

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: P236441

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236441
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-LD5-9-W-UNV-L850-CD1-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

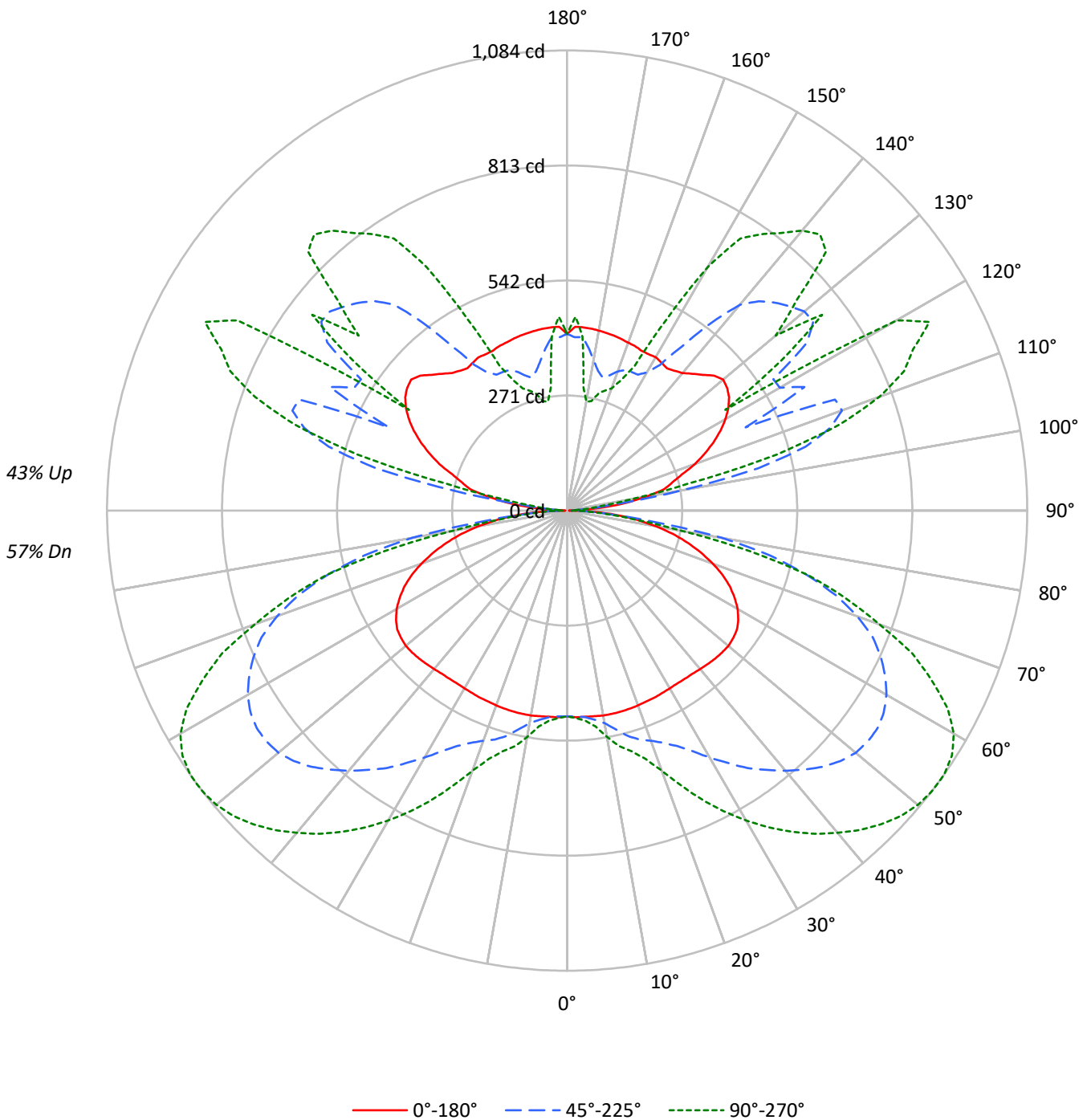
Lumens per Lamp: N/A
Luminaire Lumens: 6613.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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: P236441

CATALOG NUMBER: SKB2-LD5-9-W-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	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°	2086	2086	2086
5°	2107	2111	2148
10°	2144	2223	2368
15°	2185	2448	2617
20°	2238	2643	2986
25°	2311	2907	3566
30°	2404	3340	4190
35°	2542	3891	4855
40°	2739	4497	5570
45°	3002	5196	6364
50°	3322	5945	7224
55°	3666	6705	8139
60°	3993	7479	9058
65°	4307	8306	9661
70°	4594	9151	9844
75°	4901	9722	9768
80°	5229	9189	6739
85°	5681	4881	4649



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	0.7
10°-20°	154.6	2.3
20°-30°	288.3	4.4
30°-40°	454.5	6.9
40°-50°	627.9	9.5
50°-60°	753.4	11.4
60°-70°	747.7	11.3
70°-80°	538.5	8.1
80°-90°	144.0	2.2
90°-100°	90.9	1.4
100°-110°	487.5	7.4
110°-120°	624.5	9.4
120°-130°	521.0	7.9
130°-140°	485.0	7.3
140°-150°	331.1	5.0
150°-160°	180.3	2.7
160°-170°	99.3	1.5
170°-180°	37.0	0.6
0°-30°	490.4	7.4
0°-40°	944.9	14.3
0°-60°	2326.2	35.2
0°-90°	3756.4	56.8
90°-120°	1202.9	18.2
90°-150°	2540.1	38.4
90°-180°	2857.0	43.2
0°-180°	6613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	487	491	488	494	497	47
15°	490	506	549	576	587	139
25°	486	538	612	711	751	225
35°	484	565	740	884	924	304
45°	493	615	853	1008	1045	382
55°	488	660	893	1043	1084	435
65°	423	619	815	928	948	416
75°	295	473	584	595	587	309
85°	115	158	99	92	94	113
90°	5	7	9	8	10	12
95°	87	78	45	47	47	90
105°	257	424	582	557	513	272
115°	380	516	464	880	899	375
125°	466	521	690	718	615	414
135°	452	369	693	846	863	351
145°	410	334	473	702	794	260
155°	415	333	360	394	374	193
165°	427	391	324	321	285	121
175°	433	428	410	370	411	41
180°	416	416	416	416	416	



TEST NUMBER: P236441

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	484.6	484.6	484.6	484.6	484.6	484.6	484.6	484.6	484.6	484.6	484.6
2.5°	487.4	487.4	487.4	487.4	488.4	490.3	489.3	487.4	486.5	485.5	484.6
5°	487.4	487.4	487.4	488.4	490.3	492.2	492.2	490.3	489.3	488.4	489.3
7.5°	488.4	488.4	489.3	491.2	493.1	495.0	496.0	496.9	496.9	496.9	497.9
10°	490.3	490.3	491.2	494.1	496.0	500.7	502.6	502.6	504.5	508.4	513.1
12.5°	490.3	490.3	493.1	495.0	500.7	505.5	508.4	513.1	519.8	527.4	534.0
15°	490.3	490.3	493.1	496.9	502.6	509.3	518.8	528.3	538.8	549.2	556.8
17.5°	489.3	490.3	493.1	499.8	504.5	518.8	531.2	545.4	556.8	565.4	572.0
20°	488.4	489.3	493.1	499.8	510.3	530.2	546.4	559.7	569.2	576.8	586.3
22.5°	486.5	488.4	493.1	500.7	516.9	539.7	556.8	568.2	579.6	592.0	606.2
25°	486.5	487.4	494.1	504.5	525.5	551.1	564.4	575.8	592.9	611.9	633.8
27.5°	484.6	485.5	493.1	509.3	534.0	558.7	571.1	589.1	611.9	638.5	668.0
30°	483.6	484.6	492.2	514.1	541.6	563.5	579.6	605.3	637.6	671.8	703.1
32.5°	482.7	484.6	494.1	520.7	547.3	569.2	592.0	627.1	668.0	705.0	741.1
35°	483.6	484.6	496.9	527.4	552.1	577.7	608.1	652.8	698.4	740.2	776.3
37.5°	484.6	486.5	502.6	534.0	556.8	589.1	630.0	680.3	727.8	769.7	809.6
40°	487.4	489.3	509.3	539.7	564.4	605.3	654.7	708.8	757.3	800.1	840.9
42.5°	490.3	492.2	516.0	544.5	574.9	624.3	678.4	734.5	784.9	827.6	870.4
45°	493.1	494.1	522.6	548.3	587.2	643.3	701.2	758.2	809.6	853.3	896.0
47.5°	495.0	496.0	528.3	553.0	600.5	661.3	721.2	778.2	829.5	873.2	915.0
50°	496.0	496.9	530.2	557.8	613.8	676.5	737.3	794.4	844.7	887.5	928.3
52.5°	493.1	496.0	526.4	560.6	623.3	686.0	747.8	802.9	851.4	893.2	935.0
55°	488.4	491.2	519.8	562.5	629.0	691.7	752.5	805.8	851.4	893.2	934.0
57.5°	477.9	483.6	510.3	561.6	627.1	690.8	749.7	799.1	844.7	884.6	924.5
60°	463.7	471.3	496.9	554.9	620.5	683.2	737.3	784.9	828.6	868.5	908.4
62.5°	444.7	454.2	481.7	543.5	608.1	668.9	719.3	764.0	806.7	844.7	883.7
65°	422.8	432.3	465.6	527.4	590.1	647.1	693.6	737.3	778.2	815.3	851.4
67.5°	396.2	404.8	443.7	506.5	565.4	616.7	662.3	704.1	742.1	779.2	808.6
70°	364.9	373.4	419.0	479.8	533.1	582.5	624.3	664.2	700.3	726.9	747.8
72.5°	330.7	340.2	391.5	447.5	495.0	540.7	581.5	616.7	641.4	663.2	681.3
75°	294.6	306.9	361.1	408.6	452.3	494.1	529.3	553.0	574.9	584.4	589.1
77.5°	255.6	271.8	324.0	365.8	403.8	438.0	460.8	477.9	484.6	490.3	491.2
80°	210.9	233.7	278.4	312.6	344.0	366.8	380.1	382.9	381.0	370.6	344.9
82.5°	164.4	191.9	224.2	250.8	266.1	273.7	276.5	258.5	232.8	206.2	191.0
85°	115.0	135.9	157.7	167.2	166.3	149.2	127.3	113.1	105.5	98.8	96.9
87.5°	58.0	62.7	67.5	57.0	47.5	45.6	46.6	44.7	45.6	44.7	44.7
90°	4.8	4.8	5.7	5.7	6.7	7.6	8.6	9.5	9.5	8.6	8.6
92.5°	20.9	19.0	18.1	17.1	18.1	18.1	18.1	16.2	16.2	16.2	15.2
95°	87.4	102.6	113.1	114.0	88.4	68.4	58.9	51.3	46.6	44.7	42.8
97.5°	139.7	164.4	193.8	217.6	230.9	221.4	185.3	144.4	122.6	111.2	100.7
100°	188.1	213.8	253.7	291.7	325.0	344.0	346.8	338.3	306.0	271.8	229.9
102.5°	234.7	251.8	303.1	347.8	386.7	421.9	444.7	460.8	465.6	461.8	442.8
105°	256.6	263.2	322.1	373.4	411.4	436.1	484.6	531.2	569.2	581.5	580.6
107.5°	283.2	274.6	341.1	394.3	424.7	450.4	471.3	567.3	606.2	649.9	678.4
110°	320.2	294.6	361.1	426.6	466.5	463.7	481.7	488.4	647.1	688.9	719.3



TEST NUMBER: P236441

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	350.6	312.6	353.5	439.9	489.3	500.7	501.7	516.0	481.7	683.2	766.8
115°	380.1	335.4	337.3	440.9	495.0	536.9	516.0	538.8	562.5	463.7	621.4
117.5°	406.7	361.1	333.5	431.4	502.6	551.1	576.8	532.1	568.2	630.0	481.7
120°	430.4	385.8	344.0	407.6	509.3	564.4	607.2	617.6	550.2	578.7	665.1
122.5°	450.4	408.6	360.1	387.7	496.9	573.9	620.5	657.5	652.8	575.8	574.9
125°	465.6	427.6	373.4	368.7	467.5	574.9	628.1	672.7	698.4	689.8	613.8
127.5°	475.1	441.8	382.0	360.1	428.5	547.3	629.0	668.9	706.9	730.7	726.9
130°	479.8	452.3	384.8	365.8	396.2	501.7	611.9	657.5	691.7	729.7	759.2
132.5°	470.3	448.5	379.1	369.6	364.9	435.2	557.8	640.4	674.6	711.7	754.4
135°	452.3	436.1	374.4	365.8	347.8	389.6	485.5	594.8	656.6	692.7	728.8
137.5°	437.1	425.7	371.5	355.4	346.8	358.2	419.0	521.7	623.3	668.9	700.3
140°	422.8	416.2	367.7	343.0	346.8	339.2	381.0	450.4	551.1	632.8	672.7
142.5°	415.2	409.5	364.9	332.6	341.1	339.2	354.4	396.2	472.2	556.8	631.9
145°	409.5	404.8	363.0	327.8	330.7	337.3	338.3	364.9	408.6	473.2	544.5
147.5°	413.3	405.7	364.9	326.9	321.2	336.4	344.0	347.8	372.5	406.7	459.9
150°	417.1	409.5	376.3	333.5	317.4	332.6	347.8	351.6	358.2	375.3	396.2
152.5°	415.2	411.4	392.4	352.5	327.8	328.8	343.0	350.6	357.3	361.1	370.6
155°	415.2	412.4	401.9	364.9	339.2	326.9	333.5	345.9	355.4	360.1	361.1
157.5°	419.0	415.2	409.5	379.1	349.7	327.8	326.9	336.4	350.6	358.2	363.0
160°	420.9	417.1	417.1	392.4	364.9	343.0	326.9	329.7	339.2	348.7	356.3
162.5°	423.8	420.0	420.9	407.6	383.9	361.1	343.0	328.8	328.8	334.5	340.2
165°	426.6	423.8	423.8	420.9	401.9	381.0	361.1	344.9	330.7	324.0	323.1
167.5°	428.5	426.6	425.7	426.6	418.1	401.0	382.9	364.9	349.7	336.4	323.1
170°	430.4	429.5	428.5	428.5	428.5	420.9	404.8	389.6	374.4	359.2	344.0
172.5°	432.3	431.4	429.5	428.5	428.5	428.5	422.8	411.4	400.0	386.7	372.5
175°	433.3	433.3	432.3	430.4	428.5	427.6	424.7	420.0	415.2	410.5	401.0
177.5°	433.3	433.3	432.3	431.4	430.4	429.5	424.7	420.0	413.3	408.6	401.9
180°	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2



TEST NUMBER: P236441

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	484.6	484.6	484.6	484.6	484.6	484.6	484.6	484.6
2.5°	484.6	484.6	485.5	487.4	487.4	488.4	489.3	489.3
5°	490.3	491.2	493.1	495.0	495.0	496.0	496.0	496.9
7.5°	498.8	500.7	503.6	507.4	509.3	509.3	511.2	513.1
10°	518.8	521.7	528.3	533.1	535.9	537.8	540.7	541.6
12.5°	542.6	547.3	554.9	559.7	562.5	564.4	566.3	568.2
15°	563.5	568.2	573.9	577.7	580.6	582.5	584.4	587.2
17.5°	578.7	584.4	592.9	599.6	604.3	607.2	611.0	612.9
20°	598.6	609.1	621.4	630.9	639.5	643.3	649.0	651.8
22.5°	623.3	641.4	659.4	671.8	684.1	688.9	696.5	700.3
25°	659.4	682.2	704.1	718.3	732.6	737.3	746.8	750.6
27.5°	698.4	725.9	749.7	764.9	779.2	786.8	795.3	798.2
30°	739.2	769.7	793.4	810.5	825.7	832.4	840.0	842.8
32.5°	778.2	811.5	835.2	853.3	868.5	876.1	881.8	884.6
35°	815.3	849.5	875.1	893.2	908.4	916.0	921.7	923.6
37.5°	850.4	883.7	910.3	930.2	946.4	954.0	957.8	959.7
40°	884.6	917.9	945.4	964.4	980.6	986.3	991.0	991.0
42.5°	913.1	947.3	973.0	992.9	1008.1	1014.8	1018.6	1020.5
45°	936.9	970.1	997.7	1017.7	1032.9	1040.5	1042.4	1045.2
47.5°	955.9	989.1	1016.7	1037.6	1051.9	1059.5	1062.3	1065.2
50°	969.2	1003.4	1030.0	1050.0	1065.2	1073.7	1077.5	1078.5
52.5°	974.9	1008.1	1034.8	1054.7	1070.9	1080.4	1085.1	1084.2
55°	973.0	1005.3	1032.9	1053.8	1069.9	1080.4	1084.2	1084.2
57.5°	963.5	995.8	1021.5	1043.3	1059.5	1069.0	1072.8	1074.7
60°	944.5	976.8	1001.5	1022.4	1036.7	1047.1	1050.0	1051.9
62.5°	917.9	949.2	972.0	988.2	1000.5	1005.3	1008.1	1011.0
65°	882.7	907.4	921.7	934.0	942.6	944.5	945.4	948.3
67.5°	829.5	846.6	860.9	870.4	879.9	879.9	878.0	879.9
70°	766.8	782.0	786.8	785.8	789.6	784.9	781.1	782.0
72.5°	685.1	688.9	691.7	689.8	694.6	691.7	688.9	689.8
75°	592.0	594.8	597.7	592.0	596.7	590.1	585.3	587.2
77.5°	485.5	478.9	471.3	453.2	452.3	439.0	434.2	440.9
80°	325.9	310.7	299.3	281.3	277.5	269.9	264.2	271.8
82.5°	176.7	171.0	168.2	160.6	163.4	158.7	157.7	160.6
85°	93.1	93.1	93.1	91.2	94.1	92.2	92.2	94.1
87.5°	43.7	43.7	44.7	42.8	45.6	44.7	45.6	46.6
90°	7.6	7.6	8.6	6.7	9.5	7.6	7.6	9.5
92.5°	14.3	15.2	14.3	14.3	12.4	13.3	12.4	12.4
95°	43.7	45.6	46.6	47.5	47.5	48.5	47.5	46.6
97.5°	94.1	91.2	85.5	85.5	81.7	79.8	78.9	76.0
100°	201.4	188.1	172.0	168.2	160.6	154.9	154.9	150.1
102.5°	412.4	382.0	355.4	341.1	318.3	304.1	301.2	289.8
105°	575.8	574.9	559.7	554.0	538.8	528.3	524.5	513.1
107.5°	687.0	692.7	689.8	691.7	686.0	681.3	680.3	671.8
110°	746.8	772.5	785.8	794.4	793.4	790.6	788.7	783.0



TEST NUMBER: P236441

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	791.5	813.4	829.5	840.9	849.5	858.0	859.9	859.0
115°	811.5	864.7	878.0	882.7	887.5	895.1	899.8	898.9
117.5°	500.7	686.0	853.3	913.1	936.9	950.2	959.7	961.6
120°	590.1	458.0	483.6	586.3	718.3	815.3	864.7	896.0
122.5°	658.5	709.8	610.0	497.9	438.0	436.1	433.3	441.8
125°	567.3	617.6	694.6	741.1	740.2	692.7	651.8	614.8
127.5°	675.6	608.1	597.7	639.5	686.0	717.4	744.0	757.3
130°	771.6	758.2	710.7	660.4	635.7	632.8	636.6	641.4
132.5°	788.7	814.3	821.9	813.4	787.7	764.9	745.9	732.6
135°	764.9	802.9	834.3	858.0	863.7	864.7	865.6	862.8
137.5°	734.5	766.8	803.9	840.0	866.6	874.2	878.9	881.8
140°	701.2	732.6	763.0	790.6	829.5	851.4	858.0	860.9
142.5°	672.7	696.5	725.0	752.5	776.3	802.0	821.9	823.8
145°	620.5	663.2	691.7	712.6	735.4	752.5	780.1	794.4
147.5°	524.5	587.2	640.4	671.8	697.4	715.5	734.5	760.2
150°	438.0	494.1	537.8	575.8	621.4	646.1	670.8	662.3
152.5°	385.8	413.3	443.7	474.1	508.4	522.6	521.7	509.3
155°	369.6	375.3	388.6	399.1	418.1	423.8	386.7	374.4
157.5°	365.8	361.1	365.8	366.8	373.4	345.9	334.5	332.6
160°	360.1	360.1	358.2	350.6	336.4	309.8	306.0	306.0
162.5°	345.9	347.8	345.9	339.2	313.6	299.3	296.5	296.5
165°	325.0	325.9	325.0	317.4	298.4	284.1	284.1	285.1
167.5°	311.7	306.9	305.0	293.6	283.2	271.8	263.2	264.2
170°	330.7	320.2	310.7	296.5	288.9	282.2	266.1	260.4
172.5°	358.2	345.9	336.4	327.8	325.9	329.7	320.2	292.7
175°	389.6	378.2	370.6	369.6	374.4	390.5	398.1	411.4
177.5°	393.4	382.0	377.2	382.0	393.4	416.2	443.7	457.0
180°	416.2	416.2	416.2	416.2	416.2	416.2	416.2	416.2

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