

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: P237816

Luminaire Tested: **4VRVT2-LD5-4-DR-W-UNV-L840-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237816
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-L840-CD1-WL-U
Description: METALUX VRVT2 LED LUMINAIRE
INTERNAL PRISMATIC LENS/15% DR HIGH IMPACT ADDITIVE WIDE DISTRIBUTION
4FT FIXTURE
Light Source: (112) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3963.0 lumens
Efficiency: N/A
Efficacy: 132.5 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

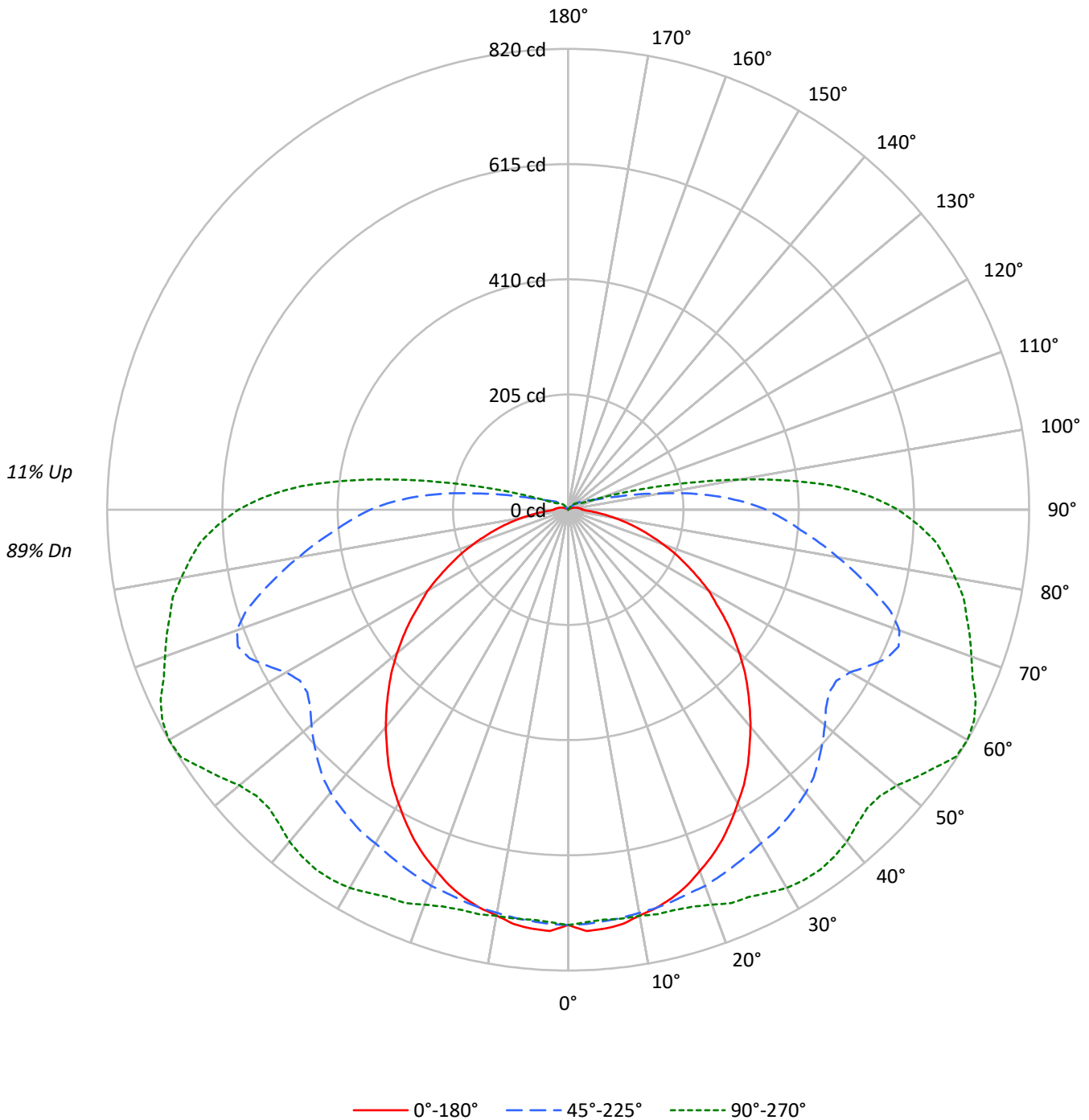
Input Watts (W): 29.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3818	3818	3818
5°	3868	3726	3690
10°	3819	3651	3636
15°	3784	3602	3619
20°	3708	3573	3666
25°	3628	3548	3752
30°	3519	3549	3888
35°	3415	3589	3998
40°	3292	3630	4064
45°	3174	3642	4119
50°	3050	3644	4390
55°	2910	3706	4873
60°	2790	4104	5371
65°	2611	4882	5702
70°	2446	5488	6017
75°	2263	5664	6527
80°	2010	5804	7194
85°	1847	6124	8087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	1.8
10°-20°	205.0	5.2
20°-30°	325.1	8.2
30°-40°	421.0	10.6
40°-50°	476.6	12.0
50°-60°	517.6	13.1
60°-70°	553.4	14.0
70°-80°	526.8	13.3
80°-90°	432.7	10.9
90°-100°	284.7	7.2
100°-110°	98.9	2.5
110°-120°	29.3	0.7
120°-130°	14.5	0.4
130°-140°	6.2	0.2
140°-150°	1.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	600.4	15.2
0°-40°	1021.4	25.8
0°-60°	2015.5	50.9
0°-90°	3528.4	89.0
90°-120°	412.9	10.4
90°-150°	434.6	11.0
90°-180°	435.0	11.0
0°-180°	3963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	748	744	735	736	732	71
15°	715	716	721	737	737	201
25°	648	662	699	746	760	298
35°	557	591	674	755	782	348
45°	452	509	630	721	752	349
55°	342	418	567	742	798	306
65°	232	330	625	774	800	231
75°	130	314	563	686	734	137
85°	45	227	415	591	656	45
90°	25	169	352	528	587	15
95°	22	121	269	417	478	17
105°	15	43	91	126	150	15
115°	7	19	38	35	30	7
125°	3	7	23	23	20	3
135°	1	0	9	14	13	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°	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
2.5°	750.4	748.4	746.4	745.7	745.7	745.7	745.7	744.4	742.4	740.4	737.7
5°	748.4	747.1	745.0	743.7	743.7	743.7	743.7	742.4	740.4	737.7	735.0
7.5°	743.7	741.7	739.0	738.4	737.7	737.7	738.4	737.7	735.7	734.4	732.3
10°	733.0	732.3	730.3	729.7	731.0	731.7	731.7	731.7	731.0	729.7	728.3
12.5°	725.7	723.0	721.7	722.3	723.0	723.0	724.3	725.0	725.0	725.7	725.7
15°	715.0	712.3	711.6	713.6	714.3	715.6	715.6	717.0	717.6	719.7	721.0
17.5°	701.6	700.9	698.3	700.3	703.6	705.6	705.6	708.3	710.3	712.3	715.6
20°	684.2	683.6	682.2	684.9	688.9	690.9	694.3	698.3	700.9	708.3	712.3
22.5°	667.5	666.9	664.9	668.9	672.9	677.6	681.6	686.9	692.9	699.6	705.6
25°	648.2	647.5	646.8	653.5	658.2	661.5	666.2	674.2	681.6	690.9	698.9
27.5°	626.1	626.8	628.1	634.1	641.5	646.2	650.8	662.2	670.2	680.2	692.3
30°	603.4	603.4	607.4	613.4	624.1	628.8	634.8	648.2	656.2	671.5	685.6
32.5°	581.3	581.3	583.3	590.7	604.7	610.7	618.1	630.8	644.1	662.9	681.6
35°	556.6	556.6	560.6	570.6	584.7	591.4	599.4	615.4	632.1	653.5	674.2
37.5°	529.9	531.2	537.9	548.6	565.3	574.0	580.7	598.7	619.4	642.8	666.2
40°	504.5	505.8	513.8	525.9	543.9	551.9	560.6	583.3	604.7	630.1	657.5
42.5°	477.8	481.8	489.1	503.2	520.5	529.2	541.2	564.6	588.7	616.1	646.2
45°	451.7	455.0	463.1	479.1	498.5	509.2	521.9	546.6	573.3	600.7	630.1
47.5°	425.6	428.3	438.3	453.7	474.4	488.5	501.8	527.9	556.6	587.3	613.4
50°	397.6	400.9	410.9	427.6	451.0	465.1	478.4	507.2	536.6	567.3	596.0
52.5°	369.5	372.9	386.2	404.9	429.0	441.7	457.1	487.8	517.2	548.6	578.0
55°	341.5	345.5	359.5	376.2	402.9	418.3	432.3	465.1	497.1	530.6	566.6
57.5°	312.7	318.7	331.4	352.1	377.5	393.6	408.9	443.7	477.8	518.5	566.0
60°	288.7	290.7	303.4	325.4	353.5	369.5	387.6	423.0	465.7	517.9	578.7
62.5°	259.9	266.6	277.3	300.0	328.8	348.8	366.8	410.3	463.1	532.6	602.1
65°	231.9	238.5	251.9	276.6	310.0	330.1	351.5	405.6	473.8	554.6	625.4
67.5°	207.1	212.5	227.2	255.9	293.3	316.1	344.8	412.3	493.8	575.3	636.1
70°	179.7	186.4	203.8	236.5	282.6	310.7	346.1	427.0	510.5	581.3	626.8
72.5°	153.0	161.7	183.8	222.5	276.6	311.4	352.8	437.0	512.5	565.3	601.4
75°	130.3	137.6	165.0	210.5	275.3	314.1	356.8	433.0	491.8	529.9	563.3
77.5°	106.2	116.3	151.0	202.5	272.6	311.4	347.5	408.3	456.4	493.1	525.2
80°	82.9	97.6	135.6	191.8	259.9	289.3	318.7	370.2	415.0	452.4	487.1
82.5°	63.5	79.5	120.9	177.1	232.5	259.3	285.3	331.4	371.5	413.6	451.0
85°	45.4	63.5	105.6	154.4	201.8	227.2	247.9	291.3	330.1	373.5	415.0
87.5°	31.4	50.1	86.9	130.3	173.7	193.8	214.5	255.9	296.7	340.8	384.2
90°	25.4	40.8	72.8	111.6	150.3	169.1	189.8	229.2	267.3	309.4	352.1
92.5°	24.1	33.4	60.8	93.5	129.0	147.0	163.7	199.1	236.5	277.3	313.4
95°	22.1	26.7	48.8	76.2	105.6	120.9	135.6	167.1	199.8	236.5	269.3
97.5°	20.0	22.1	37.4	58.8	83.5	96.2	108.2	132.3	161.7	187.8	220.5
100°	18.0	18.7	28.1	45.4	63.5	74.2	83.5	104.9	124.3	145.0	166.4
102.5°	16.0	16.0	21.4	34.1	49.4	56.1	64.1	79.5	94.2	107.6	125.0
105°	14.7	14.7	17.4	25.4	36.8	42.8	48.8	60.8	72.2	81.5	90.9
107.5°	12.7	12.7	14.0	20.0	28.7	34.1	38.1	47.4	56.1	62.8	68.2
110°	10.7	10.7	10.7	16.0	23.4	27.4	32.1	39.4	45.4	50.1	53.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	8.7	8.7	8.7	13.4	19.4	22.7	26.7	32.7	38.1	41.4	44.1
115°	7.4	7.4	6.7	10.0	16.0	19.4	22.7	28.1	32.7	36.1	38.1
117.5°	6.0	6.0	5.3	7.4	12.7	16.0	18.7	24.1	28.7	32.1	33.4
120°	4.7	4.7	4.0	4.7	10.0	12.7	16.0	20.7	24.7	28.1	30.1
122.5°	3.3	3.3	3.3	3.3	6.7	9.4	12.0	16.7	21.4	24.7	26.7
125°	2.7	2.7	2.7	2.0	4.7	6.7	9.4	14.0	17.4	20.7	22.7
127.5°	2.0	2.0	2.0	2.0	2.0	4.0	6.0	10.7	14.0	17.4	19.4
130°	2.0	2.0	1.3	1.3	1.3	2.0	4.0	7.4	10.7	13.4	16.0
132.5°	1.3	1.3	1.3	0.7	0.7	0.7	2.0	4.7	8.0	10.7	12.7
135°	1.3	1.3	0.7	0.7	0.0	0.0	0.0	2.7	5.3	7.4	9.4
137.5°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.7	2.7	4.7	6.7
140°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.7	2.7	4.0
142.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3
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°	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
2.5°	737.0	737.7	738.4	738.4	737.7	737.7	736.4	736.4	735.0	734.4
5°	734.4	735.7	736.4	736.4	735.7	735.7	735.0	734.4	733.0	732.3
7.5°	732.3	734.4	735.7	735.7	735.7	735.7	735.0	735.0	734.4	733.7
10°	729.7	731.7	733.7	736.4	737.0	737.0	736.4	735.7	734.4	733.7
12.5°	727.0	729.7	732.3	735.0	735.7	736.4	737.7	737.7	737.0	737.0
15°	724.3	729.0	733.0	736.4	737.0	739.0	739.7	740.4	739.0	737.0
17.5°	721.7	727.7	731.0	736.4	737.7	739.0	740.4	741.0	741.0	740.4
20°	719.0	726.3	732.3	737.7	739.0	741.0	743.7	745.7	747.7	747.7
22.5°	715.0	724.3	731.0	739.0	743.7	745.7	751.1	753.7	755.1	757.7
25°	709.6	719.7	733.0	742.4	745.7	749.7	757.7	761.8	761.8	760.4
27.5°	707.0	722.3	735.7	745.0	749.7	754.4	761.8	767.8	769.8	768.4
30°	703.6	720.3	735.7	747.7	753.1	759.1	766.4	775.8	777.1	777.1
32.5°	699.6	717.6	735.7	749.1	755.7	761.1	769.8	778.5	781.8	781.1
35°	695.6	715.6	733.0	747.7	755.1	761.8	771.8	778.5	781.1	781.8
37.5°	689.6	711.0	728.3	744.4	752.4	758.4	769.1	773.8	777.8	777.8
40°	680.9	702.9	722.3	737.7	743.7	749.7	759.7	765.1	768.4	771.1
42.5°	670.9	692.3	711.0	724.3	732.3	737.0	748.4	753.7	759.1	759.7
45°	655.5	678.9	696.9	713.6	721.0	725.7	738.4	747.1	751.7	751.7
47.5°	639.5	661.5	682.9	703.6	712.3	720.3	735.0	745.7	751.1	753.1
50°	621.4	648.8	674.2	700.9	712.3	722.3	739.7	751.7	758.4	763.1
52.5°	610.1	645.5	676.9	708.3	721.0	734.4	756.4	769.1	778.5	781.1
55°	608.7	651.5	690.3	727.7	742.4	755.1	778.5	792.5	799.8	798.5
57.5°	618.8	670.9	716.3	750.4	766.4	778.5	799.8	812.5	817.9	817.9
60°	640.8	696.3	740.4	770.4	783.1	794.5	809.9	818.5	821.2	819.9
62.5°	663.5	714.3	751.1	775.8	785.1	790.5	803.2	809.9	812.5	813.9
65°	681.6	723.0	748.4	766.4	773.8	779.1	789.1	797.2	798.5	799.8
67.5°	679.6	708.3	731.0	747.7	753.7	759.1	769.1	775.1	779.8	778.5
70°	660.9	683.6	705.0	722.3	729.0	736.4	748.4	757.7	759.7	763.1
72.5°	628.1	651.5	677.6	694.9	707.0	714.3	729.0	741.0	745.7	749.1
75°	594.0	621.4	647.5	673.5	686.2	698.3	715.6	724.3	735.7	733.7
77.5°	557.9	593.4	624.1	653.5	666.9	679.6	697.6	709.6	717.0	720.3
80°	527.2	564.6	598.7	630.1	642.8	657.5	676.2	688.9	696.9	698.9
82.5°	492.5	533.2	572.0	604.7	618.1	630.8	652.2	665.5	675.6	678.2
85°	458.4	501.8	541.9	577.3	591.4	605.4	628.1	642.8	652.2	656.2
87.5°	429.7	470.4	511.2	544.6	561.3	574.7	597.4	614.7	623.4	623.4
90°	394.2	435.7	476.4	509.8	528.5	537.9	560.6	576.7	587.3	586.7
92.5°	356.8	396.2	430.3	463.7	479.1	491.1	515.2	527.2	536.6	538.6
95°	306.0	341.5	376.9	404.9	417.0	435.7	453.7	469.1	475.1	477.8
97.5°	246.6	282.0	306.7	340.8	348.8	361.5	380.2	392.9	398.9	396.9
100°	189.1	212.5	231.9	253.2	265.9	274.0	290.0	302.7	309.4	308.7
102.5°	134.3	153.0	167.1	183.8	185.1	192.4	202.5	215.2	217.8	221.2
105°	99.6	106.9	117.6	123.6	126.3	135.0	137.0	142.3	143.0	149.7
107.5°	74.2	78.2	82.2	85.5	87.5	88.2	93.5	92.9	94.2	95.6
110°	56.1	58.1	60.8	59.5	62.1	60.1	61.5	60.8	61.5	61.5



TEST NUMBER: P237816

CATALOG NUMBER: 4VRVT2-LD5-4-DR-W-UNV-L840-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	45.4	45.4	44.8	44.1	44.1	43.4	43.4	41.4	42.1	41.4
115°	38.8	38.1	36.8	35.4	35.4	34.1	33.4	31.4	30.7	30.1
117.5°	34.1	33.4	32.1	30.7	30.1	29.4	28.1	26.1	25.4	25.4
120°	30.7	30.1	29.4	28.1	27.4	26.7	24.7	24.1	22.7	22.7
122.5°	27.4	27.4	26.7	25.4	25.4	24.7	23.4	22.1	21.4	21.4
125°	24.1	24.7	24.1	23.4	23.4	22.7	22.1	20.7	20.0	20.0
127.5°	20.7	21.4	21.4	21.4	21.4	20.7	20.0	19.4	18.7	18.7
130°	17.4	18.7	18.7	18.7	19.4	18.7	18.7	18.0	17.4	17.4
132.5°	14.0	15.4	16.0	16.7	16.7	16.7	16.0	16.0	15.4	15.4
135°	10.7	12.0	13.4	13.4	14.0	14.0	14.0	14.0	13.4	13.4
137.5°	8.0	9.4	10.0	10.7	10.7	11.4	11.4	11.4	10.7	10.7
140°	5.3	6.7	7.4	8.0	8.0	8.7	8.7	8.7	8.0	8.0
142.5°	2.7	4.0	4.7	5.3	5.3	5.3	6.0	6.0	6.0	5.3
145°	0.7	1.3	2.0	2.7	2.7	2.7	3.3	3.3	3.3	2.7
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)