

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: P236440

Luminaire Tested: **SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236440
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-L840-CD1-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

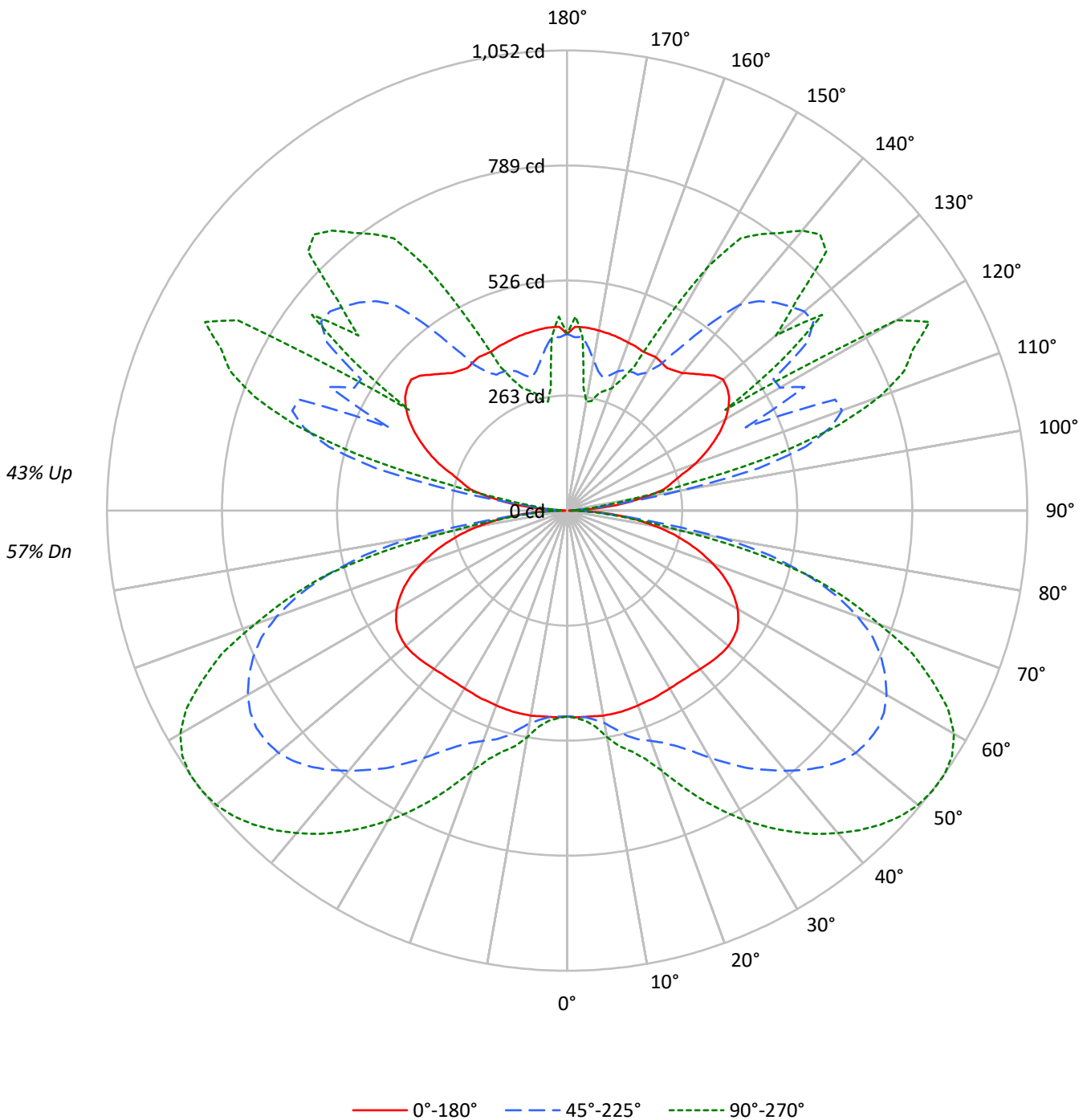
Lumens per Lamp: N/A
Luminaire Lumens: 6420.0 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 2.62 / 2.36
Luminous Opening: Rectangular (W 1.25' x L: 2' x H: 0')
CIE Type: General Diffuse

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: P236440

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal

Luminous Intensity Polar Plot





TEST NUMBER: P236440

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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	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°	2026	2026	2026
5°	2045	2049	2085
10°	2081	2158	2299
15°	2122	2377	2541
20°	2172	2565	2899
25°	2244	2822	3462
30°	2334	3243	4068
35°	2468	3777	4713
40°	2660	4365	5407
45°	2915	5044	6178
50°	3225	5771	7013
55°	3559	6509	7901
60°	3877	7260	8794
65°	4182	8064	9379
70°	4459	8884	9557
75°	4758	9437	9484
80°	5078	8921	6541
85°	5513	4738	4510



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CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	0.7
10°-20°	150.1	2.3
20°-30°	279.9	4.4
30°-40°	441.2	6.9
40°-50°	609.5	9.5
50°-60°	731.4	11.4
60°-70°	725.9	11.3
70°-80°	522.8	8.1
80°-90°	139.8	2.2
90°-100°	88.2	1.4
100°-110°	473.3	7.4
110°-120°	606.3	9.4
120°-130°	505.8	7.9
130°-140°	470.8	7.3
140°-150°	321.5	5.0
150°-160°	175.0	2.7
160°-170°	96.4	1.5
170°-180°	35.9	0.6
0°-30°	476.1	7.4
0°-40°	917.4	14.3
0°-60°	2258.3	35.2
0°-90°	3646.8	56.8
90°-120°	1167.8	18.2
90°-150°	2465.9	38.4
90°-180°	2773.0	43.2
0°-180°	6420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	473	477	474	480	482	45
15°	476	491	533	559	570	135
25°	472	523	594	690	729	218
35°	470	548	719	858	897	295
45°	479	597	828	978	1015	370
55°	474	641	867	1013	1052	422
65°	410	600	792	901	921	404
75°	286	459	567	577	570	300
85°	112	153	96	90	91	109
90°	5	7	8	7	9	12
95°	85	76	43	46	45	88
105°	249	411	564	541	498	264
115°	369	501	450	855	873	364
125°	452	506	670	697	597	402
135°	439	358	672	821	838	341
145°	398	324	459	682	771	253
155°	403	323	350	382	363	187
165°	414	380	315	312	277	117
175°	421	416	398	359	399	40
180°	404	404	404	404	404	



TEST NUMBER: P236440

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	470.5	470.5	470.5	470.5	470.5	470.5	470.5	470.5	470.5	470.5	470.5
2.5°	473.2	473.2	473.2	473.2	474.1	476.0	475.1	473.2	472.3	471.4	470.5
5°	473.2	473.2	473.2	474.1	476.0	477.8	477.8	476.0	475.1	474.1	475.1
7.5°	474.1	474.1	475.1	476.9	478.8	480.6	481.5	482.4	482.4	482.4	483.4
10°	476.0	476.0	476.9	479.7	481.5	486.1	488.0	488.0	489.8	493.5	498.1
12.5°	476.0	476.0	478.8	480.6	486.1	490.7	493.5	498.1	504.6	512.0	518.4
15°	476.0	476.0	478.8	482.4	488.0	494.4	503.7	512.9	523.0	533.2	540.6
17.5°	475.1	476.0	478.8	485.2	489.8	503.7	515.7	529.5	540.6	548.9	555.3
20°	474.1	475.1	478.8	485.2	495.4	514.7	530.4	543.3	552.6	559.9	569.2
22.5°	472.3	474.1	478.8	486.1	501.8	524.0	540.6	551.6	562.7	574.7	588.5
25°	472.3	473.2	479.7	489.8	510.1	535.0	547.9	559.0	575.6	594.1	615.3
27.5°	470.5	471.4	478.8	494.4	518.4	542.4	554.4	571.9	594.1	619.9	648.5
30°	469.5	470.5	477.8	499.0	525.8	547.0	562.7	587.6	619.0	652.2	682.6
32.5°	468.6	470.5	479.7	505.5	531.3	552.6	574.7	608.8	648.5	684.5	719.5
35°	469.5	470.5	482.4	512.0	535.9	560.9	590.4	633.7	678.0	718.6	753.6
37.5°	470.5	472.3	488.0	518.4	540.6	571.9	611.6	660.5	706.6	747.2	785.9
40°	473.2	475.1	494.4	524.0	547.9	587.6	635.6	688.2	735.2	776.7	816.4
42.5°	476.0	477.8	500.9	528.6	558.1	606.1	658.6	713.1	761.9	803.5	845.0
45°	478.8	479.7	507.4	532.3	570.1	624.5	680.8	736.1	785.9	828.4	869.9
47.5°	480.6	481.5	512.9	536.9	583.0	642.0	700.1	755.5	805.3	847.7	888.3
50°	481.5	482.4	514.7	541.5	595.9	656.8	715.8	771.2	820.1	861.6	901.2
52.5°	478.8	481.5	511.0	544.2	605.1	666.0	726.0	779.5	826.5	867.1	907.7
55°	474.1	476.9	504.6	546.1	610.7	671.5	730.6	782.2	826.5	867.1	906.8
57.5°	464.0	469.5	495.4	545.2	608.8	670.6	727.8	775.8	820.1	858.8	897.6
60°	450.2	457.5	482.4	538.7	602.4	663.2	715.8	761.9	804.4	843.1	881.9
62.5°	431.7	440.9	467.7	527.6	590.4	649.4	698.3	741.7	783.2	820.1	857.9
65°	410.5	419.7	452.0	512.0	572.8	628.2	673.4	715.8	755.5	791.5	826.5
67.5°	384.7	393.0	430.8	491.7	548.9	598.7	643.0	683.5	720.4	756.4	785.0
70°	354.2	362.5	406.8	465.8	517.5	565.5	606.1	644.8	679.9	705.7	726.0
72.5°	321.0	330.2	380.1	434.5	480.6	524.9	564.5	598.7	622.7	643.9	661.4
75°	286.0	298.0	350.5	396.7	439.1	479.7	513.8	536.9	558.1	567.3	571.9
77.5°	248.1	263.8	314.6	355.1	392.0	425.3	447.4	464.0	470.5	476.0	476.9
80°	204.8	226.9	270.3	303.5	333.9	356.1	369.0	371.8	369.9	359.8	334.9
82.5°	159.6	186.3	217.7	243.5	258.3	265.7	268.4	250.9	226.0	200.2	185.4
85°	111.6	131.9	153.1	162.4	161.4	144.8	123.6	109.8	102.4	95.9	94.1
87.5°	56.3	60.9	65.5	55.3	46.1	44.3	45.2	43.4	44.3	43.4	43.4
90°	4.6	4.6	5.5	5.5	6.5	7.4	8.3	9.2	9.2	8.3	8.3
92.5°	20.3	18.4	17.5	16.6	17.5	17.5	17.5	15.7	15.7	15.7	14.8
95°	84.9	99.6	109.8	110.7	85.8	66.4	57.2	49.8	45.2	43.4	41.5
97.5°	135.6	159.6	188.2	211.2	224.2	214.9	179.9	140.2	119.0	107.9	97.8
100°	182.6	207.6	246.3	283.2	315.5	333.9	336.7	328.4	297.0	263.8	223.2
102.5°	227.8	244.5	294.3	337.6	375.4	409.6	431.7	447.4	452.0	448.3	429.9
105°	249.1	255.5	312.7	362.5	399.4	423.4	470.5	515.7	552.6	564.5	563.6
107.5°	274.9	266.6	331.2	382.8	412.3	437.2	457.5	550.7	588.5	631.0	658.6
110°	310.9	286.0	350.5	414.2	452.9	450.2	467.7	474.1	628.2	668.8	698.3



TEST NUMBER: P236440

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	340.4	303.5	343.2	427.1	475.1	486.1	487.1	500.9	467.7	663.2	744.4
115°	369.0	325.6	327.5	428.0	480.6	521.2	500.9	523.0	546.1	450.2	603.3
117.5°	394.8	350.5	323.8	418.8	488.0	535.0	559.9	516.6	551.6	611.6	467.7
120°	417.9	374.5	333.9	395.7	494.4	547.9	589.4	599.6	534.1	561.8	645.7
122.5°	437.2	396.7	349.6	376.4	482.4	557.2	602.4	638.3	633.7	559.0	558.1
125°	452.0	415.1	362.5	357.9	453.8	558.1	609.7	653.1	678.0	669.7	595.9
127.5°	461.2	428.9	370.8	349.6	416.0	531.3	610.7	649.4	686.3	709.4	705.7
130°	465.8	439.1	373.6	355.1	384.7	487.1	594.1	638.3	671.5	708.4	737.0
132.5°	456.6	435.4	368.1	358.8	354.2	422.5	541.5	621.7	654.9	690.9	732.4
135°	439.1	423.4	363.4	355.1	337.6	378.2	471.4	577.5	637.4	672.5	707.5
137.5°	424.3	413.3	360.7	345.0	336.7	347.8	406.8	506.4	605.1	649.4	679.9
140°	410.5	404.0	357.0	333.0	336.7	329.3	369.9	437.2	535.0	614.4	653.1
142.5°	403.1	397.6	354.2	322.9	331.2	329.3	344.1	384.7	458.5	540.6	613.4
145°	397.6	393.0	352.4	318.2	321.0	327.5	328.4	354.2	396.7	459.4	528.6
147.5°	401.3	393.9	354.2	317.3	311.8	326.5	333.9	337.6	361.6	394.8	446.5
150°	405.0	397.6	365.3	323.8	308.1	322.9	337.6	341.3	347.8	364.4	384.7
152.5°	403.1	399.4	381.0	342.2	318.2	319.2	333.0	340.4	346.8	350.5	359.8
155°	403.1	400.3	390.2	354.2	329.3	317.3	323.8	335.8	345.0	349.6	350.5
157.5°	406.8	403.1	397.6	368.1	339.5	318.2	317.3	326.5	340.4	347.8	352.4
160°	408.6	405.0	405.0	381.0	354.2	333.0	317.3	320.1	329.3	338.5	345.9
162.5°	411.4	407.7	408.6	395.7	372.7	350.5	333.0	319.2	319.2	324.7	330.2
165°	414.2	411.4	411.4	408.6	390.2	369.9	350.5	334.9	321.0	314.6	313.6
167.5°	416.0	414.2	413.3	414.2	405.9	389.3	371.8	354.2	339.5	326.5	313.6
170°	417.9	417.0	416.0	416.0	416.0	408.6	393.0	378.2	363.4	348.7	333.9
172.5°	419.7	418.8	417.0	416.0	416.0	416.0	410.5	399.4	388.4	375.4	361.6
175°	420.6	420.6	419.7	417.9	416.0	415.1	412.3	407.7	403.1	398.5	389.3
177.5°	420.6	420.6	419.7	418.8	417.9	417.0	412.3	407.7	401.3	396.7	390.2
180°	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0



TEST NUMBER: P236440

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	470.5	470.5	470.5	470.5	470.5	470.5	470.5	470.5
2.5°	470.5	470.5	471.4	473.2	473.2	474.1	475.1	475.1
5°	476.0	476.9	478.8	480.6	480.6	481.5	481.5	482.4
7.5°	484.3	486.1	488.9	492.6	494.4	494.4	496.3	498.1
10°	503.7	506.4	512.9	517.5	520.3	522.1	524.9	525.8
12.5°	526.7	531.3	538.7	543.3	546.1	547.9	549.8	551.6
15°	547.0	551.6	557.2	560.9	563.6	565.5	567.3	570.1
17.5°	561.8	567.3	575.6	582.1	586.7	589.4	593.1	595.0
20°	581.1	591.3	603.3	612.5	620.8	624.5	630.0	632.8
22.5°	605.1	622.7	640.2	652.2	664.2	668.8	676.2	679.9
25°	640.2	662.3	683.5	697.4	711.2	715.8	725.1	728.7
27.5°	678.0	704.8	727.8	742.6	756.4	763.8	772.1	774.9
30°	717.7	747.2	770.3	786.9	801.6	808.1	815.5	818.2
32.5°	755.5	787.8	810.8	828.4	843.1	850.5	856.0	858.8
35°	791.5	824.7	849.6	867.1	881.9	889.2	894.8	896.6
37.5°	825.6	857.9	883.7	903.1	918.8	926.1	929.8	931.7
40°	858.8	891.1	917.8	936.3	952.0	957.5	962.1	962.1
42.5°	886.5	919.7	944.6	964.0	978.7	985.2	988.9	990.7
45°	909.5	941.8	968.6	988.0	1002.7	1010.1	1011.9	1014.7
47.5°	928.0	960.3	987.0	1007.3	1021.2	1028.5	1031.3	1034.1
50°	940.9	974.1	999.9	1019.3	1034.1	1042.4	1046.1	1047.0
52.5°	946.4	978.7	1004.6	1023.9	1039.6	1048.8	1053.4	1052.5
55°	944.6	976.0	1002.7	1023.0	1038.7	1048.8	1052.5	1052.5
57.5°	935.4	966.7	991.6	1012.9	1028.5	1037.8	1041.5	1043.3
60°	916.9	948.3	972.3	992.6	1006.4	1016.5	1019.3	1021.2
62.5°	891.1	921.5	943.7	959.4	971.3	976.0	978.7	981.5
65°	857.0	880.9	894.8	906.8	915.1	916.9	917.8	920.6
67.5°	805.3	821.9	835.7	845.0	854.2	854.2	852.4	854.2
70°	744.4	759.2	763.8	762.9	766.6	761.9	758.3	759.2
72.5°	665.1	668.8	671.5	669.7	674.3	671.5	668.8	669.7
75°	574.7	577.5	580.2	574.7	579.3	572.8	568.2	570.1
77.5°	471.4	464.9	457.5	440.0	439.1	426.2	421.6	428.0
80°	316.4	301.6	290.6	273.0	269.4	262.0	256.4	263.8
82.5°	171.6	166.0	163.3	155.9	158.7	154.1	153.1	155.9
85°	90.4	90.4	90.4	88.6	91.3	89.5	89.5	91.3
87.5°	42.4	42.4	43.4	41.5	44.3	43.4	44.3	45.2
90°	7.4	7.4	8.3	6.5	9.2	7.4	7.4	9.2
92.5°	13.8	14.8	13.8	13.8	12.0	12.9	12.0	12.0
95°	42.4	44.3	45.2	46.1	46.1	47.0	46.1	45.2
97.5°	91.3	88.6	83.0	83.0	79.3	77.5	76.6	73.8
100°	195.6	182.6	167.0	163.3	155.9	150.4	150.4	145.7
102.5°	400.3	370.8	345.0	331.2	309.0	295.2	292.4	281.3
105°	559.0	558.1	543.3	537.8	523.0	512.9	509.2	498.1
107.5°	666.9	672.5	669.7	671.5	666.0	661.4	660.5	652.2
110°	725.1	750.0	762.9	771.2	770.3	767.5	765.6	760.1



TEST NUMBER: P236440

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades horizontal

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	768.4	789.6	805.3	816.4	824.7	833.0	834.8	833.9
115°	787.8	839.4	852.4	857.0	861.6	869.0	873.6	872.6
117.5°	486.1	666.0	828.4	886.5	909.5	922.5	931.7	933.5
120°	572.8	444.6	469.5	569.2	697.4	791.5	839.4	869.9
122.5°	639.3	689.1	592.2	483.4	425.3	423.4	420.6	428.9
125°	550.7	599.6	674.3	719.5	718.6	672.5	632.8	596.8
127.5°	655.9	590.4	580.2	620.8	666.0	696.5	722.3	735.2
130°	749.0	736.1	690.0	641.1	617.1	614.4	618.0	622.7
132.5°	765.6	790.5	797.9	789.6	764.7	742.6	724.1	711.2
135°	742.6	779.5	809.9	833.0	838.5	839.4	840.4	837.6
137.5°	713.1	744.4	780.4	815.5	841.3	848.7	853.3	856.0
140°	680.8	711.2	740.7	767.5	805.3	826.5	833.0	835.7
142.5°	653.1	676.2	703.8	730.6	753.6	778.6	797.9	799.8
145°	602.4	643.9	671.5	691.8	714.0	730.6	757.3	771.2
147.5°	509.2	570.1	621.7	652.2	677.1	694.6	713.1	738.0
150°	425.3	479.7	522.1	559.0	603.3	627.3	651.3	643.0
152.5°	374.5	401.3	430.8	460.3	493.5	507.4	506.4	494.4
155°	358.8	364.4	377.3	387.4	405.9	411.4	375.4	363.4
157.5°	355.1	350.5	355.1	356.1	362.5	335.8	324.7	322.9
160°	349.6	349.6	347.8	340.4	326.5	300.7	297.0	297.0
162.5°	335.8	337.6	335.8	329.3	304.4	290.6	287.8	287.8
165°	315.5	316.4	315.5	308.1	289.7	275.8	275.8	276.7
167.5°	302.6	298.0	296.1	285.0	274.9	263.8	255.5	256.4
170°	321.0	310.9	301.6	287.8	280.4	274.0	258.3	252.8
172.5°	347.8	335.8	326.5	318.2	316.4	320.1	310.9	284.1
175°	378.2	367.1	359.8	358.8	363.4	379.1	386.5	399.4
177.5°	381.9	370.8	366.2	370.8	381.9	404.0	430.8	443.7
180°	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0

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