

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: P236565

Luminaire Tested: **SKB4-LD5-30-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236565
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24077)
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-L835-CD4-U outer 2 blades tilted out 20 degrees
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE
4 BLADES WITH WIDE DISTRIBUTION LENS, OUTER 2 BLADES TILTED OUT 20 DEGREES
Light Source: (952) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

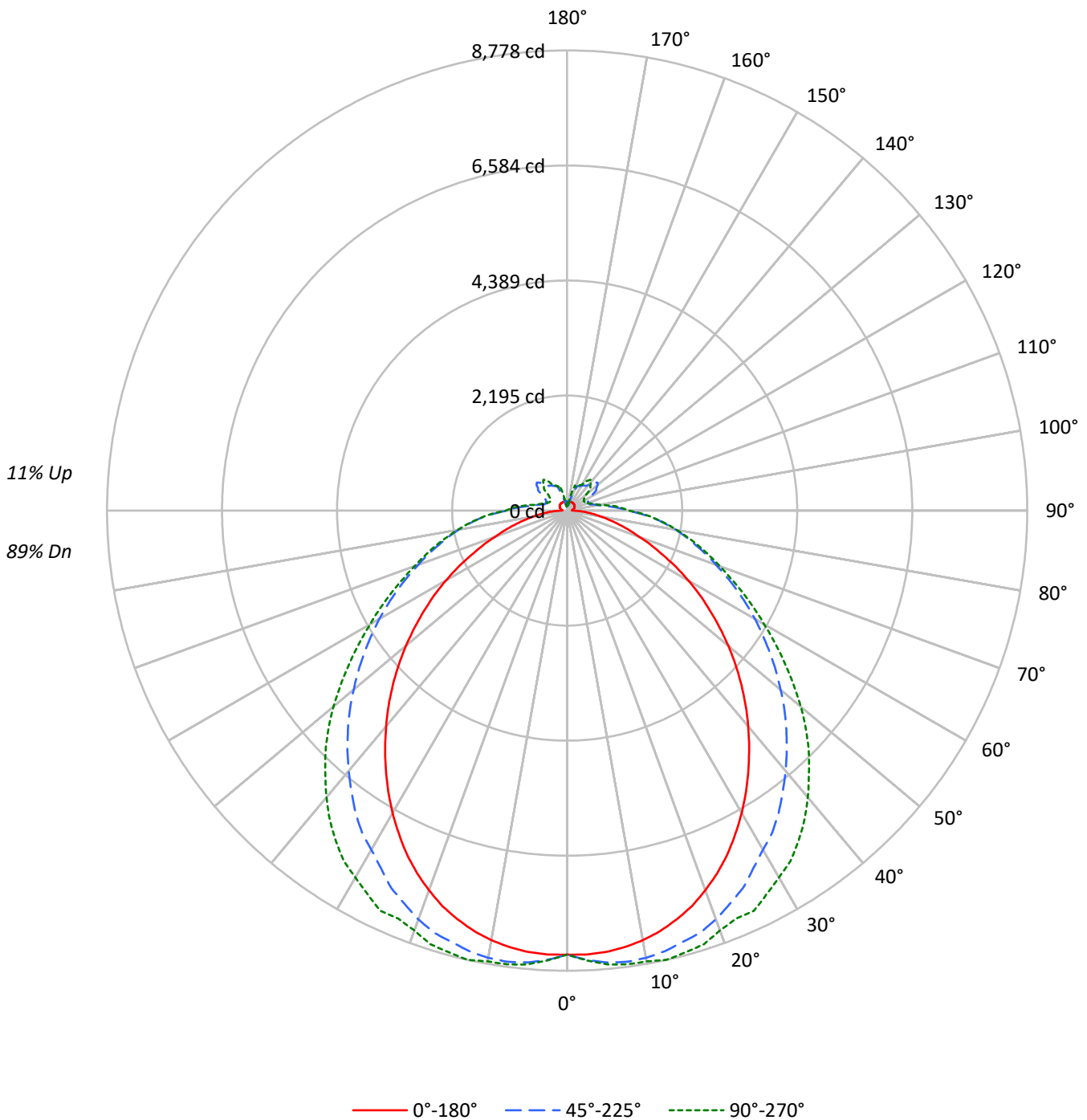
Lumens per Lamp: N/A
Luminaire Lumens: 30015.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.4 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Semi-Direct

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	0
RCR																		
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	92	92	92	89
1	105	99	95	90	101	96	92	88	90	86	83	84	81	79	79	77	74	72
2	95	86	79	73	91	83	76	71	78	72	68	73	68	64	68	65	61	59
3	86	75	67	60	83	73	65	59	68	62	56	64	59	54	60	56	52	49
4	79	66	57	51	76	64	56	50	61	53	48	57	51	46	54	49	44	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	48	43	38	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	31
7	62	48	39	33	60	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	39	32	28	37	31	27	25
9	54	40	32	27	52	39	32	26	37	30	26	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12157	12157	12157
5°	12123	12341	12399
10°	12014	12373	12480
15°	11831	12276	12586
20°	11551	12161	12508
25°	11186	11936	12686
30°	10714	11606	12583
35°	10193	11404	12506
40°	9644	11071	12240
45°	9067	10760	11912
50°	8436	10431	11477
55°	7748	10132	10940
60°	7032	9899	10448
65°	6183	9698	10119
70°	5398	9635	9954
75°	4755	9830	10178
80°	4185	10508	10743
85°	3736	11759	12104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	822.7	2.7
10°-20°	2396.7	8.0
20°-30°	3636.8	12.1
30°-40°	4357.3	14.5
40°-50°	4458.6	14.9
50°-60°	4011.8	13.4
60°-70°	3229.2	10.8
70°-80°	2386.8	8.0
80°-90°	1551.2	5.2
90°-100°	800.9	2.7
100°-110°	476.5	1.6
110°-120°	418.5	1.4
120°-130°	437.6	1.5
130°-140°	437.1	1.5
140°-150°	323.6	1.1
150°-160°	184.9	0.6
160°-170°	70.4	0.2
170°-180°	14.2	0.0
0°-30°	6856.2	22.8
0°-40°	11213.5	37.4
0°-60°	19683.9	65.6
0°-90°	26851.1	89.5
90°-120°	1696.0	5.7
90°-150°	2894.4	9.6
90°-180°	3164.0	10.5
0°-180°	30015.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8471	8471	8471	8471	8471	
5°	8453	8581	8652	8675	8690	803
15°	8074	8347	8518	8681	8723	2274
25°	7235	7540	7943	8239	8426	3325
35°	6030	6412	7035	7549	7693	3769
45°	4700	5175	5913	6402	6521	3624
55°	3327	3956	4717	5037	5066	2981
65°	2024	2869	3562	3680	3690	2025
75°	1024	2035	2536	2589	2597	1097
85°	362	1321	1656	1663	1668	357
90°	110	884	1135	1170	1167	76
95°	105	587	844	915	927	86
105°	125	433	454	502	504	136
115°	153	598	441	392	375	153
125°	173	549	677	442	396	154
135°	177	498	752	679	630	137
145°	182	411	582	696	702	114
155°	179	133	520	545	529	83
165°	179	143	137	363	399	51
175°	175	174	182	159	119	17
180°	158	158	158	158	158	



TEST NUMBER: P236565

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0
2.5°	8476.2	8478.3	8524.2	8552.3	8539.8	8542.9	8537.7	8564.8	8593.0	8577.3	8590.9
5°	8453.2	8463.7	8525.2	8568.0	8569.0	8593.0	8602.4	8637.8	8671.2	8652.4	8670.1
7.5°	8401.1	8418.8	8495.0	8555.4	8571.1	8595.1	8600.3	8644.1	8692.0	8682.7	8701.4
10°	8319.8	8347.9	8441.8	8510.6	8520.0	8554.4	8577.3	8621.1	8663.9	8662.8	8682.7
12.5°	8214.4	8245.7	8354.2	8424.0	8439.7	8484.5	8506.4	8555.4	8605.5	8608.6	8632.6
15°	8073.6	8115.4	8232.2	8302.0	8328.1	8365.6	8398.0	8455.3	8504.3	8517.9	8587.8
17.5°	7912.0	7953.7	8070.5	8144.6	8166.5	8216.5	8256.1	8313.5	8405.3	8442.8	8499.1
20°	7706.6	7756.6	7874.5	7951.6	7975.6	8034.0	8076.8	8176.9	8268.7	8296.8	8352.1
22.5°	7483.4	7531.4	7650.3	7733.7	7755.6	7814.0	7894.3	7999.6	8080.9	8115.4	8207.1
25°	7235.2	7276.9	7393.7	7475.1	7500.1	7579.3	7682.6	7783.7	7866.1	7943.3	8007.9
27.5°	6951.6	6996.4	7112.2	7186.2	7223.7	7342.6	7442.7	7540.8	7656.5	7690.9	7786.9
30°	6659.6	6698.1	6812.9	6877.5	6938.0	7065.2	7164.3	7303.0	7382.2	7469.8	7637.7
32.5°	6349.8	6387.4	6497.9	6557.4	6647.0	6781.6	6906.7	7017.3	7136.1	7283.2	7437.5
35°	6029.7	6066.2	6171.5	6231.0	6342.5	6482.3	6623.1	6743.0	6914.0	7035.0	7175.8
37.5°	5703.3	5741.9	5835.7	5903.5	6031.8	6186.1	6324.8	6489.6	6640.8	6758.6	6913.0
40°	5372.7	5401.9	5499.9	5576.1	5720.0	5873.3	6029.7	6207.0	6345.7	6481.2	6656.4
42.5°	5041.1	5066.1	5161.0	5263.2	5408.2	5564.6	5762.7	5895.2	6057.8	6202.8	6370.7
45°	4700.1	4724.1	4819.0	4937.8	5083.8	5265.3	5458.2	5585.4	5758.5	5912.9	6065.1
47.5°	4357.0	4384.1	4480.0	4618.7	4776.2	4970.2	5137.0	5289.3	5485.3	5621.9	5754.4
50°	4012.8	4040.0	4147.4	4299.6	4461.3	4662.5	4826.3	4995.2	5183.9	5314.3	5439.4
52.5°	3669.7	3700.0	3822.0	3975.3	4157.8	4355.9	4535.3	4709.5	4881.5	5020.2	5125.5
55°	3326.7	3364.2	3499.8	3656.2	3857.5	4054.6	4245.4	4417.5	4586.4	4716.8	4821.0
57.5°	3004.4	3040.9	3180.7	3357.9	3563.4	3767.8	3971.1	4133.8	4299.6	4423.7	4514.4
60°	2670.7	2712.4	2869.9	3061.8	3276.6	3497.7	3698.9	3864.8	4024.3	4138.0	4208.9
62.5°	2348.5	2417.3	2566.4	2780.2	3003.4	3235.9	3441.4	3607.2	3753.2	3848.1	3901.3
65°	2024.1	2119.0	2279.6	2516.4	2748.9	2989.8	3199.4	3362.1	3485.2	3562.3	3598.8
67.5°	1748.8	1840.6	2016.8	2272.3	2514.3	2764.6	2974.2	3118.1	3219.2	3283.9	3314.1
70°	1470.4	1582.0	1779.1	2048.1	2302.6	2555.0	2743.7	2870.9	2960.6	3024.2	3052.4
72.5°	1239.9	1345.3	1572.6	1846.9	2111.7	2346.4	2514.3	2635.2	2734.3	2777.1	2790.6
75°	1024.1	1130.4	1380.7	1671.7	1931.3	2137.8	2298.4	2422.5	2497.6	2536.2	2549.7
77.5°	831.1	953.2	1223.2	1511.1	1750.9	1943.8	2105.5	2209.8	2284.9	2316.1	2326.6
80°	655.9	790.5	1084.6	1354.6	1576.8	1764.5	1909.4	2010.6	2078.4	2103.4	2106.5
82.5°	499.5	650.7	949.0	1201.3	1408.9	1588.2	1721.7	1818.7	1866.7	1880.2	1877.1
85°	361.9	522.5	808.2	1041.8	1239.9	1402.6	1519.4	1603.9	1645.6	1656.0	1646.6
87.5°	247.2	404.6	670.5	882.2	1051.2	1195.1	1296.2	1369.2	1409.9	1414.1	1414.1
90°	109.5	303.5	531.8	694.5	828.0	939.6	1019.9	1089.8	1124.2	1134.6	1144.0
92.5°	89.7	233.6	419.2	570.4	694.5	804.0	892.7	961.5	999.0	1013.6	1020.9
95°	105.3	190.8	311.8	426.5	539.1	634.0	712.3	785.3	823.8	843.7	864.5
97.5°	108.5	187.7	288.9	367.1	436.9	525.6	598.6	648.6	672.6	684.1	702.9
100°	113.7	190.8	311.8	358.7	411.9	462.0	502.6	563.1	592.3	602.8	606.9
102.5°	117.8	187.7	337.9	379.6	406.7	441.1	463.0	477.6	508.9	529.8	541.2
105°	125.1	184.6	335.8	438.0	426.5	439.0	455.7	465.1	480.7	453.6	471.4
107.5°	139.7	184.6	327.5	476.6	475.5	456.8	456.8	455.7	454.7	433.8	446.3
110°	148.1	158.5	317.0	466.1	537.1	496.4	474.5	458.8	444.2	433.8	424.4



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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.2	141.8	313.9	451.5	591.3	587.1	509.9	477.6	451.5	428.6	415.0
115°	153.3	125.1	309.7	423.4	576.7	619.4	602.8	514.1	472.4	441.1	418.2
117.5°	158.5	125.1	313.9	419.2	559.0	679.9	649.7	591.3	509.9	465.1	433.8
120°	164.8	127.2	330.6	421.3	530.8	660.1	696.6	670.5	584.0	505.8	462.0
122.5°	168.9	129.3	305.6	418.2	496.4	636.1	736.2	702.9	676.8	585.0	507.9
125°	173.1	131.4	269.1	416.1	496.4	600.7	707.0	784.2	702.9	676.8	608.0
127.5°	176.2	131.4	212.7	419.2	493.3	547.5	673.7	755.0	774.8	701.8	676.8
130°	176.2	127.2	147.0	439.0	481.8	541.2	624.7	720.6	780.0	761.3	700.8
132.5°	175.2	126.2	114.7	401.5	474.5	535.0	573.6	677.8	746.7	788.4	769.6
135°	177.3	140.8	115.8	355.6	472.4	523.5	566.3	600.7	706.0	751.9	785.3
137.5°	179.4	160.6	117.8	296.2	498.5	509.9	557.9	586.1	640.3	712.3	748.8
140°	180.4	176.2	119.9	206.5	455.7	500.6	542.3	572.5	593.4	647.6	707.0
142.5°	182.5	190.8	122.0	137.7	401.5	512.0	523.5	559.0	579.8	594.4	636.1
145°	181.5	197.1	119.9	112.6	329.5	492.2	511.0	537.1	565.2	581.9	593.4
147.5°	179.4	192.9	117.8	112.6	224.2	428.6	535.0	521.4	545.4	567.3	579.8
150°	178.3	188.8	127.2	114.7	141.8	354.6	484.9	518.3	526.6	546.4	563.1
152.5°	179.4	186.7	155.4	118.9	113.7	247.2	413.0	512.0	516.2	526.6	539.1
155°	179.4	184.6	177.3	119.9	116.8	149.1	320.2	433.8	513.1	520.4	519.3
157.5°	179.4	183.5	192.9	126.2	119.9	114.7	184.6	338.9	431.7	497.4	541.2
160°	179.4	181.5	196.1	155.4	122.0	118.9	119.9	190.8	326.4	406.7	464.1
162.5°	179.4	180.4	189.8	182.5	128.3	121.0	118.9	119.9	172.1	276.4	353.5
165°	179.4	179.4	184.6	197.1	164.8	122.0	121.0	118.9	114.7	136.6	178.3
167.5°	178.3	178.3	181.5	189.8	190.8	158.5	123.1	119.9	117.8	115.8	112.6
170°	177.3	176.2	179.4	182.5	189.8	189.8	167.9	139.7	118.9	116.8	115.8
172.5°	176.2	175.2	176.2	178.3	179.4	183.5	189.8	185.6	171.0	152.3	132.4
175°	175.2	174.2	174.2	174.2	174.2	174.2	175.2	176.2	178.3	181.5	184.6
177.5°	174.2	172.1	172.1	172.1	171.0	170.0	168.9	167.9	166.9	165.8	164.8
180°	157.5	157.5	157.5	157.5	157.5	157.5	157.5	157.5	157.5	157.5	157.5



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CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0	8471.0
2.5°	8581.5	8604.5	8588.8	8572.1	8570.0	8594.0	8591.9	8587.8
5°	8668.1	8691.0	8681.6	8668.1	8668.1	8694.1	8691.0	8690.0
7.5°	8702.5	8730.6	8721.2	8707.7	8717.1	8731.7	8734.8	8730.6
10°	8695.2	8729.6	8724.4	8711.9	8711.9	8733.8	8730.6	8731.7
12.5°	8647.2	8695.2	8713.9	8722.3	8741.1	8772.3	8774.4	8777.6
15°	8629.5	8677.4	8680.6	8681.6	8700.4	8727.5	8722.3	8723.3
17.5°	8533.5	8572.1	8578.4	8587.8	8617.0	8660.8	8659.7	8672.2
20°	8401.1	8465.8	8502.3	8512.7	8524.2	8542.9	8521.0	8521.0
22.5°	8283.3	8307.2	8302.0	8327.1	8383.4	8420.9	8427.2	8425.1
25°	8053.8	8132.0	8196.7	8282.2	8366.7	8413.6	8423.0	8426.1
27.5°	7914.1	8048.6	8119.5	8166.5	8209.2	8235.3	8252.0	8246.8
30°	7780.6	7851.5	7907.8	7987.1	8044.4	8067.4	8080.9	8079.9
32.5°	7539.7	7634.6	7703.4	7787.9	7881.8	7914.1	7927.6	7928.7
35°	7298.8	7410.4	7511.6	7586.6	7654.4	7677.4	7692.0	7693.0
37.5°	7060.0	7168.5	7259.2	7331.1	7392.7	7414.6	7429.2	7438.6
40°	6789.9	6889.0	6977.6	7062.1	7124.7	7128.8	7142.4	7142.4
42.5°	6490.6	6597.0	6689.8	6756.5	6810.8	6813.9	6827.5	6826.4
45°	6185.1	6283.1	6373.8	6431.2	6488.5	6499.0	6515.6	6520.9
47.5°	5870.1	5970.2	6052.6	6110.0	6155.9	6169.4	6179.9	6180.9
50°	5548.9	5654.3	5724.1	5766.9	5803.4	5815.9	5823.2	5821.1
52.5°	5235.0	5329.9	5379.0	5412.3	5448.8	5456.1	5458.2	5438.4
55°	4918.0	4993.1	5026.5	5048.4	5070.3	5085.9	5084.9	5066.1
57.5°	4591.6	4657.3	4667.7	4698.0	4707.4	4720.9	4713.6	4698.0
60°	4267.3	4315.3	4318.4	4346.5	4352.8	4349.7	4352.8	4340.3
62.5°	3943.0	3978.4	3982.6	4008.7	4021.2	4019.1	4021.2	4012.8
65°	3632.2	3665.6	3669.7	3690.6	3704.2	3701.0	3698.9	3689.6
67.5°	3346.5	3372.5	3383.0	3393.4	3399.6	3390.3	3386.1	3378.8
70°	3069.1	3085.8	3088.9	3097.2	3106.6	3098.3	3104.5	3096.2
72.5°	2802.1	2819.8	2832.3	2836.5	2846.9	2836.5	2842.8	2837.6
75°	2563.3	2577.9	2584.2	2594.6	2607.1	2597.7	2601.9	2596.7
77.5°	2337.0	2348.5	2357.9	2361.0	2372.5	2361.0	2363.1	2353.7
80°	2108.6	2113.8	2119.0	2122.2	2133.6	2124.3	2125.3	2119.0
82.5°	1878.1	1884.4	1898.0	1894.8	1905.3	1894.8	1896.9	1901.1
85°	1644.6	1656.0	1664.4	1661.2	1671.7	1667.5	1664.4	1668.5
87.5°	1414.1	1423.5	1433.9	1432.9	1442.2	1438.1	1438.1	1444.3
90°	1142.9	1150.2	1162.8	1176.3	1178.4	1180.5	1176.3	1166.9
92.5°	1022.0	1031.4	1040.8	1050.1	1058.5	1056.4	1054.3	1056.4
95°	877.0	892.7	909.4	920.8	934.4	934.4	934.4	927.1
97.5°	715.4	731.0	744.6	754.0	764.4	765.4	764.4	764.4
100°	608.0	613.2	618.4	624.7	632.0	634.0	632.0	633.0
102.5°	545.4	552.7	556.9	560.0	562.1	562.1	559.0	555.8
105°	481.8	493.3	499.5	504.7	507.9	508.9	506.8	503.7
107.5°	422.3	432.8	443.2	450.5	455.7	457.8	455.7	452.6
110°	406.7	433.8	408.8	397.3	401.5	406.7	405.7	402.5



TEST NUMBER: P236565

CATALOG NUMBER: SKB4-LD5-30-W-UNV-L835-CD4-U outer 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	409.8	406.7	393.1	385.8	405.7	415.0	408.8	405.7
115°	401.5	394.2	392.1	392.1	391.1	387.9	380.6	375.4
117.5°	413.0	397.3	386.9	381.7	379.6	376.5	371.3	367.1
120°	433.8	414.0	398.4	390.0	382.7	375.4	368.1	362.9
122.5°	466.1	439.0	418.2	406.7	398.4	390.0	381.7	375.4
125°	521.4	478.7	449.5	433.8	421.3	410.9	400.4	396.3
127.5°	655.9	551.7	501.6	474.5	454.7	440.1	428.6	422.3
130°	674.7	663.2	636.1	548.5	515.2	492.2	474.5	469.3
132.5°	700.8	681.0	664.3	653.9	644.5	630.9	598.6	592.3
135°	800.9	716.4	687.2	670.5	658.0	646.6	635.1	629.9
137.5°	774.8	794.6	766.5	706.0	685.1	669.5	655.9	649.7
140°	736.2	757.1	773.8	783.2	786.3	758.1	723.7	711.2
142.5°	690.4	716.4	734.2	745.6	752.9	752.9	745.6	741.5
145°	604.8	659.1	687.2	703.9	711.2	713.3	707.0	701.8
147.5°	586.1	591.3	603.8	641.3	658.0	665.3	662.2	658.0
150°	570.4	577.7	580.9	581.9	579.8	576.7	572.5	568.3
152.5°	551.7	561.0	564.2	566.3	565.2	562.1	552.7	547.5
155°	526.6	536.0	542.3	547.5	546.4	543.3	533.9	528.7
157.5°	509.9	513.1	517.2	520.4	520.4	518.3	511.0	506.8
160°	503.7	533.9	505.8	497.4	495.3	493.3	486.0	480.7
162.5°	404.6	442.2	469.3	489.1	500.6	509.9	505.8	502.6
165°	253.4	313.9	351.4	374.4	391.1	402.5	400.4	399.4
167.5°	115.8	139.7	158.5	176.2	205.4	234.6	236.7	239.9
170°	111.6	108.5	103.2	98.0	92.8	86.6	80.3	76.1
172.5°	115.8	108.5	104.3	100.1	94.9	87.6	80.3	74.0
175°	179.4	172.1	163.7	154.3	147.0	136.6	124.1	118.9
177.5°	161.6	159.6	156.4	152.3	148.1	140.8	131.4	125.1
180°	157.5	157.5	157.5	157.5	157.5	157.5	157.5	157.5

(END OF REPORT)