

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: P232564

Luminaire Tested: **4SKB1-LD5-4-W-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232564  
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-LD5-4-W-UNV-L835-CD1-U  
Description: METALUX SKYBAR 4' WAVESTREAM STRIP  
WITH WIDE LENS  
Light Source: (196) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3761.0 lumens  
Efficiency: N/A  
Efficacy: 129.7 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

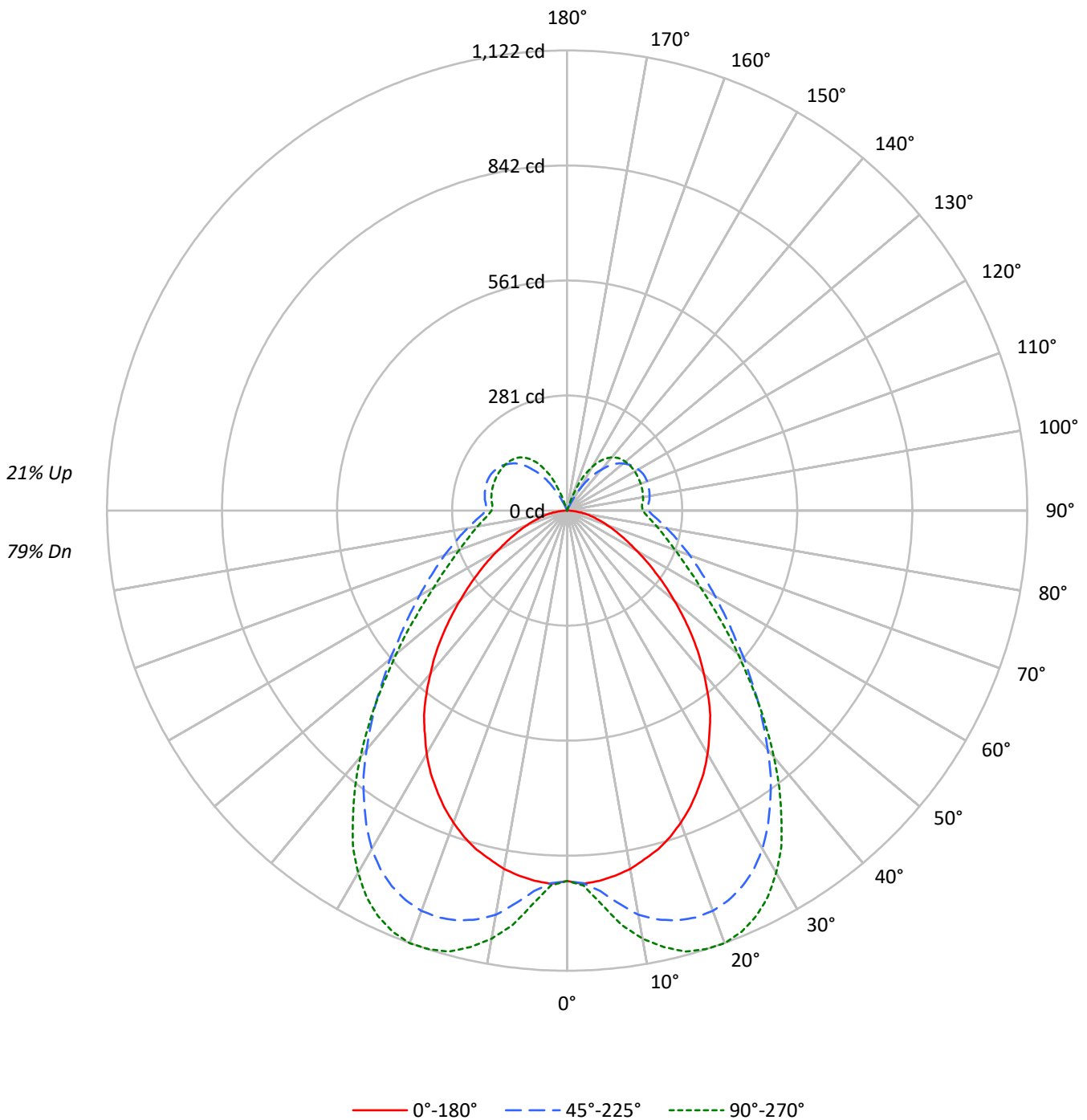
Input Watts (W): 29  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	9723	9723	9723
5°	9727	9347	9444
10°	9573	9473	9605
15°	9347	9337	9451
20°	9035	9018	9025
25°	8642	8523	8392
30°	8168	7861	7572
35°	7607	7034	6583
40°	6862	6161	5569
45°	6085	5335	4617
50°	5251	4616	3805
55°	4458	4012	3164
60°	3742	3556	2671
65°	3169	3201	2333
70°	2724	2937	2092
75°	2318	2713	1920
80°	1899	2550	1805
85°	1273	2449	1720



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.2	2.4
10°-20°	286.7	7.6
20°-30°	449.3	11.9
30°-40°	514.5	13.7
40°-50°	473.9	12.6
50°-60°	388.9	10.3
60°-70°	310.9	8.3
70°-80°	249.8	6.6
80°-90°	198.7	5.3
90°-100°	177.6	4.7
100°-110°	172.9	4.6
110°-120°	156.7	4.2
120°-130°	129.5	3.4
130°-140°	92.9	2.5
140°-150°	51.6	1.4
150°-160°	15.5	0.4
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	827.2	22.0
0°-40°	1341.7	35.7
0°-60°	2204.4	58.6
0°-90°	2963.8	78.8
90°-120°	507.2	13.5
90°-150°	781.3	20.8
90°-180°	797.0	21.2
0°-180°	3761.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	906	915	931	963	963	86
15°	855	942	1035	1100	1113	241
25°	752	896	1011	1082	1091	346
35°	608	757	864	915	910	378
45°	429	571	658	675	657	331
55°	262	410	481	469	450	237
65°	144	301	362	337	321	145
75°	71	229	279	258	247	76
85°	19	174	218	205	200	21
90°	1	154	198	189	184	1
95°	0	153	199	189	183	0
105°	0	150	207	196	190	1
115°	0	135	206	200	191	0
125°	0	106	192	198	189	0
135°	0	38	160	186	180	0
145°	0	2	98	150	152	0
155°	0	0	15	70	88	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232564

CATALOG NUMBER: 4SKB1-LD5-4-W-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3
2.5°	910.9	907.1	904.4	907.1	908.2	909.3	912.0	911.4	912.0	910.9	909.3
5°	906.0	902.8	901.7	907.1	912.5	915.2	919.0	922.8	926.0	930.4	931.4
7.5°	897.9	896.3	897.4	907.1	915.7	922.2	927.6	937.4	947.1	956.9	966.1
10°	887.1	886.0	890.9	905.5	919.5	928.7	937.9	955.8	972.5	987.7	1000.7
12.5°	870.9	873.6	881.7	901.1	923.3	936.3	950.9	973.1	990.9	1008.2	1021.2
15°	855.2	856.8	872.5	895.7	921.7	941.7	956.9	985.0	1003.4	1021.2	1034.7
17.5°	834.6	838.4	855.7	888.7	920.6	938.5	956.9	979.0	1001.2	1021.8	1040.2
20°	809.7	817.8	841.1	877.3	913.6	931.4	947.7	974.7	997.4	1017.4	1038.5
22.5°	783.2	792.4	818.4	861.7	899.0	916.8	932.5	962.3	985.5	1005.5	1028.3
25°	752.4	764.3	795.1	841.6	877.3	895.7	912.5	942.8	967.1	987.1	1010.9
27.5°	721.0	734.5	768.1	815.1	851.9	869.2	886.5	916.8	941.2	961.2	986.1
30°	684.8	699.4	737.2	782.7	818.9	837.9	853.5	883.3	909.8	927.6	952.5
32.5°	645.8	662.6	703.2	747.0	783.2	801.1	816.8	845.4	869.2	888.2	910.9
35°	608.5	622.0	663.1	705.9	740.5	756.7	775.1	802.7	823.8	843.3	863.8
37.5°	563.6	579.8	621.5	662.1	696.7	714.0	729.1	754.6	774.0	792.4	815.7
40°	518.2	536.0	579.3	615.5	651.2	664.8	679.9	703.2	721.6	744.3	761.0
42.5°	475.5	492.2	533.3	570.1	603.6	617.2	631.8	656.1	671.8	691.3	708.0
45°	428.9	446.2	490.1	524.7	556.6	571.2	586.3	606.4	624.2	639.9	657.7
47.5°	384.6	405.1	447.3	479.8	512.2	525.8	538.7	559.8	577.7	594.5	606.9
50°	340.8	362.9	404.1	439.2	470.0	483.6	496.5	517.6	536.0	550.6	563.6
52.5°	300.7	324.0	366.2	403.0	430.6	444.6	457.6	478.2	496.5	510.1	518.7
55°	262.3	288.3	332.1	367.8	395.4	410.5	420.8	442.5	460.8	473.3	481.4
57.5°	228.8	257.5	299.1	335.9	364.6	378.1	390.5	411.1	428.4	440.3	446.8
60°	195.8	227.7	271.0	306.7	335.9	348.9	362.4	383.0	399.2	410.0	416.0
62.5°	168.2	201.8	246.7	281.3	311.0	324.0	335.9	356.5	372.1	383.0	387.8
65°	143.9	179.0	224.5	259.1	287.8	301.3	313.7	334.8	349.4	359.7	361.9
67.5°	122.8	158.5	204.5	238.5	268.3	280.7	293.2	314.3	328.3	337.0	338.6
70°	103.9	140.1	186.1	220.1	249.4	262.9	275.3	294.3	308.9	315.9	318.1
72.5°	86.5	124.4	168.8	203.9	233.1	245.6	257.5	277.5	291.0	297.5	297.0
75°	70.9	109.8	154.2	188.8	216.4	229.3	241.2	260.7	274.2	279.6	278.6
77.5°	57.3	97.4	140.1	173.6	201.8	214.7	225.6	245.0	257.5	263.4	262.3
80°	43.3	83.8	126.6	159.6	187.7	199.6	211.5	229.9	242.3	248.3	245.6
82.5°	31.4	71.4	114.1	146.6	174.2	186.6	197.4	216.4	228.3	233.1	231.5
85°	18.9	59.0	100.6	134.1	161.7	173.6	185.5	203.4	215.3	220.1	218.5
87.5°	8.1	47.6	89.2	122.8	150.4	162.3	173.6	191.5	202.8	207.7	206.1
90°	1.1	40.0	82.2	115.2	142.3	154.2	165.5	183.4	194.7	199.6	198.0
92.5°	0.5	38.4	80.1	113.0	140.1	152.5	163.4	181.7	193.6	198.0	197.4
95°	0.5	35.7	79.0	113.0	140.6	153.1	164.4	182.8	194.7	199.6	199.1
97.5°	0.5	31.9	77.3	112.5	141.2	154.2	165.5	185.0	197.4	202.8	202.3
100°	0.5	26.0	74.1	110.9	140.1	153.6	165.0	185.0	198.0	203.9	203.9
102.5°	0.5	17.8	70.3	108.2	139.0	152.0	163.9	184.4	198.0	204.5	205.5
105°	0.5	10.8	65.4	104.9	136.3	149.8	162.3	183.4	197.4	205.0	206.6
107.5°	0.5	7.0	59.5	101.1	133.6	147.7	160.1	181.7	196.3	205.0	207.2
110°	0.5	5.9	51.9	96.8	129.8	143.9	156.9	179.6	194.7	204.5	207.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.5	4.9	40.0	90.9	125.5	140.1	153.6	175.8	192.6	202.3	207.2
115°	0.5	3.8	26.0	83.8	120.1	135.2	148.7	172.0	188.8	200.1	206.1
117.5°	0.5	3.2	16.8	75.7	114.1	129.3	143.3	167.1	185.0	196.9	203.9
120°	0.5	2.7	7.0	64.9	106.6	122.8	136.8	160.6	179.6	192.6	200.7
122.5°	0.5	2.2	5.4	48.7	97.9	114.7	129.3	154.2	173.1	187.7	196.3
125°	0.5	2.2	4.3	31.4	87.1	105.5	121.2	146.6	166.6	181.7	192.0
127.5°	0.5	1.6	3.8	21.1	74.1	94.7	111.4	137.9	158.5	174.2	185.5
130°	0.5	1.6	3.2	9.2	55.2	81.1	99.5	127.7	149.3	166.1	178.5
132.5°	0.5	1.1	2.7	3.8	34.1	62.7	84.4	114.7	138.5	156.3	170.4
135°	0.5	1.1	2.2	3.2	22.7	38.4	66.0	100.1	124.4	143.3	159.6
137.5°	0.5	1.1	1.6	2.7	9.2	25.4	40.6	83.8	109.3	129.3	146.0
140°	0.5	1.1	1.6	2.2	2.7	11.9	27.6	63.8	92.5	114.1	130.4
142.5°	0.5	1.1	1.6	1.6	2.2	2.7	13.5	37.3	74.1	97.4	115.2
145°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	25.4	48.1	79.0	97.9
147.5°	0.5	0.5	1.1	1.1	1.6	1.6	1.6	10.3	29.7	55.7	79.0
150°	0.5	0.5	1.1	1.1	1.1	1.1	1.1	1.1	15.1	30.3	53.5
152.5°	0.5	0.5	0.5	1.1	1.1	1.1	1.1	1.1	1.6	17.3	29.7
155°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	15.1
157.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
160°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3	903.3
2.5°	912.0	916.8	919.0	921.2	921.7	922.2	921.2	920.6	916.8	914.7
5°	939.0	950.9	955.8	962.8	963.3	963.9	967.1	965.5	966.1	963.3
7.5°	978.5	995.8	1003.4	1012.6	1014.7	1017.4	1022.8	1023.4	1022.8	1019.1
10°	1015.3	1029.9	1041.2	1049.9	1053.1	1055.3	1061.8	1063.4	1062.3	1059.6
12.5°	1037.4	1056.4	1067.7	1080.2	1083.4	1086.7	1092.1	1094.8	1091.5	1089.9
15°	1056.4	1076.4	1085.6	1099.1	1099.7	1105.6	1114.8	1115.9	1114.3	1113.2
17.5°	1061.2	1081.8	1095.3	1107.2	1111.6	1115.3	1120.7	1125.1	1125.6	1121.3
20°	1060.2	1079.6	1095.9	1108.3	1113.2	1115.9	1122.9	1126.2	1124.5	1122.4
22.5°	1051.5	1071.0	1087.2	1098.0	1102.4	1106.7	1113.2	1115.9	1115.9	1111.6
25°	1033.7	1053.1	1067.2	1078.6	1082.3	1086.7	1093.2	1094.8	1093.7	1091.0
27.5°	1008.2	1025.6	1039.6	1049.3	1053.1	1056.9	1064.0	1065.6	1063.4	1060.7
30°	970.9	988.8	1002.8	1011.5	1014.7	1017.4	1021.8	1025.6	1022.3	1019.6
32.5°	930.4	946.6	956.3	964.4	966.6	968.8	973.1	974.7	971.5	972.0
35°	882.8	896.8	908.2	913.6	914.7	914.1	916.3	916.8	917.4	910.3
37.5°	830.8	843.3	848.7	856.2	854.6	857.3	859.5	857.3	851.9	849.2
40°	775.1	783.2	792.4	795.1	793.5	797.3	796.2	792.4	786.5	784.3
42.5°	719.9	729.1	732.4	734.5	732.9	733.5	731.3	730.2	724.3	719.4
45°	667.5	674.0	675.6	675.0	675.0	672.3	669.6	665.3	659.9	657.2
47.5°	616.1	620.4	621.0	618.3	616.1	612.8	613.4	605.8	599.3	596.1
50°	568.5	570.1	568.5	563.6	562.5	558.8	556.6	550.6	544.7	543.1
52.5°	525.8	525.2	522.0	516.6	514.4	510.6	506.8	501.4	495.5	495.5
55°	484.1	482.5	478.2	472.2	469.0	467.3	462.5	456.5	452.2	449.5
57.5°	447.9	444.6	439.2	433.8	429.5	425.1	421.9	417.6	412.2	411.1
60°	415.4	408.9	404.1	398.1	394.9	391.1	386.7	383.5	379.2	374.8
62.5°	385.1	379.7	373.2	367.3	364.0	360.8	356.5	351.6	348.9	347.8
65°	358.6	353.2	345.6	339.7	337.0	333.7	330.5	325.1	323.5	320.8
67.5°	334.8	327.8	320.8	315.3	312.6	311.6	308.3	305.1	301.3	299.1
70°	312.6	305.6	299.1	295.3	292.1	291.0	288.3	284.0	281.3	279.6
72.5°	291.5	285.6	280.2	274.8	272.6	272.1	269.9	266.7	264.0	262.3
75°	273.7	267.7	262.3	259.6	257.5	255.8	254.8	251.5	249.9	247.2
77.5°	258.0	251.0	246.1	243.4	241.8	240.7	239.6	238.0	235.8	234.2
80°	241.2	235.8	232.0	229.3	228.3	227.2	226.1	225.0	223.4	221.8
82.5°	227.2	222.3	219.1	216.9	216.9	215.8	215.3	214.2	212.6	210.4
85°	213.7	209.3	206.6	205.5	205.0	204.5	203.9	202.8	201.2	199.6
87.5°	202.3	199.1	196.3	195.8	195.8	195.3	194.7	194.2	192.6	190.9
90°	194.7	191.5	189.9	189.3	188.8	188.8	188.8	187.7	186.1	184.4
92.5°	193.6	190.4	188.8	187.7	187.7	187.7	187.7	186.6	185.0	182.8
95°	195.3	192.0	190.4	189.3	188.8	188.8	188.2	187.2	185.5	183.4
97.5°	199.1	195.8	193.6	192.0	191.5	191.5	190.9	189.9	188.2	186.6
100°	201.2	198.0	195.8	194.2	193.6	193.1	192.6	191.5	189.9	187.7
102.5°	202.8	199.6	196.9	195.8	195.3	194.7	193.6	192.6	190.9	188.8
105°	203.9	201.2	199.1	196.9	196.3	195.8	194.7	193.6	191.5	189.9
107.5°	205.5	202.8	200.1	198.5	197.4	196.9	195.8	194.7	192.6	190.4
110°	206.1	203.9	201.2	199.6	198.5	198.0	196.3	194.7	192.6	190.9





TEST NUMBER: P232564

CATALOG NUMBER: 4SKB1-LD5-4-W-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	206.6	205.0	202.3	200.1	199.6	198.5	196.9	195.3	193.1	190.9
115°	206.6	205.0	202.8	200.7	200.1	199.1	197.4	195.3	193.1	190.9
117.5°	206.1	205.0	203.4	201.2	200.1	199.1	197.4	195.3	192.6	190.9
120°	204.5	204.5	202.8	201.2	200.1	199.1	196.9	194.7	192.6	190.4
122.5°	201.8	202.8	201.8	200.1	199.6	198.5	196.9	194.2	191.5	189.9
125°	198.0	200.7	200.1	199.1	198.5	197.4	195.8	193.6	190.9	188.8
127.5°	193.1	196.9	198.0	197.4	196.9	196.3	194.2	192.0	189.9	187.2
130°	187.2	192.0	194.2	194.2	194.2	193.6	192.6	190.4	187.7	185.5
132.5°	179.6	185.5	188.8	190.4	190.4	190.4	189.3	187.7	185.5	182.8
135°	170.9	178.5	182.8	185.0	185.5	185.5	185.5	184.4	182.3	180.1
137.5°	160.6	169.3	175.3	178.5	179.6	180.1	180.7	179.6	177.4	175.3
140°	145.5	157.9	165.5	169.8	170.9	172.5	173.6	172.5	170.9	169.3
142.5°	130.4	143.3	154.2	160.1	161.2	162.8	164.4	164.4	162.8	161.2
145°	114.1	127.1	138.5	148.2	149.8	151.5	153.6	154.7	153.1	151.5
147.5°	95.2	108.7	120.6	131.4	136.3	138.5	140.6	141.7	141.2	139.6
150°	75.2	89.8	101.1	112.0	116.8	123.3	126.0	126.6	126.0	124.4
152.5°	45.4	66.5	79.5	90.3	94.7	100.6	108.2	109.8	108.7	107.6
155°	25.4	34.6	48.7	64.9	69.8	75.2	84.4	88.2	87.6	87.6
157.5°	7.6	18.9	26.0	31.9	34.1	37.3	48.1	57.3	60.0	60.6
160°	0.5	0.5	6.5	13.0	16.2	19.5	24.9	28.1	28.7	29.2
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)