

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: P237828

Luminaire Tested: **4VRVT2-LD5-4-DR100-W-UNV-L840-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4VRVT2-LD5-4-DR100-W-UNV-L840-CD1-WL-U
Description: METALUX VRVT2 LED LUMINAIRE
INTERNAL PRISMATIC LENS/100% DR HIGH IMPACT ADDITIVE WIDE DISTRIBUTION
4FT FIXTURE
Light Source: (112) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3973.0 lumens
Efficiency: N/A
Efficacy: 132.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.58 / 1.57
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')
CIE Type: Semi-Direct

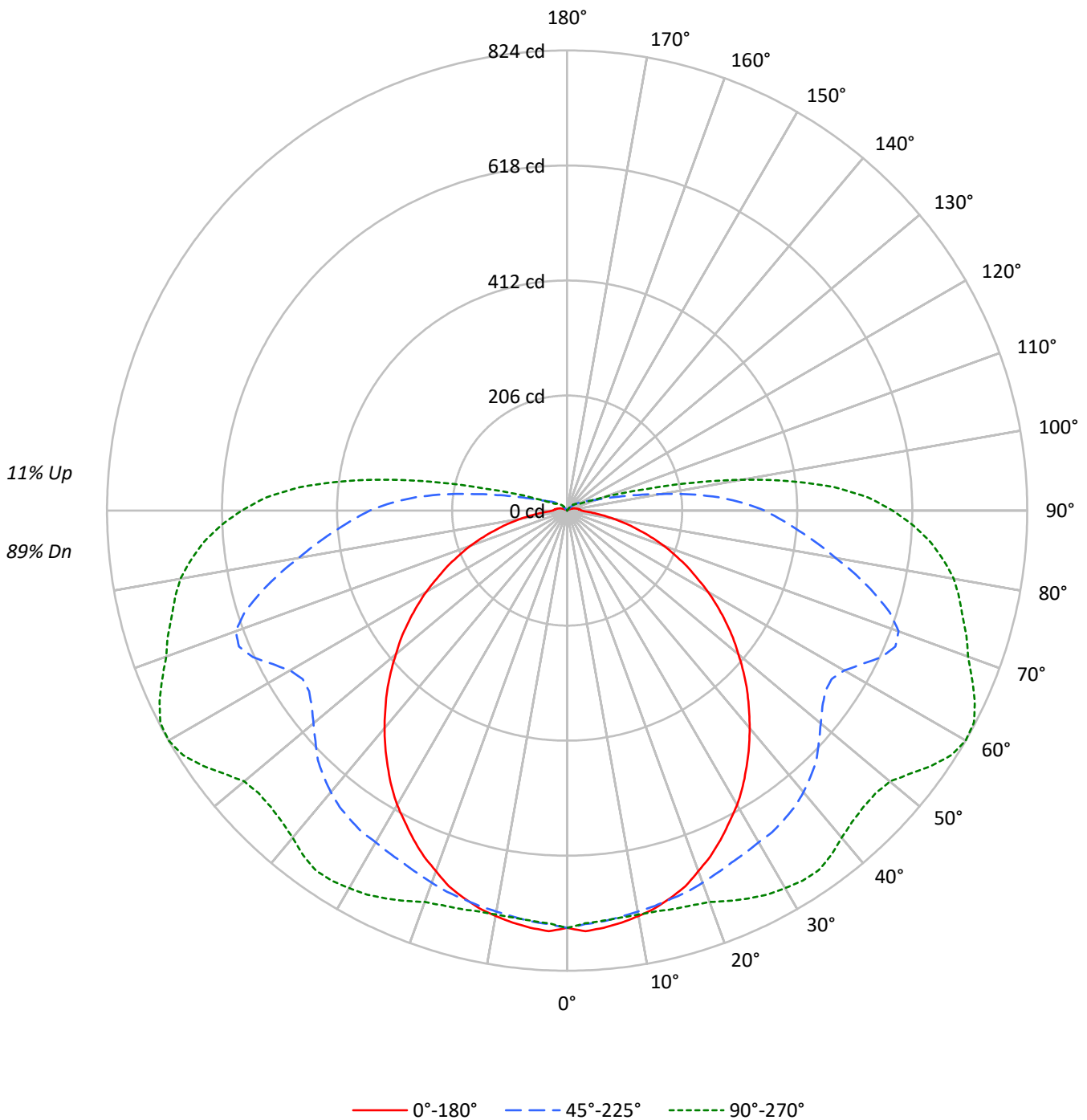
Input Watts (W): 29.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89								
1	101	94	88	82	97	91	85	80	84	80	75	78	74	71	73	70	67	64								
2	90	79	70	63	86	76	68	61	71	64	58	66	60	55	61	56	52	49								
3	81	68	58	50	77	65	56	49	61	53	47	56	50	44	52	47	42	39								
4	73	59	49	41	70	57	48	40	53	45	38	49	42	37	46	40	35	32								
5	67	52	42	35	64	50	41	34	47	39	32	44	37	31	41	35	30	27								
6	62	47	37	30	59	45	36	29	42	34	28	39	32	27	37	30	26	23								
7	57	42	32	26	54	41	32	25	38	30	24	36	29	23	33	27	22	20								
8	53	38	29	23	51	37	28	22	35	27	21	32	26	21	30	24	20	18								
9	49	35	26	20	47	34	25	20	32	24	19	30	23	18	28	22	18	16								
10	46	32	24	18	44	31	23	18	29	22	17	28	21	17	26	20	16	14								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3861	3861	3861
5°	3876	3744	3715
10°	3841	3655	3640
15°	3799	3596	3626
20°	3723	3557	3657
25°	3639	3531	3782
30°	3550	3550	3905
35°	3436	3600	4019
40°	3319	3635	4030
45°	3202	3651	4113
50°	3071	3625	4340
55°	2950	3690	4861
60°	2816	4061	5398
65°	2664	4847	5741
70°	2511	5530	6023
75°	2263	5719	6522
80°	2025	5813	7238
85°	1847	6153	8055



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	1.8
10°-20°	205.2	5.2
20°-30°	325.4	8.2
30°-40°	421.8	10.6
40°-50°	475.9	12.0
50°-60°	515.5	13.0
60°-70°	554.5	14.0
70°-80°	527.9	13.3
80°-90°	432.8	10.9
90°-100°	286.5	7.2
100°-110°	103.1	2.6
110°-120°	31.3	0.8
120°-130°	15.2	0.4
130°-140°	6.4	0.2
140°-150°	1.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	601.2	15.1
0°-40°	1023.0	25.7
0°-60°	2014.3	50.7
0°-90°	3529.5	88.8
90°-120°	420.9	10.6
90°-150°	443.5	11.2
90°-180°	443.0	11.2
0°-180°	3973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	747	747	747	747	747	
5°	750	746	738	740	737	71
15°	718	716	720	734	738	202
25°	650	660	696	751	767	299
35°	560	591	676	758	786	350
45°	456	510	632	716	750	351
55°	346	421	564	735	797	310
65°	237	330	621	783	805	234
75°	130	313	569	686	733	140
85°	45	227	417	591	654	45
90°	25	172	354	523	583	15
95°	22	123	272	422	480	17
105°	15	45	96	133	151	16
115°	7	20	40	38	35	8
125°	3	7	23	24	21	3
135°	1	0	9	14	14	1
145°	1	0	0	3	3	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°	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2
2.5°	753.9	752.5	750.5	749.9	749.9	749.9	749.9	748.5	746.5	743.8	741.2
5°	749.9	748.5	746.5	746.5	745.8	746.5	746.5	745.2	743.8	741.2	738.5
7.5°	744.5	743.8	741.2	739.8	739.8	739.8	741.2	739.8	739.2	736.5	733.8
10°	737.2	735.8	734.5	734.5	735.1	735.1	735.1	735.8	734.5	731.1	729.1
12.5°	729.1	727.1	725.8	725.8	726.5	726.5	727.1	727.1	727.1	725.1	725.1
15°	717.8	717.1	714.4	715.1	715.1	716.4	717.1	717.8	717.1	719.1	719.8
17.5°	705.1	704.4	701.7	701.7	703.1	703.7	705.7	708.4	709.8	712.4	715.8
20°	687.0	687.0	685.7	687.0	689.7	691.0	692.4	697.1	699.7	705.1	709.1
22.5°	670.3	669.0	669.0	670.3	673.0	676.3	679.0	685.7	690.4	697.1	702.4
25°	650.3	649.6	648.9	652.3	656.3	659.6	664.3	672.3	679.0	687.0	695.7
27.5°	628.9	628.2	629.6	632.2	639.6	644.3	648.3	659.0	667.0	679.7	691.0
30°	608.8	606.8	608.2	612.2	621.5	628.2	632.2	644.3	655.6	670.3	685.7
32.5°	585.4	583.4	586.1	592.1	602.8	609.5	616.9	629.6	642.9	661.0	683.0
35°	560.0	560.7	562.1	571.4	582.8	590.8	598.1	614.9	631.6	653.6	676.3
37.5°	534.7	533.3	538.7	549.4	562.7	572.7	580.1	597.5	620.9	644.9	669.0
40°	508.6	509.9	513.9	526.0	540.0	552.7	560.7	583.4	608.8	633.6	658.3
42.5°	481.9	485.2	489.2	503.2	520.6	530.6	542.7	567.4	594.1	620.2	645.6
45°	455.8	458.5	464.5	479.9	496.6	509.9	523.3	549.4	578.8	606.2	631.6
47.5°	428.4	431.1	439.1	455.1	473.8	488.5	502.6	530.6	560.7	588.8	611.5
50°	400.3	404.3	412.4	428.4	453.1	466.5	480.5	511.3	539.3	566.7	592.8
52.5°	374.3	376.3	389.0	404.3	429.7	445.1	458.5	489.9	516.6	547.4	576.1
55°	346.2	350.2	361.6	376.9	405.0	421.0	436.4	466.5	496.6	528.6	564.1
57.5°	318.8	322.1	334.2	351.5	381.6	397.0	411.7	444.4	475.2	515.3	561.4
60°	291.4	295.4	307.4	327.5	357.5	373.6	389.0	423.7	463.8	513.3	572.7
62.5°	262.6	269.3	278.0	302.7	333.5	349.5	368.2	408.3	461.1	524.0	594.8
65°	236.6	239.9	253.3	278.7	311.4	330.1	351.5	403.0	469.8	546.7	620.9
67.5°	209.2	213.9	228.6	256.6	293.4	315.4	342.2	408.3	489.9	571.4	636.2
70°	184.5	187.8	205.8	236.6	280.7	309.4	342.2	421.7	509.3	580.8	631.6
72.5°	157.1	162.4	184.5	221.9	275.3	310.1	348.9	435.7	513.3	568.1	605.5
75°	130.3	138.3	167.1	209.9	274.0	313.4	354.9	433.7	494.6	536.0	568.7
77.5°	108.3	118.3	150.4	201.8	271.3	310.1	348.2	410.3	459.1	498.6	529.3
80°	83.5	98.9	136.3	191.8	259.3	292.7	323.5	376.9	416.4	454.5	487.9
82.5°	63.5	80.9	121.6	176.4	234.6	262.6	286.7	334.2	375.6	411.7	452.4
85°	45.4	64.2	104.9	153.7	202.5	227.2	249.3	294.1	334.8	375.6	417.0
87.5°	31.4	50.1	88.9	131.7	175.1	195.1	216.5	259.3	299.4	338.8	384.3
90°	25.4	40.8	74.2	112.9	150.4	172.4	191.1	229.9	270.0	311.4	353.5
92.5°	24.1	34.1	62.2	95.6	130.3	148.4	165.7	201.2	238.6	277.4	314.8
95°	22.1	27.4	48.8	77.5	106.9	123.0	137.0	170.4	201.8	235.9	272.0
97.5°	20.7	22.1	37.4	60.1	84.9	98.2	109.6	135.7	163.7	189.8	222.5
100°	18.7	19.4	28.7	46.8	64.8	76.2	85.5	106.9	127.0	147.7	169.8
102.5°	16.7	16.7	22.1	34.8	50.8	58.1	66.2	83.5	98.2	111.6	128.3
105°	14.7	14.7	17.4	26.7	38.1	45.4	50.8	63.5	74.9	84.9	95.6
107.5°	13.4	12.7	14.0	20.7	30.1	35.4	40.8	50.1	58.8	65.5	72.8
110°	10.7	10.7	11.4	16.7	24.7	28.7	33.4	40.8	48.1	52.8	56.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	9.4	8.7	8.7	13.4	20.0	24.1	27.4	34.8	40.8	44.8	46.8
115°	7.4	7.4	6.7	10.0	16.0	20.0	22.7	29.4	34.8	38.1	40.1
117.5°	6.0	6.0	6.0	7.4	13.4	16.0	19.4	25.4	30.1	33.4	35.4
120°	4.7	4.7	4.7	4.7	10.0	12.7	16.0	21.4	26.1	29.4	31.4
122.5°	4.0	3.3	3.3	3.3	6.7	10.0	12.0	17.4	22.1	25.4	28.1
125°	2.7	2.7	2.7	2.0	4.7	6.7	9.4	14.0	18.0	21.4	23.4
127.5°	2.0	2.0	2.0	2.0	2.0	4.0	6.0	10.7	14.7	18.0	20.0
130°	2.0	2.0	1.3	1.3	0.7	2.0	3.3	7.4	10.7	14.0	16.7
132.5°	1.3	1.3	1.3	0.7	0.7	0.7	1.3	4.7	8.0	10.7	12.7
135°	1.3	1.3	0.7	0.7	0.0	0.0	0.0	2.7	5.3	7.4	9.4
137.5°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.7	2.7	4.7	6.7
140°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.7	2.0	4.0
142.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3
145°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.7	0.7	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°	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2	747.2
2.5°	741.2	742.5	742.5	742.5	742.5	742.5	741.2	740.5	739.8	739.8
5°	737.8	739.2	739.8	739.8	739.8	739.8	739.2	738.5	737.8	737.2
7.5°	733.8	735.8	737.2	737.8	737.8	737.8	737.2	737.2	735.8	735.1
10°	729.8	731.8	733.8	735.1	735.8	735.8	735.8	735.8	735.1	734.5
12.5°	727.1	730.5	733.1	734.5	734.5	735.1	736.5	736.5	735.8	735.1
15°	723.8	729.1	732.5	734.5	734.5	735.8	738.5	738.5	737.8	738.5
17.5°	721.1	726.5	731.8	735.1	736.5	738.5	740.5	741.2	741.8	741.2
20°	715.8	724.5	731.8	735.8	738.5	739.2	743.8	747.2	747.2	745.8
22.5°	713.8	723.8	732.5	741.2	742.5	745.2	751.2	754.5	756.5	756.5
25°	709.8	723.1	735.8	746.5	751.2	754.5	760.5	765.9	764.6	766.6
27.5°	707.7	723.8	736.5	749.9	756.5	759.9	768.6	771.9	773.9	775.2
30°	706.4	724.5	738.5	753.2	758.5	765.2	773.2	778.6	781.3	780.6
32.5°	704.4	722.4	740.5	753.2	761.2	766.6	774.6	780.6	784.6	785.3
35°	699.7	720.4	737.2	752.5	758.5	765.2	774.6	777.9	784.6	785.9
37.5°	693.7	713.8	729.8	746.5	752.5	757.9	769.2	772.6	775.2	777.3
40°	684.4	703.1	720.4	736.5	741.8	747.8	755.9	761.2	765.2	764.6
42.5°	672.3	689.7	706.4	723.8	727.8	734.5	744.5	750.5	754.5	755.9
45°	652.9	673.0	692.4	707.7	715.8	723.1	734.5	741.2	745.8	750.5
47.5°	634.2	659.0	681.0	698.4	707.7	715.1	729.1	739.2	746.5	749.2
50°	619.5	644.9	670.3	696.4	706.4	715.8	731.8	742.5	750.5	754.5
52.5°	607.5	638.2	670.3	702.4	716.4	727.8	746.5	759.9	770.6	773.9
55°	602.8	641.6	682.4	719.1	735.1	749.9	771.2	783.9	794.6	796.6
57.5°	610.8	663.0	707.7	745.8	761.9	773.9	794.6	805.3	814.0	815.3
60°	632.9	687.7	734.5	767.2	783.9	794.6	810.0	818.0	824.0	824.0
62.5°	660.3	709.8	750.5	777.9	789.9	798.0	807.3	816.7	818.7	821.4
65°	681.0	723.8	751.9	771.9	782.6	785.9	796.0	800.0	805.3	805.3
67.5°	682.4	716.4	736.5	752.5	758.5	763.2	775.2	779.9	783.9	784.6
70°	664.3	687.7	710.4	724.5	731.1	740.5	751.9	759.2	763.2	763.9
72.5°	635.6	657.0	679.7	701.1	710.4	718.4	733.1	743.2	747.2	749.9
75°	600.8	624.2	651.6	677.0	686.4	694.4	715.1	724.5	732.5	733.1
77.5°	563.4	591.5	623.5	650.9	663.0	677.0	693.7	707.7	713.8	719.1
80°	526.0	562.1	594.8	626.9	638.2	654.3	674.3	690.4	697.1	703.1
82.5°	490.5	531.3	571.4	604.2	616.9	630.9	651.6	669.7	675.7	679.7
85°	459.8	501.9	541.3	574.8	590.8	602.8	626.2	641.6	650.3	653.6
87.5°	427.1	469.8	508.6	544.7	558.0	570.1	594.1	610.8	618.9	620.9
90°	395.0	439.1	475.2	506.6	522.6	537.3	559.4	574.8	582.8	582.8
92.5°	354.2	396.3	434.4	463.1	478.5	490.5	514.6	526.0	539.3	539.3
95°	307.4	344.2	379.6	409.0	421.7	434.4	454.5	469.8	477.2	480.5
97.5°	254.6	282.7	314.8	338.8	356.2	360.2	382.3	397.6	405.7	403.0
100°	191.8	213.9	239.3	259.3	272.7	280.0	295.4	304.1	316.1	317.4
102.5°	143.0	159.1	173.8	185.1	195.8	199.2	209.9	218.5	223.9	229.9
105°	104.9	114.3	123.0	131.0	133.0	139.0	147.7	153.7	150.4	151.0
107.5°	78.2	82.9	87.5	90.2	93.6	97.6	99.6	99.6	102.9	104.3
110°	59.5	62.2	64.2	64.8	66.2	66.2	66.2	66.2	66.8	68.2



TEST NUMBER: P237828

CATALOG NUMBER: 4VRVT2-LD5-4-DR100-W-UNV-L840-CD1-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	47.5	48.8	48.8	48.8	48.1	48.1	47.5	46.8	45.4	46.8
115°	40.8	40.8	39.4	38.8	38.1	37.4	36.1	34.8	34.1	35.4
117.5°	36.1	35.4	34.8	32.7	32.1	31.4	30.1	29.4	28.1	27.4
120°	32.1	32.1	30.7	30.1	29.4	28.1	26.7	26.1	24.7	24.1
122.5°	28.7	28.7	28.1	27.4	26.7	26.1	24.7	24.1	22.7	22.7
125°	24.7	25.4	25.4	24.7	24.1	24.1	22.7	22.1	21.4	21.4
127.5°	21.4	22.1	22.7	22.7	22.1	22.1	21.4	20.7	20.0	19.4
130°	18.0	19.4	19.4	20.0	20.0	19.4	19.4	18.7	18.0	18.0
132.5°	14.7	16.0	16.7	16.7	17.4	17.4	17.4	16.7	16.7	16.0
135°	11.4	12.7	13.4	14.0	14.0	14.7	14.7	14.0	14.0	14.0
137.5°	8.7	9.4	10.7	11.4	11.4	11.4	11.4	11.4	11.4	11.4
140°	5.3	6.7	8.0	8.0	8.7	8.7	8.7	8.7	8.7	8.7
142.5°	2.7	4.0	4.7	5.3	5.3	6.0	6.0	6.0	6.0	6.0
145°	0.7	1.3	2.0	2.7	3.3	3.3	3.3	3.3	3.3	3.3
147.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7
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)