



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  
Eaton Lighting Division  
(formerly Cooper Lighting)

Brand: io LED

Report Number: P397184

Luminaire Tested: **2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Eaton or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P397184  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-4)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: EATON (FORMERLY COOPER LIGHTING)  
Product Line: io LED  
Catalog Number: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: 

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
a	good	reflector
b	good	lens
c	good	housing
d	good	cord

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 765.3 lumens  
Efficiency: N/A  
Efficacy: 22.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 2.08' x H: 0.17')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B0 - U2 - G1  
  
Input Watts (W): 33.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

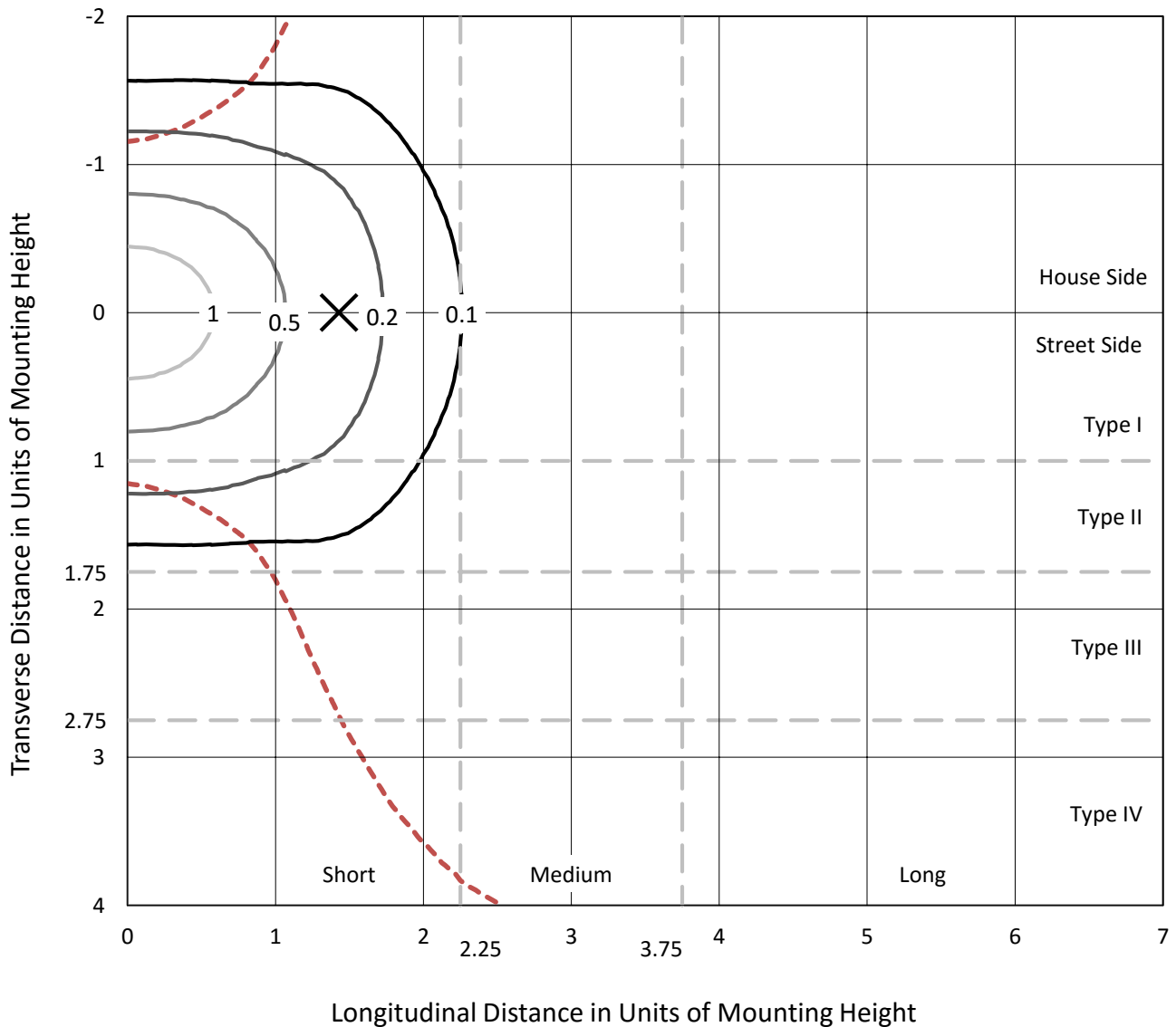


REPORT NUMBER: P397184

CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd



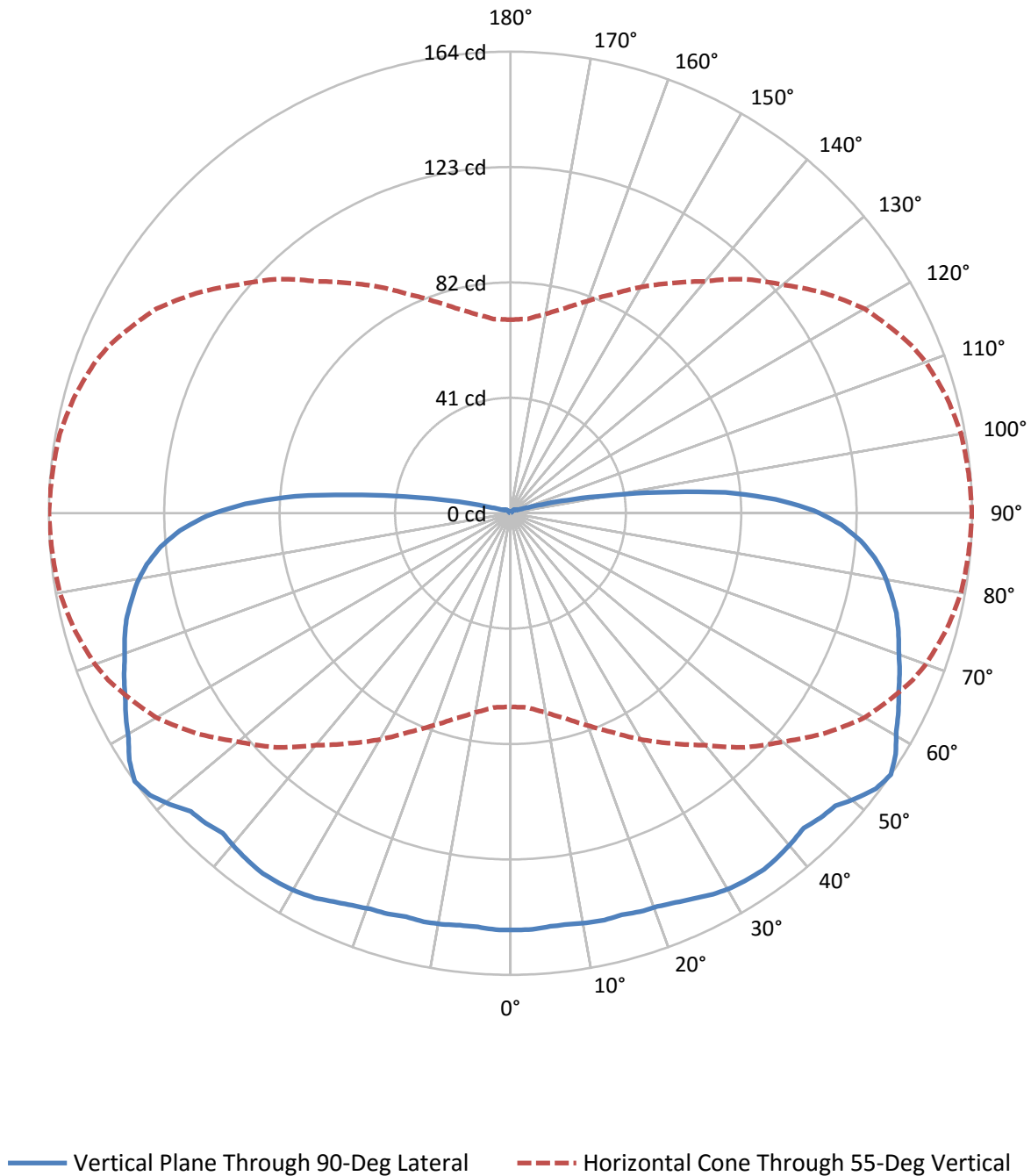
Based on 10 foot mounting height. Maximum calculated value = 1.5 fc  
 Type V - Short - Non-Cutoff



REPORT NUMBER: P397184

CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

### Luminous Intensity Polar Plot





REPORT NUMBER: P397184

CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

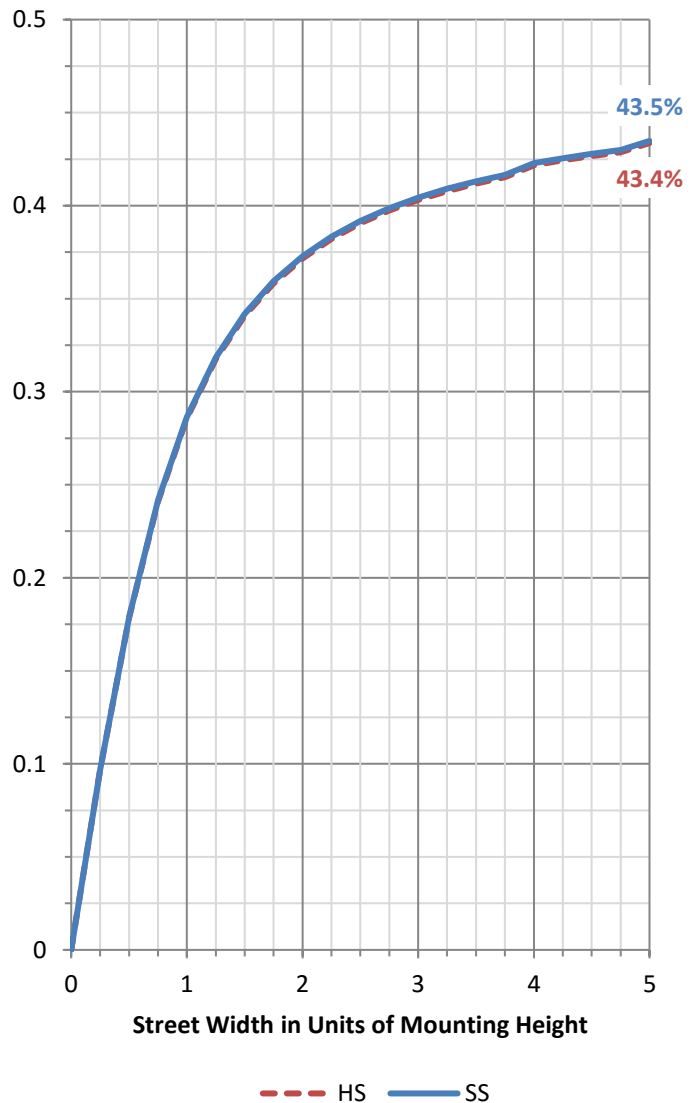
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	350.3	32.4	382.6
	% Fixture	45.8	4.2	50.0
<b>Street Side</b>	Lumens	350.3	32.4	382.6
	% Fixture	45.8	4.2	50.0
<b>Total</b>	Lumens	700.5	64.8	765.3
	% Fixture	91.5	8.5	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	14.2	1.8
10°-20°	41.3	5.4
20°-30°	65.3	8.5
30°-40°	84.3	11.0
40°-50°	96.2	12.6
50°-60°	105.6	13.8
60°-70°	108.7	14.2
70°-80°	102.2	13.3
80°-90°	82.8	10.8
90°-100°	46.7	6.1
100°-110°	11.5	1.5
110°-120°	3.8	0.5
120°-130°	1.9	0.3
130°-140°	0.7	0.1
140°-150°	0.1	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	700.5	91.5
0°-180°	765.3	100.0





REPORT NUMBER: P397184

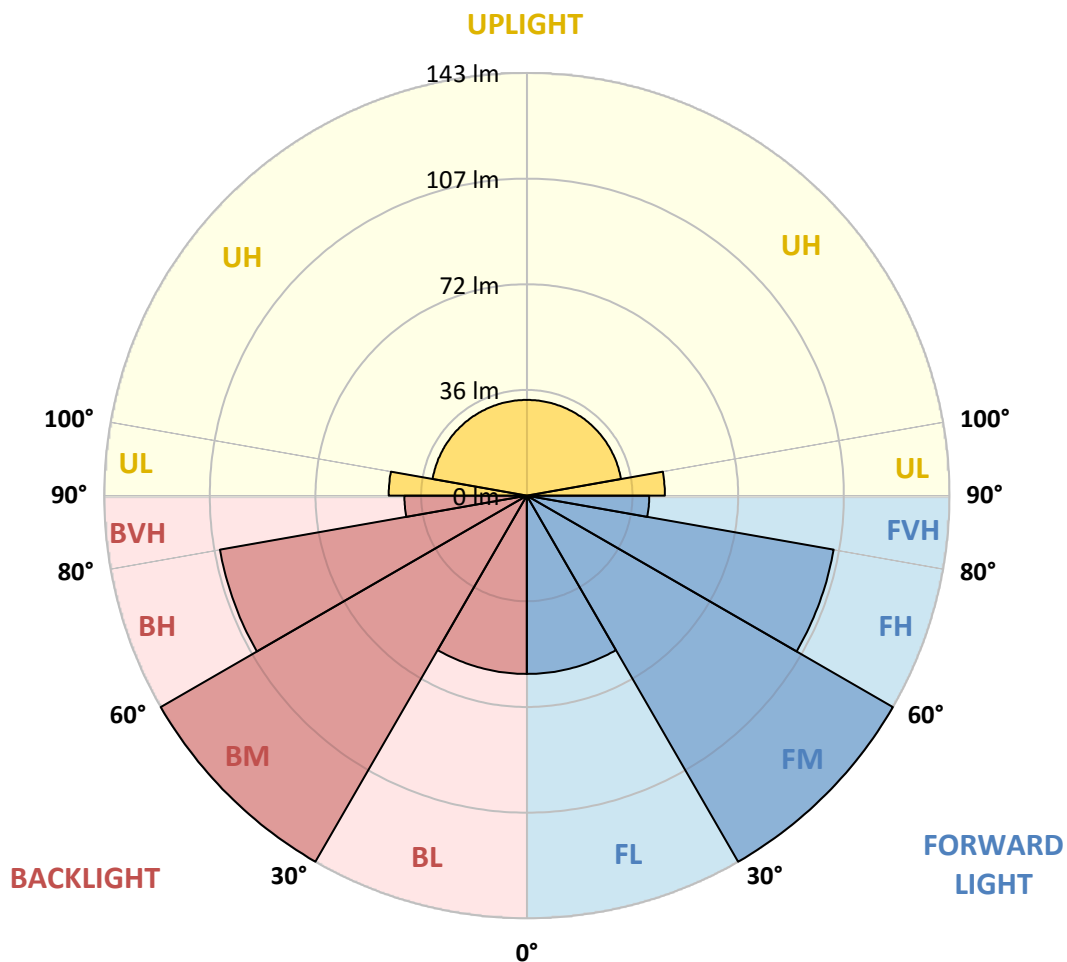
CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	60.3	7.9			
FM (30°-60°)	143.1	18.7			
FH (60°-80°)	105.5	13.8			G0/660
FVH (80°-90°)	41.4	5.4			G1/100
BL (0°-30°)	60.3	7.9	B0/110		
BM (30°-60°)	143.1	18.7	B0/220		
BH (60°-80°)	105.5	13.8	B0/110		G0/660
BVH (80°-90°)	41.4	5.4			G1/100
UL (90°-100°)	46.7	6.1		U2/50	
UH (100°-180°)	32.4	4.2		U2/50	

**BUG Rating: B0-U2-G1**

Type V Short





REPORT NUMBER: P397184

CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4
2.5°	149.2	149.2	149.0	149.2	149.2	149.0	149.2	149.2	149.2	149.2	149.2
5°	148.4	148.7	148.7	148.7	148.7	149.0	149.0	149.0	149.0	149.0	149.0
7.5°	147.3	147.6	147.8	147.8	148.1	148.1	148.1	148.1	148.4	148.7	148.7
10°	146.4	146.4	146.7	147.0	146.7	147.0	147.3	147.3	147.6	147.8	148.1
12.5°	144.8	144.8	145.0	145.3	145.3	145.3	145.6	145.9	146.2	146.4	146.7
15°	142.8	142.8	143.1	143.1	143.4	143.4	143.4	143.9	144.5	145.3	145.9
17.5°	140.6	140.3	140.6	140.8	141.1	141.4	141.4	142.2	143.6	144.5	145.0
20°	136.9	137.5	137.8	138.3	138.6	138.6	139.2	140.6	141.7	142.5	143.9
22.5°	133.8	134.1	134.1	135.0	135.8	135.8	136.4	137.8	139.4	140.8	142.8
25°	130.2	130.2	130.8	131.3	132.4	133.0	133.6	135.5	137.2	139.4	141.7
27.5°	125.7	126.3	126.8	127.4	129.1	129.9	131.0	133.0	135.2	137.8	140.0
30°	122.1	122.1	122.6	123.5	125.4	126.6	127.7	130.2	132.7	135.5	138.3
32.5°	117.0	117.3	118.2	119.3	121.5	122.9	124.0	127.1	129.9	133.0	136.9
35°	112.3	112.6	113.7	115.1	117.6	118.7	120.4	123.8	127.1	131.0	135.5
37.5°	107.2	107.5	108.4	110.6	113.4	114.8	116.5	119.8	124.0	128.8	133.6
40°	101.6	102.5	103.3	106.1	108.6	110.6	112.3	116.5	121.2	126.6	131.3
42.5°	96.3	96.9	98.3	101.1	103.9	106.4	108.1	112.6	118.2	123.5	128.5
45°	90.7	91.3	93.2	96.0	99.7	101.6	103.9	108.9	115.1	120.4	126.0
47.5°	85.4	86.2	87.9	91.0	94.6	97.2	99.7	105.3	111.2	117.0	122.9
50°	79.8	80.6	82.6	86.0	89.6	92.4	95.2	101.4	107.5	113.7	119.8
52.5°	74.2	75.0	77.3	80.6	84.8	87.9	90.7	97.2	103.9	110.3	117.9
55°	68.9	69.4	72.0	75.6	80.4	83.2	86.0	93.0	100.0	107.8	117.9
57.5°	63.6	63.6	66.6	70.6	75.6	78.4	81.8	88.8	97.2	107.5	118.2
60°	57.7	58.5	61.3	65.2	71.1	74.2	77.6	85.4	96.0	108.1	121.8
62.5°	52.4	53.2	56.0	60.2	66.6	70.3	74.2	84.0	96.6	111.2	124.9
65°	47.0	47.9	50.7	56.0	63.0	66.9	72.0	84.3	99.4	114.8	126.8
67.5°	41.7	42.8	46.5	51.8	60.2	65.2	71.1	86.2	102.8	116.2	125.2
70°	37.0	38.1	42.3	48.7	58.2	64.7	72.0	88.8	103.6	114.0	121.0
72.5°	32.5	33.9	38.6	46.2	57.7	65.2	73.4	89.3	101.4	108.9	114.0
75°	28.0	29.7	35.6	44.8	58.0	66.1	73.6	86.8	96.0	101.4	105.8
77.5°	23.8	25.8	33.0	43.4	57.7	64.7	70.8	80.9	87.4	92.7	98.3
80°	19.3	22.4	30.5	42.0	54.6	59.9	64.4	72.0	78.7	84.0	90.7
82.5°	15.4	19.0	27.7	38.6	48.7	53.2	56.8	63.8	70.0	76.7	84.0
85°	11.5	15.7	24.4	33.6	42.0	45.6	49.3	55.7	62.2	69.7	78.1
87.5°	8.7	12.6	20.4	28.3	35.8	38.9	42.3	49.0	55.4	63.0	71.7
90°	7.0	10.4	16.8	23.8	30.2	33.3	36.4	42.3	49.3	56.0	64.4
92.5°	6.7	8.7	14.0	19.6	25.2	28.0	30.5	35.8	42.0	48.2	55.2
95°	6.4	7.3	10.9	15.4	19.9	22.1	24.1	28.3	33.0	37.8	43.4
97.5°	6.2	6.4	8.7	11.8	15.1	16.8	18.5	21.6	24.6	28.0	31.4
100°	5.9	5.9	7.0	9.2	11.5	12.6	13.4	16.0	17.9	19.9	22.1
102.5°	5.3	5.3	5.9	7.0	8.7	9.5	10.1	11.5	12.9	14.3	15.4
105°	5.0	4.8	5.0	5.9	6.7	7.3	7.8	8.7	9.2	10.1	10.6
107.5°	4.5	4.5	4.5	5.0	5.6	5.9	6.2	6.7	7.3	7.6	7.8
110°	3.9	3.9	3.6	4.2	4.8	5.0	5.3	5.6	5.9	6.2	6.2



REPORT NUMBER: P397184

CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	3.4	3.4	3.4	3.4	3.9	4.2	4.5	4.8	5.3	5.3	5.3
115°	2.8	2.8	2.8	2.8	3.4	3.6	3.9	4.2	4.5	4.8	4.8
117.5°	2.2	2.2	2.2	2.2	2.8	2.8	3.1	3.6	3.9	4.2	4.2
120°	2.0	2.0	2.0	1.7	2.2	2.5	2.5	3.1	3.4	3.6	3.9
122.5°	1.7	1.4	1.4	1.4	1.7	1.7	2.0	2.5	2.8	3.1	3.4
125°	1.4	1.1	1.1	1.1	1.1	1.4	1.7	2.0	2.5	2.8	2.8
127.5°	1.1	0.8	0.8	0.8	0.8	0.8	1.1	1.4	2.0	2.2	2.2
130°	0.8	0.8	0.8	0.6	0.6	0.6	0.6	1.1	1.4	1.7	2.0
132.5°	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.6	0.8	1.1	1.4
135°	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.6	0.8	1.1
137.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.6	0.6
140°	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3
142.5°	0.3	0.3	0.3	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





REPORT NUMBER: P397184

CATALOG NUMBER: 2VRVT2-LD5-3-DR-W-UNV-LA59-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4	148.4
2.5°	149.2	149.2	149.0	149.0	149.0	148.7	148.7	148.4	148.4	148.4
5°	149.0	149.0	148.7	148.7	148.4	148.4	148.1	148.1	148.1	147.8
7.5°	148.4	148.4	148.4	148.1	148.1	148.1	147.8	147.8	147.8	147.8
10°	147.8	147.8	147.8	148.1	148.1	148.1	148.1	148.4	148.4	148.4
12.5°	147.0	147.3	147.8	147.8	148.1	148.1	148.1	148.4	148.7	148.7
15°	146.2	147.0	147.6	148.1	148.1	148.4	148.4	148.7	148.7	148.4
17.5°	145.9	146.7	147.6	148.1	148.4	148.7	149.0	149.2	149.5	149.2
20°	145.0	146.4	147.6	148.4	148.7	148.7	149.5	149.8	149.8	149.5
22.5°	144.2	145.9	147.0	148.1	148.7	149.0	149.8	150.1	150.4	150.6
25°	143.4	144.8	146.7	148.4	149.0	149.8	150.6	151.5	151.8	152.0
27.5°	142.5	144.5	147.0	149.0	149.8	150.6	152.0	153.2	153.2	153.7
30°	141.1	144.5	147.0	149.5	150.4	151.5	153.4	154.6	154.8	154.8
32.5°	140.6	144.2	147.3	149.8	150.9	151.8	153.7	154.8	155.4	155.4
35°	139.4	143.4	146.7	149.2	150.6	151.5	153.4	155.1	155.4	155.7
37.5°	137.8	142.0	145.6	148.4	149.5	150.9	152.9	154.0	154.8	155.1
40°	136.1	140.0	143.9	147.0	148.4	149.5	151.8	153.4	154.0	154.3
42.5°	133.3	138.0	142.0	145.6	147.0	148.1	150.6	152.0	153.2	153.2
45°	131.0	135.5	140.3	143.9	145.9	147.6	150.9	153.4	154.8	154.8
47.5°	128.5	133.6	139.2	145.0	147.3	149.2	152.3	154.0	155.4	155.7
50°	126.3	133.6	140.3	145.6	147.8	150.4	154.6	157.6	159.3	159.6
52.5°	126.0	134.1	141.4	148.7	151.5	154.6	158.5	161.0	162.4	163.0
55°	126.6	136.6	145.6	152.0	155.1	157.4	160.7	163.0	163.8	164.4
57.5°	129.9	140.3	148.4	154.0	156.2	157.9	160.2	161.0	161.8	161.8
60°	133.3	142.8	148.7	152.6	154.3	155.7	157.1	157.9	158.5	157.9
62.5°	135.5	142.2	146.7	149.2	150.4	151.2	152.9	154.3	154.3	155.1
65°	134.4	139.2	142.8	145.3	146.4	147.6	149.8	150.9	152.3	152.0
67.5°	130.8	135.2	138.0	141.4	142.8	143.9	146.7	148.1	149.5	149.5
70°	125.2	129.1	132.7	136.4	137.8	139.4	142.5	144.8	145.9	146.7
72.5°	117.9	122.1	126.8	132.2	134.7	136.4	140.0	142.5	144.2	144.5
75°	110.9	116.5	123.2	129.1	131.3	133.6	137.5	140.0	141.1	142.0
77.5°	104.4	111.2	118.4	124.9	127.4	129.9	133.8	136.6	138.3	138.6
80°	98.3	106.1	113.4	120.4	123.2	125.4	129.6	132.7	134.4	135.2
82.5°	92.1	100.8	108.4	115.6	118.4	121.2	125.4	128.5	130.5	130.8
85°	86.5	94.6	102.5	109.5	112.0	115.4	119.8	122.9	124.6	125.2
87.5°	79.8	87.6	95.2	101.9	104.7	107.8	112.3	115.6	117.0	117.9
90°	71.7	79.5	86.2	92.7	95.5	98.0	101.9	105.6	107.2	108.1
92.5°	61.9	68.9	75.6	80.9	83.4	85.4	89.9	92.7	93.8	94.6
95°	49.3	54.3	60.2	65.0	67.2	68.9	72.0	74.8	76.4	77.0
97.5°	35.0	38.9	41.7	45.4	46.2	48.2	50.7	52.4	53.5	53.2
100°	24.1	26.6	28.3	29.7	30.2	31.4	32.8	33.0	34.2	33.9
102.5°	16.2	17.1	17.9	18.8	19.0	19.3	20.2	19.9	20.4	20.7
105°	10.9	11.2	11.5	11.8	11.8	11.8	11.8	11.8	11.8	11.5
107.5°	7.8	7.6	7.6	7.6	7.3	7.3	7.0	7.0	7.0	6.7
110°	6.2	5.9	5.6	5.3	5.0	5.0	4.8	4.8	4.5	4.5



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	5.0	4.8	4.5	4.2	4.2	3.9	3.9	3.6	3.4	3.4
115°	4.5	4.2	4.2	3.9	3.6	3.6	3.4	3.1	3.1	2.8
117.5°	4.2	3.9	3.6	3.4	3.4	3.4	3.1	2.8	2.8	2.8
120°	3.6	3.6	3.4	3.4	3.1	3.1	2.8	2.8	2.5	2.5
122.5°	3.4	3.4	3.1	3.1	2.8	2.8	2.5	2.5	2.5	2.2
125°	2.8	2.8	2.8	2.8	2.5	2.5	2.5	2.2	2.2	2.2
127.5°	2.5	2.5	2.5	2.5	2.2	2.2	2.2	2.2	2.0	2.0
130°	2.0	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0
132.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
135°	1.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
137.5°	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
140°	0.3	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.6	0.6
142.5°	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)