

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: P236486

Luminaire Tested: **SKB4-LD5-36-N-UNV-L850-CD4-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236486  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24059)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB4-LD5-36-N-UNV-L850-CD4-U all blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES  
Light Source: (952) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

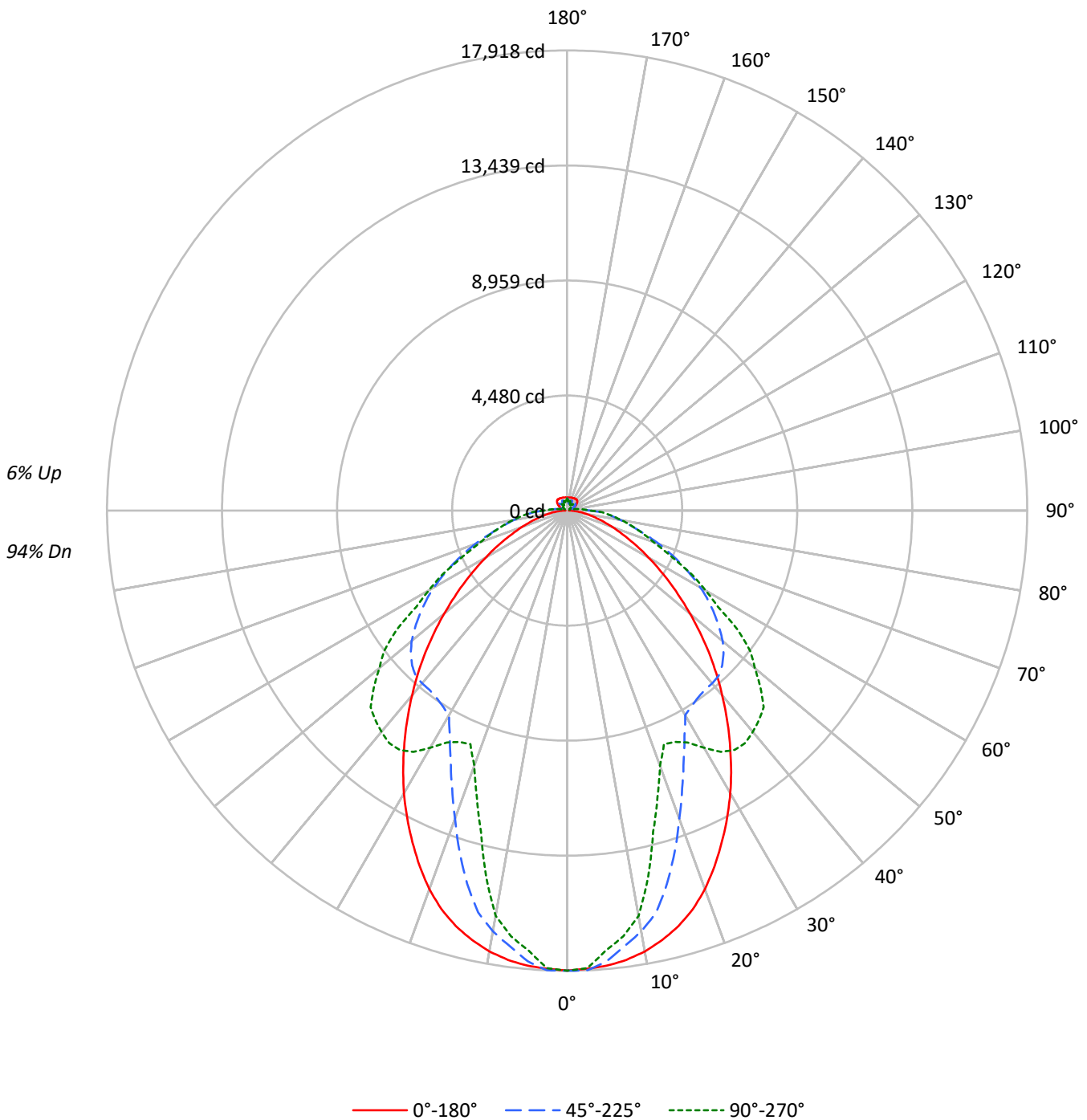
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40791.0 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.71 / 1.1  
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')  
CIE Type: Direct  
  
Input Watts (W): 333.5  
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: SKB4-LD5-36-N-UNV-L850-CD4-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	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	107	102	98	94	104	99	95	91	94	91	88	89	86	84	85	82	80	78
2	97	89	82	76	94	87	80	75	82	77	72	78	74	70	74	71	68	65
3	89	78	70	64	86	76	69	63	73	66	61	69	64	59	66	61	58	55
4	82	70	61	54	79	68	60	54	65	58	52	62	56	51	59	54	50	47
5	75	62	54	47	73	61	53	46	58	51	45	56	49	44	53	48	43	41
6	70	56	48	41	67	55	47	41	53	45	40	51	44	39	49	43	38	36
7	65	51	43	37	63	50	42	36	48	41	36	46	40	35	44	39	34	32
8	60	47	39	33	58	46	38	32	44	37	32	43	36	31	41	35	31	29
9	56	43	35	30	55	42	35	29	41	34	29	39	33	29	38	32	28	26
10	53	40	32	27	51	39	32	27	38	31	26	37	30	26	35	30	26	24

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

	0°	45°	90°
0°	25711	25711	25711
5°	25509	25128	24548
10°	25168	23761	22900
15°	24544	21670	18685
20°	23505	18717	15516
25°	22030	16128	14958
30°	20440	14290	16603
35°	18666	14405	18489
40°	16873	15000	19276
45°	15042	15527	19771
50°	13126	15512	18818
55°	11330	15026	17528
60°	9640	14338	14962
65°	8127	13284	13064
70°	6888	12136	11499
75°	5749	10864	10980
80°	4865	10466	10891
85°	4020	10852	11254



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1650.2	4.0
10°-20°	4172.2	10.2
20°-30°	5324.3	13.1
30°-40°	6332.6	15.5
40°-50°	6734.5	16.5
50°-60°	5901.3	14.5
60°-70°	4253.5	10.4
70°-80°	2678.4	6.6
80°-90°	1495.7	3.7
90°-100°	573.3	1.4
100°-110°	287.9	0.7
110°-120°	271.3	0.7
120°-130°	293.6	0.7
130°-140°	283.6	0.7
140°-150°	220.2	0.5
150°-160°	169.8	0.4
160°-170°	110.0	0.3
170°-180°	38.8	0.1
0°-30°	11146.7	27.3
0°-40°	17479.2	42.9
0°-60°	30115.1	73.8
0°-90°	38542.7	94.5
90°-120°	1132.4	2.8
90°-150°	1929.8	4.7
90°-180°	2248.0	5.5
0°-180°	40791.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	17914	17914	17914	17914	17914	
5°	17787	17867	17618	17263	17205	###
15°	16749	16241	15035	13544	12950	4702
25°	14250	13173	10732	9733	9935	6548
35°	11042	9656	8886	10703	11374	6900
45°	7797	6843	8533	10336	10824	6011
55°	4865	4958	6995	7978	8117	4372
65°	2660	3433	4880	5135	4764	2674
75°	1238	2278	2803	2897	2801	1341
85°	390	1325	1528	1614	1551	398
90°	103	777	885	936	898	70
95°	80	488	562	617	588	70
105°	158	414	224	194	171	170
115°	298	518	245	152	106	297
125°	444	410	350	215	152	397
135°	552	456	366	351	234	422
145°	559	437	303	274	278	351
155°	537	331	426	284	232	250
165°	525	370	318	401	394	149
175°	512	488	429	384	391	49
180°	476	476	476	476	476	



TEST NUMBER: P236486

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5
2.5°	17854.8	17924.4	17967.5	18023.9	17997.4	17924.4	17931.1	17969.2	17907.9	17917.8	17856.5
5°	17786.9	17858.1	17894.6	17944.3	17912.8	17821.7	17791.8	17780.2	17659.2	17617.8	17470.3
7.5°	17647.6	17717.2	17745.4	17780.2	17690.7	17523.3	17415.6	17327.7	17171.9	17108.9	16974.7
10°	17428.8	17490.2	17500.1	17471.9	17312.8	17100.6	16964.7	16878.5	16716.1	16636.5	16472.4
12.5°	17123.9	17171.9	17138.8	17072.5	16876.9	16651.5	16517.2	16359.7	16157.5	16026.6	15771.3
15°	16749.3	16769.1	16684.6	16598.4	16376.3	16106.1	15907.2	15663.6	15350.3	15035.4	14630.9
17.5°	16275.2	16275.2	16160.8	16053.1	15771.3	15411.6	15121.6	14745.3	14327.6	13929.8	13407.7
20°	15681.8	15681.8	15549.2	15416.6	15038.7	14609.4	14241.4	13780.6	13258.5	12769.5	12234.2
22.5°	15000.6	15022.1	14882.9	14682.3	14248.1	13770.7	13367.9	12762.9	12184.4	11702.1	11189.9
25°	14249.7	14264.6	14122.1	13896.7	13435.9	12910.4	12390.0	11753.5	11185.0	10732.5	10271.7
27.5°	13493.9	13508.8	13353.0	13086.1	12588.9	12008.7	11443.5	10808.7	10309.8	9888.8	9472.7
30°	12704.9	12708.2	12515.9	12254.1	11722.0	11077.2	10538.5	9983.3	9514.2	9197.6	9280.5
32.5°	11881.1	11887.7	11708.7	11407.1	10838.5	10190.4	9721.4	9225.8	8871.1	9026.9	9215.8
35°	11042.4	11039.1	10878.3	10550.1	9946.8	9365.0	8985.4	8537.9	8655.6	8886.0	9205.9
37.5°	10215.3	10207.0	10046.2	9696.5	9103.1	8619.1	8257.8	8219.6	8441.8	8798.1	9313.6
40°	9399.8	9399.8	9214.2	8846.2	8314.1	7942.8	7717.4	7944.5	8244.5	8781.5	9371.6
42.5°	8594.2	8579.3	8390.4	8022.4	7596.4	7274.9	7380.9	7657.7	8105.3	8730.2	9263.9
45°	7797.0	7768.8	7584.8	7253.3	6941.7	6744.5	7019.6	7392.5	7947.8	8532.9	9046.8
47.5°	7004.7	6984.8	6810.8	6543.9	6315.2	6350.0	6638.4	7135.6	7697.5	8257.8	8746.7
50°	6243.9	6230.6	6074.8	5897.5	5733.4	5919.0	6296.9	6848.9	7376.0	7903.1	8340.6
52.5°	5532.8	5517.9	5390.3	5299.1	5262.6	5486.4	5952.2	6485.9	6986.5	7463.8	7886.5
55°	4864.8	4848.2	4760.4	4733.9	4830.0	5086.9	5597.4	6094.7	6552.2	6994.7	7367.7
57.5°	4241.6	4231.7	4186.9	4200.2	4387.5	4709.0	5206.3	5677.0	6091.4	6510.7	6824.0
60°	3661.5	3663.1	3664.8	3742.7	3973.1	4337.7	4810.1	5237.8	5630.6	5993.6	6227.3
62.5°	3157.6	3141.0	3182.4	3343.2	3595.2	3971.4	4405.7	4801.8	5140.0	5436.7	5609.1
65°	2660.3	2686.8	2741.5	2968.6	3252.1	3613.4	4021.1	4359.3	4642.7	4879.7	5012.3
67.5°	2236.0	2270.8	2345.4	2628.8	2942.1	3285.2	3641.6	3916.7	4152.1	4327.8	4433.9
70°	1876.3	1906.1	2013.9	2332.1	2663.6	2976.9	3265.3	3492.4	3678.0	3809.0	3870.3
72.5°	1541.5	1587.9	1755.3	2081.8	2423.3	2676.9	2907.3	3096.2	3237.1	3271.9	3326.6
75°	1238.2	1302.8	1523.3	1873.0	2169.7	2386.8	2580.8	2705.1	2773.0	2802.9	2865.9
77.5°	986.2	1052.5	1326.0	1685.7	1934.3	2118.3	2257.5	2328.8	2393.5	2429.9	2487.9
80°	762.5	837.0	1165.2	1478.5	1710.6	1851.5	1954.2	2017.2	2062.0	2095.1	2151.5
82.5°	573.5	673.0	1007.8	1291.2	1485.1	1622.7	1690.7	1737.1	1765.3	1803.4	1849.8
85°	389.5	540.4	840.4	1095.6	1269.7	1380.7	1428.8	1461.9	1491.8	1528.2	1568.0
87.5°	240.3	414.4	689.5	895.1	1036.0	1127.1	1161.9	1183.5	1219.9	1261.4	1306.1
90°	102.8	298.4	503.9	661.4	754.2	798.9	833.7	837.0	868.5	885.1	926.6
92.5°	61.3	203.9	364.7	505.5	598.4	648.1	661.4	669.6	684.6	701.1	721.0
95°	79.6	162.4	283.4	386.2	465.8	510.5	525.4	540.4	548.6	561.9	580.1
97.5°	91.2	170.7	281.8	343.1	389.5	421.0	426.0	429.3	427.6	431.0	442.6
100°	109.4	192.3	321.6	361.3	377.9	368.0	358.0	349.7	339.8	333.2	334.8
102.5°	135.9	210.5	348.1	412.7	399.5	372.9	328.2	303.3	278.5	263.5	258.6
105°	157.5	220.5	366.3	465.8	440.9	386.2	341.4	295.0	255.3	223.8	207.2
107.5°	182.3	227.1	364.7	477.4	513.8	422.7	346.4	305.0	260.2	217.1	190.6
110°	230.4	245.3	361.3	467.4	530.4	475.7	387.9	306.6	256.9	228.7	195.6



TEST NUMBER: P236486

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	265.2	250.3	369.6	449.2	527.1	513.8	437.6	353.1	270.2	213.8	200.6
115°	298.4	260.2	377.9	426.0	507.2	528.7	484.0	401.1	316.6	245.3	189.0
117.5°	336.5	276.8	389.5	406.1	474.1	522.1	484.0	462.4	363.0	288.4	230.4
120°	372.9	296.7	396.1	426.0	452.5	495.6	505.5	437.6	427.6	329.8	270.2
122.5°	409.4	318.2	399.5	464.1	426.0	455.8	489.0	477.4	391.2	389.5	306.6
125°	444.2	341.4	397.8	484.0	404.4	416.0	455.8	470.7	444.2	349.7	353.1
127.5°	479.0	364.7	396.1	487.3	426.0	412.7	416.0	447.5	444.2	414.4	321.6
130°	510.5	387.9	377.9	485.7	474.1	382.9	379.6	407.8	424.3	417.7	397.8
132.5°	532.1	412.7	366.3	477.4	500.6	379.6	386.2	366.3	391.2	399.5	394.5
135°	552.0	435.9	358.0	462.4	497.3	414.4	349.7	359.7	349.7	366.3	374.6
137.5°	561.9	460.8	354.7	444.2	487.3	464.1	344.8	359.7	313.3	328.2	341.4
140°	565.2	477.4	354.7	417.7	472.4	474.1	387.9	319.9	348.1	290.1	306.6
142.5°	563.6	489.0	358.0	376.3	449.2	464.1	439.2	333.2	311.6	336.5	270.2
145°	558.6	495.6	359.7	338.1	422.7	450.8	450.8	392.8	308.3	303.3	328.2
147.5°	553.6	498.9	369.6	321.6	396.1	432.6	444.2	434.3	364.7	295.0	286.8
150°	550.3	502.2	396.1	323.2	358.0	411.1	432.6	435.9	421.0	356.4	291.7
152.5°	542.0	505.5	422.7	333.2	318.2	387.9	416.0	427.6	431.0	416.0	369.6
155°	537.0	508.9	442.6	343.1	310.0	351.4	392.8	412.7	422.7	426.0	419.4
157.5°	537.0	513.8	454.2	371.3	318.2	301.7	368.0	389.5	406.1	416.0	421.0
160°	533.7	517.1	462.4	406.1	328.2	303.3	306.6	364.7	382.9	397.8	407.8
162.5°	528.7	518.8	470.7	434.3	363.0	313.3	295.0	300.0	354.7	372.9	386.2
165°	525.4	518.8	485.7	450.8	404.4	336.5	310.0	291.7	283.4	318.2	358.0
167.5°	522.1	517.1	495.6	462.4	440.9	391.2	338.1	308.3	293.4	278.5	273.5
170°	517.1	513.8	503.9	482.3	454.2	437.6	402.8	361.3	319.9	296.7	283.4
172.5°	513.8	512.2	507.2	497.3	479.0	454.2	445.9	431.0	397.8	371.3	339.8
175°	512.2	510.5	508.9	505.5	495.6	480.7	472.4	455.8	439.2	429.3	419.4
177.5°	510.5	508.9	508.9	507.2	503.9	493.9	492.3	482.3	472.4	462.4	450.8
180°	475.7	475.7	475.7	475.7	475.7	475.7	475.7	475.7	475.7	475.7	475.7



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CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5	17914.5
2.5°	17830.0	17866.4	17843.2	17795.1	17818.4	17869.7	17858.1	17834.9
5°	17385.7	17374.1	17294.6	17231.6	17221.6	17244.9	17233.2	17205.1
7.5°	16908.4	16901.7	16852.0	16757.5	16765.8	16764.2	16742.6	16716.1
10°	16376.3	16326.6	16238.7	16152.5	16109.5	16099.5	16059.7	16021.6
12.5°	15597.3	15416.6	15197.8	14972.4	14872.9	14723.8	14642.5	14587.8
15°	14322.6	13984.5	13689.5	13399.4	13251.9	13099.4	13006.6	12950.2
17.5°	13021.5	12709.9	12353.5	12091.6	11960.7	11831.4	11753.5	11695.5
20°	11864.5	11569.5	11264.5	11020.9	10873.3	10725.8	10636.3	10570.0
22.5°	10843.5	10551.8	10228.6	10009.8	9908.7	9872.2	9860.6	9844.0
25°	9926.9	9714.7	9699.8	9766.1	9852.3	9908.7	9935.2	9935.2
27.5°	9486.0	9613.6	9729.7	9863.9	10016.4	10125.8	10177.2	10180.5
30°	9456.2	9661.7	9863.9	10112.5	10366.1	10560.1	10639.6	10661.2
32.5°	9489.3	9850.6	10203.7	10545.2	10845.2	11045.7	11128.6	11136.9
35°	9676.6	10147.3	10546.8	10858.4	11113.7	11272.8	11355.7	11373.9
37.5°	9863.9	10309.8	10639.6	10949.6	11185.0	11320.9	11382.2	11398.8
40°	9870.5	10289.9	10614.8	10896.5	11100.4	11193.2	11236.3	11247.9
42.5°	9747.9	10155.6	10462.3	10697.6	10884.9	10999.3	11045.7	11059.0
45°	9519.1	9897.1	10212.0	10459.0	10652.9	10760.6	10813.7	10823.6
47.5°	9161.1	9557.3	9882.1	10109.2	10230.2	10275.0	10223.6	10207.0
50°	8738.5	9099.8	9356.7	9517.5	9567.2	9562.2	9537.4	9544.0
52.5°	8242.9	8534.6	8721.9	8831.3	8881.0	8960.6	8995.4	8988.7
55°	7676.0	7883.2	7957.8	7997.5	8029.0	8103.6	8128.5	8116.9
57.5°	7042.8	7165.5	7190.3	7205.2	7167.1	7102.5	7029.5	6961.6
60°	6386.4	6457.7	6475.9	6464.3	6417.9	6338.4	6247.2	6215.7
62.5°	5723.4	5784.7	5804.6	5766.5	5696.9	5632.3	5564.3	5564.3
65°	5093.6	5168.2	5164.8	5105.2	4964.3	4868.1	4780.3	4763.7
67.5°	4500.2	4515.1	4460.4	4375.9	4256.5	4190.2	4122.3	4105.7
70°	3867.0	3870.3	3823.9	3752.6	3671.4	3631.6	3598.5	3576.9
72.5°	3338.2	3343.2	3313.4	3268.6	3238.8	3202.3	3180.8	3187.4
75°	2890.7	2912.3	2904.0	2889.1	2864.2	2834.4	2814.5	2801.2
77.5°	2514.5	2541.0	2546.0	2542.6	2524.4	2499.5	2479.7	2481.3
80°	2181.3	2209.5	2214.4	2214.4	2196.2	2171.4	2141.5	2148.1
82.5°	1866.4	1894.5	1907.8	1894.5	1882.9	1858.1	1838.2	1838.2
85°	1581.3	1606.1	1617.7	1609.5	1591.2	1569.7	1551.4	1551.4
87.5°	1332.6	1360.8	1382.4	1382.4	1374.1	1357.5	1347.6	1342.6
90°	898.4	919.9	938.2	934.8	913.3	913.3	886.8	898.4
92.5°	729.3	745.9	752.5	747.5	737.6	722.7	707.8	707.8
95°	593.4	606.7	616.6	616.6	610.0	600.0	593.4	588.4
97.5°	449.2	460.8	472.4	472.4	469.1	457.5	450.8	445.9
100°	336.5	343.1	348.1	348.1	344.8	334.8	329.8	326.5
102.5°	256.9	256.9	258.6	258.6	251.9	243.7	238.7	235.4
105°	198.9	197.2	195.6	192.3	185.6	180.7	175.7	170.7
107.5°	170.7	159.1	152.5	147.5	139.2	135.9	129.3	124.3
110°	169.1	155.8	142.5	129.3	117.7	111.1	102.8	97.8





TEST NUMBER: P236486

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	185.6	164.1	142.5	126.0	119.3	112.7	106.1	101.1
115°	165.8	162.4	157.5	145.9	135.9	124.3	112.7	106.1
117.5°	182.3	150.8	135.9	129.3	129.3	126.0	121.0	116.0
120°	223.8	187.3	155.8	134.3	122.7	112.7	102.8	97.8
122.5°	260.2	220.5	190.6	172.4	155.8	140.9	127.6	121.0
125°	295.0	253.6	225.4	203.9	187.3	174.0	160.8	152.5
127.5°	291.7	326.5	256.9	235.4	218.8	203.9	192.3	184.0
130°	313.3	270.2	275.1	311.6	256.9	237.0	223.8	217.1
132.5°	382.9	344.8	280.1	255.3	245.3	251.9	251.9	253.6
135°	376.3	369.6	363.0	338.1	285.1	260.2	242.0	233.7
137.5°	349.7	358.0	359.7	356.4	353.1	348.1	338.1	328.2
140°	314.9	326.5	334.8	341.4	344.8	339.8	333.2	328.2
142.5°	281.8	293.4	301.7	310.0	314.9	316.6	313.3	310.0
145°	288.4	256.9	270.2	276.8	281.8	281.8	283.4	278.5
147.5°	314.9	316.6	266.9	237.0	248.6	250.3	247.0	245.3
150°	273.5	288.4	311.6	316.6	305.0	265.2	243.7	233.7
152.5°	301.7	271.8	266.9	270.2	280.1	281.8	283.4	280.1
155°	391.2	344.8	300.0	268.5	253.6	247.0	237.0	232.1
157.5°	419.4	409.4	394.5	368.0	338.1	314.9	291.7	281.8
160°	414.4	421.0	421.0	417.7	409.4	396.1	384.5	376.3
162.5°	397.8	411.1	416.0	419.4	419.4	414.4	404.4	397.8
165°	369.6	386.2	396.1	406.1	412.7	411.1	402.8	394.5
167.5°	286.8	331.5	361.3	379.6	392.8	397.8	392.8	386.2
170°	276.8	271.8	271.8	280.1	288.4	300.0	301.7	305.0
172.5°	318.2	296.7	291.7	291.7	295.0	303.3	306.6	300.0
175°	409.4	394.5	386.2	381.2	381.2	396.1	401.1	391.2
177.5°	439.2	429.3	419.4	414.4	424.3	432.6	442.6	419.4
180°	475.7	475.7	475.7	475.7	475.7	475.7	475.7	475.7

(END OF REPORT)