

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: P236558

Luminaire Tested: **SKB4-LD5-36-W-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: P236558
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24079)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-36-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, INNER 2 BLADES TILTED OUT 20 DEGREES
Light Source: (952) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

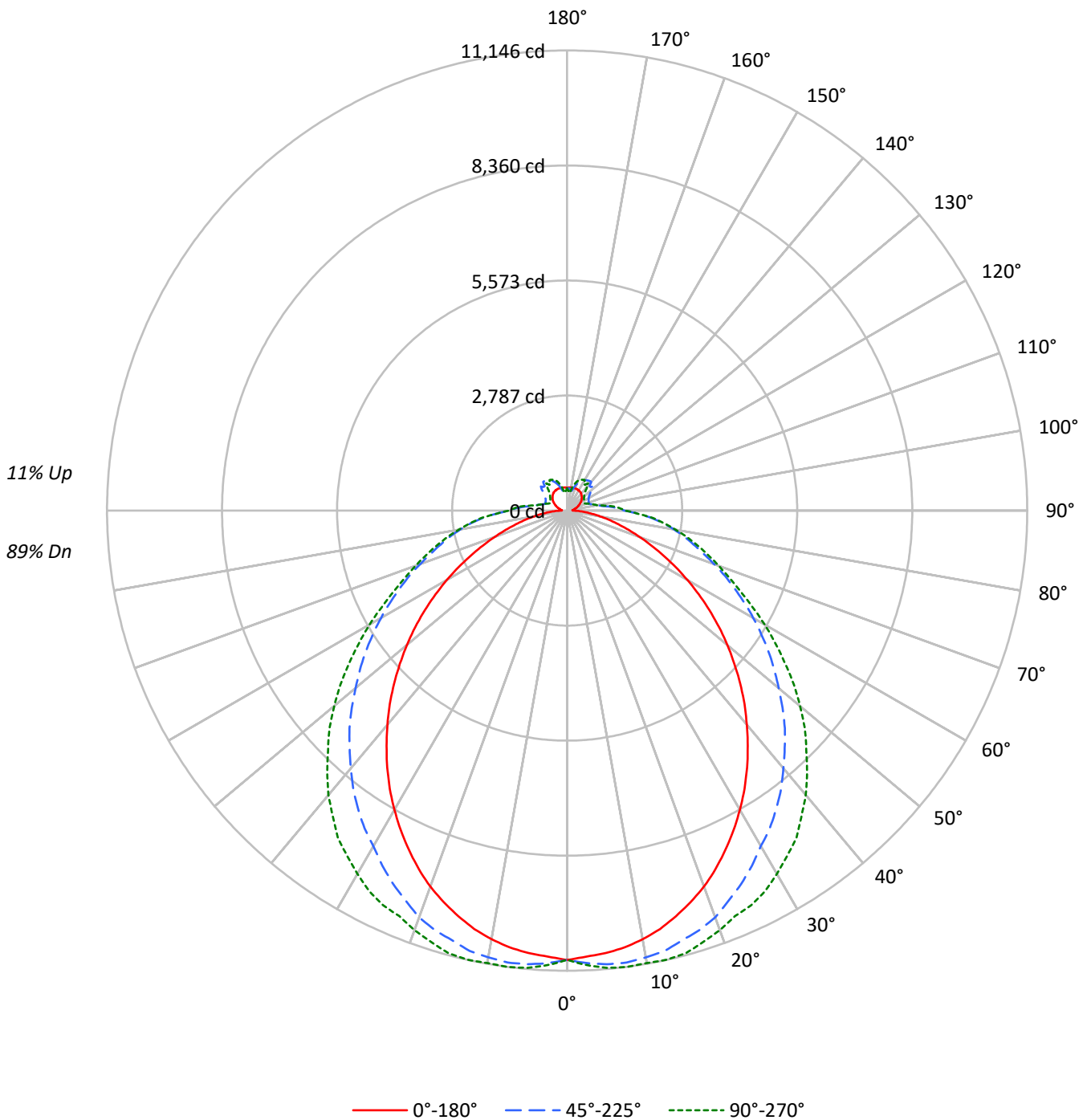
Lumens per Lamp: N/A
Luminaire Lumens: 37975.0 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.38 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 333.5
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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	105	99	94	90	101	96	92	88	90	86	83	84	81	78	78	76	74	71
2	95	86	79	73	91	83	76	71	78	72	67	73	68	64	68	64	61	58
3	86	75	67	60	83	73	65	59	68	62	56	64	58	54	60	55	51	49
4	79	66	57	51	76	64	56	50	60	53	48	57	51	46	53	48	44	41
5	72	59	50	43	69	58	49	43	54	47	41	51	45	40	48	43	38	36
6	67	53	44	38	64	52	43	37	49	41	36	46	40	35	44	38	34	31
7	62	48	39	33	59	47	39	33	44	37	32	42	36	31	40	34	30	28
8	58	44	35	30	55	43	35	29	41	33	28	38	32	27	36	31	27	25
9	54	40	32	27	52	39	32	26	37	30	25	35	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	22	31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15621	15621	15621
5°	15429	15733	15865
10°	15223	15693	15908
15°	14911	15527	16015
20°	14526	15366	15873
25°	14022	14989	15879
30°	13461	14580	15822
35°	12843	14311	15738
40°	12155	13919	15414
45°	11432	13570	14965
50°	10652	13125	14521
55°	9790	12789	13913
60°	8855	12462	13303
65°	7844	12200	12696
70°	6865	12067	12542
75°	5976	12278	12810
80°	5177	13131	13515
85°	4488	14630	15166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1048.1	2.8
10°-20°	3029.8	8.0
20°-30°	4568.4	12.0
30°-40°	5460.8	14.4
40°-50°	5598.9	14.7
50°-60°	5055.0	13.3
60°-70°	4057.5	10.7
70°-80°	2989.1	7.9
80°-90°	1913.5	5.0
90°-100°	978.4	2.6
100°-110°	598.1	1.6
110°-120°	537.7	1.4
120°-130°	555.6	1.5
130°-140°	554.2	1.5
140°-150°	478.1	1.3
150°-160°	333.5	0.9
160°-170°	168.1	0.4
170°-180°	50.2	0.1
0°-30°	8646.2	22.8
0°-40°	14107.0	37.1
0°-60°	24761.0	65.2
0°-90°	33721.1	88.8
90°-120°	2114.2	5.6
90°-150°	3702.2	9.7
90°-180°	4254.0	11.2
0°-180°	37975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10884	10884	10884	10884	10884	
5°	10759	10956	11031	11090	11120	###
15°	10176	10545	10773	11007	11100	2866
25°	9070	9488	9975	10328	10547	4174
35°	7598	8075	8828	9425	9682	4746
45°	5926	6511	7458	8026	8192	4570
55°	4204	4977	5954	6345	6442	3761
65°	2568	3612	4481	4610	4629	2558
75°	1287	2540	3168	3254	3268	1379
85°	435	1615	2060	2089	2091	434
90°	143	1063	1382	1416	1406	97
95°	149	722	1047	1127	1130	123
105°	215	529	593	622	612	229
115°	316	671	574	498	459	314
125°	422	826	658	548	498	376
135°	497	796	808	690	604	384
145°	552	692	885	779	762	345
155°	570	542	784	843	825	263
165°	570	540	546	644	646	162
175°	562	556	539	519	477	54
180°	539	539	539	539	539	



TEST NUMBER: P236558

CATALOG NUMBER: SKB4-LD5-36-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2
2.5°	10811.5	10856.5	10873.7	10922.5	10942.4	10947.7	10960.9	10968.8	10958.2	10972.8	10958.2
5°	10758.7	10814.2	10848.5	10918.6	10947.7	10963.5	10989.9	11005.8	11007.1	11030.9	11025.6
7.5°	10671.5	10734.9	10789.1	10863.1	10900.1	10927.8	10967.5	10999.2	11021.7	11041.5	11032.2
10°	10541.9	10619.9	10683.3	10761.3	10812.9	10863.1	10914.6	10926.5	10946.3	10987.3	11012.4
12.5°	10382.0	10466.6	10530.0	10621.2	10693.9	10738.9	10782.5	10827.4	10880.3	10923.9	10925.2
15°	10175.9	10277.6	10339.7	10445.5	10524.8	10564.4	10643.7	10697.9	10720.4	10773.2	10831.4
17.5°	9944.6	10050.3	10115.1	10231.4	10305.4	10372.8	10465.3	10474.5	10567.1	10655.6	10724.3
20°	9690.9	9786.0	9852.1	9981.6	10059.6	10133.6	10206.3	10280.3	10404.5	10483.8	10528.7
22.5°	9397.5	9488.7	9578.5	9693.5	9780.7	9833.6	9964.4	10067.5	10169.3	10227.4	10300.1
25°	9069.7	9162.3	9248.2	9371.1	9446.4	9529.6	9708.1	9788.7	9871.9	9975.0	10058.3
27.5°	8731.4	8810.7	8905.9	9016.9	9098.8	9237.6	9400.1	9455.6	9583.8	9693.5	9762.2
30°	8366.7	8436.7	8526.6	8638.9	8739.4	8912.5	9038.0	9126.6	9266.7	9384.3	9536.2
32.5°	7994.0	8057.4	8134.1	8233.2	8377.3	8542.4	8673.3	8793.5	8944.2	9130.5	9290.4
35°	7597.5	7658.3	7724.4	7826.2	8000.6	8150.0	8308.5	8439.4	8642.9	8827.9	8999.7
37.5°	7186.5	7250.0	7304.2	7428.4	7606.8	7770.7	7934.5	8105.0	8309.9	8512.1	8654.8
40°	6771.6	6835.0	6881.3	7024.0	7209.0	7390.1	7568.5	7757.5	7970.2	8148.6	8313.8
42.5°	6356.6	6413.4	6466.3	6628.9	6805.9	7004.2	7202.4	7399.3	7598.9	7799.7	7983.4
45°	5925.8	5989.2	6040.8	6223.1	6400.2	6622.2	6825.8	7031.9	7227.5	7457.5	7596.2
47.5°	5495.0	5561.1	5619.2	5821.4	6011.7	6245.6	6443.8	6650.0	6870.7	7074.2	7215.6
50°	5066.8	5130.2	5208.2	5419.6	5612.6	5857.1	6064.6	6286.6	6504.6	6687.0	6848.2
52.5°	4637.3	4703.4	4802.5	5019.2	5226.7	5479.1	5693.2	5929.8	6126.7	6323.6	6459.7
55°	4203.8	4276.5	4402.1	4618.8	4852.7	5101.2	5332.4	5565.0	5765.9	5953.5	6069.8
57.5°	3778.3	3857.6	4005.6	4234.2	4481.4	4736.4	4992.8	5213.5	5414.4	5578.2	5690.6
60°	3363.3	3450.5	3617.1	3861.5	4127.2	4392.8	4647.9	4880.5	5057.5	5209.5	5282.2
62.5°	2957.6	3055.4	3236.5	3507.4	3783.6	4063.7	4334.7	4550.1	4704.7	4839.5	4901.6
65°	2567.8	2676.1	2877.0	3171.7	3467.7	3757.1	4029.4	4218.4	4363.7	4481.4	4528.9
67.5°	2205.7	2323.3	2553.2	2862.5	3177.0	3474.3	3724.1	3901.2	4034.7	4136.4	4166.8
70°	1870.0	1994.2	2250.6	2579.7	2912.7	3196.8	3426.8	3601.2	3712.2	3787.5	3798.1
72.5°	1562.1	1691.6	1979.7	2325.9	2662.9	2921.9	3147.9	3301.2	3401.7	3454.5	3483.6
75°	1287.2	1422.0	1741.8	2102.6	2415.8	2664.2	2873.0	3002.5	3105.6	3167.7	3195.5
77.5°	1040.1	1184.1	1534.3	1887.2	2180.5	2410.5	2596.8	2738.2	2853.2	2902.1	2918.0
80°	811.4	977.9	1350.6	1682.3	1951.9	2162.0	2361.6	2501.7	2598.2	2628.5	2635.2
82.5°	606.6	796.9	1168.2	1473.5	1724.6	1951.9	2130.3	2247.9	2329.9	2348.4	2352.3
85°	434.8	637.0	987.2	1274.0	1517.1	1712.7	1875.3	1974.4	2044.4	2060.3	2059.0
87.5°	294.7	504.8	824.6	1073.1	1283.2	1460.3	1596.4	1679.7	1736.5	1714.0	1714.0
90°	142.7	396.5	646.2	835.2	987.2	1139.2	1239.6	1314.9	1363.8	1382.3	1386.3
92.5°	125.5	305.3	518.0	685.9	829.9	981.9	1091.6	1170.9	1222.4	1243.6	1247.5
95°	149.3	247.1	396.5	526.0	659.4	785.0	872.2	938.3	1005.7	1046.7	1069.1
97.5°	154.6	251.1	366.1	449.3	539.2	658.1	741.4	799.5	833.9	844.5	843.1
100°	169.2	292.1	378.0	445.4	499.5	553.7	637.0	700.4	737.4	750.6	750.6
102.5°	191.6	323.8	425.5	462.5	500.9	540.5	561.7	609.2	651.5	670.0	675.3
105°	215.4	337.0	495.6	487.6	515.4	541.8	564.3	570.9	574.9	593.4	603.9
107.5°	240.5	346.2	527.3	543.2	531.3	553.7	565.6	573.5	572.2	547.1	540.5
110°	267.0	354.2	537.9	605.3	569.6	569.6	577.5	580.2	572.2	561.7	540.5



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CATALOG NUMBER: SKB4-LD5-36-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	290.7	358.1	544.5	655.5	643.6	597.3	590.7	589.4	580.2	564.3	545.8
115°	315.8	360.8	547.1	681.9	691.2	650.2	614.5	605.3	590.7	573.5	552.4
117.5°	342.3	360.8	548.4	688.5	725.5	741.4	656.8	625.1	606.6	588.1	563.0
120°	370.0	362.1	545.8	695.1	794.2	766.5	726.8	662.1	627.7	603.9	578.8
122.5°	396.5	374.0	543.2	697.8	795.6	777.1	824.6	720.2	659.4	625.1	598.7
125°	421.6	391.2	540.5	696.5	795.6	856.4	794.2	824.6	711.0	658.1	623.8
127.5°	445.4	411.0	533.9	687.2	791.6	863.0	810.1	833.9	807.5	712.3	658.1
130°	462.5	436.1	520.7	667.4	781.0	853.7	890.7	800.9	855.0	811.4	715.0
132.5°	478.4	455.9	500.9	651.5	770.5	847.1	890.7	851.1	810.1	863.0	819.4
135°	496.9	478.4	477.1	634.3	754.6	836.5	880.1	910.5	819.4	807.5	857.7
137.5°	514.1	498.2	470.5	617.2	732.1	822.0	868.3	898.6	913.2	804.8	800.9
140°	528.6	516.7	470.5	596.0	705.7	802.2	851.1	882.8	902.6	906.6	802.2
142.5°	544.5	532.6	473.1	568.3	678.0	773.1	831.3	864.3	886.8	900.0	905.3
145°	552.4	541.8	498.2	524.7	647.6	737.4	803.5	843.1	870.9	885.4	893.4
147.5°	556.4	548.4	518.0	504.8	614.5	700.4	771.8	819.4	851.1	870.9	880.1
150°	560.3	555.0	532.6	492.9	574.9	664.7	734.8	787.6	826.0	849.8	861.6
152.5°	566.9	561.7	545.8	490.3	528.6	627.7	695.1	748.0	791.6	822.0	839.2
155°	569.6	565.6	553.7	522.0	504.8	580.2	651.5	701.7	746.7	783.7	807.5
157.5°	572.2	569.6	560.3	539.2	495.6	527.3	602.6	655.5	697.8	736.1	763.9
160°	570.9	569.6	563.0	549.8	519.4	498.2	535.2	601.3	644.9	680.6	707.0
162.5°	570.9	569.6	564.3	555.0	537.9	496.9	502.2	529.9	585.4	623.8	648.9
165°	569.6	569.6	565.6	559.0	548.4	531.3	494.3	492.9	515.4	545.8	581.5
167.5°	569.6	569.6	566.9	561.7	555.0	545.8	532.6	511.4	487.6	492.9	504.8
170°	566.9	568.3	565.6	561.7	557.7	551.1	544.5	535.2	522.0	507.5	479.7
172.5°	564.3	565.6	565.6	563.0	559.0	555.0	551.1	545.8	536.5	531.3	522.0
175°	561.7	563.0	563.0	561.7	557.7	553.7	552.4	548.4	541.8	539.2	533.9
177.5°	559.0	559.0	560.3	559.0	557.7	555.0	553.7	551.1	544.5	543.2	537.9
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2



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CATALOG NUMBER: SKB4-LD5-36-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2	10884.2
2.5°	10949.0	10995.2	10993.9	10968.8	10993.9	11023.0	11007.1	11021.7
5°	11029.6	11090.4	11099.6	11081.1	11102.3	11127.4	11104.9	11119.5
7.5°	11034.9	11086.4	11098.3	11083.8	11122.1	11157.8	11135.3	11145.9
10°	11042.8	11102.3	11118.1	11095.7	11119.5	11139.3	11112.8	11130.0
12.5°	10933.1	11012.4	11058.7	11066.6	11111.5	11144.6	11122.1	11140.6
15°	10880.3	10962.2	11001.8	11012.4	11062.6	11098.3	11075.8	11099.6
17.5°	10774.5	10831.4	10843.3	10840.6	10897.4	10942.4	10934.4	10958.2
20°	10565.7	10642.4	10699.2	10711.1	10765.3	10802.3	10781.1	10812.9
22.5°	10380.7	10460.0	10478.5	10485.1	10560.4	10608.0	10605.4	10630.5
25°	10120.4	10199.7	10296.1	10360.9	10448.1	10504.9	10519.5	10547.2
27.5°	9899.7	10027.9	10144.2	10207.6	10296.1	10353.0	10374.1	10388.6
30°	9692.2	9827.0	9931.4	9998.8	10075.4	10120.4	10137.6	10160.0
32.5°	9438.5	9575.9	9665.8	9719.9	9796.6	9854.7	9891.7	9915.5
35°	9131.9	9258.7	9379.0	9470.2	9556.1	9614.2	9636.7	9681.6
37.5°	8798.8	8974.6	9098.8	9160.9	9211.2	9258.7	9285.2	9324.8
40°	8494.9	8642.9	8728.8	8792.2	8859.6	8921.7	8954.8	8994.4
42.5°	8124.8	8253.0	8372.0	8447.3	8505.4	8558.3	8580.8	8603.2
45°	7741.6	7893.6	7996.7	8054.8	8090.5	8146.0	8180.3	8192.2
47.5°	7374.2	7499.8	7583.0	7654.4	7703.3	7758.8	7789.2	7809.0
50°	6981.7	7091.4	7187.9	7252.6	7281.7	7318.7	7338.5	7365.0
52.5°	6581.3	6704.2	6763.7	6802.0	6831.1	6873.3	6894.5	6920.9
55°	6186.1	6261.5	6320.9	6368.5	6397.6	6429.3	6447.8	6442.5
57.5°	5760.6	5846.5	5898.0	5925.8	5943.0	5964.1	5969.4	5983.9
60°	5360.2	5421.0	5454.0	5479.1	5487.0	5504.2	5510.8	5526.7
62.5°	4962.4	5007.3	5024.5	5043.0	5053.6	5050.9	5052.3	5062.8
65°	4562.0	4599.0	4605.6	4613.5	4620.1	4622.8	4625.4	4629.4
67.5°	4178.7	4207.8	4217.0	4239.5	4248.8	4243.5	4243.5	4247.4
70°	3823.2	3851.0	3861.5	3878.7	3891.9	3891.9	3895.9	3901.2
72.5°	3498.1	3529.8	3551.0	3561.6	3580.1	3581.4	3581.4	3580.1
75°	3210.0	3233.8	3249.7	3257.6	3276.1	3274.8	3273.5	3268.2
77.5°	2923.3	2941.8	2960.3	2958.9	2977.4	2977.4	2973.5	2969.5
80°	2635.2	2656.3	2664.2	2661.6	2678.8	2676.1	2674.8	2665.6
82.5°	2339.1	2357.6	2365.6	2365.6	2381.4	2378.8	2377.5	2369.5
85°	2055.0	2066.9	2089.4	2088.0	2098.6	2098.6	2097.3	2090.7
87.5°	1686.3	1695.5	1703.5	1700.8	1708.8	1714.0	1708.8	1704.8
90°	1387.6	1396.9	1414.1	1418.0	1424.6	1418.0	1416.7	1406.1
92.5°	1252.8	1262.1	1276.6	1281.9	1285.9	1284.5	1285.9	1279.3
95°	1085.0	1102.2	1124.6	1129.9	1136.5	1135.2	1139.2	1129.9
97.5°	845.8	863.0	893.4	911.9	917.2	918.5	925.1	914.5
100°	750.6	754.6	759.9	757.2	755.9	753.3	752.0	744.0
102.5°	676.6	680.6	685.9	685.9	683.2	681.9	679.3	672.7
105°	609.2	615.8	621.1	622.4	621.1	619.8	617.2	611.9
107.5°	545.8	551.1	559.0	560.3	560.3	561.7	560.3	552.4
110°	510.1	500.9	503.5	503.5	503.5	504.8	502.2	495.6



TEST NUMBER: P236558

CATALOG NUMBER: SKB4-LD5-36-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	529.9	511.4	487.6	469.1	462.5	461.2	457.3	450.6
115°	531.3	515.4	503.5	491.6	483.7	475.8	465.2	458.6
117.5°	543.2	523.3	507.5	494.3	487.6	481.0	473.1	466.5
120°	557.7	535.2	519.4	504.8	495.6	486.3	477.1	470.5
122.5°	576.2	555.0	535.2	518.0	507.5	498.2	489.0	482.4
125°	598.7	574.9	556.4	540.5	527.3	516.7	506.2	498.2
127.5°	625.1	600.0	580.2	561.7	547.1	535.2	523.3	516.7
130°	663.4	633.0	610.6	588.1	572.2	559.0	547.1	537.9
132.5°	724.2	681.9	650.2	621.1	603.9	589.4	574.9	565.6
135°	848.4	754.6	707.0	672.7	648.9	629.1	613.2	603.9
137.5°	851.1	872.2	826.0	744.0	712.3	688.5	668.7	659.4
140°	795.6	822.0	857.7	863.0	857.7	814.1	786.3	777.1
142.5°	811.4	774.4	795.6	811.4	835.2	839.2	832.6	828.6
145°	900.0	868.3	792.9	765.2	766.5	775.7	770.5	762.5
147.5°	888.1	892.0	893.4	874.9	816.7	779.7	759.9	750.6
150°	873.5	878.8	881.5	881.5	878.8	873.5	863.0	855.0
152.5°	852.4	861.6	866.9	868.3	866.9	860.3	848.4	841.8
155°	824.6	835.2	841.8	844.5	845.8	841.8	831.3	824.6
157.5°	786.3	803.5	812.7	816.7	818.0	815.4	807.5	802.2
160°	734.8	754.6	769.1	774.4	779.7	779.7	773.1	767.8
162.5°	674.0	695.1	711.0	718.9	724.2	726.8	720.2	718.9
165°	609.2	627.7	640.9	647.6	652.8	655.5	650.2	646.2
167.5°	519.4	544.5	564.3	572.2	577.5	577.5	573.5	573.5
170°	478.4	482.4	483.7	483.7	481.0	478.4	473.1	470.5
172.5°	514.1	510.1	499.5	486.3	473.1	457.3	445.4	432.1
175°	528.6	528.6	523.3	515.4	506.2	496.9	486.3	477.1
177.5°	533.9	535.2	531.3	524.7	516.7	507.5	494.3	487.6
180°	539.2	539.2	539.2	539.2	539.2	539.2	539.2	539.2

(END OF REPORT)