

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: INVUE

Report Number: P411972

Luminaire Tested: **CPB-VA1-42-830-U-AS**

Issue Date: 9/23/2020

Test Information

Test Method: LM-79-08
Report Number: P411972
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2009-963-3)
Test Lab: INNOVATION CENTER
Issue Date: 9/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CPB-VA1-42-830-U-AS
Description: CLEARPATH BOLLARD LUMINAIRE
3000K, 80 CRI LEDS WITH ASYMMETRIC SINGLE SIDE LIGHTGUIDE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 584 lumens
Efficiency: N/A
Efficacy: 25.7 lumens/watt
Luminous Opening: (L: 0 ' x W: 0.33 ' x H: 1.79 '
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U3 - G1

Input Watts (W): 22.7
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: 28.75 FT

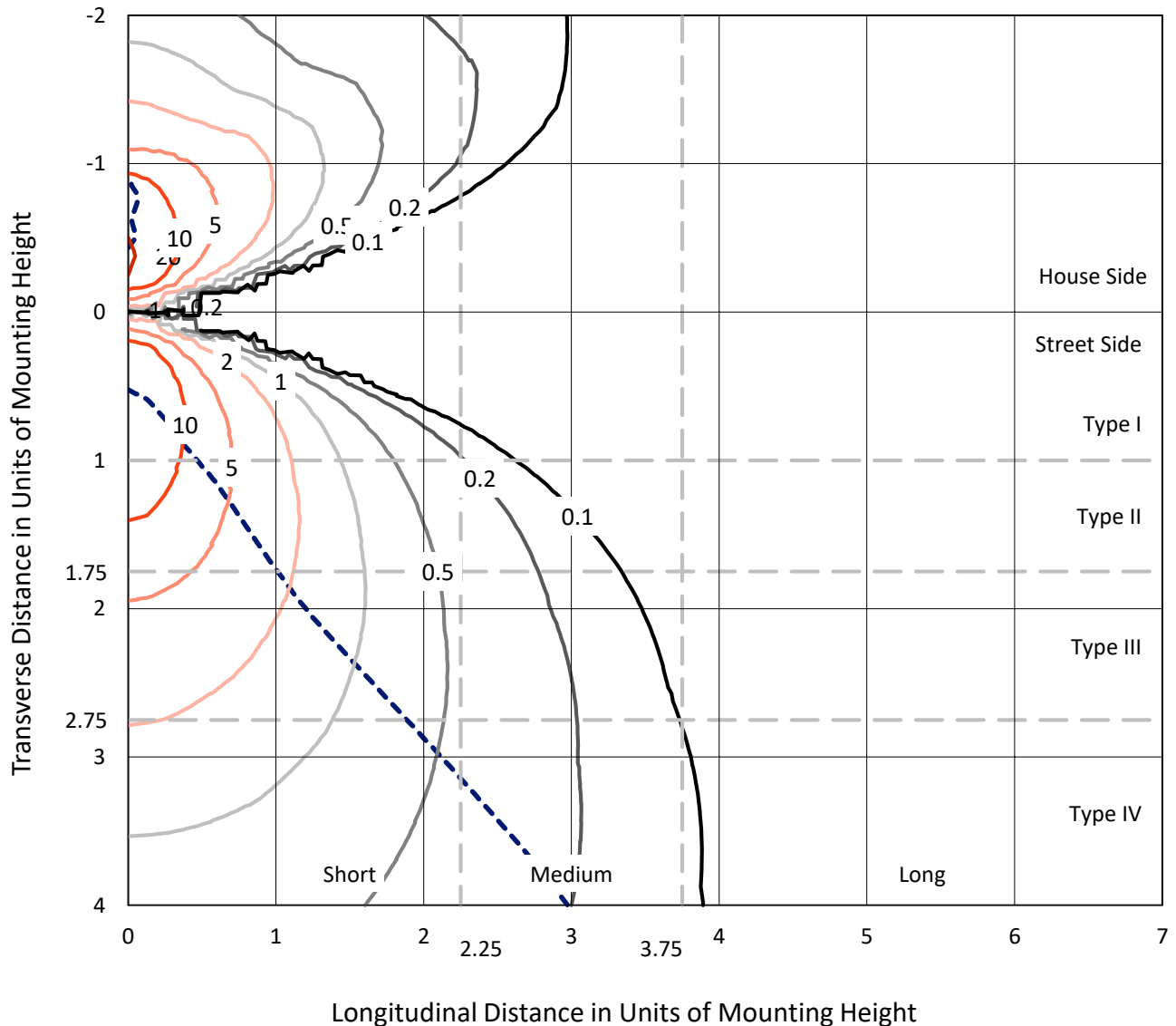


REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

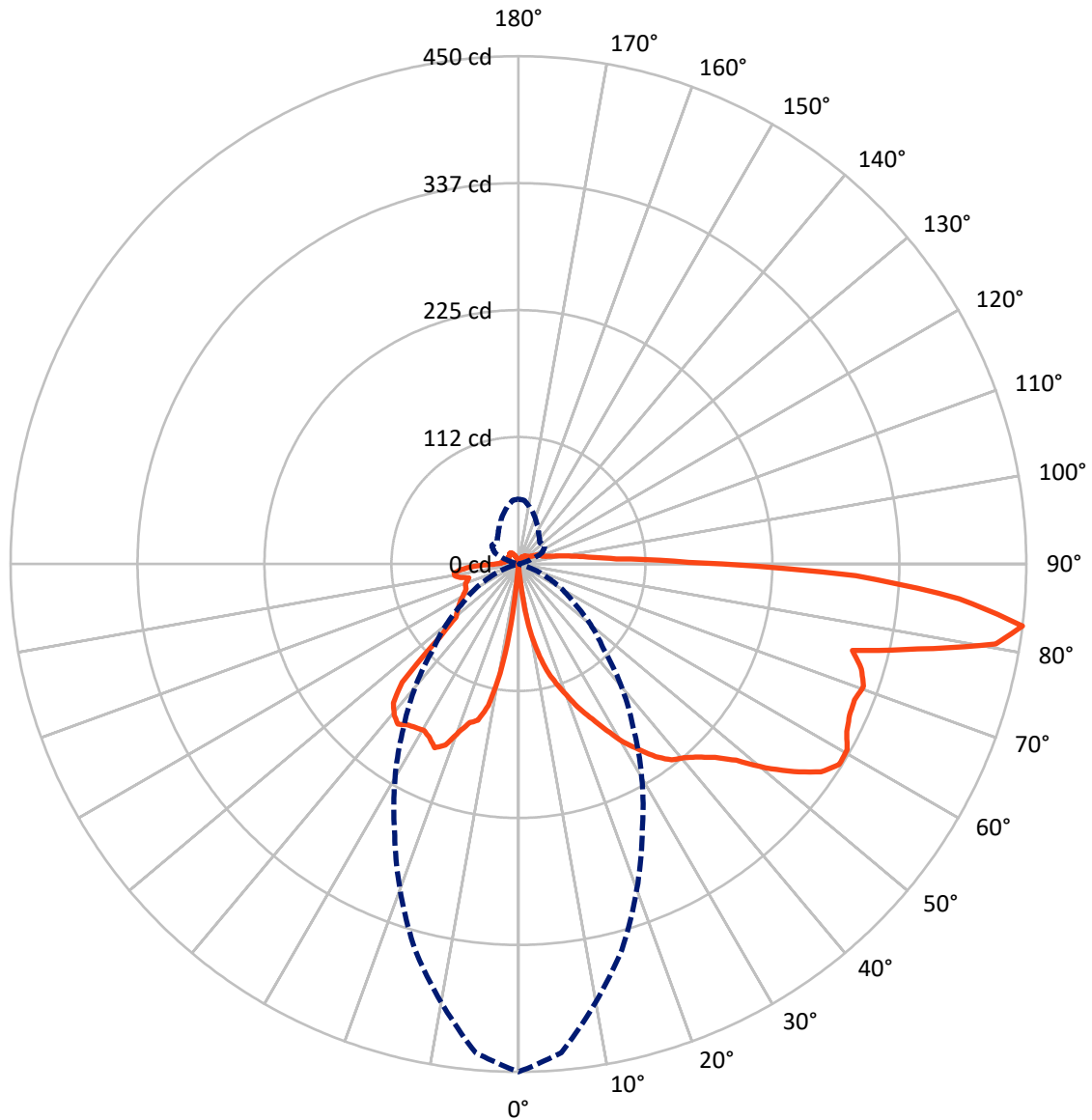


Based on 2.5 foot mounting height. Maximum calculated value = 21.1 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 82.5-Deg Vertical

REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

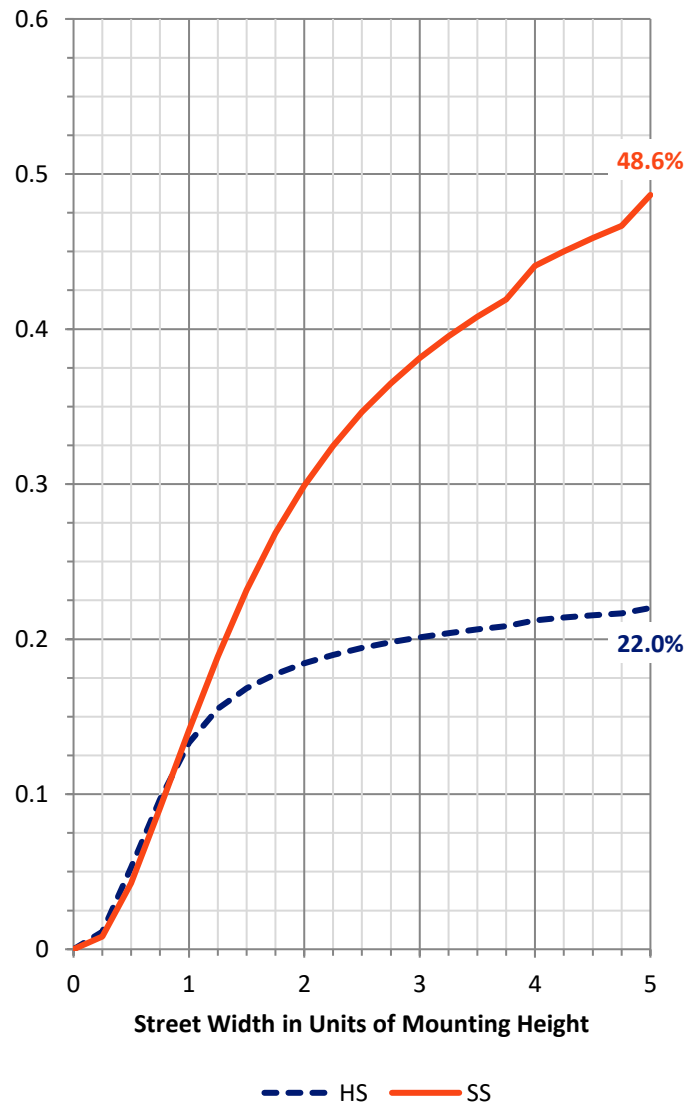
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	138.9	37.1	175.9
	% Fixture	23.8	6.3	30.1
Street Side	Lumens	346.3	61.8	408.1
	% Fixture	59.3	10.6	69.9
Total	Lumens	485.1	98.9	584.0
	% Fixture	83.1	16.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.2
10°-20°	16.0	2.7
20°-30°	33.5	5.7
30°-40°	49.6	8.5
40°-50°	62.4	10.7
50°-60°	70.3	12.0
60°-70°	76.0	13.0
70°-80°	87.7	15.0
80°-90°	88.3	15.1
90°-100°	38.2	6.5
100°-110°	19.3	3.3
110°-120°	13.8	2.4
120°-130°	10.6	1.8
130°-140°	8.0	1.4
140°-150°	5.3	0.9
150°-160°	2.7	0.5
160°-170°	0.9	0.2
170°-180°	0.1	0.0
0°-90°	485.1	83.1
0°-180°	584.0	100.0



REPORT NUMBER: P411972

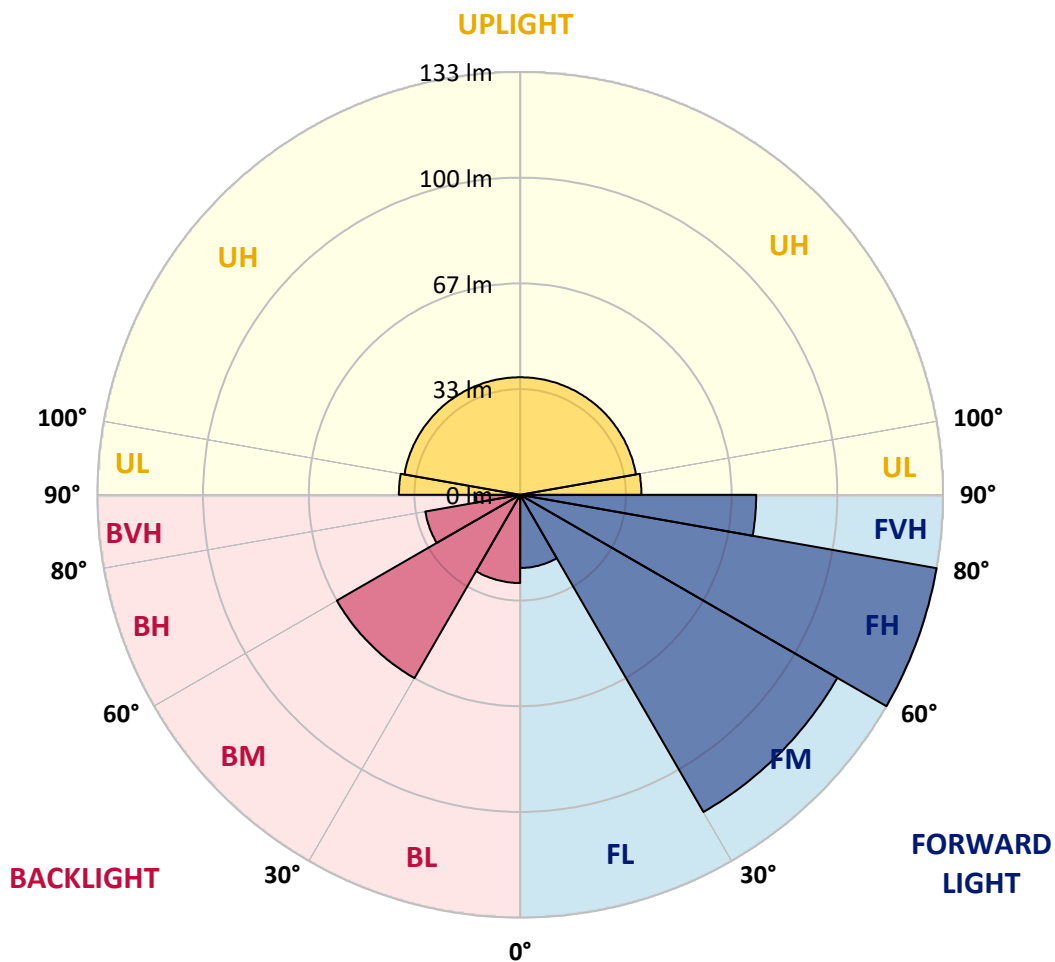
CATALOG NUMBER: CPB-VA1-42-830-U-AS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	23.1	3.9			
FM	(30°-60°)	115.5	19.8			
FH	(60°-80°)	133.3	22.8			G0/660
FVH	(80°-90°)	74.4	12.7			G1/100
BL	(0°-30°)	27.8	4.8	B0/110		
BM	(30°-60°)	66.7	11.4	B0/220		
BH	(60°-80°)	30.4	5.2	B0/110		G0/110
BVH	(80°-90°)	13.9	2.4			G1/100
UL	(90°-100°)	38.2	6.5		U2/50	
UH	(100°-180°)	37.1	6.3		U2/50	

BUG Rating: B0-U3-G1

Type IV Short





REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	40.7	39.4	36.0	30.0	23.3	11.3	1.3	0.0	0.0	0.0	0.0
10°	64.7	64.7	60.0	52.7	44.0	27.4	12.7	1.3	0.0	0.0	0.0
12.5°	84.1	83.4	78.7	70.7	59.4	39.4	20.0	4.0	0.0	0.0	0.0
15°	100.7	99.4	94.1	84.1	70.7	48.0	25.3	6.7	0.0	0.0	0.0
17.5°	112.7	112.1	105.4	92.7	78.0	53.4	29.4	9.3	0.0	0.0	0.0
20°	125.4	124.1	114.7	100.1	82.7	57.4	32.7	11.3	0.0	0.0	0.0
22.5°	139.4	137.4	126.1	107.4	87.4	60.0	34.7	12.7	0.0	0.0	0.0
25°	152.1	150.8	136.1	115.4	92.1	62.7	36.7	14.7	0.7	0.0	0.0
27.5°	166.8	163.4	146.8	122.1	96.1	64.7	38.7	16.0	0.7	0.0	0.0
30°	182.8	178.8	156.8	127.4	99.4	66.0	40.0	16.7	0.7	0.0	0.0
32.5°	195.5	192.1	166.1	132.8	102.1	68.0	40.7	18.0	0.7	0.0	0.0
35°	209.5	204.8	176.1	138.1	104.7	69.4	42.0	18.7	0.7	0.0	0.0
37.5°	220.1	214.8	184.8	143.4	107.4	71.4	42.7	19.3	0.7	0.0	0.0
40°	225.5	221.5	190.1	148.1	110.1	72.7	44.0	20.0	0.7	0.0	0.0
42.5°	233.5	228.1	197.5	152.8	113.4	74.7	44.7	20.7	0.7	0.0	0.0
45°	244.2	239.5	206.8	158.8	116.1	76.0	45.4	21.3	0.7	0.0	0.0
47.5°	259.5	254.8	218.8	165.4	118.7	76.7	46.7	22.0	0.7	0.0	0.0
50°	283.5	274.8	232.8	172.8	122.1	78.0	47.4	22.7	0.7	0.7	0.7
52.5°	305.5	299.5	246.2	180.1	125.4	79.4	48.0	23.3	0.7	0.7	0.7
55°	324.9	316.9	257.5	184.8	128.1	80.1	48.7	24.0	0.7	0.7	0.7
57.5°	334.9	324.9	263.5	188.8	130.1	82.1	49.4	24.7	0.7	0.7	0.7
60°	334.2	324.9	265.5	192.8	132.1	84.1	50.7	25.3	0.7	0.7	0.7
62.5°	326.2	318.2	265.5	195.5	135.4	86.1	52.0	26.0	0.7	0.7	0.7
65°	322.2	314.9	265.5	198.8	140.1	89.4	53.4	26.7	0.7	0.7	0.7
67.5°	320.9	314.2	265.5	201.5	146.8	93.4	56.0	27.4	1.3	0.7	0.7
70°	324.2	316.2	264.2	211.5	153.4	98.1	57.4	27.4	0.7	0.7	0.7
72.5°	317.5	310.2	268.8	224.8	160.8	102.7	58.7	28.0	1.3	0.7	0.7
75°	305.5	304.2	291.5	238.8	169.4	106.1	60.0	28.7	1.3	0.7	0.7
77.5°	361.6	362.2	327.5	250.8	177.4	108.1	60.0	28.7	1.3	0.7	0.7
80°	428.3	423.6	352.2	261.5	180.8	108.1	60.7	28.7	1.3	0.7	0.7
82.5°	449.6	434.3	353.6	259.5	177.4	106.7	60.0	28.7	1.3	0.7	0.7
85°	391.6	384.2	320.9	238.1	166.8	104.1	58.0	28.0	1.3	0.7	0.7
87.5°	298.9	292.2	250.8	200.8	151.4	97.4	56.0	28.0	1.3	0.7	0.7
90°	150.8	156.1	169.4	159.4	131.4	89.4	52.7	27.4	1.3	0.7	0.7
92.5°	86.7	88.1	109.4	121.4	110.7	78.7	49.4	26.0	1.3	0.7	0.7
95°	62.7	63.4	72.7	88.7	90.1	69.4	45.4	25.3	1.3	0.7	0.7
97.5°	49.4	49.4	51.4	64.0	71.4	60.0	41.4	24.7	1.3	0.7	0.7
100°	38.7	38.7	38.7	46.0	55.4	50.7	37.4	23.3	1.3	0.7	0.7
102.5°	30.7	30.7	30.7	34.7	42.0	42.0	34.0	22.7	1.3	0.7	0.7
105°	25.3	25.3	26.0	28.0	33.4	34.7	30.7	21.3	0.7	0.7	0.7
107.5°	22.7	22.7	23.3	24.7	27.4	29.4	27.4	20.7	1.3	0.7	0.7
110°	21.3	22.0	22.0	22.7	24.0	25.3	25.3	19.3	1.3	0.7	0.7



REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	20.7	20.7	20.7	20.7	21.3	22.7	22.7	18.7	0.7	0.7	0.7
115°	18.7	19.3	18.7	18.7	18.7	20.7	21.3	18.0	0.7	0.7	0.7
117.5°	16.0	16.7	16.7	16.7	17.3	18.7	19.3	16.7	0.7	0.7	0.7
120°	14.0	14.0	14.7	15.3	16.0	17.3	18.7	16.0	0.7	0.7	0.7
122.5°	12.0	12.7	13.3	14.0	15.3	16.7	17.3	15.3	0.7	0.7	0.7
125°	11.3	11.3	12.7	13.3	14.0	15.3	16.7	14.0	0.7	0.7	0.7
127.5°	10.7	11.3	12.0	12.7	14.0	14.7	15.3	13.3	0.7	0.7	0.7
130°	10.7	10.7	11.3	12.0	13.3	14.0	14.7	12.7	0.7	0.7	0.7
132.5°	10.0	10.0	10.7	12.0	12.7	13.3	14.0	12.0	0.7	0.7	0.7
135°	9.3	9.3	10.0	11.3	12.0	12.7	12.7	10.7	0.7	0.7	0.7
137.5°	9.3	9.3	10.0	10.7	11.3	12.0	12.0	10.0	0.7	0.7	0.7
140°	8.7	8.7	9.3	10.0	10.7	11.3	11.3	8.7	0.7	0.7	0.7
142.5°	8.7	8.7	9.3	10.0	10.0	10.7	10.0	8.0	0.7	0.7	0.7
145°	8.0	8.0	8.7	9.3	9.3	10.0	9.3	7.3	0.7	0.7	0.7
147.5°	7.3	8.0	8.0	8.7	8.7	8.7	8.7	6.7	0.7	0.7	0.7
150°	7.3	7.3	7.3	8.0	8.0	8.0	7.3	5.3	0.7	0.7	0.7
152.5°	6.7	6.7	7.3	7.3	7.3	7.3	6.7	4.7	0.7	0.7	0.7
155°	6.0	6.0	6.7	6.7	6.7	6.7	6.0	4.0	0.7	0.7	0.7
157.5°	5.3	5.3	6.0	6.0	6.0	6.0	5.3	3.3	0.7	0.7	0.7
160°	4.7	4.7	5.3	5.3	5.3	4.7	4.0	2.7	0.7	0.7	0.7
162.5°	4.7	4.7	4.7	4.7	4.7	4.0	3.3	2.0	0.7	0.7	0.7
165°	4.0	4.0	4.0	4.0	4.0	3.3	2.7	2.0	0.7	1.3	1.3
167.5°	3.3	3.3	3.3	3.3	3.3	2.7	2.0	1.3	1.3	1.3	1.3
170°	2.7	2.7	2.7	2.7	2.7	2.0	1.3	1.3	1.3	1.3	1.3
172.5°	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
175°	0.0	0.0	0.0	0.0	0.7	0.7	1.3	1.3	1.3	1.3	2.0
177.5°	0.0	0.0	0.0	0.0	0.7	0.7	1.3	1.3	1.3	2.0	2.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	1.3	2.7	2.7	2.0	2.0
7.5°	0.0	0.0	0.0	3.3	14.7	30.7	41.4	48.0	52.7	54.0
10°	0.0	0.0	2.7	16.7	36.7	61.4	78.0	91.4	96.7	98.1
12.5°	0.0	0.0	5.3	26.0	56.0	88.7	106.7	120.1	127.4	128.1
15°	0.0	0.7	8.7	34.0	69.4	102.7	120.7	134.8	142.1	142.8
17.5°	0.0	0.7	11.3	39.4	74.0	106.1	122.7	136.8	145.4	146.8
20°	0.0	0.0	13.3	42.0	74.0	102.7	121.4	140.8	154.8	157.4
22.5°	0.0	0.7	15.3	43.4	72.0	102.7	128.1	153.4	170.1	172.8
25°	0.0	0.7	17.3	44.0	72.0	106.7	132.8	157.4	175.4	178.8
27.5°	0.0	0.7	18.7	44.7	74.0	106.1	130.1	153.4	170.1	172.8
30°	0.0	0.7	19.3	46.0	73.4	102.7	124.1	146.8	166.1	169.4
32.5°	0.0	0.7	20.7	46.0	72.0	98.1	118.7	144.8	166.8	170.8
35°	0.0	0.7	21.3	46.0	70.7	94.7	116.1	144.1	168.8	172.8
37.5°	0.0	0.7	22.0	46.0	69.4	93.4	114.7	144.1	170.8	177.4
40°	0.0	0.7	22.7	46.0	68.7	92.1	113.4	141.4	168.1	172.8
42.5°	0.0	0.7	23.3	46.0	68.0	90.7	109.4	135.4	161.4	165.4
45°	0.0	0.7	23.3	46.0	67.4	88.1	104.7	127.4	146.1	146.8
47.5°	0.0	0.7	24.0	46.0	66.0	84.1	98.7	107.4	99.4	94.7
50°	0.7	0.7	24.0	45.4	64.0	80.7	88.1	73.4	72.7	72.7
52.5°	0.7	0.7	24.7	44.7	62.0	75.4	69.4	62.0	67.4	68.7
55°	0.7	0.7	24.7	44.0	59.4	68.0	53.4	57.4	64.0	64.7
57.5°	0.7	0.7	24.7	43.4	56.7	57.4	46.7	53.4	60.0	61.4
60°	0.7	0.7	24.7	42.0	52.7	46.0	42.7	50.0	56.7	57.4
62.5°	0.7	0.7	24.7	40.7	48.7	38.0	40.0	46.7	52.7	54.0
65°	0.7	0.7	24.7	39.4	43.4	34.7	38.0	44.7	50.7	51.4
67.5°	0.7	0.7	24.7	37.4	38.7	32.7	37.4	44.0	50.0	50.7
70°	0.7	0.7	24.0	36.0	34.7	32.0	37.4	42.7	48.7	50.0
72.5°	0.7	0.7	23.3	34.0	32.0	32.0	38.0	42.7	46.7	47.4
75°	0.7	1.3	23.3	32.7	30.0	32.7	38.7	44.7	46.0	45.4
77.5°	0.7	0.7	23.3	31.4	28.7	32.7	39.4	47.4	52.0	52.7
80°	0.7	1.3	22.7	30.0	27.4	32.0	39.4	49.4	56.7	57.4
82.5°	0.7	1.3	22.7	28.7	26.7	31.4	38.7	48.0	56.7	57.4
85°	0.7	1.3	22.7	27.4	26.0	30.0	35.4	44.0	50.0	50.7
87.5°	0.7	0.7	22.0	26.7	25.3	28.0	31.4	35.4	39.4	39.4
90°	0.7	0.7	21.3	25.3	24.0	26.0	26.7	26.7	24.0	21.3
92.5°	0.7	0.7	21.3	24.7	23.3	23.3	22.7	20.7	17.3	16.7
95°	0.7	0.7	20.7	24.0	22.0	21.3	19.3	16.7	14.7	14.7
97.5°	0.7	0.7	20.7	23.3	21.3	20.0	16.7	14.7	13.3	13.3
100°	0.7	0.7	20.0	22.7	20.7	18.0	15.3	13.3	12.0	12.0
102.5°	0.7	0.7	19.3	22.7	20.0	17.3	14.7	12.7	11.3	11.3
105°	0.7	0.7	19.3	22.0	20.0	16.7	14.0	12.0	10.7	10.7
107.5°	0.7	0.7	18.7	22.0	19.3	16.0	14.0	12.0	10.7	10.0
110°	0.7	0.7	18.0	22.0	19.3	16.0	14.0	12.0	10.7	10.0



REPORT NUMBER: P411972

CATALOG NUMBER: CPB-VA1-42-830-U-AS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.7	0.7	17.3	21.3	19.3	16.7	14.0	12.0	10.0	10.0
115°	0.7	0.7	17.3	21.3	20.0	16.7	14.0	12.0	10.0	10.0
117.5°	0.7	0.7	16.7	21.3	20.0	16.7	14.0	12.0	10.0	10.0
120°	0.7	0.7	16.0	20.7	20.0	17.3	14.7	12.0	10.7	10.0
122.5°	0.7	0.7	15.3	20.7	20.0	17.3	14.7	12.7	10.7	10.0
125°	0.7	0.7	14.0	20.0	20.0	18.0	14.7	12.7	10.7	10.7
127.5°	0.7	0.7	13.3	19.3	20.0	18.0	15.3	12.7	10.7	10.7
130°	0.7	0.7	12.7	18.7	20.0	18.0	15.3	12.7	11.3	10.7
132.5°	0.7	0.7	12.0	17.3	19.3	18.7	16.0	13.3	11.3	10.7
135°	0.7	0.7	10.7	16.7	18.7	18.0	16.0	13.3	11.3	11.3
137.5°	0.7	0.7	10.0	15.3	18.0	17.3	16.0	13.3	12.0	11.3
140°	0.7	0.7	8.7	14.0	16.7	16.7	15.3	14.0	12.0	12.0
142.5°	0.7	0.7	8.0	12.7	15.3	16.0	15.3	13.3	12.0	12.0
145°	0.7	0.7	6.7	12.0	14.0	15.3	14.7	13.3	12.0	12.0
147.5°	0.7	0.7	6.0	10.7	12.7	14.0	13.3	12.7	12.0	11.3
150°	0.7	0.7	5.3	9.3	11.3	12.0	12.7	12.0	11.3	11.3
152.5°	0.7	0.7	4.0	8.0	10.0	10.7	11.3	10.7	10.7	10.0
155°	0.7	0.7	3.3	6.7	8.7	9.3	9.3	9.3	9.3	9.3
157.5°	0.7	0.7	2.7	6.0	7.3	8.0	8.7	8.0	8.0	8.0
160°	0.7	0.7	2.0	4.7	6.0	6.7	7.3	7.3	7.3	7.3
162.5°	0.7	0.7	1.3	3.3	4.7	6.0	6.0	6.0	6.0	6.0
165°	1.3	0.7	1.3	2.7	4.0	4.7	4.7	5.3	5.3	5.3
167.5°	1.3	1.3	1.3	2.0	2.7	3.3	4.0	4.0	4.0	4.0
170°	1.3	1.3	1.3	1.3	1.3	2.0	2.7	2.7	2.7	2.7
172.5°	1.3	1.3	1.3	0.7	0.7	0.7	0.7	0.7	1.3	1.3
175°	2.0	1.3	1.3	0.7	0.7	0.0	0.0	0.0	0.0	0.0
177.5°	2.0	1.3	1.3	1.3	0.7	0.0	0.0	0.0	0.0	0.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

(END OF REPORT)