

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: P236469

Luminaire Tested: **SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236469
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-L835-CD4-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (952) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

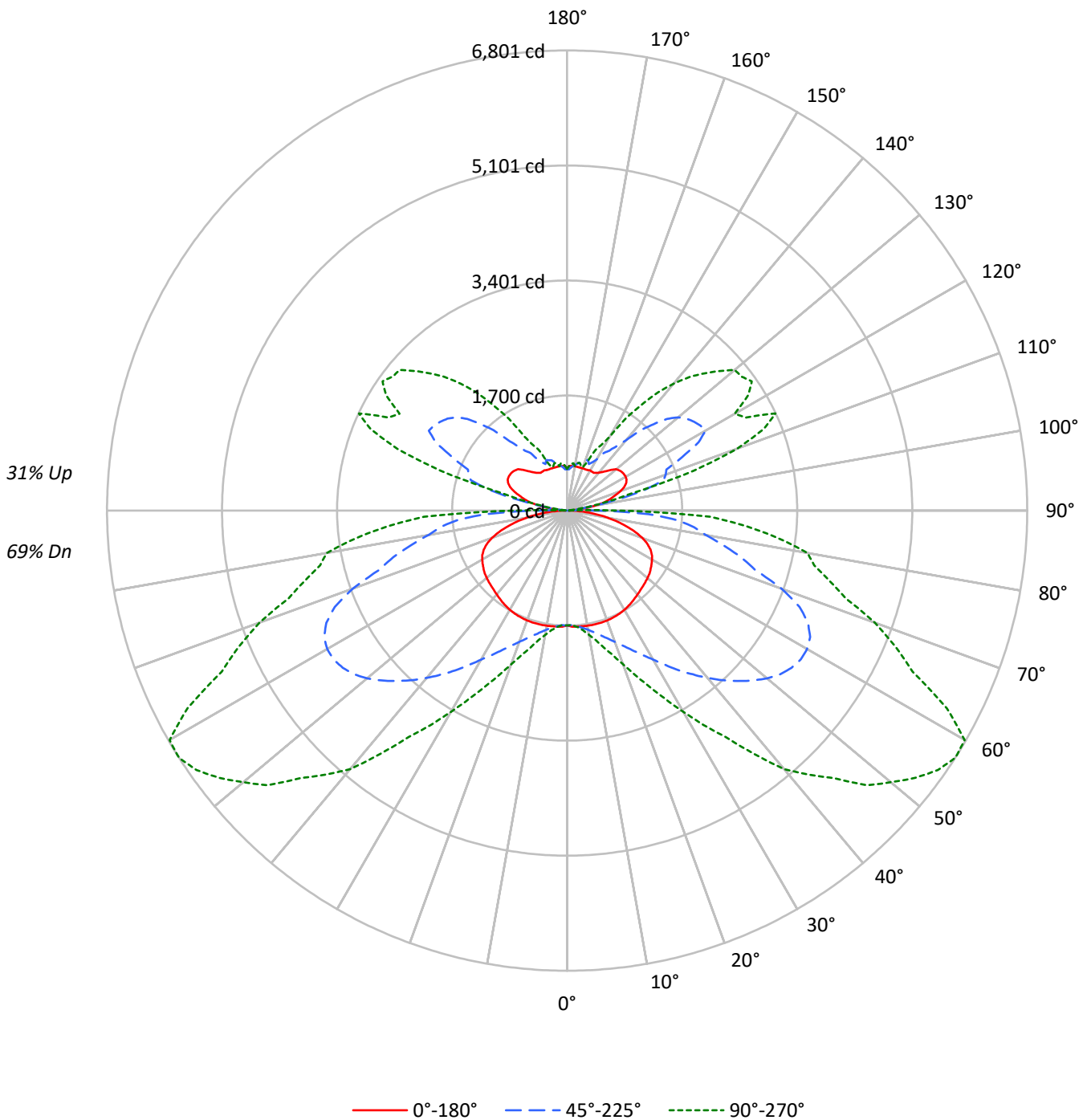
Lumens per Lamp: N/A
Luminaire Lumens: 25978.0 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.49 / 3.46 / 2.71
Luminous Opening: Rectangular (W 1.88' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

TEST NUMBER: P236469

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal

Luminous Intensity Polar Plot





TEST NUMBER: P236469

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal

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°	2435	2435	2435
5°	2480	2470	2487
10°	2518	2606	2718
15°	2571	2835	3111
20°	2639	3154	3694
25°	2717	3600	4536
30°	2807	4214	5688
35°	2906	5053	7152
40°	3031	6050	9338
45°	3212	7229	11354
50°	3461	8615	13947
55°	3770	10132	16730
60°	4156	11754	19474
65°	4615	13334	19126
70°	4956	14132	20285
75°	5092	14745	22259
80°	5037	17188	29803
85°	4932	26943	43828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.5	0.6
10°-20°	547.7	2.1
20°-30°	1070.6	4.1
30°-40°	1826.5	7.0
40°-50°	2788.1	10.7
50°-60°	3645.3	14.0
60°-70°	3651.9	14.1
70°-80°	2737.2	10.5
80°-90°	1597.8	6.2
90°-100°	177.0	0.7
100°-110°	1093.1	4.2
110°-120°	1940.8	7.5
120°-130°	1914.8	7.4
130°-140°	1400.8	5.4
140°-150°	765.6	2.9
150°-160°	386.7	1.5
160°-170°	205.2	0.8
170°-180°	62.5	0.2
0°-30°	1784.8	6.9
0°-40°	3611.3	13.9
0°-60°	10044.7	38.7
0°-90°	18031.6	69.4
90°-120°	3210.9	12.4
90°-150°	7292.0	28.1
90°-180°	7946.0	30.6
0°-180°	25978.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1721	1727	1715	1715	1726	164
15°	1730	1796	1908	2026	2094	490
25°	1716	1889	2273	2701	2864	793
35°	1658	1999	2884	3783	4082	1040
45°	1583	2127	3562	5091	5594	1225
55°	1507	2220	4049	6013	6686	1349
65°	1359	2061	3926	5315	5632	1330
75°	918	1535	2659	3616	4014	960
85°	300	668	1636	2402	2662	309
90°	22	99	416	642	749	32
95°	152	96	30	24	22	179
105°	658	831	1188	1188	988	684
115°	963	1301	1873	2702	3397	938
125°	991	1165	2289	3079	3333	884
135°	825	886	1806	2639	2870	648
145°	681	828	1076	1631	1895	436
155°	667	762	757	912	989	311
165°	663	708	747	768	728	188
175°	662	653	638	606	692	63
180°	615	615	615	615	615	



TEST NUMBER: P236469

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4
2.5°	1717.3	1718.6	1719.9	1719.9	1721.2	1721.2	1712.1	1708.2	1702.9	1696.4	1692.5
5°	1721.2	1721.2	1722.6	1723.9	1726.5	1727.8	1722.6	1719.9	1717.3	1714.7	1713.4
7.5°	1723.9	1725.2	1726.5	1729.1	1738.2	1744.8	1740.9	1743.5	1746.1	1746.1	1748.7
10°	1727.8	1729.1	1733.0	1742.2	1755.2	1769.6	1773.6	1780.1	1785.3	1787.9	1795.8
12.5°	1730.4	1731.7	1739.6	1752.6	1769.6	1787.9	1798.4	1812.8	1827.2	1844.2	1859.9
15°	1730.4	1733.0	1743.5	1760.5	1784.0	1808.9	1828.5	1857.3	1883.4	1908.3	1933.1
17.5°	1730.4	1733.0	1744.8	1769.6	1801.0	1835.0	1867.7	1908.3	1943.6	1978.9	2023.4
20°	1727.8	1730.4	1747.4	1778.8	1816.7	1862.5	1908.3	1959.3	2011.6	2065.2	2122.8
22.5°	1722.6	1727.8	1748.7	1786.6	1833.7	1893.9	1951.4	2020.8	2091.4	2162.0	2241.8
25°	1716.0	1721.2	1748.7	1793.2	1853.3	1925.3	1999.8	2088.8	2177.7	2273.2	2379.1
27.5°	1705.5	1713.4	1746.1	1799.7	1873.0	1959.3	2053.5	2162.0	2278.4	2404.0	2525.6
30°	1693.8	1702.9	1740.9	1803.6	1891.3	1994.6	2109.7	2244.4	2394.8	2542.6	2704.8
32.5°	1676.8	1687.2	1731.7	1807.6	1907.0	2031.2	2168.6	2342.5	2520.4	2707.4	2898.4
35°	1658.5	1671.5	1723.9	1810.2	1924.0	2073.1	2239.2	2447.1	2660.3	2884.0	3101.1
37.5°	1638.8	1654.5	1713.4	1812.8	1943.6	2113.6	2317.7	2551.8	2802.9	3051.4	3313.0
40°	1617.9	1637.5	1701.6	1814.1	1963.2	2160.7	2396.1	2661.6	2938.9	3229.3	3523.6
42.5°	1598.3	1620.5	1689.9	1814.1	1982.8	2206.5	2468.1	2768.9	3078.9	3399.3	3725.0
45°	1582.6	1606.1	1679.4	1814.1	2002.4	2252.3	2538.7	2873.5	3214.9	3561.5	3921.2
47.5°	1566.9	1591.8	1668.9	1812.8	2020.8	2295.4	2605.4	2965.1	3333.9	3717.2	4121.3
50°	1549.9	1577.4	1659.8	1812.8	2037.8	2334.7	2665.6	3043.6	3438.6	3858.4	4296.6
52.5°	1532.9	1560.4	1649.3	1811.5	2054.8	2364.7	2710.0	3101.1	3526.2	3972.2	4439.1
55°	1506.7	1538.1	1632.3	1806.3	2061.3	2377.8	2728.4	3140.4	3582.4	4049.4	4545.1
57.5°	1479.3	1512.0	1610.1	1794.5	2056.1	2370.0	2725.7	3153.4	3606.0	4093.8	4602.6
60°	1447.9	1479.3	1577.4	1769.6	2029.9	2339.9	2708.7	3135.1	3600.7	4095.1	4613.1
62.5°	1412.6	1440.0	1536.8	1730.4	1981.5	2288.9	2657.7	3093.3	3557.6	4049.4	4545.1
65°	1358.9	1383.8	1483.2	1672.8	1908.3	2214.3	2580.6	3009.6	3456.9	3926.4	4386.8
67.5°	1281.8	1306.6	1410.0	1593.1	1818.0	2114.9	2474.6	2884.0	3290.8	3718.5	4105.6
70°	1181.1	1205.9	1315.8	1484.5	1701.6	1993.3	2330.7	2700.9	3065.8	3367.9	3540.6
72.5°	1058.1	1086.9	1198.1	1353.7	1568.2	1841.6	2152.9	2485.1	2687.8	2911.5	3214.9
75°	918.2	950.9	1059.4	1204.6	1412.6	1657.2	1946.2	2134.6	2366.1	2659.0	2920.6
77.5°	766.5	807.0	905.1	1045.0	1233.4	1458.3	1634.9	1880.8	2117.5	2359.5	2598.9
80°	609.5	655.3	742.9	872.4	1039.8	1188.9	1396.9	1620.5	1841.6	2079.6	2312.4
82.5°	452.5	498.3	579.4	691.9	810.9	954.8	1148.4	1368.1	1611.4	1892.6	2173.8
85°	299.5	338.8	410.7	470.9	588.6	746.8	977.0	1211.1	1417.8	1636.2	1846.8
87.5°	157.0	180.5	223.7	310.0	438.2	557.2	712.8	873.7	1017.6	1208.5	1370.7
90°	22.2	23.5	31.4	41.9	81.1	116.4	189.7	276.0	312.6	415.9	464.3
92.5°	34.0	32.7	27.5	20.9	17.0	17.0	15.7	14.4	13.1	10.5	7.8
95°	151.7	164.8	150.4	129.5	102.0	90.2	66.7	47.1	39.2	30.1	27.5
97.5°	278.6	310.0	311.3	290.4	277.3	255.0	221.0	214.5	205.3	179.2	157.0
100°	419.8	464.3	478.7	461.7	456.5	486.6	478.7	444.7	401.5	367.5	383.2
102.5°	563.7	604.3	633.0	681.4	622.6	664.4	723.3	761.2	788.7	763.8	708.9
105°	657.9	691.9	744.2	813.5	864.5	797.8	854.1	990.1	1115.7	1187.6	1233.4
107.5°	741.6	765.1	830.5	915.6	1011.0	1066.0	979.6	1071.2	1281.8	1489.7	1641.5
110°	839.7	855.4	890.7	1008.4	1113.1	1253.0	1284.4	1211.1	1314.5	1551.2	1858.6



TEST NUMBER: P236469

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	912.9	916.9	906.4	1049.0	1188.9	1326.2	1518.5	1555.1	1515.9	1587.8	1777.5
115°	962.6	956.1	919.5	1035.9	1219.0	1382.5	1569.5	1805.0	1867.7	1873.0	1904.4
117.5°	990.1	978.3	944.3	1015.0	1215.1	1413.9	1604.8	1842.9	2088.8	2190.8	2277.1
120°	999.3	986.2	975.7	973.1	1161.4	1408.6	1632.3	1850.7	2100.5	2359.5	2506.0
122.5°	998.0	987.5	1001.9	932.6	1097.4	1368.1	1623.1	1856.0	2080.9	2336.0	2589.7
125°	991.4	983.6	1012.3	924.7	1052.9	1276.5	1565.6	1829.8	2056.1	2288.9	2517.8
127.5°	975.7	971.8	1008.4	929.9	992.7	1181.1	1480.6	1760.5	2003.8	2231.3	2452.4
130°	949.6	949.6	984.9	949.6	927.3	1101.3	1331.5	1642.8	1901.7	2141.1	2367.4
132.5°	893.3	899.9	932.6	949.6	889.4	1025.4	1196.8	1476.7	1739.6	2006.4	2226.1
135°	825.3	838.4	872.4	919.5	851.5	919.5	1092.1	1275.2	1563.0	1806.3	2057.4
137.5°	774.3	791.3	825.3	886.8	863.2	865.9	1022.8	1153.6	1332.8	1611.4	1828.5
140°	731.1	749.4	783.5	850.2	867.2	824.0	905.1	1068.6	1186.3	1357.6	1608.8
142.5°	701.1	716.7	748.1	809.6	846.2	813.5	848.9	966.6	1079.0	1195.5	1332.8
145°	681.4	694.5	720.7	770.4	822.7	833.2	801.8	864.5	992.7	1076.4	1177.1
147.5°	681.4	686.7	702.4	735.1	797.8	826.6	803.1	816.2	868.5	1009.7	1064.7
150°	685.4	686.7	701.1	722.0	773.0	814.8	833.2	776.9	814.8	865.9	960.0
152.5°	673.6	680.1	706.3	728.5	761.2	803.1	814.8	814.8	766.5	805.7	839.7
155°	667.0	672.3	699.7	720.7	742.9	780.8	801.8	813.5	805.7	757.3	782.1
157.5°	665.7	668.4	689.3	710.2	731.1	754.7	786.1	797.8	803.1	808.3	776.9
160°	664.4	665.7	684.1	701.1	720.7	736.4	758.6	783.5	788.7	791.3	810.9
162.5°	663.1	664.4	678.8	697.1	710.2	724.6	736.4	754.7	770.4	779.5	783.5
165°	663.1	663.1	673.6	691.9	702.4	712.8	722.0	729.8	733.8	746.8	758.6
167.5°	663.1	663.1	668.4	681.4	695.8	699.7	705.0	711.5	710.2	710.2	710.2
170°	664.4	664.4	664.4	671.0	682.7	690.6	690.6	691.9	688.0	684.1	676.2
172.5°	663.1	661.8	661.8	661.8	665.7	669.7	673.6	674.9	668.4	661.8	651.4
175°	661.8	660.5	657.9	655.3	655.3	651.4	648.7	646.1	640.9	638.3	630.4
177.5°	660.5	659.2	656.6	652.7	650.0	643.5	637.0	629.1	617.3	609.5	597.7
180°	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7



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CATALOG NUMBER: SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4	1696.4
2.5°	1687.2	1682.0	1682.0	1684.6	1688.5	1688.5	1688.5	1693.8
5°	1710.8	1709.5	1712.1	1717.3	1721.2	1721.2	1719.9	1726.5
7.5°	1751.3	1752.6	1757.9	1767.0	1773.6	1774.9	1774.9	1782.7
10°	1805.0	1812.8	1827.2	1840.3	1850.7	1854.7	1857.3	1865.1
12.5°	1876.9	1890.0	1908.3	1927.9	1943.6	1951.4	1955.4	1960.6
15°	1960.6	1985.4	2012.9	2039.1	2061.3	2074.4	2080.9	2094.0
17.5°	2063.9	2097.9	2131.9	2171.2	2201.3	2219.6	2230.0	2237.9
20°	2179.0	2232.6	2283.7	2336.0	2375.2	2398.8	2410.5	2418.4
22.5°	2321.6	2392.2	2457.6	2523.0	2568.8	2606.7	2623.7	2629.0
25°	2477.2	2568.8	2659.0	2742.7	2805.5	2838.2	2856.5	2864.4
27.5°	2660.3	2779.4	2881.4	2975.6	3046.2	3099.8	3124.7	3135.1
30°	2865.7	3001.7	3129.9	3250.2	3331.3	3388.9	3420.3	3432.0
32.5°	3086.7	3260.7	3405.9	3532.7	3645.2	3706.7	3745.9	3757.7
35°	3332.6	3523.6	3704.1	3862.3	3981.4	4048.1	4070.3	4082.1
37.5°	3568.0	3804.8	4006.2	4177.5	4328.0	4436.5	4500.6	4526.8
40°	3815.2	4074.2	4304.4	4529.4	4741.3	4885.1	4959.7	4984.5
42.5°	4049.4	4347.6	4632.7	4896.9	5106.2	5210.8	5271.0	5294.5
45°	4291.3	4634.0	4954.5	5227.8	5417.5	5511.6	5573.1	5594.0
47.5°	4526.8	4903.5	5252.7	5528.6	5748.4	5893.6	5978.6	6008.7
50°	4734.7	5146.7	5512.9	5819.0	6033.5	6146.0	6214.0	6246.7
52.5°	4911.3	5341.6	5724.8	6011.3	6228.4	6365.7	6452.0	6486.1
55°	5025.1	5476.3	5860.9	6165.6	6397.1	6546.2	6641.7	6686.2
57.5°	5094.4	5548.3	5935.4	6246.7	6490.0	6646.9	6746.3	6801.3
60°	5089.2	5528.6	5913.2	6219.2	6450.7	6614.2	6720.2	6784.3
62.5°	5001.5	5407.0	5754.9	6010.0	6199.6	6267.6	6278.1	6326.5
65°	4793.6	5104.9	5269.7	5361.2	5484.2	5556.1	5584.9	5632.0
67.5°	4291.3	4456.1	4678.5	4879.9	5057.8	5154.6	5212.1	5250.1
70°	3791.7	4071.6	4316.2	4513.7	4657.6	4758.3	4787.0	4834.1
72.5°	3483.0	3723.7	3930.3	4091.2	4215.5	4291.3	4301.8	4318.8
75°	3136.4	3326.1	3526.2	3705.4	3849.3	3933.0	3989.2	4014.1
77.5°	2826.4	3035.7	3234.5	3415.0	3569.4	3660.9	3718.5	3739.4
80°	2546.6	2806.8	3052.7	3254.1	3422.9	3545.8	3589.0	3606.0
82.5°	2418.4	2636.8	2826.4	2963.8	3080.2	3141.7	3156.0	3158.7
85°	2040.4	2198.6	2342.5	2461.5	2570.1	2639.4	2665.6	2661.6
87.5°	1530.3	1659.8	1791.9	1904.4	2015.5	2094.0	2122.8	2120.2
90°	548.0	548.0	621.3	661.8	775.6	847.5	822.7	749.4
92.5°	5.2	5.2	3.9	2.6	2.6	1.3	1.3	1.3
95°	24.9	24.9	23.5	23.5	23.5	22.2	22.2	22.2
97.5°	126.9	113.8	95.5	83.7	68.0	58.9	57.5	54.9
100°	384.5	378.0	358.4	346.6	329.6	316.5	312.6	312.6
102.5°	638.3	578.1	562.4	575.5	589.9	595.1	595.1	599.0
105°	1258.2	1251.7	1219.0	1156.2	1081.7	1013.7	988.8	987.5
107.5°	1751.3	1849.4	1918.7	1951.4	1968.4	1955.4	1951.4	1967.1
110°	2090.1	2275.8	2431.5	2540.0	2611.9	2632.9	2648.6	2668.2



TEST NUMBER: P236469

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L835-CD4-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	2091.4	2434.1	2729.7	2910.2	3033.1	3086.7	3118.1	3140.4
115°	2044.3	2245.7	2560.9	2842.1	3097.2	3265.9	3356.2	3396.7
117.5°	2269.3	2330.7	2477.2	2615.9	2755.8	2872.2	2946.8	2978.2
120°	2584.5	2663.0	2677.3	2721.8	2797.7	2825.1	2842.1	2859.1
122.5°	2754.5	2823.8	2919.3	3014.8	3069.7	3114.2	3146.9	3170.4
125°	2779.4	2928.5	3051.4	3106.3	3137.7	3192.7	3285.5	3332.6
127.5°	2663.0	2876.2	3073.6	3141.7	3213.6	3229.3	3243.7	3250.2
130°	2568.8	2757.1	2902.3	3048.8	3170.4	3224.1	3233.2	3233.2
132.5°	2445.8	2604.1	2768.9	2889.2	2957.2	3006.9	3038.3	3051.4
135°	2251.0	2434.1	2584.5	2693.0	2789.8	2838.2	2859.1	2869.6
137.5°	2043.0	2211.7	2358.2	2502.1	2602.8	2655.1	2674.7	2680.0
140°	1794.5	1955.4	2120.2	2252.3	2342.5	2409.2	2441.9	2447.1
142.5°	1546.0	1712.1	1839.0	1955.4	2062.6	2146.3	2190.8	2202.6
145°	1276.5	1415.2	1572.1	1689.9	1784.0	1842.9	1880.8	1895.2
147.5°	1137.9	1215.1	1283.1	1370.7	1463.6	1549.9	1602.2	1614.0
150°	1041.1	1085.6	1137.9	1187.6	1226.8	1250.4	1268.7	1258.2
152.5°	898.6	1022.8	1047.7	1067.3	1083.0	1101.3	1090.8	1090.8
155°	808.3	838.4	889.4	935.2	1020.2	996.6	991.4	988.8
157.5°	752.1	765.1	787.4	793.9	790.0	783.5	787.4	778.2
160°	793.9	763.8	723.3	722.0	702.4	691.9	686.7	681.4
162.5°	784.8	792.6	792.6	773.0	742.9	710.2	690.6	684.1
165°	766.5	769.1	771.7	763.8	756.0	739.0	729.8	728.5
167.5°	715.4	728.5	739.0	748.1	754.7	744.2	725.9	720.7
170°	672.3	673.6	676.2	686.7	702.4	706.3	695.8	665.7
172.5°	640.9	637.0	635.7	644.8	665.7	682.7	689.3	706.3
175°	617.3	605.6	601.7	610.8	633.0	657.9	685.4	691.9
177.5°	582.0	567.6	559.8	569.0	589.9	622.6	655.3	659.2
180°	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7

(END OF REPORT)