

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: P236556

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236556
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-L835-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) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

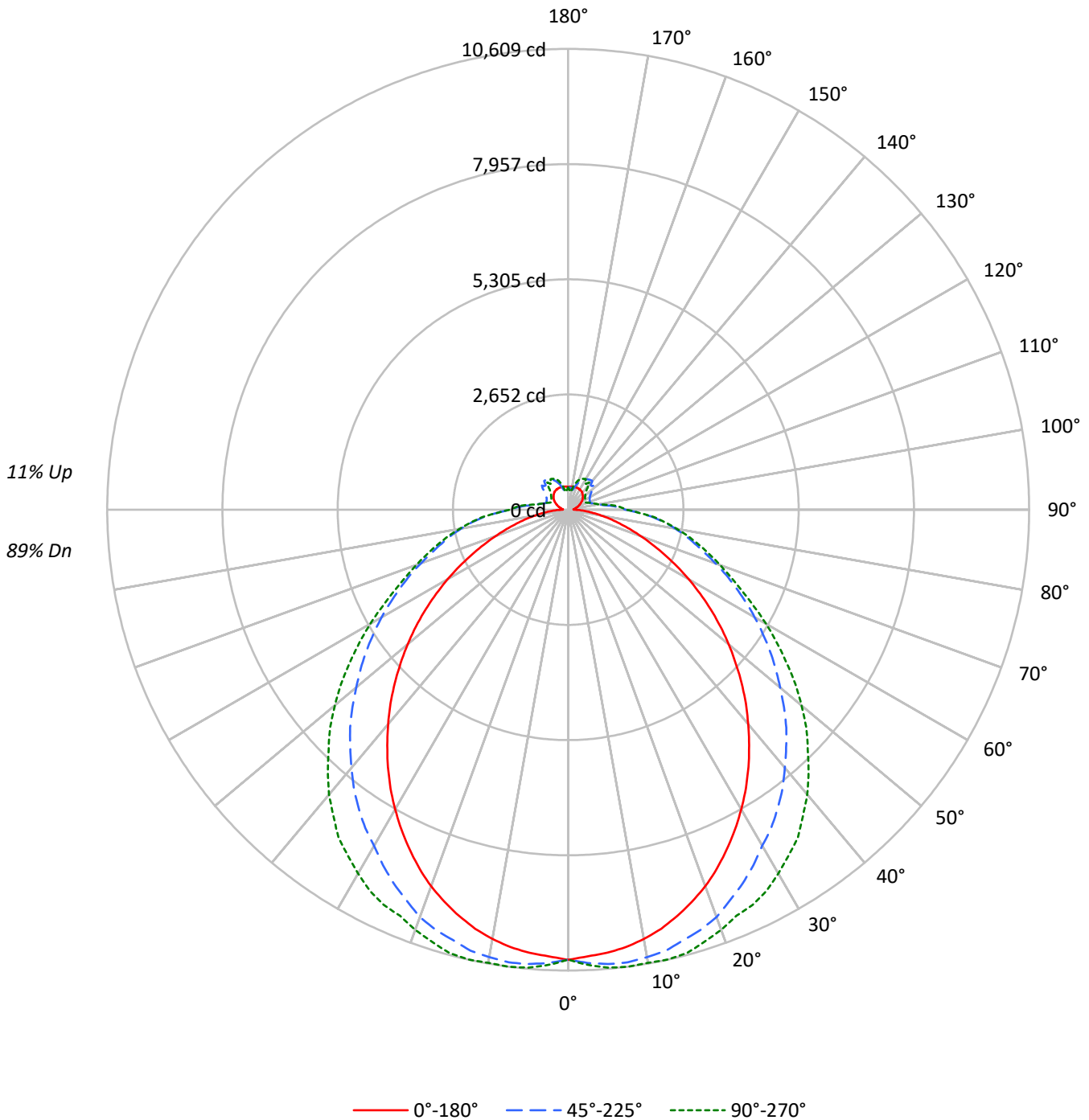
Lumens per Lamp: N/A
Luminaire Lumens: 36146.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.38 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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°	14869	14869	14869
5°	14686	14975	15101
10°	14490	14937	15142
15°	14193	14779	15244
20°	13826	14626	15108
25°	13347	14267	15115
30°	12812	13878	15060
35°	12224	13621	14980
40°	11570	13248	14672
45°	10881	12917	14244
50°	10139	12493	13822
55°	9319	12173	13242
60°	8429	11862	12663
65°	7466	11612	12084
70°	6534	11486	11938
75°	5688	11687	12194
80°	4928	12498	12864
85°	4271	13926	14436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	997.6	2.8
10°-20°	2883.9	8.0
20°-30°	4348.3	12.0
30°-40°	5197.8	14.4
40°-50°	5329.2	14.7
50°-60°	4811.6	13.3
60°-70°	3862.0	10.7
70°-80°	2845.2	7.9
80°-90°	1821.3	5.0
90°-100°	931.3	2.6
100°-110°	569.3	1.6
110°-120°	511.8	1.4
120°-130°	528.8	1.5
130°-140°	527.5	1.5
140°-150°	455.1	1.3
150°-160°	317.4	0.9
160°-170°	160.0	0.4
170°-180°	47.8	0.1
0°-30°	8229.8	22.8
0°-40°	13427.6	37.1
0°-60°	23568.4	65.2
0°-90°	32096.9	88.8
90°-120°	2012.4	5.6
90°-150°	3523.9	9.7
90°-180°	4049.0	11.2
0°-180°	36146.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10360	10360	10360	10360	10360	
5°	10240	10428	10500	10556	10584	971
15°	9686	10037	10254	10477	10565	2728
25°	8633	9031	9495	9831	10039	3973
35°	7232	7686	8403	8971	9215	4518
45°	5640	6198	7098	7639	7798	4350
55°	4001	4737	5667	6039	6132	3580
65°	2444	3438	4266	4388	4406	2435
75°	1225	2418	3015	3097	3111	1313
85°	414	1537	1961	1988	1990	413
90°	136	1012	1316	1348	1338	92
95°	142	687	996	1073	1076	117
105°	205	503	565	592	582	218
115°	301	638	546	474	436	299
125°	401	786	626	522	474	358
135°	473	757	769	657	575	365
145°	526	659	843	742	726	328
155°	542	516	746	803	785	250
165°	542	514	520	613	615	154
175°	535	529	513	494	454	51
180°	513	513	513	513	513	



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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0
2.5°	10290.8	10333.6	10349.9	10396.5	10415.4	10420.4	10433.0	10440.5	10430.4	10444.3	10430.4
5°	10240.5	10293.3	10326.0	10392.7	10420.4	10435.5	10460.6	10475.7	10477.0	10499.6	10494.6
7.5°	10157.5	10217.9	10269.4	10339.9	10375.1	10401.5	10439.3	10469.4	10490.8	10509.7	10500.9
10°	10034.2	10108.4	10168.8	10243.0	10292.1	10339.9	10388.9	10400.3	10419.1	10458.1	10482.0
12.5°	9882.0	9962.5	10022.9	10109.7	10178.9	10221.6	10263.1	10305.9	10356.2	10397.7	10399.0
15°	9685.8	9782.6	9841.8	9942.4	10017.9	10055.6	10131.1	10182.6	10204.0	10254.3	10309.7
17.5°	9465.6	9566.3	9627.9	9738.6	9809.0	9873.2	9961.3	9970.1	10058.1	10142.4	10207.8
20°	9224.1	9314.7	9377.6	9500.9	9575.1	9645.5	9714.7	9785.1	9903.4	9978.9	10021.6
22.5°	8944.9	9031.7	9117.2	9226.6	9309.7	9360.0	9484.5	9582.6	9679.5	9734.8	9804.0
25°	8632.9	8721.0	8802.7	8919.7	8991.4	9070.7	9240.5	9317.2	9396.5	9494.6	9573.8
27.5°	8310.9	8386.4	8476.9	8582.6	8660.6	8792.7	8947.4	9000.2	9122.2	9226.6	9292.1
30°	7963.7	8030.4	8115.9	8222.8	8318.4	8483.2	8602.7	8687.0	8820.3	8932.3	9077.0
32.5°	7609.0	7669.4	7742.3	7836.7	7973.8	8131.0	8255.5	8370.0	8513.4	8690.8	8843.0
35°	7231.6	7289.5	7352.4	7449.2	7615.3	7757.4	7908.4	8032.9	8226.6	8402.7	8566.2
37.5°	6840.4	6900.8	6952.4	7070.6	7240.4	7396.4	7552.4	7714.7	7909.6	8102.1	8237.9
40°	6445.4	6505.8	6549.8	6685.7	6861.8	7034.1	7204.0	7383.8	7586.4	7756.2	7913.4
42.5°	6050.5	6104.6	6154.9	6309.6	6478.1	6666.8	6855.5	7042.9	7232.9	7424.1	7598.9
45°	5640.4	5700.8	5749.8	5923.4	6092.0	6303.3	6497.0	6693.2	6879.4	7098.3	7230.4
47.5°	5230.3	5293.2	5348.6	5541.0	5722.2	5944.8	6133.5	6329.7	6539.8	6733.5	6868.1
50°	4822.8	4883.1	4957.4	5158.6	5342.3	5575.0	5772.5	5983.8	6191.3	6364.9	6518.4
52.5°	4413.9	4476.8	4571.2	4777.5	4975.0	5215.2	5419.0	5644.2	5831.6	6019.0	6148.6
55°	4001.4	4070.5	4190.0	4396.3	4619.0	4855.5	5075.6	5297.0	5488.2	5666.8	5777.5
57.5°	3596.3	3671.8	3812.7	4030.3	4265.5	4508.3	4752.3	4962.4	5153.6	5309.6	5416.5
60°	3201.3	3284.4	3442.9	3675.6	3928.4	4181.2	4424.0	4645.4	4814.0	4958.6	5027.8
62.5°	2815.2	2908.2	3080.6	3338.4	3601.3	3868.0	4125.9	4330.9	4478.1	4606.4	4665.5
65°	2444.1	2547.2	2738.4	3018.9	3300.7	3576.2	3835.3	4015.2	4153.6	4265.5	4310.8
67.5°	2099.4	2211.4	2430.2	2724.6	3024.0	3307.0	3544.7	3713.3	3840.3	3937.2	3966.1
70°	1779.9	1898.2	2142.2	2455.4	2772.4	3042.8	3261.7	3427.8	3533.4	3605.1	3615.2
72.5°	1486.8	1610.1	1884.3	2213.9	2534.7	2781.2	2996.3	3142.2	3237.8	3288.1	3315.8
75°	1225.2	1353.5	1657.9	2001.3	2299.4	2535.9	2734.7	2857.9	2956.0	3015.2	3041.6
77.5°	990.0	1127.1	1460.4	1796.3	2075.5	2294.4	2471.8	2606.4	2715.8	2762.3	2777.4
80°	772.3	930.8	1285.6	1601.3	1857.9	2057.9	2247.9	2381.2	2473.0	2501.9	2508.2
82.5°	577.4	758.5	1112.0	1402.6	1641.5	1857.9	2027.7	2139.7	2217.7	2235.3	2239.0
85°	413.8	606.3	939.6	1212.6	1444.1	1630.2	1784.9	1879.3	1946.0	1961.1	1959.8
87.5°	280.5	480.5	784.9	1021.4	1221.4	1390.0	1519.5	1598.8	1652.9	1631.5	1631.5
90°	135.9	377.4	615.1	795.0	939.6	1084.3	1179.9	1251.6	1298.1	1315.8	1319.5
92.5°	119.5	290.6	493.1	652.8	790.0	934.6	1039.0	1114.5	1163.6	1183.7	1187.5
95°	142.1	235.2	377.4	500.6	627.7	747.2	830.2	893.1	957.3	996.3	1017.6
97.5°	147.2	239.0	348.4	427.7	513.2	626.4	705.7	761.0	793.7	803.8	802.5
100°	161.0	278.0	359.8	423.9	475.5	527.1	606.3	666.7	701.9	714.5	714.5
102.5°	182.4	308.2	405.0	440.3	476.7	514.5	534.6	579.9	620.1	637.8	642.8
105°	205.0	320.8	471.7	464.2	490.6	515.7	537.1	543.4	547.2	564.8	574.9
107.5°	228.9	329.6	501.9	517.0	505.7	527.1	538.4	545.9	544.7	520.8	514.5
110°	254.1	337.1	512.0	576.1	542.2	542.2	549.7	552.2	544.7	534.6	514.5



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CATALOG NUMBER: SKB4-LD5-36-W-UNV-L835-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°	276.7	340.9	518.3	623.9	612.6	568.6	562.3	561.0	552.2	537.1	519.5
115°	300.6	343.4	520.8	649.1	657.9	618.9	584.9	576.1	562.3	545.9	525.8
117.5°	325.8	343.4	522.0	655.4	690.6	705.7	625.2	595.0	577.4	559.8	535.9
120°	352.2	344.7	519.5	661.7	756.0	729.6	691.8	630.2	597.5	574.9	551.0
122.5°	377.4	356.0	517.0	664.2	757.3	739.6	784.9	685.6	627.7	595.0	569.8
125°	401.3	372.3	514.5	662.9	757.3	815.1	756.0	784.9	676.7	626.4	593.7
127.5°	423.9	391.2	508.2	654.1	753.5	821.4	771.1	793.7	768.6	678.0	626.4
130°	440.3	415.1	495.6	635.2	743.4	812.6	847.8	762.3	813.9	772.3	680.5
132.5°	455.4	434.0	476.7	620.1	733.4	806.3	847.8	810.1	771.1	821.4	779.9
135°	473.0	455.4	454.1	603.8	718.3	796.2	837.8	866.7	779.9	768.6	816.4
137.5°	489.3	474.2	447.8	587.4	696.9	782.4	826.4	855.4	869.2	766.1	762.3
140°	503.2	491.8	447.8	567.3	671.7	763.5	810.1	840.3	859.1	862.9	763.5
142.5°	518.3	506.9	450.3	540.9	645.3	735.9	791.2	822.7	844.0	856.6	861.7
145°	525.8	515.7	474.2	499.4	616.4	701.9	764.8	802.5	829.0	842.8	850.3
147.5°	529.6	522.0	493.1	480.5	584.9	666.7	734.6	779.9	810.1	829.0	837.8
150°	533.3	528.3	506.9	469.2	547.2	632.7	699.4	749.7	786.2	808.8	820.1
152.5°	539.6	534.6	519.5	466.7	503.2	597.5	661.7	712.0	753.5	782.4	798.8
155°	542.2	538.4	527.1	496.9	480.5	552.2	620.1	667.9	710.7	745.9	768.6
157.5°	544.7	542.2	533.3	513.2	471.7	501.9	573.6	623.9	664.2	700.6	727.1
160°	543.4	542.2	535.9	523.3	494.4	474.2	509.4	572.3	613.9	647.8	673.0
162.5°	543.4	542.2	537.1	528.3	512.0	473.0	478.0	504.4	557.2	593.7	617.6
165°	542.2	542.2	538.4	532.1	522.0	505.7	470.5	469.2	490.6	519.5	553.5
167.5°	542.2	542.2	539.6	534.6	528.3	519.5	506.9	486.8	464.2	469.2	480.5
170°	539.6	540.9	538.4	534.6	530.8	524.5	518.3	509.4	496.9	483.0	456.6
172.5°	537.1	538.4	538.4	535.9	532.1	528.3	524.5	519.5	510.7	505.7	496.9
175°	534.6	535.9	535.9	534.6	530.8	527.1	525.8	522.0	515.7	513.2	508.2
177.5°	532.1	532.1	533.3	532.1	530.8	528.3	527.1	524.5	518.3	517.0	512.0
180°	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2



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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0	10360.0
2.5°	10421.6	10465.7	10464.4	10440.5	10464.4	10492.1	10477.0	10490.8
5°	10498.4	10556.2	10565.0	10547.4	10567.6	10591.5	10570.1	10583.9
7.5°	10503.4	10552.5	10563.8	10549.9	10586.4	10620.4	10599.0	10609.1
10°	10511.0	10567.6	10582.7	10561.3	10583.9	10602.8	10577.6	10594.0
12.5°	10406.5	10482.0	10526.0	10533.6	10576.4	10607.8	10586.4	10604.0
15°	10356.2	10434.2	10472.0	10482.0	10529.8	10563.8	10542.4	10565.0
17.5°	10255.6	10309.7	10321.0	10318.5	10372.6	10415.4	10407.8	10430.4
20°	10056.9	10129.8	10183.9	10195.2	10246.8	10282.0	10261.9	10292.1
22.5°	9880.7	9956.2	9973.8	9980.1	10051.8	10097.1	10094.6	10118.5
25°	9632.9	9708.4	9800.2	9861.9	9944.9	9999.0	10012.8	10039.2
27.5°	9422.9	9544.9	9655.6	9716.0	9800.2	9854.3	9874.5	9888.3
30°	9225.4	9353.7	9453.1	9517.2	9590.2	9632.9	9649.3	9670.7
32.5°	8983.9	9114.7	9200.2	9251.8	9324.8	9380.1	9415.3	9438.0
35°	8692.0	8812.8	8927.3	9014.1	9095.8	9151.2	9172.6	9215.3
37.5°	8375.0	8542.3	8660.6	8719.7	8767.5	8812.8	8838.0	8875.7
40°	8085.7	8226.6	8308.4	8368.8	8432.9	8492.0	8523.5	8561.2
42.5°	7733.5	7855.5	7968.7	8040.4	8095.8	8146.1	8167.5	8188.9
45°	7368.7	7513.4	7611.5	7666.9	7700.8	7753.6	7786.4	7797.7
47.5°	7019.0	7138.5	7217.8	7285.7	7332.3	7385.1	7414.0	7432.9
50°	6645.4	6749.9	6841.7	6903.3	6931.0	6966.2	6985.1	7010.2
52.5°	6264.3	6381.3	6437.9	6474.4	6502.0	6542.3	6562.4	6587.6
55°	5888.2	5959.9	6016.5	6061.8	6089.5	6119.6	6137.3	6132.2
57.5°	5483.2	5564.9	5614.0	5640.4	5656.7	5676.9	5681.9	5695.7
60°	5102.0	5159.9	5191.3	5215.2	5222.8	5239.1	5245.4	5260.5
62.5°	4723.4	4766.2	4782.5	4800.1	4810.2	4807.7	4808.9	4819.0
65°	4342.2	4377.5	4383.8	4391.3	4397.6	4400.1	4402.6	4406.4
67.5°	3977.5	4005.1	4013.9	4035.3	4044.1	4039.1	4039.1	4042.9
70°	3639.1	3665.5	3675.6	3691.9	3704.5	3704.5	3708.3	3713.3
72.5°	3329.6	3359.8	3380.0	3390.0	3407.6	3408.9	3408.9	3407.6
75°	3055.4	3078.1	3093.2	3100.7	3118.3	3117.1	3115.8	3110.8
77.5°	2782.5	2800.1	2817.7	2816.4	2834.0	2834.0	2830.3	2826.5
80°	2508.2	2528.4	2535.9	2533.4	2549.7	2547.2	2546.0	2537.2
82.5°	2226.5	2244.1	2251.6	2251.6	2266.7	2264.2	2262.9	2255.4
85°	1956.0	1967.3	1988.7	1987.5	1997.5	1997.5	1996.3	1990.0
87.5°	1605.1	1613.9	1621.4	1618.9	1626.5	1631.5	1626.5	1622.7
90°	1320.8	1329.6	1345.9	1349.7	1356.0	1349.7	1348.5	1338.4
92.5°	1192.5	1201.3	1215.1	1220.2	1223.9	1222.7	1223.9	1217.6
95°	1032.7	1049.1	1070.5	1075.5	1081.8	1080.5	1084.3	1075.5
97.5°	805.1	821.4	850.3	867.9	873.0	874.2	880.5	870.5
100°	714.5	718.3	723.3	720.8	719.5	717.0	715.7	708.2
102.5°	644.0	647.8	652.8	652.8	650.3	649.1	646.6	640.3
105°	579.9	586.2	591.2	592.5	591.2	590.0	587.4	582.4
107.5°	519.5	524.5	532.1	533.3	533.3	534.6	533.3	525.8
110°	485.5	476.7	479.3	479.3	479.3	480.5	478.0	471.7



TEST NUMBER: P236556

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	504.4	486.8	464.2	446.6	440.3	439.0	435.2	428.9
115°	505.7	490.6	479.3	467.9	460.4	452.8	442.8	436.5
117.5°	517.0	498.1	483.0	470.5	464.2	457.9	450.3	444.0
120°	530.8	509.4	494.4	480.5	471.7	462.9	454.1	447.8
122.5°	548.4	528.3	509.4	493.1	483.0	474.2	465.4	459.1
125°	569.8	547.2	529.6	514.5	501.9	491.8	481.8	474.2
127.5°	595.0	571.1	552.2	534.6	520.8	509.4	498.1	491.8
130°	631.5	602.5	581.1	559.8	544.7	532.1	520.8	512.0
132.5°	689.3	649.1	618.9	591.2	574.9	561.0	547.2	538.4
135°	807.6	718.3	673.0	640.3	617.6	598.8	583.7	574.9
137.5°	810.1	830.2	786.2	708.2	678.0	655.4	636.5	627.7
140°	757.3	782.4	816.4	821.4	816.4	774.9	748.4	739.6
142.5°	772.3	737.1	757.3	772.3	795.0	798.8	792.5	788.7
145°	856.6	826.4	754.7	728.3	729.6	738.4	733.4	725.8
147.5°	845.3	849.1	850.3	832.7	777.4	742.2	723.3	714.5
150°	831.5	836.5	839.0	839.0	836.5	831.5	821.4	813.9
152.5°	811.3	820.1	825.2	826.4	825.2	818.9	807.6	801.3
155°	784.9	795.0	801.3	803.8	805.1	801.3	791.2	784.9
157.5°	748.4	764.8	773.6	777.4	778.6	776.1	768.6	763.5
160°	699.4	718.3	732.1	737.1	742.2	742.2	735.9	730.8
162.5°	641.5	661.7	676.7	684.3	689.3	691.8	685.6	684.3
165°	579.9	597.5	610.1	616.4	621.4	623.9	618.9	615.1
167.5°	494.4	518.3	537.1	544.7	549.7	549.7	545.9	545.9
170°	455.4	459.1	460.4	460.4	457.9	455.4	450.3	447.8
172.5°	489.3	485.5	475.5	462.9	450.3	435.2	423.9	411.3
175°	503.2	503.2	498.1	490.6	481.8	473.0	462.9	454.1
177.5°	508.2	509.4	505.7	499.4	491.8	483.0	470.5	464.2
180°	513.2	513.2	513.2	513.2	513.2	513.2	513.2	513.2

(END OF REPORT)