

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: P236453

Luminaire Tested: **SKB2-LD5-9-W-UNV-L850-CD1-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236453  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24074)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB2-LD5-9-W-UNV-L850-CD1-U all blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES  
Light Source: (476) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

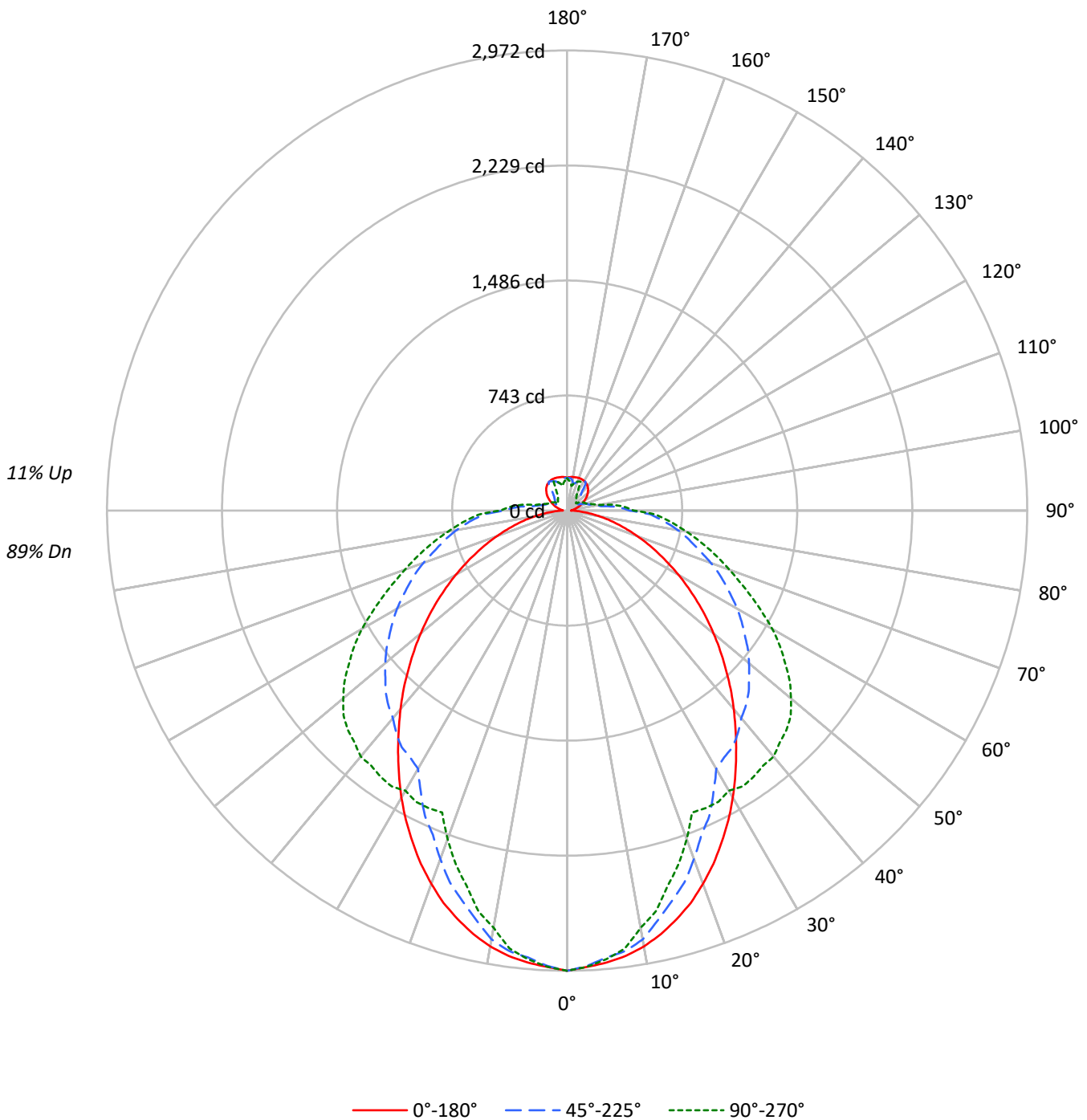
Lumens per Lamp: N/A  
Luminaire Lumens: 9199.0 lumens  
Efficiency: N/A  
Efficacy: 122.0 lumens/watt  
Spacing Criteria (0/90/45): 1.09 / 1.03 / 1.25  
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')  
CIE Type: Semi-Direct

Input Watts (W): 75.4  
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

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CATALOG NUMBER: SKB2-LD5-9-W-UNV-L850-CD1-U all blades tilted out 20 degrees

### 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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	99	94	89	100	95	91	86	89	85	82	83	80	77	78	75	73	70
2	94	85	77	71	90	82	75	69	77	71	66	72	67	63	67	63	60	57
3	85	74	65	58	82	72	64	57	67	60	55	63	57	52	59	54	50	47
4	78	65	56	49	75	63	55	48	59	52	46	56	50	45	52	47	43	40
5	72	58	49	42	69	57	48	41	53	46	40	50	44	39	47	42	37	35
6	66	52	43	37	63	51	42	36	48	40	35	45	39	34	43	37	33	30
7	61	48	39	32	59	46	38	32	44	36	31	41	35	30	39	33	29	27
8	57	43	35	29	55	42	34	28	40	33	28	38	31	27	36	30	26	24
9	53	40	31	26	51	39	31	26	37	30	25	35	29	24	33	28	23	21
10	50	37	29	23	48	36	28	23	34	27	23	32	26	22	31	25	21	19

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12798	12798	12798
5°	12551	12315	12390
10°	12271	11895	11618
15°	11845	11069	10701
20°	11323	10257	9749
25°	10703	9485	9343
30°	10039	8624	9475
35°	9325	8641	9878
40°	8648	8476	10226
45°	7994	8473	10457
50°	7356	8362	10547
55°	6711	8253	10422
60°	6061	8204	10227
65°	5390	8138	9844
70°	4714	8141	9623
75°	4036	8208	9664
80°	3293	8621	9949
85°	2381	9230	10877



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.1	3.0
10°-20°	736.1	8.0
20°-30°	1019.7	11.1
30°-40°	1214.0	13.2
40°-50°	1303.8	14.2
50°-60°	1242.2	13.5
60°-70°	1048.7	11.4
70°-80°	802.2	8.7
80°-90°	549.1	6.0
90°-100°	272.4	3.0
100°-110°	143.1	1.6
110°-120°	112.2	1.2
120°-130°	101.9	1.1
130°-140°	104.8	1.1
140°-150°	105.1	1.1
150°-160°	93.7	1.0
160°-170°	55.7	0.6
170°-180°	19.4	0.2
0°-30°	2030.9	22.1
0°-40°	3244.9	35.3
0°-60°	5790.9	63.0
0°-90°	8190.9	89.0
90°-120°	527.7	5.7
90°-150°	839.4	9.1
90°-180°	1008.0	11.0
0°-180°	9199.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2972	2972	2972	2972	2972	
5°	2930	2935	2897	2912	2909	278
15°	2732	2718	2611	2553	2508	768
25°	2362	2312	2175	2076	2120	1086
35°	1904	1868	1864	2027	2099	1191
45°	1450	1467	1658	1897	2004	1120
55°	1027	1130	1400	1645	1719	920
65°	647	844	1127	1279	1312	644
75°	337	617	846	927	942	359
85°	106	424	596	631	640	109
90°	27	271	403	426	431	20
95°	34	171	297	337	347	30
105°	63	91	148	159	163	67
115°	106	105	102	122	121	105
125°	153	164	93	83	91	136
135°	191	205	116	96	84	147
145°	215	198	206	121	104	135
155°	224	184	209	214	208	103
165°	222	210	182	188	184	63
175°	217	216	210	203	192	21
180°	209	209	209	209	209	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4
2.5°	2949.6	2959.1	2968.6	2973.4	2969.6	2963.8	2964.8	2965.7	2946.7	2942.9	2935.3
5°	2930.5	2940.0	2945.8	2945.8	2940.0	2930.5	2925.8	2922.0	2900.1	2897.2	2891.5
7.5°	2901.0	2908.6	2910.5	2906.7	2895.3	2881.0	2882.9	2888.7	2872.5	2869.6	2862.0
10°	2858.2	2863.9	2862.0	2851.5	2839.2	2839.2	2843.0	2843.0	2823.0	2812.5	2791.6
12.5°	2801.1	2804.9	2800.1	2787.8	2789.7	2784.9	2784.9	2771.6	2733.5	2708.8	2677.4
15°	2731.6	2734.5	2724.0	2722.1	2723.0	2713.5	2696.4	2664.0	2621.2	2610.7	2591.7
17.5°	2656.4	2654.5	2644.0	2646.9	2645.0	2619.3	2587.9	2557.4	2536.5	2518.4	2489.9
20°	2565.0	2564.1	2556.5	2562.2	2547.9	2508.9	2487.0	2461.3	2436.6	2394.7	2344.2
22.5°	2468.9	2466.1	2463.2	2464.2	2443.2	2399.4	2389.0	2357.6	2307.1	2266.2	2252.9
25°	2362.3	2362.3	2362.3	2356.6	2328.1	2295.7	2285.2	2228.1	2194.8	2174.8	2142.5
27.5°	2253.8	2253.8	2255.7	2244.3	2215.7	2192.9	2159.6	2118.7	2103.4	2048.2	1989.2
30°	2140.6	2142.5	2144.4	2126.3	2106.3	2079.6	2044.4	2023.5	1975.9	1926.4	1952.1
32.5°	2021.6	2028.2	2028.2	2012.1	1996.8	1959.7	1947.3	1910.2	1862.6	1888.3	1942.6
35°	1903.6	1917.8	1910.2	1898.8	1882.6	1854.1	1843.6	1789.3	1813.1	1864.5	1898.8
37.5°	1787.4	1802.7	1793.2	1789.3	1766.5	1765.6	1723.7	1726.5	1776.0	1812.2	1844.5
40°	1673.2	1685.6	1680.8	1677.0	1663.7	1661.8	1636.1	1677.0	1718.0	1750.3	1813.1
42.5°	1562.8	1573.3	1569.5	1566.6	1568.5	1551.4	1573.3	1619.9	1652.3	1708.4	1773.2
45°	1449.6	1460.0	1460.0	1461.0	1470.5	1463.8	1508.6	1545.7	1593.3	1658.0	1712.3
47.5°	1341.1	1349.6	1352.5	1362.0	1364.9	1389.6	1437.2	1474.3	1539.0	1593.3	1662.8
50°	1234.5	1242.1	1247.8	1265.9	1267.8	1317.3	1356.3	1412.4	1469.5	1533.3	1603.7
52.5°	1130.7	1136.4	1147.8	1166.9	1181.2	1240.2	1283.0	1345.8	1402.9	1471.5	1533.3
55°	1027.0	1033.6	1049.8	1065.0	1102.2	1158.3	1213.5	1274.4	1340.1	1400.1	1469.5
57.5°	927.0	935.6	951.8	970.8	1025.1	1082.2	1145.9	1208.8	1273.5	1336.3	1398.2
60°	830.9	839.5	856.6	884.2	949.9	1012.7	1078.4	1145.0	1207.8	1268.7	1319.2
62.5°	736.7	745.2	760.5	806.2	873.7	947.0	1013.6	1081.2	1140.2	1194.5	1247.8
65°	647.2	655.8	671.0	732.9	805.2	882.3	954.6	1015.5	1073.6	1126.9	1177.4
67.5°	562.5	570.1	589.2	665.3	743.3	822.3	891.8	952.7	1010.8	1061.2	1098.4
70°	481.6	489.2	516.8	601.5	685.3	765.2	830.0	894.7	948.0	987.0	1020.3
72.5°	406.4	412.1	454.0	544.4	632.0	706.2	776.7	835.7	879.4	911.8	941.3
75°	336.9	341.7	401.7	495.9	579.6	653.9	719.5	770.9	810.0	846.1	874.7
77.5°	272.2	282.7	356.0	451.1	529.2	602.5	657.7	711.0	755.7	787.1	809.0
80°	211.3	229.4	316.0	405.5	484.5	545.4	608.2	662.4	699.6	725.3	740.5
82.5°	155.1	184.6	277.0	362.6	433.1	503.5	560.6	608.2	640.5	660.5	673.9
85°	105.6	147.5	237.9	319.8	393.1	455.9	507.3	550.1	578.7	595.8	608.2
87.5°	65.7	118.0	205.6	281.7	345.5	402.6	451.1	491.1	517.8	534.9	543.5
90°	26.6	77.1	146.6	200.8	247.5	295.1	335.0	368.3	391.2	402.6	409.3
92.5°	27.6	56.2	104.7	154.2	198.0	245.6	287.4	322.7	345.5	358.8	365.5
95°	34.3	52.3	77.1	118.0	153.2	188.5	218.9	246.5	277.0	297.0	309.3
97.5°	39.0	59.0	68.5	95.2	127.5	157.0	180.8	199.9	212.2	220.8	227.5
100°	46.6	70.4	75.2	77.1	109.5	137.1	156.1	171.3	181.8	188.5	192.3
102.5°	54.3	78.0	83.8	79.0	88.5	119.0	139.9	153.2	159.9	164.7	167.5
105°	62.8	84.7	96.1	87.6	81.9	99.9	123.7	139.0	145.6	148.5	149.4
107.5°	73.3	90.4	113.3	94.2	87.6	82.8	105.6	123.7	134.2	138.0	139.0
110°	83.8	95.2	124.7	102.8	95.2	85.7	83.8	107.6	119.9	127.5	131.3



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CATALOG NUMBER: SKB2-LD5-9-W-UNV-L850-CD1-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	94.2	99.0	132.3	117.1	100.9	93.3	83.8	87.6	105.6	115.2	120.9
115°	105.6	104.7	136.1	140.9	109.5	100.9	91.4	82.8	87.6	101.8	110.4
117.5°	117.1	109.5	140.9	159.9	120.9	106.6	98.0	88.5	81.9	85.7	98.0
120°	129.4	118.0	144.7	171.3	139.0	114.2	104.7	96.1	87.6	81.9	81.9
122.5°	140.9	127.5	148.5	174.2	166.6	125.6	110.4	101.8	94.2	86.6	81.9
125°	153.2	138.0	152.3	177.0	187.5	140.9	119.0	107.6	99.9	93.3	86.6
127.5°	163.7	149.4	154.2	178.9	197.0	161.8	129.4	113.3	104.7	99.0	92.3
130°	173.2	160.9	157.0	179.9	198.0	198.9	144.7	121.8	110.4	103.7	98.0
132.5°	181.8	172.3	158.9	180.8	198.0	212.2	166.6	134.2	118.0	108.5	102.8
135°	191.3	182.7	160.9	181.8	198.0	211.3	206.5	152.3	128.5	116.1	107.6
137.5°	198.9	192.3	162.8	181.8	198.0	210.3	219.9	178.0	143.7	125.6	116.1
140°	205.6	200.8	169.4	181.8	197.0	209.4	217.0	215.1	165.6	140.9	126.6
142.5°	211.3	206.5	181.8	180.8	195.1	206.5	215.1	219.9	210.3	162.8	141.8
145°	215.1	211.3	192.3	178.9	192.3	203.7	212.2	218.0	221.8	205.6	164.7
147.5°	218.0	215.1	201.8	176.1	189.4	200.8	209.4	215.1	218.9	220.8	211.3
150°	220.8	218.9	208.4	179.9	186.5	197.0	205.6	212.2	216.1	218.0	219.9
152.5°	222.7	221.8	214.2	191.3	183.7	193.2	200.8	207.5	212.2	214.2	216.1
155°	223.7	222.7	217.0	203.7	179.9	188.5	196.1	202.7	206.5	209.4	212.2
157.5°	223.7	222.7	218.9	210.3	187.5	182.7	190.4	196.1	200.8	204.6	206.5
160°	223.7	223.7	219.9	214.2	201.8	179.9	183.7	189.4	194.2	197.0	199.9
162.5°	222.7	222.7	220.8	217.0	209.4	195.1	178.0	182.7	186.5	189.4	192.3
165°	221.8	221.8	220.8	218.0	213.2	206.5	195.1	179.9	178.0	181.8	183.7
167.5°	220.8	220.8	220.8	218.0	215.1	211.3	206.5	198.0	183.7	176.1	174.2
170°	219.9	219.9	219.9	218.9	217.0	214.2	211.3	207.5	202.7	197.0	190.4
172.5°	218.9	218.9	218.0	218.0	217.0	215.1	214.2	212.2	209.4	206.5	202.7
175°	217.0	218.0	217.0	217.0	216.1	215.1	214.2	213.2	211.3	210.3	208.4
177.5°	216.1	216.1	216.1	216.1	215.1	215.1	214.2	213.2	212.2	211.3	209.4
180°	209.4	209.4	209.4	209.4	209.4	209.4	209.4	209.4	209.4	209.4	209.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4	2972.4
2.5°	2930.5	2946.7	2953.4	2939.1	2935.3	2938.1	2940.0	2948.6
5°	2892.5	2911.5	2918.2	2905.8	2901.0	2901.0	2901.0	2908.6
7.5°	2859.1	2876.3	2876.3	2858.2	2850.6	2846.8	2844.9	2852.5
10°	2773.5	2778.2	2772.5	2744.9	2736.4	2730.7	2727.8	2735.4
12.5°	2666.9	2682.1	2680.2	2656.4	2651.7	2645.9	2642.1	2649.8
15°	2579.3	2586.9	2568.9	2536.5	2519.4	2509.8	2502.2	2507.9
17.5°	2456.5	2441.3	2416.6	2389.9	2391.8	2390.9	2387.1	2394.7
20°	2327.1	2339.5	2327.1	2302.4	2289.0	2271.9	2255.7	2256.7
22.5°	2242.4	2228.1	2172.0	2118.7	2105.3	2103.4	2106.3	2110.1
25°	2077.7	2062.5	2072.0	2080.6	2087.3	2103.4	2118.7	2119.6
27.5°	2011.1	2038.7	2071.1	2099.6	2117.7	2117.7	2121.5	2118.7
30°	2002.5	2053.0	2053.9	2066.3	2084.4	2087.3	2090.1	2089.2
32.5°	1980.7	2009.2	2014.9	2031.1	2064.4	2092.0	2111.0	2112.0
35°	1932.1	1965.4	2009.2	2044.4	2069.2	2085.3	2097.7	2098.7
37.5°	1903.6	1960.7	1986.4	2014.0	2034.9	2055.8	2072.0	2077.7
40°	1876.0	1915.9	1943.5	1991.1	2032.0	2057.7	2068.2	2073.9
42.5°	1822.7	1873.1	1927.4	1968.3	2001.6	2022.5	2028.2	2032.0
45°	1779.8	1836.0	1879.8	1915.0	1954.0	1982.6	1999.7	2003.5
47.5°	1728.4	1774.1	1823.6	1877.9	1916.9	1939.7	1952.1	1958.8
50°	1656.1	1719.9	1776.0	1819.8	1851.2	1867.4	1877.9	1887.4
52.5°	1599.0	1657.0	1699.9	1742.7	1777.9	1799.8	1808.4	1813.1
55°	1528.6	1576.1	1624.7	1665.6	1693.2	1709.4	1716.1	1718.9
57.5°	1449.6	1499.1	1540.9	1575.2	1600.9	1618.0	1625.6	1630.4
60°	1374.4	1416.2	1452.4	1487.6	1510.5	1523.8	1525.7	1530.5
62.5°	1296.3	1333.4	1363.9	1390.5	1408.6	1417.2	1418.2	1419.1
65°	1213.5	1245.9	1268.7	1289.7	1304.9	1313.5	1313.5	1311.6
67.5°	1131.7	1155.5	1177.4	1198.3	1207.8	1211.6	1206.9	1208.8
70°	1045.1	1064.1	1080.3	1096.5	1107.9	1116.4	1112.6	1114.5
72.5°	968.0	987.0	1002.2	1014.6	1023.2	1029.8	1026.0	1027.0
75°	898.5	910.9	921.3	931.8	939.4	944.2	940.4	942.3
77.5°	826.1	835.7	842.3	852.8	859.5	864.2	860.4	861.4
80°	752.9	762.4	768.1	773.8	781.4	785.2	779.5	780.5
82.5°	683.4	690.0	695.8	703.4	708.1	711.0	709.1	708.1
85°	616.8	620.6	627.2	634.8	638.6	642.5	640.5	639.6
87.5°	549.2	551.1	556.8	564.4	567.3	570.1	567.3	567.3
90°	414.0	418.8	422.6	429.3	432.1	433.1	431.2	431.2
92.5°	371.2	376.9	380.7	384.5	389.3	390.2	389.3	391.2
95°	319.8	328.4	335.0	338.8	343.6	345.5	344.5	347.4
97.5°	242.7	260.8	274.1	280.8	288.4	290.3	290.3	290.3
100°	197.0	200.8	204.6	205.6	208.4	209.4	208.4	209.4
102.5°	171.3	175.1	178.9	181.8	183.7	183.7	182.7	183.7
105°	152.3	155.1	158.0	160.9	161.8	162.8	161.8	162.8
107.5°	139.9	140.9	141.8	143.7	144.7	145.6	145.6	144.7
110°	132.3	133.2	133.2	134.2	134.2	134.2	132.3	131.3





TEST NUMBER: P236453

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L850-CD1-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	124.7	126.6	127.5	127.5	128.5	128.5	126.6	125.6
115°	115.2	119.0	120.9	122.8	123.7	122.8	121.8	120.9
117.5°	105.6	110.4	112.3	115.2	117.1	117.1	116.1	114.2
120°	94.2	99.9	103.7	107.6	109.5	109.5	108.5	107.6
122.5°	79.9	87.6	94.2	98.0	100.9	100.9	100.9	99.0
125°	82.8	79.0	80.9	85.7	91.4	92.3	91.4	91.4
127.5°	87.6	83.8	81.9	79.0	77.1	78.0	77.1	76.1
130°	93.3	89.5	86.6	83.8	81.9	79.0	76.1	75.2
132.5°	99.0	95.2	92.3	88.5	85.7	83.8	80.9	79.0
135°	103.7	100.9	98.0	94.2	91.4	88.5	85.7	83.8
137.5°	109.5	104.7	101.8	99.9	97.1	94.2	90.4	88.5
140°	117.1	111.4	106.6	102.8	100.9	98.0	95.2	93.3
142.5°	128.5	119.9	113.3	109.5	105.6	102.8	99.0	97.1
145°	145.6	133.2	124.7	118.0	113.3	109.5	105.6	103.7
147.5°	174.2	152.3	140.9	131.3	125.6	120.9	116.1	114.2
150°	220.8	198.9	168.5	152.3	143.7	138.0	133.2	130.4
152.5°	218.0	218.9	218.0	206.5	190.4	178.0	166.6	158.0
155°	213.2	214.2	214.2	213.2	212.2	211.3	209.4	207.5
157.5°	208.4	210.3	210.3	209.4	208.4	206.5	204.6	203.7
160°	202.7	203.7	204.6	203.7	203.7	201.8	199.9	198.9
162.5°	195.1	197.0	197.0	197.0	196.1	195.1	194.2	192.3
165°	185.6	187.5	188.5	188.5	187.5	186.5	184.6	183.7
167.5°	176.1	178.0	178.9	178.0	178.0	176.1	174.2	172.3
170°	179.9	176.1	169.4	166.6	166.6	164.7	161.8	161.8
172.5°	200.8	198.0	194.2	191.3	187.5	184.6	181.8	178.9
175°	206.5	205.6	204.6	201.8	199.9	197.0	195.1	192.3
177.5°	208.4	208.4	207.5	205.6	203.7	200.8	198.0	195.1
180°	209.4	209.4	209.4	209.4	209.4	209.4	209.4	209.4

(END OF REPORT)