



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: P397168

Luminaire Tested: **2VRVT2-LD5-2-DR-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: P397168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-6)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: EATON (FORMERLY COOPER LIGHTING)
Product Line: io LED
Catalog Number: 2VRVT2-LD5-2-DR-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: 353.9 lumens
Efficiency: N/A
Efficacy: 7.9 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_{in}): 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

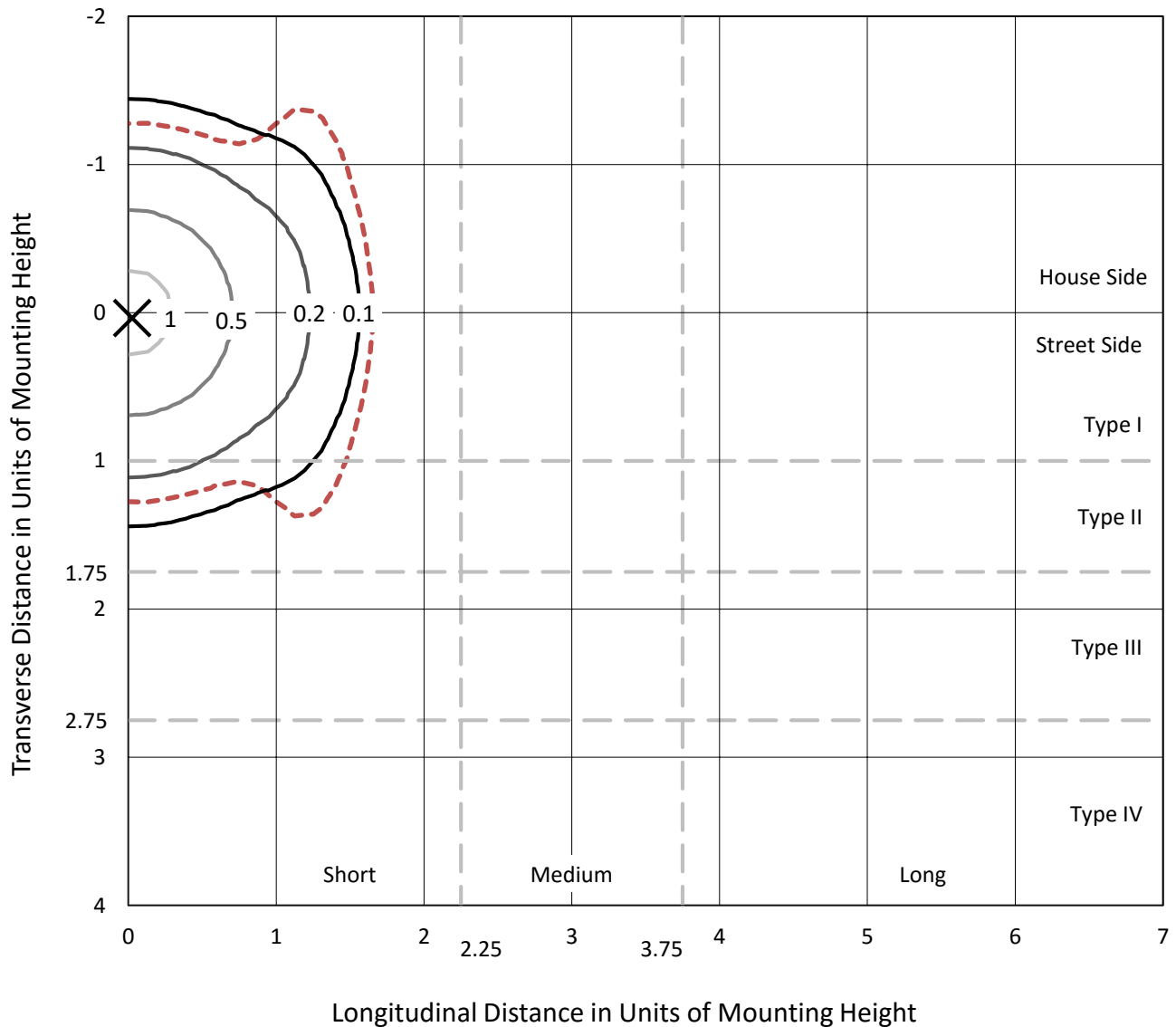


REPORT NUMBER: P397168

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd



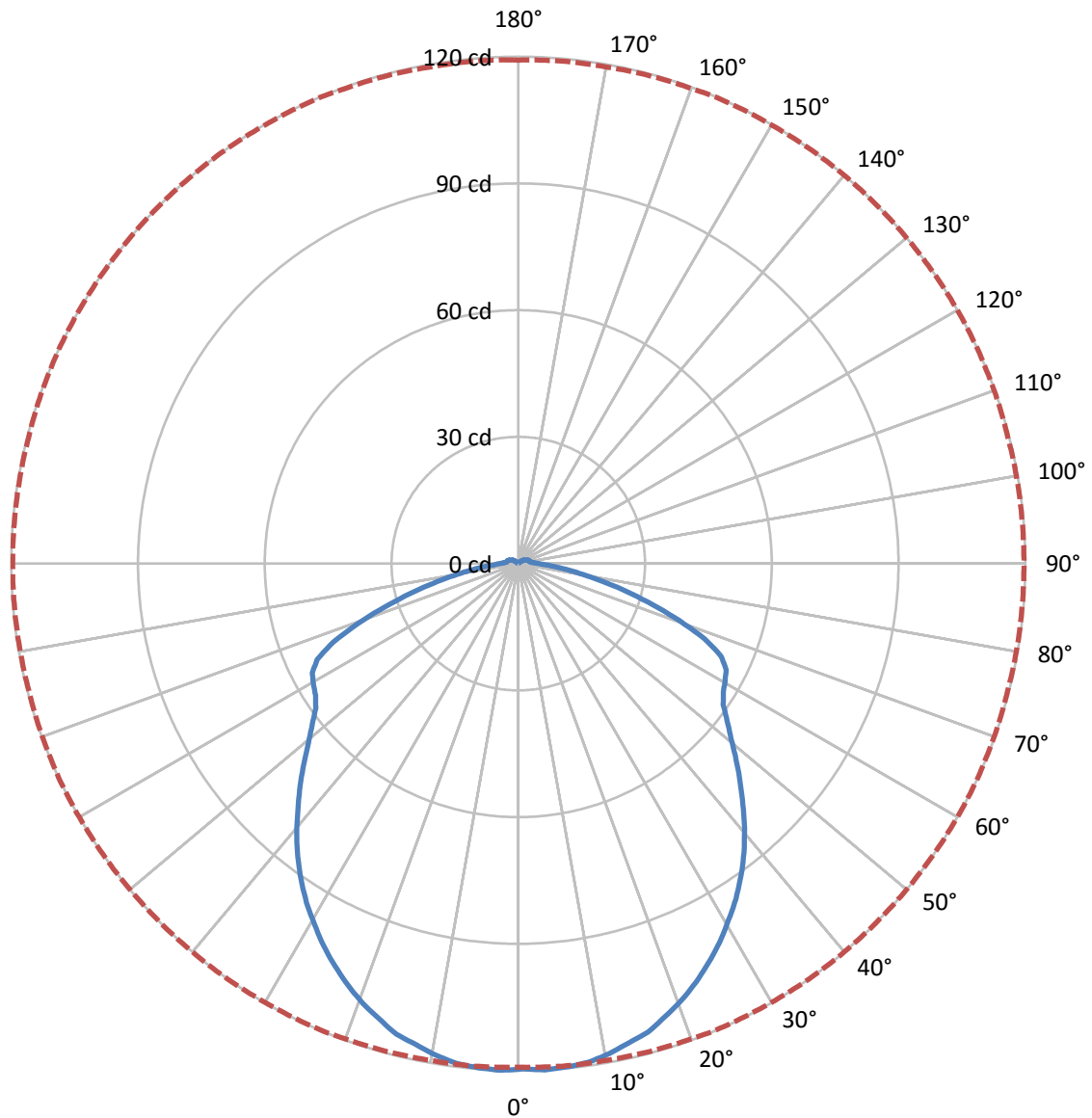
Based on 10 foot mounting height. Maximum calculated value = 1.2 fc
 Type V - Short - Cutoff



REPORT NUMBER: P397168

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

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 2.5-Deg Vertical



REPORT NUMBER: P397168

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

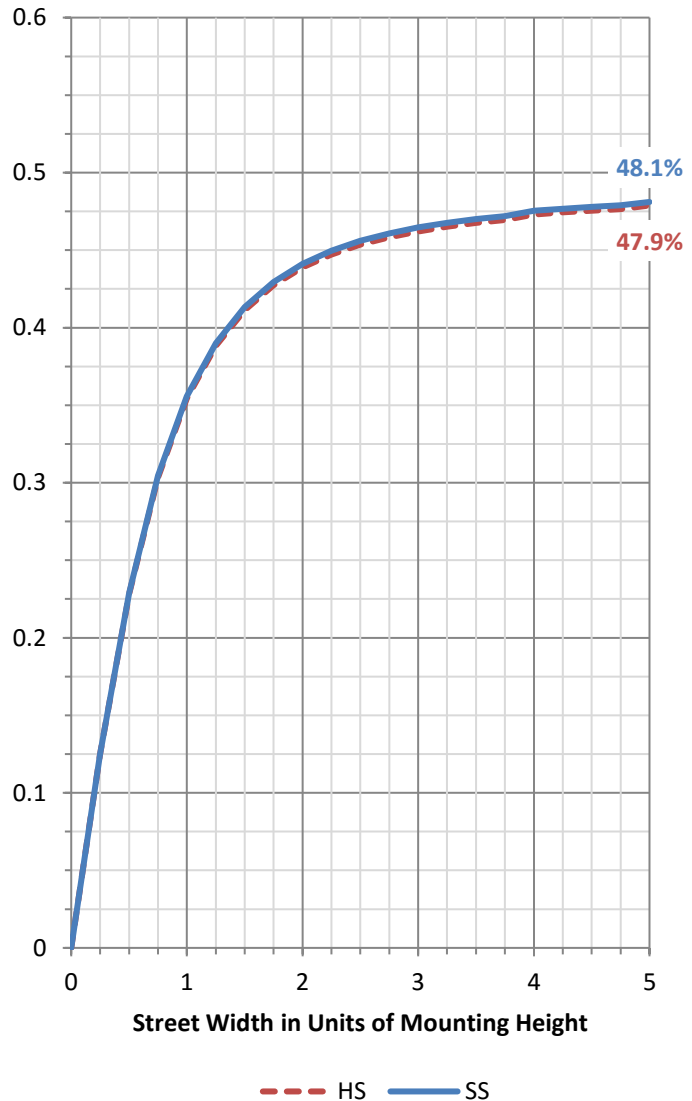
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	172.1	4.8	177.0
	% Fixture	48.6	1.4	50.0
Street Side	Lumens	172.1	4.8	177.0
	% Fixture	48.6	1.4	50.0
Total	Lumens	344.3	9.6	353.9
	% Fixture	97.3	2.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.3	3.2
10°-20°	32.2	9.1
20°-30°	48.1	13.6
30°-40°	56.6	16.0
40°-50°	59.2	16.7
50°-60°	56.8	16.0
60°-70°	44.4	12.5
70°-80°	26.2	7.4
80°-90°	9.5	2.7
90°-100°	3.4	0.9
100°-110°	2.5	0.7
110°-120°	1.9	0.5
120°-130°	1.2	0.3
130°-140°	0.6	0.2
140°-150°	0.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	344.3	97.3
0°-180°	353.9	100.0





REPORT NUMBER: P397168

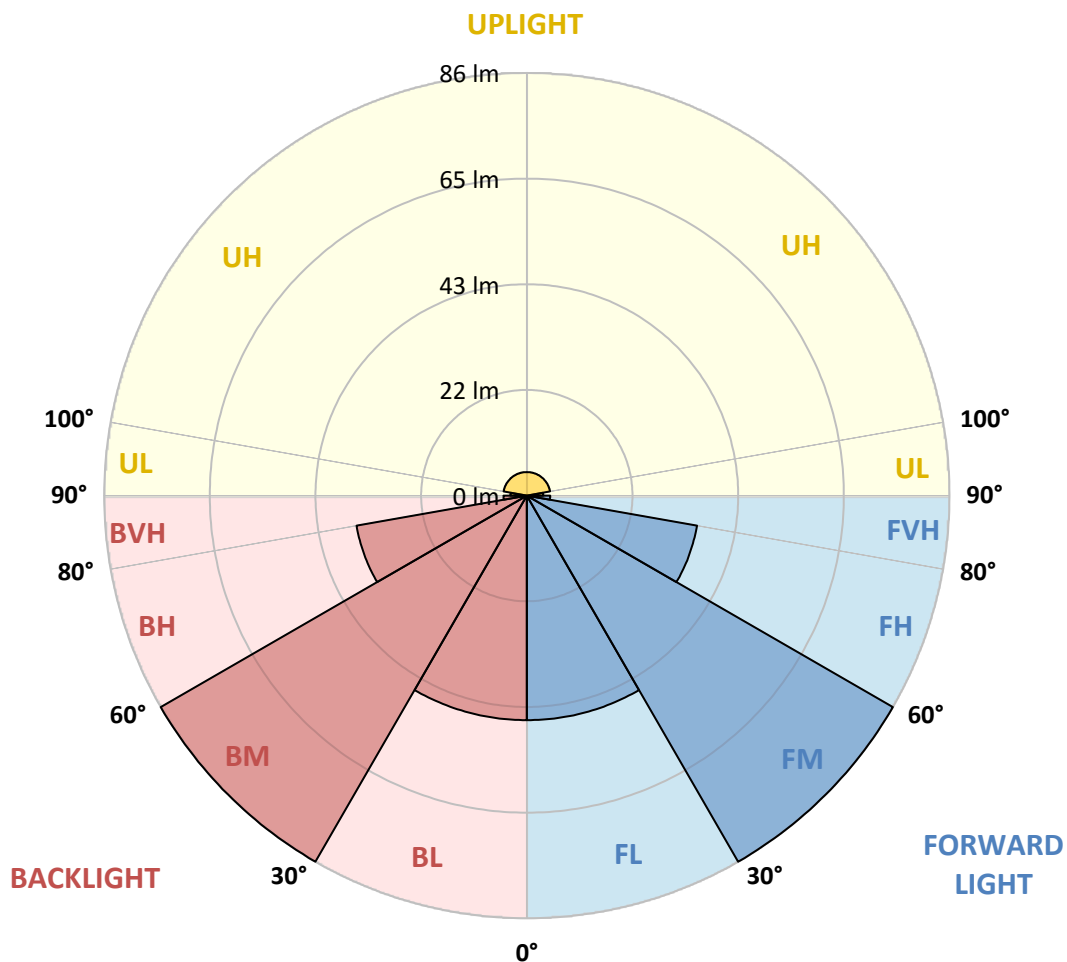
CATALOG NUMBER: 2VRVT2-LD5-2-DR-UNV-LR63-CD1-WL-U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	45.8	12.9			
FM	(30°-60°)	86.3	24.4			
FH	(60°-80°)	35.3	10.0			G0/660
FVH	(80°-90°)	4.8	1.3			G0/10
BL	(0°-30°)	45.8	12.9	B0/110		
BM	(30°-60°)	86.3	24.4	B0/220		
BH	(60°-80°)	35.3	10.0	B0/110		G0/660
BVH	(80°-90°)	4.8	1.3			G0/10
UL	(90°-100°)	3.4	0.9		U1/10	
UH	(100°-180°)	4.8	1.4		U1/10	

BUG Rating: B0-U1-G0

Type V Short





REPORT NUMBER: P397168

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1
2.5°	118.7	118.9	118.9	119.1	119.2	119.4	119.4	119.4	119.5	119.5	119.5
5°	117.9	118.1	118.4	118.6	118.7	118.9	118.9	118.9	119.2	119.2	119.4
7.5°	117.6	117.6	117.9	118.1	118.3	118.6	118.4	118.6	118.7	118.7	118.7
10°	116.2	116.0	115.9	116.0	116.3	116.3	116.3	117.0	117.5	117.6	117.9
12.5°	114.9	115.2	115.5	115.5	115.5	115.7	115.7	115.7	115.9	115.9	116.2
15°	113.3	113.6	113.9	113.9	114.1	114.4	114.4	114.7	114.6	114.6	114.6
17.5°	111.4	111.1	111.5	111.9	112.2	112.3	112.5	112.5	112.2	112.3	112.2
20°	108.5	108.7	108.8	109.1	109.6	109.5	109.6	109.9	109.9	109.9	110.3
22.5°	105.9	106.6	106.7	107.1	107.4	107.2	107.2	107.2	107.2	107.1	107.4
25°	103.4	103.5	103.9	104.3	104.2	104.2	104.0	103.9	104.2	104.0	104.5
27.5°	100.0	99.8	100.5	100.7	100.8	100.8	100.8	101.0	101.1	101.1	101.6
30°	96.5	96.8	97.1	97.4	97.3	97.3	97.4	97.4	97.6	97.9	98.4
32.5°	92.8	93.1	93.6	93.9	93.6	93.6	93.6	93.8	94.2	94.7	94.7
35°	89.0	89.1	89.8	89.6	89.6	89.4	89.6	89.9	90.4	90.7	90.7
37.5°	85.0	85.1	85.4	85.4	85.8	85.4	85.8	86.1	86.4	86.4	86.6
40°	80.5	80.8	81.4	81.4	81.6	81.4	81.6	81.9	82.1	81.9	82.4
42.5°	76.3	76.5	76.8	77.0	77.0	77.1	77.1	77.4	77.6	78.2	78.2
45°	71.7	72.2	72.3	72.3	72.5	72.8	73.0	73.1	73.3	73.8	74.2
47.5°	67.7	67.7	67.8	67.8	68.3	68.3	68.6	68.3	69.1	69.9	70.9
50°	62.9	63.4	63.4	63.0	63.5	63.7	63.8	64.0	65.0	66.2	68.3
52.5°	58.4	58.7	58.7	58.9	59.0	59.4	59.7	60.2	61.6	63.5	67.2
55°	54.1	54.4	54.2	54.4	54.6	54.9	55.2	56.6	58.6	62.4	66.7
57.5°	49.6	49.6	49.6	49.8	50.4	50.7	51.5	53.4	57.0	61.6	66.1
60°	44.8	45.4	45.3	45.8	46.6	47.2	48.3	51.2	56.0	60.8	63.2
62.5°	40.8	41.3	41.4	41.8	43.2	44.2	45.6	49.9	55.0	58.1	57.8
65°	36.6	36.8	37.1	38.2	40.2	41.6	43.7	48.6	52.5	52.3	50.9
67.5°	32.6	33.0	33.6	34.9	37.4	39.4	41.9	46.1	47.4	45.6	43.0
70°	28.6	29.1	29.9	31.5	34.9	37.1	39.5	41.3	40.3	37.8	35.4
72.5°	24.8	25.3	26.4	28.6	32.2	34.1	35.0	35.2	33.1	31.0	29.1
75°	21.1	21.6	22.9	25.4	28.3	29.3	29.4	28.3	26.4	24.5	23.2
77.5°	17.4	17.9	19.5	21.9	23.5	23.5	23.2	22.1	20.5	19.2	18.6
80°	13.4	14.1	15.7	17.4	18.1	17.9	17.6	16.6	15.4	14.6	14.4
82.5°	9.9	10.6	12.0	13.0	13.3	13.1	12.8	12.2	11.4	10.9	10.9
85°	6.6	7.2	8.2	8.8	9.1	9.0	9.0	8.5	8.3	8.0	8.0
87.5°	4.0	4.5	5.3	5.9	6.2	6.2	6.2	6.1	5.9	5.9	5.8
90°	2.9	3.2	3.8	4.3	4.6	4.6	4.6	4.6	4.6	4.5	4.3
92.5°	2.9	3.0	3.2	3.5	3.7	3.8	3.8	3.8	3.7	3.7	3.5
95°	3.0	3.0	3.2	3.2	3.2	3.4	3.4	3.4	3.2	3.2	3.0
97.5°	3.2	3.2	3.2	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.7
100°	3.2	3.2	3.0	3.0	2.9	2.9	2.9	2.9	2.7	2.7	2.6
102.5°	3.2	3.0	3.0	2.9	2.7	2.7	2.7	2.7	2.7	2.6	2.4
105°	2.9	2.9	2.9	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.4
107.5°	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.4
110°	2.4	2.4	2.2	2.2	2.2	2.4	2.4	2.4	2.4	2.4	2.4



REPORT NUMBER: P397168

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.1	2.1	1.9	1.9	2.1	2.1	2.1	2.2	2.2	2.4	2.2
115°	1.8	1.8	1.6	1.6	1.8	1.9	1.9	2.1	2.1	2.2	2.2
117.5°	1.4	1.4	1.4	1.4	1.6	1.6	1.6	1.8	1.9	2.1	2.1
120°	1.1	1.1	1.1	1.1	1.3	1.3	1.4	1.6	1.8	1.9	1.9
122.5°	1.0	1.0	1.0	0.8	1.0	1.1	1.1	1.4	1.6	1.6	1.8
125°	0.8	0.8	0.8	0.6	0.8	0.8	1.0	1.1	1.3	1.4	1.6
127.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.8	1.0	1.1	1.3	1.4
130°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.8	1.0	1.1
132.5°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.5	0.6	0.8	1.0
135°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.8
137.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.6
140°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5
142.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
145°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
147.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2
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: P397168

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1	119.1
2.5°	119.5	119.5	119.5	119.5	119.4	119.4	119.2	119.2	119.2	119.2
5°	119.5	119.5	119.5	119.5	119.5	119.4	119.2	119.1	118.9	118.7
7.5°	118.7	119.1	119.2	119.2	119.2	119.1	118.9	118.7	118.7	118.7
10°	118.1	118.1	118.3	118.3	118.1	117.9	117.9	117.9	117.8	117.9
12.5°	116.3	116.3	116.3	116.2	116.2	116.2	116.0	116.0	116.0	116.0
15°	114.4	114.4	114.6	114.6	114.6	114.7	114.3	114.4	114.1	114.3
17.5°	112.3	112.5	112.3	112.2	112.3	112.5	112.3	112.2	112.2	112.3
20°	110.1	109.9	110.3	110.4	110.4	110.3	110.1	110.3	110.4	110.4
22.5°	107.4	107.7	108.0	108.2	108.2	108.0	108.0	107.9	108.0	108.0
25°	104.7	105.0	105.3	105.5	105.5	105.5	105.1	105.1	105.3	104.8
27.5°	101.9	101.9	102.3	102.3	101.8	101.8	101.9	102.1	101.8	101.9
30°	98.7	98.4	98.7	98.7	98.7	98.7	98.7	98.7	98.9	98.6
32.5°	94.6	94.7	95.0	95.2	95.2	95.2	94.7	95.0	94.9	94.4
35°	90.9	91.2	91.2	91.2	91.0	91.0	90.9	90.9	91.0	91.0
37.5°	86.7	86.7	86.9	87.2	87.2	87.4	87.8	88.0	88.2	87.8
40°	82.7	82.9	83.7	84.0	84.2	84.5	84.8	85.0	85.3	85.3
42.5°	78.6	79.5	80.3	80.8	81.3	82.1	83.2	84.0	84.0	84.3
45°	75.5	76.3	78.1	79.8	80.3	81.0	81.6	82.2	83.2	83.2
47.5°	72.5	75.0	77.0	78.9	80.0	80.6	82.2	82.7	83.4	83.0
50°	71.4	74.1	77.0	79.0	79.8	80.2	81.1	81.1	81.1	80.8
52.5°	70.9	74.1	76.5	77.3	77.3	77.1	76.6	76.2	76.3	75.7
55°	70.6	72.8	73.1	72.0	71.5	71.4	70.4	69.4	69.4	69.1
57.5°	68.3	68.5	67.0	65.3	65.1	64.6	63.5	63.2	63.2	62.4
60°	62.9	61.8	60.0	58.7	58.1	57.8	57.1	56.6	56.5	56.6
62.5°	56.3	54.6	52.5	51.5	51.0	50.7	50.9	50.9	50.9	50.7
65°	48.6	46.7	45.4	45.0	45.1	45.3	45.4	45.3	45.4	45.3
67.5°	41.0	39.8	39.2	39.4	39.7	39.4	39.8	39.8	39.7	40.2
70°	33.9	33.8	33.8	33.9	33.9	34.2	34.6	34.6	34.7	34.4
72.5°	28.2	28.3	28.5	29.0	29.0	29.1	29.1	29.3	29.1	29.4
75°	23.0	23.4	23.7	24.0	24.0	24.2	24.5	24.2	24.2	24.2
77.5°	18.4	18.9	19.0	19.4	19.4	19.4	19.5	19.4	19.4	19.0
80°	14.6	14.7	14.9	15.2	15.0	15.2	15.2	14.9	14.9	14.9
82.5°	11.0	11.2	11.4	11.2	11.2	11.2	11.4	11.0	10.9	10.9
85°	8.0	8.0	8.2	8.2	8.0	8.0	7.8	7.8	7.7	7.7
87.5°	5.8	5.8	5.8	5.8	5.6	5.6	5.6	5.4	5.4	5.4
90°	4.3	4.3	4.3	4.2	4.2	4.2	4.0	4.0	4.0	3.8
92.5°	3.5	3.4	3.4	3.2	3.2	3.2	3.0	3.0	3.0	3.0
95°	2.9	2.9	2.7	2.7	2.6	2.6	2.6	2.4	2.4	2.4
97.5°	2.6	2.4	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1
100°	2.4	2.2	2.2	2.1	2.1	2.1	1.9	1.9	1.8	1.8
102.5°	2.4	2.2	2.1	1.9	1.9	1.9	1.8	1.8	1.8	1.8
105°	2.2	2.2	2.1	1.9	1.9	1.8	1.8	1.8	1.6	1.6
107.5°	2.2	2.2	2.1	1.9	1.9	1.8	1.8	1.6	1.6	1.6
110°	2.2	2.1	2.1	1.9	1.9	1.8	1.8	1.6	1.6	1.6



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

CANDELA DISTRIBUTION (continued):

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