

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: P232563

Luminaire Tested: **4SKB1-LD5-3-W-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232563  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-317-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SKB1-LD5-3-W-UNV-L850-CD1-U  
Description: METALUX SKYBAR 4' WAVESTREAM STRIP  
WITH WIDE LENS  
Light Source: (196) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3117.0 lumens  
Efficiency: N/A  
Efficacy: 145.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.48 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.29')  
CIE Type: Semi-Direct

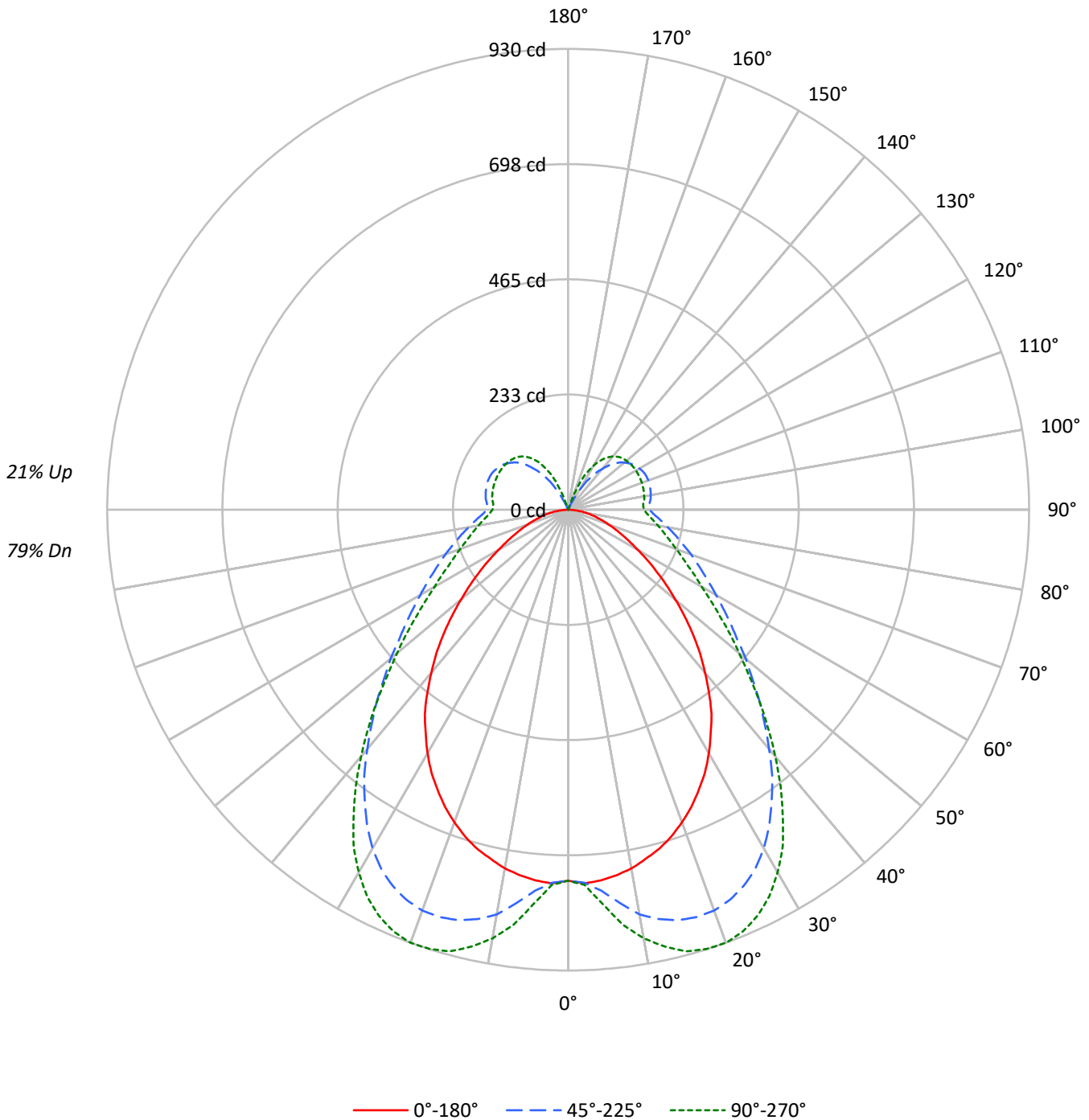
Input Watts (W): 21.44  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	114	114	114	114	109	109	109	109	99	99	99	91	91	91	83	83	83	79
1	103	97	93	88	98	93	89	85	85	82	78	77	75	72	70	68	67	63
2	93	85	78	72	89	81	75	69	74	69	64	68	63	60	62	58	55	52
3	85	74	66	60	81	71	64	58	65	59	54	60	55	51	55	51	47	44
4	78	66	57	51	74	63	55	49	58	51	46	53	48	43	49	44	41	38
5	72	59	50	44	68	57	49	42	52	45	40	48	42	38	44	39	36	33
6	66	53	44	38	63	51	43	37	47	40	35	44	38	33	40	35	31	29
7	61	48	40	34	58	46	38	33	43	36	31	40	34	30	37	32	28	26
8	57	44	36	30	54	42	35	29	39	33	28	36	31	26	34	29	25	23
9	53	40	32	27	51	39	31	26	36	30	25	34	28	24	31	26	23	21
10	50	37	29	24	48	36	29	24	33	27	23	31	26	22	29	24	21	19

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

	0°	45°	90°
0°	8058	8058	8058
5°	8062	7746	7828
10°	7934	7851	7961
15°	7746	7739	7833
20°	7489	7474	7479
25°	7163	7063	6955
30°	6769	6515	6275
35°	6305	5829	5457
40°	5687	5106	4615
45°	5044	4422	3827
50°	4351	3826	3153
55°	3695	3325	2622
60°	3102	2947	2214
65°	2625	2652	1933
70°	2257	2434	1735
75°	1919	2248	1592
80°	1574	2113	1496
85°	1058	2030	1425



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	2.4
10°-20°	237.6	7.6
20°-30°	372.4	11.9
30°-40°	426.4	13.7
40°-50°	392.7	12.6
50°-60°	322.3	10.3
60°-70°	257.7	8.3
70°-80°	207.0	6.6
80°-90°	164.7	5.3
90°-100°	147.2	4.7
100°-110°	143.3	4.6
110°-120°	129.9	4.2
120°-130°	107.4	3.4
130°-140°	77.0	2.5
140°-150°	42.8	1.4
150°-160°	12.9	0.4
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	685.5	22.0
0°-40°	1111.9	35.7
0°-60°	1827.0	58.6
0°-90°	2456.3	78.8
90°-120°	420.4	13.5
90°-150°	647.5	20.8
90°-180°	661.0	21.2
0°-180°	3117.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	751	758	772	798	798	71
15°	709	780	858	911	923	199
25°	624	742	838	897	904	287
35°	504	627	716	758	754	313
45°	356	473	545	560	545	274
55°	217	340	399	389	372	196
65°	119	250	300	279	266	120
75°	59	190	231	213	205	63
85°	16	144	181	170	165	17
90°	1	128	164	156	153	1
95°	0	127	165	156	152	0
105°	0	124	171	163	157	0
115°	0	112	171	166	158	0
125°	0	87	159	164	156	0
135°	0	32	132	154	149	0
145°	0	1	81	124	126	0
155°	0	0	13	58	73	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CATALOG NUMBER: 4SKB1-LD5-3-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6
2.5°	754.9	751.8	749.5	751.8	752.7	753.6	755.8	755.4	755.8	754.9	753.6
5°	750.9	748.2	747.3	751.8	756.3	758.5	761.6	764.8	767.5	771.0	771.9
7.5°	744.1	742.8	743.7	751.8	758.9	764.3	768.8	776.9	784.9	793.0	800.6
10°	735.2	734.3	738.3	750.4	762.1	769.7	777.3	792.1	806.0	818.6	829.3
12.5°	721.7	724.0	730.7	746.8	765.2	776.0	788.1	806.5	821.3	835.6	846.4
15°	708.7	710.1	723.1	742.4	763.9	780.5	793.0	816.3	831.6	846.4	857.6
17.5°	691.7	694.8	709.2	736.5	763.0	777.8	793.0	811.4	829.8	846.8	862.0
20°	671.1	677.8	697.1	727.1	757.1	771.9	785.4	807.8	826.6	843.2	860.7
22.5°	649.1	656.7	678.3	714.1	745.0	759.8	772.8	797.5	816.8	833.4	852.2
25°	623.6	633.4	659.0	697.5	727.1	742.4	756.3	781.4	801.5	818.1	837.8
27.5°	597.6	608.8	636.6	675.6	706.0	720.4	734.7	759.8	780.0	796.6	817.2
30°	567.5	579.6	611.0	648.7	678.7	694.4	707.4	732.0	754.0	768.8	789.4
32.5°	535.2	549.1	582.8	619.1	649.1	663.9	676.9	700.7	720.4	736.1	754.9
35°	504.3	515.5	549.6	585.0	613.7	627.1	642.4	665.3	682.7	698.9	715.9
37.5°	467.1	480.6	515.1	548.7	577.4	591.7	604.3	625.4	641.5	656.7	676.0
40°	429.5	444.2	480.1	510.1	539.7	550.9	563.5	582.8	598.0	616.8	630.7
42.5°	394.0	407.9	442.0	472.5	500.3	511.5	523.6	543.8	556.8	572.9	586.8
45°	355.5	369.8	406.1	434.8	461.3	473.4	485.9	502.5	517.3	530.3	545.1
47.5°	318.7	335.8	370.7	397.6	424.5	435.7	446.5	464.0	478.8	492.7	503.0
50°	282.4	300.8	334.9	364.0	389.6	400.8	411.5	429.0	444.2	456.4	467.1
52.5°	249.2	268.5	303.5	334.0	356.8	368.5	379.2	396.3	411.5	422.7	429.9
55°	217.4	238.9	275.2	304.8	327.7	340.2	348.8	366.7	381.9	392.2	399.0
57.5°	189.6	213.4	247.9	278.4	302.1	313.3	323.7	340.7	355.0	364.9	370.3
60°	162.3	188.7	224.6	254.2	278.4	289.1	300.3	317.4	330.8	339.8	344.7
62.5°	139.4	167.2	204.4	233.1	257.8	268.5	278.4	295.4	308.4	317.4	321.4
65°	119.2	148.4	186.0	214.7	238.5	249.7	260.0	277.5	289.6	298.1	299.9
67.5°	101.8	131.3	169.5	197.7	222.3	232.7	243.0	260.5	272.1	279.3	280.6
70°	86.1	116.1	154.2	182.5	206.7	217.9	228.2	243.9	256.0	261.8	263.6
72.5°	71.7	103.1	139.9	169.0	193.2	203.5	213.4	230.0	241.2	246.6	246.1
75°	58.7	91.0	127.8	156.5	179.3	190.1	199.9	216.1	227.3	231.8	230.9
77.5°	47.5	80.7	116.1	143.9	167.2	178.0	186.9	203.1	213.4	218.3	217.4
80°	35.9	69.5	104.9	132.2	155.6	165.4	175.3	190.5	200.8	205.8	203.5
82.5°	26.0	59.2	94.6	121.5	144.3	154.7	163.6	179.3	189.2	193.2	191.9
85°	15.7	48.9	83.4	111.2	134.0	143.9	153.8	168.6	178.4	182.5	181.1
87.5°	6.7	39.4	74.0	101.8	124.6	134.5	143.9	158.7	168.1	172.1	170.8
90°	0.9	33.2	68.1	95.5	117.9	127.8	137.2	152.0	161.4	165.4	164.1
92.5°	0.4	31.8	66.3	93.7	116.1	126.4	135.4	150.6	160.5	164.1	163.6
95°	0.4	29.6	65.4	93.7	116.6	126.9	136.3	151.5	161.4	165.4	165.0
97.5°	0.4	26.4	64.1	93.2	117.0	127.8	137.2	153.3	163.6	168.1	167.7
100°	0.4	21.5	61.4	91.9	116.1	127.3	136.7	153.3	164.1	169.0	169.0
102.5°	0.4	14.8	58.3	89.7	115.2	126.0	135.8	152.9	164.1	169.5	170.3
105°	0.4	9.0	54.2	87.0	113.0	124.2	134.5	152.0	163.6	169.9	171.2
107.5°	0.4	5.8	49.3	83.8	110.7	122.4	132.7	150.6	162.7	169.9	171.7
110°	0.4	4.9	43.0	80.2	107.6	119.2	130.0	148.8	161.4	169.5	172.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.4	4.0	33.2	75.3	104.0	116.1	127.3	145.7	159.6	167.7	171.7
115°	0.4	3.1	21.5	69.5	99.5	112.1	123.3	142.6	156.5	165.9	170.8
117.5°	0.4	2.7	13.9	62.8	94.6	107.1	118.8	138.5	153.3	163.2	169.0
120°	0.4	2.2	5.8	53.8	88.3	101.8	113.4	133.1	148.8	159.6	166.3
122.5°	0.4	1.8	4.5	40.3	81.1	95.0	107.1	127.8	143.5	155.6	162.7
125°	0.4	1.8	3.6	26.0	72.2	87.4	100.4	121.5	138.1	150.6	159.1
127.5°	0.4	1.3	3.1	17.5	61.4	78.4	92.3	114.3	131.3	144.3	153.8
130°	0.4	1.3	2.7	7.6	45.7	67.2	82.5	105.8	123.7	137.6	147.9
132.5°	0.4	0.9	2.2	3.1	28.2	52.0	69.9	95.0	114.8	129.6	141.2
135°	0.4	0.9	1.8	2.7	18.8	31.8	54.7	82.9	103.1	118.8	132.2
137.5°	0.4	0.9	1.3	2.2	7.6	21.1	33.6	69.5	90.6	107.1	121.0
140°	0.4	0.9	1.3	1.8	2.2	9.9	22.9	52.9	76.7	94.6	108.0
142.5°	0.4	0.9	1.3	1.3	1.8	2.2	11.2	30.9	61.4	80.7	95.5
145°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	21.1	39.9	65.4	81.1
147.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.3	8.5	24.7	46.2	65.4
150°	0.4	0.4	0.9	0.9	0.9	0.9	0.9	0.9	12.6	25.1	44.4
152.5°	0.4	0.4	0.4	0.9	0.9	0.9	0.9	0.9	1.3	14.3	24.7
155°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	12.6
157.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
160°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6	748.6
2.5°	755.8	759.8	761.6	763.4	763.9	764.3	763.4	763.0	759.8	758.0
5°	778.2	788.1	792.1	797.9	798.4	798.8	801.5	800.2	800.6	798.4
7.5°	810.9	825.3	831.6	839.2	841.0	843.2	847.7	848.2	847.7	844.6
10°	841.4	853.5	862.9	870.1	872.8	874.6	880.0	881.3	880.4	878.2
12.5°	859.8	875.5	884.9	895.2	897.9	900.6	905.1	907.3	904.6	903.3
15°	875.5	892.1	899.7	910.9	911.4	916.3	923.9	924.8	923.5	922.6
17.5°	879.5	896.6	907.8	917.6	921.2	924.4	928.8	932.4	932.9	929.3
20°	878.6	894.8	908.2	918.5	922.6	924.8	930.6	933.3	932.0	930.2
22.5°	871.5	887.6	901.0	910.0	913.6	917.2	922.6	924.8	924.8	921.2
25°	856.7	872.8	884.5	893.9	897.0	900.6	906.0	907.3	906.4	904.2
27.5°	835.6	849.9	861.6	869.7	872.8	875.9	881.8	883.1	881.3	879.1
30°	804.7	819.5	831.1	838.3	841.0	843.2	846.8	849.9	847.3	845.0
32.5°	771.0	784.5	792.6	799.3	801.1	802.9	806.5	807.8	805.1	805.6
35°	731.6	743.3	752.7	757.1	758.0	757.6	759.4	759.8	760.3	754.5
37.5°	688.6	698.9	703.4	709.6	708.3	710.5	712.3	710.5	706.0	703.8
40°	642.4	649.1	656.7	659.0	657.6	660.8	659.9	656.7	651.8	650.0
42.5°	596.7	604.3	607.0	608.8	607.4	607.9	606.1	605.2	600.3	596.2
45°	553.2	558.6	559.9	559.5	559.5	557.2	555.0	551.4	546.9	544.7
47.5°	510.6	514.2	514.6	512.4	510.6	507.9	508.4	502.1	496.7	494.0
50°	471.1	472.5	471.1	467.1	466.2	463.1	461.3	456.4	451.4	450.1
52.5°	435.7	435.3	432.6	428.1	426.3	423.2	420.0	415.6	410.6	410.6
55°	401.2	399.9	396.3	391.4	388.7	387.3	383.3	378.4	374.8	372.5
57.5°	371.2	368.5	364.0	359.5	355.9	352.4	349.7	346.1	341.6	340.7
60°	344.3	338.9	334.9	329.9	327.2	324.1	320.5	317.8	314.2	310.7
62.5°	319.2	314.7	309.3	304.4	301.7	299.0	295.4	291.4	289.1	288.2
65°	297.2	292.7	286.5	281.5	279.3	276.6	273.9	269.4	268.1	265.8
67.5°	277.5	271.7	265.8	261.3	259.1	258.2	255.5	252.8	249.7	247.9
70°	259.1	253.3	247.9	244.8	242.1	241.2	238.9	235.3	233.1	231.8
72.5°	241.6	236.7	232.2	227.7	225.9	225.5	223.7	221.0	218.8	217.4
75°	226.8	221.9	217.4	215.2	213.4	212.0	211.1	208.5	207.1	204.9
77.5°	213.8	208.0	204.0	201.7	200.4	199.5	198.6	197.2	195.5	194.1
80°	199.9	195.5	192.3	190.1	189.2	188.3	187.4	186.5	185.1	183.8
82.5°	188.3	184.2	181.6	179.8	179.8	178.9	178.4	177.5	176.2	174.4
85°	177.1	173.5	171.2	170.3	169.9	169.5	169.0	168.1	166.8	165.4
87.5°	167.7	165.0	162.7	162.3	162.3	161.8	161.4	160.9	159.6	158.2
90°	161.4	158.7	157.3	156.9	156.5	156.5	156.5	155.6	154.2	152.9
92.5°	160.5	157.8	156.5	155.6	155.6	155.6	155.6	154.7	153.3	151.5
95°	161.8	159.1	157.8	156.9	156.5	156.5	156.0	155.1	153.8	152.0
97.5°	165.0	162.3	160.5	159.1	158.7	158.7	158.2	157.3	156.0	154.7
100°	166.8	164.1	162.3	160.9	160.5	160.0	159.6	158.7	157.3	155.6
102.5°	168.1	165.4	163.2	162.3	161.8	161.4	160.5	159.6	158.2	156.5
105°	169.0	166.8	165.0	163.2	162.7	162.3	161.4	160.5	158.7	157.3
107.5°	170.3	168.1	165.9	164.5	163.6	163.2	162.3	161.4	159.6	157.8
110°	170.8	169.0	166.8	165.4	164.5	164.1	162.7	161.4	159.6	158.2





TEST NUMBER: P232563

CATALOG NUMBER: 4SKB1-LD5-3-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	171.2	169.9	167.7	165.9	165.4	164.5	163.2	161.8	160.0	158.2
115°	171.2	169.9	168.1	166.3	165.9	165.0	163.6	161.8	160.0	158.2
117.5°	170.8	169.9	168.6	166.8	165.9	165.0	163.6	161.8	159.6	158.2
120°	169.5	169.5	168.1	166.8	165.9	165.0	163.2	161.4	159.6	157.8
122.5°	167.2	168.1	167.2	165.9	165.4	164.5	163.2	160.9	158.7	157.3
125°	164.1	166.3	165.9	165.0	164.5	163.6	162.3	160.5	158.2	156.5
127.5°	160.0	163.2	164.1	163.6	163.2	162.7	160.9	159.1	157.3	155.1
130°	155.1	159.1	160.9	160.9	160.9	160.5	159.6	157.8	155.6	153.8
132.5°	148.8	153.8	156.5	157.8	157.8	157.8	156.9	155.6	153.8	151.5
135°	141.7	147.9	151.5	153.3	153.8	153.8	153.8	152.9	151.1	149.3
137.5°	133.1	140.3	145.2	147.9	148.8	149.3	149.7	148.8	147.0	145.2
140°	120.6	130.9	137.2	140.8	141.7	143.0	143.9	143.0	141.7	140.3
142.5°	108.0	118.8	127.8	132.7	133.6	134.9	136.3	136.3	134.9	133.6
145°	94.6	105.3	114.8	122.8	124.2	125.5	127.3	128.2	126.9	125.5
147.5°	78.9	90.1	100.0	108.9	113.0	114.8	116.6	117.5	117.0	115.7
150°	62.3	74.4	83.8	92.8	96.8	102.2	104.4	104.9	104.4	103.1
152.5°	37.7	55.1	65.9	74.9	78.4	83.4	89.7	91.0	90.1	89.2
155°	21.1	28.7	40.3	53.8	57.8	62.3	69.9	73.1	72.6	72.6
157.5°	6.3	15.7	21.5	26.4	28.2	30.9	39.9	47.5	49.8	50.2
160°	0.4	0.4	5.4	10.8	13.4	16.1	20.6	23.3	23.8	24.2
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)