

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: P236435

Luminaire Tested: **SKB2-LD5-15-N-UNV-L850-CD2-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236435
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-L850-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) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

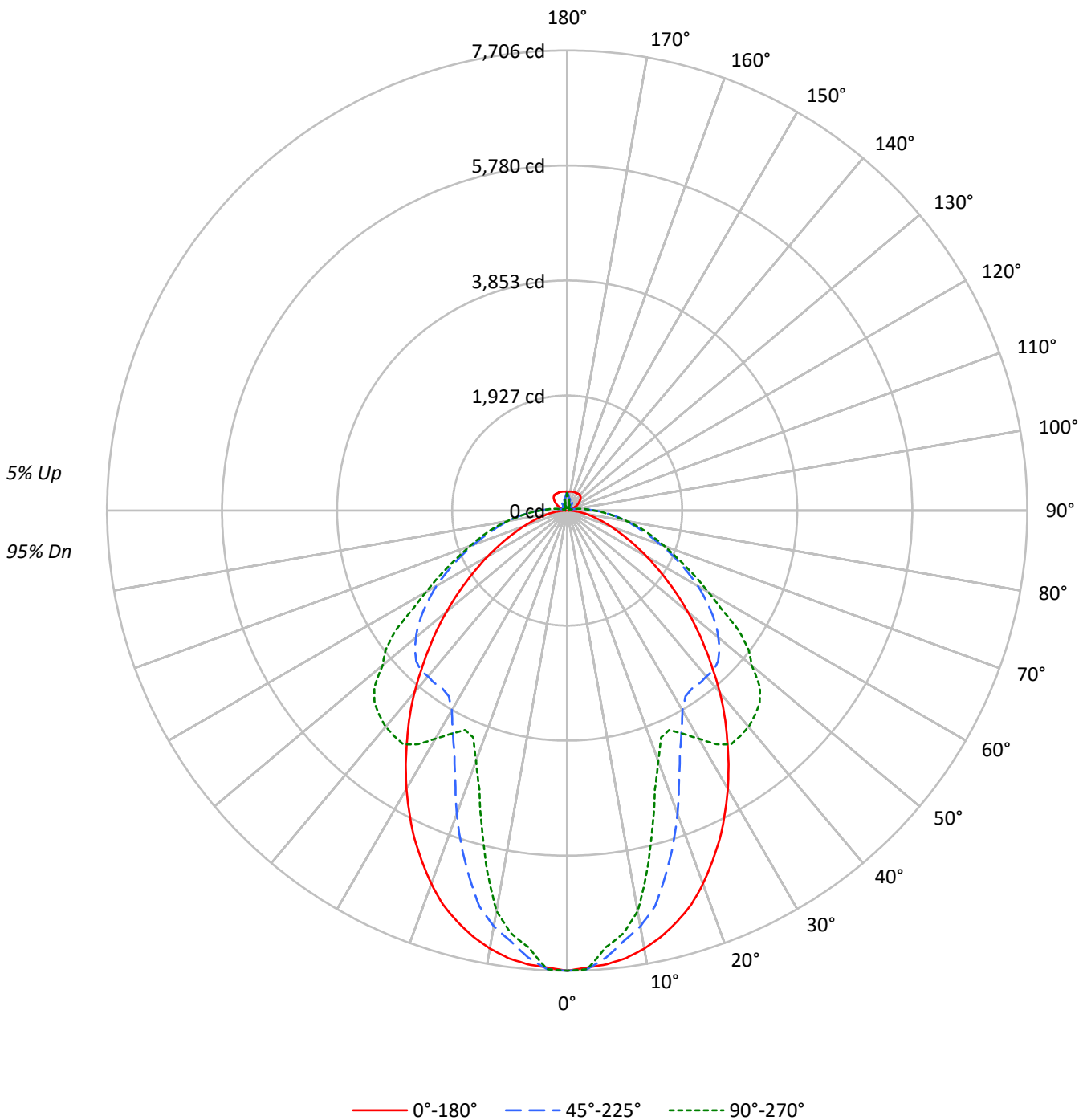
Lumens per Lamp: N/A
Luminaire Lumens: 17340.0 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.7 / 1.06
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Direct

Input Watts (W): 132.4
Input Voltage (V): 120
Input Current (A_{in}): 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-L850-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°	33179	33179	33179
5°	32665	31924	31302
10°	31977	29890	28924
15°	30893	26893	23505
20°	29355	23151	19250
25°	27435	19488	17862
30°	25247	17280	20001
35°	22875	16877	22501
40°	20571	17565	23311
45°	18077	18257	23800
50°	15708	18031	22557
55°	13366	17337	21288
60°	11230	16329	18217
65°	9251	15053	16252
70°	7560	13745	14922
75°	6126	12574	14016
80°	4838	11905	12902
85°	3459	11090	11905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	705.4	4.1
10°-20°	1767.6	10.2
20°-30°	2233.1	12.9
30°-40°	2644.9	15.3
40°-50°	2820.8	16.3
50°-60°	2488.7	14.4
60°-70°	1838.9	10.6
70°-80°	1222.0	7.0
80°-90°	693.7	4.0
90°-100°	277.0	1.6
100°-110°	111.1	0.6
110°-120°	97.3	0.6
120°-130°	102.0	0.6
130°-140°	99.0	0.6
140°-150°	86.2	0.5
150°-160°	76.2	0.4
160°-170°	51.7	0.3
170°-180°	24.2	0.1
0°-30°	4706.1	27.1
0°-40°	7351.0	42.4
0°-60°	12660.6	73.0
0°-90°	16415.1	94.7
90°-120°	485.5	2.8
90°-150°	772.7	4.5
90°-180°	925.0	5.3
0°-180°	17340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7706	7706	7706	7706	7706	
5°	7627	7664	7510	7402	7348	722
15°	7124	6885	6343	5785	5509	2001
25°	6055	5560	4468	4028	4052	2777
35°	4669	4062	3641	4454	4780	2921
45°	3278	2862	3573	4328	4560	2534
55°	2046	2052	2941	3370	3511	1841
65°	1111	1427	2084	2248	2165	1114
75°	511	960	1296	1405	1367	551
85°	153	625	716	734	700	159
90°	28	399	460	480	455	23
95°	35	223	279	304	287	30
105°	79	109	86	86	78	86
115°	153	142	74	62	48	154
125°	245	201	85	71	53	218
135°	319	186	83	79	60	244
145°	337	127	141	67	55	211
155°	333	211	134	157	143	154
165°	328	231	194	80	46	93
175°	321	305	254	212	219	31
180°	296	296	296	296	296	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0
2.5°	7660.1	7674.2	7711.3	7732.4	7716.5	7700.7	7700.7	7730.6	7684.8	7688.3	7665.4
5°	7626.6	7640.7	7674.2	7695.4	7677.7	7651.3	7624.8	7621.3	7542.0	7510.2	7432.6
7.5°	7557.8	7568.4	7600.2	7603.7	7547.3	7476.7	7413.2	7388.6	7300.4	7270.4	7222.8
10°	7448.5	7455.6	7467.9	7437.9	7351.5	7266.9	7215.7	7194.6	7109.9	7067.6	6997.1
12.5°	7302.1	7300.4	7288.0	7233.4	7147.0	7072.9	7014.7	6963.6	6857.8	6790.8	6679.7
15°	7124.0	7115.2	7074.7	7018.2	6931.8	6838.4	6743.2	6656.8	6482.2	6342.9	6178.9
17.5°	6917.7	6893.0	6840.1	6778.4	6670.9	6540.4	6397.5	6237.1	6044.9	5887.9	5685.1
20°	6649.7	6632.1	6577.4	6508.6	6362.3	6191.2	6004.3	5840.3	5618.1	5404.8	5159.6
22.5°	6355.2	6344.6	6288.2	6201.8	6029.0	5813.9	5637.5	5427.7	5154.4	4893.4	4681.8
25°	6055.4	6030.8	5976.1	5868.5	5667.5	5452.4	5244.3	4979.8	4676.5	4468.4	4322.0
27.5°	5720.4	5708.1	5644.6	5521.1	5304.2	5082.1	4833.4	4530.1	4302.6	4145.7	4011.7
30°	5383.6	5366.0	5300.7	5159.6	4937.5	4687.1	4412.0	4173.9	3999.3	3860.0	3808.9
32.5°	5029.2	5020.3	4949.8	4789.3	4579.5	4304.4	4047.0	3879.4	3731.3	3687.2	3775.4
35°	4669.4	4671.2	4595.4	4429.6	4202.1	3921.8	3747.2	3609.6	3544.4	3641.4	3823.0
37.5°	4330.9	4318.5	4235.6	4075.2	3830.1	3604.3	3486.2	3389.2	3466.8	3644.9	3854.7
40°	3979.9	3969.4	3872.4	3713.7	3472.1	3336.3	3218.2	3255.2	3417.4	3627.3	3900.6
42.5°	3616.7	3620.2	3519.7	3362.8	3163.5	3078.9	3036.5	3156.4	3357.5	3625.5	3888.2
45°	3278.1	3276.4	3181.1	3026.0	2895.5	2828.5	2879.6	3063.0	3297.5	3572.6	3794.8
47.5°	2958.9	2939.6	2853.1	2715.6	2657.4	2627.4	2749.1	2950.1	3218.2	3456.2	3678.4
50°	2636.2	2615.1	2546.3	2442.3	2415.8	2440.5	2606.3	2844.3	3094.7	3306.3	3526.8
52.5°	2332.9	2311.8	2255.4	2200.7	2190.1	2273.0	2463.4	2713.8	2929.0	3140.6	3327.5
55°	2045.5	2027.9	1985.6	1973.2	1992.6	2110.8	2324.1	2548.1	2756.2	2941.3	3114.1
57.5°	1782.8	1765.1	1738.7	1754.6	1803.9	1952.1	2169.0	2377.0	2565.7	2738.5	2884.9
60°	1539.4	1525.3	1523.6	1548.2	1638.2	1803.9	2005.0	2198.9	2366.5	2525.2	2643.3
62.5°	1312.0	1304.9	1324.3	1373.7	1486.5	1655.8	1835.7	2015.5	2163.7	2303.0	2403.5
65°	1110.9	1107.4	1140.9	1211.4	1343.7	1509.5	1678.7	1828.6	1959.1	2084.3	2170.7
67.5°	931.1	932.8	973.4	1070.4	1218.5	1373.7	1520.0	1652.3	1772.2	1872.7	1932.7
70°	772.4	779.4	830.6	952.2	1105.6	1243.2	1368.4	1493.6	1590.6	1666.4	1715.8
72.5°	634.8	645.4	715.9	851.7	1001.6	1119.7	1237.9	1340.2	1416.0	1467.1	1509.5
75°	511.4	527.2	617.2	765.3	904.6	1015.7	1116.2	1192.0	1246.7	1296.1	1340.2
77.5°	403.8	419.7	539.6	691.2	818.2	922.2	992.8	1059.8	1105.6	1144.4	1183.2
80°	310.4	331.5	474.3	617.2	745.9	823.5	888.7	939.9	971.6	1001.6	1033.3
82.5°	227.5	264.5	414.4	559.0	664.8	745.9	791.8	823.5	844.7	864.1	876.4
85°	153.4	215.1	359.7	490.2	594.3	656.0	686.0	698.3	705.4	715.9	726.5
87.5°	93.5	171.0	308.6	421.4	499.0	544.9	564.3	573.1	581.9	592.5	599.5
90°	28.2	119.9	238.1	322.7	380.9	417.9	435.6	442.6	449.7	460.2	467.3
92.5°	21.2	75.8	158.7	232.8	289.2	324.5	336.8	343.9	352.7	361.5	366.8
95°	35.3	63.5	102.3	160.5	208.1	238.1	252.2	264.5	271.6	278.6	283.9
97.5°	40.6	77.6	88.2	121.7	155.2	179.9	188.7	192.2	194.0	197.5	209.8
100°	51.1	97.0	107.6	105.8	127.0	142.8	144.6	146.4	144.6	146.4	149.9
102.5°	67.0	111.1	127.0	114.6	114.6	121.7	123.4	118.1	111.1	107.6	107.6
105°	79.4	119.9	142.8	134.0	107.6	111.1	109.3	105.8	97.0	86.4	84.6
107.5°	95.2	127.0	167.5	146.4	125.2	102.3	102.3	98.7	89.9	81.1	74.1
110°	118.1	137.5	186.9	155.2	139.3	111.1	98.7	93.5	88.2	79.4	72.3



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CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	134.0	146.4	179.9	171.0	148.1	121.7	98.7	91.7	82.9	79.4	74.1
115°	153.4	155.2	171.0	194.0	151.7	132.3	105.8	89.9	86.4	74.1	72.3
117.5°	176.3	165.8	158.7	231.0	162.2	137.5	118.1	95.2	81.1	82.9	70.5
120°	199.3	178.1	151.7	227.5	179.9	141.1	125.2	105.8	84.6	74.1	79.4
122.5°	222.2	192.2	164.0	211.6	202.8	148.1	127.0	112.9	93.5	77.6	68.8
125°	245.1	208.1	185.2	192.2	239.8	162.2	127.0	116.4	102.3	84.6	70.5
127.5°	266.3	223.9	211.6	171.0	231.0	178.1	134.0	111.1	104.0	91.7	79.4
130°	287.4	239.8	239.8	149.9	211.6	206.3	142.8	111.1	98.7	93.5	86.4
132.5°	303.3	248.6	246.9	137.5	190.4	222.2	155.2	116.4	93.5	86.4	86.4
135°	319.2	255.7	246.9	156.9	165.8	206.3	181.6	127.0	97.0	82.9	81.1
137.5°	328.0	261.0	245.1	183.4	137.5	186.9	204.6	141.1	105.8	86.4	77.6
140°	335.0	264.5	246.9	213.4	111.1	167.5	190.4	192.2	119.9	95.2	81.1
142.5°	336.8	269.8	248.6	238.1	119.9	141.1	174.6	186.9	153.4	105.8	88.2
145°	336.8	278.6	250.4	238.1	146.4	107.6	156.9	172.8	179.9	141.1	100.5
147.5°	336.8	285.7	248.6	229.2	179.9	95.2	130.5	158.7	169.3	171.0	144.6
150°	333.3	292.7	246.9	231.0	216.9	119.9	93.5	139.3	156.9	162.2	162.2
152.5°	333.3	299.8	246.9	236.3	222.2	156.9	91.7	104.0	141.1	153.4	155.2
155°	333.3	308.6	248.6	239.8	218.7	202.8	123.4	79.4	102.3	134.0	146.4
157.5°	333.3	315.6	253.9	241.6	227.5	211.6	172.8	109.3	74.1	88.2	119.9
160°	333.3	319.2	262.7	241.6	231.0	215.1	206.3	162.2	109.3	77.6	67.0
162.5°	329.8	320.9	278.6	243.3	232.8	222.2	208.1	201.0	174.6	123.4	91.7
165°	328.0	322.7	292.7	253.9	234.5	227.5	220.4	208.1	199.3	194.0	164.0
167.5°	326.2	322.7	308.6	275.1	245.1	229.2	225.7	220.4	209.8	199.3	195.7
170°	324.5	322.7	313.9	296.2	269.8	243.3	231.0	222.2	216.9	211.6	206.3
172.5°	322.7	320.9	317.4	310.4	296.2	275.1	257.5	239.8	227.5	218.7	211.6
175°	320.9	320.9	319.2	315.6	310.4	299.8	292.7	280.4	266.3	253.9	241.6
177.5°	320.9	319.2	319.2	319.2	313.9	308.6	306.8	301.5	292.7	287.4	280.4
180°	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0	7706.0
2.5°	7660.1	7702.4	7716.5	7688.3	7681.3	7700.7	7702.4	7688.3
5°	7402.7	7420.3	7418.5	7385.0	7365.6	7365.6	7355.0	7348.0
7.5°	7205.2	7228.1	7224.6	7189.3	7168.1	7171.7	7162.8	7148.7
10°	6963.6	6972.4	6954.8	6907.1	6863.1	6850.7	6840.1	6810.2
12.5°	6575.6	6522.7	6448.7	6365.8	6298.8	6267.0	6223.0	6182.4
15°	6050.1	5954.9	5840.3	5729.2	5646.3	5581.1	5549.3	5508.8
17.5°	5512.3	5392.4	5231.9	5105.0	5013.3	4955.1	4926.9	4891.6
20°	4965.7	4833.4	4706.5	4614.8	4549.5	4519.5	4486.0	4456.1
22.5°	4537.2	4440.2	4330.9	4251.5	4189.8	4151.0	4121.0	4110.4
25°	4203.9	4106.9	4036.4	4020.5	4018.7	4032.8	4041.7	4052.2
27.5°	3941.1	3942.9	3983.5	4054.0	4117.5	4166.9	4202.1	4214.5
30°	3865.3	3988.8	4098.1	4202.1	4292.1	4352.0	4394.3	4410.2
32.5°	3935.9	4108.7	4233.9	4352.0	4473.7	4561.9	4621.8	4639.4
35°	4018.7	4200.4	4383.8	4524.8	4641.2	4722.3	4764.6	4780.5
37.5°	4103.4	4311.5	4464.9	4577.7	4653.6	4711.7	4748.8	4759.4
40°	4149.2	4311.5	4424.3	4542.5	4632.4	4683.5	4717.0	4727.6
42.5°	4094.6	4246.2	4378.5	4482.5	4563.6	4611.2	4644.7	4651.8
45°	4001.1	4152.8	4279.7	4376.7	4454.3	4510.7	4547.8	4560.1
47.5°	3868.9	4013.4	4129.8	4240.9	4313.2	4346.7	4364.4	4380.2
50°	3680.2	3814.2	3918.2	3997.6	4031.1	4025.8	4024.0	4036.4
52.5°	3477.4	3592.0	3653.7	3713.7	3750.7	3778.9	3807.1	3830.1
55°	3239.3	3311.6	3348.7	3391.0	3426.2	3458.0	3493.3	3510.9
57.5°	2976.6	3029.5	3057.7	3087.7	3091.2	3080.6	3059.5	3057.7
60°	2719.1	2759.7	2784.4	2800.2	2791.4	2768.5	2736.8	2726.2
62.5°	2467.0	2500.5	2512.8	2516.3	2498.7	2472.3	2451.1	2445.8
65°	2216.6	2248.3	2250.1	2246.5	2223.6	2190.1	2172.5	2165.4
67.5°	1976.7	2006.7	2008.5	1996.1	1971.5	1946.8	1934.4	1934.4
70°	1752.8	1779.2	1784.5	1772.2	1756.3	1742.2	1729.9	1728.1
72.5°	1548.2	1578.2	1588.8	1578.2	1567.6	1550.0	1539.4	1541.2
75°	1380.7	1401.9	1407.2	1403.6	1391.3	1377.2	1370.1	1366.6
77.5°	1209.7	1227.3	1234.4	1232.6	1222.0	1206.2	1199.1	1193.8
80°	1058.0	1068.6	1072.1	1061.6	1047.4	1024.5	1017.5	1012.2
82.5°	887.0	892.3	888.7	881.7	871.1	851.7	844.7	842.9
85°	733.6	738.9	737.1	731.8	724.7	707.1	703.6	700.1
87.5°	604.8	613.7	611.9	610.1	601.3	587.2	581.9	578.4
90°	474.3	481.4	484.9	474.3	472.6	463.8	456.7	455.0
92.5°	372.1	379.1	380.9	375.6	368.5	361.5	356.2	352.7
95°	291.0	299.8	305.1	303.3	301.5	294.5	291.0	287.4
97.5°	222.2	231.0	236.3	236.3	232.8	227.5	225.7	222.2
100°	153.4	160.5	164.0	162.2	162.2	164.0	164.0	162.2
102.5°	111.1	114.6	118.1	118.1	116.4	114.6	112.9	109.3
105°	84.6	84.6	86.4	86.4	84.6	82.9	79.4	77.6
107.5°	68.8	67.0	67.0	65.2	63.5	61.7	58.2	54.7
110°	68.8	63.5	60.0	56.4	52.9	49.4	45.8	44.1



TEST NUMBER: P236435

CATALOG NUMBER: SKB2-LD5-15-N-UNV-L850-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	68.8	65.2	60.0	56.4	52.9	49.4	45.8	42.3
115°	72.3	68.8	63.5	60.0	58.2	54.7	49.4	47.6
117.5°	65.2	65.2	65.2	65.2	63.5	60.0	56.4	52.9
120°	70.5	61.7	58.2	58.2	58.2	56.4	54.7	52.9
122.5°	65.2	74.1	65.2	58.2	52.9	49.4	44.1	42.3
125°	65.2	61.7	67.0	74.1	68.8	63.5	56.4	52.9
127.5°	67.0	63.5	61.7	60.0	56.4	58.2	58.2	58.2
130°	77.6	70.5	63.5	61.7	60.0	56.4	52.9	49.4
132.5°	84.6	79.4	74.1	68.8	63.5	58.2	52.9	49.4
135°	82.9	82.9	81.1	77.6	72.3	68.8	63.5	60.0
137.5°	75.8	79.4	79.4	79.4	77.6	75.8	70.5	68.8
140°	72.3	70.5	72.3	75.8	75.8	74.1	70.5	68.8
142.5°	75.8	70.5	67.0	65.2	65.2	65.2	63.5	61.7
145°	86.4	75.8	68.8	65.2	61.7	58.2	56.4	54.7
147.5°	97.0	86.4	77.6	72.3	65.2	61.7	58.2	54.7
150°	162.2	109.3	89.9	82.9	77.6	70.5	67.0	61.7
152.5°	156.9	160.5	160.5	127.0	91.7	81.1	74.1	70.5
155°	149.9	153.4	156.9	156.9	155.2	153.4	146.4	142.8
157.5°	137.5	146.4	149.9	149.9	149.9	146.4	142.8	139.3
160°	93.5	118.1	132.3	139.3	142.8	139.3	137.5	134.0
162.5°	70.5	63.5	75.8	91.7	102.3	105.8	104.0	105.8
165°	128.7	105.8	88.2	72.3	65.2	58.2	51.1	45.8
167.5°	195.7	192.2	176.3	158.7	146.4	141.1	125.2	119.9
170°	199.3	199.3	199.3	202.8	209.8	216.9	215.1	213.4
172.5°	206.3	204.6	206.3	208.1	209.8	218.7	218.7	215.1
175°	229.2	218.7	215.1	208.1	209.8	216.9	218.7	218.7
177.5°	273.3	266.3	255.7	248.6	248.6	253.9	264.5	243.3
180°	296.2	296.2	296.2	296.2	296.2	296.2	296.2	296.2

(END OF REPORT)