

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: P236494

Luminaire Tested: **SKB4-LD5-30-N-UNV-L840-CD4-U inner 2 blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236494
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-L840-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) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

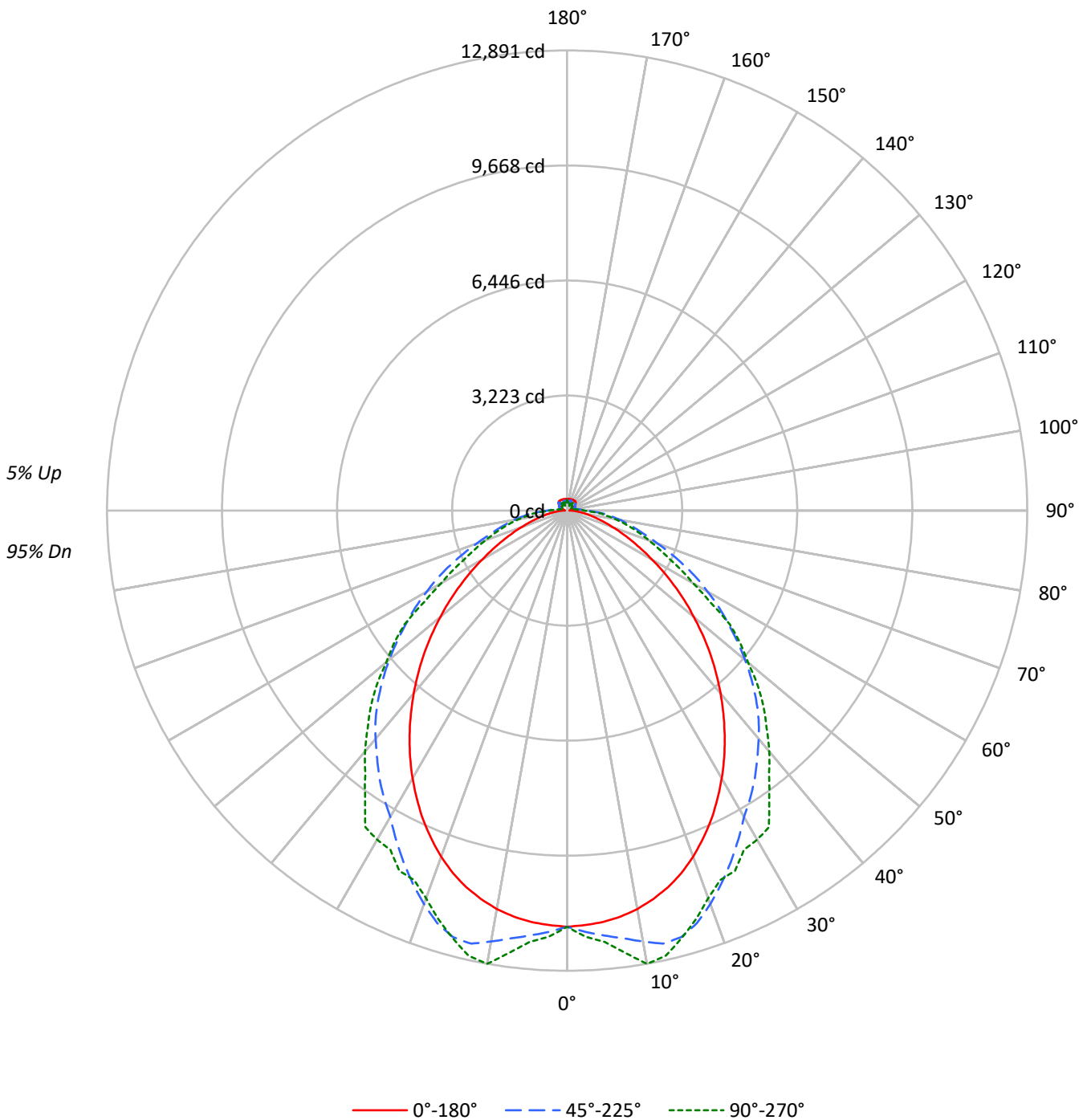
Lumens per Lamp: N/A
Luminaire Lumens: 32938.0 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.34 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 4' x H: 0.21')
CIE Type: Direct

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°	16732	16732	16732
5°	16588	17043	17308
10°	16366	17509	18426
15°	16003	17826	17890
20°	15463	17188	16961
25°	14769	16308	16759
30°	13936	15390	16577
35°	13005	14859	16044
40°	12002	14260	15101
45°	10928	13624	14215
50°	9732	12768	13036
55°	8529	11822	12014
60°	7239	10873	9830
65°	6084	9813	8583
70°	5005	8578	7831
75°	4088	7808	7316
80°	3430	7511	6913
85°	2878	7408	6881



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1147.6	3.5
10°-20°	3373.3	10.2
20°-30°	4919.8	14.9
30°-40°	5679.7	17.2
40°-50°	5499.3	16.7
50°-60°	4524.9	13.7
60°-70°	3127.9	9.5
70°-80°	1947.1	5.9
80°-90°	1008.7	3.1
90°-100°	379.3	1.2
100°-110°	237.2	0.7
110°-120°	241.8	0.7
120°-130°	242.4	0.7
130°-140°	219.3	0.7
140°-150°	170.5	0.5
150°-160°	120.0	0.4
160°-170°	74.7	0.2
170°-180°	24.7	0.1
0°-30°	9440.8	28.7
0°-40°	15120.5	45.9
0°-60°	25144.7	76.3
0°-90°	31228.3	94.8
90°-120°	858.2	2.6
90°-150°	1490.4	4.5
90°-180°	1710.0	5.2
0°-180°	32938.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11658	11658	11658	11658	11658	
5°	11566	11818	11949	12075	12131	###
15°	10921	11600	12368	12406	12399	3071
25°	9553	10626	10853	10932	11132	4386
35°	7694	8663	9166	9761	9870	4805
45°	5664	6453	7487	7836	7782	4363
55°	3662	4531	5503	5598	5563	3282
65°	1992	2988	3605	3362	3130	1989
75°	880	1882	2014	1997	1866	959
85°	279	1039	1043	1020	948	282
90°	85	604	550	524	482	57
95°	77	394	367	350	320	64
105°	115	335	207	157	132	125
115°	196	394	247	161	131	195
125°	280	376	263	200	168	250
135°	336	346	262	226	189	259
145°	344	349	246	205	191	216
155°	336	263	283	201	145	156
165°	332	237	254	282	258	94
175°	324	306	252	217	223	31
180°	299	299	299	299	299	



TEST NUMBER: P236494

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L840-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5
2.5°	11621.1	11627.8	11675.8	11694.5	11721.2	11718.5	11749.2	11795.9	11778.5	11817.2	11821.2
5°	11566.4	11583.8	11655.8	11714.5	11795.9	11839.9	11889.3	11934.6	11914.6	11949.3	11966.6
7.5°	11471.7	11506.4	11613.1	11718.5	11810.6	11838.6	11897.3	11980.0	12002.7	12084.0	12140.1
10°	11333.0	11382.3	11529.1	11645.1	11734.5	11803.9	11923.9	12045.3	12121.4	12258.8	12365.5
12.5°	11144.8	11208.9	11397.0	11502.4	11643.8	11763.9	11930.6	12106.7	12249.5	12425.6	12529.6
15°	10920.7	10999.4	11200.9	11329.0	11525.1	11675.8	11901.3	12114.7	12244.1	12368.2	12414.9
17.5°	10648.6	10754.0	10960.7	11128.8	11345.0	11537.1	11789.2	11969.3	12072.0	12112.1	12092.0
20°	10316.4	10457.8	10667.3	10863.4	11111.5	11338.3	11585.1	11714.5	11731.8	11726.5	11714.5
22.5°	9946.9	10120.3	10332.4	10556.5	10838.0	11072.8	11295.6	11323.6	11320.9	11303.6	11292.9
25°	9553.3	9733.4	9954.9	10203.0	10519.2	10732.6	10876.7	10880.7	10878.0	10852.7	10826.0
27.5°	9111.7	9310.5	9553.3	9813.4	10135.0	10297.7	10396.4	10407.1	10403.1	10384.4	10371.1
30°	8662.1	8863.6	9091.7	9387.9	9684.0	9782.8	9889.5	9902.8	9892.2	9905.5	10057.6
32.5°	8187.2	8384.7	8623.5	8925.0	9174.4	9246.5	9359.9	9359.9	9367.9	9548.0	9710.7
35°	7693.6	7888.4	8124.5	8420.7	8616.8	8708.8	8811.6	8798.2	8983.7	9166.4	9314.5
37.5°	7194.7	7378.8	7606.9	7892.4	8049.8	8164.5	8233.9	8362.0	8570.1	8744.9	8939.6
40°	6686.4	6850.5	7075.9	7338.7	7486.8	7609.6	7697.6	7931.1	8127.2	8348.6	8547.4
42.5°	6178.1	6330.2	6535.6	6773.1	6933.2	7041.2	7249.4	7472.1	7710.9	7943.1	8107.2
45°	5664.5	5796.5	5994.0	6215.4	6386.2	6519.6	6787.8	7025.2	7288.0	7486.8	7641.6
47.5°	5146.9	5276.3	5451.0	5683.2	5845.9	6060.7	6314.2	6585.0	6827.8	7003.9	7162.6
50°	4629.2	4741.3	4920.1	5156.2	5328.3	5585.8	5848.6	6130.1	6339.5	6504.9	6637.0
52.5°	4150.3	4246.4	4409.1	4646.6	4852.0	5106.8	5396.3	5649.8	5847.2	5998.0	6139.4
55°	3662.0	3744.7	3924.8	4146.3	4407.8	4654.6	4952.1	5178.9	5357.6	5503.1	5633.8
57.5°	3203.1	3293.8	3469.9	3683.4	3974.2	4235.7	4513.2	4724.0	4888.0	5037.5	5116.2
60°	2749.5	2860.3	3048.4	3273.8	3567.3	3836.8	4091.6	4287.7	4443.8	4545.2	4610.6
62.5°	2345.3	2457.4	2653.5	2905.6	3199.1	3461.9	3695.4	3866.1	3986.2	4094.3	4131.6
65°	1991.8	2093.2	2293.3	2576.1	2862.9	3113.7	3327.2	3451.2	3551.3	3604.7	3592.7
67.5°	1658.3	1769.0	1974.4	2282.6	2562.8	2797.6	2961.6	3064.4	3123.1	3133.7	3100.4
70°	1363.4	1482.2	1700.9	2018.5	2295.9	2497.4	2622.8	2680.2	2689.5	2692.2	2681.5
72.5°	1107.3	1231.3	1472.8	1787.7	2055.8	2205.2	2298.6	2310.6	2329.3	2321.3	2337.3
75°	880.5	1015.2	1280.7	1591.5	1819.7	1943.7	1983.8	1986.4	1993.1	2014.5	2037.1
77.5°	700.4	825.8	1114.0	1412.8	1611.6	1694.3	1704.9	1718.3	1733.0	1749.0	1771.6
80°	537.6	671.0	971.2	1234.0	1396.8	1460.8	1476.8	1487.5	1494.2	1503.5	1518.2
82.5°	397.6	545.6	829.8	1060.6	1198.0	1266.0	1267.4	1271.4	1278.0	1259.4	1264.7
85°	278.8	441.6	695.1	892.5	1015.2	1063.3	1053.9	1055.3	1056.6	1043.2	1047.2
87.5°	181.4	348.2	563.0	721.7	817.8	851.1	831.1	819.1	799.1	744.4	727.1
90°	85.4	250.8	412.2	533.6	595.0	613.7	592.3	576.3	568.3	549.6	543.0
92.5°	64.0	176.1	305.5	408.2	473.6	496.3	484.3	470.9	460.3	449.6	446.9
95°	77.4	140.1	233.5	313.5	378.9	408.2	404.2	392.2	384.2	366.9	358.9
97.5°	80.0	149.4	226.8	274.8	314.8	344.2	340.2	325.5	312.2	294.8	284.2
100°	89.4	180.1	253.5	286.8	304.2	302.8	298.8	285.5	268.1	246.8	233.5
102.5°	102.7	204.1	290.8	317.5	321.5	310.8	281.5	261.5	241.5	221.5	204.1
105°	114.7	212.1	330.9	345.5	346.9	322.8	296.2	261.5	229.5	206.8	188.1
107.5°	132.1	217.5	344.2	376.2	365.5	345.5	304.2	270.8	242.8	210.8	184.1
110°	160.1	229.5	350.9	393.6	384.2	356.2	329.5	282.8	244.1	224.1	198.8



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CATALOG NUMBER: SKB4-LD5-30-N-UNV-L840-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°	177.4	228.1	350.9	402.9	412.2	361.5	338.9	308.2	261.5	222.8	201.4
115°	196.1	230.8	341.5	393.6	410.9	377.5	336.2	316.2	282.8	246.8	208.1
117.5°	216.1	233.5	338.9	382.9	402.9	422.9	342.9	312.2	288.2	264.1	233.5
120°	237.5	233.5	345.5	385.5	408.2	393.6	365.5	313.5	285.5	265.5	245.5
122.5°	260.1	234.8	361.5	396.2	393.6	373.5	405.6	329.5	285.5	262.8	245.5
125°	280.2	244.1	361.5	385.5	364.2	388.2	349.5	380.2	298.8	262.8	244.1
127.5°	298.8	254.8	356.2	381.5	362.9	378.9	338.9	365.5	330.9	274.8	245.5
130°	316.2	266.8	346.9	390.9	378.9	340.2	365.5	309.5	354.9	308.2	257.5
132.5°	328.2	272.2	332.2	412.2	372.2	318.8	357.5	314.8	282.8	337.5	297.5
135°	336.2	273.5	310.8	402.9	365.5	325.5	308.2	345.5	277.5	261.5	322.8
137.5°	342.9	274.8	285.5	381.5	372.2	329.5	281.5	328.2	320.2	250.8	240.1
140°	345.5	274.8	268.1	357.5	390.9	332.2	286.8	268.1	314.8	294.8	232.1
142.5°	345.5	276.2	258.8	329.5	372.2	332.2	297.5	254.8	260.1	297.5	284.2
145°	344.2	281.5	257.5	298.8	346.9	350.9	302.8	266.8	234.8	245.5	284.2
147.5°	342.9	289.5	256.1	262.8	321.5	345.5	310.8	285.5	249.5	222.8	229.5
150°	341.5	297.5	254.8	245.5	296.2	325.5	334.9	293.5	272.2	240.1	214.8
152.5°	338.9	304.2	254.8	244.1	272.2	304.2	321.5	321.5	285.5	268.1	237.5
155°	336.2	310.8	253.5	248.1	244.1	281.5	301.5	317.5	313.5	282.8	269.5
157.5°	336.2	317.5	254.8	248.1	234.8	254.8	281.5	297.5	310.8	313.5	286.8
160°	334.9	321.5	265.5	245.5	238.8	230.8	257.5	276.2	289.5	301.5	309.5
162.5°	333.5	324.2	278.8	246.8	240.1	229.5	228.1	252.1	266.8	277.5	286.8
165°	332.2	325.5	296.2	254.8	240.1	233.5	226.8	222.8	234.8	253.5	262.8
167.5°	329.5	325.5	306.8	273.5	248.1	234.8	229.5	224.1	216.1	217.5	225.5
170°	326.8	325.5	314.8	297.5	269.5	246.8	233.5	228.1	222.8	217.5	209.4
172.5°	325.5	324.2	318.8	310.8	297.5	274.8	258.8	241.5	226.8	222.8	217.5
175°	324.2	322.8	320.2	317.5	309.5	301.5	293.5	280.2	264.1	252.1	241.5
177.5°	322.8	321.5	320.2	320.2	317.5	312.2	309.5	302.8	294.8	289.5	281.5
180°	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5	11658.5
2.5°	11842.6	11882.6	11926.6	11891.9	11925.3	11950.6	11944.0	11952.0
5°	11984.0	12038.7	12085.4	12064.0	12098.7	12122.7	12114.7	12130.7
7.5°	12206.8	12289.5	12372.2	12385.5	12446.9	12498.9	12496.3	12498.9
10°	12494.9	12619.0	12731.1	12760.4	12836.5	12880.5	12877.8	12891.2
12.5°	12619.0	12711.1	12756.4	12741.7	12784.4	12789.8	12761.7	12771.1
15°	12420.2	12448.2	12426.9	12384.2	12416.2	12404.2	12382.9	12398.9
17.5°	12066.7	12074.7	12032.0	11984.0	12010.7	12010.7	11981.3	11998.7
20°	11667.8	11667.8	11622.4	11591.8	11595.8	11583.8	11543.7	11554.4
22.5°	11247.6	11219.6	11183.5	11147.5	11176.9	11182.2	11180.9	11200.9
25°	10786.0	10790.0	10887.4	10976.8	11064.8	11092.8	11083.5	11131.5
27.5°	10477.8	10584.5	10665.9	10675.3	10703.3	10692.6	10681.9	10715.3
30°	10181.6	10263.0	10339.1	10392.4	10483.1	10551.2	10601.9	10644.6
32.5°	9830.8	9945.5	10093.6	10201.7	10327.1	10408.4	10457.8	10516.5
35°	9455.9	9594.7	9740.1	9782.8	9836.1	9840.1	9822.8	9869.5
37.5°	9089.0	9207.8	9283.8	9303.8	9315.8	9293.2	9258.5	9291.8
40°	8679.5	8783.5	8859.6	8844.9	8838.2	8799.5	8772.9	8811.6
42.5°	8252.6	8321.9	8351.3	8307.3	8277.9	8255.2	8248.6	8273.9
45°	7773.6	7820.3	7851.0	7820.3	7801.7	7780.3	7764.3	7781.7
47.5°	7253.4	7305.4	7328.1	7302.7	7285.4	7253.4	7221.3	7240.0
50°	6745.1	6786.4	6793.1	6769.1	6701.1	6638.3	6587.7	6611.7
52.5°	6227.5	6224.8	6200.8	6160.8	6119.4	6099.4	6096.7	6115.4
55°	5687.2	5653.8	5620.5	5575.1	5544.4	5529.7	5541.7	5563.1
57.5°	5138.9	5105.5	5069.5	4976.1	4882.7	4794.7	4737.3	4724.0
60°	4634.6	4553.2	4459.8	4345.1	4249.0	4158.3	4082.3	4083.6
62.5°	4064.9	3968.9	3890.2	3799.4	3706.1	3632.7	3592.7	3587.3
65°	3531.3	3456.6	3401.9	3321.8	3240.5	3177.8	3140.4	3129.7
67.5°	3063.0	3019.0	2991.0	2937.6	2860.3	2804.2	2772.2	2764.2
70°	2678.8	2642.8	2621.5	2574.8	2510.7	2466.7	2441.4	2436.0
72.5°	2342.6	2321.3	2313.3	2267.9	2221.2	2173.2	2147.9	2141.2
75°	2054.5	2030.5	2013.1	1981.1	1934.4	1898.4	1879.7	1866.4
77.5°	1777.0	1755.6	1743.6	1717.0	1680.9	1647.6	1626.2	1612.9
80°	1519.5	1496.8	1486.2	1460.8	1424.8	1390.1	1376.8	1363.4
82.5°	1260.7	1240.7	1232.7	1214.0	1187.3	1162.0	1144.6	1132.6
85°	1047.2	1029.9	1025.9	1013.9	991.2	972.5	957.9	948.5
87.5°	713.7	707.1	705.7	695.1	679.0	663.0	649.7	641.7
90°	539.0	527.0	527.0	521.6	509.6	497.6	488.3	481.6
92.5°	445.6	441.6	441.6	433.6	422.9	412.2	401.6	394.9
95°	353.5	349.5	352.2	348.2	340.2	333.5	325.5	320.2
97.5°	277.5	273.5	277.5	274.8	268.1	261.5	254.8	248.1
100°	224.1	218.8	218.8	214.8	209.4	201.4	196.1	190.8
102.5°	192.1	184.1	180.1	176.1	169.4	162.8	157.4	152.1
105°	173.4	165.4	160.1	154.8	148.1	142.7	137.4	132.1
107.5°	165.4	154.8	148.1	142.7	136.1	130.7	124.1	120.1
110°	172.1	156.1	145.4	138.7	130.7	125.4	118.7	114.7



TEST NUMBER: P236494

CATALOG NUMBER: SKB4-LD5-30-N-UNV-L840-CD4-U inner 2 blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	185.4	170.8	154.8	142.7	136.1	129.4	122.7	118.7
115°	180.1	168.1	165.4	156.1	150.8	142.7	134.7	130.7
117.5°	200.1	173.4	157.4	148.1	144.1	141.4	137.4	133.4
120°	220.1	197.4	177.4	164.1	152.1	142.7	134.7	129.4
122.5°	228.1	209.4	194.8	184.1	176.1	166.8	157.4	152.1
125°	228.1	213.5	204.1	196.1	188.1	181.4	173.4	168.1
127.5°	230.8	218.8	209.4	200.1	193.4	186.8	180.1	176.1
130°	233.5	222.8	214.8	208.1	200.1	192.1	185.4	180.1
132.5°	248.1	229.5	218.8	212.1	206.8	198.8	192.1	186.8
135°	306.8	250.8	232.1	220.1	210.8	202.8	194.8	189.4
137.5°	305.5	316.2	284.2	241.5	225.5	214.8	205.4	200.1
140°	221.5	272.2	302.8	306.8	297.5	272.2	254.8	242.8
142.5°	221.5	213.5	212.1	253.5	286.8	290.8	288.2	285.5
145°	281.5	245.5	208.1	202.8	198.8	196.1	196.1	190.8
147.5°	269.5	277.5	276.2	246.8	221.5	197.4	192.1	190.8
150°	212.1	236.1	268.1	277.5	277.5	273.5	269.5	269.5
152.5°	209.4	201.4	206.8	218.8	237.5	244.1	250.8	240.1
155°	244.1	222.8	206.8	196.1	188.1	182.8	161.4	145.4
157.5°	272.2	261.5	246.8	233.5	218.8	193.4	172.1	166.8
160°	302.8	285.5	273.5	265.5	252.1	229.5	220.1	216.1
162.5°	294.8	301.5	298.8	290.8	262.8	249.5	241.5	236.1
165°	270.8	277.5	281.5	281.5	278.8	269.5	262.8	257.5
167.5°	242.8	253.5	261.5	264.1	272.2	269.5	258.8	253.5
170°	206.8	210.8	218.8	229.5	237.5	249.5	246.8	241.5
172.5°	212.1	209.4	212.1	214.8	217.5	224.1	224.1	221.5
175°	232.1	224.1	218.8	214.8	216.1	222.8	228.1	222.8
177.5°	273.5	266.8	257.5	252.1	253.5	256.1	262.8	244.1
180°	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8

(END OF REPORT)