

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: P236446

Luminaire Tested: **SKB2-LD5-15-W-UNV-L840-CD2-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236446
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-LD5-15-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

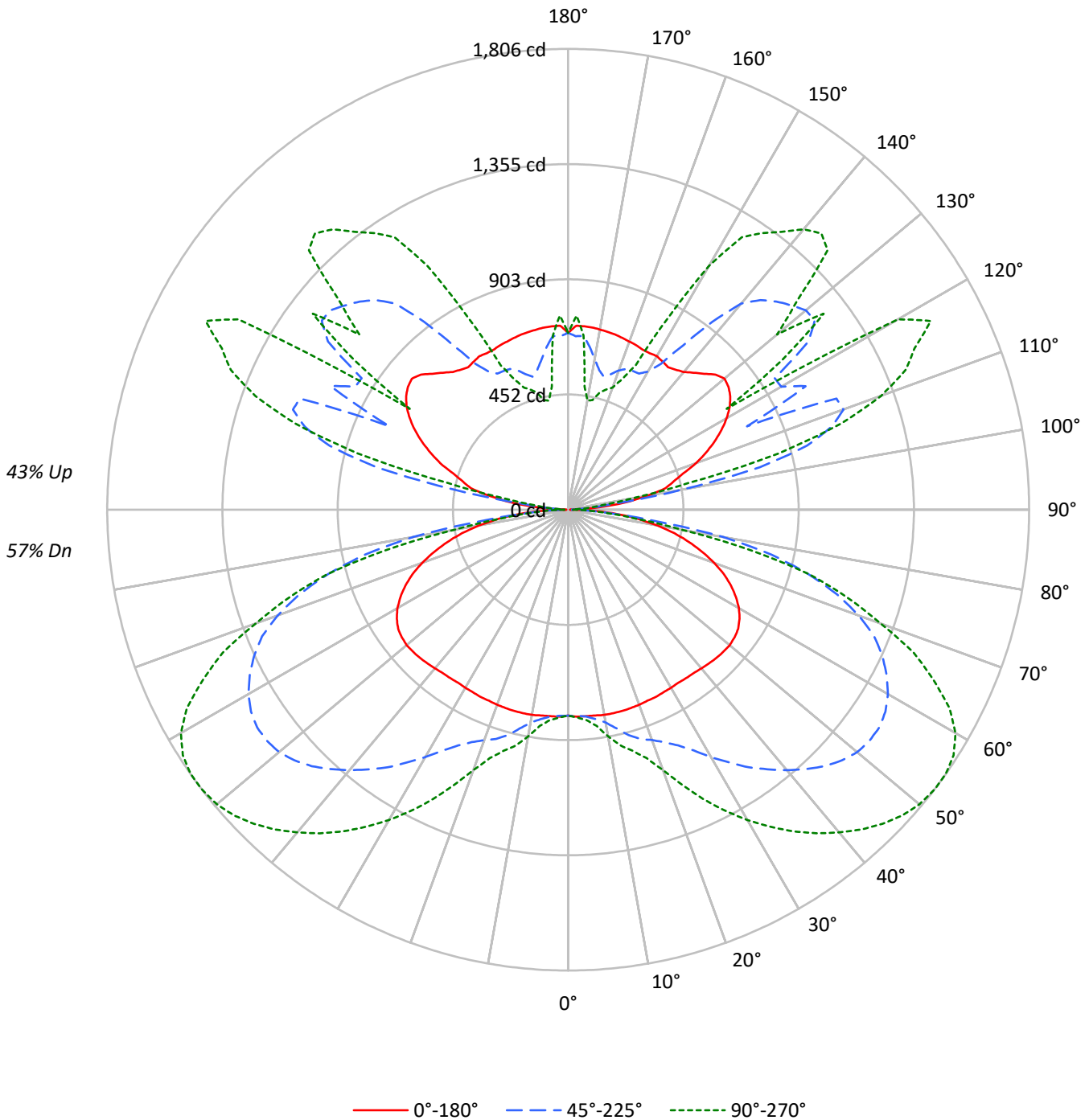
Lumens per Lamp: N/A
Luminaire Lumens: 11014.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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

TEST NUMBER: P236446

CATALOG NUMBER: SKB2-LD5-15-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				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	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°	3475	3475	3475
5°	3509	3516	3577
10°	3570	3702	3944
15°	3640	4077	4359
20°	3727	4401	4974
25°	3849	4842	5939
30°	4005	5563	6979
35°	4234	6480	8085
40°	4563	7489	9277
45°	5001	8653	10600
50°	5533	9901	12031
55°	6106	11167	13555
60°	6650	12455	15086
65°	7174	13833	16091
70°	7650	15240	16395
75°	8161	16191	16269
80°	8710	15303	11222
85°	9460	8131	7741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	0.7
10°-20°	257.5	2.3
20°-30°	480.1	4.4
30°-40°	757.0	6.9
40°-50°	1045.7	9.5
50°-60°	1254.7	11.4
60°-70°	1245.3	11.3
70°-80°	896.8	8.1
80°-90°	239.9	2.2
90°-100°	151.4	1.4
100°-110°	811.9	7.4
110°-120°	1040.1	9.4
120°-130°	867.8	7.9
130°-140°	807.7	7.3
140°-150°	551.5	5.0
150°-160°	300.2	2.7
160°-170°	165.4	1.5
170°-180°	61.6	0.6
0°-30°	816.8	7.4
0°-40°	1573.8	14.3
0°-60°	3874.2	35.2
0°-90°	6256.3	56.8
90°-120°	2003.5	18.2
90°-150°	4230.5	38.4
90°-180°	4758.0	43.2
0°-180°	11014.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	812	818	813	823	828	78
15°	817	843	915	959	978	231
25°	810	896	1019	1185	1250	374
35°	806	941	1233	1473	1538	507
45°	821	1025	1421	1678	1741	635
55°	813	1100	1488	1738	1806	724
65°	704	1030	1358	1545	1579	692
75°	491	788	973	991	978	514
85°	192	263	165	154	157	187
90°	8	12	14	13	16	20
95°	146	131	74	78	78	150
105°	427	706	968	927	855	452
115°	633	859	772	1466	1497	624
125°	775	868	1149	1196	1024	689
135°	753	614	1154	1409	1437	585
145°	682	556	788	1170	1323	434
155°	692	555	600	656	624	321
165°	711	652	540	535	475	201
175°	722	713	684	616	685	69
180°	693	693	693	693	693	



TEST NUMBER: P236446

CATALOG NUMBER: SKB2-LD5-15-W-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1
2.5°	811.8	811.8	811.8	811.8	813.4	816.6	815.0	811.8	810.3	808.7	807.1
5°	811.8	811.8	811.8	813.4	816.6	819.8	819.8	816.6	815.0	813.4	815.0
7.5°	813.4	813.4	815.0	818.2	821.3	824.5	826.1	827.7	827.7	827.7	829.3
10°	816.6	816.6	818.2	822.9	826.1	834.0	837.2	837.2	840.3	846.7	854.6
12.5°	816.6	816.6	821.3	824.5	834.0	841.9	846.7	854.6	865.7	878.3	889.4
15°	816.6	816.6	821.3	827.7	837.2	848.2	864.1	879.9	897.3	914.7	927.4
17.5°	815.0	816.6	821.3	832.4	840.3	864.1	884.6	908.4	927.4	941.6	952.7
20°	813.4	815.0	821.3	832.4	849.8	883.1	910.0	932.1	947.9	960.6	976.4
22.5°	810.3	813.4	821.3	834.0	860.9	898.9	927.4	946.4	965.4	985.9	1009.7
25°	810.3	811.8	822.9	840.3	875.1	917.9	940.0	959.0	987.5	1019.2	1055.6
27.5°	807.1	808.7	821.3	848.2	889.4	930.5	951.1	981.2	1019.2	1063.5	1112.5
30°	805.5	807.1	819.8	856.2	902.1	938.4	965.4	1008.1	1061.9	1118.9	1171.1
32.5°	803.9	807.1	822.9	867.2	911.5	947.9	985.9	1044.5	1112.5	1174.2	1234.4
35°	805.5	807.1	827.7	878.3	919.5	962.2	1012.8	1087.2	1163.2	1232.8	1292.9
37.5°	807.1	810.3	837.2	889.4	927.4	981.2	1049.2	1133.1	1212.2	1281.9	1348.3
40°	811.8	815.0	848.2	898.9	940.0	1008.1	1090.4	1180.6	1261.3	1332.5	1400.6
42.5°	816.6	819.8	859.3	906.8	957.4	1039.7	1129.9	1223.3	1307.2	1378.4	1449.6
45°	821.3	822.9	870.4	913.1	978.0	1071.4	1167.9	1262.9	1348.3	1421.1	1492.3
47.5°	824.5	826.1	879.9	921.0	1000.2	1101.5	1201.2	1296.1	1381.6	1454.4	1524.0
50°	826.1	827.7	883.1	929.0	1022.3	1126.8	1228.1	1323.0	1406.9	1478.1	1546.1
52.5°	821.3	826.1	876.7	933.7	1038.1	1142.6	1245.5	1337.3	1418.0	1487.6	1557.2
55°	813.4	818.2	865.7	936.9	1047.6	1152.1	1253.4	1342.0	1418.0	1487.6	1555.6
57.5°	796.0	805.5	849.8	935.3	1044.5	1150.5	1248.6	1330.9	1406.9	1473.3	1539.8
60°	772.3	784.9	827.7	924.2	1033.4	1137.8	1228.1	1307.2	1380.0	1446.4	1512.9
62.5°	740.6	756.5	802.4	905.2	1012.8	1114.1	1198.0	1272.4	1343.6	1406.9	1471.8
65°	704.2	720.1	775.4	878.3	982.8	1077.7	1155.3	1228.1	1296.1	1357.8	1418.0
67.5°	659.9	674.2	739.0	843.5	941.6	1027.1	1103.0	1172.7	1236.0	1297.7	1346.7
70°	607.7	621.9	697.9	799.2	887.8	970.1	1039.7	1106.2	1166.3	1210.6	1245.5
72.5°	550.7	566.6	652.0	745.4	824.5	900.5	968.5	1027.1	1068.2	1104.6	1134.7
75°	490.6	511.2	601.4	680.5	753.3	822.9	881.5	921.0	957.4	973.3	981.2
77.5°	425.7	452.6	539.6	609.3	672.6	729.6	767.5	796.0	807.1	816.6	818.2
80°	351.3	389.3	463.7	520.7	572.9	610.9	633.0	637.8	634.6	617.2	574.5
82.5°	273.8	319.7	373.5	417.8	443.1	455.8	460.5	430.5	387.7	343.4	318.1
85°	191.5	226.3	262.7	278.5	276.9	248.5	212.1	188.3	175.7	164.6	161.4
87.5°	96.5	104.4	112.4	95.0	79.1	76.0	77.5	74.4	76.0	74.4	74.4
90°	7.9	7.9	9.5	9.5	11.1	12.7	14.2	15.8	15.8	14.2	14.2
92.5°	34.8	31.7	30.1	28.5	30.1	30.1	30.1	26.9	26.9	26.9	25.3
95°	145.6	170.9	188.3	189.9	147.2	113.9	98.1	85.5	77.5	74.4	71.2
97.5°	232.6	273.8	322.8	362.4	384.6	368.7	308.6	240.5	204.1	185.2	167.7
100°	313.3	356.1	422.5	485.8	541.2	572.9	577.6	563.4	509.6	452.6	383.0
102.5°	390.9	419.4	504.8	579.2	644.1	702.6	740.6	767.5	775.4	769.1	737.5
105°	427.3	438.4	536.5	621.9	685.2	726.4	807.1	884.6	947.9	968.5	966.9
107.5°	471.6	457.4	568.1	656.8	707.4	750.1	784.9	944.8	1009.7	1082.5	1129.9
110°	533.3	490.6	601.4	710.6	777.0	772.3	802.4	813.4	1077.7	1147.3	1198.0



TEST NUMBER: P236446

CATALOG NUMBER: SKB2-LD5-15-W-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	584.0	520.7	588.7	732.7	815.0	834.0	835.6	859.3	802.4	1137.8	1277.1
115°	633.0	558.6	561.8	734.3	824.5	894.1	859.3	897.3	936.9	772.3	1035.0
117.5°	677.3	601.4	555.5	718.5	837.2	917.9	960.6	886.2	946.4	1049.2	802.4
120°	716.9	642.5	572.9	678.9	848.2	940.0	1011.2	1028.7	916.3	963.8	1107.8
122.5°	750.1	680.5	599.8	645.7	827.7	955.9	1033.4	1095.1	1087.2	959.0	957.4
125°	775.4	712.1	621.9	614.0	778.6	957.4	1046.1	1120.4	1163.2	1148.9	1022.3
127.5°	791.3	735.9	636.2	599.8	713.7	911.5	1047.6	1114.1	1177.4	1217.0	1210.6
130°	799.2	753.3	640.9	609.3	659.9	835.6	1019.2	1095.1	1152.1	1215.4	1264.5
132.5°	783.4	747.0	631.4	615.6	607.7	724.8	929.0	1066.6	1123.6	1185.3	1256.5
135°	753.3	726.4	623.5	609.3	579.2	648.8	808.7	990.7	1093.5	1153.7	1213.8
137.5°	728.0	709.0	618.8	591.9	577.6	596.6	697.9	868.8	1038.1	1114.1	1166.3
140°	704.2	693.2	612.4	571.3	577.6	565.0	634.6	750.1	917.9	1054.0	1120.4
142.5°	691.6	682.1	607.7	553.9	568.1	565.0	590.3	659.9	786.5	927.4	1052.4
145°	682.1	674.2	604.5	546.0	550.7	561.8	563.4	607.7	680.5	788.1	906.8
147.5°	688.4	675.7	607.7	544.4	534.9	560.2	572.9	579.2	620.4	677.3	766.0
150°	694.7	682.1	626.7	555.5	528.6	553.9	579.2	585.5	596.6	625.1	659.9
152.5°	691.6	685.2	653.6	587.1	546.0	547.6	571.3	584.0	595.0	601.4	617.2
155°	691.6	686.8	669.4	607.7	565.0	544.4	555.5	576.0	591.9	599.8	601.4
157.5°	697.9	691.6	682.1	631.4	582.4	546.0	544.4	560.2	584.0	596.6	604.5
160°	701.1	694.7	694.7	653.6	607.7	571.3	544.4	549.1	565.0	580.8	593.5
162.5°	705.8	699.5	701.1	678.9	639.3	601.4	571.3	547.6	547.6	557.1	566.6
165°	710.6	705.8	705.8	701.1	669.4	634.6	601.4	574.5	550.7	539.6	538.1
167.5°	713.7	710.6	709.0	710.6	696.3	667.8	637.8	607.7	582.4	560.2	538.1
170°	716.9	715.3	713.7	713.7	713.7	701.1	674.2	648.8	623.5	598.2	572.9
172.5°	720.1	718.5	715.3	713.7	713.7	713.7	704.2	685.2	666.3	644.1	620.4
175°	721.6	721.6	720.1	716.9	713.7	712.1	707.4	699.5	691.6	683.7	667.8
177.5°	721.6	721.6	720.1	718.5	716.9	715.3	707.4	699.5	688.4	680.5	669.4
180°	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2



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CATALOG NUMBER: SKB2-LD5-15-W-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1
2.5°	807.1	807.1	808.7	811.8	811.8	813.4	815.0	815.0
5°	816.6	818.2	821.3	824.5	824.5	826.1	826.1	827.7
7.5°	830.8	834.0	838.7	845.1	848.2	848.2	851.4	854.6
10°	864.1	868.8	879.9	887.8	892.6	895.7	900.5	902.1
12.5°	903.6	911.5	924.2	932.1	936.9	940.0	943.2	946.4
15°	938.4	946.4	955.9	962.2	966.9	970.1	973.3	978.0
17.5°	963.8	973.3	987.5	998.6	1006.5	1011.2	1017.6	1020.7
20°	997.0	1014.4	1035.0	1050.8	1065.1	1071.4	1080.9	1085.6
22.5°	1038.1	1068.2	1098.3	1118.9	1139.4	1147.3	1160.0	1166.3
25°	1098.3	1136.3	1172.7	1196.4	1220.1	1228.1	1243.9	1250.2
27.5°	1163.2	1209.1	1248.6	1273.9	1297.7	1310.3	1324.6	1329.3
30°	1231.2	1281.9	1321.4	1349.9	1375.2	1386.3	1399.0	1403.7
32.5°	1296.1	1351.5	1391.1	1421.1	1446.4	1459.1	1468.6	1473.3
35°	1357.8	1414.8	1457.5	1487.6	1512.9	1525.6	1535.1	1538.2
37.5°	1416.4	1471.8	1516.1	1549.3	1576.2	1588.9	1595.2	1598.4
40°	1473.3	1528.7	1574.6	1606.3	1633.2	1642.7	1650.6	1650.6
42.5°	1520.8	1577.8	1620.5	1653.8	1679.1	1690.2	1696.5	1699.7
45°	1560.4	1615.8	1661.7	1694.9	1720.2	1732.9	1736.1	1740.8
47.5°	1592.0	1647.4	1693.3	1728.1	1751.9	1764.5	1769.3	1774.0
50°	1614.2	1671.2	1715.5	1748.7	1774.0	1788.3	1794.6	1796.2
52.5°	1623.7	1679.1	1723.4	1756.6	1783.5	1799.4	1807.3	1805.7
55°	1620.5	1674.3	1720.2	1755.0	1781.9	1799.4	1805.7	1805.7
57.5°	1604.7	1658.5	1701.2	1737.6	1764.5	1780.4	1786.7	1789.9
60°	1573.0	1626.9	1668.0	1702.8	1726.6	1744.0	1748.7	1751.9
62.5°	1528.7	1581.0	1618.9	1645.8	1666.4	1674.3	1679.1	1683.8
65°	1470.2	1511.3	1535.1	1555.6	1569.9	1573.0	1574.6	1579.4
67.5°	1381.6	1410.0	1433.8	1449.6	1465.4	1465.4	1462.3	1465.4
70°	1277.1	1302.4	1310.3	1308.8	1315.1	1307.2	1300.9	1302.4
72.5°	1141.0	1147.3	1152.1	1148.9	1156.8	1152.1	1147.3	1148.9
75°	985.9	990.7	995.4	985.9	993.8	982.8	974.8	978.0
77.5°	808.7	797.6	784.9	754.9	753.3	731.1	723.2	734.3
80°	542.8	517.5	498.5	468.4	462.1	449.4	439.9	452.6
82.5°	294.4	284.9	280.1	267.5	272.2	264.3	262.7	267.5
85°	155.1	155.1	155.1	151.9	156.7	153.5	153.5	156.7
87.5°	72.8	72.8	74.4	71.2	76.0	74.4	76.0	77.5
90°	12.7	12.7	14.2	11.1	15.8	12.7	12.7	15.8
92.5°	23.7	25.3	23.7	23.7	20.6	22.2	20.6	20.6
95°	72.8	76.0	77.5	79.1	79.1	80.7	79.1	77.5
97.5°	156.7	151.9	142.4	142.4	136.1	132.9	131.4	126.6
100°	335.5	313.3	286.4	280.1	267.5	258.0	258.0	250.0
102.5°	686.8	636.2	591.9	568.1	530.2	506.4	501.7	482.7
105°	959.0	957.4	932.1	922.6	897.3	879.9	873.6	854.6
107.5°	1144.2	1153.7	1148.9	1152.1	1142.6	1134.7	1133.1	1118.9
110°	1243.9	1286.6	1308.8	1323.0	1321.4	1316.7	1313.5	1304.0



TEST NUMBER: P236446

CATALOG NUMBER: SKB2-LD5-15-W-UNV-L840-CD2-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1318.3	1354.7	1381.6	1400.6	1414.8	1429.0	1432.2	1430.6
115°	1351.5	1440.1	1462.3	1470.2	1478.1	1490.8	1498.7	1497.1
117.5°	834.0	1142.6	1421.1	1520.8	1560.4	1582.5	1598.4	1601.5
120°	982.8	762.8	805.5	976.4	1196.4	1357.8	1440.1	1492.3
122.5°	1096.7	1182.2	1016.0	829.3	729.6	726.4	721.6	735.9
125°	944.8	1028.7	1156.8	1234.4	1232.8	1153.7	1085.6	1023.9
127.5°	1125.2	1012.8	995.4	1065.1	1142.6	1194.8	1239.1	1261.3
130°	1285.0	1262.9	1183.7	1099.9	1058.7	1054.0	1060.3	1068.2
132.5°	1313.5	1356.2	1368.9	1354.7	1311.9	1273.9	1242.3	1220.1
135°	1273.9	1337.3	1389.5	1429.0	1438.5	1440.1	1441.7	1437.0
137.5°	1223.3	1277.1	1338.8	1399.0	1443.3	1455.9	1463.9	1468.6
140°	1167.9	1220.1	1270.8	1316.7	1381.6	1418.0	1429.0	1433.8
142.5°	1120.4	1160.0	1207.5	1253.4	1292.9	1335.7	1368.9	1372.1
145°	1033.4	1104.6	1152.1	1186.9	1224.9	1253.4	1299.3	1323.0
147.5°	873.6	978.0	1066.6	1118.9	1161.6	1191.7	1223.3	1266.0
150°	729.6	822.9	895.7	959.0	1035.0	1076.1	1117.3	1103.0
152.5°	642.5	688.4	739.0	789.7	846.7	870.4	868.8	848.2
155°	615.6	625.1	647.3	664.7	696.3	705.8	644.1	623.5
157.5°	609.3	601.4	609.3	610.9	621.9	576.0	557.1	553.9
160°	599.8	599.8	596.6	584.0	560.2	515.9	509.6	509.6
162.5°	576.0	579.2	576.0	565.0	522.2	498.5	493.8	493.8
165°	541.2	542.8	541.2	528.6	496.9	473.2	473.2	474.8
167.5°	519.1	511.2	508.0	489.0	471.6	452.6	438.4	439.9
170°	550.7	533.3	517.5	493.8	481.1	470.0	443.1	433.6
172.5°	596.6	576.0	560.2	546.0	542.8	549.1	533.3	487.4
175°	648.8	629.9	617.2	615.6	623.5	650.4	663.1	685.2
177.5°	655.2	636.2	628.3	636.2	655.2	693.2	739.0	761.2
180°	693.2	693.2	693.2	693.2	693.2	693.2	693.2	693.2

(END OF REPORT)