

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: P236417

Luminaire Tested: **SKB2-LD5-9-N-UNV-L850-CD1-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24071)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB2-LD5-9-N-UNV-L850-CD1-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

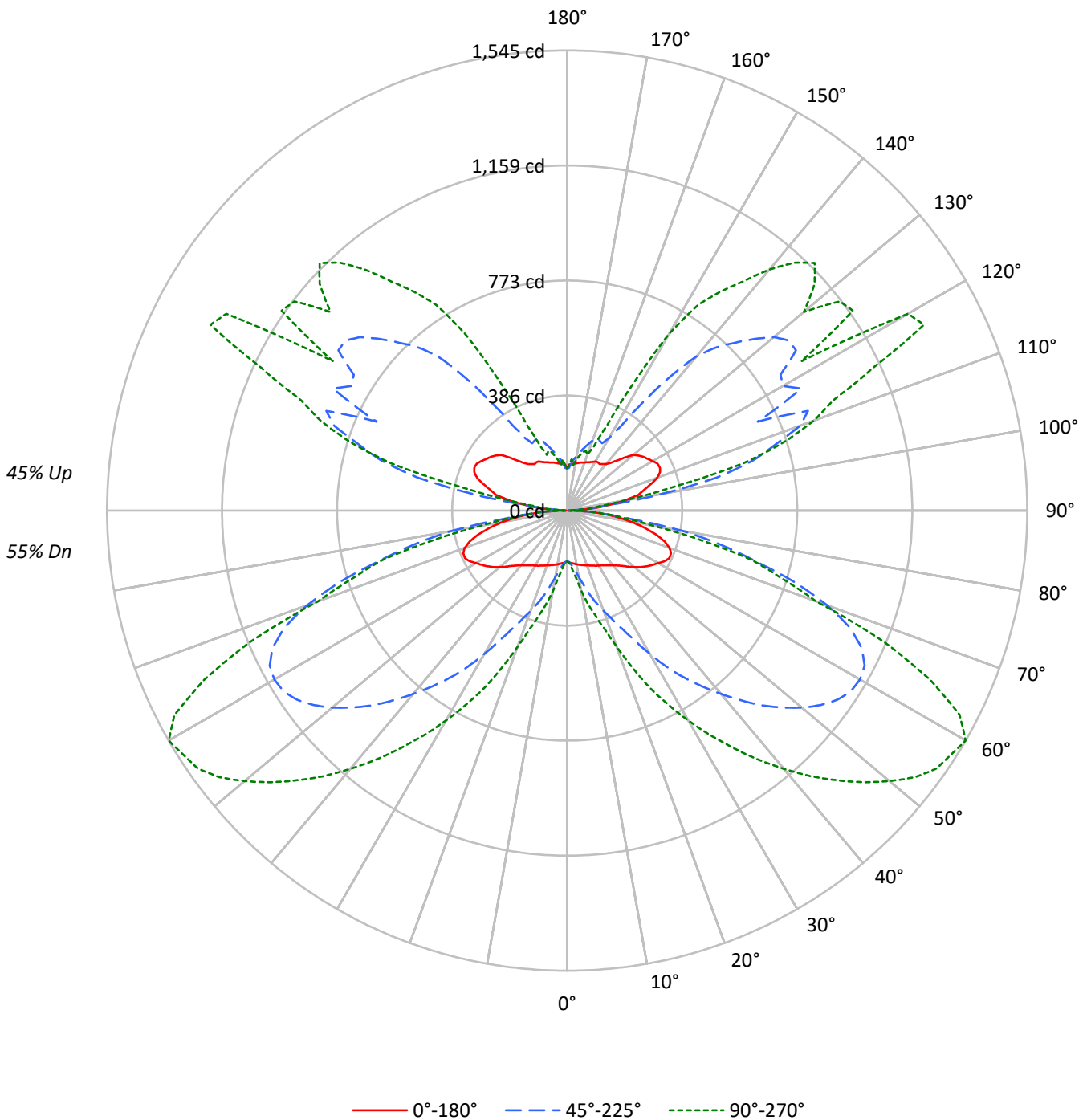
Lumens per Lamp: N/A
Luminaire Lumens: 7264.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 2.2 / 4.49 / 3.74
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 75.4
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: P236417

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L850-CD1-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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	97	91	86	82	89	85	80	77	72	69	66	61	58	56	50	49	47	42
2	86	77	69	63	79	71	65	59	60	55	51	50	47	43	41	38	36	31
3	77	66	57	50	71	61	53	46	51	45	40	43	38	34	34	31	28	24
4	69	57	47	40	63	52	44	37	44	37	32	36	31	27	29	25	22	18
5	63	49	40	33	57	45	37	31	38	31	26	32	26	22	25	21	18	14
6	57	43	34	27	52	40	32	25	34	27	22	28	22	18	22	18	15	12
7	52	38	29	23	48	36	27	22	30	23	18	25	19	15	20	15	12	9
8	48	34	26	20	44	32	24	18	27	20	16	22	17	13	18	13	10	8
9	45	31	23	17	41	29	21	16	24	18	14	20	15	11	16	12	9	7
10	42	28	20	15	38	26	19	14	22	16	12	18	13	10	15	11	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	735	735	735
5°	765	800	853
10°	801	985	1191
15°	843	1297	1614
20°	895	1635	2224
25°	967	2086	3112
30°	1058	2761	4044
35°	1178	3595	5113
40°	1347	4514	6358
45°	1597	5629	7796
50°	1977	6895	9465
55°	2447	8314	11348
60°	3037	9776	13301
65°	3855	11116	13693
70°	4609	11690	11198
75°	5115	10863	10710
80°	5430	9767	7267
85°	5587	5844	6200



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.0	0.3
10°-20°	82.4	1.1
20°-30°	206.9	2.8
30°-40°	407.3	5.6
40°-50°	663.3	9.1
50°-60°	914.1	12.6
60°-70°	958.4	13.2
70°-80°	610.4	8.4
80°-90°	162.1	2.2
90°-100°	109.1	1.5
100°-110°	559.4	7.7
110°-120°	790.6	10.9
120°-130°	702.3	9.7
130°-140°	557.9	7.7
140°-150°	317.9	4.4
150°-160°	129.4	1.8
160°-170°	57.9	0.8
170°-180°	15.6	0.2
0°-30°	308.3	4.2
0°-40°	715.5	9.9
0°-60°	2293.0	31.6
0°-90°	4023.8	55.4
90°-120°	1459.1	20.1
90°-150°	3037.3	41.8
90°-180°	3240.0	44.6
0°-180°	7264.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	171	171	171	171	171	
5°	177	180	185	193	197	17
15°	189	223	291	341	362	54
25°	204	297	439	596	655	95
35°	224	384	684	908	973	142
45°	262	511	924	1206	1280	205
55°	326	651	1108	1428	1512	292
65°	378	717	1091	1292	1344	368
75°	308	564	653	645	644	319
85°	113	167	118	121	126	114
90°	4	8	9	9	10	12
95°	87	93	59	65	68	92
105°	266	496	643	639	612	281
115°	344	607	706	1159	1132	335
125°	314	520	938	1101	1170	281
135°	238	292	797	1102	1175	188
145°	190	255	442	777	897	122
155°	179	224	259	296	313	84
165°	167	191	217	224	204	47
175°	156	155	159	151	173	15
180°	142	142	142	142	142	



TEST NUMBER: P236417

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L850-CD1-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7
2.5°	175.9	175.9	175.9	175.9	174.8	175.9	174.8	174.8	173.8	172.8	172.8
5°	176.9	176.9	177.9	178.9	180.0	180.0	180.0	182.0	183.1	185.1	187.2
7.5°	180.0	180.0	181.0	183.1	185.1	188.2	192.3	197.4	201.6	203.6	206.7
10°	183.1	183.1	186.1	188.2	194.4	202.6	207.7	212.9	219.0	225.2	233.4
12.5°	186.1	187.2	190.3	196.4	206.7	214.9	222.1	233.4	245.8	256.1	268.4
15°	189.2	190.3	195.4	205.7	217.0	228.3	242.7	260.2	276.6	291.0	306.5
17.5°	192.3	194.4	201.6	216.0	228.3	247.8	267.4	289.0	309.5	325.0	340.4
20°	195.4	197.4	207.7	224.2	242.7	268.4	294.1	318.8	339.4	356.8	376.4
22.5°	199.5	201.6	216.0	233.4	259.2	291.0	319.8	345.5	369.2	394.9	420.6
25°	203.6	206.7	224.2	246.8	278.7	315.7	344.5	373.3	405.2	439.1	476.1
27.5°	208.8	211.8	232.4	260.2	299.3	338.3	369.2	406.2	447.3	491.6	540.9
30°	212.9	218.0	240.6	275.6	319.8	361.0	398.0	445.3	498.8	555.3	610.9
32.5°	218.0	225.2	250.9	293.1	340.4	383.6	430.9	490.5	558.4	622.2	678.7
35°	224.2	232.4	262.2	310.6	358.9	409.3	468.9	544.0	620.1	683.9	743.5
37.5°	231.4	241.7	275.6	330.1	380.5	441.2	514.2	600.6	675.6	743.5	807.3
40°	239.6	252.0	291.0	347.6	403.1	476.1	563.6	653.0	732.2	803.2	872.1
42.5°	249.9	263.3	308.5	366.1	430.9	517.3	612.9	703.4	785.7	863.8	938.9
45°	262.2	276.6	328.1	385.6	461.7	559.4	659.2	752.8	840.2	924.5	1001.6
47.5°	278.7	293.1	349.6	408.3	496.7	601.6	702.4	800.1	893.7	979.0	1062.3
50°	295.1	309.5	370.2	432.9	532.7	637.6	742.5	844.3	939.9	1029.4	1114.8
52.5°	311.6	328.1	388.7	459.7	566.6	671.5	779.5	884.4	981.1	1072.6	1163.1
55°	326.0	345.5	406.2	487.5	597.5	704.4	812.4	916.3	1015.0	1107.6	1197.0
57.5°	339.4	361.0	421.6	515.2	623.2	732.2	839.2	939.9	1037.6	1129.2	1217.6
60°	352.7	377.4	439.1	539.9	644.8	753.8	856.6	953.3	1046.9	1135.3	1221.7
62.5°	368.2	393.9	457.6	558.4	662.3	766.1	861.8	953.3	1043.8	1126.1	1204.2
65°	378.4	404.2	473.1	568.7	669.5	765.1	852.5	936.9	1019.1	1091.1	1158.0
67.5°	377.4	403.1	476.1	568.7	660.2	747.6	826.8	899.8	969.8	1028.4	1073.6
70°	366.1	390.8	466.9	554.3	634.5	712.7	780.5	840.2	893.7	928.6	951.3
72.5°	342.5	367.1	444.3	523.4	592.3	659.2	714.7	760.0	786.7	803.2	807.3
75°	307.5	336.3	411.4	478.2	535.8	591.3	627.3	648.9	662.3	653.0	642.7
77.5°	266.4	299.3	366.1	420.6	467.9	504.9	525.5	528.6	525.5	526.5	529.6
80°	219.0	255.0	308.5	353.8	383.6	402.1	404.2	408.3	407.2	393.9	371.2
82.5°	168.7	202.6	242.7	272.5	283.8	289.0	293.1	269.4	242.7	217.0	206.7
85°	113.1	139.9	164.5	175.9	175.9	158.4	134.7	125.5	122.4	118.3	119.3
87.5°	57.6	62.7	67.9	60.7	54.5	57.6	57.6	57.6	59.6	59.6	60.7
90°	4.1	4.1	5.1	6.2	7.2	9.3	10.3	10.3	11.3	9.3	9.3
92.5°	24.7	22.6	22.6	20.6	22.6	22.6	22.6	21.6	19.5	19.5	19.5
95°	87.4	107.0	123.4	126.5	101.8	83.3	76.1	69.9	61.7	58.6	59.6
97.5°	141.9	174.8	210.8	234.5	246.8	247.8	227.3	182.0	153.2	140.9	133.7
100°	195.4	228.3	279.7	321.9	352.7	372.3	381.5	379.5	365.1	326.0	287.9
102.5°	244.8	272.5	338.3	393.9	437.1	472.0	490.5	509.0	517.3	515.2	511.1
105°	266.4	285.9	364.0	432.9	481.3	511.1	560.5	597.5	629.4	642.7	652.0
107.5°	294.1	297.2	384.6	458.7	509.0	549.2	575.9	676.7	706.5	729.1	753.8
110°	321.9	313.7	397.0	489.5	554.3	574.9	612.9	626.3	793.9	832.0	843.3



TEST NUMBER: P236417

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L850-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	337.3	322.9	371.2	496.7	571.8	626.3	643.8	690.0	667.4	875.2	969.8
115°	343.5	327.0	338.3	481.3	569.7	644.8	676.7	713.7	777.5	705.5	861.8
117.5°	341.4	326.0	315.7	444.3	558.4	644.8	717.8	729.1	780.5	886.5	787.7
120°	332.2	320.9	309.5	386.7	538.9	639.7	727.1	798.0	786.7	836.1	953.3
122.5°	321.9	314.7	309.5	339.4	498.8	624.2	719.9	808.3	871.0	849.4	872.1
125°	313.7	307.5	308.5	303.4	440.1	599.5	702.4	798.0	880.3	937.9	924.5
127.5°	303.4	300.3	304.4	292.1	376.4	549.2	679.8	767.2	861.8	937.9	996.5
130°	290.0	289.0	295.1	294.1	325.0	476.1	638.6	731.2	815.5	906.0	985.2
132.5°	264.3	265.3	276.6	290.0	281.8	385.6	561.5	691.1	770.3	852.5	936.9
135°	237.6	241.7	260.2	280.7	264.3	318.8	458.7	620.1	728.1	797.0	873.1
137.5°	218.0	223.2	243.7	267.4	269.4	273.5	367.1	521.4	662.3	744.5	806.3
140°	203.6	209.8	229.3	253.0	269.4	253.0	306.5	415.5	558.4	675.6	748.7
142.5°	196.4	201.6	217.0	240.6	261.2	259.2	267.4	331.1	441.2	564.6	674.6
145°	190.3	194.4	206.7	228.3	248.9	261.2	249.9	276.6	342.5	442.2	551.2
147.5°	192.3	192.3	198.5	214.9	236.5	258.1	262.2	252.0	282.8	337.3	420.6
150°	190.3	189.2	198.5	208.8	228.3	249.9	264.3	260.2	256.1	279.7	317.8
152.5°	184.1	185.1	199.5	209.8	225.2	240.6	256.1	263.3	259.2	255.0	268.4
155°	178.9	180.0	193.3	203.6	217.0	230.4	242.7	256.1	263.3	259.2	250.9
157.5°	175.9	174.8	187.2	197.4	206.7	219.0	231.4	242.7	256.1	262.2	263.3
160°	171.7	170.7	182.0	192.3	199.5	210.8	221.1	230.4	240.6	250.9	257.1
162.5°	168.7	168.7	175.9	187.2	194.4	200.5	210.8	218.0	225.2	232.4	238.6
165°	166.6	166.6	170.7	181.0	189.2	193.3	199.5	206.7	211.8	217.0	220.1
167.5°	163.5	163.5	165.6	173.8	181.0	186.1	190.3	193.3	197.4	200.5	201.6
170°	160.4	160.4	160.4	165.6	172.8	177.9	181.0	183.1	185.1	186.1	185.1
172.5°	158.4	158.4	158.4	158.4	162.5	166.6	169.7	172.8	172.8	173.8	171.7
175°	156.3	156.3	155.3	155.3	155.3	155.3	156.3	157.3	158.4	159.4	158.4
177.5°	154.3	153.2	153.2	152.2	152.2	151.2	149.1	147.1	145.0	142.9	140.9
180°	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9



TEST NUMBER: P236417

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L850-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7
2.5°	172.8	172.8	172.8	172.8	172.8	173.8	173.8	174.8
5°	189.2	191.3	193.3	193.3	194.4	196.4	196.4	197.4
7.5°	209.8	213.9	217.0	219.0	221.1	225.2	225.2	227.3
10°	240.6	247.8	254.0	259.2	262.2	268.4	268.4	272.5
12.5°	279.7	289.0	298.2	304.4	308.5	313.7	315.7	318.8
15°	318.8	329.1	338.3	344.5	349.6	356.8	358.9	362.0
17.5°	355.8	367.1	380.5	389.8	399.0	407.2	412.4	416.5
20°	398.0	416.5	435.0	447.3	460.7	472.0	479.2	485.4
22.5°	448.4	476.1	502.9	523.4	540.9	555.3	565.6	568.7
25°	516.2	552.2	585.1	607.8	627.3	642.7	652.0	655.1
27.5°	589.3	629.4	663.3	689.0	709.6	720.9	735.3	734.3
30°	662.3	705.5	741.5	768.2	787.7	802.1	814.5	813.4
32.5°	733.2	779.5	815.5	844.3	866.9	882.4	892.6	893.7
35°	801.1	850.5	891.6	923.5	948.2	963.6	971.8	972.8
37.5°	871.0	924.5	967.7	1001.6	1028.4	1045.9	1054.1	1054.1
40°	942.0	996.5	1042.8	1079.8	1106.5	1123.0	1131.2	1131.2
42.5°	1010.9	1069.5	1114.8	1153.8	1181.6	1199.1	1208.3	1209.4
45°	1077.7	1137.4	1185.7	1226.9	1252.6	1270.0	1279.3	1280.3
47.5°	1139.4	1204.2	1252.6	1292.7	1322.5	1341.0	1349.2	1350.3
50°	1197.0	1261.8	1316.3	1356.4	1384.2	1401.7	1412.0	1413.0
52.5°	1244.3	1316.3	1367.7	1409.9	1439.7	1456.2	1468.5	1470.6
55°	1282.4	1350.3	1406.8	1450.0	1480.9	1500.4	1511.7	1511.7
57.5°	1300.9	1368.8	1422.3	1466.5	1499.4	1518.9	1526.1	1527.1
60°	1299.9	1361.6	1413.0	1455.2	1485.0	1508.6	1533.3	1544.6
62.5°	1273.1	1327.6	1371.9	1402.7	1432.5	1463.4	1481.9	1486.0
65°	1210.4	1252.6	1281.4	1301.9	1325.6	1342.0	1343.1	1344.1
67.5°	1103.5	1130.2	1143.6	1150.8	1158.0	1159.0	1152.8	1151.8
70°	962.6	968.7	958.5	938.9	919.4	907.0	892.6	889.5
72.5°	791.9	773.3	757.9	752.8	752.8	754.8	753.8	752.8
75°	645.8	646.9	646.9	643.8	643.8	644.8	643.8	643.8
77.5°	529.6	520.4	503.9	485.4	478.2	470.0	464.8	462.8
80°	348.6	327.0	313.7	301.3	298.2	295.1	293.1	293.1
82.5°	201.6	196.4	193.3	192.3	191.3	191.3	191.3	192.3
85°	119.3	120.3	120.3	122.4	123.4	123.4	125.5	125.5
87.5°	62.7	62.7	65.8	65.8	66.8	66.8	69.9	67.9
90°	10.3	10.3	10.3	8.2	9.3	9.3	9.3	10.3
92.5°	16.5	16.5	16.5	17.5	16.5	15.4	14.4	15.4
95°	60.7	62.7	64.8	65.8	67.9	67.9	67.9	67.9
97.5°	124.4	120.3	118.3	115.2	114.2	110.0	108.0	109.0
100°	248.9	230.4	221.1	214.9	207.7	201.6	201.6	199.5
102.5°	486.4	461.7	437.1	417.5	393.9	374.3	369.2	363.0
105°	645.8	642.7	640.7	636.6	628.3	623.2	616.0	611.9
107.5°	763.1	770.3	775.4	777.5	774.4	767.2	766.1	762.0
110°	846.4	861.8	878.2	885.4	888.5	885.4	882.4	880.3



TEST NUMBER: P236417

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L850-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	983.1	985.2	984.2	969.8	959.5	963.6	965.6	965.6
115°	1067.5	1137.4	1158.0	1160.0	1153.8	1141.5	1134.3	1132.2
117.5°	811.4	1004.7	1191.9	1275.2	1324.6	1340.0	1344.1	1350.3
120°	939.9	841.2	865.9	985.2	1114.8	1236.1	1304.0	1321.5
122.5°	968.7	1075.7	1031.5	951.3	909.1	917.3	931.7	932.7
125°	901.9	968.7	1057.2	1145.6	1189.8	1181.6	1164.1	1170.3
127.5°	1009.9	963.6	979.0	1027.4	1069.5	1109.6	1145.6	1153.8
130°	1047.9	1087.0	1076.7	1040.7	1031.5	1033.5	1036.6	1037.6
132.5°	1018.1	1080.8	1128.1	1148.7	1148.7	1136.4	1127.1	1127.1
135°	945.1	1019.1	1077.7	1126.1	1154.9	1167.2	1173.4	1175.4
137.5°	873.1	931.7	996.5	1053.1	1091.1	1112.7	1127.1	1129.2
140°	801.1	858.7	908.1	954.3	1003.7	1041.7	1055.1	1056.1
142.5°	740.4	784.7	832.0	874.1	903.9	941.0	967.7	968.7
145°	654.0	716.8	760.0	794.9	822.7	850.5	884.4	896.7
147.5°	520.4	602.6	669.5	718.8	747.6	774.4	797.0	819.6
150°	386.7	460.7	523.4	580.0	623.2	663.3	693.1	684.9
152.5°	292.1	334.2	384.6	430.9	461.7	492.6	497.7	479.2
155°	256.1	265.3	284.9	307.5	325.0	344.5	319.8	312.6
157.5°	256.1	244.8	246.8	248.9	255.0	238.6	233.4	232.4
160°	260.2	257.1	248.9	237.6	223.2	202.6	201.6	199.5
162.5°	245.8	247.8	244.8	240.6	221.1	213.9	209.8	209.8
165°	225.2	226.2	226.2	222.1	212.9	205.7	204.6	203.6
167.5°	203.6	205.7	205.7	201.6	198.5	194.4	187.2	187.2
170°	185.1	185.1	185.1	182.0	183.1	182.0	174.8	170.7
172.5°	169.7	167.6	166.6	164.5	166.6	170.7	170.7	154.3
175°	156.3	153.2	151.2	150.1	153.2	159.4	166.6	172.8
177.5°	138.8	134.7	130.6	130.6	132.7	138.8	148.1	151.2
180°	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9

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