

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: P237817

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237817
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4VRVT2-LD5-4-DR-W-UNV-L850-CD1-WL-U
Description: METALUX VRVT2 LED LUMINAIRE
INTERNAL PRISMATIC LENS/15% 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: 4201.0 lumens
Efficiency: N/A
Efficacy: 140.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.6 / 1.58
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Semi-Direct

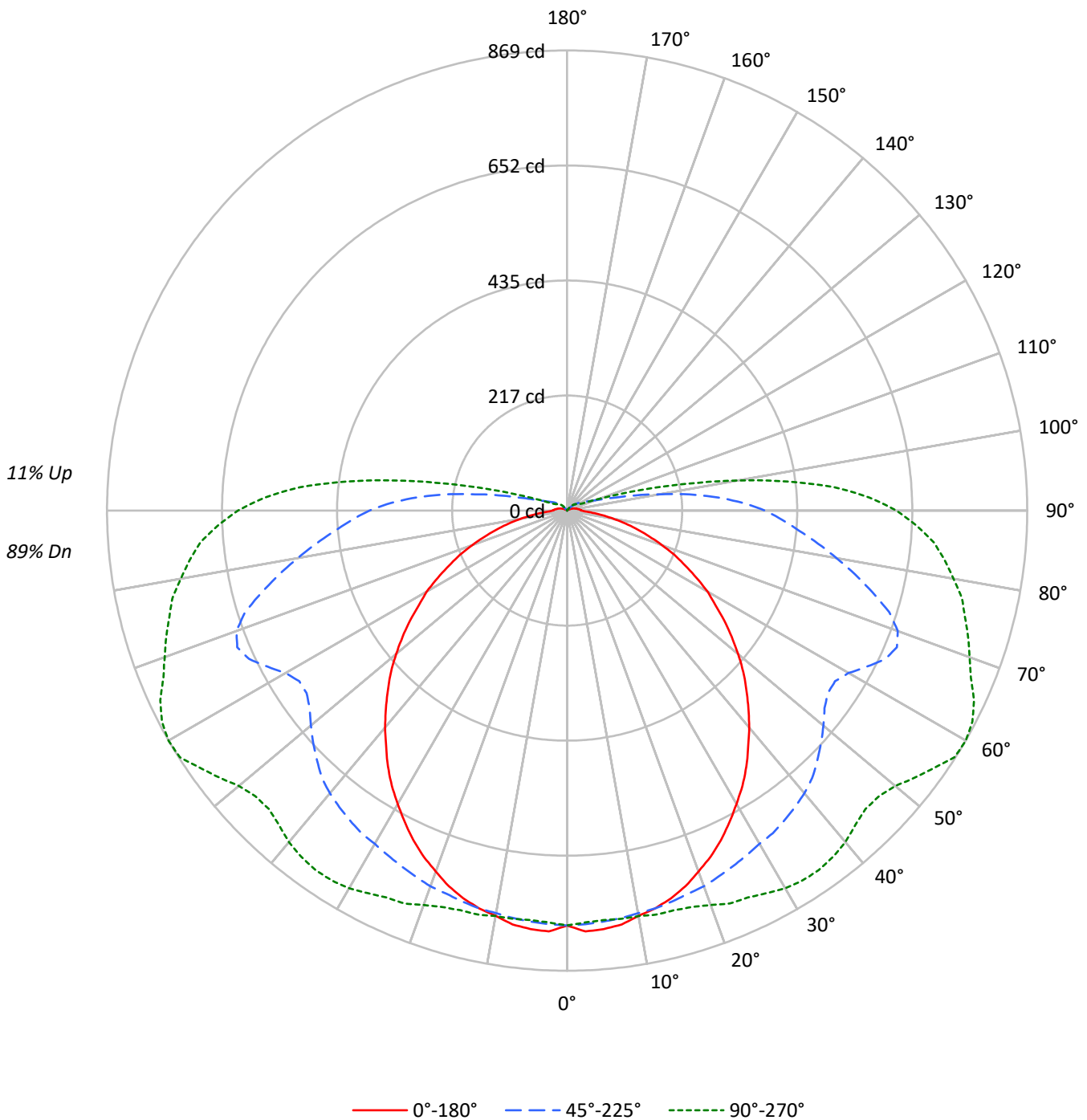
Input Watts (W): 29.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	75	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	51	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	33	26	21	31	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°	4048	4048	4048
5°	4100	3950	3912
10°	4048	3871	3854
15°	4011	3818	3836
20°	3931	3788	3886
25°	3845	3761	3977
30°	3730	3762	4122
35°	3620	3805	4238
40°	3490	3849	4308
45°	3364	3862	4367
50°	3234	3863	4653
55°	3085	3930	5166
60°	2957	4350	5694
65°	2768	5175	6045
70°	2593	5817	6378
75°	2399	6004	6918
80°	2129	6153	7627
85°	1961	6491	8573



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	1.8
10°-20°	217.4	5.2
20°-30°	344.6	8.2
30°-40°	446.2	10.6
40°-50°	505.2	12.0
50°-60°	548.6	13.1
60°-70°	586.6	14.0
70°-80°	558.4	13.3
80°-90°	458.7	10.9
90°-100°	301.8	7.2
100°-110°	104.9	2.5
110°-120°	31.0	0.7
120°-130°	15.4	0.4
130°-140°	6.5	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°	636.5	15.2
0°-40°	1082.7	25.8
0°-60°	2136.6	50.9
0°-90°	3740.2	89.0
90°-120°	437.7	10.4
90°-150°	460.7	11.0
90°-180°	461.0	11.0
0°-180°	4201.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	793	788	779	780	776	75
15°	758	759	764	781	781	213
25°	687	701	741	790	806	316
35°	590	627	715	800	829	369
45°	479	540	668	764	797	370
55°	362	443	601	787	846	324
65°	246	350	663	820	848	245
75°	138	333	597	728	778	146
85°	48	241	440	627	696	48
90°	27	179	373	560	622	15
95°	23	128	286	442	506	18
105°	16	45	96	134	159	16
115°	8	20	40	38	32	8
125°	3	7	24	25	21	3
135°	1	0	10	15	14	1
145°	1	0	0	3	3	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°	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4
2.5°	795.5	793.3	791.2	790.5	790.5	790.5	790.5	789.1	787.0	784.8	782.0
5°	793.3	791.9	789.8	788.4	788.4	788.4	788.4	787.0	784.8	782.0	779.2
7.5°	788.4	786.2	783.4	782.7	782.0	782.0	782.7	782.0	779.9	778.5	776.3
10°	777.0	776.3	774.2	773.5	774.9	775.6	775.6	775.6	774.9	773.5	772.1
12.5°	769.2	766.4	765.0	765.7	766.4	766.4	767.8	768.5	768.5	769.2	769.2
15°	757.9	755.1	754.4	756.5	757.2	758.6	758.6	760.0	760.7	762.9	764.3
17.5°	743.7	743.0	740.2	742.3	745.9	748.0	748.0	750.8	753.0	755.1	758.6
20°	725.3	724.6	723.2	726.0	730.3	732.4	736.0	740.2	743.0	750.8	755.1
22.5°	707.6	706.9	704.8	709.0	713.3	718.2	722.5	728.2	734.5	741.6	748.0
25°	687.1	686.4	685.7	692.7	697.7	701.2	706.2	714.7	722.5	732.4	740.9
27.5°	663.7	664.4	665.8	672.2	680.0	685.0	689.9	702.0	710.5	721.1	733.8
30°	639.6	639.6	643.9	650.2	661.6	666.5	672.9	687.1	695.6	711.9	726.7
32.5°	616.2	616.2	618.4	626.2	641.0	647.4	655.2	668.7	682.8	702.7	722.5
35°	590.0	590.0	594.3	604.9	619.8	626.9	635.4	652.4	670.1	692.7	714.7
37.5°	561.7	563.1	570.2	581.5	599.2	608.5	615.5	634.7	656.6	681.4	706.2
40°	534.8	536.2	544.7	557.5	576.6	585.1	594.3	618.4	641.0	668.0	697.0
42.5°	506.5	510.7	518.5	533.4	551.8	561.0	573.7	598.5	624.0	653.1	685.0
45°	478.8	482.4	490.9	507.9	528.4	539.7	553.2	579.4	607.7	636.8	668.0
47.5°	451.2	454.0	464.7	481.0	502.9	517.8	532.0	559.6	590.0	622.6	650.2
50°	421.5	425.0	435.6	453.3	478.1	493.0	507.2	537.6	568.8	601.4	631.8
52.5°	391.7	395.2	409.4	429.2	454.7	468.2	484.5	517.1	548.2	581.5	612.7
55°	362.0	366.2	381.1	398.8	427.1	443.4	458.3	493.0	527.0	562.4	600.7
57.5°	331.5	337.9	351.3	373.3	400.2	417.2	433.5	470.3	506.5	549.7	600.0
60°	306.0	308.1	321.6	345.0	374.7	391.7	410.8	448.4	493.7	549.0	613.4
62.5°	275.5	282.6	294.0	318.0	348.5	369.7	388.9	434.9	490.9	564.5	638.2
65°	245.8	252.9	267.0	293.2	328.7	349.9	372.6	430.0	502.2	587.9	663.0
67.5°	219.6	225.2	240.8	271.3	311.0	335.0	365.5	437.0	523.5	609.9	674.3
70°	190.5	197.6	216.0	250.7	299.6	329.4	366.9	452.6	541.2	616.2	664.4
72.5°	162.2	171.4	194.8	235.9	293.2	330.1	374.0	463.2	543.3	599.2	637.5
75°	138.1	145.9	175.0	223.1	291.8	332.9	378.2	459.0	521.3	561.7	597.1
77.5°	112.6	123.2	160.1	214.6	289.0	330.1	368.3	432.8	483.8	522.7	556.7
80°	87.8	103.4	143.8	203.3	275.5	306.7	337.9	392.4	439.9	479.5	516.4
82.5°	67.3	84.3	128.2	187.7	246.5	274.8	302.5	351.3	393.8	438.5	478.1
85°	48.2	67.3	111.9	163.6	213.9	240.8	262.8	308.8	349.9	396.0	439.9
87.5°	33.3	53.1	92.1	138.1	184.2	205.4	227.4	271.3	314.5	361.2	407.3
90°	26.9	43.2	77.2	118.3	159.4	179.2	201.2	243.0	283.3	328.0	373.3
92.5°	25.5	35.4	64.5	99.2	136.7	155.8	173.5	211.1	250.7	294.0	332.2
95°	23.4	28.3	51.7	80.7	111.9	128.2	143.8	177.1	211.8	250.7	285.5
97.5°	21.2	23.4	39.7	62.3	88.5	102.0	114.7	140.2	171.4	199.0	233.7
100°	19.1	19.8	29.7	48.2	67.3	78.6	88.5	111.2	131.7	153.7	176.4
102.5°	17.0	17.0	22.7	36.1	52.4	59.5	68.0	84.3	99.9	114.0	132.5
105°	15.6	15.6	18.4	26.9	39.0	45.3	51.7	64.5	76.5	86.4	96.3
107.5°	13.5	13.5	14.9	21.2	30.5	36.1	40.4	50.3	59.5	66.6	72.2
110°	11.3	11.3	11.3	17.0	24.8	29.0	34.0	41.8	48.2	53.1	56.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	9.2	9.2	9.2	14.2	20.5	24.1	28.3	34.7	40.4	43.9	46.7
115°	7.8	7.8	7.1	10.6	17.0	20.5	24.1	29.7	34.7	38.2	40.4
117.5°	6.4	6.4	5.7	7.8	13.5	17.0	19.8	25.5	30.5	34.0	35.4
120°	5.0	5.0	4.2	5.0	10.6	13.5	17.0	22.0	26.2	29.7	31.9
122.5°	3.5	3.5	3.5	3.5	7.1	9.9	12.7	17.7	22.7	26.2	28.3
125°	2.8	2.8	2.8	2.1	5.0	7.1	9.9	14.9	18.4	22.0	24.1
127.5°	2.1	2.1	2.1	2.1	2.1	4.2	6.4	11.3	14.9	18.4	20.5
130°	2.1	2.1	1.4	1.4	1.4	2.1	4.2	7.8	11.3	14.2	17.0
132.5°	1.4	1.4	1.4	0.7	0.7	0.7	2.1	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	0.7	0.0	0.0	0.0	0.0	0.7	2.8	4.2
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	0.7	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°	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4
2.5°	781.3	782.0	782.7	782.7	782.0	782.0	780.6	780.6	779.2	778.5
5°	778.5	779.9	780.6	780.6	779.9	779.9	779.2	778.5	777.0	776.3
7.5°	776.3	778.5	779.9	779.9	779.9	779.9	779.2	779.2	778.5	777.7
10°	773.5	775.6	777.7	780.6	781.3	781.3	780.6	779.9	778.5	777.7
12.5°	770.7	773.5	776.3	779.2	779.9	780.6	782.0	782.0	781.3	781.3
15°	767.8	772.8	777.0	780.6	781.3	783.4	784.1	784.8	783.4	781.3
17.5°	765.0	771.4	774.9	780.6	782.0	783.4	784.8	785.5	785.5	784.8
20°	762.2	770.0	776.3	782.0	783.4	785.5	788.4	790.5	792.6	792.6
22.5°	757.9	767.8	774.9	783.4	788.4	790.5	796.2	799.0	800.4	803.2
25°	752.2	762.9	777.0	787.0	790.5	794.7	803.2	807.5	807.5	806.1
27.5°	749.4	765.7	779.9	789.8	794.7	799.7	807.5	813.9	816.0	814.6
30°	745.9	763.6	779.9	792.6	798.3	804.7	812.5	822.4	823.8	823.8
32.5°	741.6	760.7	779.9	794.0	801.1	806.8	816.0	825.2	828.7	828.0
35°	737.4	758.6	777.0	792.6	800.4	807.5	818.1	825.2	828.0	828.7
37.5°	731.0	753.7	772.1	789.1	797.6	804.0	815.3	820.2	824.5	824.5
40°	721.8	745.2	765.7	782.0	788.4	794.7	805.4	811.0	814.6	817.4
42.5°	711.2	733.8	753.7	767.8	776.3	781.3	793.3	799.0	804.7	805.4
45°	694.9	719.7	738.8	756.5	764.3	769.2	782.7	791.9	796.9	796.9
47.5°	677.9	701.2	723.9	745.9	755.1	763.6	779.2	790.5	796.2	798.3
50°	658.7	687.8	714.7	743.0	755.1	765.7	784.1	796.9	804.0	808.9
52.5°	646.7	684.2	717.5	750.8	764.3	778.5	801.8	815.3	825.2	828.0
55°	645.3	690.6	731.7	771.4	787.0	800.4	825.2	840.1	847.9	846.5
57.5°	655.9	711.2	759.3	795.5	812.5	825.2	847.9	861.3	867.0	867.0
60°	679.3	738.1	784.8	816.7	830.2	842.2	858.5	867.7	870.5	869.1
62.5°	703.4	757.2	796.2	822.4	832.3	838.0	851.4	858.5	861.3	862.7
65°	722.5	766.4	793.3	812.5	820.2	825.9	836.5	845.0	846.5	847.9
67.5°	720.4	750.8	774.9	792.6	799.0	804.7	815.3	821.7	826.6	825.2
70°	700.5	724.6	747.3	765.7	772.8	780.6	793.3	803.2	805.4	808.9
72.5°	665.8	690.6	718.2	736.7	749.4	757.2	772.8	785.5	790.5	794.0
75°	629.7	658.7	686.4	714.0	727.5	740.2	758.6	767.8	779.9	777.7
77.5°	591.5	629.0	661.6	692.7	706.9	720.4	739.5	752.2	760.0	763.6
80°	558.9	598.5	634.7	668.0	681.4	697.0	716.8	730.3	738.8	740.9
82.5°	522.0	565.2	606.3	641.0	655.2	668.7	691.3	705.5	716.1	719.0
85°	485.9	532.0	574.5	612.0	626.9	641.7	665.8	681.4	691.3	695.6
87.5°	455.5	498.7	541.9	577.3	595.0	609.2	633.2	651.7	660.9	660.9
90°	417.9	461.8	505.0	540.5	560.3	570.2	594.3	611.3	622.6	621.9
92.5°	378.2	420.0	456.2	491.6	507.9	520.6	546.1	558.9	568.8	570.9
95°	324.4	362.0	399.5	429.2	442.0	461.8	481.0	497.2	503.6	506.5
97.5°	261.4	298.9	325.1	361.2	369.7	383.2	403.0	416.5	422.9	420.7
100°	200.5	225.2	245.8	268.5	281.9	290.4	307.4	320.9	328.0	327.2
102.5°	142.4	162.2	177.1	194.8	196.2	204.0	214.6	228.1	230.9	234.5
105°	105.5	113.3	124.7	131.0	133.9	143.1	145.2	150.9	151.6	158.7
107.5°	78.6	82.9	87.1	90.7	92.8	93.5	99.2	98.5	99.9	101.3
110°	59.5	61.6	64.5	63.0	65.9	63.7	65.2	64.5	65.2	65.2



TEST NUMBER: P237817

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	48.2	48.2	47.5	46.7	46.7	46.0	46.0	43.9	44.6	43.9
115°	41.1	40.4	39.0	37.5	37.5	36.1	35.4	33.3	32.6	31.9
117.5°	36.1	35.4	34.0	32.6	31.9	31.2	29.7	27.6	26.9	26.9
120°	32.6	31.9	31.2	29.7	29.0	28.3	26.2	25.5	24.1	24.1
122.5°	29.0	29.0	28.3	26.9	26.9	26.2	24.8	23.4	22.7	22.7
125°	25.5	26.2	25.5	24.8	24.8	24.1	23.4	22.0	21.2	21.2
127.5°	22.0	22.7	22.7	22.7	22.7	22.0	21.2	20.5	19.8	19.8
130°	18.4	19.8	19.8	19.8	20.5	19.8	19.8	19.1	18.4	18.4
132.5°	14.9	16.3	17.0	17.7	17.7	17.7	17.0	17.0	16.3	16.3
135°	11.3	12.7	14.2	14.2	14.9	14.9	14.9	14.9	14.2	14.2
137.5°	8.5	9.9	10.6	11.3	11.3	12.0	12.0	12.0	11.3	11.3
140°	5.7	7.1	7.8	8.5	8.5	9.2	9.2	9.2	8.5	8.5
142.5°	2.8	4.2	5.0	5.7	5.7	5.7	6.4	6.4	6.4	5.7
145°	0.7	1.4	2.1	2.8	2.8	2.8	3.5	3.5	3.5	2.8
147.5°	0.0	0.0	0.0	0.7	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)