

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: P236428

Luminaire Tested: **SKB2-LD5-9-N-UNV-L840-CD1-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236428  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24070)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB2-LD5-9-N-UNV-L840-CD1-U all blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES  
Light Source: (476) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

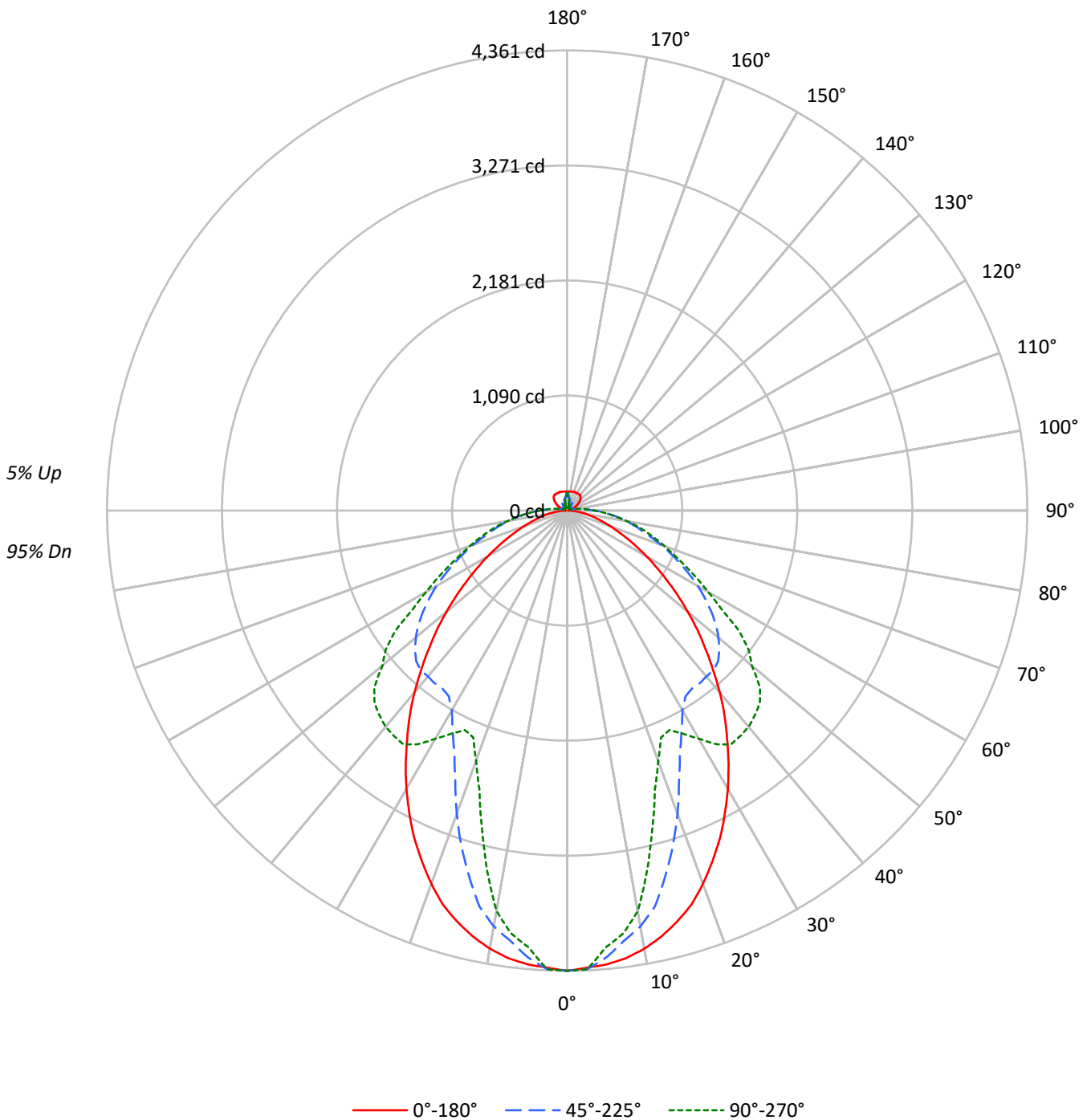
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9814.0 lumens  
Efficiency: N/A  
Efficacy: 130.2 lumens/watt  
Spacing Criteria (0/90/45): 1.07 / 0.7 / 1.06  
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')  
CIE Type: Direct  
  
Input Watts (W): 75.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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-N-UNV-L840-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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97
1	107	102	97	93	103	99	95	91	94	90	87	89	86	84	84	82	80
2	97	89	82	76	94	86	80	74	82	77	72	78	73	69	74	70	67
3	89	78	70	63	86	76	68	62	72	66	60	69	63	59	66	61	57
4	81	69	60	54	79	68	59	53	64	57	52	61	55	51	59	54	49
5	75	62	53	47	72	61	52	46	58	51	45	55	49	44	53	48	43
6	69	56	47	41	67	55	46	40	52	45	40	50	44	39	48	43	38
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	44	38	34
8	60	47	38	32	58	46	38	32	44	37	32	42	36	31	41	35	31
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28
10	53	40	32	27	51	39	32	27	38	31	26	36	30	26	35	30	25

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

	0°	45°	90°
0°	18778	18778	18778
5°	18487	18068	17716
10°	18099	16917	16370
15°	17484	15221	13303
20°	16614	13103	10895
25°	15527	11029	10110
30°	14289	9780	11320
35°	12947	9552	12735
40°	11643	9941	13194
45°	10231	10333	13470
50°	8891	10205	12766
55°	7565	9812	12048
60°	6356	9242	10310
65°	5236	8520	9199
70°	4278	7779	8446
75°	3467	7116	7933
80°	2739	6738	7303
85°	1957	6277	6738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	399.2	4.1
10°-20°	1000.4	10.2
20°-30°	1263.9	12.9
30°-40°	1497.0	15.3
40°-50°	1596.5	16.3
50°-60°	1408.5	14.4
60°-70°	1040.8	10.6
70°-80°	691.6	7.0
80°-90°	392.6	4.0
90°-100°	156.8	1.6
100°-110°	62.9	0.6
110°-120°	55.0	0.6
120°-130°	57.7	0.6
130°-140°	56.0	0.6
140°-150°	48.8	0.5
150°-160°	43.1	0.4
160°-170°	29.3	0.3
170°-180°	13.7	0.1
0°-30°	2663.5	27.1
0°-40°	4160.5	42.4
0°-60°	7165.6	73.0
0°-90°	9290.5	94.7
90°-120°	274.7	2.8
90°-150°	437.3	4.5
90°-180°	523.0	5.3
0°-180°	9814.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4361	4361	4361	4361	4361	
5°	4316	4338	4251	4189	4159	409
15°	4032	3897	3590	3274	3118	1132
25°	3427	3147	2529	2280	2294	1572
35°	2643	2299	2061	2521	2706	1653
45°	1855	1620	2022	2450	2581	1434
55°	1158	1161	1665	1907	1987	1042
65°	629	807	1180	1272	1226	631
75°	289	543	734	795	774	312
85°	87	354	405	416	396	90
90°	16	226	260	272	258	13
95°	20	126	158	172	163	17
105°	45	62	49	49	44	49
115°	87	80	42	35	27	87
125°	139	114	48	40	30	124
135°	181	105	47	45	34	138
145°	191	72	80	38	31	120
155°	189	119	76	89	81	87
165°	186	131	110	45	26	53
175°	182	173	144	120	124	17
180°	168	168	168	168	168	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4
2.5°	4335.4	4343.4	4364.4	4376.3	4367.4	4358.4	4358.4	4375.4	4349.4	4351.4	4338.4
5°	4316.5	4324.5	4343.4	4355.4	4345.4	4330.4	4315.5	4313.5	4268.6	4250.6	4206.7
7.5°	4277.5	4283.5	4301.5	4303.5	4271.6	4231.6	4195.7	4181.7	4131.8	4114.9	4087.9
10°	4215.7	4219.7	4226.6	4209.7	4160.8	4112.9	4083.9	4071.9	4024.0	4000.1	3960.2
12.5°	4132.8	4131.8	4124.8	4093.9	4045.0	4003.1	3970.2	3941.2	3881.3	3843.4	3780.5
15°	4032.0	4027.0	4004.1	3972.1	3923.2	3870.3	3816.5	3767.6	3668.7	3589.9	3497.1
17.5°	3915.3	3901.3	3871.3	3836.4	3775.5	3701.7	3620.8	3530.0	3421.2	3332.4	3217.6
20°	3763.6	3753.6	3722.6	3683.7	3600.9	3504.1	3398.3	3305.5	3179.7	3059.0	2920.2
22.5°	3596.9	3590.9	3559.0	3510.1	3412.3	3290.5	3190.7	3071.9	2917.2	2769.5	2649.8
25°	3427.2	3413.3	3382.3	3321.4	3207.7	3085.9	2968.1	2818.4	2646.8	2529.0	2446.2
27.5°	3237.6	3230.6	3194.7	3124.8	3002.1	2876.3	2735.6	2563.9	2435.2	2346.4	2270.5
30°	3047.0	3037.0	3000.1	2920.2	2794.5	2652.8	2497.1	2362.3	2263.5	2184.7	2155.7
32.5°	2846.4	2841.4	2801.5	2710.6	2591.9	2436.2	2290.5	2195.7	2111.8	2086.9	2136.8
35°	2642.8	2643.8	2600.9	2507.0	2378.3	2219.6	2120.8	2043.0	2006.0	2060.9	2163.7
37.5°	2451.2	2444.2	2397.3	2306.4	2167.7	2040.0	1973.1	1918.2	1962.1	2062.9	2181.7
40°	2252.5	2246.6	2191.7	2101.8	1965.1	1888.3	1821.4	1842.4	1934.2	2052.9	2207.6
42.5°	2047.0	2048.9	1992.1	1903.2	1790.5	1742.6	1718.6	1786.5	1900.2	2051.9	2200.6
45°	1855.3	1854.3	1800.4	1712.6	1638.8	1600.8	1629.8	1733.6	1866.3	2022.0	2147.8
47.5°	1674.7	1663.7	1614.8	1537.0	1504.0	1487.1	1555.9	1669.7	1821.4	1956.1	2081.9
50°	1492.1	1480.1	1441.2	1382.3	1367.3	1381.3	1475.1	1609.8	1751.5	1871.3	1996.1
52.5°	1320.4	1308.4	1276.5	1245.5	1239.5	1286.5	1394.2	1536.0	1657.7	1777.5	1883.3
55°	1157.7	1147.7	1123.8	1116.8	1127.8	1194.6	1315.4	1442.1	1559.9	1664.7	1762.5
57.5°	1009.0	999.0	984.1	993.0	1021.0	1104.8	1227.6	1345.3	1452.1	1549.9	1632.8
60°	871.3	863.3	862.3	876.3	927.2	1021.0	1134.8	1244.5	1339.4	1429.2	1496.0
62.5°	742.5	738.5	749.5	777.5	841.3	937.1	1038.9	1140.7	1224.6	1303.4	1360.3
65°	628.8	626.8	645.7	685.6	760.5	854.3	950.1	1035.0	1108.8	1179.7	1228.6
67.5°	527.0	528.0	550.9	605.8	689.6	777.5	860.3	935.2	1003.0	1059.9	1093.8
70°	437.1	441.1	470.1	538.9	625.8	703.6	774.5	845.3	900.2	943.1	971.1
72.5°	359.3	365.3	405.2	482.0	566.9	633.7	700.6	758.5	801.4	830.4	854.3
75°	289.4	298.4	349.3	433.1	512.0	574.9	631.8	674.7	705.6	733.5	758.5
77.5°	228.5	237.5	305.4	391.2	463.1	522.0	561.9	599.8	625.8	647.7	669.7
80°	175.7	187.6	268.5	349.3	422.2	466.1	503.0	531.9	549.9	566.9	584.8
82.5°	128.7	149.7	234.5	316.4	376.3	422.2	448.1	466.1	478.1	489.0	496.0
85°	86.8	121.8	203.6	277.5	336.3	371.3	388.2	395.2	399.2	405.2	411.2
87.5°	52.9	96.8	174.7	238.5	282.4	308.4	319.4	324.4	329.3	335.3	339.3
90°	16.0	67.9	134.7	182.6	215.6	236.5	246.5	250.5	254.5	260.5	264.5
92.5°	12.0	42.9	89.8	131.7	163.7	183.6	190.6	194.6	199.6	204.6	207.6
95°	20.0	35.9	57.9	90.8	117.8	134.7	142.7	149.7	153.7	157.7	160.7
97.5°	23.0	43.9	49.9	68.9	87.8	101.8	106.8	108.8	109.8	111.8	118.8
100°	28.9	54.9	60.9	59.9	71.9	80.8	81.8	82.8	81.8	82.8	84.8
102.5°	37.9	62.9	71.9	64.9	64.9	68.9	69.9	66.9	62.9	60.9	60.9
105°	44.9	67.9	80.8	75.9	60.9	62.9	61.9	59.9	54.9	48.9	47.9
107.5°	53.9	71.9	94.8	82.8	70.9	57.9	57.9	55.9	50.9	45.9	41.9
110°	66.9	77.8	105.8	87.8	78.8	62.9	55.9	52.9	49.9	44.9	40.9



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CATALOG NUMBER: SKB2-LD5-9-N-UNV-L840-CD1-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	75.9	82.8	101.8	96.8	83.8	68.9	55.9	51.9	46.9	44.9	41.9
115°	86.8	87.8	96.8	109.8	85.8	74.9	59.9	50.9	48.9	41.9	40.9
117.5°	99.8	93.8	89.8	130.7	91.8	77.8	66.9	53.9	45.9	46.9	39.9
120°	112.8	100.8	85.8	128.7	101.8	79.8	70.9	59.9	47.9	41.9	44.9
122.5°	125.8	108.8	92.8	119.8	114.8	83.8	71.9	63.9	52.9	43.9	38.9
125°	138.7	117.8	104.8	108.8	135.7	91.8	71.9	65.9	57.9	47.9	39.9
127.5°	150.7	126.7	119.8	96.8	130.7	100.8	75.9	62.9	58.9	51.9	44.9
130°	162.7	135.7	135.7	84.8	119.8	116.8	80.8	62.9	55.9	52.9	48.9
132.5°	171.7	140.7	139.7	77.8	107.8	125.8	87.8	65.9	52.9	48.9	48.9
135°	180.6	144.7	139.7	88.8	93.8	116.8	102.8	71.9	54.9	46.9	45.9
137.5°	185.6	147.7	138.7	103.8	77.8	105.8	115.8	79.8	59.9	48.9	43.9
140°	189.6	149.7	139.7	120.8	62.9	94.8	107.8	108.8	67.9	53.9	45.9
142.5°	190.6	152.7	140.7	134.7	67.9	79.8	98.8	105.8	86.8	59.9	49.9
145°	190.6	157.7	141.7	134.7	82.8	60.9	88.8	97.8	101.8	79.8	56.9
147.5°	190.6	161.7	140.7	129.7	101.8	53.9	73.9	89.8	95.8	96.8	81.8
150°	188.6	165.7	139.7	130.7	122.8	67.9	52.9	78.8	88.8	91.8	91.8
152.5°	188.6	169.7	139.7	133.7	125.8	88.8	51.9	58.9	79.8	86.8	87.8
155°	188.6	174.7	140.7	135.7	123.8	114.8	69.9	44.9	57.9	75.9	82.8
157.5°	188.6	178.6	143.7	136.7	128.7	119.8	97.8	61.9	41.9	49.9	67.9
160°	188.6	180.6	148.7	136.7	130.7	121.8	116.8	91.8	61.9	43.9	37.9
162.5°	186.6	181.6	157.7	137.7	131.7	125.8	117.8	113.8	98.8	69.9	51.9
165°	185.6	182.6	165.7	143.7	132.7	128.7	124.8	117.8	112.8	109.8	92.8
167.5°	184.6	182.6	174.7	155.7	138.7	129.7	127.7	124.8	118.8	112.8	110.8
170°	183.6	182.6	177.6	167.7	152.7	137.7	130.7	125.8	122.8	119.8	116.8
172.5°	182.6	181.6	179.6	175.7	167.7	155.7	145.7	135.7	128.7	123.8	119.8
175°	181.6	181.6	180.6	178.6	175.7	169.7	165.7	158.7	150.7	143.7	136.7
177.5°	181.6	180.6	180.6	180.6	177.6	174.7	173.7	170.7	165.7	162.7	158.7
180°	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4	4361.4
2.5°	4335.4	4359.4	4367.4	4351.4	4347.4	4358.4	4359.4	4351.4
5°	4189.7	4199.7	4198.7	4179.7	4168.8	4168.8	4162.8	4158.8
7.5°	4077.9	4090.9	4088.9	4069.0	4057.0	4059.0	4054.0	4046.0
10°	3941.2	3946.2	3936.2	3909.3	3884.3	3877.3	3871.3	3854.4
12.5°	3721.6	3691.7	3649.8	3602.9	3565.0	3547.0	3522.0	3499.1
15°	3424.2	3370.3	3305.5	3242.6	3195.7	3158.8	3140.8	3117.8
17.5°	3119.8	3052.0	2961.1	2889.3	2837.4	2804.5	2788.5	2768.5
20°	2810.4	2735.6	2663.7	2611.8	2574.9	2557.9	2539.0	2522.0
22.5°	2567.9	2513.0	2451.2	2406.2	2371.3	2349.4	2332.4	2326.4
25°	2379.3	2324.4	2284.5	2275.5	2274.5	2282.5	2287.5	2293.5
27.5°	2230.6	2231.6	2254.5	2294.5	2330.4	2358.3	2378.3	2385.3
30°	2187.7	2257.5	2319.4	2378.3	2429.2	2463.1	2487.1	2496.1
32.5°	2227.6	2325.4	2396.3	2463.1	2532.0	2581.9	2615.8	2625.8
35°	2274.5	2377.3	2481.1	2560.9	2626.8	2672.7	2696.7	2705.7
37.5°	2322.4	2440.2	2527.0	2590.9	2633.8	2666.7	2687.7	2693.7
40°	2348.4	2440.2	2504.0	2570.9	2621.8	2650.8	2669.7	2675.7
42.5°	2317.4	2403.2	2478.1	2537.0	2582.9	2609.8	2628.8	2632.8
45°	2264.5	2350.4	2422.2	2477.1	2521.0	2553.0	2573.9	2580.9
47.5°	2189.7	2271.5	2337.4	2400.3	2441.2	2460.1	2470.1	2479.1
50°	2082.9	2158.7	2217.6	2262.5	2281.5	2278.5	2277.5	2284.5
52.5°	1968.1	2033.0	2067.9	2101.8	2122.8	2138.8	2154.7	2167.7
55°	1833.4	1874.3	1895.3	1919.2	1939.2	1957.1	1977.1	1987.1
57.5°	1684.7	1714.6	1730.6	1747.5	1749.5	1743.6	1731.6	1730.6
60°	1539.0	1561.9	1575.9	1584.9	1579.9	1566.9	1548.9	1542.9
62.5°	1396.2	1415.2	1422.2	1424.2	1414.2	1399.2	1387.3	1384.3
65°	1254.5	1272.5	1273.5	1271.5	1258.5	1239.5	1229.6	1225.6
67.5°	1118.8	1135.8	1136.8	1129.8	1115.8	1101.8	1094.8	1094.8
70°	992.0	1007.0	1010.0	1003.0	994.0	986.1	979.1	978.1
72.5°	876.3	893.2	899.2	893.2	887.2	877.3	871.3	872.3
75°	781.5	793.4	796.4	794.4	787.4	779.5	775.5	773.5
77.5°	684.6	694.6	698.6	697.6	691.6	682.7	678.7	675.7
80°	598.8	604.8	606.8	600.8	592.8	579.9	575.9	572.9
82.5°	502.0	505.0	503.0	499.0	493.0	482.0	478.1	477.1
85°	415.2	418.2	417.2	414.2	410.2	400.2	398.2	396.2
87.5°	342.3	347.3	346.3	345.3	340.3	332.3	329.3	327.4
90°	268.5	272.5	274.5	268.5	267.5	262.5	258.5	257.5
92.5°	210.6	214.6	215.6	212.6	208.6	204.6	201.6	199.6
95°	164.7	169.7	172.7	171.7	170.7	166.7	164.7	162.7
97.5°	125.8	130.7	133.7	133.7	131.7	128.7	127.7	125.8
100°	86.8	90.8	92.8	91.8	91.8	92.8	92.8	91.8
102.5°	62.9	64.9	66.9	66.9	65.9	64.9	63.9	61.9
105°	47.9	47.9	48.9	48.9	47.9	46.9	44.9	43.9
107.5°	38.9	37.9	37.9	36.9	35.9	34.9	32.9	30.9
110°	38.9	35.9	33.9	31.9	29.9	27.9	25.9	25.0





TEST NUMBER: P236428

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L840-CD1-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	38.9	36.9	33.9	31.9	29.9	27.9	25.9	24.0
115°	40.9	38.9	35.9	33.9	32.9	30.9	27.9	26.9
117.5°	36.9	36.9	36.9	36.9	35.9	33.9	31.9	29.9
120°	39.9	34.9	32.9	32.9	32.9	31.9	30.9	29.9
122.5°	36.9	41.9	36.9	32.9	29.9	27.9	25.0	24.0
125°	36.9	34.9	37.9	41.9	38.9	35.9	31.9	29.9
127.5°	37.9	35.9	34.9	33.9	31.9	32.9	32.9	32.9
130°	43.9	39.9	35.9	34.9	33.9	31.9	29.9	27.9
132.5°	47.9	44.9	41.9	38.9	35.9	32.9	29.9	27.9
135°	46.9	46.9	45.9	43.9	40.9	38.9	35.9	33.9
137.5°	42.9	44.9	44.9	44.9	43.9	42.9	39.9	38.9
140°	40.9	39.9	40.9	42.9	42.9	41.9	39.9	38.9
142.5°	42.9	39.9	37.9	36.9	36.9	36.9	35.9	34.9
145°	48.9	42.9	38.9	36.9	34.9	32.9	31.9	30.9
147.5°	54.9	48.9	43.9	40.9	36.9	34.9	32.9	30.9
150°	91.8	61.9	50.9	46.9	43.9	39.9	37.9	34.9
152.5°	88.8	90.8	90.8	71.9	51.9	45.9	41.9	39.9
155°	84.8	86.8	88.8	88.8	87.8	86.8	82.8	80.8
157.5°	77.8	82.8	84.8	84.8	84.8	82.8	80.8	78.8
160°	52.9	66.9	74.9	78.8	80.8	78.8	77.8	75.9
162.5°	39.9	35.9	42.9	51.9	57.9	59.9	58.9	59.9
165°	72.9	59.9	49.9	40.9	36.9	32.9	28.9	25.9
167.5°	110.8	108.8	99.8	89.8	82.8	79.8	70.9	67.9
170°	112.8	112.8	112.8	114.8	118.8	122.8	121.8	120.8
172.5°	116.8	115.8	116.8	117.8	118.8	123.8	123.8	121.8
175°	129.7	123.8	121.8	117.8	118.8	122.8	123.8	123.8
177.5°	154.7	150.7	144.7	140.7	140.7	143.7	149.7	137.7
180°	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7

(END OF REPORT)