

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: P236451

Luminaire Tested: **SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236451
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-LD5-9-W-UNV-L835-CD1-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) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

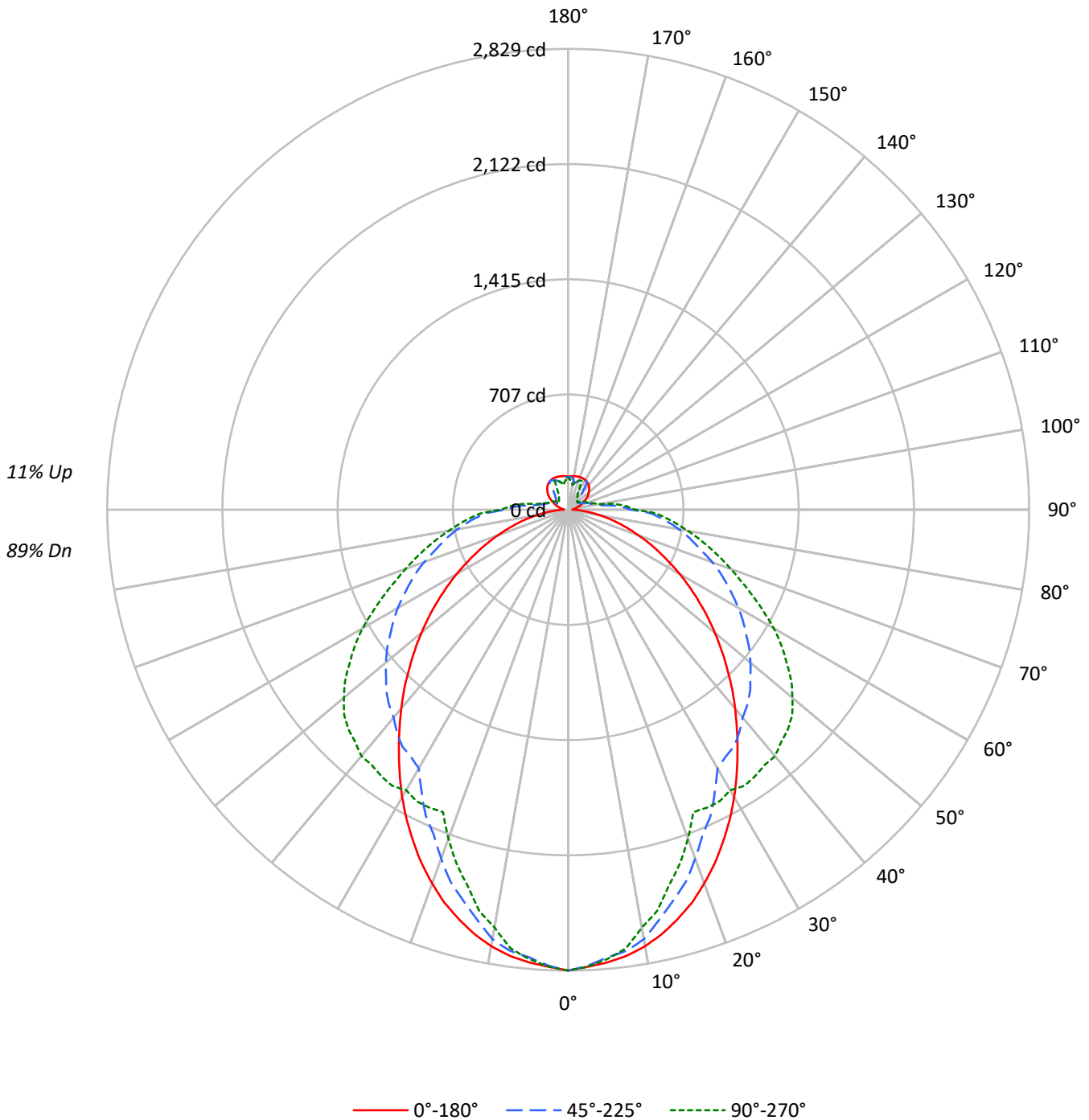
Lumens per Lamp: N/A
Luminaire Lumens: 8756.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.03 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 75.4
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

TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

Luminous Intensity Polar Plot





TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

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°	12182	12182	12182
5°	11947	11722	11794
10°	11680	11322	11058
15°	11275	10536	10186
20°	10778	9763	9279
25°	10188	9028	8893
30°	9555	8208	9018
35°	8876	8225	9402
40°	8232	8067	9734
45°	7609	8065	9953
50°	7001	7960	10039
55°	6387	7855	9920
60°	5770	7809	9735
65°	5130	7746	9370
70°	4487	7750	9161
75°	3842	7814	9199
80°	3134	8205	9469
85°	2269	8785	10353



TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	3.0
10°-20°	700.6	8.0
20°-30°	970.6	11.1
30°-40°	1155.5	13.2
40°-50°	1241.0	14.2
50°-60°	1182.4	13.5
60°-70°	998.2	11.4
70°-80°	763.6	8.7
80°-90°	522.7	6.0
90°-100°	259.2	3.0
100°-110°	136.2	1.6
110°-120°	106.8	1.2
120°-130°	97.0	1.1
130°-140°	99.7	1.1
140°-150°	100.0	1.1
150°-160°	89.1	1.0
160°-170°	53.0	0.6
170°-180°	18.5	0.2
0°-30°	1933.1	22.1
0°-40°	3088.6	35.3
0°-60°	5512.0	63.0
0°-90°	7796.4	89.0
90°-120°	502.2	5.7
90°-150°	799.0	9.1
90°-180°	960.0	11.0
0°-180°	8756.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2829	2829	2829	2829	2829	
5°	2789	2794	2758	2772	2769	264
15°	2600	2587	2485	2430	2387	731
25°	2249	2200	2070	1976	2018	1034
35°	1812	1778	1775	1929	1998	1134
45°	1380	1396	1578	1806	1907	1066
55°	978	1076	1333	1566	1636	876
65°	616	803	1073	1218	1248	613
75°	321	587	805	882	897	342
85°	101	404	567	601	609	103
90°	25	258	383	405	410	19
95°	33	163	283	321	331	29
105°	60	86	141	152	155	64
115°	101	100	97	116	115	100
125°	146	156	89	79	87	130
135°	182	195	110	92	80	140
145°	205	188	196	116	99	128
155°	213	175	199	203	198	98
165°	211	200	173	179	175	60
175°	207	205	200	193	183	20
180°	199	199	199	199	199	



TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3
2.5°	2807.5	2816.6	2825.6	2830.2	2826.5	2821.1	2822.0	2822.9	2804.8	2801.2	2793.9
5°	2789.4	2798.5	2803.9	2803.9	2798.5	2789.4	2784.9	2781.2	2760.4	2757.7	2752.3
7.5°	2761.3	2768.6	2770.4	2766.8	2755.9	2742.3	2744.1	2749.5	2734.1	2731.4	2724.2
10°	2720.6	2726.0	2724.2	2714.2	2702.4	2702.4	2706.1	2706.1	2687.0	2677.1	2657.1
12.5°	2666.2	2669.8	2665.3	2653.5	2655.3	2650.8	2650.8	2638.1	2601.9	2578.3	2548.4
15°	2600.1	2602.8	2592.8	2591.0	2591.9	2582.8	2566.5	2535.7	2495.0	2485.0	2466.9
17.5°	2528.5	2526.7	2516.7	2519.4	2517.6	2493.2	2463.3	2434.3	2414.3	2397.1	2370.0
20°	2441.5	2440.6	2433.4	2438.8	2425.2	2388.1	2367.2	2342.8	2319.2	2279.4	2231.3
22.5°	2350.0	2347.3	2344.6	2345.5	2325.6	2283.9	2273.9	2244.0	2196.0	2157.1	2144.4
25°	2248.6	2248.6	2248.6	2243.1	2215.9	2185.1	2175.2	2120.8	2089.1	2070.1	2039.3
27.5°	2145.3	2145.3	2147.1	2136.2	2109.0	2087.3	2055.6	2016.6	2002.1	1949.6	1893.4
30°	2037.5	2039.3	2041.1	2023.9	2004.9	1979.5	1946.0	1926.0	1880.7	1833.6	1858.1
32.5°	1924.2	1930.6	1930.6	1915.2	1900.7	1865.3	1853.6	1818.2	1772.9	1797.4	1849.0
35°	1811.9	1825.5	1818.2	1807.4	1792.0	1764.8	1754.8	1703.2	1725.8	1774.7	1807.4
37.5°	1701.4	1715.9	1706.8	1703.2	1681.4	1680.5	1640.7	1643.4	1690.5	1724.9	1755.7
40°	1592.7	1604.4	1599.9	1596.3	1583.6	1581.8	1557.3	1596.3	1635.2	1666.0	1725.8
42.5°	1487.6	1497.5	1493.9	1491.2	1493.0	1476.7	1497.5	1541.9	1572.7	1626.2	1687.8
45°	1379.8	1389.7	1389.7	1390.6	1399.7	1393.3	1435.9	1471.3	1516.6	1578.2	1629.8
47.5°	1276.5	1284.6	1287.3	1296.4	1299.1	1322.7	1368.0	1403.3	1464.9	1516.6	1582.7
50°	1175.0	1182.3	1187.7	1204.9	1206.7	1253.8	1291.0	1344.4	1398.8	1459.5	1526.5
52.5°	1076.3	1081.7	1092.6	1110.7	1124.3	1180.4	1221.2	1281.0	1335.4	1400.6	1459.5
55°	977.5	983.9	999.3	1013.8	1049.1	1102.5	1155.1	1213.1	1275.6	1332.6	1398.8
57.5°	882.4	890.5	905.9	924.1	975.7	1030.1	1090.8	1150.5	1212.2	1271.9	1330.8
60°	790.9	799.0	815.3	841.6	904.1	963.9	1026.4	1089.9	1149.6	1207.6	1255.6
62.5°	701.2	709.4	723.8	767.3	831.7	901.4	964.8	1029.2	1085.3	1137.0	1187.7
65°	616.0	624.2	638.7	697.6	766.4	839.8	908.7	966.6	1021.9	1072.6	1120.7
67.5°	535.4	542.7	560.8	633.3	707.5	782.7	848.9	906.9	962.1	1010.1	1045.5
70°	458.4	465.7	491.9	572.6	652.3	728.4	790.0	851.6	902.3	939.5	971.2
72.5°	386.8	392.3	432.1	518.2	601.5	672.2	739.3	795.4	837.1	867.9	896.0
75°	320.7	325.2	382.3	472.0	551.7	622.4	684.9	733.8	771.0	805.4	832.6
77.5°	259.1	269.1	338.8	429.4	503.7	573.5	626.0	676.7	719.3	749.2	770.1
80°	201.1	218.3	300.8	385.9	461.1	519.1	578.9	630.5	665.9	690.3	704.8
82.5°	147.7	175.8	263.6	345.2	412.2	479.2	533.6	578.9	609.7	628.7	641.4
85°	100.6	140.4	226.5	304.4	374.2	433.9	482.9	523.6	550.8	567.1	578.9
87.5°	62.5	112.3	195.7	268.2	328.9	383.2	429.4	467.5	492.8	509.1	517.3
90°	25.4	73.4	139.5	191.2	235.5	280.8	318.9	350.6	372.3	383.2	389.6
92.5°	26.3	53.5	99.7	146.8	188.4	233.7	273.6	307.1	328.9	341.5	347.9
95°	32.6	49.8	73.4	112.3	145.9	179.4	208.4	234.6	263.6	282.7	294.4
97.5°	37.1	56.2	65.2	90.6	121.4	149.5	172.1	190.2	202.0	210.2	216.5
100°	44.4	67.0	71.6	73.4	104.2	130.5	148.6	163.1	173.0	179.4	183.0
102.5°	51.6	74.3	79.7	75.2	84.3	113.2	133.2	145.9	152.2	156.7	159.4
105°	59.8	80.6	91.5	83.3	77.9	95.1	117.8	132.3	138.6	141.3	142.2
107.5°	69.8	86.1	107.8	89.7	83.3	78.8	100.6	117.8	127.7	131.4	132.3
110°	79.7	90.6	118.7	97.8	90.6	81.5	79.7	102.4	114.1	121.4	125.0



TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	89.7	94.2	125.9	111.4	96.0	88.8	79.7	83.3	100.6	109.6	115.1
115°	100.6	99.7	129.6	134.1	104.2	96.0	87.0	78.8	83.3	96.9	105.1
117.5°	111.4	104.2	134.1	152.2	115.1	101.5	93.3	84.3	77.9	81.5	93.3
120°	123.2	112.3	137.7	163.1	132.3	108.7	99.7	91.5	83.3	77.9	77.9
122.5°	134.1	121.4	141.3	165.8	158.5	119.6	105.1	96.9	89.7	82.4	77.9
125°	145.9	131.4	145.0	168.5	178.5	134.1	113.2	102.4	95.1	88.8	82.4
127.5°	155.8	142.2	146.8	170.3	187.5	154.0	123.2	107.8	99.7	94.2	87.9
130°	164.9	153.1	149.5	171.2	188.4	189.3	137.7	116.0	105.1	98.7	93.3
132.5°	173.0	164.0	151.3	172.1	188.4	202.0	158.5	127.7	112.3	103.3	97.8
135°	182.1	173.9	153.1	173.0	188.4	201.1	196.6	145.0	122.3	110.5	102.4
137.5°	189.3	183.0	154.9	173.0	188.4	200.2	209.3	169.4	136.8	119.6	110.5
140°	195.7	191.2	161.3	173.0	187.5	199.3	206.6	204.7	157.6	134.1	120.5
142.5°	201.1	196.6	173.0	172.1	185.7	196.6	204.7	209.3	200.2	154.9	135.0
145°	204.7	201.1	183.0	170.3	183.0	193.9	202.0	207.5	211.1	195.7	156.7
147.5°	207.5	204.7	192.1	167.6	180.3	191.2	199.3	204.7	208.4	210.2	201.1
150°	210.2	208.4	198.4	171.2	177.6	187.5	195.7	202.0	205.6	207.5	209.3
152.5°	212.0	211.1	203.8	182.1	174.8	183.9	191.2	197.5	202.0	203.8	205.6
155°	212.9	212.0	206.6	193.9	171.2	179.4	186.6	193.0	196.6	199.3	202.0
157.5°	212.9	212.0	208.4	200.2	178.5	173.9	181.2	186.6	191.2	194.8	196.6
160°	212.9	212.9	209.3	203.8	192.1	171.2	174.8	180.3	184.8	187.5	190.2
162.5°	212.0	212.0	210.2	206.6	199.3	185.7	169.4	173.9	177.6	180.3	183.0
165°	211.1	211.1	210.2	207.5	202.9	196.6	185.7	171.2	169.4	173.0	174.8
167.5°	210.2	210.2	210.2	207.5	204.7	201.1	196.6	188.4	174.8	167.6	165.8
170°	209.3	209.3	209.3	208.4	206.6	203.8	201.1	197.5	193.0	187.5	181.2
172.5°	208.4	208.4	207.5	207.5	206.6	204.7	203.8	202.0	199.3	196.6	193.0
175°	206.6	207.5	206.6	206.6	205.6	204.7	203.8	202.9	201.1	200.2	198.4
177.5°	205.6	205.6	205.6	205.6	204.7	204.7	203.8	202.9	202.0	201.1	199.3
180°	199.3	199.3	199.3	199.3	199.3	199.3	199.3	199.3	199.3	199.3	199.3



TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3	2829.3
2.5°	2789.4	2804.8	2811.1	2797.6	2793.9	2796.7	2798.5	2806.6
5°	2753.2	2771.3	2777.6	2765.8	2761.3	2761.3	2761.3	2768.6
7.5°	2721.5	2737.8	2737.8	2720.6	2713.3	2709.7	2707.9	2715.1
10°	2639.9	2644.5	2639.0	2612.7	2604.6	2599.2	2596.4	2603.7
12.5°	2538.5	2553.0	2551.1	2528.5	2524.0	2518.5	2514.9	2522.1
15°	2455.1	2462.4	2445.1	2414.3	2398.0	2389.0	2381.7	2387.2
17.5°	2338.2	2323.7	2300.2	2274.8	2276.6	2275.7	2272.1	2279.4
20°	2215.0	2226.8	2215.0	2191.5	2178.8	2162.5	2147.1	2148.0
22.5°	2134.4	2120.8	2067.4	2016.6	2003.9	2002.1	2004.9	2008.5
25°	1977.7	1963.2	1972.2	1980.4	1986.7	2002.1	2016.6	2017.5
27.5°	1914.3	1940.5	1971.3	1998.5	2015.7	2015.7	2019.3	2016.6
30°	1906.1	1954.1	1955.0	1966.8	1984.0	1986.7	1989.5	1988.5
32.5°	1885.3	1912.4	1917.9	1933.3	1965.0	1991.3	2009.4	2010.3
35°	1839.1	1870.8	1912.4	1946.0	1969.5	1984.9	1996.7	1997.6
37.5°	1811.9	1866.2	1890.7	1917.0	1936.9	1956.8	1972.2	1977.7
40°	1785.6	1823.7	1849.9	1895.2	1934.2	1958.7	1968.6	1974.1
42.5°	1734.9	1782.9	1834.5	1873.5	1905.2	1925.1	1930.6	1934.2
45°	1694.1	1747.6	1789.2	1822.8	1859.9	1887.1	1903.4	1907.0
47.5°	1645.2	1688.7	1735.8	1787.4	1824.6	1846.3	1858.1	1864.4
50°	1576.3	1637.0	1690.5	1732.2	1762.1	1777.5	1787.4	1796.5
52.5°	1522.0	1577.2	1618.0	1658.8	1692.3	1713.1	1721.3	1725.8
55°	1454.9	1500.2	1546.4	1585.4	1611.7	1627.1	1633.4	1636.1
57.5°	1379.8	1426.9	1466.7	1499.3	1523.8	1540.1	1547.4	1551.9
60°	1308.2	1348.0	1382.5	1416.0	1437.7	1450.4	1452.2	1456.8
62.5°	1233.9	1269.2	1298.2	1323.6	1340.8	1349.0	1349.9	1350.8
65°	1155.1	1185.9	1207.6	1227.6	1242.0	1250.2	1250.2	1248.4
67.5°	1077.2	1099.8	1120.7	1140.6	1149.6	1153.3	1148.7	1150.5
70°	994.7	1012.8	1028.2	1043.6	1054.5	1062.7	1059.0	1060.9
72.5°	921.3	939.5	954.0	965.7	973.9	980.2	976.6	977.5
75°	855.2	867.0	877.0	886.9	894.2	898.7	895.1	896.9
77.5°	786.4	795.4	801.8	811.7	818.1	822.6	819.0	819.9
80°	716.6	725.7	731.1	736.5	743.8	747.4	742.0	742.9
82.5°	650.5	656.8	662.2	669.5	674.0	676.7	674.9	674.0
85°	587.1	590.7	597.0	604.3	607.9	611.5	609.7	608.8
87.5°	522.7	524.5	530.0	537.2	539.9	542.7	539.9	539.9
90°	394.1	398.6	402.2	408.6	411.3	412.2	410.4	410.4
92.5°	353.3	358.8	362.4	366.0	370.5	371.4	370.5	372.3
95°	304.4	312.6	318.9	322.5	327.0	328.9	328.0	330.7
97.5°	231.0	248.2	260.9	267.3	274.5	276.3	276.3	276.3
100°	187.5	191.2	194.8	195.7	198.4	199.3	198.4	199.3
102.5°	163.1	166.7	170.3	173.0	174.8	174.8	173.9	174.8
105°	145.0	147.7	150.4	153.1	154.0	154.9	154.0	154.9
107.5°	133.2	134.1	135.0	136.8	137.7	138.6	138.6	137.7
110°	125.9	126.8	126.8	127.7	127.7	127.7	125.9	125.0



TEST NUMBER: P236451

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L835-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	118.7	120.5	121.4	121.4	122.3	122.3	120.5	119.6
115°	109.6	113.2	115.1	116.9	117.8	116.9	116.0	115.1
117.5°	100.6	105.1	106.9	109.6	111.4	111.4	110.5	108.7
120°	89.7	95.1	98.7	102.4	104.2	104.2	103.3	102.4
122.5°	76.1	83.3	89.7	93.3	96.0	96.0	96.0	94.2
125°	78.8	75.2	77.0	81.5	87.0	87.9	87.0	87.0
127.5°	83.3	79.7	77.9	75.2	73.4	74.3	73.4	72.5
130°	88.8	85.2	82.4	79.7	77.9	75.2	72.5	71.6
132.5°	94.2	90.6	87.9	84.3	81.5	79.7	77.0	75.2
135°	98.7	96.0	93.3	89.7	87.0	84.3	81.5	79.7
137.5°	104.2	99.7	96.9	95.1	92.4	89.7	86.1	84.3
140°	111.4	106.0	101.5	97.8	96.0	93.3	90.6	88.8
142.5°	122.3	114.1	107.8	104.2	100.6	97.8	94.2	92.4
145°	138.6	126.8	118.7	112.3	107.8	104.2	100.6	98.7
147.5°	165.8	145.0	134.1	125.0	119.6	115.1	110.5	108.7
150°	210.2	189.3	160.4	145.0	136.8	131.4	126.8	124.1
152.5°	207.5	208.4	207.5	196.6	181.2	169.4	158.5	150.4
155°	202.9	203.8	203.8	202.9	202.0	201.1	199.3	197.5
157.5°	198.4	200.2	200.2	199.3	198.4	196.6	194.8	193.9
160°	193.0	193.9	194.8	193.9	193.9	192.1	190.2	189.3
162.5°	185.7	187.5	187.5	187.5	186.6	185.7	184.8	183.0
165°	176.7	178.5	179.4	179.4	178.5	177.6	175.8	174.8
167.5°	167.6	169.4	170.3	169.4	169.4	167.6	165.8	164.0
170°	171.2	167.6	161.3	158.5	158.5	156.7	154.0	154.0
172.5°	191.2	188.4	184.8	182.1	178.5	175.8	173.0	170.3
175°	196.6	195.7	194.8	192.1	190.2	187.5	185.7	183.0
177.5°	198.4	198.4	197.5	195.7	193.9	191.2	188.4	185.7
180°	199.3	199.3	199.3	199.3	199.3	199.3	199.3	199.3

(END OF REPORT)