

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: P236579

Luminaire Tested: **SKB4-LD5-30-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: P236579
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-LD5-30-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

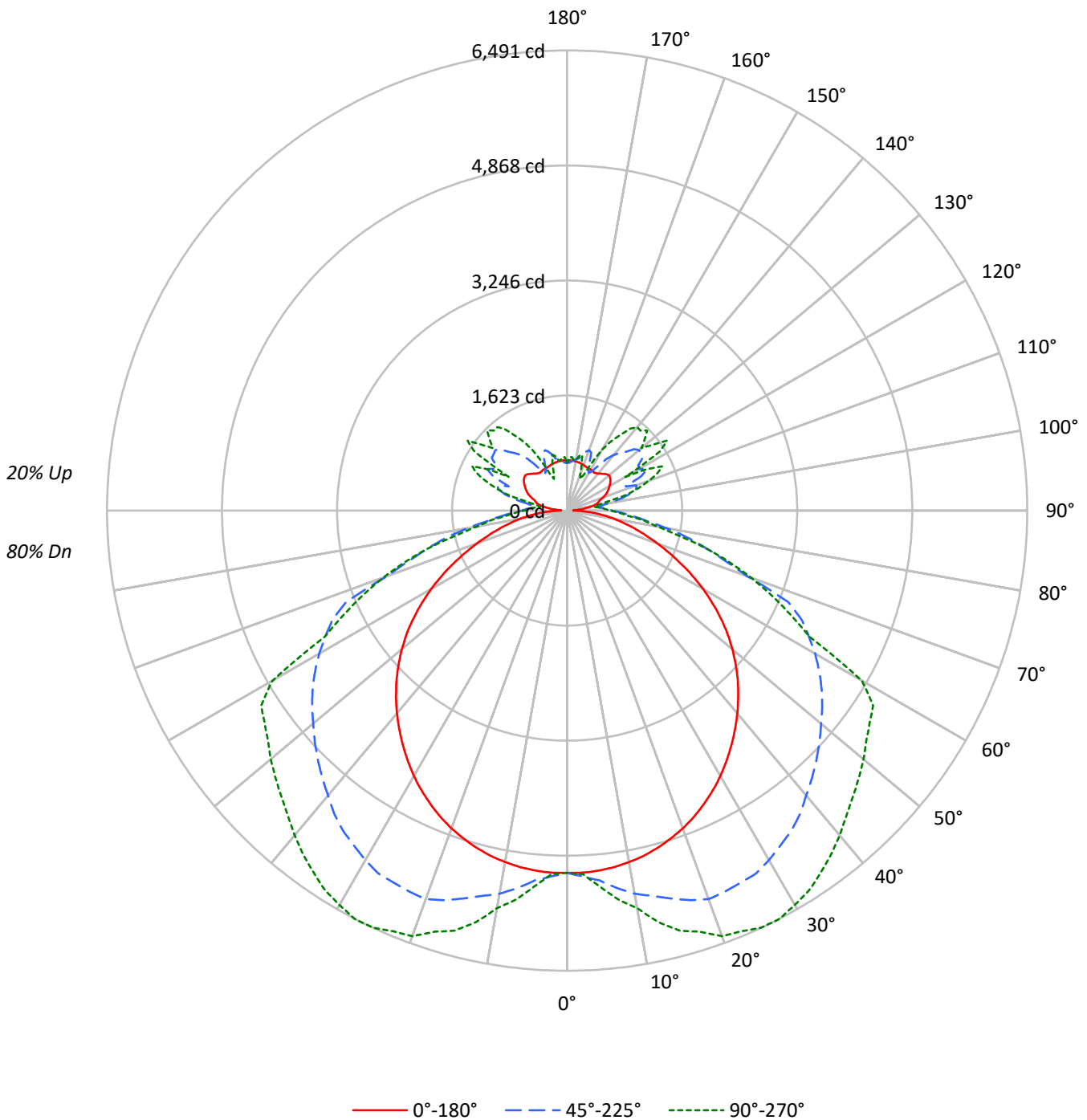
Lumens per Lamp: N/A
Luminaire Lumens: 27020.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.73 / 1.68
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 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	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°	7332	7332	7332
5°	7312	7469	7595
10°	7271	7835	8138
15°	7218	8163	8849
20°	7150	8549	9377
25°	7060	8701	9770
30°	6957	8844	10001
35°	6828	8937	10135
40°	6702	8962	10245
45°	6569	9049	10417
50°	6396	9182	10759
55°	6159	9414	11254
60°	5829	9663	11564
65°	5411	9949	9533
70°	4971	8594	8854
75°	4603	7800	7798
80°	4320	7066	6488
85°	3969	6706	6294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	505.8	1.9
10°-20°	1588.8	5.9
20°-30°	2618.9	9.7
30°-40°	3342.8	12.4
40°-50°	3694.9	13.7
50°-60°	3736.1	13.8
60°-70°	3098.8	11.5
70°-80°	1969.9	7.3
80°-90°	948.4	3.5
90°-100°	498.2	1.8
100°-110°	822.7	3.0
110°-120°	1039.9	3.8
120°-130°	1058.9	3.9
130°-140°	888.4	3.3
140°-150°	583.2	2.2
150°-160°	337.8	1.3
160°-170°	219.1	0.8
170°-180°	67.3	0.2
0°-30°	4713.5	17.4
0°-40°	8056.4	29.8
0°-60°	15487.4	57.3
0°-90°	21504.5	79.6
90°-120°	2360.8	8.7
90°-150°	4891.2	18.1
90°-180°	5515.0	20.4
0°-180°	27020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5109	5109	5109	5109	5109	
5°	5099	5170	5237	5307	5323	485
15°	4926	5236	5664	6014	6133	1390
25°	4566	5070	5790	6297	6489	2104
35°	4039	4654	5513	6096	6235	2528
45°	3405	4031	4973	5565	5702	2624
55°	2645	3364	4382	4998	5212	2360
65°	1772	2659	3655	3429	3476	1758
75°	992	1909	2012	2026	1990	1056
85°	384	851	944	884	868	372
90°	86	544	634	610	600	67
95°	187	399	463	468	466	184
105°	456	716	916	907	875	477
115°	627	909	1157	1327	1477	616
125°	746	866	1299	1480	1716	663
135°	732	705	1174	1486	1596	567
145°	656	833	782	1137	1297	418
155°	669	781	746	617	561	311
165°	696	738	815	879	815	197
175°	710	711	697	652	758	67
180°	674	674	674	674	674	



TEST NUMBER: P236579

CATALOG NUMBER: SKB4-LD5-30-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°	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6
2.5°	5113.0	5110.8	5126.1	5134.9	5148.0	5161.2	5161.2	5159.0	5159.0	5166.6	5160.1
5°	5098.7	5102.0	5127.2	5141.4	5163.4	5176.5	5178.7	5189.6	5202.8	5236.8	5255.4
7.5°	5072.4	5081.2	5110.8	5125.0	5155.7	5191.8	5232.4	5274.0	5323.3	5370.4	5392.3
10°	5035.2	5049.4	5079.0	5105.3	5164.5	5245.5	5306.9	5356.2	5415.3	5485.4	5532.6
12.5°	4988.1	5006.7	5040.7	5088.9	5188.6	5276.2	5349.6	5426.3	5507.4	5568.7	5615.8
15°	4925.6	4947.5	4988.1	5068.0	5188.6	5283.9	5392.3	5466.8	5550.1	5664.0	5762.6
17.5°	4853.3	4875.2	4930.0	5037.4	5164.5	5286.1	5387.9	5487.6	5633.3	5762.6	5872.2
20°	4770.1	4797.4	4865.4	4984.8	5127.2	5255.4	5377.0	5530.4	5688.1	5832.7	5923.7
22.5°	4675.8	4705.4	4783.2	4915.8	5072.4	5203.9	5373.7	5534.7	5707.8	5818.5	5935.7
25°	4566.3	4598.0	4686.8	4828.1	4990.3	5150.2	5344.1	5521.6	5645.4	5790.0	5952.2
27.5°	4449.1	4477.5	4572.9	4725.1	4896.0	5085.6	5292.6	5431.8	5588.4	5770.3	5909.4
30°	4324.2	4350.5	4452.3	4607.9	4790.9	5003.4	5190.7	5328.8	5533.7	5692.5	5839.3
32.5°	4183.9	4220.1	4317.6	4478.6	4669.3	4890.6	5053.8	5241.1	5434.0	5599.4	5782.3
35°	4039.3	4076.6	4174.1	4340.6	4550.9	4758.0	4921.2	5120.6	5315.6	5512.8	5684.8
37.5°	3889.2	3927.6	4022.9	4198.2	4406.3	4599.1	4794.2	4980.4	5200.6	5394.5	5545.7
40°	3733.7	3770.9	3868.4	4050.3	4260.6	4442.5	4648.4	4846.7	5075.7	5246.6	5416.4
42.5°	3572.6	3608.8	3710.6	3901.3	4095.2	4291.3	4497.3	4715.3	4928.9	5113.0	5278.4
45°	3405.0	3442.2	3549.6	3747.9	3925.4	4135.7	4353.7	4575.0	4787.6	4972.7	5132.7
47.5°	3227.5	3268.0	3379.8	3577.0	3752.3	3975.8	4203.6	4426.0	4644.1	4828.1	4995.7
50°	3042.4	3089.5	3206.7	3401.7	3583.6	3816.9	4049.2	4276.0	4499.4	4678.0	4856.6
52.5°	2850.6	2905.4	3041.3	3225.3	3413.8	3654.8	3894.7	4125.9	4351.5	4535.6	4710.9
55°	2644.7	2710.4	2869.3	3038.0	3242.8	3486.1	3732.6	3971.4	4197.1	4382.2	4556.4
57.5°	2432.1	2511.0	2672.1	2848.4	3065.4	3317.3	3568.2	3811.4	4036.0	4214.6	4393.2
60°	2214.1	2305.0	2468.3	2657.8	2886.8	3144.2	3401.7	3639.4	3859.6	4039.3	4203.6
62.5°	1992.8	2094.7	2273.3	2470.5	2709.3	2966.8	3227.5	3466.3	3672.3	3841.0	4020.7
65°	1771.5	1885.5	2084.8	2284.2	2528.5	2789.3	3041.3	3269.1	3467.4	3654.8	3814.7
67.5°	1556.8	1690.4	1893.1	2103.5	2348.9	2606.3	2847.3	3067.6	3274.6	3374.3	3178.2
70°	1354.1	1505.3	1701.4	1924.9	2170.3	2413.5	2645.8	2867.1	2903.2	2697.3	2643.6
72.5°	1165.7	1314.7	1521.7	1752.9	1985.1	2214.1	2447.5	2471.6	2320.4	2317.1	2312.7
75°	991.5	1140.5	1353.0	1580.9	1794.5	2023.5	2065.1	1999.4	2007.1	2012.5	2003.8
77.5°	830.4	979.4	1192.0	1402.3	1611.6	1693.7	1681.7	1716.7	1724.4	1722.2	1704.7
80°	677.1	822.8	1023.2	1222.6	1333.3	1362.9	1420.9	1452.7	1446.1	1414.4	1360.7
82.5°	529.2	665.0	850.2	982.7	1045.2	1121.8	1167.9	1171.1	1155.8	1135.0	1114.2
85°	384.5	500.7	638.7	739.5	821.7	880.8	935.6	967.4	966.3	944.4	915.9
87.5°	233.4	317.7	436.0	551.1	644.2	712.1	760.3	786.6	787.7	775.7	757.0
90°	85.5	168.7	301.3	417.4	511.6	576.3	623.4	643.1	642.0	634.3	616.8
92.5°	84.4	142.4	253.1	351.7	427.3	491.9	539.0	565.3	569.7	563.1	548.9
95°	187.3	211.4	276.1	334.1	381.3	417.4	444.8	455.8	457.9	463.4	461.2
97.5°	270.6	296.9	351.7	416.3	468.9	500.7	495.2	479.9	465.6	445.9	428.4
100°	351.7	385.6	431.6	499.6	564.2	609.1	636.5	653.0	632.1	577.4	525.9
102.5°	424.0	468.9	519.3	580.6	644.2	699.0	743.9	776.7	786.6	781.1	769.1
105°	455.8	511.6	555.4	634.3	700.1	732.9	786.6	863.3	907.1	915.9	919.2
107.5°	479.9	548.9	593.8	678.1	759.2	816.2	806.3	857.8	966.3	1020.0	1048.4
110°	536.8	606.9	639.8	724.2	818.4	853.4	934.5	895.1	873.2	1040.8	1126.2



TEST NUMBER: P236579

CATALOG NUMBER: SKB4-LD5-30-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°	588.3	642.0	670.5	742.8	846.9	908.2	959.7	1058.3	1014.5	890.7	988.2
115°	626.7	676.0	692.4	745.0	855.6	963.0	991.5	1057.2	1171.1	1156.9	1021.1
117.5°	659.5	711.0	726.4	736.2	854.5	975.0	1051.7	1061.6	1132.8	1271.9	1308.1
120°	690.2	742.8	771.3	722.0	858.9	975.0	1087.9	1146.0	1130.6	1174.4	1324.5
122.5°	719.8	769.1	834.8	717.6	833.7	960.8	1091.2	1176.6	1228.1	1188.7	1200.7
125°	746.1	784.4	875.3	748.3	783.3	948.8	1064.9	1201.8	1254.4	1299.3	1264.3
127.5°	763.6	789.9	886.3	797.6	735.1	907.1	1035.3	1162.4	1275.2	1307.0	1358.5
130°	772.4	793.2	883.0	846.9	699.0	831.5	1001.3	1102.1	1229.2	1323.4	1351.9
132.5°	758.1	775.7	860.0	889.6	708.8	735.1	924.6	1053.9	1140.5	1282.9	1371.6
135°	731.8	750.5	829.3	902.7	749.4	660.6	814.0	982.7	1081.3	1174.4	1310.3
137.5°	706.6	724.2	794.3	887.4	803.0	644.2	705.5	883.0	1015.6	1101.0	1183.2
140°	681.4	700.1	755.9	853.4	844.7	683.6	636.5	762.5	914.8	1025.4	1099.9
142.5°	665.0	683.6	724.2	810.7	866.6	760.3	628.8	657.3	785.5	921.4	1017.8
145°	656.2	672.7	700.1	771.3	850.2	816.2	672.7	609.1	669.4	782.2	895.1
147.5°	662.8	672.7	688.0	732.9	821.7	856.7	765.8	646.4	610.2	662.8	750.5
150°	668.3	677.1	691.3	714.3	793.2	849.1	850.2	732.9	645.3	610.2	642.0
152.5°	665.0	678.1	702.3	720.9	773.5	839.2	876.4	838.1	731.8	654.0	615.7
155°	669.4	679.2	702.3	719.8	750.5	811.8	862.2	883.0	850.2	746.1	681.4
157.5°	676.0	684.7	702.3	717.6	736.2	775.7	832.6	873.2	897.3	885.2	797.6
160°	682.5	690.2	705.5	719.8	730.7	753.7	795.4	849.1	884.1	907.1	909.3
162.5°	689.1	694.6	709.9	723.1	732.9	745.0	764.7	801.9	842.5	868.8	894.0
165°	695.7	700.1	712.1	724.2	735.1	740.6	749.4	763.6	787.7	815.1	835.9
167.5°	700.1	702.3	712.1	723.1	731.8	737.3	740.6	746.1	749.4	754.8	763.6
170°	703.3	705.5	712.1	719.8	725.3	730.7	731.8	734.0	735.1	730.7	722.0
172.5°	706.6	707.7	711.0	715.4	718.7	720.9	722.0	719.8	719.8	715.4	705.5
175°	709.9	709.9	712.1	711.0	711.0	711.0	708.8	705.5	701.2	696.8	686.9
177.5°	709.9	709.9	711.0	709.9	707.7	704.4	700.1	692.4	685.8	674.9	666.1
180°	673.8	673.8	673.8	673.8	673.8	673.8	673.8	673.8	673.8	673.8	673.8



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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6	5108.6
2.5°	5153.5	5140.3	5133.8	5144.7	5165.5	5173.2	5159.0	5132.7
5°	5278.4	5286.1	5292.6	5321.1	5347.4	5359.5	5345.2	5323.3
7.5°	5423.0	5439.4	5460.3	5501.9	5544.6	5559.9	5547.9	5535.8
10°	5575.3	5590.6	5611.4	5648.7	5691.4	5707.8	5702.4	5693.6
12.5°	5688.1	5746.2	5798.8	5862.3	5940.1	5958.7	5957.6	5946.7
15°	5854.7	5909.4	5975.2	6052.9	6123.1	6145.0	6146.1	6132.9
17.5°	5977.4	6032.1	6067.2	6129.6	6222.8	6248.0	6240.3	6228.2
20°	6010.2	6079.2	6166.9	6266.6	6349.8	6380.5	6389.3	6388.2
22.5°	6067.2	6161.4	6253.4	6333.4	6400.2	6424.3	6429.8	6422.1
25°	6080.3	6151.5	6246.9	6346.6	6434.2	6473.6	6491.2	6489.0
27.5°	6028.8	6131.8	6262.2	6370.7	6450.6	6484.6	6492.3	6491.2
30°	5998.2	6115.4	6232.6	6313.7	6370.7	6402.4	6416.7	6422.1
32.5°	5933.5	6025.6	6138.4	6237.0	6300.5	6331.2	6345.5	6353.1
35°	5809.7	5927.0	6049.7	6142.8	6192.1	6216.2	6221.7	6234.8
37.5°	5696.9	5818.5	5928.1	6006.9	6056.2	6086.9	6101.2	6114.3
40°	5566.5	5677.2	5794.4	5883.1	5933.5	5957.6	5969.7	5978.4
42.5°	5421.9	5549.0	5667.3	5745.1	5785.6	5810.8	5830.5	5831.6
45°	5289.3	5415.3	5523.8	5606.0	5653.1	5683.7	5703.5	5702.4
47.5°	5160.1	5278.4	5389.0	5472.3	5520.5	5554.5	5573.1	5579.7
50°	5016.6	5139.3	5251.0	5334.3	5386.8	5427.4	5448.2	5457.0
52.5°	4875.2	4995.7	5106.4	5198.4	5259.8	5297.0	5315.6	5321.1
55°	4718.6	4841.3	4948.6	5048.3	5122.8	5171.0	5203.9	5211.6
57.5°	4550.9	4671.5	4797.4	4909.2	5000.1	5065.9	5103.1	5117.3
60°	4370.2	4509.3	4653.9	4785.4	4829.2	4835.8	4804.0	4804.0
62.5°	4205.8	4308.8	4271.6	4124.8	3974.7	3926.5	3898.0	3856.4
65°	3789.5	3545.2	3420.3	3437.9	3462.0	3476.2	3480.6	3476.2
67.5°	3036.9	3017.2	3054.4	3084.0	3096.0	3116.9	3119.0	3118.0
70°	2657.8	2661.1	2701.6	2727.9	2740.0	2756.4	2756.4	2754.2
72.5°	2333.5	2342.3	2369.7	2386.1	2389.4	2392.7	2396.0	2383.9
75°	2008.2	2014.7	2021.3	2031.2	2009.2	2011.4	1995.0	1989.5
77.5°	1686.1	1674.0	1648.8	1624.7	1594.0	1600.6	1580.9	1591.8
80°	1337.7	1328.9	1315.8	1294.9	1274.1	1278.5	1274.1	1279.6
82.5°	1112.0	1118.6	1115.3	1115.3	1101.0	1105.4	1092.3	1097.7
85°	902.7	889.6	885.2	881.9	871.0	873.2	862.2	867.7
87.5°	750.5	746.1	746.1	747.2	743.9	742.8	735.1	738.4
90°	612.4	610.2	610.2	610.2	609.1	605.8	597.1	600.4
92.5°	544.5	540.1	539.0	539.0	537.9	535.7	530.2	531.3
95°	463.4	465.6	467.8	468.9	468.9	467.8	462.3	465.6
97.5°	411.9	399.9	396.6	393.3	391.1	386.7	384.5	384.5
100°	489.7	472.2	459.0	450.3	442.6	436.0	432.7	426.2
102.5°	731.8	712.1	676.0	634.3	608.0	588.3	585.0	570.8
105°	914.8	912.6	908.2	904.9	900.5	895.1	891.8	875.3
107.5°	1055.0	1064.9	1066.0	1066.0	1060.5	1061.6	1060.5	1052.8
110°	1169.0	1198.5	1218.3	1232.5	1235.8	1233.6	1234.7	1225.9



TEST NUMBER: P236579

CATALOG NUMBER: SKB4-LD5-30-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°	1201.8	1282.9	1323.4	1354.1	1373.8	1382.6	1384.8	1380.4
115°	920.3	1045.2	1267.6	1385.9	1445.0	1470.2	1479.0	1476.8
117.5°	1234.7	1060.5	953.1	954.2	1032.0	1129.5	1209.5	1254.4
120°	1430.8	1428.6	1383.7	1293.9	1142.7	1027.6	973.9	949.8
122.5°	1328.9	1480.1	1554.6	1583.1	1583.1	1571.0	1567.7	1548.0
125°	1227.0	1288.4	1412.2	1548.0	1645.5	1691.5	1710.2	1715.6
127.5°	1349.7	1298.2	1300.4	1336.6	1396.8	1445.0	1494.3	1528.3
130°	1415.5	1470.2	1430.8	1388.1	1368.3	1361.8	1364.0	1367.3
132.5°	1405.6	1443.9	1510.8	1555.7	1549.1	1526.1	1500.9	1483.4
135°	1401.2	1443.9	1472.4	1499.8	1543.6	1571.0	1587.5	1596.2
137.5°	1312.5	1406.7	1464.8	1500.9	1525.0	1530.5	1529.4	1530.5
140°	1173.3	1276.3	1379.3	1435.2	1487.8	1522.8	1532.7	1536.0
142.5°	1093.4	1148.1	1218.3	1289.5	1357.4	1414.4	1447.2	1452.7
145°	999.1	1063.8	1116.4	1156.9	1188.7	1228.1	1273.0	1297.1
147.5°	858.9	950.9	1017.8	1062.7	1095.6	1121.8	1151.4	1160.2
150°	708.8	789.9	863.3	926.8	969.6	997.0	1012.3	998.1
152.5°	614.6	653.0	707.7	754.8	785.5	816.2	787.7	772.4
155°	632.1	605.8	605.8	627.8	640.9	614.6	579.5	560.9
157.5°	734.0	679.2	632.1	603.7	575.2	508.3	488.6	484.2
160°	880.8	796.5	743.9	693.5	613.5	570.8	545.6	537.9
162.5°	908.2	908.2	894.0	860.0	778.9	723.1	691.3	680.3
165°	857.8	874.3	885.2	873.2	854.5	833.7	819.5	815.1
167.5°	778.9	799.8	810.7	812.9	826.0	819.5	794.3	789.9
170°	714.3	716.5	723.1	728.5	750.5	758.1	745.0	720.9
172.5°	691.3	683.6	678.1	682.5	699.0	720.9	716.5	717.6
175°	672.7	655.1	647.5	656.2	673.8	705.5	738.4	758.1
177.5°	651.9	629.9	620.1	628.8	647.5	682.5	738.4	755.9
180°	673.8	673.8	673.8	673.8	673.8	673.8	673.8	673.8

(END OF REPORT)