

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: P236573

Luminaire Tested: **SKB4-LD5-18-W-UNV-L850-CD2-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236573  
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-L850-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) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

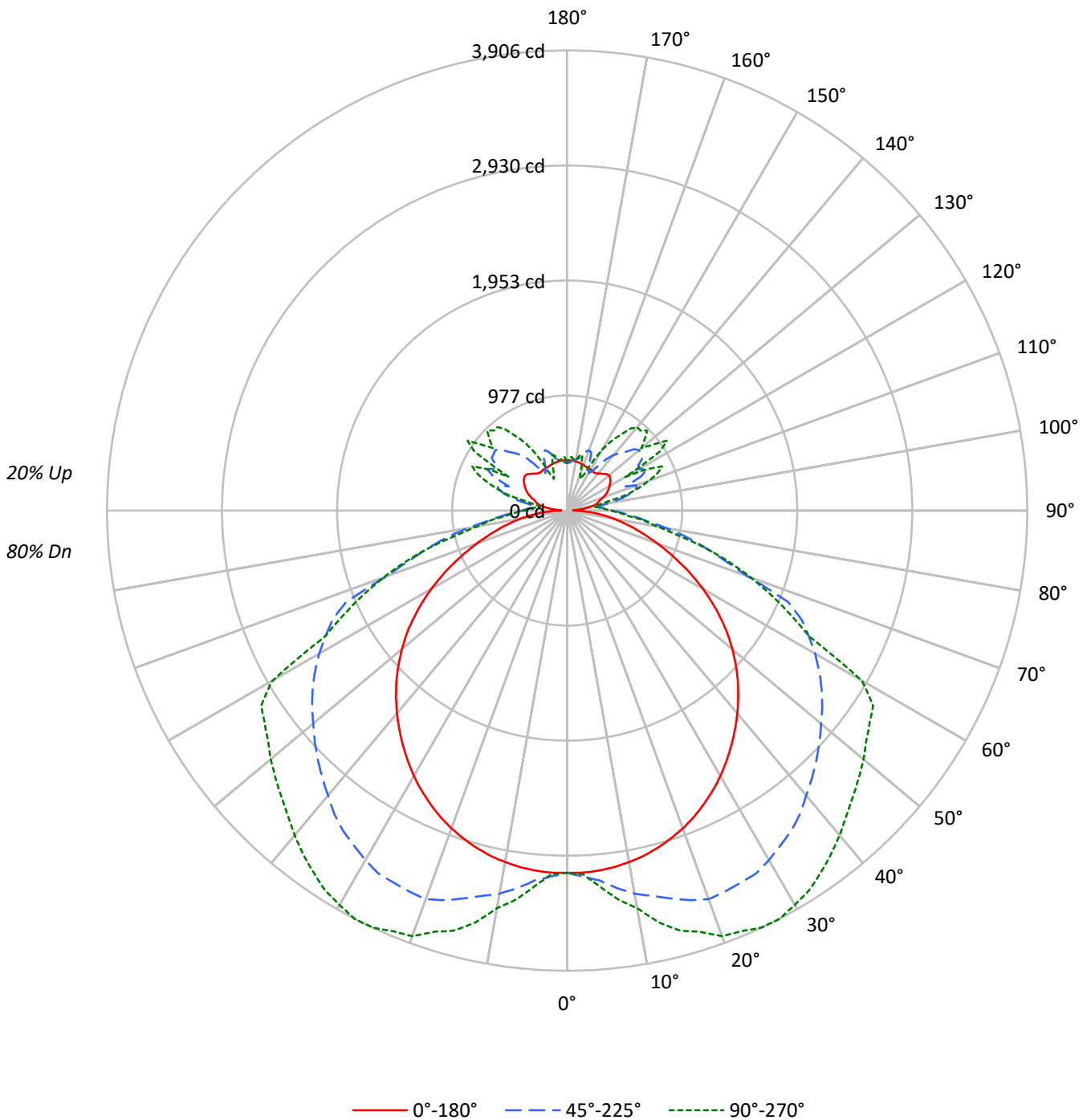
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16259.0 lumens  
Efficiency: N/A  
Efficacy: 113.4 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	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°	4412	4412	4412
5°	4400	4494	4570
10°	4375	4714	4897
15°	4343	4912	5325
20°	4302	5144	5643
25°	4248	5236	5879
30°	4186	5322	6018
35°	4109	5378	6099
40°	4033	5393	6165
45°	3953	5445	6268
50°	3849	5525	6474
55°	3706	5665	6772
60°	3508	5815	6959
65°	3256	5987	5737
70°	2991	5171	5328
75°	2770	4694	4693
80°	2599	4252	3904
85°	2389	4035	3787



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	304.4	1.9
10°-20°	956.0	5.9
20°-30°	1575.9	9.7
30°-40°	2011.5	12.4
40°-50°	2223.4	13.7
50°-60°	2248.2	13.8
60°-70°	1864.7	11.5
70°-80°	1185.4	7.3
80°-90°	570.7	3.5
90°-100°	299.8	1.8
100°-110°	495.0	3.0
110°-120°	625.8	3.8
120°-130°	637.2	3.9
130°-140°	534.6	3.3
140°-150°	350.9	2.2
150°-160°	203.3	1.3
160°-170°	131.9	0.8
170°-180°	40.5	0.2
0°-30°	2836.3	17.4
0°-40°	4847.8	29.8
0°-60°	9319.4	57.3
0°-90°	12940.1	79.6
90°-120°	1420.6	8.7
90°-150°	2943.3	18.1
90°-180°	3319.0	20.4
0°-180°	16259.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3074	3074	3074	3074	3074	
5°	3068	3111	3151	3193	3203	292
15°	2964	3151	3408	3619	3690	836
25°	2748	3051	3484	3789	3905	1266
35°	2431	2801	3317	3668	3752	1521
45°	2049	2425	2992	3349	3431	1579
55°	1591	2024	2637	3008	3136	1420
65°	1066	1600	2199	2063	2092	1058
75°	597	1149	1211	1219	1197	636
85°	231	512	568	532	522	224
90°	51	327	382	367	361	40
95°	113	240	279	282	280	111
105°	274	431	551	546	527	287
115°	377	547	696	798	889	371
125°	449	521	782	891	1032	399
135°	440	424	707	894	960	341
145°	395	501	471	684	780	251
155°	403	470	449	371	338	187
165°	419	444	490	529	490	118
175°	427	428	419	392	456	41
180°	405	405	405	405	405	



TEST NUMBER: P236573

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L850-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0
2.5°	3076.7	3075.4	3084.6	3089.9	3097.8	3105.7	3105.7	3104.4	3104.4	3109.0	3105.0
5°	3068.1	3070.1	3085.2	3093.8	3107.0	3114.9	3116.2	3122.8	3130.7	3151.2	3162.4
7.5°	3052.3	3057.6	3075.4	3083.9	3102.4	3124.1	3148.5	3173.6	3203.2	3231.6	3244.8
10°	3029.9	3038.4	3056.2	3072.1	3107.7	3156.4	3193.4	3223.0	3258.6	3300.8	3329.2
12.5°	3001.5	3012.7	3033.2	3062.2	3122.2	3174.9	3219.1	3265.2	3314.0	3350.9	3379.3
15°	2963.9	2977.1	3001.5	3049.6	3122.2	3179.5	3244.8	3289.6	3339.7	3408.3	3467.6
17.5°	2920.4	2933.6	2966.6	3031.2	3107.7	3180.8	3242.1	3302.1	3389.8	3467.6	3533.5
20°	2870.3	2886.8	2927.7	2999.5	3085.2	3162.4	3235.5	3327.8	3422.8	3509.8	3564.5
22.5°	2813.6	2831.4	2878.2	2958.0	3052.3	3131.4	3233.6	3330.5	3434.6	3501.2	3571.8
25°	2747.7	2766.8	2820.2	2905.3	3002.8	3099.1	3215.8	3322.6	3397.1	3484.1	3581.6
27.5°	2677.2	2694.3	2751.7	2843.3	2946.1	3060.2	3184.8	3268.5	3362.8	3472.2	3555.9
30°	2602.0	2617.8	2679.1	2772.8	2882.9	3010.7	3123.5	3206.5	3329.8	3425.4	3513.7
32.5°	2517.6	2539.4	2598.1	2695.0	2809.7	2942.8	3041.1	3153.8	3269.8	3369.4	3479.5
35°	2430.6	2453.0	2511.7	2611.9	2738.5	2863.1	2961.3	3081.3	3198.6	3317.3	3420.8
37.5°	2340.3	2363.4	2420.7	2526.2	2651.5	2767.5	2884.8	2996.9	3129.4	3246.1	3337.1
40°	2246.7	2269.1	2327.8	2437.2	2563.8	2673.2	2797.2	2916.5	3054.3	3157.1	3259.3
42.5°	2149.8	2171.5	2232.8	2347.6	2464.2	2582.2	2706.2	2837.4	2965.9	3076.7	3176.2
45°	2048.9	2071.3	2135.9	2255.3	2362.1	2488.6	2619.8	2753.0	2880.9	2992.3	3088.5
47.5°	1942.1	1966.5	2033.8	2152.4	2257.9	2392.4	2529.5	2663.3	2794.5	2905.3	3006.1
50°	1830.7	1859.1	1929.6	2046.9	2156.4	2296.8	2436.5	2573.0	2707.5	2815.0	2922.4
52.5°	1715.3	1748.3	1830.0	1940.8	2054.2	2199.2	2343.6	2482.7	2618.5	2729.3	2834.7
55°	1591.4	1631.0	1726.5	1828.1	1951.3	2097.7	2246.0	2389.7	2525.5	2637.0	2741.8
57.5°	1463.5	1511.0	1607.9	1714.0	1844.6	1996.2	2147.1	2293.5	2428.6	2536.1	2643.5
60°	1332.3	1387.0	1485.3	1599.3	1737.1	1892.0	2046.9	2190.0	2322.5	2430.6	2529.5
62.5°	1199.2	1260.5	1367.9	1486.6	1630.3	1785.2	1942.1	2085.8	2209.8	2311.3	2419.4
65°	1066.0	1134.6	1254.5	1374.5	1521.5	1678.4	1830.0	1967.2	2086.5	2199.2	2295.5
67.5°	936.8	1017.2	1139.2	1265.7	1413.4	1568.3	1713.4	1845.9	1970.5	2030.5	1912.5
70°	814.8	905.8	1023.8	1158.3	1306.0	1452.3	1592.1	1725.2	1747.0	1623.0	1590.7
72.5°	701.4	791.1	915.7	1054.8	1194.5	1332.3	1472.7	1487.2	1396.3	1394.3	1391.7
75°	596.6	686.3	814.2	951.3	1079.8	1217.6	1242.7	1203.1	1207.7	1211.0	1205.7
77.5°	499.7	589.4	717.3	843.8	969.7	1019.2	1011.9	1033.0	1037.6	1036.3	1025.8
80°	407.4	495.1	615.7	735.7	802.3	820.1	855.0	874.2	870.2	851.1	818.8
82.5°	318.4	400.2	511.6	591.3	628.9	675.1	702.7	704.7	695.5	683.0	670.4
85°	231.4	301.3	384.3	445.0	494.4	530.0	563.0	582.1	581.4	568.3	551.1
87.5°	140.4	191.2	262.4	331.6	387.6	428.5	457.5	473.3	474.0	466.7	455.5
90°	51.4	101.5	181.3	251.2	307.9	346.8	375.1	387.0	386.3	381.7	371.2
92.5°	50.8	85.7	152.3	211.6	257.1	296.0	324.3	340.2	342.8	338.8	330.3
95°	112.7	127.2	166.1	201.1	229.4	251.2	267.7	274.2	275.6	278.9	277.5
97.5°	162.8	178.7	211.6	250.5	282.2	301.3	298.0	288.7	280.2	268.3	257.8
100°	211.6	232.1	259.7	300.6	339.5	366.5	383.0	392.9	380.4	347.4	316.4
102.5°	255.1	282.2	312.5	349.4	387.6	420.6	447.6	467.4	473.3	470.0	462.8
105°	274.2	307.9	334.2	381.7	421.3	441.0	473.3	519.5	545.9	551.1	553.1
107.5°	288.7	330.3	357.3	408.1	456.9	491.1	485.2	516.2	581.4	613.8	630.9
110°	323.0	365.2	385.0	435.8	492.5	513.5	562.3	538.6	525.4	626.3	677.7



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CATALOG NUMBER: SKB4-LD5-18-W-UNV-L850-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°	354.0	386.3	403.5	447.0	509.6	546.5	577.5	636.8	610.5	536.0	594.6
115°	377.1	406.8	416.6	448.3	514.9	579.5	596.6	636.2	704.7	696.2	614.4
117.5°	396.9	427.8	437.1	443.0	514.2	586.7	632.9	638.8	681.7	765.4	787.1
120°	415.3	447.0	464.1	434.4	516.8	586.7	654.6	689.6	680.3	706.7	797.0
122.5°	433.1	462.8	502.3	431.8	501.7	578.2	656.6	708.0	739.0	715.3	722.5
125°	448.9	472.0	526.7	450.3	471.4	570.9	640.8	723.2	754.8	781.9	760.8
127.5°	459.5	475.3	533.3	479.9	442.3	545.9	623.0	699.5	767.4	786.5	817.5
130°	464.8	477.3	531.3	509.6	420.6	500.4	602.5	663.2	739.7	796.4	813.5
132.5°	456.2	466.7	517.5	535.3	426.5	442.3	556.4	634.2	686.3	772.0	825.4
135°	440.4	451.6	499.0	543.2	450.9	397.5	489.8	591.3	650.7	706.7	788.5
137.5°	425.2	435.8	477.9	534.0	483.2	387.6	424.6	531.3	611.1	662.5	712.0
140°	410.0	421.3	454.9	513.5	508.3	411.4	383.0	458.8	550.5	617.0	661.9
142.5°	400.2	411.4	435.8	487.8	521.5	457.5	378.4	395.5	472.7	554.4	612.4
145°	394.9	404.8	421.3	464.1	511.6	491.1	404.8	366.5	402.8	470.7	538.6
147.5°	398.8	404.8	414.0	441.0	494.4	515.5	460.8	389.0	367.2	398.8	451.6
150°	402.1	407.4	416.0	429.8	477.3	510.9	511.6	441.0	388.3	367.2	386.3
152.5°	400.2	408.1	422.6	433.8	465.4	505.0	527.4	504.3	440.4	393.6	370.5
155°	402.8	408.7	422.6	433.1	451.6	488.5	518.8	531.3	511.6	448.9	410.0
157.5°	406.8	412.0	422.6	431.8	443.0	466.7	501.0	525.4	539.9	532.7	479.9
160°	410.7	415.3	424.6	433.1	439.7	453.6	478.6	510.9	532.0	545.9	547.2
162.5°	414.7	418.0	427.2	435.1	441.0	448.3	460.1	482.6	507.0	522.8	537.9
165°	418.6	421.3	428.5	435.8	442.3	445.6	450.9	459.5	474.0	490.5	503.0
167.5°	421.3	422.6	428.5	435.1	440.4	443.7	445.6	448.9	450.9	454.2	459.5
170°	423.2	424.6	428.5	433.1	436.4	439.7	440.4	441.7	442.3	439.7	434.4
172.5°	425.2	425.9	427.8	430.5	432.5	433.8	434.4	433.1	433.1	430.5	424.6
175°	427.2	427.2	428.5	427.8	427.8	427.8	426.5	424.6	421.9	419.3	413.3
177.5°	427.2	427.2	427.8	427.2	425.9	423.9	421.3	416.6	412.7	406.1	400.8
180°	405.4	405.4	405.4	405.4	405.4	405.4	405.4	405.4	405.4	405.4	405.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0	3074.0
2.5°	3101.1	3093.2	3089.2	3095.8	3108.3	3112.9	3104.4	3088.5
5°	3176.2	3180.8	3184.8	3201.9	3217.7	3225.0	3216.4	3203.2
7.5°	3263.2	3273.1	3285.6	3310.7	3336.4	3345.6	3338.4	3331.1
10°	3354.9	3364.1	3376.6	3399.0	3424.7	3434.6	3431.3	3426.1
12.5°	3422.8	3457.7	3489.4	3527.6	3574.4	3585.6	3584.9	3578.4
15°	3523.0	3555.9	3595.5	3642.3	3684.5	3697.7	3698.3	3690.4
17.5°	3596.8	3629.8	3650.9	3688.4	3744.5	3759.6	3755.0	3747.8
20°	3616.6	3658.1	3710.9	3770.8	3821.0	3839.4	3844.7	3844.0
22.5°	3650.9	3707.6	3762.9	3811.1	3851.3	3865.8	3869.1	3864.5
25°	3658.8	3701.6	3759.0	3819.0	3871.7	3895.4	3906.0	3904.7
27.5°	3627.8	3689.8	3768.2	3833.5	3881.6	3902.0	3906.7	3906.0
30°	3609.3	3679.9	3750.4	3799.2	3833.5	3852.6	3861.2	3864.5
32.5°	3570.4	3625.8	3693.7	3753.0	3791.3	3809.7	3818.3	3822.9
35°	3495.9	3566.5	3640.3	3696.4	3726.0	3740.5	3743.8	3751.7
37.5°	3428.0	3501.2	3567.1	3614.6	3644.3	3662.7	3671.3	3679.2
40°	3349.6	3416.2	3486.7	3540.1	3570.4	3584.9	3592.2	3597.5
42.5°	3262.6	3339.0	3410.2	3457.1	3481.4	3496.6	3508.5	3509.1
45°	3182.8	3258.6	3323.9	3373.3	3401.7	3420.1	3432.0	3431.3
47.5°	3105.0	3176.2	3242.8	3292.9	3321.9	3342.3	3353.5	3357.5
50°	3018.7	3092.5	3159.7	3209.8	3241.5	3265.9	3278.4	3283.7
52.5°	2933.6	3006.1	3072.7	3128.1	3165.0	3187.4	3198.6	3201.9
55°	2839.3	2913.2	2977.8	3037.8	3082.6	3111.6	3131.4	3136.0
57.5°	2738.5	2811.0	2886.8	2954.1	3008.8	3048.3	3070.7	3079.3
60°	2629.7	2713.4	2800.4	2879.6	2905.9	2909.9	2890.8	2890.8
62.5°	2530.8	2592.8	2570.4	2482.0	2391.7	2362.7	2345.6	2320.5
65°	2280.3	2133.3	2058.1	2068.7	2083.2	2091.8	2094.4	2091.8
67.5°	1827.4	1815.5	1838.0	1855.8	1863.0	1875.5	1876.9	1876.2
70°	1599.3	1601.3	1625.7	1641.5	1648.8	1658.6	1658.6	1657.3
72.5°	1404.2	1409.5	1425.9	1435.8	1437.8	1439.8	1441.8	1434.5
75°	1208.4	1212.3	1216.3	1222.2	1209.0	1210.4	1200.5	1197.2
77.5°	1014.6	1007.3	992.2	977.7	959.2	963.1	951.3	957.9
80°	804.9	799.7	791.7	779.2	766.7	769.3	766.7	770.0
82.5°	669.1	673.1	671.1	671.1	662.5	665.2	657.3	660.6
85°	543.2	535.3	532.7	530.7	524.1	525.4	518.8	522.1
87.5°	451.6	448.9	448.9	449.6	447.6	447.0	442.3	444.3
90°	368.5	367.2	367.2	367.2	366.5	364.6	359.3	361.3
92.5°	327.6	325.0	324.3	324.3	323.7	322.4	319.1	319.7
95°	278.9	280.2	281.5	282.2	282.2	281.5	278.2	280.2
97.5°	247.9	240.6	238.6	236.7	235.3	232.7	231.4	231.4
100°	294.7	284.1	276.2	270.9	266.3	262.4	260.4	256.4
102.5°	440.4	428.5	406.8	381.7	365.9	354.0	352.0	343.5
105°	550.5	549.1	546.5	544.5	541.9	538.6	536.6	526.7
107.5°	634.8	640.8	641.4	641.4	638.1	638.8	638.1	633.5
110°	703.4	721.2	733.1	741.6	743.6	742.3	743.0	737.7





TEST NUMBER: P236573

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L850-CD2-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	723.2	772.0	796.4	814.8	826.7	832.0	833.3	830.6
115°	553.8	628.9	762.7	833.9	869.5	884.7	890.0	888.7
117.5°	743.0	638.1	573.5	574.2	621.0	679.7	727.8	754.8
120°	861.0	859.6	832.6	778.6	687.6	618.4	586.1	571.6
122.5°	799.7	890.6	935.5	952.6	952.6	945.3	943.4	931.5
125°	738.3	775.3	849.8	931.5	990.2	1017.9	1029.1	1032.4
127.5°	812.2	781.2	782.5	804.3	840.5	869.5	899.2	919.6
130°	851.7	884.7	861.0	835.3	823.4	819.4	820.8	822.7
132.5°	845.8	868.9	909.1	936.1	932.2	918.3	903.2	892.6
135°	843.2	868.9	886.0	902.5	928.9	945.3	955.2	960.5
137.5°	789.8	846.5	881.4	903.2	917.7	921.0	920.3	921.0
140°	706.0	768.0	830.0	863.6	895.2	916.3	922.3	924.3
142.5°	657.9	690.9	733.1	775.9	816.8	851.1	870.9	874.2
145°	601.2	640.1	671.8	696.2	715.3	739.0	766.0	780.5
147.5°	516.8	572.2	612.4	639.5	659.2	675.1	692.9	698.1
150°	426.5	475.3	519.5	557.7	583.4	599.9	609.1	600.6
152.5°	369.8	392.9	425.9	454.2	472.7	491.1	474.0	464.8
155°	380.4	364.6	364.6	377.7	385.7	369.8	348.7	337.5
157.5°	441.7	408.7	380.4	363.2	346.1	305.9	294.0	291.4
160°	530.0	479.3	447.6	417.3	369.2	343.5	328.3	323.7
162.5°	546.5	546.5	537.9	517.5	468.7	435.1	416.0	409.4
165°	516.2	526.1	532.7	525.4	514.2	501.7	493.1	490.5
167.5°	468.7	481.2	487.8	489.2	497.1	493.1	477.9	475.3
170°	429.8	431.1	435.1	438.4	451.6	456.2	448.3	433.8
172.5°	416.0	411.4	408.1	410.7	420.6	433.8	431.1	431.8
175°	404.8	394.2	389.6	394.9	405.4	424.6	444.3	456.2
177.5°	392.2	379.1	373.1	378.4	389.6	410.7	444.3	454.9
180°	405.4	405.4	405.4	405.4	405.4	405.4	405.4	405.4

(END OF REPORT)