

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: P236574

Luminaire Tested: **SKB4-LD5-24-W-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236574
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-L835-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) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

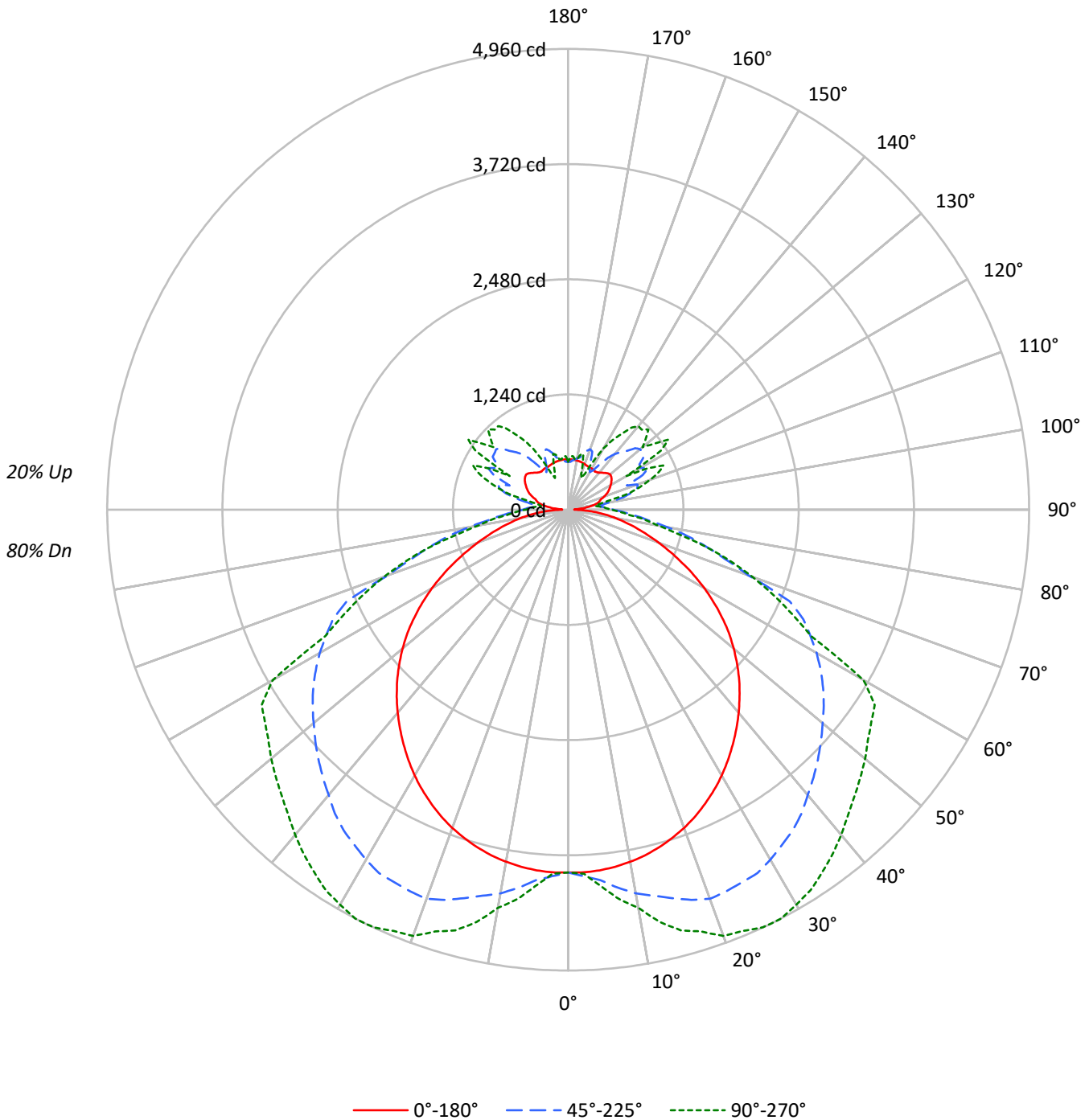
Lumens per Lamp: N/A
Luminaire Lumens: 20648.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.73 / 1.68
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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°	5603	5603	5603
5°	5588	5708	5804
10°	5556	5987	6219
15°	5516	6238	6762
20°	5464	6533	7166
25°	5395	6649	7466
30°	5316	6759	7643
35°	5218	6829	7745
40°	5122	6848	7829
45°	5020	6915	7960
50°	4888	7017	8222
55°	4707	7194	8600
60°	4455	7384	8837
65°	4135	7603	7285
70°	3799	6567	6766
75°	3518	5961	5959
80°	3301	5399	4958
85°	3034	5125	4810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.5	1.9
10°-20°	1214.1	5.9
20°-30°	2001.3	9.7
30°-40°	2554.5	12.4
40°-50°	2823.6	13.7
50°-60°	2855.0	13.8
60°-70°	2368.0	11.5
70°-80°	1505.4	7.3
80°-90°	724.7	3.5
90°-100°	380.7	1.8
100°-110°	628.7	3.0
110°-120°	794.7	3.8
120°-130°	809.2	3.9
130°-140°	678.9	3.3
140°-150°	445.6	2.2
150°-160°	258.2	1.3
160°-170°	167.4	0.8
170°-180°	51.4	0.2
0°-30°	3602.0	17.4
0°-40°	6156.5	29.8
0°-60°	11835.1	57.3
0°-90°	16433.2	79.6
90°-120°	1804.0	8.7
90°-150°	3737.8	18.1
90°-180°	4215.0	20.4
0°-180°	20648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3904	3904	3904	3904	3904	
5°	3896	3951	4002	4055	4068	370
15°	3764	4001	4328	4596	4687	1062
25°	3489	3875	4425	4812	4959	1608
35°	3087	3557	4213	4659	4764	1932
45°	2602	3080	3800	4252	4358	2006
55°	2021	2571	3349	3820	3982	1804
65°	1354	2032	2793	2620	2656	1343
75°	758	1459	1538	1548	1520	807
85°	294	650	722	675	663	285
90°	65	416	485	466	459	51
95°	143	305	354	358	356	141
105°	348	548	700	693	669	364
115°	479	695	884	1014	1128	471
125°	570	662	993	1131	1311	507
135°	559	539	898	1136	1220	433
145°	502	637	598	869	991	319
155°	512	597	570	471	429	237
165°	532	564	623	672	623	150
175°	542	543	532	498	579	52
180°	515	515	515	515	515	



TEST NUMBER: P236574

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8
2.5°	3907.2	3905.5	3917.2	3923.9	3934.0	3944.0	3944.0	3942.4	3942.4	3948.2	3943.2
5°	3896.3	3898.8	3918.1	3929.0	3945.7	3955.8	3957.4	3965.8	3975.8	4001.8	4016.0
7.5°	3876.2	3882.9	3905.5	3916.4	3939.8	3967.5	3998.4	4030.3	4067.9	4103.9	4120.7
10°	3847.8	3858.6	3881.2	3901.3	3946.5	4008.5	4055.4	4093.1	4138.3	4191.8	4227.8
12.5°	3811.8	3826.0	3851.9	3888.8	3965.0	4031.9	4088.0	4146.6	4208.6	4255.5	4291.5
15°	3764.0	3780.8	3811.8	3872.9	3965.0	4037.8	4120.7	4177.6	4241.2	4328.3	4403.7
17.5°	3708.8	3725.5	3767.4	3849.4	3946.5	4039.5	4117.3	4193.5	4304.9	4403.7	4487.4
20°	3645.2	3666.1	3718.0	3809.2	3918.1	4016.0	4109.0	4226.2	4346.7	4457.2	4526.7
22.5°	3573.2	3595.8	3655.2	3756.5	3876.2	3976.7	4106.4	4229.5	4361.8	4446.3	4535.9
25°	3489.4	3513.7	3581.5	3689.5	3813.4	3935.7	4083.8	4219.5	4314.1	4424.6	4548.5
27.5°	3399.9	3421.6	3494.5	3610.8	3741.4	3886.3	4044.5	4150.8	4270.5	4409.5	4515.8
30°	3304.4	3324.5	3402.4	3521.2	3661.1	3823.5	3966.6	4072.1	4228.7	4350.1	4462.3
32.5°	3197.3	3224.9	3299.4	3422.5	3568.1	3737.2	3862.0	4005.1	4152.5	4278.9	4418.7
35°	3086.7	3115.2	3189.7	3317.0	3477.7	3635.9	3760.7	3913.1	4062.1	4212.8	4344.2
37.5°	2972.0	3001.3	3074.2	3208.1	3367.2	3514.5	3663.6	3805.9	3974.2	4122.4	4237.9
40°	2853.2	2881.6	2956.1	3095.1	3255.9	3394.8	3552.2	3703.8	3878.7	4009.3	4139.1
42.5°	2730.1	2757.7	2835.6	2981.3	3129.4	3279.3	3436.7	3603.3	3766.5	3907.2	4033.6
45°	2602.0	2630.5	2712.5	2864.0	2999.7	3160.4	3327.0	3496.1	3658.5	3800.0	3922.3
47.5°	2466.4	2497.4	2582.7	2733.4	2867.4	3038.2	3212.3	3382.3	3548.9	3689.5	3817.6
50°	2324.9	2360.9	2450.5	2599.5	2738.5	2916.8	3094.3	3267.6	3438.4	3574.8	3711.3
52.5°	2178.4	2220.2	2324.1	2464.7	2608.7	2792.9	2976.2	3152.9	3325.3	3466.0	3599.9
55°	2021.0	2071.2	2192.6	2321.5	2478.1	2664.0	2852.3	3034.8	3207.3	3348.8	3481.9
57.5°	1858.6	1918.9	2041.9	2176.7	2342.5	2535.0	2726.7	2912.6	3084.2	3220.7	3357.2
60°	1692.0	1761.5	1886.2	2031.0	2206.0	2402.8	2599.5	2781.2	2949.4	3086.7	3212.3
62.5°	1522.9	1600.7	1737.2	1887.9	2070.4	2267.1	2466.4	2648.9	2806.3	2935.2	3072.5
65°	1353.7	1440.8	1593.2	1745.6	1932.2	2131.5	2324.1	2498.2	2649.7	2792.9	2915.1
67.5°	1189.7	1291.8	1446.7	1607.4	1794.9	1991.7	2175.9	2344.1	2502.4	2578.6	2428.7
70°	1034.8	1150.3	1300.2	1471.0	1658.5	1844.3	2021.8	2190.9	2218.6	2061.2	2020.2
72.5°	890.8	1004.6	1162.9	1339.5	1517.0	1692.0	1870.3	1888.7	1773.2	1770.7	1767.3
75°	757.7	871.5	1033.9	1208.1	1371.3	1546.3	1578.1	1527.9	1533.7	1537.9	1531.2
77.5°	634.6	748.5	910.9	1071.6	1231.5	1294.3	1285.1	1311.9	1317.7	1316.1	1302.7
80°	517.4	628.7	781.9	934.3	1018.9	1041.5	1085.8	1110.1	1105.1	1080.8	1039.8
82.5°	404.4	508.2	649.7	751.0	798.7	857.3	892.5	895.0	883.2	867.3	851.4
85°	293.9	382.6	488.1	565.1	627.9	673.1	715.0	739.2	738.4	721.7	699.9
87.5°	178.3	242.8	333.2	421.1	492.3	544.2	581.0	601.1	601.9	592.7	578.5
90°	65.3	128.9	230.2	319.0	391.0	440.4	476.4	491.4	490.6	484.7	471.3
92.5°	64.5	108.8	193.4	268.7	326.5	375.9	411.9	432.0	435.3	430.3	419.4
95°	143.2	161.6	211.0	255.3	291.3	319.0	339.9	348.3	349.9	354.1	352.5
97.5°	206.8	226.9	268.7	318.1	358.3	382.6	378.4	366.7	355.8	340.7	327.3
100°	268.7	294.7	329.9	381.8	431.2	465.5	486.4	499.0	483.1	441.2	401.9
102.5°	324.0	358.3	396.8	443.7	492.3	534.1	568.5	593.6	601.1	596.9	587.7
105°	348.3	391.0	424.5	484.7	535.0	560.1	601.1	659.7	693.2	699.9	702.4
107.5°	366.7	419.4	453.8	518.2	580.2	623.7	616.2	655.5	738.4	779.4	801.2
110°	410.2	463.8	488.9	553.4	625.4	652.2	714.1	684.0	667.2	795.3	860.6



TEST NUMBER: P236574

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L835-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°	449.6	490.6	512.4	567.6	647.2	694.0	733.4	808.7	775.2	680.6	755.2
115°	478.9	516.5	529.1	569.3	653.9	735.9	757.7	807.9	895.0	884.1	780.3
117.5°	504.0	543.3	555.1	562.6	653.0	745.1	803.7	811.2	865.7	972.0	999.6
120°	527.4	567.6	589.4	551.7	656.4	745.1	831.3	875.7	864.0	897.5	1012.2
122.5°	550.0	587.7	637.9	548.4	637.1	734.2	833.8	899.1	938.5	908.4	917.6
125°	570.1	599.4	668.9	571.8	598.6	725.0	813.8	918.4	958.6	992.9	966.1
127.5°	583.5	603.6	677.3	609.5	561.8	693.2	791.2	888.3	974.5	998.8	1038.1
130°	590.2	606.1	674.8	647.2	534.1	635.4	765.2	842.2	939.3	1011.3	1033.1
132.5°	579.3	592.7	657.2	679.8	541.7	561.8	706.6	805.4	871.5	980.4	1048.2
135°	559.2	573.5	633.8	689.8	572.6	504.8	622.0	751.0	826.3	897.5	1001.3
137.5°	540.0	553.4	607.0	678.1	613.7	492.3	539.2	674.8	776.1	841.4	904.2
140°	520.7	535.0	577.7	652.2	645.5	522.4	486.4	582.7	699.1	783.6	840.5
142.5°	508.2	522.4	553.4	619.5	662.2	581.0	480.6	502.3	600.3	704.1	777.8
145°	501.5	514.0	535.0	589.4	649.7	623.7	514.0	465.5	511.5	597.8	684.0
147.5°	506.5	514.0	525.8	560.1	627.9	654.7	585.2	493.9	466.3	506.5	573.5
150°	510.7	517.4	528.3	545.9	606.1	648.8	649.7	560.1	493.1	466.3	490.6
152.5°	508.2	518.2	536.6	550.9	591.1	641.3	669.8	640.5	559.2	499.8	470.5
155°	511.5	519.1	536.6	550.0	573.5	620.4	658.9	674.8	649.7	570.1	520.7
157.5°	516.5	523.2	536.6	548.4	562.6	592.7	636.3	667.2	685.7	676.5	609.5
160°	521.6	527.4	539.2	550.0	558.4	576.0	607.8	648.8	675.6	693.2	694.9
162.5°	526.6	530.8	542.5	552.5	560.1	569.3	584.4	612.8	643.8	663.9	683.2
165°	531.6	535.0	544.2	553.4	561.8	565.9	572.6	583.5	601.9	622.9	638.8
167.5°	535.0	536.6	544.2	552.5	559.2	563.4	565.9	570.1	572.6	576.8	583.5
170°	537.5	539.2	544.2	550.0	554.2	558.4	559.2	560.9	561.8	558.4	551.7
172.5°	540.0	540.8	543.3	546.7	549.2	550.9	551.7	550.0	550.0	546.7	539.2
175°	542.5	542.5	544.2	543.3	543.3	543.3	541.7	539.2	535.8	532.5	524.9
177.5°	542.5	542.5	543.3	542.5	540.8	538.3	535.0	529.1	524.1	515.7	509.0
180°	514.9	514.9	514.9	514.9	514.9	514.9	514.9	514.9	514.9	514.9	514.9



TEST NUMBER: P236574

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8	3903.8
2.5°	3938.2	3928.1	3923.1	3931.5	3947.4	3953.2	3942.4	3922.3
5°	4033.6	4039.5	4044.5	4066.3	4086.4	4095.6	4084.7	4067.9
7.5°	4144.1	4156.7	4172.6	4204.4	4237.0	4248.8	4239.6	4230.4
10°	4260.5	4272.2	4288.1	4316.6	4349.2	4361.8	4357.6	4350.9
12.5°	4346.7	4391.1	4431.3	4479.8	4539.3	4553.5	4552.7	4544.3
15°	4474.0	4515.8	4566.1	4625.5	4679.1	4695.8	4696.7	4686.6
17.5°	4567.7	4609.6	4636.4	4684.1	4755.3	4774.5	4768.7	4759.5
20°	4592.9	4645.6	4712.6	4788.8	4852.4	4875.8	4882.5	4881.7
22.5°	4636.4	4708.4	4778.7	4839.8	4890.9	4909.3	4913.5	4907.6
25°	4646.4	4700.9	4773.7	4849.9	4916.9	4947.0	4960.4	4958.7
27.5°	4607.1	4685.8	4785.4	4868.3	4929.4	4955.4	4961.2	4960.4
30°	4583.6	4673.2	4762.8	4824.8	4868.3	4892.6	4903.5	4907.6
32.5°	4534.3	4604.6	4690.8	4766.2	4814.7	4838.2	4849.0	4854.9
35°	4439.7	4529.2	4623.0	4694.2	4731.8	4750.3	4754.4	4764.5
37.5°	4353.4	4446.3	4530.1	4590.3	4628.0	4651.5	4662.3	4672.4
40°	4253.8	4338.3	4427.9	4495.7	4534.3	4552.7	4561.9	4568.6
42.5°	4143.3	4240.4	4330.8	4390.3	4421.2	4440.5	4455.6	4456.4
45°	4042.0	4138.3	4221.1	4283.9	4319.9	4343.4	4358.4	4357.6
47.5°	3943.2	4033.6	4118.2	4181.8	4218.6	4244.6	4258.8	4263.8
50°	3833.5	3927.3	4012.7	4076.3	4116.5	4147.5	4163.4	4170.1
52.5°	3725.5	3817.6	3902.2	3972.5	4019.4	4047.8	4062.1	4066.3
55°	3605.8	3699.6	3781.6	3857.8	3914.7	3951.6	3976.7	3982.5
57.5°	3477.7	3569.8	3666.1	3751.5	3821.0	3871.2	3899.7	3910.5
60°	3339.6	3445.9	3556.4	3656.9	3690.4	3695.4	3671.1	3671.1
62.5°	3214.0	3292.7	3264.2	3152.0	3037.3	3000.5	2978.7	2946.9
65°	2895.9	2709.2	2613.7	2627.1	2645.5	2656.4	2659.8	2656.4
67.5°	2320.7	2305.6	2334.1	2356.7	2365.9	2381.8	2383.5	2382.7
70°	2031.0	2033.5	2064.5	2084.6	2093.8	2106.4	2106.4	2104.7
72.5°	1783.2	1789.9	1810.9	1823.4	1825.9	1828.4	1830.9	1821.7
75°	1534.6	1539.6	1544.6	1552.2	1535.4	1537.1	1524.5	1520.3
77.5°	1288.4	1279.2	1260.0	1241.6	1218.1	1223.1	1208.1	1216.4
80°	1022.2	1015.5	1005.5	989.6	973.7	977.0	973.7	977.8
82.5°	849.8	854.8	852.3	852.3	841.4	844.7	834.7	838.9
85°	689.8	679.8	676.5	673.9	665.6	667.2	658.9	663.1
87.5°	573.5	570.1	570.1	571.0	568.5	567.6	561.8	564.3
90°	468.0	466.3	466.3	466.3	465.5	463.0	456.3	458.8
92.5°	416.1	412.7	411.9	411.9	411.1	409.4	405.2	406.0
95°	354.1	355.8	357.5	358.3	358.3	357.5	353.3	355.8
97.5°	314.8	305.6	303.1	300.6	298.9	295.5	293.9	293.9
100°	374.2	360.8	350.8	344.1	338.2	333.2	330.7	325.7
102.5°	559.2	544.2	516.5	484.7	464.6	449.6	447.1	436.2
105°	699.1	697.4	694.0	691.5	688.2	684.0	681.5	668.9
107.5°	806.2	813.8	814.6	814.6	810.4	811.2	810.4	804.5
110°	893.3	915.9	931.0	941.8	944.4	942.7	943.5	936.8



TEST NUMBER: P236574

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L835-CD4-U outer 2 blades vertical inner 2 blades

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	918.4	980.4	1011.3	1034.8	1049.8	1056.5	1058.2	1054.9
115°	703.2	798.7	968.6	1059.1	1104.3	1123.5	1130.2	1128.5
117.5°	943.5	810.4	728.4	729.2	788.6	863.1	924.3	958.6
120°	1093.4	1091.7	1057.4	988.7	873.2	785.3	744.3	725.8
122.5°	1015.5	1131.1	1188.0	1209.7	1209.7	1200.5	1198.0	1183.0
125°	937.7	984.5	1079.1	1183.0	1257.5	1292.6	1306.9	1311.0
127.5°	1031.4	992.1	993.8	1021.4	1067.4	1104.3	1141.9	1167.9
130°	1081.7	1123.5	1093.4	1060.7	1045.7	1040.6	1042.3	1044.8
132.5°	1074.1	1103.4	1154.5	1188.8	1183.8	1166.2	1147.0	1133.6
135°	1070.8	1103.4	1125.2	1146.1	1179.6	1200.5	1213.1	1219.8
137.5°	1003.0	1075.0	1119.3	1147.0	1165.4	1169.6	1168.7	1169.6
140°	896.6	975.3	1054.0	1096.7	1136.9	1163.7	1171.2	1173.7
142.5°	835.5	877.4	931.0	985.4	1037.3	1080.8	1105.9	1110.1
145°	763.5	812.9	853.1	884.1	908.4	938.5	972.8	991.2
147.5°	656.4	726.7	777.8	812.1	837.2	857.3	879.9	886.6
150°	541.7	603.6	659.7	708.3	740.9	761.8	773.6	762.7
152.5°	469.7	499.0	540.8	576.8	600.3	623.7	601.9	590.2
155°	483.1	463.0	463.0	479.7	489.8	469.7	442.9	428.6
157.5°	560.9	519.1	483.1	461.3	439.5	388.5	373.4	370.0
160°	673.1	608.6	568.5	529.9	468.8	436.2	416.9	411.1
162.5°	694.0	694.0	683.2	657.2	595.2	552.5	528.3	519.9
165°	655.5	668.1	676.5	667.2	653.0	637.1	626.2	622.9
167.5°	595.2	611.2	619.5	621.2	631.2	626.2	607.0	603.6
170°	545.9	547.5	552.5	556.7	573.5	579.3	569.3	550.9
172.5°	528.3	522.4	518.2	521.6	534.1	550.9	547.5	548.4
175°	514.0	500.6	494.8	501.5	514.9	539.2	564.3	579.3
177.5°	498.1	481.4	473.9	480.6	494.8	521.6	564.3	577.7
180°	514.9	514.9	514.9	514.9	514.9	514.9	514.9	514.9

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