

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: P236462

Luminaire Tested: **SKB2-LD5-18-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: P236462
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-LD5-18-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

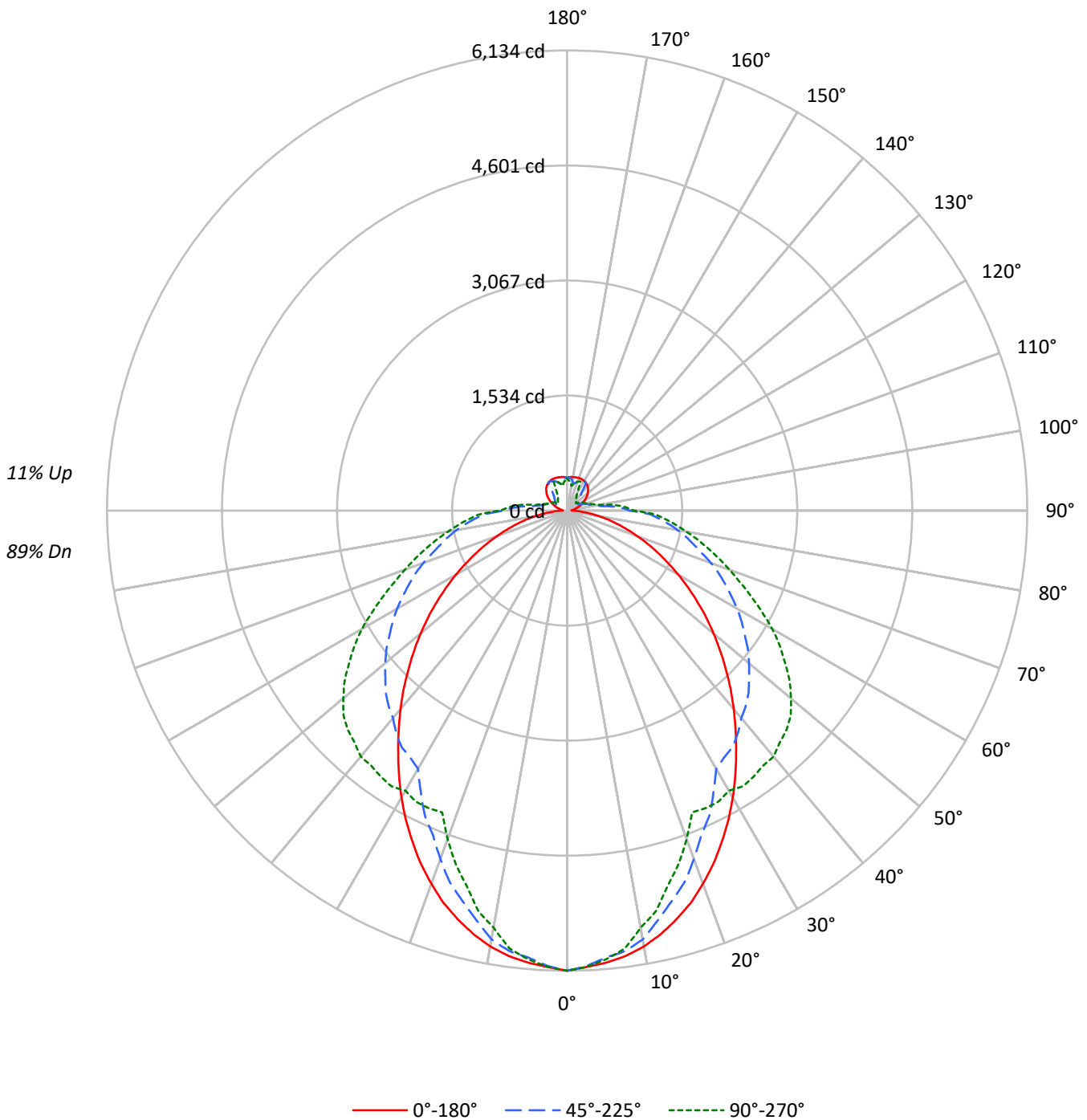
Lumens per Lamp: N/A
Luminaire Lumens: 18984.0 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.03 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 168.5
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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CATALOG NUMBER: SKB2-LD5-18-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°	26411	26411	26411
5°	25902	25415	25570
10°	25323	24547	23976
15°	24445	22844	22084
20°	23368	21168	20118
25°	22087	19574	19282
30°	20716	17797	19553
35°	19245	17833	20385
40°	17848	17491	21104
45°	16497	17485	21579
50°	15180	17257	21766
55°	13849	17031	21508
60°	12509	16931	21105
65°	11122	16795	20315
70°	9728	16801	19861
75°	8329	16941	19943
80°	6797	17789	20530
85°	4916	19048	22445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	567.8	3.0
10°-20°	1519.1	8.0
20°-30°	2104.3	11.1
30°-40°	2505.4	13.2
40°-50°	2690.6	14.2
50°-60°	2563.5	13.5
60°-70°	2164.2	11.4
70°-80°	1655.5	8.7
80°-90°	1133.2	6.0
90°-100°	562.1	3.0
100°-110°	295.4	1.6
110°-120°	231.5	1.2
120°-130°	210.2	1.1
130°-140°	216.2	1.1
140°-150°	216.9	1.1
150°-160°	193.3	1.0
160°-170°	114.9	0.6
170°-180°	40.1	0.2
0°-30°	4191.2	22.1
0°-40°	6696.5	35.3
0°-60°	11950.6	63.0
0°-90°	16903.5	89.0
90°-120°	1088.9	5.7
90°-150°	1732.3	9.1
90°-180°	2080.0	11.0
0°-180°	18984.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6134	6134	6134	6134	6134	
5°	6048	6058	5979	6009	6003	573
15°	5637	5610	5388	5268	5176	1586
25°	4875	4771	4488	4285	4374	2242
35°	3928	3856	3848	4183	4331	2458
45°	2992	3028	3422	3916	4135	2311
55°	2119	2332	2889	3395	3547	1899
65°	1336	1741	2326	2640	2707	1328
75°	695	1273	1746	1912	1944	741
85°	218	876	1230	1302	1320	224
90°	55	560	831	879	890	41
95°	71	353	613	695	717	62
105°	130	188	306	329	336	139
115°	218	217	210	251	250	216
125°	316	339	192	172	189	281
135°	395	422	240	198	173	304
145°	444	409	424	250	214	278
155°	462	380	432	441	428	213
165°	458	433	375	389	379	130
175°	448	445	434	419	397	43
180°	432	432	432	432	432	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2
2.5°	6087.0	6106.7	6126.3	6136.1	6128.3	6116.5	6118.5	6120.4	6081.1	6073.3	6057.6
5°	6047.7	6067.4	6079.2	6079.2	6067.4	6047.7	6037.9	6030.1	5984.9	5979.0	5967.2
7.5°	5986.9	6002.6	6006.5	5998.6	5975.1	5945.6	5949.5	5961.3	5927.9	5922.0	5906.3
10°	5898.5	5910.2	5906.3	5884.7	5859.2	5859.2	5867.0	5867.0	5825.8	5804.2	5761.0
12.5°	5780.6	5788.5	5778.6	5753.1	5757.0	5747.2	5747.2	5719.7	5641.2	5590.1	5525.3
15°	5637.2	5643.1	5621.5	5617.6	5619.5	5599.9	5564.6	5497.8	5409.4	5387.8	5348.5
17.5°	5482.1	5478.1	5456.5	5462.4	5458.5	5405.5	5340.6	5277.8	5234.6	5197.2	5138.3
20°	5293.5	5291.5	5275.8	5287.6	5258.1	5177.6	5132.4	5079.4	5028.3	4941.9	4837.8
22.5°	5095.1	5089.2	5083.3	5085.3	5042.1	4951.7	4930.1	4865.3	4761.2	4676.7	4649.2
25°	4875.1	4875.1	4875.1	4863.3	4804.4	4737.6	4716.0	4598.2	4529.4	4488.2	4421.4
27.5°	4651.2	4651.2	4655.1	4631.6	4572.6	4525.5	4456.7	4372.3	4340.9	4226.9	4105.2
30°	4417.5	4421.4	4425.3	4388.0	4346.8	4291.8	4219.1	4175.9	4077.7	3975.5	4028.6
32.5°	4171.9	4185.7	4185.7	4152.3	4120.9	4044.3	4018.7	3942.1	3843.9	3897.0	4008.9
35°	3928.4	3957.8	3942.1	3918.6	3885.2	3826.2	3804.6	3692.7	3741.8	3847.8	3918.6
37.5°	3688.7	3720.2	3700.5	3692.7	3645.5	3643.6	3557.1	3563.0	3665.2	3739.8	3806.6
40°	3453.0	3478.6	3468.8	3460.9	3433.4	3429.5	3376.4	3460.9	3545.4	3612.1	3741.8
42.5°	3225.2	3246.8	3238.9	3233.1	3237.0	3201.6	3246.8	3343.1	3409.8	3525.7	3659.3
45°	2991.5	3013.1	3013.1	3015.0	3034.7	3020.9	3113.2	3189.8	3288.1	3421.6	3533.6
47.5°	2767.5	2785.2	2791.1	2810.8	2816.6	2867.7	2965.9	3042.5	3176.1	3288.1	3431.4
50°	2547.6	2563.3	2575.1	2612.4	2616.3	2718.4	2799.0	2914.9	3032.7	3164.3	3309.7
52.5°	2333.5	2345.2	2368.8	2408.1	2437.6	2559.3	2647.7	2777.4	2895.2	3036.6	3164.3
55°	2119.4	2133.1	2166.5	2197.9	2274.5	2390.4	2504.3	2630.1	2765.6	2889.3	3032.7
57.5°	1913.1	1930.8	1964.2	2003.5	2115.4	2233.3	2364.9	2494.5	2628.1	2757.7	2885.4
60°	1714.7	1732.4	1767.8	1824.7	1960.3	2089.9	2225.4	2362.9	2492.6	2618.3	2722.4
62.5°	1520.3	1538.0	1569.4	1663.7	1803.1	1954.4	2091.9	2231.3	2353.1	2465.1	2575.1
65°	1335.6	1353.3	1384.8	1512.4	1661.7	1820.8	1970.1	2095.8	2215.6	2325.6	2429.7
67.5°	1160.8	1176.5	1215.8	1373.0	1534.0	1697.1	1840.4	1966.2	2086.0	2190.1	2266.7
70°	993.9	1009.6	1066.6	1241.4	1414.2	1579.2	1712.8	1846.3	1956.3	2036.9	2105.6
72.5°	838.7	850.5	936.9	1123.5	1304.2	1457.4	1602.8	1724.6	1814.9	1881.7	1942.6
75°	695.3	705.1	828.9	1023.3	1196.2	1349.4	1484.9	1591.0	1671.5	1746.2	1805.1
77.5°	561.8	583.4	734.6	931.0	1092.1	1243.3	1357.3	1467.2	1559.6	1624.4	1669.6
80°	436.1	473.4	652.1	836.7	999.8	1125.5	1255.1	1367.1	1443.7	1496.7	1528.1
82.5°	320.2	381.1	571.6	748.4	893.7	1039.1	1156.9	1255.1	1321.9	1363.1	1390.6
85°	218.0	304.4	491.0	660.0	811.2	940.8	1046.9	1135.3	1194.2	1229.6	1255.1
87.5°	135.5	243.6	424.3	581.4	713.0	830.9	931.0	1013.5	1068.5	1103.9	1121.6
90°	55.0	159.1	302.5	414.4	510.7	608.9	691.4	760.1	807.3	830.9	844.6
92.5°	57.0	115.9	216.1	318.2	408.6	506.8	593.2	665.9	713.0	740.5	754.2
95°	70.7	108.0	159.1	243.6	316.2	388.9	451.8	508.7	571.6	612.8	638.4
97.5°	80.5	121.8	141.4	196.4	263.2	324.1	373.2	412.5	438.0	455.7	469.4
100°	96.2	145.4	155.2	159.1	225.9	282.8	322.1	353.6	375.2	388.9	396.8
102.5°	112.0	161.1	172.8	163.0	182.7	245.5	288.7	316.2	330.0	339.8	345.7
105°	129.6	174.8	198.4	180.7	168.9	206.2	255.3	286.8	300.5	306.4	308.4
107.5°	151.2	186.6	233.7	194.5	180.7	170.9	218.0	255.3	277.0	284.8	286.8
110°	172.8	196.4	257.3	212.1	196.4	176.8	172.8	222.0	247.5	263.2	271.1



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CATALOG NUMBER: SKB2-LD5-18-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°	194.5	204.3	273.0	241.6	208.2	192.5	172.8	180.7	218.0	237.7	249.5
115°	218.0	216.1	280.9	290.7	225.9	208.2	188.6	170.9	180.7	210.2	227.8
117.5°	241.6	225.9	290.7	330.0	249.5	220.0	202.3	182.7	168.9	176.8	202.3
120°	267.1	243.6	298.6	353.6	286.8	235.7	216.1	198.4	180.7	168.9	168.9
122.5°	290.7	263.2	306.4	359.4	343.7	259.3	227.8	210.2	194.5	178.7	168.9
125°	316.2	284.8	314.3	365.3	386.9	290.7	245.5	222.0	206.2	192.5	178.7
127.5°	337.8	308.4	318.2	369.3	406.6	333.9	267.1	233.7	216.1	204.3	190.5
130°	357.5	331.9	324.1	371.2	408.6	410.5	298.6	251.4	227.8	214.1	202.3
132.5°	375.2	355.5	328.0	373.2	408.6	438.0	343.7	277.0	243.6	223.9	212.1
135°	394.8	377.1	331.9	375.2	408.6	436.1	426.2	314.3	265.2	239.6	222.0
137.5°	410.5	396.8	335.9	375.2	408.6	434.1	453.7	367.3	296.6	259.3	239.6
140°	424.3	414.4	349.6	375.2	406.6	432.1	447.8	443.9	341.8	290.7	261.2
142.5°	436.1	426.2	375.2	373.2	402.7	426.2	443.9	453.7	434.1	335.9	292.7
145°	443.9	436.1	396.8	369.3	396.8	420.3	438.0	449.8	457.7	424.3	339.8
147.5°	449.8	443.9	416.4	363.4	390.9	414.4	432.1	443.9	451.8	455.7	436.1
150°	455.7	451.8	430.2	371.2	385.0	406.6	424.3	438.0	445.9	449.8	453.7
152.5°	459.6	457.7	441.9	394.8	379.1	398.7	414.4	428.2	438.0	441.9	445.9
155°	461.6	459.6	447.8	420.3	371.2	388.9	404.6	418.4	426.2	432.1	438.0
157.5°	461.6	459.6	451.8	434.1	386.9	377.1	392.8	404.6	414.4	422.3	426.2
160°	461.6	461.6	453.7	441.9	416.4	371.2	379.1	390.9	400.7	406.6	412.5
162.5°	459.6	459.6	455.7	447.8	432.1	402.7	367.3	377.1	385.0	390.9	396.8
165°	457.7	457.7	455.7	449.8	440.0	426.2	402.7	371.2	367.3	375.2	379.1
167.5°	455.7	455.7	455.7	449.8	443.9	436.1	426.2	408.6	379.1	363.4	359.4
170°	453.7	453.7	453.7	451.8	447.8	441.9	436.1	428.2	418.4	406.6	392.8
172.5°	451.8	451.8	449.8	449.8	447.8	443.9	441.9	438.0	432.1	426.2	418.4
175°	447.8	449.8	447.8	447.8	445.9	443.9	441.9	440.0	436.1	434.1	430.2
177.5°	445.9	445.9	445.9	445.9	443.9	443.9	441.9	440.0	438.0	436.1	432.1
180°	432.1	432.1	432.1	432.1	432.1	432.1	432.1	432.1	432.1	432.1	432.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2	6134.2
2.5°	6047.7	6081.1	6094.9	6065.4	6057.6	6063.5	6067.4	6085.1
5°	5969.2	6008.5	6022.2	5996.7	5986.9	5986.9	5986.9	6002.6
7.5°	5900.4	5935.8	5935.8	5898.5	5882.7	5874.9	5871.0	5886.7
10°	5723.6	5733.5	5721.7	5664.7	5647.0	5635.3	5629.4	5645.1
12.5°	5503.7	5535.1	5531.2	5482.1	5472.2	5460.4	5452.6	5468.3
15°	5323.0	5338.7	5301.3	5234.6	5199.2	5179.6	5163.9	5175.6
17.5°	5069.6	5038.1	4987.1	4932.1	4936.0	4934.0	4926.2	4941.9
20°	4802.4	4828.0	4802.4	4751.4	4723.9	4688.5	4655.1	4657.1
22.5°	4627.6	4598.2	4482.3	4372.3	4344.8	4340.9	4346.8	4354.6
25°	4287.8	4256.4	4276.0	4293.7	4307.5	4340.9	4372.3	4374.3
27.5°	4150.3	4207.3	4274.1	4333.0	4370.3	4370.3	4378.2	4372.3
30°	4132.7	4236.8	4238.7	4264.3	4301.6	4307.5	4313.4	4311.4
32.5°	4087.5	4146.4	4158.2	4191.6	4260.3	4317.3	4356.6	4358.5
35°	3987.3	4056.1	4146.4	4219.1	4270.1	4303.5	4329.1	4331.0
37.5°	3928.4	4046.2	4099.3	4156.2	4199.4	4242.7	4276.0	4287.8
40°	3871.4	3953.9	4010.9	4109.1	4193.5	4246.6	4268.2	4280.0
42.5°	3761.4	3865.5	3977.5	4061.9	4130.7	4173.9	4185.7	4193.5
45°	3673.0	3788.9	3879.3	3952.0	4032.5	4091.4	4126.8	4134.6
47.5°	3567.0	3661.3	3763.4	3875.3	3955.9	4003.0	4028.6	4042.3
50°	3417.7	3549.3	3665.2	3755.5	3820.3	3853.7	3875.3	3895.0
52.5°	3299.8	3419.7	3508.0	3596.4	3669.1	3714.3	3732.0	3741.8
55°	3154.5	3252.7	3352.9	3437.3	3494.3	3527.7	3541.4	3547.3
57.5°	2991.5	3093.6	3180.0	3250.7	3303.8	3339.1	3354.8	3364.7
60°	2836.3	2922.7	2997.4	3070.0	3117.2	3144.7	3148.6	3158.4
62.5°	2675.2	2751.8	2814.7	2869.7	2907.0	2924.7	2926.6	2928.6
65°	2504.3	2571.1	2618.3	2661.5	2692.9	2710.6	2710.6	2706.7
67.5°	2335.4	2384.5	2429.7	2472.9	2492.6	2500.4	2490.6	2494.5
70°	2156.7	2196.0	2229.4	2262.7	2286.3	2304.0	2296.1	2300.1
72.5°	1997.6	2036.9	2068.3	2093.8	2111.5	2125.3	2117.4	2119.4
75°	1854.2	1879.7	1901.3	1922.9	1938.7	1948.5	1940.6	1944.5
77.5°	1704.9	1724.6	1738.3	1759.9	1773.7	1783.5	1775.6	1777.6
80°	1553.7	1573.3	1585.1	1596.9	1612.6	1620.5	1608.7	1610.6
82.5°	1410.3	1424.0	1435.8	1451.5	1461.4	1467.2	1463.3	1461.4
85°	1272.8	1280.7	1294.4	1310.1	1318.0	1325.8	1321.9	1319.9
87.5°	1133.3	1137.3	1149.1	1164.8	1170.7	1176.5	1170.7	1170.7
90°	854.4	864.2	872.1	885.8	891.7	893.7	889.8	889.8
92.5°	766.0	777.8	785.7	793.5	803.4	805.3	803.4	807.3
95°	660.0	677.6	691.4	699.3	709.1	713.0	711.0	716.9
97.5°	500.9	538.2	565.7	579.4	595.1	599.1	599.1	599.1
100°	406.6	414.4	422.3	424.3	430.2	432.1	430.2	432.1
102.5°	353.6	361.4	369.3	375.2	379.1	379.1	377.1	379.1
105°	314.3	320.2	326.1	331.9	333.9	335.9	333.9	335.9
107.5°	288.7	290.7	292.7	296.6	298.6	300.5	300.5	298.6
110°	273.0	275.0	275.0	277.0	277.0	277.0	273.0	271.1



TEST NUMBER: P236462

CATALOG NUMBER: SKB2-LD5-18-W-UNV-L850-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	257.3	261.2	263.2	263.2	265.2	265.2	261.2	259.3
115°	237.7	245.5	249.5	253.4	255.3	253.4	251.4	249.5
117.5°	218.0	227.8	231.8	237.7	241.6	241.6	239.6	235.7
120°	194.5	206.2	214.1	222.0	225.9	225.9	223.9	222.0
122.5°	165.0	180.7	194.5	202.3	208.2	208.2	208.2	204.3
125°	170.9	163.0	167.0	176.8	188.6	190.5	188.6	188.6
127.5°	180.7	172.8	168.9	163.0	159.1	161.1	159.1	157.1
130°	192.5	184.6	178.7	172.8	168.9	163.0	157.1	155.2
132.5°	204.3	196.4	190.5	182.7	176.8	172.8	167.0	163.0
135°	214.1	208.2	202.3	194.5	188.6	182.7	176.8	172.8
137.5°	225.9	216.1	210.2	206.2	200.3	194.5	186.6	182.7
140°	241.6	229.8	220.0	212.1	208.2	202.3	196.4	192.5
142.5°	265.2	247.5	233.7	225.9	218.0	212.1	204.3	200.3
145°	300.5	275.0	257.3	243.6	233.7	225.9	218.0	214.1
147.5°	359.4	314.3	290.7	271.1	259.3	249.5	239.6	235.7
150°	455.7	410.5	347.7	314.3	296.6	284.8	275.0	269.1
152.5°	449.8	451.8	449.8	426.2	392.8	367.3	343.7	326.1
155°	440.0	441.9	441.9	440.0	438.0	436.1	432.1	428.2
157.5°	430.2	434.1	434.1	432.1	430.2	426.2	422.3	420.3
160°	418.4	420.3	422.3	420.3	420.3	416.4	412.5	410.5
162.5°	402.7	406.6	406.6	406.6	404.6	402.7	400.7	396.8
165°	383.0	386.9	388.9	388.9	386.9	385.0	381.1	379.1
167.5°	363.4	367.3	369.3	367.3	367.3	363.4	359.4	355.5
170°	371.2	363.4	349.6	343.7	343.7	339.8	333.9	333.9
172.5°	414.4	408.6	400.7	394.8	386.9	381.1	375.2	369.3
175°	426.2	424.3	422.3	416.4	412.5	406.6	402.7	396.8
177.5°	430.2	430.2	428.2	424.3	420.3	414.4	408.6	402.7
180°	432.1	432.1	432.1	432.1	432.1	432.1	432.1	432.1

(END OF REPORT)