

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: P236415

Luminaire Tested: **SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236415
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-L835-CD1-U all blades horizontal
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
2 BLADES WITH NARROW DISTRIBUTION LENS, ALL BLADES HORIZONTAL
Light Source: (476) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

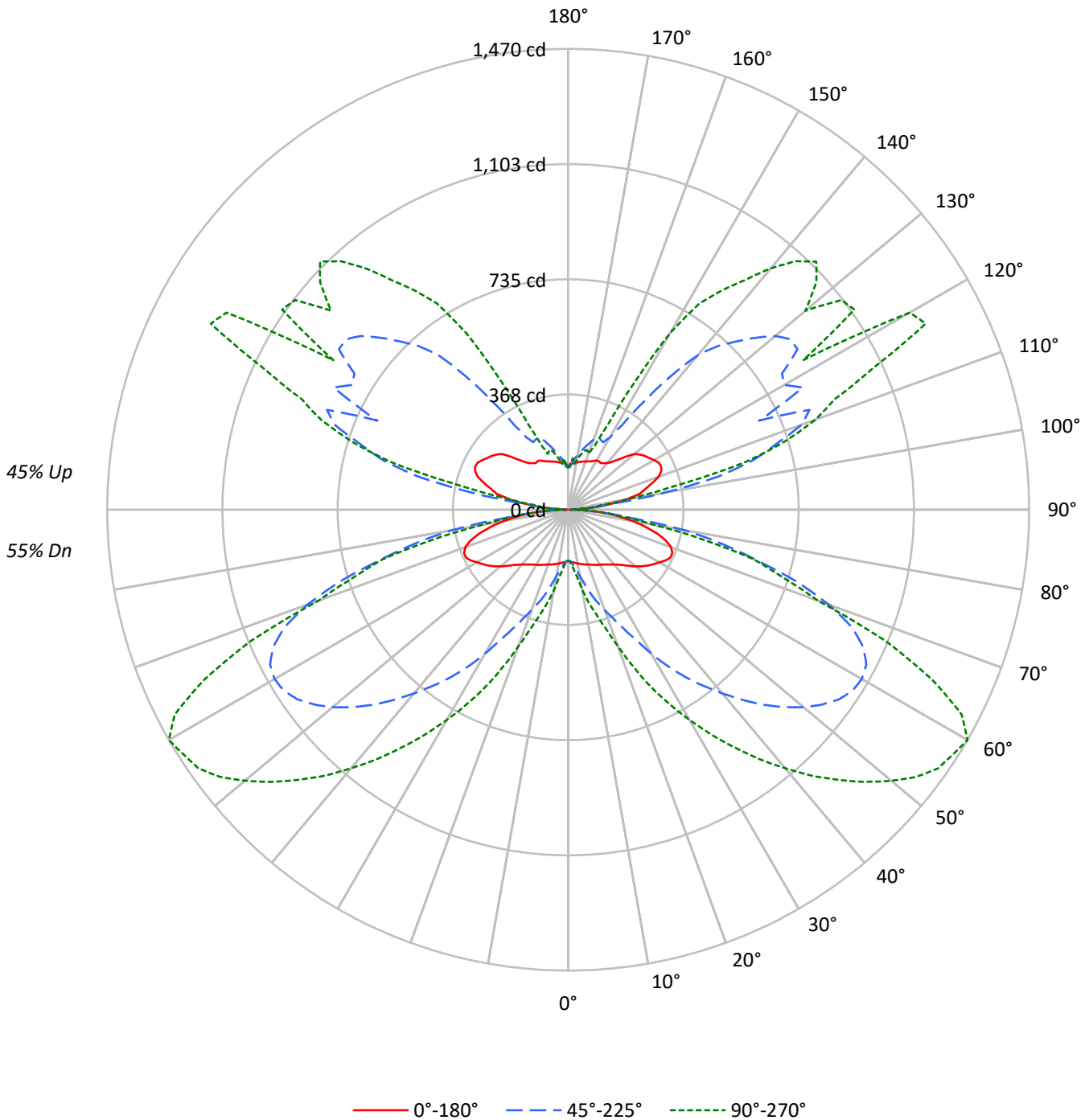
Lumens per Lamp: N/A
Luminaire Lumens: 6914.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 2.2 / 4.49 / 3.74
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

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: P236415

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal

Luminous Intensity Polar Plot





TEST NUMBER: P236415

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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°	700	700	700
5°	728	762	812
10°	762	937	1134
15°	803	1235	1536
20°	852	1556	2117
25°	921	1986	2962
30°	1007	2628	3850
35°	1122	3421	4867
40°	1282	4297	6052
45°	1520	5358	7420
50°	1882	6563	9009
55°	2329	7913	10801
60°	2891	9305	12660
65°	3670	10580	13033
70°	4387	11127	10659
75°	4869	10341	10193
80°	5170	9296	6918
85°	5320	5563	5898



TEST NUMBER: P236415

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.1	0.3
10°-20°	78.4	1.1
20°-30°	196.9	2.8
30°-40°	387.6	5.6
40°-50°	631.4	9.1
50°-60°	870.1	12.6
60°-70°	912.2	13.2
70°-80°	581.0	8.4
80°-90°	154.3	2.2
90°-100°	103.9	1.5
100°-110°	532.5	7.7
110°-120°	752.5	10.9
120°-130°	668.5	9.7
130°-140°	531.1	7.7
140°-150°	302.6	4.4
150°-160°	123.2	1.8
160°-170°	55.1	0.8
170°-180°	14.8	0.2
0°-30°	293.4	4.2
0°-40°	681.1	9.9
0°-60°	2182.5	31.6
0°-90°	3830.0	55.4
90°-120°	1388.8	20.1
90°-150°	2890.9	41.8
90°-180°	3084.0	44.6
0°-180°	6914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	162	162	162	162	162	
5°	168	171	176	184	188	16
15°	180	212	277	325	344	51
25°	194	283	418	568	624	90
35°	213	366	651	864	926	135
45°	250	486	880	1148	1219	196
55°	310	620	1054	1360	1439	278
65°	360	683	1038	1229	1279	350
75°	293	536	622	614	613	304
85°	108	159	113	116	119	109
90°	4	8	9	9	10	12
95°	83	88	56	62	65	88
105°	254	472	612	608	582	267
115°	327	578	672	1103	1078	319
125°	298	495	893	1048	1114	267
135°	226	278	759	1049	1119	179
145°	181	243	421	740	854	116
155°	170	213	247	282	298	80
165°	159	182	206	213	194	45
175°	149	148	152	143	164	14
180°	135	135	135	135	135	



TEST NUMBER: P236415

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5
2.5°	167.4	167.4	167.4	167.4	166.4	167.4	166.4	166.4	165.4	164.4	164.4
5°	168.4	168.4	169.3	170.3	171.3	171.3	171.3	173.3	174.2	176.2	178.1
7.5°	171.3	171.3	172.3	174.2	176.2	179.1	183.0	187.9	191.9	193.8	196.7
10°	174.2	174.2	177.2	179.1	185.0	192.8	197.7	202.6	208.5	214.4	222.2
12.5°	177.2	178.1	181.1	187.0	196.7	204.6	211.4	222.2	233.9	243.7	255.5
15°	180.1	181.1	186.0	195.8	206.5	217.3	231.0	247.6	263.3	277.0	291.7
17.5°	183.0	185.0	191.9	205.6	217.3	235.9	254.5	275.1	294.6	309.3	324.0
20°	186.0	187.9	197.7	213.4	231.0	255.5	279.9	303.4	323.0	339.7	358.3
22.5°	189.9	191.9	205.6	222.2	246.7	277.0	304.4	328.9	351.4	375.9	400.3
25°	193.8	196.7	213.4	234.9	265.3	300.5	327.9	355.3	385.7	418.0	453.2
27.5°	198.7	201.6	221.2	247.6	284.8	322.0	351.4	386.6	425.8	467.9	514.9
30°	202.6	207.5	229.0	262.3	304.4	343.6	378.8	423.8	474.7	528.6	581.4
32.5°	207.5	214.4	238.8	279.0	324.0	365.1	410.1	466.9	531.5	592.2	646.0
35°	213.4	221.2	249.6	295.6	341.6	389.6	446.3	517.8	590.2	650.9	707.7
37.5°	220.2	230.0	262.3	314.2	362.2	419.9	489.4	571.6	643.1	707.7	768.4
40°	228.1	239.8	277.0	330.8	383.7	453.2	536.4	621.6	696.9	764.5	830.0
42.5°	237.9	250.6	293.6	348.5	410.1	492.4	583.4	669.5	747.8	822.2	893.7
45°	249.6	263.3	312.2	367.1	439.5	532.5	627.4	716.5	799.7	880.0	953.4
47.5°	265.3	279.0	332.8	388.6	472.8	572.6	668.5	761.5	850.6	931.8	1011.1
50°	280.9	294.6	352.4	412.1	507.0	606.9	706.7	803.6	894.7	979.8	1061.1
52.5°	296.6	312.2	370.0	437.5	539.3	639.2	742.0	841.8	933.8	1020.9	1107.1
55°	310.3	328.9	386.6	464.0	568.7	670.5	773.3	872.1	966.1	1054.2	1139.4
57.5°	323.0	343.6	401.3	490.4	593.2	696.9	798.7	894.7	987.6	1074.8	1158.9
60°	335.7	359.2	418.0	513.9	613.7	717.5	815.4	907.4	996.4	1080.6	1162.9
62.5°	350.4	374.9	435.6	531.5	630.4	729.2	820.3	907.4	993.5	1071.8	1146.2
65°	360.2	384.7	450.3	541.3	637.2	728.2	811.5	891.7	970.0	1038.5	1102.2
67.5°	359.2	383.7	453.2	541.3	628.4	711.6	787.0	856.5	923.0	978.8	1021.9
70°	348.5	372.0	444.4	527.6	603.9	678.3	742.9	799.7	850.6	883.9	905.4
72.5°	326.0	349.4	422.9	498.2	563.8	627.4	680.3	723.4	748.8	764.5	768.4
75°	292.7	320.1	391.5	455.2	510.0	562.8	597.1	617.6	630.4	621.6	611.8
77.5°	253.5	284.8	348.5	400.3	445.4	480.6	500.2	503.1	500.2	501.2	504.1
80°	208.5	242.7	293.6	336.7	365.1	382.7	384.7	388.6	387.6	374.9	353.4
82.5°	160.5	192.8	231.0	259.4	270.2	275.1	279.0	256.5	231.0	206.5	196.7
85°	107.7	133.1	156.6	167.4	167.4	150.7	128.2	119.4	116.5	112.6	113.5
87.5°	54.8	59.7	64.6	57.8	51.9	54.8	54.8	54.8	56.8	56.8	57.8
90°	3.9	3.9	4.9	5.9	6.9	8.8	9.8	9.8	10.8	8.8	8.8
92.5°	23.5	21.5	21.5	19.6	21.5	21.5	21.5	20.6	18.6	18.6	18.6
95°	83.2	101.8	117.5	120.4	96.9	79.3	72.4	66.6	58.7	55.8	56.8
97.5°	135.1	166.4	200.7	223.2	234.9	235.9	216.3	173.3	145.8	134.1	127.2
100°	186.0	217.3	266.2	306.4	335.7	354.3	363.1	361.2	347.5	310.3	274.1
102.5°	233.0	259.4	322.0	374.9	416.0	449.3	466.9	484.5	492.4	490.4	486.5
105°	253.5	272.1	346.5	412.1	458.1	486.5	533.5	568.7	599.0	611.8	620.6
107.5°	279.9	282.9	366.1	436.6	484.5	522.7	548.1	644.1	672.5	694.0	717.5
110°	306.4	298.5	377.8	465.9	527.6	547.2	583.4	596.1	755.7	791.9	802.6



TEST NUMBER: P236415

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	321.1	307.4	353.4	472.8	544.2	596.1	612.7	656.8	635.3	833.0	923.0
115°	326.9	311.3	322.0	458.1	542.3	613.7	644.1	679.3	740.0	671.5	820.3
117.5°	325.0	310.3	300.5	422.9	531.5	613.7	683.2	694.0	742.9	843.8	749.8
120°	316.2	305.4	294.6	368.0	512.9	608.8	692.0	759.6	748.8	795.8	907.4
122.5°	306.4	299.5	294.6	323.0	474.7	594.1	685.2	769.4	829.1	808.5	830.0
125°	298.5	292.7	293.6	288.8	418.9	570.7	668.5	759.6	837.9	892.7	880.0
127.5°	288.8	285.8	289.7	278.0	358.3	522.7	647.0	730.2	820.3	892.7	948.5
130°	276.0	275.1	280.9	279.9	309.3	453.2	607.9	695.9	776.2	862.3	937.7
132.5°	251.6	252.5	263.3	276.0	268.2	367.1	534.4	657.8	733.1	811.5	891.7
135°	226.1	230.0	247.6	267.2	251.6	303.4	436.6	590.2	693.0	758.6	831.0
137.5°	207.5	212.4	232.0	254.5	256.5	260.4	349.4	496.3	630.4	708.7	767.4
140°	193.8	199.7	218.3	240.8	256.5	240.8	291.7	395.4	531.5	643.1	712.6
142.5°	187.0	191.9	206.5	229.0	248.6	246.7	254.5	315.2	419.9	537.4	642.1
145°	181.1	185.0	196.7	217.3	236.9	248.6	237.9	263.3	326.0	420.9	524.7
147.5°	183.0	183.0	188.9	204.6	225.1	245.7	249.6	239.8	269.2	321.1	400.3
150°	181.1	180.1	188.9	198.7	217.3	237.9	251.6	247.6	243.7	266.2	302.5
152.5°	175.2	176.2	189.9	199.7	214.4	229.0	243.7	250.6	246.7	242.7	255.5
155°	170.3	171.3	184.0	193.8	206.5	219.3	231.0	243.7	250.6	246.7	238.8
157.5°	167.4	166.4	178.1	187.9	196.7	208.5	220.2	231.0	243.7	249.6	250.6
160°	163.5	162.5	173.3	183.0	189.9	200.7	210.4	219.3	229.0	238.8	244.7
162.5°	160.5	160.5	167.4	178.1	185.0	190.9	200.7	207.5	214.4	221.2	227.1
165°	158.6	158.6	162.5	172.3	180.1	184.0	189.9	196.7	201.6	206.5	209.5
167.5°	155.6	155.6	157.6	165.4	172.3	177.2	181.1	184.0	187.9	190.9	191.9
170°	152.7	152.7	152.7	157.6	164.4	169.3	172.3	174.2	176.2	177.2	176.2
172.5°	150.7	150.7	150.7	150.7	154.7	158.6	161.5	164.4	164.4	165.4	163.5
175°	148.8	148.8	147.8	147.8	147.8	147.8	148.8	149.8	150.7	151.7	150.7
177.5°	146.8	145.8	145.8	144.9	144.9	143.9	141.9	140.0	138.0	136.1	134.1
180°	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1



TEST NUMBER: P236415

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5
2.5°	164.4	164.4	164.4	164.4	164.4	165.4	165.4	166.4
5°	180.1	182.1	184.0	184.0	185.0	187.0	187.0	187.9
7.5°	199.7	203.6	206.5	208.5	210.4	214.4	214.4	216.3
10°	229.0	235.9	241.8	246.7	249.6	255.5	255.5	259.4
12.5°	266.2	275.1	283.9	289.7	293.6	298.5	300.5	303.4
15°	303.4	313.2	322.0	327.9	332.8	339.7	341.6	344.5
17.5°	338.7	349.4	362.2	371.0	379.8	387.6	392.5	396.4
20°	378.8	396.4	414.0	425.8	438.5	449.3	456.1	462.0
22.5°	426.8	453.2	478.6	498.2	514.9	528.6	538.4	541.3
25°	491.4	525.6	557.0	578.5	597.1	611.8	620.6	623.5
27.5°	560.9	599.0	631.3	655.8	675.4	686.2	699.9	698.9
30°	630.4	671.5	705.7	731.2	749.8	763.5	775.2	774.3
32.5°	697.9	742.0	776.2	803.6	825.2	839.8	849.6	850.6
35°	762.5	809.5	848.6	879.0	902.5	917.2	925.0	926.0
37.5°	829.1	880.0	921.1	953.4	978.8	995.5	1003.3	1003.3
40°	896.6	948.5	992.5	1027.8	1053.2	1068.9	1076.7	1076.7
42.5°	962.2	1018.0	1061.1	1098.2	1124.7	1141.3	1150.1	1151.1
45°	1025.8	1082.6	1128.6	1167.7	1192.2	1208.9	1217.7	1218.6
47.5°	1084.5	1146.2	1192.2	1230.4	1258.8	1276.4	1284.2	1285.2
50°	1139.4	1201.0	1252.9	1291.1	1317.5	1334.1	1343.9	1344.9
52.5°	1184.4	1252.9	1301.8	1342.0	1370.4	1386.0	1397.8	1399.7
55°	1220.6	1285.2	1339.0	1380.2	1409.5	1428.1	1438.9	1438.9
57.5°	1238.2	1302.8	1353.7	1395.8	1427.1	1445.7	1452.6	1453.6
60°	1237.2	1296.0	1344.9	1385.0	1413.4	1435.9	1459.4	1470.2
62.5°	1211.8	1263.7	1305.8	1335.1	1363.5	1392.9	1410.5	1414.4
65°	1152.1	1192.2	1219.6	1239.2	1261.7	1277.4	1278.4	1279.3
67.5°	1050.3	1075.7	1088.5	1095.3	1102.2	1103.1	1097.3	1096.3
70°	916.2	922.1	912.3	893.7	875.1	863.3	849.6	846.7
72.5°	753.7	736.1	721.4	716.5	716.5	718.5	717.5	716.5
75°	614.7	615.7	615.7	612.7	612.7	613.7	612.7	612.7
77.5°	504.1	495.3	479.6	462.0	455.2	447.3	442.4	440.5
80°	331.8	311.3	298.5	286.8	283.9	280.9	279.0	279.0
82.5°	191.9	187.0	184.0	183.0	182.1	182.1	182.1	183.0
85°	113.5	114.5	114.5	116.5	117.5	117.5	119.4	119.4
87.5°	59.7	59.7	62.6	62.6	63.6	63.6	66.6	64.6
90°	9.8	9.8	9.8	7.8	8.8	8.8	8.8	9.8
92.5°	15.7	15.7	15.7	16.6	15.7	14.7	13.7	14.7
95°	57.8	59.7	61.7	62.6	64.6	64.6	64.6	64.6
97.5°	118.4	114.5	112.6	109.6	108.7	104.7	102.8	103.8
100°	236.9	219.3	210.4	204.6	197.7	191.9	191.9	189.9
102.5°	463.0	439.5	416.0	397.4	374.9	356.3	351.4	345.5
105°	614.7	611.8	609.8	605.9	598.1	593.2	586.3	582.4
107.5°	726.3	733.1	738.0	740.0	737.1	730.2	729.2	725.3
110°	805.6	820.3	835.9	842.8	845.7	842.8	839.8	837.9



TEST NUMBER: P236415

CATALOG NUMBER: SKB2-LD5-9-N-UNV-L835-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	935.8	937.7	936.7	923.0	913.2	917.2	919.1	919.1
115°	1016.0	1082.6	1102.2	1104.1	1098.2	1086.5	1079.6	1077.7
117.5°	772.3	956.3	1134.5	1213.7	1260.7	1275.4	1279.3	1285.2
120°	894.7	800.7	824.2	937.7	1061.1	1176.6	1241.2	1257.8
122.5°	922.1	1023.9	981.8	905.4	865.3	873.1	886.8	887.8
125°	858.4	922.1	1006.2	1090.4	1132.5	1124.7	1108.0	1113.9
127.5°	961.2	917.2	931.8	977.9	1018.0	1056.2	1090.4	1098.2
130°	997.4	1034.6	1024.8	990.6	981.8	983.7	986.7	987.6
132.5°	969.0	1028.8	1073.8	1093.4	1093.4	1081.6	1072.8	1072.8
135°	899.5	970.0	1025.8	1071.8	1099.2	1111.0	1116.8	1118.8
137.5°	831.0	886.8	948.5	1002.3	1038.5	1059.1	1072.8	1074.8
140°	762.5	817.3	864.3	908.4	955.3	991.6	1004.3	1005.3
142.5°	704.8	746.8	791.9	832.0	860.4	895.6	921.1	922.1
145°	622.5	682.2	723.4	756.6	783.1	809.5	841.8	853.5
147.5°	495.3	573.6	637.2	684.2	711.6	737.1	758.6	780.1
150°	368.0	438.5	498.2	552.1	593.2	631.3	659.7	651.9
152.5°	278.0	318.1	366.1	410.1	439.5	468.9	473.8	456.1
155°	243.7	252.5	271.1	292.7	309.3	327.9	304.4	297.6
157.5°	243.7	233.0	234.9	236.9	242.7	227.1	222.2	221.2
160°	247.6	244.7	236.9	226.1	212.4	192.8	191.9	189.9
162.5°	233.9	235.9	233.0	229.0	210.4	203.6	199.7	199.7
165°	214.4	215.3	215.3	211.4	202.6	195.8	194.8	193.8
167.5°	193.8	195.8	195.8	191.9	188.9	185.0	178.1	178.1
170°	176.2	176.2	176.2	173.3	174.2	173.3	166.4	162.5
172.5°	161.5	159.5	158.6	156.6	158.6	162.5	162.5	146.8
175°	148.8	145.8	143.9	142.9	145.8	151.7	158.6	164.4
177.5°	132.1	128.2	124.3	124.3	126.3	132.1	141.0	143.9
180°	135.1	135.1	135.1	135.1	135.1	135.1	135.1	135.1

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