

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: P1212234

Luminaire Tested: 2VT3-LD5-3-P-UNV-L830-CD1-U

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P1212234
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-268-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2VT3-LD5-3-P-UNV-L830-CD1-U
Description: 2FT VT3 PARKING GARAGE APPLICATION, 3000LM
Light Source: (196) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

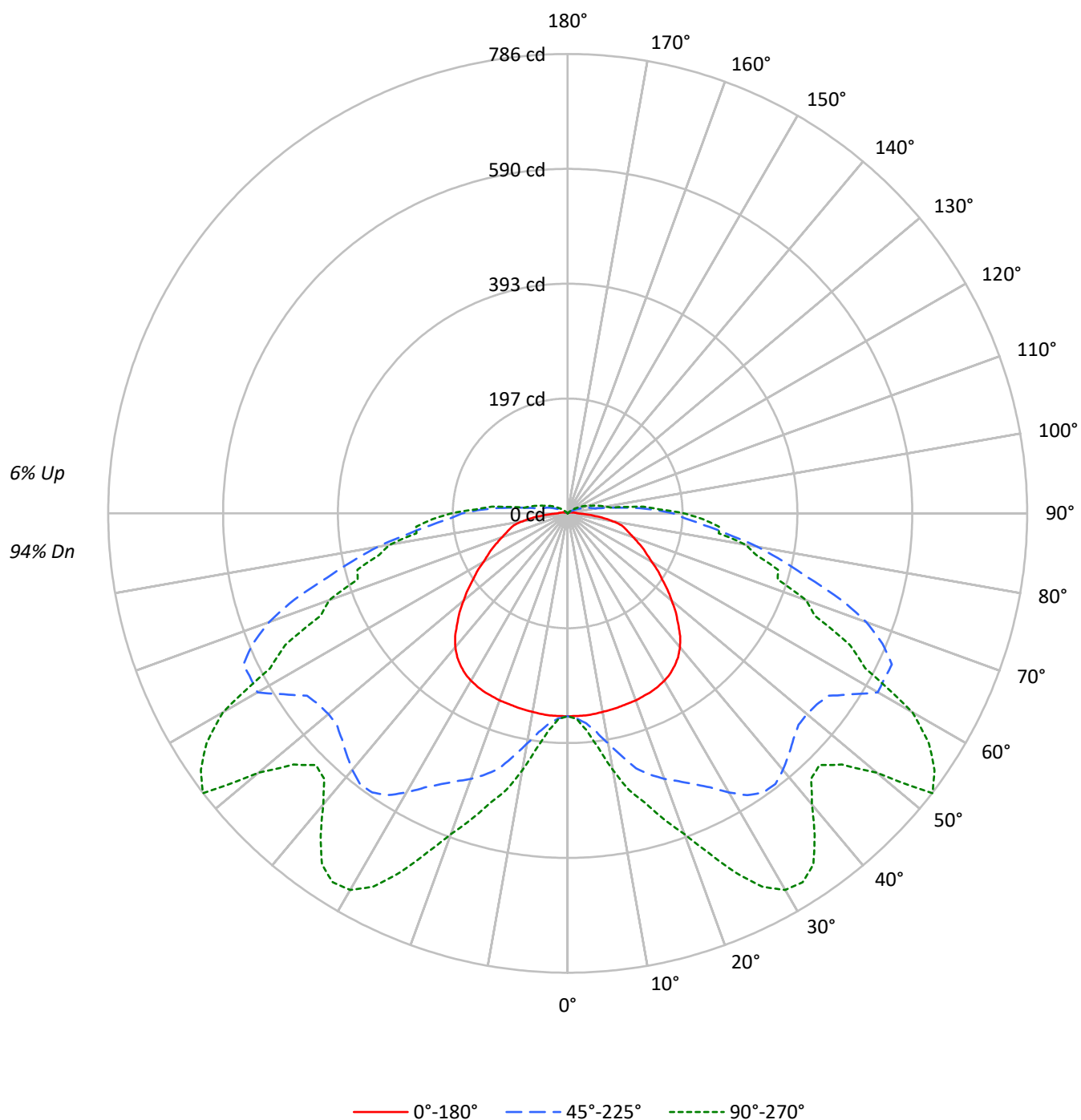
Lumens per Lamp: N/A
Luminaire Lumens: 2804.8 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 2.63 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 24.8
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: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

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	97	97	97
1	103	96	90	85	99	93	88	83	88	83	79	83	79	76	78	75	72
2	91	81	72	65	88	78	70	63	74	67	61	69	64	59	65	61	56
3	82	69	59	51	79	67	58	50	63	55	49	59	52	47	56	50	45
4	74	60	50	42	71	58	48	41	55	46	40	51	44	38	48	42	37
5	67	53	42	35	65	51	41	34	48	40	33	45	38	32	43	36	31
6	62	47	37	29	59	45	36	29	43	34	28	40	33	27	38	32	27
7	57	42	32	25	55	41	31	25	39	30	24	36	29	24	35	28	23
8	53	38	28	22	51	37	28	22	35	27	21	33	26	21	31	25	20
9	49	34	25	19	47	34	25	19	32	24	19	30	23	18	29	22	18
10	46	31	23	17	44	31	23	17	29	22	17	28	21	16	27	20	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4482	4482	4482
5°	4467	4536	4665
10°	4457	4947	5463
15°	4483	5531	6196
20°	4543	5908	7004
25°	4625	6280	8139
30°	4706	6866	9015
35°	4748	7417	9026
40°	4711	7508	8207
45°	4504	7436	7947
50°	4250	7628	9394
55°	3981	8234	10978
60°	3750	9941	10395
65°	3700	10792	8765
70°	3672	10584	7805
75°	3902	9345	7455
80°	3995	8354	7028
85°	3325	7107	6915

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 25°

Vertical Angle: 82.5°

Luminance: 11673 cd/sqm

TEST NUMBER: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	1.3
10°-20°	125.2	4.5
20°-30°	238.2	8.5
30°-40°	342.8	12.2
40°-50°	382.7	13.6
50°-60°	457.5	16.3
60°-70°	443.5	15.8
70°-80°	364.5	13.0
80°-90°	248.8	8.9
90°-100°	109.2	3.9
100°-110°	34.7	1.2
110°-120°	16.2	0.6
120°-130°	5.4	0.2
130°-140°	0.6	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°	399.0	14.2
0°-40°	741.7	26.4
0°-60°	1582.0	56.4
0°-90°	2638.8	94.1
90°-120°	160.1	5.7
90°-150°	166.1	5.9
90°-180°	166.0	5.9
0°-180°	2804.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	347	347	347	347	347	
5°	347	350	360	370	372	33
15°	343	379	452	501	513	97
25°	337	406	511	629	678	156
35°	319	389	583	713	733	199
45°	267	355	546	613	609	206
55°	198	295	544	758	766	178
65°	143	278	612	568	533	141
75°	102	355	426	375	372	107
85°	44	278	235	252	260	43
90°	18	182	180	202	199	11
95°	13	107	109	127	130	10
105°	6	13	38	50	52	7
115°	3	3	17	28	29	3
125°	1	1	4	11	12	1
135°	0	0	0	1	1	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: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0
2.5°	347.0	347.0	347.0	347.0	347.6	348.4	348.4	349.0	349.8	350.4	351.2
5°	347.0	346.2	347.0	348.4	349.8	350.4	351.2	353.3	356.1	357.5	360.3
7.5°	346.2	346.2	347.6	349.8	353.3	354.7	357.5	361.7	366.7	371.6	377.3
10°	344.8	344.8	347.6	351.8	357.5	361.1	364.6	372.4	380.9	390.0	399.9
12.5°	344.1	344.8	348.4	355.4	363.9	368.8	374.5	385.8	398.5	411.9	424.7
15°	342.7	344.1	349.8	359.7	372.4	378.7	385.8	402.1	418.3	433.1	451.5
17.5°	341.3	343.4	351.8	363.9	379.5	387.9	397.1	416.2	436.0	452.9	468.5
20°	340.5	343.4	353.3	367.4	386.5	397.1	407.0	428.1	448.7	466.3	483.3
22.5°	338.5	342.7	354.7	371.6	392.2	402.7	414.0	435.2	455.0	474.8	496.0
25°	337.1	341.3	355.4	373.8	395.6	406.3	416.8	439.5	460.6	483.3	510.9
27.5°	334.2	339.1	354.0	373.0	394.2	405.5	416.2	439.5	464.9	493.9	528.6
30°	330.7	335.6	349.8	368.8	390.0	401.3	412.6	440.2	472.0	508.7	551.2
32.5°	325.8	330.7	343.4	361.7	382.9	395.6	409.1	441.6	481.9	525.0	571.6
35°	318.7	323.6	334.9	351.8	375.2	388.6	404.9	444.4	490.4	537.7	582.9
37.5°	310.2	313.7	324.3	341.3	366.7	382.9	401.3	445.9	494.6	541.9	583.7
40°	298.9	301.0	311.6	328.6	356.8	375.9	395.6	443.0	490.4	534.2	573.0
42.5°	284.8	286.2	297.5	316.5	347.0	367.4	387.9	434.6	479.8	520.1	559.7
45°	267.1	269.2	279.8	301.7	334.2	354.7	374.5	419.0	461.4	503.8	546.2
47.5°	250.9	253.7	265.0	287.6	318.7	338.5	358.9	402.1	445.1	491.1	535.6
50°	232.5	236.0	248.7	271.3	301.7	321.5	341.3	384.3	431.7	483.3	534.2
52.5°	215.5	218.4	231.7	254.3	286.2	306.0	326.4	374.5	428.9	486.8	537.1
55°	197.8	202.1	215.5	240.2	272.7	294.7	318.7	371.6	428.1	487.5	544.1
57.5°	183.0	187.9	202.1	227.5	265.7	286.8	310.2	365.3	431.7	502.4	575.9
60°	166.1	173.1	188.7	214.8	253.7	277.7	303.8	368.8	447.3	530.6	612.6
62.5°	153.4	160.4	177.4	201.4	241.0	269.2	303.1	386.5	480.4	558.9	611.2
65°	142.7	148.4	165.3	192.9	241.0	277.7	320.1	413.4	493.9	555.4	611.9
67.5°	130.0	137.1	156.8	195.0	259.3	304.6	349.0	421.8	494.6	561.7	582.9
70°	119.5	127.9	156.2	209.9	293.3	335.6	363.9	422.5	494.6	528.6	543.4
72.5°	110.2	122.9	163.3	232.5	305.2	337.7	375.2	426.1	471.3	501.7	489.7
75°	102.5	122.3	176.0	235.3	313.0	355.4	381.5	416.8	451.5	446.5	426.1
77.5°	94.7	118.7	168.2	238.8	305.2	341.3	377.3	404.9	405.5	400.6	376.6
80°	79.1	106.0	160.4	226.8	305.2	338.5	362.5	377.3	357.5	340.5	330.0
82.5°	62.2	89.0	147.7	218.4	285.4	316.5	337.1	331.4	306.0	290.4	277.7
85°	43.8	73.5	131.4	200.7	257.9	277.7	290.4	280.5	250.9	243.0	235.3
87.5°	28.3	57.3	111.0	171.0	214.8	231.1	238.1	228.9	204.9	199.2	201.4
90°	17.7	38.9	84.8	135.7	170.3	182.3	187.9	185.1	173.8	178.0	180.2
92.5°	14.9	21.2	58.7	99.7	131.4	143.5	152.0	156.2	146.3	146.3	147.7
95°	12.7	13.4	30.4	67.2	97.5	106.7	115.9	112.4	105.3	103.9	108.8
97.5°	10.6	11.3	13.4	27.6	44.6	55.1	57.3	60.8	62.2	65.8	70.7
100°	9.2	9.2	9.9	14.1	22.6	26.8	30.4	34.7	39.6	44.6	48.8
102.5°	7.8	7.8	7.8	9.9	14.9	18.4	21.9	27.6	32.5	37.5	41.7
105°	6.4	6.4	6.4	7.1	10.6	13.4	16.3	21.9	27.6	32.5	37.5
107.5°	5.0	5.0	5.0	5.7	7.8	9.9	12.7	17.7	22.6	27.6	32.5
110°	4.2	4.2	4.2	4.2	5.7	7.1	9.2	13.4	18.4	22.6	26.2

TEST NUMBER: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	3.5	3.5	3.5	3.5	3.5	5.0	6.4	9.9	13.4	17.0	20.5
115°	2.8	2.8	2.8	2.8	2.8	2.8	3.5	7.1	9.9	13.4	17.0
117.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.2	7.1	10.6	12.7
120°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	5.0	7.8	9.9
122.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	5.0	7.1
125°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.1	4.2
127.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.1
130°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	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: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0
2.5°	351.8	351.8	353.3	353.3	353.3	353.3	353.3	352.6	352.6	351.8
5°	363.9	365.3	367.4	368.8	370.2	371.0	371.0	371.0	371.0	372.4
7.5°	383.7	387.9	391.4	396.4	399.2	399.2	400.6	404.9	404.9	404.9
10°	407.7	418.3	425.3	432.4	435.2	437.4	441.6	443.0	443.7	445.9
12.5°	437.4	448.7	458.6	464.9	471.3	474.1	477.6	479.8	482.6	484.7
15°	463.5	475.5	486.8	496.0	501.0	503.8	508.7	510.9	515.1	513.0
17.5°	484.7	496.0	510.9	524.3	526.4	530.0	537.1	542.7	541.3	549.0
20°	501.0	516.5	532.1	549.0	555.4	561.1	570.2	578.0	580.9	583.7
22.5°	516.5	537.7	559.7	580.1	588.6	597.8	609.8	620.4	628.1	628.1
25°	537.7	563.9	593.6	621.1	628.9	639.4	656.4	666.3	676.9	677.6
27.5°	562.5	596.4	628.9	660.0	672.7	683.3	698.8	710.9	717.2	720.0
30°	590.7	629.6	663.5	690.3	702.4	712.9	727.8	736.3	742.6	744.0
32.5°	614.0	649.3	681.2	706.6	716.5	724.2	736.3	744.0	747.6	748.3
35°	623.2	657.2	684.7	705.2	712.9	718.6	727.8	731.3	729.9	732.7
37.5°	620.4	652.2	676.2	691.7	696.0	698.8	698.8	698.1	693.1	693.9
40°	609.1	638.8	657.8	667.1	667.1	667.1	661.4	657.2	650.1	650.1
42.5°	595.6	622.5	636.0	638.0	636.0	632.4	626.1	621.8	616.8	616.2
45°	582.3	606.3	614.8	614.0	612.6	611.9	609.8	609.1	609.8	609.1
47.5°	572.4	595.0	603.5	606.9	609.8	613.4	619.0	628.1	632.4	636.0
50°	570.2	592.2	609.8	628.9	638.0	647.3	664.9	679.0	688.2	690.3
52.5°	576.6	610.5	644.4	676.9	703.0	712.3	749.0	773.0	782.2	786.4
55°	600.6	658.6	708.0	750.4	758.1	763.1	766.6	768.8	769.4	766.0
57.5°	650.1	704.4	726.4	729.2	729.2	729.9	728.5	729.9	730.6	732.7
60°	660.0	684.7	701.0	710.1	713.7	716.5	708.7	697.4	687.5	681.2
62.5°	649.3	673.4	681.8	646.5	630.3	620.4	599.9	587.2	577.3	573.8
65°	638.8	618.3	595.6	575.9	568.1	558.9	548.4	541.3	531.4	532.8
67.5°	577.3	561.7	544.8	515.8	500.3	486.1	471.3	457.8	447.9	457.2
70°	530.6	496.0	467.1	451.5	442.3	440.9	438.0	437.4	436.0	433.8
72.5°	455.0	436.0	428.1	416.2	409.1	399.9	389.3	381.5	380.1	376.6
75°	410.5	390.0	378.0	374.5	375.2	376.6	377.3	379.5	374.5	372.4
77.5°	357.5	354.7	354.0	345.5	342.0	336.3	330.0	329.2	330.0	330.7
80°	319.3	312.3	312.3	315.9	317.9	318.7	316.5	313.7	314.5	308.8
82.5°	277.7	277.7	275.5	271.3	269.2	265.7	264.2	262.8	261.4	260.8
85°	233.9	231.7	239.6	248.0	252.3	255.1	259.3	259.3	258.6	260.0
87.5°	209.9	219.0	226.8	231.1	231.7	232.5	232.5	231.1	231.7	231.7
90°	182.3	188.7	195.0	200.7	202.1	198.6	199.2	202.1	197.2	198.6
92.5°	151.2	154.0	155.4	158.3	157.6	159.7	156.8	157.6	157.6	157.6
95°	114.5	116.6	122.9	126.5	127.2	131.4	131.4	132.8	132.8	130.0
97.5°	73.5	74.2	75.6	77.1	77.1	77.7	75.6	76.3	74.9	74.9
100°	53.0	57.3	60.8	63.6	65.0	65.8	65.8	66.4	65.8	65.8
102.5°	46.6	50.9	54.5	56.5	57.9	58.7	58.7	58.7	59.3	58.7
105°	41.0	44.6	48.0	49.5	50.2	50.2	50.9	50.9	50.9	51.6
107.5°	36.1	38.9	41.0	42.4	43.1	43.1	43.8	43.8	43.8	43.1
110°	29.7	32.5	34.7	36.7	37.5	37.5	38.2	38.2	38.2	38.2

TEST NUMBER: P1212234

CATALOG NUMBER: 2VT3-LD5-3-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	24.0	26.8	29.7	31.8	32.5	33.3	33.9	33.9	33.9	33.9
115°	19.8	22.6	25.4	27.6	28.3	29.0	29.0	29.0	29.0	29.0
117.5°	16.3	18.4	21.2	22.6	23.4	24.0	24.8	24.0	24.0	24.0
120°	12.0	14.9	17.0	18.4	19.1	19.1	19.8	19.8	19.8	19.8
122.5°	9.2	11.3	12.7	14.1	14.9	15.5	15.5	15.5	15.5	15.5
125°	5.7	7.8	9.2	10.6	11.3	11.3	12.0	12.0	12.0	12.0
127.5°	3.5	5.0	6.4	7.8	8.5	8.5	9.2	9.2	9.2	8.5
130°	1.4	2.8	4.2	5.7	5.7	6.4	6.4	6.4	6.4	6.4
132.5°	0.0	0.7	2.1	3.5	3.5	4.2	4.2	4.2	4.2	3.5
135°	0.0	0.0	0.0	0.7	1.4	1.4	2.1	1.4	1.4	1.4
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)