

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: P1212231

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P1212231
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-LD5-2-P-UNV-L830-CD1-U
Description: 2FT VT3 PARKING GARAGE APPLICATION, 2000LM
Light Source: (196) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

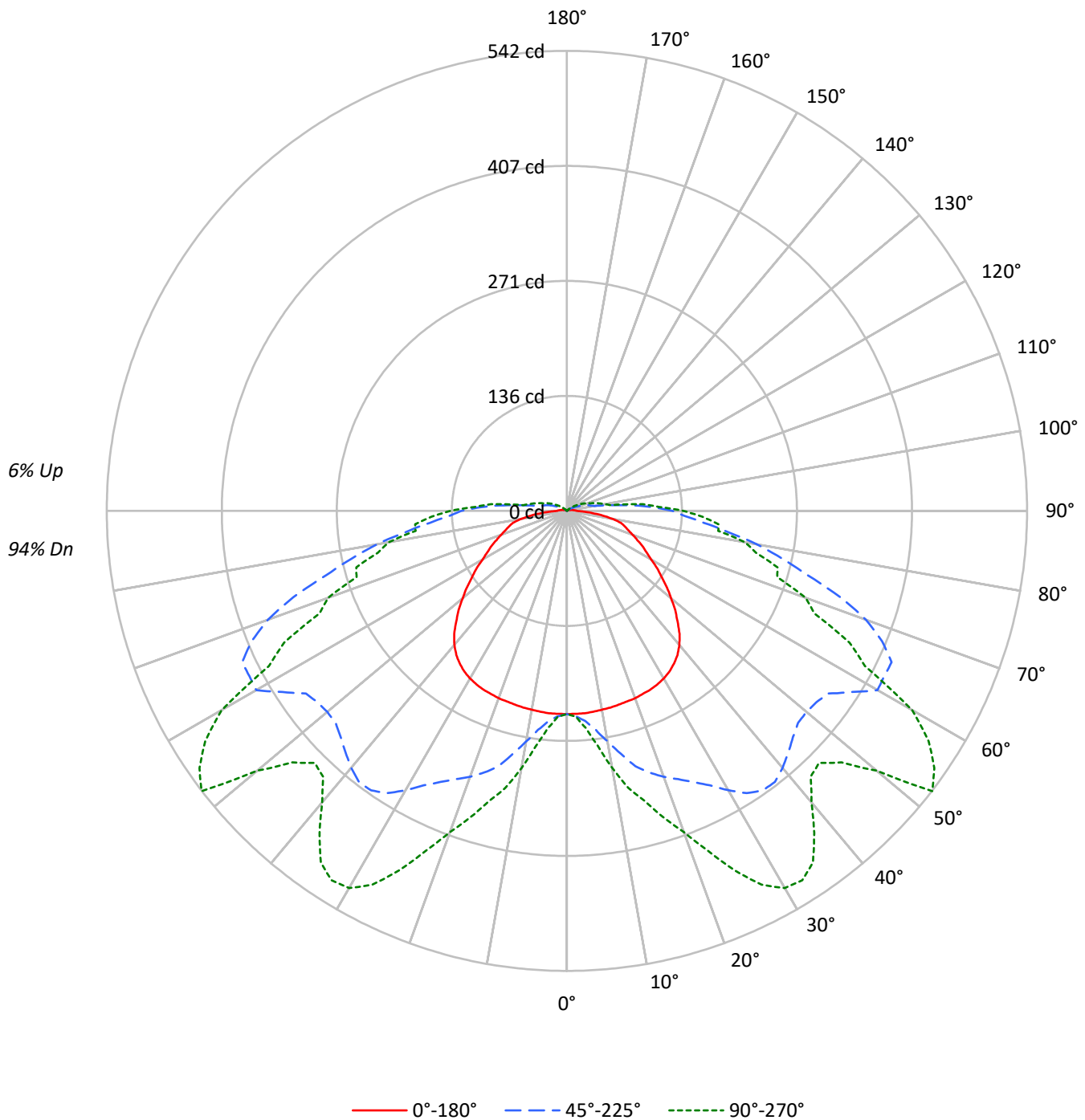
Lumens per Lamp: N/A
Luminaire Lumens: 1934.3 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 2.63 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 16.9
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: P1212231

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

Luminous Intensity Polar Plot



TEST NUMBER: P1212231

CATALOG NUMBER: 2VT3-LD5-2-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°	3091	3091	3091
5°	3080	3129	3217
10°	3074	3412	3767
15°	3091	3815	4273
20°	3134	4075	4830
25°	3190	4331	5613
30°	3246	4734	6217
35°	3275	5115	6224
40°	3248	5179	5659
45°	3106	5128	5480
50°	2930	5260	6479
55°	2747	5678	7572
60°	2585	6854	7168
65°	2551	7443	6044
70°	2532	7298	5383
75°	2691	6444	5141
80°	2753	5759	4847
85°	2292	4899	4769

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 25°

Vertical Angle: 82.5°

Luminance: 8051 cd/sqm

TEST NUMBER: P1212231

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.5	1.3
10°-20°	86.3	4.5
20°-30°	164.3	8.5
30°-40°	236.4	12.2
40°-50°	264.0	13.6
50°-60°	315.5	16.3
60°-70°	305.8	15.8
70°-80°	251.4	13.0
80°-90°	171.6	8.9
90°-100°	75.3	3.9
100°-110°	23.9	1.2
110°-120°	11.2	0.6
120°-130°	3.7	0.2
130°-140°	0.4	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°	275.2	14.2
0°-40°	511.5	26.4
0°-60°	1091.0	56.4
0°-90°	1819.8	94.1
90°-120°	110.4	5.7
90°-150°	114.5	5.9
90°-180°	114.0	5.9
0°-180°	1934.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	239	239	239	239	239	
5°	239	242	248	255	257	23
15°	236	261	311	346	354	67
25°	232	280	352	434	467	107
35°	220	268	402	492	505	137
45°	184	245	377	422	420	142
55°	136	203	375	523	528	123
65°	98	192	422	392	367	97
75°	71	245	294	259	257	74
85°	30	192	162	174	179	30
90°	12	126	124	139	137	7
95°	9	74	75	88	90	7
105°	4	9	26	35	36	5
115°	2	2	12	20	20	2
125°	0	0	3	8	8	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: P1212231

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3
2.5°	239.3	239.3	239.3	239.3	239.8	240.2	240.2	240.7	241.3	241.7	242.2
5°	239.3	238.7	239.3	240.2	241.3	241.7	242.2	243.7	245.6	246.6	248.5
7.5°	238.7	238.7	239.8	241.3	243.7	244.6	246.6	249.5	252.9	256.3	260.2
10°	237.8	237.8	239.8	242.7	246.6	249.0	251.4	256.8	262.6	269.0	275.8
12.5°	237.3	237.8	240.2	245.1	251.0	254.3	258.3	266.1	274.9	284.1	292.9
15°	236.3	237.3	241.3	248.1	256.8	261.1	266.1	277.3	288.5	298.7	311.4
17.5°	235.4	236.9	242.7	251.0	261.7	267.5	273.8	287.0	300.7	312.3	323.1
20°	234.9	236.9	243.7	253.4	266.6	273.8	280.7	295.3	309.4	321.6	333.3
22.5°	233.4	236.3	244.6	256.3	270.5	277.8	285.5	300.2	313.8	327.5	342.1
25°	232.5	235.4	245.1	257.8	272.9	280.2	287.5	303.1	317.7	333.3	352.3
27.5°	230.5	233.9	244.1	257.3	271.9	279.7	287.0	303.1	320.6	340.6	364.5
30°	228.1	231.4	241.3	254.3	269.0	276.7	284.6	303.6	325.5	350.8	380.0
32.5°	224.6	228.1	236.9	249.5	264.1	272.9	282.2	304.6	332.3	362.0	394.2
35°	219.8	223.2	231.0	242.7	258.7	268.1	279.2	306.5	338.2	370.8	402.0
37.5°	213.9	216.3	223.7	235.4	252.9	264.1	276.7	307.5	341.1	373.8	402.5
40°	206.1	207.6	214.9	226.6	246.1	259.3	272.9	305.5	338.2	368.4	395.2
42.5°	196.4	197.4	205.1	218.3	239.3	253.4	267.5	299.7	330.9	358.7	385.9
45°	184.2	185.7	193.0	208.1	230.5	244.6	258.3	289.0	318.2	347.4	376.7
47.5°	173.0	174.9	182.7	198.3	219.8	233.4	247.5	277.3	307.0	338.7	369.4
50°	160.3	162.8	171.5	187.1	208.1	221.7	235.4	265.1	297.8	333.3	368.4
52.5°	148.6	150.6	159.8	175.4	197.4	211.0	225.1	258.3	295.8	335.8	370.3
55°	136.5	139.4	148.6	165.7	188.1	203.2	219.8	256.3	295.3	336.2	375.2
57.5°	126.2	129.6	139.4	156.9	183.3	197.8	213.9	251.9	297.8	346.4	397.1
60°	114.5	119.4	130.1	148.1	174.9	191.5	209.5	254.3	308.5	365.9	422.4
62.5°	105.7	110.6	122.4	138.9	166.2	185.7	209.0	266.6	331.4	385.5	421.5
65°	98.4	102.4	114.0	133.0	166.2	191.5	220.7	285.1	340.6	383.0	422.0
67.5°	89.7	94.5	108.2	134.5	178.9	210.1	240.7	290.9	341.1	387.4	402.0
70°	82.4	88.2	107.7	144.8	202.2	231.4	251.0	291.4	341.1	364.5	374.7
72.5°	76.0	84.8	112.5	160.3	210.5	232.9	258.7	293.8	325.0	346.0	337.7
75°	70.7	84.3	121.3	162.2	215.8	245.1	263.1	287.5	311.4	307.9	293.8
77.5°	65.3	81.9	116.0	164.7	210.5	235.4	260.2	279.2	279.7	276.3	259.7
80°	54.5	73.1	110.6	156.4	210.5	233.4	249.9	260.2	246.6	234.9	227.5
82.5°	42.9	61.4	101.8	150.6	196.9	218.3	232.5	228.5	211.0	200.2	191.5
85°	30.2	50.7	90.6	138.4	177.8	191.5	200.2	193.4	173.0	167.7	162.2
87.5°	19.5	39.5	76.5	118.0	148.1	159.3	164.2	157.8	141.3	137.4	138.9
90°	12.1	26.8	58.5	93.6	117.4	125.7	129.6	127.7	119.8	122.8	124.2
92.5°	10.3	14.7	40.4	68.7	90.6	98.9	104.8	107.7	100.9	100.9	101.8
95°	8.8	9.2	20.9	46.3	67.2	73.6	80.0	77.5	72.6	71.6	75.0
97.5°	7.3	7.8	9.2	19.0	30.7	38.0	39.5	41.9	42.9	45.3	48.8
100°	6.4	6.4	6.8	9.7	15.6	18.5	20.9	23.9	27.3	30.7	33.6
102.5°	5.3	5.3	5.3	6.8	10.3	12.7	15.1	19.0	22.4	25.9	28.8
105°	4.4	4.4	4.4	4.9	7.3	9.2	11.2	15.1	19.0	22.4	25.9
107.5°	3.5	3.5	3.5	3.9	5.3	6.8	8.8	12.1	15.6	19.0	22.4
110°	2.9	2.9	2.9	2.9	3.9	4.9	6.4	9.2	12.7	15.6	18.0



TEST NUMBER: P1212231

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.4	2.4	2.4	2.4	2.4	3.5	4.4	6.8	9.2	11.7	14.1
115°	2.0	2.0	2.0	2.0	2.0	2.0	2.4	4.9	6.8	9.2	11.7
117.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	4.9	7.3	8.8
120°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.5	3.5	5.3	6.8
122.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.5	3.5	4.9
125°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.9
127.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5
130°	0.5	0.5	0.5	0.5	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: P1212231

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3
2.5°	242.7	242.7	243.7	243.7	243.7	243.7	243.7	243.1	243.1	242.7
5°	251.0	251.9	253.4	254.3	255.4	255.8	255.8	255.8	255.8	256.8
7.5°	264.6	267.5	269.9	273.4	275.3	275.3	276.3	279.2	279.2	279.2
10°	281.1	288.5	293.4	298.2	300.2	301.6	304.6	305.5	306.0	307.5
12.5°	301.6	309.4	316.3	320.6	325.0	327.0	329.4	330.9	332.8	334.3
15°	319.7	327.9	335.8	342.1	345.5	347.4	350.8	352.3	355.2	353.8
17.5°	334.3	342.1	352.3	361.6	363.0	365.5	370.3	374.3	373.2	378.6
20°	345.5	356.2	367.0	378.6	383.0	387.0	393.2	398.6	400.6	402.5
22.5°	356.2	370.8	385.9	400.0	405.9	412.3	420.6	427.9	433.2	433.2
25°	370.8	388.8	409.4	428.3	433.7	441.0	452.7	459.5	466.8	467.3
27.5°	387.9	411.2	433.7	455.1	463.9	471.2	481.9	490.3	494.6	496.5
30°	407.4	434.2	457.6	476.1	484.4	491.7	501.9	507.7	512.1	513.1
32.5°	423.5	447.9	469.7	487.3	494.1	499.5	507.7	513.1	515.6	516.0
35°	429.8	453.2	472.2	486.3	491.7	495.6	501.9	504.4	503.3	505.3
37.5°	427.9	449.8	466.3	477.1	480.0	481.9	481.9	481.5	478.0	478.5
40°	420.0	440.5	453.6	460.0	460.0	460.0	456.1	453.2	448.3	448.3
42.5°	410.8	429.3	438.6	440.0	438.6	436.1	431.8	428.8	425.4	424.9
45°	401.5	418.1	423.9	423.5	422.4	422.0	420.6	420.0	420.6	420.0
47.5°	394.7	410.3	416.2	418.6	420.6	423.0	426.8	433.2	436.1	438.6
50°	393.2	408.3	420.6	433.7	440.0	446.4	458.5	468.3	474.7	476.1
52.5°	397.6	421.0	444.4	466.8	484.8	491.2	516.5	533.1	539.5	542.4
55°	414.2	454.2	488.3	517.5	522.9	526.3	528.7	530.1	530.7	528.3
57.5°	448.3	485.9	500.9	502.9	502.9	503.3	502.4	503.3	503.9	505.3
60°	455.1	472.2	483.4	489.7	492.1	494.1	488.8	480.9	474.1	469.7
62.5°	447.9	464.4	470.3	445.9	434.7	427.9	413.7	405.0	398.2	395.6
65°	440.5	426.4	410.8	397.1	391.8	385.5	378.2	373.2	366.4	367.4
67.5°	398.2	387.4	375.7	355.8	345.0	335.2	325.0	315.8	309.0	315.3
70°	365.9	342.1	322.1	311.4	305.0	304.1	302.1	301.6	300.7	299.2
72.5°	313.8	300.7	295.3	287.0	282.2	275.8	268.5	263.1	262.2	259.7
75°	283.1	269.0	260.7	258.3	258.7	259.7	260.2	261.7	258.3	256.8
77.5°	246.6	244.6	244.1	238.3	235.8	231.9	227.5	227.1	227.5	228.1
80°	220.2	215.4	215.4	217.8	219.3	219.8	218.3	216.3	216.9	213.0
82.5°	191.5	191.5	190.1	187.1	185.7	183.3	182.2	181.3	180.3	179.8
85°	161.3	159.8	165.2	171.0	174.0	175.9	178.9	178.9	178.4	179.3
87.5°	144.8	151.0	156.4	159.3	159.8	160.3	160.3	159.3	159.8	159.8
90°	125.7	130.1	134.5	138.4	139.4	136.9	137.4	139.4	136.0	136.9
92.5°	104.2	106.2	107.2	109.2	108.6	110.1	108.2	108.6	108.6	108.6
95°	78.9	80.4	84.8	87.2	87.7	90.6	90.6	91.6	91.6	89.7
97.5°	50.7	51.2	52.1	53.1	53.1	53.6	52.1	52.6	51.7	51.7
100°	36.5	39.5	41.9	43.9	44.8	45.3	45.3	45.8	45.3	45.3
102.5°	32.1	35.1	37.5	38.9	40.0	40.4	40.4	40.4	40.9	40.4
105°	28.3	30.7	33.2	34.1	34.6	34.6	35.1	35.1	35.1	35.6
107.5°	24.8	26.8	28.3	29.2	29.7	29.7	30.2	30.2	30.2	29.7
110°	20.5	22.4	23.9	25.3	25.9	25.9	26.3	26.3	26.3	26.3

TEST NUMBER: P1212231

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	16.5	18.5	20.5	21.9	22.4	22.9	23.4	23.4	23.4	23.4
115°	13.6	15.6	17.6	19.0	19.5	20.0	20.0	20.0	20.0	20.0
117.5°	11.2	12.7	14.7	15.6	16.1	16.5	17.1	16.5	16.5	16.5
120°	8.3	10.3	11.7	12.7	13.2	13.2	13.6	13.6	13.6	13.6
122.5°	6.4	7.8	8.8	9.7	10.3	10.7	10.7	10.7	10.7	10.7
125°	3.9	5.3	6.4	7.3	7.8	7.8	8.3	8.3	8.3	8.3
127.5°	2.4	3.5	4.4	5.3	5.9	5.9	6.4	6.4	6.4	5.9
130°	0.9	2.0	2.9	3.9	3.9	4.4	4.4	4.4	4.4	4.4
132.5°	0.0	0.5	1.5	2.4	2.4	2.9	2.9	2.9	2.9	2.4
135°	0.0	0.0	0.0	0.5	0.9	0.9	1.5	0.9	0.9	0.9
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)