

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: P236452

Luminaire Tested: **SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236452
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-L840-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) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

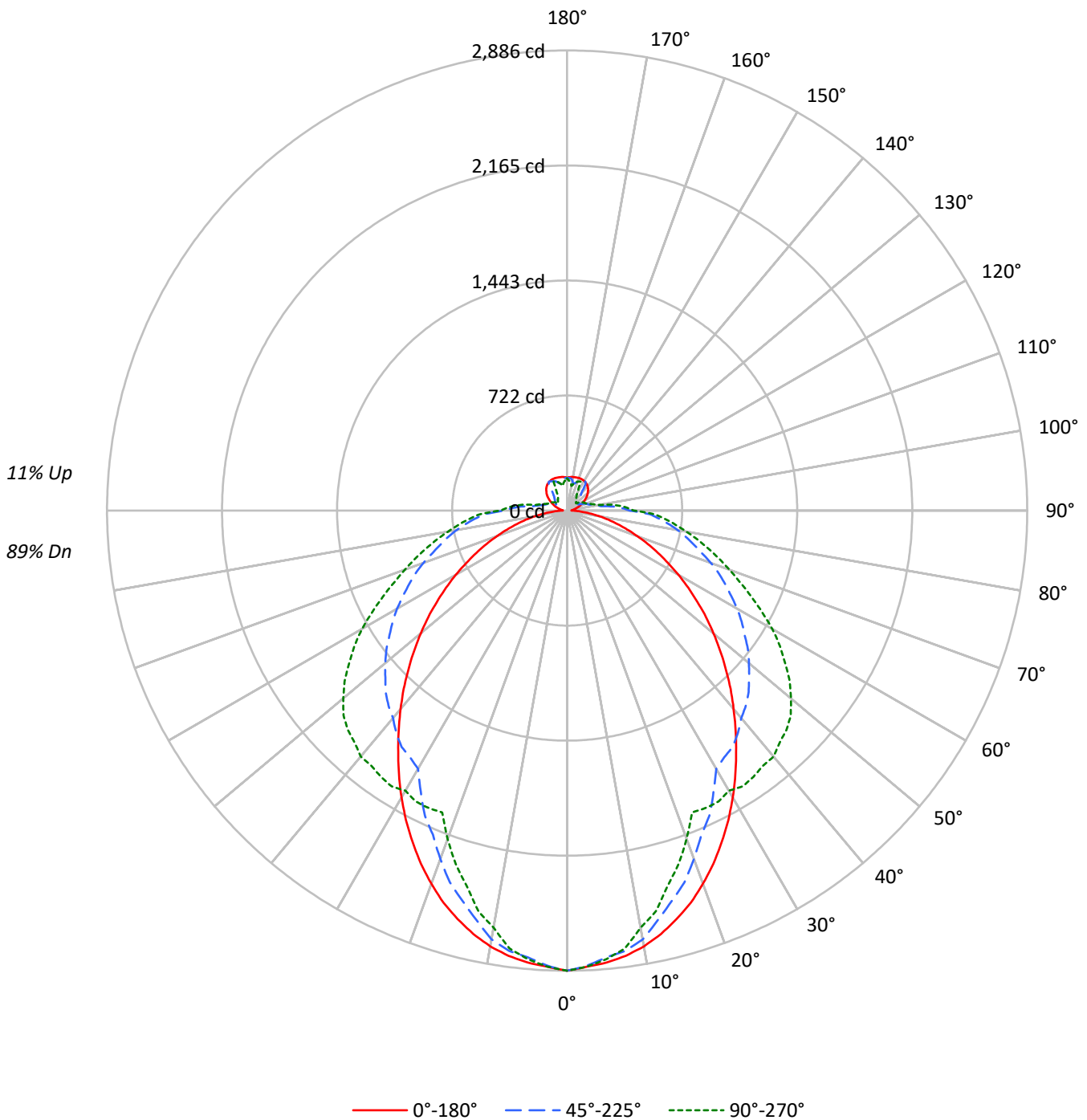
Lumens per Lamp: N/A
Luminaire Lumens: 8931.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.03 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 75.4
Input Voltage (V): 120
Input Current (A_{in}): 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: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees

Luminous Intensity Polar Plot





TEST NUMBER: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-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°	12425	12425	12425
5°	12186	11957	12030
10°	11913	11548	11279
15°	11500	10747	10389
20°	10993	9958	9464
25°	10391	9209	9071
30°	9746	8373	9199
35°	9053	8390	9590
40°	8397	8229	9928
45°	7761	8226	10152
50°	7141	8118	10240
55°	6515	8012	10118
60°	5885	7965	9929
65°	5233	7901	9557
70°	4577	7904	9344
75°	3918	7970	9382
80°	3197	8369	9658
85°	2314	8962	10560



TEST NUMBER: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.1	3.0
10°-20°	714.6	8.0
20°-30°	990.0	11.1
30°-40°	1178.6	13.2
40°-50°	1265.8	14.2
50°-60°	1206.0	13.5
60°-70°	1018.1	11.4
70°-80°	778.8	8.7
80°-90°	533.1	6.0
90°-100°	264.4	3.0
100°-110°	139.0	1.6
110°-120°	108.9	1.2
120°-130°	98.9	1.1
130°-140°	101.7	1.1
140°-150°	102.0	1.1
150°-160°	90.9	1.0
160°-170°	54.0	0.6
170°-180°	18.9	0.2
0°-30°	1971.7	22.1
0°-40°	3150.4	35.3
0°-60°	5622.2	63.0
0°-90°	7952.2	89.0
90°-120°	512.3	5.7
90°-150°	814.9	9.1
90°-180°	979.0	11.0
0°-180°	8931.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2886	2886	2886	2886	2886	
5°	2845	2850	2813	2827	2824	269
15°	2652	2639	2535	2478	2435	746
25°	2294	2244	2112	2016	2058	1055
35°	1848	1814	1810	1968	2038	1156
45°	1407	1424	1610	1842	1945	1087
55°	997	1097	1359	1597	1669	893
65°	628	819	1094	1242	1273	625
75°	327	599	822	900	915	349
85°	103	412	578	613	621	105
90°	26	263	391	414	419	20
95°	33	166	288	327	337	29
105°	61	88	144	155	158	66
115°	103	102	99	118	117	102
125°	149	159	91	81	89	132
135°	186	199	113	93	81	143
145°	209	192	200	118	101	131
155°	217	179	203	207	201	100
165°	215	204	176	183	178	61
175°	211	209	204	197	187	20
180°	203	203	203	203	203	



TEST NUMBER: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8
2.5°	2863.6	2872.9	2882.1	2886.7	2883.0	2877.5	2878.4	2879.3	2860.9	2857.2	2849.8
5°	2845.2	2854.4	2859.9	2859.9	2854.4	2845.2	2840.5	2836.8	2815.6	2812.8	2807.3
7.5°	2816.5	2823.9	2825.7	2822.1	2811.0	2797.1	2798.9	2804.5	2788.8	2786.0	2778.6
10°	2774.9	2780.5	2778.6	2768.5	2756.4	2756.4	2760.1	2760.1	2740.7	2730.6	2710.2
12.5°	2719.5	2723.2	2718.6	2706.5	2708.4	2703.8	2703.8	2690.8	2653.9	2629.8	2599.4
15°	2652.0	2654.8	2644.6	2642.8	2643.7	2634.5	2617.8	2586.4	2544.8	2534.7	2516.2
17.5°	2579.0	2577.2	2567.0	2569.8	2567.9	2543.0	2512.5	2482.9	2462.6	2445.0	2417.3
20°	2490.3	2489.4	2482.0	2487.5	2473.7	2435.8	2414.5	2389.6	2365.6	2324.9	2275.9
22.5°	2397.0	2394.2	2391.4	2392.4	2372.0	2329.5	2319.4	2288.9	2239.9	2200.2	2187.2
25°	2293.5	2293.5	2293.5	2287.9	2260.2	2228.8	2218.6	2163.2	2130.9	2111.5	2080.0
27.5°	2188.2	2188.2	2190.0	2178.9	2151.2	2129.0	2096.7	2056.9	2042.2	1988.6	1931.3
30°	2078.2	2080.0	2081.9	2064.3	2044.9	2019.1	1984.9	1964.5	1918.3	1870.3	1895.2
32.5°	1962.7	1969.2	1969.2	1953.4	1938.7	1902.6	1890.6	1854.6	1808.4	1833.3	1886.0
35°	1848.1	1862.0	1854.6	1843.5	1827.8	1800.1	1789.9	1737.2	1760.3	1810.2	1843.5
37.5°	1735.4	1750.2	1740.9	1737.2	1715.0	1714.1	1673.5	1676.2	1724.3	1759.4	1790.8
40°	1624.5	1636.5	1631.9	1628.2	1615.2	1613.4	1588.4	1628.2	1667.9	1699.3	1760.3
42.5°	1517.3	1527.5	1523.8	1521.0	1522.8	1506.2	1527.5	1572.7	1604.2	1658.7	1721.5
45°	1407.3	1417.5	1417.5	1418.4	1427.7	1421.2	1464.6	1500.7	1546.9	1609.7	1662.4
47.5°	1302.0	1310.3	1313.1	1322.3	1325.1	1349.1	1395.3	1431.4	1494.2	1546.9	1614.3
50°	1198.5	1205.9	1211.4	1229.0	1230.8	1278.9	1316.8	1371.3	1426.7	1488.6	1557.0
52.5°	1097.8	1103.3	1114.4	1132.9	1146.7	1204.0	1245.6	1306.6	1362.1	1428.6	1488.6
55°	997.1	1003.5	1019.2	1034.0	1070.1	1124.6	1178.2	1237.3	1301.1	1359.3	1426.7
57.5°	900.0	908.3	924.1	942.5	995.2	1050.6	1112.6	1173.5	1236.4	1297.4	1357.4
60°	806.7	815.0	831.6	858.4	922.2	983.2	1046.9	1111.6	1172.6	1231.8	1280.7
62.5°	715.2	723.5	738.3	782.7	848.3	919.4	984.1	1049.7	1107.0	1159.7	1211.4
65°	628.4	636.7	651.5	711.5	781.7	856.6	926.8	986.0	1042.3	1094.1	1143.1
67.5°	546.1	553.5	572.0	645.9	721.7	798.4	865.8	925.0	981.3	1030.3	1066.4
70°	467.6	475.0	501.8	584.0	665.3	742.9	805.8	868.6	920.4	958.2	990.6
72.5°	394.6	400.1	440.8	528.6	613.6	685.6	754.0	811.3	853.8	885.2	913.9
75°	327.1	331.7	389.9	481.4	562.7	634.8	698.6	748.5	786.4	821.5	849.2
77.5°	264.3	274.4	345.6	438.0	513.8	584.9	638.5	690.3	733.7	764.2	785.4
80°	205.1	222.7	306.8	393.6	470.3	529.5	590.5	643.1	679.2	704.1	718.9
82.5°	150.6	179.3	268.9	352.1	420.4	488.8	544.3	590.5	621.9	641.3	654.2
85°	102.6	143.2	231.0	310.5	381.6	442.6	492.5	534.1	561.8	578.5	590.5
87.5°	63.8	114.6	199.6	273.5	335.4	390.9	438.0	476.8	502.7	519.3	527.6
90°	25.9	74.8	142.3	195.0	240.3	286.5	325.3	357.6	379.8	390.9	397.3
92.5°	26.8	54.5	101.6	149.7	192.2	238.4	279.1	313.3	335.4	348.4	354.8
95°	33.3	50.8	74.8	114.6	148.8	183.0	212.5	239.3	268.9	288.3	300.3
97.5°	37.9	57.3	66.5	92.4	123.8	152.5	175.6	194.1	206.1	214.4	220.8
100°	45.3	68.4	73.0	74.8	106.3	133.1	151.5	166.3	176.5	183.0	186.7
102.5°	52.7	75.8	81.3	76.7	85.9	115.5	135.8	148.8	155.2	159.9	162.6
105°	61.0	82.2	93.3	85.0	79.5	97.0	120.1	134.9	141.4	144.2	145.1
107.5°	71.2	87.8	110.0	91.5	85.0	80.4	102.6	120.1	130.3	134.0	134.9
110°	81.3	92.4	121.1	99.8	92.4	83.2	81.3	104.4	116.4	123.8	127.5



TEST NUMBER: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	91.5	96.1	128.4	113.7	97.9	90.6	81.3	85.0	102.6	111.8	117.4
115°	102.6	101.6	132.1	136.8	106.3	97.9	88.7	80.4	85.0	98.9	107.2
117.5°	113.7	106.3	136.8	155.2	117.4	103.5	95.2	85.9	79.5	83.2	95.2
120°	125.7	114.6	140.5	166.3	134.9	110.9	101.6	93.3	85.0	79.5	79.5
122.5°	136.8	123.8	144.2	169.1	161.7	122.0	107.2	98.9	91.5	84.1	79.5
125°	148.8	134.0	147.8	171.9	182.0	136.8	115.5	104.4	97.0	90.6	84.1
127.5°	158.9	145.1	149.7	173.7	191.3	157.1	125.7	110.0	101.6	96.1	89.6
130°	168.2	156.2	152.5	174.6	192.2	193.1	140.5	118.3	107.2	100.7	95.2
132.5°	176.5	167.3	154.3	175.6	192.2	206.1	161.7	130.3	114.6	105.3	99.8
135°	185.7	177.4	156.2	176.5	192.2	205.1	200.5	147.8	124.7	112.7	104.4
137.5°	193.1	186.7	158.0	176.5	192.2	204.2	213.5	172.8	139.5	122.0	112.7
140°	199.6	195.0	164.5	176.5	191.3	203.3	210.7	208.8	160.8	136.8	122.9
142.5°	205.1	200.5	176.5	175.6	189.4	200.5	208.8	213.5	204.2	158.0	137.7
145°	208.8	205.1	186.7	173.7	186.7	197.7	206.1	211.6	215.3	199.6	159.9
147.5°	211.6	208.8	195.9	170.9	183.9	195.0	203.3	208.8	212.5	214.4	205.1
150°	214.4	212.5	202.4	174.6	181.1	191.3	199.6	206.1	209.8	211.6	213.5
152.5°	216.2	215.3	207.9	185.7	178.3	187.6	195.0	201.4	206.1	207.9	209.8
155°	217.2	216.2	210.7	197.7	174.6	183.0	190.4	196.8	200.5	203.3	206.1
157.5°	217.2	216.2	212.5	204.2	182.0	177.4	184.8	190.4	195.0	198.7	200.5
160°	217.2	217.2	213.5	207.9	195.9	174.6	178.3	183.9	188.5	191.3	194.1
162.5°	216.2	216.2	214.4	210.7	203.3	189.4	172.8	177.4	181.1	183.9	186.7
165°	215.3	215.3	214.4	211.6	207.0	200.5	189.4	174.6	172.8	176.5	178.3
167.5°	214.4	214.4	214.4	211.6	208.8	205.1	200.5	192.2	178.3	170.9	169.1
170°	213.5	213.5	213.5	212.5	210.7	207.9	205.1	201.4	196.8	191.3	184.8
172.5°	212.5	212.5	211.6	211.6	210.7	208.8	207.9	206.1	203.3	200.5	196.8
175°	210.7	211.6	210.7	210.7	209.8	208.8	207.9	207.0	205.1	204.2	202.4
177.5°	209.8	209.8	209.8	209.8	208.8	208.8	207.9	207.0	206.1	205.1	203.3
180°	203.3	203.3	203.3	203.3	203.3	203.3	203.3	203.3	203.3	203.3	203.3



TEST NUMBER: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8	2885.8
2.5°	2845.2	2860.9	2867.3	2853.5	2849.8	2852.5	2854.4	2862.7
5°	2808.2	2826.7	2833.1	2821.1	2816.5	2816.5	2816.5	2823.9
7.5°	2775.8	2792.5	2792.5	2774.9	2767.5	2763.8	2762.0	2769.4
10°	2692.7	2697.3	2691.8	2665.0	2656.6	2651.1	2648.3	2655.7
12.5°	2589.2	2604.0	2602.1	2579.0	2574.4	2568.9	2565.2	2572.6
15°	2504.2	2511.6	2494.0	2462.6	2446.0	2436.7	2429.3	2434.9
17.5°	2385.0	2370.2	2346.2	2320.3	2322.1	2321.2	2317.5	2324.9
20°	2259.3	2271.3	2259.3	2235.3	2222.3	2205.7	2190.0	2190.9
22.5°	2177.1	2163.2	2108.7	2056.9	2044.0	2042.2	2044.9	2048.6
25°	2017.2	2002.4	2011.7	2020.0	2026.4	2042.2	2056.9	2057.9
27.5°	1952.5	1979.3	2010.7	2038.5	2056.0	2056.0	2059.7	2056.9
30°	1944.2	1993.2	1994.1	2006.1	2023.7	2026.4	2029.2	2028.3
32.5°	1922.9	1950.7	1956.2	1971.9	2004.3	2031.1	2049.5	2050.5
35°	1875.8	1908.2	1950.7	1984.9	2008.9	2024.6	2036.6	2037.5
37.5°	1848.1	1903.5	1928.5	1955.3	1975.6	1995.9	2011.7	2017.2
40°	1821.3	1860.1	1886.9	1933.1	1972.8	1997.8	2008.0	2013.5
42.5°	1769.6	1818.5	1871.2	1910.9	1943.3	1963.6	1969.2	1972.8
45°	1728.0	1782.5	1825.0	1859.2	1897.1	1924.8	1941.4	1945.1
47.5°	1678.1	1722.4	1770.5	1823.2	1861.0	1883.2	1895.2	1901.7
50°	1607.8	1669.8	1724.3	1766.8	1797.3	1813.0	1823.2	1832.4
52.5°	1552.4	1608.8	1650.4	1691.9	1726.1	1747.4	1755.7	1760.3
55°	1484.0	1530.2	1577.4	1617.1	1643.9	1659.6	1666.1	1668.8
57.5°	1407.3	1455.4	1496.0	1529.3	1554.3	1570.9	1578.3	1582.9
60°	1334.3	1375.0	1410.1	1444.3	1466.5	1479.4	1481.3	1485.9
62.5°	1258.6	1294.6	1324.2	1350.0	1367.6	1375.9	1376.8	1377.8
65°	1178.2	1209.6	1231.8	1252.1	1266.9	1275.2	1275.2	1273.3
67.5°	1098.7	1121.8	1143.1	1163.4	1172.6	1176.3	1171.7	1173.5
70°	1014.6	1033.1	1048.8	1064.5	1075.6	1083.9	1080.2	1082.1
72.5°	939.8	958.2	973.0	985.0	993.4	999.8	996.1	997.1
75°	872.3	884.3	894.5	904.6	912.0	916.7	913.0	914.8
77.5°	802.1	811.3	817.8	827.9	834.4	839.0	835.3	836.3
80°	730.9	740.2	745.7	751.3	758.6	762.3	756.8	757.7
82.5°	663.5	669.9	675.5	682.9	687.5	690.3	688.4	687.5
85°	598.8	602.5	608.9	616.3	620.0	623.7	621.9	621.0
87.5°	533.2	535.0	540.6	548.0	550.7	553.5	550.7	550.7
90°	402.0	406.6	410.3	416.7	419.5	420.4	418.6	418.6
92.5°	360.4	365.9	369.6	373.3	377.9	378.9	377.9	379.8
95°	310.5	318.8	325.3	329.0	333.6	335.4	334.5	337.3
97.5°	235.6	253.2	266.1	272.6	280.0	281.8	281.8	281.8
100°	191.3	195.0	198.7	199.6	202.4	203.3	202.4	203.3
102.5°	166.3	170.0	173.7	176.5	178.3	178.3	177.4	178.3
105°	147.8	150.6	153.4	156.2	157.1	158.0	157.1	158.0
107.5°	135.8	136.8	137.7	139.5	140.5	141.4	141.4	140.5
110°	128.4	129.4	129.4	130.3	130.3	130.3	128.4	127.5



TEST NUMBER: P236452

CATALOG NUMBER: SKB2-LD5-9-W-UNV-L840-CD1-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	121.1	122.9	123.8	123.8	124.7	124.7	122.9	122.0
115°	111.8	115.5	117.4	119.2	120.1	119.2	118.3	117.4
117.5°	102.6	107.2	109.0	111.8	113.7	113.7	112.7	110.9
120°	91.5	97.0	100.7	104.4	106.3	106.3	105.3	104.4
122.5°	77.6	85.0	91.5	95.2	97.9	97.9	97.9	96.1
125°	80.4	76.7	78.5	83.2	88.7	89.6	88.7	88.7
127.5°	85.0	81.3	79.5	76.7	74.8	75.8	74.8	73.9
130°	90.6	86.9	84.1	81.3	79.5	76.7	73.9	73.0
132.5°	96.1	92.4	89.6	85.9	83.2	81.3	78.5	76.7
135°	100.7	97.9	95.2	91.5	88.7	85.9	83.2	81.3
137.5°	106.3	101.6	98.9	97.0	94.3	91.5	87.8	85.9
140°	113.7	108.1	103.5	99.8	97.9	95.2	92.4	90.6
142.5°	124.7	116.4	110.0	106.3	102.6	99.8	96.1	94.3
145°	141.4	129.4	121.1	114.6	110.0	106.3	102.6	100.7
147.5°	169.1	147.8	136.8	127.5	122.0	117.4	112.7	110.9
150°	214.4	193.1	163.6	147.8	139.5	134.0	129.4	126.6
152.5°	211.6	212.5	211.6	200.5	184.8	172.8	161.7	153.4
155°	207.0	207.9	207.9	207.0	206.1	205.1	203.3	201.4
157.5°	202.4	204.2	204.2	203.3	202.4	200.5	198.7	197.7
160°	196.8	197.7	198.7	197.7	197.7	195.9	194.1	193.1
162.5°	189.4	191.3	191.3	191.3	190.4	189.4	188.5	186.7
165°	180.2	182.0	183.0	183.0	182.0	181.1	179.3	178.3
167.5°	170.9	172.8	173.7	172.8	172.8	170.9	169.1	167.3
170°	174.6	170.9	164.5	161.7	161.7	159.9	157.1	157.1
172.5°	195.0	192.2	188.5	185.7	182.0	179.3	176.5	173.7
175°	200.5	199.6	198.7	195.9	194.1	191.3	189.4	186.7
177.5°	202.4	202.4	201.4	199.6	197.7	195.0	192.2	189.4
180°	203.3	203.3	203.3	203.3	203.3	203.3	203.3	203.3

(END OF REPORT)