

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: P236471

Luminaire Tested: **SKB4-LD5-30-N-UNV-L850-CD4-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236471
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24056)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-30-N-UNV-L850-CD4-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (952) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

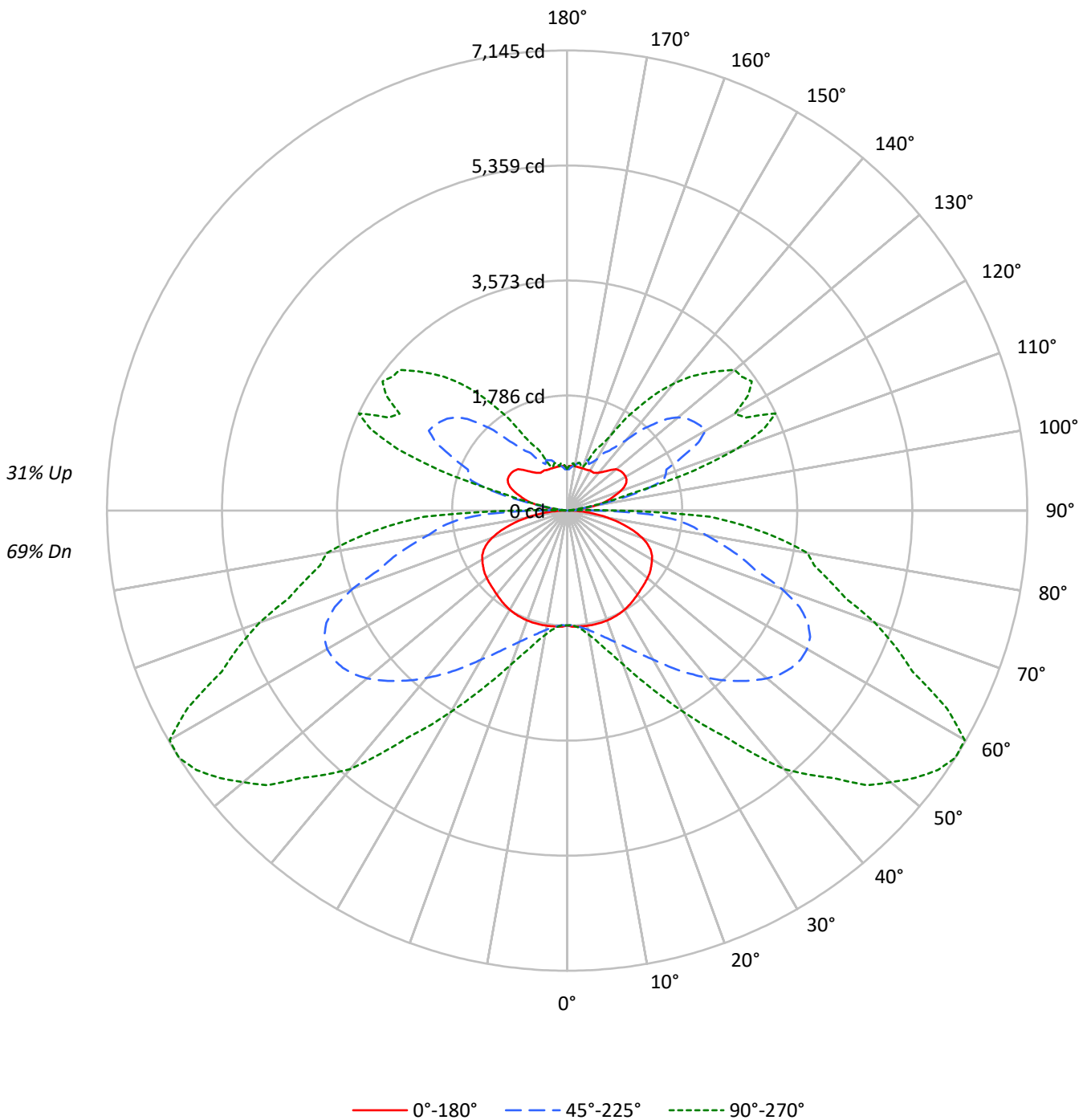
Lumens per Lamp: N/A
Luminaire Lumens: 27292.0 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.49 / 3.46 / 2.71
Luminous Opening: Rectangular (W 1.88' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 260.5
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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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	112	112	112	112	106	106	106	106	94	94	94		84	84	84		74	74	74	69
1	98	92	87	82	92	87	82	77	77	73	69		68	65	62		59	57	55	50
2	87	77	69	62	81	73	65	59	64	58	53		56	51	47		49	45	42	38
3	78	66	56	49	73	62	53	46	54	47	42		47	42	37		41	37	33	29
4	70	57	47	39	65	53	44	37	47	39	33		41	35	30		35	30	26	23
5	64	49	40	32	59	47	37	31	41	33	27		36	29	24		31	26	21	18
6	58	44	34	27	54	41	32	26	36	29	23		31	25	20		27	22	18	15
7	53	39	29	23	50	37	28	22	32	25	19		28	22	17		24	19	15	12
8	49	35	26	20	46	33	25	19	29	22	17		25	19	15		22	17	13	11
9	46	32	23	17	43	30	22	16	26	19	15		23	17	13		20	15	11	9
10	43	29	20	15	40	27	19	14	24	17	13		21	15	11		18	13	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2558	2558	2558
5°	2605	2595	2613
10°	2645	2737	2856
15°	2701	2979	3269
20°	2772	3314	3880
25°	2855	3782	4765
30°	2949	4427	5975
35°	3053	5309	7514
40°	3185	6356	9811
45°	3375	7594	11928
50°	3636	9051	14653
55°	3961	10645	17576
60°	4366	12349	20458
65°	4848	14008	20093
70°	5207	14847	21311
75°	5349	15490	23384
80°	5292	18057	31311
85°	5182	28307	46047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.9	0.6
10°-20°	575.4	2.1
20°-30°	1124.8	4.1
30°-40°	1918.9	7.0
40°-50°	2929.1	10.7
50°-60°	3829.7	14.0
60°-70°	3836.6	14.1
70°-80°	2875.7	10.5
80°-90°	1678.6	6.2
90°-100°	185.9	0.7
100°-110°	1148.4	4.2
110°-120°	2038.9	7.5
120°-130°	2011.6	7.4
130°-140°	1471.6	5.4
140°-150°	804.3	2.9
150°-160°	406.2	1.5
160°-170°	215.6	0.8
170°-180°	65.7	0.2
0°-30°	1875.1	6.9
0°-40°	3794.0	13.9
0°-60°	10552.8	38.7
0°-90°	18943.7	69.4
90°-120°	3373.3	12.4
90°-150°	7660.8	28.1
90°-180°	8348.0	30.6
0°-180°	27292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1782	1782	1782	1782	1782	
5°	1808	1814	1801	1801	1814	173
15°	1818	1887	2005	2128	2200	515
25°	1803	1985	2388	2838	3009	833
35°	1742	2100	3030	3975	4288	1093
45°	1663	2235	3742	5349	5877	1287
55°	1583	2332	4254	6317	7024	1417
65°	1428	2166	4125	5584	5917	1398
75°	965	1612	2794	3799	4217	1008
85°	315	701	1719	2524	2796	324
90°	23	104	437	674	787	34
95°	159	101	32	25	23	188
105°	691	873	1248	1248	1037	719
115°	1011	1367	1968	2838	3568	986
125°	1042	1224	2405	3235	3501	929
135°	867	930	1898	2772	3015	681
145°	716	870	1131	1714	1991	458
155°	701	800	796	958	1039	326
165°	697	743	785	807	765	198
175°	695	686	671	637	727	66
180°	646	646	646	646	646	



TEST NUMBER: P236471

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L850-CD4-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2
2.5°	1804.2	1805.6	1806.9	1806.9	1808.3	1808.3	1798.7	1794.6	1789.1	1782.2	1778.1
5°	1808.3	1808.3	1809.7	1811.1	1813.8	1815.2	1809.7	1806.9	1804.2	1801.4	1800.1
7.5°	1811.1	1812.4	1813.8	1816.6	1826.2	1833.0	1828.9	1831.7	1834.4	1834.4	1837.2
10°	1815.2	1816.6	1820.7	1830.3	1844.0	1859.1	1863.3	1870.1	1875.6	1878.4	1886.6
12.5°	1817.9	1819.3	1827.5	1841.3	1859.1	1878.4	1889.4	1904.5	1919.6	1937.5	1954.0
15°	1817.9	1820.7	1831.7	1849.5	1874.3	1900.4	1921.0	1951.2	1978.7	2004.8	2030.9
17.5°	1817.9	1820.7	1833.0	1859.1	1892.1	1927.9	1962.2	2004.8	2041.9	2079.0	2125.7
20°	1815.2	1817.9	1835.8	1868.8	1908.6	1956.7	2004.8	2058.4	2113.4	2169.7	2230.2
22.5°	1809.7	1815.2	1837.2	1877.0	1926.5	1989.7	2050.1	2123.0	2197.2	2271.4	2355.2
25°	1802.8	1808.3	1837.2	1883.9	1947.1	2022.7	2101.0	2194.4	2287.9	2388.2	2499.5
27.5°	1791.8	1800.1	1834.4	1890.8	1967.7	2058.4	2157.3	2271.4	2393.7	2525.6	2653.4
30°	1779.4	1789.1	1828.9	1894.9	1986.9	2095.5	2216.4	2357.9	2516.0	2671.2	2841.6
32.5°	1761.6	1772.6	1819.3	1899.0	2003.4	2134.0	2278.2	2461.0	2647.9	2844.4	3045.0
35°	1742.3	1756.1	1811.1	1901.7	2021.3	2177.9	2352.4	2570.9	2794.9	3029.9	3258.0
37.5°	1721.7	1738.2	1800.1	1904.5	2041.9	2220.5	2434.9	2680.9	2944.7	3205.8	3480.6
40°	1699.8	1720.4	1787.7	1905.9	2062.5	2270.0	2517.3	2796.3	3087.6	3392.6	3701.8
42.5°	1679.1	1702.5	1775.3	1905.9	2083.1	2318.1	2592.9	2909.0	3234.6	3571.3	3913.4
45°	1662.7	1687.4	1764.3	1905.9	2103.7	2366.2	2667.1	3018.9	3377.5	3741.7	4119.5
47.5°	1646.2	1672.3	1753.3	1904.5	2123.0	2411.5	2737.2	3115.1	3502.6	3905.2	4329.8
50°	1628.3	1657.2	1743.7	1904.5	2140.8	2452.8	2800.4	3197.5	3612.5	4053.6	4513.9
52.5°	1610.4	1639.3	1732.7	1903.1	2158.7	2484.4	2847.1	3258.0	3704.6	4173.1	4663.7
55°	1583.0	1615.9	1714.9	1897.6	2165.6	2498.1	2866.4	3299.2	3763.6	4254.2	4775.0
57.5°	1554.1	1588.5	1691.5	1885.3	2160.1	2489.9	2863.6	3312.9	3788.4	4300.9	4835.4
60°	1521.1	1554.1	1657.2	1859.1	2132.6	2458.3	2845.7	3293.7	3782.9	4302.3	4846.4
62.5°	1484.0	1512.9	1614.6	1817.9	2081.8	2404.7	2792.2	3249.7	3737.5	4254.2	4775.0
65°	1427.7	1453.8	1558.2	1757.5	2004.8	2326.3	2711.1	3161.8	3631.7	4125.0	4608.7
67.5°	1346.6	1372.7	1481.3	1673.6	1910.0	2221.9	2599.8	3029.9	3457.2	3906.5	4313.3
70°	1240.8	1266.9	1382.3	1559.6	1787.7	2094.1	2448.6	2837.5	3220.9	3538.3	3719.7
72.5°	1111.6	1141.9	1258.7	1422.2	1647.5	1934.7	2261.8	2610.8	2823.8	3058.7	3377.5
75°	964.6	999.0	1113.0	1265.5	1484.0	1741.0	2044.6	2242.5	2485.7	2793.5	3068.3
77.5°	805.2	847.8	950.9	1097.9	1295.8	1532.1	1717.6	1975.9	2224.7	2478.9	2730.3
80°	640.3	688.4	780.5	916.5	1092.4	1249.1	1467.5	1702.5	1934.7	2184.8	2429.4
82.5°	475.4	523.5	608.7	726.9	851.9	1003.1	1206.5	1437.3	1692.9	1988.3	2283.7
85°	314.7	355.9	431.5	494.7	618.3	784.6	1026.4	1272.4	1489.5	1719.0	1940.2
87.5°	164.9	189.6	235.0	325.7	460.3	585.4	748.9	917.9	1069.0	1269.7	1440.0
90°	23.4	24.7	33.0	44.0	85.2	122.3	199.2	289.9	328.4	437.0	487.8
92.5°	35.7	34.4	28.9	22.0	17.9	17.9	16.5	15.1	13.7	11.0	8.2
95°	159.4	173.1	158.0	136.0	107.2	94.8	70.1	49.5	41.2	31.6	28.9
97.5°	292.7	325.7	327.0	305.0	291.3	267.9	232.2	225.4	215.7	188.3	164.9
100°	441.1	487.8	502.9	485.1	479.6	511.2	502.9	467.2	421.8	386.1	402.6
102.5°	592.2	634.8	665.1	715.9	654.1	698.0	759.9	799.7	828.6	802.5	744.8
105°	691.2	726.9	781.9	854.7	908.3	838.2	897.3	1040.2	1172.1	1247.7	1295.8
107.5°	779.1	803.8	872.5	961.9	1062.2	1119.9	1029.2	1125.4	1346.6	1565.1	1724.5
110°	882.2	898.7	935.8	1059.4	1169.4	1316.4	1349.4	1272.4	1381.0	1629.7	1952.6



TEST NUMBER: P236471

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L850-CD4-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	959.1	963.2	952.2	1102.0	1249.1	1393.3	1595.3	1633.8	1592.6	1668.1	1867.4
115°	1011.3	1004.5	966.0	1088.3	1280.7	1452.4	1648.9	1896.2	1962.2	1967.7	2000.7
117.5°	1040.2	1027.8	992.1	1066.3	1276.5	1485.4	1686.0	1936.1	2194.4	2301.6	2392.3
120°	1049.8	1036.1	1025.1	1022.3	1220.2	1479.9	1714.9	1944.3	2206.8	2478.9	2632.8
122.5°	1048.4	1037.4	1052.6	979.7	1152.9	1437.3	1705.2	1949.8	2186.2	2454.1	2720.7
125°	1041.6	1033.3	1063.5	971.5	1106.1	1341.1	1644.8	1922.4	2160.1	2404.7	2645.1
127.5°	1025.1	1021.0	1059.4	977.0	1042.9	1240.8	1555.5	1849.5	2105.1	2344.2	2576.4
130°	997.6	997.6	1034.7	997.6	974.2	1157.0	1398.8	1725.9	1997.9	2249.4	2487.1
132.5°	938.5	945.4	979.7	997.6	934.4	1077.3	1257.3	1551.4	1827.5	2107.9	2338.7
135°	867.1	880.8	916.5	966.0	894.5	966.0	1147.4	1339.7	1642.0	1897.6	2161.4
137.5°	813.5	831.3	867.1	931.6	906.9	909.6	1074.5	1211.9	1400.2	1692.9	1921.0
140°	768.1	787.4	823.1	893.2	911.0	865.7	950.9	1122.6	1246.3	1426.3	1690.1
142.5°	736.5	753.0	786.0	850.6	889.0	854.7	891.8	1015.5	1133.6	1255.9	1400.2
145°	715.9	729.6	757.1	809.3	864.3	875.3	842.3	908.3	1042.9	1130.9	1236.7
147.5°	715.9	721.4	737.9	772.2	838.2	868.4	843.7	857.4	912.4	1060.8	1118.5
150°	720.0	721.4	736.5	758.5	812.1	856.1	875.3	816.2	856.1	909.6	1008.6
152.5°	707.7	714.5	742.0	765.4	799.7	843.7	856.1	856.1	805.2	846.4	882.2
155°	700.8	706.3	735.1	757.1	780.5	820.3	842.3	854.7	846.4	795.6	821.7
157.5°	699.4	702.2	724.1	746.1	768.1	792.9	825.8	838.2	843.7	849.2	816.2
160°	698.0	699.4	718.7	736.5	757.1	773.6	797.0	823.1	828.6	831.3	851.9
162.5°	696.7	698.0	713.2	732.4	746.1	761.2	773.6	792.9	809.3	819.0	823.1
165°	696.7	696.7	707.7	726.9	737.9	748.9	758.5	766.7	770.9	784.6	797.0
167.5°	696.7	696.7	702.2	715.9	731.0	735.1	740.6	747.5	746.1	746.1	746.1
170°	698.0	698.0	698.0	704.9	717.3	725.5	725.5	726.9	722.8	718.7	710.4
172.5°	696.7	695.3	695.3	695.3	699.4	703.5	707.7	709.0	702.2	695.3	684.3
175°	695.3	693.9	691.2	688.4	688.4	684.3	681.5	678.8	673.3	670.6	662.3
177.5°	693.9	692.5	689.8	685.7	682.9	676.1	669.2	660.9	648.6	640.3	628.0
180°	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8



TEST NUMBER: P236471

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L850-CD4-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2	1782.2
2.5°	1772.6	1767.1	1767.1	1769.8	1774.0	1774.0	1774.0	1779.4
5°	1797.3	1795.9	1798.7	1804.2	1808.3	1808.3	1806.9	1813.8
7.5°	1839.9	1841.3	1846.8	1856.4	1863.3	1864.6	1864.6	1872.9
10°	1896.2	1904.5	1919.6	1933.3	1944.3	1948.5	1951.2	1959.5
12.5°	1971.8	1985.6	2004.8	2025.4	2041.9	2050.1	2054.3	2059.8
15°	2059.8	2085.9	2114.7	2142.2	2165.6	2179.3	2186.2	2199.9
17.5°	2168.3	2204.0	2239.8	2281.0	2312.6	2331.8	2342.8	2351.1
20°	2289.2	2345.6	2399.2	2454.1	2495.4	2520.1	2532.5	2540.7
22.5°	2439.0	2513.2	2581.9	2650.6	2698.7	2738.6	2756.4	2761.9
25°	2602.5	2698.7	2793.5	2881.5	2947.4	2981.8	3001.0	3009.3
27.5°	2794.9	2919.9	3027.1	3126.1	3200.3	3256.6	3282.7	3293.7
30°	3010.6	3153.5	3288.2	3414.6	3499.8	3560.3	3593.3	3605.6
32.5°	3242.9	3425.6	3578.1	3711.4	3829.6	3894.2	3935.4	3947.8
35°	3501.2	3701.8	3891.4	4057.7	4182.7	4252.8	4276.2	4288.5
37.5°	3748.5	3997.2	4208.8	4388.9	4546.9	4660.9	4728.3	4755.7
40°	4008.2	4280.3	4522.1	4758.5	4981.1	5132.2	5210.6	5236.7
42.5°	4254.2	4567.5	4867.0	5144.6	5364.5	5474.4	5537.6	5562.3
45°	4508.4	4868.4	5205.1	5492.2	5691.5	5790.4	5855.0	5877.0
47.5°	4755.7	5151.5	5518.4	5808.3	6039.1	6191.7	6281.0	6312.6
50°	4974.2	5407.1	5791.8	6113.3	6338.7	6456.9	6528.3	6562.7
52.5°	5159.7	5611.8	6014.4	6315.3	6543.4	6687.7	6778.4	6814.1
55°	5279.3	5753.3	6157.3	6477.5	6720.7	6877.3	6977.6	7024.4
57.5°	5352.1	5828.9	6235.6	6562.7	6818.2	6983.1	7087.6	7145.3
60°	5346.6	5808.3	6212.3	6533.8	6777.0	6948.8	7060.1	7127.4
62.5°	5254.5	5680.5	6046.0	6314.0	6513.2	6584.7	6595.6	6646.5
65°	5036.0	5363.1	5536.2	5632.4	5761.6	5837.1	5867.4	5916.8
67.5°	4508.4	4681.5	4915.1	5126.7	5313.6	5415.3	5475.8	5515.6
70°	3983.5	4277.6	4534.5	4742.0	4893.1	4998.9	5029.2	5078.6
72.5°	3659.2	3912.0	4129.1	4298.2	4428.7	4508.4	4519.4	4537.3
75°	3295.1	3494.3	3704.6	3892.8	4044.0	4131.9	4191.0	4217.1
77.5°	2969.4	3189.3	3398.1	3587.8	3749.9	3846.1	3906.5	3928.5
80°	2675.4	2948.8	3207.1	3418.7	3596.0	3725.2	3770.5	3788.4
82.5°	2540.7	2770.2	2969.4	3113.7	3236.0	3300.6	3315.7	3318.4
85°	2143.6	2309.8	2461.0	2586.0	2700.1	2772.9	2800.4	2796.3
87.5°	1607.7	1743.7	1882.5	2000.7	2117.5	2199.9	2230.2	2227.4
90°	575.7	575.7	652.7	695.3	814.8	890.4	864.3	787.4
92.5°	5.5	5.5	4.1	2.7	2.7	1.4	1.4	1.4
95°	26.1	26.1	24.7	24.7	24.7	23.4	23.4	23.4
97.5°	133.3	119.5	100.3	87.9	71.5	61.8	60.5	57.7
100°	404.0	397.1	376.5	364.1	346.3	332.5	328.4	328.4
102.5°	670.6	607.3	590.9	604.6	619.7	625.2	625.2	629.3
105°	1321.9	1315.0	1280.7	1214.7	1136.4	1064.9	1038.8	1037.4
107.5°	1839.9	1943.0	2015.8	2050.1	2068.0	2054.3	2050.1	2066.6
110°	2195.8	2390.9	2554.4	2668.5	2744.1	2766.0	2782.5	2803.1



TEST NUMBER: P236471

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L850-CD4-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	2197.2	2557.2	2867.7	3057.4	3186.5	3242.9	3275.8	3299.2
115°	2147.7	2359.3	2690.5	2985.9	3253.9	3431.1	3525.9	3568.5
117.5°	2384.1	2448.6	2602.5	2748.2	2895.2	3017.5	3095.8	3128.8
120°	2715.2	2797.7	2812.8	2859.5	2939.2	2968.0	2985.9	3003.8
122.5°	2893.8	2966.7	3067.0	3167.3	3225.0	3271.7	3306.1	3330.8
125°	2919.9	3076.6	3205.8	3263.5	3296.4	3354.2	3451.7	3501.2
127.5°	2797.7	3021.6	3229.1	3300.6	3376.1	3392.6	3407.7	3414.6
130°	2698.7	2896.6	3049.1	3203.0	3330.8	3387.1	3396.8	3396.8
132.5°	2569.6	2735.8	2909.0	3035.4	3106.8	3159.0	3192.0	3205.8
135°	2364.8	2557.2	2715.2	2829.3	2930.9	2981.8	3003.8	3014.8
137.5°	2146.3	2323.6	2477.5	2628.6	2734.4	2789.4	2810.0	2815.5
140°	1885.3	2054.3	2227.4	2366.2	2461.0	2531.1	2565.4	2570.9
142.5°	1624.2	1798.7	1932.0	2054.3	2166.9	2254.9	2301.6	2314.0
145°	1341.1	1486.8	1651.7	1775.3	1874.3	1936.1	1975.9	1991.1
147.5°	1195.5	1276.5	1348.0	1440.0	1537.6	1628.3	1683.3	1695.6
150°	1093.8	1140.5	1195.5	1247.7	1288.9	1313.6	1332.9	1321.9
152.5°	944.0	1074.5	1100.6	1121.3	1137.7	1157.0	1146.0	1146.0
155°	849.2	880.8	934.4	982.5	1071.8	1047.1	1041.6	1038.8
157.5°	790.1	803.8	827.2	834.1	830.0	823.1	827.2	817.6
160°	834.1	802.5	759.9	758.5	737.9	726.9	721.4	715.9
162.5°	824.5	832.7	832.7	812.1	780.5	746.1	725.5	718.7
165°	805.2	808.0	810.7	802.5	794.2	776.4	766.7	765.4
167.5°	751.6	765.4	776.4	786.0	792.9	781.9	762.6	757.1
170°	706.3	707.7	710.4	721.4	737.9	742.0	731.0	699.4
172.5°	673.3	669.2	667.8	677.4	699.4	717.3	724.1	742.0
175°	648.6	636.2	632.1	641.7	665.1	691.2	720.0	726.9
177.5°	611.5	596.4	588.1	597.7	619.7	654.1	688.4	692.5
180°	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8

(END OF REPORT)