

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: P236541

Luminaire Tested: **SKB4-LD5-30-W-UNV-L835-CD4-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24078)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-30-W-UNV-L835-CD4-U all blades tilted out 20 degrees
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES
Light Source: (952) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

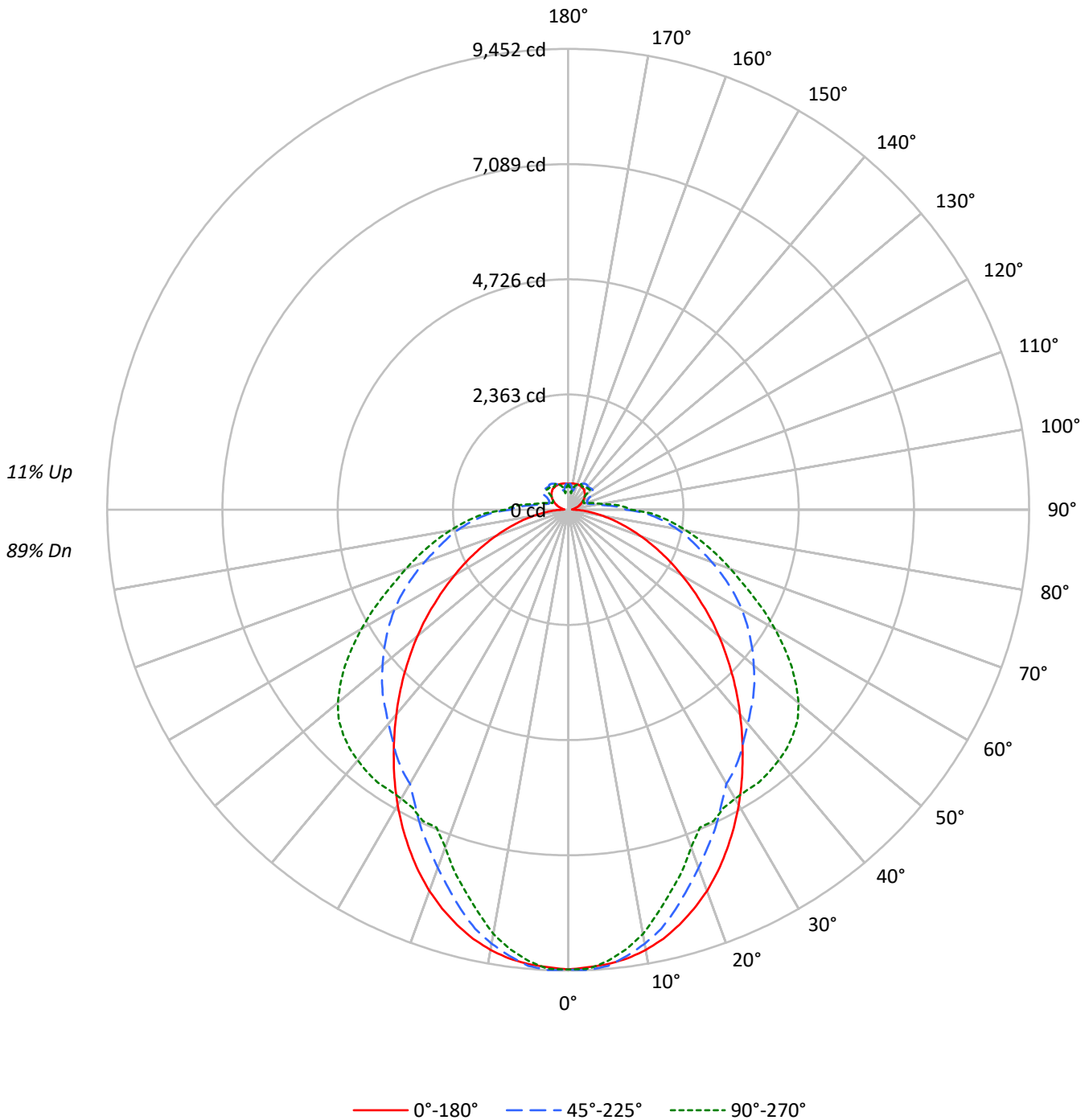
Lumens per Lamp: N/A
Luminaire Lumens: 29939.0 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.07 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U all 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	50	30	10	50	30	10	0		
RCR																										
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	91	91	91	89								
1	104	99	94	89	100	95	91	87	89	85	82	83	80	77	77	75	73	70								
2	94	85	78	71	90	82	75	70	77	71	66	72	67	63	67	63	60	57								
3	86	74	66	59	82	72	64	57	67	60	55	63	57	53	59	54	50	47								
4	78	66	56	49	75	63	55	48	59	52	47	56	50	45	52	47	43	40								
5	72	58	49	42	69	57	48	42	53	46	40	50	44	39	47	42	37	35								
6	66	53	43	37	64	51	42	36	48	41	35	45	39	34	43	37	33	30								
7	61	48	39	32	59	46	38	32	44	36	31	41	35	30	39	33	29	27								
8	57	43	35	29	55	42	34	28	40	33	28	38	31	27	36	30	26	24								
9	53	40	32	26	51	39	31	26	37	30	25	35	29	24	33	28	23	21								
10	50	37	29	24	48	36	28	23	34	27	23	32	26	22	31	25	21	19								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13534	13534	13534
5°	13418	13393	13259
10°	13240	12909	12632
15°	12914	12240	11709
20°	12472	11456	10815
25°	11895	10769	10609
30°	11251	10084	10658
35°	10543	9960	11095
40°	9842	9788	11504
45°	9158	9778	11915
50°	8482	9749	12158
55°	7769	9780	12066
60°	7089	9849	11780
65°	6447	9888	11439
70°	5792	9981	11368
75°	5176	10359	11686
80°	4544	11320	12457
85°	3853	12877	14123



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	883.3	3.0
10°-20°	2385.3	8.0
20°-30°	3350.6	11.2
30°-40°	3974.7	13.3
40°-50°	4256.1	14.2
50°-60°	4042.2	13.5
60°-70°	3373.0	11.3
70°-80°	2551.0	8.5
80°-90°	1685.2	5.6
90°-100°	838.5	2.8
100°-110°	484.0	1.6
110°-120°	421.4	1.4
120°-130°	453.6	1.5
130°-140°	446.3	1.5
140°-150°	355.7	1.2
150°-160°	253.7	0.8
160°-170°	138.1	0.5
170°-180°	46.4	0.2
0°-30°	6619.2	22.1
0°-40°	10593.8	35.4
0°-60°	18892.1	63.1
0°-90°	26501.4	88.5
90°-120°	1743.9	5.8
90°-150°	2999.4	10.0
90°-180°	3438.0	11.5
0°-180°	29939.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9430	9430	9430	9430	9430	
5°	9356	9429	9390	9314	9292	887
15°	8813	8769	8493	8199	8115	2479
25°	7694	7545	7166	6938	7046	3538
35°	6237	6116	6144	6569	6825	3900
45°	4747	4863	5374	6202	6523	3664
55°	3336	3717	4553	5357	5587	2994
65°	2111	2737	3632	4096	4171	2098
75°	1115	1991	2673	2940	2981	1187
85°	373	1310	1813	1922	1947	377
90°	110	834	1182	1256	1284	75
95°	103	566	890	1009	1040	86
105°	172	424	457	515	527	186
115°	289	567	431	374	349	287
125°	399	597	642	440	391	356
135°	481	572	629	624	600	370
145°	534	521	638	590	567	334
155°	552	416	582	604	583	255
165°	550	481	417	502	495	156
175°	540	536	535	499	456	52
180°	517	517	517	517	517	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1
2.5°	9393.6	9418.6	9476.0	9484.3	9479.1	9454.1	9440.5	9477.0	9459.3	9452.0	9435.3
5°	9356.1	9382.1	9441.6	9448.9	9442.6	9415.5	9400.9	9433.2	9408.2	9390.5	9359.2
7.5°	9285.2	9303.9	9362.3	9372.8	9357.1	9321.7	9293.5	9307.1	9262.2	9232.0	9196.5
10°	9168.4	9187.1	9244.5	9249.7	9219.5	9167.3	9122.5	9118.3	9078.7	9038.0	8989.0
12.5°	9014.0	9028.6	9083.9	9080.8	9029.7	8972.3	8925.4	8909.8	8856.6	8807.6	8745.0
15°	8812.8	8828.4	8877.4	8860.7	8801.3	8736.6	8685.5	8664.7	8582.3	8492.6	8399.8
17.5°	8581.3	8600.0	8631.3	8606.3	8546.9	8472.8	8413.4	8355.0	8242.4	8146.4	8055.7
20°	8320.6	8319.5	8349.8	8320.6	8257.0	8178.7	8087.0	8002.5	7894.1	7815.8	7726.2
22.5°	8023.4	8032.7	8040.0	8019.2	7950.4	7840.9	7734.5	7657.3	7559.3	7484.2	7397.7
25°	7693.8	7704.3	7705.3	7678.2	7607.3	7482.1	7386.2	7320.5	7227.7	7166.2	7049.4
27.5°	7352.8	7349.7	7367.4	7343.5	7239.2	7117.2	7045.2	6981.6	6908.6	6805.4	6710.5
30°	6993.1	6974.3	7003.5	6973.3	6862.7	6764.7	6694.8	6662.5	6559.3	6490.4	6553.0
32.5°	6617.7	6598.9	6631.2	6592.6	6490.4	6428.9	6377.8	6328.8	6257.9	6335.1	6404.9
35°	6237.0	6218.3	6252.7	6211.0	6132.8	6098.3	6053.5	6014.9	6073.3	6144.2	6206.8
37.5°	5857.5	5839.7	5876.2	5834.5	5790.7	5789.7	5734.4	5795.9	5856.4	5923.1	6039.9
40°	5483.1	5468.5	5505.0	5475.8	5463.3	5475.8	5463.3	5570.7	5613.4	5730.2	5880.4
42.5°	5111.8	5108.7	5139.0	5128.5	5154.6	5170.2	5226.6	5315.2	5391.3	5544.6	5738.6
45°	4746.9	4746.9	4778.1	4794.8	4839.7	4885.6	4966.9	5055.5	5178.6	5373.6	5568.6
47.5°	4386.1	4390.2	4426.7	4474.7	4528.9	4618.6	4705.1	4816.7	4981.5	5178.6	5372.5
50°	4034.6	4038.8	4086.8	4160.8	4228.6	4342.3	4434.0	4579.0	4768.8	4966.9	5184.8
52.5°	3689.5	3695.7	3761.4	3841.7	3938.7	4058.6	4182.7	4365.2	4547.7	4763.5	4987.8
55°	3335.9	3361.0	3440.2	3528.9	3655.0	3779.1	3936.6	4138.9	4332.9	4552.9	4764.6
57.5°	3009.5	3035.6	3123.2	3226.4	3375.6	3518.4	3717.6	3918.9	4124.3	4337.0	4540.4
60°	2692.5	2720.7	2813.5	2935.5	3106.5	3282.8	3498.6	3715.5	3911.6	4117.0	4291.2
62.5°	2402.6	2419.3	2506.9	2658.1	2850.0	3060.6	3295.3	3510.1	3696.8	3879.2	4038.8
65°	2110.6	2130.5	2216.0	2398.5	2615.4	2859.4	3103.4	3305.7	3472.6	3632.1	3771.8
67.5°	1836.4	1861.4	1949.0	2162.8	2407.8	2672.7	2904.2	3089.8	3240.0	3380.8	3500.7
70°	1577.8	1600.7	1706.0	1954.2	2226.4	2486.1	2695.7	2869.8	3003.3	3132.6	3235.8
72.5°	1335.8	1361.9	1493.3	1771.7	2059.5	2299.4	2482.9	2643.5	2773.9	2884.4	2985.6
75°	1114.8	1139.8	1310.8	1618.4	1883.3	2098.1	2274.4	2429.7	2554.9	2672.7	2767.6
77.5°	906.2	945.8	1162.7	1468.3	1700.8	1903.1	2073.1	2236.8	2371.3	2475.6	2546.5
80°	712.2	779.0	1034.5	1310.8	1523.5	1725.8	1907.3	2070.0	2181.6	2266.0	2321.3
82.5°	532.9	635.1	904.1	1150.2	1360.9	1574.6	1741.5	1883.3	1978.2	2046.0	2087.7
85°	373.3	504.7	767.5	1006.3	1213.8	1406.7	1553.8	1675.8	1756.1	1813.4	1845.8
87.5°	248.2	387.9	640.3	853.0	1033.4	1206.5	1334.8	1445.3	1517.3	1571.5	1602.8
90°	109.5	292.0	490.1	637.2	772.7	894.7	999.0	1090.8	1144.0	1182.5	1194.0
92.5°	83.4	219.0	385.8	526.6	652.8	775.8	886.4	977.1	1038.6	1077.2	1090.8
95°	103.2	181.4	298.2	402.5	514.1	618.4	704.9	781.1	842.6	889.5	916.6
97.5°	109.5	187.7	283.6	351.4	423.4	515.1	592.3	652.8	690.3	716.4	726.8
100°	125.1	202.3	311.8	347.3	393.1	436.9	501.6	558.9	593.4	615.3	625.7
102.5°	146.0	214.8	337.9	377.5	394.2	425.5	442.2	474.5	507.8	531.8	543.3
105°	172.1	226.3	361.9	432.8	421.3	426.5	440.1	441.1	440.1	456.7	467.2
107.5°	206.5	234.6	376.5	453.6	489.1	451.5	443.2	442.2	432.8	413.0	408.8
110°	236.7	238.8	369.2	467.2	520.4	499.5	465.1	447.4	431.7	418.2	400.4



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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	261.7	248.2	370.2	485.9	537.0	573.5	506.8	469.3	439.0	416.1	400.4
115°	288.9	255.5	375.4	492.2	546.4	587.1	606.9	511.0	464.0	430.7	405.7
117.5°	318.1	267.0	383.8	489.1	560.0	600.7	619.4	620.5	506.8	458.8	424.4
120°	345.2	279.5	386.9	489.1	585.0	604.8	627.8	639.2	619.4	503.7	454.7
122.5°	373.3	297.2	391.1	490.1	571.5	611.1	636.1	644.5	644.5	624.6	509.9
125°	399.4	319.1	389.0	491.2	571.5	622.6	633.0	648.6	646.5	642.4	637.2
127.5°	423.4	345.2	383.8	490.1	566.2	620.5	631.9	644.5	648.6	643.4	638.2
130°	443.2	368.1	363.9	483.9	556.9	616.3	634.0	639.2	646.5	644.5	636.1
132.5°	460.9	390.0	349.3	478.6	550.6	611.1	638.2	638.2	638.2	640.3	634.0
135°	480.7	425.5	353.5	470.3	544.3	599.6	634.0	647.6	634.0	628.8	628.8
137.5°	497.4	462.0	359.8	458.8	536.0	589.2	627.8	645.5	625.7	624.6	619.4
140°	512.0	494.3	373.3	443.2	525.6	579.8	613.2	639.2	644.5	615.3	615.3
142.5°	526.6	522.4	395.2	409.8	511.0	566.2	599.6	627.8	641.3	640.3	603.8
145°	533.9	538.1	419.2	384.8	492.2	550.6	586.1	612.1	631.9	638.2	634.0
147.5°	539.1	544.3	436.9	382.7	468.2	531.8	572.5	598.6	617.3	630.9	631.9
150°	544.3	547.5	463.0	393.1	427.6	512.0	554.8	584.0	602.7	616.3	622.6
152.5°	549.6	550.6	500.5	415.0	395.2	485.9	532.9	565.2	586.1	600.7	605.9
155°	551.6	552.7	530.8	442.2	393.1	438.0	505.8	541.2	565.2	581.9	588.1
157.5°	553.7	552.7	551.6	463.0	411.9	397.3	469.3	513.1	540.2	560.0	569.4
160°	552.7	551.6	558.9	501.6	439.0	397.3	403.6	474.5	506.8	530.8	543.3
162.5°	551.6	550.6	554.8	536.0	463.0	422.3	394.2	400.4	458.8	494.3	509.9
165°	549.6	548.5	550.6	554.8	509.9	451.5	419.2	396.3	391.1	417.1	457.8
167.5°	547.5	546.4	547.5	551.6	544.3	501.6	453.6	429.6	405.7	386.9	382.7
170°	545.4	544.3	544.3	544.3	548.5	542.3	513.1	474.5	443.2	428.6	404.6
172.5°	543.3	542.3	542.3	542.3	541.2	541.2	546.4	537.0	516.2	492.2	463.0
175°	540.2	539.1	539.1	539.1	537.0	535.0	535.0	535.0	532.9	535.0	531.8
177.5°	538.1	537.0	537.0	536.0	533.9	531.8	531.8	530.8	526.6	524.5	519.3
180°	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1	9430.1
2.5°	9400.9	9416.6	9438.5	9411.3	9415.5	9437.4	9431.2	9425.9
5°	9318.5	9324.8	9332.1	9296.6	9294.5	9313.3	9294.5	9292.5
7.5°	9149.6	9146.5	9152.7	9105.8	9102.7	9118.3	9103.7	9095.4
10°	8941.0	8932.7	8927.5	8877.4	8860.7	8864.9	8850.3	8837.8
12.5°	8663.6	8621.9	8591.7	8535.4	8511.4	8509.3	8482.2	8473.9
15°	8311.2	8267.4	8228.8	8168.3	8152.7	8157.9	8136.0	8115.1
17.5°	7971.2	7927.4	7889.9	7825.2	7812.7	7820.0	7778.3	7771.0
20°	7644.8	7594.8	7562.4	7490.5	7460.2	7452.9	7385.2	7367.4
22.5°	7329.9	7253.8	7162.0	7092.1	7079.6	7090.1	7080.7	7052.5
25°	6936.8	6895.0	6916.9	6959.7	7022.3	7065.0	7067.1	7046.3
27.5°	6721.9	6805.4	6865.8	6873.1	6896.1	6923.2	6924.2	6898.2
30°	6630.2	6658.3	6688.6	6739.7	6807.5	6853.3	6864.8	6843.9
32.5°	6436.2	6509.2	6590.5	6668.8	6753.2	6814.7	6834.6	6818.9
35°	6295.4	6400.8	6514.4	6623.9	6727.2	6801.2	6833.5	6825.2
37.5°	6163.0	6309.0	6451.9	6583.2	6687.5	6751.1	6777.2	6776.2
40°	6049.3	6215.1	6357.0	6492.5	6602.0	6677.1	6707.3	6712.6
42.5°	5915.8	6075.4	6244.3	6400.8	6519.6	6598.9	6631.2	6638.5
45°	5744.8	5930.4	6120.2	6284.0	6391.4	6471.7	6511.3	6522.8
47.5°	5574.9	5774.0	5965.9	6126.5	6229.7	6319.4	6363.2	6379.9
50°	5388.2	5587.4	5784.5	5934.6	6031.6	6119.2	6155.7	6166.1
52.5°	5181.7	5385.1	5567.6	5704.2	5776.1	5855.4	5885.6	5888.7
55°	4965.9	5148.3	5301.6	5412.2	5483.1	5560.3	5583.2	5587.4
57.5°	4714.5	4873.0	5006.5	5108.7	5161.9	5226.6	5241.2	5246.4
60°	4446.5	4583.1	4694.7	4779.2	4823.0	4874.1	4886.6	4893.9
62.5°	4172.3	4273.4	4377.7	4452.8	4480.9	4526.8	4536.2	4540.4
65°	3879.2	3968.9	4067.0	4124.3	4144.1	4172.3	4170.2	4171.2
67.5°	3591.4	3671.7	3743.7	3803.1	3821.9	3832.3	3839.6	3832.3
70°	3307.8	3374.5	3448.6	3489.2	3523.6	3526.8	3539.3	3536.2
72.5°	3059.6	3124.3	3183.7	3219.1	3249.4	3249.4	3265.0	3255.6
75°	2831.2	2880.2	2926.1	2953.2	2979.3	2974.1	2989.7	2981.4
77.5°	2592.4	2630.0	2664.4	2694.6	2717.6	2725.9	2726.9	2717.6
80°	2355.7	2384.9	2411.0	2437.0	2456.9	2451.6	2465.2	2456.9
82.5°	2110.6	2132.5	2156.5	2179.5	2197.2	2201.4	2202.4	2194.1
85°	1864.5	1886.4	1914.6	1930.2	1946.9	1952.1	1953.2	1946.9
87.5°	1620.5	1642.4	1670.6	1686.2	1703.9	1708.1	1709.2	1703.9
90°	1210.7	1232.6	1245.1	1267.0	1273.3	1282.7	1270.1	1283.7
92.5°	1109.5	1128.3	1144.0	1160.6	1169.0	1174.2	1169.0	1175.2
95°	950.0	979.2	999.0	1019.9	1030.3	1038.6	1037.6	1039.7
97.5°	743.5	768.5	793.6	820.7	833.2	844.7	843.6	844.7
100°	641.3	655.9	667.4	679.9	685.1	686.2	685.1	686.2
102.5°	557.9	572.5	585.0	596.5	599.6	603.8	602.7	600.7
105°	482.8	497.4	509.9	520.4	524.5	528.7	528.7	526.6
107.5°	420.3	430.7	442.2	451.5	456.7	458.8	460.9	458.8
110°	385.8	383.8	389.0	395.2	398.4	400.4	398.4	397.3



TEST NUMBER: P236541

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	392.1	382.7	369.2	359.8	358.7	358.7	354.6	352.5
115°	390.0	382.7	376.5	372.3	367.1	361.9	354.6	349.3
117.5°	402.5	386.9	375.4	370.2	366.0	361.9	356.6	352.5
120°	426.5	405.7	389.0	378.5	371.2	365.0	357.7	353.5
122.5°	463.0	434.9	414.0	399.4	390.0	380.6	373.3	368.1
125°	529.7	479.7	449.5	429.6	417.1	405.7	396.3	391.1
127.5°	636.1	589.2	511.0	476.6	456.7	440.1	428.6	422.3
130°	634.0	633.0	629.9	603.8	530.8	502.6	484.9	475.5
132.5°	630.9	631.9	628.8	624.6	620.5	613.2	604.8	601.7
135°	628.8	626.7	624.6	622.6	617.3	611.1	602.7	599.6
137.5°	621.5	622.6	621.5	617.3	612.1	605.9	598.6	595.4
140°	612.1	611.1	612.1	612.1	609.0	601.7	594.4	590.2
142.5°	605.9	602.7	599.6	598.6	597.5	592.3	585.0	582.9
145°	617.3	592.3	591.3	588.1	585.0	578.8	571.5	567.3
147.5°	630.9	625.7	592.3	575.6	574.6	569.4	562.1	557.9
150°	626.7	625.7	619.4	614.2	605.9	588.1	567.3	552.7
152.5°	613.2	619.4	617.3	614.2	608.0	600.7	591.3	587.1
155°	596.5	602.7	603.8	603.8	600.7	595.4	587.1	582.9
157.5°	578.8	585.0	586.1	587.1	584.0	579.8	572.5	569.4
160°	554.8	563.1	565.2	566.2	563.1	560.0	552.7	549.6
162.5°	523.5	535.0	540.2	541.2	540.2	537.0	530.8	527.7
165°	479.7	494.3	500.5	503.7	504.7	502.6	497.4	495.3
167.5°	391.1	417.1	440.1	453.6	454.7	452.6	448.4	447.4
170°	391.1	380.6	370.2	366.0	360.8	353.5	348.3	344.1
172.5°	439.0	428.6	419.2	406.7	393.1	379.6	370.2	366.0
175°	524.5	517.2	504.7	493.2	480.7	469.3	459.9	455.7
177.5°	516.2	515.1	511.0	504.7	498.5	491.2	481.8	476.6
180°	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2

(END OF REPORT)