

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: P236427

Luminaire Tested: **SKB2-LD5-9-N-UNV-L835-CD1-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24070)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB2-LD5-9-N-UNV-L835-CD1-U all blades tilted out 20 degrees
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES
Light Source: (476) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

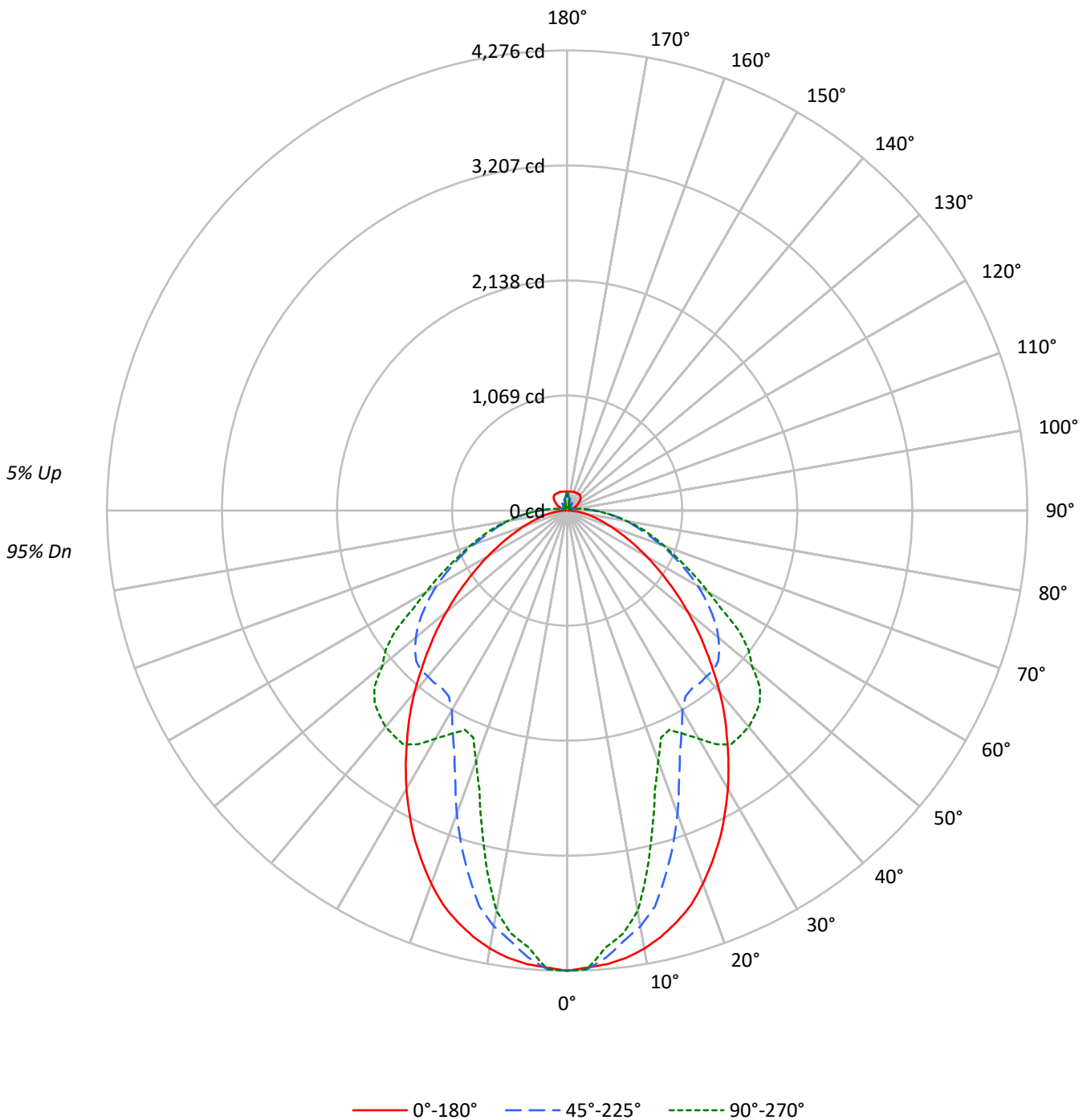
Lumens per Lamp: N/A
Luminaire Lumens: 9621.0 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.7 / 1.06
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Direct

Input Watts (W): 75.4
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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CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades tilted out 20 degrees

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	50	30	10	50	30	10	0		
RCR																										
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	95					95			
1	107	102	97	93	103	99	95	91	94	90	87	89	86	84	84	82	80	78					78			
2	97	89	82	76	94	86	80	74	82	77	72	78	73	69	74	70	67	65					65			
3	89	78	70	63	86	76	68	62	72	66	60	69	63	59	66	61	57	55					55			
4	81	69	60	54	79	68	59	53	64	57	52	61	55	51	59	54	49	47					47			
5	75	62	53	47	72	61	52	46	58	51	45	55	49	44	53	48	43	41					41			
6	69	56	47	41	67	55	46	40	52	45	40	50	44	39	48	43	38	36					36			
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	44	38	34	32					32			
8	60	47	38	32	58	46	38	32	44	37	32	42	36	31	41	35	31	29					29			
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28	26					26			
10	53	40	32	27	51	39	32	27	38	31	26	36	30	26	35	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18409	18409	18409
5°	18124	17713	17368
10°	17743	16584	16048
15°	17141	14921	13042
20°	16287	12845	10680
25°	15222	10813	9911
30°	14008	9588	11098
35°	12692	9364	12484
40°	11414	9746	12934
45°	10030	10130	13205
50°	8716	10005	12516
55°	7416	9620	11811
60°	6231	9060	10107
65°	5133	8352	9018
70°	4194	7627	8279
75°	3398	6976	7777
80°	2684	6605	7158
85°	1919	6153	6605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.4	4.1
10°-20°	980.7	10.2
20°-30°	1239.0	12.9
30°-40°	1467.5	15.3
40°-50°	1565.1	16.3
50°-60°	1380.8	14.4
60°-70°	1020.3	10.6
70°-80°	678.0	7.0
80°-90°	384.9	4.0
90°-100°	153.7	1.6
100°-110°	61.7	0.6
110°-120°	54.0	0.6
120°-130°	56.6	0.6
130°-140°	55.0	0.6
140°-150°	47.8	0.5
150°-160°	42.3	0.4
160°-170°	28.7	0.3
170°-180°	13.4	0.1
0°-30°	2611.2	27.1
0°-40°	4078.7	42.4
0°-60°	7024.6	73.0
0°-90°	9107.8	94.7
90°-120°	269.3	2.8
90°-150°	428.7	4.5
90°-180°	513.0	5.3
0°-180°	9621.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4276	4276	4276	4276	4276	
5°	4232	4253	4167	4107	4077	401
15°	3953	3820	3519	3210	3056	1110
25°	3360	3085	2479	2235	2248	1541
35°	2591	2254	2020	2471	2652	1621
45°	1819	1588	1982	2402	2530	1406
55°	1135	1138	1632	1870	1948	1021
65°	616	792	1156	1247	1202	618
75°	284	533	719	780	758	306
85°	85	347	397	408	388	88
90°	16	222	255	266	252	13
95°	20	124	155	169	160	17
105°	44	61	48	48	43	48
115°	85	79	41	34	26	85
125°	136	112	47	39	29	121
135°	177	103	46	44	33	135
145°	187	70	78	37	30	117
155°	185	117	74	87	79	86
165°	182	128	108	44	25	52
175°	178	169	141	117	121	17
180°	164	164	164	164	164	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6
2.5°	4250.2	4258.0	4278.5	4290.3	4281.5	4272.7	4272.7	4289.3	4263.9	4265.8	4253.1
5°	4231.6	4239.4	4258.0	4269.7	4260.0	4245.3	4230.6	4228.6	4184.6	4167.0	4124.0
7.5°	4193.4	4199.3	4216.9	4218.9	4187.6	4148.4	4113.2	4099.5	4050.6	4033.9	4007.5
10°	4132.8	4136.7	4143.5	4126.9	4078.9	4032.0	4003.6	3991.9	3944.9	3921.4	3882.3
12.5°	4051.6	4050.6	4043.7	4013.4	3965.5	3924.4	3892.1	3863.7	3805.0	3767.8	3706.2
15°	3952.7	3947.8	3925.3	3894.0	3846.1	3794.2	3741.4	3693.5	3596.6	3519.3	3428.3
17.5°	3838.3	3824.6	3795.2	3761.0	3701.3	3628.9	3549.6	3460.6	3354.0	3266.9	3154.4
20°	3689.5	3679.8	3649.4	3611.3	3530.1	3435.2	3331.5	3240.5	3117.2	2998.8	2862.8
22.5°	3526.2	3520.3	3489.0	3441.0	3345.1	3225.8	3127.9	3011.5	2859.9	2715.1	2597.7
25°	3359.8	3346.1	3315.8	3256.1	3144.6	3025.2	2909.8	2763.0	2594.7	2479.3	2398.1
27.5°	3173.9	3167.1	3131.9	3063.4	2943.0	2819.7	2681.8	2513.5	2387.3	2300.2	2225.9
30°	2987.1	2977.3	2941.1	2862.8	2739.5	2600.6	2448.0	2315.9	2219.0	2141.7	2113.3
32.5°	2790.4	2785.5	2746.4	2657.3	2540.9	2388.3	2245.4	2152.5	2070.3	2045.8	2094.8
35°	2590.8	2591.8	2549.7	2457.7	2331.5	2176.0	2079.1	2002.8	1966.6	2020.4	2121.2
37.5°	2403.0	2396.1	2350.1	2261.1	2125.1	1999.8	1934.3	1880.5	1923.5	2022.4	2138.8
40°	2208.2	2202.4	2148.6	2060.5	1926.5	1851.1	1785.6	1806.1	1896.1	2012.6	2164.2
42.5°	2006.7	2008.7	1952.9	1865.8	1755.2	1708.3	1684.8	1751.3	1862.9	2011.6	2157.4
45°	1818.8	1817.9	1765.0	1678.9	1606.5	1569.4	1597.7	1699.5	1829.6	1982.2	2105.5
47.5°	1641.8	1631.0	1583.1	1506.7	1474.4	1457.8	1525.3	1636.9	1785.6	1917.7	2040.9
50°	1462.7	1451.0	1412.8	1355.1	1340.4	1354.1	1446.1	1578.2	1717.1	1834.5	1956.8
52.5°	1294.4	1282.7	1251.4	1221.0	1215.2	1261.2	1366.8	1505.8	1625.1	1742.5	1846.2
55°	1134.9	1125.2	1101.7	1094.8	1105.6	1171.1	1289.5	1413.8	1529.2	1632.0	1727.9
57.5°	989.2	979.4	964.7	973.5	1000.9	1083.1	1203.4	1318.9	1423.6	1519.5	1600.7
60°	854.1	846.3	845.3	859.0	908.9	1000.9	1112.4	1220.1	1313.0	1401.1	1466.6
62.5°	727.9	724.0	734.8	762.2	824.8	918.7	1018.5	1118.3	1200.5	1277.8	1333.6
65°	616.4	614.4	633.0	672.2	745.5	837.5	931.4	1014.6	1087.0	1156.5	1204.4
67.5°	516.6	517.6	540.1	593.9	676.1	762.2	843.4	916.8	983.3	1039.1	1072.3
70°	428.5	432.5	460.8	528.3	613.5	689.8	759.2	828.7	882.5	924.6	952.0
72.5°	352.2	358.1	397.2	472.6	555.7	621.3	686.8	743.6	785.7	814.0	837.5
75°	283.7	292.5	342.4	424.6	501.9	563.6	619.3	661.4	691.7	719.1	743.6
77.5°	224.1	232.9	299.4	383.5	454.0	511.7	550.8	588.0	613.5	635.0	656.5
80°	172.2	183.9	263.2	342.4	413.9	456.9	493.1	521.5	539.1	555.7	573.3
82.5°	126.2	146.8	229.9	310.2	368.9	413.9	439.3	456.9	468.7	479.4	486.3
85°	85.1	119.4	199.6	272.0	329.7	364.0	380.6	387.4	391.4	397.2	403.1
87.5°	51.9	94.9	171.2	233.8	276.9	302.3	313.1	318.0	322.9	328.7	332.7
90°	15.7	66.5	132.1	179.0	211.3	231.9	241.7	245.6	249.5	255.4	259.3
92.5°	11.7	42.1	88.1	129.1	160.5	180.0	186.9	190.8	195.7	200.6	203.5
95°	19.6	35.2	56.7	89.0	115.5	132.1	139.9	146.8	150.7	154.6	157.5
97.5°	22.5	43.0	48.9	67.5	86.1	99.8	104.7	106.6	107.6	109.6	116.4
100°	28.4	53.8	59.7	58.7	70.4	79.3	80.2	81.2	80.2	81.2	83.2
102.5°	37.2	61.6	70.4	63.6	63.6	67.5	68.5	65.6	61.6	59.7	59.7
105°	44.0	66.5	79.3	74.4	59.7	61.6	60.7	58.7	53.8	47.9	47.0
107.5°	52.8	70.4	92.9	81.2	69.5	56.7	56.7	54.8	49.9	45.0	41.1
110°	65.6	76.3	103.7	86.1	77.3	61.6	54.8	51.9	48.9	44.0	40.1



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CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	74.4	81.2	99.8	94.9	82.2	67.5	54.8	50.9	46.0	44.0	41.1
115°	85.1	86.1	94.9	107.6	84.1	73.4	58.7	49.9	47.9	41.1	40.1
117.5°	97.8	92.0	88.1	128.2	90.0	76.3	65.6	52.8	45.0	46.0	39.1
120°	110.6	98.8	84.1	126.2	99.8	78.3	69.5	58.7	47.0	41.1	44.0
122.5°	123.3	106.6	91.0	117.4	112.5	82.2	70.4	62.6	51.9	43.0	38.2
125°	136.0	115.5	102.7	106.6	133.1	90.0	70.4	64.6	56.7	47.0	39.1
127.5°	147.7	124.3	117.4	94.9	128.2	98.8	74.4	61.6	57.7	50.9	44.0
130°	159.5	133.1	133.1	83.2	117.4	114.5	79.3	61.6	54.8	51.9	47.9
132.5°	168.3	138.0	137.0	76.3	105.7	123.3	86.1	64.6	51.9	47.9	47.9
135°	177.1	141.9	137.0	87.1	92.0	114.5	100.8	70.4	53.8	46.0	45.0
137.5°	182.0	144.8	136.0	101.8	76.3	103.7	113.5	78.3	58.7	47.9	43.0
140°	185.9	146.8	137.0	118.4	61.6	92.9	105.7	106.6	66.5	52.8	45.0
142.5°	186.9	149.7	138.0	132.1	66.5	78.3	96.9	103.7	85.1	58.7	48.9
145°	186.9	154.6	138.9	132.1	81.2	59.7	87.1	95.9	99.8	78.3	55.8
147.5°	186.9	158.5	138.0	127.2	99.8	52.8	72.4	88.1	93.9	94.9	80.2
150°	184.9	162.4	137.0	128.2	120.3	66.5	51.9	77.3	87.1	90.0	90.0
152.5°	184.9	166.3	137.0	131.1	123.3	87.1	50.9	57.7	78.3	85.1	86.1
155°	184.9	171.2	138.0	133.1	121.3	112.5	68.5	44.0	56.7	74.4	81.2
157.5°	184.9	175.1	140.9	134.0	126.2	117.4	95.9	60.7	41.1	48.9	66.5
160°	184.9	177.1	145.8	134.0	128.2	119.4	114.5	90.0	60.7	43.0	37.2
162.5°	183.0	178.1	154.6	135.0	129.1	123.3	115.5	111.5	96.9	68.5	50.9
165°	182.0	179.0	162.4	140.9	130.1	126.2	122.3	115.5	110.6	107.6	91.0
167.5°	181.0	179.0	171.2	152.6	136.0	127.2	125.2	122.3	116.4	110.6	108.6
170°	180.0	179.0	174.2	164.4	149.7	135.0	128.2	123.3	120.3	117.4	114.5
172.5°	179.0	178.1	176.1	172.2	164.4	152.6	142.8	133.1	126.2	121.3	117.4
175°	178.1	178.1	177.1	175.1	172.2	166.3	162.4	155.6	147.7	140.9	134.0
177.5°	178.1	177.1	177.1	177.1	174.2	171.2	170.2	167.3	162.4	159.5	155.6
180°	164.4	164.4	164.4	164.4	164.4	164.4	164.4	164.4	164.4	164.4	164.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6	4275.6
2.5°	4250.2	4273.7	4281.5	4265.8	4261.9	4272.7	4273.7	4265.8
5°	4107.3	4117.1	4116.1	4097.5	4086.8	4086.8	4080.9	4077.0
7.5°	3997.7	4010.5	4008.5	3988.9	3977.2	3979.2	3974.3	3966.4
10°	3863.7	3868.6	3858.8	3832.4	3807.9	3801.1	3795.2	3778.6
12.5°	3648.5	3619.1	3578.0	3532.0	3494.8	3477.2	3452.8	3430.3
15°	3356.9	3304.1	3240.5	3178.8	3132.8	3096.6	3079.0	3056.5
17.5°	3058.5	2991.9	2902.9	2832.5	2781.6	2749.3	2733.6	2714.1
20°	2755.2	2681.8	2611.3	2560.5	2524.3	2507.6	2489.0	2472.4
22.5°	2517.4	2463.6	2403.0	2358.9	2324.7	2303.2	2286.5	2280.7
25°	2332.5	2278.7	2239.6	2230.8	2229.8	2237.6	2242.5	2248.4
27.5°	2186.7	2187.7	2210.2	2249.3	2284.6	2312.0	2331.5	2338.4
30°	2144.7	2213.1	2273.8	2331.5	2381.4	2414.7	2438.2	2447.0
32.5°	2183.8	2279.7	2349.1	2414.7	2482.2	2531.1	2564.4	2574.2
35°	2229.8	2330.5	2432.3	2510.6	2575.1	2620.2	2643.6	2652.4
37.5°	2276.7	2392.2	2477.3	2539.9	2582.0	2614.3	2634.8	2640.7
40°	2302.2	2392.2	2454.8	2520.4	2570.3	2598.6	2617.2	2623.1
42.5°	2271.8	2356.0	2429.4	2487.1	2532.1	2558.5	2577.1	2581.0
45°	2220.0	2304.1	2374.6	2428.4	2471.4	2502.7	2523.3	2530.1
47.5°	2146.6	2226.8	2291.4	2353.1	2393.2	2411.8	2421.5	2430.3
50°	2041.9	2116.3	2174.0	2218.0	2236.6	2233.7	2232.7	2239.6
52.5°	1929.4	1993.0	2027.2	2060.5	2081.1	2096.7	2112.4	2125.1
55°	1797.3	1837.4	1858.0	1881.5	1901.0	1918.6	1938.2	1948.0
57.5°	1651.5	1680.9	1696.5	1713.2	1715.1	1709.3	1697.5	1696.5
60°	1508.7	1531.2	1544.9	1553.7	1548.8	1536.1	1518.5	1512.6
62.5°	1368.8	1387.4	1394.2	1396.2	1386.4	1371.7	1360.0	1357.0
65°	1229.8	1247.5	1248.4	1246.5	1233.8	1215.2	1205.4	1201.5
67.5°	1096.8	1113.4	1114.4	1107.5	1093.9	1080.2	1073.3	1073.3
70°	972.5	987.2	990.1	983.3	974.5	966.7	959.8	958.8
72.5°	859.0	875.7	881.5	875.7	869.8	860.0	854.1	855.1
75°	766.1	777.8	780.8	778.8	772.0	764.1	760.2	758.3
77.5°	671.2	681.0	684.9	683.9	678.0	669.2	665.3	662.4
80°	587.0	592.9	594.9	589.0	581.2	568.5	564.5	561.6
82.5°	492.1	495.1	493.1	489.2	483.3	472.6	468.7	467.7
85°	407.0	409.9	409.0	406.0	402.1	392.3	390.4	388.4
87.5°	335.6	340.5	339.5	338.5	333.6	325.8	322.9	320.9
90°	263.2	267.1	269.1	263.2	262.2	257.3	253.4	252.4
92.5°	206.4	210.4	211.3	208.4	204.5	200.6	197.6	195.7
95°	161.4	166.3	169.3	168.3	167.3	163.4	161.4	159.5
97.5°	123.3	128.2	131.1	131.1	129.1	126.2	125.2	123.3
100°	85.1	89.0	91.0	90.0	90.0	91.0	91.0	90.0
102.5°	61.6	63.6	65.6	65.6	64.6	63.6	62.6	60.7
105°	47.0	47.0	47.9	47.9	47.0	46.0	44.0	43.0
107.5°	38.2	37.2	37.2	36.2	35.2	34.2	32.3	30.3
110°	38.2	35.2	33.3	31.3	29.4	27.4	25.4	24.5



TEST NUMBER: P236427

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	38.2	36.2	33.3	31.3	29.4	27.4	25.4	23.5
115°	40.1	38.2	35.2	33.3	32.3	30.3	27.4	26.4
117.5°	36.2	36.2	36.2	36.2	35.2	33.3	31.3	29.4
120°	39.1	34.2	32.3	32.3	32.3	31.3	30.3	29.4
122.5°	36.2	41.1	36.2	32.3	29.4	27.4	24.5	23.5
125°	36.2	34.2	37.2	41.1	38.2	35.2	31.3	29.4
127.5°	37.2	35.2	34.2	33.3	31.3	32.3	32.3	32.3
130°	43.0	39.1	35.2	34.2	33.3	31.3	29.4	27.4
132.5°	47.0	44.0	41.1	38.2	35.2	32.3	29.4	27.4
135°	46.0	46.0	45.0	43.0	40.1	38.2	35.2	33.3
137.5°	42.1	44.0	44.0	44.0	43.0	42.1	39.1	38.2
140°	40.1	39.1	40.1	42.1	42.1	41.1	39.1	38.2
142.5°	42.1	39.1	37.2	36.2	36.2	36.2	35.2	34.2
145°	47.9	42.1	38.2	36.2	34.2	32.3	31.3	30.3
147.5°	53.8	47.9	43.0	40.1	36.2	34.2	32.3	30.3
150°	90.0	60.7	49.9	46.0	43.0	39.1	37.2	34.2
152.5°	87.1	89.0	89.0	70.4	50.9	45.0	41.1	39.1
155°	83.2	85.1	87.1	87.1	86.1	85.1	81.2	79.3
157.5°	76.3	81.2	83.2	83.2	83.2	81.2	79.3	77.3
160°	51.9	65.6	73.4	77.3	79.3	77.3	76.3	74.4
162.5°	39.1	35.2	42.1	50.9	56.7	58.7	57.7	58.7
165°	71.4	58.7	48.9	40.1	36.2	32.3	28.4	25.4
167.5°	108.6	106.6	97.8	88.1	81.2	78.3	69.5	66.5
170°	110.6	110.6	110.6	112.5	116.4	120.3	119.4	118.4
172.5°	114.5	113.5	114.5	115.5	116.4	121.3	121.3	119.4
175°	127.2	121.3	119.4	115.5	116.4	120.3	121.3	121.3
177.5°	151.7	147.7	141.9	138.0	138.0	140.9	146.8	135.0
180°	164.4	164.4	164.4	164.4	164.4	164.4	164.4	164.4

(END OF REPORT)