

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: P236443

Luminaire Tested: **SKB2-LD5-12-W-UNV-L840-CD2-U all blades horizontal**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236443  
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-L840-CD2-U all blades horizontal  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES HORIZONTAL  
Light Source: (476) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

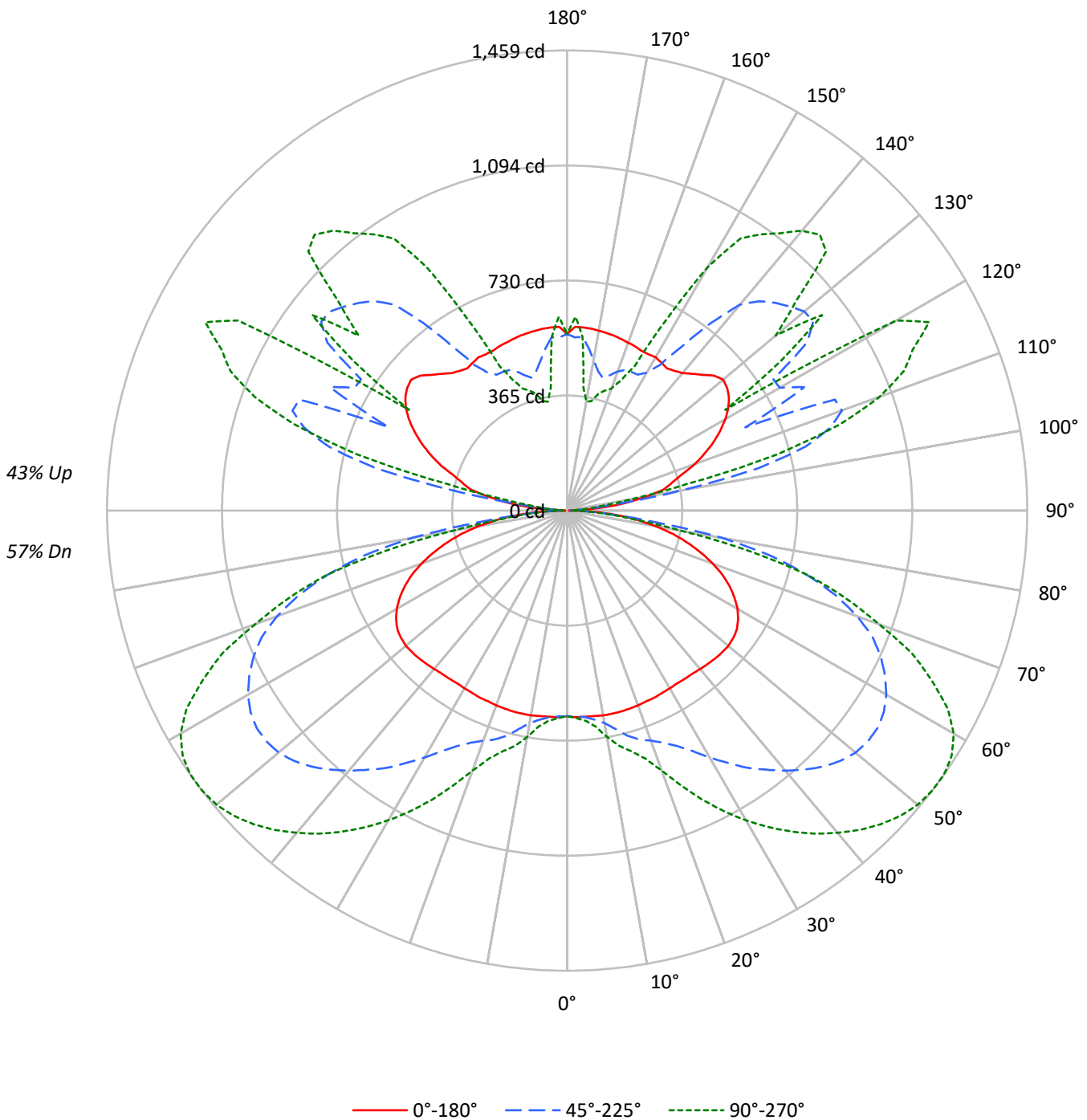
Lumens per Lamp: N/A  
Luminaire Lumens: 8897.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36  
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')  
CIE Type: General Diffuse

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-L840-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°	2807	2807	2807
5°	2834	2840	2890
10°	2884	2990	3186
15°	2940	3294	3521
20°	3011	3556	4018
25°	3109	3911	4798
30°	3235	4493	5637
35°	3420	5234	6531
40°	3686	6050	7494
45°	4040	6990	8562
50°	4470	7998	9719
55°	4933	9021	10949
60°	5372	10061	12186
65°	5796	11174	12998
70°	6180	12310	13245
75°	6593	13079	13142
80°	7037	12363	9065
85°	7642	6565	6254



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	0.7
10°-20°	208.0	2.3
20°-30°	387.9	4.4
30°-40°	611.5	6.9
40°-50°	844.7	9.5
50°-60°	1013.6	11.4
60°-70°	1006.0	11.3
70°-80°	724.5	8.1
80°-90°	193.8	2.2
90°-100°	122.3	1.4
100°-110°	655.9	7.4
110°-120°	840.2	9.4
120°-130°	701.0	7.9
130°-140°	652.5	7.3
140°-150°	445.5	5.0
150°-160°	242.5	2.7
160°-170°	133.6	1.5
170°-180°	49.8	0.6
0°-30°	659.8	7.4
0°-40°	1271.3	14.3
0°-60°	3129.6	35.2
0°-90°	5053.8	56.8
90°-120°	1618.4	18.2
90°-150°	3417.3	38.4
90°-180°	3843.0	43.2
0°-180°	8897.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	652	652	652	652	652	
5°	656	661	657	665	669	63
15°	660	681	739	775	790	187
25°	654	724	823	957	1010	303
35°	651	760	996	1190	1243	409
45°	664	828	1148	1356	1406	513
55°	657	888	1202	1404	1459	585
65°	569	832	1097	1248	1276	559
75°	396	637	786	800	790	415
85°	155	212	133	124	127	151
90°	6	10	12	10	13	16
95°	118	105	60	63	63	121
105°	345	570	782	749	690	365
115°	511	694	624	1184	1209	504
125°	626	701	928	966	827	557
135°	608	496	932	1138	1161	473
145°	551	449	637	945	1069	350
155°	559	448	484	530	504	260
165°	574	527	436	432	384	162
175°	583	576	552	498	554	55
180°	560	560	560	560	560	



TEST NUMBER: P236443

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L840-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
2.5°	655.8	655.8	655.8	655.8	657.1	659.6	658.4	655.8	654.5	653.2	652.0
5°	655.8	655.8	655.8	657.1	659.6	662.2	662.2	659.6	658.4	657.1	658.4
7.5°	657.1	657.1	658.4	660.9	663.5	666.0	667.3	668.6	668.6	668.6	669.9
10°	659.6	659.6	660.9	664.7	667.3	673.7	676.3	676.3	678.8	683.9	690.3
12.5°	659.6	659.6	663.5	666.0	673.7	680.1	683.9	690.3	699.3	709.5	718.4
15°	659.6	659.6	663.5	668.6	676.3	685.2	698.0	710.8	724.8	738.9	749.1
17.5°	658.4	659.6	663.5	672.4	678.8	698.0	714.6	733.8	749.1	760.6	769.6
20°	657.1	658.4	663.5	672.4	686.5	713.3	735.1	753.0	765.7	776.0	788.8
22.5°	654.5	657.1	663.5	673.7	695.4	726.1	749.1	764.5	779.8	796.4	815.6
25°	654.5	655.8	664.7	678.8	706.9	741.5	759.3	774.7	797.7	823.3	852.7
27.5°	652.0	653.2	663.5	685.2	718.4	751.7	768.3	792.6	823.3	859.1	898.7
30°	650.7	652.0	662.2	691.6	728.7	758.1	779.8	814.3	857.8	903.8	946.0
32.5°	649.4	652.0	664.7	700.5	736.3	765.7	796.4	843.7	898.7	948.5	997.1
35°	650.7	652.0	668.6	709.5	742.7	777.2	818.2	878.2	939.6	995.8	1044.4
37.5°	652.0	654.5	676.3	718.4	749.1	792.6	847.6	915.3	979.2	1035.5	1089.2
40°	655.8	658.4	685.2	726.1	759.3	814.3	880.8	953.7	1018.9	1076.4	1131.4
42.5°	659.6	662.2	694.2	732.5	773.4	839.9	912.8	988.2	1055.9	1113.5	1171.0
45°	663.5	664.7	703.1	737.6	790.0	865.5	943.4	1020.1	1089.2	1148.0	1205.5
47.5°	666.0	667.3	710.8	744.0	807.9	889.7	970.3	1047.0	1116.0	1174.8	1231.1
50°	667.3	668.6	713.3	750.4	825.8	910.2	992.0	1068.7	1136.5	1194.0	1249.0
52.5°	663.5	667.3	708.2	754.2	838.6	923.0	1006.1	1080.2	1145.4	1201.7	1257.9
55°	657.1	660.9	699.3	756.8	846.3	930.6	1012.5	1084.1	1145.4	1201.7	1256.6
57.5°	643.0	650.7	686.5	755.5	843.7	929.4	1008.6	1075.1	1136.5	1190.2	1243.8
60°	623.8	634.1	668.6	746.6	834.8	919.1	992.0	1055.9	1114.7	1168.4	1222.1
62.5°	598.3	611.1	648.1	731.2	818.2	900.0	967.7	1027.8	1085.3	1136.5	1188.9
65°	568.9	581.7	626.4	709.5	793.9	870.6	933.2	992.0	1047.0	1096.8	1145.4
67.5°	533.1	544.6	597.0	681.4	760.6	829.7	891.0	947.3	998.4	1048.3	1087.9
70°	490.9	502.4	563.8	645.6	717.2	783.6	839.9	893.6	942.2	977.9	1006.1
72.5°	444.9	457.7	526.7	602.1	666.0	727.4	782.4	829.7	862.9	892.3	916.6
75°	396.3	412.9	485.8	549.7	608.5	664.7	712.0	744.0	773.4	786.2	792.6
77.5°	343.9	365.6	435.9	492.2	543.3	589.3	620.0	643.0	652.0	659.6	660.9
80°	283.8	314.5	374.6	420.6	462.8	493.4	511.3	515.2	512.6	498.6	464.0
82.5°	221.2	258.2	301.7	337.5	357.9	368.2	372.0	347.7	313.2	277.4	257.0
85°	154.7	182.8	212.2	225.0	223.7	200.7	171.3	152.1	141.9	132.9	130.4
87.5°	78.0	84.4	90.8	76.7	63.9	61.4	62.6	60.1	61.4	60.1	60.1
90°	6.4	6.4	7.7	7.7	8.9	10.2	11.5	12.8	12.8	11.5	11.5
92.5°	28.1	25.6	24.3	23.0	24.3	24.3	24.3	21.7	21.7	21.7	20.5
95°	117.6	138.1	152.1	153.4	118.9	92.0	79.3	69.0	62.6	60.1	57.5
97.5°	187.9	221.2	260.8	292.7	310.6	297.9	249.3	194.3	164.9	149.6	135.5
100°	253.1	287.6	341.3	392.5	437.2	462.8	466.6	455.1	411.6	365.6	309.4
102.5°	315.8	338.8	407.8	467.9	520.3	567.6	598.3	620.0	626.4	621.3	595.7
105°	345.2	354.1	433.4	502.4	553.5	586.8	652.0	714.6	765.7	782.4	781.1
107.5°	381.0	369.4	458.9	530.5	571.4	605.9	634.1	763.2	815.6	874.4	912.8
110°	430.8	396.3	485.8	574.0	627.7	623.8	648.1	657.1	870.6	926.8	967.7



TEST NUMBER: P236443

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L840-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	471.7	420.6	475.6	591.9	658.4	673.7	675.0	694.2	648.1	919.1	1031.6
115°	511.3	451.3	453.8	593.2	666.0	722.3	694.2	724.8	756.8	623.8	836.1
117.5°	547.1	485.8	448.7	580.4	676.3	741.5	776.0	715.9	764.5	847.6	648.1
120°	579.1	519.0	462.8	548.4	685.2	759.3	816.9	830.9	740.2	778.5	894.9
122.5°	605.9	549.7	484.5	521.6	668.6	772.1	834.8	884.6	878.2	774.7	773.4
125°	626.4	575.3	502.4	496.0	629.0	773.4	845.0	905.1	939.6	928.1	825.8
127.5°	639.2	594.4	513.9	484.5	576.5	736.3	846.3	900.0	951.1	983.1	977.9
130°	645.6	608.5	517.7	492.2	533.1	675.0	823.3	884.6	930.6	981.8	1021.4
132.5°	632.8	603.4	510.1	497.3	490.9	585.5	750.4	861.6	907.6	957.5	1015.0
135°	608.5	586.8	503.7	492.2	467.9	524.1	653.2	800.3	883.3	931.9	980.5
137.5°	588.0	572.7	499.8	478.1	466.6	481.9	563.8	701.8	838.6	900.0	942.2
140°	568.9	559.9	494.7	461.5	466.6	456.4	512.6	605.9	741.5	851.4	905.1
142.5°	558.6	551.0	490.9	447.4	458.9	456.4	476.8	533.1	635.3	749.1	850.1
145°	551.0	544.6	488.3	441.0	444.9	453.8	455.1	490.9	549.7	636.6	732.5
147.5°	556.1	545.9	490.9	439.8	432.1	452.5	462.8	467.9	501.1	547.1	618.7
150°	561.2	551.0	506.2	448.7	427.0	447.4	467.9	473.0	481.9	505.0	533.1
152.5°	558.6	553.5	528.0	474.3	441.0	442.3	461.5	471.7	480.7	485.8	498.6
155°	558.6	554.8	540.7	490.9	456.4	439.8	448.7	465.3	478.1	484.5	485.8
157.5°	563.8	558.6	551.0	510.1	470.4	441.0	439.8	452.5	471.7	481.9	488.3
160°	566.3	561.2	561.2	528.0	490.9	461.5	439.8	443.6	456.4	469.2	479.4
162.5°	570.2	565.0	566.3	548.4	516.5	485.8	461.5	442.3	442.3	450.0	457.7
165°	574.0	570.2	570.2	566.3	540.7	512.6	485.8	464.0	444.9	435.9	434.6
167.5°	576.5	574.0	572.7	574.0	562.5	539.5	515.2	490.9	470.4	452.5	434.6
170°	579.1	577.8	576.5	576.5	576.5	566.3	544.6	524.1	503.7	483.2	462.8
172.5°	581.7	580.4	577.8	576.5	576.5	576.5	568.9	553.5	538.2	520.3	501.1
175°	582.9	582.9	581.7	579.1	576.5	575.3	571.4	565.0	558.6	552.3	539.5
177.5°	582.9	582.9	581.7	580.4	579.1	577.8	571.4	565.0	556.1	549.7	540.7
180°	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9



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CATALOG NUMBER: SKB2-LD5-12-W-UNV-L840-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
2.5°	652.0	652.0	653.2	655.8	655.8	657.1	658.4	658.4
5°	659.6	660.9	663.5	666.0	666.0	667.3	667.3	668.6
7.5°	671.1	673.7	677.5	682.6	685.2	685.2	687.8	690.3
10°	698.0	701.8	710.8	717.2	721.0	723.6	727.4	728.7
12.5°	729.9	736.3	746.6	753.0	756.8	759.3	761.9	764.5
15°	758.1	764.5	772.1	777.2	781.1	783.6	786.2	790.0
17.5°	778.5	786.2	797.7	806.6	813.0	816.9	822.0	824.5
20°	805.4	819.4	836.1	848.8	860.3	865.5	873.1	877.0
22.5°	838.6	862.9	887.2	903.8	920.4	926.8	937.0	942.2
25°	887.2	917.9	947.3	966.4	985.6	992.0	1004.8	1009.9
27.5°	939.6	976.7	1008.6	1029.1	1048.3	1058.5	1070.0	1073.8
30°	994.6	1035.5	1067.4	1090.4	1110.9	1119.8	1130.1	1133.9
32.5°	1047.0	1091.7	1123.7	1148.0	1168.4	1178.7	1186.3	1190.2
35°	1096.8	1142.9	1177.4	1201.7	1222.1	1232.3	1240.0	1242.6
37.5°	1144.1	1188.9	1224.7	1251.5	1273.3	1283.5	1288.6	1291.1
40°	1190.2	1234.9	1272.0	1297.5	1319.3	1326.9	1333.3	1333.3
42.5°	1228.5	1274.5	1309.0	1335.9	1356.3	1365.3	1370.4	1373.0
45°	1260.5	1305.2	1342.3	1369.1	1389.6	1399.8	1402.4	1406.2
47.5°	1286.0	1330.8	1367.8	1396.0	1415.1	1425.4	1429.2	1433.0
50°	1303.9	1350.0	1385.7	1412.6	1433.0	1444.6	1449.7	1450.9
52.5°	1311.6	1356.3	1392.1	1419.0	1440.7	1453.5	1459.9	1458.6
55°	1309.0	1352.5	1389.6	1417.7	1439.4	1453.5	1458.6	1458.6
57.5°	1296.3	1339.7	1374.2	1403.6	1425.4	1438.2	1443.3	1445.8
60°	1270.7	1314.2	1347.4	1375.5	1394.7	1408.8	1412.6	1415.1
62.5°	1234.9	1277.1	1307.8	1329.5	1346.1	1352.5	1356.3	1360.2
65°	1187.6	1220.8	1240.0	1256.6	1268.1	1270.7	1272.0	1275.8
67.5°	1116.0	1139.0	1158.2	1171.0	1183.8	1183.8	1181.2	1183.8
70°	1031.6	1052.1	1058.5	1057.2	1062.3	1055.9	1050.8	1052.1
72.5°	921.7	926.8	930.6	928.1	934.5	930.6	926.8	928.1
75°	796.4	800.3	804.1	796.4	802.8	793.9	787.5	790.0
77.5°	653.2	644.3	634.1	609.8	608.5	590.6	584.2	593.2
80°	438.5	418.0	402.7	378.4	373.3	363.1	355.4	365.6
82.5°	237.8	230.1	226.3	216.0	219.9	213.5	212.2	216.0
85°	125.3	125.3	125.3	122.7	126.6	124.0	124.0	126.6
87.5°	58.8	58.8	60.1	57.5	61.4	60.1	61.4	62.6
90°	10.2	10.2	11.5	8.9	12.8	10.2	10.2	12.8
92.5°	19.2	20.5	19.2	19.2	16.6	17.9	16.6	16.6
95°	58.8	61.4	62.6	63.9	63.9	65.2	63.9	62.6
97.5°	126.6	122.7	115.1	115.1	109.9	107.4	106.1	102.3
100°	271.0	253.1	231.4	226.3	216.0	208.4	208.4	202.0
102.5°	554.8	513.9	478.1	458.9	428.3	409.1	405.2	389.9
105°	774.7	773.4	753.0	745.3	724.8	710.8	705.7	690.3
107.5°	924.3	931.9	928.1	930.6	923.0	916.6	915.3	903.8
110°	1004.8	1039.3	1057.2	1068.7	1067.4	1063.6	1061.0	1053.4





TEST NUMBER: P236443

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L840-CD2-U all blades horizontal

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1064.9	1094.3	1116.0	1131.4	1142.9	1154.4	1156.9	1155.6
115°	1091.7	1163.3	1181.2	1187.6	1194.0	1204.2	1210.6	1209.3
117.5°	673.7	923.0	1148.0	1228.5	1260.5	1278.4	1291.1	1293.7
120°	793.9	616.2	650.7	788.8	966.4	1096.8	1163.3	1205.5
122.5°	885.9	954.9	820.7	669.9	589.3	586.8	582.9	594.4
125°	763.2	830.9	934.5	997.1	995.8	931.9	877.0	827.1
127.5°	908.9	818.2	804.1	860.3	923.0	965.2	1001.0	1018.9
130°	1038.0	1020.1	956.2	888.5	855.2	851.4	856.5	862.9
132.5°	1061.0	1095.6	1105.8	1094.3	1059.8	1029.1	1003.5	985.6
135°	1029.1	1080.2	1122.4	1154.4	1162.0	1163.3	1164.6	1160.8
137.5°	988.2	1031.6	1081.5	1130.1	1165.9	1176.1	1182.5	1186.3
140°	943.4	985.6	1026.5	1063.6	1116.0	1145.4	1154.4	1158.2
142.5°	905.1	937.0	975.4	1012.5	1044.4	1078.9	1105.8	1108.3
145°	834.8	892.3	930.6	958.8	989.5	1012.5	1049.5	1068.7
147.5°	705.7	790.0	861.6	903.8	938.3	962.6	988.2	1022.7
150°	589.3	664.7	723.6	774.7	836.1	869.3	902.5	891.0
152.5°	519.0	556.1	597.0	637.9	683.9	703.1	701.8	685.2
155°	497.3	505.0	522.9	536.9	562.5	570.2	520.3	503.7
157.5°	492.2	485.8	492.2	493.4	502.4	465.3	450.0	447.4
160°	484.5	484.5	481.9	471.7	452.5	416.7	411.6	411.6
162.5°	465.3	467.9	465.3	456.4	421.9	402.7	398.8	398.8
165°	437.2	438.5	437.2	427.0	401.4	382.2	382.2	383.5
167.5°	419.3	412.9	410.4	395.0	381.0	365.6	354.1	355.4
170°	444.9	430.8	418.0	398.8	388.6	379.7	357.9	350.3
172.5°	481.9	465.3	452.5	441.0	438.5	443.6	430.8	393.7
175°	524.1	508.8	498.6	497.3	503.7	525.4	535.6	553.5
177.5°	529.2	513.9	507.5	513.9	529.2	559.9	597.0	614.9
180°	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9

(END OF REPORT)