

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: P236429

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236429
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-L850-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) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

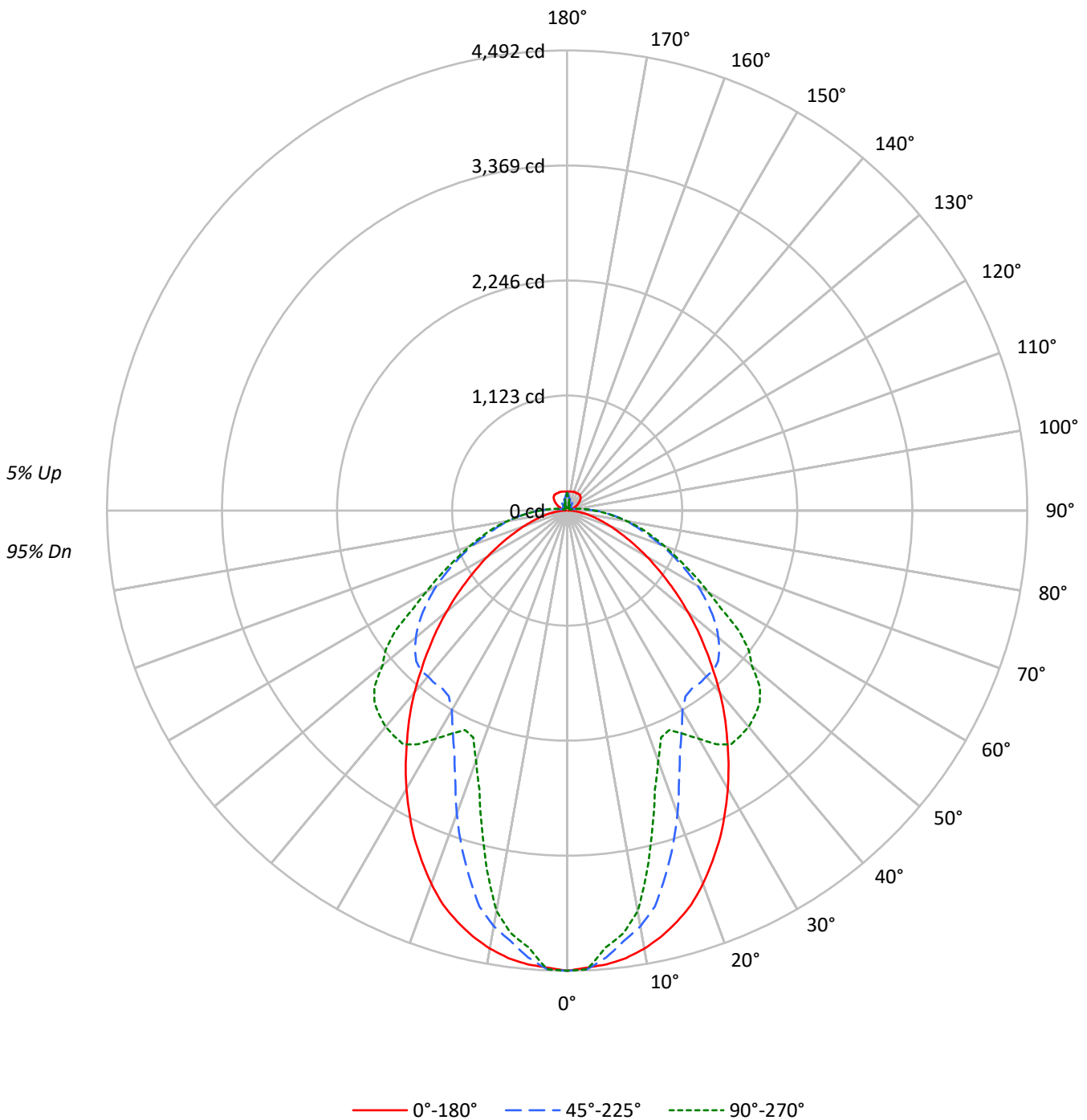
Lumens per Lamp: N/A
Luminaire Lumens: 10108.0 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.7 / 1.06
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Direct

Input Watts (W): 75.4
Input Voltage (V): 120
Input Current (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	50	30	10	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	95				
1	107	102	97	93	103	99	95	91	94	90	87	89	86	84	84	82	80	78				
2	97	89	82	76	94	86	80	74	82	77	72	78	73	69	74	70	67	65				
3	89	78	70	63	86	76	68	62	72	66	60	69	63	59	66	61	57	55				
4	81	69	60	54	79	68	59	53	64	57	52	61	55	51	59	54	49	47				
5	75	62	53	47	72	61	52	46	58	51	45	55	49	44	53	48	43	41				
6	69	56	47	41	67	55	46	40	52	45	40	50	44	39	48	43	38	36				
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	44	38	34	32				
8	60	47	38	32	58	46	38	32	44	37	32	42	36	31	41	35	31	29				
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28	26				
10	53	40	32	27	51	39	32	27	38	31	26	36	30	26	35	30	25	24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19341	19341	19341
5°	19041	18610	18247
10°	18641	17424	16860
15°	18008	15677	13702
20°	17112	13495	11221
25°	15993	11360	10413
30°	14717	10073	11659
35°	13334	9838	13117
40°	11991	10239	13589
45°	10538	10643	13874
50°	9157	10511	13149
55°	7792	10107	12409
60°	6546	9518	10619
65°	5393	8775	9474
70°	4406	8013	8699
75°	3571	7330	8170
80°	2820	6940	7520
85°	2016	6465	6940



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.2	4.1
10°-20°	1030.4	10.2
20°-30°	1301.7	12.9
30°-40°	1541.8	15.3
40°-50°	1644.4	16.3
50°-60°	1450.7	14.4
60°-70°	1072.0	10.6
70°-80°	712.3	7.0
80°-90°	404.4	4.0
90°-100°	161.5	1.6
100°-110°	64.8	0.6
110°-120°	56.7	0.6
120°-130°	59.5	0.6
130°-140°	57.7	0.6
140°-150°	50.3	0.5
150°-160°	44.4	0.4
160°-170°	30.2	0.3
170°-180°	14.1	0.1
0°-30°	2743.3	27.1
0°-40°	4285.1	42.4
0°-60°	7380.2	73.0
0°-90°	9568.9	94.7
90°-120°	283.0	2.8
90°-150°	450.4	4.5
90°-180°	539.0	5.3
0°-180°	10108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4492	4492	4492	4492	4492	
5°	4446	4468	4378	4315	4283	421
15°	4153	4014	3697	3372	3211	1166
25°	3530	3241	2605	2348	2362	1619
35°	2722	2368	2123	2597	2787	1703
45°	1911	1668	2083	2523	2658	1477
55°	1192	1196	1715	1964	2047	1073
65°	648	832	1215	1311	1262	650
75°	298	560	756	819	797	321
85°	89	364	417	428	408	92
90°	16	233	268	280	265	14
95°	21	130	162	177	168	18
105°	46	64	50	50	45	50
115°	89	83	43	36	28	90
125°	143	117	49	41	31	127
135°	186	108	48	46	35	142
145°	196	74	82	39	32	123
155°	194	123	78	92	83	90
165°	191	135	113	47	27	54
175°	187	178	148	123	128	18
180°	173	173	173	173	173	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0
2.5°	4465.3	4473.5	4495.1	4507.5	4498.2	4488.9	4488.9	4506.4	4479.7	4481.8	4468.4
5°	4445.8	4454.0	4473.5	4485.9	4475.6	4460.2	4444.7	4442.7	4396.4	4377.9	4332.7
7.5°	4405.7	4411.9	4430.4	4432.4	4399.5	4358.4	4321.4	4307.0	4255.6	4238.1	4210.4
10°	4342.0	4346.1	4353.3	4335.8	4285.4	4236.1	4206.3	4193.9	4144.6	4119.9	4078.8
12.5°	4256.6	4255.6	4248.4	4216.5	4166.2	4123.0	4089.1	4059.3	3997.6	3958.5	3893.8
15°	4152.8	4147.7	4124.0	4091.1	4040.8	3986.3	3930.8	3880.4	3778.7	3697.4	3601.8
17.5°	4032.5	4018.2	3987.3	3951.3	3888.6	3812.6	3729.3	3635.8	3523.7	3432.2	3314.0
20°	3876.3	3866.0	3834.2	3794.1	3708.8	3609.0	3500.1	3404.5	3275.0	3150.6	3007.7
22.5°	3704.6	3698.5	3665.6	3615.2	3514.5	3389.1	3286.3	3164.0	3004.6	2852.5	2729.1
25°	3529.9	3515.5	3483.6	3420.9	3303.8	3178.3	3057.0	2902.9	2726.1	2604.8	2519.4
27.5°	3334.6	3327.4	3290.4	3218.4	3092.0	2962.5	2817.5	2640.7	2508.1	2416.7	2338.5
30°	3138.3	3128.0	3089.9	3007.7	2878.2	2732.2	2571.9	2433.1	2331.3	2250.1	2220.3
32.5°	2931.6	2926.5	2885.4	2791.8	2669.5	2509.2	2359.1	2261.4	2175.1	2149.4	2200.8
35°	2721.9	2723.0	2678.8	2582.1	2449.5	2286.1	2184.3	2104.2	2066.1	2122.7	2228.5
37.5°	2524.6	2517.4	2469.1	2375.5	2232.7	2101.1	2032.2	1975.7	2020.9	2124.7	2247.0
40°	2320.0	2313.9	2257.3	2164.8	2024.0	1944.8	1876.0	1897.5	1992.1	2114.4	2273.8
42.5°	2108.3	2110.3	2051.7	1960.3	1844.1	1794.8	1770.1	1840.0	1957.2	2113.4	2266.6
45°	1910.9	1909.9	1854.4	1763.9	1687.9	1648.8	1678.6	1785.5	1922.2	2082.6	2212.1
47.5°	1724.9	1713.6	1663.2	1583.0	1549.1	1531.6	1602.5	1719.7	1876.0	2014.7	2144.3
50°	1536.7	1524.4	1484.3	1423.7	1408.3	1422.6	1519.3	1658.0	1804.0	1927.4	2055.9
52.5°	1359.9	1347.6	1314.7	1282.9	1276.7	1325.0	1436.0	1582.0	1707.4	1830.7	1939.7
55°	1192.4	1182.1	1157.4	1150.2	1161.6	1230.4	1354.8	1485.4	1606.6	1714.6	1815.3
57.5°	1039.2	1029.0	1013.5	1022.8	1051.6	1137.9	1264.3	1385.6	1495.6	1596.4	1681.7
60°	897.4	889.2	888.1	902.5	954.9	1051.6	1168.8	1281.8	1379.5	1472.0	1540.9
62.5°	764.8	760.7	772.0	800.8	866.5	965.2	1070.1	1174.9	1261.3	1342.5	1401.1
65°	647.6	645.5	665.1	706.2	783.3	879.9	978.6	1066.0	1142.0	1215.0	1265.4
67.5°	542.7	543.8	567.4	624.0	710.3	800.8	886.1	963.2	1033.1	1091.7	1126.6
70°	450.2	454.3	484.2	555.1	644.5	724.7	797.7	870.7	927.2	971.4	1000.2
72.5°	370.1	376.2	417.3	496.5	583.9	652.7	721.6	781.2	825.4	855.2	879.9
75°	298.1	307.3	359.8	446.1	527.3	592.1	650.7	694.9	726.7	755.5	781.2
77.5°	235.4	244.6	314.5	402.9	477.0	537.6	578.7	617.8	644.5	667.1	689.7
80°	180.9	193.2	276.5	359.8	434.8	480.0	518.1	547.9	566.4	583.9	602.4
82.5°	132.6	154.2	241.6	325.9	387.5	434.8	461.5	480.0	492.4	503.7	510.9
85°	89.4	125.4	209.7	285.8	346.4	382.4	399.9	407.1	411.2	417.3	423.5
87.5°	54.5	99.7	179.9	245.7	290.9	317.6	328.9	334.1	339.2	345.4	349.5
90°	16.4	69.9	138.8	188.1	222.0	243.6	253.9	258.0	262.1	268.3	272.4
92.5°	12.3	44.2	92.5	135.7	168.6	189.1	196.3	200.4	205.6	210.7	213.8
95°	20.6	37.0	59.6	93.5	121.3	138.8	147.0	154.2	158.3	162.4	165.5
97.5°	23.6	45.2	51.4	70.9	90.5	104.8	110.0	112.0	113.1	115.1	122.3
100°	29.8	56.5	62.7	61.7	74.0	83.3	84.3	85.3	84.3	85.3	87.4
102.5°	39.1	64.8	74.0	66.8	66.8	70.9	72.0	68.9	64.8	62.7	62.7
105°	46.3	69.9	83.3	78.1	62.7	64.8	63.7	61.7	56.5	50.4	49.3
107.5°	55.5	74.0	97.7	85.3	73.0	59.6	59.6	57.6	52.4	47.3	43.2
110°	68.9	80.2	109.0	90.5	81.2	64.8	57.6	54.5	51.4	46.3	42.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	78.1	85.3	104.8	99.7	86.3	70.9	57.6	53.5	48.3	46.3	43.2
115°	89.4	90.5	99.7	113.1	88.4	77.1	61.7	52.4	50.4	43.2	42.1
117.5°	102.8	96.6	92.5	134.7	94.6	80.2	68.9	55.5	47.3	48.3	41.1
120°	116.2	103.8	88.4	132.6	104.8	82.2	73.0	61.7	49.3	43.2	46.3
122.5°	129.5	112.0	95.6	123.4	118.2	86.3	74.0	65.8	54.5	45.2	40.1
125°	142.9	121.3	107.9	112.0	139.8	94.6	74.0	67.8	59.6	49.3	41.1
127.5°	155.2	130.5	123.4	99.7	134.7	103.8	78.1	64.8	60.6	53.5	46.3
130°	167.6	139.8	139.8	87.4	123.4	120.3	83.3	64.8	57.6	54.5	50.4
132.5°	176.8	144.9	143.9	80.2	111.0	129.5	90.5	67.8	54.5	50.4	50.4
135°	186.1	149.0	143.9	91.5	96.6	120.3	105.9	74.0	56.5	48.3	47.3
137.5°	191.2	152.1	142.9	106.9	80.2	109.0	119.2	82.2	61.7	50.4	45.2
140°	195.3	154.2	143.9	124.4	64.8	97.7	111.0	112.0	69.9	55.5	47.3
142.5°	196.3	157.3	144.9	138.8	69.9	82.2	101.8	109.0	89.4	61.7	51.4
145°	196.3	162.4	146.0	138.8	85.3	62.7	91.5	100.7	104.8	82.2	58.6
147.5°	196.3	166.5	144.9	133.6	104.8	55.5	76.1	92.5	98.7	99.7	84.3
150°	194.3	170.6	143.9	134.7	126.4	69.9	54.5	81.2	91.5	94.6	94.6
152.5°	194.3	174.7	143.9	137.7	129.5	91.5	53.5	60.6	82.2	89.4	90.5
155°	194.3	179.9	144.9	139.8	127.5	118.2	72.0	46.3	59.6	78.1	85.3
157.5°	194.3	184.0	148.0	140.8	132.6	123.4	100.7	63.7	43.2	51.4	69.9
160°	194.3	186.1	153.2	140.8	134.7	125.4	120.3	94.6	63.7	45.2	39.1
162.5°	192.2	187.1	162.4	141.9	135.7	129.5	121.3	117.2	101.8	72.0	53.5
165°	191.2	188.1	170.6	148.0	136.7	132.6	128.5	121.3	116.2	113.1	95.6
167.5°	190.2	188.1	179.9	160.4	142.9	133.6	131.6	128.5	122.3	116.2	114.1
170°	189.1	188.1	183.0	172.7	157.3	141.9	134.7	129.5	126.4	123.4	120.3
172.5°	188.1	187.1	185.0	180.9	172.7	160.4	150.1	139.8	132.6	127.5	123.4
175°	187.1	187.1	186.1	184.0	180.9	174.7	170.6	163.4	155.2	148.0	140.8
177.5°	187.1	186.1	186.1	186.1	183.0	179.9	178.9	175.8	170.6	167.6	163.4
180°	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0	4492.0
2.5°	4465.3	4490.0	4498.2	4481.8	4477.6	4488.9	4490.0	4481.8
5°	4315.2	4325.5	4324.5	4305.0	4293.6	4293.6	4287.5	4283.4
7.5°	4200.1	4213.5	4211.4	4190.9	4178.5	4180.6	4175.4	4167.2
10°	4059.3	4064.4	4054.1	4026.4	4000.7	3993.5	3987.3	3969.8
12.5°	3833.1	3802.3	3759.1	3710.8	3671.7	3653.2	3627.5	3603.9
15°	3526.8	3471.3	3404.5	3339.7	3291.4	3253.4	3234.9	3211.2
17.5°	3213.3	3143.4	3049.9	2975.8	2922.4	2888.5	2872.0	2851.5
20°	2894.6	2817.5	2743.5	2690.1	2652.0	2634.6	2615.0	2597.6
22.5°	2644.9	2588.3	2524.6	2478.3	2442.3	2419.7	2402.3	2396.1
25°	2450.6	2394.0	2352.9	2343.7	2342.6	2350.9	2356.0	2362.2
27.5°	2297.4	2298.4	2322.1	2363.2	2400.2	2429.0	2449.5	2456.7
30°	2253.2	2325.2	2388.9	2449.5	2502.0	2536.9	2561.6	2570.8
32.5°	2294.3	2395.1	2468.0	2536.9	2607.8	2659.2	2694.2	2704.5
35°	2342.6	2448.5	2555.4	2637.7	2705.5	2752.8	2777.5	2786.7
37.5°	2392.0	2513.3	2602.7	2668.5	2712.7	2746.6	2768.2	2774.4
40°	2418.7	2513.3	2579.1	2647.9	2700.4	2730.2	2749.7	2755.9
42.5°	2386.8	2475.2	2552.3	2613.0	2660.3	2688.0	2707.6	2711.7
45°	2332.4	2420.8	2494.8	2551.3	2596.5	2629.4	2651.0	2658.2
47.5°	2255.3	2339.6	2407.4	2472.2	2514.3	2533.8	2544.1	2553.4
50°	2145.3	2223.4	2284.0	2330.3	2349.8	2346.8	2345.7	2352.9
52.5°	2027.1	2093.9	2129.9	2164.8	2186.4	2202.8	2219.3	2232.7
55°	1888.3	1930.4	1952.0	1976.7	1997.3	2015.8	2036.3	2046.6
57.5°	1735.1	1766.0	1782.4	1799.9	1802.0	1795.8	1783.4	1782.4
60°	1585.1	1608.7	1623.1	1632.3	1627.2	1613.8	1595.3	1589.2
62.5°	1438.1	1457.6	1464.8	1466.8	1456.6	1441.2	1428.8	1425.7
65°	1292.1	1310.6	1311.6	1309.6	1296.2	1276.7	1266.4	1262.3
67.5°	1152.3	1169.8	1170.8	1163.6	1149.2	1134.8	1127.6	1127.6
70°	1021.8	1037.2	1040.3	1033.1	1023.8	1015.6	1008.4	1007.4
72.5°	902.5	920.0	926.2	920.0	913.8	903.5	897.4	898.4
75°	804.9	817.2	820.3	818.2	811.0	802.8	798.7	796.6
77.5°	705.2	715.4	719.5	718.5	712.4	703.1	699.0	695.9
80°	616.8	622.9	625.0	618.8	610.6	597.2	593.1	590.0
82.5°	517.0	520.1	518.1	514.0	507.8	496.5	492.4	491.3
85°	427.6	430.7	429.7	426.6	422.5	412.2	410.1	408.1
87.5°	352.6	357.7	356.7	355.7	350.5	342.3	339.2	337.2
90°	276.5	280.6	282.7	276.5	275.5	270.3	266.2	265.2
92.5°	216.9	221.0	222.0	218.9	214.8	210.7	207.6	205.6
95°	169.6	174.7	177.8	176.8	175.8	171.7	169.6	167.6
97.5°	129.5	134.7	137.7	137.7	135.7	132.6	131.6	129.5
100°	89.4	93.5	95.6	94.6	94.6	95.6	95.6	94.6
102.5°	64.8	66.8	68.9	68.9	67.8	66.8	65.8	63.7
105°	49.3	49.3	50.4	50.4	49.3	48.3	46.3	45.2
107.5°	40.1	39.1	39.1	38.0	37.0	36.0	33.9	31.9
110°	40.1	37.0	34.9	32.9	30.8	28.8	26.7	25.7



TEST NUMBER: P236429

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	40.1	38.0	34.9	32.9	30.8	28.8	26.7	24.7
115°	42.1	40.1	37.0	34.9	33.9	31.9	28.8	27.8
117.5°	38.0	38.0	38.0	38.0	37.0	34.9	32.9	30.8
120°	41.1	36.0	33.9	33.9	33.9	32.9	31.9	30.8
122.5°	38.0	43.2	38.0	33.9	30.8	28.8	25.7	24.7
125°	38.0	36.0	39.1	43.2	40.1	37.0	32.9	30.8
127.5°	39.1	37.0	36.0	34.9	32.9	33.9	33.9	33.9
130°	45.2	41.1	37.0	36.0	34.9	32.9	30.8	28.8
132.5°	49.3	46.3	43.2	40.1	37.0	33.9	30.8	28.8
135°	48.3	48.3	47.3	45.2	42.1	40.1	37.0	34.9
137.5°	44.2	46.3	46.3	46.3	45.2	44.2	41.1	40.1
140°	42.1	41.1	42.1	44.2	44.2	43.2	41.1	40.1
142.5°	44.2	41.1	39.1	38.0	38.0	38.0	37.0	36.0
145°	50.4	44.2	40.1	38.0	36.0	33.9	32.9	31.9
147.5°	56.5	50.4	45.2	42.1	38.0	36.0	33.9	31.9
150°	94.6	63.7	52.4	48.3	45.2	41.1	39.1	36.0
152.5°	91.5	93.5	93.5	74.0	53.5	47.3	43.2	41.1
155°	87.4	89.4	91.5	91.5	90.5	89.4	85.3	83.3
157.5°	80.2	85.3	87.4	87.4	87.4	85.3	83.3	81.2
160°	54.5	68.9	77.1	81.2	83.3	81.2	80.2	78.1
162.5°	41.1	37.0	44.2	53.5	59.6	61.7	60.6	61.7
165°	75.0	61.7	51.4	42.1	38.0	33.9	29.8	26.7
167.5°	114.1	112.0	102.8	92.5	85.3	82.2	73.0	69.9
170°	116.2	116.2	116.2	118.2	122.3	126.4	125.4	124.4
172.5°	120.3	119.2	120.3	121.3	122.3	127.5	127.5	125.4
175°	133.6	127.5	125.4	121.3	122.3	126.4	127.5	127.5
177.5°	159.3	155.2	149.0	144.9	144.9	148.0	154.2	141.9
180°	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7

(END OF REPORT)