

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: P236571

Luminaire Tested: **SKB4-LD5-18-W-UNV-L835-CD2-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236571  
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-L835-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) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

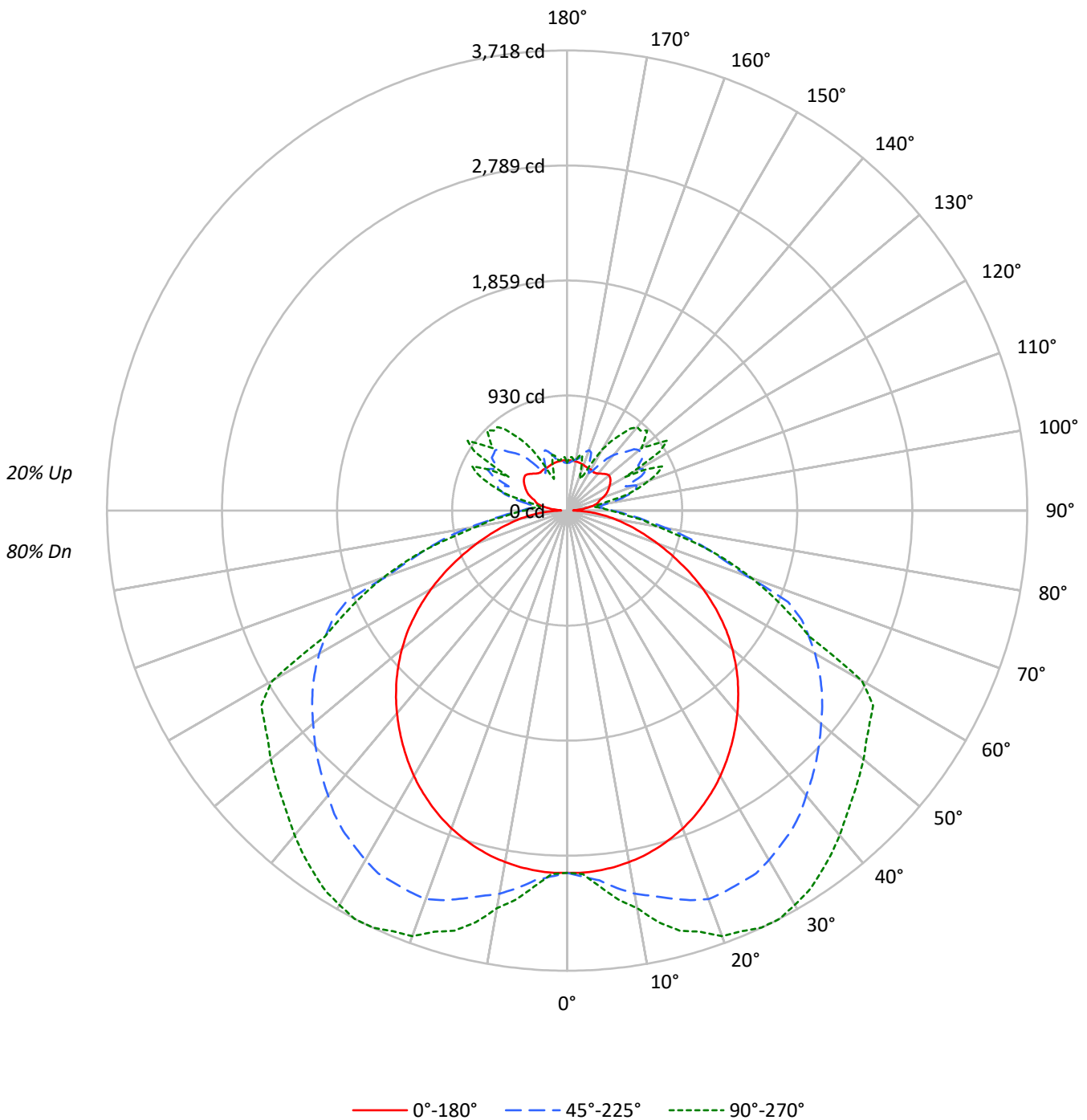
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15477.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 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	0		
RCR																										
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80					80			
1	103	98	93	89	98	93	89	85	85	82	79	78	75	73	71	69	67	64					64			
2	93	84	77	71	88	80	74	68	73	68	64	67	63	59	61	58	55	52					52			
3	84	73	65	58	80	70	62	56	64	58	52	59	53	49	53	49	46	42					42			
4	76	64	55	48	73	61	53	47	56	49	44	52	46	41	47	42	38	36					36			
5	70	57	48	41	66	54	46	40	50	43	37	46	40	35	42	37	33	30					30			
6	64	51	42	35	61	49	40	34	45	38	32	41	35	30	38	33	29	26					26			
7	59	46	37	31	56	44	36	30	41	33	28	37	31	27	34	29	25	23					23			
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20					20			
9	51	38	30	24	49	36	29	23	34	27	22	31	25	21	29	24	20	18					18			
10	48	35	27	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16					16			

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

	0°	45°	90°
0°	4200	4200	4200
5°	4188	4278	4351
10°	4165	4488	4661
15°	4134	4676	5069
20°	4095	4897	5371
25°	4044	4984	5596
30°	3985	5066	5729
35°	3911	5119	5805
40°	3839	5133	5868
45°	3763	5183	5967
50°	3664	5260	6163
55°	3528	5392	6447
60°	3339	5535	6624
65°	3100	5699	5461
70°	2847	4922	5072
75°	2637	4468	4467
80°	2474	4047	3716
85°	2274	3841	3605



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	289.7	1.9
10°-20°	910.1	5.9
20°-30°	1500.1	9.7
30°-40°	1914.8	12.4
40°-50°	2116.5	13.7
50°-60°	2140.0	13.8
60°-70°	1775.0	11.5
70°-80°	1128.4	7.3
80°-90°	543.2	3.5
90°-100°	285.4	1.8
100°-110°	471.2	3.0
110°-120°	595.7	3.8
120°-130°	606.5	3.9
130°-140°	508.9	3.3
140°-150°	334.0	2.2
150°-160°	193.5	1.3
160°-170°	125.5	0.8
170°-180°	38.6	0.2
0°-30°	2699.9	17.4
0°-40°	4614.7	29.8
0°-60°	8871.2	57.3
0°-90°	12317.7	79.6
90°-120°	1352.3	8.7
90°-150°	2801.7	18.1
90°-180°	3159.0	20.4
0°-180°	15477.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2926	2926	2926	2926	2926	
5°	2920	2961	3000	3040	3049	278
15°	2821	2999	3244	3445	3513	796
25°	2616	2904	3316	3607	3717	1205
35°	2314	2666	3158	3492	3571	1448
45°	1950	2309	2848	3188	3266	1503
55°	1515	1927	2510	2863	2985	1352
65°	1015	1523	2093	1964	1991	1007
75°	568	1094	1153	1161	1140	605
85°	220	488	541	506	497	213
90°	49	312	363	350	344	38
95°	107	229	265	268	267	105
105°	261	410	525	519	501	273
115°	359	521	663	760	846	353
125°	427	496	744	848	983	380
135°	419	404	673	851	914	325
145°	376	477	448	651	743	239
155°	383	447	427	353	321	178
165°	398	423	467	504	467	113
175°	407	407	399	373	434	39
180°	386	386	386	386	386	



TEST NUMBER: P236571

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2
2.5°	2928.7	2927.4	2936.2	2941.2	2948.8	2956.3	2956.3	2955.0	2955.0	2959.4	2955.7
5°	2920.5	2922.4	2936.9	2945.0	2957.6	2965.1	2966.3	2972.6	2980.1	2999.6	3010.3
7.5°	2905.5	2910.5	2927.4	2935.6	2953.2	2973.9	2997.1	3020.9	3049.2	3076.2	3088.7
10°	2884.1	2892.3	2909.2	2924.3	2958.2	3004.6	3039.8	3068.0	3101.9	3142.1	3169.0
12.5°	2857.2	2867.8	2887.3	2914.9	2972.0	3022.2	3064.2	3108.2	3154.6	3189.7	3216.7
15°	2821.4	2833.9	2857.2	2903.0	2972.0	3026.6	3088.7	3131.4	3179.1	3244.3	3300.8
17.5°	2780.0	2792.5	2823.9	2885.4	2958.2	3027.8	3086.2	3143.3	3226.8	3300.8	3363.6
20°	2732.3	2748.0	2786.9	2855.3	2936.9	3010.3	3079.9	3167.8	3258.1	3341.0	3393.1
22.5°	2678.3	2695.3	2739.8	2815.7	2905.5	2980.8	3078.0	3170.3	3269.4	3332.8	3400.0
25°	2615.6	2633.8	2684.6	2765.5	2858.4	2950.0	3061.1	3162.8	3233.7	3316.5	3409.4
27.5°	2548.4	2564.7	2619.3	2706.5	2804.4	2913.0	3031.6	3111.3	3201.0	3305.2	3384.9
30°	2476.9	2491.9	2550.3	2639.4	2744.2	2865.9	2973.2	3052.3	3169.7	3260.7	3344.7
32.5°	2396.5	2417.3	2473.1	2565.4	2674.5	2801.3	2894.8	3002.1	3112.6	3207.3	3312.1
35°	2313.7	2335.0	2390.9	2486.3	2606.8	2725.4	2818.9	2933.1	3044.8	3157.7	3256.3
37.5°	2227.7	2249.7	2304.3	2404.7	2523.9	2634.4	2746.1	2852.8	2978.9	3090.0	3176.6
40°	2138.6	2160.0	2215.8	2320.0	2440.5	2544.6	2662.6	2776.2	2907.4	3005.3	3102.5
42.5°	2046.4	2067.1	2125.5	2234.6	2345.7	2458.0	2576.0	2700.9	2823.3	2928.7	3023.4
45°	1950.4	1971.7	2033.2	2146.8	2248.4	2368.9	2493.8	2620.6	2742.3	2848.4	2940.0
47.5°	1848.7	1871.9	1935.9	2048.9	2149.3	2277.3	2407.8	2535.2	2660.1	2765.5	2861.5
50°	1742.7	1769.6	1836.8	1948.5	2052.7	2186.3	2319.4	2449.3	2577.3	2679.6	2781.8
52.5°	1632.8	1664.2	1742.0	1847.5	1955.4	2093.4	2230.9	2363.3	2492.6	2598.0	2698.4
55°	1514.9	1552.5	1643.5	1740.1	1857.5	1996.8	2138.0	2274.8	2404.1	2510.1	2609.9
57.5°	1393.1	1438.3	1530.6	1631.6	1755.8	1900.2	2043.9	2183.2	2311.8	2414.1	2516.4
60°	1268.2	1320.3	1413.8	1522.4	1653.5	1801.0	1948.5	2084.7	2210.8	2313.7	2407.8
62.5°	1141.5	1199.8	1302.1	1415.1	1551.9	1699.4	1848.7	1985.5	2103.5	2200.1	2303.0
65°	1014.7	1080.0	1194.2	1308.4	1448.3	1597.7	1742.0	1872.6	1986.1	2093.4	2185.1
67.5°	891.7	968.3	1084.4	1204.9	1345.4	1492.9	1631.0	1757.1	1875.7	1932.8	1820.5
70°	775.6	862.2	974.6	1102.6	1243.1	1382.5	1515.5	1642.3	1663.0	1545.0	1514.2
72.5°	667.7	753.0	871.6	1004.1	1137.1	1268.2	1401.9	1415.7	1329.1	1327.2	1324.7
75°	567.9	653.3	775.0	905.5	1027.9	1159.1	1182.9	1145.2	1149.6	1152.8	1147.8
77.5°	475.7	561.0	682.8	803.2	923.1	970.2	963.3	983.3	987.7	986.5	976.4
80°	387.8	471.3	586.1	700.3	763.7	780.6	813.9	832.1	828.3	810.1	779.4
82.5°	303.1	380.9	487.0	562.9	598.7	642.6	668.9	670.8	662.0	650.1	638.2
85°	220.3	286.8	365.9	423.6	470.6	504.5	535.9	554.1	553.5	540.9	524.6
87.5°	133.7	182.0	249.8	315.6	369.0	407.9	435.5	450.6	451.2	444.3	433.6
90°	48.9	96.6	172.6	239.1	293.1	330.1	357.1	368.4	367.7	363.3	353.3
92.5°	48.3	81.6	145.0	201.4	244.7	281.8	308.7	323.8	326.3	322.6	314.4
95°	107.3	121.1	158.1	191.4	218.4	239.1	254.8	261.1	262.3	265.4	264.2
97.5°	155.0	170.1	201.4	238.5	268.6	286.8	283.6	274.9	266.7	255.4	245.4
100°	201.4	220.9	247.2	286.2	323.2	348.9	364.6	374.0	362.1	330.7	301.2
102.5°	242.9	268.6	297.5	332.6	369.0	400.4	426.1	444.9	450.6	447.4	440.5
105°	261.1	293.1	318.2	363.3	401.0	419.8	450.6	494.5	519.6	524.6	526.5
107.5°	274.9	314.4	340.1	388.4	434.9	467.5	461.9	491.4	553.5	584.2	600.5
110°	307.5	347.7	366.5	414.8	468.8	488.8	535.3	512.7	500.1	596.2	645.1



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CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-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°	337.0	367.7	384.0	425.5	485.1	520.2	549.7	606.2	581.1	510.2	566.0
115°	358.9	387.2	396.6	426.7	490.1	551.6	567.9	605.6	670.8	662.7	584.9
117.5°	377.8	407.3	416.1	421.7	489.5	558.5	602.4	608.1	648.9	728.6	749.3
120°	395.3	425.5	441.8	413.5	492.0	558.5	623.1	656.4	647.6	672.7	758.7
122.5°	412.3	440.5	478.2	411.0	477.6	550.3	625.0	674.0	703.5	680.9	687.8
125°	427.3	449.3	501.4	428.6	448.7	543.4	610.0	688.4	718.5	744.3	724.2
127.5°	437.4	452.5	507.7	456.8	421.1	519.6	593.0	665.8	730.4	748.6	778.1
130°	442.4	454.3	505.8	485.1	400.4	476.3	573.6	631.3	704.1	758.1	774.4
132.5°	434.3	444.3	492.6	509.6	406.0	421.1	529.6	603.7	653.3	734.8	785.7
135°	419.2	429.9	475.0	517.1	429.2	378.4	466.3	562.9	619.4	672.7	750.5
137.5°	404.8	414.8	455.0	508.3	460.0	369.0	404.1	505.8	581.7	630.7	677.7
140°	390.3	401.0	433.0	488.8	483.8	391.6	364.6	436.8	524.0	587.4	630.0
142.5°	380.9	391.6	414.8	464.4	496.4	435.5	360.2	376.5	449.9	527.8	583.0
145°	375.9	385.3	401.0	441.8	487.0	467.5	385.3	348.9	383.4	448.1	512.7
147.5°	379.7	385.3	394.1	419.8	470.6	490.7	438.6	370.2	349.5	379.7	429.9
150°	382.8	387.8	396.0	409.2	454.3	486.3	487.0	419.8	369.6	349.5	367.7
152.5°	380.9	388.4	402.2	412.9	443.0	480.7	502.0	480.1	419.2	374.6	352.7
155°	383.4	389.1	402.2	412.3	429.9	465.0	493.9	505.8	487.0	427.3	390.3
157.5°	387.2	392.2	402.2	411.0	421.7	444.3	476.9	500.1	513.9	507.0	456.8
160°	391.0	395.3	404.1	412.3	418.6	431.7	455.6	486.3	506.4	519.6	520.9
162.5°	394.7	397.9	406.6	414.2	419.8	426.7	438.0	459.4	482.6	497.6	512.1
165°	398.5	401.0	407.9	414.8	421.1	424.2	429.2	437.4	451.2	466.9	478.8
167.5°	401.0	402.2	407.9	414.2	419.2	422.3	424.2	427.3	429.2	432.4	437.4
170°	402.9	404.1	407.9	412.3	415.4	418.6	419.2	420.4	421.1	418.6	413.5
172.5°	404.8	405.4	407.3	409.8	411.7	412.9	413.5	412.3	412.3	409.8	404.1
175°	406.6	406.6	407.9	407.3	407.3	407.3	406.0	404.1	401.6	399.1	393.5
177.5°	406.6	406.6	407.3	406.6	405.4	403.5	401.0	396.6	392.8	386.6	381.5
180°	385.9	385.9	385.9	385.9	385.9	385.9	385.9	385.9	385.9	385.9	385.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2	2926.2
2.5°	2951.9	2944.4	2940.6	2946.9	2958.8	2963.2	2955.0	2940.0
5°	3023.4	3027.8	3031.6	3047.9	3063.0	3069.9	3061.7	3049.2
7.5°	3106.3	3115.7	3127.6	3151.5	3175.9	3184.7	3177.8	3170.9
10°	3193.5	3202.3	3214.2	3235.6	3260.0	3269.4	3266.3	3261.3
12.5°	3258.1	3291.4	3321.5	3357.9	3402.5	3413.1	3412.5	3406.2
15°	3353.5	3384.9	3422.6	3467.1	3507.3	3519.8	3520.5	3512.9
17.5°	3423.8	3455.2	3475.3	3511.0	3564.4	3578.8	3574.4	3567.5
20°	3442.6	3482.2	3532.4	3589.5	3637.2	3654.7	3659.8	3659.1
22.5°	3475.3	3529.2	3582.0	3627.8	3666.0	3679.8	3683.0	3678.6
25°	3482.8	3523.6	3578.2	3635.3	3685.5	3708.1	3718.1	3716.9
27.5°	3453.3	3512.3	3587.0	3649.1	3694.9	3714.4	3718.8	3718.1
30°	3435.7	3502.9	3570.0	3616.5	3649.1	3667.3	3675.5	3678.6
32.5°	3398.7	3451.4	3516.1	3572.5	3608.9	3626.5	3634.7	3639.1
35°	3327.8	3394.9	3465.2	3518.6	3546.8	3560.6	3563.8	3571.3
37.5°	3263.2	3332.8	3395.6	3440.8	3469.0	3486.6	3494.7	3502.3
40°	3188.5	3251.9	3319.0	3369.8	3398.7	3412.5	3419.4	3424.4
42.5°	3105.7	3178.5	3246.2	3290.8	3314.0	3328.4	3339.7	3340.4
45°	3029.7	3101.9	3164.0	3211.1	3238.1	3255.6	3266.9	3266.3
47.5°	2955.7	3023.4	3086.8	3134.5	3162.1	3181.6	3192.3	3196.0
50°	2873.5	2943.8	3007.8	3055.5	3085.6	3108.8	3120.7	3125.7
52.5°	2792.5	2861.5	2924.9	2977.6	3012.8	3034.1	3044.8	3047.9
55°	2702.8	2773.1	2834.6	2891.7	2934.3	2962.0	2980.8	2985.2
57.5°	2606.8	2675.8	2748.0	2812.0	2864.1	2901.7	2923.0	2931.2
60°	2503.2	2582.9	2665.8	2741.1	2766.2	2769.9	2751.7	2751.7
62.5°	2409.1	2468.1	2446.7	2362.7	2276.7	2249.1	2232.8	2208.9
65°	2170.6	2030.7	1959.2	1969.2	1983.0	1991.2	1993.7	1991.2
67.5°	1739.5	1728.2	1749.6	1766.5	1773.4	1785.3	1786.6	1786.0
70°	1522.4	1524.3	1547.5	1562.6	1569.5	1578.9	1578.9	1577.6
72.5°	1336.6	1341.7	1357.4	1366.8	1368.6	1370.5	1372.4	1365.5
75°	1150.3	1154.0	1157.8	1163.4	1150.9	1152.1	1142.7	1139.6
77.5°	965.8	958.9	944.4	930.6	913.1	916.8	905.5	911.8
80°	766.2	761.2	753.7	741.7	729.8	732.3	729.8	733.0
82.5°	636.9	640.7	638.8	638.8	630.7	633.2	625.6	628.8
85°	517.1	509.6	507.0	505.2	498.9	500.1	493.9	497.0
87.5°	429.9	427.3	427.3	428.0	426.1	425.5	421.1	423.0
90°	350.8	349.5	349.5	349.5	348.9	347.0	342.0	343.9
92.5°	311.9	309.4	308.7	308.7	308.1	306.9	303.7	304.4
95°	265.4	266.7	268.0	268.6	268.6	268.0	264.8	266.7
97.5°	236.0	229.0	227.2	225.3	224.0	221.5	220.3	220.3
100°	280.5	270.5	262.9	257.9	253.5	249.8	247.9	244.1
102.5°	419.2	407.9	387.2	363.3	348.3	337.0	335.1	326.9
105°	524.0	522.7	520.2	518.3	515.8	512.7	510.8	501.4
107.5°	604.3	610.0	610.6	610.6	607.5	608.1	607.5	603.1
110°	669.6	686.5	697.8	706.0	707.9	706.6	707.2	702.2





TEST NUMBER: P236571

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	688.4	734.8	758.1	775.6	786.9	791.9	793.2	790.7
115°	527.1	598.7	726.1	793.8	827.7	842.1	847.2	845.9
117.5°	707.2	607.5	546.0	546.6	591.1	647.0	692.8	718.5
120°	819.6	818.3	792.6	741.1	654.5	588.6	557.9	544.1
122.5°	761.2	847.8	890.5	906.8	906.8	899.9	898.0	886.7
125°	702.8	738.0	808.9	886.7	942.6	968.9	979.6	982.7
127.5°	773.1	743.6	744.9	765.6	800.1	827.7	856.0	875.4
130°	810.8	842.1	819.6	795.1	783.8	780.0	781.3	783.2
132.5°	805.1	827.1	865.4	891.1	887.3	874.2	859.7	849.7
135°	802.6	827.1	843.4	859.1	884.2	899.9	909.3	914.3
137.5°	751.8	805.8	839.0	859.7	873.5	876.7	876.0	876.7
140°	672.1	731.1	790.1	822.1	852.2	872.3	877.9	879.8
142.5°	626.3	657.7	697.8	738.6	777.5	810.1	829.0	832.1
145°	572.3	609.3	639.5	662.7	680.9	703.5	729.2	743.0
147.5°	492.0	544.7	583.0	608.7	627.5	642.6	659.5	664.6
150°	406.0	452.5	494.5	530.9	555.4	571.1	579.8	571.7
152.5°	352.0	374.0	405.4	432.4	449.9	467.5	451.2	442.4
155°	362.1	347.0	347.0	359.6	367.1	352.0	332.0	321.3
157.5°	420.4	389.1	362.1	345.8	329.5	291.2	279.9	277.4
160°	504.5	456.2	426.1	397.2	351.4	326.9	312.5	308.1
162.5°	520.2	520.2	512.1	492.6	446.2	414.2	396.0	389.7
165°	491.4	500.8	507.0	500.1	489.5	477.6	469.4	466.9
167.5°	446.2	458.1	464.4	465.6	473.2	469.4	455.0	452.5
170°	409.2	410.4	414.2	417.3	429.9	434.3	426.7	412.9
172.5°	396.0	391.6	388.4	391.0	400.4	412.9	410.4	411.0
175°	385.3	375.3	370.9	375.9	385.9	404.1	423.0	434.3
177.5°	373.4	360.8	355.2	360.2	370.9	391.0	423.0	433.0
180°	385.9	385.9	385.9	385.9	385.9	385.9	385.9	385.9

(END OF REPORT)