

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: P236432

Luminaire Tested: **SKB2-LD5-12-N-UNV-L850-CD2-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236432  
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-LD5-12-N-UNV-L850-CD2-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

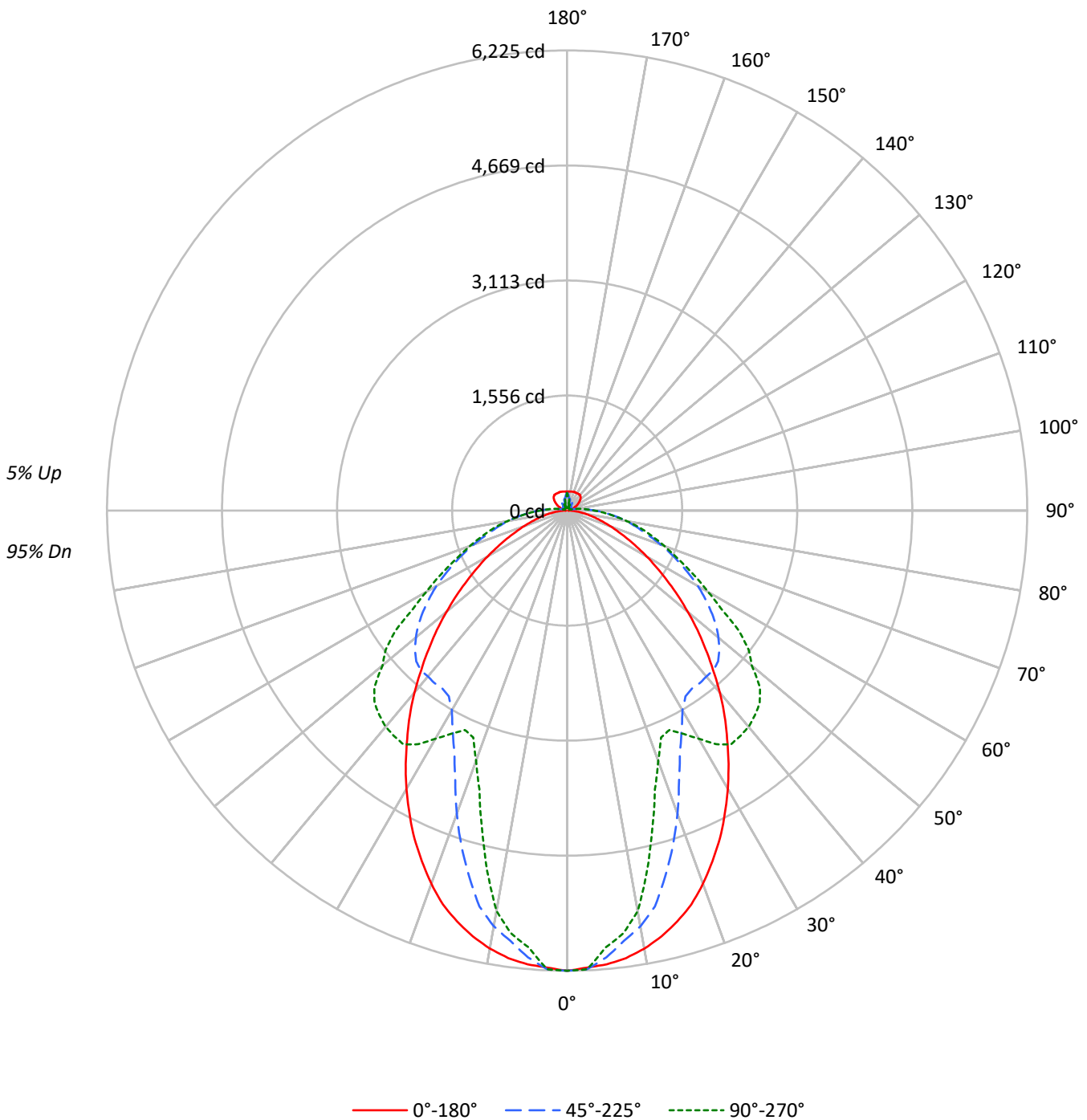
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14008.0 lumens  
Efficiency: N/A  
Efficacy: 133.5 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): 104.9  
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-LD5-12-N-UNV-L850-CD2-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	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						95		
1	107	102	97	93	103	99	95	91	94	90	87	89	86	84	84	82	80	78						78		
2	97	89	82	76	94	86	80	74	82	77	72	78	73	69	74	70	67	65						65		
3	89	78	70	63	86	76	68	62	72	66	60	69	63	59	66	61	57	55						55		
4	81	69	60	54	79	68	59	53	64	57	52	61	55	51	59	54	49	47						47		
5	75	62	53	47	72	61	52	46	58	51	45	55	49	44	53	48	43	41						41		
6	69	56	47	41	67	55	46	40	52	45	40	50	44	39	48	43	38	36						36		
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	44	38	34	32						32		
8	60	47	38	32	58	46	38	32	44	37	32	42	36	31	41	35	31	29						29		
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28	26						26		
10	53	40	32	27	51	39	32	27	38	31	26	36	30	26	35	30	25	24						24		

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

	0°	45°	90°
0°	26803	26803	26803
5°	26388	25790	25287
10°	25833	24146	23366
15°	24957	21725	18989
20°	23714	18702	15551
25°	22163	15743	14430
30°	20396	13960	16158
35°	18479	13634	18177
40°	16619	14190	18832
45°	14604	14749	19226
50°	12690	14567	18222
55°	10798	14006	17197
60°	9072	13191	14716
65°	7474	12160	13129
70°	6106	11104	12054
75°	4948	10158	11323
80°	3908	9617	10423
85°	2794	8960	9617



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	569.9	4.1
10°-20°	1427.9	10.2
20°-30°	1804.0	12.9
30°-40°	2136.7	15.3
40°-50°	2278.8	16.3
50°-60°	2010.5	14.4
60°-70°	1485.5	10.6
70°-80°	987.2	7.0
80°-90°	560.4	4.0
90°-100°	223.8	1.6
100°-110°	89.8	0.6
110°-120°	78.6	0.6
120°-130°	82.4	0.6
130°-140°	80.0	0.6
140°-150°	69.7	0.5
150°-160°	61.6	0.4
160°-170°	41.8	0.3
170°-180°	19.6	0.1
0°-30°	3801.8	27.1
0°-40°	5938.5	42.4
0°-60°	10227.8	73.0
0°-90°	13260.9	94.7
90°-120°	392.2	2.8
90°-150°	624.2	4.5
90°-180°	747.0	5.3
0°-180°	14008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6225	6225	6225	6225	6225	
5°	6161	6192	6067	5979	5936	584
15°	5755	5562	5124	4673	4450	1616
25°	4892	4492	3610	3254	3274	2243
35°	3772	3281	2942	3598	3862	2360
45°	2648	2312	2886	3496	3684	2047
55°	1652	1657	2376	2722	2836	1487
65°	898	1152	1684	1816	1749	900
75°	413	776	1047	1135	1104	445
85°	124	505	578	593	566	128
90°	23	323	372	387	368	19
95°	28	180	225	246	232	25
105°	64	88	70	70	63	69
115°	124	115	60	50	38	124
125°	198	162	68	57	43	176
135°	258	150	67	64	48	197
145°	272	103	114	54	44	171
155°	269	170	108	127	115	125
165°	265	187	157	65	37	75
175°	259	246	205	171	177	25
180°	239	239	239	239	239	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2
2.5°	6188.2	6199.6	6229.5	6246.6	6233.8	6220.9	6220.9	6245.2	6208.1	6211.0	6192.4
5°	6161.1	6172.5	6199.6	6216.7	6202.4	6181.0	6159.7	6156.8	6092.7	6067.1	6004.4
7.5°	6105.5	6114.1	6139.7	6142.6	6097.0	6040.0	5988.7	5968.8	5897.6	5873.3	5834.9
10°	6017.2	6022.9	6032.9	6008.7	5938.9	5870.5	5829.2	5812.1	5743.7	5709.5	5652.5
12.5°	5899.0	5897.6	5887.6	5843.4	5773.6	5713.8	5666.8	5625.5	5540.0	5485.9	5396.1
15°	5755.1	5748.0	5715.2	5669.6	5599.8	5524.3	5447.4	5377.6	5236.6	5124.0	4991.6
17.5°	5588.4	5568.5	5525.8	5475.9	5389.0	5283.6	5168.2	5038.6	4883.3	4756.5	4592.7
20°	5371.9	5357.7	5313.5	5257.9	5139.7	5001.5	4850.5	4718.1	4538.6	4366.2	4168.2
22.5°	5134.0	5125.5	5079.9	5010.1	4870.5	4696.7	4554.2	4384.7	4163.9	3953.1	3782.1
25°	4891.8	4871.9	4827.7	4740.8	4578.4	4404.7	4236.6	4022.9	3777.9	3609.8	3491.5
27.5°	4621.2	4611.2	4559.9	4460.2	4285.0	4105.5	3904.6	3659.6	3475.9	3349.1	3240.8
30°	4349.1	4334.9	4282.1	4168.2	3988.7	3786.4	3564.2	3371.9	3230.8	3118.3	3077.0
32.5°	4062.8	4055.6	3998.7	3869.0	3699.5	3477.3	3269.3	3134.0	3014.3	2978.7	3049.9
35°	3772.2	3773.6	3712.3	3578.4	3394.7	3168.2	3027.1	2916.0	2863.3	2941.7	3088.4
37.5°	3498.7	3488.7	3421.7	3292.1	3094.1	2911.7	2816.3	2738.0	2800.6	2944.5	3114.0
40°	3215.2	3206.6	3128.3	3000.1	2804.9	2695.2	2599.8	2629.7	2760.7	2930.3	3151.1
42.5°	2921.7	2924.6	2843.4	2716.6	2555.6	2487.2	2453.0	2549.9	2712.3	2928.8	3141.1
45°	2648.2	2646.8	2569.9	2444.5	2339.1	2285.0	2326.3	2474.4	2663.9	2886.1	3065.6
47.5°	2390.4	2374.7	2304.9	2193.8	2146.8	2122.6	2220.8	2383.2	2599.8	2792.1	2971.6
50°	2129.7	2112.6	2057.0	1973.0	1951.6	1971.6	2105.5	2297.8	2500.1	2671.0	2849.1
52.5°	1884.7	1867.6	1822.0	1777.8	1769.3	1836.2	1990.1	2192.4	2366.1	2537.1	2688.1
55°	1652.5	1638.2	1604.0	1594.1	1609.7	1705.2	1877.5	2058.4	2226.5	2376.1	2515.7
57.5°	1440.2	1426.0	1404.6	1417.4	1457.3	1577.0	1752.2	1920.3	2072.7	2212.3	2330.5
60°	1243.6	1232.2	1230.8	1250.7	1323.4	1457.3	1619.7	1776.4	1911.7	2039.9	2135.4
62.5°	1059.9	1054.2	1069.8	1109.7	1200.9	1337.6	1482.9	1628.2	1747.9	1860.4	1941.6
65°	897.5	894.6	921.7	978.7	1085.5	1219.4	1356.2	1477.2	1582.7	1683.8	1753.6
67.5°	752.2	753.6	786.3	864.7	984.4	1109.7	1227.9	1334.8	1431.7	1512.9	1561.3
70°	623.9	629.6	671.0	769.2	893.2	1004.3	1105.4	1206.6	1284.9	1346.2	1386.1
72.5°	512.8	521.4	578.4	688.0	809.1	904.6	1000.0	1082.6	1143.9	1185.2	1219.4
75°	413.1	425.9	498.6	618.2	730.8	820.5	901.7	963.0	1007.1	1047.0	1082.6
77.5°	326.2	339.0	435.9	558.4	661.0	745.0	802.0	856.1	893.2	924.5	955.9
80°	250.7	267.8	383.2	498.6	602.6	665.3	718.0	759.3	784.9	809.1	834.8
82.5°	183.8	213.7	334.8	451.6	537.0	602.6	639.6	665.3	682.4	698.0	708.0
85°	123.9	173.8	290.6	396.0	480.1	529.9	554.1	564.1	569.8	578.4	586.9
87.5°	75.5	138.2	249.3	340.5	403.1	440.2	455.9	463.0	470.1	478.6	484.3
90°	22.8	96.9	192.3	260.7	307.7	337.6	351.9	357.6	363.3	371.8	377.5
92.5°	17.1	61.3	128.2	188.0	233.6	262.1	272.1	277.8	284.9	292.0	296.3
95°	28.5	51.3	82.6	129.6	168.1	192.3	203.7	213.7	219.4	225.1	229.3
97.5°	32.8	62.7	71.2	98.3	125.4	145.3	152.4	155.3	156.7	159.5	169.5
100°	41.3	78.3	86.9	85.5	102.6	115.4	116.8	118.2	116.8	118.2	121.1
102.5°	54.1	89.7	102.6	92.6	92.6	98.3	99.7	95.4	89.7	86.9	86.9
105°	64.1	96.9	115.4	108.3	86.9	89.7	88.3	85.5	78.3	69.8	68.4
107.5°	76.9	102.6	135.3	118.2	101.1	82.6	82.6	79.8	72.7	65.5	59.8
110°	95.4	111.1	151.0	125.4	112.5	89.7	79.8	75.5	71.2	64.1	58.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	108.3	118.2	145.3	138.2	119.7	98.3	79.8	74.1	67.0	64.1	59.8
115°	123.9	125.4	138.2	156.7	122.5	106.8	85.5	72.7	69.8	59.8	58.4
117.5°	142.5	133.9	128.2	186.6	131.1	111.1	95.4	76.9	65.5	67.0	57.0
120°	161.0	143.9	122.5	183.8	145.3	114.0	101.1	85.5	68.4	59.8	64.1
122.5°	179.5	155.3	132.5	170.9	163.8	119.7	102.6	91.2	75.5	62.7	55.6
125°	198.0	168.1	149.6	155.3	193.7	131.1	102.6	94.0	82.6	68.4	57.0
127.5°	215.1	180.9	170.9	138.2	186.6	143.9	108.3	89.7	84.0	74.1	64.1
130°	232.2	193.7	193.7	121.1	170.9	166.7	115.4	89.7	79.8	75.5	69.8
132.5°	245.0	200.9	199.4	111.1	153.8	179.5	125.4	94.0	75.5	69.8	69.8
135°	257.8	206.6	199.4	126.8	133.9	166.7	146.7	102.6	78.3	67.0	65.5
137.5°	265.0	210.8	198.0	148.2	111.1	151.0	165.2	114.0	85.5	69.8	62.7
140°	270.7	213.7	199.4	172.4	89.7	135.3	153.8	155.3	96.9	76.9	65.5
142.5°	272.1	218.0	200.9	192.3	96.9	114.0	141.0	151.0	123.9	85.5	71.2
145°	272.1	225.1	202.3	192.3	118.2	86.9	126.8	139.6	145.3	114.0	81.2
147.5°	272.1	230.8	200.9	185.2	145.3	76.9	105.4	128.2	136.8	138.2	116.8
150°	269.2	236.5	199.4	186.6	175.2	96.9	75.5	112.5	126.8	131.1	131.1
152.5°	269.2	242.2	199.4	190.9	179.5	126.8	74.1	84.0	114.0	123.9	125.4
155°	269.2	249.3	200.9	193.7	176.6	163.8	99.7	64.1	82.6	108.3	118.2
157.5°	269.2	255.0	205.1	195.2	183.8	170.9	139.6	88.3	59.8	71.2	96.9
160°	269.2	257.8	212.3	195.2	186.6	173.8	166.7	131.1	88.3	62.7	54.1
162.5°	266.4	259.3	225.1	196.6	188.0	179.5	168.1	162.4	141.0	99.7	74.1
165°	265.0	260.7	236.5	205.1	189.5	183.8	178.1	168.1	161.0	156.7	132.5
167.5°	263.5	260.7	249.3	222.2	198.0	185.2	182.3	178.1	169.5	161.0	158.1
170°	262.1	260.7	253.6	239.3	218.0	196.6	186.6	179.5	175.2	170.9	166.7
172.5°	260.7	259.3	256.4	250.7	239.3	222.2	208.0	193.7	183.8	176.6	170.9
175°	259.3	259.3	257.8	255.0	250.7	242.2	236.5	226.5	215.1	205.1	195.2
177.5°	259.3	257.8	257.8	257.8	253.6	249.3	247.9	243.6	236.5	232.2	226.5
180°	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2	6225.2
2.5°	6188.2	6222.4	6233.8	6211.0	6205.3	6220.9	6222.4	6211.0
5°	5980.2	5994.4	5993.0	5965.9	5950.3	5950.3	5941.7	5936.0
7.5°	5820.6	5839.2	5836.3	5807.8	5790.7	5793.6	5786.5	5775.1
10°	5625.5	5632.6	5618.4	5579.9	5544.3	5534.3	5525.8	5501.5
12.5°	5312.1	5269.3	5209.5	5142.6	5088.4	5062.8	5027.2	4994.4
15°	4887.6	4810.6	4718.1	4628.3	4561.4	4508.6	4483.0	4450.2
17.5°	4453.1	4356.2	4226.6	4124.0	4049.9	4002.9	3980.1	3951.7
20°	4011.5	3904.6	3802.1	3728.0	3675.3	3651.1	3624.0	3599.8
22.5°	3665.3	3587.0	3498.7	3434.5	3384.7	3353.3	3329.1	3320.6
25°	3396.1	3317.7	3260.8	3247.9	3246.5	3257.9	3265.0	3273.6
27.5°	3183.8	3185.3	3218.0	3275.0	3326.3	3366.2	3394.7	3404.6
30°	3122.6	3222.3	3310.6	3394.7	3467.3	3515.7	3549.9	3562.8
32.5°	3179.6	3319.2	3420.3	3515.7	3614.0	3685.3	3733.7	3747.9
35°	3246.5	3393.2	3541.4	3655.4	3749.4	3814.9	3849.1	3861.9
37.5°	3314.9	3483.0	3606.9	3698.1	3759.3	3806.4	3836.3	3844.8
40°	3351.9	3483.0	3574.2	3669.6	3742.2	3783.6	3810.6	3819.2
42.5°	3307.8	3430.3	3537.1	3621.2	3686.7	3725.2	3752.2	3757.9
45°	3232.3	3354.8	3457.3	3535.7	3598.4	3644.0	3673.9	3683.8
47.5°	3125.4	3242.2	3336.3	3426.0	3484.4	3511.5	3525.7	3538.5
50°	2973.0	3081.3	3165.3	3229.4	3256.5	3252.2	3250.8	3260.8
52.5°	2809.2	2901.8	2951.6	3000.1	3030.0	3052.8	3075.6	3094.1
55°	2616.9	2675.3	2705.2	2739.4	2767.9	2793.5	2822.0	2836.2
57.5°	2404.6	2447.3	2470.1	2494.4	2497.2	2488.7	2471.6	2470.1
60°	2196.6	2229.4	2249.3	2262.2	2255.0	2236.5	2210.9	2202.3
62.5°	1992.9	2020.0	2030.0	2032.8	2018.6	1997.2	1980.1	1975.8
65°	1790.6	1816.3	1817.7	1814.9	1796.3	1769.3	1755.0	1749.3
67.5°	1596.9	1621.1	1622.5	1612.6	1592.6	1572.7	1562.7	1562.7
70°	1416.0	1437.4	1441.6	1431.7	1418.8	1407.4	1397.5	1396.0
72.5°	1250.7	1275.0	1283.5	1275.0	1266.4	1252.2	1243.6	1245.0
75°	1115.4	1132.5	1136.8	1133.9	1124.0	1112.6	1106.9	1104.0
77.5°	977.2	991.5	997.2	995.7	987.2	974.4	968.7	964.4
80°	854.7	863.3	866.1	857.6	846.2	827.7	822.0	817.7
82.5°	716.5	720.8	718.0	712.3	703.7	688.0	682.4	680.9
85°	592.6	596.9	595.5	591.2	585.5	571.2	568.4	565.5
87.5°	488.6	495.7	494.3	492.9	485.8	474.4	470.1	467.2
90°	383.2	388.9	391.7	383.2	381.8	374.7	369.0	367.5
92.5°	300.6	306.3	307.7	303.4	297.7	292.0	287.8	284.9
95°	235.0	242.2	246.4	245.0	243.6	237.9	235.0	232.2
97.5°	179.5	186.6	190.9	190.9	188.0	183.8	182.3	179.5
100°	123.9	129.6	132.5	131.1	131.1	132.5	132.5	131.1
102.5°	89.7	92.6	95.4	95.4	94.0	92.6	91.2	88.3
105°	68.4	68.4	69.8	69.8	68.4	67.0	64.1	62.7
107.5°	55.6	54.1	54.1	52.7	51.3	49.9	47.0	44.2
110°	55.6	51.3	48.4	45.6	42.7	39.9	37.0	35.6





TEST NUMBER: P236432

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L850-CD2-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	55.6	52.7	48.4	45.6	42.7	39.9	37.0	34.2
115°	58.4	55.6	51.3	48.4	47.0	44.2	39.9	38.5
117.5°	52.7	52.7	52.7	52.7	51.3	48.4	45.6	42.7
120°	57.0	49.9	47.0	47.0	47.0	45.6	44.2	42.7
122.5°	52.7	59.8	52.7	47.0	42.7	39.9	35.6	34.2
125°	52.7	49.9	54.1	59.8	55.6	51.3	45.6	42.7
127.5°	54.1	51.3	49.9	48.4	45.6	47.0	47.0	47.0
130°	62.7	57.0	51.3	49.9	48.4	45.6	42.7	39.9
132.5°	68.4	64.1	59.8	55.6	51.3	47.0	42.7	39.9
135°	67.0	67.0	65.5	62.7	58.4	55.6	51.3	48.4
137.5°	61.3	64.1	64.1	64.1	62.7	61.3	57.0	55.6
140°	58.4	57.0	58.4	61.3	61.3	59.8	57.0	55.6
142.5°	61.3	57.0	54.1	52.7	52.7	52.7	51.3	49.9
145°	69.8	61.3	55.6	52.7	49.9	47.0	45.6	44.2
147.5°	78.3	69.8	62.7	58.4	52.7	49.9	47.0	44.2
150°	131.1	88.3	72.7	67.0	62.7	57.0	54.1	49.9
152.5°	126.8	129.6	129.6	102.6	74.1	65.5	59.8	57.0
155°	121.1	123.9	126.8	126.8	125.4	123.9	118.2	115.4
157.5°	111.1	118.2	121.1	121.1	121.1	118.2	115.4	112.5
160°	75.5	95.4	106.8	112.5	115.4	112.5	111.1	108.3
162.5°	57.0	51.3	61.3	74.1	82.6	85.5	84.0	85.5
165°	104.0	85.5	71.2	58.4	52.7	47.0	41.3	37.0
167.5°	158.1	155.3	142.5	128.2	118.2	114.0	101.1	96.9
170°	161.0	161.0	161.0	163.8	169.5	175.2	173.8	172.4
172.5°	166.7	165.2	166.7	168.1	169.5	176.6	176.6	173.8
175°	185.2	176.6	173.8	168.1	169.5	175.2	176.6	176.6
177.5°	220.8	215.1	206.6	200.9	200.9	205.1	213.7	196.6
180°	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3

(END OF REPORT)