

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: P233274

Luminaire Tested: **4VRVT3-LD5-4-P-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233274
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 (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4VRVT3-LD5-4-P-UNV-L835-CD1-U
Description: 4FT VRVT3 GENERAL APPLICATION, 4000LM
Light Source: (392) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4032.0 lumens
Efficiency: N/A
Efficacy: 128.7 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

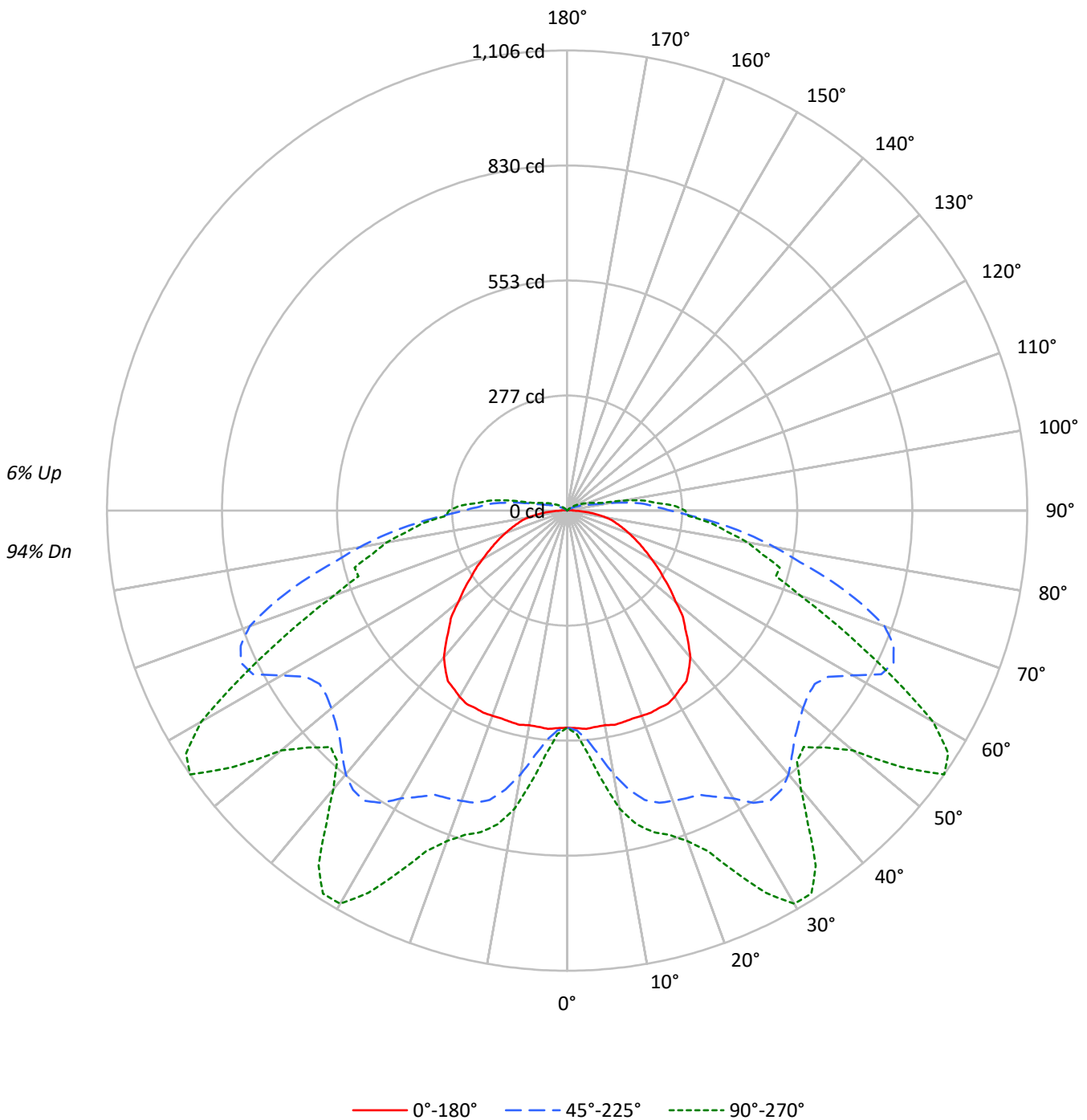
Input Watts (W): 31.32
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	103	96	90	85	99	93	88	83	88	83	79	82	79	75	78	75	72	69
2	91	81	72	65	88	78	70	64	74	67	61	69	64	59	65	60	56	54
3	82	69	59	52	79	67	58	51	63	55	49	59	53	47	56	50	45	43
4	74	60	50	42	71	58	49	41	55	47	40	52	44	39	49	42	37	35
5	68	53	43	35	65	51	42	35	48	40	34	46	38	33	43	37	32	29
6	62	47	37	30	60	46	36	29	43	35	29	41	33	28	39	32	27	25
7	57	42	33	26	55	41	32	25	39	31	25	37	30	24	35	28	23	21
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	32	25	21	18
9	49	35	26	20	48	34	25	20	32	25	19	31	24	19	29	23	18	16
10	46	32	23	18	44	31	23	18	30	22	17	28	22	17	27	21	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3370	3370	3370
5°	3403	3485	3685
10°	3410	3999	4456
15°	3477	4442	4831
20°	3553	4582	5069
25°	3658	4686	5763
30°	3763	5048	6610
35°	3832	5505	6418
40°	3753	5531	5516
45°	3522	5383	5245
50°	3256	5418	6096
55°	3019	5656	7926
60°	2838	6638	7749
65°	2716	7920	6456
70°	2662	8251	5351
75°	2702	7609	5293
80°	2843	6807	5009
85°	2585	5979	4624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	1.4
10°-20°	195.8	4.9
20°-30°	353.5	8.8
30°-40°	499.5	12.4
40°-50°	533.6	13.2
50°-60°	626.6	15.5
60°-70°	633.7	15.7
70°-80°	517.2	12.8
80°-90°	354.9	8.8
90°-100°	179.3	4.4
100°-110°	53.1	1.3
110°-120°	20.9	0.5
120°-130°	7.4	0.2
130°-140°	1.1	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°	604.8	15.0
0°-40°	1104.4	27.4
0°-60°	2264.5	56.2
0°-90°	3770.3	93.5
90°-120°	253.3	6.3
90°-150°	261.7	6.5
90°-180°	262.0	6.5
0°-180°	4032.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	527	533	552	578	588	50
15°	526	605	720	783	800	149
25°	523	637	753	893	960	242
35°	500	590	851	1032	1042	310
45°	402	527	773	818	804	311
55°	284	415	726	1001	1106	256
65°	194	352	865	853	785	193
75°	125	462	660	531	529	133
85°	52	396	369	349	348	51
90°	14	293	248	273	284	10
95°	10	148	186	215	214	8
105°	5	16	54	72	71	5
115°	2	2	22	38	38	2
125°	1	0	6	17	18	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8
2.5°	523.3	525.8	526.8	524.3	525.8	526.8	525.8	527.3	528.3	529.8	528.8
5°	526.8	526.3	528.8	526.3	529.3	533.3	535.3	540.8	543.3	549.8	552.3
7.5°	524.3	527.8	527.8	530.3	535.8	550.8	552.8	562.3	573.8	584.8	592.8
10°	523.8	527.8	534.8	541.8	551.3	563.8	572.3	589.8	611.3	627.3	643.3
12.5°	527.3	528.8	540.8	550.3	569.3	582.8	593.8	620.8	643.8	664.3	686.8
15°	525.8	529.8	543.3	559.8	586.8	604.8	616.3	649.3	677.3	697.3	719.9
17.5°	523.8	531.3	548.3	569.8	601.3	624.3	636.8	669.3	695.8	721.9	736.4
20°	524.8	533.3	552.8	582.3	613.3	635.3	648.3	681.8	707.8	729.9	742.4
22.5°	525.8	535.3	554.8	588.3	617.8	640.3	653.8	684.3	707.3	732.9	748.4
25°	523.3	533.8	557.3	584.8	620.8	636.8	650.8	680.3	704.8	734.4	753.4
27.5°	523.8	531.8	553.8	583.8	611.8	633.8	641.3	674.8	705.3	738.4	775.9
30°	516.8	526.3	550.3	571.3	598.8	619.3	630.8	667.8	707.8	751.4	798.9
32.5°	507.2	517.3	538.8	553.8	586.3	603.8	620.3	666.8	718.9	773.4	832.9
35°	500.2	503.2	513.8	530.3	566.8	589.8	610.8	666.8	727.9	787.9	850.9
37.5°	480.7	482.2	491.2	515.8	548.8	581.3	604.8	667.3	731.4	789.9	845.9
40°	460.7	461.2	470.7	495.2	532.8	568.8	594.8	660.8	721.4	775.4	827.9
42.5°	430.7	434.7	448.2	472.7	520.8	551.3	581.3	640.3	696.8	749.9	799.4
45°	401.7	407.2	418.2	447.2	496.7	527.3	556.8	614.3	666.3	723.9	773.4
47.5°	377.7	377.2	391.7	423.7	467.7	499.2	526.3	581.3	638.8	702.3	754.9
50°	340.2	348.2	363.7	395.7	437.2	471.7	495.7	550.3	612.3	675.8	739.9
52.5°	313.2	318.2	336.7	366.2	409.7	438.2	466.2	526.8	594.3	671.8	729.4
55°	284.1	290.6	309.7	339.2	387.7	415.2	443.7	511.2	589.8	666.3	726.4
57.5°	260.6	265.6	283.1	316.2	365.7	398.2	431.2	500.2	583.8	661.8	743.4
60°	235.6	240.6	263.1	296.1	348.7	382.7	414.2	491.2	581.8	680.3	791.9
62.5°	213.1	220.1	240.6	275.1	328.2	362.2	398.7	488.2	604.8	734.4	851.4
65°	193.6	201.1	223.6	258.1	310.2	352.2	396.2	514.3	650.8	777.9	865.4
67.5°	175.1	183.1	206.1	241.6	307.7	360.2	420.2	556.8	683.8	794.9	849.4
70°	157.1	167.1	191.6	241.1	333.7	402.2	463.2	586.3	700.8	778.9	811.9
72.5°	141.1	153.1	188.1	258.6	376.2	441.7	496.7	597.3	682.8	738.9	740.4
75°	125.1	143.6	195.1	288.6	403.7	462.2	512.8	587.8	650.3	677.3	660.3
77.5°	111.6	139.1	206.1	302.6	415.2	470.2	509.2	564.8	598.3	598.8	573.3
80°	94.5	129.1	203.1	302.6	409.2	460.2	493.7	523.8	532.8	525.8	507.2
82.5°	74.0	112.6	190.1	287.1	389.7	434.7	460.2	473.2	467.2	459.7	439.2
85°	51.5	90.5	168.1	266.6	358.2	395.7	416.7	416.7	401.2	379.2	368.7
87.5°	30.0	66.0	144.6	235.1	318.2	351.7	366.7	342.7	318.7	307.2	299.1
90°	14.5	44.0	116.6	207.1	274.1	293.1	293.6	262.1	245.6	247.6	248.1
92.5°	12.0	26.0	91.5	155.1	203.6	213.1	213.1	200.1	196.6	200.6	211.1
95°	10.0	11.0	48.0	103.1	139.1	148.1	153.1	156.1	165.6	177.1	186.1
97.5°	8.5	8.5	15.0	55.5	93.0	107.6	117.6	125.1	134.1	139.1	145.6
100°	7.0	7.0	8.0	18.5	52.0	65.5	73.0	78.0	86.0	94.5	104.1
102.5°	6.0	6.0	6.0	9.5	19.5	25.5	32.0	43.0	52.0	63.0	71.5
105°	5.0	5.0	5.0	6.0	12.0	15.5	20.5	29.5	37.5	47.0	54.0
107.5°	4.0	4.0	4.0	4.0	8.0	11.5	14.5	22.0	30.5	38.0	43.5
110°	3.0	3.0	3.0	3.5	5.0	7.5	10.0	16.5	23.0	29.5	35.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.5	2.5	2.5	2.5	3.0	4.0	6.5	12.0	17.0	22.5	27.5
115°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	7.5	12.0	16.0	21.5
117.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.0	8.5	12.5	16.0
120°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	5.0	9.0	12.5
122.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	2.0	5.5	9.0
125°	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.5	5.5
127.5°	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.0
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8
2.5°	529.3	530.8	531.8	536.8	533.8	539.3	534.3	533.8	536.3	537.8
5°	559.3	566.8	572.8	579.8	577.8	581.3	580.8	580.8	591.8	588.3
7.5°	608.3	615.8	626.8	637.8	635.3	648.3	649.8	651.8	651.3	656.8
10°	658.8	673.3	684.3	702.3	700.8	708.3	718.4	715.3	723.4	727.4
12.5°	704.3	720.9	738.4	754.9	753.9	758.4	762.9	765.9	770.4	772.4
15°	738.4	754.4	769.4	784.4	782.9	788.9	791.4	793.9	799.9	799.9
17.5°	759.4	769.9	783.9	800.4	806.4	809.4	806.4	814.9	820.9	817.4
20°	763.9	779.4	801.4	810.4	820.4	825.9	828.9	839.4	838.9	844.9
22.5°	772.9	793.9	814.4	842.4	844.9	858.4	867.4	878.4	884.9	886.4
25°	787.9	821.4	851.4	882.4	893.4	909.9	929.0	942.5	953.5	959.5
27.5°	818.9	860.4	905.9	944.0	950.5	970.5	998.0	1018.0	1028.5	1036.0
30°	858.4	907.4	954.5	994.5	1013.0	1030.0	1055.5	1065.5	1082.5	1091.0
32.5°	886.9	936.0	986.0	1024.0	1041.5	1057.0	1071.5	1080.5	1084.0	1092.0
35°	900.4	947.0	998.5	1020.0	1032.5	1037.5	1044.0	1042.5	1043.0	1042.0
37.5°	893.4	936.5	968.0	985.5	988.0	987.0	979.5	962.5	950.0	951.0
40°	874.9	910.9	931.0	930.5	924.5	915.4	898.4	876.9	868.9	873.9
42.5°	851.9	875.4	878.4	871.9	857.4	855.9	831.9	824.9	816.9	817.4
45°	822.9	836.4	840.9	826.9	818.4	816.9	805.9	801.9	803.4	803.9
47.5°	796.4	810.9	813.4	809.9	807.9	810.9	814.9	824.9	825.9	842.4
50°	779.9	795.4	812.4	825.4	830.4	846.9	869.4	879.9	892.4	895.9
52.5°	776.4	802.9	843.9	876.4	900.4	922.5	949.5	988.0	1000.5	1012.5
55°	786.4	842.9	908.4	961.5	1001.0	1027.5	1064.5	1082.5	1095.5	1106.0
57.5°	832.9	921.5	1001.0	1038.5	1050.5	1064.0	1071.0	1076.0	1080.0	1086.0
60°	907.9	972.0	1014.5	1033.0	1037.5	1040.0	1035.5	1027.0	1019.0	1015.5
62.5°	931.0	968.5	985.5	977.5	969.5	963.0	925.0	908.9	893.4	897.9
65°	916.4	923.5	903.9	876.4	852.9	847.9	813.9	800.4	780.4	784.9
67.5°	859.4	836.4	808.9	772.4	760.9	743.9	714.8	702.3	692.3	685.3
70°	802.4	757.4	720.9	680.8	668.3	655.3	619.3	602.3	597.3	594.8
72.5°	708.3	664.8	622.8	588.8	579.3	563.3	547.3	531.8	525.8	526.3
75°	612.8	572.8	545.8	530.3	531.3	529.3	526.3	522.8	524.8	528.8
77.5°	541.3	519.3	516.3	518.8	516.3	512.3	493.2	485.7	476.7	478.2
80°	490.2	479.2	461.2	452.2	455.7	451.7	447.7	437.7	441.7	440.2
82.5°	425.2	416.7	409.2	402.2	402.7	399.2	388.2	385.2	379.7	387.7
85°	364.2	352.2	350.2	347.7	349.2	347.7	347.2	343.2	344.2	347.7
87.5°	302.1	301.1	300.6	298.1	296.6	295.6	294.1	292.6	292.6	292.1
90°	250.6	254.1	263.1	267.6	272.6	275.6	281.6	282.1	284.1	283.6
92.5°	222.1	232.6	247.1	255.6	258.6	259.1	263.1	261.1	260.1	259.6
95°	195.6	200.1	206.1	210.1	214.6	215.1	215.6	213.1	213.6	214.1
97.5°	152.6	159.1	166.6	175.1	179.1	178.6	183.6	183.1	183.1	185.6
100°	112.6	121.1	126.6	136.1	134.1	132.1	135.6	133.6	142.1	139.1
102.5°	78.5	81.5	86.5	87.5	88.0	87.0	88.0	86.0	86.0	85.0
105°	60.0	64.5	69.0	72.0	72.5	72.5	73.0	71.5	71.5	71.0
107.5°	49.5	54.0	57.5	59.5	62.0	61.5	62.5	62.0	62.5	61.5
110°	40.0	44.5	48.5	50.5	52.5	52.5	53.0	53.0	52.5	52.5



TEST NUMBER: P233274

CATALOG NUMBER: 4VRVT3-LD5-4-P-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	32.5	36.5	39.5	42.5	44.0	44.5	44.5	45.0	45.0	45.0
115°	25.5	29.5	33.5	36.0	37.5	38.0	38.5	38.0	37.5	37.5
117.5°	20.0	23.5	27.0	30.0	31.5	32.0	33.0	32.5	32.5	32.0
120°	16.0	19.0	22.5	25.0	26.0	27.0	28.0	27.5	27.0	27.5
122.5°	12.5	15.0	18.0	20.5	21.5	22.0	22.5	22.0	22.5	22.0
125°	9.0	11.5	14.0	16.0	17.0	18.0	18.5	18.0	18.0	18.0
127.5°	5.0	7.5	10.0	12.0	13.0	13.5	14.5	14.0	13.5	13.5
130°	1.5	4.5	7.0	8.5	9.5	10.5	10.5	10.5	10.0	9.5
132.5°	0.0	1.0	3.5	5.5	6.5	7.0	7.0	7.0	6.5	6.5
135°	0.0	0.0	0.5	2.0	3.0	3.5	4.0	3.5	3.5	3.0
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)