

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: P236552

Luminaire Tested: **SKB4-LD5-24-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236552
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-LD5-24-W-UNV-L850-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) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

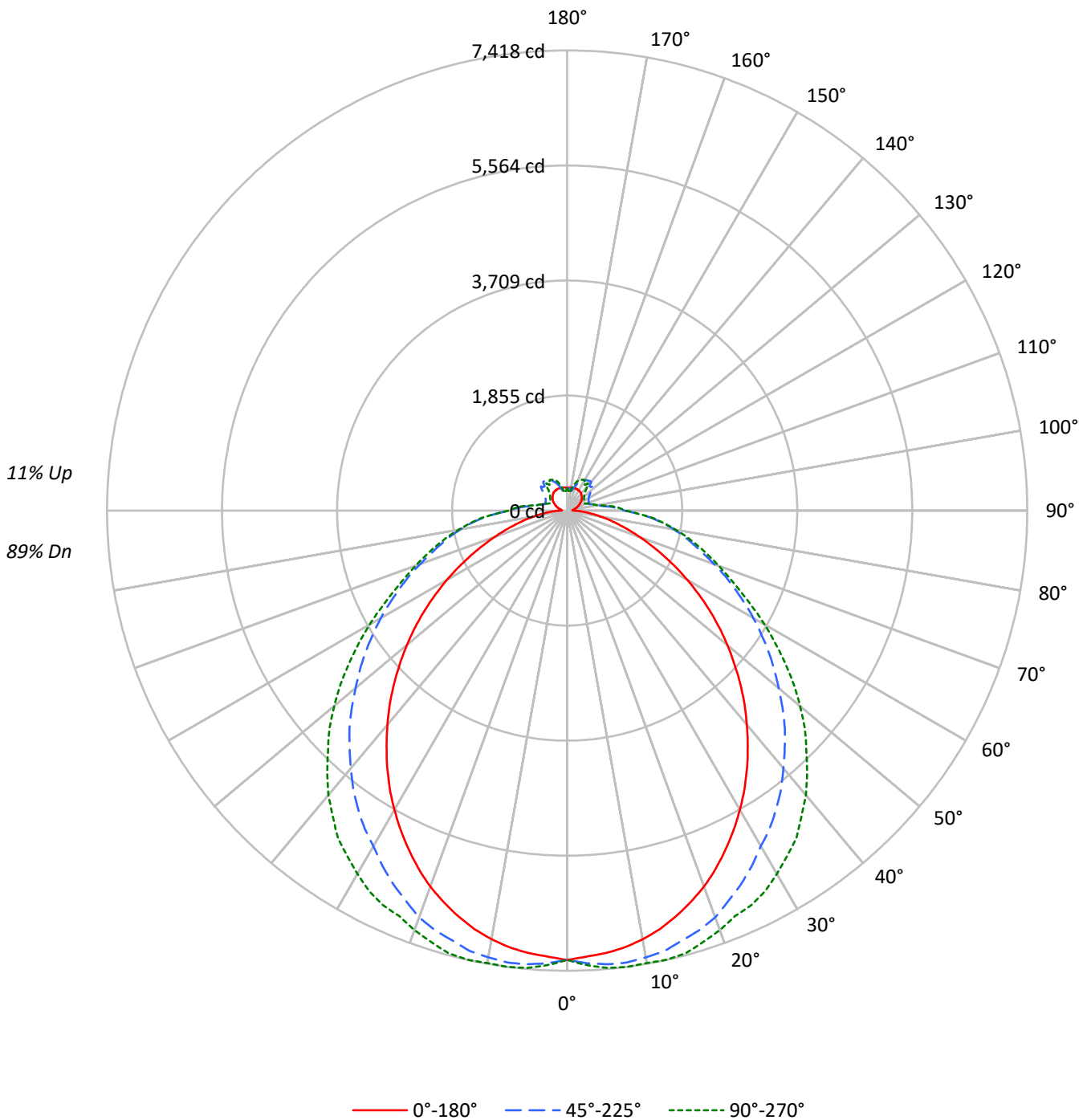
Lumens per Lamp: N/A
Luminaire Lumens: 25274.0 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.38 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 206.2
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	10396	10396	10396
5°	10269	10471	10559
10°	10132	10444	10588
15°	9924	10334	10659
20°	9667	10227	10564
25°	9332	9976	10568
30°	8959	9704	10530
35°	8547	9524	10474
40°	8090	9264	10259
45°	7609	9032	9960
50°	7089	8736	9665
55°	6516	8512	9260
60°	5893	8294	8854
65°	5221	8119	8450
70°	4569	8031	8347
75°	3977	8172	8526
80°	3445	8739	8994
85°	2987	9737	10093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	697.5	2.8
10°-20°	2016.5	8.0
20°-30°	3040.4	12.0
30°-40°	3634.4	14.4
40°-50°	3726.3	14.7
50°-60°	3364.4	13.3
60°-70°	2700.4	10.7
70°-80°	1989.4	7.9
80°-90°	1273.5	5.0
90°-100°	651.2	2.6
100°-110°	398.1	1.6
110°-120°	357.8	1.4
120°-130°	369.8	1.5
130°-140°	368.9	1.5
140°-150°	318.2	1.3
150°-160°	222.0	0.9
160°-170°	111.9	0.4
170°-180°	33.4	0.1
0°-30°	5754.4	22.8
0°-40°	9388.8	37.1
0°-60°	16479.5	65.2
0°-90°	22442.8	88.8
90°-120°	1407.1	5.6
90°-150°	2463.9	9.7
90°-180°	2831.0	11.2
0°-180°	25274.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7244	7244	7244	7244	7244	
5°	7160	7291	7342	7381	7400	679
15°	6772	7018	7170	7326	7387	1908
25°	6036	6315	6639	6874	7020	2778
35°	5056	5374	5875	6272	6444	3159
45°	3944	4334	4963	5341	5452	3041
55°	2798	3312	3962	4223	4288	2503
65°	1709	2404	2982	3068	3081	1703
75°	857	1690	2108	2165	2175	918
85°	289	1075	1371	1390	1391	289
90°	95	708	920	942	936	64
95°	99	481	697	750	752	82
105°	143	352	395	414	407	152
115°	210	446	382	331	305	209
125°	281	550	438	365	332	250
135°	331	530	537	459	402	255
145°	368	461	589	518	508	229
155°	379	361	522	561	549	175
165°	379	359	363	429	430	108
175°	374	370	359	346	318	36
180°	359	359	359	359	359	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9
2.5°	7195.5	7225.4	7236.9	7269.4	7282.6	7286.1	7294.9	7300.2	7293.2	7302.8	7293.2
5°	7160.4	7197.3	7220.2	7266.8	7286.1	7296.7	7314.3	7324.8	7325.7	7341.5	7338.0
7.5°	7102.3	7144.5	7180.6	7229.8	7254.5	7272.9	7299.3	7320.4	7335.4	7348.6	7342.4
10°	7016.1	7068.0	7110.2	7162.1	7196.4	7229.8	7264.1	7272.1	7285.3	7312.5	7329.2
12.5°	6909.7	6966.0	7008.2	7068.9	7117.3	7147.2	7176.2	7206.1	7241.3	7270.3	7271.2
15°	6772.5	6840.2	6881.5	6951.9	7004.7	7031.1	7083.8	7119.9	7134.9	7170.0	7208.7
17.5°	6618.6	6688.9	6732.0	6809.4	6858.7	6903.5	6965.1	6971.3	7032.8	7091.8	7137.5
20°	6449.7	6513.0	6557.0	6643.2	6695.1	6744.3	6792.7	6842.0	6924.6	6977.4	7007.3
22.5°	6254.4	6315.1	6374.9	6451.5	6509.5	6544.7	6631.8	6700.4	6768.1	6806.8	6855.2
25°	6036.3	6097.9	6155.0	6236.8	6287.0	6342.4	6461.1	6514.8	6570.2	6638.8	6694.2
27.5°	5811.1	5863.9	5927.2	6001.1	6055.7	6148.0	6256.2	6293.1	6378.4	6451.5	6497.2
30°	5568.4	5615.0	5674.8	5749.6	5816.4	5931.6	6015.2	6074.1	6167.4	6245.6	6346.8
32.5°	5320.4	5362.6	5413.6	5479.6	5575.4	5685.4	5772.4	5852.5	5952.7	6076.8	6183.2
35°	5056.5	5097.0	5140.9	5208.7	5324.8	5424.1	5529.7	5616.8	5752.2	5875.4	5989.7
37.5°	4783.0	4825.2	4861.2	4943.9	5062.7	5171.7	5280.8	5394.2	5530.6	5665.1	5760.1
40°	4506.8	4549.0	4579.8	4674.8	4797.9	4918.4	5037.1	5162.9	5304.5	5423.3	5533.2
42.5°	4230.6	4268.4	4303.6	4411.8	4529.6	4661.6	4793.5	4924.6	5057.4	5191.1	5313.3
45°	3943.9	3986.1	4020.4	4141.8	4259.6	4407.4	4542.8	4680.1	4810.2	4963.3	5055.6
47.5°	3657.1	3701.1	3739.8	3874.4	4001.0	4156.7	4288.7	4425.9	4572.7	4708.2	4802.3
50°	3372.2	3414.4	3466.3	3607.0	3735.4	3898.1	4036.2	4184.0	4329.1	4450.5	4557.8
52.5°	3086.3	3130.3	3196.3	3340.5	3478.6	3646.6	3789.1	3946.5	4077.6	4208.6	4299.2
55°	2797.8	2846.2	2929.8	3074.0	3229.7	3395.0	3549.0	3703.8	3837.4	3962.3	4039.7
57.5°	2514.6	2567.4	2665.9	2818.1	2982.5	3152.3	3322.9	3469.8	3603.5	3712.6	3787.3
60°	2238.4	2296.5	2407.3	2570.0	2746.8	2923.6	3093.4	3248.2	3366.0	3467.2	3515.5
62.5°	1968.4	2033.5	2154.0	2334.3	2518.1	2704.6	2884.9	3028.3	3131.2	3220.9	3262.2
65°	1709.0	1781.1	1914.8	2110.9	2307.9	2500.5	2681.7	2807.5	2904.3	2982.5	3014.2
67.5°	1468.0	1546.2	1699.3	1905.1	2114.4	2312.3	2478.6	2596.4	2685.2	2753.0	2773.2
70°	1244.6	1327.2	1497.9	1716.9	1938.5	2127.6	2280.7	2396.8	2470.6	2520.8	2527.8
72.5°	1039.6	1125.8	1317.6	1548.0	1772.3	1944.7	2095.1	2197.1	2263.9	2299.1	2318.5
75°	856.7	946.4	1159.2	1399.4	1607.8	1773.2	1912.1	1998.3	2066.9	2108.3	2126.7
77.5°	692.2	788.1	1021.1	1256.0	1451.2	1604.3	1728.3	1822.4	1898.9	1931.5	1942.0
80°	540.0	650.9	898.9	1119.7	1299.1	1438.9	1571.7	1665.0	1729.2	1749.4	1753.8
82.5°	403.7	530.4	777.5	980.7	1147.8	1299.1	1417.8	1496.1	1550.6	1562.9	1565.6
85°	289.4	423.9	657.0	847.9	1009.7	1139.9	1248.1	1314.0	1360.7	1371.2	1370.3
87.5°	196.1	336.0	548.8	714.2	854.0	971.9	1062.5	1117.9	1155.7	1140.8	1140.8
90°	95.0	263.9	430.1	555.9	657.0	758.2	825.0	875.1	907.7	920.0	922.6
92.5°	83.6	203.2	344.8	456.5	552.4	653.5	726.5	779.3	813.6	827.7	830.3
95°	99.4	164.5	263.9	350.1	438.9	522.4	580.5	624.5	669.3	696.6	711.6
97.5°	102.9	167.1	243.6	299.0	358.9	438.0	493.4	532.1	555.0	562.0	561.1
100°	112.6	194.4	251.5	296.4	332.5	368.5	423.9	466.2	490.8	499.6	499.6
102.5°	127.5	215.5	283.2	307.8	333.3	359.7	373.8	405.5	433.6	445.9	449.4
105°	143.4	224.3	329.8	324.6	343.0	360.6	375.6	380.0	382.6	394.9	402.0
107.5°	160.1	230.4	350.9	361.5	353.6	368.5	376.4	381.7	380.8	364.1	359.7
110°	177.7	235.7	358.0	402.8	379.1	379.1	384.4	386.1	380.8	373.8	359.7



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CATALOG NUMBER: SKB4-LD5-24-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	193.5	238.4	362.4	436.3	428.3	397.6	393.2	392.3	386.1	375.6	363.3
115°	210.2	240.1	364.1	453.8	460.0	432.7	409.0	402.8	393.2	381.7	367.6
117.5°	227.8	240.1	365.0	458.2	482.9	493.4	437.1	416.0	403.7	391.4	374.7
120°	246.3	241.0	363.3	462.6	528.6	510.1	483.7	440.7	417.8	402.0	385.2
122.5°	263.9	248.9	361.5	464.4	529.5	517.2	548.8	479.4	438.9	416.0	398.4
125°	280.6	260.3	359.7	463.5	529.5	569.9	528.6	548.8	473.2	438.0	415.1
127.5°	296.4	273.5	355.3	457.4	526.8	574.3	539.2	555.0	537.4	474.1	438.0
130°	307.8	290.2	346.5	444.2	519.8	568.2	592.8	533.0	569.1	540.0	475.8
132.5°	318.4	303.4	333.3	433.6	512.8	563.8	592.8	566.4	539.2	574.3	545.3
135°	330.7	318.4	317.5	422.2	502.2	556.8	585.8	606.0	545.3	537.4	570.8
137.5°	342.1	331.6	313.1	410.7	487.3	547.1	577.9	598.1	607.8	535.6	533.0
140°	351.8	343.9	313.1	396.7	469.7	533.9	566.4	587.5	600.7	603.4	533.9
142.5°	362.4	354.5	314.9	378.2	451.2	514.5	553.2	575.2	590.2	599.0	602.5
145°	367.6	360.6	331.6	349.2	431.0	490.8	534.8	561.1	579.6	589.3	594.6
147.5°	370.3	365.0	344.8	336.0	409.0	466.2	513.7	545.3	566.4	579.6	585.8
150°	372.9	369.4	354.5	328.1	382.6	442.4	489.0	524.2	549.7	565.5	573.5
152.5°	377.3	373.8	363.3	326.3	351.8	417.8	462.6	497.8	526.8	547.1	558.5
155°	379.1	376.4	368.5	347.4	336.0	386.1	433.6	467.0	496.9	521.6	537.4
157.5°	380.8	379.1	372.9	358.9	329.8	350.9	401.1	436.3	464.4	489.9	508.4
160°	380.0	379.1	374.7	365.9	345.7	331.6	356.2	400.2	429.2	453.0	470.6
162.5°	380.0	379.1	375.6	369.4	358.0	330.7	334.2	352.7	389.6	415.1	431.9
165°	379.1	379.1	376.4	372.0	365.0	353.6	328.9	328.1	343.0	363.3	387.0
167.5°	379.1	379.1	377.3	373.8	369.4	363.3	354.5	340.4	324.6	328.1	336.0
170°	377.3	378.2	376.4	373.8	371.2	366.8	362.4	356.2	347.4	337.7	319.3
172.5°	375.6	376.4	376.4	374.7	372.0	369.4	366.8	363.3	357.1	353.6	347.4
175°	373.8	374.7	374.7	373.8	371.2	368.5	367.6	365.0	360.6	358.9	355.3
177.5°	372.0	372.0	372.9	372.0	371.2	369.4	368.5	366.8	362.4	361.5	358.0
180°	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9	7243.9
2.5°	7287.0	7317.8	7316.9	7300.2	7316.9	7336.3	7325.7	7335.4
5°	7340.7	7381.1	7387.3	7375.0	7389.0	7405.8	7390.8	7400.5
7.5°	7344.2	7378.5	7386.4	7376.7	7402.2	7426.0	7411.0	7418.1
10°	7349.5	7389.0	7399.6	7384.6	7400.5	7413.7	7396.1	7407.5
12.5°	7276.5	7329.2	7360.0	7365.3	7395.2	7417.2	7402.2	7414.6
15°	7241.3	7295.8	7322.2	7329.2	7362.7	7386.4	7371.5	7387.3
17.5°	7170.9	7208.7	7216.7	7214.9	7252.7	7282.6	7277.3	7293.2
20°	7031.9	7083.0	7120.8	7128.7	7164.8	7189.4	7175.3	7196.4
22.5°	6908.8	6961.6	6973.9	6978.3	7028.4	7060.1	7058.3	7075.0
25°	6735.5	6788.3	6852.5	6895.6	6953.7	6991.5	7001.2	7019.6
27.5°	6588.7	6674.0	6751.4	6793.6	6852.5	6890.3	6904.4	6914.1
30°	6450.6	6540.3	6609.8	6654.6	6705.6	6735.5	6747.0	6761.9
32.5°	6281.7	6373.2	6433.0	6469.0	6520.1	6558.8	6583.4	6599.2
35°	6077.6	6162.1	6242.1	6302.8	6360.0	6398.7	6413.6	6443.5
37.5°	5856.0	5973.0	6055.7	6097.0	6130.4	6162.1	6179.7	6206.1
40°	5653.7	5752.2	5809.4	5851.6	5896.5	5937.8	5959.8	5986.2
42.5°	5407.4	5492.7	5571.9	5622.0	5660.7	5695.9	5710.9	5725.8
45°	5152.4	5253.5	5322.1	5360.8	5384.6	5421.5	5444.4	5452.3
47.5°	4907.9	4991.4	5046.8	5094.3	5126.9	5163.8	5184.0	5197.2
50°	4646.6	4719.6	4783.8	4826.9	4846.3	4870.9	4884.1	4901.7
52.5°	4380.1	4461.9	4501.5	4527.0	4546.4	4574.5	4588.6	4606.2
55°	4117.1	4167.3	4206.9	4238.5	4257.9	4279.0	4291.3	4287.8
57.5°	3833.9	3891.1	3925.4	3943.9	3955.3	3969.4	3972.9	3982.6
60°	3567.4	3607.9	3629.9	3646.6	3651.9	3663.3	3667.7	3678.3
62.5°	3302.7	3332.6	3344.0	3356.3	3363.4	3361.6	3362.5	3369.5
65°	3036.2	3060.8	3065.2	3070.5	3074.9	3076.6	3078.4	3081.0
67.5°	2781.1	2800.5	2806.6	2821.6	2827.7	2824.2	2824.2	2826.9
70°	2544.5	2563.0	2570.0	2581.5	2590.3	2590.3	2592.9	2596.4
72.5°	2328.2	2349.3	2363.3	2370.4	2382.7	2383.6	2383.6	2382.7
75°	2136.4	2152.2	2162.8	2168.1	2180.4	2179.5	2178.6	2175.1
77.5°	1945.6	1957.9	1970.2	1969.3	1981.6	1981.6	1979.0	1976.3
80°	1753.8	1767.9	1773.2	1771.4	1782.8	1781.1	1780.2	1774.0
82.5°	1556.8	1569.1	1574.4	1574.4	1584.9	1583.2	1582.3	1577.0
85°	1367.7	1375.6	1390.6	1389.7	1396.7	1396.7	1395.8	1391.4
87.5°	1122.3	1128.5	1133.7	1132.0	1137.2	1140.8	1137.2	1134.6
90°	923.5	929.7	941.1	943.8	948.1	943.8	942.9	935.8
92.5°	833.8	840.0	849.6	853.2	855.8	854.9	855.8	851.4
95°	722.1	733.5	748.5	752.0	756.4	755.5	758.2	752.0
97.5°	562.9	574.3	594.6	606.9	610.4	611.3	615.7	608.6
100°	499.6	502.2	505.7	504.0	503.1	501.3	500.5	495.2
102.5°	450.3	453.0	456.5	456.5	454.7	453.8	452.1	447.7
105°	405.5	409.9	413.4	414.3	413.4	412.5	410.7	407.2
107.5°	363.3	366.8	372.0	372.9	372.9	373.8	372.9	367.6
110°	339.5	333.3	335.1	335.1	335.1	336.0	334.2	329.8



TEST NUMBER: P236552

CATALOG NUMBER: SKB4-LD5-24-W-UNV-L850-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	352.7	340.4	324.6	312.2	307.8	307.0	304.3	299.9
115°	353.6	343.0	335.1	327.2	321.9	316.6	309.6	305.2
117.5°	361.5	348.3	337.7	328.9	324.6	320.2	314.9	310.5
120°	371.2	356.2	345.7	336.0	329.8	323.7	317.5	313.1
122.5°	383.5	369.4	356.2	344.8	337.7	331.6	325.4	321.0
125°	398.4	382.6	370.3	359.7	350.9	343.9	336.9	331.6
127.5°	416.0	399.3	386.1	373.8	364.1	356.2	348.3	343.9
130°	441.5	421.3	406.3	391.4	380.8	372.0	364.1	358.0
132.5°	482.0	453.8	432.7	413.4	402.0	392.3	382.6	376.4
135°	564.7	502.2	470.6	447.7	431.9	418.7	408.1	402.0
137.5°	566.4	580.5	549.7	495.2	474.1	458.2	445.0	438.9
140°	529.5	547.1	570.8	574.3	570.8	541.8	523.3	517.2
142.5°	540.0	515.4	529.5	540.0	555.9	558.5	554.1	551.5
145°	599.0	577.9	527.7	509.3	510.1	516.3	512.8	507.5
147.5°	591.1	593.7	594.6	582.3	543.6	518.9	505.7	499.6
150°	581.4	584.9	586.7	586.7	584.9	581.4	574.3	569.1
152.5°	567.3	573.5	577.0	577.9	577.0	572.6	564.7	560.3
155°	548.8	555.9	560.3	562.0	562.9	560.3	553.2	548.8
157.5°	523.3	534.8	540.9	543.6	544.4	542.7	537.4	533.9
160°	489.0	502.2	511.9	515.4	518.9	518.9	514.5	511.0
162.5°	448.6	462.6	473.2	478.5	482.0	483.7	479.4	478.5
165°	405.5	417.8	426.6	431.0	434.5	436.3	432.7	430.1
167.5°	345.7	362.4	375.6	380.8	384.4	384.4	381.7	381.7
170°	318.4	321.0	321.9	321.9	320.2	318.4	314.9	313.1
172.5°	342.1	339.5	332.5	323.7	314.9	304.3	296.4	287.6
175°	351.8	351.8	348.3	343.0	336.9	330.7	323.7	317.5
177.5°	355.3	356.2	353.6	349.2	343.9	337.7	328.9	324.6
180°	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9

(END OF REPORT)