

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: P1212237

Luminaire Tested: 2VT3-LD5-4-P-UNV-L830-CD1-U

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P1212237
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-LD5-4-P-UNV-L830-CD1-U
Description: 2FT VT3 PARKING GARAGE APPLICATION, 4000LM
Light Source: (196) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

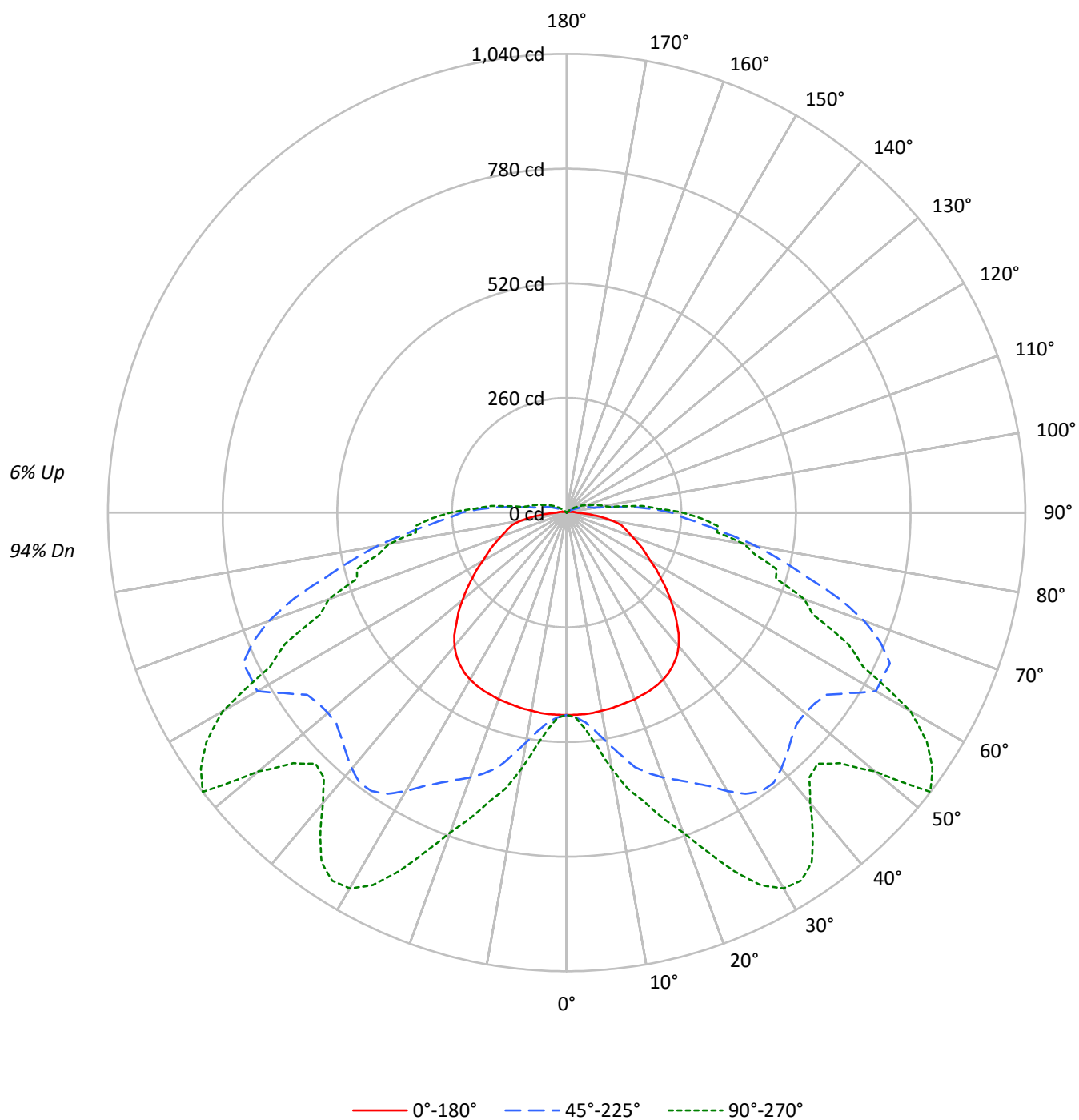
Lumens per Lamp: N/A
Luminaire Lumens: 3707.9 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 2.63 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 33.9
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

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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	118	118	118	118	114	114	114	114	108	108	108		102	102	102		97
1	103	96	90	85	99	93	88	83	88	83	79		83	79	76		78
2	91	81	72	65	88	78	70	63	74	67	61		69	64	59		65
3	82	69	59	51	79	67	58	50	63	55	49		59	52	47		56
4	74	60	50	42	71	58	48	41	55	46	40		51	44	38		48
5	67	53	42	35	65	51	41	34	48	40	33		45	38	32		43
6	62	47	37	29	59	45	36	29	43	34	28		40	33	27		38
7	57	42	32	25	55	41	31	25	39	30	24		36	29	24		35
8	53	38	28	22	51	37	28	22	35	27	21		33	26	21		31
9	49	34	25	19	47	34	25	19	32	24	19		30	23	18		29
10	46	31	23	17	44	31	23	17	29	22	17		28	21	16		27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5925	5925	5925
5°	5904	5998	6167
10°	5893	6540	7221
15°	5927	7312	8191
20°	6007	7811	9258
25°	6113	8303	10760
30°	6221	9076	11918
35°	6277	9805	11933
40°	6228	9927	10849
45°	5954	9831	10506
50°	5617	10084	12419
55°	5263	10885	14511
60°	4955	13143	13742
65°	4893	14267	11587
70°	4849	13990	10320
75°	5154	12354	9856
80°	5284	11045	9292
85°	4395	9394	9142

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 25°

Vertical Angle: 82.5°

Luminance: 15430 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	1.3
10°-20°	165.5	4.5
20°-30°	314.9	8.5
30°-40°	453.1	12.2
40°-50°	506.0	13.6
50°-60°	604.8	16.3
60°-70°	586.3	15.8
70°-80°	481.9	13.0
80°-90°	328.9	8.9
90°-100°	144.3	3.9
100°-110°	45.8	1.2
110°-120°	21.4	0.6
120°-130°	7.1	0.2
130°-140°	0.8	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°	527.5	14.2
0°-40°	980.6	26.4
0°-60°	2091.4	56.4
0°-90°	3488.5	94.1
90°-120°	211.6	5.7
90°-150°	219.4	5.9
90°-180°	219.0	5.9
0°-180°	3707.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	459	463	476	490	492	44
15°	453	501	597	662	678	128
25°	446	537	675	831	896	206
35°	421	514	771	942	969	263
45°	353	469	722	810	805	273
55°	262	390	719	1002	1012	235
65°	189	367	809	751	704	186
75°	135	470	563	496	492	142
85°	58	367	311	333	344	57
90°	23	241	238	267	262	14
95°	17	141	144	168	172	13
105°	8	18	50	66	68	9
115°	4	4	22	37	38	4
125°	1	1	6	15	16	1
135°	0	0	0	2	2	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°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7
2.5°	458.7	458.7	458.7	458.7	459.6	460.6	460.6	461.5	462.4	463.4	464.3
5°	458.7	457.8	458.7	460.6	462.4	463.4	464.3	467.1	470.8	472.7	476.4
7.5°	457.8	457.8	459.6	462.4	467.1	469.0	472.7	478.3	484.8	491.4	498.8
10°	455.9	455.9	459.6	465.2	472.7	477.4	482.0	492.3	503.5	515.7	528.7
12.5°	455.0	455.9	460.6	469.9	481.1	487.6	495.1	510.1	526.9	544.6	561.4
15°	453.1	455.0	462.4	475.5	492.3	500.7	510.1	531.5	553.0	572.6	596.9
17.5°	451.2	454.0	465.2	481.1	501.7	512.9	525.0	550.2	576.4	598.8	619.3
20°	450.3	454.0	467.1	485.8	511.0	525.0	538.1	566.1	593.2	616.5	638.9
22.5°	447.5	453.1	469.0	491.4	518.5	532.5	547.4	575.4	601.6	627.7	655.8
25°	445.6	451.2	469.9	494.2	523.1	537.1	551.2	581.0	609.1	638.9	675.4
27.5°	441.9	448.4	468.0	493.2	521.3	536.2	550.2	581.0	614.7	653.0	698.7
30°	437.2	443.7	462.4	487.6	515.7	530.6	545.5	582.0	624.0	672.6	728.6
32.5°	430.7	437.2	454.0	478.3	506.3	523.1	540.9	583.8	637.1	694.1	755.7
35°	421.3	427.9	442.8	465.2	496.0	513.8	535.3	587.6	648.3	710.9	770.6
37.5°	410.1	414.8	428.8	451.2	484.8	506.3	530.6	589.4	653.9	716.5	771.6
40°	395.2	398.0	412.0	434.4	471.8	497.0	523.1	585.7	648.3	706.2	757.6
42.5°	376.5	378.4	393.3	418.5	458.7	485.8	512.9	574.5	634.3	687.5	739.8
45°	353.1	355.9	369.9	398.9	441.9	469.0	495.1	554.0	610.0	666.0	722.1
47.5°	331.6	335.3	350.2	380.2	421.3	447.5	474.6	531.5	588.5	649.2	708.1
50°	307.3	312.0	328.8	358.7	398.9	425.1	451.2	508.2	570.8	638.9	706.2
52.5°	284.9	288.6	306.4	336.2	378.4	404.5	431.6	495.1	567.0	643.6	709.9
55°	261.5	267.1	284.9	317.6	360.5	389.6	421.3	491.4	566.1	644.6	719.3
57.5°	241.9	248.4	267.1	300.7	351.2	379.3	410.1	483.0	570.8	664.2	761.3
60°	219.5	228.8	249.4	283.9	335.3	367.1	401.7	487.6	591.3	701.5	809.9
62.5°	202.7	212.0	234.4	266.2	318.5	355.9	400.8	511.0	635.2	738.9	808.0
65°	188.7	196.1	218.6	255.0	318.5	367.1	423.2	546.5	653.0	734.2	808.9
67.5°	171.9	181.2	207.3	257.8	342.8	402.6	461.5	557.7	653.9	742.6	770.6
70°	157.8	169.1	206.4	277.4	387.7	443.7	481.1	558.6	653.9	698.7	718.3
72.5°	145.7	162.5	215.8	307.3	403.6	446.5	496.0	563.3	623.1	663.2	647.4
75°	135.4	161.6	232.6	311.0	413.9	469.9	504.5	551.2	596.9	590.4	563.3
77.5°	125.2	156.9	222.3	315.7	403.6	451.2	498.8	535.3	536.2	529.7	497.9
80°	104.6	140.1	212.0	299.8	403.6	447.5	479.2	498.8	472.7	450.3	436.3
82.5°	82.2	117.7	195.2	288.6	377.4	418.5	445.6	438.1	404.5	384.0	367.1
85°	57.9	97.1	173.7	265.3	340.9	367.1	384.0	370.8	331.6	321.3	311.0
87.5°	37.4	75.7	146.6	226.0	283.9	305.4	314.8	302.6	270.9	263.4	266.2
90°	23.4	51.4	112.1	179.3	225.1	241.0	248.4	244.7	229.8	235.4	238.2
92.5°	19.6	28.0	77.5	131.7	173.7	189.6	200.8	206.4	193.3	193.3	195.2
95°	16.8	17.7	40.2	88.7	128.9	141.0	153.2	148.5	139.2	137.3	143.8
97.5°	14.0	14.9	17.7	36.4	58.8	72.9	75.7	80.3	82.2	86.9	93.4
100°	12.1	12.1	13.1	18.7	29.9	35.5	40.2	45.8	52.3	58.8	64.4
102.5°	10.3	10.3	10.3	13.1	19.6	24.3	29.0	36.4	43.0	49.5	55.1
105°	8.4	8.4	8.4	9.3	14.0	17.7	21.5	29.0	36.4	43.0	49.5
107.5°	6.5	6.5	6.5	7.5	10.3	13.1	16.8	23.4	29.9	36.4	43.0
110°	5.6	5.6	5.6	5.6	7.5	9.3	12.1	17.7	24.3	29.9	34.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	4.7	4.7	4.7	4.7	4.7	6.5	8.4	13.1	17.7	22.4	27.1
115°	3.7	3.7	3.7	3.7	3.7	3.7	4.7	9.3	13.1	17.7	22.4
117.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	5.6	9.3	14.0	16.8
120°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	6.5	10.3	13.1
122.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	6.5	9.3
125°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8	5.6
127.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8
130°	0.9	0.9	0.9	0.9	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

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7
2.5°	465.2	465.2	467.1	467.1	467.1	467.1	467.1	466.2	466.2	465.2
5°	481.1	483.0	485.8	487.6	489.5	490.4	490.4	490.4	490.4	492.3
7.5°	507.3	512.9	517.5	524.1	527.8	527.8	529.7	535.3	535.3	535.3
10°	539.0	553.0	562.4	571.7	575.4	578.2	583.8	585.7	586.6	589.4
12.5°	578.2	593.2	606.3	614.7	623.1	626.8	631.5	634.3	638.0	640.8
15°	612.8	628.7	643.6	655.8	662.3	666.0	672.6	675.4	681.0	678.2
17.5°	640.8	655.8	675.4	693.1	695.9	700.6	709.9	717.4	715.5	725.8
20°	662.3	682.8	703.4	725.8	734.2	741.7	753.8	764.1	767.8	771.6
22.5°	682.8	710.9	739.8	766.9	778.1	790.3	806.1	820.1	830.4	830.4
25°	710.9	745.4	784.7	821.1	831.4	845.4	867.8	880.9	894.9	895.8
27.5°	743.6	788.4	831.4	872.4	889.3	903.3	923.8	939.7	948.1	951.8
30°	780.9	832.3	877.1	912.6	928.5	942.5	962.1	973.3	981.7	983.6
32.5°	811.7	858.4	900.5	934.1	947.2	957.4	973.3	983.6	988.3	989.2
35°	823.9	868.7	905.1	932.2	942.5	950.0	962.1	966.8	964.9	968.7
37.5°	820.1	862.2	893.9	914.5	920.1	923.8	923.8	922.9	916.3	917.3
40°	805.2	844.4	869.6	881.8	881.8	881.8	874.3	868.7	859.4	859.4
42.5°	787.5	822.9	840.7	843.5	840.7	836.0	827.6	822.0	815.5	814.5
45°	769.7	801.5	812.7	811.7	809.9	808.9	806.1	805.2	806.1	805.2
47.5°	756.6	786.5	797.7	802.4	806.1	810.8	818.3	830.4	836.0	840.7
50°	753.8	782.8	806.1	831.4	843.5	855.6	879.0	897.7	909.8	912.6
52.5°	762.2	807.1	851.9	894.9	929.4	941.6	990.1	1021.9	1034.0	1039.6
55°	794.0	870.6	936.0	992.0	1002.3	1008.8	1013.5	1016.3	1017.2	1012.5
57.5°	859.4	931.3	960.2	964.0	964.0	964.9	963.0	964.9	965.8	968.7
60°	872.4	905.1	926.6	938.8	943.4	947.2	936.9	922.0	908.9	900.5
62.5°	858.4	890.2	901.4	854.7	833.2	820.1	793.1	776.2	763.2	758.5
65°	844.4	817.3	787.5	761.3	751.0	738.9	724.9	715.5	702.5	704.3
67.5°	763.2	742.6	720.2	681.9	661.4	642.7	623.1	605.3	592.2	604.4
70°	701.5	655.8	617.5	596.9	584.8	582.9	579.2	578.2	576.4	573.6
72.5°	601.6	576.4	566.1	550.2	540.9	528.7	514.7	504.5	502.6	497.9
75°	542.7	515.7	499.8	495.1	496.0	497.9	498.8	501.7	495.1	492.3
77.5°	472.7	469.0	468.0	456.8	452.1	444.7	436.3	435.3	436.3	437.2
80°	422.3	412.9	412.9	417.6	420.4	421.3	418.5	414.8	415.7	408.3
82.5°	367.1	367.1	364.3	358.7	355.9	351.2	349.3	347.4	345.6	344.6
85°	309.2	306.4	316.6	327.8	333.4	337.2	342.8	342.8	341.8	343.7
87.5°	277.4	289.5	299.8	305.4	306.4	307.3	307.3	305.4	306.4	306.4
90°	241.0	249.4	257.8	265.3	267.1	262.5	263.4	267.1	260.6	262.5
92.5°	199.9	203.6	205.5	209.2	208.3	211.1	207.3	208.3	208.3	208.3
95°	151.3	154.1	162.5	167.2	168.1	173.7	173.7	175.6	175.6	171.9
97.5°	97.1	98.1	99.9	101.8	101.8	102.7	99.9	100.9	99.0	99.0
100°	70.0	75.7	80.3	84.1	85.9	86.9	86.9	87.8	86.9	86.9
102.5°	61.6	67.2	71.9	74.7	76.6	77.5	77.5	77.5	78.5	77.5
105°	54.2	58.8	63.5	65.4	66.3	66.3	67.2	67.2	67.2	68.2
107.5°	47.6	51.4	54.2	56.0	57.0	57.0	57.9	57.9	57.9	57.0
110°	39.2	43.0	45.8	48.6	49.5	49.5	50.4	50.4	50.4	50.4

TEST NUMBER: P1212237

CATALOG NUMBER: 2VT3-LD5-4-P-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	31.8	35.5	39.2	42.0	43.0	43.9	44.8	44.8	44.8	44.8
115°	26.2	29.9	33.6	36.4	37.4	38.3	38.3	38.3	38.3	38.3
117.5°	21.5	24.3	28.0	29.9	30.8	31.8	32.7	31.8	31.8	31.8
120°	15.9	19.6	22.4	24.3	25.2	25.2	26.2	26.2	26.2	26.2
122.5°	12.1	14.9	16.8	18.7	19.6	20.5	20.5	20.5	20.5	20.5
125°	7.5	10.3	12.1	14.0	14.9	14.9	15.9	15.9	15.9	15.9
127.5°	4.7	6.5	8.4	10.3	11.2	11.2	12.1	12.1	12.1	11.2
130°	1.9	3.7	5.6	7.5	7.5	8.4	8.4	8.4	8.4	8.4
132.5°	0.0	0.9	2.8	4.7	4.7	5.6	5.6	5.6	5.6	4.7
135°	0.0	0.0	0.0	0.9	1.9	1.9	2.8	1.9	1.9	1.9
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)