

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: P236430

Luminaire Tested: **SKB2-LD5-12-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: P236430
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-LD5-12-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

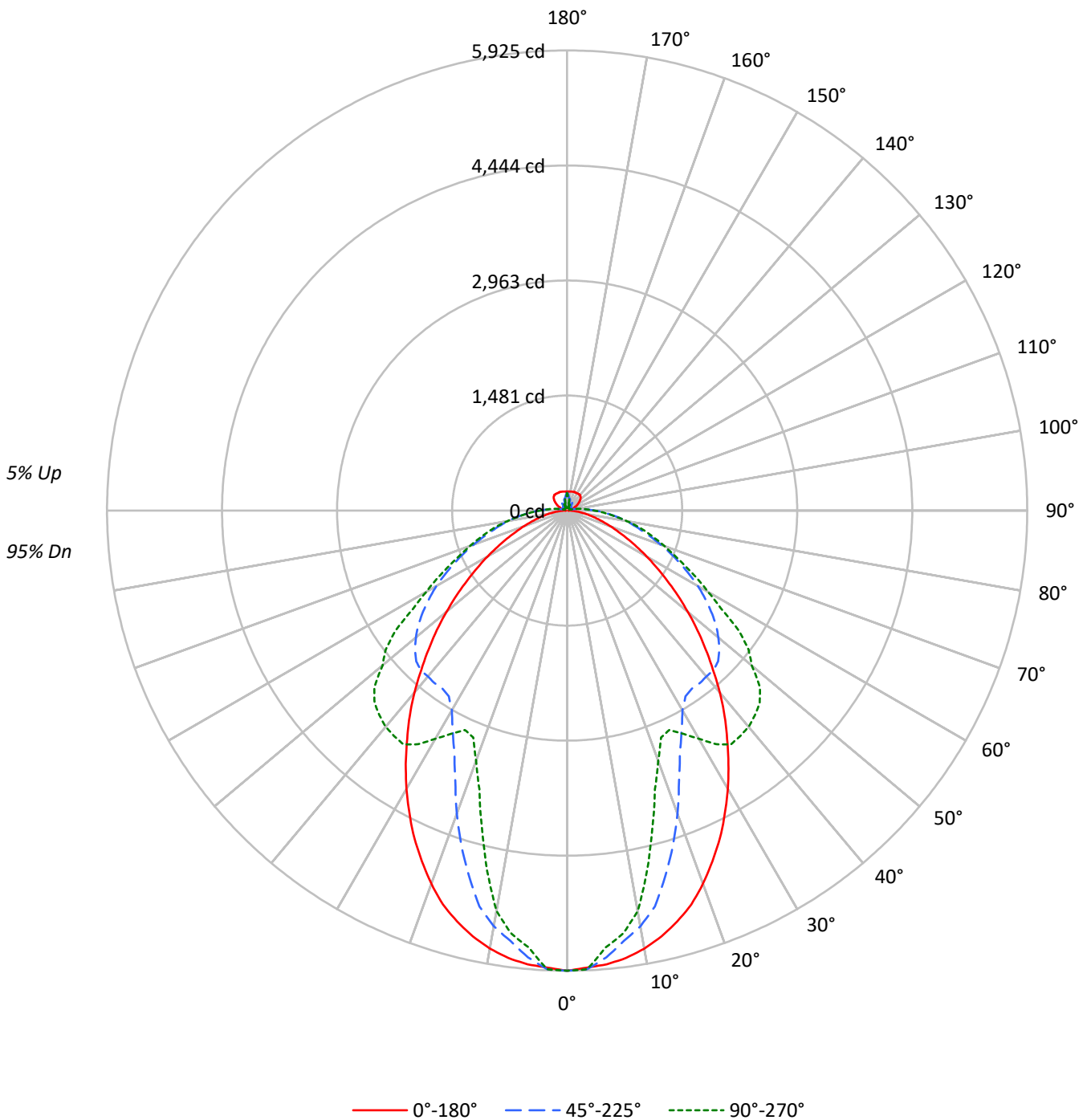
Lumens per Lamp: N/A
Luminaire Lumens: 13332.0 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.7 / 1.06
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Direct

Input Watts (W): 104.9
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-LD5-12-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°	25510	25510	25510
5°	25115	24545	24067
10°	24586	22981	22239
15°	23752	20677	18072
20°	22570	17799	14800
25°	21094	14983	13734
30°	19411	13286	15378
35°	17587	12976	17300
40°	15816	13505	17923
45°	13899	14037	18299
50°	12077	13864	17343
55°	10277	13330	16367
60°	8634	12554	14006
65°	7113	11573	12496
70°	5812	10568	11473
75°	4710	9668	10776
80°	3719	9153	9919
85°	2661	8526	9152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	542.4	4.1
10°-20°	1359.0	10.2
20°-30°	1716.9	12.9
30°-40°	2033.6	15.3
40°-50°	2168.8	16.3
50°-60°	1913.4	14.4
60°-70°	1413.9	10.6
70°-80°	939.5	7.0
80°-90°	533.3	4.0
90°-100°	213.0	1.6
100°-110°	85.4	0.6
110°-120°	74.8	0.6
120°-130°	78.4	0.6
130°-140°	76.1	0.6
140°-150°	66.3	0.5
150°-160°	58.6	0.4
160°-170°	39.8	0.3
170°-180°	18.6	0.1
0°-30°	3618.3	27.1
0°-40°	5651.9	42.4
0°-60°	9734.2	73.0
0°-90°	12620.9	94.7
90°-120°	373.2	2.8
90°-150°	594.1	4.5
90°-180°	711.0	5.3
0°-180°	13332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5925	5925	5925	5925	5925	
5°	5864	5893	5774	5691	5650	555
15°	5477	5294	4877	4448	4236	1538
25°	4656	4275	3436	3097	3116	2135
35°	3590	3123	2800	3425	3676	2246
45°	2520	2200	2747	3328	3506	1948
55°	1573	1577	2262	2591	2699	1415
65°	854	1097	1602	1729	1665	857
75°	393	738	996	1081	1051	424
85°	118	481	550	565	538	122
90°	22	307	354	369	350	18
95°	27	172	214	234	221	23
105°	61	84	66	66	60	66
115°	118	109	57	47	37	118
125°	188	155	65	54	41	168
135°	245	143	64	61	46	187
145°	259	98	108	52	42	162
155°	256	162	103	121	110	119
165°	252	178	149	62	35	72
175°	247	235	195	163	168	24
180°	228	228	228	228	228	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8
2.5°	5889.5	5900.4	5928.9	5945.1	5932.9	5920.7	5920.7	5943.8	5908.5	5911.2	5893.6
5°	5863.8	5874.6	5900.4	5916.7	5903.1	5882.8	5862.4	5859.7	5798.7	5774.3	5714.6
7.5°	5810.9	5819.0	5843.4	5846.2	5802.8	5748.5	5699.7	5680.7	5613.0	5589.9	5553.3
10°	5726.8	5732.3	5741.8	5718.7	5652.3	5587.2	5547.9	5531.6	5466.5	5434.0	5379.8
12.5°	5614.3	5613.0	5603.5	5561.4	5495.0	5438.1	5393.3	5354.0	5272.7	5221.1	5135.7
15°	5477.4	5470.6	5439.4	5396.0	5329.6	5257.7	5184.5	5118.1	4983.9	4876.8	4750.7
17.5°	5318.8	5299.8	5259.1	5211.6	5128.9	5028.6	4918.8	4795.4	4647.6	4527.0	4371.1
20°	5112.7	5099.1	5057.1	5004.2	4891.7	4760.2	4616.5	4490.4	4319.5	4155.5	3967.0
22.5°	4886.3	4878.1	4834.7	4768.3	4635.4	4470.0	4334.5	4173.1	3963.0	3762.3	3599.6
25°	4655.8	4636.8	4594.8	4512.1	4357.5	4192.1	4032.1	3828.7	3595.5	3435.6	3323.0
27.5°	4398.2	4388.7	4339.9	4245.0	4078.2	3907.4	3716.2	3483.0	3308.1	3187.5	3084.4
30°	4139.2	4125.7	4075.5	3967.0	3796.2	3603.7	3392.2	3209.1	3074.9	2967.8	2928.5
32.5°	3866.7	3859.9	3805.7	3682.3	3521.0	3309.5	3111.5	2982.7	2868.8	2835.0	2902.7
35°	3590.1	3591.5	3533.2	3405.7	3230.8	3015.3	2881.0	2775.3	2725.1	2799.7	2939.3
37.5°	3329.8	3320.3	3256.6	3133.2	2944.8	2771.2	2680.4	2605.8	2665.5	2802.4	2963.8
40°	3060.0	3051.9	2977.3	2855.3	2669.5	2565.1	2474.3	2502.8	2627.5	2788.9	2999.0
42.5°	2780.7	2783.4	2706.2	2585.5	2432.3	2367.2	2334.7	2426.9	2581.4	2787.5	2989.5
45°	2520.4	2519.1	2445.8	2326.5	2226.2	2174.7	2214.0	2355.0	2535.3	2746.8	2917.7
47.5°	2275.0	2260.1	2193.7	2087.9	2043.2	2020.1	2113.7	2268.2	2474.3	2657.3	2828.2
50°	2026.9	2010.6	1957.8	1877.8	1857.4	1876.4	2003.9	2186.9	2379.4	2542.1	2711.6
52.5°	1793.7	1777.4	1734.1	1692.0	1683.9	1747.6	1894.0	2086.6	2252.0	2414.7	2558.4
55°	1572.7	1559.2	1526.6	1517.1	1532.0	1622.9	1786.9	1959.1	2119.1	2261.5	2394.3
57.5°	1370.7	1357.1	1336.8	1349.0	1387.0	1500.9	1667.6	1827.6	1972.7	2105.5	2218.1
60°	1183.6	1172.8	1171.4	1190.4	1259.5	1387.0	1541.5	1690.7	1819.5	1941.5	2032.3
62.5°	1008.7	1003.3	1018.2	1056.2	1142.9	1273.1	1411.4	1549.7	1663.6	1770.7	1847.9
65°	854.1	851.4	877.2	931.4	1033.1	1160.6	1290.7	1406.0	1506.3	1602.5	1669.0
67.5°	715.9	717.2	748.4	823.0	936.8	1056.2	1168.7	1270.4	1362.6	1439.8	1485.9
70°	593.8	599.3	638.6	732.1	850.1	955.8	1052.1	1148.4	1222.9	1281.2	1319.2
72.5°	488.1	496.2	550.4	654.8	770.1	860.9	951.8	1030.4	1088.7	1128.0	1160.6
75°	393.2	405.4	474.5	588.4	695.5	780.9	858.2	916.5	958.5	996.5	1030.4
77.5°	310.5	322.7	414.9	531.5	629.1	709.1	763.3	814.8	850.1	879.9	909.7
80°	238.6	254.9	364.7	474.5	573.5	633.2	683.3	722.6	747.0	770.1	794.5
82.5°	174.9	203.4	318.6	429.8	511.1	573.5	608.7	633.2	649.4	664.3	673.8
85°	118.0	165.4	276.6	376.9	456.9	504.4	527.4	536.9	542.3	550.4	558.6
87.5°	71.9	131.5	237.3	324.0	383.7	418.9	433.9	440.6	447.4	455.5	461.0
90°	21.7	92.2	183.0	248.1	292.9	321.3	334.9	340.3	345.7	353.9	359.3
92.5°	16.3	58.3	122.0	179.0	222.3	249.5	259.0	264.4	271.2	277.9	282.0
95°	27.1	48.8	78.6	123.4	160.0	183.0	193.9	203.4	208.8	214.2	218.3
97.5°	31.2	59.7	67.8	93.5	119.3	138.3	145.1	147.8	149.1	151.8	161.3
100°	39.3	74.6	82.7	81.3	97.6	109.8	111.2	112.5	111.2	112.5	115.2
102.5°	51.5	85.4	97.6	88.1	88.1	93.5	94.9	90.8	85.4	82.7	82.7
105°	61.0	92.2	109.8	103.0	82.7	85.4	84.1	81.3	74.6	66.4	65.1
107.5°	73.2	97.6	128.8	112.5	96.3	78.6	78.6	75.9	69.1	62.4	56.9
110°	90.8	105.8	143.7	119.3	107.1	85.4	75.9	71.9	67.8	61.0	55.6



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CATALOG NUMBER: SKB2-LD5-12-N-UNV-L835-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	103.0	112.5	138.3	131.5	113.9	93.5	75.9	70.5	63.7	61.0	56.9
115°	118.0	119.3	131.5	149.1	116.6	101.7	81.3	69.1	66.4	56.9	55.6
117.5°	135.6	127.4	122.0	177.6	124.7	105.8	90.8	73.2	62.4	63.7	54.2
120°	153.2	136.9	116.6	174.9	138.3	108.5	96.3	81.3	65.1	56.9	61.0
122.5°	170.8	147.8	126.1	162.7	155.9	113.9	97.6	86.8	71.9	59.7	52.9
125°	188.5	160.0	142.4	147.8	184.4	124.7	97.6	89.5	78.6	65.1	54.2
127.5°	204.7	172.2	162.7	131.5	177.6	136.9	103.0	85.4	80.0	70.5	61.0
130°	221.0	184.4	184.4	115.2	162.7	158.6	109.8	85.4	75.9	71.9	66.4
132.5°	233.2	191.2	189.8	105.8	146.4	170.8	119.3	89.5	71.9	66.4	66.4
135°	245.4	196.6	189.8	120.7	127.4	158.6	139.6	97.6	74.6	63.7	62.4
137.5°	252.2	200.7	188.5	141.0	105.8	143.7	157.3	108.5	81.3	66.4	59.7
140°	257.6	203.4	189.8	164.1	85.4	128.8	146.4	147.8	92.2	73.2	62.4
142.5°	259.0	207.4	191.2	183.0	92.2	108.5	134.2	143.7	118.0	81.3	67.8
145°	259.0	214.2	192.5	183.0	112.5	82.7	120.7	132.9	138.3	108.5	77.3
147.5°	259.0	219.6	191.2	176.3	138.3	73.2	100.3	122.0	130.2	131.5	111.2
150°	256.2	225.1	189.8	177.6	166.8	92.2	71.9	107.1	120.7	124.7	124.7
152.5°	256.2	230.5	189.8	181.7	170.8	120.7	70.5	80.0	108.5	118.0	119.3
155°	256.2	237.3	191.2	184.4	168.1	155.9	94.9	61.0	78.6	103.0	112.5
157.5°	256.2	242.7	195.2	185.7	174.9	162.7	132.9	84.1	56.9	67.8	92.2
160°	256.2	245.4	202.0	185.7	177.6	165.4	158.6	124.7	84.1	59.7	51.5
162.5°	253.5	246.8	214.2	187.1	179.0	170.8	160.0	154.6	134.2	94.9	70.5
165°	252.2	248.1	225.1	195.2	180.3	174.9	169.5	160.0	153.2	149.1	126.1
167.5°	250.8	248.1	237.3	211.5	188.5	176.3	173.5	169.5	161.3	153.2	150.5
170°	249.5	248.1	241.3	227.8	207.4	187.1	177.6	170.8	166.8	162.7	158.6
172.5°	248.1	246.8	244.0	238.6	227.8	211.5	197.9	184.4	174.9	168.1	162.7
175°	246.8	246.8	245.4	242.7	238.6	230.5	225.1	215.6	204.7	195.2	185.7
177.5°	246.8	245.4	245.4	245.4	241.3	237.3	235.9	231.8	225.1	221.0	215.6
180°	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8	5924.8
2.5°	5889.5	5922.1	5932.9	5911.2	5905.8	5920.7	5922.1	5911.2
5°	5691.6	5705.2	5703.8	5678.0	5663.1	5663.1	5655.0	5649.6
7.5°	5539.7	5557.4	5554.7	5527.5	5511.3	5514.0	5507.2	5496.4
10°	5354.0	5360.8	5347.2	5310.6	5276.7	5267.2	5259.1	5236.1
12.5°	5055.7	5015.1	4958.1	4894.4	4842.9	4818.5	4784.6	4753.4
15°	4651.7	4578.5	4490.4	4405.0	4341.2	4291.1	4266.7	4235.5
17.5°	4238.2	4146.0	4022.6	3925.0	3854.5	3809.8	3788.1	3761.0
20°	3817.9	3716.2	3618.6	3548.1	3497.9	3474.9	3449.1	3426.1
22.5°	3488.4	3413.9	3329.8	3268.8	3221.4	3191.5	3168.5	3160.3
25°	3232.2	3157.6	3103.4	3091.2	3089.8	3100.7	3107.5	3115.6
27.5°	3030.2	3031.5	3062.7	3117.0	3165.8	3203.7	3230.8	3240.3
30°	2971.9	3066.8	3150.8	3230.8	3300.0	3346.1	3378.6	3390.8
32.5°	3026.1	3159.0	3255.2	3346.1	3439.6	3507.4	3553.5	3567.1
35°	3089.8	3229.5	3370.5	3478.9	3568.4	3630.8	3663.3	3675.5
37.5°	3154.9	3314.9	3432.9	3519.6	3577.9	3622.7	3651.1	3659.3
40°	3190.2	3314.9	3401.7	3492.5	3561.7	3601.0	3626.7	3634.9
42.5°	3148.1	3264.7	3366.4	3446.4	3508.8	3545.4	3571.1	3576.6
45°	3076.3	3192.9	3290.5	3365.1	3424.7	3468.1	3496.6	3506.1
47.5°	2974.6	3085.8	3175.3	3260.7	3316.3	3342.0	3355.6	3367.8
50°	2829.5	2932.6	3012.6	3073.6	3099.3	3095.3	3093.9	3103.4
52.5°	2673.6	2761.7	2809.2	2855.3	2883.8	2905.5	2927.1	2944.8
55°	2490.6	2546.2	2574.6	2607.2	2634.3	2658.7	2685.8	2699.4
57.5°	2288.6	2329.2	2350.9	2374.0	2376.7	2368.6	2352.3	2350.9
60°	2090.6	2121.8	2140.8	2153.0	2146.2	2128.6	2104.2	2096.0
62.5°	1896.7	1922.5	1932.0	1934.7	1921.2	1900.8	1884.5	1880.5
65°	1704.2	1728.6	1730.0	1727.3	1709.6	1683.9	1670.3	1664.9
67.5°	1519.8	1542.9	1544.2	1534.8	1515.8	1496.8	1487.3	1487.3
70°	1347.7	1368.0	1372.1	1362.6	1350.4	1339.5	1330.0	1328.7
72.5°	1190.4	1213.4	1221.6	1213.4	1205.3	1191.7	1183.6	1185.0
75°	1061.6	1077.9	1081.9	1079.2	1069.7	1058.9	1053.4	1050.7
77.5°	930.1	943.6	949.1	947.7	939.6	927.4	921.9	917.9
80°	813.5	821.6	824.3	816.2	805.3	787.7	782.3	778.2
82.5°	682.0	686.0	683.3	677.9	669.8	654.8	649.4	648.1
85°	564.0	568.1	566.7	562.7	557.2	543.7	541.0	538.2
87.5°	465.0	471.8	470.5	469.1	462.3	451.5	447.4	444.7
90°	364.7	370.1	372.8	364.7	363.4	356.6	351.1	349.8
92.5°	286.1	291.5	292.9	288.8	283.4	277.9	273.9	271.2
95°	223.7	230.5	234.6	233.2	231.8	226.4	223.7	221.0
97.5°	170.8	177.6	181.7	181.7	179.0	174.9	173.5	170.8
100°	118.0	123.4	126.1	124.7	124.7	126.1	126.1	124.7
102.5°	85.4	88.1	90.8	90.8	89.5	88.1	86.8	84.1
105°	65.1	65.1	66.4	66.4	65.1	63.7	61.0	59.7
107.5°	52.9	51.5	51.5	50.2	48.8	47.5	44.7	42.0
110°	52.9	48.8	46.1	43.4	40.7	38.0	35.3	33.9



TEST NUMBER: P236430

CATALOG NUMBER: SKB2-LD5-12-N-UNV-L835-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	52.9	50.2	46.1	43.4	40.7	38.0	35.3	32.5
115°	55.6	52.9	48.8	46.1	44.7	42.0	38.0	36.6
117.5°	50.2	50.2	50.2	50.2	48.8	46.1	43.4	40.7
120°	54.2	47.5	44.7	44.7	44.7	43.4	42.0	40.7
122.5°	50.2	56.9	50.2	44.7	40.7	38.0	33.9	32.5
125°	50.2	47.5	51.5	56.9	52.9	48.8	43.4	40.7
127.5°	51.5	48.8	47.5	46.1	43.4	44.7	44.7	44.7
130°	59.7	54.2	48.8	47.5	46.1	43.4	40.7	38.0
132.5°	65.1	61.0	56.9	52.9	48.8	44.7	40.7	38.0
135°	63.7	63.7	62.4	59.7	55.6	52.9	48.8	46.1
137.5°	58.3	61.0	61.0	61.0	59.7	58.3	54.2	52.9
140°	55.6	54.2	55.6	58.3	58.3	56.9	54.2	52.9
142.5°	58.3	54.2	51.5	50.2	50.2	50.2	48.8	47.5
145°	66.4	58.3	52.9	50.2	47.5	44.7	43.4	42.0
147.5°	74.6	66.4	59.7	55.6	50.2	47.5	44.7	42.0
150°	124.7	84.1	69.1	63.7	59.7	54.2	51.5	47.5
152.5°	120.7	123.4	123.4	97.6	70.5	62.4	56.9	54.2
155°	115.2	118.0	120.7	120.7	119.3	118.0	112.5	109.8
157.5°	105.8	112.5	115.2	115.2	115.2	112.5	109.8	107.1
160°	71.9	90.8	101.7	107.1	109.8	107.1	105.8	103.0
162.5°	54.2	48.8	58.3	70.5	78.6	81.3	80.0	81.3
165°	99.0	81.3	67.8	55.6	50.2	44.7	39.3	35.3
167.5°	150.5	147.8	135.6	122.0	112.5	108.5	96.3	92.2
170°	153.2	153.2	153.2	155.9	161.3	166.8	165.4	164.1
172.5°	158.6	157.3	158.6	160.0	161.3	168.1	168.1	165.4
175°	176.3	168.1	165.4	160.0	161.3	166.8	168.1	168.1
177.5°	210.1	204.7	196.6	191.2	191.2	195.2	203.4	187.1
180°	227.8	227.8	227.8	227.8	227.8	227.8	227.8	227.8

(END OF REPORT)