

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: P236458

Luminaire Tested: **SKB2-LD5-15-W-UNV-L840-CD2-U all blades tilted out 20 degrees**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236458
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-LD5-15-W-UNV-L840-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) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

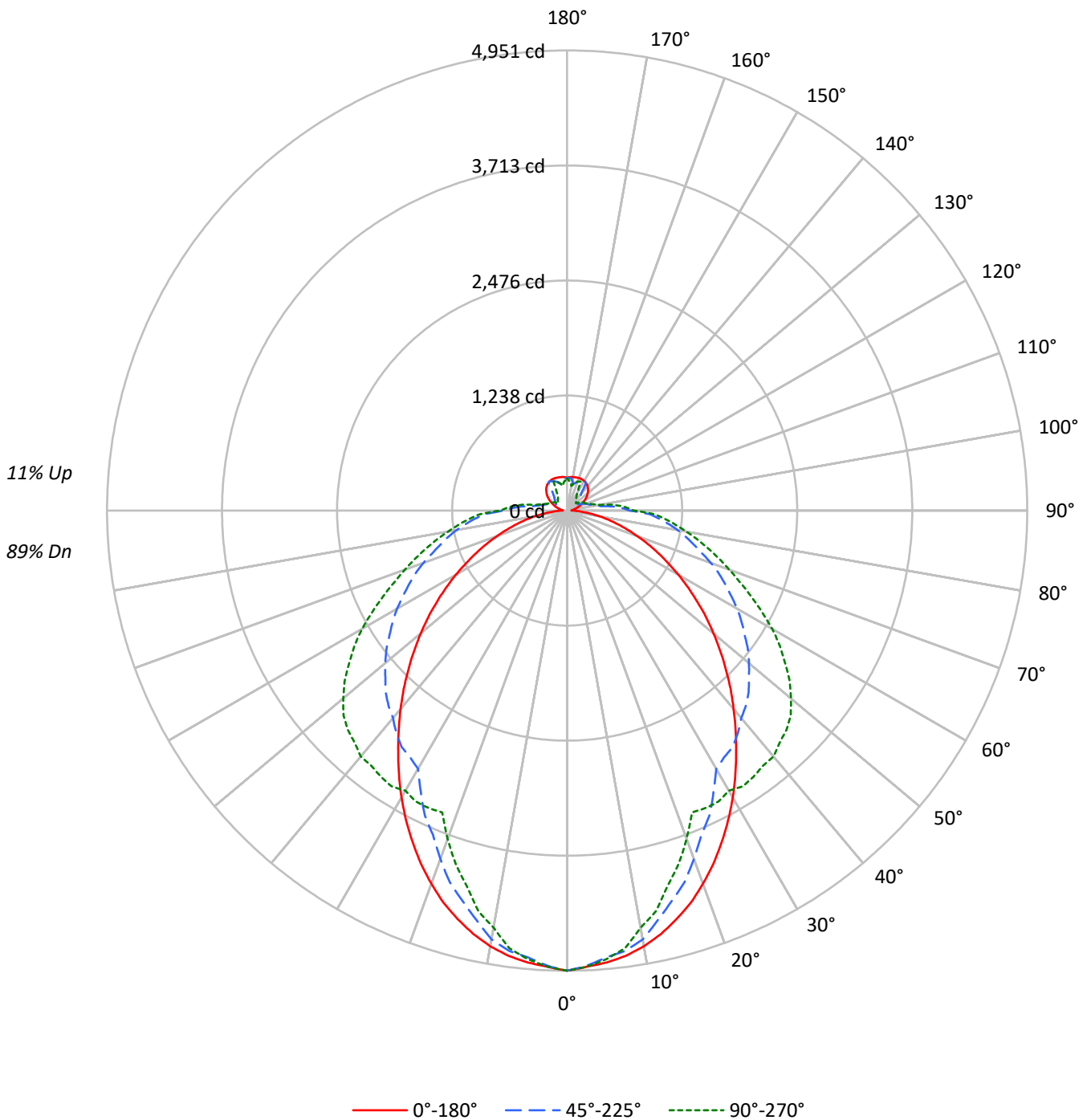
Lumens per Lamp: N/A
Luminaire Lumens: 15321.0 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.03 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 1.25' x L: 2' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 132.4
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

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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	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°	21315	21315	21315
5°	20904	20511	20637
10°	20437	19811	19350
15°	19729	18436	17823
20°	18859	17084	16236
25°	17826	15797	15561
30°	16719	14363	15780
35°	15531	14392	16452
40°	14404	14116	17032
45°	13314	14112	17415
50°	12251	13927	17566
55°	11176	13745	17359
60°	10095	13664	17033
65°	8976	13555	16395
70°	7851	13559	16029
75°	6722	13671	16095
80°	5485	14357	16569
85°	3969	15372	18116



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	458.2	3.0
10°-20°	1226.0	8.0
20°-30°	1698.3	11.1
30°-40°	2021.9	13.2
40°-50°	2171.4	14.2
50°-60°	2068.9	13.5
60°-70°	1746.6	11.4
70°-80°	1336.1	8.7
80°-90°	914.5	6.0
90°-100°	453.6	3.0
100°-110°	238.4	1.6
110°-120°	186.8	1.2
120°-130°	169.6	1.1
130°-140°	174.5	1.1
140°-150°	175.0	1.1
150°-160°	156.0	1.0
160°-170°	92.7	0.6
170°-180°	32.4	0.2
0°-30°	3382.5	22.1
0°-40°	5404.4	35.3
0°-60°	9644.7	63.0
0°-90°	13641.9	89.0
90°-120°	878.8	5.7
90°-150°	1398.0	9.1
90°-180°	1679.0	11.0
0°-180°	15321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4951	4951	4951	4951	4951	
5°	4881	4889	4825	4850	4844	462
15°	4550	4527	4348	4251	4177	1280
25°	3934	3850	3622	3458	3530	1809
35°	3170	3112	3105	3376	3495	1983
45°	2414	2444	2761	3160	3337	1865
55°	1710	1882	2332	2740	2863	1532
65°	1078	1405	1877	2130	2184	1072
75°	561	1027	1409	1543	1569	598
85°	176	707	992	1051	1065	181
90°	44	452	670	709	718	33
95°	57	285	495	561	579	50
105°	105	151	247	266	271	112
115°	176	175	170	203	201	175
125°	255	273	155	139	152	227
135°	319	341	193	160	140	245
145°	358	330	342	202	173	224
155°	372	307	349	356	346	172
165°	369	350	303	314	306	105
175°	361	359	350	338	320	35
180°	349	349	349	349	349	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6
2.5°	4912.5	4928.4	4944.2	4952.2	4945.8	4936.3	4937.9	4939.5	4907.8	4901.4	4888.7
5°	4880.8	4896.7	4906.2	4906.2	4896.7	4880.8	4872.9	4866.6	4830.1	4825.3	4815.8
7.5°	4831.7	4844.4	4847.5	4841.2	4822.2	4798.4	4801.6	4811.1	4784.1	4779.4	4766.7
10°	4760.3	4769.9	4766.7	4749.2	4728.6	4728.6	4735.0	4735.0	4701.7	4684.3	4649.4
12.5°	4665.2	4671.6	4663.6	4643.0	4646.2	4638.3	4638.3	4616.1	4552.7	4511.5	4459.2
15°	4549.5	4554.3	4536.8	4533.7	4535.2	4519.4	4490.9	4437.0	4365.6	4348.2	4316.5
17.5°	4424.3	4421.1	4403.7	4408.4	4405.3	4362.5	4310.1	4259.4	4224.5	4194.4	4146.9
20°	4272.1	4270.5	4257.8	4267.3	4243.6	4178.6	4142.1	4099.3	4058.1	3988.4	3904.3
22.5°	4112.0	4107.2	4102.5	4104.1	4069.2	3996.3	3978.8	3926.5	3842.5	3774.4	3752.2
25°	3934.5	3934.5	3934.5	3924.9	3877.4	3823.5	3806.1	3710.9	3655.5	3622.2	3568.3
27.5°	3753.7	3753.7	3756.9	3737.9	3690.3	3652.3	3596.8	3528.6	3503.3	3411.3	3313.1
30°	3565.1	3568.3	3571.4	3541.3	3508.0	3463.7	3405.0	3370.1	3290.9	3208.4	3251.2
32.5°	3367.0	3378.1	3378.1	3351.1	3325.7	3263.9	3243.3	3181.5	3102.2	3145.0	3235.4
35°	3170.4	3194.2	3181.5	3162.5	3135.5	3088.0	3070.5	2980.2	3019.8	3105.4	3162.5
37.5°	2977.0	3002.4	2986.5	2980.2	2942.1	2940.5	2870.8	2875.5	2958.0	3018.2	3072.1
40°	2786.8	2807.4	2799.5	2793.1	2770.9	2767.8	2725.0	2793.1	2861.3	2915.2	3019.8
42.5°	2602.9	2620.3	2614.0	2609.2	2612.4	2583.9	2620.3	2698.0	2751.9	2845.4	2953.2
45°	2414.3	2431.7	2431.7	2433.3	2449.1	2438.0	2512.5	2574.4	2653.6	2761.4	2851.8
47.5°	2233.5	2247.8	2252.6	2268.4	2273.2	2314.4	2393.6	2455.5	2563.3	2653.6	2769.3
50°	2056.0	2068.7	2078.2	2108.3	2111.5	2193.9	2258.9	2352.4	2447.5	2553.8	2671.1
52.5°	1883.2	1892.7	1911.7	1943.4	1967.2	2065.5	2136.8	2241.5	2336.6	2450.7	2553.8
55°	1710.4	1721.5	1748.5	1773.8	1835.7	1929.2	2021.1	2122.6	2232.0	2331.8	2447.5
57.5°	1544.0	1558.2	1585.2	1616.9	1707.3	1802.4	1908.6	2013.2	2121.0	2225.6	2328.7
60°	1383.9	1398.1	1426.7	1472.6	1582.0	1686.6	1796.0	1907.0	2011.6	2113.1	2197.1
62.5°	1226.9	1241.2	1266.6	1342.7	1455.2	1577.3	1688.2	1800.8	1899.1	1989.4	2078.2
65°	1077.9	1092.2	1117.6	1220.6	1341.1	1469.5	1590.0	1691.4	1788.1	1876.9	1960.9
67.5°	936.9	949.5	981.2	1108.1	1238.0	1369.6	1485.3	1586.8	1683.5	1767.5	1829.3
70°	802.1	814.8	860.8	1001.8	1141.3	1274.5	1382.3	1490.1	1578.9	1643.8	1699.3
72.5°	676.9	686.4	756.1	906.7	1052.6	1176.2	1293.5	1391.8	1464.7	1518.6	1567.8
75°	561.2	569.1	669.0	825.9	965.4	1089.0	1198.4	1284.0	1349.0	1409.2	1456.8
77.5°	453.4	470.8	592.9	751.4	881.4	1003.4	1095.4	1184.1	1258.6	1311.0	1347.4
80°	351.9	382.0	526.3	675.3	806.9	908.3	1012.9	1103.3	1165.1	1207.9	1233.3
82.5°	258.4	307.5	461.3	604.0	721.3	838.6	933.7	1012.9	1066.8	1100.1	1122.3
85°	176.0	245.7	396.3	532.6	654.7	759.3	844.9	916.2	963.8	992.3	1012.9
87.5°	109.4	196.6	342.4	469.2	575.4	670.5	751.4	818.0	862.3	890.9	905.1
90°	44.4	128.4	244.1	334.5	412.2	491.4	558.0	613.5	651.5	670.5	681.6
92.5°	46.0	93.5	174.4	256.8	329.7	409.0	478.7	537.4	575.4	597.6	608.7
95°	57.1	87.2	128.4	196.6	255.2	313.9	364.6	410.6	461.3	494.6	515.2
97.5°	65.0	98.3	114.1	158.5	212.4	261.6	301.2	332.9	353.5	367.8	378.9
100°	77.7	117.3	125.2	128.4	182.3	228.3	260.0	285.3	302.8	313.9	320.2
102.5°	90.4	130.0	139.5	131.6	147.4	198.1	233.0	255.2	266.3	274.2	279.0
105°	104.6	141.1	160.1	145.8	136.3	166.4	206.1	231.4	242.5	247.3	248.9
107.5°	122.1	150.6	188.6	156.9	145.8	137.9	176.0	206.1	223.5	229.9	231.4
110°	139.5	158.5	207.7	171.2	158.5	142.7	139.5	179.1	199.7	212.4	218.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	156.9	164.9	220.3	195.0	168.0	155.3	139.5	145.8	176.0	191.8	201.3
115°	176.0	174.4	226.7	234.6	182.3	168.0	152.2	137.9	145.8	169.6	183.9
117.5°	195.0	182.3	234.6	266.3	201.3	177.5	163.3	147.4	136.3	142.7	163.3
120°	215.6	196.6	240.9	285.3	231.4	190.2	174.4	160.1	145.8	136.3	136.3
122.5°	234.6	212.4	247.3	290.1	277.4	209.2	183.9	169.6	156.9	144.3	136.3
125°	255.2	229.9	253.6	294.8	312.3	234.6	198.1	179.1	166.4	155.3	144.3
127.5°	272.7	248.9	256.8	298.0	328.1	269.5	215.6	188.6	174.4	164.9	153.8
130°	288.5	267.9	261.6	299.6	329.7	331.3	240.9	202.9	183.9	172.8	163.3
132.5°	302.8	286.9	264.7	301.2	329.7	353.5	277.4	223.5	196.6	180.7	171.2
135°	318.6	304.4	267.9	302.8	329.7	351.9	344.0	253.6	214.0	193.4	179.1
137.5°	331.3	320.2	271.1	302.8	329.7	350.3	366.2	296.4	239.4	209.2	193.4
140°	342.4	334.5	282.2	302.8	328.1	348.7	361.4	358.3	275.8	234.6	210.8
142.5°	351.9	344.0	302.8	301.2	325.0	344.0	358.3	366.2	350.3	271.1	236.2
145°	358.3	351.9	320.2	298.0	320.2	339.2	353.5	363.0	369.4	342.4	274.2
147.5°	363.0	358.3	336.1	293.3	315.5	334.5	348.7	358.3	364.6	367.8	351.9
150°	367.8	364.6	347.2	299.6	310.7	328.1	342.4	353.5	359.8	363.0	366.2
152.5°	370.9	369.4	356.7	318.6	305.9	321.8	334.5	345.6	353.5	356.7	359.8
155°	372.5	370.9	361.4	339.2	299.6	313.9	326.6	337.6	344.0	348.7	353.5
157.5°	372.5	370.9	364.6	350.3	312.3	304.4	317.0	326.6	334.5	340.8	344.0
160°	372.5	372.5	366.2	356.7	336.1	299.6	305.9	315.5	323.4	328.1	332.9
162.5°	370.9	370.9	367.8	361.4	348.7	325.0	296.4	304.4	310.7	315.5	320.2
165°	369.4	369.4	367.8	363.0	355.1	344.0	325.0	299.6	296.4	302.8	305.9
167.5°	367.8	367.8	367.8	363.0	358.3	351.9	344.0	329.7	305.9	293.3	290.1
170°	366.2	366.2	366.2	364.6	361.4	356.7	351.9	345.6	337.6	328.1	317.0
172.5°	364.6	364.6	363.0	363.0	361.4	358.3	356.7	353.5	348.7	344.0	337.6
175°	361.4	363.0	361.4	361.4	359.8	358.3	356.7	355.1	351.9	350.3	347.2
177.5°	359.8	359.8	359.8	359.8	358.3	358.3	356.7	355.1	353.5	351.9	348.7
180°	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6	4950.6
2.5°	4880.8	4907.8	4918.9	4895.1	4888.7	4893.5	4896.7	4910.9
5°	4817.4	4849.1	4860.2	4839.6	4831.7	4831.7	4831.7	4844.4
7.5°	4761.9	4790.5	4790.5	4760.3	4747.7	4741.3	4738.1	4750.8
10°	4619.3	4627.2	4617.7	4571.7	4557.4	4547.9	4543.2	4555.9
12.5°	4441.7	4467.1	4463.9	4424.3	4416.4	4406.8	4400.5	4413.2
15°	4295.9	4308.6	4278.4	4224.5	4196.0	4180.2	4167.5	4177.0
17.5°	4091.4	4066.0	4024.8	3980.4	3983.6	3982.0	3975.7	3988.4
20°	3875.8	3896.4	3875.8	3834.6	3812.4	3783.9	3756.9	3758.5
22.5°	3734.7	3710.9	3617.4	3528.6	3506.5	3503.3	3508.0	3514.4
25°	3460.5	3435.1	3451.0	3465.2	3476.3	3503.3	3528.6	3530.2
27.5°	3349.5	3395.5	3449.4	3496.9	3527.1	3527.1	3533.4	3528.6
30°	3335.3	3419.3	3420.9	3441.5	3471.6	3476.3	3481.1	3479.5
32.5°	3298.8	3346.3	3355.9	3382.8	3438.3	3484.3	3516.0	3517.5
35°	3217.9	3273.4	3346.3	3405.0	3446.2	3473.2	3493.8	3495.4
37.5°	3170.4	3265.5	3308.3	3354.3	3389.1	3424.0	3451.0	3460.5
40°	3124.4	3191.0	3237.0	3316.2	3384.4	3427.2	3444.6	3454.1
42.5°	3035.6	3119.7	3210.0	3278.2	3333.7	3368.5	3378.1	3384.4
45°	2964.3	3057.8	3130.8	3189.4	3254.4	3302.0	3330.5	3336.8
47.5°	2878.7	2954.8	3037.2	3127.6	3192.6	3230.6	3251.2	3262.3
50°	2758.2	2864.4	2958.0	3030.9	3083.2	3110.2	3127.6	3143.4
52.5°	2663.1	2759.8	2831.2	2902.5	2961.1	2997.6	3011.9	3019.8
55°	2545.8	2625.1	2705.9	2774.1	2820.1	2847.0	2858.1	2862.9
57.5°	2414.3	2496.7	2566.4	2623.5	2666.3	2694.8	2707.5	2715.4
60°	2289.0	2358.8	2419.0	2477.7	2515.7	2537.9	2541.1	2549.0
62.5°	2159.0	2220.9	2271.6	2316.0	2346.1	2360.4	2361.9	2363.5
65°	2021.1	2075.0	2113.1	2147.9	2173.3	2187.6	2187.6	2184.4
67.5°	1884.8	1924.4	1960.9	1995.8	2011.6	2018.0	2010.0	2013.2
70°	1740.5	1772.2	1799.2	1826.1	1845.2	1859.4	1853.1	1856.3
72.5°	1612.1	1643.8	1669.2	1689.8	1704.1	1715.2	1708.8	1710.4
75°	1496.4	1517.0	1534.5	1551.9	1564.6	1572.5	1566.2	1569.3
77.5°	1375.9	1391.8	1402.9	1420.3	1431.4	1439.4	1433.0	1434.6
80°	1253.9	1269.7	1279.3	1288.8	1301.4	1307.8	1298.3	1299.9
82.5°	1138.2	1149.3	1158.8	1171.5	1179.4	1184.1	1181.0	1179.4
85°	1027.2	1033.5	1044.6	1057.3	1063.7	1070.0	1066.8	1065.3
87.5°	914.7	917.8	927.3	940.0	944.8	949.5	944.8	944.8
90°	689.6	697.5	703.8	714.9	719.7	721.3	718.1	718.1
92.5°	618.2	627.7	634.1	640.4	648.3	649.9	648.3	651.5
95°	532.6	546.9	558.0	564.3	572.3	575.4	573.8	578.6
97.5°	404.2	434.3	456.5	467.6	480.3	483.5	483.5	483.5
100°	328.1	334.5	340.8	342.4	347.2	348.7	347.2	348.7
102.5°	285.3	291.7	298.0	302.8	305.9	305.9	304.4	305.9
105°	253.6	258.4	263.1	267.9	269.5	271.1	269.5	271.1
107.5°	233.0	234.6	236.2	239.4	240.9	242.5	242.5	240.9
110°	220.3	221.9	221.9	223.5	223.5	223.5	220.3	218.8



TEST NUMBER: P236458

CATALOG NUMBER: SKB2-LD5-15-W-UNV-L840-CD2-U all blades tilted out 20 degrees

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	207.7	210.8	212.4	212.4	214.0	214.0	210.8	209.2
115°	191.8	198.1	201.3	204.5	206.1	204.5	202.9	201.3
117.5°	176.0	183.9	187.1	191.8	195.0	195.0	193.4	190.2
120°	156.9	166.4	172.8	179.1	182.3	182.3	180.7	179.1
122.5°	133.2	145.8	156.9	163.3	168.0	168.0	168.0	164.9
125°	137.9	131.6	134.7	142.7	152.2	153.8	152.2	152.2
127.5°	145.8	139.5	136.3	131.6	128.4	130.0	128.4	126.8
130°	155.3	149.0	144.3	139.5	136.3	131.6	126.8	125.2
132.5°	164.9	158.5	153.8	147.4	142.7	139.5	134.7	131.6
135°	172.8	168.0	163.3	156.9	152.2	147.4	142.7	139.5
137.5°	182.3	174.4	169.6	166.4	161.7	156.9	150.6	147.4
140°	195.0	185.5	177.5	171.2	168.0	163.3	158.5	155.3
142.5°	214.0	199.7	188.6	182.3	176.0	171.2	164.9	161.7
145°	242.5	221.9	207.7	196.6	188.6	182.3	176.0	172.8
147.5°	290.1	253.6	234.6	218.8	209.2	201.3	193.4	190.2
150°	367.8	331.3	280.6	253.6	239.4	229.9	221.9	217.2
152.5°	363.0	364.6	363.0	344.0	317.0	296.4	277.4	263.1
155°	355.1	356.7	356.7	355.1	353.5	351.9	348.7	345.6
157.5°	347.2	350.3	350.3	348.7	347.2	344.0	340.8	339.2
160°	337.6	339.2	340.8	339.2	339.2	336.1	332.9	331.3
162.5°	325.0	328.1	328.1	328.1	326.6	325.0	323.4	320.2
165°	309.1	312.3	313.9	313.9	312.3	310.7	307.5	305.9
167.5°	293.3	296.4	298.0	296.4	296.4	293.3	290.1	286.9
170°	299.6	293.3	282.2	277.4	277.4	274.2	269.5	269.5
172.5°	334.5	329.7	323.4	318.6	312.3	307.5	302.8	298.0
175°	344.0	342.4	340.8	336.1	332.9	328.1	325.0	320.2
177.5°	347.2	347.2	345.6	342.4	339.2	334.5	329.7	325.0
180°	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7

(END OF REPORT)