

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: P236444

Luminaire Tested: **SKB2-LD5-12-W-UNV-L850-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236444
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24072)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB2-LD5-12-W-UNV-L850-CD2-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

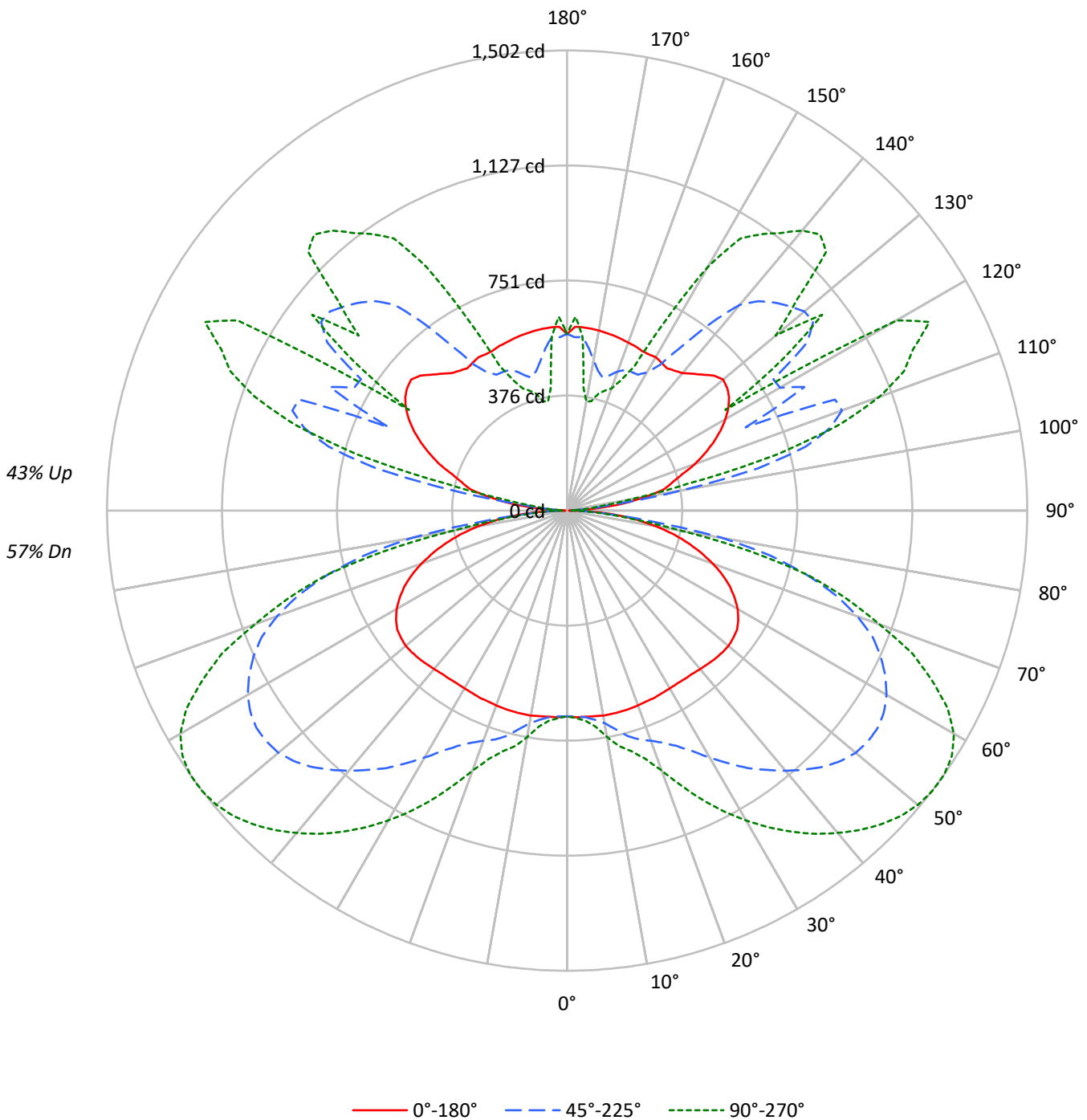
Lumens per Lamp: N/A
Luminaire Lumens: 9164.0 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 104.9
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-LD5-12-W-UNV-L850-CD2-U all blades horizontal

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	97	92	87	83	90	86	82	78	73	70	67	62	60	58	52	50	49	44
2	87	78	71	65	80	73	66	61	62	57	53	52	49	45	43	41	38	34
3	78	67	59	52	72	62	55	49	53	47	42	45	40	36	37	33	30	26
4	71	58	49	42	65	54	46	40	46	40	35	39	34	30	32	28	25	21
5	64	51	42	35	59	48	39	33	41	34	29	34	29	25	28	24	20	17
6	59	45	36	30	54	42	34	28	36	29	24	30	25	21	25	21	17	14
7	54	40	32	25	50	38	30	24	32	26	21	27	22	18	22	18	15	12
8	50	36	28	22	46	34	26	21	29	23	18	24	19	15	20	16	13	10
9	46	33	25	19	43	31	23	18	26	20	16	22	17	13	18	14	11	9
10	43	30	22	17	40	28	21	16	24	18	14	20	15	12	17	13	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2891	2891	2891
5°	2920	2925	2976
10°	2970	3080	3281
15°	3028	3393	3627
20°	3101	3662	4139
25°	3203	4029	4942
30°	3332	4628	5806
35°	3523	5391	6727
40°	3797	6231	7719
45°	4161	7200	8819
50°	4604	8238	10011
55°	5080	9291	11278
60°	5534	10363	12552
65°	5969	11510	13388
70°	6365	12681	13642
75°	6791	13471	13536
80°	7248	12732	9338
85°	7870	6763	6442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	0.7
10°-20°	214.2	2.3
20°-30°	399.5	4.4
30°-40°	629.8	6.9
40°-50°	870.1	9.5
50°-60°	1044.0	11.4
60°-70°	1036.2	11.3
70°-80°	746.2	8.1
80°-90°	199.6	2.2
90°-100°	126.0	1.4
100°-110°	675.6	7.4
110°-120°	865.4	9.4
120°-130°	722.0	7.9
130°-140°	672.0	7.3
140°-150°	458.9	5.0
150°-160°	249.8	2.7
160°-170°	137.6	1.5
170°-180°	51.3	0.6
0°-30°	679.6	7.4
0°-40°	1309.4	14.3
0°-60°	3223.5	35.2
0°-90°	5205.5	56.8
90°-120°	1667.0	18.2
90°-150°	3519.9	38.4
90°-180°	3959.0	43.2
0°-180°	9164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	676	681	677	685	689	65
15°	679	701	761	798	814	192
25°	674	746	848	986	1040	312
35°	670	783	1026	1225	1280	421
45°	683	853	1182	1396	1448	529
55°	677	915	1238	1446	1502	602
65°	586	857	1130	1286	1314	576
75°	408	656	810	824	814	428
85°	159	219	137	128	130	156
90°	7	10	12	11	13	17
95°	121	109	62	65	64	125
105°	356	587	806	772	711	376
115°	527	715	643	1220	1246	519
125°	645	722	956	995	852	573
135°	627	511	960	1173	1196	487
145°	568	463	656	973	1101	361
155°	575	462	499	546	519	267
165°	591	542	449	445	395	167
175°	600	593	569	513	570	57
180°	577	577	577	577	577	



TEST NUMBER: P236444

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	671.5	671.5	671.5	671.5	671.5	671.5	671.5	671.5	671.5	671.5	671.5
2.5°	675.5	675.5	675.5	675.5	676.8	679.4	678.1	675.5	674.2	672.8	671.5
5°	675.5	675.5	675.5	676.8	679.4	682.1	682.1	679.4	678.1	676.8	678.1
7.5°	676.8	676.8	678.1	680.7	683.4	686.0	687.3	688.6	688.6	688.6	690.0
10°	679.4	679.4	680.7	684.7	687.3	693.9	696.5	696.5	699.2	704.4	711.0
12.5°	679.4	679.4	683.4	686.0	693.9	700.5	704.4	711.0	720.3	730.8	740.0
15°	679.4	679.4	683.4	688.6	696.5	705.8	718.9	732.1	746.6	761.1	771.6
17.5°	678.1	679.4	683.4	692.6	699.2	718.9	736.1	755.8	771.6	783.5	792.7
20°	676.8	678.1	683.4	692.6	707.1	734.7	757.1	775.6	788.7	799.3	812.4
22.5°	674.2	676.8	683.4	693.9	716.3	747.9	771.6	787.4	803.2	820.3	840.1
25°	674.2	675.5	684.7	699.2	728.2	763.7	782.1	797.9	821.6	848.0	878.3
27.5°	671.5	672.8	683.4	705.8	740.0	774.2	791.4	816.4	848.0	884.8	925.7
30°	670.2	671.5	682.1	712.3	750.5	780.8	803.2	838.8	883.5	930.9	974.4
32.5°	668.9	671.5	684.7	721.6	758.4	788.7	820.3	869.0	925.7	977.0	1027.0
35°	670.2	671.5	688.6	730.8	765.0	800.6	842.7	904.6	967.8	1025.7	1075.8
37.5°	671.5	674.2	696.5	740.0	771.6	816.4	873.0	942.8	1008.6	1066.5	1121.9
40°	675.5	678.1	705.8	747.9	782.1	838.8	907.2	982.3	1049.4	1108.7	1165.3
42.5°	679.4	682.1	715.0	754.5	796.6	865.1	940.1	1017.8	1087.6	1146.9	1206.1
45°	683.4	684.7	724.2	759.8	813.7	891.4	971.7	1050.7	1121.9	1182.4	1241.7
47.5°	686.0	687.3	732.1	766.3	832.2	916.4	999.4	1078.4	1149.5	1210.1	1268.0
50°	687.3	688.6	734.7	772.9	850.6	937.5	1021.8	1100.8	1170.6	1229.8	1286.4
52.5°	683.4	687.3	729.5	776.9	863.8	950.7	1036.3	1112.6	1179.8	1237.7	1295.7
55°	676.8	680.7	720.3	779.5	871.7	958.6	1042.8	1116.6	1179.8	1237.7	1294.3
57.5°	662.3	670.2	707.1	778.2	869.0	957.3	1038.9	1107.4	1170.6	1225.9	1281.2
60°	642.6	653.1	688.6	769.0	859.8	946.7	1021.8	1087.6	1148.2	1203.5	1258.8
62.5°	616.2	629.4	667.6	753.2	842.7	927.0	996.8	1058.6	1117.9	1170.6	1224.6
65°	585.9	599.1	645.2	730.8	817.7	896.7	961.2	1021.8	1078.4	1129.8	1179.8
67.5°	549.1	560.9	614.9	701.8	783.5	854.6	917.8	975.7	1028.4	1079.7	1120.5
70°	505.6	517.5	580.7	664.9	738.7	807.2	865.1	920.4	970.4	1007.3	1036.3
72.5°	458.2	471.4	542.5	620.2	686.0	749.2	805.8	854.6	888.8	919.1	944.1
75°	408.2	425.3	500.4	566.2	626.8	684.7	733.4	766.3	796.6	809.8	816.4
77.5°	354.2	376.6	449.0	506.9	559.6	607.0	638.6	662.3	671.5	679.4	680.7
80°	292.3	323.9	385.8	433.2	476.7	508.3	526.7	530.6	528.0	513.5	478.0
82.5°	227.8	266.0	310.7	347.6	368.7	379.2	383.2	358.2	322.6	285.7	264.7
85°	159.3	188.3	218.6	231.7	230.4	206.7	176.4	156.7	146.2	136.9	134.3
87.5°	80.3	86.9	93.5	79.0	65.8	63.2	64.5	61.9	63.2	61.9	61.9
90°	6.6	6.6	7.9	7.9	9.2	10.5	11.9	13.2	13.2	11.9	11.9
92.5°	29.0	26.3	25.0	23.7	25.0	25.0	25.0	22.4	22.4	22.4	21.1
95°	121.1	142.2	156.7	158.0	122.5	94.8	81.6	71.1	64.5	61.9	59.3
97.5°	193.6	227.8	268.6	301.5	320.0	306.8	256.8	200.1	169.9	154.1	139.6
100°	260.7	296.3	351.6	404.2	450.3	476.7	480.6	468.8	424.0	376.6	318.6
102.5°	325.2	348.9	420.0	481.9	535.9	584.6	616.2	638.6	645.2	639.9	613.6
105°	355.5	364.7	446.4	517.5	570.1	604.4	671.5	736.1	788.7	805.8	804.5
107.5°	392.4	380.5	472.7	546.4	588.6	624.1	653.1	786.1	840.1	900.6	940.1
110°	443.7	408.2	500.4	591.2	646.5	642.6	667.6	676.8	896.7	954.6	996.8



TEST NUMBER: P236444

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	485.9	433.2	489.8	609.6	678.1	693.9	695.2	715.0	667.6	946.7	1062.6
115°	526.7	464.8	467.4	611.0	686.0	744.0	715.0	746.6	779.5	642.6	861.1
117.5°	563.6	500.4	462.2	597.8	696.5	763.7	799.3	737.4	787.4	873.0	667.6
120°	596.5	534.6	476.7	564.9	705.8	782.1	841.4	855.9	762.4	801.9	921.7
122.5°	624.1	566.2	499.0	537.2	688.6	795.3	859.8	911.2	904.6	797.9	796.6
125°	645.2	592.5	517.5	510.9	647.8	796.6	870.4	932.2	967.8	955.9	850.6
127.5°	658.4	612.3	529.3	499.0	593.8	758.4	871.7	927.0	979.6	1012.6	1007.3
130°	664.9	626.8	533.3	506.9	549.1	695.2	848.0	911.2	958.6	1011.2	1052.1
132.5°	651.8	621.5	525.4	512.2	505.6	603.1	772.9	887.5	934.9	986.2	1045.5
135°	626.8	604.4	518.8	506.9	481.9	539.9	672.8	824.3	909.9	959.9	1009.9
137.5°	605.7	589.9	514.8	492.5	480.6	496.4	580.7	722.9	863.8	927.0	970.4
140°	585.9	576.7	509.6	475.3	480.6	470.1	528.0	624.1	763.7	876.9	932.2
142.5°	575.4	567.5	505.6	460.9	472.7	470.1	491.1	549.1	654.4	771.6	875.6
145°	567.5	560.9	503.0	454.3	458.2	467.4	468.8	505.6	566.2	655.7	754.5
147.5°	572.8	562.2	505.6	453.0	445.1	466.1	476.7	481.9	516.2	563.6	637.3
150°	578.0	567.5	521.4	462.2	439.8	460.9	481.9	487.2	496.4	520.1	549.1
152.5°	575.4	570.1	543.8	488.5	454.3	455.6	475.3	485.9	495.1	500.4	513.5
155°	575.4	571.5	557.0	505.6	470.1	453.0	462.2	479.3	492.5	499.0	500.4
157.5°	580.7	575.4	567.5	525.4	484.6	454.3	453.0	466.1	485.9	496.4	503.0
160°	583.3	578.0	578.0	543.8	505.6	475.3	453.0	456.9	470.1	483.2	493.8
162.5°	587.3	582.0	583.3	564.9	532.0	500.4	475.3	455.6	455.6	463.5	471.4
165°	591.2	587.3	587.3	583.3	557.0	528.0	500.4	478.0	458.2	449.0	447.7
167.5°	593.8	591.2	589.9	591.2	579.4	555.7	530.6	505.6	484.6	466.1	447.7
170°	596.5	595.2	593.8	593.8	593.8	583.3	560.9	539.9	518.8	497.7	476.7
172.5°	599.1	597.8	595.2	593.8	593.8	593.8	585.9	570.1	554.3	535.9	516.2
175°	600.4	600.4	599.1	596.5	593.8	592.5	588.6	582.0	575.4	568.8	555.7
177.5°	600.4	600.4	599.1	597.8	596.5	595.2	588.6	582.0	572.8	566.2	557.0
180°	576.7	576.7	576.7	576.7	576.7	576.7	576.7	576.7	576.7	576.7	576.7



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CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	671.5	671.5	671.5	671.5	671.5	671.5	671.5	671.5
2.5°	671.5	671.5	672.8	675.5	675.5	676.8	678.1	678.1
5°	679.4	680.7	683.4	686.0	686.0	687.3	687.3	688.6
7.5°	691.3	693.9	697.9	703.1	705.8	705.8	708.4	711.0
10°	718.9	722.9	732.1	738.7	742.6	745.3	749.2	750.5
12.5°	751.9	758.4	769.0	775.6	779.5	782.1	784.8	787.4
15°	780.8	787.4	795.3	800.6	804.5	807.2	809.8	813.7
17.5°	801.9	809.8	821.6	830.9	837.4	841.4	846.7	849.3
20°	829.5	844.0	861.1	874.3	886.2	891.4	899.3	903.3
22.5°	863.8	888.8	913.8	930.9	948.0	954.6	965.2	970.4
25°	913.8	945.4	975.7	995.4	1015.2	1021.8	1034.9	1040.2
27.5°	967.8	1006.0	1038.9	1060.0	1079.7	1090.3	1102.1	1106.1
30°	1024.4	1066.5	1099.5	1123.2	1144.2	1153.5	1164.0	1167.9
32.5°	1078.4	1124.5	1157.4	1182.4	1203.5	1214.0	1221.9	1225.9
35°	1129.8	1177.2	1212.7	1237.7	1258.8	1269.3	1277.2	1279.9
37.5°	1178.5	1224.6	1261.4	1289.1	1311.5	1322.0	1327.3	1329.9
40°	1225.9	1272.0	1310.1	1336.5	1358.9	1366.8	1373.3	1373.3
42.5°	1265.4	1312.8	1348.3	1376.0	1397.0	1406.3	1411.5	1414.2
45°	1298.3	1344.4	1382.6	1410.2	1431.3	1441.8	1444.5	1448.4
47.5°	1324.6	1370.7	1408.9	1437.9	1457.6	1468.2	1472.1	1476.1
50°	1343.1	1390.5	1427.3	1455.0	1476.1	1487.9	1493.2	1494.5
52.5°	1351.0	1397.0	1433.9	1461.6	1484.0	1497.1	1503.7	1502.4
55°	1348.3	1393.1	1431.3	1460.3	1482.6	1497.1	1502.4	1502.4
57.5°	1335.2	1379.9	1415.5	1445.8	1468.2	1481.3	1486.6	1489.2
60°	1308.8	1353.6	1387.8	1416.8	1436.6	1451.0	1455.0	1457.6
62.5°	1272.0	1315.4	1347.0	1369.4	1386.5	1393.1	1397.0	1401.0
65°	1223.2	1257.5	1277.2	1294.3	1306.2	1308.8	1310.1	1314.1
67.5°	1149.5	1173.2	1193.0	1206.1	1219.3	1219.3	1216.7	1219.3
70°	1062.6	1083.7	1090.3	1088.9	1094.2	1087.6	1082.4	1083.7
72.5°	949.4	954.6	958.6	955.9	962.5	958.6	954.6	955.9
75°	820.3	824.3	828.2	820.3	826.9	817.7	811.1	813.7
77.5°	672.8	663.6	653.1	628.1	626.8	608.3	601.7	611.0
80°	451.6	430.6	414.8	389.8	384.5	374.0	366.1	376.6
82.5°	244.9	237.0	233.1	222.5	226.5	219.9	218.6	222.5
85°	129.0	129.0	129.0	126.4	130.4	127.7	127.7	130.4
87.5°	60.6	60.6	61.9	59.3	63.2	61.9	63.2	64.5
90°	10.5	10.5	11.9	9.2	13.2	10.5	10.5	13.2
92.5°	19.8	21.1	19.8	19.8	17.1	18.4	17.1	17.1
95°	60.6	63.2	64.5	65.8	65.8	67.2	65.8	64.5
97.5°	130.4	126.4	118.5	118.5	113.2	110.6	109.3	105.3
100°	279.1	260.7	238.3	233.1	222.5	214.6	214.6	208.0
102.5°	571.5	529.3	492.5	472.7	441.1	421.4	417.4	401.6
105°	797.9	796.6	775.6	767.7	746.6	732.1	726.8	711.0
107.5°	952.0	959.9	955.9	958.6	950.7	944.1	942.8	930.9
110°	1034.9	1070.5	1088.9	1100.8	1099.5	1095.5	1092.9	1085.0



TEST NUMBER: P236444

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1096.8	1127.1	1149.5	1165.3	1177.2	1189.0	1191.6	1190.3
115°	1124.5	1198.2	1216.7	1223.2	1229.8	1240.4	1246.9	1245.6
117.5°	693.9	950.7	1182.4	1265.4	1298.3	1316.7	1329.9	1332.5
120°	817.7	634.7	670.2	812.4	995.4	1129.8	1198.2	1241.7
122.5°	912.5	983.6	845.3	690.0	607.0	604.4	600.4	612.3
125°	786.1	855.9	962.5	1027.0	1025.7	959.9	903.3	851.9
127.5°	936.2	842.7	828.2	886.2	950.7	994.1	1031.0	1049.4
130°	1069.2	1050.7	984.9	915.1	880.9	876.9	882.2	888.8
132.5°	1092.9	1128.4	1139.0	1127.1	1091.6	1060.0	1033.6	1015.2
135°	1060.0	1112.6	1156.1	1189.0	1196.9	1198.2	1199.5	1195.6
137.5°	1017.8	1062.6	1114.0	1164.0	1200.9	1211.4	1218.0	1221.9
140°	971.7	1015.2	1057.3	1095.5	1149.5	1179.8	1189.0	1193.0
142.5°	932.2	965.2	1004.7	1042.8	1075.8	1111.3	1139.0	1141.6
145°	859.8	919.1	958.6	987.5	1019.1	1042.8	1081.0	1100.8
147.5°	726.8	813.7	887.5	930.9	966.5	991.5	1017.8	1053.4
150°	607.0	684.7	745.3	797.9	861.1	895.4	929.6	917.8
152.5°	534.6	572.8	614.9	657.0	704.4	724.2	722.9	705.8
155°	512.2	520.1	538.5	553.0	579.4	587.3	535.9	518.8
157.5°	506.9	500.4	506.9	508.3	517.5	479.3	463.5	460.9
160°	499.0	499.0	496.4	485.9	466.1	429.3	424.0	424.0
162.5°	479.3	481.9	479.3	470.1	434.5	414.8	410.8	410.8
165°	450.3	451.6	450.3	439.8	413.5	393.7	393.7	395.0
167.5°	431.9	425.3	422.7	406.9	392.4	376.6	364.7	366.1
170°	458.2	443.7	430.6	410.8	400.3	391.1	368.7	360.8
172.5°	496.4	479.3	466.1	454.3	451.6	456.9	443.7	405.6
175°	539.9	524.1	513.5	512.2	518.8	541.2	551.7	570.1
177.5°	545.1	529.3	522.7	529.3	545.1	576.7	614.9	633.3
180°	576.7	576.7	576.7	576.7	576.7	576.7	576.7	576.7

(END OF REPORT)