

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: P233293

Luminaire Tested: **4VRVT3-LD5-4-W-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-268-9)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4VRVT3-LD5-4-W-UNV-L840-CD1-U
Description: 4FT VRVT3 WIDE APPLICATION, 4000LM
Light Source: (392) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4431.0 lumens
Efficiency: N/A
Efficacy: 141.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.67 / 1.66
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.17')
CIE Type: Semi-Direct

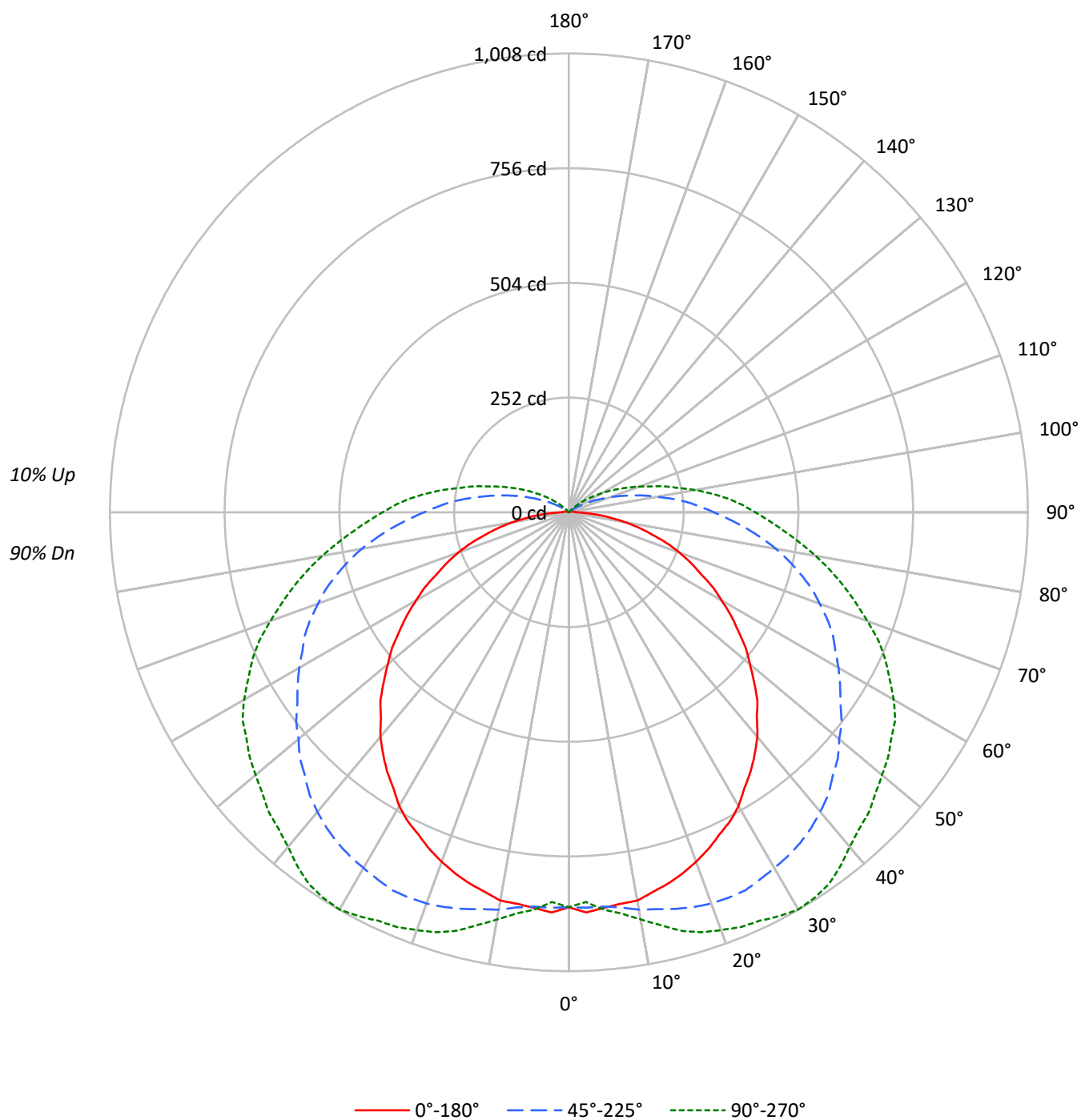
Input Watts (W): 31.32
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	117	117	117	117	113	113	113	113	105	105	105		99	99	99		93
1	103	96	91	86	99	93	88	83	87	83	79		81	78	74		76
2	92	82	74	67	88	79	72	65	74	67	62		69	64	59		64
3	83	71	61	54	79	68	60	53	64	56	50		59	53	48		55
4	75	62	52	44	72	60	51	44	56	48	42		52	46	40		49
5	69	55	45	38	66	53	44	37	50	42	35		46	40	34		43
6	63	49	39	32	61	47	38	32	44	36	31		42	35	29		39
7	58	44	35	28	56	43	34	28	40	32	27		38	31	26		36
8	54	40	31	25	52	39	30	24	37	29	24		34	28	23		33
9	51	36	28	22	49	35	27	22	33	26	21		32	25	20		30
10	47	33	25	20	45	33	25	19	31	24	19		29	23	18		28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5602	5602	5602
5°	5635	5486	5486
10°	5637	5509	5564
15°	5580	5564	5747
20°	5531	5642	5859
25°	5463	5700	5946
30°	5426	5701	6104
35°	5330	5734	6135
40°	5244	5738	6055
45°	5133	5703	6078
50°	4968	5675	6109
55°	4821	5666	6194
60°	4666	5731	6287
65°	4474	5856	6309
70°	4380	5954	6272
75°	4084	6078	6249
80°	3784	6202	6258
85°	3233	6305	6318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.7	1.9
10°-20°	255.2	5.8
20°-30°	416.6	9.4
30°-40°	542.9	12.3
40°-50°	609.5	13.8
50°-60°	623.1	14.1
60°-70°	585.1	13.2
70°-80°	494.6	11.2
80°-90°	366.3	8.3
90°-100°	239.7	5.4
100°-110°	132.2	3.0
110°-120°	59.8	1.4
120°-130°	20.0	0.5
130°-140°	2.4	0.1
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	755.5	17.1
0°-40°	1298.4	29.3
0°-60°	2531.0	57.1
0°-90°	3976.9	89.8
90°-120°	431.7	9.7
90°-150°	454.1	10.2
90°-180°	454.0	10.2
0°-180°	4431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	872	871	869	876	876	83
15°	844	864	902	942	952	238
25°	782	831	916	976	990	361
35°	696	764	886	979	996	435
45°	585	673	819	906	932	450
55°	454	560	728	834	864	407
65°	319	440	640	744	767	319
75°	189	331	528	608	624	202
85°	64	223	389	461	475	65
90°	16	167	318	391	409	11
95°	12	119	260	326	350	10
105°	6	37	143	202	220	7
115°	3	4	60	109	121	3
125°	1	1	12	44	54	1
135°	0	0	0	3	8	0
145°	0	0	0	0	0	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°	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4
2.5°	879.8	869.3	869.8	868.4	868.4	874.3	872.8	868.8	869.8	867.9	869.3
5°	872.3	867.4	867.9	870.8	870.3	871.3	872.3	869.8	874.3	872.8	869.3
7.5°	867.4	863.4	864.4	860.4	868.4	870.3	870.3	868.8	873.3	874.8	875.3
10°	865.9	858.4	861.4	855.4	863.4	872.3	870.8	876.3	879.8	883.3	886.3
12.5°	853.9	850.9	849.4	853.9	864.9	871.8	867.4	871.3	880.8	887.3	892.8
15°	843.9	842.9	842.4	846.9	851.9	863.9	865.4	875.8	888.8	892.3	901.8
17.5°	831.4	828.4	830.4	833.9	849.9	857.4	864.4	871.8	889.8	896.8	909.3
20°	816.9	815.0	821.4	825.9	840.9	849.9	858.4	870.3	883.8	900.8	914.3
22.5°	800.5	799.5	805.0	814.0	833.4	841.9	847.9	864.4	885.3	899.3	916.3
25°	781.5	781.5	787.5	802.0	824.9	830.9	840.4	854.9	874.3	892.3	916.3
27.5°	765.5	765.5	771.0	785.5	804.5	820.4	832.4	842.9	868.4	888.3	909.3
30°	745.1	747.6	752.1	765.5	789.0	803.0	814.0	834.4	858.9	880.8	902.3
32.5°	717.6	718.6	730.1	746.6	770.5	784.5	799.5	819.9	851.9	865.4	895.3
35°	695.7	695.7	706.2	723.1	754.1	764.5	779.0	803.0	831.4	855.9	886.3
37.5°	670.2	670.7	684.7	707.7	732.1	745.6	759.6	786.0	814.5	839.9	873.8
40°	643.8	647.8	654.8	677.7	706.7	723.1	735.1	765.0	801.5	826.4	858.9
42.5°	610.8	615.3	627.8	651.3	679.2	702.2	716.6	743.1	777.0	810.5	842.9
45°	585.4	587.9	599.9	623.3	654.8	672.7	687.2	720.6	756.1	789.0	819.4
47.5°	551.5	556.9	568.9	595.4	628.8	648.8	661.2	694.2	732.1	763.5	801.0
50°	519.0	523.5	540.5	564.4	601.4	618.3	635.3	668.2	711.1	744.6	775.0
52.5°	489.6	493.1	508.0	536.5	568.9	591.4	604.9	643.3	685.7	719.1	755.1
55°	453.6	462.1	477.1	505.5	542.5	560.4	573.4	613.8	656.8	695.7	727.6
57.5°	422.2	430.7	446.2	476.1	512.0	529.0	549.5	589.4	628.8	669.7	706.2
60°	387.3	396.2	413.7	446.7	482.6	500.1	517.5	560.9	603.4	641.8	683.7
62.5°	356.8	363.3	384.3	411.7	448.6	469.1	488.6	531.5	581.9	621.3	659.7
65°	318.9	332.4	351.3	383.8	420.2	440.2	461.6	505.5	550.5	594.4	639.8
67.5°	289.9	297.9	320.4	350.8	389.8	413.7	433.2	482.6	528.0	571.4	614.3
70°	258.5	266.0	288.0	320.4	361.3	382.3	408.7	455.6	506.0	547.0	585.9
72.5°	225.6	234.6	255.5	289.0	333.9	358.3	380.8	431.2	483.1	520.5	559.4
75°	189.1	202.6	227.1	259.5	305.4	331.4	353.8	407.2	453.6	492.1	527.5
77.5°	158.7	169.2	196.6	236.6	283.0	306.4	330.4	381.3	427.2	462.6	495.6
80°	125.8	140.2	164.7	206.6	253.5	278.0	302.9	350.8	394.8	430.2	462.1
82.5°	93.3	106.3	136.7	180.2	228.1	251.5	272.5	319.4	361.8	397.2	424.7
85°	64.4	76.4	110.3	154.2	199.6	223.1	244.0	291.4	329.9	359.3	388.8
87.5°	35.9	51.9	86.8	128.3	173.2	195.6	214.6	259.0	294.9	326.4	351.8
90°	16.5	32.9	63.9	103.8	145.2	166.7	186.6	226.6	263.5	290.9	318.4
92.5°	14.0	20.0	47.4	83.3	123.3	142.7	162.7	200.1	232.6	263.5	288.0
95°	12.5	13.5	30.9	64.4	99.8	119.3	137.2	173.2	204.1	233.1	260.0
97.5°	11.0	11.0	19.0	45.4	79.3	95.3	112.3	147.2	176.2	203.6	227.1
100°	9.0	9.5	11.0	29.4	57.4	72.9	89.8	120.3	149.2	175.2	196.1
102.5°	8.0	8.0	8.5	18.0	39.4	53.4	68.4	95.3	124.3	147.2	169.7
105°	6.5	7.0	7.0	9.5	26.4	36.9	49.4	75.4	99.3	122.3	142.7
107.5°	5.5	5.5	5.5	6.0	16.0	24.0	33.9	54.9	77.9	99.8	118.8
110°	4.5	4.5	4.5	5.0	7.5	14.0	22.0	38.9	58.9	79.8	96.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	3.5	4.0	4.0	4.0	4.5	6.5	12.5	27.9	42.9	60.9	76.4
115°	3.0	3.0	3.0	3.0	3.5	3.5	5.0	16.5	30.9	44.9	59.9
117.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	8.0	20.5	32.4	44.9
120°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	11.0	22.5	32.4
122.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	12.5	22.0
125°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	4.0	12.5
127.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5	1.0	4.5
130°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5
132.5°	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	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°	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4	867.4
2.5°	860.9	864.9	869.8	871.8	867.9	871.3	871.3	866.4	866.9	856.9
5°	865.4	872.8	879.8	875.8	876.3	875.8	881.3	877.3	875.8	875.8
7.5°	877.3	883.8	885.3	889.8	889.3	894.3	889.8	893.8	892.3	888.8
10°	889.8	892.8	896.8	908.8	909.8	907.8	915.3	909.3	909.8	908.3
12.5°	895.8	912.8	913.3	925.2	922.7	930.2	931.2	933.2	933.7	928.7
15°	910.3	922.2	931.7	941.7	941.7	947.7	953.2	952.7	953.2	951.7
17.5°	919.8	938.2	944.7	953.2	956.7	963.2	966.2	971.2	969.7	967.2
20°	926.7	940.7	955.2	964.2	962.7	970.7	978.6	970.7	976.1	976.6
22.5°	924.7	946.7	957.2	968.7	973.2	976.1	982.6	988.6	988.6	986.1
25°	926.2	945.2	961.2	972.7	976.1	983.1	991.6	993.6	996.6	990.1
27.5°	923.7	945.7	962.7	975.1	975.1	990.1	993.6	1002.1	1004.6	1000.1
30°	924.7	944.2	960.2	980.1	984.6	992.6	1001.6	1007.6	1006.6	1007.6
32.5°	917.8	940.2	958.7	980.1	987.1	991.6	1002.1	1003.1	1002.1	1004.1
35°	905.8	933.2	961.2	972.7	978.6	987.6	990.1	995.1	1003.6	996.1
37.5°	898.3	925.2	940.2	958.2	964.7	972.2	977.6	978.6	980.1	979.6
40°	884.3	909.8	923.2	941.7	944.2	956.2	952.7	957.7	962.2	959.2
42.5°	869.3	889.8	907.8	920.8	926.7	929.7	939.2	941.2	946.7	943.2
45°	845.9	867.9	887.3	901.3	906.3	916.3	920.8	924.2	929.7	931.7
47.5°	826.9	848.9	868.8	889.3	888.3	899.8	908.3	906.8	911.3	913.3
50°	801.5	828.4	852.9	867.4	872.3	883.3	886.8	896.8	901.3	897.8
52.5°	781.0	810.5	825.9	849.9	855.9	864.9	874.8	875.8	885.3	883.8
55°	760.1	786.5	811.5	826.9	833.9	845.4	852.4	856.4	860.4	864.4
57.5°	733.6	767.5	788.5	808.0	815.5	822.9	833.4	838.4	846.9	849.9
60°	713.1	748.1	765.5	788.0	795.5	804.0	811.5	815.9	822.4	823.9
62.5°	691.2	722.6	744.1	765.0	772.0	779.0	787.5	795.0	797.5	794.0
65°	665.7	697.7	717.1	738.1	743.6	757.1	754.6	762.1	765.0	767.0
67.5°	641.8	677.2	692.2	704.7	717.6	716.1	726.1	725.6	731.6	735.6
70°	613.3	641.3	655.3	673.7	677.2	681.7	689.7	691.7	695.2	697.2
72.5°	583.9	612.8	625.3	638.3	646.8	646.3	651.8	655.8	660.2	660.7
75°	554.9	573.9	589.4	601.9	608.3	609.3	616.3	615.3	625.8	624.3
77.5°	521.5	542.5	552.5	564.9	570.4	575.9	579.4	582.4	583.9	587.9
80°	482.1	507.0	514.5	528.0	532.0	538.0	539.5	546.0	548.5	550.0
82.5°	448.6	465.1	476.6	490.1	499.1	498.1	504.5	508.5	511.5	511.5
85°	411.2	430.2	440.7	452.6	461.1	462.6	469.1	469.1	473.1	475.1
87.5°	372.3	395.2	403.7	416.7	426.2	424.7	429.2	435.2	437.2	440.7
90°	337.9	356.3	370.3	382.8	391.3	392.3	397.2	402.2	403.2	409.2
92.5°	309.9	325.4	340.4	353.3	356.3	360.3	364.8	372.8	374.3	380.3
95°	277.5	296.4	308.4	321.4	326.4	329.4	334.4	340.4	345.3	349.8
97.5°	248.0	265.0	278.0	288.0	294.9	296.9	303.4	307.4	310.9	315.9
100°	216.6	231.6	245.5	257.0	262.5	264.0	271.0	274.0	277.0	281.5
102.5°	187.6	205.6	213.6	226.1	230.6	233.1	238.0	244.5	245.0	246.5
105°	158.2	175.7	187.1	196.1	201.6	203.6	208.6	215.6	216.1	219.6
107.5°	135.2	150.2	161.7	171.2	176.7	178.7	182.7	185.1	188.6	189.6
110°	112.8	126.3	137.7	145.7	150.2	154.2	158.7	162.7	164.7	165.2



TEST NUMBER: P233293

CATALOG NUMBER: 4VRVT3-LD5-4-W-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	91.3	104.3	114.3	124.3	128.3	131.3	135.7	140.7	143.2	143.2
115°	73.4	85.3	95.8	103.8	109.3	110.8	114.8	118.8	120.8	120.8
117.5°	56.4	68.9	78.4	85.3	89.3	91.3	96.3	100.3	101.8	102.8
120°	42.9	52.9	61.9	69.4	71.9	75.4	78.9	82.3	84.3	84.3
122.5°	31.4	40.4	46.9	53.4	57.9	58.9	63.4	67.4	68.4	69.4
125°	21.5	28.9	35.4	40.9	44.4	45.4	48.9	52.4	53.4	54.4
127.5°	11.0	18.5	24.5	29.9	32.4	34.4	37.4	40.4	41.4	41.9
130°	3.0	8.5	14.5	19.5	21.5	23.0	26.4	28.4	30.4	29.9
132.5°	0.0	1.5	5.0	9.5	11.0	13.0	16.0	18.0	19.0	20.0
135°	0.0	0.0	0.5	2.0	3.0	4.0	6.0	8.5	8.5	8.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	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
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)