

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: P197496

Luminaire Tested: **8WSL-LD2-130-UPL15-UNV-L850-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P197496  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28105)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U  
Description: 8FT. Linear Wavestream System, 15% Uplight, L850  
Light Source: (476) 5000K CCT, 80 CRI LEDS  
EL236N0119D850  
Ballast/Driver: OSRAM  
OT85W1202772A0DIML

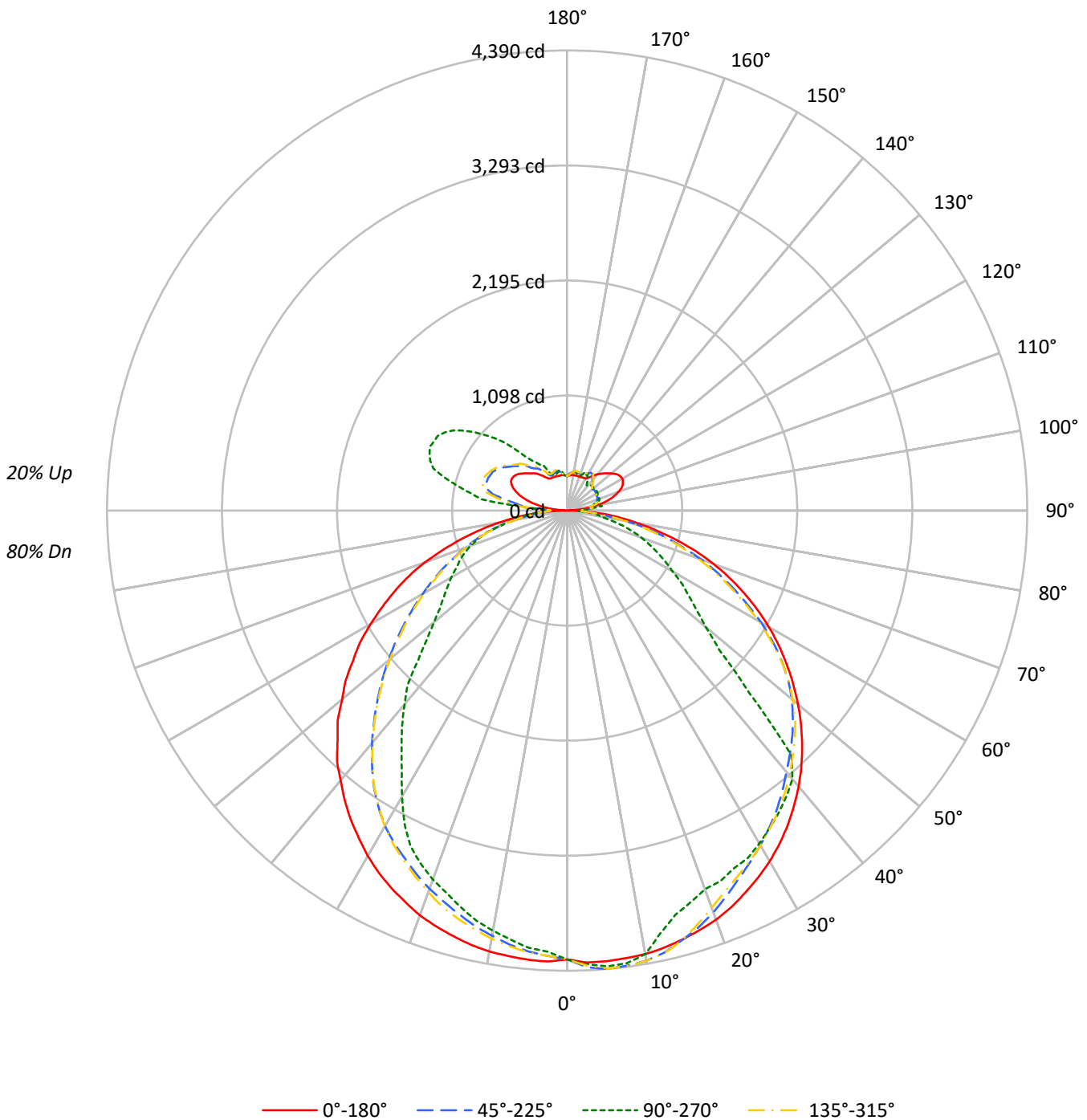
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15151.9 lumens  
Efficiency: N/A  
Efficacy: 121.5 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.19 / 1.35  
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 124.7  
Input Voltage (V): NR  
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: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U

### Luminous Intensity Polar Plot





TEST NUMBER: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-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	0
RCR																		
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80
1	104	99	95	91	99	95	91	88	87	84	81	80	77	75	73	71	70	66
2	94	86	80	74	90	83	77	72	76	71	67	70	66	62	64	61	58	55
3	86	76	68	62	82	73	66	60	67	61	56	61	57	53	56	53	49	46
4	79	67	59	52	75	64	57	51	59	53	48	55	49	45	50	46	42	40
5	72	60	51	45	69	58	50	44	53	46	41	49	43	39	45	41	37	34
6	67	54	45	39	64	52	44	38	48	41	36	44	39	34	41	36	32	30
7	62	49	40	34	59	47	39	33	44	37	32	40	35	30	38	33	29	26
8	58	44	36	30	55	43	35	30	40	33	28	37	31	27	34	29	26	24
9	54	41	33	27	51	39	32	27	37	30	26	34	28	24	32	27	23	21
10	50	37	30	25	48	36	29	24	34	27	23	32	26	22	30	25	21	19

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

	0°	90°	180°	270°
0°	12127	12127	12127	12127
5°	12271	12411	12230	11908
10°	12357	12357	12286	11707
15°	12425	11705	12325	11488
20°	12520	11587	12387	11291
25°	12567	11768	12413	11046
30°	12637	11994	12444	10306
35°	12680	12170	12442	9518
40°	12705	12360	12432	8924
45°	12701	9826	12405	8034
50°	12672	7581	12347	7300
55°	12623	6991	12307	7088
60°	12587	6600	12253	7240
65°	12486	6392	12157	7577
70°	12295	6229	11968	8101
75°	11728	5918	11351	8608
80°	10985	5372	10665	8580
85°	11024	7030	10225	10225



TEST NUMBER: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	407.4	2.7
10°-20°	1156.3	7.6
20°-30°	1747.3	11.5
30°-40°	2102.9	13.9
40°-50°	2138.6	14.1
50°-60°	1861.5	12.3
60°-70°	1452.1	9.6
70°-80°	897.7	5.9
80°-90°	315.9	2.1
90°-100°	297.3	2.0
100°-110°	575.7	3.8
110°-120°	629.9	4.2
120°-130°	552.3	3.6
130°-140°	413.8	2.7
140°-150°	283.3	1.9
150°-160°	180.4	1.2
160°-170°	105.5	0.7
170°-180°	34.0	0.2
0°-30°	3311.0	21.9
0°-40°	5413.9	35.7
0°-60°	9414.0	62.1
0°-90°	12079.6	79.7
90°-120°	1503.0	9.9
90°-150°	2752.4	18.2
90°-180°	3072.0	20.3
0°-180°	15151.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	4281	4281	4281	4281	4281	
5°	4316	4365	4301	4188	4316	411
15°	4237	3991	4203	3918	4237	1198
25°	4021	3765	3972	3534	4021	1856
35°	3667	3519	3598	2753	3667	2294
45°	3170	2453	3097	2006	3170	2446
55°	2556	1416	2492	1435	2556	2286
65°	1863	954	1814	1130	1863	1841
75°	1072	541	1037	786	1072	1135
85°	339	216	315	315	339	338
90°	5	138	5	216	5	26
95°	133	226	103	452	133	138
105°	423	280	408	1204	423	440
115°	585	320	585	1445	585	573
125°	595	334	595	1332	595	529
135°	501	334	501	973	501	389
145°	393	334	403	580	393	251
155°	349	403	344	398	349	161
165°	344	364	339	369	344	98
175°	339	354	339	344	339	33
180°	329	329	329	329	329	



TEST NUMBER: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3
2.5°	4315.7	4296.1	4360.0	4364.9	4330.5	4345.2	4345.2	4291.2	4305.9	4242.0	4251.8
5°	4315.7	4320.7	4389.5	4384.6	4364.9	4369.8	4384.6	4315.7	4301.0	4212.5	4222.4
7.5°	4305.9	4330.5	4379.6	4374.7	4355.1	4360.0	4384.6	4325.6	4286.3	4183.0	4178.1
10°	4296.1	4320.7	4360.0	4335.4	4296.1	4310.8	4360.0	4320.7	4271.5	4148.6	4119.1
12.5°	4271.5	4296.1	4315.7	4192.9	4124.0	4183.0	4320.7	4296.1	4242.0	4099.5	4060.1
15°	4237.1	4266.6	4242.0	4070.0	3991.3	4045.4	4242.0	4261.7	4202.7	4035.6	3986.4
17.5°	4197.8	4232.2	4168.3	3976.6	3917.6	3942.2	4138.8	4217.4	4158.5	3971.7	3912.7
20°	4153.5	4192.9	4079.8	3878.3	3843.9	3863.5	4030.7	4168.3	4109.3	3902.9	3839.0
22.5°	4094.6	4138.8	3976.6	3809.5	3824.2	3809.5	3932.3	4104.4	4040.5	3829.1	3755.4
25°	4020.8	4070.0	3873.4	3750.5	3765.2	3760.3	3848.8	4020.8	3971.7	3740.6	3662.0
27.5°	3947.1	3996.2	3780.0	3711.1	3735.7	3706.2	3770.1	3932.3	3893.0	3647.2	3573.5
30°	3863.5	3917.6	3686.6	3642.3	3666.9	3647.2	3691.5	3843.9	3804.5	3548.9	3475.2
32.5°	3770.1	3824.2	3588.3	3558.8	3593.2	3568.6	3598.1	3745.6	3701.3	3440.8	3352.3
35°	3666.9	3721.0	3485.0	3485.0	3519.4	3490.0	3504.7	3647.2	3598.1	3332.7	3214.7
37.5°	3553.9	3612.8	3372.0	3396.6	3435.9	3406.4	3406.4	3544.0	3485.0	3214.7	3057.4
40°	3435.9	3499.8	3254.0	3308.1	3342.5	3308.1	3298.3	3435.9	3362.2	3096.7	2895.2
42.5°	3308.1	3376.9	3145.9	3209.8	3165.5	3209.8	3185.2	3322.8	3249.1	2968.9	2728.1
45°	3170.5	3258.9	3037.7	2998.4	2452.8	2968.9	3072.1	3204.9	3096.7	2846.0	2560.9
47.5°	3027.9	3121.3	2919.8	2634.7	1971.1	2605.2	2949.3	3077.1	2968.9	2713.3	2393.8
50°	2875.5	2983.7	2796.9	2320.1	1720.4	2290.6	2811.6	2944.3	2801.8	2570.8	2226.7
52.5°	2718.2	2836.2	2659.2	2049.7	1553.3	2020.2	2664.2	2801.8	2664.2	2418.4	2064.5
55°	2556.0	2678.9	2497.0	1799.0	1415.6	1794.1	2492.1	2649.4	2492.1	2266.0	1902.3
57.5°	2393.8	2531.4	2325.0	1617.2	1297.7	1592.6	2300.4	2492.1	2344.7	2108.7	1745.0
60°	2221.8	2349.6	2138.2	1420.6	1165.0	1415.6	2108.7	2329.9	2162.8	1946.5	1592.6
62.5°	2044.8	2187.4	1936.7	1248.5	1056.8	1243.6	1902.3	2148.0	1985.8	1779.4	1445.1
65°	1862.9	2000.6	1745.0	1110.9	953.6	1101.1	1710.6	1961.3	1813.8	1612.3	1307.5
67.5°	1676.2	1804.0	1553.3	978.2	850.4	968.3	1514.0	1764.6	1636.8	1440.2	1160.0
70°	1484.5	1602.4	1356.7	850.4	752.1	845.5	1322.3	1563.1	1445.1	1263.3	1027.3
72.5°	1282.9	1391.1	1150.2	727.5	648.8	722.6	1120.7	1356.7	1233.8	1076.5	909.4
75°	1071.6	1174.8	958.5	604.6	540.7	599.7	929.0	1135.5	1037.2	904.4	771.7
77.5°	870.0	973.3	761.9	467.0	412.9	457.1	727.5	929.0	845.5	732.4	629.2
80°	673.4	757.0	560.4	349.0	329.3	349.0	545.6	712.7	653.8	575.1	491.5
82.5°	496.5	545.6	378.5	285.1	285.1	285.1	368.7	506.3	481.7	427.6	373.6
85°	339.2	339.2	255.6	216.3	216.3	216.3	250.7	299.8	314.6	285.1	285.1
87.5°	142.5	147.5	132.7	118.0	113.1	118.0	127.8	122.9	122.9	137.6	172.0
90°	4.9	63.9	108.1	132.7	137.6	127.8	98.3	59.0	4.9	83.6	152.4
92.5°	34.4	137.6	127.8	167.1	172.0	157.3	132.7	108.1	19.7	152.4	162.2
95°	132.7	162.2	250.7	255.6	226.1	216.3	245.8	152.4	103.2	206.4	412.9
97.5°	211.4	245.8	226.1	294.9	334.2	294.9	235.9	235.9	196.6	319.5	481.7
100°	290.0	260.5	231.0	255.6	294.9	260.5	221.2	260.5	275.3	373.6	589.9
102.5°	363.7	290.0	290.0	250.7	255.6	245.8	280.2	285.1	344.1	422.7	727.5
105°	422.7	299.8	304.8	285.1	280.2	285.1	304.8	304.8	408.0	467.0	791.4
107.5°	476.8	309.7	299.8	314.6	319.5	314.6	299.8	309.7	467.0	496.5	806.1
110°	521.0	314.6	304.8	314.6	329.3	314.6	304.8	319.5	516.1	526.0	816.0



TEST NUMBER: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	560.4	319.5	314.6	309.7	324.4	309.7	314.6	329.3	555.4	540.7	816.0
115°	584.9	324.4	314.6	314.6	319.5	314.6	319.5	334.2	584.9	545.6	806.1
117.5°	599.7	334.2	319.5	324.4	329.3	324.4	319.5	344.1	604.6	565.3	801.2
120°	609.5	368.7	319.5	329.3	334.2	329.3	319.5	373.6	609.5	575.1	781.6
122.5°	604.6	383.4	324.4	329.3	339.2	329.3	324.4	388.3	604.6	570.2	757.0
125°	594.8	398.1	324.4	324.4	334.2	329.3	329.3	398.1	594.8	560.4	722.6
127.5°	575.1	432.6	324.4	329.3	329.3	329.3	329.3	427.6	575.1	565.3	688.2
130°	550.5	457.1	314.6	334.2	329.3	339.2	324.4	457.1	550.5	550.5	658.7
132.5°	526.0	467.0	314.6	334.2	334.2	339.2	319.5	467.0	526.0	530.9	629.2
135°	501.4	476.8	334.2	329.3	334.2	334.2	339.2	476.8	501.4	511.2	609.5
137.5°	476.8	481.7	358.8	314.6	329.3	319.5	368.7	481.7	481.7	481.7	580.0
140°	452.2	476.8	378.5	304.8	309.7	314.6	388.3	481.7	462.1	467.0	530.9
142.5°	422.7	462.1	393.2	329.3	304.8	339.2	403.1	476.8	432.6	452.2	506.3
145°	393.2	447.3	422.7	363.7	334.2	378.5	437.5	462.1	403.1	442.4	491.5
147.5°	368.7	422.7	427.6	383.4	368.7	398.1	442.4	442.4	373.6	422.7	457.1
150°	353.9	398.1	412.9	398.1	383.4	417.8	432.6	408.0	353.9	408.0	427.6
152.5°	349.0	378.5	378.5	417.8	412.9	437.5	398.1	388.3	344.1	393.2	388.3
155°	349.0	373.6	363.7	383.4	403.1	403.1	378.5	378.5	344.1	393.2	368.7
157.5°	344.1	378.5	363.7	358.8	368.7	378.5	378.5	383.4	344.1	383.4	368.7
160°	344.1	383.4	368.7	353.9	358.8	373.6	383.4	383.4	344.1	383.4	373.6
162.5°	344.1	373.6	373.6	358.8	358.8	378.5	383.4	378.5	344.1	373.6	383.4
165°	344.1	373.6	378.5	368.7	363.7	388.3	383.4	368.7	339.2	368.7	388.3
167.5°	344.1	363.7	383.4	373.6	373.6	388.3	388.3	363.7	339.2	353.9	388.3
170°	344.1	358.8	378.5	373.6	378.5	393.2	378.5	358.8	344.1	349.0	373.6
172.5°	344.1	349.0	368.7	373.6	373.6	383.4	368.7	349.0	344.1	339.2	358.8
175°	339.2	349.0	358.8	358.8	353.9	368.7	353.9	344.1	339.2	334.2	344.1
177.5°	334.2	339.2	349.0	349.0	339.2	349.0	339.2	334.2	334.2	329.3	339.2
180°	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3



TEST NUMBER: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4281.3	4281.3	4281.3	4281.3	4281.3	4281.3
2.5°	4246.9	4212.5	4222.4	4251.8	4246.9	4315.7
5°	4202.7	4187.9	4187.9	4232.2	4227.3	4315.7
7.5°	4153.5	4129.0	4143.7	4192.9	4207.6	4305.9
10°	4089.6	4070.0	4074.9	4148.6	4173.2	4296.1
12.5°	4025.7	4006.1	4020.8	4089.6	4124.0	4271.5
15°	3952.0	3917.6	3956.9	4030.7	4074.9	4237.1
17.5°	3863.5	3824.2	3863.5	3961.8	4015.9	4197.8
20°	3784.9	3745.6	3770.1	3873.4	3947.1	4153.5
22.5°	3696.4	3647.2	3666.9	3780.0	3873.4	4094.6
25°	3598.1	3534.2	3563.7	3686.6	3789.8	4020.8
27.5°	3470.3	3362.2	3435.9	3588.3	3686.6	3947.1
30°	3293.3	3150.8	3268.8	3480.1	3593.2	3863.5
32.5°	3086.9	2934.5	3062.3	3347.4	3485.0	3770.1
35°	2885.4	2752.6	2870.6	3209.8	3376.9	3666.9
37.5°	2708.4	2585.5	2693.7	3052.5	3258.9	3553.9
40°	2526.5	2413.5	2521.6	2885.4	3141.0	3435.9
42.5°	2359.4	2251.3	2354.5	2718.2	3013.2	3308.1
45°	2182.5	2005.5	2172.6	2546.2	2875.5	3170.5
47.5°	1995.7	1808.9	1980.9	2379.1	2737.9	3027.9
50°	1823.6	1656.5	1813.8	2207.0	2590.4	2875.5
52.5°	1671.2	1528.7	1666.3	2035.0	2438.1	2718.2
55°	1528.7	1435.3	1533.6	1877.7	2295.5	2556.0
57.5°	1415.6	1351.7	1420.6	1725.3	2138.2	2393.8
60°	1317.3	1278.0	1322.3	1572.9	1971.1	2221.8
62.5°	1209.2	1194.4	1209.2	1425.5	1808.9	2044.8
65°	1115.8	1130.5	1115.8	1292.8	1636.8	1862.9
67.5°	1027.3	1061.7	1032.2	1150.2	1464.8	1676.2
70°	929.0	978.2	933.9	1022.4	1287.8	1484.5
72.5°	825.8	884.8	825.8	899.5	1101.1	1282.9
75°	717.7	786.5	722.6	766.8	924.1	1071.6
77.5°	599.7	643.9	609.5	624.3	752.1	870.0
80°	476.8	526.0	481.7	491.5	594.8	673.4
82.5°	398.1	432.6	403.1	373.6	442.4	496.5
85°	294.9	314.6	304.8	290.0	304.8	339.2
87.5°	181.9	191.7	181.9	181.9	157.3	142.5
90°	201.5	216.3	201.5	157.3	88.5	4.9
92.5°	206.4	226.1	206.4	172.0	167.1	34.4
95°	462.1	452.2	491.5	447.3	255.6	132.7
97.5°	717.7	820.9	742.2	535.8	344.1	211.4
100°	825.8	924.1	860.2	668.5	393.2	290.0
102.5°	953.6	1061.7	992.9	781.6	442.4	363.7
105°	1110.9	1204.3	1145.3	825.8	486.6	422.7
107.5°	1194.4	1337.0	1219.0	845.5	516.1	476.8
110°	1238.7	1391.1	1278.0	850.4	540.7	521.0





TEST NUMBER: P197496

CATALOG NUMBER: 8WSL-LD2-130-UPL15-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1273.1	1420.6	1302.6	850.4	550.5	560.4
115°	1273.1	1445.1	1302.6	835.6	565.3	584.9
117.5°	1273.1	1430.4	1302.6	820.9	584.9	599.7
120°	1228.9	1425.5	1268.2	801.2	589.9	609.5
122.5°	1194.4	1386.2	1219.0	776.6	589.9	604.6
125°	1130.5	1332.1	1160.0	747.1	580.0	594.8
127.5°	1061.7	1253.4	1086.3	712.7	584.9	575.1
130°	997.8	1165.0	1012.6	678.3	565.3	550.5
132.5°	914.3	1066.6	929.0	653.8	545.6	526.0
135°	835.6	973.3	855.3	634.1	521.0	501.4
137.5°	752.1	874.9	771.7	594.8	496.5	476.8
140°	653.8	752.1	673.4	550.5	481.7	452.2
142.5°	589.9	643.9	609.5	530.9	462.1	422.7
145°	550.5	580.0	565.3	511.2	452.2	393.2
147.5°	511.2	540.7	526.0	471.9	427.6	368.7
150°	496.5	496.5	516.1	437.5	412.9	353.9
152.5°	442.4	481.7	462.1	398.1	403.1	349.0
155°	378.5	398.1	398.1	383.4	403.1	349.0
157.5°	353.9	368.7	373.6	383.4	393.2	344.1
160°	353.9	358.8	373.6	388.3	388.3	344.1
162.5°	363.7	358.8	383.4	398.1	378.5	344.1
165°	373.6	368.7	393.2	403.1	368.7	344.1
167.5°	383.4	383.4	403.1	398.1	358.8	344.1
170°	383.4	393.2	403.1	383.4	353.9	344.1
172.5°	368.7	373.6	383.4	358.8	339.2	344.1
175°	349.0	344.1	358.8	344.1	339.2	339.2
177.5°	339.2	324.4	339.2	334.2	329.3	334.2
180°	329.3	329.3	329.3	329.3	329.3	329.3

(END OF REPORT)