

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: P236520

Luminaire Tested: **SKB4-LD5-36-N-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236520
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-L835-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) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

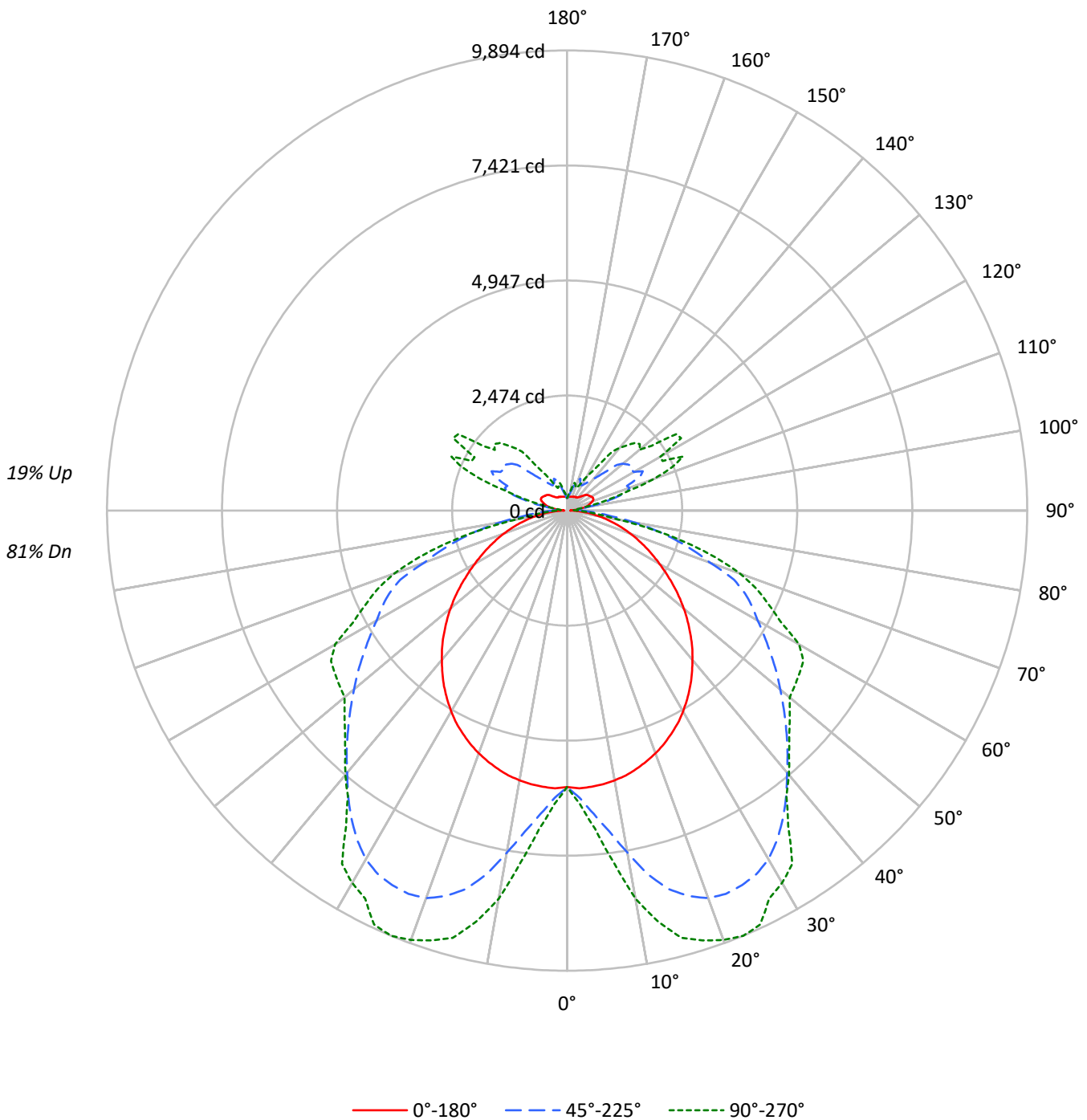
Lumens per Lamp: N/A
Luminaire Lumens: 33699.0 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.79 / 1.74
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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°	8532	8532	8532
5°	8548	9334	9794
10°	8502	10665	12114
15°	8427	12140	13722
20°	8326	12998	14423
25°	8188	13359	14788
30°	8018	13450	14398
35°	7798	13110	13474
40°	7527	12569	12715
45°	7232	12121	12340
50°	6882	11739	12315
55°	6471	11452	13168
60°	6040	11319	13865
65°	5672	11489	13119
70°	5305	10430	12690
75°	4886	9270	10339
80°	4409	7290	5783
85°	3729	4829	3731



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	645.8	1.9
10°-20°	2270.3	6.7
20°-30°	3821.3	11.3
30°-40°	4621.9	13.7
40°-50°	4703.3	14.0
50°-60°	4477.7	13.3
60°-70°	3794.6	11.3
70°-80°	2348.7	7.0
80°-90°	772.6	2.3
90°-100°	317.2	0.9
100°-110°	968.0	2.9
110°-120°	1572.5	4.7
120°-130°	1431.3	4.2
130°-140°	983.5	2.9
140°-150°	520.3	1.5
150°-160°	275.0	0.8
160°-170°	143.1	0.4
170°-180°	32.0	0.1
0°-30°	6737.4	20.0
0°-40°	11359.2	33.7
0°-60°	20540.2	61.0
0°-90°	27456.2	81.5
90°-120°	2857.6	8.5
90°-150°	5792.7	17.2
90°-180°	6243.0	18.5
0°-180°	33699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5945	5945	5945	5945	5945	
5°	5960	6211	6544	6749	6864	567
15°	5751	6846	8423	9208	9510	1622
25°	5296	7228	8890	9667	9822	2440
35°	4613	6648	8087	8366	8289	2882
45°	3748	5495	6661	6889	6756	2890
55°	2778	4230	5331	5938	6098	2486
65°	1857	3129	4220	4630	4784	1843
75°	1052	2061	2392	2630	2638	1117
85°	361	891	680	562	514	363
90°	69	498	323	252	219	58
95°	170	364	234	165	136	174
105°	486	858	1079	958	932	506
115°	620	1033	1732	2240	2748	604
125°	566	825	1682	2254	2864	507
135°	432	683	1197	1888	2052	342
145°	344	714	721	989	1210	220
155°	325	540	656	637	584	152
165°	309	385	552	648	618	88
175°	295	296	312	315	352	28
180°	273	273	273	273	273	



TEST NUMBER: P236520

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6
2.5°	5977.8	5957.2	5950.9	5982.5	6031.4	6055.1	6083.5	6107.1	6140.3	6179.7	6220.7
5°	5960.4	5954.1	5984.1	6064.5	6163.9	6258.6	6358.0	6414.8	6476.3	6544.1	6613.5
7.5°	5935.2	5947.8	6021.9	6160.8	6345.3	6447.9	6564.6	6690.9	6834.4	6957.5	7102.6
10°	5887.8	5932.0	6056.6	6266.5	6443.2	6623.0	6825.0	7022.2	7246.2	7467.1	7683.2
12.5°	5832.6	5898.9	6094.5	6307.5	6558.3	6817.1	7101.0	7399.2	7716.3	8006.6	8278.0
15°	5750.6	5853.1	6099.2	6337.5	6675.1	7017.4	7394.5	7785.8	8151.8	8423.1	8689.7
17.5°	5657.5	5791.6	6059.8	6364.3	6777.6	7205.2	7680.0	8087.1	8427.9	8691.3	8961.1
20°	5554.9	5720.6	6004.6	6378.5	6869.1	7385.0	7875.7	8252.7	8576.2	8868.0	9133.1
22.5°	5433.5	5633.8	5935.2	6370.6	6937.0	7492.3	7959.3	8319.0	8667.7	8920.1	9142.5
25°	5296.2	5525.0	5845.2	6340.6	6968.5	7487.6	7953.0	8336.4	8626.6	8890.1	9123.6
27.5°	5155.8	5386.1	5736.4	6279.1	6924.3	7432.4	7904.1	8235.4	8539.9	8812.8	9068.4
30°	4983.8	5225.2	5594.4	6179.7	6796.6	7304.6	7752.6	8083.9	8386.8	8656.6	8879.1
32.5°	4804.0	5045.4	5425.6	6042.4	6627.7	7132.6	7539.6	7866.2	8148.6	8401.0	8593.5
35°	4613.1	4843.4	5236.3	5862.6	6416.3	6880.2	7296.7	7596.4	7874.1	8087.1	8214.9
37.5°	4406.4	4625.7	5031.2	5641.7	6187.6	6613.5	7011.1	7298.3	7547.5	7735.3	7828.3
40°	4193.4	4396.9	4805.6	5400.3	5911.5	6328.0	6687.7	6978.0	7198.9	7358.2	7437.1
42.5°	3980.4	4155.6	4567.3	5141.6	5603.8	6020.3	6370.6	6641.9	6862.8	7015.9	7105.8
45°	3748.5	3912.6	4322.8	4868.7	5294.6	5695.4	6044.0	6304.3	6507.8	6660.9	6765.0
47.5°	3513.4	3666.5	4068.8	4587.8	4985.4	5376.7	5711.1	5965.1	6171.8	6318.5	6449.5
50°	3273.6	3417.2	3805.3	4269.1	4665.1	5045.4	5370.4	5624.4	5824.7	5980.9	6116.6
52.5°	3029.1	3163.2	3532.4	3966.2	4349.6	4731.4	5032.7	5286.7	5490.3	5663.8	5813.7
55°	2778.3	2912.4	3276.8	3677.5	4049.9	4409.6	4709.3	4957.0	5158.9	5330.9	5502.9
57.5°	2530.6	2664.7	3024.4	3393.5	3765.9	4108.2	4401.7	4630.4	4835.5	5026.4	5215.7
60°	2293.9	2434.3	2778.3	3134.8	3485.1	3816.4	4103.5	4316.5	4515.3	4731.4	4987.0
62.5°	2071.5	2219.8	2541.6	2896.6	3232.6	3541.8	3799.0	4000.9	4218.7	4491.6	4753.5
65°	1856.9	2013.1	2317.6	2664.7	2986.5	3272.1	3492.9	3690.1	3952.0	4220.2	4461.6
67.5°	1650.2	1809.6	2106.2	2439.1	2729.4	2996.0	3182.1	3409.3	3664.9	3882.6	3887.4
70°	1445.1	1612.4	1904.2	2213.5	2480.1	2697.8	2909.2	3112.7	3248.4	3273.6	3388.8
72.5°	1246.4	1424.6	1696.0	1981.5	2221.3	2426.4	2623.6	2682.0	2710.4	2841.4	2931.3
75°	1052.3	1233.7	1494.0	1748.0	1957.9	2164.5	2218.2	2224.5	2305.0	2391.7	2450.1
77.5°	866.1	1044.4	1292.1	1514.6	1721.2	1809.6	1828.5	1855.3	1888.5	1934.2	1961.0
80°	691.0	861.4	1087.0	1292.1	1421.5	1481.4	1492.5	1484.6	1472.0	1459.3	1438.8
82.5°	523.8	681.5	880.3	1053.9	1147.0	1184.8	1159.6	1107.5	1061.8	998.7	956.1
85°	361.3	498.5	672.1	803.0	886.6	896.1	850.4	795.1	739.9	680.0	631.1
87.5°	208.3	315.5	463.8	594.8	676.8	672.1	615.3	556.9	509.6	470.1	441.7
90°	69.4	164.1	306.1	426.0	501.7	493.8	444.9	397.6	359.7	323.4	295.0
92.5°	74.2	135.7	239.8	331.3	389.7	396.0	362.9	325.0	287.1	250.8	225.6
95°	170.4	206.7	279.2	340.8	364.4	362.9	337.6	302.9	268.2	233.5	205.1
97.5°	258.7	301.3	361.3	440.2	487.5	478.0	435.4	369.2	325.0	291.9	263.5
100°	350.2	414.9	460.7	547.4	616.9	656.3	639.0	588.5	545.9	492.2	422.8
102.5°	437.0	519.1	561.6	654.7	738.3	799.9	839.3	837.7	809.3	754.1	719.4
105°	485.9	582.2	620.0	728.9	829.8	886.6	940.3	1020.7	1082.3	1079.1	1055.5
107.5°	526.9	616.9	664.2	771.5	889.8	1016.0	1028.6	1069.7	1241.6	1342.6	1401.0
110°	582.2	662.6	706.8	806.2	956.1	1052.3	1210.1	1205.3	1202.2	1426.2	1625.0



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CATALOG NUMBER: SKB4-LD5-36-N-UNV-L835-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°	610.6	684.7	716.3	806.2	975.0	1101.2	1218.0	1413.6	1438.8	1389.9	1505.1
115°	620.0	687.9	725.7	785.7	941.9	1123.3	1230.6	1378.9	1631.3	1732.3	1694.4
117.5°	615.3	676.8	749.4	760.4	885.1	1110.7	1265.3	1361.5	1531.9	1831.7	2005.2
120°	597.9	646.8	768.3	725.7	837.7	1049.1	1262.1	1412.0	1497.2	1658.1	1948.4
122.5°	580.6	621.6	771.5	702.1	810.9	957.6	1225.8	1397.8	1554.0	1629.7	1738.6
125°	566.4	599.5	765.2	700.5	762.0	888.2	1101.2	1364.7	1524.0	1681.8	1763.8
127.5°	549.0	577.4	755.7	746.2	724.1	853.5	993.9	1265.3	1481.4	1631.3	1785.9
130°	523.8	550.6	735.2	792.0	689.4	792.0	907.2	1080.7	1386.8	1566.6	1710.2
132.5°	479.6	506.4	680.0	798.3	670.5	722.6	859.8	954.5	1151.7	1457.8	1621.8
135°	432.3	459.1	610.6	762.0	691.0	675.2	765.2	880.3	998.7	1197.4	1484.6
137.5°	399.1	424.4	544.3	719.4	749.4	642.1	705.2	807.8	893.0	1012.9	1178.5
140°	372.3	397.6	484.3	686.3	766.7	657.9	659.5	727.3	826.7	891.4	990.8
142.5°	353.4	375.5	441.7	631.1	732.0	695.7	631.1	667.4	730.5	820.4	875.6
145°	343.9	359.7	416.5	569.5	684.7	743.1	651.6	623.2	670.5	721.0	803.0
147.5°	343.9	353.4	397.6	500.1	650.0	728.9	692.6	637.4	624.8	665.8	706.8
150°	342.4	348.7	389.7	449.6	594.8	680.0	749.4	657.9	635.8	623.2	651.6
152.5°	332.9	340.8	384.9	432.3	545.9	653.2	713.1	733.6	659.5	645.3	616.9
155°	325.0	331.3	372.3	416.5	482.8	596.4	662.6	716.3	722.6	656.3	654.7
157.5°	320.3	325.0	358.1	397.6	435.4	530.1	615.3	662.6	717.8	741.5	689.4
160°	315.5	318.7	347.1	378.6	414.9	462.3	547.4	613.7	657.9	698.9	741.5
162.5°	310.8	312.4	334.5	362.9	392.8	421.2	470.1	538.0	594.8	639.0	659.5
165°	309.2	309.2	323.4	350.2	372.3	397.6	421.2	455.9	504.9	552.2	590.0
167.5°	304.5	304.5	314.0	332.9	355.0	370.8	391.3	408.6	421.2	451.2	481.2
170°	301.3	301.3	306.1	317.1	332.9	348.7	361.3	372.3	383.4	392.8	397.6
172.5°	298.2	296.6	298.2	302.9	310.8	320.3	332.9	340.8	345.5	351.8	353.4
175°	295.0	293.4	293.4	293.4	295.0	296.6	301.3	304.5	306.1	312.4	315.5
177.5°	291.9	290.3	290.3	288.7	287.1	285.6	284.0	282.4	279.2	277.7	276.1
180°	272.9	272.9	272.9	272.9	272.9	272.9	272.9	272.9	272.9	272.9	272.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6	5944.6
2.5°	6206.5	6238.1	6239.6	6261.7	6323.3	6331.1	6329.6	6315.4
5°	6635.6	6698.7	6725.6	6772.9	6854.9	6872.3	6878.6	6864.4
7.5°	7176.8	7295.1	7369.2	7446.6	7558.6	7615.4	7632.7	7621.7
10°	7831.5	8017.7	8140.7	8260.6	8408.9	8454.7	8489.4	8475.2
12.5°	8423.1	8590.4	8715.0	8860.1	8991.1	9035.3	9058.9	9055.8
15°	8831.7	9010.0	9141.0	9275.1	9413.9	9472.3	9510.1	9510.1
17.5°	9122.0	9305.0	9376.0	9510.1	9606.4	9644.2	9683.7	9688.4
20°	9254.6	9385.5	9494.4	9631.6	9748.4	9784.6	9822.5	9825.7
22.5°	9297.1	9436.0	9566.9	9721.5	9835.1	9865.1	9898.2	9893.5
25°	9284.5	9439.1	9589.0	9745.2	9849.3	9838.3	9858.8	9822.5
27.5°	9224.6	9341.3	9424.9	9470.7	9459.6	9412.3	9407.6	9404.4
30°	8980.0	9038.4	9104.7	9155.2	9191.4	9197.8	9237.2	9245.1
32.5°	8653.5	8716.6	8792.3	8866.4	8920.1	8940.6	8981.6	9006.9
35°	8254.3	8287.4	8350.6	8382.1	8375.8	8317.4	8290.6	8289.0
37.5°	7839.4	7886.7	7929.3	7924.6	7885.1	7798.4	7760.5	7743.2
40°	7484.4	7545.9	7579.1	7574.3	7525.4	7437.1	7418.2	7419.7
42.5°	7148.4	7203.6	7217.8	7187.8	7135.8	7074.2	7069.5	7060.0
45°	6820.2	6883.3	6900.7	6877.0	6836.0	6777.6	6757.1	6755.5
47.5°	6509.4	6578.8	6589.9	6566.2	6550.4	6511.0	6501.5	6490.5
50°	6214.4	6296.4	6302.8	6304.3	6287.0	6252.3	6249.1	6246.0
52.5°	5913.1	5985.6	6031.4	6094.5	6143.4	6146.6	6171.8	6173.4
55°	5616.5	5764.8	5884.7	5992.0	6055.1	6067.7	6094.5	6097.7
57.5°	5403.5	5592.8	5744.3	5861.0	5943.0	5974.6	6015.6	6020.3
60°	5207.9	5417.7	5567.6	5670.1	5720.6	5747.4	5771.1	5760.0
62.5°	4972.8	5144.7	5200.0	5168.4	5163.7	5166.8	5187.3	5174.7
65°	4546.8	4554.7	4578.4	4680.9	4742.4	4758.2	4785.0	4783.5
67.5°	3947.3	4075.1	4176.1	4297.5	4368.5	4387.5	4417.4	4414.3
70°	3494.5	3634.9	3728.0	3843.2	3900.0	3918.9	3950.5	3947.3
72.5°	3029.1	3138.0	3212.1	3298.9	3338.3	3357.3	3350.9	3346.2
75°	2516.4	2577.9	2607.9	2652.0	2655.2	2659.9	2645.7	2637.8
77.5°	1964.2	1968.9	1962.6	1968.9	1942.1	1924.7	1897.9	1880.6
80°	1391.5	1337.9	1265.3	1229.0	1189.6	1173.8	1148.5	1140.6
82.5°	916.6	888.2	839.3	810.9	780.9	755.7	736.8	727.3
85°	596.4	582.2	566.4	556.9	544.3	533.2	520.6	514.3
87.5°	421.2	411.8	397.6	389.7	378.6	369.2	356.6	351.8
90°	274.5	266.6	254.0	249.3	241.4	235.1	225.6	219.3
92.5°	209.8	198.8	190.9	184.6	176.7	168.8	160.9	157.8
95°	186.2	176.7	168.8	160.9	154.6	145.1	138.8	135.7
97.5°	247.7	235.1	224.0	219.3	214.6	201.9	197.2	194.1
100°	378.6	367.6	361.3	351.8	340.8	331.3	326.6	325.0
102.5°	703.6	697.3	668.9	648.4	609.0	575.8	564.8	561.6
105°	1023.9	976.6	960.8	954.5	945.0	935.6	935.6	932.4
107.5°	1427.8	1446.7	1451.4	1442.0	1391.5	1350.5	1331.5	1325.2
110°	1733.8	1834.8	1912.1	1973.7	1981.5	1978.4	1980.0	1983.1



TEST NUMBER: P236520

CATALOG NUMBER: SKB4-LD5-36-N-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1830.1	2058.8	2222.9	2338.1	2396.5	2421.7	2440.6	2448.5
115°	1623.4	1798.5	2060.4	2418.6	2587.4	2682.0	2730.9	2748.3
117.5°	2054.1	2039.9	1970.5	2013.1	2155.1	2248.2	2301.8	2314.4
120°	2216.6	2350.7	2432.8	2450.1	2445.4	2385.4	2319.2	2298.7
122.5°	1953.1	2260.8	2494.3	2642.6	2746.7	2824.0	2884.0	2902.9
125°	1811.2	1953.1	2129.8	2377.5	2588.9	2730.9	2828.7	2863.5
127.5°	1897.9	1923.2	1968.9	2051.0	2148.8	2210.3	2268.7	2287.6
130°	1855.3	1983.1	2044.6	2058.8	2036.8	2030.4	2033.6	2032.0
132.5°	1759.1	1871.1	1992.6	2077.8	2107.8	2115.6	2118.8	2118.8
135°	1631.3	1751.2	1847.4	1929.5	1997.3	2024.1	2046.2	2052.5
137.5°	1456.2	1604.5	1708.6	1790.6	1861.6	1888.5	1899.5	1902.7
140°	1124.9	1334.7	1522.4	1631.3	1713.3	1746.5	1759.1	1762.2
142.5°	943.4	1047.6	1158.0	1325.2	1479.8	1555.6	1601.3	1604.5
145°	856.7	888.2	948.2	1030.2	1101.2	1148.5	1191.1	1210.1
147.5°	760.4	828.3	855.1	875.6	905.6	935.6	962.4	984.5
150°	684.7	714.7	757.3	809.3	834.6	845.6	858.2	844.0
152.5°	632.6	657.9	686.3	700.5	711.5	714.7	697.3	684.7
155°	621.6	612.1	629.5	645.3	648.4	642.1	597.9	583.7
157.5°	656.3	648.4	632.6	609.0	601.1	553.8	530.1	525.4
160°	735.2	687.9	637.4	627.9	594.8	555.3	544.3	539.6
162.5°	695.7	724.1	732.0	711.5	645.3	613.7	597.9	591.6
165°	626.3	637.4	645.3	650.0	643.7	626.3	620.0	618.4
167.5°	515.9	544.3	558.5	564.8	574.3	564.8	541.1	536.4
170°	403.9	426.0	437.0	446.5	471.7	471.7	452.8	438.6
172.5°	355.0	358.1	362.9	369.2	381.8	388.1	388.1	383.4
175°	314.0	312.4	312.4	317.1	326.6	336.0	343.9	351.8
177.5°	271.4	268.2	263.5	265.0	271.4	280.8	291.9	293.4
180°	272.9	272.9	272.9	272.9	272.9	272.9	272.9	272.9

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