

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: P236433

Luminaire Tested: **SKB2-LD5-15-N-UNV-L835-CD2-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236433
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-LD5-15-N-UNV-L835-CD2-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

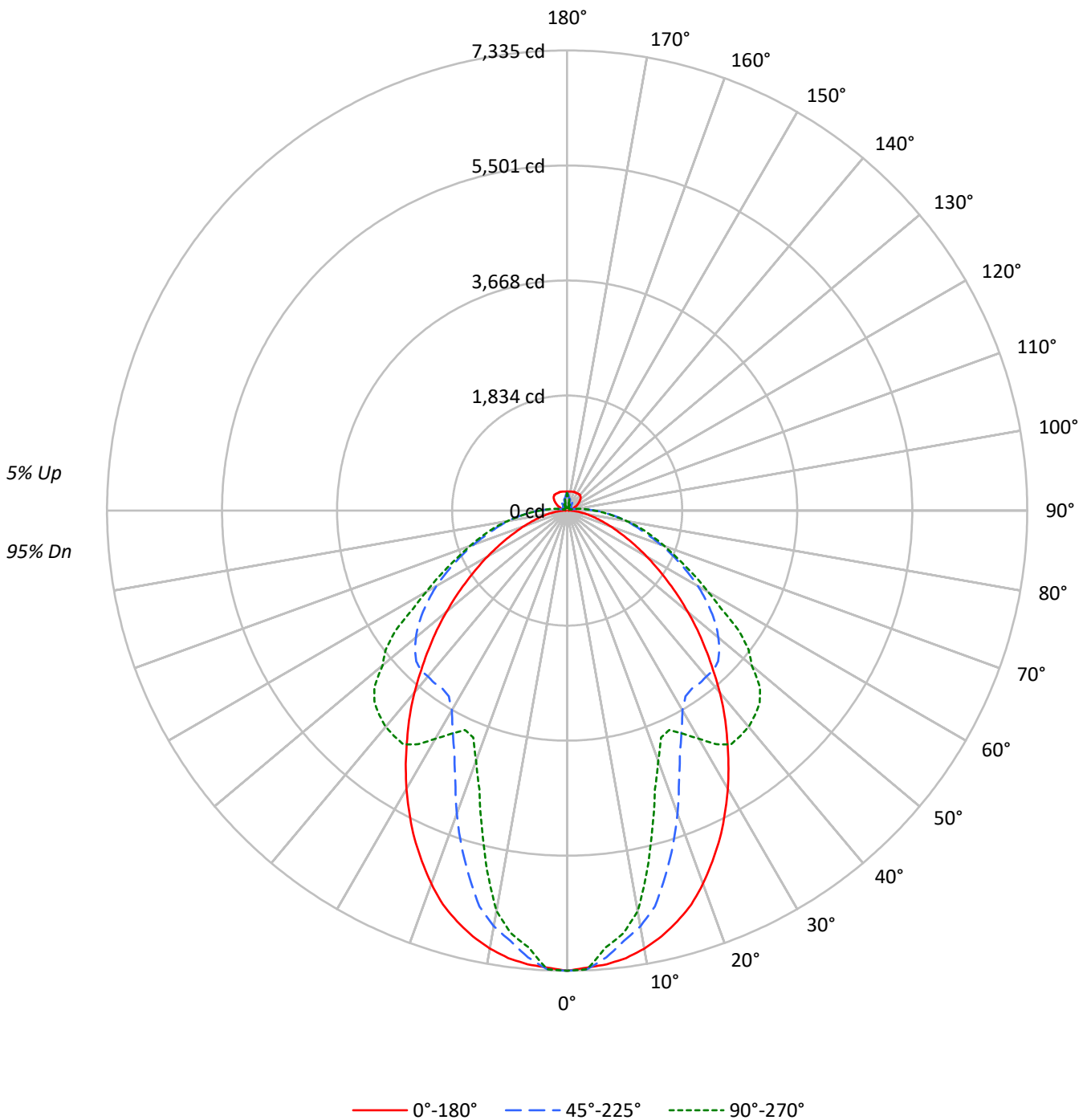
Lumens per Lamp: N/A
Luminaire Lumens: 16505.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.7 / 1.06
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Direct

Input Watts (W): 132.4
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-LD5-15-N-UNV-L835-CD2-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°	31581	31581	31581
5°	31092	30387	29795
10°	30437	28451	27531
15°	29405	25598	22373
20°	27942	22036	18323
25°	26113	18549	17002
30°	24031	16448	19038
35°	21773	16064	21418
40°	19581	16719	22189
45°	17207	17378	22654
50°	14952	17163	21470
55°	12723	16503	20262
60°	10689	15542	17340
65°	8806	14327	15470
70°	7196	13083	14203
75°	5831	11969	13341
80°	4604	11332	12280
85°	3292	10557	11331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	671.4	4.1
10°-20°	1682.5	10.2
20°-30°	2125.5	12.9
30°-40°	2517.6	15.3
40°-50°	2685.0	16.3
50°-60°	2368.8	14.4
60°-70°	1750.4	10.6
70°-80°	1163.1	7.0
80°-90°	660.3	4.0
90°-100°	263.7	1.6
100°-110°	105.8	0.6
110°-120°	92.6	0.6
120°-130°	97.1	0.6
130°-140°	94.3	0.6
140°-150°	82.1	0.5
150°-160°	72.6	0.4
160°-170°	49.2	0.3
170°-180°	23.0	0.1
0°-30°	4479.5	27.1
0°-40°	6997.1	42.4
0°-60°	12050.9	73.0
0°-90°	15624.7	94.7
90°-120°	462.1	2.8
90°-150°	735.5	4.5
90°-180°	880.0	5.3
0°-180°	16505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7335	7335	7335	7335	7335	
5°	7259	7295	7149	7045	6994	688
15°	6781	6554	6037	5506	5244	1904
25°	5764	5292	4253	3834	3857	2643
35°	4445	3866	3466	4240	4550	2781
45°	3120	2724	3401	4120	4340	2412
55°	1947	1953	2800	3208	3342	1752
65°	1057	1358	1984	2140	2061	1061
75°	487	914	1234	1338	1301	525
85°	146	595	682	699	666	151
90°	27	380	438	457	433	22
95°	34	212	265	290	274	29
105°	76	104	82	82	74	82
115°	146	135	70	59	45	147
125°	233	191	81	67	50	208
135°	304	177	79	76	57	232
145°	321	121	134	64	52	201
155°	317	201	128	149	136	147
165°	312	220	185	76	44	89
175°	306	290	242	201	208	29
180°	282	282	282	282	282	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9
2.5°	7291.2	7304.7	7339.9	7360.1	7345.0	7329.8	7329.8	7358.4	7314.7	7318.1	7296.3
5°	7259.4	7272.8	7304.7	7324.8	7308.0	7282.9	7257.7	7254.3	7178.8	7148.6	7074.7
7.5°	7193.9	7204.0	7234.2	7237.5	7183.8	7116.7	7056.3	7032.8	6948.8	6920.3	6875.0
10°	7089.8	7096.5	7108.3	7079.8	6997.5	6916.9	6868.3	6848.1	6767.6	6727.3	6660.1
12.5°	6950.5	6948.8	6937.1	6885.1	6802.8	6732.3	6676.9	6628.2	6527.5	6463.8	6358.0
15°	6781.0	6772.6	6734.0	6680.3	6598.0	6509.1	6418.4	6336.2	6170.0	6037.4	5881.3
17.5°	6584.6	6561.1	6510.8	6452.0	6349.6	6225.4	6089.5	5936.7	5753.8	5604.4	5411.4
20°	6329.5	6312.7	6260.7	6195.2	6055.9	5893.1	5715.2	5559.1	5347.6	5144.5	4911.2
22.5°	6049.2	6039.1	5985.4	5903.2	5738.7	5533.9	5366.0	5166.3	4906.1	4657.7	4456.3
25°	5763.8	5740.3	5688.3	5585.9	5394.6	5189.8	4991.7	4740.0	4451.3	4253.2	4113.9
27.5°	5444.9	5433.2	5372.8	5255.3	5048.8	4837.3	4600.7	4312.0	4095.4	3946.1	3818.5
30°	5124.3	5107.6	5045.5	4911.2	4699.7	4461.4	4199.5	3972.9	3806.8	3674.2	3625.5
32.5°	4787.0	4778.6	4711.4	4558.7	4359.0	4097.1	3852.1	3692.6	3551.6	3509.7	3593.6
35°	4444.6	4446.2	4374.1	4216.3	3999.8	3732.9	3566.7	3435.8	3373.7	3466.0	3638.9
37.5°	4122.3	4110.6	4031.7	3878.9	3645.6	3430.8	3318.3	3226.0	3299.9	3469.4	3669.1
40°	3788.3	3778.2	3685.9	3534.8	3304.9	3175.7	3063.2	3098.4	3252.9	3452.6	3712.8
42.5°	3442.5	3445.9	3350.2	3200.8	3011.2	2930.6	2890.3	3004.4	3195.8	3450.9	3701.0
45°	3120.3	3118.6	3027.9	2880.2	2756.0	2692.3	2740.9	2915.5	3138.7	3400.6	3612.1
47.5°	2816.5	2798.0	2715.8	2584.8	2529.4	2500.9	2616.7	2808.1	3063.2	3289.8	3501.3
50°	2509.3	2489.2	2423.7	2324.7	2299.5	2323.0	2480.8	2707.4	2945.7	3147.1	3356.9
52.5°	2220.6	2200.5	2146.8	2094.7	2084.7	2163.5	2344.8	2583.2	2787.9	2989.3	3167.3
55°	1947.0	1930.2	1889.9	1878.2	1896.7	2009.1	2212.2	2425.4	2623.4	2799.7	2964.2
57.5°	1696.9	1680.1	1655.0	1670.1	1717.1	1858.1	2064.5	2262.6	2442.2	2606.7	2746.0
60°	1465.3	1451.9	1450.2	1473.7	1559.3	1717.1	1908.4	2093.0	2252.5	2403.6	2516.0
62.5°	1248.8	1242.1	1260.5	1307.5	1414.9	1576.1	1747.3	1918.5	2059.5	2192.1	2287.7
65°	1057.4	1054.1	1086.0	1153.1	1279.0	1436.8	1597.9	1740.6	1864.8	1983.9	2066.2
67.5°	886.2	887.9	926.5	1018.8	1159.8	1307.5	1446.8	1572.7	1686.9	1782.5	1839.6
70°	735.2	741.9	790.6	906.4	1052.4	1183.3	1302.5	1421.7	1514.0	1586.1	1633.1
72.5°	604.2	614.3	681.5	810.7	953.4	1065.8	1178.3	1275.6	1347.8	1396.5	1436.8
75°	486.8	501.9	587.5	728.5	861.1	966.8	1062.5	1134.6	1186.7	1233.7	1275.6
77.5°	384.4	399.5	513.6	658.0	778.8	877.8	945.0	1008.8	1052.4	1089.3	1126.2
80°	295.4	315.6	451.5	587.5	710.0	783.8	845.9	894.6	924.8	953.4	983.6
82.5°	216.5	251.8	394.4	532.1	632.8	710.0	753.6	783.8	804.0	822.4	834.2
85°	146.0	204.8	342.4	466.6	565.6	624.4	652.9	664.7	671.4	681.5	691.5
87.5°	89.0	162.8	293.7	401.2	475.0	518.6	537.1	545.5	553.9	564.0	570.7
90°	26.9	114.1	226.6	307.2	362.5	397.8	414.6	421.3	428.0	438.1	444.8
92.5°	20.1	72.2	151.1	221.6	275.3	308.8	320.6	327.3	335.7	344.1	349.1
95°	33.6	60.4	97.4	152.7	198.1	226.6	240.0	251.8	258.5	265.2	270.2
97.5°	38.6	73.9	83.9	115.8	147.7	171.2	179.6	183.0	184.6	188.0	199.7
100°	48.7	92.3	102.4	100.7	120.8	136.0	137.6	139.3	137.6	139.3	142.7
102.5°	63.8	105.7	120.8	109.1	109.1	115.8	117.5	112.5	105.7	102.4	102.4
105°	75.5	114.1	136.0	127.6	102.4	105.7	104.1	100.7	92.3	82.2	80.6
107.5°	90.6	120.8	159.5	139.3	119.2	97.4	97.4	94.0	85.6	77.2	70.5
110°	112.5	130.9	177.9	147.7	132.6	105.7	94.0	89.0	83.9	75.5	68.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	127.6	139.3	171.2	162.8	141.0	115.8	94.0	87.3	78.9	75.5	70.5
115°	146.0	147.7	162.8	184.6	144.3	125.9	100.7	85.6	82.2	70.5	68.8
117.5°	167.8	157.8	151.1	219.9	154.4	130.9	112.5	90.6	77.2	78.9	67.1
120°	189.7	169.5	144.3	216.5	171.2	134.3	119.2	100.7	80.6	70.5	75.5
122.5°	211.5	183.0	156.1	201.4	193.0	141.0	120.8	107.4	89.0	73.9	65.5
125°	233.3	198.1	176.2	183.0	228.3	154.4	120.8	110.8	97.4	80.6	67.1
127.5°	253.4	213.2	201.4	162.8	219.9	169.5	127.6	105.7	99.0	87.3	75.5
130°	273.6	228.3	228.3	142.7	201.4	196.4	136.0	105.7	94.0	89.0	82.2
132.5°	288.7	236.7	235.0	130.9	181.3	211.5	147.7	110.8	89.0	82.2	82.2
135°	303.8	243.4	235.0	149.4	157.8	196.4	172.9	120.8	92.3	78.9	77.2
137.5°	312.2	248.4	233.3	174.6	130.9	177.9	194.7	134.3	100.7	82.2	73.9
140°	318.9	251.8	235.0	203.1	105.7	159.5	181.3	183.0	114.1	90.6	77.2
142.5°	320.6	256.8	236.7	226.6	114.1	134.3	166.2	177.9	146.0	100.7	83.9
145°	320.6	265.2	238.3	226.6	139.3	102.4	149.4	164.5	171.2	134.3	95.7
147.5°	320.6	271.9	236.7	218.2	171.2	90.6	124.2	151.1	161.1	162.8	137.6
150°	317.2	278.6	235.0	219.9	206.5	114.1	89.0	132.6	149.4	154.4	154.4
152.5°	317.2	285.3	235.0	224.9	211.5	149.4	87.3	99.0	134.3	146.0	147.7
155°	317.2	293.7	236.7	228.3	208.1	193.0	117.5	75.5	97.4	127.6	139.3
157.5°	317.2	300.4	241.7	229.9	216.5	201.4	164.5	104.1	70.5	83.9	114.1
160°	317.2	303.8	250.1	229.9	219.9	204.8	196.4	154.4	104.1	73.9	63.8
162.5°	313.9	305.5	265.2	231.6	221.6	211.5	198.1	191.3	166.2	117.5	87.3
165°	312.2	307.2	278.6	241.7	223.2	216.5	209.8	198.1	189.7	184.6	156.1
167.5°	310.5	307.2	293.7	261.8	233.3	218.2	214.8	209.8	199.7	189.7	186.3
170°	308.8	307.2	298.8	282.0	256.8	231.6	219.9	211.5	206.5	201.4	196.4
172.5°	307.2	305.5	302.1	295.4	282.0	261.8	245.1	228.3	216.5	208.1	201.4
175°	305.5	305.5	303.8	300.4	295.4	285.3	278.6	266.9	253.4	241.7	229.9
177.5°	305.5	303.8	303.8	303.8	298.8	293.7	292.1	287.0	278.6	273.6	266.9
180°	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9	7334.9
2.5°	7291.2	7331.5	7345.0	7318.1	7311.4	7329.8	7331.5	7318.1
5°	7046.2	7063.0	7061.3	7029.4	7010.9	7010.9	7000.9	6994.2
7.5°	6858.2	6880.0	6876.7	6843.1	6823.0	6826.3	6817.9	6804.5
10°	6628.2	6636.6	6619.9	6574.5	6532.6	6520.8	6510.8	6482.2
12.5°	6259.0	6208.6	6138.1	6059.3	5995.5	5965.3	5923.3	5884.7
15°	5758.8	5668.2	5559.1	5453.3	5374.4	5312.3	5282.1	5243.5
17.5°	5246.9	5132.7	4980.0	4859.2	4771.9	4716.5	4689.6	4656.1
20°	4726.6	4600.7	4479.8	4392.5	4330.4	4301.9	4270.0	4241.5
22.5°	4318.7	4226.4	4122.3	4046.8	3988.0	3951.1	3922.6	3912.5
25°	4001.5	3909.1	3842.0	3826.9	3825.2	3838.6	3847.0	3857.1
27.5°	3751.4	3753.0	3791.6	3858.8	3919.2	3966.2	3999.8	4011.5
30°	3679.2	3796.7	3900.7	3999.8	4085.4	4142.4	4182.7	4197.8
32.5°	3746.3	3910.8	4030.0	4142.4	4258.3	4342.2	4399.3	4416.0
35°	3825.2	3998.1	4172.7	4306.9	4417.7	4494.9	4535.2	4550.3
37.5°	3905.8	4103.8	4249.9	4357.3	4429.5	4484.9	4520.1	4530.2
40°	3949.4	4103.8	4211.3	4323.7	4409.3	4458.0	4489.9	4500.0
42.5°	3897.4	4041.7	4167.6	4266.7	4343.9	4389.2	4421.1	4427.8
45°	3808.4	3952.8	4073.6	4165.9	4239.8	4293.5	4328.8	4340.5
47.5°	3682.5	3820.2	3931.0	4036.7	4105.5	4137.4	4154.2	4169.3
50°	3503.0	3630.5	3729.5	3805.1	3837.0	3831.9	3830.3	3842.0
52.5°	3309.9	3419.0	3477.8	3534.8	3570.1	3596.9	3623.8	3645.6
55°	3083.3	3152.2	3187.4	3227.7	3261.3	3291.5	3325.0	3341.8
57.5°	2833.2	2883.6	2910.5	2939.0	2942.3	2932.3	2912.1	2910.5
60°	2588.2	2626.8	2650.3	2665.4	2657.0	2635.2	2605.0	2594.9
62.5°	2348.2	2380.1	2391.8	2395.2	2378.4	2353.2	2333.1	2328.0
65°	2109.8	2140.0	2141.7	2138.4	2116.5	2084.7	2067.9	2061.2
67.5°	1881.6	1910.1	1911.8	1900.0	1876.5	1853.0	1841.3	1841.3
70°	1668.4	1693.6	1698.6	1686.9	1671.7	1658.3	1646.6	1644.9
72.5°	1473.7	1502.2	1512.3	1502.2	1492.2	1475.4	1465.3	1467.0
75°	1314.2	1334.4	1339.4	1336.1	1324.3	1310.9	1304.2	1300.8
77.5°	1151.4	1168.2	1174.9	1173.2	1163.2	1148.1	1141.4	1136.3
80°	1007.1	1017.1	1020.5	1010.4	997.0	975.2	968.5	963.4
82.5°	844.3	849.3	845.9	839.2	829.2	810.7	804.0	802.3
85°	698.2	703.3	701.6	696.6	689.8	673.1	669.7	666.3
87.5°	575.7	584.1	582.4	580.7	572.4	558.9	553.9	550.5
90°	451.5	458.2	461.6	451.5	449.8	441.4	434.7	433.0
92.5°	354.2	360.9	362.5	357.5	350.8	344.1	339.0	335.7
95°	276.9	285.3	290.4	288.7	287.0	280.3	276.9	273.6
97.5°	211.5	219.9	224.9	224.9	221.6	216.5	214.8	211.5
100°	146.0	152.7	156.1	154.4	154.4	156.1	156.1	154.4
102.5°	105.7	109.1	112.5	112.5	110.8	109.1	107.4	104.1
105°	80.6	80.6	82.2	82.2	80.6	78.9	75.5	73.9
107.5°	65.5	63.8	63.8	62.1	60.4	58.7	55.4	52.0
110°	65.5	60.4	57.1	53.7	50.4	47.0	43.6	42.0



TEST NUMBER: P236433

CATALOG NUMBER: SKB2-LD5-15-N-UNV-L835-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	65.5	62.1	57.1	53.7	50.4	47.0	43.6	40.3
115°	68.8	65.5	60.4	57.1	55.4	52.0	47.0	45.3
117.5°	62.1	62.1	62.1	62.1	60.4	57.1	53.7	50.4
120°	67.1	58.7	55.4	55.4	55.4	53.7	52.0	50.4
122.5°	62.1	70.5	62.1	55.4	50.4	47.0	42.0	40.3
125°	62.1	58.7	63.8	70.5	65.5	60.4	53.7	50.4
127.5°	63.8	60.4	58.7	57.1	53.7	55.4	55.4	55.4
130°	73.9	67.1	60.4	58.7	57.1	53.7	50.4	47.0
132.5°	80.6	75.5	70.5	65.5	60.4	55.4	50.4	47.0
135°	78.9	78.9	77.2	73.9	68.8	65.5	60.4	57.1
137.5°	72.2	75.5	75.5	75.5	73.9	72.2	67.1	65.5
140°	68.8	67.1	68.8	72.2	72.2	70.5	67.1	65.5
142.5°	72.2	67.1	63.8	62.1	62.1	62.1	60.4	58.7
145°	82.2	72.2	65.5	62.1	58.7	55.4	53.7	52.0
147.5°	92.3	82.2	73.9	68.8	62.1	58.7	55.4	52.0
150°	154.4	104.1	85.6	78.9	73.9	67.1	63.8	58.7
152.5°	149.4	152.7	152.7	120.8	87.3	77.2	70.5	67.1
155°	142.7	146.0	149.4	149.4	147.7	146.0	139.3	136.0
157.5°	130.9	139.3	142.7	142.7	142.7	139.3	136.0	132.6
160°	89.0	112.5	125.9	132.6	136.0	132.6	130.9	127.6
162.5°	67.1	60.4	72.2	87.3	97.4	100.7	99.0	100.7
165°	122.5	100.7	83.9	68.8	62.1	55.4	48.7	43.6
167.5°	186.3	183.0	167.8	151.1	139.3	134.3	119.2	114.1
170°	189.7	189.7	189.7	193.0	199.7	206.5	204.8	203.1
172.5°	196.4	194.7	196.4	198.1	199.7	208.1	208.1	204.8
175°	218.2	208.1	204.8	198.1	199.7	206.5	208.1	208.1
177.5°	260.2	253.4	243.4	236.7	236.7	241.7	251.8	231.6
180°	282.0	282.0	282.0	282.0	282.0	282.0	282.0	282.0

(END OF REPORT)