

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: P236519

Luminaire Tested: **SKB4-LD5-30-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: P236519  
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-LD5-30-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

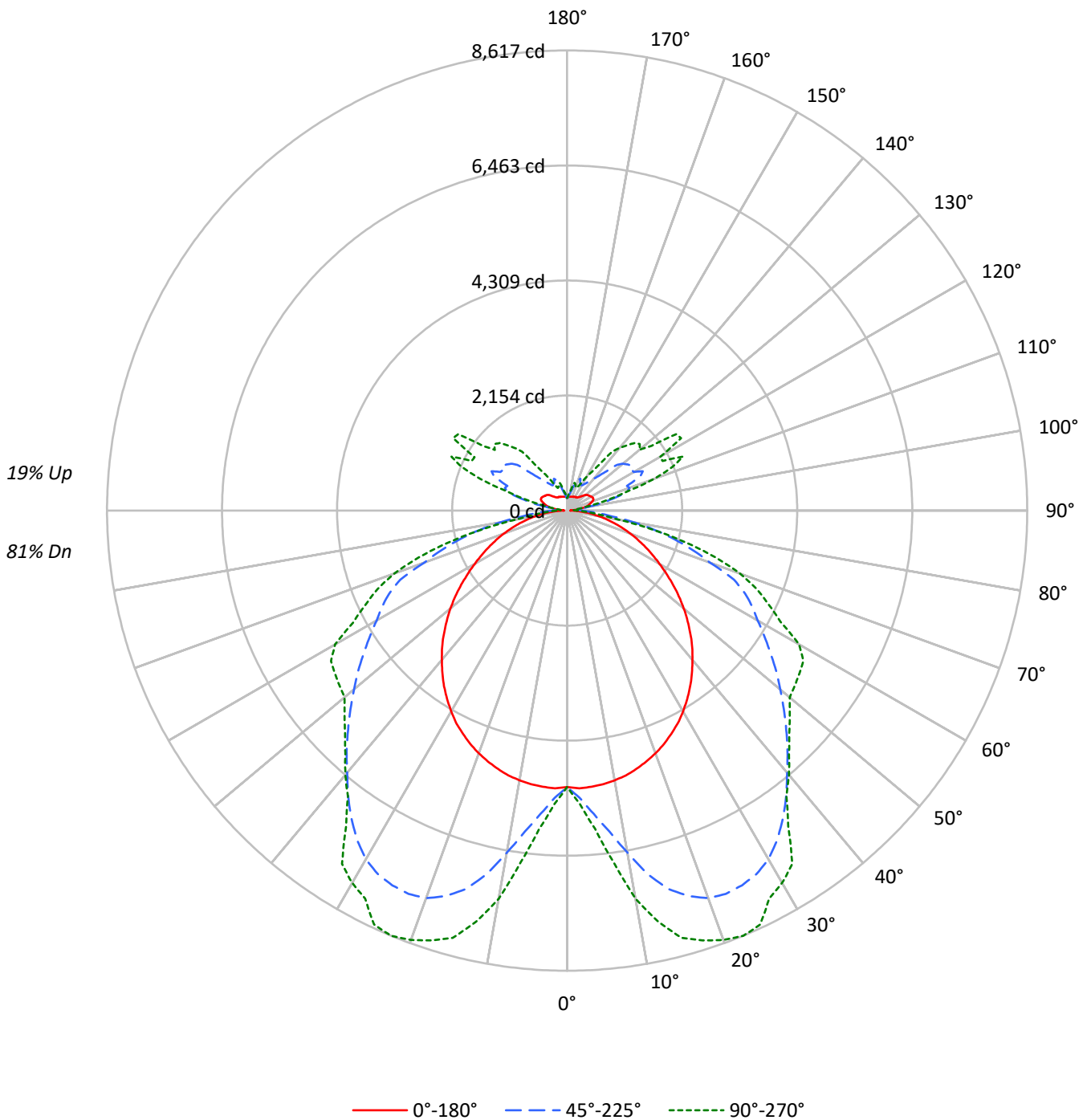
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29350.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 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): 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	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°	7431	7431	7431
5°	7445	8129	8530
10°	7405	9289	10550
15°	7339	10573	11951
20°	7252	11321	12562
25°	7131	11635	12880
30°	6983	11714	12539
35°	6791	11418	11735
40°	6556	10947	11074
45°	6298	10557	10748
50°	5994	10224	10726
55°	5635	9974	11468
60°	5260	9858	12076
65°	4940	10006	11425
70°	4620	9084	11052
75°	4255	8074	9005
80°	3840	6349	5037
85°	3248	4205	3249



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	562.5	1.9
10°-20°	1977.3	6.7
20°-30°	3328.1	11.3
30°-40°	4025.4	13.7
40°-50°	4096.3	14.0
50°-60°	3899.8	13.3
60°-70°	3304.9	11.3
70°-80°	2045.6	7.0
80°-90°	672.9	2.3
90°-100°	276.3	0.9
100°-110°	843.0	2.9
110°-120°	1369.5	4.7
120°-130°	1246.6	4.2
130°-140°	856.6	2.9
140°-150°	453.1	1.5
150°-160°	239.5	0.8
160°-170°	124.6	0.4
170°-180°	27.9	0.1
0°-30°	5867.9	20.0
0°-40°	9893.3	33.7
0°-60°	17889.4	61.0
0°-90°	23912.8	81.5
90°-120°	2488.8	8.5
90°-150°	5045.1	17.2
90°-180°	5437.0	18.5
0°-180°	29350.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5177	5177	5177	5177	5177	
5°	5191	5410	5700	5878	5978	494
15°	5008	5963	7336	8020	8283	1413
25°	4613	6295	7743	8420	8555	2125
35°	4018	5790	7043	7287	7219	2510
45°	3265	4786	5801	6000	5884	2517
55°	2420	3684	4643	5172	5311	2165
65°	1617	2725	3676	4032	4166	1605
75°	916	1795	2083	2291	2297	972
85°	315	776	592	489	448	316
90°	60	434	282	219	191	50
95°	148	317	203	144	118	152
105°	423	748	940	834	812	441
115°	540	899	1509	1950	2394	526
125°	493	719	1465	1963	2494	441
135°	376	595	1043	1645	1788	298
145°	300	622	628	862	1054	192
155°	283	470	572	555	508	132
165°	269	335	481	564	539	76
175°	257	258	272	274	306	25
180°	238	238	238	238	238	



TEST NUMBER: P236519

CATALOG NUMBER: SKB4-LD5-30-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°	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4
2.5°	5206.3	5188.4	5182.9	5210.4	5253.0	5273.6	5298.4	5319.0	5347.8	5382.2	5417.9
5°	5191.2	5185.7	5211.8	5281.9	5368.4	5450.9	5537.4	5586.9	5640.5	5699.6	5760.0
7.5°	5169.2	5180.2	5244.8	5365.7	5526.5	5615.8	5717.4	5827.4	5952.4	6059.6	6186.0
10°	5128.0	5166.5	5275.0	5457.8	5611.6	5768.3	5944.2	6115.9	6311.0	6503.4	6691.7
12.5°	5079.9	5137.6	5308.0	5493.5	5712.0	5937.3	6184.6	6444.3	6720.5	6973.3	7209.7
15°	5008.4	5097.7	5312.1	5519.6	5813.6	6111.8	6440.2	6781.0	7099.7	7336.1	7568.3
17.5°	4927.4	5044.2	5277.7	5542.9	5902.9	6275.3	6688.9	7043.4	7340.2	7569.7	7804.6
20°	4838.1	4982.3	5229.7	5555.3	5982.6	6432.0	6859.3	7187.7	7469.4	7723.6	7954.4
22.5°	4732.2	4906.8	5169.2	5548.4	6041.7	6525.4	6932.1	7245.4	7549.1	7768.9	7962.7
25°	4612.7	4811.9	5090.9	5522.3	6069.2	6521.3	6926.6	7260.5	7513.3	7742.8	7946.2
27.5°	4490.4	4691.0	4996.1	5468.7	6030.7	6473.2	6884.0	7172.6	7437.8	7675.5	7898.1
30°	4340.6	4550.9	4872.4	5382.2	5919.4	6361.9	6752.1	7040.7	7304.5	7539.4	7733.2
32.5°	4184.0	4394.2	4725.4	5262.6	5772.4	6212.1	6566.6	6851.0	7097.0	7316.8	7484.5
35°	4017.7	4218.4	4560.5	5106.0	5588.3	5992.3	6355.0	6616.1	6857.9	7043.4	7154.7
37.5°	3837.7	4028.7	4381.9	4913.6	5389.0	5760.0	6106.3	6356.4	6573.5	6737.0	6818.1
40°	3652.2	3829.5	4185.4	4703.4	5148.6	5511.3	5824.6	6077.4	6269.8	6408.6	6477.3
42.5°	3466.7	3619.3	3977.9	4478.0	4880.6	5243.4	5548.4	5784.8	5977.1	6110.4	6188.7
45°	3264.8	3407.7	3764.9	4240.3	4611.3	4960.3	5264.0	5490.7	5668.0	5801.3	5892.0
47.5°	3060.0	3193.3	3543.7	3995.8	4342.0	4682.8	4974.1	5195.3	5375.3	5503.1	5617.1
50°	2851.2	2976.2	3314.2	3718.2	4063.1	4394.2	4677.3	4898.5	5073.0	5209.0	5327.2
52.5°	2638.2	2755.0	3076.5	3454.4	3788.3	4120.8	4383.2	4604.5	4781.7	4932.9	5063.4
55°	2419.7	2536.5	2853.9	3202.9	3527.2	3840.5	4101.6	4317.3	4493.2	4642.9	4792.7
57.5°	2204.0	2320.8	2634.1	2955.6	3279.9	3578.0	3833.6	4032.9	4211.5	4377.7	4542.6
60°	1997.9	2120.2	2419.7	2730.2	3035.3	3323.8	3573.9	3759.4	3932.5	4120.8	4343.4
62.5°	1804.1	1933.3	2213.6	2522.8	2815.4	3084.8	3308.7	3484.6	3674.2	3911.9	4140.0
65°	1617.3	1753.3	2018.5	2320.8	2601.1	2849.8	3042.2	3213.9	3442.0	3675.6	3885.8
67.5°	1437.3	1576.0	1834.4	2124.3	2377.1	2609.3	2771.5	2969.3	3191.9	3381.6	3385.7
70°	1258.6	1404.3	1658.5	1927.8	2160.0	2349.6	2533.8	2711.0	2829.2	2851.2	2951.5
72.5°	1085.5	1240.8	1477.1	1725.8	1934.7	2113.3	2285.1	2335.9	2360.6	2474.7	2553.0
75°	916.5	1074.5	1301.2	1522.5	1705.2	1885.2	1931.9	1937.4	2007.5	2083.1	2133.9
77.5°	754.4	909.6	1125.4	1319.1	1499.1	1576.0	1592.5	1615.9	1644.7	1684.6	1708.0
80°	601.8	750.2	946.7	1125.4	1238.0	1290.2	1299.9	1293.0	1282.0	1271.0	1253.1
82.5°	456.2	593.6	766.7	917.9	998.9	1031.9	1009.9	964.6	924.7	869.8	832.7
85°	314.7	434.2	585.3	699.4	772.2	780.5	740.6	692.5	644.4	592.2	549.6
87.5°	181.4	274.8	404.0	518.0	589.5	585.3	535.9	485.0	443.8	409.5	384.7
90°	60.5	142.9	266.6	371.0	436.9	430.1	387.5	346.3	313.3	281.7	256.9
92.5°	64.6	118.2	208.9	288.6	339.4	344.9	316.0	283.1	250.1	218.5	196.5
95°	148.4	180.0	243.2	296.8	317.4	316.0	294.0	263.8	233.6	203.4	178.6
97.5°	225.3	262.4	314.7	383.4	424.6	416.3	379.2	321.5	283.1	254.2	229.5
100°	305.0	361.4	401.2	476.8	537.3	571.6	556.5	512.5	475.4	428.7	368.2
102.5°	380.6	452.1	489.2	570.2	643.1	696.6	731.0	729.6	704.9	656.8	626.6
105°	423.2	507.0	540.0	634.8	722.8	772.2	818.9	889.0	942.6	939.9	919.2
107.5°	458.9	537.3	578.5	671.9	775.0	884.9	895.9	931.6	1081.4	1169.3	1220.2
110°	507.0	577.1	615.6	702.1	832.7	916.5	1053.9	1049.8	1047.0	1242.1	1415.3



TEST NUMBER: P236519

CATALOG NUMBER: SKB4-LD5-30-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°	531.8	596.3	623.8	702.1	849.2	959.1	1060.8	1231.2	1253.1	1210.5	1310.8
115°	540.0	599.1	632.1	684.3	820.3	978.3	1071.8	1200.9	1420.8	1508.7	1475.7
117.5°	535.9	589.5	652.7	662.3	770.8	967.3	1102.0	1185.8	1334.2	1595.3	1746.4
120°	520.8	563.4	669.2	632.1	729.6	913.7	1099.2	1229.8	1304.0	1444.1	1697.0
122.5°	505.7	541.4	671.9	611.5	706.3	834.1	1067.6	1217.4	1353.4	1419.4	1514.2
125°	493.3	522.1	666.4	610.1	663.7	773.6	959.1	1188.6	1327.3	1464.7	1536.2
127.5°	478.2	502.9	658.2	649.9	630.7	743.4	865.7	1102.0	1290.2	1420.8	1555.4
130°	456.2	479.5	640.3	689.8	600.5	689.8	790.1	941.2	1207.8	1364.4	1489.5
132.5°	417.7	441.1	592.2	695.3	584.0	629.3	748.9	831.3	1003.1	1269.6	1412.5
135°	376.5	399.9	531.8	663.7	601.8	588.1	666.4	766.7	869.8	1042.9	1293.0
137.5°	347.6	369.6	474.0	626.6	652.7	559.2	614.2	703.5	777.7	882.1	1026.4
140°	324.3	346.3	421.8	597.7	667.8	573.0	574.4	633.4	720.0	776.3	862.9
142.5°	307.8	327.0	384.7	549.6	637.6	606.0	549.6	581.2	636.2	714.5	762.6
145°	299.5	313.3	362.8	496.0	596.3	647.2	567.5	542.8	584.0	627.9	699.4
147.5°	299.5	307.8	346.3	435.6	566.1	634.8	603.2	555.1	544.1	579.9	615.6
150°	298.2	303.7	339.4	391.6	518.0	592.2	652.7	573.0	553.7	542.8	567.5
152.5°	289.9	296.8	335.3	376.5	475.4	568.9	621.1	638.9	574.4	562.0	537.3
155°	283.1	288.6	324.3	362.8	420.5	519.4	577.1	623.8	629.3	571.6	570.2
157.5°	278.9	283.1	311.9	346.3	379.2	461.7	535.9	577.1	625.2	645.8	600.5
160°	274.8	277.6	302.3	329.8	361.4	402.6	476.8	534.5	573.0	608.7	645.8
162.5°	270.7	272.1	291.3	316.0	342.1	366.9	409.5	468.6	518.0	556.5	574.4
165°	269.3	269.3	281.7	305.0	324.3	346.3	366.9	397.1	439.7	480.9	513.9
167.5°	265.2	265.2	273.4	289.9	309.2	322.9	340.8	355.9	366.9	393.0	419.1
170°	262.4	262.4	266.6	276.2	289.9	303.7	314.7	324.3	333.9	342.1	346.3
172.5°	259.7	258.3	259.7	263.8	270.7	278.9	289.9	296.8	300.9	306.4	307.8
175°	256.9	255.6	255.6	255.6	256.9	258.3	262.4	265.2	266.6	272.1	274.8
177.5°	254.2	252.8	252.8	251.5	250.1	248.7	247.3	246.0	243.2	241.8	240.5
180°	237.7	237.7	237.7	237.7	237.7	237.7	237.7	237.7	237.7	237.7	237.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4	5177.4
2.5°	5405.5	5433.0	5434.4	5453.6	5507.2	5514.1	5512.7	5500.3
5°	5779.3	5834.2	5857.6	5898.8	5970.3	5985.4	5990.9	5978.5
7.5°	6250.6	6353.6	6418.2	6485.5	6583.1	6632.6	6647.7	6638.1
10°	6820.8	6983.0	7090.1	7194.6	7323.7	7363.6	7393.8	7381.4
12.5°	7336.1	7481.7	7590.3	7716.7	7830.7	7869.2	7889.8	7887.1
15°	7692.0	7847.2	7961.3	8078.1	8199.0	8249.8	8282.8	8282.8
17.5°	7944.8	8104.2	8166.0	8282.8	8366.6	8399.6	8434.0	8438.1
20°	8060.2	8174.3	8269.1	8388.6	8490.3	8521.9	8554.9	8557.6
22.5°	8097.3	8218.2	8332.3	8466.9	8565.9	8592.0	8620.8	8616.7
25°	8086.3	8221.0	8351.5	8487.5	8578.2	8568.6	8586.5	8554.9
27.5°	8034.1	8135.8	8208.6	8248.5	8238.8	8197.6	8193.5	8190.7
30°	7821.1	7872.0	7929.7	7973.6	8005.2	8010.7	8045.1	8052.0
32.5°	7536.7	7591.7	7657.6	7722.2	7768.9	7786.8	7822.5	7844.5
35°	7189.1	7217.9	7272.9	7300.4	7294.9	7244.0	7220.7	7219.3
37.5°	6827.7	6868.9	6906.0	6901.9	6867.5	6792.0	6759.0	6743.9
40°	6518.5	6572.1	6601.0	6596.8	6554.2	6477.3	6460.8	6462.2
42.5°	6225.8	6273.9	6286.3	6260.2	6214.9	6161.3	6157.1	6148.9
45°	5940.0	5995.0	6010.1	5989.5	5953.8	5902.9	5885.1	5883.7
47.5°	5669.4	5729.8	5739.4	5718.8	5705.1	5670.7	5662.5	5652.9
50°	5412.4	5483.9	5489.4	5490.7	5475.6	5445.4	5442.6	5439.9
52.5°	5150.0	5213.2	5253.0	5308.0	5350.6	5353.3	5375.3	5376.7
55°	4891.6	5020.8	5125.2	5218.7	5273.6	5284.6	5308.0	5310.7
57.5°	4706.1	4871.0	5002.9	5104.6	5176.1	5203.5	5239.3	5243.4
60°	4535.8	4718.5	4849.0	4938.4	4982.3	5005.7	5026.3	5016.7
62.5°	4331.0	4480.8	4528.9	4501.4	4497.3	4500.0	4517.9	4506.9
65°	3960.0	3966.9	3987.5	4076.8	4130.4	4144.2	4167.5	4166.1
67.5°	3437.9	3549.2	3637.1	3742.9	3804.8	3821.2	3847.4	3844.6
70°	3043.5	3165.8	3246.9	3347.2	3396.7	3413.2	3440.6	3437.9
72.5°	2638.2	2733.0	2797.6	2873.2	2907.5	2924.0	2918.5	2914.4
75°	2191.6	2245.2	2271.3	2309.8	2312.5	2316.7	2304.3	2297.4
77.5°	1710.7	1714.8	1709.3	1714.8	1691.5	1676.3	1653.0	1637.9
80°	1211.9	1165.2	1102.0	1070.4	1036.0	1022.3	1000.3	993.4
82.5°	798.3	773.6	731.0	706.3	680.2	658.2	641.7	633.4
85°	519.4	507.0	493.3	485.0	474.0	464.4	453.4	447.9
87.5°	366.9	358.6	346.3	339.4	329.8	321.5	310.5	306.4
90°	239.1	232.2	221.2	217.1	210.2	204.7	196.5	191.0
92.5°	182.7	173.1	166.3	160.8	153.9	147.0	140.2	137.4
95°	162.1	153.9	147.0	140.2	134.7	126.4	120.9	118.2
97.5°	215.7	204.7	195.1	191.0	186.9	175.9	171.8	169.0
100°	329.8	320.2	314.7	306.4	296.8	288.6	284.4	283.1
102.5°	612.8	607.3	582.6	564.7	530.4	501.5	491.9	489.2
105°	891.8	850.5	836.8	831.3	823.1	814.8	814.8	812.1
107.5°	1243.5	1260.0	1264.1	1255.9	1211.9	1176.2	1159.7	1154.2
110°	1510.1	1598.0	1665.4	1718.9	1725.8	1723.1	1724.4	1727.2





TEST NUMBER: P236519

CATALOG NUMBER: SKB4-LD5-30-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°	1593.9	1793.1	1936.0	2036.4	2087.2	2109.2	2125.7	2132.5
115°	1413.9	1566.4	1794.5	2106.4	2253.5	2335.9	2378.5	2393.6
117.5°	1789.0	1776.7	1716.2	1753.3	1877.0	1958.0	2004.7	2015.7
120°	1930.5	2047.3	2118.8	2133.9	2129.8	2077.6	2019.9	2002.0
122.5°	1701.1	1969.0	2172.4	2301.5	2392.2	2459.6	2511.8	2528.3
125°	1577.4	1701.1	1855.0	2070.7	2254.8	2378.5	2463.7	2493.9
127.5°	1653.0	1675.0	1714.8	1786.3	1871.5	1925.1	1975.9	1992.4
130°	1615.9	1727.2	1780.8	1793.1	1773.9	1768.4	1771.2	1769.8
132.5°	1532.1	1629.6	1735.4	1809.6	1835.7	1842.6	1845.4	1845.4
135°	1420.8	1525.2	1609.0	1680.5	1739.6	1762.9	1782.2	1787.6
137.5°	1268.3	1397.4	1488.1	1559.6	1621.4	1644.7	1654.4	1657.1
140°	979.7	1162.5	1326.0	1420.8	1492.2	1521.1	1532.1	1534.8
142.5°	821.7	912.4	1008.6	1154.2	1288.9	1354.8	1394.7	1397.4
145°	746.1	773.6	825.8	897.3	959.1	1000.3	1037.4	1053.9
147.5°	662.3	721.4	744.7	762.6	788.7	814.8	838.2	857.4
150°	596.3	622.4	659.5	704.9	726.9	736.5	747.5	735.1
152.5°	551.0	573.0	597.7	610.1	619.7	622.4	607.3	596.3
155°	541.4	533.1	548.2	562.0	564.7	559.2	520.8	508.4
157.5°	571.6	564.7	551.0	530.4	523.5	482.3	461.7	457.6
160°	640.3	599.1	555.1	546.9	518.0	483.7	474.0	469.9
162.5°	606.0	630.7	637.6	619.7	562.0	534.5	520.8	515.3
165°	545.5	555.1	562.0	566.1	560.6	545.5	540.0	538.6
167.5°	449.3	474.0	486.4	491.9	500.2	491.9	471.3	467.2
170°	351.8	371.0	380.6	388.9	410.8	410.8	394.4	382.0
172.5°	309.2	311.9	316.0	321.5	332.5	338.0	338.0	333.9
175°	273.4	272.1	272.1	276.2	284.4	292.7	299.5	306.4
177.5°	236.3	233.6	229.5	230.8	236.3	244.6	254.2	255.6
180°	237.7	237.7	237.7	237.7	237.7	237.7	237.7	237.7

(END OF REPORT)