

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: P236568

Luminaire Tested: **SKB4-LD5-36-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236568  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24077)  
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-L835-CD4-U outer 2 blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH WIDE DISTRIBUTION LENS, OUTER 2 BLADES TILTED OUT 20 DEGREES  
Light Source: (952) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

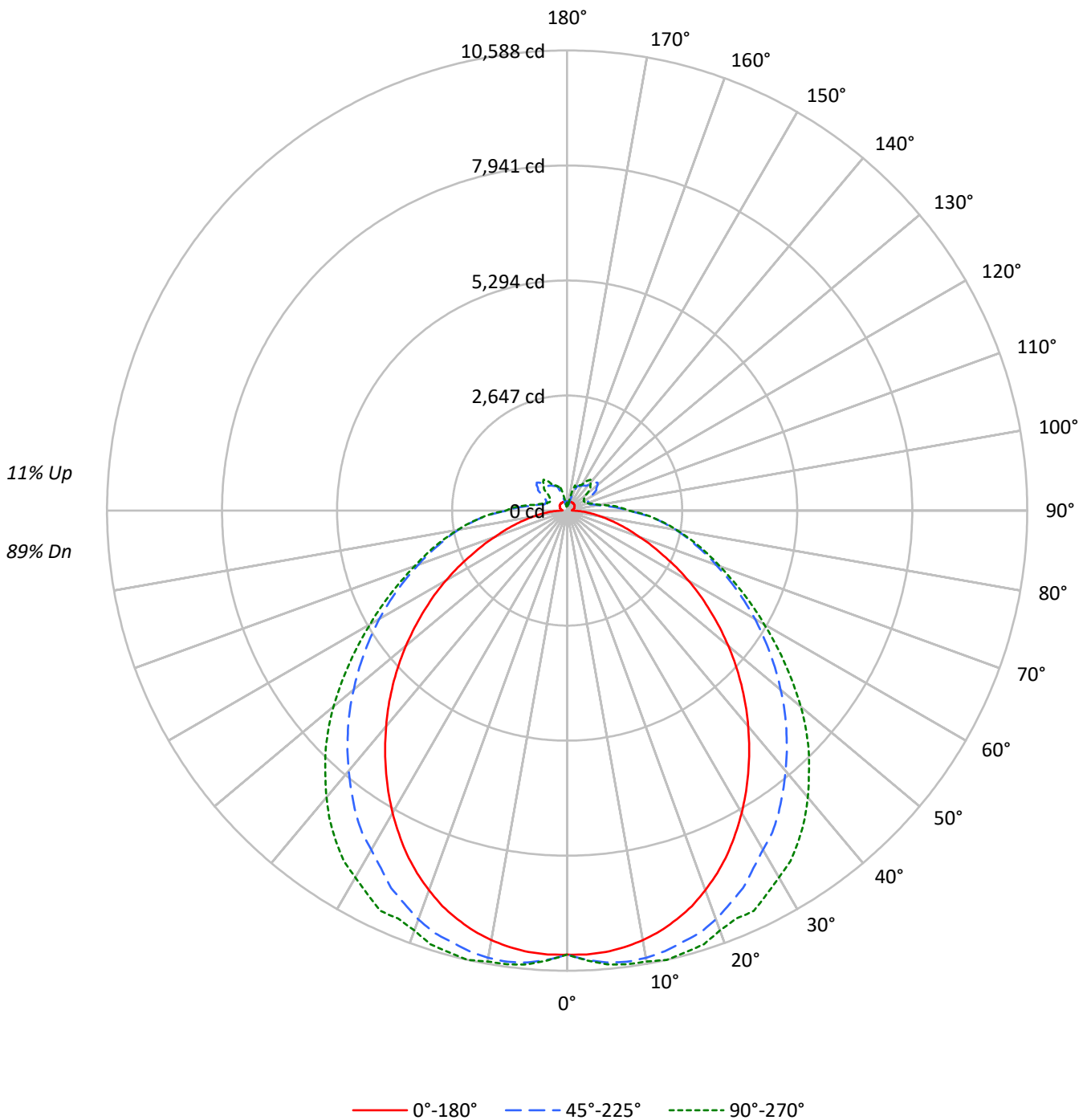
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 36205.0 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.4 / 1.41  
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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CATALOG NUMBER: SKB4-LD5-36-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

### 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	117	117	117	117	113	113	113	113	105	105	105	99	99	99	92	92	92	89
1	105	99	95	90	101	96	92	88	90	86	83	84	81	79	79	77	74	72
2	95	86	79	73	91	83	76	71	78	72	68	73	68	64	68	65	61	59
3	86	75	67	60	83	73	65	59	68	62	56	64	59	54	60	56	52	49
4	79	66	57	51	76	64	56	50	61	53	48	57	51	46	54	49	44	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	48	43	38	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	31
7	62	48	39	33	60	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	39	32	28	37	31	27	25
9	54	40	32	27	52	39	32	26	37	30	26	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	31	26	22	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	14665	14665	14665
5°	14623	14886	14956
10°	14492	14925	15054
15°	14271	14808	15182
20°	13933	14669	15088
25°	13492	14398	15302
30°	12924	13999	15178
35°	12295	13756	15084
40°	11633	13354	14764
45°	10937	12979	14368
50°	10176	12582	13844
55°	9345	12222	13196
60°	8482	11941	12602
65°	7458	11698	12205
70°	6511	11622	12006
75°	5735	11857	12277
80°	5048	12675	12960
85°	4506	14184	14600



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	992.3	2.7
10°-20°	2891.0	8.0
20°-30°	4386.8	12.1
30°-40°	5255.9	14.5
40°-50°	5378.1	14.9
50°-60°	4839.2	13.4
60°-70°	3895.2	10.8
70°-80°	2879.1	8.0
80°-90°	1871.1	5.2
90°-100°	966.1	2.7
100°-110°	574.8	1.6
110°-120°	504.9	1.4
120°-130°	527.9	1.5
130°-140°	527.3	1.5
140°-150°	390.4	1.1
150°-160°	223.0	0.6
160°-170°	85.0	0.2
170°-180°	17.1	0.0
0°-30°	8270.1	22.8
0°-40°	13526.0	37.4
0°-60°	23743.3	65.6
0°-90°	32388.7	89.5
90°-120°	2045.7	5.7
90°-150°	3491.3	9.6
90°-180°	3816.0	10.5
0°-180°	36205.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10218	10218	10218	10218	10218	
5°	10197	10351	10437	10464	10482	968
15°	9739	10068	10274	10471	10522	2743
25°	8727	9095	9581	9939	10164	4010
35°	7273	7735	8486	9106	9280	4546
45°	5669	6242	7132	7723	7866	4371
55°	4013	4772	5690	6076	6111	3596
65°	2442	3461	4297	4439	4450	2443
75°	1235	2454	3059	3123	3132	1323
85°	436	1594	1998	2006	2013	431
90°	132	1066	1369	1411	1408	92
95°	127	708	1018	1104	1118	104
105°	151	522	547	606	608	164
115°	185	721	532	473	453	185
125°	209	662	816	533	478	186
135°	214	601	907	819	760	166
145°	219	496	702	839	847	137
155°	216	160	628	657	638	100
165°	216	173	165	438	482	61
175°	211	210	219	192	143	20
180°	190	190	190	190	190	



TEST NUMBER: P236568

CATALOG NUMBER: SKB4-LD5-36-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9
2.5°	10224.2	10226.7	10282.1	10316.1	10301.0	10304.7	10298.4	10331.1	10365.1	10346.2	10362.6
5°	10196.6	10209.1	10283.3	10334.9	10336.2	10365.1	10376.4	10419.2	10459.5	10436.8	10458.2
7.5°	10133.7	10155.0	10246.9	10319.8	10338.7	10367.6	10373.9	10426.7	10484.6	10473.3	10495.9
10°	10035.5	10069.5	10182.7	10265.7	10277.1	10318.6	10346.2	10399.1	10450.6	10449.4	10473.3
12.5°	9908.5	9946.2	10077.1	10161.3	10180.2	10234.3	10260.7	10319.8	10380.2	10384.0	10412.9
15°	9738.7	9789.0	9929.9	10014.2	10045.6	10090.9	10129.9	10199.1	10258.2	10274.5	10358.8
17.5°	9543.7	9594.0	9734.9	9824.2	9850.6	9911.0	9958.8	10028.0	10138.7	10184.0	10251.9
20°	9295.9	9356.3	9498.4	9591.5	9620.4	9690.9	9742.4	9863.2	9973.9	10007.9	10074.5
22.5°	9026.7	9084.6	9228.0	9328.6	9355.0	9425.5	9522.3	9649.4	9747.5	9789.0	9899.7
25°	8727.3	8777.6	8918.5	9016.6	9046.8	9142.4	9267.0	9389.0	9488.4	9581.4	9659.4
27.5°	8385.2	8439.3	8578.9	8668.2	8713.5	8856.9	8977.6	9095.9	9235.5	9277.0	9392.8
30°	8033.0	8079.5	8217.9	8295.9	8368.8	8522.3	8641.8	8809.1	8904.7	9010.4	9212.9
32.5°	7659.4	7704.6	7838.0	7909.7	8017.9	8180.1	8331.1	8464.4	8607.8	8785.2	8971.4
35°	7273.2	7317.2	7444.3	7516.0	7650.6	7819.1	7988.9	8133.6	8339.9	8485.8	8655.6
37.5°	6879.5	6926.0	7039.2	7121.0	7275.7	7461.9	7629.2	7827.9	8010.3	8152.5	8338.6
40°	6480.7	6515.9	6634.2	6726.0	6899.6	7084.5	7273.2	7487.0	7654.3	7817.9	8029.2
42.5°	6080.7	6110.9	6225.4	6348.6	6523.5	6712.2	6951.2	7110.9	7307.2	7482.0	7684.5
45°	5669.4	5698.3	5812.8	5956.2	6132.3	6351.1	6583.9	6737.3	6946.1	7132.3	7316.0
47.5°	5255.5	5288.2	5403.9	5571.2	5761.2	5995.2	6196.4	6380.1	6616.6	6781.3	6941.1
50°	4840.4	4873.1	5002.7	5186.3	5381.3	5624.1	5821.6	6025.3	6253.0	6410.3	6561.2
52.5°	4426.6	4463.0	4610.2	4795.1	5015.3	5254.3	5470.6	5680.7	5888.2	6055.5	6182.6
55°	4012.7	4058.0	4221.5	4410.2	4653.0	4890.7	5120.9	5328.5	5532.3	5689.5	5815.3
57.5°	3624.0	3668.0	3836.6	4050.4	4298.3	4544.8	4790.1	4986.3	5186.3	5336.0	5445.5
60°	3221.5	3271.8	3461.7	3693.2	3952.3	4219.0	4461.8	4661.8	4854.2	4991.4	5076.9
62.5°	2832.8	2915.8	3095.7	3353.6	3622.8	3903.3	4151.1	4351.1	4527.2	4641.7	4705.8
65°	2441.6	2556.1	2749.8	3035.3	3315.8	3606.4	3859.2	4055.5	4203.9	4297.0	4341.0
67.5°	2109.5	2220.2	2432.8	2741.0	3032.8	3334.7	3587.5	3761.1	3883.1	3961.1	3997.6
70°	1773.6	1908.2	2146.0	2470.5	2777.4	3081.9	3309.5	3463.0	3571.2	3647.9	3681.9
72.5°	1495.6	1622.7	1896.9	2227.7	2547.3	2830.3	3032.8	3178.7	3298.2	3349.8	3366.1
75°	1235.3	1363.6	1665.5	2016.4	2329.6	2578.7	2772.4	2922.1	3012.7	3059.2	3075.6
77.5°	1002.5	1149.7	1475.5	1822.7	2112.0	2344.7	2539.7	2665.5	2756.1	2793.8	2806.4
80°	791.2	953.5	1308.2	1634.0	1901.9	2128.4	2303.2	2425.2	2507.0	2537.2	2541.0
82.5°	602.5	784.9	1144.7	1449.1	1699.4	1915.8	2076.8	2193.8	2251.6	2268.0	2264.2
85°	436.5	630.2	974.9	1256.6	1495.6	1691.9	1832.8	1934.7	1985.0	1997.5	1986.2
87.5°	298.1	488.1	808.8	1064.2	1268.0	1441.6	1563.6	1651.6	1700.7	1705.7	1705.7
90°	132.1	366.0	641.5	837.8	998.8	1133.4	1230.2	1314.5	1356.0	1368.6	1379.9
92.5°	108.2	281.8	505.7	688.1	837.8	969.8	1076.8	1159.8	1205.1	1222.7	1231.5
95°	127.0	230.2	376.1	514.5	650.3	764.8	859.1	947.2	993.7	1017.6	1042.8
97.5°	130.8	226.4	348.4	442.8	527.1	634.0	722.0	782.4	811.3	825.2	847.8
100°	137.1	230.2	376.1	432.7	496.9	557.3	606.3	679.3	714.5	727.1	732.1
102.5°	142.1	226.4	407.6	457.9	490.6	532.1	558.5	576.1	613.9	639.0	652.9
105°	150.9	222.6	405.0	528.3	514.5	529.6	549.7	561.0	579.9	547.2	568.6
107.5°	168.6	222.6	395.0	574.9	573.6	551.0	551.0	549.7	548.4	523.3	538.4
110°	178.6	191.2	382.4	562.3	647.8	598.8	572.3	553.5	535.9	523.3	512.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.1	171.1	378.6	544.7	713.2	708.2	615.1	576.1	544.7	517.0	500.6
115°	184.9	150.9	373.6	510.7	695.6	747.2	727.1	620.1	569.8	532.1	504.4
117.5°	191.2	150.9	378.6	505.7	674.2	820.2	783.7	713.2	615.1	561.0	523.3
120°	198.7	153.5	398.8	508.2	640.3	796.3	840.3	808.8	704.4	610.1	557.3
122.5°	203.8	156.0	368.6	504.4	598.8	767.3	888.1	847.8	816.4	705.7	612.6
125°	208.8	158.5	324.5	501.9	598.8	724.6	852.9	945.9	847.8	816.4	733.4
127.5°	212.6	158.5	256.6	505.7	595.0	660.4	812.6	910.7	934.6	846.6	816.4
130°	212.6	153.5	177.4	529.6	581.2	652.9	753.5	869.2	940.9	918.3	845.3
132.5°	211.3	152.2	138.4	484.3	572.3	645.3	691.8	817.6	900.7	951.0	928.3
135°	213.8	169.8	139.6	428.9	569.8	631.5	683.0	724.6	851.6	906.9	947.2
137.5°	216.4	193.7	142.1	357.2	601.3	615.1	673.0	706.9	772.4	859.1	903.2
140°	217.6	212.6	144.7	249.1	549.7	603.8	654.1	690.6	715.7	781.2	852.9
142.5°	220.1	230.2	147.2	166.0	484.3	617.6	631.5	674.2	699.4	717.0	767.3
145°	218.9	237.7	144.7	135.9	397.5	593.7	616.4	647.8	681.8	701.9	715.7
147.5°	216.4	232.7	142.1	135.9	270.4	517.0	645.3	629.0	657.9	684.3	699.4
150°	215.1	227.7	153.5	138.4	171.1	427.7	584.9	625.2	635.2	659.1	679.3
152.5°	216.4	225.2	187.4	143.4	137.1	298.1	498.1	617.6	622.7	635.2	650.3
155°	216.4	222.6	213.8	144.7	140.9	179.9	386.2	523.3	618.9	627.7	626.4
157.5°	216.4	221.4	232.7	152.2	144.7	138.4	222.6	408.8	520.8	600.0	652.9
160°	216.4	218.9	236.5	187.4	147.2	143.4	144.7	230.2	393.7	490.6	559.8
162.5°	216.4	217.6	228.9	220.1	154.7	145.9	143.4	144.7	207.6	333.3	426.4
165°	216.4	216.4	222.6	237.7	198.7	147.2	145.9	143.4	138.4	164.8	215.1
167.5°	215.1	215.1	218.9	228.9	230.2	191.2	148.4	144.7	142.1	139.6	135.9
170°	213.8	212.6	216.4	220.1	228.9	228.9	202.5	168.6	143.4	140.9	139.6
172.5°	212.6	211.3	212.6	215.1	216.4	221.4	228.9	223.9	206.3	183.7	159.8
175°	211.3	210.1	210.1	210.1	210.1	210.1	211.3	212.6	215.1	218.9	222.6
177.5°	210.1	207.6	207.6	207.6	206.3	205.0	203.8	202.5	201.3	200.0	198.7
180°	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9	10217.9
2.5°	10351.3	10378.9	10360.1	10340.0	10337.4	10366.4	10363.9	10358.8
5°	10455.7	10483.4	10472.0	10455.7	10455.7	10487.1	10483.4	10482.1
7.5°	10497.2	10531.2	10519.8	10503.5	10514.8	10532.4	10536.2	10531.2
10°	10488.4	10529.9	10523.6	10508.5	10508.5	10534.9	10531.2	10532.4
12.5°	10430.5	10488.4	10511.0	10521.1	10543.7	10581.5	10584.0	10587.8
15°	10409.1	10467.0	10470.8	10472.0	10494.7	10527.4	10521.1	10522.3
17.5°	10293.4	10340.0	10347.5	10358.8	10394.0	10446.9	10445.6	10460.7
20°	10133.7	10211.6	10255.7	10268.3	10282.1	10304.7	10278.3	10278.3
22.5°	9991.5	10020.4	10014.2	10044.3	10112.3	10157.6	10165.1	10162.6
25°	9714.8	9809.1	9887.1	9990.3	10092.1	10148.8	10160.1	10163.8
27.5°	9546.2	9708.5	9794.0	9850.6	9902.2	9933.7	9953.8	9947.5
30°	9385.2	9470.7	9538.7	9634.3	9703.5	9731.1	9747.5	9746.2
32.5°	9094.6	9209.1	9292.1	9394.0	9507.2	9546.2	9562.6	9563.8
35°	8804.1	8938.7	9060.7	9151.2	9233.0	9260.7	9278.3	9279.5
37.5°	8516.0	8646.8	8756.3	8843.0	8917.3	8943.7	8961.3	8972.6
40°	8190.2	8309.7	8416.6	8518.5	8594.0	8599.0	8615.4	8615.4
42.5°	7829.2	7957.5	8069.4	8149.9	8215.4	8219.1	8235.5	8234.2
45°	7460.6	7578.9	7688.3	7757.5	7826.7	7839.2	7859.4	7865.7
47.5°	7080.7	7201.5	7300.9	7370.0	7425.4	7441.7	7454.3	7455.6
50°	6693.3	6820.3	6904.6	6956.2	7000.2	7015.3	7024.1	7021.6
52.5°	6314.7	6429.1	6488.3	6528.5	6572.5	6581.3	6583.9	6560.0
55°	5932.3	6022.8	6063.1	6089.5	6115.9	6134.8	6133.5	6110.9
57.5°	5538.5	5617.8	5630.4	5666.8	5678.2	5694.5	5685.7	5666.8
60°	5147.3	5205.2	5209.0	5242.9	5250.5	5246.7	5250.5	5235.4
62.5°	4756.1	4798.9	4803.9	4835.4	4850.5	4848.0	4850.5	4840.4
65°	4381.3	4421.5	4426.6	4451.7	4468.1	4464.3	4461.8	4450.5
67.5°	4036.6	4068.1	4080.6	4093.2	4100.8	4089.4	4084.4	4075.6
70°	3702.0	3722.1	3725.9	3736.0	3747.3	3737.2	3744.8	3734.7
72.5°	3380.0	3401.4	3416.5	3421.5	3434.1	3421.5	3429.0	3422.8
75°	3091.9	3109.5	3117.1	3129.7	3144.8	3133.4	3138.5	3132.2
77.5°	2819.0	2832.8	2844.1	2847.9	2861.7	2847.9	2850.4	2839.1
80°	2543.5	2549.8	2556.1	2559.8	2573.7	2562.3	2563.6	2556.1
82.5°	2265.5	2273.0	2289.4	2285.6	2298.2	2285.6	2288.1	2293.2
85°	1983.7	1997.5	2007.6	2003.8	2016.4	2011.4	2007.6	2012.6
87.5°	1705.7	1717.0	1729.6	1728.4	1739.7	1734.6	1734.6	1742.2
90°	1378.7	1387.5	1402.6	1418.9	1421.4	1423.9	1418.9	1407.6
92.5°	1232.7	1244.1	1255.4	1266.7	1276.8	1274.3	1271.7	1274.3
95°	1057.9	1076.8	1096.9	1110.7	1127.1	1127.1	1127.1	1118.3
97.5°	862.9	881.8	898.1	909.5	922.0	923.3	922.0	922.0
100°	733.4	739.6	745.9	753.5	762.3	764.8	762.3	763.5
102.5°	657.9	666.7	671.7	675.5	678.0	678.0	674.2	670.5
105°	581.2	595.0	602.5	608.8	612.6	613.9	611.3	607.6
107.5°	509.5	522.0	534.6	543.4	549.7	552.2	549.7	545.9
110°	490.6	523.3	493.1	479.3	484.3	490.6	489.3	485.6





TEST NUMBER: P236568

CATALOG NUMBER: SKB4-LD5-36-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	494.4	490.6	474.2	465.4	489.3	500.6	493.1	489.3
115°	484.3	475.5	473.0	473.0	471.7	467.9	459.1	452.8
117.5°	498.1	479.3	466.7	460.4	457.9	454.1	447.8	442.8
120°	523.3	499.4	480.5	470.5	461.6	452.8	444.0	437.7
122.5°	562.3	529.6	504.4	490.6	480.5	470.5	460.4	452.8
125°	629.0	577.4	542.2	523.3	508.2	495.6	483.0	478.0
127.5°	791.2	665.4	605.1	572.3	548.4	530.8	517.0	509.5
130°	813.9	800.0	767.3	661.7	621.4	593.7	572.3	566.1
132.5°	845.3	821.4	801.3	788.7	777.4	761.0	722.0	714.5
135°	966.1	864.2	829.0	808.8	793.7	779.9	766.1	759.8
137.5°	934.6	958.5	924.6	851.6	826.4	807.6	791.2	783.7
140°	888.1	913.2	933.4	944.7	948.5	914.5	873.0	857.9
142.5°	832.7	864.2	885.6	899.4	908.2	908.2	899.4	894.4
145°	729.6	795.0	829.0	849.1	857.9	860.4	852.9	846.6
147.5°	706.9	713.2	728.3	773.6	793.7	802.5	798.8	793.7
150°	688.1	696.9	700.7	701.9	699.4	695.6	690.6	685.6
152.5°	665.4	676.8	680.5	683.0	681.8	678.0	666.7	660.4
155°	635.2	646.6	654.1	660.4	659.1	655.4	644.0	637.8
157.5°	615.1	618.9	623.9	627.7	627.7	625.2	616.4	611.3
160°	607.6	644.0	610.1	600.0	597.5	595.0	586.2	579.9
162.5°	488.1	533.4	566.1	590.0	603.8	615.1	610.1	606.3
165°	305.7	378.6	423.9	451.6	471.7	485.6	483.0	481.8
167.5°	139.6	168.6	191.2	212.6	247.8	283.0	285.5	289.3
170°	134.6	130.8	124.5	118.2	112.0	104.4	96.9	91.8
172.5°	139.6	130.8	125.8	120.8	114.5	105.7	96.9	89.3
175°	216.4	207.6	197.5	186.2	177.4	164.8	149.7	143.4
177.5°	195.0	192.5	188.7	183.7	178.6	169.8	158.5	150.9
180°	189.9	189.9	189.9	189.9	189.9	189.9	189.9	189.9

(END OF REPORT)