

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: P236578

Luminaire Tested: **SKB4-LD5-30-W-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236578  
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-L840-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) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

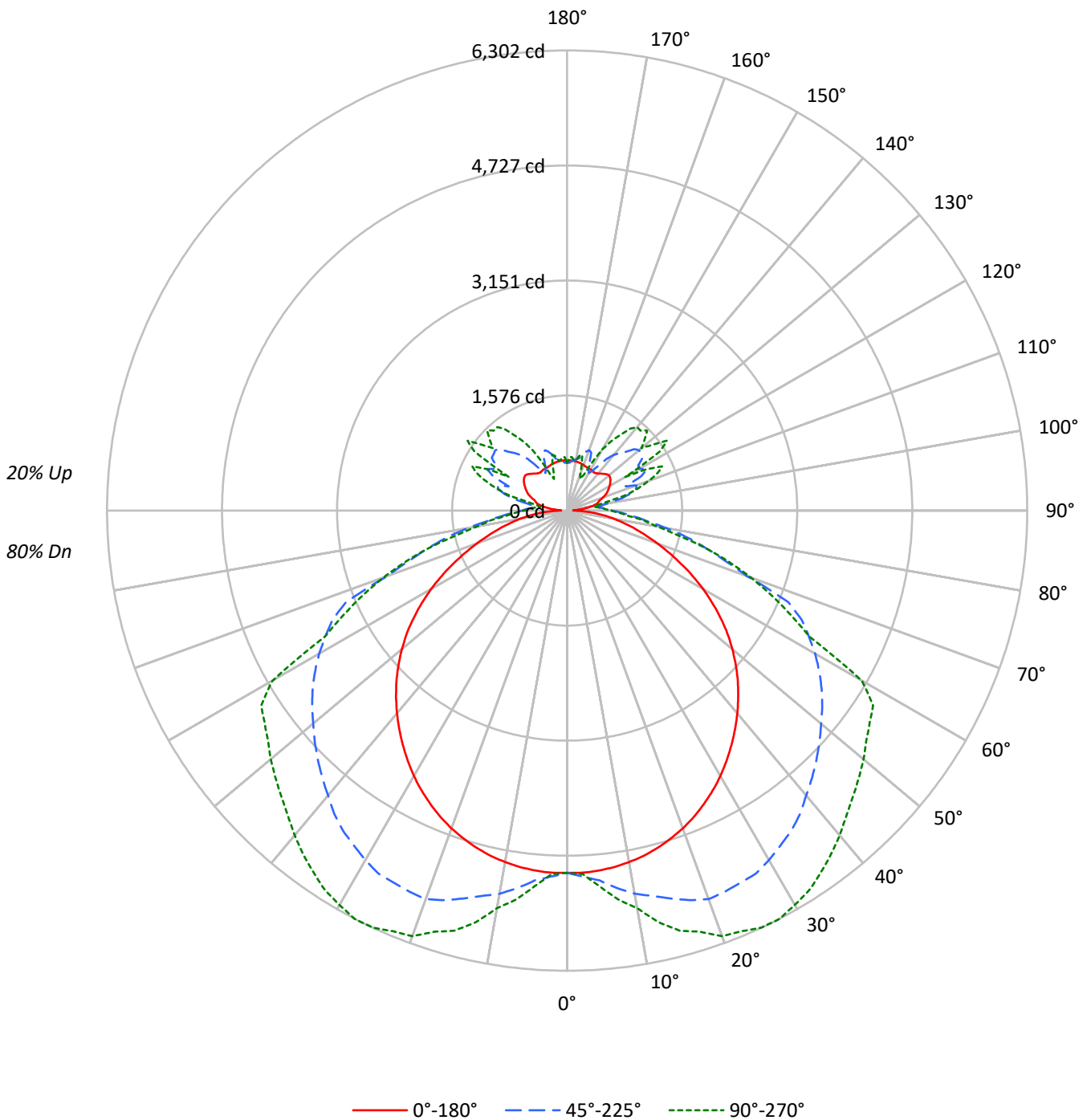
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26233.0 lumens  
Efficiency: N/A  
Efficacy: 100.7 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°	7118	7118	7118
5°	7099	7251	7374
10°	7059	7607	7901
15°	7008	7926	8591
20°	6941	8300	9104
25°	6854	8447	9485
30°	6754	8587	9710
35°	6629	8676	9840
40°	6507	8701	9947
45°	6377	8785	10113
50°	6209	8915	10446
55°	5980	9140	10927
60°	5660	9382	11227
65°	5254	9659	9256
70°	4826	8343	8596
75°	4469	7573	7571
80°	4194	6860	6299
85°	3853	6511	6111



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	491.1	1.9
10°-20°	1542.5	5.9
20°-30°	2542.6	9.7
30°-40°	3245.5	12.4
40°-50°	3587.3	13.7
50°-60°	3627.3	13.8
60°-70°	3008.5	11.5
70°-80°	1912.5	7.3
80°-90°	920.7	3.5
90°-100°	483.7	1.8
100°-110°	798.7	3.0
110°-120°	1009.6	3.8
120°-130°	1028.0	3.9
130°-140°	862.6	3.3
140°-150°	566.2	2.2
150°-160°	328.0	1.3
160°-170°	212.7	0.8
170°-180°	65.3	0.2
0°-30°	4576.2	17.4
0°-40°	7821.7	29.8
0°-60°	15036.3	57.3
0°-90°	20878.2	79.6
90°-120°	2292.0	8.7
90°-150°	4748.8	18.1
90°-180°	5355.0	20.4
0°-180°	26233.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4960	4960	4960	4960	4960	
5°	4950	5019	5084	5152	5168	471
15°	4782	5084	5499	5839	5954	1350
25°	4433	4923	5621	6113	6300	2043
35°	3922	4519	5352	5919	6053	2454
45°	3306	3913	4828	5403	5536	2548
55°	2568	3266	4255	4853	5060	2292
65°	1720	2581	3548	3329	3375	1707
75°	963	1853	1954	1967	1932	1025
85°	373	826	917	858	842	362
90°	83	528	616	592	583	65
95°	182	388	450	455	452	178
105°	442	696	889	880	850	463
115°	608	883	1123	1288	1434	599
125°	724	841	1262	1437	1666	644
135°	710	684	1140	1443	1550	551
145°	637	809	759	1104	1259	406
155°	650	758	724	599	545	302
165°	675	716	791	854	791	191
175°	689	690	676	633	736	65
180°	654	654	654	654	654	



TEST NUMBER: P236578

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8
2.5°	4964.0	4961.9	4976.8	4985.3	4998.1	5010.8	5010.8	5008.7	5008.7	5016.2	5009.8
5°	4950.2	4953.4	4977.9	4991.7	5013.0	5025.7	5027.9	5038.5	5051.3	5084.2	5102.3
7.5°	4924.7	4933.2	4961.9	4975.7	5005.5	5040.6	5080.0	5120.4	5168.3	5214.0	5235.3
10°	4888.5	4902.3	4931.1	4956.6	5014.0	5092.7	5152.3	5200.2	5257.6	5325.7	5371.4
12.5°	4842.8	4860.9	4893.8	4940.6	5037.4	5122.5	5193.8	5268.2	5346.9	5406.5	5452.2
15°	4782.2	4803.4	4842.8	4920.4	5037.4	5130.0	5235.3	5307.6	5388.4	5499.1	5594.8
17.5°	4712.0	4733.2	4786.4	4890.6	5014.0	5132.1	5231.0	5327.8	5469.3	5594.8	5701.1
20°	4631.1	4657.7	4723.7	4839.6	4977.9	5102.3	5220.4	5369.3	5522.5	5662.9	5751.1
22.5°	4539.6	4568.4	4643.9	4772.6	4924.7	5052.3	5217.2	5373.5	5541.6	5649.0	5762.8
25°	4433.3	4464.1	4550.3	4687.5	4844.9	5000.2	5188.5	5360.8	5481.0	5621.4	5778.8
27.5°	4319.5	4347.1	4439.7	4587.5	4753.4	4937.4	5138.5	5273.6	5425.7	5602.2	5737.3
30°	4198.2	4223.7	4322.7	4473.7	4651.3	4857.7	5039.6	5173.6	5372.5	5526.7	5669.2
32.5°	4062.1	4097.2	4191.8	4348.2	4533.3	4748.1	4906.6	5088.5	5275.7	5436.3	5613.9
35°	3921.7	3957.8	4052.5	4214.2	4418.4	4619.4	4777.9	4971.5	5160.8	5352.3	5519.3
37.5°	3775.9	3813.2	3905.7	4075.9	4278.0	4465.2	4654.5	4835.3	5049.1	5237.4	5384.2
40°	3624.9	3661.1	3755.7	3932.3	4136.5	4313.1	4513.1	4705.6	4927.9	5093.8	5258.7
42.5°	3468.5	3503.7	3602.6	3787.6	3975.9	4166.3	4366.3	4577.9	4785.3	4964.0	5124.6
45°	3305.8	3342.0	3446.2	3638.7	3811.0	4015.3	4226.9	4441.8	4648.1	4827.9	4983.2
47.5°	3133.5	3172.9	3281.3	3472.8	3643.0	3860.0	4081.2	4297.1	4508.8	4687.5	4850.2
50°	2953.7	2999.5	3113.3	3302.6	3479.2	3705.7	3931.2	4151.4	4368.4	4541.8	4715.1
52.5°	2767.6	2820.8	2952.7	3131.4	3314.3	3548.3	3781.3	4005.7	4224.8	4403.5	4573.7
55°	2567.6	2631.5	2785.7	2949.5	3148.4	3384.5	3623.8	3855.7	4074.8	4254.6	4423.7
57.5°	2361.3	2437.9	2594.2	2765.5	2976.1	3220.7	3464.3	3700.4	3918.5	4091.8	4265.2
60°	2149.6	2237.9	2396.4	2580.4	2802.7	3052.7	3302.6	3533.4	3747.2	3921.7	4081.2
62.5°	1934.8	2033.7	2207.1	2398.5	2630.4	2880.4	3133.5	3365.4	3565.3	3729.1	3903.6
65°	1719.9	1830.5	2024.1	2217.7	2454.9	2708.0	2952.7	3173.9	3366.4	3548.3	3703.6
67.5°	1511.4	1641.2	1838.0	2042.2	2280.5	2530.4	2764.4	2978.2	3179.2	3276.0	3085.6
70°	1314.7	1461.4	1651.8	1868.8	2107.1	2343.2	2568.7	2783.6	2818.7	2618.7	2566.6
72.5°	1131.7	1276.4	1477.4	1701.8	1927.3	2149.6	2376.2	2399.6	2252.8	2249.6	2245.4
75°	962.6	1107.3	1313.6	1534.8	1742.3	1964.6	2005.0	1941.2	1948.6	1953.9	1945.4
77.5°	806.2	950.9	1157.2	1361.5	1564.6	1644.4	1632.7	1666.7	1674.2	1672.1	1655.0
80°	657.3	798.8	993.4	1187.0	1294.5	1323.2	1379.5	1410.4	1404.0	1373.2	1321.0
82.5°	513.7	645.6	825.4	954.1	1014.7	1089.2	1133.8	1137.0	1122.1	1101.9	1081.7
85°	373.3	486.1	620.1	718.0	797.7	855.2	908.4	939.2	938.1	916.9	889.2
87.5°	226.6	308.5	423.3	535.0	625.4	691.4	738.2	763.7	764.8	753.1	735.0
90°	83.0	163.8	292.5	405.2	496.7	559.5	605.2	624.4	623.3	615.9	598.8
92.5°	81.9	138.3	245.7	341.4	414.8	477.6	523.3	548.8	553.1	546.7	532.9
95°	181.9	205.3	268.0	324.4	370.1	405.2	431.8	442.5	444.6	449.9	447.8
97.5°	262.7	288.2	341.4	404.2	455.2	486.1	480.8	465.9	452.0	432.9	415.9
100°	341.4	374.4	419.1	485.0	547.8	591.4	618.0	633.9	613.7	560.5	510.6
102.5°	411.6	455.2	504.2	563.7	625.4	678.6	722.2	754.1	763.7	758.4	746.7
105°	442.5	496.7	539.3	615.9	679.7	711.6	763.7	838.2	880.7	889.2	892.4
107.5°	465.9	532.9	576.5	658.4	737.1	792.4	782.8	832.8	938.1	990.3	1017.9
110°	521.2	589.3	621.2	703.1	794.5	828.6	907.3	869.0	847.7	1010.5	1093.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	571.2	623.3	651.0	721.2	822.2	881.8	931.8	1027.5	984.9	864.7	959.4
115°	608.4	656.3	672.2	723.3	830.7	934.9	962.6	1026.4	1137.0	1123.2	991.3
117.5°	640.3	690.3	705.2	714.8	829.6	946.6	1021.1	1030.7	1099.8	1234.9	1270.0
120°	670.1	721.2	748.8	700.9	833.9	946.6	1056.2	1112.6	1097.7	1140.2	1285.9
122.5°	698.8	746.7	810.5	696.7	809.4	932.8	1059.4	1142.4	1192.3	1154.1	1165.8
125°	724.3	761.6	849.9	726.5	760.5	921.1	1033.9	1166.8	1217.9	1261.5	1227.4
127.5°	741.4	766.9	860.5	774.3	713.7	880.7	1005.1	1128.5	1238.1	1268.9	1318.9
130°	749.9	770.1	857.3	822.2	678.6	807.3	972.2	1070.0	1193.4	1284.9	1312.5
132.5°	736.0	753.1	835.0	863.7	688.2	713.7	897.7	1023.2	1107.3	1245.5	1331.7
135°	710.5	728.6	805.2	876.4	727.5	641.4	790.3	954.1	1049.8	1140.2	1272.1
137.5°	686.1	703.1	771.1	861.6	779.7	625.4	685.0	857.3	986.0	1069.0	1148.7
140°	661.6	679.7	733.9	828.6	820.1	663.7	618.0	740.3	888.1	995.6	1067.9
142.5°	645.6	663.7	703.1	787.1	841.3	738.2	610.5	638.2	762.6	894.5	988.1
145°	637.1	653.1	679.7	748.8	825.4	792.4	653.1	591.4	649.9	759.4	869.0
147.5°	643.5	653.1	668.0	711.6	797.7	831.8	743.5	627.6	592.5	643.5	728.6
150°	648.8	657.3	671.2	693.5	770.1	824.3	825.4	711.6	626.5	592.5	623.3
152.5°	645.6	658.4	681.8	699.9	750.9	814.8	850.9	813.7	710.5	635.0	597.8
155°	649.9	659.5	681.8	698.8	728.6	788.2	837.1	857.3	825.4	724.3	661.6
157.5°	656.3	664.8	681.8	696.7	714.8	753.1	808.4	847.7	871.1	859.4	774.3
160°	662.7	670.1	685.0	698.8	709.5	731.8	772.2	824.3	858.4	880.7	882.8
162.5°	669.0	674.4	689.2	702.0	711.6	723.3	742.4	778.6	817.9	843.5	867.9
165°	675.4	679.7	691.4	703.1	713.7	719.0	727.5	741.4	764.8	791.4	811.6
167.5°	679.7	681.8	691.4	702.0	710.5	715.8	719.0	724.3	727.5	732.9	741.4
170°	682.9	685.0	691.4	698.8	704.1	709.5	710.5	712.6	713.7	709.5	700.9
172.5°	686.1	687.1	690.3	694.6	697.8	699.9	700.9	698.8	698.8	694.6	685.0
175°	689.2	689.2	691.4	690.3	690.3	690.3	688.2	685.0	680.7	676.5	666.9
177.5°	689.2	689.2	690.3	689.2	687.1	683.9	679.7	672.2	665.8	655.2	646.7
180°	654.1	654.1	654.1	654.1	654.1	654.1	654.1	654.1	654.1	654.1	654.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8	4959.8
2.5°	5003.4	4990.6	4984.2	4994.9	5015.1	5022.5	5008.7	4983.2
5°	5124.6	5132.1	5138.5	5166.1	5191.7	5203.4	5189.5	5168.3
7.5°	5265.0	5281.0	5301.2	5341.6	5383.1	5398.0	5386.3	5374.6
10°	5412.9	5427.8	5448.0	5484.2	5525.6	5541.6	5536.3	5527.8
12.5°	5522.5	5578.8	5629.9	5691.6	5767.1	5785.2	5784.1	5773.5
15°	5684.1	5737.3	5801.1	5876.6	5944.7	5966.0	5967.1	5954.3
17.5°	5803.3	5856.4	5890.5	5951.1	6041.5	6066.0	6058.5	6046.8
20°	5835.2	5902.2	5987.3	6084.1	6164.9	6194.7	6203.2	6202.1
22.5°	5890.5	5981.9	6071.3	6148.9	6213.8	6237.2	6242.5	6235.1
25°	5903.2	5972.4	6064.9	6161.7	6246.8	6285.1	6302.1	6300.0
27.5°	5853.2	5953.2	6079.8	6185.1	6262.7	6295.7	6303.2	6302.1
30°	5823.5	5937.3	6051.1	6129.8	6185.1	6215.9	6229.8	6235.1
32.5°	5760.7	5850.1	5959.6	6055.3	6117.0	6146.8	6160.6	6168.1
35°	5640.5	5754.3	5873.5	5963.9	6011.7	6035.1	6040.4	6053.2
37.5°	5531.0	5649.0	5755.4	5832.0	5879.8	5909.6	5923.4	5936.2
40°	5404.4	5511.8	5625.6	5711.8	5760.7	5784.1	5795.8	5804.3
42.5°	5264.0	5387.4	5502.2	5577.8	5617.1	5641.6	5660.7	5661.8
45°	5135.3	5257.6	5362.9	5442.7	5488.4	5518.2	5537.3	5536.3
47.5°	5009.8	5124.6	5232.1	5312.9	5359.7	5392.7	5410.8	5417.1
50°	4870.4	4989.6	5098.1	5178.9	5229.9	5269.3	5289.5	5298.0
52.5°	4733.2	4850.2	4957.7	5047.0	5106.6	5142.7	5160.8	5166.1
55°	4581.1	4700.3	4804.5	4901.3	4973.6	5020.4	5052.3	5059.8
57.5°	4418.4	4535.4	4657.7	4766.2	4854.5	4918.3	4954.5	4968.3
60°	4242.9	4378.0	4518.4	4646.0	4688.6	4694.9	4664.1	4664.1
62.5°	4083.3	4183.3	4147.2	4004.6	3858.9	3812.1	3784.5	3744.0
65°	3679.2	3442.0	3320.7	3337.7	3361.1	3374.9	3379.2	3374.9
67.5°	2948.4	2929.3	2965.4	2994.2	3005.9	3026.1	3028.2	3027.1
70°	2580.4	2583.6	2623.0	2648.5	2660.2	2676.1	2676.1	2674.0
72.5°	2265.6	2274.1	2300.7	2316.6	2319.8	2323.0	2326.2	2314.5
75°	1949.7	1956.0	1962.4	1972.0	1950.7	1952.9	1936.9	1931.6
77.5°	1637.0	1625.3	1600.8	1577.4	1547.6	1554.0	1534.8	1545.5
80°	1298.7	1290.2	1277.4	1257.2	1237.0	1241.3	1237.0	1242.3
82.5°	1079.6	1086.0	1082.8	1082.8	1069.0	1073.2	1060.5	1065.8
85°	876.4	863.7	859.4	856.2	845.6	847.7	837.1	842.4
87.5°	728.6	724.3	724.3	725.4	722.2	721.2	713.7	716.9
90°	594.6	592.5	592.5	592.5	591.4	588.2	579.7	582.9
92.5°	528.6	524.4	523.3	523.3	522.3	520.1	514.8	515.9
95°	449.9	452.0	454.2	455.2	455.2	454.2	448.9	452.0
97.5°	399.9	388.2	385.0	381.8	379.7	375.5	373.3	373.3
100°	475.4	458.4	445.7	437.2	429.7	423.3	420.1	413.8
102.5°	710.5	691.4	656.3	615.9	590.3	571.2	568.0	554.2
105°	888.1	886.0	881.8	878.6	874.3	869.0	865.8	849.9
107.5°	1024.3	1033.9	1034.9	1034.9	1029.6	1030.7	1029.6	1022.2
110°	1134.9	1163.6	1182.8	1196.6	1199.8	1197.7	1198.7	1190.2





TEST NUMBER: P236578

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1166.8	1245.5	1284.9	1314.7	1333.8	1342.3	1344.4	1340.2
115°	893.5	1014.7	1230.6	1345.5	1402.9	1427.4	1435.9	1433.8
117.5°	1198.7	1029.6	925.4	926.4	1002.0	1096.6	1174.3	1217.9
120°	1389.1	1387.0	1343.4	1256.2	1109.4	997.7	945.6	922.2
122.5°	1290.2	1437.0	1509.3	1537.0	1537.0	1525.3	1522.1	1502.9
125°	1191.3	1250.8	1371.0	1502.9	1597.6	1642.3	1660.4	1665.7
127.5°	1310.4	1260.4	1262.5	1297.6	1356.1	1402.9	1450.8	1483.8
130°	1374.2	1427.4	1389.1	1347.6	1328.5	1322.1	1324.2	1327.4
132.5°	1364.7	1401.9	1466.8	1510.4	1504.0	1481.7	1457.2	1440.2
135°	1360.4	1401.9	1429.5	1456.1	1498.7	1525.3	1541.2	1549.7
137.5°	1274.2	1365.7	1422.1	1457.2	1480.6	1485.9	1484.8	1485.9
140°	1139.2	1239.1	1339.1	1393.4	1444.4	1478.5	1488.0	1491.2
142.5°	1061.5	1114.7	1182.8	1251.9	1317.9	1373.2	1405.1	1410.4
145°	970.0	1032.8	1083.9	1123.2	1154.1	1192.3	1236.0	1259.4
147.5°	833.9	923.2	988.1	1031.7	1063.6	1089.2	1117.9	1126.4
150°	688.2	766.9	838.2	899.8	941.3	967.9	982.8	969.0
152.5°	596.7	633.9	687.1	732.9	762.6	792.4	764.8	749.9
155°	613.7	588.2	588.2	609.5	622.2	596.7	562.7	544.6
157.5°	712.6	659.5	613.7	586.1	558.4	493.5	474.4	470.1
160°	855.2	773.3	722.2	673.3	595.6	554.2	529.7	522.3
162.5°	881.8	881.8	867.9	835.0	756.3	702.0	671.2	660.5
165°	832.8	848.8	859.4	847.7	829.6	809.4	795.6	791.4
167.5°	756.3	776.5	787.1	789.2	802.0	795.6	771.1	766.9
170°	693.5	695.6	702.0	707.3	728.6	736.0	723.3	699.9
172.5°	671.2	663.7	658.4	662.7	678.6	699.9	695.6	696.7
175°	653.1	636.1	628.6	637.1	654.1	685.0	716.9	736.0
177.5°	632.9	611.6	602.0	610.5	628.6	662.7	716.9	733.9
180°	654.1	654.1	654.1	654.1	654.1	654.1	654.1	654.1

(END OF REPORT)