

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: P236456

Luminaire Tested: **SKB2-LD5-12-W-UNV-L850-CD2-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236456  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24074)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SKB2-LD5-12-W-UNV-L850-CD2-U all blades tilted out 20 degrees  
Description: METALUX SKYBAR LED WAVESTREAM LUMINAIRE  
2 BLADES WITH WIDE DISTRIBUTION LENS, ALL BLADES TILTED OUT 20 DEGREES  
Light Source: (476) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

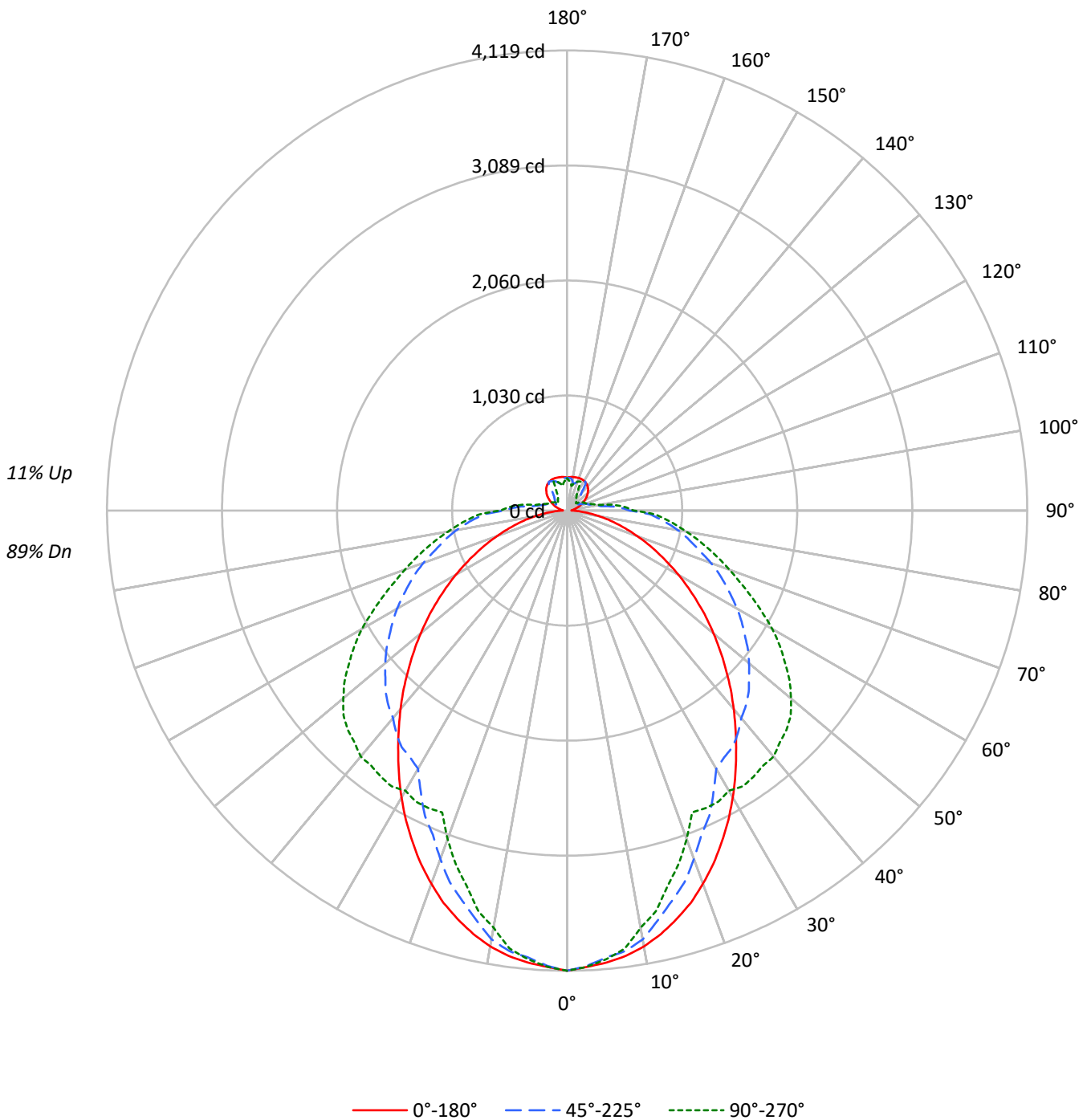
Lumens per Lamp: N/A  
Luminaire Lumens: 12748.0 lumens  
Efficiency: N/A  
Efficacy: 121.5 lumens/watt  
Spacing Criteria (0/90/45): 1.09 / 1.03 / 1.25  
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')  
CIE Type: Semi-Direct

Input Watts (W): 104.9  
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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CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades tilted out 20 degrees

### 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	104	99	94	89	100	95	91	86	89	85	82	83	80	77	78	75	73	70
2	94	85	77	71	90	82	75	69	77	71	66	72	67	63	67	63	60	57
3	85	74	65	58	82	72	64	57	67	60	55	63	57	52	59	54	50	47
4	78	65	56	49	75	63	55	48	59	52	46	56	50	45	52	47	43	40
5	72	58	49	42	69	57	48	41	53	46	40	50	44	39	47	42	37	35
6	66	52	43	37	63	51	42	36	48	40	35	45	39	34	43	37	33	30
7	61	48	39	32	59	46	38	32	44	36	31	41	35	30	39	33	29	27
8	57	43	35	29	55	42	34	28	40	33	28	38	31	27	36	30	26	24
9	53	40	31	26	51	39	31	26	37	30	25	35	29	24	33	28	23	21
10	50	37	29	23	48	36	28	23	34	27	23	32	26	22	31	25	21	19

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

	0°	45°	90°
0°	17735	17735	17735
5°	17394	17067	17171
10°	17005	16484	16100
15°	16415	15340	14830
20°	15692	14215	13509
25°	14832	13144	12948
30°	13911	11951	13130
35°	12923	11975	13689
40°	11985	11746	14172
45°	11078	11742	14491
50°	10193	11588	14616
55°	9300	11436	14443
60°	8400	11369	14172
65°	7469	11278	13642
70°	6532	11282	13336
75°	5593	11376	13392
80°	4564	11946	13787
85°	3301	12791	15074



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	381.3	3.0
10°-20°	1020.1	8.0
20°-30°	1413.1	11.1
30°-40°	1682.4	13.2
40°-50°	1806.8	14.2
50°-60°	1721.5	13.5
60°-70°	1453.3	11.4
70°-80°	1111.7	8.7
80°-90°	761.0	6.0
90°-100°	377.4	3.0
100°-110°	198.4	1.6
110°-120°	155.4	1.2
120°-130°	141.2	1.1
130°-140°	145.2	1.1
140°-150°	145.6	1.1
150°-160°	129.8	1.0
160°-170°	77.1	0.6
170°-180°	26.9	0.2
0°-30°	2814.4	22.1
0°-40°	4496.8	35.3
0°-60°	8025.0	63.0
0°-90°	11350.9	89.0
90°-120°	731.2	5.7
90°-150°	1163.2	9.1
90°-180°	1397.0	11.0
0°-180°	12748.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4119	4119	4119	4119	4119	
5°	4061	4068	4015	4035	4031	385
15°	3786	3767	3618	3538	3476	1065
25°	3274	3204	3014	2877	2937	1505
35°	2638	2589	2584	2809	2908	1650
45°	2009	2033	2298	2629	2776	1552
55°	1423	1566	1940	2280	2382	1275
65°	897	1169	1562	1773	1818	892
75°	467	855	1173	1284	1306	498
85°	146	588	826	874	886	151
90°	37	376	558	590	598	28
95°	48	237	412	467	481	42
105°	87	126	206	221	226	93
115°	146	146	141	169	168	145
125°	212	228	129	115	127	189
135°	265	284	161	133	116	204
145°	298	274	285	168	144	186
155°	310	255	290	296	288	143
165°	307	291	252	261	255	87
175°	301	299	292	282	266	29
180°	290	290	290	290	290	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2
2.5°	4087.5	4100.7	4113.9	4120.5	4115.2	4107.3	4108.6	4109.9	4083.6	4078.3	4067.7
5°	4061.1	4074.3	4082.2	4082.2	4074.3	4061.1	4054.5	4049.3	4018.9	4015.0	4007.1
7.5°	4020.2	4030.8	4033.4	4028.2	4012.3	3992.5	3995.2	4003.1	3980.7	3976.7	3966.2
10°	3960.9	3968.8	3966.2	3951.7	3934.5	3934.5	3939.8	3939.8	3912.1	3897.6	3868.6
12.5°	3881.8	3887.0	3880.4	3863.3	3865.9	3859.3	3859.3	3840.9	3788.1	3753.8	3710.3
15°	3785.5	3789.4	3774.9	3772.3	3773.6	3760.4	3736.7	3691.8	3632.5	3618.0	3591.6
17.5°	3681.3	3678.6	3664.1	3668.1	3665.4	3629.8	3586.3	3544.1	3515.1	3490.0	3450.4
20°	3554.6	3553.3	3542.8	3550.7	3530.9	3476.8	3446.5	3410.9	3376.6	3318.6	3248.6
22.5°	3421.4	3417.5	3413.5	3414.8	3385.8	3325.1	3310.6	3267.1	3197.2	3140.5	3122.0
25°	3273.7	3273.7	3273.7	3265.8	3226.2	3181.4	3166.9	3087.7	3041.6	3013.9	2969.0
27.5°	3123.3	3123.3	3126.0	3110.2	3070.6	3038.9	2992.8	2936.0	2914.9	2838.4	2756.7
30°	2966.4	2969.0	2971.7	2946.6	2918.9	2882.0	2833.2	2804.1	2738.2	2669.6	2705.2
32.5°	2801.5	2810.7	2810.7	2788.3	2767.2	2715.8	2698.6	2647.2	2581.2	2616.9	2692.0
35°	2638.0	2657.7	2647.2	2631.4	2608.9	2569.4	2554.9	2479.7	2512.7	2583.9	2631.4
37.5°	2477.0	2498.1	2485.0	2479.7	2448.0	2446.7	2388.7	2392.6	2461.2	2511.3	2556.2
40°	2318.8	2335.9	2329.3	2324.0	2305.6	2302.9	2267.3	2324.0	2380.8	2425.6	2512.7
42.5°	2165.8	2180.3	2175.0	2171.0	2173.7	2149.9	2180.3	2244.9	2289.7	2367.6	2457.3
45°	2008.8	2023.3	2023.3	2024.6	2037.8	2028.6	2090.6	2142.0	2208.0	2297.7	2372.8
47.5°	1858.4	1870.3	1874.3	1887.5	1891.4	1925.7	1991.7	2043.1	2132.8	2208.0	2304.3
50°	1710.7	1721.3	1729.2	1754.2	1756.9	1825.5	1879.5	1957.4	2036.5	2124.9	2222.5
52.5°	1566.9	1574.9	1590.7	1617.1	1636.9	1718.6	1778.0	1865.0	1944.2	2039.1	2124.9
55°	1423.2	1432.4	1454.8	1475.9	1527.4	1605.2	1681.7	1766.1	1857.1	1940.2	2036.5
57.5°	1284.7	1296.6	1319.0	1345.4	1420.5	1499.7	1588.1	1675.1	1764.8	1851.8	1937.6
60°	1151.5	1163.3	1187.1	1225.3	1316.3	1403.4	1494.4	1586.7	1673.8	1758.2	1828.1
62.5°	1020.9	1032.8	1053.9	1117.2	1210.8	1312.4	1404.7	1498.4	1580.1	1655.3	1729.2
65°	896.9	908.8	929.9	1015.6	1115.9	1222.7	1322.9	1407.4	1487.8	1561.7	1631.6
67.5°	779.5	790.1	816.4	922.0	1030.1	1139.6	1235.9	1320.3	1400.8	1470.7	1522.1
70°	667.4	678.0	716.2	833.6	949.7	1060.5	1150.1	1239.8	1313.7	1367.8	1413.9
72.5°	563.2	571.1	629.2	754.5	875.8	978.7	1076.3	1158.1	1218.7	1263.6	1304.5
75°	466.9	473.5	556.6	687.2	803.3	906.1	997.1	1068.4	1122.5	1172.6	1212.1
77.5°	377.2	391.7	493.3	625.2	733.4	834.9	911.4	985.3	1047.3	1090.8	1121.1
80°	292.8	317.9	437.9	561.9	671.4	755.8	842.8	918.0	969.4	1005.1	1026.2
82.5°	215.0	255.9	383.8	502.5	600.1	697.7	776.9	842.8	887.7	915.4	933.8
85°	146.4	204.4	329.7	443.2	544.7	631.8	703.0	762.4	801.9	825.7	842.8
87.5°	91.0	163.6	284.9	390.4	478.8	557.9	625.2	680.6	717.5	741.3	753.1
90°	36.9	106.8	203.1	278.3	342.9	408.9	464.3	510.4	542.1	557.9	567.2
92.5°	38.3	77.8	145.1	213.7	274.3	340.3	398.3	447.1	478.8	497.3	506.5
95°	47.5	72.5	106.8	163.6	212.4	261.2	303.4	341.6	383.8	411.5	428.7
97.5°	54.1	81.8	95.0	131.9	176.7	217.6	250.6	277.0	294.1	306.0	315.2
100°	64.6	97.6	104.2	106.8	151.7	189.9	216.3	237.4	251.9	261.2	266.4
102.5°	75.2	108.2	116.1	109.5	122.7	164.9	193.9	212.4	221.6	228.2	232.1
105°	87.1	117.4	133.2	121.3	113.4	138.5	171.5	192.6	201.8	205.8	207.1
107.5°	101.6	125.3	157.0	130.6	121.3	114.8	146.4	171.5	186.0	191.3	192.6
110°	116.1	131.9	172.8	142.4	131.9	118.7	116.1	149.0	166.2	176.7	182.0



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CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	130.6	137.2	183.3	162.2	139.8	129.3	116.1	121.3	146.4	159.6	167.5
115°	146.4	145.1	188.6	195.2	151.7	139.8	126.6	114.8	121.3	141.1	153.0
117.5°	162.2	151.7	195.2	221.6	167.5	147.7	135.9	122.7	113.4	118.7	135.9
120°	179.4	163.6	200.5	237.4	192.6	158.3	145.1	133.2	121.3	113.4	113.4
122.5°	195.2	176.7	205.8	241.4	230.8	174.1	153.0	141.1	130.6	120.0	113.4
125°	212.4	191.3	211.0	245.3	259.8	195.2	164.9	149.0	138.5	129.3	120.0
127.5°	226.9	207.1	213.7	248.0	273.0	224.2	179.4	157.0	145.1	137.2	127.9
130°	240.1	222.9	217.6	249.3	274.3	275.7	200.5	168.8	153.0	143.8	135.9
132.5°	251.9	238.7	220.3	250.6	274.3	294.1	230.8	186.0	163.6	150.4	142.4
135°	265.1	253.2	222.9	251.9	274.3	292.8	286.2	211.0	178.1	160.9	149.0
137.5°	275.7	266.4	225.5	251.9	274.3	291.5	304.7	246.6	199.2	174.1	160.9
140°	284.9	278.3	234.8	251.9	273.0	290.2	300.7	298.1	229.5	195.2	175.4
142.5°	292.8	286.2	251.9	250.6	270.4	286.2	298.1	304.7	291.5	225.5	196.5
145°	298.1	292.8	266.4	248.0	266.4	282.3	294.1	302.0	307.3	284.9	228.2
147.5°	302.0	298.1	279.6	244.0	262.5	278.3	290.2	298.1	303.4	306.0	292.8
150°	306.0	303.4	288.9	249.3	258.5	273.0	284.9	294.1	299.4	302.0	304.7
152.5°	308.6	307.3	296.8	265.1	254.6	267.8	278.3	287.5	294.1	296.8	299.4
155°	310.0	308.6	300.7	282.3	249.3	261.2	271.7	280.9	286.2	290.2	294.1
157.5°	310.0	308.6	303.4	291.5	259.8	253.2	263.8	271.7	278.3	283.6	286.2
160°	310.0	310.0	304.7	296.8	279.6	249.3	254.6	262.5	269.1	273.0	277.0
162.5°	308.6	308.6	306.0	300.7	290.2	270.4	246.6	253.2	258.5	262.5	266.4
165°	307.3	307.3	306.0	302.0	295.5	286.2	270.4	249.3	246.6	251.9	254.6
167.5°	306.0	306.0	306.0	302.0	298.1	292.8	286.2	274.3	254.6	244.0	241.4
170°	304.7	304.7	304.7	303.4	300.7	296.8	292.8	287.5	280.9	273.0	263.8
172.5°	303.4	303.4	302.0	302.0	300.7	298.1	296.8	294.1	290.2	286.2	280.9
175°	300.7	302.0	300.7	300.7	299.4	298.1	296.8	295.5	292.8	291.5	288.9
177.5°	299.4	299.4	299.4	299.4	298.1	298.1	296.8	295.5	294.1	292.8	290.2
180°	290.2	290.2	290.2	290.2	290.2	290.2	290.2	290.2	290.2	290.2	290.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2	4119.2
2.5°	4061.1	4083.6	4092.8	4073.0	4067.7	4071.7	4074.3	4086.2
5°	4008.4	4034.8	4044.0	4026.8	4020.2	4020.2	4020.2	4030.8
7.5°	3962.2	3986.0	3986.0	3960.9	3950.3	3945.1	3942.4	3953.0
10°	3843.5	3850.1	3842.2	3803.9	3792.1	3784.2	3780.2	3790.7
12.5°	3695.8	3716.9	3714.2	3681.3	3674.7	3666.8	3661.5	3672.0
15°	3574.4	3585.0	3559.9	3515.1	3491.3	3478.1	3467.6	3475.5
17.5°	3404.3	3383.2	3348.9	3312.0	3314.6	3313.3	3308.0	3318.6
20°	3224.9	3242.0	3224.9	3190.6	3172.1	3148.4	3126.0	3127.3
22.5°	3107.5	3087.7	3009.9	2936.0	2917.6	2914.9	2918.9	2924.2
25°	2879.3	2858.2	2871.4	2883.3	2892.5	2914.9	2936.0	2937.4
27.5°	2787.0	2825.3	2870.1	2909.7	2934.7	2934.7	2940.0	2936.0
30°	2775.1	2845.0	2846.4	2863.5	2888.6	2892.5	2896.5	2895.2
32.5°	2744.8	2784.4	2792.3	2814.7	2860.9	2899.1	2925.5	2926.8
35°	2677.5	2723.7	2784.4	2833.2	2867.5	2889.9	2907.0	2908.3
37.5°	2638.0	2717.1	2752.7	2791.0	2820.0	2849.0	2871.4	2879.3
40°	2599.7	2655.1	2693.4	2759.3	2816.0	2851.6	2866.1	2874.1
42.5°	2525.8	2595.8	2670.9	2727.6	2773.8	2802.8	2810.7	2816.0
45°	2466.5	2544.3	2605.0	2653.8	2707.9	2747.4	2771.2	2776.5
47.5°	2395.3	2458.6	2527.2	2602.3	2656.4	2688.1	2705.2	2714.5
50°	2295.0	2383.4	2461.2	2521.9	2565.4	2587.8	2602.3	2615.5
52.5°	2215.9	2296.3	2355.7	2415.1	2463.9	2494.2	2506.1	2512.7
55°	2118.3	2184.2	2251.5	2308.2	2346.5	2368.9	2378.1	2382.1
57.5°	2008.8	2077.4	2135.4	2182.9	2218.5	2242.3	2252.8	2259.4
60°	1904.6	1962.6	2012.8	2061.6	2093.2	2111.7	2114.3	2120.9
62.5°	1796.4	1847.9	1890.1	1927.0	1952.1	1964.0	1965.3	1966.6
65°	1681.7	1726.5	1758.2	1787.2	1808.3	1820.2	1820.2	1817.6
67.5°	1568.3	1601.2	1631.6	1660.6	1673.8	1679.1	1672.5	1675.1
70°	1448.2	1474.6	1497.0	1519.5	1535.3	1547.2	1541.9	1544.5
72.5°	1341.4	1367.8	1388.9	1406.0	1417.9	1427.1	1421.9	1423.2
75°	1245.1	1262.3	1276.8	1291.3	1301.8	1308.4	1303.2	1305.8
77.5°	1144.9	1158.1	1167.3	1181.8	1191.0	1197.6	1192.4	1193.7
80°	1043.3	1056.5	1064.4	1072.3	1082.9	1088.2	1080.2	1081.6
82.5°	947.0	956.3	964.2	974.7	981.3	985.3	982.6	981.3
85°	854.7	860.0	869.2	879.8	885.0	890.3	887.7	886.4
87.5°	761.1	763.7	771.6	782.2	786.1	790.1	786.1	786.1
90°	573.8	580.4	585.6	594.9	598.8	600.1	597.5	597.5
92.5°	514.4	522.3	527.6	532.9	539.5	540.8	539.5	542.1
95°	443.2	455.0	464.3	469.6	476.2	478.8	477.5	481.4
97.5°	336.3	361.4	379.9	389.1	399.7	402.3	402.3	402.3
100°	273.0	278.3	283.6	284.9	288.9	290.2	288.9	290.2
102.5°	237.4	242.7	248.0	251.9	254.6	254.6	253.2	254.6
105°	211.0	215.0	219.0	222.9	224.2	225.5	224.2	225.5
107.5°	193.9	195.2	196.5	199.2	200.5	201.8	201.8	200.5
110°	183.3	184.7	184.7	186.0	186.0	186.0	183.3	182.0





TEST NUMBER: P236456

CATALOG NUMBER: SKB2-LD5-12-W-UNV-L850-CD2-U all blades tilted out 20 degrees

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	172.8	175.4	176.7	176.7	178.1	178.1	175.4	174.1
115°	159.6	164.9	167.5	170.1	171.5	170.1	168.8	167.5
117.5°	146.4	153.0	155.6	159.6	162.2	162.2	160.9	158.3
120°	130.6	138.5	143.8	149.0	151.7	151.7	150.4	149.0
122.5°	110.8	121.3	130.6	135.9	139.8	139.8	139.8	137.2
125°	114.8	109.5	112.1	118.7	126.6	127.9	126.6	126.6
127.5°	121.3	116.1	113.4	109.5	106.8	108.2	106.8	105.5
130°	129.3	124.0	120.0	116.1	113.4	109.5	105.5	104.2
132.5°	137.2	131.9	127.9	122.7	118.7	116.1	112.1	109.5
135°	143.8	139.8	135.9	130.6	126.6	122.7	118.7	116.1
137.5°	151.7	145.1	141.1	138.5	134.5	130.6	125.3	122.7
140°	162.2	154.3	147.7	142.4	139.8	135.9	131.9	129.3
142.5°	178.1	166.2	157.0	151.7	146.4	142.4	137.2	134.5
145°	201.8	184.7	172.8	163.6	157.0	151.7	146.4	143.8
147.5°	241.4	211.0	195.2	182.0	174.1	167.5	160.9	158.3
150°	306.0	275.7	233.5	211.0	199.2	191.3	184.7	180.7
152.5°	302.0	303.4	302.0	286.2	263.8	246.6	230.8	219.0
155°	295.5	296.8	296.8	295.5	294.1	292.8	290.2	287.5
157.5°	288.9	291.5	291.5	290.2	288.9	286.2	283.6	282.3
160°	280.9	282.3	283.6	282.3	282.3	279.6	277.0	275.7
162.5°	270.4	273.0	273.0	273.0	271.7	270.4	269.1	266.4
165°	257.2	259.8	261.2	261.2	259.8	258.5	255.9	254.6
167.5°	244.0	246.6	248.0	246.6	246.6	244.0	241.4	238.7
170°	249.3	244.0	234.8	230.8	230.8	228.2	224.2	224.2
172.5°	278.3	274.3	269.1	265.1	259.8	255.9	251.9	248.0
175°	286.2	284.9	283.6	279.6	277.0	273.0	270.4	266.4
177.5°	288.9	288.9	287.5	284.9	282.3	278.3	274.3	270.4
180°	290.2	290.2	290.2	290.2	290.2	290.2	290.2	290.2

(END OF REPORT)