

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: P236582

Luminaire Tested: **SKB4-LD5-36-W-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: P236582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24080)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-36-W-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, OUTER 2 BLADES VERTICAL INNER 2
BLADES HORIZONTAL
Light Source: (952) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

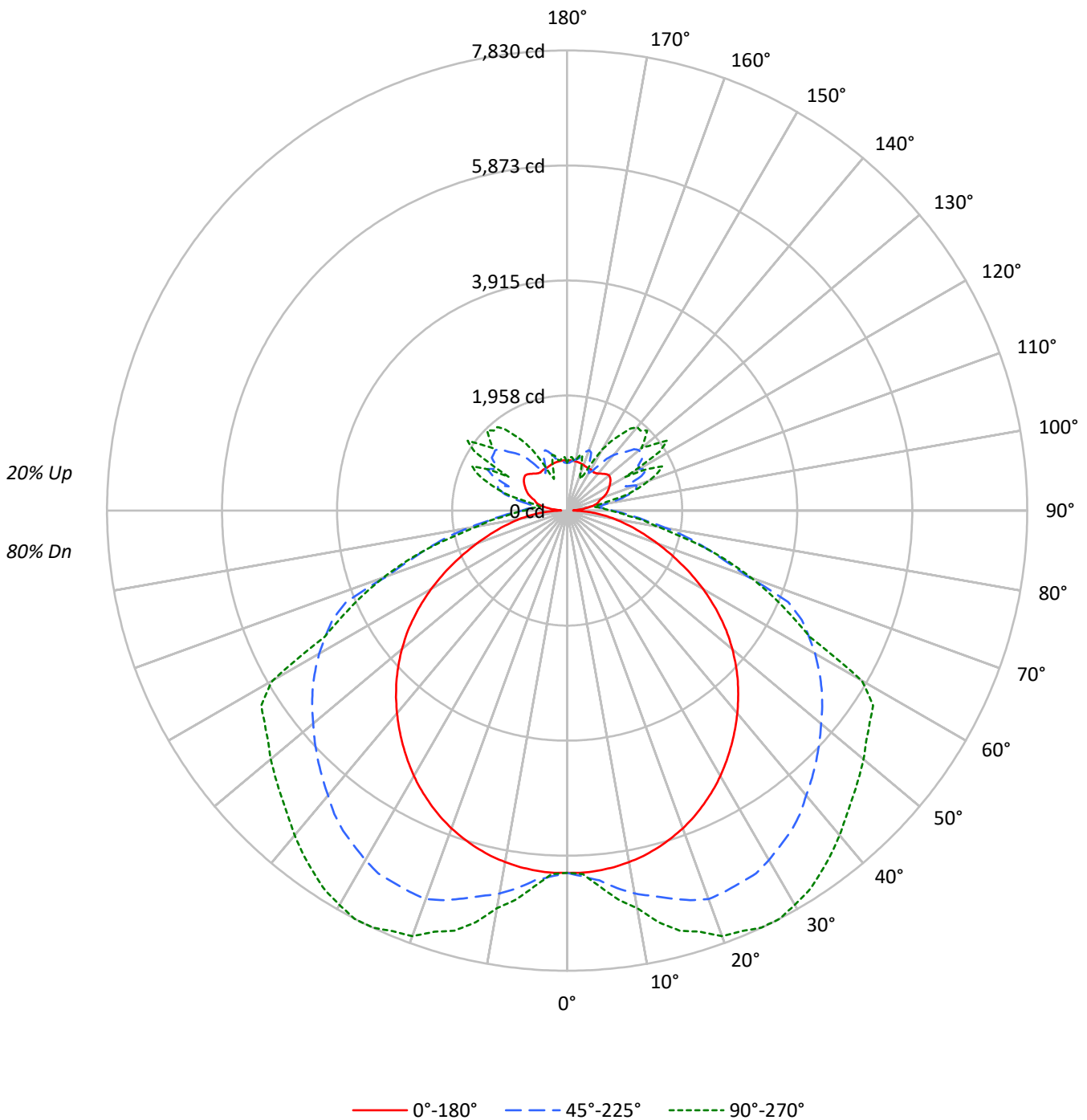
Lumens per Lamp: N/A
Luminaire Lumens: 32593.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.73 / 1.68
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80
1	103	98	93	89	98	93	89	85	85	82	79	78	75	73	71	69	67	64
2	93	84	77	71	88	80	74	68	73	68	64	67	63	59	61	58	55	52
3	84	73	65	58	80	70	62	56	64	58	52	59	53	49	53	49	46	42
4	76	64	55	48	73	61	53	47	56	49	44	52	46	41	47	42	38	36
5	70	57	48	41	66	54	46	40	50	43	37	46	40	35	42	37	33	30
6	64	51	42	35	61	49	40	34	45	38	32	41	35	30	38	33	29	26
7	59	46	37	31	56	44	36	30	41	33	28	37	31	27	34	29	25	23
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20
9	51	38	30	24	49	36	29	23	34	27	22	31	25	21	29	24	20	18
10	48	35	27	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8844	8844	8844
5°	8821	9010	9162
10°	8771	9451	9816
15°	8707	9847	10674
20°	8624	10313	11312
25°	8516	10495	11785
30°	8392	10669	12064
35°	8236	10780	12226
40°	8084	10810	12359
45°	7924	10915	12565
50°	7715	11076	12979
55°	7430	11355	13576
60°	7032	11656	13949
65°	6528	12001	11500
70°	5996	10366	10681
75°	5553	9409	9407
80°	5211	8523	7826
85°	4788	8089	7592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	610.1	1.9
10°-20°	1916.5	5.9
20°-30°	3159.1	9.7
30°-40°	4032.3	12.4
40°-50°	4457.0	13.7
50°-60°	4506.7	13.8
60°-70°	3738.0	11.5
70°-80°	2376.2	7.3
80°-90°	1144.0	3.5
90°-100°	601.0	1.8
100°-110°	992.4	3.0
110°-120°	1254.4	3.8
120°-130°	1277.3	3.9
130°-140°	1071.7	3.3
140°-150°	703.4	2.2
150°-160°	407.5	1.3
160°-170°	264.3	0.8
170°-180°	81.2	0.2
0°-30°	5685.7	17.4
0°-40°	9718.0	29.8
0°-60°	18681.8	57.3
0°-90°	25939.9	79.6
90°-120°	2847.7	8.7
90°-150°	5900.1	18.1
90°-180°	6653.0	20.4
0°-180°	32593.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6162	6162	6162	6162	6162	
5°	6150	6236	6317	6401	6421	585
15°	5942	6316	6832	7254	7398	1677
25°	5508	6116	6984	7595	7827	2538
35°	4872	5614	6650	7354	7521	3049
45°	4107	4862	5998	6713	6878	3166
55°	3190	4058	5286	6029	6286	2847
65°	2137	3207	4409	4136	4193	2120
75°	1196	2303	2428	2444	2400	1274
85°	464	1027	1139	1066	1047	449
90°	103	656	765	736	724	81
95°	226	482	559	565	562	222
105°	550	864	1105	1094	1056	575
115°	756	1097	1396	1600	1781	744
125°	900	1045	1567	1785	2070	800
135°	883	850	1417	1793	1926	684
145°	792	1005	944	1371	1565	504
155°	807	942	900	744	677	375
165°	839	890	983	1061	983	237
175°	856	858	840	786	914	81
180°	813	813	813	813	813	



TEST NUMBER: P236582

CATALOG NUMBER: SKB4-LD5-36-W-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°	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2
2.5°	6167.5	6164.9	6183.4	6194.0	6209.8	6225.7	6225.7	6223.0	6223.0	6232.3	6224.4
5°	6150.4	6154.3	6184.7	6201.9	6228.3	6244.2	6246.8	6260.0	6275.9	6316.9	6339.3
7.5°	6118.6	6129.2	6164.9	6182.1	6219.1	6262.7	6311.6	6361.8	6421.3	6478.1	6504.5
10°	6073.7	6090.9	6126.6	6158.3	6229.6	6327.4	6401.4	6460.9	6532.3	6616.8	6673.7
12.5°	6016.9	6039.3	6080.3	6138.5	6258.7	6364.4	6453.0	6545.5	6643.3	6717.3	6774.1
15°	5941.6	5968.0	6016.9	6113.3	6258.7	6373.7	6504.5	6594.4	6694.8	6832.3	6951.2
17.5°	5854.3	5880.8	5946.8	6076.3	6229.6	6376.3	6499.2	6619.5	6795.3	6951.2	7083.3
20°	5753.9	5786.9	5868.9	6012.9	6184.7	6339.3	6486.0	6671.0	6861.3	7035.8	7145.5
22.5°	5640.2	5675.9	5769.8	5929.7	6118.6	6277.2	6482.1	6676.3	6885.1	7018.6	7160.0
25°	5508.1	5546.4	5653.5	5823.9	6019.5	6212.5	6446.4	6660.5	6809.8	6984.2	7179.8
27.5°	5366.7	5401.0	5516.0	5699.7	5905.9	6134.5	6384.3	6552.1	6741.1	6960.4	7128.3
30°	5216.0	5247.8	5370.7	5558.3	5779.0	6035.4	6261.4	6427.9	6675.0	6866.6	7043.7
32.5°	5046.9	5090.5	5208.1	5402.4	5632.3	5899.3	6096.2	6322.1	6554.7	6754.3	6975.0
35°	4872.4	4917.4	5035.0	5235.9	5489.6	5739.4	5936.3	6176.8	6412.0	6649.9	6857.4
37.5°	4691.4	4737.6	4852.6	5064.1	5315.2	5547.7	5783.0	6007.6	6273.3	6507.2	6689.5
40°	4503.7	4548.7	4666.3	4885.7	5139.4	5358.8	5607.2	5846.4	6122.6	6328.8	6533.6
42.5°	4309.5	4353.1	4476.0	4705.9	4939.8	5176.4	5424.8	5687.8	5945.5	6167.5	6367.1
45°	4107.3	4152.2	4281.7	4520.9	4735.0	4988.7	5251.7	5518.7	5775.0	5998.4	6191.3
47.5°	3893.2	3942.1	4076.9	4314.8	4526.2	4795.8	5070.7	5338.9	5601.9	5823.9	6026.1
50°	3669.9	3726.7	3868.1	4103.3	4322.7	4604.2	4884.3	5157.9	5427.5	5642.9	5858.3
52.5°	3438.6	3504.7	3668.5	3890.6	4117.9	4408.6	4698.0	4976.8	5249.1	5471.1	5682.5
55°	3190.1	3269.4	3461.1	3664.6	3911.7	4205.1	4502.4	4790.5	5062.7	5286.1	5496.2
57.5°	2933.8	3028.9	3223.2	3436.0	3697.6	4001.6	4304.2	4597.6	4868.5	5083.9	5299.3
60°	2670.8	2780.5	2977.4	3206.0	3482.2	3792.8	4103.3	4390.1	4655.7	4872.4	5070.7
62.5°	2403.8	2526.7	2742.2	2980.0	3268.1	3578.7	3893.2	4181.3	4429.7	4633.2	4850.0
65°	2136.9	2274.3	2514.9	2755.4	3050.1	3364.6	3668.5	3943.4	4182.6	4408.6	4601.5
67.5°	1877.9	2039.1	2283.6	2537.3	2833.3	3143.9	3434.6	3700.3	3950.0	4070.3	3833.7
70°	1633.4	1815.8	2052.3	2321.9	2617.9	2911.3	3191.5	3458.4	3502.0	3253.6	3188.8
72.5°	1406.1	1585.8	1835.6	2114.4	2394.6	2670.8	2952.3	2981.3	2799.0	2795.0	2789.7
75°	1196.0	1375.7	1632.1	1907.0	2164.6	2440.8	2491.1	2411.8	2421.0	2427.6	2417.1
77.5°	1001.7	1181.4	1437.8	1691.5	1944.0	2043.1	2028.5	2070.8	2080.1	2077.4	2056.3
80°	816.7	992.5	1234.3	1474.8	1608.3	1644.0	1714.0	1752.3	1744.4	1706.1	1641.3
82.5°	638.3	802.2	1025.5	1185.4	1260.7	1353.2	1408.7	1412.7	1394.2	1369.1	1344.0
85°	463.9	603.9	770.4	892.0	991.1	1062.5	1128.6	1166.9	1165.6	1139.1	1104.8
87.5°	281.5	383.2	526.0	664.7	777.1	859.0	917.1	948.9	950.2	935.6	913.2
90°	103.1	203.5	363.4	503.5	617.1	695.1	751.9	775.7	774.4	765.2	744.0
92.5°	101.8	171.8	305.3	424.2	515.4	593.4	650.2	681.9	687.2	679.3	662.1
95°	226.0	255.1	333.0	403.1	459.9	503.5	536.5	549.8	552.4	559.0	556.4
97.5°	326.4	358.1	424.2	502.2	565.6	603.9	597.3	578.8	561.6	537.9	516.7
100°	424.2	465.2	520.7	602.6	680.6	734.8	767.8	787.6	762.5	696.4	634.3
102.5°	511.4	565.6	626.4	700.4	777.1	843.1	897.3	937.0	948.9	942.2	927.7
105°	549.8	617.1	670.0	765.2	844.5	884.1	948.9	1041.4	1094.2	1104.8	1108.8
107.5°	578.8	662.1	716.3	818.0	915.8	984.5	972.6	1034.7	1165.6	1230.3	1264.7
110°	647.5	732.1	771.8	873.5	987.2	1029.5	1127.3	1079.7	1053.3	1255.4	1358.5



TEST NUMBER: P236582

CATALOG NUMBER: SKB4-LD5-36-W-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°	709.7	774.4	808.8	896.0	1021.5	1095.5	1157.7	1276.6	1223.7	1074.4	1192.0
115°	755.9	815.4	835.2	898.6	1032.1	1161.6	1196.0	1275.3	1412.7	1395.5	1231.7
117.5°	795.6	857.7	876.2	888.1	1030.8	1176.2	1268.7	1280.6	1366.5	1534.3	1577.9
120°	832.6	896.0	930.3	870.9	1036.1	1176.2	1312.3	1382.3	1363.8	1416.7	1597.7
122.5°	868.2	927.7	1007.0	865.6	1005.7	1159.0	1316.2	1419.3	1481.4	1433.8	1448.4
125°	900.0	946.2	1055.9	902.6	944.9	1144.4	1284.5	1449.7	1513.1	1567.3	1525.0
127.5°	921.1	952.8	1069.1	962.1	886.7	1094.2	1248.8	1402.1	1538.2	1576.6	1638.7
130°	931.7	956.8	1065.1	1021.5	843.1	1003.0	1207.9	1329.4	1482.7	1596.4	1630.8
132.5°	914.5	935.6	1037.4	1073.1	855.0	886.7	1115.4	1271.3	1375.7	1547.5	1654.5
135°	882.8	905.2	1000.4	1088.9	903.9	796.9	981.9	1185.4	1304.3	1416.7	1580.5
137.5°	852.4	873.5	958.1	1070.4	968.7	777.1	851.1	1065.1	1225.0	1328.1	1427.2
140°	822.0	844.5	911.8	1029.5	1018.9	824.6	767.8	919.8	1103.5	1236.9	1326.8
142.5°	802.2	824.6	873.5	977.9	1045.3	917.1	758.6	792.9	947.5	1111.4	1227.7
145°	791.6	811.4	844.5	930.3	1025.5	984.5	811.4	734.8	807.4	943.6	1079.7
147.5°	799.5	811.4	829.9	884.1	991.1	1033.4	923.7	779.7	736.1	799.5	905.2
150°	806.1	816.7	833.9	861.6	956.8	1024.2	1025.5	884.1	778.4	736.1	774.4
152.5°	802.2	818.0	847.1	869.6	933.0	1012.3	1057.2	1011.0	882.8	788.9	742.7
155°	807.4	819.3	847.1	868.2	905.2	979.2	1040.0	1065.1	1025.5	900.0	822.0
157.5°	815.4	825.9	847.1	865.6	888.1	935.6	1004.4	1053.3	1082.3	1067.8	962.1
160°	823.3	832.6	851.1	868.2	881.5	909.2	959.4	1024.2	1066.5	1094.2	1096.9
162.5°	831.2	837.8	856.3	872.2	884.1	898.6	922.4	967.4	1016.2	1048.0	1078.4
165°	839.2	844.5	859.0	873.5	886.7	893.3	903.9	921.1	950.2	983.2	1008.3
167.5°	844.5	847.1	859.0	872.2	882.8	889.4	893.3	900.0	903.9	910.5	921.1
170°	848.4	851.1	859.0	868.2	874.8	881.5	882.8	885.4	886.7	881.5	870.9
172.5°	852.4	853.7	857.7	863.0	866.9	869.6	870.9	868.2	868.2	863.0	851.1
175°	856.3	856.3	859.0	857.7	857.7	857.7	855.0	851.1	845.8	840.5	828.6
177.5°	856.3	856.3	857.7	856.3	853.7	849.7	844.5	835.2	827.3	814.1	803.5
180°	812.7	812.7	812.7	812.7	812.7	812.7	812.7	812.7	812.7	812.7	812.7



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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2	6162.2
2.5°	6216.4	6200.6	6192.6	6205.9	6231.0	6240.2	6223.0	6191.3
5°	6367.1	6376.3	6384.3	6418.6	6450.3	6464.9	6447.7	6421.3
7.5°	6541.5	6561.3	6586.5	6636.7	6688.2	6706.7	6692.2	6677.6
10°	6725.2	6743.7	6768.8	6813.8	6865.3	6885.1	6878.5	6867.9
12.5°	6861.3	6931.4	6994.8	7071.4	7165.3	7187.7	7186.4	7173.2
15°	7062.2	7128.3	7207.6	7301.4	7386.0	7412.4	7413.7	7397.9
17.5°	7210.2	7276.3	7318.6	7393.9	7506.2	7536.6	7527.4	7512.8
20°	7249.9	7333.1	7438.8	7559.1	7659.5	7696.5	7707.1	7705.8
22.5°	7318.6	7432.2	7543.2	7639.7	7720.3	7749.4	7756.0	7746.7
25°	7334.4	7420.3	7535.3	7655.6	7761.3	7808.9	7830.0	7827.4
27.5°	7272.3	7396.5	7553.8	7684.6	7781.1	7822.1	7831.3	7830.0
30°	7235.3	7376.7	7518.1	7615.9	7684.6	7723.0	7740.1	7746.7
32.5°	7157.3	7268.4	7404.5	7523.4	7600.1	7637.1	7654.2	7663.5
35°	7008.0	7149.4	7297.4	7409.8	7469.2	7498.3	7504.9	7520.8
37.5°	6871.9	7018.6	7150.7	7245.9	7305.4	7342.4	7359.5	7375.4
40°	6714.6	6848.1	6989.5	7096.6	7157.3	7186.4	7201.0	7211.5
42.5°	6540.2	6693.5	6836.2	6930.0	6978.9	7009.3	7033.1	7034.4
45°	6380.3	6532.3	6663.1	6762.2	6819.0	6856.0	6879.8	6878.5
47.5°	6224.4	6367.1	6500.6	6601.0	6659.1	6700.1	6722.6	6730.5
50°	6051.2	6199.2	6334.0	6434.5	6497.9	6546.8	6571.9	6582.5
52.5°	5880.8	6026.1	6159.6	6270.6	6344.6	6389.5	6412.0	6418.6
55°	5691.8	5839.8	5969.3	6089.6	6179.4	6237.6	6277.2	6286.5
57.5°	5489.6	5635.0	5786.9	5921.7	6031.4	6110.7	6155.6	6172.8
60°	5271.5	5439.4	5613.8	5772.4	5825.3	5833.2	5794.9	5794.9
62.5°	5073.3	5197.5	5152.6	4975.5	4794.5	4736.3	4702.0	4651.7
65°	4571.1	4276.4	4125.8	4146.9	4176.0	4193.2	4198.5	4193.2
67.5°	3663.3	3639.5	3684.4	3720.1	3734.6	3759.7	3762.4	3761.0
70°	3206.0	3210.0	3258.9	3290.6	3305.1	3324.9	3324.9	3322.3
72.5°	2814.8	2825.4	2858.4	2878.3	2882.2	2886.2	2890.2	2875.6
75°	2422.3	2430.3	2438.2	2450.1	2423.7	2426.3	2406.5	2399.9
77.5°	2033.8	2019.3	1988.9	1959.8	1922.8	1930.7	1907.0	1920.2
80°	1613.6	1603.0	1587.1	1562.0	1536.9	1542.2	1536.9	1543.5
82.5°	1341.3	1349.3	1345.3	1345.3	1328.1	1333.4	1317.6	1324.2
85°	1088.9	1073.1	1067.8	1063.8	1050.6	1053.3	1040.0	1046.6
87.5°	905.2	900.0	900.0	901.3	897.3	896.0	886.7	890.7
90°	738.7	736.1	736.1	736.1	734.8	730.8	720.2	724.2
92.5°	656.8	651.5	650.2	650.2	648.9	646.2	639.6	640.9
95°	559.0	561.6	564.3	565.6	565.6	564.3	557.7	561.6
97.5°	496.9	482.4	478.4	474.4	471.8	466.5	463.9	463.9
100°	590.7	569.6	553.7	543.1	533.9	526.0	522.0	514.1
102.5°	882.8	859.0	815.4	765.2	733.4	709.7	705.7	688.5
105°	1103.5	1100.8	1095.5	1091.6	1086.3	1079.7	1075.7	1055.9
107.5°	1272.6	1284.5	1285.8	1285.8	1279.2	1280.6	1279.2	1270.0
110°	1410.1	1445.7	1469.5	1486.7	1490.7	1488.0	1489.4	1478.8



TEST NUMBER: P236582

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1449.7	1547.5	1596.4	1633.4	1657.2	1667.8	1670.4	1665.1
115°	1110.1	1260.7	1529.0	1671.7	1743.1	1773.5	1784.1	1781.4
117.5°	1489.4	1279.2	1149.7	1151.0	1244.9	1362.5	1459.0	1513.1
120°	1725.9	1723.3	1669.1	1560.7	1378.3	1239.6	1174.8	1145.8
122.5°	1603.0	1785.4	1875.2	1909.6	1909.6	1895.1	1891.1	1867.3
125°	1480.1	1554.1	1703.4	1867.3	1984.9	2040.4	2062.9	2069.5
127.5°	1628.1	1566.0	1568.6	1612.3	1684.9	1743.1	1802.6	1843.5
130°	1707.4	1773.5	1725.9	1674.4	1650.6	1642.6	1645.3	1649.3
132.5°	1695.5	1741.8	1822.4	1876.6	1868.6	1840.9	1810.5	1789.3
135°	1690.2	1741.8	1776.1	1809.2	1862.0	1895.1	1914.9	1925.5
137.5°	1583.2	1696.8	1766.9	1810.5	1839.6	1846.2	1844.8	1846.2
140°	1415.3	1539.6	1663.8	1731.2	1794.6	1836.9	1848.8	1852.8
142.5°	1318.9	1385.0	1469.5	1555.4	1637.4	1706.1	1745.7	1752.3
145°	1205.2	1283.2	1346.6	1395.5	1433.8	1481.4	1535.6	1564.7
147.5°	1036.1	1147.1	1227.7	1281.9	1321.5	1353.2	1388.9	1399.5
150°	855.0	952.8	1041.4	1118.0	1169.5	1202.6	1221.1	1203.9
152.5°	741.4	787.6	853.7	910.5	947.5	984.5	950.2	931.7
155°	762.5	730.8	730.8	757.2	773.1	741.4	699.1	676.6
157.5°	885.4	819.3	762.5	728.2	693.8	613.2	589.4	584.1
160°	1062.5	960.7	897.3	836.5	740.1	688.5	658.1	648.9
162.5°	1095.5	1095.5	1078.4	1037.4	939.6	872.2	833.9	820.7
165°	1034.7	1054.6	1067.8	1053.3	1030.8	1005.7	988.5	983.2
167.5°	939.6	964.7	977.9	980.6	996.4	988.5	958.1	952.8
170°	861.6	864.3	872.2	878.8	905.2	914.5	898.6	869.6
172.5°	833.9	824.6	818.0	823.3	843.1	869.6	864.3	865.6
175°	811.4	790.3	781.0	791.6	812.7	851.1	890.7	914.5
177.5°	786.3	759.9	748.0	758.6	781.0	823.3	890.7	911.8
180°	812.7	812.7	812.7	812.7	812.7	812.7	812.7	812.7

(END OF REPORT)