

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: P236542

Luminaire Tested: **SKB4-LD5-30-W-UNV-L840-CD4-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236542  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24078)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB4-LD5-30-W-UNV-L840-CD4-U all blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES  
Light Source: (952) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

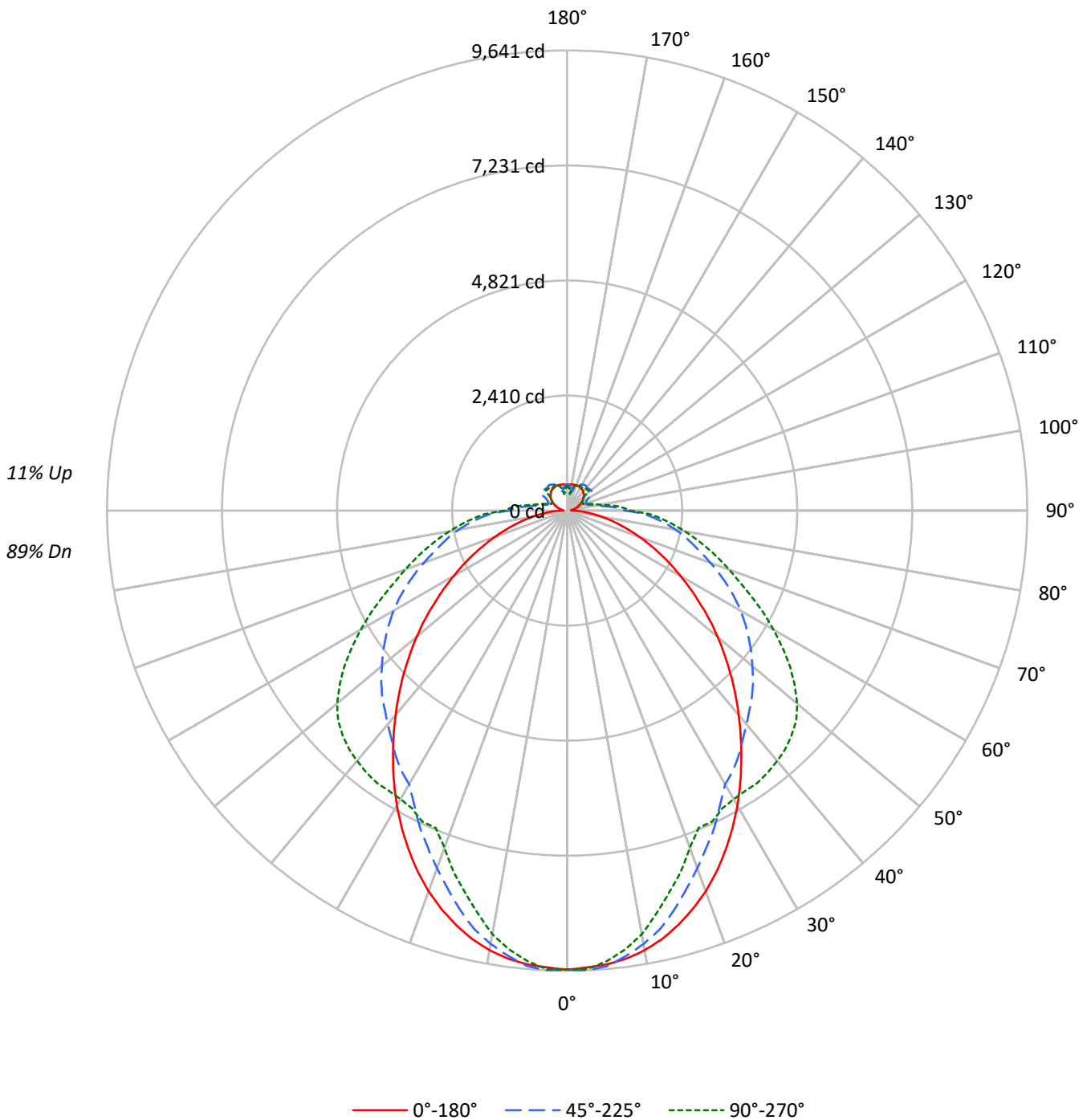
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30538.0 lumens  
Efficiency: N/A  
Efficacy: 117.2 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.07 / 1.26  
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 260.5  
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-LD5-30-W-UNV-L840-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	50	30	10	50	30	10	0		
RCR																										
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	91	91	91	89								
1	104	99	94	89	100	95	91	87	89	85	82	83	80	77	77	75	73	70								
2	94	85	78	71	90	82	75	70	77	71	66	72	67	63	67	63	60	57								
3	86	74	66	59	82	72	64	57	67	60	55	63	57	53	59	54	50	47								
4	78	66	56	49	75	63	55	48	59	52	47	56	50	45	52	47	43	40								
5	72	58	49	42	69	57	48	42	53	46	40	50	44	39	47	42	37	35								
6	66	53	43	37	64	51	42	36	48	41	35	45	39	34	43	37	33	30								
7	61	48	39	32	59	46	38	32	44	36	31	41	35	30	39	33	29	27								
8	57	43	35	29	55	42	34	28	40	33	28	38	31	27	36	30	26	24								
9	53	40	32	26	51	39	31	26	37	30	25	35	29	24	33	28	23	21								
10	50	37	29	24	48	36	28	23	34	27	23	32	26	22	31	25	21	19								

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

	0°	45°	90°
0°	13805	13805	13805
5°	13686	13661	13524
10°	13505	13167	12885
15°	13172	12485	11943
20°	12721	11685	11031
25°	12133	10984	10821
30°	11476	10286	10871
35°	10754	10159	11317
40°	10039	9984	11734
45°	9341	9974	12154
50°	8651	9944	12401
55°	7925	9976	12307
60°	7231	10046	12016
65°	6577	10085	11668
70°	5908	10180	11595
75°	5279	10567	11920
80°	4635	11547	12706
85°	3931	13135	14406



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	901.0	3.0
10°-20°	2433.0	8.0
20°-30°	3417.6	11.2
30°-40°	4054.2	13.3
40°-50°	4341.2	14.2
50°-60°	4123.1	13.5
60°-70°	3440.5	11.3
70°-80°	2602.1	8.5
80°-90°	1719.0	5.6
90°-100°	855.3	2.8
100°-110°	493.7	1.6
110°-120°	429.8	1.4
120°-130°	462.7	1.5
130°-140°	455.2	1.5
140°-150°	362.8	1.2
150°-160°	258.8	0.8
160°-170°	140.8	0.5
170°-180°	47.3	0.2
0°-30°	6751.6	22.1
0°-40°	10805.8	35.4
0°-60°	19270.1	63.1
0°-90°	27031.6	88.5
90°-120°	1778.8	5.8
90°-150°	3059.4	10.0
90°-180°	3506.0	11.5
0°-180°	30538.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9619	9619	9619	9619	9619	
5°	9543	9618	9578	9501	9478	905
15°	8989	8944	8662	8363	8278	2528
25°	7848	7696	7310	7077	7187	3608
35°	6362	6238	6267	6701	6962	3978
45°	4842	4960	5481	6326	6653	3737
55°	3403	3791	4644	5464	5699	3053
65°	2153	2792	3705	4178	4255	2140
75°	1137	2031	2726	2998	3041	1211
85°	381	1336	1850	1961	1986	385
90°	112	850	1206	1281	1309	77
95°	105	578	907	1030	1060	88
105°	176	432	466	525	537	190
115°	295	578	439	382	356	293
125°	407	609	655	448	399	363
135°	490	583	641	636	612	378
145°	545	532	651	602	579	341
155°	563	424	594	616	595	260
165°	561	490	426	512	505	159
175°	551	547	546	509	465	53
180°	528	528	528	528	528	



TEST NUMBER: P236542

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8
2.5°	9581.6	9607.1	9665.6	9674.1	9668.8	9643.2	9629.4	9666.6	9648.6	9641.1	9624.1
5°	9543.3	9569.9	9630.5	9637.9	9631.5	9603.9	9589.0	9622.0	9596.4	9578.4	9546.5
7.5°	9470.9	9490.1	9549.6	9560.3	9544.3	9508.2	9479.4	9493.3	9447.5	9416.7	9380.5
10°	9351.8	9370.9	9429.5	9434.8	9403.9	9350.7	9305.0	9300.7	9260.3	9218.8	9168.9
12.5°	9194.4	9209.3	9265.6	9262.5	9210.3	9151.8	9104.0	9088.0	9033.8	8983.8	8920.0
15°	8989.1	9005.0	9055.0	9038.0	8977.4	8911.4	8859.3	8838.0	8754.0	8662.5	8567.9
17.5°	8753.0	8772.1	8804.0	8778.5	8717.9	8642.3	8581.7	8522.1	8407.3	8309.4	8216.9
20°	8487.0	8486.0	8516.8	8487.0	8422.2	8342.4	8248.8	8162.6	8052.0	7972.2	7880.7
22.5°	8183.9	8193.5	8200.9	8179.6	8109.4	7997.7	7889.3	7810.5	7710.6	7634.0	7545.7
25°	7847.8	7858.4	7859.5	7831.8	7759.5	7631.8	7534.0	7467.0	7372.3	7309.6	7190.4
27.5°	7499.9	7496.8	7514.8	7490.4	7384.0	7259.6	7186.2	7121.3	7046.8	6941.5	6844.7
30°	7133.0	7113.8	7143.6	7112.8	7000.0	6900.0	6828.8	6795.8	6690.5	6620.3	6684.1
32.5°	6750.1	6730.9	6763.9	6724.5	6620.3	6557.5	6505.4	6455.4	6383.1	6461.8	6533.1
35°	6361.8	6342.7	6377.8	6335.2	6255.5	6220.4	6174.6	6135.3	6194.8	6267.2	6331.0
37.5°	5974.6	5956.6	5993.8	5951.2	5906.6	5905.5	5849.1	5911.9	5973.6	6041.7	6160.8
40°	5592.8	5577.9	5615.1	5585.3	5572.6	5585.3	5572.6	5682.1	5725.7	5844.9	5998.0
42.5°	5214.1	5210.9	5241.8	5231.1	5257.7	5273.7	5331.1	5421.5	5499.2	5655.5	5853.4
45°	4841.8	4841.8	4873.7	4890.8	4936.5	4983.3	5066.3	5156.7	5282.2	5481.1	5680.0
47.5°	4473.8	4478.1	4515.3	4564.2	4619.5	4711.0	4799.3	4913.1	5081.2	5282.2	5480.0
50°	4115.3	4119.6	4168.5	4244.1	4313.2	4429.1	4522.7	4670.6	4864.2	5066.3	5288.6
52.5°	3763.3	3769.7	3836.7	3918.6	4017.5	4139.8	4266.4	4452.5	4638.7	4858.9	5087.5
55°	3402.7	3428.2	3509.1	3599.5	3728.2	3854.7	4015.4	4221.7	4419.6	4644.0	4859.9
57.5°	3069.8	3096.3	3185.7	3291.0	3443.1	3588.8	3792.0	3997.3	4206.8	4423.8	4631.2
60°	2746.4	2775.1	2869.8	2994.2	3168.7	3348.4	3568.6	3789.9	3989.8	4199.4	4377.0
62.5°	2450.7	2467.7	2557.1	2711.3	2907.0	3121.9	3361.2	3580.3	3770.7	3956.9	4119.6
65°	2152.9	2173.1	2260.3	2446.4	2667.7	2916.6	3165.5	3371.8	3542.0	3704.8	3847.3
67.5°	1873.1	1898.7	1988.0	2206.1	2456.0	2726.2	2962.3	3151.7	3304.8	3448.4	3570.7
70°	1609.3	1632.7	1740.2	1993.3	2270.9	2535.8	2749.6	2927.2	3063.4	3195.3	3300.6
72.5°	1362.6	1389.2	1523.2	1807.2	2100.8	2345.4	2532.6	2696.4	2829.4	2942.1	3045.3
75°	1137.1	1162.6	1337.0	1650.8	1921.0	2140.1	2319.9	2478.4	2606.0	2726.2	2823.0
77.5°	924.3	964.8	1186.0	1497.6	1734.8	1941.2	2114.6	2281.6	2418.8	2525.2	2597.5
80°	726.5	794.6	1055.2	1337.0	1554.0	1760.4	1945.5	2111.4	2225.2	2311.4	2367.7
82.5°	543.5	647.8	922.2	1173.2	1388.1	1606.1	1776.3	1921.0	2017.8	2086.9	2129.5
85°	380.8	514.8	782.9	1026.4	1238.1	1434.9	1584.9	1709.3	1791.2	1849.7	1882.7
87.5°	253.2	395.7	653.1	870.1	1054.1	1230.7	1361.5	1474.2	1547.6	1603.0	1634.9
90°	111.7	297.8	499.9	649.9	788.2	912.6	1019.0	1112.6	1166.8	1206.2	1217.9
92.5°	85.1	223.4	393.6	537.2	665.9	791.4	904.1	996.7	1059.4	1098.8	1112.6
95°	105.3	185.1	304.2	410.6	524.4	630.8	719.0	796.7	859.4	907.3	935.0
97.5°	111.7	191.5	289.3	358.5	431.9	525.5	604.2	665.9	704.2	730.7	741.4
100°	127.6	206.4	318.0	354.2	401.0	445.7	511.6	570.1	605.2	627.6	638.2
102.5°	148.9	219.1	344.6	385.0	402.1	434.0	451.0	484.0	518.0	542.5	554.2
105°	175.5	230.8	369.1	441.4	429.7	435.0	448.9	449.9	448.9	465.9	476.5
107.5°	210.6	239.3	384.0	462.7	498.9	460.6	452.1	451.0	441.4	421.2	417.0
110°	241.5	243.6	376.5	476.5	530.8	509.5	474.4	456.3	440.4	426.5	408.4



TEST NUMBER: P236542

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	267.0	253.2	377.6	495.7	547.8	585.0	516.9	478.7	447.8	424.4	408.4
115°	294.6	260.6	382.9	502.1	557.4	598.8	619.1	521.2	473.3	439.3	413.8
117.5°	324.4	272.3	391.4	498.9	571.2	612.7	631.8	632.9	516.9	468.0	432.9
120°	352.1	285.1	394.6	498.9	596.7	616.9	640.3	652.0	631.8	513.8	463.8
122.5°	380.8	303.1	398.9	499.9	582.9	623.3	648.8	657.3	657.3	637.1	520.1
125°	407.4	325.5	396.7	501.0	582.9	635.0	645.6	661.6	659.5	655.2	649.9
127.5°	431.9	352.1	391.4	499.9	577.6	632.9	644.6	657.3	661.6	656.3	651.0
130°	452.1	375.5	371.2	493.5	568.0	628.6	646.7	652.0	659.5	657.3	648.8
132.5°	470.1	397.8	356.3	488.2	561.6	623.3	651.0	651.0	651.0	653.1	646.7
135°	490.4	434.0	360.6	479.7	555.2	611.6	646.7	660.5	646.7	641.4	641.4
137.5°	507.4	471.2	367.0	468.0	546.7	601.0	640.3	658.4	638.2	637.1	631.8
140°	522.3	504.2	380.8	452.1	536.1	591.4	625.4	652.0	657.3	627.6	627.6
142.5°	537.2	532.9	403.1	418.0	521.2	577.6	611.6	640.3	654.2	653.1	615.9
145°	544.6	548.9	427.6	392.5	502.1	561.6	597.8	624.4	644.6	651.0	646.7
147.5°	549.9	555.2	445.7	390.4	477.6	542.5	584.0	610.5	629.7	643.5	644.6
150°	555.2	558.4	472.3	401.0	436.1	522.3	565.9	595.7	614.8	628.6	635.0
152.5°	560.6	561.6	510.6	423.3	403.1	495.7	543.5	576.5	597.8	612.7	618.0
155°	562.7	563.7	541.4	451.0	401.0	446.7	515.9	552.0	576.5	593.5	599.9
157.5°	564.8	563.7	562.7	472.3	420.2	405.3	478.7	523.3	551.0	571.2	580.8
160°	563.7	562.7	570.1	511.6	447.8	405.3	411.6	484.0	516.9	541.4	554.2
162.5°	562.7	561.6	565.9	546.7	472.3	430.8	402.1	408.4	468.0	504.2	520.1
165°	560.6	559.5	561.6	565.9	520.1	460.6	427.6	404.2	398.9	425.5	467.0
167.5°	558.4	557.4	558.4	562.7	555.2	511.6	462.7	438.2	413.8	394.6	390.4
170°	556.3	555.2	555.2	555.2	559.5	553.1	523.3	484.0	452.1	437.2	412.7
172.5°	554.2	553.1	553.1	553.1	552.0	552.0	557.4	547.8	526.5	502.1	472.3
175°	551.0	549.9	549.9	549.9	547.8	545.7	545.7	545.7	543.5	545.7	542.5
177.5°	548.9	547.8	547.8	546.7	544.6	542.5	542.5	541.4	537.2	535.0	529.7
180°	527.6	527.6	527.6	527.6	527.6	527.6	527.6	527.6	527.6	527.6	527.6



TEST NUMBER: P236542

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8	9618.8
2.5°	9589.0	9605.0	9627.3	9599.6	9603.9	9626.2	9619.8	9614.5
5°	9505.0	9511.4	9518.8	9482.6	9480.5	9499.7	9480.5	9478.4
7.5°	9332.7	9329.5	9335.8	9288.0	9284.8	9300.7	9285.9	9277.3
10°	9119.9	9111.4	9106.1	9055.0	9038.0	9042.3	9027.4	9014.6
12.5°	8837.0	8794.4	8763.6	8706.2	8681.7	8679.6	8651.9	8643.4
15°	8477.5	8432.8	8393.4	8331.7	8315.8	8321.1	8298.8	8277.5
17.5°	8130.7	8086.0	8047.7	7981.8	7969.0	7976.5	7933.9	7926.5
20°	7797.8	7746.7	7713.7	7640.4	7609.5	7602.1	7532.9	7514.8
22.5°	7476.5	7398.9	7305.3	7234.0	7221.3	7231.9	7222.3	7193.6
25°	7075.5	7033.0	7055.3	7098.9	7162.8	7206.4	7208.5	7187.2
27.5°	6856.4	6941.5	7003.2	7010.7	7034.1	7061.7	7062.8	7036.2
30°	6762.8	6791.5	6822.4	6874.5	6943.6	6990.5	7002.2	6980.9
32.5°	6565.0	6639.4	6722.4	6802.2	6888.3	6951.1	6971.3	6955.3
35°	6421.4	6528.8	6644.8	6756.4	6861.7	6937.3	6970.2	6961.7
37.5°	6286.3	6435.2	6580.9	6715.0	6821.3	6886.2	6912.8	6911.7
40°	6170.4	6339.5	6484.1	6622.4	6734.1	6810.7	6841.5	6846.9
42.5°	6034.2	6197.0	6369.3	6528.8	6650.1	6730.9	6763.9	6771.3
45°	5859.8	6049.1	6242.7	6409.7	6519.2	6601.1	6641.6	6653.3
47.5°	5686.4	5889.6	6085.3	6249.1	6354.4	6445.9	6490.5	6507.5
50°	5496.0	5699.2	5900.2	6053.4	6152.3	6241.6	6278.9	6289.5
52.5°	5285.4	5492.8	5678.9	5818.3	5891.7	5972.5	6003.4	6006.6
55°	5065.2	5251.3	5407.7	5520.5	5592.8	5671.5	5694.9	5699.2
57.5°	4808.9	4970.5	5106.7	5210.9	5265.2	5331.1	5346.0	5351.3
60°	4535.5	4674.8	4788.7	4874.8	4919.5	4971.6	4984.4	4991.8
62.5°	4255.8	4358.9	4465.3	4541.9	4570.6	4617.4	4627.0	4631.2
65°	3956.9	4048.3	4148.3	4206.8	4227.0	4255.8	4253.6	4254.7
67.5°	3663.3	3745.2	3818.6	3879.2	3898.4	3909.0	3916.4	3909.0
70°	3374.0	3442.0	3517.6	3559.0	3594.1	3597.3	3610.1	3606.9
72.5°	3120.8	3186.8	3247.4	3283.6	3314.4	3314.4	3330.4	3320.8
75°	2887.9	2937.9	2984.7	3012.3	3038.9	3033.6	3049.5	3041.0
77.5°	2644.3	2682.6	2717.7	2748.5	2771.9	2780.4	2781.5	2771.9
80°	2402.8	2432.6	2459.2	2485.8	2506.0	2500.7	2514.5	2506.0
82.5°	2152.9	2175.2	2199.7	2223.1	2241.2	2245.4	2246.5	2238.0
85°	1901.8	1924.2	1952.9	1968.9	1985.9	1991.2	1992.3	1985.9
87.5°	1652.9	1675.3	1704.0	1720.0	1738.0	1742.3	1743.4	1738.0
90°	1234.9	1257.3	1270.0	1292.4	1298.7	1308.3	1295.6	1309.4
92.5°	1131.7	1150.9	1166.8	1183.9	1192.4	1197.7	1192.4	1198.8
95°	969.0	998.8	1019.0	1040.3	1050.9	1059.4	1058.4	1060.5
97.5°	758.4	783.9	809.5	837.1	849.9	861.6	860.5	861.6
100°	654.2	669.0	680.7	693.5	698.8	699.9	698.8	699.9
102.5°	569.1	584.0	596.7	608.4	611.6	615.9	614.8	612.7
105°	492.5	507.4	520.1	530.8	535.0	539.3	539.3	537.2
107.5°	428.7	439.3	451.0	460.6	465.9	468.0	470.1	468.0
110°	393.6	391.4	396.7	403.1	406.3	408.4	406.3	405.3





TEST NUMBER: P236542

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	399.9	390.4	376.5	367.0	365.9	365.9	361.6	359.5
115°	397.8	390.4	384.0	379.7	374.4	369.1	361.6	356.3
117.5°	410.6	394.6	382.9	377.6	373.3	369.1	363.8	359.5
120°	435.0	413.8	396.7	386.1	378.7	372.3	364.8	360.6
122.5°	472.3	443.6	422.3	407.4	397.8	388.2	380.8	375.5
125°	540.3	489.3	458.4	438.2	425.5	413.8	404.2	398.9
127.5°	648.8	601.0	521.2	486.1	465.9	448.9	437.2	430.8
130°	646.7	645.6	642.5	615.9	541.4	512.7	494.6	485.0
132.5°	643.5	644.6	641.4	637.1	632.9	625.4	616.9	613.7
135°	641.4	639.3	637.1	635.0	629.7	623.3	614.8	611.6
137.5°	633.9	635.0	633.9	629.7	624.4	618.0	610.5	607.4
140°	624.4	623.3	624.4	624.4	621.2	613.7	606.3	602.0
142.5°	618.0	614.8	611.6	610.5	609.5	604.2	596.7	594.6
145°	629.7	604.2	603.1	599.9	596.7	590.3	582.9	578.6
147.5°	643.5	638.2	604.2	587.1	586.1	580.8	573.3	569.1
150°	639.3	638.2	631.8	626.5	618.0	599.9	578.6	563.7
152.5°	625.4	631.8	629.7	626.5	620.1	612.7	603.1	598.8
155°	608.4	614.8	615.9	615.9	612.7	607.4	598.8	594.6
157.5°	590.3	596.7	597.8	598.8	595.7	591.4	584.0	580.8
160°	565.9	574.4	576.5	577.6	574.4	571.2	563.7	560.6
162.5°	534.0	545.7	551.0	552.0	551.0	547.8	541.4	538.2
165°	489.3	504.2	510.6	513.8	514.8	512.7	507.4	505.2
167.5°	398.9	425.5	448.9	462.7	463.8	461.6	457.4	456.3
170°	398.9	388.2	377.6	373.3	368.0	360.6	355.3	351.0
172.5°	447.8	437.2	427.6	414.8	401.0	387.2	377.6	373.3
175°	535.0	527.6	514.8	503.1	490.4	478.7	469.1	464.8
177.5°	526.5	525.5	521.2	514.8	508.4	501.0	491.4	486.1
180°	527.6	527.6	527.6	527.6	527.6	527.6	527.6	527.6

(END OF REPORT)