

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: P236180

Luminaire Tested: **2SWLED-8SL-LC-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-4)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2SWLED-8SL-LC-UNV-L850-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
2FT FIXTURE WITH 1 ROW LED, CLEAR LENS
Light Source: (56) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

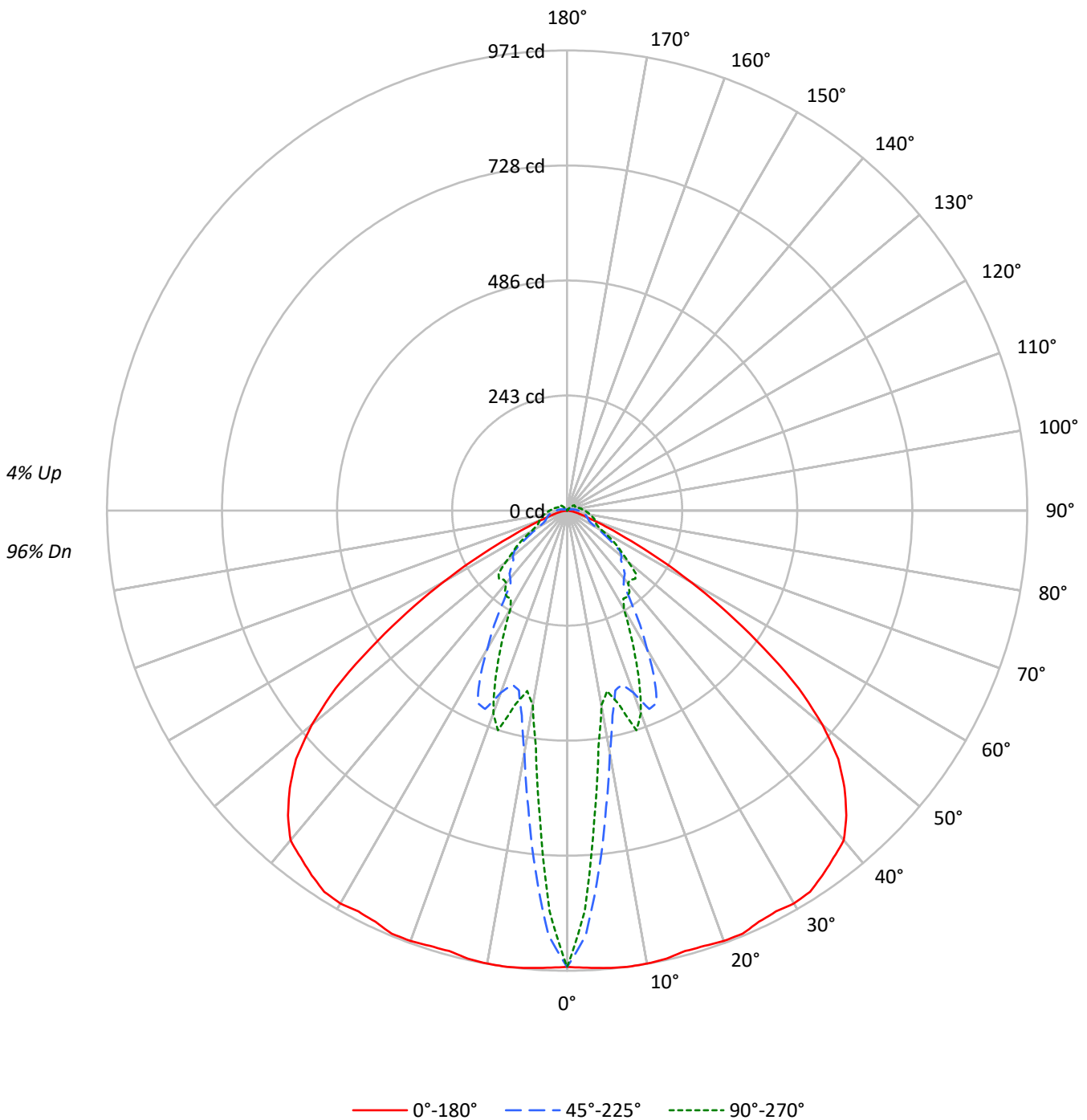
Lumens per Lamp: N/A
Luminaire Lumens: 1142.0 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 0.27 / 0.77
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 2' x H: 0.15')
CIE Type: Direct

Input Watts (W): 8.98
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

TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

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	0	
RCR																						
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96				
1	109	105	101	97	106	102	98	95	97	94	91	92	90	88	88	86	85	82				
2	100	93	87	82	97	91	85	81	87	82	78	83	79	76	79	76	74	71				
3	93	83	76	70	90	82	75	70	78	72	68	75	70	66	72	68	65	62				
4	86	75	67	61	83	74	66	61	71	64	60	68	63	58	65	61	57	55				
5	80	68	60	54	78	67	59	54	64	58	53	62	56	52	60	55	51	49				
6	74	62	54	48	72	61	54	48	59	52	47	57	51	47	55	50	46	44				
7	69	57	49	44	68	56	49	43	54	48	43	53	47	42	51	46	42	40				
8	65	53	45	40	63	52	45	39	50	44	39	49	43	38	47	42	38	36				
9	61	49	41	36	60	48	41	36	47	40	36	45	40	35	44	39	35	33				
10	58	45	38	33	56	45	38	33	44	37	33	42	37	33	41	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13822	13822	13822
5°	13869	10705	9111
10°	13967	7149	5679
15°	14023	5367	5692
20°	14378	5575	6089
25°	14662	6151	4556
30°	15225	4700	3240
35°	15661	3333	3056
40°	16036	2743	2821
45°	15656	2535	2974
50°	14441	2406	2578
55°	11501	1950	2051
60°	7663	1263	1497
65°	3965	1019	1259
70°	1996	1013	1264
75°	1151	1027	1283
80°	719	1040	1279
85°	377	1033	1285



TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.3	6.1
10°-20°	149.9	13.1
20°-30°	206.3	18.1
30°-40°	202.1	17.7
40°-50°	184.5	16.2
50°-60°	133.4	11.7
60°-70°	71.4	6.2
70°-80°	45.7	4.0
80°-90°	29.7	2.6
90°-100°	18.7	1.6
100°-110°	11.7	1.0
110°-120°	7.8	0.7
120°-130°	6.1	0.5
130°-140°	3.8	0.3
140°-150°	1.2	0.1
150°-160°	0.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	425.5	37.3
0°-40°	627.6	55.0
0°-60°	945.5	82.8
0°-90°	1092.3	95.6
90°-120°	38.2	3.3
90°-150°	49.4	4.3
90°-180°	50.0	4.4
0°-180°	1142.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	969	893	764	679	654	93
15°	962	590	393	398	423	274
25°	957	377	448	369	340	444
35°	940	398	234	212	222	588
45°	828	190	166	186	204	633
55°	508	102	114	121	128	451
65°	135	44	51	67	68	150
75°	26	26	41	56	57	31
85°	4	14	30	40	42	5
90°	0	10	24	33	36	0
95°	0	7	18	27	32	0
105°	0	4	11	18	24	0
115°	0	2	7	13	19	0
125°	0	1	5	13	18	0
135°	0	0	4	9	11	0
145°	0	0	2	3	3	0
155°	0	0	0	1	1	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1
2.5°	965.5	962.2	957.0	953.7	947.5	943.7	939.5	931.0	916.4	909.3	897.0
5°	968.8	961.7	947.5	932.9	907.4	893.2	879.5	851.2	817.7	793.1	764.3
7.5°	971.1	960.3	933.8	898.0	850.7	825.7	802.1	755.4	707.2	669.5	630.7
10°	970.7	953.2	908.8	849.8	783.2	749.7	716.2	655.8	599.6	556.6	518.8
12.5°	968.3	943.7	878.1	796.9	709.6	671.3	631.2	562.8	508.5	471.6	442.4
15°	962.2	926.8	837.5	733.2	634.0	590.1	546.7	484.4	440.5	410.7	392.8
17.5°	963.1	915.4	799.3	675.1	560.4	516.5	476.4	422.1	390.9	381.9	384.3
20°	966.4	906.0	762.0	617.5	494.3	454.2	419.7	382.9	374.4	384.8	408.4
22.5°	966.4	889.5	718.6	555.7	436.2	405.5	384.8	371.6	390.4	425.4	453.2
25°	957.4	864.0	666.1	489.1	393.3	377.2	370.6	388.1	433.4	454.6	447.6
27.5°	953.7	839.9	612.3	432.0	370.6	368.2	377.7	424.4	443.8	428.2	398.5
30°	957.4	818.2	557.1	393.3	368.7	382.9	407.4	428.2	406.5	371.1	337.1
32.5°	953.7	791.3	503.7	377.7	387.1	406.5	416.4	391.9	348.4	310.6	285.6
35°	939.5	751.1	457.0	376.7	396.1	398.0	383.4	336.6	291.3	258.7	233.7
37.5°	923.4	711.9	432.0	379.6	372.0	353.6	326.7	280.0	240.3	212.4	195.9
40°	908.3	679.8	422.1	365.9	325.3	295.1	267.7	227.6	197.3	183.7	186.5
42.5°	872.0	646.3	404.6	328.1	268.6	238.9	217.6	186.5	172.3	176.1	179.9
45°	827.6	621.3	374.4	273.4	212.0	190.3	176.6	161.5	161.0	164.8	165.7
47.5°	776.1	596.7	332.4	219.1	166.2	154.4	149.7	147.3	148.7	149.2	153.9
50°	703.0	556.6	278.1	168.5	135.5	133.1	133.1	133.6	134.6	140.7	149.7
52.5°	616.1	509.9	228.0	131.2	116.6	117.1	117.1	119.4	126.5	135.5	140.2
55°	507.5	447.6	189.3	107.6	101.5	102.0	103.9	109.5	114.3	116.1	114.3
57.5°	399.9	377.7	167.6	91.6	88.8	89.7	92.5	93.5	92.1	89.2	88.3
60°	300.7	300.7	153.9	79.8	75.1	74.6	75.1	70.8	68.5	67.5	68.9
62.5°	211.0	230.9	141.6	68.5	59.0	56.7	55.7	53.3	53.3	54.3	56.7
65°	135.0	169.5	124.6	57.1	45.8	44.4	44.4	44.4	45.8	48.2	51.0
67.5°	87.8	117.1	102.9	49.1	38.2	37.8	37.8	39.7	42.0	44.9	48.2
70°	57.1	76.5	80.3	43.0	33.0	33.0	34.0	36.4	39.2	42.5	45.8
72.5°	38.2	49.6	60.0	36.8	29.3	29.3	30.2	33.0	36.4	40.1	43.4
75°	26.4	32.6	41.5	30.7	25.0	26.0	26.9	30.2	34.0	37.8	41.1
77.5°	17.9	21.2	27.9	24.1	21.2	22.7	24.1	27.4	31.2	34.9	38.7
80°	12.3	13.7	17.9	17.9	17.9	19.4	21.2	25.0	28.8	32.1	35.9
82.5°	7.6	8.5	11.3	12.7	15.1	16.5	18.4	22.2	26.0	29.3	32.6
85°	4.2	4.7	7.1	9.4	12.3	14.2	16.1	19.4	23.1	26.4	29.7
87.5°	1.9	2.8	4.2	6.6	10.4	11.8	13.7	17.0	20.8	23.6	26.9
90°	0.5	1.4	2.8	5.2	8.0	9.9	11.8	14.6	17.9	20.8	23.6
92.5°	0.0	0.5	1.9	3.8	6.6	8.5	9.9	12.7	15.6	18.4	20.8
95°	0.0	0.5	1.4	3.3	5.7	7.1	8.5	11.3	13.7	16.1	18.4
97.5°	0.0	0.0	0.9	2.4	4.7	6.1	7.1	9.4	11.8	14.2	16.1
100°	0.0	0.0	0.9	1.9	4.2	5.2	6.1	8.5	10.4	12.3	14.2
102.5°	0.0	0.0	0.5	1.9	3.3	4.2	5.2	7.6	9.0	10.9	12.3
105°	0.0	0.0	0.5	1.4	2.8	3.8	4.7	6.1	8.0	9.4	10.9
107.5°	0.0	0.0	0.5	1.4	2.4	3.3	4.2	5.7	7.1	8.5	9.9
110°	0.0	0.0	0.5	0.9	2.4	2.8	3.3	4.7	6.1	7.6	8.5



TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.0	0.5	0.9	1.9	2.4	3.3	4.2	5.7	6.6	7.6
115°	0.0	0.0	0.0	0.9	1.4	1.9	2.8	3.8	4.7	5.7	7.1
117.5°	0.0	0.0	0.0	0.5	1.4	1.9	2.4	3.3	4.2	5.2	6.1
120°	0.0	0.0	0.0	0.5	0.9	1.4	1.9	2.8	3.8	4.7	5.2
122.5°	0.0	0.0	0.0	0.5	0.9	0.9	1.4	2.4	3.3	4.2	4.7
125°	0.0	0.0	0.0	0.0	0.5	0.9	1.4	1.9	2.8	3.8	4.7
127.5°	0.0	0.0	0.0	0.5	0.5	0.9	0.9	1.9	2.4	3.3	4.2
130°	0.0	0.0	0.0	0.0	0.5	0.5	0.9	1.4	2.4	3.3	4.2
132.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.4	2.4	3.3	4.2
135°	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.4	1.9	2.8	4.2
137.5°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.9	2.4	3.3
140°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.4	1.9	2.8
142.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.4	2.4
145°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.4	1.9
147.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	1.4
150°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9
152.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
155°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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



TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1	963.1
2.5°	891.3	874.8	871.0	857.8	854.0	852.2	852.2	844.1	840.8	846.0
5°	745.5	718.6	704.9	684.6	678.9	672.8	667.6	661.0	652.0	653.9
7.5°	602.9	572.2	550.5	533.5	527.3	522.2	516.0	509.4	504.2	504.2
10°	493.4	469.3	455.1	439.1	434.3	429.6	424.0	419.2	415.5	416.4
12.5°	420.6	402.2	393.7	389.0	389.0	387.6	387.6	389.5	390.9	390.0
15°	385.7	386.7	388.5	395.2	397.5	398.9	405.5	412.6	417.8	423.0
17.5°	392.8	406.5	427.3	449.9	455.1	465.0	474.9	478.7	483.0	485.8
20°	439.5	462.7	476.8	476.8	475.9	472.1	465.5	457.9	455.1	455.1
22.5°	465.0	457.5	445.7	431.5	427.7	422.1	412.6	404.6	400.8	399.4
25°	425.8	405.5	388.1	373.9	369.2	361.6	352.2	344.6	340.9	339.9
27.5°	368.2	346.1	330.5	318.2	312.5	307.3	297.0	289.9	286.6	286.1
30°	314.0	293.7	275.7	263.4	259.2	255.4	247.4	242.2	239.8	239.4
32.5°	260.1	242.7	229.0	221.4	219.5	217.6	216.2	217.6	219.1	220.5
35°	215.3	207.3	204.9	207.7	211.5	214.3	218.1	219.5	220.5	221.9
37.5°	195.0	199.7	205.4	209.1	210.6	212.4	214.8	215.3	215.8	216.2
40°	191.2	196.4	199.2	199.7	199.2	199.2	199.2	198.8	199.2	199.7
42.5°	181.3	183.2	182.2	182.7	184.1	186.0	190.3	194.0	195.9	197.8
45°	166.7	169.0	175.6	183.7	186.5	189.8	196.4	200.6	202.5	203.5
47.5°	160.5	169.0	177.5	184.1	186.0	188.4	193.1	195.9	196.4	196.4
50°	158.2	164.8	167.1	169.5	168.5	168.5	167.6	168.5	168.1	169.0
52.5°	142.6	142.1	141.2	142.1	142.1	142.1	143.5	144.9	144.9	145.9
55°	112.8	113.8	115.7	120.4	121.3	122.3	125.1	126.5	127.0	127.5
57.5°	89.7	93.0	97.3	101.5	102.9	104.3	105.3	106.2	106.2	107.2
60°	71.3	75.5	80.3	85.0	85.9	85.9	85.9	86.9	86.4	87.3
62.5°	59.5	64.7	69.4	72.7	73.2	73.2	72.7	73.2	73.6	74.1
65°	54.3	60.0	64.7	66.6	66.6	67.0	67.0	68.0	68.0	68.0
67.5°	52.4	58.1	61.8	63.3	63.3	63.7	64.2	64.2	64.2	64.2
70°	50.5	56.7	59.0	60.4	60.9	61.4	61.4	61.8	61.8	62.3
72.5°	49.1	54.3	56.2	57.6	58.5	59.0	59.0	60.0	60.0	60.4
75°	46.7	51.0	52.9	54.8	55.7	56.2	56.7	57.1	56.7	56.7
77.5°	43.4	47.2	49.6	51.5	51.9	52.4	52.9	52.9	52.9	52.9
80°	40.6	43.4	45.8	47.7	48.2	48.6	48.6	49.1	49.6	49.6
82.5°	36.8	39.7	42.0	43.4	43.9	44.4	44.9	45.8	46.3	46.3
85°	33.5	35.9	37.8	39.7	40.1	40.6	41.5	42.5	42.5	42.5
87.5°	29.7	32.1	34.0	35.9	36.8	37.3	38.2	39.2	39.2	39.7
90°	26.4	28.3	30.7	32.1	33.0	33.5	34.9	35.9	36.4	36.4
92.5°	23.1	25.0	27.4	28.8	29.7	30.7	31.6	33.0	33.5	34.0
95°	20.3	22.2	24.1	26.0	26.9	27.4	29.3	30.7	31.6	31.6
97.5°	17.5	19.4	21.2	23.1	24.1	25.0	26.4	28.3	29.3	29.7
100°	15.6	17.0	18.9	20.8	21.7	22.7	24.5	26.4	27.4	27.9
102.5°	13.7	15.1	16.5	18.4	19.4	20.3	22.2	24.1	25.0	25.5
105°	12.3	13.2	14.6	16.5	17.5	18.4	20.3	22.2	23.1	23.6
107.5°	10.9	12.3	13.2	15.1	16.1	16.5	18.4	20.3	21.2	21.7
110°	9.9	10.9	12.3	13.7	14.6	15.1	17.0	18.9	19.8	20.3



TEST NUMBER: P236180

CATALOG NUMBER: 2SWLED-8SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	9.0	9.9	11.3	12.7	13.2	14.2	16.1	17.5	18.9	19.4
115°	8.0	9.0	10.4	11.8	12.7	13.2	15.1	17.0	18.4	18.9
117.5°	7.1	8.0	9.4	11.3	12.3	13.2	15.1	17.0	17.9	18.4
120°	6.6	7.6	9.0	10.9	11.8	12.7	15.1	17.0	17.9	18.4
122.5°	6.1	7.1	9.0	11.3	12.3	13.2	15.1	17.0	18.4	18.9
125°	5.7	7.1	9.4	11.3	12.7	13.7	15.6	17.0	17.9	18.4
127.5°	5.7	7.6	9.4	11.8	12.7	13.7	15.6	17.0	17.5	17.9
130°	6.1	7.6	9.9	11.8	12.7	13.2	14.6	15.6	16.1	16.1
132.5°	6.1	7.6	9.4	10.9	11.3	11.8	12.7	13.2	13.7	13.7
135°	5.7	6.6	8.0	9.0	9.4	9.9	10.4	10.9	10.9	10.9
137.5°	4.7	5.7	6.6	7.1	7.6	7.6	8.0	8.0	8.5	8.5
140°	3.8	4.2	5.2	5.7	5.7	5.7	6.1	6.1	6.1	6.1
142.5°	2.8	3.3	3.8	4.2	4.2	4.2	4.2	4.2	4.7	4.7
145°	1.9	2.4	2.8	3.3	3.3	3.3	3.3	3.3	3.3	3.3
147.5°	1.4	1.9	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
150°	0.9	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
152.5°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
155°	0.9	0.9	0.9	1.4	1.4	1.4	1.4	0.9	1.4	1.4
157.5°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
160°	0.5	0.5	0.9	0.9	0.9	0.9	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
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)