

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: P237829

Luminaire Tested: **4VRVT2-LD5-4-DR100-W-UNV-L850-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237829  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4VRVT2-LD5-4-DR100-W-UNV-L850-CD1-WL-U  
Description: METALUX VRVT2 LED LUMINAIRE  
INTERNAL PRISMATIC LENS/100% DR HIGH IMPACT ADDITIVE WIDE DISTRIBUTION  
4FT FIXTURE  
Light Source: (112) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4211.0 lumens  
Efficiency: N/A  
Efficacy: 140.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.58 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Semi-Direct

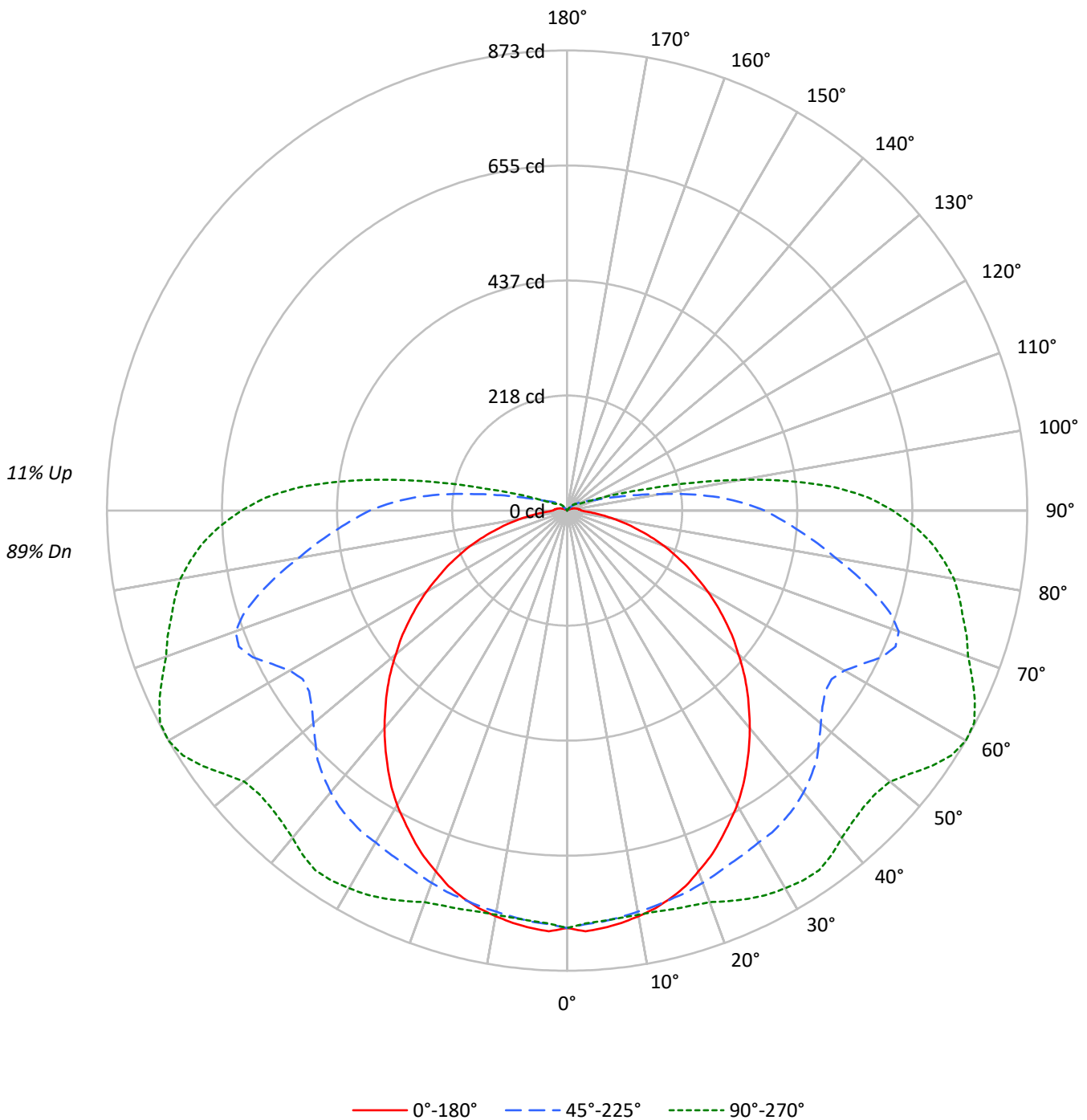
Input Watts (W): 29.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89				
1	101	94	88	82	97	91	85	80	84	80	75	78	74	71	73	70	67	64				
2	90	79	70	63	86	76	68	61	71	64	58	66	60	55	61	56	52	49				
3	81	68	58	50	77	65	56	49	61	53	47	56	50	44	52	47	42	39				
4	73	59	49	41	70	57	48	40	53	45	38	49	42	37	46	40	35	32				
5	67	52	42	35	64	50	41	34	47	39	32	44	37	31	41	35	30	27				
6	62	47	37	30	59	45	36	29	42	34	28	39	32	27	37	30	26	23				
7	57	42	32	26	54	41	32	25	38	30	24	36	29	23	33	27	22	20				
8	53	38	29	23	51	37	28	22	35	27	21	32	26	21	30	24	20	18				
9	49	35	26	20	47	34	25	20	32	24	19	30	23	18	28	22	18	16				
10	46	32	24	18	44	31	23	18	29	22	17	28	21	17	26	20	16	14				

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

	0°	45°	90°
0°	4091	4091	4091
5°	4108	3968	3937
10°	4070	3874	3858
15°	4026	3811	3843
20°	3946	3770	3876
25°	3857	3743	4009
30°	3763	3763	4140
35°	3642	3816	4260
40°	3518	3852	4271
45°	3394	3870	4359
50°	3255	3842	4600
55°	3126	3911	5153
60°	2984	4305	5722
65°	2824	5137	6085
70°	2661	5861	6384
75°	2399	6062	6913
80°	2146	6161	7671
85°	1961	6522	8538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.8	1.8
10°-20°	217.5	5.2
20°-30°	344.9	8.2
30°-40°	447.1	10.6
40°-50°	504.4	12.0
50°-60°	546.4	13.0
60°-70°	587.7	14.0
70°-80°	559.5	13.3
80°-90°	458.7	10.9
90°-100°	303.7	7.2
100°-110°	109.2	2.6
110°-120°	33.1	0.8
120°-130°	16.1	0.4
130°-140°	6.7	0.2
140°-150°	1.1	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	637.2	15.1
0°-40°	1084.3	25.7
0°-60°	2135.0	50.7
0°-90°	3741.0	88.8
90°-120°	446.1	10.6
90°-150°	470.0	11.2
90°-180°	470.0	11.2
0°-180°	4211.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	795	791	783	784	781	75
15°	761	759	763	778	783	214
25°	689	699	737	796	812	317
35°	594	626	717	804	833	371
45°	483	540	669	759	796	372
55°	367	446	598	779	844	328
65°	251	350	658	830	854	248
75°	138	332	603	728	777	148
85°	48	241	442	626	693	48
90°	27	183	375	554	618	15
95°	23	130	288	447	509	19
105°	16	48	101	141	160	17
115°	8	21	42	40	38	8
125°	3	7	25	26	23	3
135°	1	0	10	15	15	1
145°	1	0	0	4	4	0
155°	0	0	0	0	0	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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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9
2.5°	799.0	797.6	795.5	794.8	794.8	794.8	794.8	793.4	791.2	788.4	785.6
5°	794.8	793.4	791.2	791.2	790.5	791.2	791.2	789.8	788.4	785.6	782.7
7.5°	789.1	788.4	785.6	784.1	784.1	784.1	785.6	784.1	783.4	780.6	777.8
10°	781.3	779.9	778.5	778.5	779.2	779.2	779.2	779.9	778.5	774.9	772.8
12.5°	772.8	770.7	769.3	769.3	770.0	770.0	770.7	770.7	770.7	768.6	768.6
15°	760.8	760.1	757.2	757.9	757.9	759.4	760.1	760.8	760.1	762.2	762.9
17.5°	747.3	746.6	743.8	743.8	745.2	745.9	748.0	750.9	752.3	755.1	758.6
20°	728.2	728.2	726.8	728.2	731.0	732.4	733.9	738.8	741.6	747.3	751.6
22.5°	710.5	709.1	709.1	710.5	713.3	716.9	719.7	726.8	731.7	738.8	744.5
25°	689.2	688.5	687.8	691.4	695.6	699.1	704.1	712.6	719.7	728.2	737.4
27.5°	666.6	665.8	667.3	670.1	677.9	682.8	687.1	698.4	706.9	720.4	732.4
30°	645.3	643.2	644.6	648.8	658.8	665.8	670.1	682.8	694.9	710.5	726.8
32.5°	620.5	618.4	621.2	627.6	638.9	646.0	653.8	667.3	681.4	700.6	723.9
35°	593.6	594.3	595.7	605.6	617.7	626.2	634.0	651.7	669.4	692.8	716.9
37.5°	566.7	565.3	570.9	582.3	596.4	607.1	614.8	633.3	658.1	683.6	709.1
40°	539.1	540.5	544.7	557.5	572.3	585.8	594.3	618.4	645.3	671.5	697.7
42.5°	510.7	514.3	518.5	533.4	551.8	562.4	575.2	601.4	629.7	657.3	684.3
45°	483.1	485.9	492.3	508.6	526.3	540.5	554.6	582.3	613.4	642.5	669.4
47.5°	454.1	456.9	465.4	482.4	502.2	517.8	532.7	562.4	594.3	624.1	648.1
50°	424.3	428.6	437.1	454.1	480.3	494.4	509.3	541.9	571.6	600.7	628.3
52.5°	396.7	398.8	412.3	428.6	455.5	471.8	485.9	519.2	547.6	580.1	610.6
55°	366.9	371.2	383.2	399.5	429.3	446.3	462.6	494.4	526.3	560.3	597.8
57.5°	337.9	341.4	354.2	372.6	404.5	420.8	436.3	471.1	503.6	546.1	595.0
60°	308.8	313.1	325.8	347.1	379.0	396.0	412.3	449.1	491.6	544.0	607.1
62.5°	278.4	285.5	294.7	320.9	353.5	370.5	390.3	432.8	488.8	555.3	630.4
65°	250.8	254.3	268.5	295.4	330.1	349.9	372.6	427.1	498.0	579.4	658.1
67.5°	221.7	226.7	242.3	272.0	311.0	334.3	362.7	432.8	519.2	605.6	674.3
70°	195.5	199.0	218.2	250.8	297.5	328.0	362.7	447.0	539.8	615.6	669.4
72.5°	166.5	172.1	195.5	235.2	291.8	328.7	369.8	461.8	544.0	602.1	641.8
75°	138.1	146.6	177.1	222.4	290.4	332.2	376.1	459.7	524.2	568.1	602.8
77.5°	114.8	125.4	159.4	213.9	287.6	328.7	369.1	434.9	486.6	528.4	561.0
80°	88.5	104.8	144.5	203.3	274.8	310.3	342.8	399.5	441.3	481.7	517.1
82.5°	67.3	85.7	128.9	187.0	248.6	278.4	303.9	354.2	398.1	436.3	479.6
85°	48.2	68.0	111.2	162.9	214.6	240.8	264.2	311.7	354.9	398.1	442.0
87.5°	33.3	53.1	94.2	139.5	185.6	206.8	229.5	274.8	317.3	359.1	407.3
90°	26.9	43.2	78.6	119.7	159.4	182.8	202.6	243.7	286.2	330.1	374.7
92.5°	25.5	36.1	65.9	101.3	138.1	157.3	175.7	213.2	252.9	294.0	333.6
95°	23.4	29.0	51.7	82.2	113.3	130.3	145.2	180.6	213.9	250.0	288.3
97.5°	22.0	23.4	39.7	63.8	90.0	104.1	116.2	143.8	173.5	201.2	235.9
100°	19.8	20.5	30.5	49.6	68.7	80.8	90.7	113.3	134.6	156.5	179.9
102.5°	17.7	17.7	23.4	36.8	53.8	61.6	70.1	88.5	104.1	118.3	136.0
105°	15.6	15.6	18.4	28.3	40.4	48.2	53.8	67.3	79.3	90.0	101.3
107.5°	14.2	13.5	14.9	22.0	31.9	37.5	43.2	53.1	62.3	69.4	77.2
110°	11.3	11.3	12.0	17.7	26.2	30.5	35.4	43.2	51.0	56.0	60.2



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CATALOG NUMBER: 4VRVT2-LD5-4-DR100-W-UNV-L850-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	9.9	9.2	9.2	14.2	21.3	25.5	29.0	36.8	43.2	47.5	49.6
115°	7.8	7.8	7.1	10.6	17.0	21.3	24.1	31.2	36.8	40.4	42.5
117.5°	6.4	6.4	6.4	7.8	14.2	17.0	20.5	26.9	31.9	35.4	37.5
120°	5.0	5.0	5.0	5.0	10.6	13.5	17.0	22.7	27.6	31.2	33.3
122.5°	4.3	3.5	3.5	3.5	7.1	10.6	12.8	18.4	23.4	26.9	29.8
125°	2.8	2.8	2.8	2.1	5.0	7.1	9.9	14.9	19.1	22.7	24.8
127.5°	2.1	2.1	2.1	2.1	2.1	4.3	6.4	11.3	15.6	19.1	21.3
130°	2.1	2.1	1.4	1.4	0.7	2.1	3.5	7.8	11.3	14.9	17.7
132.5°	1.4	1.4	1.4	0.7	0.7	0.7	1.4	5.0	8.5	11.3	13.5
135°	1.4	1.4	0.7	0.7	0.0	0.0	0.0	2.8	5.7	7.8	9.9
137.5°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.7	2.8	5.0	7.1
140°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.7	2.1	4.3
142.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4
145°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9
2.5°	785.6	787.0	787.0	787.0	787.0	787.0	785.6	784.9	784.1	784.1
5°	782.0	783.4	784.1	784.1	784.1	784.1	783.4	782.7	782.0	781.3
7.5°	777.8	779.9	781.3	782.0	782.0	782.0	781.3	781.3	779.9	779.2
10°	773.5	775.6	777.8	779.2	779.9	779.9	779.9	779.9	779.2	778.5
12.5°	770.7	774.2	777.1	778.5	778.5	779.2	780.6	780.6	779.9	779.2
15°	767.1	772.8	776.4	778.5	778.5	779.9	782.7	782.7	782.0	782.7
17.5°	764.3	770.0	775.6	779.2	780.6	782.7	784.9	785.6	786.3	785.6
20°	758.6	767.9	775.6	779.9	782.7	783.4	788.4	791.9	791.9	790.5
22.5°	756.5	767.1	776.4	785.6	787.0	789.8	796.2	799.7	801.9	801.9
25°	752.3	766.4	779.9	791.2	796.2	799.7	806.1	811.8	810.4	812.5
27.5°	750.1	767.1	780.6	794.8	801.9	805.4	814.6	818.1	820.3	821.7
30°	748.7	767.9	782.7	798.3	804.0	811.1	819.6	825.2	828.1	827.4
32.5°	746.6	765.7	784.9	798.3	806.8	812.5	821.0	827.4	831.6	832.3
35°	741.6	763.6	781.3	797.6	804.0	811.1	821.0	824.5	831.6	833.0
37.5°	735.3	756.5	773.5	791.2	797.6	803.3	815.3	818.9	821.7	823.8
40°	725.4	745.2	763.6	780.6	786.3	792.6	801.1	806.8	811.1	810.4
42.5°	712.6	731.0	748.7	767.1	771.4	778.5	789.1	795.5	799.7	801.1
45°	692.1	713.3	733.9	750.1	758.6	766.4	778.5	785.6	790.5	795.5
47.5°	672.2	698.4	721.8	740.2	750.1	757.9	772.8	783.4	791.2	794.1
50°	656.6	683.6	710.5	738.1	748.7	758.6	775.6	787.0	795.5	799.7
52.5°	643.9	676.5	710.5	744.5	759.4	771.4	791.2	805.4	816.7	820.3
55°	638.9	680.0	723.2	762.2	779.2	794.8	817.4	830.9	842.2	844.4
57.5°	647.4	702.7	750.1	790.5	807.5	820.3	842.2	853.6	862.8	864.2
60°	670.8	728.9	778.5	813.2	830.9	842.2	858.5	867.0	873.4	873.4
62.5°	699.9	752.3	795.5	824.5	837.3	845.8	855.7	865.6	867.7	870.6
65°	721.8	767.1	796.9	818.1	829.5	833.0	843.6	847.9	853.6	853.6
67.5°	723.2	759.4	780.6	797.6	804.0	808.9	821.7	826.6	830.9	831.6
70°	704.1	728.9	753.0	767.9	774.9	784.9	796.9	804.7	808.9	809.6
72.5°	673.6	696.3	720.4	743.1	753.0	761.5	777.1	787.7	791.9	794.8
75°	636.8	661.6	690.6	717.6	727.5	736.0	757.9	767.9	776.4	777.1
77.5°	597.1	626.9	660.9	689.9	702.7	717.6	735.3	750.1	756.5	762.2
80°	557.5	595.7	630.4	664.4	676.5	693.5	714.7	731.7	738.8	745.2
82.5°	519.9	563.1	605.6	640.3	653.8	668.7	690.6	709.8	716.1	720.4
85°	487.3	532.0	573.8	609.2	626.2	638.9	663.7	680.0	689.2	692.8
87.5°	452.6	498.0	539.1	577.3	591.5	604.2	629.7	647.4	655.9	658.1
90°	418.6	465.4	503.6	536.9	553.9	569.5	592.9	609.2	617.7	617.7
92.5°	375.4	420.1	460.4	490.9	507.2	519.9	545.4	557.5	571.6	571.6
95°	325.8	364.8	402.3	433.5	447.0	460.4	481.7	498.0	505.8	509.3
97.5°	269.9	299.6	333.6	359.1	377.6	381.8	405.2	421.5	430.0	427.1
100°	203.3	226.7	253.6	274.8	289.0	296.8	313.1	322.3	335.0	336.5
102.5°	151.6	168.6	184.2	196.2	207.5	211.1	222.4	231.6	237.3	243.7
105°	111.2	121.1	130.3	138.8	141.0	147.3	156.5	162.9	159.4	160.1
107.5°	82.9	87.8	92.8	95.6	99.2	103.4	105.5	105.5	109.1	110.5
110°	63.0	65.9	68.0	68.7	70.1	70.1	70.1	70.1	70.8	72.3





TEST NUMBER: P237829

CATALOG NUMBER: 4VRVT2-LD5-4-DR100-W-UNV-L850-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	50.3	51.7	51.7	51.7	51.0	51.0	50.3	49.6	48.2	49.6
115°	43.2	43.2	41.8	41.1	40.4	39.7	38.3	36.8	36.1	37.5
117.5°	38.3	37.5	36.8	34.7	34.0	33.3	31.9	31.2	29.8	29.0
120°	34.0	34.0	32.6	31.9	31.2	29.8	28.3	27.6	26.2	25.5
122.5°	30.5	30.5	29.8	29.0	28.3	27.6	26.2	25.5	24.1	24.1
125°	26.2	26.9	26.9	26.2	25.5	25.5	24.1	23.4	22.7	22.7
127.5°	22.7	23.4	24.1	24.1	23.4	23.4	22.7	22.0	21.3	20.5
130°	19.1	20.5	20.5	21.3	21.3	20.5	20.5	19.8	19.1	19.1
132.5°	15.6	17.0	17.7	17.7	18.4	18.4	18.4	17.7	17.7	17.0
135°	12.0	13.5	14.2	14.9	14.9	15.6	15.6	14.9	14.9	14.9
137.5°	9.2	9.9	11.3	12.0	12.0	12.0	12.0	12.0	12.0	12.0
140°	5.7	7.1	8.5	8.5	9.2	9.2	9.2	9.2	9.2	9.2
142.5°	2.8	4.3	5.0	5.7	5.7	6.4	6.4	6.4	6.4	6.4
145°	0.7	1.4	2.1	2.8	3.5	3.5	3.5	3.5	3.5	3.5
147.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)