



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: P397180

Luminaire Tested: **2VRVT2-LD5-2-FR50-UNV-LR63-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: P397180  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-8)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: EATON (FORMERLY COOPER LIGHTING)  
Product Line: io LED  
Catalog Number: 2VRVT2-LD5-2-FR50-UNV-LR63-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: 349.3 lumens  
Efficiency: N/A  
Efficacy: 7.8 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 2.08' x H: 0.17')  
IES Classification: Type V - Short - Cutoff  
BUG Rating: B0 - U1 - G0  
  
Input Watts (W): 45  
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

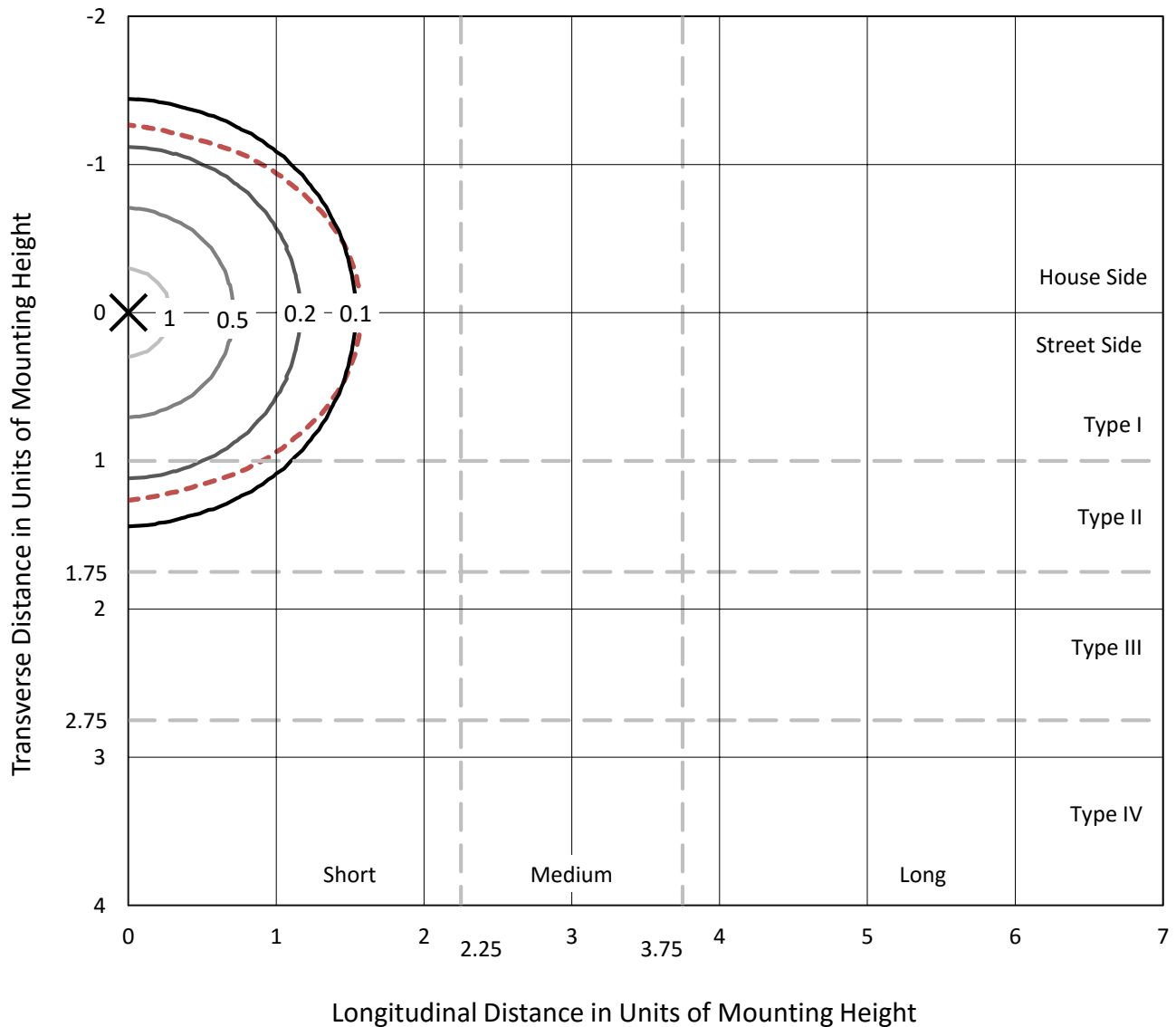


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd



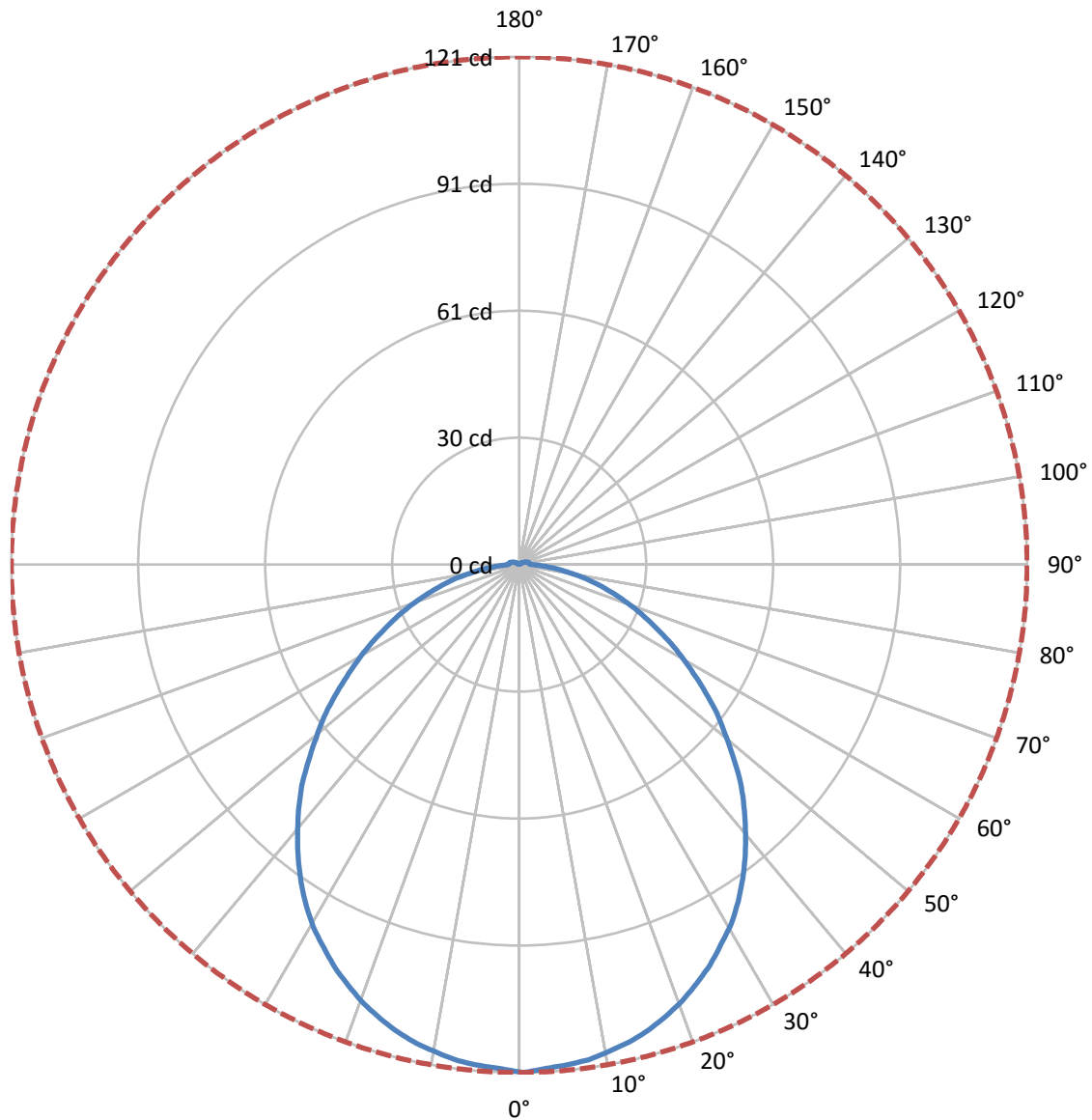
Based on 10 foot mounting height. Maximum calculated value = 1.2 fc  
 Type V - Short - Cutoff



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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral

- - - Horizontal Cone Through 0-Deg Vertical



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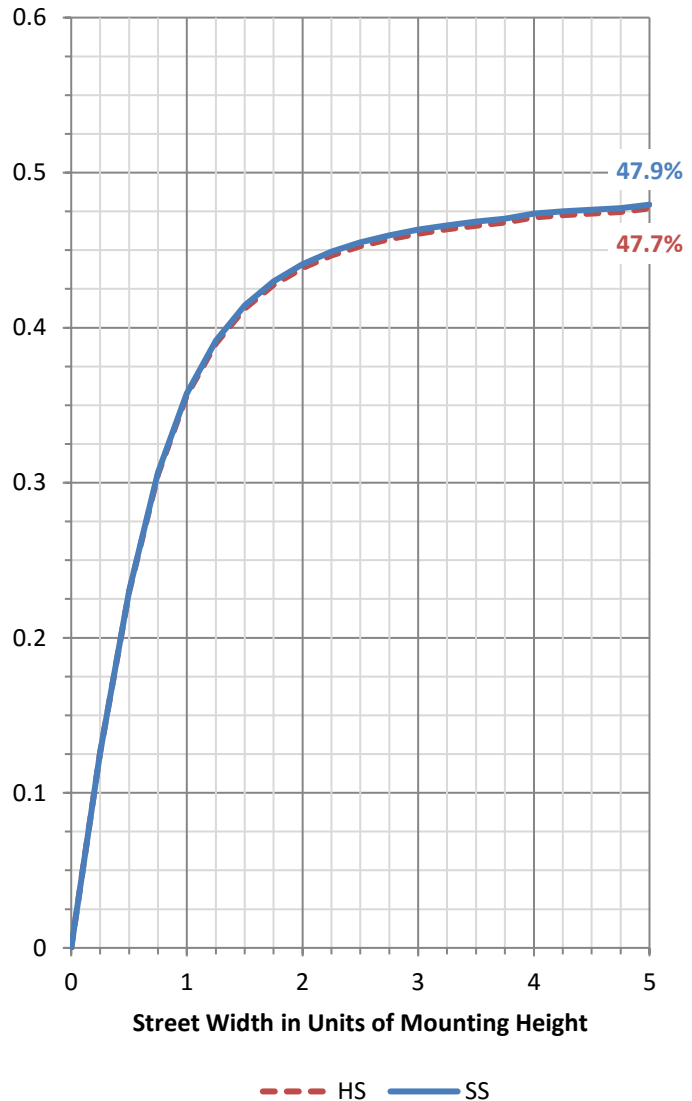
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	169.7	4.9	174.7
	% Fixture	48.6	1.4	50.0
<b>Street Side</b>	Lumens	169.7	4.9	174.7
	% Fixture	48.6	1.4	50.0
<b>Total</b>	Lumens	339.4	9.9	349.3
	% Fixture	97.2	2.8	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	11.4	3.3
10°-20°	32.2	9.2
20°-30°	48.2	13.8
30°-40°	57.3	16.4
40°-50°	58.2	16.7
50°-60°	52.4	15.0
60°-70°	41.8	12.0
70°-80°	26.4	7.5
80°-90°	11.5	3.3
90°-100°	4.4	1.3
100°-110°	2.4	0.7
110°-120°	1.6	0.5
120°-130°	0.9	0.3
130°-140°	0.4	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°	339.4	97.2
0°-180°	349.3	100.0





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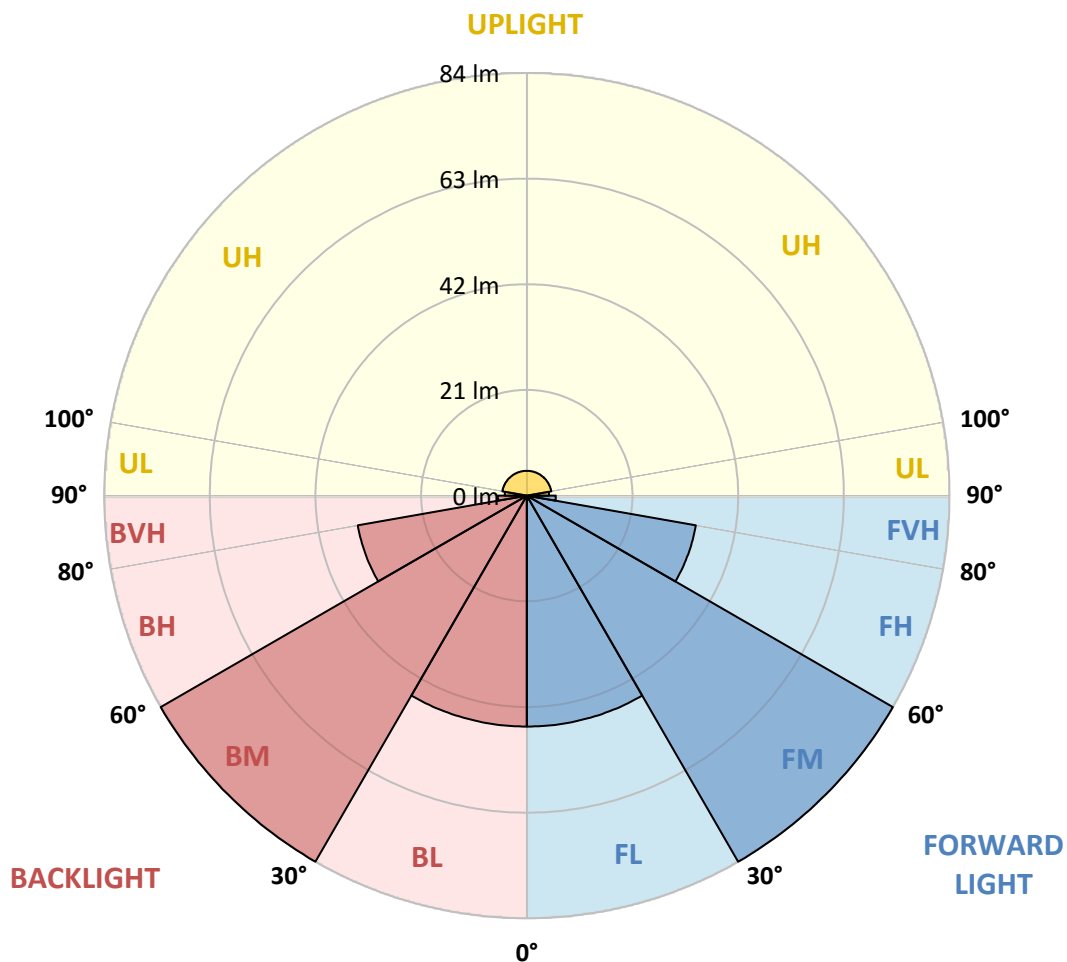
CATALOG NUMBER: 2VRVT2-LD5-2-FR50-UNV-LR63-CD1-WL-U

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	45.9	13.1			
FM (30°-60°)	84.0	24.0			
FH (60°-80°)	34.1	9.8			G0/660
FVH (80°-90°)	5.8	1.7			G0/10
BL (0°-30°)	45.9	13.1	B0/110		
BM (30°-60°)	84.0	24.0	B0/220		
BH (60°-80°)	34.1	9.8	B0/110		G0/660
BVH (80°-90°)	5.8	1.7			G0/10
UL (90°-100°)	4.4	1.3		U1/10	
UH (100°-180°)	4.9	1.4		U1/10	

**BUG Rating: B0-U1-G0**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3
2.5°	120.5	120.5	120.6	120.6	120.8	121.0	121.0	121.0	121.1	121.1	121.3
5°	120.0	120.2	120.2	120.2	120.3	120.3	120.3	120.3	120.3	120.3	120.3
7.5°	119.4	119.4	119.4	119.4	119.4	119.4	119.4	119.2	119.0	119.0	118.9
10°	118.2	118.4	118.2	118.2	118.1	117.9	117.9	117.6	117.6	117.3	117.3
12.5°	117.0	117.0	117.0	116.6	116.5	116.3	116.2	115.8	115.7	115.4	115.4
15°	115.4	115.4	115.4	114.9	114.6	114.4	114.2	113.9	113.8	113.6	113.4
17.5°	113.4	113.4	113.3	112.8	112.3	112.2	112.0	111.7	111.5	111.4	111.4
20°	111.2	111.2	110.9	110.4	110.1	109.6	109.4	109.3	109.1	109.1	109.3
22.5°	108.6	108.6	108.3	107.7	107.4	106.9	106.7	106.7	106.6	106.7	106.9
25°	105.9	105.9	105.3	104.8	104.5	104.0	103.8	103.8	103.8	104.2	104.3
27.5°	102.7	102.6	102.2	101.6	101.1	101.0	100.8	100.8	101.1	101.3	101.6
30°	99.7	99.4	98.9	98.2	97.8	97.8	97.6	97.8	98.1	98.2	98.6
32.5°	96.0	95.7	95.0	94.6	94.1	94.1	94.2	94.2	94.6	94.7	95.4
35°	92.0	91.8	91.2	90.6	90.4	90.2	90.2	90.6	91.0	91.4	91.4
37.5°	87.7	87.7	86.9	86.6	86.2	86.2	86.4	86.7	86.9	87.5	87.8
40°	83.2	83.0	82.6	82.1	81.9	81.9	81.9	82.4	82.9	83.4	83.8
42.5°	78.7	78.2	77.9	77.6	77.4	77.6	77.6	78.2	78.6	79.2	79.7
45°	74.1	73.4	73.1	72.8	72.8	73.0	73.1	73.8	74.4	74.9	75.5
47.5°	68.8	68.6	68.2	68.0	68.2	68.3	68.6	69.1	69.8	70.7	71.2
50°	63.8	63.5	63.4	63.0	63.2	63.4	63.7	64.5	65.3	66.2	66.9
52.5°	59.2	58.7	58.4	58.4	58.7	58.9	59.2	60.0	61.0	61.9	62.6
55°	54.1	53.9	53.4	53.4	53.9	54.1	54.6	55.4	56.5	57.4	58.6
57.5°	49.1	48.8	48.8	48.8	49.1	49.4	49.9	50.7	52.2	53.3	54.4
60°	44.5	44.2	44.0	44.0	44.5	45.1	45.4	46.4	47.7	49.1	50.4
62.5°	40.0	39.8	39.7	39.8	40.3	40.6	41.3	42.4	43.7	45.1	46.6
65°	35.5	35.5	35.2	35.5	36.2	36.6	37.3	38.4	39.8	41.3	42.9
67.5°	31.5	31.4	31.5	31.8	32.3	32.6	33.3	34.6	36.0	37.3	39.0
70°	27.4	27.4	27.5	27.8	28.5	28.8	29.4	30.7	32.2	33.6	34.7
72.5°	23.5	23.5	23.7	24.0	24.8	25.3	25.9	27.0	28.2	29.6	30.6
75°	19.8	19.8	20.0	20.5	21.3	21.8	22.2	23.2	24.3	25.4	25.9
77.5°	16.5	16.2	16.5	17.0	17.8	18.2	18.7	19.5	20.5	21.3	21.9
80°	12.6	12.8	13.1	13.6	14.4	14.7	15.2	16.0	16.6	17.3	17.8
82.5°	9.6	9.6	9.9	10.6	11.4	11.5	12.2	12.8	13.3	13.9	14.2
85°	6.7	6.9	7.2	7.8	8.6	9.0	9.3	9.9	10.4	10.9	11.2
87.5°	4.3	4.6	5.0	5.8	6.4	6.7	7.0	7.5	8.2	8.3	8.8
90°	2.9	3.0	3.5	4.0	4.6	5.0	5.3	5.8	6.2	6.6	6.9
92.5°	2.6	2.6	2.7	3.0	3.5	3.7	4.0	4.5	4.8	5.1	5.4
95°	2.4	2.4	2.4	2.6	2.9	2.9	3.2	3.5	3.8	4.2	4.3
97.5°	2.4	2.4	2.2	2.2	2.4	2.4	2.6	2.9	3.2	3.4	3.7
100°	2.4	2.2	2.1	1.9	2.1	2.1	2.2	2.4	2.7	2.9	3.0
102.5°	2.2	2.2	1.9	1.8	1.8	1.9	1.9	2.1	2.2	2.6	2.7
105°	2.2	2.1	1.8	1.6	1.6	1.6	1.8	1.9	2.1	2.2	2.4
107.5°	1.9	1.9	1.6	1.4	1.4	1.4	1.6	1.6	1.8	1.9	2.1
110°	1.8	1.8	1.4	1.3	1.3	1.3	1.3	1.4	1.6	1.8	1.9



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CATALOG NUMBER: 2VRVT2-LD5-2-FR50-UNV-LR63-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.6	1.4	1.3	1.1	1.1	1.1	1.1	1.3	1.4	1.6	1.8
115°	1.3	1.3	1.1	1.0	1.0	1.0	1.0	1.1	1.3	1.4	1.6
117.5°	1.1	1.1	1.0	0.8	0.8	0.8	0.8	1.0	1.1	1.3	1.4
120°	1.0	1.0	0.8	0.6	0.6	0.6	0.8	0.8	1.0	1.1	1.3
122.5°	0.8	0.8	0.6	0.6	0.5	0.5	0.6	0.6	0.8	1.0	1.1
125°	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.8	1.0
127.5°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.5	0.6	0.6	0.8
130°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.6
132.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.5	0.5
135°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
137.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
140°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
142.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0
145°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0
147.5°	0.2	0.2	0.2	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°	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3
2.5°	121.3	121.3	121.3	121.3	121.3	121.3	121.1	121.3	121.1	121.1
5°	120.2	120.2	120.2	120.2	120.0	120.0	120.0	119.8	119.8	119.8
7.5°	118.7	118.7	118.6	118.6	118.4	118.4	118.2	118.2	118.1	118.2
10°	117.1	117.0	117.0	116.8	116.8	116.8	116.6	116.6	116.5	116.5
12.5°	115.4	115.2	115.2	115.2	115.0	115.0	115.0	114.9	114.9	114.9
15°	113.4	113.6	113.6	113.6	113.6	113.6	113.4	113.4	113.4	113.3
17.5°	111.5	111.7	111.7	111.8	111.8	111.8	111.7	111.7	111.5	111.7
20°	109.4	109.6	109.6	109.8	109.8	109.8	109.6	109.8	109.6	109.8
22.5°	107.0	107.4	107.4	107.5	107.5	107.5	107.4	107.5	107.5	107.4
25°	104.6	104.8	104.8	105.1	105.1	105.1	104.8	105.0	105.0	105.0
27.5°	101.8	101.8	102.2	102.1	102.1	102.1	102.2	102.1	102.1	102.1
30°	98.7	98.9	99.0	99.2	99.2	99.2	99.0	99.2	99.2	99.0
32.5°	95.5	95.7	95.8	96.0	96.0	96.0	96.0	96.0	96.0	96.0
35°	91.7	92.0	92.3	92.5	92.6	92.5	92.6	92.6	92.6	92.5
37.5°	88.0	88.5	88.6	88.8	89.0	89.0	89.0	89.0	89.1	89.1
40°	84.0	84.6	84.6	85.1	85.1	85.3	85.4	85.3	85.4	85.4
42.5°	80.2	80.6	81.0	81.3	81.3	81.4	81.6	81.8	81.9	81.8
45°	76.0	76.6	77.1	77.3	77.4	77.6	77.8	77.9	78.2	78.1
47.5°	71.8	72.5	73.0	73.4	73.6	73.8	74.1	74.2	74.7	74.2
50°	67.7	68.5	69.3	69.6	69.8	69.9	70.6	70.7	70.9	71.0
52.5°	63.5	64.3	65.1	65.8	66.1	66.4	66.9	67.2	67.4	67.4
55°	59.5	60.3	61.3	62.2	62.6	62.7	63.4	63.7	64.0	64.2
57.5°	55.7	56.8	57.8	58.7	59.0	59.5	60.0	60.5	60.6	60.8
60°	51.8	53.0	54.1	55.2	55.7	56.0	56.6	57.0	57.3	57.1
62.5°	48.2	49.3	50.7	51.5	52.0	52.3	52.6	53.1	53.3	53.3
65°	44.3	45.8	46.9	47.7	48.0	48.0	48.5	48.6	48.8	49.0
67.5°	40.5	41.6	42.4	43.0	43.4	43.2	43.5	43.8	43.7	43.4
70°	35.8	36.8	37.6	38.1	38.2	38.1	38.6	38.1	38.2	38.1
72.5°	31.5	32.3	32.6	33.0	33.0	33.0	33.0	33.0	32.8	32.6
75°	26.7	27.2	27.7	27.7	27.8	27.8	27.8	27.8	27.7	27.5
77.5°	22.4	22.7	23.0	22.9	23.0	23.0	22.9	22.9	22.9	22.9
80°	18.2	18.4	18.7	18.7	18.6	18.6	18.6	18.4	18.4	18.2
82.5°	14.6	14.7	14.7	14.7	14.9	14.6	14.7	14.4	14.6	14.2
85°	11.5	11.7	11.7	11.5	11.5	11.4	11.2	11.4	11.2	11.2
87.5°	9.0	9.0	9.1	9.1	9.0	9.0	8.8	8.8	8.6	8.6
90°	7.0	7.2	7.0	7.2	7.0	7.0	6.9	6.9	6.9	6.9
92.5°	5.6	5.8	5.6	5.6	5.6	5.6	5.6	5.4	5.4	5.4
95°	4.5	4.5	4.6	4.5	4.6	4.5	4.5	4.5	4.5	4.5
97.5°	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.7	3.7
100°	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.2	3.2	3.2
102.5°	2.7	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
105°	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.6	2.6
107.5°	2.2	2.4	2.4	2.4	2.6	2.6	2.4	2.4	2.4	2.4
110°	2.1	2.2	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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CATALOG NUMBER: 2VRVT2-LD5-2-FR50-UNV-LR63-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	1.9	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2
115°	1.8	1.9	1.9	2.1	2.1	2.1	2.2	2.2	2.2	2.2
117.5°	1.6	1.8	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.1
120°	1.4	1.6	1.6	1.8	1.8	1.9	1.9	1.9	1.9	1.9
122.5°	1.3	1.4	1.6	1.6	1.6	1.8	1.8	1.8	1.9	1.9
125°	1.1	1.3	1.4	1.4	1.4	1.6	1.6	1.6	1.6	1.8
127.5°	1.0	1.1	1.1	1.3	1.3	1.4	1.4	1.4	1.4	1.4
130°	0.8	1.0	1.0	1.1	1.1	1.1	1.3	1.3	1.3	1.3
132.5°	0.6	0.8	0.8	1.0	1.0	1.0	1.1	1.1	1.1	1.1
135°	0.5	0.6	0.6	0.8	0.8	0.8	1.0	1.0	1.0	1.0
137.5°	0.3	0.5	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8
140°	0.3	0.3	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
142.5°	0.2	0.2	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0.5
145°	0.0	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
147.5°	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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)