

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1212240

Luminaire Tested: 4VT3-LD5-4-P-UNV-L830-CD1-U

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P1212240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-268-6)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4VT3-LD5-4-P-UNV-L830-CD1-U
Description: 4FT VT3 GENERAL APPLICATION, 4000LM
Light Source: (392) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

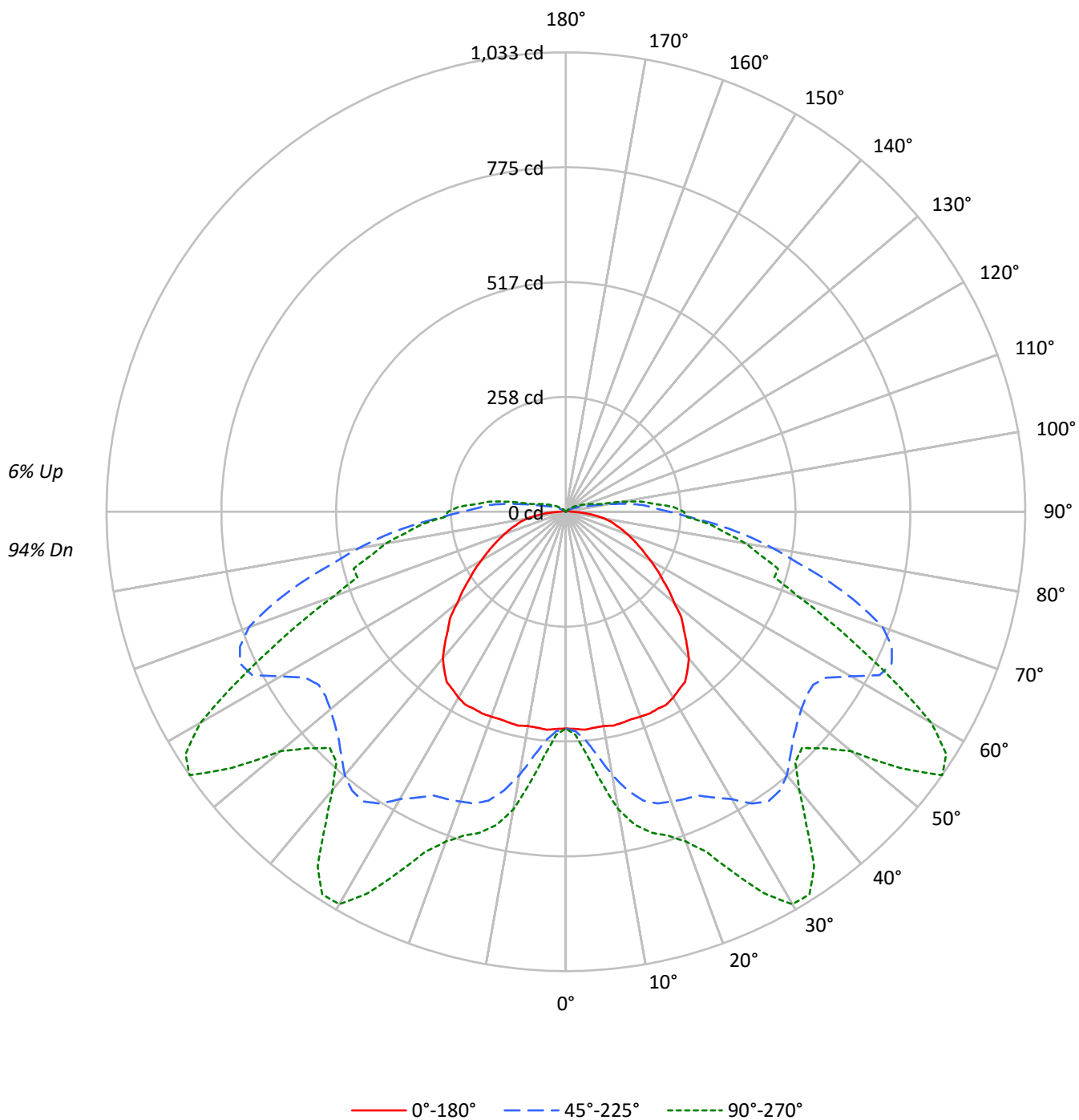
Lumens per Lamp: N/A
Luminaire Lumens: 3765.9 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.45 / 2.17 / 2.13
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 31.3
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: 24 FT

TEST NUMBER: P1212240

CATALOG NUMBER: 4VT3-LD5-4-P-UNV-L830-CD1-U

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	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	103	96	90	85	99	93	88	83	88	83	79	82	79	75	78	75	72
2	91	81	72	65	88	78	70	64	74	67	61	69	64	59	65	60	56
3	82	69	59	52	79	67	58	51	63	55	49	59	53	47	56	50	45
4	74	60	50	42	71	58	49	41	55	47	40	52	44	39	49	42	37
5	68	53	43	35	65	51	42	35	48	40	34	46	38	33	43	37	32
6	62	47	37	30	60	46	36	29	43	35	29	41	33	28	39	32	27
7	57	42	33	26	55	41	32	25	39	31	25	37	30	24	35	28	23
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	32	25	21
9	49	35	26	20	48	34	25	20	32	25	19	31	24	19	29	23	18
10	46	32	23	18	44	31	23	18	30	22	17	28	22	17	27	21	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3148	3148	3148
5°	3178	3255	3442
10°	3185	3734	4162
15°	3247	4149	4512
20°	3319	4279	4734
25°	3417	4377	5382
30°	3515	4715	6173
35°	3579	5141	5994
40°	3505	5166	5152
45°	3290	5028	4898
50°	3041	5060	5694
55°	2819	5283	7403
60°	2652	6200	7237
65°	2536	7398	6030
70°	2486	7706	4997
75°	2522	7106	4944
80°	2656	6358	4678
85°	2414	5585	4319

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°

Vertical Angle: 90°

Luminance: 9396 cd/sqm

TEST NUMBER: P1212240

CATALOG NUMBER: 4VT3-LD5-4-P-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	1.4
10°-20°	182.9	4.9
20°-30°	330.1	8.8
30°-40°	466.6	12.4
40°-50°	498.4	13.2
50°-60°	585.2	15.5
60°-70°	591.8	15.7
70°-80°	483.0	12.8
80°-90°	331.5	8.8
90°-100°	167.4	4.4
100°-110°	49.6	1.3
110°-120°	19.5	0.5
120°-130°	6.9	0.2
130°-140°	1.0	0.0
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°	564.9	15.0
0°-40°	1031.5	27.4
0°-60°	2115.1	56.2
0°-90°	3521.4	93.5
90°-120°	236.5	6.3
90°-150°	244.4	6.5
90°-180°	244.0	6.5
0°-180°	3765.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	492	498	516	540	550	47
15°	491	565	672	731	747	139
25°	489	595	704	834	896	226
35°	467	551	795	964	973	289
45°	375	492	722	764	751	290
55°	265	388	678	935	1033	239
65°	181	329	808	797	733	180
75°	117	432	617	496	494	124
85°	48	370	344	326	325	48
90°	14	274	232	255	265	9
95°	9	138	174	200	200	7
105°	5	14	50	68	66	5
115°	2	2	20	35	35	2
125°	1	0	5	16	17	1
135°	0	0	0	3	3	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

TEST NUMBER: P1212240

CATALOG NUMBER: 4VT3-LD5-4-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4
2.5°	488.8	491.1	492.0	489.7	491.1	492.0	491.1	492.5	493.4	494.8	493.9
5°	492.0	491.6	493.9	491.6	494.4	498.1	500.0	505.1	507.4	513.5	515.8
7.5°	489.7	493.0	493.0	495.3	500.4	514.4	516.3	525.2	535.9	546.2	553.7
10°	489.2	493.0	499.5	506.0	514.9	526.6	534.5	550.9	571.0	585.9	600.8
12.5°	492.5	493.9	505.1	514.0	531.7	544.3	554.6	579.8	601.3	620.5	641.5
15°	491.1	494.8	507.4	522.9	548.1	564.9	575.6	606.4	632.6	651.3	672.4
17.5°	489.2	496.2	512.1	532.2	561.6	583.1	594.8	625.1	649.9	674.3	687.8
20°	490.2	498.1	516.3	543.9	572.8	593.4	605.5	636.8	661.1	681.7	693.4
22.5°	491.1	500.0	518.2	549.5	577.0	598.0	610.6	639.1	660.6	684.5	699.0
25°	488.8	498.6	520.5	546.2	579.8	594.8	607.8	635.4	658.3	685.9	703.7
27.5°	489.2	496.7	517.2	545.3	571.4	592.0	599.0	630.3	658.8	689.7	724.7
30°	482.7	491.6	514.0	533.6	559.3	578.4	589.2	623.7	661.1	701.8	746.2
32.5°	473.7	483.2	503.2	517.2	547.6	563.9	579.4	622.8	671.5	722.4	777.9
35°	467.2	470.0	479.9	495.3	529.4	550.9	570.5	622.8	679.9	735.9	794.7
37.5°	449.0	450.4	458.8	481.8	512.6	542.9	564.9	623.3	683.1	737.8	790.1
40°	430.3	430.8	439.6	462.5	497.6	531.3	555.5	617.2	673.8	724.2	773.3
42.5°	402.3	406.0	418.6	441.5	486.4	514.9	542.9	598.0	650.8	700.4	746.6
45°	375.2	380.3	390.6	417.7	463.9	492.5	520.1	573.8	622.3	676.1	722.4
47.5°	352.8	352.3	365.8	395.7	436.8	466.3	491.6	542.9	596.6	655.9	705.1
50°	317.7	325.2	339.7	369.6	408.3	440.6	463.0	514.0	571.9	631.2	691.1
52.5°	292.5	297.2	314.5	342.0	382.7	409.3	435.4	492.0	555.1	627.5	681.3
55°	265.3	271.4	289.3	316.8	362.1	387.8	414.4	477.5	550.9	622.3	678.5
57.5°	243.4	248.1	264.4	295.3	341.6	371.9	402.7	467.2	545.3	618.1	694.3
60°	220.1	224.7	245.7	276.6	325.7	357.4	386.9	458.8	543.4	635.4	739.6
62.5°	199.0	205.6	224.7	256.9	306.5	338.3	372.4	456.0	564.9	685.9	795.2
65°	180.8	187.8	208.8	241.1	289.7	329.0	370.1	480.4	607.8	726.6	808.3
67.5°	163.5	171.0	192.5	225.7	287.4	336.4	392.5	520.1	638.7	742.4	793.3
70°	146.7	156.1	179.0	225.2	311.7	375.7	432.6	547.6	654.5	727.5	758.3
72.5°	131.8	143.0	175.7	241.5	351.4	412.5	463.9	557.9	637.7	690.1	691.5
75°	116.8	134.1	182.2	269.6	377.1	431.7	479.0	549.0	607.4	632.6	616.7
77.5°	104.2	129.9	192.5	282.6	387.8	439.2	475.6	527.5	558.8	559.3	535.5
80°	88.3	120.6	189.7	282.6	382.2	429.8	461.1	489.2	497.6	491.1	473.7
82.5°	69.1	105.2	177.6	268.2	364.0	406.0	429.8	442.0	436.4	429.4	410.2
85°	48.1	84.5	157.0	249.0	334.6	369.6	389.2	389.2	374.7	354.2	344.4
87.5°	28.0	61.6	135.1	219.6	297.2	328.5	342.5	320.1	297.7	286.9	279.4
90°	13.5	41.1	108.9	193.4	256.0	273.8	274.2	244.8	229.4	231.3	231.7
92.5°	11.2	24.3	85.5	144.9	190.2	199.0	199.0	186.9	183.6	187.4	197.2
95°	9.3	10.3	44.8	96.3	129.9	138.3	143.0	145.8	154.7	165.4	173.8
97.5°	7.9	7.9	14.0	51.8	86.9	100.5	109.8	116.8	125.2	129.9	136.0
100°	6.5	6.5	7.5	17.3	48.6	61.2	68.2	72.9	80.3	88.3	97.2
102.5°	5.6	5.6	5.6	8.9	18.2	23.8	29.9	40.2	48.6	58.8	66.8
105°	4.7	4.7	4.7	5.6	11.2	14.5	19.1	27.6	35.0	43.9	50.4
107.5°	3.7	3.7	3.7	3.7	7.5	10.7	13.5	20.5	28.5	35.5	40.6
110°	2.8	2.8	2.8	3.3	4.7	7.0	9.3	15.4	21.5	27.6	33.2

TEST NUMBER: P1212240

CATALOG NUMBER: 4VT3-LD5-4-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.3	2.3	2.3	2.3	2.8	3.7	6.1	11.2	15.9	21.0	25.7
115°	1.9	1.9	1.9	1.9	1.9	1.9	2.8	7.0	11.2	14.9	20.1
117.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	3.7	7.9	11.7	14.9
120°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.4	4.7	8.4	11.7
122.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	1.9	5.1	8.4
125°	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3	5.1
127.5°	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.9
130°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	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

TEST NUMBER: P1212240

CATALOG NUMBER: 4VT3-LD5-4-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4	487.4
2.5°	494.4	495.8	496.7	501.4	498.6	503.7	499.0	498.6	500.9	502.3
5°	522.4	529.4	535.0	541.5	539.7	542.9	542.5	542.5	552.7	549.5
7.5°	568.2	575.2	585.4	595.7	593.4	605.5	606.9	608.8	608.3	613.5
10°	615.3	628.9	639.1	655.9	654.5	661.6	671.0	668.1	675.7	679.4
12.5°	657.8	673.3	689.7	705.1	704.1	708.3	712.5	715.4	719.6	721.4
15°	689.7	704.6	718.6	732.6	731.2	736.8	739.2	741.5	747.1	747.1
17.5°	709.3	719.1	732.2	747.6	753.2	756.0	753.2	761.1	766.7	763.5
20°	713.5	728.0	748.5	756.9	766.3	771.4	774.2	784.0	783.5	789.1
22.5°	721.9	741.5	760.6	786.8	789.1	801.7	810.2	820.4	826.5	827.9
25°	735.9	767.2	795.2	824.2	834.4	849.8	867.7	880.3	890.6	896.2
27.5°	764.9	803.6	846.1	881.7	887.8	906.4	932.1	950.8	960.6	967.6
30°	801.7	847.5	891.5	928.9	946.1	962.0	985.8	995.2	1011.1	1019.0
32.5°	828.4	874.2	920.9	956.4	972.8	987.2	1000.8	1009.2	1012.5	1019.9
35°	841.0	884.5	932.6	952.7	964.4	969.0	975.1	973.7	974.2	973.2
37.5°	834.4	874.7	904.1	920.5	922.8	921.9	914.9	899.0	887.3	888.2
40°	817.2	850.8	869.6	869.1	863.5	855.0	839.1	819.0	811.6	816.2
42.5°	795.7	817.6	820.4	814.4	800.8	799.4	777.0	770.5	763.0	763.5
45°	768.6	781.2	785.4	772.3	764.4	763.0	752.7	749.0	750.4	750.8
47.5°	743.8	757.4	759.7	756.4	754.6	757.4	761.1	770.5	771.4	786.8
50°	728.4	742.9	758.8	770.9	775.6	791.0	812.0	821.8	833.5	836.8
52.5°	725.2	749.9	788.2	818.6	841.0	861.6	886.8	922.8	934.5	945.7
55°	734.5	787.3	848.4	898.0	934.9	959.7	994.2	1011.1	1023.2	1033.0
57.5°	777.9	860.7	934.9	970.0	981.2	993.8	1000.3	1005.0	1008.7	1014.3
60°	848.0	907.8	947.5	964.8	969.0	971.4	967.2	959.2	951.7	948.5
62.5°	869.6	904.6	920.5	913.0	905.5	899.4	864.0	848.9	834.4	838.6
65°	855.9	862.5	844.2	818.6	796.6	791.9	760.2	747.6	728.9	733.1
67.5°	802.7	781.2	755.5	721.4	710.7	694.8	667.6	655.9	646.6	640.1
70°	749.4	707.4	673.3	635.9	624.2	612.1	578.4	562.5	557.9	555.5
72.5°	661.6	620.9	581.7	549.9	541.1	526.1	511.2	496.7	491.1	491.6
75°	572.4	535.0	509.8	495.3	496.2	494.4	491.6	488.3	490.2	493.9
77.5°	505.6	485.0	482.2	484.6	482.2	478.5	460.6	453.6	445.2	446.6
80°	457.8	447.6	430.8	422.4	425.6	421.9	418.2	408.8	412.5	411.1
82.5°	397.1	389.2	382.2	375.7	376.1	372.9	362.6	359.8	354.6	362.1
85°	340.2	329.0	327.1	324.8	326.2	324.8	324.3	320.5	321.5	324.8
87.5°	282.2	281.2	280.8	278.4	277.0	276.1	274.7	273.3	273.3	272.8
90°	234.1	237.3	245.7	249.9	254.6	257.4	263.0	263.5	265.3	264.9
92.5°	207.4	217.2	230.8	238.7	241.5	242.0	245.7	243.9	242.9	242.5
95°	182.7	186.9	192.5	196.2	200.4	200.9	201.4	199.0	199.5	200.0
97.5°	142.5	148.6	155.6	163.5	167.3	166.8	171.5	171.0	171.0	173.4
100°	105.2	113.1	118.2	127.1	125.2	123.4	126.7	124.8	132.7	129.9
102.5°	73.3	76.1	80.8	81.7	82.2	81.3	82.2	80.3	80.3	79.4
105°	56.0	60.2	64.4	67.2	67.7	67.7	68.2	66.8	66.8	66.3
107.5°	46.2	50.4	53.7	55.6	57.9	57.4	58.4	57.9	58.4	57.4
110°	37.4	41.6	45.3	47.2	49.0	49.0	49.5	49.5	49.0	49.0

TEST NUMBER: P1212240

CATALOG NUMBER: 4VT3-LD5-4-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	30.4	34.1	36.9	39.7	41.1	41.6	41.6	42.0	42.0	42.0
115°	23.8	27.6	31.3	33.6	35.0	35.5	36.0	35.5	35.0	35.0
117.5°	18.7	21.9	25.2	28.0	29.4	29.9	30.8	30.4	30.4	29.9
120°	14.9	17.7	21.0	23.4	24.3	25.2	26.2	25.7	25.2	25.7
122.5°	11.7	14.0	16.8	19.1	20.1	20.5	21.0	20.5	21.0	20.5
125°	8.4	10.7	13.1	14.9	15.9	16.8	17.3	16.8	16.8	16.8
127.5°	4.7	7.0	9.3	11.2	12.1	12.6	13.5	13.1	12.6	12.6
130°	1.4	4.2	6.5	7.9	8.9	9.8	9.8	9.8	9.3	8.9
132.5°	0.0	0.9	3.3	5.1	6.1	6.5	6.5	6.5	6.1	6.1
135°	0.0	0.0	0.5	1.9	2.8	3.3	3.7	3.3	3.3	2.8
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)