

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: P197441

Luminaire Tested: **8WSL-LD2-130-UPL8-UNV-L830-CD2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P197441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28106)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8WSL-LD2-130-UPL8-UNV-L830-CD2-U
Description: 8FT. Linear Wavestream System, 8% Uplight, L830
Light Source: (476) 3000K CCT, 80 CRI LEDS
EL236N0119D830
Ballast/Driver: OSRAM
OT85W1202772A0DIML

Summary

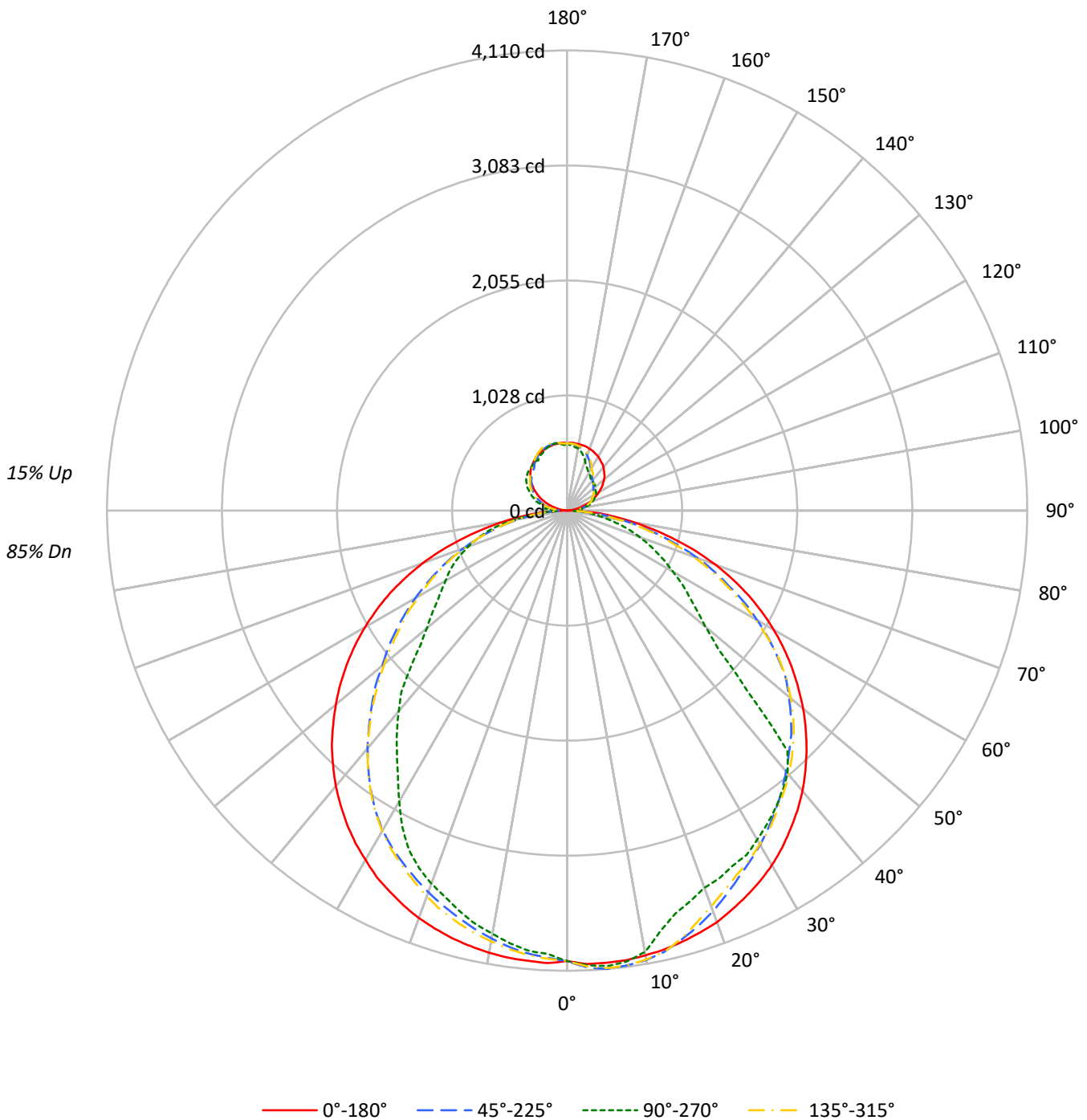
Lumens per Lamp: N/A
Luminaire Lumens: 13347.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.19 / 1.36
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')
CIE Type: Semi-Direct

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

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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	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	105	101	96	92	101	97	93	90	90	87	84	83	81	79	78	76	74	71
2	96	88	81	75	92	84	78	73	78	73	69	73	69	65	68	65	62	59
3	87	77	69	62	83	74	67	61	69	63	58	64	59	55	60	56	52	50
4	80	68	59	53	76	66	58	52	61	55	49	57	52	47	53	49	45	42
5	73	61	52	45	70	59	51	44	55	48	43	51	45	41	48	43	39	37
6	68	55	46	40	65	53	45	39	50	43	37	47	40	36	44	38	34	32
7	63	49	41	35	60	48	40	34	45	38	33	42	36	32	40	35	31	28
8	58	45	37	31	56	44	36	30	41	34	29	39	33	28	37	31	27	25
9	54	41	33	28	52	40	33	27	38	31	26	36	30	26	34	29	25	23
10	51	38	30	25	49	37	30	25	35	28	24	33	27	23	31	26	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11398	11398	11398	11398
5°	11528	11613	11479	11221
10°	11599	11512	11537	11041
15°	11687	10929	11598	10865
20°	11792	10805	11675	10688
25°	11863	10934	11728	10449
30°	11964	11104	11780	9808
35°	12023	11218	11844	9162
40°	12092	11327	11884	8650
45°	12115	9113	11908	7904
50°	12132	7082	11885	7214
55°	12106	6553	11872	7000
60°	12082	6175	11813	7102
65°	11955	5920	11695	7450
70°	11632	5709	11346	7778
75°	10892	5375	10562	8204
80°	9910	4920	9487	7801
85°	9662	5320	8681	7001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.5	2.9
10°-20°	1086.3	8.1
20°-30°	1644.4	12.3
30°-40°	1985.6	14.9
40°-50°	2027.2	15.2
50°-60°	1772.4	13.3
60°-70°	1373.7	10.3
70°-80°	825.9	6.2
80°-90°	255.0	1.9
90°-100°	107.5	0.8
100°-110°	205.5	1.5
110°-120°	279.2	2.1
120°-130°	317.4	2.4
130°-140°	322.0	2.4
140°-150°	296.3	2.2
150°-160°	244.5	1.8
160°-170°	164.4	1.2
170°-180°	57.1	0.4
0°-30°	3113.2	23.3
0°-40°	5098.8	38.2
0°-60°	8898.4	66.7
0°-90°	11353.0	85.1
90°-120°	592.2	4.4
90°-150°	1527.9	11.4
90°-180°	1994.0	14.9
0°-180°	13347.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4024	4024	4024	4024	4024	
5°	4054	4084	4037	3946	4054	386
15°	3985	3727	3955	3705	3985	1127
25°	3796	3498	3752	3343	3796	1752
35°	3477	3244	3425	2650	3477	2177
45°	3024	2275	2973	1973	3024	2333
55°	2451	1327	2404	1417	2451	2191
65°	1784	883	1745	1112	1784	1760
75°	995	491	965	750	995	1056
85°	297	164	267	215	297	300
90°	4	90	4	103	4	19
95°	26	125	26	198	26	33
105°	138	211	134	267	138	148
115°	267	271	263	362	267	264
125°	383	310	375	444	383	340
135°	470	340	465	491	470	363
145°	530	362	526	521	530	333
155°	573	422	569	552	573	265
165°	599	526	594	599	599	169
175°	608	577	608	594	608	58
180°	599	599	599	599	599	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9
2.5°	4054.1	4032.5	4084.2	4092.9	4062.7	4071.3	4075.6	4028.2	4045.5	3980.8	3998.1
5°	4054.1	4049.8	4110.1	4101.5	4084.2	4088.6	4101.5	4045.5	4036.9	3959.3	3972.2
7.5°	4049.8	4058.4	4097.2	4088.6	4062.7	4075.6	4097.2	4054.1	4028.2	3937.8	3933.5
10°	4032.5	4045.5	4075.6	4049.8	4002.4	4023.9	4071.3	4045.5	4011.0	3903.3	3881.8
12.5°	4015.3	4023.9	4032.5	3924.8	3847.3	3899.0	4032.5	4023.9	3985.2	3864.5	3825.7
15°	3985.2	3998.1	3963.6	3808.5	3726.7	3778.4	3955.0	3989.5	3955.0	3808.5	3761.1
17.5°	3950.7	3963.6	3890.4	3718.0	3657.7	3683.6	3855.9	3946.4	3916.2	3756.8	3696.5
20°	3911.9	3924.8	3808.5	3623.3	3584.5	3606.0	3761.1	3899.0	3873.1	3696.5	3627.6
22.5°	3855.9	3877.4	3713.7	3558.6	3554.3	3554.3	3670.7	3843.0	3817.1	3623.3	3550.0
25°	3795.6	3817.1	3619.0	3498.3	3498.3	3498.3	3588.8	3769.7	3752.5	3545.7	3472.5
27.5°	3731.0	3752.5	3532.8	3455.2	3468.2	3446.6	3519.9	3687.9	3687.9	3468.2	3390.6
30°	3657.7	3679.3	3446.6	3386.3	3394.9	3386.3	3442.3	3601.7	3601.7	3377.7	3295.8
32.5°	3571.6	3593.1	3351.8	3304.4	3321.7	3313.1	3369.1	3515.6	3519.9	3282.9	3183.8
35°	3476.8	3502.6	3252.7	3226.9	3244.1	3231.2	3270.0	3425.1	3425.1	3179.5	3054.6
37.5°	3377.7	3403.5	3149.4	3140.7	3158.0	3145.0	3175.2	3330.3	3321.7	3071.8	2916.7
40°	3270.0	3300.1	3041.6	3041.6	3063.2	3054.6	3080.4	3231.2	3214.0	2964.1	2774.5
42.5°	3149.4	3188.1	2933.9	2938.2	2912.4	2946.9	2972.7	3127.8	3093.3	2843.5	2619.4
45°	3024.4	3071.8	2830.5	2753.0	2274.8	2722.8	2860.7	3024.4	2972.7	2722.8	2468.6
47.5°	2890.9	2951.2	2709.9	2425.6	1831.0	2386.8	2740.1	2895.2	2834.8	2593.6	2322.2
50°	2753.0	2821.9	2585.0	2145.5	1607.0	2102.4	2606.5	2765.9	2697.0	2460.0	2154.1
52.5°	2602.2	2679.7	2464.3	1899.9	1456.2	1861.2	2468.6	2641.0	2554.8	2317.9	2016.3
55°	2451.4	2533.3	2300.6	1688.8	1326.9	1654.4	2309.2	2481.6	2404.0	2171.4	1865.5
57.5°	2296.3	2378.2	2136.9	1503.6	1214.9	1469.1	2128.3	2335.1	2248.9	2020.6	1714.7
60°	2132.6	2214.5	1960.3	1335.6	1090.0	1309.7	1943.0	2171.4	2085.2	1865.5	1568.2
62.5°	1960.3	2042.1	1792.2	1180.5	986.6	1158.9	1740.5	2012.0	1917.2	1701.8	1417.4
65°	1783.6	1843.9	1594.1	1034.0	883.2	1016.8	1559.6	1813.8	1744.9	1529.4	1275.2
67.5°	1598.4	1658.7	1421.7	904.7	784.1	887.5	1383.0	1637.1	1559.6	1361.4	1133.1
70°	1404.5	1456.2	1240.8	779.8	689.3	766.9	1197.7	1439.0	1370.0	1184.8	982.3
72.5°	1206.3	1253.7	1046.9	663.5	590.2	654.9	1003.8	1240.8	1171.9	999.5	844.4
75°	995.2	1042.6	866.0	547.2	491.1	538.5	827.2	1029.7	965.1	822.9	702.2
77.5°	797.0	853.0	685.0	430.8	392.1	422.2	650.5	831.5	766.9	659.2	564.4
80°	607.5	654.9	508.4	327.4	301.6	323.1	473.9	633.3	581.6	508.4	439.4
82.5°	439.4	465.3	349.0	241.3	228.3	237.0	323.1	448.1	422.2	366.2	323.1
85°	297.3	293.0	215.4	168.0	163.7	168.0	193.9	271.4	267.1	245.6	206.8
87.5°	124.9	116.3	99.1	68.9	60.3	64.6	77.5	103.4	99.1	103.4	99.1
90°	4.3	43.1	68.9	86.2	90.5	86.2	68.9	43.1	4.3	47.4	77.5
92.5°	8.6	56.0	81.9	94.8	103.4	94.8	77.5	56.0	8.6	73.2	77.5
95°	25.8	77.5	94.8	116.3	124.9	116.3	94.8	73.2	25.8	64.6	116.3
97.5°	51.7	99.1	112.0	129.2	133.6	124.9	107.7	99.1	47.4	116.3	120.6
100°	77.5	124.9	146.5	146.5	150.8	146.5	142.2	120.6	73.2	129.2	146.5
102.5°	107.7	142.2	168.0	180.9	180.9	180.9	168.0	142.2	99.1	159.4	202.5
105°	137.9	155.1	185.3	202.5	211.1	202.5	185.3	159.4	133.6	185.3	215.4
107.5°	172.3	168.0	202.5	219.7	228.3	219.7	202.5	172.3	163.7	206.8	241.3
110°	206.8	185.3	219.7	237.0	241.3	237.0	219.7	185.3	198.2	232.6	267.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	237.0	198.2	237.0	254.2	258.5	254.2	237.0	202.5	228.3	249.9	293.0
115°	267.1	211.1	245.6	267.1	271.4	267.1	245.6	215.4	262.8	271.4	314.5
117.5°	297.3	228.3	254.2	280.0	284.3	280.0	258.5	232.6	293.0	297.3	336.0
120°	327.4	249.9	267.1	288.7	297.3	293.0	267.1	254.2	318.8	318.8	353.3
122.5°	353.3	267.1	280.0	297.3	305.9	297.3	280.0	275.7	349.0	340.4	374.8
125°	383.4	284.3	288.7	305.9	310.2	305.9	293.0	288.7	374.8	357.6	387.7
127.5°	405.0	305.9	297.3	314.5	318.8	314.5	301.6	310.2	400.7	392.1	400.7
130°	430.8	327.4	305.9	323.1	327.4	327.4	305.9	336.0	422.2	417.9	417.9
132.5°	452.4	349.0	314.5	331.7	336.0	336.0	318.8	353.3	443.8	439.4	430.8
135°	469.6	379.1	331.7	331.7	340.4	340.4	336.0	383.4	465.3	461.0	452.4
137.5°	486.8	405.0	344.7	336.0	340.4	340.4	353.3	409.3	482.5	482.5	465.3
140°	504.1	430.8	353.3	344.7	344.7	353.3	366.2	435.1	499.8	499.8	469.6
142.5°	521.3	452.4	366.2	357.6	349.0	366.2	379.1	461.0	512.7	517.0	482.5
145°	529.9	473.9	383.4	370.5	361.9	383.4	400.7	482.5	525.6	534.2	508.4
147.5°	542.8	495.5	405.0	379.1	379.1	392.1	417.9	499.8	538.5	547.2	521.3
150°	555.8	512.7	422.2	392.1	383.4	405.0	435.1	517.0	551.5	560.1	538.5
152.5°	564.4	529.9	448.1	409.3	400.7	426.5	465.3	529.9	560.1	568.7	555.8
155°	573.0	542.8	478.2	426.5	422.2	443.8	491.1	542.8	568.7	577.3	568.7
157.5°	581.6	555.8	499.8	452.4	435.1	469.6	512.7	560.1	577.3	585.9	581.6
160°	585.9	564.4	525.6	478.2	469.6	499.8	534.2	564.4	581.6	594.5	590.2
162.5°	594.5	573.0	542.8	508.4	499.8	525.6	551.5	577.3	590.2	598.9	598.9
165°	598.9	581.6	560.1	534.2	525.6	551.5	564.4	585.9	594.5	598.9	603.2
167.5°	598.9	590.2	573.0	551.5	547.2	568.7	581.6	594.5	598.9	598.9	607.5
170°	603.2	594.5	581.6	568.7	564.4	581.6	585.9	598.9	603.2	598.9	611.8
172.5°	603.2	598.9	590.2	577.3	568.7	590.2	594.5	598.9	603.2	598.9	607.5
175°	607.5	598.9	598.9	590.2	577.3	598.9	598.9	598.9	607.5	598.9	603.2
177.5°	607.5	598.9	598.9	594.5	585.9	598.9	598.9	598.9	607.5	598.9	603.2
180°	598.9	598.9	598.9	598.9	598.9	598.9	598.9	598.9	598.9	598.9	598.9



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4023.9	4023.9	4023.9	4023.9	4023.9	4023.9
2.5°	3993.8	3963.6	3972.2	4006.7	3993.8	4054.1
5°	3963.6	3946.4	3946.4	3985.2	3980.8	4054.1
7.5°	3916.2	3899.0	3907.6	3950.7	3959.3	4049.8
10°	3860.2	3838.7	3847.3	3907.6	3929.1	4032.5
12.5°	3799.9	3782.7	3791.3	3860.2	3890.4	4015.3
15°	3731.0	3705.1	3731.0	3804.2	3843.0	3985.2
17.5°	3653.4	3619.0	3649.1	3743.9	3791.3	3950.7
20°	3575.9	3545.7	3562.9	3666.3	3735.3	3911.9
22.5°	3498.3	3455.2	3472.5	3580.2	3666.3	3855.9
25°	3407.8	3343.2	3377.7	3494.0	3593.1	3795.6
27.5°	3287.2	3188.1	3261.4	3407.8	3506.9	3731.0
30°	3127.8	2998.6	3106.3	3304.4	3416.5	3657.7
32.5°	2951.2	2813.3	2933.9	3188.1	3321.7	3571.6
35°	2774.5	2649.6	2757.3	3058.9	3222.6	3476.8
37.5°	2606.5	2498.8	2597.9	2921.0	3119.2	3377.7
40°	2447.1	2339.4	2442.8	2770.2	3007.2	3270.0
42.5°	2287.7	2188.6	2287.7	2610.8	2890.9	3149.4
45°	2128.3	1973.2	2119.7	2455.7	2765.9	3024.4
47.5°	1956.0	1775.0	1943.0	2287.7	2632.4	2890.9
50°	1792.2	1637.1	1783.6	2132.6	2494.5	2753.0
52.5°	1650.1	1525.1	1641.5	1973.2	2352.3	2602.2
55°	1516.5	1417.4	1516.5	1818.1	2201.5	2451.4
57.5°	1395.9	1331.3	1400.2	1684.5	2046.4	2296.3
60°	1292.5	1253.7	1296.8	1520.8	1891.3	2132.6
62.5°	1193.4	1189.1	1197.7	1391.6	1727.6	1960.3
65°	1090.0	1111.5	1090.0	1253.7	1563.9	1783.6
67.5°	986.6	1029.7	995.2	1115.8	1387.3	1598.4
70°	891.8	939.2	891.8	973.7	1210.6	1404.5
72.5°	784.1	844.4	784.1	840.1	1025.4	1206.3
75°	680.7	749.6	685.0	702.2	848.7	995.2
77.5°	568.7	633.3	581.6	568.7	685.0	797.0
80°	452.4	478.2	452.4	448.1	529.9	607.5
82.5°	314.5	336.0	314.5	327.4	387.7	439.4
85°	206.8	215.4	206.8	211.1	258.5	297.3
87.5°	86.2	86.2	86.2	107.7	116.3	124.9
90°	94.8	103.4	94.8	77.5	47.4	4.3
92.5°	99.1	107.7	99.1	86.2	56.0	8.6
95°	176.6	198.2	168.0	107.7	90.5	25.8
97.5°	142.2	155.1	146.5	124.9	112.0	51.7
100°	168.0	180.9	168.0	176.6	137.9	77.5
102.5°	198.2	206.8	202.5	206.8	168.0	107.7
105°	258.5	267.1	258.5	224.0	193.9	137.9
107.5°	275.7	297.3	280.0	249.9	219.7	172.3
110°	297.3	314.5	301.6	275.7	241.3	206.8



TEST NUMBER: P197441

CATALOG NUMBER: 8WSL-LD2-130-UPL8-UNV-L830-CD2-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	318.8	340.4	327.4	305.9	258.5	237.0
115°	344.7	361.9	353.3	327.4	284.3	267.1
117.5°	370.5	383.4	374.8	344.7	310.2	297.3
120°	392.1	409.3	400.7	366.2	331.7	327.4
122.5°	409.3	426.5	417.9	387.7	353.3	353.3
125°	426.5	443.8	435.1	405.0	370.5	383.4
127.5°	439.4	461.0	452.4	417.9	409.3	405.0
130°	456.7	469.6	465.3	430.8	430.8	430.8
132.5°	465.3	482.5	473.9	448.1	456.7	452.4
135°	469.6	491.1	482.5	469.6	478.2	469.6
137.5°	478.2	495.5	491.1	482.5	499.8	486.8
140°	491.1	499.8	504.1	491.1	517.0	504.1
142.5°	504.1	508.4	517.0	504.1	534.2	521.3
145°	512.7	521.3	529.9	529.9	547.2	529.9
147.5°	512.7	525.6	525.6	538.5	564.4	542.8
150°	525.6	517.0	542.8	555.8	573.0	555.8
152.5°	542.8	538.5	560.1	573.0	581.6	564.4
155°	547.2	551.5	564.4	585.9	590.2	573.0
157.5°	564.4	560.1	581.6	598.9	598.9	581.6
160°	577.3	577.3	598.9	607.5	603.2	585.9
162.5°	590.2	590.2	611.8	611.8	607.5	594.5
165°	598.9	598.9	620.4	616.1	607.5	598.9
167.5°	603.2	607.5	624.7	620.4	607.5	598.9
170°	607.5	607.5	624.7	616.1	607.5	603.2
172.5°	607.5	603.2	620.4	611.8	603.2	603.2
175°	603.2	594.5	611.8	603.2	603.2	607.5
177.5°	598.9	585.9	598.9	598.9	603.2	607.5
180°	598.9	598.9	598.9	598.9	598.9	598.9

(END OF REPORT)