

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: P236495

Luminaire Tested: **SKB4-LD5-30-N-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236495
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24060)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-30-N-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH NARROW DISTRIBUTION LENS, INNER 2 BLADES TILTED OUT 20 DEGREES
Light Source: (952) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

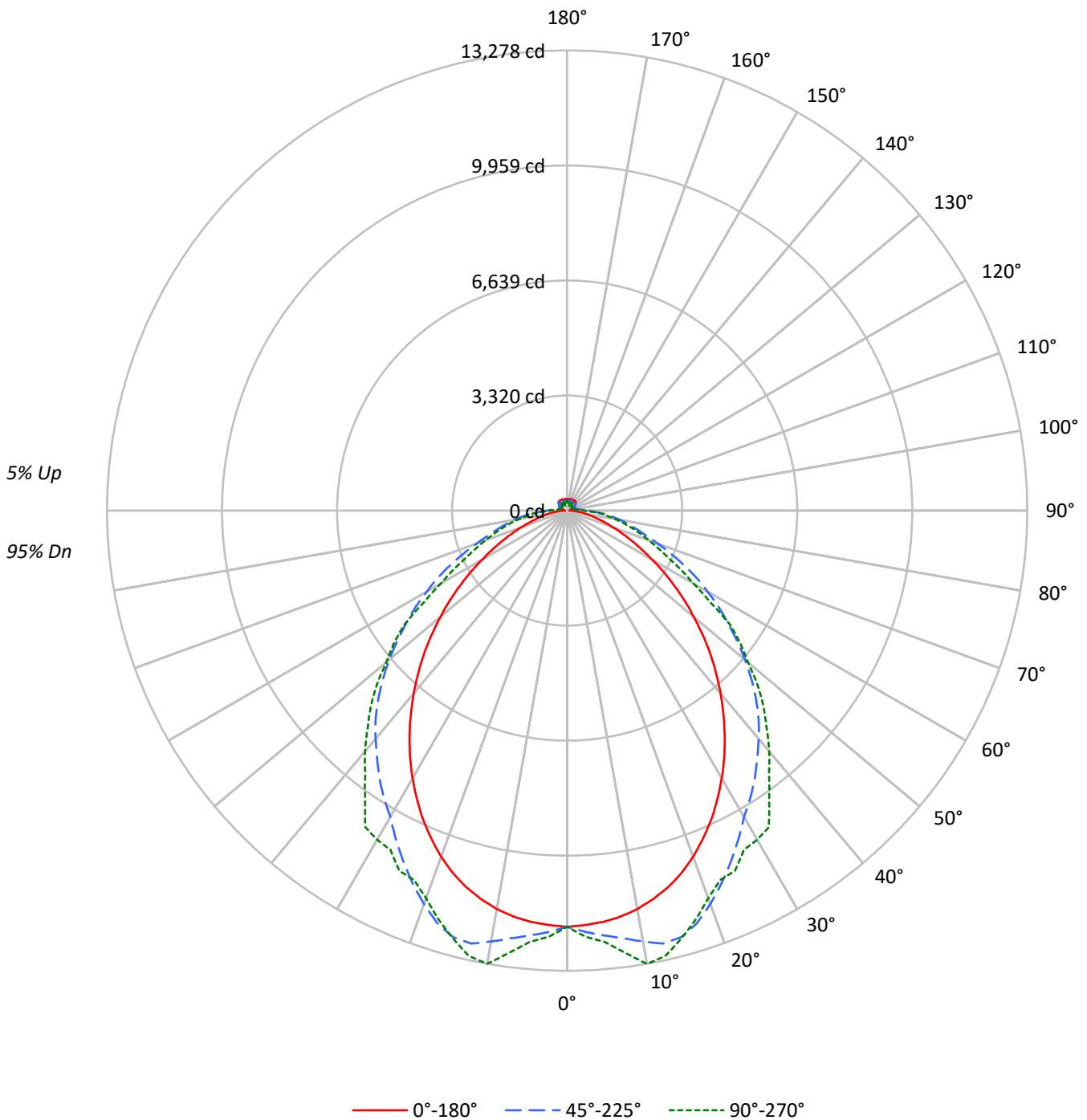
Lumens per Lamp: N/A
Luminaire Lumens: 33926.0 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.34 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Direct

Input Watts (W): 260.5
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

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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	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	108	103	98	95	104	100	96	93	95	92	89	90	87	85	86	84	82	79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	76	72	69	67
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59	57
4	82	71	62	56	80	69	61	55	66	59	54	63	57	52	60	55	51	49
5	76	64	55	48	74	62	54	48	59	52	47	57	51	46	55	49	45	43
6	70	57	49	42	68	56	48	42	54	47	41	52	45	41	50	44	40	38
7	65	52	44	38	63	51	43	37	49	42	37	47	41	36	46	40	36	33
8	61	48	39	34	59	47	39	33	45	38	33	43	37	32	42	36	32	30
9	57	44	36	30	55	43	35	30	42	35	30	40	34	29	39	33	29	27
10	53	41	33	28	52	40	32	27	39	32	27	37	31	27	36	30	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17234	17234	17234
5°	17085	17554	17827
10°	16856	18034	18978
15°	16483	18360	18426
20°	15927	17704	17470
25°	15213	16797	17262
30°	14354	15852	17074
35°	13395	15305	16525
40°	12362	14688	15554
45°	11256	14032	14641
50°	10024	13151	13427
55°	8785	12176	12374
60°	7456	11199	10125
65°	6267	10107	8841
70°	5155	8835	8066
75°	4210	8042	7535
80°	3533	7736	7120
85°	2964	7630	7087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1182.0	3.5
10°-20°	3474.5	10.2
20°-30°	5067.4	14.9
30°-40°	5850.1	17.2
40°-50°	5664.3	16.7
50°-60°	4660.6	13.7
60°-70°	3221.7	9.5
70°-80°	2005.5	5.9
80°-90°	1038.9	3.1
90°-100°	390.7	1.2
100°-110°	244.3	0.7
110°-120°	249.0	0.7
120°-130°	249.7	0.7
130°-140°	225.9	0.7
140°-150°	175.6	0.5
150°-160°	123.6	0.4
160°-170°	76.9	0.2
170°-180°	25.4	0.1
0°-30°	9723.9	28.7
0°-40°	15574.0	45.9
0°-60°	25899.0	76.3
0°-90°	32165.0	94.8
90°-120°	884.0	2.6
90°-150°	1535.1	4.5
90°-180°	1761.0	5.2
0°-180°	33926.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12008	12008	12008	12008	12008	
5°	11913	12172	12308	12437	12495	###
15°	11248	11948	12739	12778	12771	3163
25°	9840	10945	11178	11260	11465	4518
35°	7924	8923	9441	10054	10166	4949
45°	5834	6646	7711	8071	8015	4494
55°	3772	4667	5668	5766	5730	3380
65°	2052	3078	3713	3463	3224	2049
75°	907	1938	2075	2057	1922	988
85°	287	1070	1074	1050	977	290
90°	88	622	566	540	496	59
95°	80	405	378	361	330	66
105°	118	345	213	162	136	129
115°	202	406	254	166	135	201
125°	289	388	271	206	173	257
135°	346	356	269	233	195	267
145°	354	359	253	212	196	223
155°	346	271	291	208	150	161
165°	342	244	261	290	265	97
175°	334	315	260	223	230	32
180°	308	308	308	308	308	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2
2.5°	11969.7	11976.6	12026.0	12045.3	12072.8	12070.0	12101.6	12149.7	12131.8	12171.7	12175.8
5°	11913.4	11931.2	12005.4	12065.9	12149.7	12195.0	12245.9	12292.6	12272.0	12307.7	12325.6
7.5°	11815.8	11851.5	11961.5	12070.0	12164.8	12193.7	12254.1	12339.3	12362.7	12446.5	12504.2
10°	11672.9	11723.7	11874.9	11994.4	12086.5	12157.9	12281.6	12406.7	12485.0	12626.5	12736.4
12.5°	11479.1	11545.1	11738.9	11847.4	11993.1	12116.7	12288.5	12469.9	12616.9	12798.3	12905.5
15°	11248.3	11329.4	11536.9	11668.8	11870.8	12026.0	12258.3	12478.1	12611.4	12739.2	12787.3
17.5°	10968.0	11076.5	11289.5	11462.7	11685.3	11883.1	12142.8	12328.3	12434.1	12475.4	12454.8
20°	10625.8	10771.5	10987.2	11189.2	11444.8	11678.4	11932.6	12065.9	12083.7	12078.3	12065.9
22.5°	10245.2	10423.8	10642.3	10873.2	11163.1	11404.9	11634.4	11663.3	11660.5	11642.7	11631.7
25°	9839.9	10025.4	10253.5	10509.0	10834.7	11054.6	11203.0	11207.1	11204.3	11178.2	11150.7
27.5°	9385.0	9589.8	9839.9	10107.8	10439.0	10606.6	10708.3	10719.3	10715.2	10695.9	10682.2
30°	8922.0	9129.5	9364.4	9669.5	9974.5	10076.2	10186.1	10199.9	10188.9	10202.6	10359.3
32.5°	8432.8	8636.2	8882.1	9192.7	9449.6	9523.8	9640.6	9640.6	9648.9	9834.4	10002.0
35°	7924.4	8125.0	8368.2	8673.3	8875.2	8970.1	9075.9	9062.1	9253.1	9441.4	9593.9
37.5°	7410.5	7600.1	7835.1	8129.1	8291.3	8409.4	8480.9	8612.8	8827.2	9007.2	9207.8
40°	6886.9	7056.0	7288.2	7558.9	7711.4	7837.8	7928.5	8169.0	8371.0	8599.1	8803.8
42.5°	6363.4	6520.1	6731.7	6976.3	7141.1	7252.4	7466.8	7696.3	7942.2	8181.3	8350.3
45°	5834.4	5970.4	6173.8	6401.9	6577.8	6715.2	6991.4	7236.0	7506.7	7711.4	7870.8
47.5°	5301.2	5434.5	5614.5	5853.6	6021.3	6242.5	6503.6	6782.5	7032.6	7214.0	7377.5
50°	4768.1	4883.5	5067.6	5310.9	5488.1	5753.3	6024.0	6313.9	6529.7	6700.1	6836.1
52.5°	4274.8	4373.7	4541.4	4786.0	4997.6	5260.0	5558.2	5819.3	6022.6	6177.9	6323.6
55°	3771.9	3857.1	4042.6	4270.7	4540.0	4794.2	5100.6	5334.2	5518.3	5668.1	5802.8
57.5°	3299.2	3392.6	3574.0	3793.9	4093.4	4362.7	4648.5	4865.7	5034.7	5188.6	5269.6
60°	2832.0	2946.0	3139.8	3372.0	3674.3	3951.9	4214.3	4416.3	4577.1	4681.5	4748.9
62.5°	2415.7	2531.1	2733.1	2992.8	3295.1	3565.8	3806.2	3982.1	4105.8	4217.1	4255.6
65°	2051.5	2155.9	2362.1	2653.4	2948.8	3207.1	3427.0	3554.8	3657.8	3712.8	3700.4
67.5°	1708.0	1822.0	2033.7	2351.1	2639.6	2881.5	3050.5	3156.3	3216.7	3227.7	3193.4
70°	1404.3	1526.6	1752.0	2079.0	2364.8	2572.3	2701.5	2760.5	2770.2	2772.9	2761.9
72.5°	1140.5	1268.3	1517.0	1841.3	2117.5	2271.4	2367.6	2379.9	2399.2	2390.9	2407.4
75°	906.9	1045.7	1319.1	1639.3	1874.3	2002.0	2043.3	2046.0	2052.9	2074.9	2098.2
77.5°	721.4	850.6	1147.4	1455.2	1659.9	1745.1	1756.1	1769.8	1784.9	1801.4	1824.8
80°	553.8	691.2	1000.3	1271.0	1438.7	1504.6	1521.1	1532.1	1539.0	1548.6	1563.7
82.5°	409.5	562.0	854.7	1092.4	1233.9	1304.0	1305.4	1309.5	1316.4	1297.1	1302.6
85°	287.2	454.8	715.9	919.3	1045.7	1095.1	1085.5	1086.9	1088.3	1074.5	1078.7
87.5°	186.9	358.6	579.9	743.4	842.3	876.7	856.1	843.7	823.1	766.7	748.9
90°	87.9	258.3	424.6	549.6	612.8	632.1	610.1	593.6	585.4	566.1	559.3
92.5°	66.0	181.4	314.7	420.5	487.8	511.2	498.8	485.1	474.1	463.1	460.3
95°	79.7	144.3	240.5	322.9	390.2	420.5	416.3	404.0	395.7	377.9	369.6
97.5°	82.4	153.9	233.6	283.1	324.3	354.5	350.4	335.3	321.5	303.7	292.7
100°	92.1	185.5	261.1	295.4	313.3	311.9	307.8	294.1	276.2	254.2	240.5
102.5°	105.8	210.2	299.6	327.0	331.2	320.2	289.9	269.3	248.7	228.1	210.2
105°	118.2	218.5	340.8	355.9	357.3	332.5	305.0	269.3	236.3	213.0	193.7
107.5°	136.0	224.0	354.5	387.5	376.5	355.9	313.3	278.9	250.1	217.1	189.6
110°	164.9	236.3	361.4	405.4	395.7	366.9	339.4	291.3	251.5	230.8	204.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	182.8	235.0	361.4	415.0	424.6	372.4	349.0	317.4	269.3	229.5	207.5
115°	202.0	237.7	351.8	405.4	423.2	388.9	346.3	325.7	291.3	254.2	214.4
117.5°	222.6	240.5	349.0	394.4	415.0	435.6	353.1	321.5	296.8	272.1	240.5
120°	244.6	240.5	355.9	397.1	420.5	405.4	376.5	322.9	294.1	273.4	252.8
122.5°	267.9	241.8	372.4	408.1	405.4	384.7	417.7	339.4	294.1	270.7	252.8
125°	288.6	251.5	372.4	397.1	375.1	399.9	360.0	391.6	307.8	270.7	251.5
127.5°	307.8	262.5	366.9	393.0	373.8	390.2	349.0	376.5	340.8	283.1	252.8
130°	325.7	274.8	357.3	402.6	390.2	350.4	376.5	318.8	365.5	317.4	265.2
132.5°	338.0	280.3	342.1	424.6	383.4	328.4	368.3	324.3	291.3	347.6	306.4
135°	346.3	281.7	320.2	415.0	376.5	335.3	317.4	355.9	285.8	269.3	332.5
137.5°	353.1	283.1	294.1	393.0	383.4	339.4	289.9	338.0	329.8	258.3	247.3
140°	355.9	283.1	276.2	368.3	402.6	342.1	295.4	276.2	324.3	303.7	239.1
142.5°	355.9	284.4	266.6	339.4	383.4	342.1	306.4	262.5	267.9	306.4	292.7
145°	354.5	289.9	265.2	307.8	357.3	361.4	311.9	274.8	241.8	252.8	292.7
147.5°	353.1	298.2	263.8	270.7	331.2	355.9	320.2	294.1	257.0	229.5	236.3
150°	351.8	306.4	262.5	252.8	305.0	335.3	344.9	302.3	280.3	247.3	221.2
152.5°	349.0	313.3	262.5	251.5	280.3	313.3	331.2	331.2	294.1	276.2	244.6
155°	346.3	320.2	261.1	255.6	251.5	289.9	310.5	327.0	322.9	291.3	277.6
157.5°	346.3	327.0	262.5	255.6	241.8	262.5	289.9	306.4	320.2	322.9	295.4
160°	344.9	331.2	273.4	252.8	246.0	237.7	265.2	284.4	298.2	310.5	318.8
162.5°	343.5	333.9	287.2	254.2	247.3	236.3	235.0	259.7	274.8	285.8	295.4
165°	342.1	335.3	305.0	262.5	247.3	240.5	233.6	229.5	241.8	261.1	270.7
167.5°	339.4	335.3	316.0	281.7	255.6	241.8	236.3	230.8	222.6	224.0	232.2
170°	336.7	335.3	324.3	306.4	277.6	254.2	240.5	235.0	229.5	224.0	215.7
172.5°	335.3	333.9	328.4	320.2	306.4	283.1	266.6	248.7	233.6	229.5	224.0
175°	333.9	332.5	329.8	327.0	318.8	310.5	302.3	288.6	272.1	259.7	248.7
177.5°	332.5	331.2	329.8	329.8	327.0	321.5	318.8	311.9	303.7	298.2	289.9
180°	307.8	307.8	307.8	307.8	307.8	307.8	307.8	307.8	307.8	307.8	307.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2	12008.2
2.5°	12197.8	12239.0	12284.4	12248.6	12283.0	12309.1	12302.2	12310.5
5°	12343.5	12399.8	12447.9	12425.9	12461.6	12486.4	12478.1	12494.6
7.5°	12572.9	12658.1	12743.3	12757.1	12820.3	12873.8	12871.1	12873.8
10°	12869.7	12997.5	13112.9	13143.2	13221.5	13266.8	13264.1	13277.8
12.5°	12997.5	13092.3	13139.0	13123.9	13167.9	13173.4	13144.5	13154.2
15°	12792.8	12821.6	12799.6	12755.7	12788.7	12776.3	12754.3	12770.8
17.5°	12428.6	12436.9	12392.9	12343.5	12370.9	12370.9	12340.7	12358.6
20°	12017.8	12017.8	11971.1	11939.5	11943.6	11931.2	11890.0	11901.0
22.5°	11585.0	11556.1	11519.0	11481.9	11512.1	11517.6	11516.2	11536.9
25°	11109.5	11113.6	11213.9	11306.0	11396.7	11425.6	11415.9	11465.4
27.5°	10792.1	10902.0	10985.8	10995.5	11024.3	11013.3	11002.3	11036.7
30°	10487.1	10570.9	10649.2	10704.2	10797.6	10867.7	10919.9	10963.9
32.5°	10125.7	10243.8	10396.4	10507.7	10636.8	10720.6	10771.5	10832.0
35°	9739.5	9882.5	10032.2	10076.2	10131.2	10135.3	10117.4	10165.5
37.5°	9361.7	9484.0	9562.3	9582.9	9595.3	9571.9	9536.2	9570.5
40°	8939.8	9047.0	9125.3	9110.2	9103.3	9063.5	9036.0	9075.9
42.5°	8500.1	8571.6	8601.8	8556.5	8526.2	8502.9	8496.0	8522.1
45°	8006.8	8054.9	8086.5	8054.9	8035.7	8013.7	7997.2	8015.1
47.5°	7470.9	7524.5	7547.9	7521.8	7503.9	7470.9	7437.9	7457.2
50°	6947.4	6990.0	6996.9	6972.1	6902.1	6837.5	6785.3	6810.0
52.5°	6414.3	6411.5	6386.8	6345.5	6303.0	6282.3	6279.6	6298.8
55°	5857.7	5823.4	5789.0	5742.3	5710.7	5695.6	5708.0	5730.0
57.5°	5293.0	5258.6	5221.5	5125.4	5029.2	4938.5	4879.4	4865.7
60°	4773.6	4689.8	4593.6	4475.4	4376.5	4283.0	4204.7	4206.1
62.5°	4186.9	4087.9	4006.8	3913.4	3817.2	3741.6	3700.4	3694.9
65°	3637.2	3560.3	3503.9	3421.5	3337.7	3273.1	3234.6	3223.6
67.5°	3154.9	3109.6	3080.7	3025.7	2946.0	2888.3	2855.4	2847.1
70°	2759.2	2722.1	2700.1	2652.0	2586.0	2540.7	2514.6	2509.1
72.5°	2412.9	2390.9	2382.7	2336.0	2287.9	2238.4	2212.3	2205.4
75°	2116.1	2091.4	2073.5	2040.5	1992.4	1955.3	1936.1	1922.4
77.5°	1830.3	1808.3	1795.9	1768.5	1731.4	1697.0	1675.0	1661.3
80°	1565.1	1541.7	1530.7	1504.6	1467.5	1431.8	1418.1	1404.3
82.5°	1298.5	1277.9	1269.7	1250.4	1222.9	1196.8	1179.0	1166.6
85°	1078.7	1060.8	1056.7	1044.3	1020.9	1001.7	986.6	977.0
87.5°	735.1	728.3	726.9	715.9	699.4	682.9	669.2	660.9
90°	555.1	542.8	542.8	537.3	524.9	512.5	502.9	496.0
92.5°	458.9	454.8	454.8	446.6	435.6	424.6	413.6	406.7
95°	364.1	360.0	362.8	358.6	350.4	343.5	335.3	329.8
97.5°	285.8	281.7	285.8	283.1	276.2	269.3	262.5	255.6
100°	230.8	225.4	225.4	221.2	215.7	207.5	202.0	196.5
102.5°	197.9	189.6	185.5	181.4	174.5	167.6	162.1	156.6
105°	178.6	170.4	164.9	159.4	152.5	147.0	141.5	136.0
107.5°	170.4	159.4	152.5	147.0	140.2	134.7	127.8	123.7
110°	177.3	160.8	149.8	142.9	134.7	129.2	122.3	118.2



TEST NUMBER: P236495

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	191.0	175.9	159.4	147.0	140.2	133.3	126.4	122.3
115°	185.5	173.1	170.4	160.8	155.3	147.0	138.8	134.7
117.5°	206.1	178.6	162.1	152.5	148.4	145.7	141.5	137.4
120°	226.7	203.4	182.8	169.0	156.6	147.0	138.8	133.3
122.5°	235.0	215.7	200.6	189.6	181.4	171.8	162.1	156.6
125°	235.0	219.9	210.2	202.0	193.7	186.9	178.6	173.1
127.5°	237.7	225.4	215.7	206.1	199.2	192.4	185.5	181.4
130°	240.5	229.5	221.2	214.4	206.1	197.9	191.0	185.5
132.5°	255.6	236.3	225.4	218.5	213.0	204.7	197.9	192.4
135°	316.0	258.3	239.1	226.7	217.1	208.9	200.6	195.1
137.5°	314.7	325.7	292.7	248.7	232.2	221.2	211.6	206.1
140°	228.1	280.3	311.9	316.0	306.4	280.3	262.5	250.1
142.5°	228.1	219.9	218.5	261.1	295.4	299.6	296.8	294.1
145°	289.9	252.8	214.4	208.9	204.7	202.0	202.0	196.5
147.5°	277.6	285.8	284.4	254.2	228.1	203.4	197.9	196.5
150°	218.5	243.2	276.2	285.8	285.8	281.7	277.6	277.6
152.5°	215.7	207.5	213.0	225.4	244.6	251.5	258.3	247.3
155°	251.5	229.5	213.0	202.0	193.7	188.3	166.3	149.8
157.5°	280.3	269.3	254.2	240.5	225.4	199.2	177.3	171.8
160°	311.9	294.1	281.7	273.4	259.7	236.3	226.7	222.6
162.5°	303.7	310.5	307.8	299.6	270.7	257.0	248.7	243.2
165°	278.9	285.8	289.9	289.9	287.2	277.6	270.7	265.2
167.5°	250.1	261.1	269.3	272.1	280.3	277.6	266.6	261.1
170°	213.0	217.1	225.4	236.3	244.6	257.0	254.2	248.7
172.5°	218.5	215.7	218.5	221.2	224.0	230.8	230.8	228.1
175°	239.1	230.8	225.4	221.2	222.6	229.5	235.0	229.5
177.5°	281.7	274.8	265.2	259.7	261.1	263.8	270.7	251.5
180°	307.8	307.8	307.8	307.8	307.8	307.8	307.8	307.8

(END OF REPORT)