

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: P236518

Luminaire Tested: **SKB4-LD5-30-N-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236518
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24061)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-30-N-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH NARROW DISTRIBUTION LENS, OUTER 2 BLADES VERTICAL INNER 2
BLADES HORIZONTAL
Light Source: (952) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

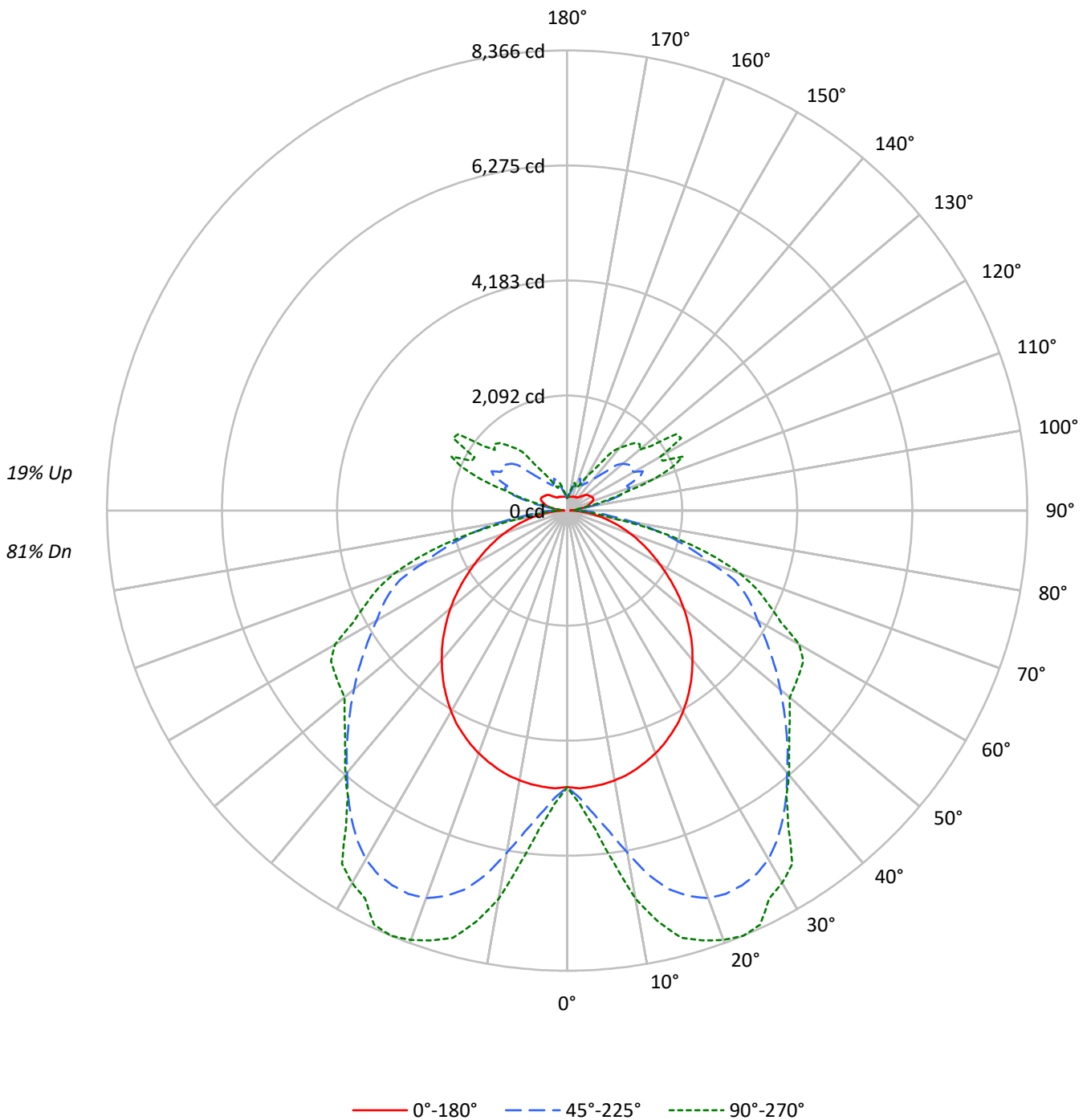
Lumens per Lamp: N/A
Luminaire Lumens: 28496.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.79 / 1.74
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	81								
1	104	99	95	91	99	95	91	87	87	84	81	80	78	75	74	72	70	67								
2	94	86	79	73	90	82	76	70	76	70	66	70	65	62	64	61	58	55								
3	85	75	66	60	81	72	64	58	66	60	55	61	56	51	56	52	48	45								
4	78	66	57	50	74	63	55	49	58	52	46	54	48	44	50	45	41	38								
5	71	58	49	43	68	56	48	42	52	45	40	48	42	37	44	39	35	33								
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	28								
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	36	31	27	25								
8	56	43	34	29	54	41	33	28	39	32	27	36	30	25	33	28	24	22								
9	53	39	31	25	50	38	30	25	35	29	24	33	27	23	31	26	22	20								
10	49	36	28	23	47	35	27	22	33	26	21	30	25	21	28	23	20	18								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7214	7214	7214
5°	7228	7893	8282
10°	7190	9018	10244
15°	7126	10265	11603
20°	7041	10991	12196
25°	6924	11297	12505
30°	6780	11373	12175
35°	6594	11086	11394
40°	6365	10628	10752
45°	6115	10249	10435
50°	5819	9927	10414
55°	5471	9683	11135
60°	5107	9571	11724
65°	4797	9715	11093
70°	4486	8820	10731
75°	4131	7839	8743
80°	3728	6165	4890
85°	3153	4083	3155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	546.1	1.9
10°-20°	1919.7	6.7
20°-30°	3231.3	11.3
30°-40°	3908.3	13.7
40°-50°	3977.1	14.0
50°-60°	3786.4	13.3
60°-70°	3208.8	11.3
70°-80°	1986.1	7.0
80°-90°	653.3	2.3
90°-100°	268.2	0.9
100°-110°	818.5	2.9
110°-120°	1329.7	4.7
120°-130°	1210.3	4.2
130°-140°	831.6	2.9
140°-150°	439.9	1.5
150°-160°	232.5	0.8
160°-170°	121.0	0.4
170°-180°	27.1	0.1
0°-30°	5697.2	20.0
0°-40°	9605.4	33.7
0°-60°	17368.9	61.0
0°-90°	23217.1	81.5
90°-120°	2416.4	8.5
90°-150°	4898.3	17.2
90°-180°	5279.0	18.5
0°-180°	28496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5027	5027	5027	5027	5027	
5°	5040	5252	5534	5707	5805	479
15°	4863	5789	7123	7786	8042	1372
25°	4478	6112	7518	8175	8306	2064
35°	3901	5622	6838	7075	7009	2437
45°	3170	4647	5632	5825	5712	2444
55°	2349	3577	4508	5021	5156	2102
65°	1570	2646	3569	3915	4045	1558
75°	890	1743	2022	2224	2231	944
85°	306	754	575	475	435	307
90°	59	421	274	213	185	49
95°	144	308	197	139	115	147
105°	411	726	912	810	788	428
115°	524	873	1465	1894	2324	511
125°	479	698	1422	1906	2421	429
135°	366	578	1013	1597	1736	289
145°	291	604	610	836	1023	186
155°	275	456	555	539	494	128
165°	262	326	467	548	523	74
175°	250	250	264	266	298	24
180°	231	231	231	231	231	



TEST NUMBER: P236518

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8
2.5°	5054.8	5037.5	5032.1	5058.8	5100.2	5120.2	5144.2	5164.2	5192.2	5225.6	5260.3
5°	5040.1	5034.8	5060.1	5128.2	5212.2	5292.3	5376.3	5424.3	5476.4	5533.7	5592.4
7.5°	5018.8	5029.5	5092.2	5209.6	5365.6	5452.4	5551.1	5657.8	5779.2	5883.3	6006.0
10°	4978.8	5016.1	5121.5	5298.9	5448.4	5600.4	5771.2	5938.0	6127.4	6314.2	6496.9
12.5°	4932.1	4988.1	5153.5	5333.6	5545.7	5764.5	6004.7	6256.8	6525.0	6770.4	6999.9
15°	4862.7	4949.4	5157.5	5359.0	5644.5	5934.0	6252.8	6583.7	6893.2	7122.6	7348.1
17.5°	4784.0	4897.4	5124.2	5381.7	5731.2	6092.7	6494.3	6838.5	7126.6	7349.4	7577.5
20°	4697.3	4837.4	5077.5	5393.7	5808.6	6244.8	6659.7	6978.5	7252.0	7498.8	7723.0
22.5°	4594.6	4764.0	5018.8	5387.0	5865.9	6335.5	6730.4	7034.6	7329.4	7542.9	7731.0
25°	4478.5	4671.9	4942.7	5361.6	5892.6	6331.5	6725.1	7049.3	7294.7	7517.5	7715.0
27.5°	4359.8	4554.5	4850.7	5309.6	5855.3	6284.8	6683.7	6963.9	7221.3	7452.1	7668.3
30°	4214.3	4418.5	4730.6	5225.6	5747.2	6176.8	6555.6	6835.8	7091.9	7320.1	7508.2
32.5°	4062.3	4266.4	4587.9	5109.5	5604.4	6031.4	6375.5	6651.7	6890.5	7103.9	7266.7
35°	3900.8	4095.6	4427.8	4957.4	5425.7	5817.9	6170.1	6423.6	6658.4	6838.5	6946.5
37.5°	3726.1	3911.5	4254.4	4770.7	5232.2	5592.4	5928.6	6171.4	6382.2	6541.0	6619.7
40°	3546.0	3718.1	4063.6	4566.5	4998.8	5351.0	5655.1	5900.6	6087.4	6222.1	6288.8
42.5°	3365.9	3514.0	3862.1	4347.7	4738.6	5090.8	5387.0	5616.5	5803.2	5932.6	6008.7
45°	3169.8	3308.5	3655.4	4117.0	4477.2	4816.0	5110.8	5331.0	5503.1	5632.5	5720.5
47.5°	2971.0	3100.4	3440.6	3879.5	4215.7	4546.5	4829.4	5044.1	5218.9	5343.0	5453.7
50°	2768.2	2889.6	3217.8	3610.0	3944.9	4266.4	4541.2	4756.0	4925.4	5057.5	5172.2
52.5°	2561.4	2674.8	2987.0	3353.9	3678.0	4000.9	4255.7	4470.5	4642.6	4789.3	4916.1
55°	2349.3	2462.7	2770.9	3109.7	3424.6	3728.7	3982.2	4191.7	4362.4	4507.8	4653.3
57.5°	2139.9	2253.3	2557.4	2869.6	3184.4	3473.9	3722.1	3915.5	4088.9	4250.4	4410.5
60°	1939.7	2058.5	2349.3	2650.8	2947.0	3227.1	3469.9	3650.0	3818.1	4000.9	4217.0
62.5°	1751.6	1877.0	2149.2	2449.4	2733.5	2995.0	3212.5	3383.2	3567.3	3798.1	4019.6
65°	1570.2	1702.3	1959.8	2253.3	2525.4	2766.9	2953.6	3120.4	3341.9	3568.7	3772.8
67.5°	1395.4	1530.2	1781.0	2062.5	2307.9	2533.4	2690.8	2882.9	3099.1	3283.2	3287.2
70°	1222.0	1363.4	1610.2	1871.7	2097.2	2281.3	2460.0	2632.1	2746.9	2768.2	2865.6
72.5°	1053.9	1204.7	1434.1	1675.6	1878.4	2051.8	2218.6	2267.9	2291.9	2402.7	2478.7
75°	889.8	1043.2	1263.4	1478.2	1655.6	1830.4	1875.7	1881.0	1949.1	2022.5	2071.8
77.5°	732.4	883.2	1092.6	1280.7	1455.5	1530.2	1546.2	1568.9	1596.9	1635.6	1658.3
80°	584.3	728.4	919.2	1092.6	1202.0	1252.7	1262.0	1255.4	1244.7	1234.0	1216.7
82.5°	442.9	576.3	744.4	891.2	969.9	1001.9	980.5	936.5	897.8	844.5	808.4
85°	305.5	421.6	568.3	679.0	749.8	757.8	719.1	672.4	625.7	575.0	533.6
87.5°	176.1	266.8	392.2	502.9	572.3	568.3	520.3	470.9	430.9	397.6	373.5
90°	58.7	138.7	258.8	360.2	424.2	417.6	376.2	336.2	304.2	273.5	249.5
92.5°	62.7	114.7	202.8	280.2	329.5	334.9	306.8	274.8	242.8	212.1	190.8
95°	144.1	174.8	236.1	288.2	308.2	306.8	285.5	256.1	226.8	197.4	173.4
97.5°	218.8	254.8	305.5	372.2	412.2	404.2	368.2	312.2	274.8	246.8	222.8
100°	296.2	350.9	389.5	462.9	521.6	555.0	540.3	497.6	461.6	416.2	357.5
102.5°	369.5	438.9	474.9	553.6	624.3	676.4	709.7	708.4	684.4	637.7	608.3
105°	410.9	492.3	524.3	616.3	701.7	749.8	795.1	863.1	915.2	912.5	892.5
107.5°	445.6	521.6	561.6	652.4	752.4	859.1	869.8	904.5	1049.9	1135.3	1184.7
110°	492.3	560.3	597.7	681.7	808.4	889.8	1023.2	1019.2	1016.6	1206.0	1374.1



TEST NUMBER: P236518

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	516.3	579.0	605.7	681.7	824.5	931.2	1029.9	1195.3	1216.7	1175.3	1272.7
115°	524.3	581.7	613.7	664.4	796.4	949.9	1040.6	1166.0	1379.4	1464.8	1432.8
117.5°	520.3	572.3	633.7	643.0	748.4	939.2	1069.9	1151.3	1295.4	1548.9	1695.6
120°	505.6	547.0	649.7	613.7	708.4	887.2	1067.3	1194.0	1266.0	1402.1	1647.6
122.5°	490.9	525.6	652.4	593.7	685.7	809.8	1036.6	1182.0	1314.1	1378.1	1470.2
125°	478.9	506.9	647.0	592.3	644.4	751.1	931.2	1154.0	1288.7	1422.1	1491.5
127.5°	464.3	488.3	639.0	631.0	612.3	721.7	840.5	1069.9	1252.7	1379.4	1510.2
130°	442.9	465.6	621.7	669.7	583.0	669.7	767.1	913.8	1172.7	1324.7	1446.1
132.5°	405.6	428.2	575.0	675.0	567.0	611.0	727.1	807.1	973.9	1232.7	1371.4
135°	365.5	388.2	516.3	644.4	584.3	571.0	647.0	744.4	844.5	1012.6	1255.4
137.5°	337.5	358.9	460.3	608.3	633.7	543.0	596.3	683.0	755.1	856.5	996.6
140°	314.8	336.2	409.6	580.3	648.4	556.3	557.6	615.0	699.1	753.8	837.8
142.5°	298.8	317.5	373.5	533.6	619.0	588.3	533.6	564.3	617.7	693.7	740.4
145°	290.8	304.2	352.2	481.6	579.0	628.3	551.0	527.0	567.0	609.7	679.0
147.5°	290.8	298.8	336.2	422.9	549.6	616.3	585.7	539.0	528.3	563.0	597.7
150°	289.5	294.8	329.5	380.2	502.9	575.0	633.7	556.3	537.6	527.0	551.0
152.5°	281.5	288.2	325.5	365.5	461.6	552.3	603.0	620.3	557.6	545.6	521.6
155°	274.8	280.2	314.8	352.2	408.2	504.3	560.3	605.7	611.0	555.0	553.6
157.5°	270.8	274.8	302.8	336.2	368.2	448.2	520.3	560.3	607.0	627.0	583.0
160°	266.8	269.5	293.5	320.2	350.9	390.9	462.9	519.0	556.3	591.0	627.0
162.5°	262.8	264.1	282.8	306.8	332.2	356.2	397.6	454.9	502.9	540.3	557.6
165°	261.5	261.5	273.5	296.2	314.8	336.2	356.2	385.5	426.9	466.9	498.9
167.5°	257.5	257.5	265.5	281.5	300.2	313.5	330.9	345.5	356.2	381.5	406.9
170°	254.8	254.8	258.8	268.1	281.5	294.8	305.5	314.8	324.2	332.2	336.2
172.5°	252.1	250.8	252.1	256.1	262.8	270.8	281.5	288.2	292.2	297.5	298.8
175°	249.5	248.1	248.1	248.1	249.5	250.8	254.8	257.5	258.8	264.1	266.8
177.5°	246.8	245.5	245.5	244.1	242.8	241.5	240.1	238.8	236.1	234.8	233.5
180°	230.8	230.8	230.8	230.8	230.8	230.8	230.8	230.8	230.8	230.8	230.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8	5026.8
2.5°	5248.3	5274.9	5276.3	5294.9	5347.0	5353.6	5352.3	5340.3
5°	5611.1	5664.5	5687.2	5727.2	5796.6	5811.2	5816.6	5804.6
7.5°	6068.7	6168.8	6231.5	6296.8	6391.6	6439.6	6454.3	6444.9
10°	6622.3	6779.8	6883.8	6985.2	7110.6	7149.3	7178.7	7166.7
12.5°	7122.6	7264.0	7369.4	7492.2	7602.9	7640.2	7660.3	7657.6
15°	7468.2	7618.9	7729.6	7843.0	7960.4	8009.8	8041.8	8041.8
17.5°	7713.6	7868.4	7928.4	8041.8	8123.2	8155.2	8188.6	8192.6
20°	7825.7	7936.4	8028.5	8144.5	8243.2	8273.9	8306.0	8308.6
22.5°	7861.7	7979.1	8089.8	8220.6	8316.6	8342.0	8370.0	8366.0
25°	7851.0	7981.8	8108.5	8240.6	8328.6	8319.3	8336.6	8306.0
27.5°	7800.3	7899.1	7969.8	8008.5	7999.1	7959.1	7955.1	7952.4
30°	7593.6	7642.9	7698.9	7741.6	7772.3	7777.7	7811.0	7817.7
32.5°	7317.4	7370.8	7434.8	7497.5	7542.9	7560.2	7594.9	7616.2
35°	6979.9	7007.9	7061.3	7087.9	7082.6	7033.2	7010.6	7009.2
37.5°	6629.0	6669.0	6705.1	6701.1	6667.7	6594.3	6562.3	6547.6
40°	6328.9	6380.9	6408.9	6404.9	6363.5	6288.8	6272.8	6274.2
42.5°	6044.7	6091.4	6103.4	6078.0	6034.0	5982.0	5978.0	5970.0
45°	5767.2	5820.6	5835.2	5815.2	5780.5	5731.2	5713.8	5712.5
47.5°	5504.4	5563.1	5572.4	5552.4	5539.1	5505.7	5497.7	5488.4
50°	5254.9	5324.3	5329.6	5331.0	5316.3	5286.9	5284.3	5281.6
52.5°	5000.1	5061.5	5100.2	5153.5	5194.9	5197.6	5218.9	5220.2
55°	4749.3	4874.7	4976.1	5066.8	5120.2	5130.9	5153.5	5156.2
57.5°	4569.2	4729.3	4857.4	4956.1	5025.5	5052.1	5086.8	5090.8
60°	4403.8	4581.2	4708.0	4794.7	4837.4	4860.0	4880.0	4870.7
62.5°	4205.0	4350.4	4397.1	4370.4	4366.4	4369.1	4386.4	4375.8
65°	3844.8	3851.5	3871.5	3958.2	4010.2	4023.6	4046.2	4044.9
67.5°	3337.9	3445.9	3531.3	3634.0	3694.1	3710.1	3735.4	3732.7
70°	2955.0	3073.7	3152.4	3249.8	3297.8	3313.8	3340.5	3337.9
72.5°	2561.4	2653.5	2716.2	2789.6	2822.9	2838.9	2833.6	2829.6
75°	2127.8	2179.9	2205.2	2242.6	2245.2	2249.3	2237.2	2230.6
77.5°	1660.9	1664.9	1659.6	1664.9	1642.2	1627.6	1604.9	1590.2
80°	1176.7	1131.3	1069.9	1039.2	1005.9	992.6	971.2	964.5
82.5°	775.1	751.1	709.7	685.7	660.4	639.0	623.0	615.0
85°	504.3	492.3	478.9	470.9	460.3	450.9	440.2	434.9
87.5°	356.2	348.2	336.2	329.5	320.2	312.2	301.5	297.5
90°	232.1	225.5	214.8	210.8	204.1	198.8	190.8	185.4
92.5°	177.4	168.1	161.4	156.1	149.4	142.7	136.1	133.4
95°	157.4	149.4	142.7	136.1	130.7	122.7	117.4	114.7
97.5°	209.4	198.8	189.4	185.4	181.4	170.8	166.8	164.1
100°	320.2	310.8	305.5	297.5	288.2	280.2	276.2	274.8
102.5°	595.0	589.7	565.6	548.3	515.0	486.9	477.6	474.9
105°	865.8	825.8	812.5	807.1	799.1	791.1	791.1	788.4
107.5°	1207.3	1223.3	1227.3	1219.3	1176.7	1142.0	1126.0	1120.6
110°	1466.1	1551.5	1616.9	1668.9	1675.6	1672.9	1674.3	1676.9



TEST NUMBER: P236518

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L840-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1547.5	1741.0	1879.7	1977.1	2026.5	2047.8	2063.8	2070.5
115°	1372.8	1520.8	1742.3	2045.1	2187.9	2267.9	2309.3	2324.0
117.5°	1737.0	1725.0	1666.3	1702.3	1822.3	1901.1	1946.4	1957.1
120°	1874.4	1987.8	2057.1	2071.8	2067.8	2017.1	1961.1	1943.7
122.5°	1651.6	1911.7	2109.2	2234.6	2322.6	2388.0	2438.7	2454.7
125°	1531.5	1651.6	1801.0	2010.5	2189.2	2309.3	2392.0	2421.3
127.5°	1604.9	1626.2	1664.9	1734.3	1817.0	1869.0	1918.4	1934.4
130°	1568.9	1676.9	1729.0	1741.0	1722.3	1717.0	1719.6	1718.3
132.5°	1487.5	1582.2	1684.9	1757.0	1782.3	1789.0	1791.7	1791.7
135°	1379.4	1480.8	1562.2	1631.6	1688.9	1711.6	1730.3	1735.6
137.5°	1231.4	1356.8	1444.8	1514.2	1574.2	1596.9	1606.2	1608.9
140°	951.2	1128.6	1287.4	1379.4	1448.8	1476.8	1487.5	1490.2
142.5°	797.8	885.8	979.2	1120.6	1251.4	1315.4	1354.1	1356.8
145°	724.4	751.1	801.8	871.2	931.2	971.2	1007.2	1023.2
147.5°	643.0	700.4	723.1	740.4	765.8	791.1	813.8	832.5
150°	579.0	604.3	640.4	684.4	705.7	715.1	725.7	713.7
152.5°	535.0	556.3	580.3	592.3	601.7	604.3	589.7	579.0
155°	525.6	517.6	532.3	545.6	548.3	543.0	505.6	493.6
157.5°	555.0	548.3	535.0	515.0	508.3	468.3	448.2	444.2
160°	621.7	581.7	539.0	531.0	502.9	469.6	460.3	456.3
162.5°	588.3	612.3	619.0	601.7	545.6	519.0	505.6	500.3
165°	529.6	539.0	545.6	549.6	544.3	529.6	524.3	523.0
167.5°	436.2	460.3	472.3	477.6	485.6	477.6	457.6	453.6
170°	341.5	360.2	369.5	377.5	398.9	398.9	382.9	370.9
172.5°	300.2	302.8	306.8	312.2	322.8	328.2	328.2	324.2
175°	265.5	264.1	264.1	268.1	276.2	284.2	290.8	297.5
177.5°	229.5	226.8	222.8	224.1	229.5	237.5	246.8	248.1
180°	230.8	230.8	230.8	230.8	230.8	230.8	230.8	230.8

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