

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: P236543

Luminaire Tested: **SKB4-LD5-30-W-UNV-L850-CD4-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236543
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-L850-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) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

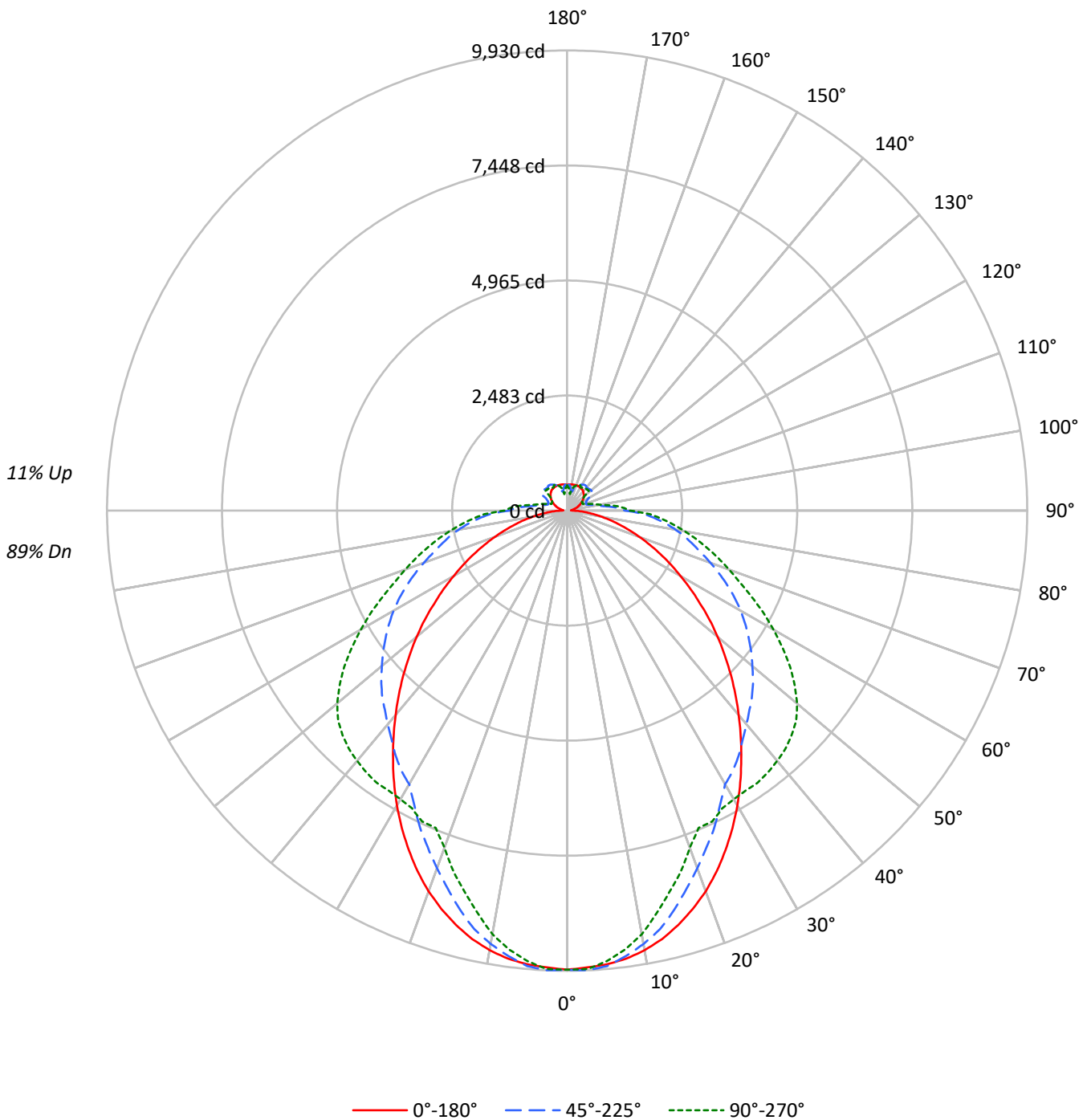
Lumens per Lamp: N/A
Luminaire Lumens: 31454.0 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.07 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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-L850-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	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°	14219	14219	14219
5°	14097	14071	13929
10°	13910	13562	13271
15°	13567	12859	12302
20°	13103	12036	11362
25°	12497	11313	11145
30°	11820	10595	11198
35°	11076	10464	11656
40°	10340	10283	12086
45°	9621	10273	12518
50°	8911	10242	12773
55°	8162	10275	12676
60°	7448	10347	12376
65°	6774	10388	12018
70°	6085	10486	11943
75°	5438	10884	12278
80°	4774	11893	13087
85°	4048	13529	14838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	928.0	3.0
10°-20°	2506.0	8.0
20°-30°	3520.1	11.2
30°-40°	4175.8	13.3
40°-50°	4471.4	14.2
50°-60°	4246.8	13.5
60°-70°	3543.7	11.3
70°-80°	2680.1	8.5
80°-90°	1770.5	5.6
90°-100°	880.9	2.8
100°-110°	508.5	1.6
110°-120°	442.7	1.4
120°-130°	476.6	1.5
130°-140°	468.9	1.5
140°-150°	373.7	1.2
150°-160°	266.6	0.8
160°-170°	145.0	0.5
170°-180°	48.7	0.2
0°-30°	6954.1	22.1
0°-40°	11129.9	35.4
0°-60°	19848.1	63.1
0°-90°	27842.4	88.5
90°-120°	1832.1	5.8
90°-150°	3151.2	10.0
90°-180°	3612.0	11.5
0°-180°	31454.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9907	9907	9907	9907	9907	
5°	9830	9906	9866	9786	9763	932
15°	9259	9213	8922	8613	8526	2604
25°	8083	7926	7529	7289	7403	3717
35°	6553	6425	6455	6902	7171	4097
45°	4987	5109	5646	6516	6853	3849
55°	3505	3905	4783	5628	5870	3145
65°	2217	2876	3816	4303	4382	2205
75°	1171	2091	2808	3088	3132	1247
85°	392	1377	1905	2020	2045	396
90°	115	876	1242	1320	1349	79
95°	108	595	934	1061	1092	91
105°	181	445	480	541	553	196
115°	304	595	452	393	367	302
125°	420	627	675	462	411	374
135°	505	601	661	655	630	389
145°	561	548	670	620	596	351
155°	580	437	611	634	612	268
165°	577	505	438	528	520	164
175°	568	563	562	524	479	54
180°	543	543	543	543	543	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3
2.5°	9869.0	9895.3	9955.5	9964.3	9958.8	9932.5	9918.3	9956.6	9938.0	9930.3	9912.8
5°	9829.5	9856.9	9919.4	9927.0	9920.5	9892.0	9876.6	9910.6	9884.3	9865.7	9832.8
7.5°	9755.0	9774.7	9836.1	9847.0	9830.6	9793.4	9763.8	9778.0	9730.9	9699.1	9661.9
10°	9632.3	9652.0	9712.3	9717.8	9686.0	9631.2	9584.1	9579.7	9538.1	9495.4	9443.9
12.5°	9470.2	9485.5	9543.6	9540.3	9486.6	9426.3	9377.0	9360.6	9304.7	9253.2	9187.5
15°	9258.7	9275.2	9326.6	9309.1	9246.7	9178.7	9125.1	9103.1	9016.6	8922.4	8824.9
17.5°	9015.5	9035.2	9068.1	9041.8	8979.3	8901.6	8839.1	8777.8	8659.4	8558.6	8463.3
20°	8741.6	8740.5	8772.3	8741.6	8674.8	8592.6	8496.2	8407.5	8293.5	8211.3	8117.1
22.5°	8429.4	8439.2	8446.9	8425.0	8352.7	8237.6	8125.9	8044.8	7941.8	7863.0	7772.0
25°	8083.2	8094.1	8095.2	8066.7	7992.2	7860.8	7760.0	7691.0	7593.4	7528.8	7406.1
27.5°	7724.9	7721.6	7740.3	7715.1	7605.5	7477.3	7401.7	7334.9	7258.2	7149.7	7050.0
30°	7346.9	7327.2	7357.9	7326.1	7210.0	7107.0	7033.6	6999.6	6891.2	6818.9	6884.6
32.5°	6952.5	6932.8	6966.8	6926.2	6818.9	6754.2	6700.5	6649.1	6574.6	6655.6	6729.0
35°	6552.6	6532.9	6569.1	6525.3	6443.1	6406.9	6359.8	6319.3	6380.6	6455.1	6520.9
37.5°	6153.9	6135.2	6173.6	6129.8	6083.7	6082.6	6024.6	6089.2	6152.8	6222.9	6345.6
40°	5760.5	5745.2	5783.6	5752.9	5739.7	5752.9	5739.7	5852.6	5897.5	6020.2	6178.0
42.5°	5370.5	5367.2	5399.0	5388.0	5415.4	5431.9	5491.0	5584.2	5664.1	5825.2	6029.0
45°	4987.1	4987.1	5019.9	5037.5	5084.6	5132.8	5218.2	5311.4	5440.6	5645.5	5850.4
47.5°	4608.0	4612.4	4650.7	4701.1	4758.1	4852.3	4943.2	5060.5	5233.6	5440.6	5644.4
50°	4238.8	4243.2	4293.6	4371.4	4442.6	4562.0	4658.4	4810.7	5010.1	5218.2	5447.2
52.5°	3876.2	3882.7	3951.7	4036.1	4138.0	4264.0	4394.4	4586.1	4777.8	5004.6	5240.1
55°	3504.8	3531.0	3614.3	3707.4	3840.0	3970.4	4135.8	4348.3	4552.1	4783.3	5005.7
57.5°	3161.8	3189.2	3281.3	3389.7	3546.4	3696.5	3905.7	4117.2	4333.0	4556.5	4770.1
60°	2828.8	2858.4	2955.9	3084.0	3263.7	3448.9	3675.7	3903.5	4109.5	4325.3	4508.3
62.5°	2524.2	2541.7	2633.8	2792.6	2994.2	3215.5	3462.0	3687.7	3883.8	4075.5	4243.2
65°	2217.4	2238.3	2328.1	2519.8	2747.7	3004.1	3260.4	3473.0	3648.3	3815.9	3962.7
67.5°	1929.3	1955.6	2047.6	2272.2	2529.7	2808.0	3051.2	3246.2	3404.0	3551.9	3677.9
70°	1657.6	1681.7	1792.4	2053.1	2339.1	2611.9	2832.1	3015.0	3155.3	3291.1	3399.6
72.5°	1403.4	1430.8	1568.9	1861.4	2163.8	2415.7	2608.6	2777.3	2914.2	3030.4	3136.6
75°	1171.2	1197.5	1377.1	1700.3	1978.6	2204.3	2389.5	2552.7	2684.2	2808.0	2907.7
77.5°	952.1	993.7	1221.6	1542.6	1786.9	1999.4	2178.0	2350.0	2491.3	2600.9	2675.4
80°	748.3	818.4	1086.8	1377.1	1600.6	1813.2	2003.8	2174.7	2291.9	2380.7	2438.8
82.5°	559.8	667.2	949.9	1208.4	1429.7	1654.3	1829.6	1978.6	2078.3	2149.5	2193.3
85°	392.2	530.3	806.3	1057.2	1275.3	1477.9	1632.4	1760.6	1845.0	1905.2	1939.2
87.5°	260.7	407.6	672.7	896.2	1085.7	1267.6	1402.3	1518.5	1594.1	1651.0	1683.9
90°	115.0	306.8	514.9	669.4	811.8	940.0	1049.6	1146.0	1201.8	1242.4	1254.4
92.5°	87.6	230.1	405.4	553.3	685.8	815.1	931.2	1026.6	1091.2	1131.7	1146.0
95°	108.5	190.6	313.3	422.9	540.1	649.7	740.6	820.6	885.2	934.5	963.0
97.5°	115.0	197.2	298.0	369.2	444.8	541.2	622.3	685.8	725.3	752.7	763.6
100°	131.5	212.5	327.6	364.8	413.0	459.0	527.0	587.2	623.4	646.4	657.3
102.5°	153.4	225.7	355.0	396.6	414.1	447.0	464.5	498.5	533.5	558.7	570.8
105°	180.8	237.7	380.2	454.7	442.6	448.1	462.3	463.4	462.3	479.9	490.8
107.5°	216.9	246.5	395.5	476.6	513.8	474.4	465.6	464.5	454.7	433.8	429.5
110°	248.7	250.9	387.8	490.8	546.7	524.8	488.6	470.0	453.6	439.3	420.7



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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L850-CD4-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	275.0	260.7	388.9	510.5	564.2	602.6	532.5	493.0	461.2	437.1	420.7
115°	303.5	268.4	394.4	517.1	574.1	616.8	637.6	536.8	487.5	452.5	426.2
117.5°	334.2	280.5	403.2	513.8	588.3	631.1	650.8	651.9	532.5	482.1	445.9
120°	362.6	293.6	406.5	513.8	614.6	635.4	659.5	671.6	650.8	529.2	477.7
122.5°	392.2	312.2	410.8	514.9	600.4	642.0	668.3	677.1	677.1	656.3	535.7
125°	419.6	335.2	408.7	516.0	600.4	654.1	665.0	681.4	679.3	674.9	669.4
127.5°	444.8	362.6	403.2	514.9	594.9	651.9	663.9	677.1	681.4	676.0	670.5
130°	465.6	386.7	382.4	508.3	585.0	647.5	666.1	671.6	679.3	677.1	668.3
132.5°	484.2	409.7	367.0	502.9	578.5	642.0	670.5	670.5	670.5	672.7	666.1
135°	505.1	447.0	371.4	494.1	571.9	630.0	666.1	680.4	666.1	660.6	660.6
137.5°	522.6	485.3	378.0	482.1	563.1	619.0	659.5	678.2	657.3	656.3	650.8
140°	537.9	519.3	392.2	465.6	552.2	609.1	644.2	671.6	677.1	646.4	646.4
142.5°	553.3	548.9	415.2	430.6	536.8	594.9	630.0	659.5	673.8	672.7	634.3
145°	560.9	565.3	440.4	404.3	517.1	578.5	615.7	643.1	663.9	670.5	666.1
147.5°	566.4	571.9	459.0	402.1	491.9	558.7	601.5	628.9	648.6	662.8	663.9
150°	571.9	575.2	486.4	413.0	449.2	537.9	582.8	613.5	633.2	647.5	654.1
152.5°	577.4	578.5	525.9	436.0	415.2	510.5	559.8	593.8	615.7	631.1	636.5
155°	579.6	580.7	557.6	464.5	413.0	460.1	531.4	568.6	593.8	611.3	617.9
157.5°	581.8	580.7	579.6	486.4	432.8	417.4	493.0	539.0	567.5	588.3	598.2
160°	580.7	579.6	587.2	527.0	461.2	417.4	424.0	498.5	532.5	557.6	570.8
162.5°	579.6	578.5	582.8	563.1	486.4	443.7	414.1	420.7	482.1	519.3	535.7
165°	577.4	576.3	578.5	582.8	535.7	474.4	440.4	416.3	410.8	438.2	481.0
167.5°	575.2	574.1	575.2	579.6	571.9	527.0	476.6	451.4	426.2	406.5	402.1
170°	573.0	571.9	571.9	571.9	576.3	569.7	539.0	498.5	465.6	450.3	425.1
172.5°	570.8	569.7	569.7	569.7	568.6	568.6	574.1	564.2	542.3	517.1	486.4
175°	567.5	566.4	566.4	566.4	564.2	562.0	562.0	562.0	559.8	562.0	558.7
177.5°	565.3	564.2	564.2	563.1	560.9	558.7	558.7	557.6	553.3	551.1	545.6
180°	543.4	543.4	543.4	543.4	543.4	543.4	543.4	543.4	543.4	543.4	543.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3	9907.3
2.5°	9876.6	9893.1	9916.1	9887.6	9892.0	9915.0	9908.4	9902.9
5°	9790.1	9796.6	9804.3	9767.1	9764.9	9784.6	9764.9	9762.7
7.5°	9612.6	9609.3	9615.9	9566.6	9563.3	9579.7	9564.4	9555.6
10°	9393.5	9384.7	9379.2	9326.6	9309.1	9313.5	9298.2	9285.0
12.5°	9102.1	9058.2	9026.5	8967.3	8942.1	8939.9	8911.4	8902.7
15°	8731.7	8685.7	8645.2	8581.7	8565.2	8570.7	8547.7	8525.8
17.5°	8374.6	8328.6	8289.1	8221.2	8208.1	8215.7	8171.9	8164.2
20°	8031.7	7979.1	7945.1	7869.5	7837.8	7830.1	7758.9	7740.3
22.5°	7700.8	7620.8	7524.4	7451.0	7437.9	7448.8	7439.0	7409.4
25°	7287.8	7244.0	7267.0	7311.9	7377.6	7422.5	7424.7	7402.8
27.5°	7062.1	7149.7	7213.3	7220.9	7245.1	7273.5	7274.6	7247.2
30°	6965.7	6995.3	7027.0	7080.7	7151.9	7200.1	7212.2	7190.3
32.5°	6761.9	6838.6	6924.0	7006.2	7095.0	7159.6	7180.4	7164.0
35°	6614.0	6724.7	6844.1	6959.1	7067.6	7145.4	7179.3	7170.6
37.5°	6474.9	6628.2	6778.3	6916.4	7025.9	7092.8	7120.2	7119.1
40°	6355.4	6529.6	6678.6	6821.1	6936.1	7015.0	7046.8	7052.2
42.5°	6215.2	6382.8	6560.3	6724.7	6849.5	6932.8	6966.8	6974.4
45°	6035.5	6230.5	6429.9	6601.9	6714.8	6799.2	6840.8	6852.8
47.5°	5857.0	6066.2	6267.8	6436.5	6545.0	6639.2	6685.2	6702.7
50°	5660.8	5870.1	6077.2	6234.9	6336.8	6428.8	6467.2	6478.1
52.5°	5443.9	5657.6	5849.3	5992.8	6068.4	6151.7	6183.4	6186.7
55°	5217.1	5408.9	5569.9	5686.0	5760.5	5841.6	5865.7	5870.1
57.5°	4953.1	5119.6	5259.9	5367.2	5423.1	5491.0	5506.4	5511.8
60°	4671.5	4815.1	4932.3	5021.0	5067.0	5120.7	5133.9	5141.5
62.5°	4383.4	4489.7	4599.2	4678.1	4707.7	4755.9	4765.8	4770.1
65°	4075.5	4169.8	4272.8	4333.0	4353.8	4383.4	4381.2	4382.3
67.5°	3773.2	3857.5	3933.1	3995.6	4015.3	4026.2	4033.9	4026.2
70°	3475.2	3545.3	3623.1	3665.8	3702.0	3705.2	3718.4	3715.1
72.5°	3214.4	3282.3	3344.8	3382.0	3413.8	3413.8	3430.3	3420.4
75°	2974.5	3026.0	3074.2	3102.7	3130.1	3124.6	3141.0	3132.3
77.5°	2723.6	2763.0	2799.2	2831.0	2855.1	2863.8	2864.9	2855.1
80°	2474.9	2505.6	2533.0	2560.4	2581.2	2575.7	2589.9	2581.2
82.5°	2217.4	2240.5	2265.7	2289.8	2308.4	2312.8	2313.9	2305.1
85°	1958.9	1981.9	2011.5	2027.9	2045.4	2050.9	2052.0	2045.4
87.5°	1702.5	1725.5	1755.1	1771.5	1790.2	1794.6	1795.7	1790.2
90°	1272.0	1295.0	1308.1	1331.1	1337.7	1347.6	1334.4	1348.7
92.5°	1165.7	1185.4	1201.8	1219.4	1228.1	1233.6	1228.1	1234.7
95°	998.1	1028.7	1049.6	1071.5	1082.4	1091.2	1090.1	1092.3
97.5°	781.1	807.4	833.7	862.2	875.4	887.4	886.3	887.4
100°	673.8	689.1	701.2	714.3	719.8	720.9	719.8	720.9
102.5°	586.1	601.5	614.6	626.7	630.0	634.3	633.2	631.1
105°	507.3	522.6	535.7	546.7	551.1	555.5	555.5	553.3
107.5°	441.5	452.5	464.5	474.4	479.9	482.1	484.2	482.1
110°	405.4	403.2	408.7	415.2	418.5	420.7	418.5	417.4



TEST NUMBER: P236543

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L850-CD4-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	411.9	402.1	387.8	378.0	376.9	376.9	372.5	370.3
115°	409.7	402.1	395.5	391.1	385.6	380.2	372.5	367.0
117.5°	422.9	406.5	394.4	388.9	384.5	380.2	374.7	370.3
120°	448.1	426.2	408.7	397.7	390.0	383.5	375.8	371.4
122.5°	486.4	456.9	434.9	419.6	409.7	399.9	392.2	386.7
125°	556.6	504.0	472.2	451.4	438.2	426.2	416.3	410.8
127.5°	668.3	619.0	536.8	500.7	479.9	462.3	450.3	443.7
130°	666.1	665.0	661.7	634.3	557.6	528.1	509.4	499.6
132.5°	662.8	663.9	660.6	656.3	651.9	644.2	635.4	632.1
135°	660.6	658.4	656.3	654.1	648.6	642.0	633.2	630.0
137.5°	653.0	654.1	653.0	648.6	643.1	636.5	628.9	625.6
140°	643.1	642.0	643.1	643.1	639.8	632.1	624.5	620.1
142.5°	636.5	633.2	630.0	628.9	627.8	622.3	614.6	612.4
145°	648.6	622.3	621.2	617.9	614.6	608.0	600.4	596.0
147.5°	662.8	657.3	622.3	604.8	603.7	598.2	590.5	586.1
150°	658.4	657.3	650.8	645.3	636.5	617.9	596.0	580.7
152.5°	644.2	650.8	648.6	645.3	638.7	631.1	621.2	616.8
155°	626.7	633.2	634.3	634.3	631.1	625.6	616.8	612.4
157.5°	608.0	614.6	615.7	616.8	613.5	609.1	601.5	598.2
160°	582.8	591.6	593.8	594.9	591.6	588.3	580.7	577.4
162.5°	550.0	562.0	567.5	568.6	567.5	564.2	557.6	554.4
165°	504.0	519.3	525.9	529.2	530.3	528.1	522.6	520.4
167.5°	410.8	438.2	462.3	476.6	477.7	475.5	471.1	470.0
170°	410.8	399.9	388.9	384.5	379.1	371.4	365.9	361.5
172.5°	461.2	450.3	440.4	427.3	413.0	398.8	388.9	384.5
175°	551.1	543.4	530.3	518.2	505.1	493.0	483.1	478.8
177.5°	542.3	541.2	536.8	530.3	523.7	516.0	506.2	500.7
180°	543.4	543.4	543.4	543.4	543.4	543.4	543.4	543.4

(END OF REPORT)