

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: P236554

Luminaire Tested: **SKB4-LD5-30-W-UNV-L840-CD4-U inner 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236554
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-LD5-30-W-UNV-L840-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) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

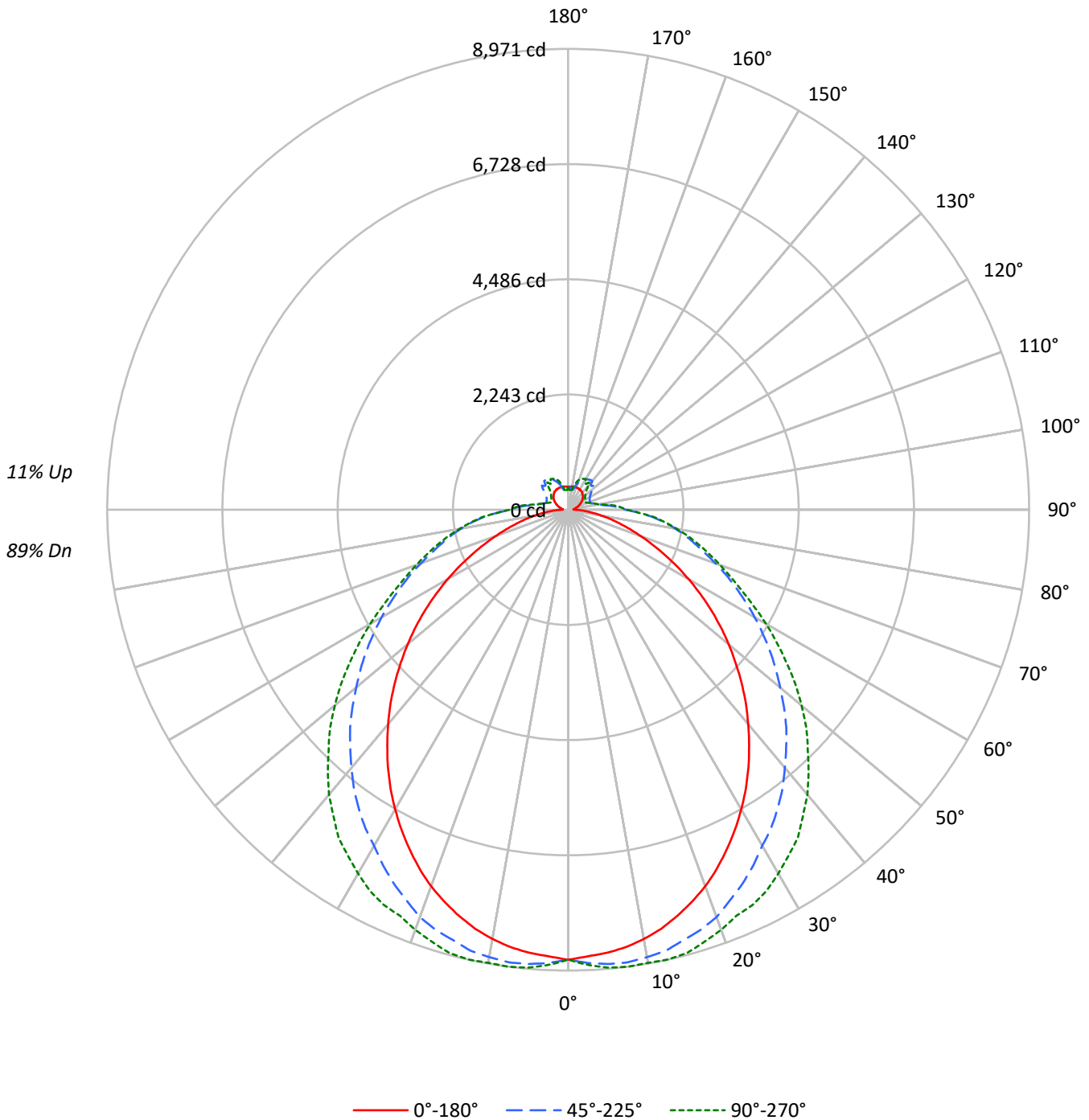
Lumens per Lamp: N/A
Luminaire Lumens: 30565.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.38 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 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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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	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°	12573	12573	12573
5°	12419	12663	12769
10°	12253	12631	12804
15°	12002	12497	12890
20°	11691	12368	12775
25°	11286	12065	12781
30°	10834	11735	12735
35°	10337	11518	12667
40°	9784	11203	12406
45°	9201	10922	12045
50°	8573	10564	11688
55°	7880	10294	11198
60°	7127	10031	10708
65°	6313	9819	10218
70°	5525	9713	10095
75°	4810	9882	10311
80°	4167	10569	10877
85°	3612	11775	12207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	843.6	2.8
10°-20°	2438.6	8.0
20°-30°	3676.9	12.0
30°-40°	4395.2	14.4
40°-50°	4506.4	14.7
50°-60°	4068.7	13.3
60°-70°	3265.7	10.7
70°-80°	2405.9	7.9
80°-90°	1540.1	5.0
90°-100°	787.5	2.6
100°-110°	481.4	1.6
110°-120°	432.8	1.4
120°-130°	447.2	1.5
130°-140°	446.1	1.5
140°-150°	384.8	1.3
150°-160°	268.4	0.9
160°-170°	135.3	0.4
170°-180°	40.4	0.1
0°-30°	6959.1	22.8
0°-40°	11354.4	37.1
0°-60°	19929.4	65.2
0°-90°	27141.1	88.8
90°-120°	1701.7	5.6
90°-150°	2979.8	9.7
90°-180°	3424.0	11.2
0°-180°	30565.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8760	8760	8760	8760	8760	
5°	8659	8818	8878	8926	8950	821
15°	8190	8487	8671	8859	8934	2307
25°	7300	7637	8029	8313	8489	3360
35°	6115	6500	7105	7586	7792	3820
45°	4770	5241	6002	6460	6594	3678
55°	3384	4006	4792	5107	5185	3027
65°	2067	2908	3607	3710	3726	2059
75°	1036	2044	2550	2619	2630	1110
85°	350	1300	1658	1681	1683	349
90°	115	856	1113	1140	1132	78
95°	120	581	842	907	909	99
105°	173	425	478	500	492	184
115°	254	540	462	400	369	253
125°	339	665	530	441	401	303
135°	400	640	650	555	486	309
145°	445	557	713	627	614	278
155°	458	437	631	679	664	212
165°	458	434	439	519	520	130
175°	452	447	434	418	384	43
180°	434	434	434	434	434	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4
2.5°	8701.9	8738.1	8751.9	8791.2	8807.2	8811.5	8822.1	8828.5	8820.0	8831.7	8820.0
5°	8659.4	8704.0	8731.7	8788.1	8811.5	8824.2	8845.5	8858.3	8859.3	8878.5	8874.2
7.5°	8589.2	8640.2	8683.8	8743.4	8773.2	8795.5	8827.4	8852.9	8871.0	8887.0	8879.5
10°	8484.9	8547.7	8598.7	8661.5	8703.0	8743.4	8784.9	8794.4	8810.4	8843.4	8863.6
12.5°	8356.2	8424.3	8475.3	8548.7	8607.2	8643.4	8678.5	8714.7	8757.2	8792.3	8793.4
15°	8190.3	8272.2	8322.2	8407.3	8471.1	8503.0	8566.8	8610.4	8628.5	8671.1	8717.9
17.5°	8004.1	8089.2	8141.3	8234.9	8294.5	8348.8	8423.2	8430.7	8505.1	8576.4	8631.7
20°	7799.9	7876.5	7929.7	8033.9	8096.7	8156.2	8214.7	8274.3	8374.3	8438.1	8474.3
22.5°	7563.8	7637.2	7709.5	7802.0	7872.2	7914.8	8020.1	8103.1	8185.0	8231.8	8290.3
25°	7300.0	7374.4	7443.6	7542.5	7603.1	7670.1	7813.7	7878.6	7945.6	8028.6	8095.6
27.5°	7027.7	7091.5	7168.1	7257.4	7323.4	7435.1	7565.9	7610.6	7713.7	7802.0	7857.3
30°	6734.1	6790.5	6862.8	6953.2	7034.1	7173.4	7274.5	7345.7	7458.5	7553.1	7675.5
32.5°	6434.2	6485.2	6546.9	6626.7	6742.6	6875.6	6980.9	7077.7	7198.9	7348.9	7477.6
35°	6115.1	6164.0	6217.2	6299.1	6439.5	6559.7	6687.3	6792.6	6956.4	7105.3	7243.6
37.5°	5784.2	5835.3	5878.9	5978.9	6122.5	6254.4	6386.3	6523.5	6688.4	6851.1	6966.0
40°	5450.3	5501.3	5538.5	5653.4	5802.3	5948.1	6091.6	6243.8	6415.0	6558.6	6691.6
42.5°	5116.3	5162.0	5204.5	5335.4	5477.9	5637.5	5797.0	5955.5	6116.1	6277.8	6425.6
45°	4769.5	4820.6	4862.0	5008.8	5151.4	5330.1	5493.9	5659.8	5817.2	6002.3	6114.0
47.5°	4422.7	4475.9	4522.7	4685.5	4838.6	5026.9	5186.5	5352.4	5530.0	5693.8	5807.6
50°	4078.1	4129.2	4191.9	4362.1	4517.4	4714.2	4881.2	5059.9	5235.4	5382.2	5511.9
52.5°	3732.4	3785.6	3865.4	4039.8	4206.8	4410.0	4582.3	4772.7	4931.2	5089.7	5199.2
55°	3383.5	3442.0	3543.1	3717.5	3905.8	4105.8	4291.9	4479.1	4640.8	4791.8	4885.4
57.5°	3041.0	3104.9	3224.0	3408.0	3606.9	3812.2	4018.6	4196.2	4357.9	4489.8	4580.2
60°	2707.0	2777.2	2911.3	3108.0	3321.8	3535.6	3740.9	3928.1	4070.7	4193.0	4251.5
62.5°	2380.5	2459.2	2604.9	2823.0	3045.3	3270.8	3488.8	3662.2	3786.7	3895.2	3945.2
65°	2066.7	2153.9	2315.6	2552.8	2791.1	3024.0	3243.1	3395.2	3512.2	3606.9	3645.2
67.5°	1775.3	1869.9	2055.0	2303.9	2557.1	2796.4	2997.4	3140.0	3247.4	3329.3	3353.8
70°	1505.1	1605.1	1811.4	2076.3	2344.3	2573.0	2758.1	2898.5	2987.9	3048.5	3057.0
72.5°	1257.3	1361.5	1593.4	1872.1	2143.3	2351.8	2533.7	2657.1	2737.9	2780.4	2803.8
75°	1036.0	1144.5	1401.9	1692.3	1944.4	2144.4	2312.4	2416.7	2499.6	2549.6	2572.0
77.5°	837.1	953.1	1234.9	1518.9	1755.1	1940.1	2090.1	2203.9	2296.5	2335.8	2348.6
80°	653.1	787.1	1087.1	1354.1	1571.0	1740.2	1900.8	2013.5	2091.2	2115.6	2121.0
82.5°	488.2	641.4	940.3	1186.0	1388.1	1571.0	1714.6	1809.3	1875.3	1890.1	1893.3
85°	349.9	512.7	794.6	1025.4	1221.1	1378.5	1509.4	1589.1	1645.5	1658.3	1657.2
87.5°	237.2	406.3	663.7	863.7	1032.8	1175.4	1284.9	1351.9	1397.7	1379.6	1379.6
90°	114.9	319.1	520.1	672.2	794.6	916.9	997.7	1058.4	1097.7	1112.6	1115.8
92.5°	101.0	245.7	417.0	552.0	668.0	790.3	878.6	942.4	983.9	1000.9	1004.1
95°	120.2	198.9	319.1	423.3	530.8	631.8	702.0	755.2	809.5	842.4	860.5
97.5°	124.4	202.1	294.6	361.6	434.0	529.7	596.7	643.5	671.2	679.7	678.6
100°	136.2	235.1	304.2	358.5	402.1	445.7	512.7	563.7	593.5	604.2	604.2
102.5°	154.2	260.6	342.5	372.3	403.1	435.0	452.1	490.4	524.4	539.3	543.5
105°	173.4	271.2	398.9	392.5	414.8	436.1	454.2	459.5	462.7	477.6	486.1
107.5°	193.6	278.7	424.4	437.2	427.6	445.7	455.3	461.6	460.6	440.4	435.0
110°	214.9	285.1	432.9	487.2	458.4	458.4	464.8	467.0	460.6	452.1	435.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	234.0	288.3	438.2	527.6	518.0	480.8	475.5	474.4	467.0	454.2	439.3
115°	254.2	290.4	440.4	548.9	556.3	523.3	494.6	487.2	475.5	461.6	444.6
117.5°	275.5	290.4	441.4	554.2	584.0	596.7	528.6	503.1	488.2	473.3	453.1
120°	297.8	291.4	439.3	559.5	639.3	616.9	585.0	532.9	505.2	486.1	465.9
122.5°	319.1	301.0	437.2	561.6	640.3	625.4	663.7	579.7	530.8	503.1	481.8
125°	339.3	314.8	435.0	560.6	640.3	689.3	639.3	663.7	572.3	529.7	502.1
127.5°	358.5	330.8	429.7	553.1	637.1	694.6	652.0	671.2	649.9	573.3	529.7
130°	372.3	351.0	419.1	537.2	628.6	687.1	716.9	644.6	688.2	653.1	575.4
132.5°	385.0	367.0	403.1	524.4	620.1	681.8	716.9	685.0	652.0	694.6	659.5
135°	399.9	385.0	384.0	510.6	607.4	673.3	708.4	732.9	659.5	649.9	690.3
137.5°	413.8	401.0	378.7	496.7	589.3	661.6	698.8	723.3	735.0	647.8	644.6
140°	425.5	415.9	378.7	479.7	568.0	645.6	685.0	710.5	726.5	729.7	645.6
142.5°	438.2	428.7	380.8	457.4	545.7	622.2	669.0	695.6	713.7	724.4	728.6
145°	444.6	436.1	401.0	422.3	521.2	593.5	646.7	678.6	701.0	712.7	719.0
147.5°	447.8	441.4	417.0	406.3	494.6	563.7	621.2	659.5	685.0	701.0	708.4
150°	451.0	446.7	428.7	396.7	462.7	535.0	591.4	633.9	664.8	683.9	693.5
152.5°	456.3	452.1	439.3	394.6	425.5	505.2	559.5	602.0	637.1	661.6	675.4
155°	458.4	455.3	445.7	420.2	406.3	467.0	524.4	564.8	601.0	630.8	649.9
157.5°	460.6	458.4	451.0	434.0	398.9	424.4	485.0	527.6	561.6	592.5	614.8
160°	459.5	458.4	453.1	442.5	418.0	401.0	430.8	484.0	519.1	547.8	569.1
162.5°	459.5	458.4	454.2	446.7	432.9	399.9	404.2	426.5	471.2	502.1	522.3
165°	458.4	458.4	455.3	449.9	441.4	427.6	397.8	396.7	414.8	439.3	468.0
167.5°	458.4	458.4	456.3	452.1	446.7	439.3	428.7	411.6	392.5	396.7	406.3
170°	456.3	457.4	455.3	452.1	448.9	443.6	438.2	430.8	420.2	408.5	386.1
172.5°	454.2	455.3	455.3	453.1	449.9	446.7	443.6	439.3	431.9	427.6	420.2
175°	452.1	453.1	453.1	452.1	448.9	445.7	444.6	441.4	436.1	434.0	429.7
177.5°	449.9	449.9	451.0	449.9	448.9	446.7	445.7	443.6	438.2	437.2	432.9
180°	434.0	434.0	434.0	434.0	434.0	434.0	434.0	434.0	434.0	434.0	434.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4	8760.4
2.5°	8812.5	8849.8	8848.7	8828.5	8848.7	8872.1	8859.3	8871.0
5°	8877.4	8926.3	8933.8	8918.9	8935.9	8956.1	8938.0	8949.7
7.5°	8881.7	8923.1	8932.7	8921.0	8951.9	8980.6	8962.5	8971.0
10°	8888.0	8935.9	8948.7	8930.6	8949.7	8965.7	8944.4	8958.2
12.5°	8799.8	8863.6	8900.8	8907.2	8943.4	8969.9	8951.9	8966.8
15°	8757.2	8823.2	8855.1	8863.6	8904.0	8932.7	8914.6	8933.8
17.5°	8672.1	8717.9	8727.4	8725.3	8771.0	8807.2	8800.8	8820.0
20°	8504.1	8565.8	8611.5	8621.1	8664.7	8694.5	8677.4	8703.0
22.5°	8355.1	8419.0	8433.9	8439.2	8499.8	8538.1	8536.0	8556.2
25°	8145.6	8209.4	8287.1	8339.2	8409.4	8455.1	8466.8	8489.2
27.5°	7968.0	8071.1	8164.7	8215.8	8287.1	8332.8	8349.8	8361.5
30°	7801.0	7909.5	7993.5	8047.7	8109.4	8145.6	8159.4	8177.5
32.5°	7596.7	7707.4	7779.7	7823.3	7885.0	7931.8	7961.6	7980.7
35°	7350.0	7452.1	7548.9	7622.3	7691.4	7738.2	7756.3	7792.5
37.5°	7081.9	7223.4	7323.4	7373.4	7413.8	7452.1	7473.4	7505.3
40°	6837.3	6956.4	7025.6	7076.6	7130.9	7180.8	7207.4	7239.4
42.5°	6539.5	6642.6	6738.4	6799.0	6845.8	6888.3	6906.4	6924.5
45°	6231.0	6353.3	6436.3	6483.1	6511.8	6556.5	6584.1	6593.7
47.5°	5935.3	6036.3	6103.3	6160.8	6200.1	6244.8	6269.3	6285.2
50°	5619.4	5707.7	5785.3	5837.4	5860.8	5890.6	5906.6	5927.8
52.5°	5297.1	5396.0	5443.9	5474.7	5498.1	5532.2	5549.2	5570.4
55°	4979.0	5039.7	5087.5	5125.8	5149.2	5174.8	5189.7	5185.4
57.5°	4636.5	4705.7	4747.2	4769.5	4783.3	4800.4	4804.6	4816.3
60°	4314.3	4363.2	4389.8	4410.0	4416.4	4430.2	4435.5	4448.3
62.5°	3994.1	4030.3	4044.1	4059.0	4067.5	4065.4	4066.4	4074.9
65°	3671.8	3701.6	3706.9	3713.3	3718.6	3720.7	3722.9	3726.0
67.5°	3363.3	3386.7	3394.2	3412.3	3419.7	3415.5	3415.5	3418.6
70°	3077.2	3099.5	3108.0	3121.9	3132.5	3132.5	3135.7	3140.0
72.5°	2815.5	2841.1	2858.1	2866.6	2881.5	2882.6	2882.6	2881.5
75°	2583.7	2602.8	2615.6	2622.0	2636.8	2635.8	2634.7	2630.5
77.5°	2352.8	2367.7	2382.6	2381.6	2396.5	2396.5	2393.3	2390.1
80°	2121.0	2138.0	2144.4	2142.2	2156.1	2153.9	2152.9	2145.4
82.5°	1882.7	1897.6	1904.0	1904.0	1916.7	1914.6	1913.5	1907.2
85°	1654.0	1663.6	1681.7	1680.6	1689.1	1689.1	1688.0	1682.7
87.5°	1357.2	1364.7	1371.1	1368.9	1375.3	1379.6	1375.3	1372.1
90°	1116.9	1124.3	1138.1	1141.3	1146.6	1141.3	1140.3	1131.7
92.5°	1008.4	1015.8	1027.5	1031.8	1035.0	1033.9	1035.0	1029.6
95°	873.3	887.1	905.2	909.4	914.8	913.7	916.9	909.4
97.5°	680.8	694.6	719.0	733.9	738.2	739.3	744.6	736.1
100°	604.2	607.4	611.6	609.5	608.4	606.3	605.2	598.8
102.5°	544.6	547.8	552.0	552.0	549.9	548.9	546.7	541.4
105°	490.4	495.7	499.9	501.0	499.9	498.9	496.7	492.5
107.5°	439.3	443.6	449.9	451.0	451.0	452.1	451.0	444.6
110°	410.6	403.1	405.3	405.3	405.3	406.3	404.2	398.9



TEST NUMBER: P236554

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L840-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	426.5	411.6	392.5	377.6	372.3	371.2	368.0	362.7
115°	427.6	414.8	405.3	395.7	389.3	382.9	374.4	369.1
117.5°	437.2	421.2	408.5	397.8	392.5	387.2	380.8	375.5
120°	448.9	430.8	418.0	406.3	398.9	391.4	384.0	378.7
122.5°	463.8	446.7	430.8	417.0	408.5	401.0	393.6	388.2
125°	481.8	462.7	447.8	435.0	424.4	415.9	407.4	401.0
127.5°	503.1	482.9	467.0	452.1	440.4	430.8	421.2	415.9
130°	534.0	509.5	491.4	473.3	460.6	449.9	440.4	432.9
132.5°	582.9	548.9	523.3	499.9	486.1	474.4	462.7	455.3
135°	682.9	607.4	569.1	541.4	522.3	506.3	493.5	486.1
137.5°	685.0	702.0	664.8	598.8	573.3	554.2	538.2	530.8
140°	640.3	661.6	690.3	694.6	690.3	655.2	632.9	625.4
142.5°	653.1	623.3	640.3	653.1	672.2	675.4	670.1	666.9
145°	724.4	698.8	638.2	615.9	616.9	624.4	620.1	613.7
147.5°	714.8	718.0	719.0	704.2	657.3	627.6	611.6	604.2
150°	703.1	707.3	709.5	709.5	707.3	703.1	694.6	688.2
152.5°	686.1	693.5	697.8	698.8	697.8	692.5	682.9	677.6
155°	663.7	672.2	677.6	679.7	680.8	677.6	669.0	663.7
157.5°	632.9	646.7	654.2	657.3	658.4	656.3	649.9	645.6
160°	591.4	607.4	619.1	623.3	627.6	627.6	622.2	618.0
162.5°	542.5	559.5	572.3	578.6	582.9	585.0	579.7	578.6
165°	490.4	505.2	515.9	521.2	525.5	527.6	523.3	520.1
167.5°	418.0	438.2	454.2	460.6	464.8	464.8	461.6	461.6
170°	385.0	388.2	389.3	389.3	387.2	385.0	380.8	378.7
172.5°	413.8	410.6	402.1	391.4	380.8	368.0	358.5	347.8
175°	425.5	425.5	421.2	414.8	407.4	399.9	391.4	384.0
177.5°	429.7	430.8	427.6	422.3	415.9	408.5	397.8	392.5
180°	434.0	434.0	434.0	434.0	434.0	434.0	434.0	434.0

(END OF REPORT)