

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: P236547

Luminaire Tested: **SKB4-LD5-18-W-UNV-L835-CD2-U inner 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24079)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-18-W-UNV-L835-CD2-U inner 2 blades tilted out 20 degrees
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, INNER 2 BLADES TILTED OUT 20 DEGREES
Light Source: (952) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

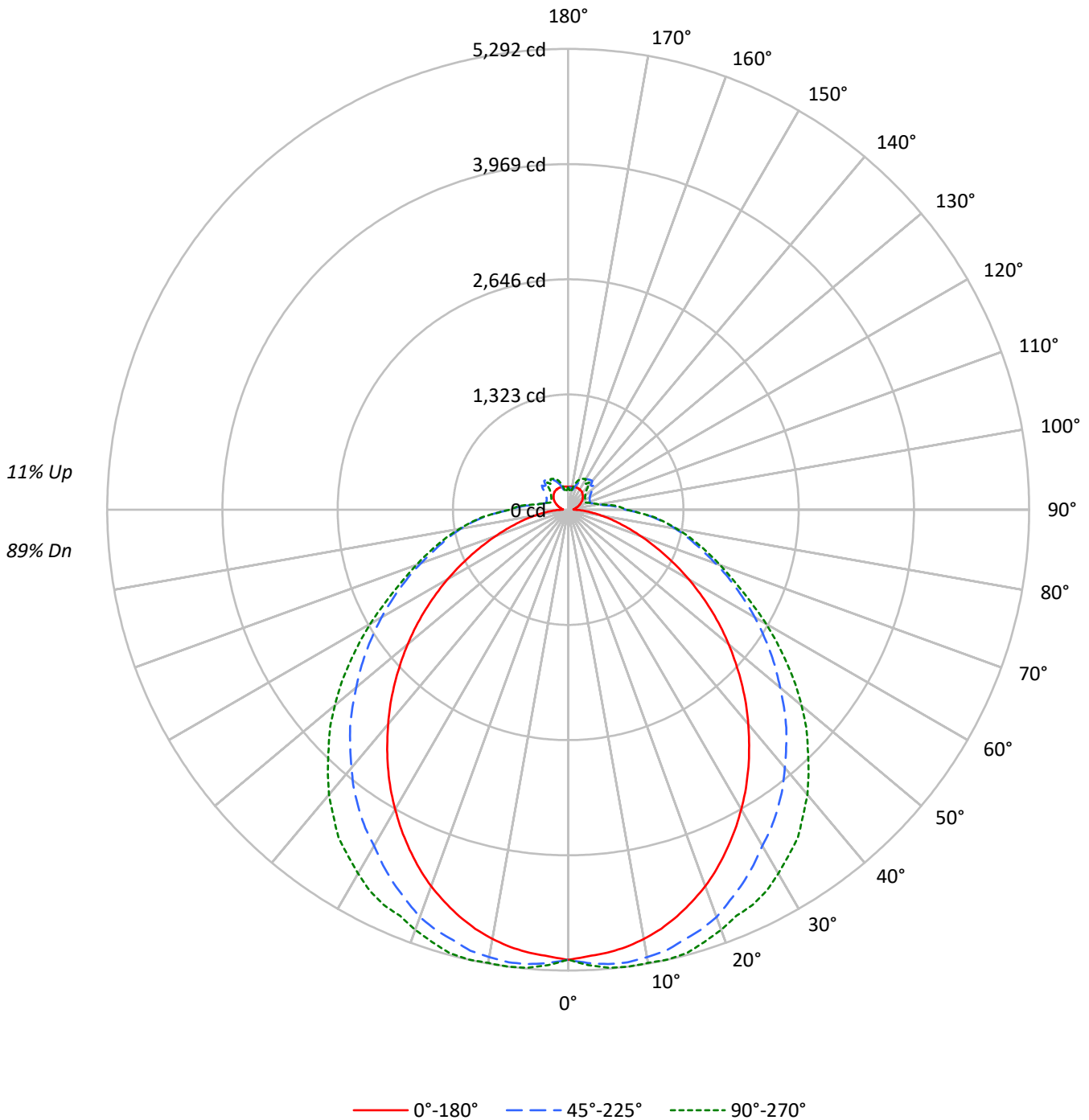
Lumens per Lamp: N/A
Luminaire Lumens: 18032.0 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.38 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 143.4
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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	105	99	94	90	101	96	92	88	90	86	83	84	81	78	78	76	74	71
2	95	86	79	73	91	83	76	71	78	72	67	73	68	64	68	64	61	58
3	86	75	67	60	83	73	65	59	68	62	56	64	58	54	60	55	51	49
4	79	66	57	51	76	64	56	50	60	53	48	57	51	46	53	48	44	41
5	72	59	50	43	69	58	49	43	54	47	41	51	45	40	48	43	38	36
6	67	53	44	38	64	52	43	37	49	41	36	46	40	35	44	38	34	31
7	62	48	39	33	59	47	39	33	44	37	32	42	36	31	40	34	30	28
8	58	44	35	30	55	43	35	29	41	33	28	38	32	27	36	31	27	25
9	54	40	32	27	52	39	32	26	37	30	25	35	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	22	31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7417	7417	7417
5°	7326	7471	7533
10°	7229	7452	7554
15°	7081	7373	7605
20°	6897	7297	7537
25°	6658	7118	7540
30°	6392	6923	7513
35°	6098	6795	7473
40°	5772	6609	7319
45°	5428	6444	7106
50°	5058	6232	6895
55°	4649	6073	6606
60°	4205	5918	6317
65°	3725	5793	6029
70°	3259	5730	5955
75°	2838	5830	6083
80°	2458	6235	6417
85°	2132	6947	7201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.7	2.8
10°-20°	1438.7	8.0
20°-30°	2169.2	12.0
30°-40°	2593.0	14.4
40°-50°	2658.6	14.7
50°-60°	2400.3	13.3
60°-70°	1926.6	10.7
70°-80°	1419.4	7.9
80°-90°	908.6	5.0
90°-100°	464.6	2.6
100°-110°	284.0	1.6
110°-120°	255.3	1.4
120°-130°	263.8	1.5
130°-140°	263.2	1.5
140°-150°	227.0	1.3
150°-160°	158.4	0.9
160°-170°	79.8	0.4
170°-180°	23.8	0.1
0°-30°	4105.6	22.8
0°-40°	6698.6	37.1
0°-60°	11757.5	65.2
0°-90°	16012.1	88.8
90°-120°	1003.9	5.6
90°-150°	1757.9	9.7
90°-180°	2020.0	11.2
0°-180°	18032.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5168	5168	5168	5168	5168	
5°	5109	5202	5238	5266	5280	484
15°	4832	5007	5116	5227	5270	1361
25°	4307	4505	4736	4904	5008	1982
35°	3608	3834	4192	4475	4597	2254
45°	2814	3092	3541	3811	3890	2170
55°	1996	2363	2827	3013	3059	1786
65°	1219	1715	2128	2189	2198	1215
75°	611	1206	1504	1545	1552	655
85°	206	767	978	992	993	206
90°	68	505	656	672	668	46
95°	71	343	497	535	536	58
105°	102	251	282	295	290	109
115°	150	318	272	236	218	149
125°	200	392	312	260	237	179
135°	236	378	383	328	287	182
145°	262	329	420	370	362	164
155°	270	258	372	400	392	125
165°	270	256	259	306	307	77
175°	267	264	256	247	226	26
180°	256	256	256	256	256	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3
2.5°	5133.7	5155.1	5163.2	5186.4	5195.9	5198.4	5204.6	5208.4	5203.4	5210.3	5203.4
5°	5108.6	5135.0	5151.3	5184.6	5198.4	5205.9	5218.5	5226.0	5226.6	5237.9	5235.4
7.5°	5067.2	5097.3	5123.1	5158.2	5175.8	5189.0	5207.8	5222.8	5233.5	5242.9	5238.5
10°	5005.7	5042.7	5072.9	5109.9	5134.4	5158.2	5182.7	5188.3	5197.7	5217.2	5229.1
12.5°	4929.8	4970.0	5000.1	5043.4	5077.9	5099.2	5119.9	5141.3	5166.4	5187.1	5187.7
15°	4831.9	4880.2	4909.7	4959.9	4997.6	5016.4	5054.0	5079.8	5090.4	5115.5	5143.1
17.5°	4722.1	4772.3	4803.0	4858.3	4893.4	4925.4	4969.3	4973.7	5017.6	5059.7	5092.3
20°	4601.6	4646.8	4678.2	4739.7	4776.7	4811.8	4846.3	4881.5	4940.5	4978.1	4999.4
22.5°	4462.3	4505.6	4548.3	4602.9	4644.3	4669.4	4731.5	4780.4	4828.8	4856.4	4890.9
25°	4306.7	4350.6	4391.4	4449.7	4485.5	4525.0	4609.8	4648.0	4687.6	4736.5	4776.1
27.5°	4146.0	4183.7	4228.9	4281.6	4320.5	4386.4	4463.5	4489.9	4550.8	4602.9	4635.5
30°	3972.8	4006.1	4048.8	4102.1	4149.8	4232.0	4291.6	4333.6	4400.2	4456.0	4528.2
32.5°	3795.9	3826.0	3862.4	3909.4	3977.8	4056.3	4118.4	4175.5	4247.1	4335.5	4411.5
35°	3607.6	3636.5	3667.9	3716.2	3799.0	3869.9	3945.2	4007.3	4104.0	4191.8	4273.4
37.5°	3412.5	3442.6	3468.3	3527.3	3612.0	3689.8	3767.6	3848.6	3945.8	4041.9	4109.6
40°	3215.4	3245.5	3267.5	3335.3	3423.1	3509.1	3593.8	3683.5	3784.6	3869.3	3947.7
42.5°	3018.4	3045.4	3070.5	3147.6	3231.7	3325.9	3420.0	3513.5	3608.2	3703.6	3790.8
45°	2813.8	2843.9	2868.4	2955.0	3039.1	3144.5	3241.1	3339.0	3431.9	3541.1	3607.0
47.5°	2609.2	2640.6	2668.2	2764.2	2854.6	2965.7	3059.8	3157.7	3262.5	3359.1	3426.3
50°	2405.9	2436.0	2473.1	2573.5	2665.1	2781.2	2879.7	2985.1	3088.7	3175.2	3251.8
52.5°	2202.0	2233.3	2280.4	2383.3	2481.8	2601.7	2703.4	2815.7	2909.2	3002.7	3067.3
55°	1996.1	2030.7	2090.3	2193.2	2304.3	2422.2	2532.0	2642.5	2737.9	2827.0	2882.2
57.5°	1794.1	1831.7	1902.0	2010.6	2127.9	2249.0	2370.8	2475.6	2570.9	2648.8	2702.1
60°	1597.0	1638.5	1717.5	1833.6	1959.7	2085.9	2207.0	2317.4	2401.5	2473.7	2508.2
62.5°	1404.4	1450.8	1536.8	1665.4	1796.6	1929.6	2058.3	2160.5	2234.0	2298.0	2327.5
65°	1219.3	1270.7	1366.1	1506.0	1646.6	1784.0	1913.3	2003.0	2072.1	2127.9	2150.5
67.5°	1047.3	1103.2	1212.4	1359.2	1508.6	1649.7	1768.3	1852.4	1915.8	1964.1	1978.6
70°	887.9	946.9	1068.7	1224.9	1383.1	1518.0	1627.2	1710.0	1762.7	1798.5	1803.5
72.5°	741.7	803.2	940.0	1104.4	1264.5	1387.4	1494.8	1567.5	1615.2	1640.3	1654.1
75°	611.2	675.2	827.1	998.4	1147.1	1265.1	1364.2	1425.7	1474.7	1504.2	1517.3
77.5°	493.9	562.3	728.6	896.1	1035.4	1144.6	1233.1	1300.2	1354.8	1378.0	1385.6
80°	385.3	464.4	641.3	798.8	926.8	1026.6	1121.4	1187.9	1233.7	1248.1	1251.3
82.5°	288.0	378.4	554.7	699.7	818.9	926.8	1011.6	1067.4	1106.3	1115.1	1117.0
85°	206.5	302.5	468.8	604.9	720.4	813.3	890.5	937.5	970.8	978.3	977.7
87.5°	139.9	239.7	391.6	509.5	609.3	693.4	758.0	797.6	824.6	813.9	813.9
90°	67.8	188.3	306.9	396.6	468.8	540.9	588.6	624.4	647.6	656.4	658.3
92.5°	59.6	145.0	246.0	325.7	394.1	466.2	518.3	556.0	580.5	590.5	592.4
95°	70.9	117.3	188.3	249.8	313.1	372.7	414.2	445.5	477.5	497.0	507.7
97.5°	73.4	119.2	173.8	213.4	256.0	312.5	352.0	379.6	396.0	401.0	400.4
100°	80.3	138.7	179.5	211.5	237.2	262.9	302.5	332.6	350.2	356.4	356.4
102.5°	91.0	153.7	202.1	219.6	237.8	256.7	266.7	289.3	309.4	318.2	320.7
105°	102.3	160.0	235.3	231.6	244.7	257.3	268.0	271.1	273.0	281.8	286.8
107.5°	114.2	164.4	250.4	257.9	252.3	262.9	268.6	272.3	271.7	259.8	256.7
110°	126.8	168.2	255.4	287.4	270.5	270.5	274.2	275.5	271.7	266.7	256.7



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CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-CD2-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	138.1	170.1	258.5	311.2	305.6	283.6	280.5	279.9	275.5	268.0	259.2
115°	150.0	171.3	259.8	323.8	328.2	308.7	291.8	287.4	280.5	272.3	262.3
117.5°	162.5	171.3	260.4	326.9	344.5	352.0	311.9	296.8	288.0	279.2	267.3
120°	175.7	171.9	259.2	330.1	377.1	364.0	345.1	314.4	298.1	286.8	274.9
122.5°	188.3	177.6	257.9	331.3	377.8	369.0	391.6	342.0	313.1	296.8	284.3
125°	200.2	185.7	256.7	330.7	377.8	406.6	377.1	391.6	337.6	312.5	296.2
127.5°	211.5	195.2	253.5	326.3	375.9	409.8	384.7	396.0	383.4	338.2	312.5
130°	219.6	207.1	247.2	316.9	370.9	405.4	422.9	380.3	406.0	385.3	339.5
132.5°	227.2	216.5	237.8	309.4	365.8	402.2	422.9	404.1	384.7	409.8	389.1
135°	235.9	227.2	226.5	301.2	358.3	397.2	417.9	432.4	389.1	383.4	407.3
137.5°	244.1	236.6	223.4	293.1	347.6	390.3	412.3	426.7	433.6	382.2	380.3
140°	251.0	245.4	223.4	283.0	335.1	380.9	404.1	419.2	428.6	430.5	380.9
142.5°	258.5	252.9	224.7	269.8	321.9	367.1	394.7	410.4	421.1	427.3	429.9
145°	262.3	257.3	236.6	249.1	307.5	350.2	381.5	400.4	413.5	420.4	424.2
147.5°	264.2	260.4	246.0	239.7	291.8	332.6	366.5	389.1	404.1	413.5	417.9
150°	266.1	263.6	252.9	234.1	273.0	315.6	348.9	374.0	392.2	403.5	409.1
152.5°	269.2	266.7	259.2	232.8	251.0	298.1	330.1	355.2	375.9	390.3	398.5
155°	270.5	268.6	262.9	247.9	239.7	275.5	309.4	333.2	354.5	372.1	383.4
157.5°	271.7	270.5	266.1	256.0	235.3	250.4	286.1	311.2	331.3	349.5	362.7
160°	271.1	270.5	267.3	261.0	246.6	236.6	254.1	285.5	306.2	323.2	335.7
162.5°	271.1	270.5	268.0	263.6	255.4	235.9	238.5	251.6	278.0	296.2	308.1
165°	270.5	270.5	268.6	265.4	260.4	252.3	234.7	234.1	244.7	259.2	276.1
167.5°	270.5	270.5	269.2	266.7	263.6	259.2	252.9	242.9	231.6	234.1	239.7
170°	269.2	269.8	268.6	266.7	264.8	261.7	258.5	254.1	247.9	241.0	227.8
172.5°	268.0	268.6	268.6	267.3	265.4	263.6	261.7	259.2	254.8	252.3	247.9
175°	266.7	267.3	267.3	266.7	264.8	262.9	262.3	260.4	257.3	256.0	253.5
177.5°	265.4	265.4	266.1	265.4	264.8	263.6	262.9	261.7	258.5	257.9	255.4
180°	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3	5168.3
2.5°	5199.0	5221.0	5220.3	5208.4	5220.3	5234.1	5226.6	5233.5
5°	5237.3	5266.1	5270.5	5261.8	5271.8	5283.7	5273.0	5279.9
7.5°	5239.8	5264.3	5269.9	5263.0	5281.2	5298.1	5287.5	5292.5
10°	5243.6	5271.8	5279.3	5268.7	5279.9	5289.4	5276.8	5285.0
12.5°	5191.5	5229.1	5251.1	5254.8	5276.2	5291.9	5281.2	5290.0
15°	5166.4	5205.3	5224.1	5229.1	5253.0	5269.9	5259.2	5270.5
17.5°	5116.2	5143.1	5148.8	5147.5	5174.5	5195.9	5192.1	5203.4
20°	5017.0	5053.4	5080.4	5086.0	5111.8	5129.3	5119.3	5134.4
22.5°	4929.2	4966.8	4975.6	4978.7	5014.5	5037.1	5035.8	5047.8
25°	4805.5	4843.2	4889.0	4919.8	4961.2	4988.2	4995.1	5008.2
27.5°	4700.7	4761.6	4816.8	4847.0	4889.0	4916.0	4926.0	4932.9
30°	4602.2	4666.2	4715.8	4747.8	4784.2	4805.5	4813.7	4824.4
32.5°	4481.7	4547.0	4589.7	4615.4	4651.8	4679.4	4697.0	4708.3
35°	4336.2	4396.4	4453.5	4496.8	4537.6	4565.2	4575.9	4597.2
37.5°	4178.0	4261.5	4320.5	4350.0	4373.8	4396.4	4409.0	4427.8
40°	4033.7	4104.0	4144.8	4174.9	4206.9	4236.4	4252.1	4270.9
42.5°	3858.0	3918.9	3975.3	4011.1	4038.7	4063.8	4074.5	4085.2
45°	3676.0	3748.2	3797.1	3824.7	3841.7	3868.0	3884.3	3890.0
47.5°	3501.6	3561.2	3600.7	3634.6	3657.8	3684.2	3698.6	3708.0
50°	3315.2	3367.3	3413.1	3443.8	3457.6	3475.2	3484.6	3497.2
52.5°	3125.0	3183.4	3211.6	3229.8	3243.6	3263.7	3273.8	3286.3
55°	2937.4	2973.2	3001.4	3024.0	3037.8	3052.9	3061.7	3059.2
57.5°	2735.4	2776.1	2800.6	2813.8	2822.0	2832.0	2834.5	2841.4
60°	2545.2	2574.1	2589.8	2601.7	2605.5	2613.6	2616.8	2624.3
62.5°	2356.3	2377.7	2385.8	2394.6	2399.6	2398.4	2399.0	2404.0
65°	2166.2	2183.8	2186.9	2190.7	2193.8	2195.1	2196.3	2198.2
67.5°	1984.2	1998.0	2002.4	2013.1	2017.5	2015.0	2015.0	2016.8
70°	1815.4	1828.6	1833.6	1841.8	1848.0	1848.0	1849.9	1852.4
72.5°	1661.0	1676.1	1686.1	1691.2	1700.0	1700.6	1700.6	1700.0
75°	1524.2	1535.5	1543.1	1546.8	1555.6	1555.0	1554.4	1551.9
77.5°	1388.1	1396.9	1405.6	1405.0	1413.8	1413.8	1411.9	1410.0
80°	1251.3	1261.3	1265.1	1263.8	1272.0	1270.7	1270.1	1265.7
82.5°	1110.7	1119.5	1123.3	1123.3	1130.8	1129.5	1128.9	1125.1
85°	975.8	981.4	992.1	991.5	996.5	996.5	995.9	992.7
87.5°	800.7	805.1	808.9	807.6	811.4	813.9	811.4	809.5
90°	658.9	663.3	671.4	673.3	676.5	673.3	672.7	667.7
92.5°	594.9	599.3	606.2	608.7	610.6	609.9	610.6	607.4
95°	515.2	523.4	534.0	536.5	539.7	539.0	540.9	536.5
97.5°	401.6	409.8	424.2	433.0	435.5	436.1	439.3	434.2
100°	356.4	358.3	360.8	359.6	358.9	357.7	357.1	353.3
102.5°	321.3	323.2	325.7	325.7	324.4	323.8	322.5	319.4
105°	289.3	292.4	294.9	295.6	294.9	294.3	293.1	290.5
107.5°	259.2	261.7	265.4	266.1	266.1	266.7	266.1	262.3
110°	242.2	237.8	239.1	239.1	239.1	239.7	238.5	235.3



TEST NUMBER: P236547

CATALOG NUMBER: SKB4-LD5-18-W-UNV-L835-CD2-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	251.6	242.9	231.6	222.8	219.6	219.0	217.1	214.0
115°	252.3	244.7	239.1	233.4	229.7	225.9	220.9	217.7
117.5°	257.9	248.5	241.0	234.7	231.6	228.4	224.7	221.5
120°	264.8	254.1	246.6	239.7	235.3	230.9	226.5	223.4
122.5°	273.6	263.6	254.1	246.0	241.0	236.6	232.2	229.0
125°	284.3	273.0	264.2	256.7	250.4	245.4	240.3	236.6
127.5°	296.8	284.9	275.5	266.7	259.8	254.1	248.5	245.4
130°	315.0	300.6	289.9	279.2	271.7	265.4	259.8	255.4
132.5°	343.9	323.8	308.7	294.9	286.8	279.9	273.0	268.6
135°	402.9	358.3	335.7	319.4	308.1	298.7	291.2	286.8
137.5°	404.1	414.2	392.2	353.3	338.2	326.9	317.5	313.1
140°	377.8	390.3	407.3	409.8	407.3	386.6	373.4	369.0
142.5°	385.3	367.7	377.8	385.3	396.6	398.5	395.3	393.5
145°	427.3	412.3	376.5	363.3	364.0	368.4	365.8	362.1
147.5°	421.7	423.6	424.2	415.4	387.8	370.2	360.8	356.4
150°	414.8	417.3	418.6	418.6	417.3	414.8	409.8	406.0
152.5°	404.8	409.1	411.7	412.3	411.7	408.5	402.9	399.7
155°	391.6	396.6	399.7	401.0	401.6	399.7	394.7	391.6
157.5°	373.4	381.5	385.9	387.8	388.4	387.2	383.4	380.9
160°	348.9	358.3	365.2	367.7	370.2	370.2	367.1	364.6
162.5°	320.0	330.1	337.6	341.4	343.9	345.1	342.0	341.4
165°	289.3	298.1	304.3	307.5	310.0	311.2	308.7	306.9
167.5°	246.6	258.5	268.0	271.7	274.2	274.2	272.3	272.3
170°	227.2	229.0	229.7	229.7	228.4	227.2	224.7	223.4
172.5°	244.1	242.2	237.2	230.9	224.7	217.1	211.5	205.2
175°	251.0	251.0	248.5	244.7	240.3	235.9	230.9	226.5
177.5°	253.5	254.1	252.3	249.1	245.4	241.0	234.7	231.6
180°	256.0	256.0	256.0	256.0	256.0	256.0	256.0	256.0

(END OF REPORT)