

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: P236493

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236493  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24060)  
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-L835-CD4-U inner 2 blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
4 BLADES WITH NARROW DISTRIBUTION LENS, INNER 2 BLADES TILTED OUT 20 DEGREES  
Light Source: (952) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

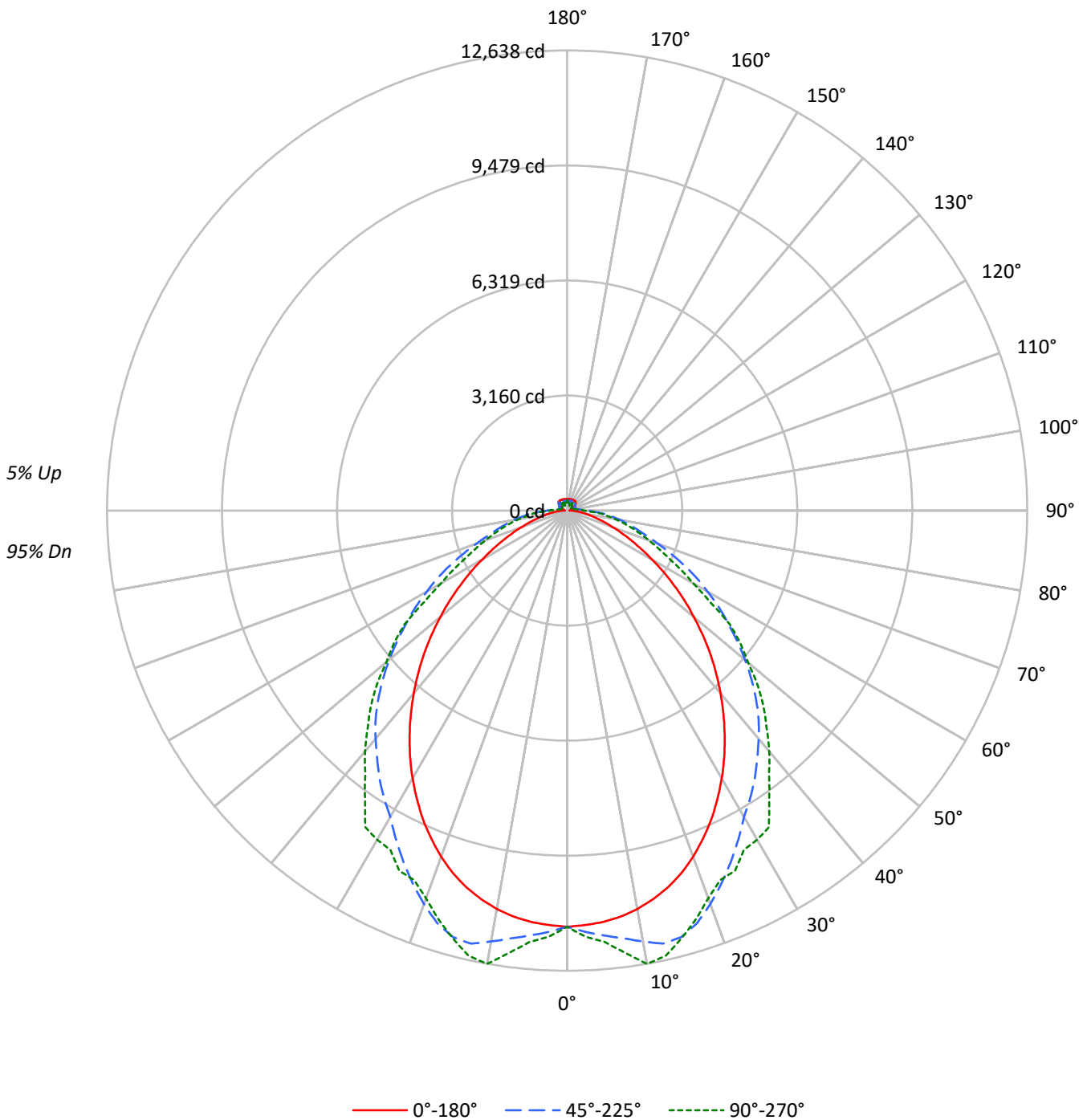
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32292.0 lumens  
Efficiency: N/A  
Efficacy: 124.0 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.34 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')  
CIE Type: 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	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	108	103	98	95	104	100	96	93	95	92	89	90	87	85	86	84	82	79
2	98	90	83	78	95	88	82	76	83	78	74	79	75	71	76	72	69	67
3	90	80	72	65	87	78	70	64	74	68	63	70	65	61	67	63	59	57
4	82	71	62	56	80	69	61	55	66	59	54	63	57	52	60	55	51	49
5	76	64	55	48	74	62	54	48	59	52	47	57	51	46	55	49	45	43
6	70	57	49	42	68	56	48	42	54	47	41	52	45	41	50	44	40	38
7	65	52	44	38	63	51	43	37	49	42	37	47	41	36	46	40	36	33
8	61	48	39	34	59	47	39	33	45	38	33	43	37	32	42	36	32	30
9	57	44	36	30	55	43	35	30	42	35	30	40	34	29	39	33	29	27
10	53	41	33	28	52	40	32	27	39	32	27	37	31	27	36	30	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16404	16404	16404
5°	16263	16709	16969
10°	16045	17165	18064
15°	15689	17476	17539
20°	15160	16851	16628
25°	14480	15988	16430
30°	13663	15088	16252
35°	12750	14568	15729
40°	11767	13981	14804
45°	10714	13356	13936
50°	9541	12518	12780
55°	8361	11590	11778
60°	7097	10660	9637
65°	5965	9621	8415
70°	4907	8409	7678
75°	4008	7655	7172
80°	3363	7364	6777
85°	2822	7263	6746



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1125.1	3.5
10°-20°	3307.2	10.2
20°-30°	4823.3	14.9
30°-40°	5568.3	17.2
40°-50°	5391.5	16.7
50°-60°	4436.2	13.7
60°-70°	3066.5	9.5
70°-80°	1908.9	5.9
80°-90°	988.9	3.1
90°-100°	371.8	1.2
100°-110°	232.5	0.7
110°-120°	237.0	0.7
120°-130°	237.6	0.7
130°-140°	215.0	0.7
140°-150°	167.1	0.5
150°-160°	117.6	0.4
160°-170°	73.2	0.2
170°-180°	24.2	0.1
0°-30°	9255.6	28.7
0°-40°	14823.9	45.9
0°-60°	24651.6	76.3
0°-90°	30615.9	94.8
90°-120°	841.4	2.6
90°-150°	1461.1	4.5
90°-180°	1676.0	5.2
0°-180°	32292.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11430	11430	11430	11430	11430	
5°	11340	11586	11715	11838	11893	###
15°	10706	11373	12126	12162	12156	3011
25°	9366	10418	10640	10718	10913	4300
35°	7543	8493	8987	9570	9676	4711
45°	5553	6326	7340	7682	7629	4277
55°	3590	4442	5395	5488	5454	3218
65°	1953	2930	3534	3296	3068	1950
75°	863	1845	1975	1958	1830	940
85°	273	1019	1023	1000	930	276
90°	84	592	539	514	472	56
95°	76	386	360	343	314	63
105°	112	328	203	154	130	123
115°	192	386	242	158	128	191
125°	275	369	258	196	165	245
135°	330	339	256	222	186	254
145°	337	342	241	201	187	212
155°	330	258	277	198	143	153
165°	326	232	248	276	252	92
175°	318	300	247	213	218	30
180°	293	293	293	293	293	



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

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8
2.5°	11393.2	11399.7	11446.8	11465.1	11491.3	11488.7	11518.8	11564.5	11547.5	11585.5	11589.4
5°	11339.6	11356.6	11427.2	11484.7	11564.5	11607.7	11656.1	11700.6	11680.9	11714.9	11731.9
7.5°	11246.7	11280.7	11385.3	11488.7	11578.9	11606.4	11663.9	11745.0	11767.3	11847.0	11902.0
10°	11110.7	11159.1	11302.9	11416.7	11504.4	11572.4	11690.1	11809.1	11883.7	12018.4	12123.0
12.5°	10926.3	10989.0	11173.5	11276.8	11415.4	11533.1	11696.6	11869.3	12009.2	12181.9	12283.9
15°	10706.5	10783.7	10981.2	11106.8	11299.0	11446.8	11667.9	11877.1	12004.0	12125.6	12171.4
17.5°	10439.7	10543.1	10745.8	10910.6	11122.5	11310.8	11558.0	11734.6	11835.3	11874.5	11854.9
20°	10114.1	10252.7	10458.0	10650.3	10893.6	11115.9	11357.9	11484.7	11501.7	11496.5	11484.7
22.5°	9751.8	9921.8	10129.8	10349.5	10625.5	10855.6	11074.1	11101.5	11098.9	11081.9	11071.4
25°	9365.9	9542.5	9759.6	10002.9	10312.9	10522.1	10663.4	10667.3	10664.7	10639.8	10613.7
27.5°	8933.0	9127.9	9365.9	9621.0	9936.2	10095.7	10192.5	10203.0	10199.1	10180.8	10167.7
30°	8492.3	8689.7	8913.4	9203.8	9494.1	9590.9	9695.5	9708.6	9698.1	9711.2	9860.3
32.5°	8026.6	8220.2	8454.3	8749.9	8994.5	9065.1	9176.3	9176.3	9184.1	9360.7	9520.3
35°	7542.7	7733.7	7965.2	8255.5	8447.8	8538.0	8638.7	8625.7	8807.5	8986.6	9131.8
37.5°	7053.6	7234.0	7457.7	7737.6	7891.9	8004.4	8072.4	8198.0	8402.0	8573.3	8764.3
40°	6555.2	6716.1	6937.1	7194.8	7340.0	7460.3	7546.6	7775.5	7967.8	8184.9	8379.8
42.5°	6056.9	6206.0	6407.4	6640.3	6797.2	6903.1	7107.2	7325.6	7559.7	7787.3	7948.2
45°	5553.4	5682.9	5876.4	6093.5	6261.0	6391.8	6654.6	6887.4	7145.1	7340.0	7491.7
47.5°	5045.9	5172.8	5344.1	5571.7	5731.3	5941.8	6190.3	6455.8	6693.9	6866.5	7022.2
50°	4538.4	4648.3	4823.6	5055.1	5223.8	5476.2	5733.9	6009.8	6215.2	6377.4	6506.8
52.5°	4068.9	4163.1	4322.6	4555.4	4756.9	5006.7	5290.5	5539.0	5732.6	5880.4	6019.0
55°	3590.2	3671.3	3847.9	4065.0	4321.3	4563.3	4855.0	5077.3	5252.6	5395.1	5523.3
57.5°	3140.3	3229.2	3401.9	3611.1	3896.3	4152.6	4424.7	4631.3	4792.2	4938.7	5015.8
60°	2695.6	2804.2	2988.6	3209.6	3497.3	3761.5	4011.4	4203.6	4356.6	4456.0	4520.1
62.5°	2299.3	2409.2	2601.4	2848.6	3136.4	3394.0	3622.9	3790.3	3908.0	4014.0	4050.6
65°	1952.7	2052.1	2248.3	2525.6	2806.8	3052.7	3261.9	3383.6	3481.7	3534.0	3522.2
67.5°	1625.7	1734.3	1935.7	2237.8	2512.5	2742.7	2903.6	3004.3	3061.8	3072.3	3039.6
70°	1336.7	1453.1	1667.6	1978.9	2250.9	2448.4	2571.3	2627.6	2636.7	2639.4	2628.9
72.5°	1085.6	1207.2	1443.9	1752.6	2015.5	2162.0	2253.5	2265.3	2283.6	2275.8	2291.5
75°	863.2	995.3	1255.6	1560.3	1784.0	1905.6	1944.9	1947.5	1954.0	1974.9	1997.2
77.5°	686.7	809.6	1092.1	1385.1	1580.0	1661.0	1671.5	1684.6	1699.0	1714.7	1736.9
80°	527.1	657.9	952.2	1209.8	1369.4	1432.2	1447.9	1458.3	1464.9	1474.0	1488.4
82.5°	389.8	534.9	813.5	1039.8	1174.5	1241.2	1242.5	1246.4	1253.0	1234.7	1239.9
85°	273.4	432.9	681.4	875.0	995.3	1042.4	1033.2	1034.6	1035.9	1022.8	1026.7
87.5°	177.9	341.4	551.9	707.6	801.7	834.4	814.8	803.1	783.4	729.8	712.8
90°	83.7	245.9	404.1	523.2	583.3	601.6	580.7	565.0	557.2	538.9	532.3
92.5°	62.8	172.6	299.5	400.2	464.3	486.5	474.8	461.7	451.2	440.8	438.1
95°	75.9	137.3	228.9	307.4	371.4	400.2	396.3	384.5	376.7	359.7	351.8
97.5°	78.5	146.5	222.3	269.4	308.7	337.4	333.5	319.1	306.1	289.0	278.6
100°	87.6	176.6	248.5	281.2	298.2	296.9	293.0	279.9	262.9	242.0	228.9
102.5°	100.7	200.1	285.1	311.3	315.2	304.7	276.0	256.4	236.7	217.1	200.1
105°	112.5	208.0	324.4	338.7	340.1	316.5	290.4	256.4	225.0	202.7	184.4
107.5°	129.5	213.2	337.4	368.8	358.4	338.7	298.2	265.5	238.0	206.6	180.5
110°	156.9	225.0	344.0	385.8	376.7	349.2	323.1	277.3	239.3	219.7	194.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	174.0	223.7	344.0	395.0	404.1	354.4	332.2	302.1	256.4	218.4	197.5
115°	192.3	226.3	334.8	385.8	402.8	370.1	329.6	310.0	277.3	242.0	204.0
117.5°	211.9	228.9	332.2	375.4	395.0	414.6	336.1	306.1	282.5	259.0	228.9
120°	232.8	228.9	338.7	378.0	400.2	385.8	358.4	307.4	279.9	260.3	240.7
122.5°	255.0	230.2	354.4	388.4	385.8	366.2	397.6	323.1	279.9	257.7	240.7
125°	274.7	239.3	354.4	378.0	357.1	380.6	342.7	372.8	293.0	257.7	239.3
127.5°	293.0	249.8	349.2	374.1	355.8	371.4	332.2	358.4	324.4	269.4	240.7
130°	310.0	261.6	340.1	383.2	371.4	333.5	358.4	303.4	347.9	302.1	252.4
132.5°	321.7	266.8	325.7	404.1	364.9	312.6	350.5	308.7	277.3	330.9	291.7
135°	329.6	268.1	304.7	395.0	358.4	319.1	302.1	338.7	272.0	256.4	316.5
137.5°	336.1	269.4	279.9	374.1	364.9	323.1	276.0	321.7	313.9	245.9	235.4
140°	338.7	269.4	262.9	350.5	383.2	325.7	281.2	262.9	308.7	289.0	227.6
142.5°	338.7	270.7	253.7	323.1	364.9	325.7	291.7	249.8	255.0	291.7	278.6
145°	337.4	276.0	252.4	293.0	340.1	344.0	296.9	261.6	230.2	240.7	278.6
147.5°	336.1	283.8	251.1	257.7	315.2	338.7	304.7	279.9	244.6	218.4	225.0
150°	334.8	291.7	249.8	240.7	290.4	319.1	328.3	287.7	266.8	235.4	210.6
152.5°	332.2	298.2	249.8	239.3	266.8	298.2	315.2	315.2	279.9	262.9	232.8
155°	329.6	304.7	248.5	243.3	239.3	276.0	295.6	311.3	307.4	277.3	264.2
157.5°	329.6	311.3	249.8	243.3	230.2	249.8	276.0	291.7	304.7	307.4	281.2
160°	328.3	315.2	260.3	240.7	234.1	226.3	252.4	270.7	283.8	295.6	303.4
162.5°	327.0	317.8	273.4	242.0	235.4	225.0	223.7	247.2	261.6	272.0	281.2
165°	325.7	319.1	290.4	249.8	235.4	228.9	222.3	218.4	230.2	248.5	257.7
167.5°	323.1	319.1	300.8	268.1	243.3	230.2	225.0	219.7	211.9	213.2	221.0
170°	320.4	319.1	308.7	291.7	264.2	242.0	228.9	223.7	218.4	213.2	205.3
172.5°	319.1	317.8	312.6	304.7	291.7	269.4	253.7	236.7	222.3	218.4	213.2
175°	317.8	316.5	313.9	311.3	303.4	295.6	287.7	274.7	259.0	247.2	236.7
177.5°	316.5	315.2	313.9	313.9	311.3	306.1	303.4	296.9	289.0	283.8	276.0
180°	293.0	293.0	293.0	293.0	293.0	293.0	293.0	293.0	293.0	293.0	293.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8	11429.8
2.5°	11610.3	11649.5	11692.7	11658.7	11691.4	11716.2	11709.7	11717.6
5°	11748.9	11802.6	11848.3	11827.4	11861.4	11885.0	11877.1	11892.8
7.5°	11967.4	12048.5	12129.5	12142.6	12202.8	12253.8	12251.2	12253.8
10°	12249.9	12371.5	12481.4	12510.1	12584.7	12627.9	12625.2	12638.3
12.5°	12371.5	12461.8	12506.2	12491.8	12533.7	12538.9	12511.5	12520.6
15°	12176.6	12204.1	12183.2	12141.3	12172.7	12160.9	12140.0	12155.7
17.5°	11830.0	11837.9	11796.0	11748.9	11775.1	11775.1	11746.3	11763.3
20°	11439.0	11439.0	11394.5	11364.4	11368.3	11356.6	11317.3	11327.8
22.5°	11027.0	10999.5	10964.2	10928.9	10957.7	10962.9	10961.6	10981.2
25°	10574.4	10578.4	10673.8	10761.5	10847.8	10875.3	10866.1	10913.2
27.5°	10272.3	10376.9	10456.7	10465.9	10493.4	10482.9	10472.4	10505.1
30°	9982.0	10061.7	10136.3	10188.6	10277.5	10344.3	10394.0	10435.8
32.5°	9638.0	9750.5	9895.6	10001.6	10124.5	10204.3	10252.7	10310.2
35°	9270.5	9406.5	9549.0	9590.9	9643.2	9647.1	9630.1	9675.9
37.5°	8910.8	9027.2	9101.7	9121.4	9133.1	9110.9	9076.9	9109.6
40°	8509.3	8611.3	8685.8	8671.4	8664.9	8627.0	8600.8	8638.7
42.5°	8090.7	8158.7	8187.5	8144.3	8115.6	8093.3	8086.8	8111.7
45°	7621.2	7667.0	7697.0	7667.0	7648.7	7627.7	7612.0	7629.0
47.5°	7111.1	7162.1	7184.3	7159.5	7142.5	7111.1	7079.7	7098.0
50°	6612.8	6653.3	6659.9	6636.3	6569.6	6508.2	6458.5	6482.0
52.5°	6105.3	6102.7	6079.2	6039.9	5999.4	5979.8	5977.1	5995.5
55°	5575.6	5542.9	5510.2	5465.8	5435.7	5421.3	5433.1	5454.0
57.5°	5038.1	5005.4	4970.1	4878.5	4786.9	4700.6	4644.4	4631.3
60°	4543.7	4463.9	4372.3	4259.9	4165.7	4076.8	4002.2	4003.5
62.5°	3985.2	3891.0	3813.9	3724.9	3633.4	3561.4	3522.2	3517.0
65°	3462.0	3388.8	3335.2	3256.7	3176.9	3115.4	3078.8	3068.4
67.5°	3003.0	2959.8	2932.3	2880.0	2804.2	2749.2	2717.8	2710.0
70°	2626.3	2591.0	2570.0	2524.3	2461.5	2418.3	2393.5	2388.2
72.5°	2296.7	2275.8	2267.9	2223.4	2177.7	2130.6	2105.7	2099.2
75°	2014.2	1990.6	1973.6	1942.2	1896.5	1861.2	1842.8	1829.8
77.5°	1742.1	1721.2	1709.4	1683.3	1648.0	1615.3	1594.3	1581.3
80°	1489.7	1467.5	1457.0	1432.2	1396.8	1362.8	1349.8	1336.7
82.5°	1236.0	1216.4	1208.5	1190.2	1164.0	1139.2	1122.2	1110.4
85°	1026.7	1009.7	1005.8	994.0	971.8	953.5	939.1	929.9
87.5°	699.7	693.2	691.9	681.4	665.7	650.0	637.0	629.1
90°	528.4	516.6	516.6	511.4	499.6	487.8	478.7	472.2
92.5°	436.8	432.9	432.9	425.1	414.6	404.1	393.7	387.1
95°	346.6	342.7	345.3	341.4	333.5	327.0	319.1	313.9
97.5°	272.0	268.1	272.0	269.4	262.9	256.4	249.8	243.3
100°	219.7	214.5	214.5	210.6	205.3	197.5	192.3	187.0
102.5°	188.3	180.5	176.6	172.6	166.1	159.6	154.3	149.1
105°	170.0	162.2	156.9	151.7	145.2	139.9	134.7	129.5
107.5°	162.2	151.7	145.2	139.9	133.4	128.2	121.6	117.7
110°	168.7	153.0	142.6	136.0	128.2	122.9	116.4	112.5





TEST NUMBER: P236493

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	181.8	167.4	151.7	139.9	133.4	126.9	120.3	116.4
115°	176.6	164.8	162.2	153.0	147.8	139.9	132.1	128.2
117.5°	196.2	170.0	154.3	145.2	141.3	138.6	134.7	130.8
120°	215.8	193.6	174.0	160.9	149.1	139.9	132.1	126.9
122.5°	223.7	205.3	191.0	180.5	172.6	163.5	154.3	149.1
125°	223.7	209.3	200.1	192.3	184.4	177.9	170.0	164.8
127.5°	226.3	214.5	205.3	196.2	189.6	183.1	176.6	172.6
130°	228.9	218.4	210.6	204.0	196.2	188.3	181.8	176.6
132.5°	243.3	225.0	214.5	208.0	202.7	194.9	188.3	183.1
135°	300.8	245.9	227.6	215.8	206.6	198.8	191.0	185.7
137.5°	299.5	310.0	278.6	236.7	221.0	210.6	201.4	196.2
140°	217.1	266.8	296.9	300.8	291.7	266.8	249.8	238.0
142.5°	217.1	209.3	208.0	248.5	281.2	285.1	282.5	279.9
145°	276.0	240.7	204.0	198.8	194.9	192.3	192.3	187.0
147.5°	264.2	272.0	270.7	242.0	217.1	193.6	188.3	187.0
150°	208.0	231.5	262.9	272.0	272.0	268.1	264.2	264.2
152.5°	205.3	197.5	202.7	214.5	232.8	239.3	245.9	235.4
155°	239.3	218.4	202.7	192.3	184.4	179.2	158.3	142.6
157.5°	266.8	256.4	242.0	228.9	214.5	189.6	168.7	163.5
160°	296.9	279.9	268.1	260.3	247.2	225.0	215.8	211.9
162.5°	289.0	295.6	293.0	285.1	257.7	244.6	236.7	231.5
165°	265.5	272.0	276.0	276.0	273.4	264.2	257.7	252.4
167.5°	238.0	248.5	256.4	259.0	266.8	264.2	253.7	248.5
170°	202.7	206.6	214.5	225.0	232.8	244.6	242.0	236.7
172.5°	208.0	205.3	208.0	210.6	213.2	219.7	219.7	217.1
175°	227.6	219.7	214.5	210.6	211.9	218.4	223.7	218.4
177.5°	268.1	261.6	252.4	247.2	248.5	251.1	257.7	239.3
180°	293.0	293.0	293.0	293.0	293.0	293.0	293.0	293.0

(END OF REPORT)