

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: P236567

Luminaire Tested: **SKB4-LD5-30-W-UNV-L850-CD4-U outer 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236567  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24077)  
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-L850-CD4-U outer 2 blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH WIDE DISTRIBUTION LENS, OUTER 2 BLADES TILTED OUT 20 DEGREES  
Light Source: (952) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

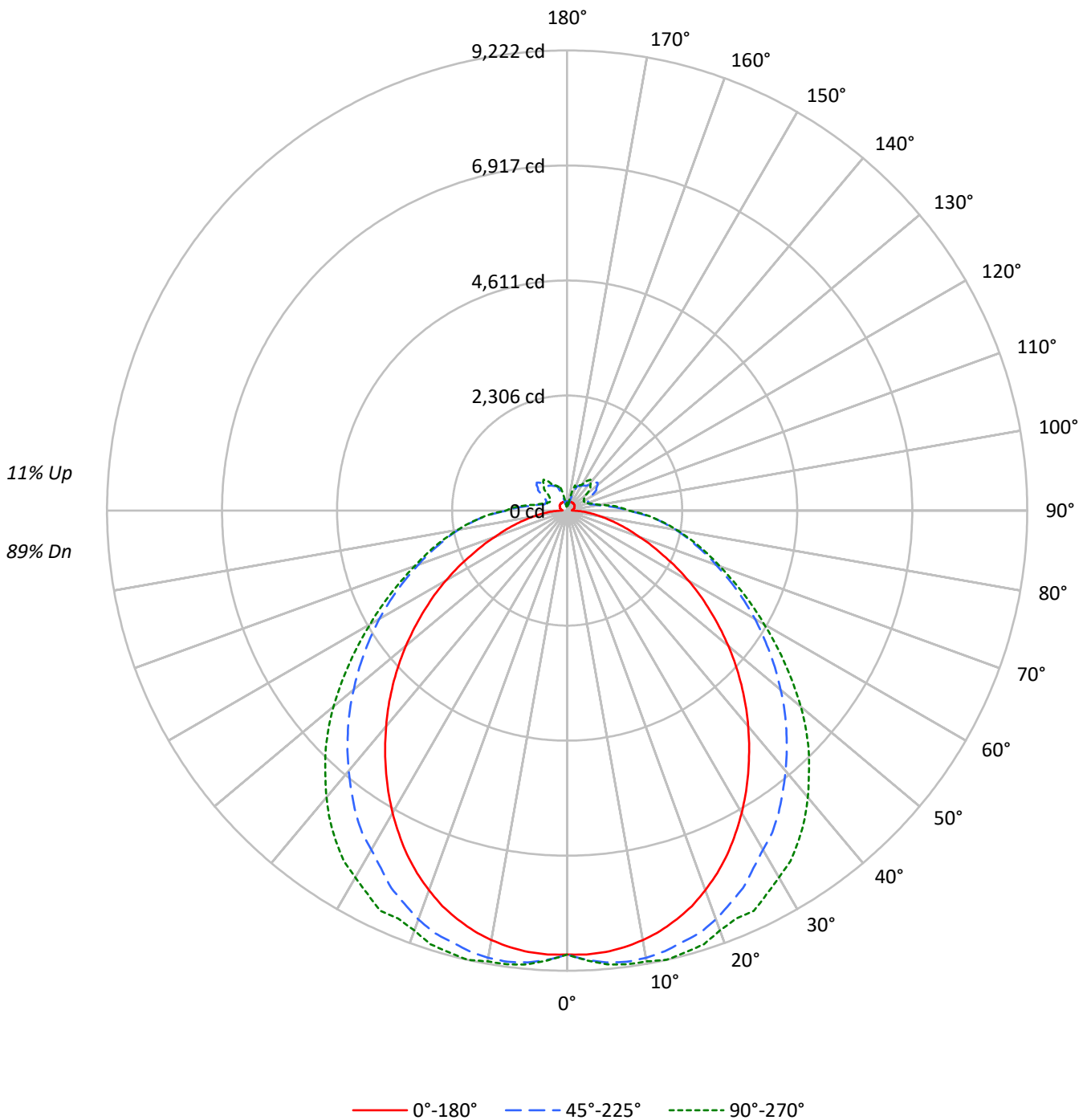
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31533.0 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.4 / 1.41  
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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### 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	117	117	117	117	113	113	113	113	105	105	105	99	99	99	92	92	92	89
1	105	99	95	90	101	96	92	88	90	86	83	84	81	79	79	77	74	72
2	95	86	79	73	91	83	76	71	78	72	68	73	68	64	68	65	61	59
3	86	75	67	60	83	73	65	59	68	62	56	64	59	54	60	56	52	49
4	79	66	57	51	76	64	56	50	61	53	48	57	51	46	54	49	44	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	48	43	38	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	31
7	62	48	39	33	60	47	39	33	44	37	32	42	36	31	40	34	30	28
8	58	44	35	30	55	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	27	52	39	32	26	37	30	26	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	31	26	22	20

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

	0°	45°	90°
0°	12772	12772	12772
5°	12736	12965	13026
10°	12622	12999	13112
15°	12429	12897	13223
20°	12135	12776	13141
25°	11751	12540	13328
30°	11256	12193	13219
35°	10708	11981	13138
40°	10132	11631	12859
45°	9526	11304	12514
50°	8863	10959	12058
55°	8139	10645	11494
60°	7387	10400	10976
65°	6496	10188	10630
70°	5671	10123	10457
75°	4995	10327	10693
80°	4397	11039	11287
85°	3924	12354	12716



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	864.3	2.7
10°-20°	2518.0	8.0
20°-30°	3820.7	12.1
30°-40°	4577.6	14.5
40°-50°	4684.1	14.9
50°-60°	4214.7	13.4
60°-70°	3392.5	10.8
70°-80°	2507.5	8.0
80°-90°	1629.7	5.2
90°-100°	841.4	2.7
100°-110°	500.6	1.6
110°-120°	439.7	1.4
120°-130°	459.8	1.5
130°-140°	459.2	1.5
140°-150°	340.0	1.1
150°-160°	194.2	0.6
160°-170°	74.0	0.2
170°-180°	14.9	0.0
0°-30°	7202.9	22.8
0°-40°	11780.6	37.4
0°-60°	20679.4	65.6
0°-90°	28209.1	89.5
90°-120°	1781.8	5.7
90°-150°	3040.8	9.6
90°-180°	3324.0	10.5
0°-180°	31533.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8899	8899	8899	8899	8899	
5°	8881	9015	9090	9114	9130	843
15°	8482	8769	8949	9120	9164	2389
25°	7601	7921	8345	8656	8852	3493
35°	6335	6737	7391	7931	8082	3960
45°	4938	5436	6212	6726	6851	3807
55°	3495	4156	4955	5292	5322	3132
65°	2126	3014	3742	3866	3876	2128
75°	1076	2137	2664	2720	2728	1152
85°	380	1388	1740	1747	1753	375
90°	115	928	1192	1229	1226	80
95°	111	616	886	961	974	90
105°	132	455	477	528	529	143
115°	161	628	463	412	394	161
125°	182	576	711	464	416	162
135°	186	523	790	713	662	144
145°	191	432	611	731	737	119
155°	188	140	547	572	556	87
165°	188	151	144	381	420	53
175°	184	183	191	167	125	18
180°	165	165	165	165	165	



TEST NUMBER: P236567

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L850-CD4-U outer 2 blades tilted out 20 degrees

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4
2.5°	8904.9	8907.1	8955.3	8984.8	8971.7	8975.0	8969.5	8998.0	9027.6	9011.1	9025.4
5°	8880.8	8891.7	8956.4	9001.3	9002.4	9027.6	9037.4	9074.7	9109.7	9090.0	9108.6
7.5°	8826.0	8844.6	8924.6	8988.1	9004.6	9029.8	9035.2	9081.2	9131.6	9121.8	9141.5
10°	8740.5	8770.1	8868.7	8941.0	8950.9	8987.0	9011.1	9057.1	9102.1	9101.0	9121.8
12.5°	8629.9	8662.7	8776.7	8850.1	8866.5	8913.6	8936.6	8988.1	9040.7	9044.0	9069.2
15°	8482.0	8525.8	8648.5	8721.9	8749.3	8788.7	8822.7	8883.0	8934.4	8948.7	9022.1
17.5°	8312.2	8356.0	8478.7	8556.5	8579.5	8632.1	8673.7	8734.0	8830.4	8869.8	8929.0
20°	8096.3	8148.9	8272.7	8353.8	8379.0	8440.3	8485.3	8590.4	8686.8	8716.4	8774.5
22.5°	7861.9	7912.3	8037.2	8124.8	8147.8	8209.2	8293.5	8404.2	8489.6	8525.8	8622.2
25°	7601.1	7644.9	7767.7	7853.1	7879.4	7962.7	8071.1	8177.4	8263.9	8345.0	8412.9
27.5°	7303.1	7350.2	7471.8	7549.6	7589.1	7714.0	7819.1	7922.1	8043.7	8079.9	8180.7
30°	6996.4	7036.9	7157.4	7225.3	7288.9	7422.5	7526.6	7672.3	7755.6	7847.6	8024.0
32.5°	6671.0	6710.4	6826.5	6889.0	6983.2	7124.5	7256.0	7372.1	7497.0	7651.5	7813.7
35°	6334.6	6373.0	6483.6	6546.1	6663.3	6810.1	6958.0	7084.0	7263.7	7390.8	7538.7
37.5°	5991.7	6032.3	6130.9	6202.1	6336.8	6499.0	6644.7	6817.8	6976.6	7100.4	7262.6
40°	5644.4	5675.1	5778.1	5858.1	6009.2	6170.3	6334.6	6520.9	6666.6	6809.0	6993.1
42.5°	5296.0	5322.3	5422.0	5529.4	5681.7	5846.0	6054.2	6193.3	6364.2	6516.5	6692.9
45°	4937.8	4963.0	5062.7	5187.6	5340.9	5531.6	5734.3	5867.9	6049.8	6211.9	6371.9
47.5°	4577.3	4605.8	4706.6	4852.3	5017.7	5221.5	5396.8	5556.8	5762.7	5906.3	6045.4
50°	4215.8	4244.3	4357.1	4517.1	4686.9	4898.3	5070.3	5247.8	5446.1	5583.1	5714.5
52.5°	3855.3	3887.1	4015.3	4176.3	4368.1	4576.2	4764.7	4947.6	5128.4	5274.1	5384.8
55°	3494.9	3534.3	3676.8	3841.1	4052.5	4259.6	4460.1	4640.9	4818.4	4955.3	5064.9
57.5°	3156.4	3194.7	3341.5	3527.8	3743.6	3958.3	4172.0	4342.9	4517.1	4647.4	4742.8
60°	2805.8	2849.6	3015.0	3216.6	3442.3	3674.6	3886.0	4060.2	4227.8	4347.3	4421.8
62.5°	2467.2	2539.6	2696.2	2920.8	3155.3	3399.6	3615.4	3789.6	3943.0	4042.7	4098.6
65°	2126.5	2226.2	2394.9	2643.6	2887.9	3141.0	3361.2	3532.1	3661.4	3742.5	3780.8
67.5°	1837.3	1933.7	2118.8	2387.3	2641.4	2904.4	3124.6	3275.8	3382.1	3450.0	3481.7
70°	1544.8	1662.0	1869.1	2151.7	2419.0	2684.2	2882.5	3016.1	3110.3	3177.2	3206.8
72.5°	1302.6	1413.3	1652.1	1940.3	2218.5	2465.1	2641.4	2768.5	2872.6	2917.5	2931.8
75°	1075.9	1187.6	1450.5	1756.2	2029.0	2245.9	2414.7	2545.0	2623.9	2664.4	2678.7
77.5°	873.2	1001.4	1285.1	1587.5	1839.5	2042.2	2212.0	2321.5	2400.4	2433.3	2444.2
80°	689.1	830.4	1139.4	1423.2	1656.5	1853.7	2006.0	2112.3	2183.5	2209.8	2213.1
82.5°	524.8	683.6	997.0	1262.1	1480.1	1668.6	1808.8	1910.7	1961.1	1975.3	1972.0
85°	380.2	548.9	849.1	1094.5	1302.6	1473.6	1596.3	1685.0	1728.8	1739.8	1729.9
87.5°	259.7	425.1	704.5	926.9	1104.3	1255.5	1361.8	1438.5	1481.2	1485.6	1485.6
90°	115.0	318.8	558.7	729.7	869.9	987.1	1071.5	1144.9	1181.0	1192.0	1201.8
92.5°	94.2	245.4	440.4	599.3	729.7	844.7	937.8	1010.1	1049.6	1064.9	1072.6
95°	110.7	200.5	327.6	448.1	566.4	666.1	748.3	825.0	865.5	886.3	908.2
97.5°	113.9	197.2	303.5	385.6	459.0	552.2	628.9	681.4	706.6	718.7	738.4
100°	119.4	200.5	327.6	376.9	432.8	485.3	528.1	591.6	622.3	633.2	637.6
102.5°	123.8	197.2	355.0	398.8	427.3	463.4	486.4	501.8	534.6	556.6	568.6
105°	131.5	193.9	352.8	460.1	448.1	461.2	478.8	488.6	505.1	476.6	495.2
107.5°	146.8	193.9	344.0	500.7	499.6	479.9	479.9	478.8	477.7	455.8	468.9
110°	155.6	166.5	333.1	489.7	564.2	521.5	498.5	482.1	466.7	455.8	445.9



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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L850-CD4-U outer 2 blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	157.8	149.0	329.8	474.4	621.2	616.8	535.7	501.8	474.4	450.3	436.0
115°	161.1	131.5	325.4	444.8	605.9	650.8	633.2	540.1	496.3	463.4	439.3
117.5°	166.5	131.5	329.8	440.4	587.2	714.3	682.5	621.2	535.7	488.6	455.8
120°	173.1	133.7	347.3	442.6	557.6	693.5	731.8	704.5	613.5	531.4	485.3
122.5°	177.5	135.9	321.0	439.3	521.5	668.3	773.5	738.4	711.0	614.6	533.5
125°	181.9	138.0	282.7	437.1	521.5	631.1	742.8	823.9	738.4	711.0	638.7
127.5°	185.2	138.0	223.5	440.4	518.2	575.2	707.7	793.2	814.0	737.3	711.0
130°	185.2	133.7	154.5	461.2	506.2	568.6	656.3	757.0	819.5	799.8	736.2
132.5°	184.1	132.6	120.5	421.8	498.5	562.0	602.6	712.1	784.4	828.3	808.5
135°	186.2	147.9	121.6	373.6	496.3	550.0	594.9	631.1	741.7	789.9	825.0
137.5°	188.4	168.7	123.8	311.1	523.7	535.7	586.1	615.7	672.7	748.3	786.6
140°	189.5	185.2	126.0	216.9	478.8	525.9	569.7	601.5	623.4	680.4	742.8
142.5°	191.7	200.5	128.2	144.6	421.8	537.9	550.0	587.2	609.1	624.5	668.3
145°	190.6	207.1	126.0	118.3	346.2	517.1	536.8	564.2	593.8	611.3	623.4
147.5°	188.4	202.7	123.8	118.3	235.5	450.3	562.0	547.8	573.0	596.0	609.1
150°	187.3	198.3	133.7	120.5	149.0	372.5	509.4	544.5	553.3	574.1	591.6
152.5°	188.4	196.1	163.2	124.9	119.4	259.7	433.8	537.9	542.3	553.3	566.4
155°	188.4	193.9	186.2	126.0	122.7	156.7	336.3	455.8	539.0	546.7	545.6
157.5°	188.4	192.8	202.7	132.6	126.0	120.5	193.9	356.1	453.6	522.6	568.6
160°	188.4	190.6	206.0	163.2	128.2	124.9	126.0	200.5	342.9	427.3	487.5
162.5°	188.4	189.5	199.4	191.7	134.8	127.1	124.9	126.0	180.8	290.3	371.4
165°	188.4	188.4	193.9	207.1	173.1	128.2	127.1	124.9	120.5	143.5	187.3
167.5°	187.3	187.3	190.6	199.4	200.5	166.5	129.3	126.0	123.8	121.6	118.3
170°	186.2	185.2	188.4	191.7	199.4	199.4	176.4	146.8	124.9	122.7	121.6
172.5°	185.2	184.1	185.2	187.3	188.4	192.8	199.4	195.0	179.7	160.0	139.1
175°	184.1	183.0	183.0	183.0	183.0	183.0	184.1	185.2	187.3	190.6	193.9
177.5°	183.0	180.8	180.8	180.8	179.7	178.6	177.5	176.4	175.3	174.2	173.1
180°	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4	8899.4
2.5°	9015.5	9039.6	9023.2	9005.7	9003.5	9028.7	9026.5	9022.1
5°	9106.4	9130.6	9120.7	9106.4	9106.4	9133.8	9130.6	9129.5
7.5°	9142.6	9172.2	9162.3	9148.1	9157.9	9173.3	9176.6	9172.2
10°	9134.9	9171.1	9165.6	9152.5	9152.5	9175.5	9172.2	9173.3
12.5°	9084.5	9134.9	9154.7	9163.4	9183.1	9216.0	9218.2	9221.5
15°	9065.9	9116.3	9119.6	9120.7	9140.4	9168.9	9163.4	9164.5
17.5°	8965.1	9005.7	9012.2	9022.1	9052.8	9098.8	9097.7	9110.8
20°	8826.0	8893.9	8932.3	8943.2	8955.3	8975.0	8952.0	8952.0
22.5°	8702.2	8727.4	8721.9	8748.2	8807.4	8846.8	8853.4	8851.2
25°	8461.2	8543.3	8611.2	8701.1	8789.8	8839.1	8849.0	8852.3
27.5°	8314.3	8455.7	8530.2	8579.5	8624.4	8651.8	8669.3	8663.8
30°	8174.1	8248.6	8307.8	8391.0	8451.3	8475.4	8489.6	8488.5
32.5°	7921.0	8020.7	8093.0	8181.8	8280.4	8314.3	8328.6	8329.7
35°	7668.0	7785.2	7891.5	7970.3	8041.5	8065.6	8081.0	8082.1
37.5°	7417.1	7531.0	7626.3	7701.9	7766.6	7789.6	7804.9	7814.8
40°	7133.3	7237.4	7330.5	7419.3	7485.0	7489.4	7503.6	7503.6
42.5°	6818.9	6930.6	7028.1	7098.3	7155.2	7158.5	7172.8	7171.7
45°	6497.9	6600.9	6696.2	6756.4	6816.7	6827.6	6845.2	6850.7
47.5°	6167.0	6272.2	6358.7	6419.0	6467.2	6481.4	6492.4	6493.5
50°	5829.6	5940.2	6013.6	6058.5	6096.9	6110.0	6117.7	6115.5
52.5°	5499.8	5599.5	5651.0	5686.1	5724.4	5732.1	5734.3	5713.4
55°	5166.7	5245.6	5280.7	5303.7	5326.7	5343.1	5342.0	5322.3
57.5°	4823.8	4892.9	4903.8	4935.6	4945.4	4959.7	4952.0	4935.6
60°	4483.1	4533.5	4536.8	4566.4	4572.9	4569.7	4572.9	4559.8
62.5°	4142.4	4179.6	4184.0	4211.4	4224.6	4222.4	4224.6	4215.8
65°	3815.9	3851.0	3855.3	3877.3	3891.5	3888.2	3886.0	3876.2
67.5°	3515.7	3543.1	3554.1	3565.0	3571.6	3561.7	3557.3	3549.7
70°	3224.3	3241.8	3245.1	3253.9	3263.7	3255.0	3261.5	3252.8
72.5°	2943.8	2962.4	2975.6	2980.0	2990.9	2980.0	2986.5	2981.1
75°	2692.9	2708.3	2714.8	2725.8	2738.9	2729.1	2733.5	2728.0
77.5°	2455.2	2467.2	2477.1	2480.4	2492.4	2480.4	2482.6	2472.7
80°	2215.3	2220.7	2226.2	2229.5	2241.6	2231.7	2232.8	2226.2
82.5°	1973.1	1979.7	1994.0	1990.7	2001.6	1990.7	1992.9	1997.2
85°	1727.7	1739.8	1748.5	1745.3	1756.2	1751.8	1748.5	1752.9
87.5°	1485.6	1495.5	1506.4	1505.3	1515.2	1510.8	1510.8	1517.4
90°	1200.8	1208.4	1221.6	1235.8	1238.0	1240.2	1235.8	1226.0
92.5°	1073.7	1083.5	1093.4	1103.2	1112.0	1109.8	1107.6	1109.8
95°	921.4	937.8	955.3	967.4	981.6	981.6	981.6	974.0
97.5°	751.6	768.0	782.2	792.1	803.1	804.2	803.1	803.1
100°	638.7	644.2	649.7	656.3	663.9	666.1	663.9	665.0
102.5°	573.0	580.7	585.0	588.3	590.5	590.5	587.2	583.9
105°	506.2	518.2	524.8	530.3	533.5	534.6	532.5	529.2
107.5°	443.7	454.7	465.6	473.3	478.8	481.0	478.8	475.5
110°	427.3	455.8	429.5	417.4	421.8	427.3	426.2	422.9





TEST NUMBER: P236567

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L850-CD4-U outer 2 blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	430.6	427.3	413.0	405.4	426.2	436.0	429.5	426.2
115°	421.8	414.1	411.9	411.9	410.8	407.6	399.9	394.4
117.5°	433.8	417.4	406.5	401.0	398.8	395.5	390.0	385.6
120°	455.8	434.9	418.5	409.7	402.1	394.4	386.7	381.3
122.5°	489.7	461.2	439.3	427.3	418.5	409.7	401.0	394.4
125°	547.8	502.9	472.2	455.8	442.6	431.7	420.7	416.3
127.5°	689.1	579.6	527.0	498.5	477.7	462.3	450.3	443.7
130°	708.8	696.8	668.3	576.3	541.2	517.1	498.5	493.0
132.5°	736.2	715.4	697.9	686.9	677.1	662.8	628.9	622.3
135°	841.4	752.7	722.0	704.5	691.3	679.3	667.2	661.7
137.5°	814.0	834.8	805.3	741.7	719.8	703.4	689.1	682.5
140°	773.5	795.4	812.9	822.8	826.1	796.5	760.3	747.2
142.5°	725.3	752.7	771.3	783.3	791.0	791.0	783.3	779.0
145°	635.4	692.4	722.0	739.5	747.2	749.4	742.8	737.3
147.5°	615.7	621.2	634.3	673.8	691.3	699.0	695.7	691.3
150°	599.3	607.0	610.2	611.3	609.1	605.9	601.5	597.1
152.5°	579.6	589.4	592.7	594.9	593.8	590.5	580.7	575.2
155°	553.3	563.1	569.7	575.2	574.1	570.8	560.9	555.5
157.5°	535.7	539.0	543.4	546.7	546.7	544.5	536.8	532.5
160°	529.2	560.9	531.4	522.6	520.4	518.2	510.5	505.1
162.5°	425.1	464.5	493.0	513.8	525.9	535.7	531.4	528.1
165°	266.2	329.8	369.2	393.3	410.8	422.9	420.7	419.6
167.5°	121.6	146.8	166.5	185.2	215.8	246.5	248.7	252.0
170°	117.2	113.9	108.5	103.0	97.5	90.9	84.4	80.0
172.5°	121.6	113.9	109.6	105.2	99.7	92.0	84.4	77.8
175°	188.4	180.8	172.0	162.1	154.5	143.5	130.4	124.9
177.5°	169.8	167.6	164.3	160.0	155.6	147.9	138.0	131.5
180°	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4

(END OF REPORT)