

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: P236522

Luminaire Tested: **SKB4-LD5-36-N-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236522  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24061)  
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 outer 2 blades vertical inner 2 blades  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH NARROW DISTRIBUTION LENS, OUTER 2 BLADES VERTICAL INNER 2  
BLADES HORIZONTAL  
Light Source: (952) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

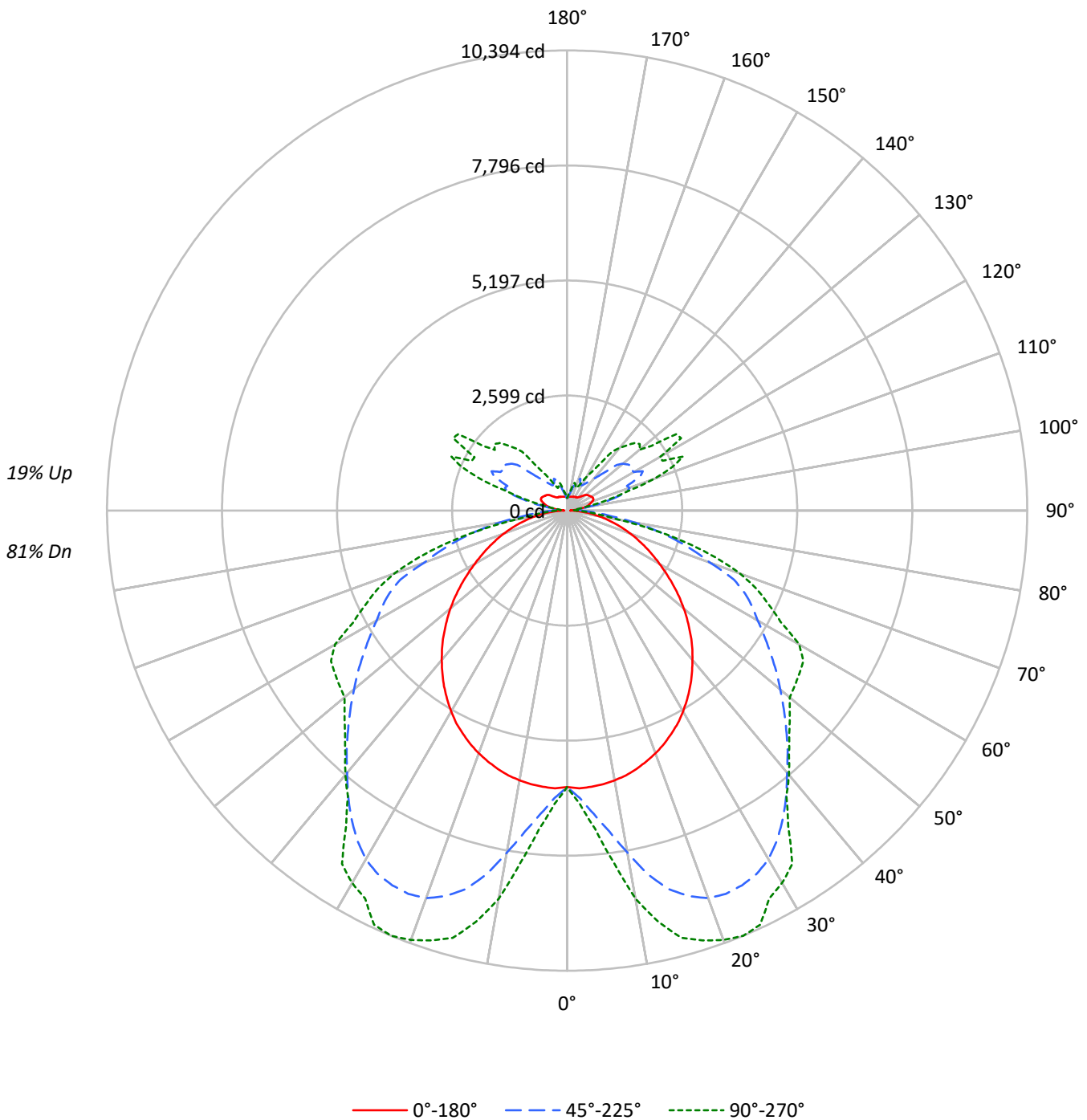
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35404.0 lumens  
Efficiency: N/A  
Efficacy: 106.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.79 / 1.74  
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')  
CIE Type: Semi-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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### 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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	81
1	104	99	95	91	99	95	91	87	87	84	81	80	78	75	74	72	70	67
2	94	86	79	73	90	82	76	70	76	70	66	70	65	62	64	61	58	55
3	85	75	66	60	81	72	64	58	66	60	55	61	56	51	56	52	48	45
4	78	66	57	50	74	63	55	49	58	52	46	54	48	44	50	45	41	38
5	71	58	49	43	68	56	48	42	52	45	40	48	42	37	44	39	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	36	31	27	25
8	56	43	34	29	54	41	33	28	39	32	27	36	30	25	33	28	24	22
9	53	39	31	25	50	38	30	25	35	29	24	33	27	23	31	26	22	20
10	49	36	28	23	47	35	27	22	33	26	21	30	25	21	28	23	20	18

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

	0°	45°	90°
0°	8963	8963	8963
5°	8981	9806	10290
10°	8933	11205	12727
15°	8853	12754	14416
20°	8747	13656	15153
25°	8602	14035	15537
30°	8424	14130	15126
35°	8192	13773	14156
40°	7908	13205	13359
45°	7598	12734	12965
50°	7230	12333	12938
55°	6798	12031	13834
60°	6345	11891	14567
65°	5960	12070	13782
70°	5574	10958	13332
75°	5133	9739	10863
80°	4632	7659	6076
85°	3918	5073	3919



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	678.5	1.9
10°-20°	2385.1	6.7
20°-30°	4014.6	11.3
30°-40°	4855.7	13.7
40°-50°	4941.2	14.0
50°-60°	4704.3	13.3
60°-70°	3986.6	11.3
70°-80°	2467.6	7.0
80°-90°	811.7	2.3
90°-100°	333.3	0.9
100°-110°	1016.9	2.9
110°-120°	1652.0	4.7
120°-130°	1503.7	4.2
130°-140°	1033.2	2.9
140°-150°	546.6	1.5
150°-160°	288.9	0.8
160°-170°	150.4	0.4
170°-180°	33.6	0.1
0°-30°	7078.3	20.0
0°-40°	11934.0	33.7
0°-60°	21579.5	61.0
0°-90°	28845.3	81.5
90°-120°	3002.2	8.5
90°-150°	6085.8	17.2
90°-180°	6559.0	18.5
0°-180°	35404.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6245	6245	6245	6245	6245	
5°	6262	6526	6875	7091	7212	595
15°	6042	7193	8849	9674	9991	1704
25°	5564	7594	9340	10156	10320	2564
35°	4846	6985	8496	8790	8708	3028
45°	3938	5773	6998	7237	7097	3036
55°	2919	4444	5601	6239	6406	2612
65°	1951	3288	4434	4864	5026	1936
75°	1106	2166	2513	2763	2771	1173
85°	380	936	714	590	540	381
90°	73	523	340	264	230	61
95°	179	382	245	173	142	183
105°	510	902	1134	1006	980	532
115°	651	1085	1820	2353	2887	635
125°	595	867	1767	2368	3008	532
135°	454	718	1258	1984	2156	360
145°	361	750	758	1039	1271	231
155°	341	567	690	670	613	159
165°	325	404	580	680	650	92
175°	310	311	328	331	370	30
180°	287	287	287	287	287	



TEST NUMBER: P236522

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4
2.5°	6280.2	6258.6	6252.0	6285.2	6336.6	6361.4	6391.2	6416.1	6450.9	6492.4	6535.4
5°	6262.0	6255.3	6286.8	6371.4	6475.8	6575.2	6679.6	6739.3	6804.0	6875.2	6948.2
7.5°	6235.4	6248.7	6326.6	6472.5	6666.4	6774.1	6896.8	7029.4	7180.2	7309.5	7462.0
10°	6185.7	6232.1	6363.1	6583.5	6769.2	6958.1	7170.3	7377.4	7612.8	7844.9	8071.9
12.5°	6127.7	6197.3	6402.9	6626.6	6890.1	7162.0	7460.3	7773.6	8106.7	8411.7	8696.8
15°	6041.5	6149.3	6407.8	6658.1	7012.8	7372.5	7768.6	8179.7	8564.2	8849.3	9129.4
17.5°	5943.7	6084.6	6366.4	6686.3	7120.5	7569.7	8068.6	8496.2	8854.3	9131.1	9414.5
20°	5836.0	6010.0	6308.4	6701.2	7216.7	7758.7	8274.1	8670.3	9010.1	9316.7	9595.2
22.5°	5708.4	5918.9	6235.4	6692.9	7287.9	7871.4	8362.0	8739.9	9106.2	9371.4	9605.1
25°	5564.2	5804.5	6141.0	6661.4	7321.1	7866.4	8355.4	8758.1	9063.1	9339.9	9585.2
27.5°	5416.6	5658.6	6026.6	6596.8	7274.7	7808.4	8304.0	8652.1	8971.9	9258.7	9527.2
30°	5236.0	5489.6	5877.4	6492.4	7140.4	7674.1	8144.9	8492.9	8811.2	9094.6	9328.3
32.5°	5047.0	5300.6	5700.1	6348.2	6963.1	7493.5	7921.1	8264.2	8560.9	8826.1	9028.3
35°	4846.5	5088.5	5501.2	6159.2	6741.0	7228.3	7665.9	7980.8	8272.5	8496.2	8630.5
37.5°	4629.3	4859.7	5285.7	5927.2	6500.6	6948.2	7365.8	7667.5	7929.4	8126.6	8224.4
40°	4405.6	4619.4	5048.7	5673.6	6210.6	6648.2	7026.1	7331.0	7563.1	7730.5	7813.4
42.5°	4181.8	4365.8	4798.4	5401.7	5887.4	6324.9	6692.9	6978.0	7210.0	7370.8	7465.3
45°	3938.2	4110.6	4541.5	5115.0	5562.5	5983.5	6349.8	6623.3	6837.1	6997.9	7107.3
47.5°	3691.2	3852.0	4274.6	4820.0	5237.6	5648.7	6000.1	6266.9	6484.1	6638.2	6775.8
50°	3439.3	3590.1	3997.8	4485.1	4901.2	5300.6	5642.1	5908.9	6119.4	6283.5	6426.1
52.5°	3182.4	3323.2	3711.1	4166.9	4569.7	4970.8	5287.4	5554.2	5768.0	5950.4	6107.8
55°	2918.8	3059.7	3442.6	3863.6	4254.8	4632.7	4947.6	5207.8	5420.0	5600.6	5781.3
57.5°	2658.6	2799.5	3177.4	3565.2	3956.4	4316.1	4624.4	4864.7	5080.2	5280.7	5479.6
60°	2410.0	2557.5	2918.8	3293.4	3661.4	4009.4	4311.1	4534.9	4743.7	4970.8	5239.3
62.5°	2176.3	2332.1	2670.2	3043.1	3396.2	3721.0	3991.2	4203.4	4432.1	4718.8	4994.0
65°	1950.9	2114.9	2434.8	2799.5	3137.6	3437.6	3669.7	3876.8	4152.0	4433.8	4687.4
67.5°	1733.7	1901.1	2212.7	2562.5	2867.4	3147.6	3343.1	3581.8	3850.3	4079.1	4084.0
70°	1518.3	1693.9	2000.6	2325.4	2605.6	2834.3	3056.4	3270.2	3412.8	3439.3	3560.3
72.5°	1309.4	1496.7	1781.8	2081.8	2333.7	2549.2	2756.4	2817.7	2847.6	2985.1	3079.6
75°	1105.5	1296.2	1569.6	1836.5	2056.9	2274.1	2330.4	2337.0	2421.6	2512.7	2574.1
77.5°	910.0	1097.3	1357.5	1591.2	1808.3	1901.1	1921.0	1949.2	1984.0	2032.1	2060.2
80°	726.0	905.0	1142.0	1357.5	1493.4	1556.4	1568.0	1559.7	1546.4	1533.2	1511.6
82.5°	550.3	716.0	924.9	1107.2	1205.0	1244.8	1218.2	1163.6	1115.5	1049.2	1004.4
85°	379.6	523.8	706.1	843.7	931.5	941.4	893.4	835.4	777.4	714.4	663.0
87.5°	218.8	331.5	487.3	624.9	711.1	706.1	646.4	585.1	535.4	493.9	464.1
90°	72.9	172.4	321.6	447.5	527.1	518.8	467.4	417.7	377.9	339.8	309.9
92.5°	77.9	142.5	251.9	348.1	409.4	416.0	381.2	341.4	301.7	263.5	237.0
95°	179.0	217.1	293.4	358.0	382.9	381.2	354.7	318.2	281.8	245.3	215.5
97.5°	271.8	316.6	379.6	462.4	512.2	502.2	457.5	387.9	341.4	306.6	276.8
100°	368.0	435.9	484.0	575.1	648.1	689.5	671.3	618.2	573.5	517.1	444.2
102.5°	459.1	545.3	590.1	687.9	775.7	840.3	881.8	880.1	850.3	792.3	755.8
105°	510.5	611.6	651.4	765.8	871.8	931.5	987.9	1072.4	1137.0	1133.7	1108.9
107.5°	553.6	648.1	697.8	810.5	934.8	1067.4	1080.7	1123.8	1304.4	1410.5	1471.8
110°	611.6	696.1	742.6	847.0	1004.4	1105.5	1271.3	1266.3	1263.0	1498.4	1707.2



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CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	641.4	719.3	752.5	847.0	1024.3	1156.9	1279.6	1485.1	1511.6	1460.2	1581.2
115°	651.4	722.7	762.4	825.4	989.5	1180.1	1292.8	1448.6	1713.8	1819.9	1780.1
117.5°	646.4	711.1	787.3	798.9	929.8	1166.9	1329.3	1430.4	1609.4	1924.3	2106.7
120°	628.2	679.6	807.2	762.4	880.1	1102.2	1326.0	1483.4	1572.9	1742.0	2047.0
122.5°	610.0	653.0	810.5	737.6	851.9	1006.1	1287.9	1468.5	1632.6	1712.2	1826.5
125°	595.0	629.8	803.9	735.9	800.6	933.2	1156.9	1433.7	1601.1	1766.9	1853.1
127.5°	576.8	606.6	793.9	784.0	760.8	896.7	1044.2	1329.3	1556.4	1713.8	1876.3
130°	550.3	578.5	772.4	832.1	724.3	832.1	953.1	1135.4	1456.9	1645.9	1796.7
132.5°	503.9	532.1	714.4	838.7	704.4	759.1	903.3	1002.8	1210.0	1531.5	1703.9
135°	454.1	482.3	641.4	800.6	726.0	709.4	803.9	924.9	1049.2	1258.0	1559.7
137.5°	419.3	445.9	571.8	755.8	787.3	674.6	740.9	848.6	938.1	1064.1	1238.1
140°	391.2	417.7	508.8	721.0	805.5	691.2	692.8	764.1	868.5	936.5	1040.9
142.5°	371.3	394.5	464.1	663.0	769.1	730.9	663.0	701.1	767.4	861.9	919.9
145°	361.3	377.9	437.6	598.4	719.3	780.7	684.5	654.7	704.4	757.5	843.7
147.5°	361.3	371.3	417.7	525.4	682.9	765.8	727.6	669.6	656.4	699.5	742.6
150°	359.7	366.3	409.4	472.4	624.9	714.4	787.3	691.2	668.0	654.7	684.5
152.5°	349.7	358.0	404.4	454.1	573.5	686.2	749.2	770.7	692.8	677.9	648.1
155°	341.4	348.1	391.2	437.6	507.2	626.5	696.1	752.5	759.1	689.5	687.9
157.5°	336.5	341.4	376.2	417.7	457.5	556.9	646.4	696.1	754.2	779.0	724.3
160°	331.5	334.8	364.6	397.8	435.9	485.6	575.1	644.8	691.2	734.3	779.0
162.5°	326.5	328.2	351.4	381.2	412.7	442.5	493.9	565.2	624.9	671.3	692.8
165°	324.9	324.9	339.8	368.0	391.2	417.7	442.5	479.0	530.4	580.1	619.9
167.5°	319.9	319.9	329.8	349.7	372.9	389.5	411.1	429.3	442.5	474.0	505.5
170°	316.6	316.6	321.6	333.2	349.7	366.3	379.6	391.2	402.8	412.7	417.7
172.5°	313.3	311.6	313.3	318.2	326.5	336.5	349.7	358.0	363.0	369.6	371.3
175°	309.9	308.3	308.3	308.3	309.9	311.6	316.6	319.9	321.6	328.2	331.5
177.5°	306.6	305.0	305.0	303.3	301.7	300.0	298.3	296.7	293.4	291.7	290.1
180°	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4	6245.4
2.5°	6520.5	6553.7	6555.3	6578.5	6643.2	6651.5	6649.8	6634.9
5°	6971.4	7037.7	7065.8	7115.6	7201.8	7220.0	7226.6	7211.7
7.5°	7539.9	7664.2	7742.1	7823.3	7941.0	8000.7	8018.9	8007.3
10°	8227.7	8423.3	8552.6	8678.6	8834.4	8882.4	8918.9	8904.0
12.5°	8849.3	9025.0	9155.9	9308.4	9446.0	9492.4	9517.3	9513.9
15°	9278.6	9465.9	9603.4	9744.3	9890.2	9951.5	9991.3	9991.3
17.5°	9583.6	9775.8	9850.4	9991.3	10092.4	10132.2	10173.6	10178.6
20°	9722.8	9860.4	9974.7	10118.9	10241.6	10279.7	10319.5	10322.8
22.5°	9767.5	9913.4	10051.0	10213.4	10332.7	10364.2	10399.0	10394.1
25°	9754.3	9916.7	10074.2	10238.3	10347.7	10336.1	10357.6	10319.5
27.5°	9691.3	9813.9	9901.8	9949.9	9938.3	9888.5	9883.6	9880.2
30°	9434.4	9495.7	9565.3	9618.4	9656.5	9663.1	9704.6	9712.8
32.5°	9091.3	9157.6	9237.1	9315.0	9371.4	9392.9	9436.0	9462.6
35°	8671.9	8706.7	8773.0	8806.2	8799.6	8738.2	8710.1	8708.4
37.5°	8236.0	8285.7	8330.5	8325.5	8284.1	8192.9	8153.2	8134.9
40°	7863.1	7927.7	7962.5	7957.6	7906.2	7813.4	7793.5	7795.1
42.5°	7510.0	7568.1	7583.0	7551.5	7496.8	7432.1	7427.2	7417.2
45°	7165.3	7231.6	7249.8	7225.0	7181.9	7120.5	7099.0	7097.3
47.5°	6838.8	6911.7	6923.3	6898.4	6881.9	6840.4	6830.5	6818.9
50°	6528.8	6615.0	6621.6	6623.3	6605.1	6568.6	6565.3	6562.0
52.5°	6212.2	6288.5	6336.6	6402.9	6454.2	6457.5	6484.1	6485.7
55°	5900.6	6056.4	6182.4	6295.1	6361.4	6374.7	6402.9	6406.2
57.5°	5676.9	5875.8	6034.9	6157.5	6243.7	6276.9	6320.0	6324.9
60°	5471.3	5691.8	5849.3	5957.0	6010.0	6038.2	6063.1	6051.5
62.5°	5224.4	5405.0	5463.1	5429.9	5424.9	5428.3	5449.8	5436.5
65°	4776.9	4785.1	4810.0	4917.7	4982.4	4999.0	5027.1	5025.5
67.5°	4147.0	4281.3	4387.4	4515.0	4589.6	4609.5	4640.9	4637.6
70°	3671.3	3818.8	3916.6	4037.6	4097.3	4117.2	4150.3	4147.0
72.5°	3182.4	3296.7	3374.6	3465.8	3507.2	3527.1	3520.5	3515.5
75°	2643.7	2708.3	2739.8	2786.2	2789.5	2794.5	2779.6	2771.3
77.5°	2063.6	2068.5	2061.9	2068.5	2040.4	2022.1	1993.9	1975.7
80°	1461.9	1405.5	1329.3	1291.2	1249.7	1233.2	1206.6	1198.4
82.5°	963.0	933.2	881.8	851.9	820.5	793.9	774.0	764.1
85°	626.5	611.6	595.0	585.1	571.8	560.2	547.0	540.3
87.5°	442.5	432.6	417.7	409.4	397.8	387.9	374.6	369.6
90°	288.4	280.1	266.9	261.9	253.6	247.0	237.0	230.4
92.5°	220.4	208.8	200.6	193.9	185.6	177.4	169.1	165.7
95°	195.6	185.6	177.4	169.1	162.4	152.5	145.9	142.5
97.5°	260.2	247.0	235.4	230.4	225.4	212.2	207.2	203.9
100°	397.8	386.2	379.6	369.6	358.0	348.1	343.1	341.4
102.5°	739.2	732.6	702.8	681.2	639.8	605.0	593.4	590.1
105°	1075.7	1026.0	1009.4	1002.8	992.8	982.9	982.9	979.6
107.5°	1500.0	1519.9	1524.9	1514.9	1461.9	1418.8	1398.9	1392.3
110°	1821.6	1927.7	2008.9	2073.5	2081.8	2078.5	2080.1	2083.5





TEST NUMBER: P236522

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1922.7	2163.0	2335.4	2456.4	2517.7	2544.2	2564.1	2572.4
115°	1705.5	1889.5	2164.7	2540.9	2718.3	2817.7	2869.1	2887.3
117.5°	2158.0	2143.1	2070.2	2114.9	2264.1	2361.9	2418.3	2431.5
120°	2328.8	2469.6	2555.8	2574.1	2569.1	2506.1	2436.5	2415.0
122.5°	2052.0	2375.2	2620.5	2776.3	2885.7	2966.9	3029.9	3049.8
125°	1902.8	2052.0	2237.6	2497.8	2719.9	2869.1	2971.9	3008.3
127.5°	1993.9	2020.5	2068.5	2154.7	2257.5	2322.1	2383.5	2403.3
130°	1949.2	2083.5	2148.1	2163.0	2139.8	2133.2	2136.5	2134.8
132.5°	1848.1	1965.8	2093.4	2182.9	2214.4	2222.7	2226.0	2226.0
135°	1713.8	1839.8	1940.9	2027.1	2098.4	2126.5	2149.8	2156.4
137.5°	1529.9	1685.7	1795.1	1881.2	1955.8	1984.0	1995.6	1998.9
140°	1181.8	1402.2	1599.5	1713.8	1800.0	1834.8	1848.1	1851.4
142.5°	991.2	1100.6	1216.6	1392.3	1554.7	1634.3	1682.3	1685.7
145°	900.0	933.2	996.1	1082.3	1156.9	1206.6	1251.4	1271.3
147.5°	798.9	870.2	898.4	919.9	951.4	982.9	1011.1	1034.3
150°	719.3	750.8	795.6	850.3	876.8	888.4	901.7	886.8
152.5°	664.6	691.2	721.0	735.9	747.5	750.8	732.6	719.3
155°	653.0	643.1	661.3	677.9	681.2	674.6	628.2	613.3
157.5°	689.5	681.2	664.6	639.8	631.5	581.8	556.9	551.9
160°	772.4	722.7	669.6	659.7	624.9	583.4	571.8	566.9
162.5°	730.9	760.8	769.1	747.5	677.9	644.8	628.2	621.6
165°	658.0	669.6	677.9	682.9	676.3	658.0	651.4	649.7
167.5°	542.0	571.8	586.7	593.4	603.3	593.4	568.5	563.5
170°	424.3	447.5	459.1	469.1	495.6	495.6	475.7	460.8
172.5°	372.9	376.2	381.2	387.9	401.1	407.7	407.7	402.8
175°	329.8	328.2	328.2	333.2	343.1	353.0	361.3	369.6
177.5°	285.1	281.8	276.8	278.5	285.1	295.0	306.6	308.3
180°	286.7	286.7	286.7	286.7	286.7	286.7	286.7	286.7

(END OF REPORT)