

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: P236572

Luminaire Tested: **SKB4-LD5-18-W-UNV-L840-CD2-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236572  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24080)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB4-LD5-18-W-UNV-L840-CD2-U outer 2 blades vertical inner 2 blades  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH WIDE DISTRIBUTION LENS, OUTER 2 BLADES VERTICAL INNER 2  
BLADES HORIZONTAL  
Light Source: (952) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

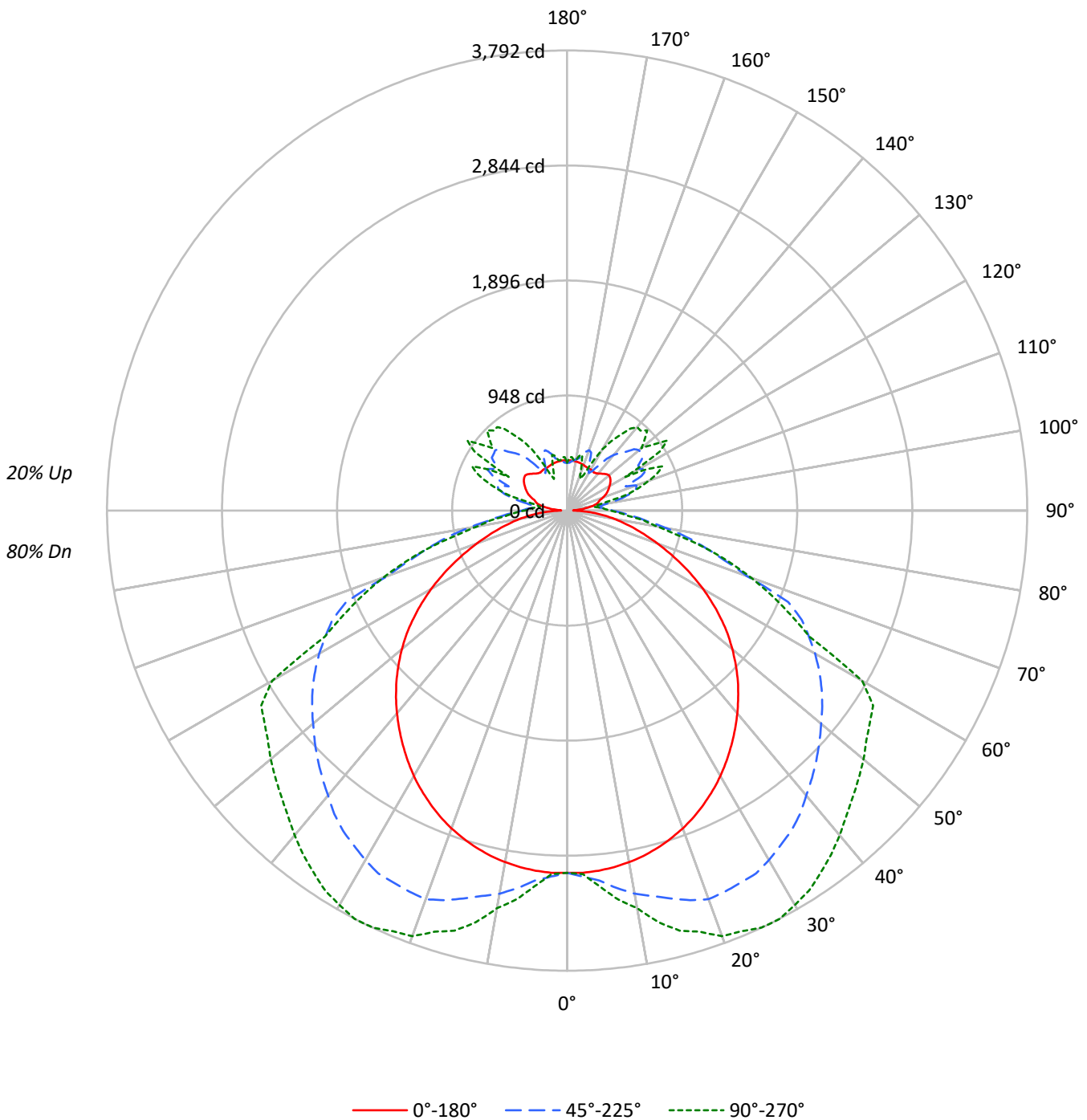
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15786.0 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.73 / 1.68  
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 143.4  
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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80																												
1	103	98	93	89	98	93	89	85	85	82	79	78	75	73	71	69	67	64																												
2	93	84	77	71	88	80	74	68	73	68	64	67	63	59	61	58	55	52																												
3	84	73	65	58	80	70	62	56	64	58	52	59	53	49	53	49	46	42																												
4	76	64	55	48	73	61	53	47	56	49	44	52	46	41	47	42	38	36																												
5	70	57	48	41	66	54	46	40	50	43	37	46	40	35	42	37	33	30																												
6	64	51	42	35	61	49	40	34	45	38	32	41	35	30	38	33	29	26																												
7	59	46	37	31	56	44	36	30	41	33	28	37	31	27	34	29	25	23																												
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20																												
9	51	38	30	24	49	36	29	23	34	27	22	31	25	21	29	24	20	18																												
10	48	35	27	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16																												

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

	0°	45°	90°
0°	4283	4283	4283
5°	4272	4364	4437
10°	4248	4577	4755
15°	4217	4769	5170
20°	4177	4995	5479
25°	4124	5083	5708
30°	4064	5167	5843
35°	3989	5221	5921
40°	3916	5236	5986
45°	3838	5287	6086
50°	3737	5365	6286
55°	3598	5500	6575
60°	3406	5645	6756
65°	3162	5813	5570
70°	2904	5021	5173
75°	2690	4557	4556
80°	2524	4128	3790
85°	2319	3918	3677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	295.5	1.9
10°-20°	928.2	5.9
20°-30°	1530.1	9.7
30°-40°	1953.0	12.4
40°-50°	2158.7	13.7
50°-60°	2182.8	13.8
60°-70°	1810.4	11.5
70°-80°	1150.9	7.3
80°-90°	554.1	3.5
90°-100°	291.1	1.8
100°-110°	480.6	3.0
110°-120°	607.5	3.8
120°-130°	618.6	3.9
130°-140°	519.0	3.3
140°-150°	340.7	2.2
150°-160°	197.4	1.3
160°-170°	128.0	0.8
170°-180°	39.3	0.2
0°-30°	2753.8	17.4
0°-40°	4706.8	29.8
0°-60°	9048.3	57.3
0°-90°	12563.7	79.6
90°-120°	1379.3	8.7
90°-150°	2857.6	18.1
90°-180°	3222.0	20.4
0°-180°	15786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2985	2985	2985	2985	2985	
5°	2979	3020	3060	3100	3110	283
15°	2878	3059	3309	3514	3583	812
25°	2668	2962	3383	3679	3791	1229
35°	2360	2719	3221	3562	3643	1477
45°	1989	2355	2905	3251	3332	1533
55°	1545	1966	2560	2920	3045	1379
65°	1035	1553	2135	2003	2031	1027
75°	579	1115	1176	1184	1162	617
85°	225	497	552	516	507	218
90°	50	318	371	356	351	39
95°	110	233	271	274	272	107
105°	266	419	535	530	511	278
115°	366	531	676	775	863	360
125°	436	506	759	865	1002	388
135°	428	412	686	868	933	331
145°	383	487	457	664	758	244
155°	391	456	436	360	328	181
165°	406	431	476	514	476	115
175°	415	415	407	381	443	39
180°	394	394	394	394	394	



TEST NUMBER: P236572

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L840-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6
2.5°	2987.2	2985.9	2994.8	3000.0	3007.6	3015.3	3015.3	3014.0	3014.0	3018.5	3014.7
5°	2978.8	2980.8	2995.5	3003.8	3016.6	3024.3	3025.6	3032.0	3039.6	3059.5	3070.4
7.5°	2963.5	2968.6	2985.9	2994.2	3012.1	3033.2	3056.9	3081.3	3110.1	3137.6	3150.4
10°	2941.7	2950.0	2967.3	2982.7	3017.2	3064.6	3100.5	3129.3	3163.8	3204.8	3232.3
12.5°	2914.2	2925.1	2944.9	2973.1	3031.3	3082.5	3125.4	3170.2	3217.6	3253.4	3281.0
15°	2877.7	2890.5	2914.2	2960.9	3031.3	3087.0	3150.4	3193.9	3242.5	3309.1	3366.7
17.5°	2835.5	2848.3	2880.3	2943.0	3017.2	3088.3	3147.8	3206.1	3291.2	3366.7	3430.7
20°	2786.8	2802.8	2842.5	2912.3	2995.5	3070.4	3141.4	3231.0	3323.2	3407.7	3460.8
22.5°	2731.8	2749.1	2794.5	2872.0	2963.5	3040.3	3139.5	3233.6	3334.7	3399.4	3467.8
25°	2667.8	2686.3	2738.2	2820.7	2915.5	3008.9	3122.2	3225.9	3298.2	3382.7	3477.5
27.5°	2599.3	2615.9	2671.6	2760.6	2860.4	2971.2	3092.1	3173.4	3265.0	3371.2	3452.5
30°	2526.3	2541.7	2601.2	2692.1	2799.0	2923.2	3032.6	3113.3	3232.9	3325.8	3411.5
32.5°	2444.4	2465.5	2522.5	2616.6	2727.9	2857.2	2952.6	3062.1	3174.7	3271.4	3378.2
35°	2359.9	2381.7	2438.6	2535.9	2658.8	2779.8	2875.2	2991.6	3105.6	3220.8	3321.3
37.5°	2272.2	2294.6	2350.3	2452.7	2574.3	2687.0	2800.9	2909.7	3038.4	3151.7	3240.0
40°	2181.3	2203.1	2260.1	2366.3	2489.2	2595.4	2715.8	2831.6	2965.4	3065.3	3164.5
42.5°	2087.2	2108.4	2167.9	2279.3	2392.5	2507.1	2627.4	2754.8	2879.6	2987.2	3083.8
45°	1989.3	2011.1	2073.8	2189.6	2293.3	2416.2	2543.6	2672.9	2797.1	2905.2	2998.7
47.5°	1885.6	1909.3	1974.6	2089.8	2192.2	2322.8	2455.9	2585.8	2713.2	2820.7	2918.7
50°	1777.4	1805.0	1873.5	1987.4	2093.6	2230.0	2365.7	2498.2	2628.7	2733.1	2837.4
52.5°	1665.4	1697.4	1776.8	1884.3	1994.4	2135.2	2275.4	2410.5	2542.3	2649.9	2752.3
55°	1545.1	1583.5	1676.3	1774.9	1894.6	2036.7	2180.7	2320.2	2452.1	2560.2	2662.0
57.5°	1420.9	1467.0	1561.1	1664.2	1790.9	1938.1	2084.7	2226.8	2358.0	2462.3	2566.6
60°	1293.6	1346.7	1442.1	1552.8	1686.6	1837.0	1987.4	2126.3	2254.9	2359.9	2455.9
62.5°	1164.3	1223.8	1328.1	1443.3	1582.9	1733.3	1885.6	2025.2	2145.5	2244.1	2349.0
65°	1035.0	1101.5	1218.0	1334.5	1477.3	1629.6	1776.8	1909.9	2025.8	2135.2	2228.7
67.5°	909.5	987.6	1106.0	1228.9	1372.3	1522.7	1663.5	1792.2	1913.1	1971.4	1856.8
70°	791.1	879.4	994.0	1124.6	1268.0	1410.1	1545.7	1675.0	1696.2	1575.8	1544.5
72.5°	681.0	768.1	889.0	1024.1	1159.8	1293.6	1429.9	1444.0	1355.6	1353.7	1351.2
75°	579.3	666.3	790.5	923.6	1048.4	1182.2	1206.5	1168.1	1172.6	1175.8	1170.7
77.5°	485.2	572.2	696.4	819.3	941.5	989.5	982.5	1003.0	1007.5	1006.2	995.9
80°	395.6	480.7	597.8	714.3	779.0	796.2	830.2	848.7	844.9	826.3	795.0
82.5°	309.1	388.5	496.7	574.1	610.6	655.4	682.3	684.2	675.3	663.1	650.9
85°	224.7	292.5	373.2	432.0	480.0	514.6	546.6	565.2	564.5	551.7	535.1
87.5°	136.3	185.6	254.7	322.0	376.4	416.0	444.2	459.6	460.2	453.2	442.3
90°	49.9	98.6	176.0	243.9	298.9	336.7	364.2	375.7	375.1	370.6	360.4
92.5°	49.3	83.2	147.9	205.5	249.6	287.4	314.9	330.3	332.8	329.0	320.7
95°	109.5	123.5	161.3	195.2	222.7	243.9	259.9	266.3	267.5	270.7	269.5
97.5°	158.1	173.5	205.5	243.2	273.9	292.5	289.3	280.3	272.0	260.5	250.3
100°	205.5	225.3	252.2	291.9	329.6	355.9	371.9	381.5	369.3	337.3	307.2
102.5°	247.7	273.9	303.4	339.2	376.4	408.4	434.6	453.8	459.6	456.4	449.3
105°	266.3	298.9	324.5	370.6	409.0	428.2	459.6	504.4	530.0	535.1	537.0
107.5°	280.3	320.7	346.9	396.2	443.6	476.8	471.1	501.2	564.5	595.9	612.5
110°	313.6	354.6	373.8	423.1	478.1	498.6	546.0	522.9	510.1	608.1	658.0



TEST NUMBER: P236572

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L840-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	343.7	375.1	391.7	434.0	494.8	530.6	560.7	618.3	592.7	520.4	577.3
115°	366.1	394.9	404.5	435.2	499.9	562.6	579.3	617.7	684.2	675.9	596.5
117.5°	385.3	415.4	424.4	430.1	499.2	569.7	614.5	620.2	661.8	743.1	764.2
120°	403.2	434.0	450.6	421.8	501.8	569.7	635.6	669.5	660.5	686.1	773.8
122.5°	420.5	449.3	487.7	419.2	487.1	561.3	637.5	687.4	717.5	694.5	701.5
125°	435.9	458.3	511.4	437.2	457.6	554.3	622.1	702.1	732.9	759.1	738.6
127.5°	446.1	461.5	517.8	466.0	429.5	530.0	604.9	679.1	745.0	763.6	793.7
130°	451.2	463.4	515.9	494.8	408.4	485.8	585.0	643.9	718.1	773.2	789.8
132.5°	442.9	453.2	502.4	519.7	414.1	429.5	540.2	615.7	666.3	749.5	801.4
135°	427.6	438.4	484.5	527.4	437.8	386.0	475.6	574.1	631.7	686.1	765.5
137.5°	412.8	423.1	464.0	518.4	469.2	376.4	412.2	515.9	593.3	643.3	691.3
140°	398.1	409.0	441.6	498.6	493.5	399.4	371.9	445.5	534.5	599.1	642.6
142.5°	388.5	399.4	423.1	473.6	506.3	444.2	367.4	384.0	458.9	538.3	594.6
145°	383.4	393.0	409.0	450.6	496.7	476.8	393.0	355.9	391.1	457.0	522.9
147.5°	387.2	393.0	402.0	428.2	480.0	500.5	447.4	377.6	356.5	387.2	438.4
150°	390.4	395.6	403.9	417.3	463.4	496.0	496.7	428.2	377.0	356.5	375.1
152.5°	388.5	396.2	410.3	421.2	451.9	490.3	512.0	489.6	427.6	382.1	359.7
155°	391.1	396.8	410.3	420.5	438.4	474.3	503.7	515.9	496.7	435.9	398.1
157.5°	394.9	400.0	410.3	419.2	430.1	453.2	486.4	510.1	524.2	517.2	466.0
160°	398.8	403.2	412.2	420.5	426.9	440.4	464.7	496.0	516.5	530.0	531.3
162.5°	402.6	405.8	414.8	422.4	428.2	435.2	446.8	468.5	492.2	507.6	522.3
165°	406.4	409.0	416.0	423.1	429.5	432.7	437.8	446.1	460.2	476.2	488.4
167.5°	409.0	410.3	416.0	422.4	427.6	430.8	432.7	435.9	437.8	441.0	446.1
170°	410.9	412.2	416.0	420.5	423.7	426.9	427.6	428.8	429.5	426.9	421.8
172.5°	412.8	413.5	415.4	418.0	419.9	421.2	421.8	420.5	420.5	418.0	412.2
175°	414.8	414.8	416.0	415.4	415.4	415.4	414.1	412.2	409.6	407.1	401.3
177.5°	414.8	414.8	415.4	414.8	413.5	411.6	409.0	404.5	400.7	394.3	389.2
180°	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6



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CATALOG NUMBER: SKB4-LD5-18-W-UNV-L840-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6	2984.6
2.5°	3010.8	3003.2	2999.3	3005.7	3017.9	3022.4	3014.0	2998.7
5°	3083.8	3088.3	3092.1	3108.8	3124.1	3131.2	3122.9	3110.1
7.5°	3168.3	3177.9	3190.1	3214.4	3239.3	3248.3	3241.3	3234.2
10°	3257.3	3266.2	3278.4	3300.2	3325.1	3334.7	3331.5	3326.4
12.5°	3323.2	3357.1	3387.8	3425.0	3470.4	3481.3	3480.7	3474.3
15°	3420.5	3452.5	3490.9	3536.3	3577.3	3590.1	3590.7	3583.1
17.5°	3492.2	3524.2	3544.7	3581.1	3635.5	3650.3	3645.8	3638.7
20°	3511.4	3551.7	3602.9	3661.1	3709.8	3727.7	3732.8	3732.2
22.5°	3544.7	3599.7	3653.5	3700.2	3739.2	3753.3	3756.5	3752.0
25°	3552.3	3593.9	3649.6	3707.9	3759.1	3782.1	3792.4	3791.1
27.5°	3522.3	3582.4	3658.6	3722.0	3768.7	3788.5	3793.0	3792.4
30°	3504.3	3572.8	3641.3	3688.7	3722.0	3740.5	3748.8	3752.0
32.5°	3466.6	3520.3	3586.3	3643.9	3681.0	3698.9	3707.2	3711.7
35°	3394.2	3462.7	3534.4	3588.8	3617.6	3631.7	3634.9	3642.6
37.5°	3328.3	3399.4	3463.4	3509.5	3538.3	3556.2	3564.5	3572.2
40°	3252.1	3316.8	3385.3	3437.1	3466.6	3480.7	3487.7	3492.8
42.5°	3167.7	3241.9	3311.0	3356.5	3380.2	3394.9	3406.4	3407.0
45°	3090.2	3163.8	3227.2	3275.2	3302.7	3320.6	3332.2	3331.5
47.5°	3014.7	3083.8	3148.5	3197.1	3225.3	3245.1	3256.0	3259.8
50°	2930.8	3002.5	3067.8	3116.5	3147.2	3170.9	3183.0	3188.1
52.5°	2848.3	2918.7	2983.3	3037.1	3072.9	3094.7	3105.6	3108.8
55°	2756.7	2828.4	2891.2	2949.4	2992.9	3021.1	3040.3	3044.8
57.5°	2658.8	2729.2	2802.8	2868.1	2921.2	2959.6	2981.4	2989.7
60°	2553.2	2634.5	2719.0	2795.8	2821.4	2825.2	2806.7	2806.7
62.5°	2457.2	2517.4	2495.6	2409.8	2322.1	2294.0	2277.3	2253.0
65°	2214.0	2071.2	1998.3	2008.5	2022.6	2030.9	2033.5	2030.9
67.5°	1774.2	1762.7	1784.5	1801.8	1808.8	1821.0	1822.3	1821.6
70°	1552.8	1554.7	1578.4	1593.8	1600.8	1610.4	1610.4	1609.1
72.5°	1363.3	1368.5	1384.5	1394.1	1396.0	1397.9	1399.8	1392.8
75°	1173.2	1177.1	1180.9	1186.7	1173.9	1175.2	1165.6	1162.4
77.5°	985.1	978.0	963.3	949.2	931.3	935.1	923.6	930.0
80°	781.5	776.4	768.7	756.6	744.4	747.0	744.4	747.6
82.5°	649.7	653.5	651.6	651.6	643.3	645.8	638.1	641.3
85°	527.4	519.7	517.2	515.2	508.8	510.1	503.7	506.9
87.5°	438.4	435.9	435.9	436.5	434.6	434.0	429.5	431.4
90°	357.8	356.5	356.5	356.5	355.9	354.0	348.8	350.8
92.5°	318.1	315.6	314.9	314.9	314.3	313.0	309.8	310.4
95°	270.7	272.0	273.3	273.9	273.9	273.3	270.1	272.0
97.5°	240.7	233.6	231.7	229.8	228.5	225.9	224.7	224.7
100°	286.1	275.9	268.2	263.1	258.6	254.7	252.8	249.0
102.5°	427.6	416.0	394.9	370.6	355.2	343.7	341.8	333.5
105°	534.5	533.2	530.6	528.7	526.1	522.9	521.0	511.4
107.5°	616.4	622.1	622.8	622.8	619.6	620.2	619.6	615.1
110°	682.9	700.2	711.7	720.1	722.0	720.7	721.3	716.2





TEST NUMBER: P236572

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L840-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	702.1	749.5	773.2	791.1	802.6	807.8	809.0	806.5
115°	537.7	610.6	740.6	809.7	844.2	859.0	864.1	862.8
117.5°	721.3	619.6	556.9	557.5	602.9	659.9	706.6	732.9
120°	835.9	834.6	808.4	755.9	667.6	600.4	569.0	554.9
122.5°	776.4	864.7	908.2	924.9	924.9	917.8	915.9	904.4
125°	716.9	752.7	825.0	904.4	961.4	988.3	999.1	1002.3
127.5°	788.6	758.5	759.8	780.9	816.1	844.2	873.0	892.9
130°	827.0	859.0	835.9	811.0	799.4	795.6	796.9	798.8
132.5°	821.2	843.6	882.6	908.9	905.0	891.6	876.9	866.6
135°	818.6	843.6	860.2	876.2	901.8	917.8	927.4	932.6
137.5°	766.8	821.8	855.8	876.9	891.0	894.2	893.5	894.2
140°	685.5	745.7	805.8	838.5	869.2	889.7	895.4	897.4
142.5°	638.8	670.8	711.7	753.4	793.0	826.3	845.5	848.7
145°	583.7	621.5	652.2	675.9	694.5	717.5	743.8	757.8
147.5°	501.8	555.6	594.6	620.9	640.1	655.4	672.7	677.8
150°	414.1	461.5	504.4	541.5	566.5	582.5	591.4	583.1
152.5°	359.1	381.5	413.5	441.0	458.9	476.8	460.2	451.2
155°	369.3	354.0	354.0	366.8	374.4	359.1	338.6	327.7
157.5°	428.8	396.8	369.3	352.7	336.0	297.0	285.5	282.9
160°	514.6	465.3	434.6	405.2	358.4	333.5	318.8	314.3
162.5°	530.6	530.6	522.3	502.4	455.1	422.4	403.9	397.5
165°	501.2	510.8	517.2	510.1	499.2	487.1	478.8	476.2
167.5°	455.1	467.2	473.6	474.9	482.6	478.8	464.0	461.5
170°	417.3	418.6	422.4	425.6	438.4	442.9	435.2	421.2
172.5°	403.9	399.4	396.2	398.8	408.4	421.2	418.6	419.2
175°	393.0	382.8	378.3	383.4	393.6	412.2	431.4	442.9
177.5°	380.8	368.0	362.3	367.4	378.3	398.8	431.4	441.6
180°	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6

(END OF REPORT)