

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: P236576

Luminaire Tested: **SKB4-LD5-24-W-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24080)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SKB4-LD5-24-W-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, OUTER 2 BLADES VERTICAL INNER 2
BLADES HORIZONTAL
Light Source: (952) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

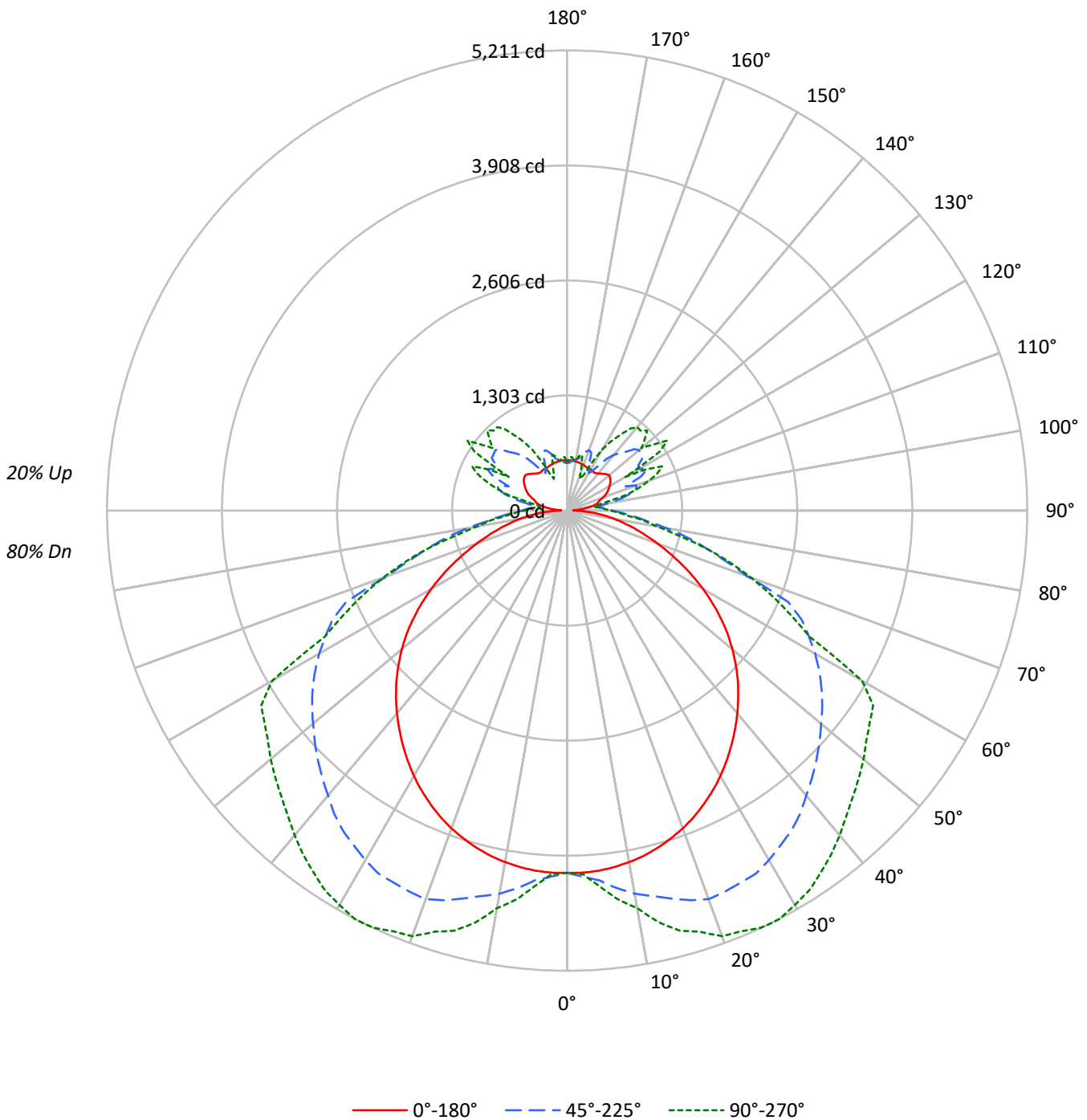
Lumens per Lamp: N/A
Luminaire Lumens: 21693.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.73 / 1.68
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 206.2
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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80
1	103	98	93	89	98	93	89	85	85	82	79	78	75	73	71	69	67	64
2	93	84	77	71	88	80	74	68	73	68	64	67	63	59	61	58	55	52
3	84	73	65	58	80	70	62	56	64	58	52	59	53	49	53	49	46	42
4	76	64	55	48	73	61	53	47	56	49	44	52	46	41	47	42	38	36
5	70	57	48	41	66	54	46	40	50	43	37	46	40	35	42	37	33	30
6	64	51	42	35	61	49	40	34	45	38	32	41	35	30	38	33	29	26
7	59	46	37	31	56	44	36	30	41	33	28	37	31	27	34	29	25	23
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20
9	51	38	30	24	49	36	29	23	34	27	22	31	25	21	29	24	20	18
10	48	35	27	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5886	5886	5886
5°	5871	5996	6098
10°	5838	6290	6534
15°	5795	6554	7104
20°	5740	6864	7529
25°	5668	6985	7843
30°	5585	7101	8029
35°	5482	7175	8137
40°	5381	7195	8226
45°	5274	7265	8363
50°	5135	7372	8638
55°	4945	7558	9036
60°	4680	7758	9284
65°	4345	7988	7654
70°	3991	6899	7109
75°	3696	6263	6261
80°	3468	5672	5208
85°	3186	5384	5053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.1	1.9
10°-20°	1275.6	5.9
20°-30°	2102.6	9.7
30°-40°	2683.8	12.4
40°-50°	2966.5	13.7
50°-60°	2999.5	13.8
60°-70°	2487.9	11.5
70°-80°	1581.5	7.3
80°-90°	761.4	3.5
90°-100°	400.0	1.8
100°-110°	660.5	3.0
110°-120°	834.9	3.8
120°-130°	850.1	3.9
130°-140°	713.3	3.3
140°-150°	468.2	2.2
150°-160°	271.2	1.3
160°-170°	175.9	0.8
170°-180°	54.0	0.2
0°-30°	3784.3	17.4
0°-40°	6468.1	29.8
0°-60°	12434.1	57.3
0°-90°	17264.9	79.6
90°-120°	1895.4	8.7
90°-150°	3926.9	18.1
90°-180°	4428.0	20.4
0°-180°	21693.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4101	4101	4101	4101	4101	
5°	4094	4151	4204	4261	4274	389
15°	3954	4204	4547	4828	4924	1116
25°	3666	4071	4648	5055	5210	1689
35°	3243	3737	4426	4894	5006	2029
45°	2734	3236	3992	4468	4578	2107
55°	2123	2701	3518	4013	4184	1895
65°	1422	2135	2934	2753	2791	1411
75°	796	1533	1616	1627	1597	848
85°	309	683	758	709	697	299
90°	69	437	509	490	482	54
95°	150	321	372	376	374	148
105°	366	575	735	728	703	383
115°	503	730	929	1065	1186	495
125°	599	695	1043	1188	1377	533
135°	588	566	943	1193	1282	455
145°	527	669	628	913	1041	335
155°	537	627	599	495	450	249
165°	558	592	654	706	654	158
175°	570	571	559	523	609	54
180°	541	541	541	541	541	



TEST NUMBER: P236576

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4
2.5°	4104.9	4103.2	4115.5	4122.5	4133.1	4143.6	4143.6	4141.9	4141.9	4148.0	4142.8
5°	4093.5	4096.1	4116.4	4127.8	4145.4	4156.0	4157.7	4166.5	4177.1	4204.3	4219.3
7.5°	4072.4	4079.4	4103.2	4114.6	4139.2	4168.3	4200.8	4234.2	4273.8	4311.6	4329.2
10°	4042.5	4053.9	4077.7	4098.8	4146.3	4211.4	4260.6	4300.2	4347.7	4404.0	4441.8
12.5°	4004.7	4019.6	4046.9	4085.6	4165.6	4236.0	4294.9	4356.5	4421.6	4470.8	4508.7
15°	3954.5	3972.1	4004.7	4068.9	4165.6	4242.2	4329.2	4389.0	4455.9	4547.4	4626.5
17.5°	3896.5	3914.1	3958.1	4044.2	4146.3	4243.9	4325.7	4405.7	4522.7	4626.5	4714.5
20°	3829.6	3851.6	3906.2	4002.0	4116.4	4219.3	4316.9	4440.1	4566.7	4682.8	4755.8
22.5°	3754.0	3777.7	3840.2	3946.6	4072.4	4177.9	4314.3	4443.6	4582.5	4671.4	4765.5
25°	3666.0	3691.5	3762.8	3876.3	4006.4	4134.8	4290.5	4433.0	4532.4	4648.5	4778.7
27.5°	3571.9	3594.8	3671.3	3793.6	3930.8	4082.9	4249.2	4360.9	4486.7	4632.7	4744.4
30°	3471.6	3492.8	3574.6	3699.5	3846.3	4017.0	4167.4	4278.2	4442.7	4570.2	4688.1
32.5°	3359.1	3388.1	3466.4	3595.7	3748.7	3926.4	4057.4	4207.8	4362.7	4495.5	4642.4
35°	3243.0	3272.9	3351.1	3484.8	3653.7	3820.0	3951.0	4111.1	4267.7	4426.0	4564.1
37.5°	3122.5	3153.2	3229.8	3370.5	3537.6	3692.4	3849.0	3998.5	4175.3	4331.0	4452.4
40°	2997.6	3027.5	3105.8	3251.8	3420.6	3566.6	3732.0	3891.2	4075.0	4212.2	4348.6
42.5°	2868.3	2897.3	2979.1	3132.1	3287.8	3445.3	3610.6	3785.7	3957.2	4104.9	4237.8
45°	2733.7	2763.6	2849.8	3009.0	3151.5	3320.4	3495.4	3673.1	3843.7	3992.4	4120.8
47.5°	2591.2	2623.7	2713.5	2871.8	3012.5	3191.9	3374.9	3553.4	3728.5	3876.3	4010.8
50°	2442.6	2480.4	2574.5	2731.1	2877.1	3064.4	3250.9	3432.9	3612.4	3755.7	3899.1
52.5°	2288.6	2332.6	2441.7	2589.4	2740.7	2934.2	3126.9	3312.4	3493.6	3641.4	3782.1
55°	2123.3	2176.0	2303.6	2439.0	2603.5	2798.8	2996.7	3188.4	3369.6	3518.3	3658.1
57.5°	1952.6	2016.0	2145.3	2286.9	2461.0	2663.3	2864.7	3060.0	3240.3	3383.7	3527.1
60°	1777.6	1850.6	1981.7	2133.8	2317.7	2524.4	2731.1	2921.9	3098.7	3243.0	3374.9
62.5°	1599.9	1681.7	1825.1	1983.4	2175.2	2381.9	2591.2	2782.9	2948.3	3083.8	3228.0
65°	1422.3	1513.7	1673.8	1833.9	2030.0	2239.4	2441.7	2624.6	2783.8	2934.2	3062.7
67.5°	1249.9	1357.2	1519.9	1688.8	1885.8	2092.5	2286.0	2462.8	2629.0	2709.1	2851.6
70°	1087.1	1208.5	1366.0	1545.4	1742.4	1937.7	2124.2	2301.8	2330.9	2165.5	2122.4
72.5°	935.9	1055.5	1221.7	1407.3	1593.8	1777.6	1965.0	1984.3	1862.9	1860.3	1856.8
75°	796.0	915.6	1086.3	1269.2	1440.7	1624.6	1658.0	1605.2	1611.4	1615.8	1608.7
77.5°	666.7	786.3	957.0	1125.8	1293.8	1359.8	1350.1	1378.3	1384.4	1382.7	1368.6
80°	543.6	660.6	821.5	981.6	1070.4	1094.2	1140.8	1166.3	1161.0	1135.5	1092.4
82.5°	424.8	533.9	682.5	789.0	839.1	900.7	937.6	940.3	927.9	911.2	894.5
85°	308.7	402.0	512.8	593.7	659.7	707.2	751.1	776.7	775.8	758.2	735.3
87.5°	187.3	255.1	350.1	442.4	517.2	571.7	610.4	631.5	632.4	622.7	607.8
90°	68.6	135.5	241.9	335.1	410.8	462.7	500.5	516.3	515.4	509.3	495.2
92.5°	67.7	114.3	203.2	282.3	343.0	394.9	432.7	453.9	457.4	452.1	440.7
95°	150.4	169.8	221.7	268.3	306.1	335.1	357.1	365.9	367.7	372.1	370.3
97.5°	217.3	238.4	282.3	334.2	376.5	402.0	397.6	385.3	373.8	358.0	343.9
100°	282.3	309.6	346.5	401.1	453.0	489.0	511.0	524.2	507.5	463.5	422.2
102.5°	340.4	376.5	416.9	466.2	517.2	561.2	597.2	623.6	631.5	627.1	617.5
105°	365.9	410.8	445.9	509.3	562.0	588.4	631.5	693.1	728.3	735.3	738.0
107.5°	385.3	440.7	476.7	544.5	609.5	655.3	647.4	688.7	775.8	818.9	841.7
110°	431.0	487.3	513.7	581.4	657.0	685.2	750.3	718.6	701.0	835.6	904.2



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CATALOG NUMBER: SKB4-LD5-24-W-UNV-L850-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°	472.3	515.4	538.3	596.3	679.9	729.2	770.5	849.7	814.5	715.1	793.4
115°	503.1	542.7	555.9	598.1	686.9	773.1	796.0	848.8	940.3	928.8	819.8
117.5°	529.5	570.8	583.2	591.1	686.1	782.8	844.4	852.3	909.5	1021.2	1050.2
120°	554.1	596.3	619.2	579.6	689.6	782.8	873.4	920.0	907.7	942.9	1063.4
122.5°	577.9	617.5	670.2	576.1	669.4	771.4	876.0	944.7	986.0	954.3	964.0
125°	599.0	629.8	702.8	600.7	628.9	761.7	854.9	964.9	1007.1	1043.2	1015.0
127.5°	613.1	634.2	711.6	640.3	590.2	728.3	831.2	933.2	1023.8	1049.3	1090.7
130°	620.1	636.8	708.9	679.9	561.2	667.6	803.9	884.8	986.9	1062.5	1085.4
132.5°	608.7	622.7	690.5	714.2	569.1	590.2	742.4	846.1	915.6	1030.0	1101.2
135°	587.6	602.5	665.8	724.8	601.6	530.4	653.5	789.0	868.1	942.9	1052.0
137.5°	567.3	581.4	637.7	712.4	644.7	517.2	566.4	708.9	815.4	884.0	949.9
140°	547.1	562.0	606.9	685.2	678.1	548.8	511.0	612.2	734.4	823.3	883.1
142.5°	533.9	548.8	581.4	650.9	695.7	610.4	504.9	527.7	630.6	739.7	817.1
145°	526.9	540.1	562.0	619.2	682.5	655.3	540.1	489.0	537.4	628.0	718.6
147.5°	532.1	540.1	552.4	588.4	659.7	687.8	614.8	518.9	489.9	532.1	602.5
150°	536.5	543.6	555.0	573.5	636.8	681.7	682.5	588.4	518.1	489.9	515.4
152.5°	533.9	544.5	563.8	578.8	621.0	673.7	703.7	672.9	587.6	525.1	494.3
155°	537.4	545.3	563.8	577.9	602.5	651.8	692.2	708.9	682.5	599.0	547.1
157.5°	542.7	549.7	563.8	576.1	591.1	622.7	668.5	701.0	720.4	710.7	640.3
160°	548.0	554.1	566.4	577.9	586.7	605.1	638.6	681.7	709.8	728.3	730.0
162.5°	553.2	557.6	570.0	580.5	588.4	598.1	613.9	643.8	676.4	697.5	717.7
165°	558.5	562.0	571.7	581.4	590.2	594.6	601.6	613.1	632.4	654.4	671.1
167.5°	562.0	563.8	571.7	580.5	587.6	591.9	594.6	599.0	601.6	606.0	613.1
170°	564.7	566.4	571.7	577.9	582.3	586.7	587.6	589.3	590.2	586.7	579.6
172.5°	567.3	568.2	570.8	574.4	577.0	578.8	579.6	577.9	577.9	574.4	566.4
175°	570.0	570.0	571.7	570.8	570.8	570.8	569.1	566.4	562.9	559.4	551.5
177.5°	570.0	570.0	570.8	570.0	568.2	565.6	562.0	555.9	550.6	541.8	534.8
180°	540.9	540.9	540.9	540.9	540.9	540.9	540.9	540.9	540.9	540.9	540.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4	4101.4
2.5°	4137.5	4126.9	4121.6	4130.4	4147.2	4153.3	4141.9	4120.8
5°	4237.8	4243.9	4249.2	4272.1	4293.2	4302.8	4291.4	4273.8
7.5°	4353.9	4367.0	4383.8	4417.2	4451.5	4463.8	4454.1	4444.5
10°	4476.1	4488.4	4505.1	4535.0	4569.3	4582.5	4578.1	4571.1
12.5°	4566.7	4613.3	4655.5	4706.6	4769.0	4784.0	4783.1	4774.3
15°	4700.4	4744.4	4797.2	4859.6	4915.9	4933.5	4934.4	4923.8
17.5°	4798.9	4842.9	4871.0	4921.2	4995.9	5016.2	5010.0	5000.3
20°	4825.3	4880.7	4951.1	5031.1	5098.0	5122.6	5129.6	5128.8
22.5°	4871.0	4946.7	5020.6	5084.8	5138.4	5157.8	5162.2	5156.0
25°	4881.6	4938.8	5015.3	5095.3	5165.7	5197.4	5211.4	5209.7
27.5°	4840.3	4922.9	5027.6	5114.7	5178.9	5206.2	5212.3	5211.4
30°	4815.6	4909.7	5003.9	5068.9	5114.7	5140.2	5151.6	5156.0
32.5°	4763.7	4837.6	4928.2	5007.4	5058.4	5083.0	5094.5	5100.6
35°	4664.3	4758.5	4857.0	4931.7	4971.3	4990.7	4995.1	5005.6
37.5°	4573.7	4671.4	4759.3	4822.7	4862.2	4886.9	4898.3	4908.9
40°	4469.1	4557.9	4652.0	4723.3	4763.7	4783.1	4792.8	4799.8
42.5°	4353.0	4455.0	4550.0	4612.4	4645.0	4665.2	4681.1	4681.9
45°	4246.5	4347.7	4434.8	4500.7	4538.6	4563.2	4579.0	4578.1
47.5°	4142.8	4237.8	4326.6	4393.4	4432.1	4459.4	4474.4	4479.6
50°	4027.5	4126.0	4215.8	4282.6	4324.8	4357.4	4374.1	4381.1
52.5°	3914.1	4010.8	4099.7	4173.5	4222.8	4252.7	4267.7	4272.1
55°	3788.3	3886.8	3973.0	4053.0	4112.9	4151.6	4177.9	4184.1
57.5°	3653.7	3750.5	3851.6	3941.3	4014.3	4067.1	4097.0	4108.5
60°	3508.6	3620.3	3736.4	3841.9	3877.1	3882.4	3856.9	3856.9
62.5°	3376.7	3459.3	3429.4	3311.6	3191.1	3152.4	3129.5	3096.1
65°	3042.4	2846.3	2746.0	2760.1	2779.4	2790.9	2794.4	2790.9
67.5°	2438.2	2422.3	2452.2	2476.0	2485.7	2502.4	2504.1	2503.2
70°	2133.8	2136.5	2169.0	2190.1	2199.8	2213.0	2213.0	2211.2
72.5°	1873.5	1880.5	1902.5	1915.7	1918.3	1921.0	1923.6	1913.9
75°	1612.2	1617.5	1622.8	1630.7	1613.1	1614.9	1601.7	1597.3
77.5°	1353.7	1344.0	1323.7	1304.4	1279.8	1285.0	1269.2	1278.0
80°	1074.0	1066.9	1056.4	1039.6	1022.9	1026.5	1022.9	1027.3
82.5°	892.8	898.0	895.4	895.4	884.0	887.5	876.9	881.3
85°	724.8	714.2	710.7	708.1	699.3	701.0	692.2	696.6
87.5°	602.5	599.0	599.0	599.9	597.2	596.3	590.2	592.8
90°	491.7	489.9	489.9	489.9	489.0	486.4	479.4	482.0
92.5°	437.1	433.6	432.7	432.7	431.9	430.1	425.7	426.6
95°	372.1	373.8	375.6	376.5	376.5	375.6	371.2	373.8
97.5°	330.7	321.0	318.4	315.8	314.0	310.5	308.7	308.7
100°	393.2	379.1	368.5	361.5	355.3	350.1	347.4	342.2
102.5°	587.6	571.7	542.7	509.3	488.2	472.3	469.7	458.3
105°	734.4	732.7	729.2	726.5	723.0	718.6	716.0	702.8
107.5°	847.0	854.9	855.8	855.8	851.4	852.3	851.4	845.3
110°	938.5	962.2	978.1	989.5	992.2	990.4	991.3	984.2



TEST NUMBER: P236576

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L850-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	964.9	1030.0	1062.5	1087.1	1103.0	1110.0	1111.8	1108.3
115°	738.8	839.1	1017.7	1112.7	1160.1	1180.4	1187.4	1185.7
117.5°	991.3	851.4	765.2	766.1	828.6	906.8	971.0	1007.1
120°	1148.7	1147.0	1110.9	1038.8	917.4	825.0	781.9	762.6
122.5°	1066.9	1188.3	1248.1	1271.0	1271.0	1261.3	1258.7	1242.8
125°	985.1	1034.4	1133.8	1242.8	1321.1	1358.1	1373.0	1377.4
127.5°	1083.6	1042.3	1044.0	1073.1	1121.4	1160.1	1199.7	1227.0
130°	1136.4	1180.4	1148.7	1114.4	1098.6	1093.3	1095.1	1097.7
132.5°	1128.5	1159.3	1212.9	1249.0	1243.7	1225.2	1205.0	1190.9
135°	1125.0	1159.3	1182.1	1204.1	1239.3	1261.3	1274.5	1281.5
137.5°	1053.7	1129.4	1176.0	1205.0	1224.4	1228.8	1227.9	1228.8
140°	942.0	1024.7	1107.4	1152.2	1194.5	1222.6	1230.5	1233.2
142.5°	877.8	921.8	978.1	1035.3	1089.8	1135.5	1161.9	1166.3
145°	802.2	854.1	896.3	928.8	954.3	986.0	1022.1	1041.4
147.5°	689.6	763.5	817.1	853.2	879.6	900.7	924.4	931.5
150°	569.1	634.2	693.1	744.1	778.4	800.4	812.7	801.3
152.5°	493.4	524.2	568.2	606.0	630.6	655.3	632.4	620.1
155°	507.5	486.4	486.4	504.0	514.5	493.4	465.3	450.3
157.5°	589.3	545.3	507.5	484.6	461.8	408.1	392.3	388.8
160°	707.2	639.4	597.2	556.8	492.6	458.3	438.0	431.9
162.5°	729.2	729.2	717.7	690.5	625.4	580.5	555.0	546.2
165°	688.7	701.9	710.7	701.0	686.1	669.4	657.9	654.4
167.5°	625.4	642.1	650.9	652.6	663.2	657.9	637.7	634.2
170°	573.5	575.2	580.5	584.9	602.5	608.7	598.1	578.8
172.5°	555.0	548.8	544.5	548.0	561.2	578.8	575.2	576.1
175°	540.1	526.0	519.8	526.9	540.9	566.4	592.8	608.7
177.5°	523.3	505.8	497.8	504.9	519.8	548.0	592.8	606.9
180°	540.9	540.9	540.9	540.9	540.9	540.9	540.9	540.9

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