70°	726.1	738.0	810.2	906.2	1017.9	1154.7	1305.9	1458.4	1621.0	1636.0	1615.9
72.5°	640.7	657.7	734.2	821.5	931.9	1067.5	1208.7	1363.7	1346.7	1417.0	1526.8
75°	552.9	573.0	650.1	731.1	841.5	967.1	1110.8	1113.9	1212.4	1316.0	1412.0
77.5°	461.2	492.6	557.9	638.2	740.5	864.1	898.7	992.8	1093.8	1188.0	1288.4
80°	367.1	406.7	461.9	539.7	635.7	775.2	766.2	866.6	975.2	1073.7	1162.8
82.5°	273.0	315.0	363.4	428.6	467.5	546.0	645.7	748.0	864.8	990.3	1113.9
85°	181.4	214.6	250.4	284.3	349.5	441.2	573.6	699.1	805.1	887.4	978.3
87.5°	88.5	110.4	136.2	195.8	280.5	341.4	414.2	490.7	571.1	652.7	741.1
90°	7.5	8.8	10.0	18.8	37.7	57.7	97.3	117.4	158.1	183.2	227.2
92.5°	15.1	13.2	8.8	6.3	5.6	5.0	3.8	3.1	1.9	0.6	0.0
95°	94.8	102.3	86.0	64.0	55.9	45.2	28.2	18.8	12.6	8.8	6.9
97.5°	174.5	195.8	193.9	163.8	148.7	134.9	113.6	116.1	102.3	84.7	69.0
100°	261.1	297.5	289.9	269.2	251.0	246.0	229.7	220.9	197.7	188.9	197.7
102.5°	348.3	377.2	384.1	404.1	348.9	341.4	342.0	342.0	336.4	328.2	315.0
105°	404.8	428.6	454.3	477.6	508.9	412.3	403.5	438.0	460.6	463.1	465.6
107.5°	455.6	471.9	516.5	546.6	581.7	604.3	471.3	473.2	534.0	573.0	601.8
110°	524.0	530.3	557.3	619.4	650.1	705.4	696.0	554.1	532.2	591.2	693.4



TEST NUMBER: P236523

CATALOG NUMBER: SKB4-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°	586.1	584.9	575.5	671.5	712.9	758.7	841.5	818.3	661.4	623.8	645.7
115°	640.7	630.7	593.7	682.8	766.9	812.0	881.1	984.6	949.5	798.2	734.9
117.5°	686.5	670.2	635.1	680.9	811.4	861.0	921.2	1012.9	1118.3	1093.2	983.4
120°	727.3	709.8	685.9	674.6	807.7	908.1	968.3	1042.4	1139.0	1236.3	1244.4
122.5°	765.0	746.8	739.3	668.3	777.5	942.0	1001.6	1072.5	1152.8	1246.3	1338.6
125°	800.8	780.0	778.8	675.2	751.2	926.9	1036.7	1102.6	1169.1	1247.6	1336.1
127.5°	828.4	807.7	805.8	696.6	730.5	864.8	1046.8	1116.4	1186.1	1245.7	1331.0
130°	847.2	829.0	818.3	741.1	696.6	810.8	987.8	1123.9	1181.0	1250.7	1319.1
132.5°	844.7	830.2	812.0	770.6	677.1	766.2	889.9	1080.6	1173.5	1231.3	1312.8
135°	827.1	818.3	797.6	785.1	671.5	697.2	808.3	962.7	1138.4	1216.2	1282.1
137.5°	810.2	805.8	782.6	781.9	697.2	667.1	759.3	857.9	1026.7	1177.3	1251.3
140°	790.7	790.1	768.7	769.4	726.7	647.0	686.5	781.3	898.0	1054.9	1194.2
142.5°	776.9	778.2	756.8	753.7	743.6	657.0	658.3	741.8	801.4	908.7	1058.0
145°	769.4	770.0	749.9	742.4	744.3	704.1	640.7	669.6	758.1	803.3	906.2
147.5°	776.3	772.5	746.2	731.7	741.1	728.0	662.7	645.7	676.5	758.1	796.4
150°	785.7	781.3	756.8	733.0	737.4	748.7	720.4	655.8	652.0	676.5	754.9
152.5°	784.4	786.3	775.7	756.2	751.2	758.7	748.7	713.5	658.3	653.9	674.0
155°	788.2	788.8	785.7	769.4	760.0	762.5	757.5	745.5	717.3	664.6	653.9
157.5°	796.4	797.0	792.0	778.2	767.5	765.0	765.0	763.7	753.1	736.7	683.4
160°	804.5	805.1	803.3	792.6	781.3	774.4	770.6	773.8	772.5	766.9	752.4
162.5°	812.7	812.0	813.9	807.0	795.1	788.2	778.8	776.9	776.9	776.9	776.3
165°	819.6	819.0	821.5	819.0	810.8	800.1	790.1	781.3	776.3	771.3	774.4
167.5°	825.2	824.6	826.5	827.1	823.3	814.6	801.4	792.0	780.7	768.7	762.5
170°	830.2	829.6	830.9	832.1	829.6	825.2	812.0	803.3	791.3	775.7	760.6
172.5°	835.3	833.4	833.4	833.4	831.5	827.7	818.3	810.8	801.4	788.2	772.5
175°	838.4	836.5	835.9	834.0	831.5	827.7	819.0	810.8	801.4	791.3	778.8
177.5°	839.7	837.8	836.5	834.6	831.5	827.1	817.7	808.3	797.0	784.4	773.1
180°	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7



TEST NUMBER: P236523

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2	1494.2
2.5°	1484.8	1487.3	1488.5	1491.1	1490.4	1491.1	1494.8	1491.1
5°	1492.3	1496.1	1498.6	1501.7	1501.1	1501.1	1503.6	1500.5
7.5°	1506.1	1512.4	1517.4	1521.8	1521.2	1522.4	1526.2	1521.8
10°	1524.9	1534.4	1541.3	1548.2	1550.7	1552.6	1557.6	1555.7
12.5°	1548.8	1562.6	1572.6	1581.4	1585.2	1589.6	1595.2	1592.1
15°	1577.0	1594.6	1607.8	1619.7	1626.0	1632.9	1640.4	1637.9
17.5°	1610.3	1634.1	1650.5	1668.0	1677.4	1686.2	1695.6	1691.9
20°	1650.5	1681.8	1705.1	1727.0	1740.2	1753.4	1761.5	1757.8
22.5°	1695.0	1737.1	1769.1	1799.2	1818.6	1833.1	1844.4	1843.1
25°	1750.2	1802.3	1843.1	1877.6	1904.6	1922.8	1936.6	1935.4
27.5°	1813.6	1875.1	1924.7	1966.7	2000.0	2023.8	2034.5	2035.8
30°	1882.0	1954.8	2013.8	2064.0	2102.3	2128.6	2139.9	2141.8
32.5°	1953.6	2038.3	2104.8	2161.3	2205.8	2236.6	2247.9	2254.2
35°	2024.5	2118.6	2197.7	2264.2	2312.5	2346.4	2358.3	2367.7
37.5°	2094.8	2202.7	2289.3	2361.5	2414.8	2453.1	2468.2	2470.7
40°	2163.2	2278.0	2377.8	2461.9	2522.1	2562.3	2581.1	2588.6
42.5°	2227.8	2356.4	2465.0	2559.1	2626.9	2668.3	2692.8	2700.3
45°	2289.3	2429.9	2545.3	2643.2	2713.5	2760.0	2787.6	2795.1
47.5°	2340.8	2489.5	2615.6	2723.6	2799.5	2851.6	2879.2	2890.5
50°	2384.1	2542.2	2676.5	2789.5	2866.6	2920.6	2951.4	2961.4
52.5°	2416.1	2575.5	2714.2	2834.0	2916.9	2978.4	3009.7	3024.2
55°	2431.1	2598.1	2741.1	2864.1	2946.3	3009.7	3043.0	3059.3
57.5°	2431.1	2598.7	2734.9	2848.4	2928.8	2995.9	3039.8	3056.2
60°	2401.6	2560.4	2706.6	2833.4	2920.6	2986.5	3033.6	3041.7
62.5°	2357.1	2519.6	2665.8	2698.5	2674.0	2647.0	2642.6	2652.0
65°	2294.9	2288.0	2271.7	2244.7	2270.5	2321.3	2345.2	2360.8
67.5°	1918.4	1934.1	2027.6	2101.0	2154.4	2198.3	2229.7	2246.0
70°	1728.9	1833.7	1924.7	2001.3	2043.9	2079.1	2096.6	2111.1
72.5°	1633.5	1717.6	1782.9	1840.0	1872.6	1904.6	1913.4	1922.8
75°	1498.6	1570.8	1643.6	1713.2	1765.3	1804.2	1824.9	1834.3
77.5°	1390.0	1469.7	1533.1	1597.1	1642.3	1674.3	1692.5	1708.2
80°	1257.0	1358.6	1452.8	1538.1	1600.3	1645.4	1676.2	1688.7
82.5°	1230.0	1333.5	1424.5	1495.5	1547.5	1587.7	1608.4	1617.8
85°	1057.4	1127.1	1196.1	1263.9	1318.5	1357.4	1376.2	1381.9
87.5°	818.3	890.5	975.8	1032.3	1089.4	1134.0	1157.8	1162.2
90°	258.6	290.6	346.4	365.9	396.6	432.4	453.7	455.6
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	6.3	5.6	5.0	5.0	4.4	3.8	3.1	3.1
97.5°	57.7	43.3	34.5	27.6	22.0	19.5	18.8	18.8
100°	197.7	187.0	174.5	171.3	161.3	154.4	147.5	148.1
102.5°	300.6	278.6	284.3	296.8	303.7	306.2	303.1	305.0
105°	466.9	457.5	446.2	443.0	434.9	420.5	408.5	409.2
107.5°	618.1	626.9	632.6	633.8	630.7	626.3	618.1	619.4
110°	738.0	776.3	803.9	827.1	834.0	832.1	835.3	837.8



TEST NUMBER: P236523

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	737.4	870.4	924.4	964.5	989.0	1002.8	1012.2	1018.5
115°	719.8	765.0	848.4	943.8	1052.4	1110.1	1128.3	1137.7
117.5°	891.1	862.3	862.3	850.3	884.2	928.1	948.9	957.0
120°	1176.7	1076.9	1038.0	1019.1	1018.5	1024.2	1017.9	1017.9
122.5°	1396.3	1361.2	1316.0	1272.0	1226.2	1214.3	1202.4	1204.3
125°	1435.2	1520.6	1536.2	1528.7	1513.0	1492.9	1476.0	1476.0
127.5°	1414.5	1521.2	1593.3	1650.5	1691.9	1682.5	1678.1	1678.7
130°	1402.6	1486.7	1561.3	1636.0	1688.7	1720.1	1735.2	1740.8
132.5°	1386.9	1455.3	1524.9	1583.9	1624.7	1659.2	1677.4	1684.3
135°	1354.3	1430.2	1481.6	1530.6	1572.6	1605.3	1617.8	1626.6
137.5°	1311.0	1374.3	1434.6	1491.7	1528.1	1548.8	1554.4	1558.2
140°	1270.8	1324.1	1373.7	1417.6	1457.2	1491.7	1504.9	1509.9
142.5°	1193.0	1275.8	1316.0	1354.9	1386.9	1419.5	1437.1	1441.5
145°	1022.3	1152.2	1229.4	1287.7	1323.5	1353.0	1369.9	1383.7
147.5°	881.7	972.7	1048.6	1135.9	1198.6	1252.6	1280.2	1286.5
150°	785.1	839.7	893.6	944.5	995.3	1041.7	1066.8	1071.2
152.5°	710.4	779.4	797.6	816.4	849.7	877.9	882.3	886.1
155°	659.6	674.6	702.9	749.3	774.4	768.1	757.5	748.0
157.5°	657.7	647.6	652.0	655.2	646.4	633.2	614.4	601.2
160°	732.4	682.1	659.6	642.0	614.4	586.8	557.3	554.1
162.5°	772.5	758.1	746.2	726.7	675.9	625.0	606.8	604.3
165°	776.9	776.9	775.7	768.1	738.0	707.2	696.6	696.0
167.5°	760.6	765.0	767.5	770.0	760.6	745.5	730.5	728.0
170°	748.7	746.2	745.5	743.6	753.1	751.2	732.4	714.2
172.5°	752.4	741.8	734.9	733.0	749.9	766.9	754.9	747.4
175°	758.1	740.5	730.5	735.5	755.6	788.8	807.7	813.9
177.5°	753.1	730.5	719.2	730.5	754.9	799.5	849.7	870.4
180°	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7

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