

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: P188981

Luminaire Tested: **ABB-B2-LED-D1-A-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P188981
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34805)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ABB-B2-LED-D1-A-8030
Description: ARBOR OUTDOOR ARCHITECTURAL BOLLARD
80 CRI, 3000K LEDS AND ASYMMETRIC OPTIC, GRAPHITE METALLIC PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 678 lumens
Efficiency: N/A
Efficacy: 29.5 lumens/watt
Luminous Opening: Circular (Dia: 4.75' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

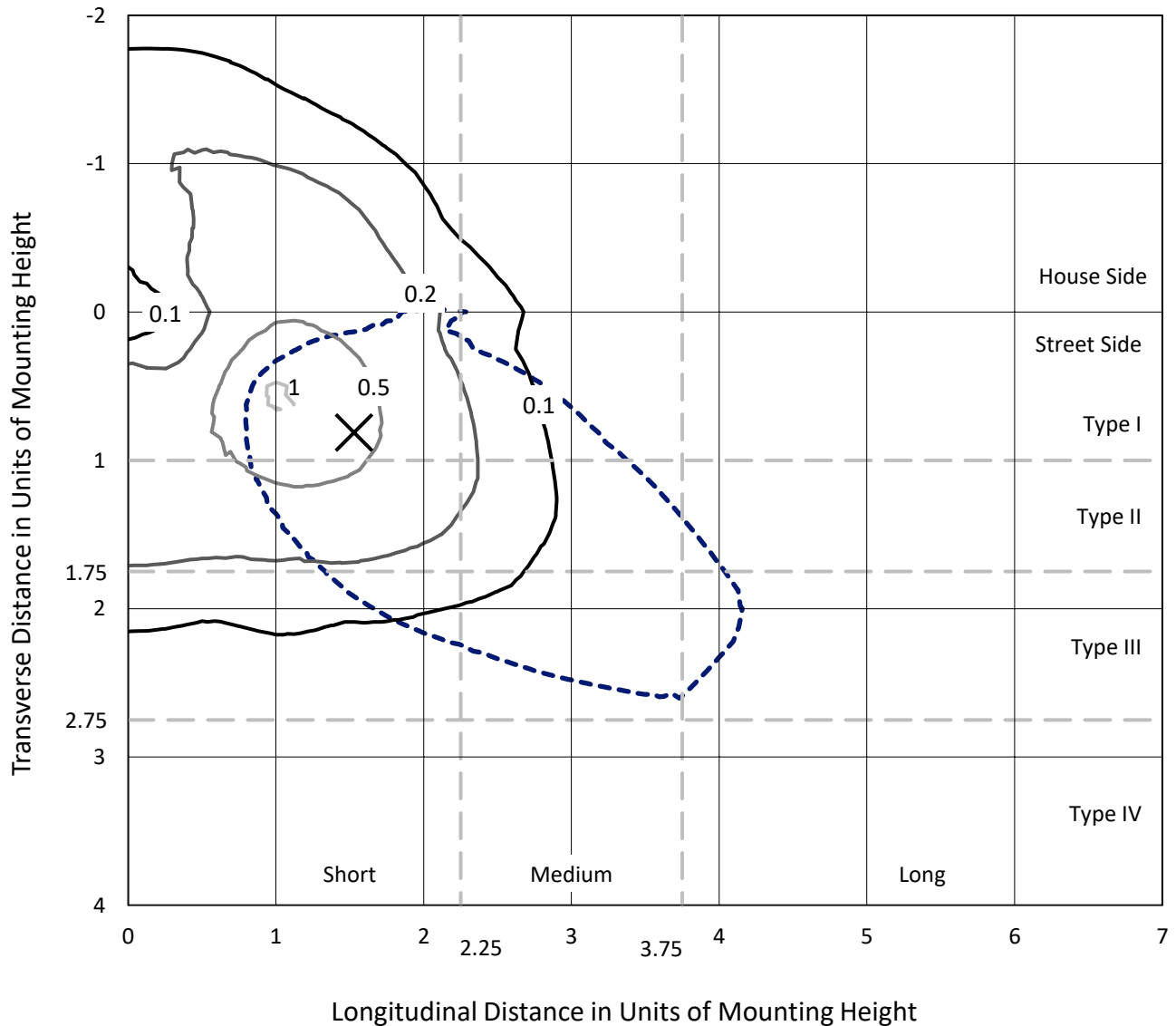
Input Watts (W): 23
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P188981
 CATALOG NUMBER: ABB-B2-LED-D1-A-8030

Iso-Footcandle Lines of Horizontal Illumination

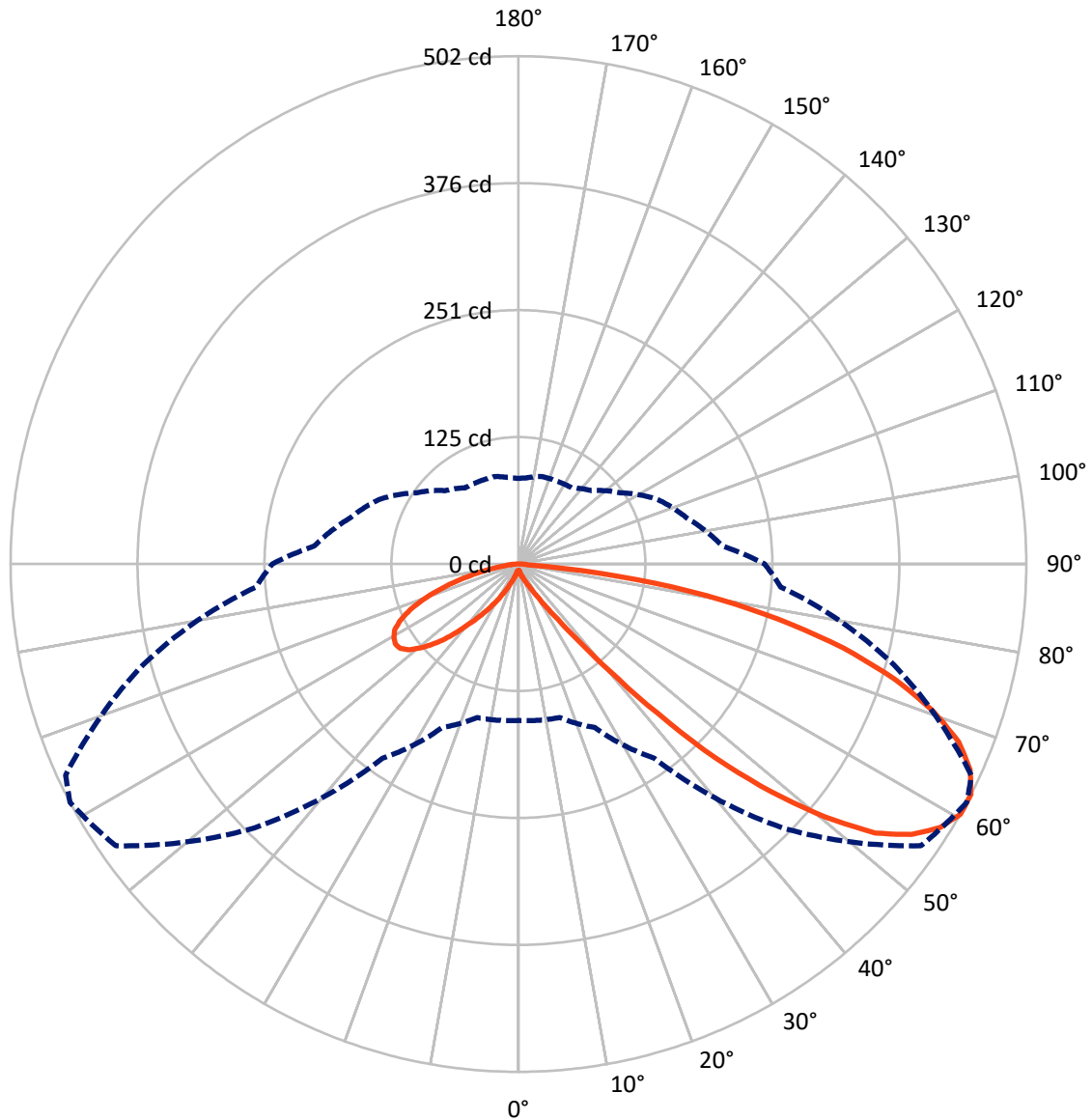
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc
 Type III - Short - N/A

REPORT NUMBER: P188981
CATALOG NUMBER: ABB-B2-LED-D1-A-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P188981

CATALOG NUMBER: ABB-B2-LED-D1-A-8030

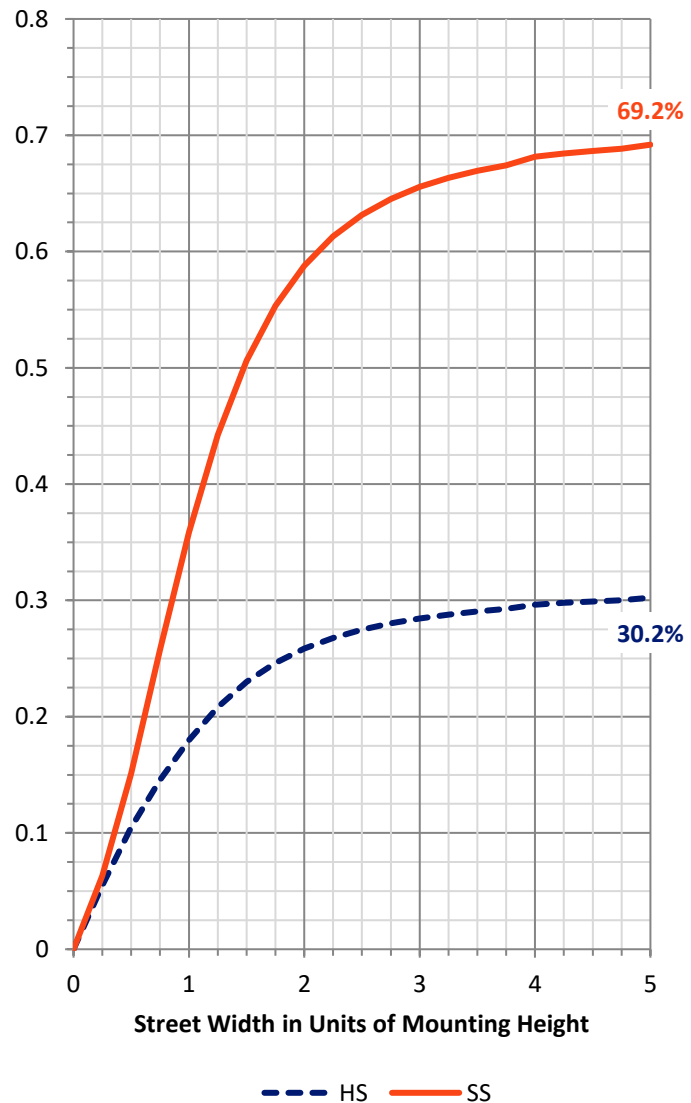
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	207.2	0.0	207.2
	% Fixture	30.6	0.0	30.6
Street Side	Lumens	470.8	0.0	470.8
	% Fixture	69.4	0.0	69.4
Total	Lumens	678.0	0.0	678.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.1
10°-20°	3.7	0.5
20°-30°	11.8	1.7
30°-40°	35.0	5.2
40°-50°	100.3	14.8
50°-60°	179.4	26.5
60°-70°	197.6	29.2
70°-80°	128.4	18.9
80°-90°	20.8	3.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	678.0	100.0
0°-180°	678.0	100.0



REPORT NUMBER: P188981

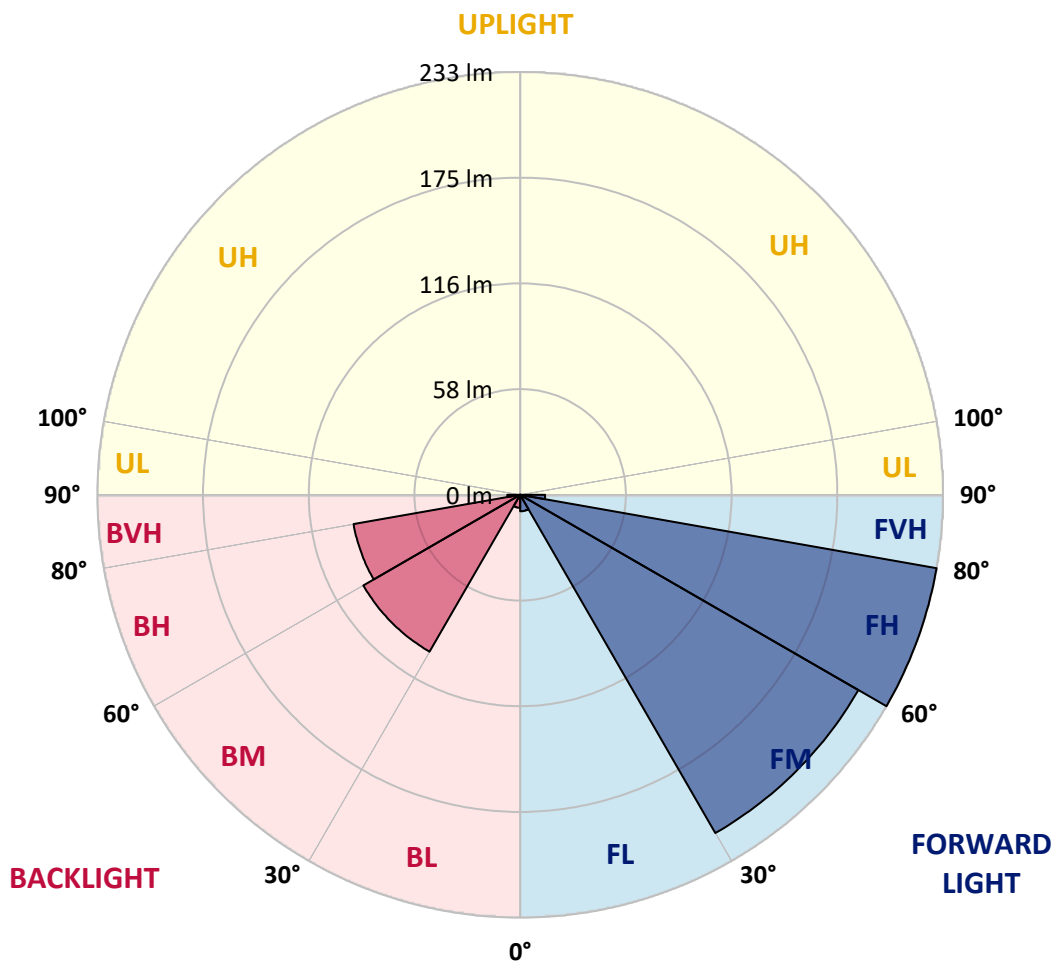
CATALOG NUMBER: ABB-B2-LED-D1-A-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	9.1	1.3			
FM	(30°-60°)	215.1	31.7			
FH	(60°-80°)	232.9	34.3			G0/660
FVH	(80°-90°)	13.7	2.0			G1/100
BL	(0°-30°)	7.2	1.1	B0/110		
BM	(30°-60°)	99.8	14.7	B0/220		
BH	(60°-80°)	93.1	13.7	B0/110		G0/110
BVH	(80°-90°)	7.1	1.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





REPORT NUMBER: P188981
 CATALOG NUMBER: ABB-B2-LED-D1-A-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
2.5°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
5°	6.5	6.5	6.5	6.5	7.3	7.3	7.3	6.5	6.5	6.5	6.5
7.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.3	7.3	7.3	7.3
10°	8.9	8.9	9.8	9.8	9.8	9.8	8.9	8.9	8.9	8.1	8.1
12.5°	12.2	12.2	12.2	12.2	11.4	11.4	10.6	10.6	9.8	9.8	9.8
15°	14.6	15.4	15.4	14.6	13.8	13.0	12.2	12.2	11.4	11.4	11.4
17.5°	19.5	19.5	18.7	17.9	16.3	15.4	14.6	13.8	13.8	13.0	13.0
20°	25.2	25.2	22.8	20.3	19.5	17.9	17.1	16.3	16.3	15.4	15.4
22.5°	32.5	31.7	27.6	24.4	22.8	21.1	20.3	20.3	19.5	18.7	17.9
25°	40.6	39.8	34.1	29.3	26.8	25.2	25.2	24.4	23.6	22.8	21.9
27.5°	50.4	48.8	41.5	34.9	30.9	30.9	30.9	30.1	30.1	28.4	26.8
30°	60.1	58.5	50.4	41.5	37.4	38.2	39.0	38.2	38.2	35.8	32.5
32.5°	69.9	69.1	60.1	50.4	45.5	48.0	50.4	50.4	50.4	45.5	40.6
35°	79.7	78.8	71.5	61.0	55.3	62.6	69.1	67.5	66.6	60.1	52.0
37.5°	90.2	90.2	84.5	72.3	68.3	83.7	94.3	95.1	94.3	80.5	66.6
40°	101.6	101.6	97.5	87.8	85.3	113.0	134.9	138.2	135.7	113.0	86.2
42.5°	113.8	113.8	111.4	104.0	105.7	152.8	194.3	201.6	194.3	154.4	108.9
45°	126.8	126.8	126.8	121.1	129.2	191.8	263.3	273.9	267.4	198.3	139.0
47.5°	136.5	137.4	141.4	135.7	154.4	232.5	321.9	336.5	327.6	240.6	166.6
50°	147.9	148.7	151.2	150.4	178.8	275.5	378.8	392.6	384.4	281.2	193.4
52.5°	156.1	156.1	160.9	161.7	199.1	315.4	428.3	441.3	432.4	323.5	219.5
55°	159.3	160.9	164.2	170.7	217.8	343.8	461.7	471.4	466.5	356.0	239.0
57.5°	158.5	159.3	162.6	173.9	227.6	362.5	481.2	490.9	486.0	377.1	252.8
60°	154.4	155.2	156.9	178.0	234.1	368.2	485.2	501.5	493.4	383.6	260.1
62.5°	147.1	146.3	146.3	179.6	233.3	364.1	488.5	501.5	493.4	381.2	259.3
65°	134.1	134.1	131.7	180.4	224.3	352.7	477.9	490.1	483.6	367.4	249.5
67.5°	119.5	117.9	113.8	176.4	212.9	327.6	455.2	469.0	460.8	342.2	234.9
70°	97.5	99.2	95.1	166.6	191.8	291.0	419.4	434.0	426.7	308.0	212.1
72.5°	76.4	75.6	77.2	147.9	168.2	250.3	376.3	388.5	381.2	264.2	186.9
75°	55.3	54.5	61.0	125.2	141.4	202.4	317.0	331.6	322.7	218.6	154.4
77.5°	35.8	34.1	44.7	94.3	108.1	149.6	253.6	262.5	257.7	162.6	119.5
80°	19.5	20.3	27.6	60.1	69.9	95.9	178.8	187.8	178.0	105.7	80.5
82.5°	12.2	11.4	13.0	21.9	29.3	46.3	93.5	100.8	93.5	47.1	37.4
85°	6.5	5.7	5.7	5.7	5.7	6.5	8.1	8.9	8.1	6.5	6.5
87.5°	4.9	4.9	4.9	4.1	4.9	4.9	5.7	5.7	5.7	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P188981
 CATALOG NUMBER: ABB-B2-LED-D1-A-8030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
2.5°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	8.1	8.1	8.1
5°	6.5	5.7	5.7	6.5	6.5	6.5	6.5	7.3	7.3	7.3	7.3
7.5°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	8.1	8.1	8.1	8.1
10°	8.1	8.1	8.1	8.1	8.1	8.9	8.9	8.9	8.9	8.9	8.9
12.5°	9.8	9.8	9.8	9.8	10.6	10.6	10.6	10.6	10.6	9.8	9.8
15°	11.4	11.4	11.4	11.4	12.2	13.0	12.2	12.2	11.4	10.6	10.6
17.5°	13.0	13.0	13.8	13.8	14.6	14.6	13.8	13.8	12.2	12.2	11.4
20°	15.4	15.4	16.3	17.1	17.9	17.9	16.3	14.6	13.8	13.0	13.0
22.5°	17.9	17.9	19.5	21.1	21.1	20.3	17.9	16.3	14.6	13.8	13.8
25°	21.1	21.9	24.4	26.8	26.0	22.8	20.3	17.9	15.4	14.6	14.6
27.5°	26.0	26.8	30.1	32.5	30.9	26.8	22.8	19.5	17.1	16.3	16.3
30°	32.5	33.3	38.2	40.6	36.6	30.1	25.2	21.1	18.7	17.1	17.1
32.5°	40.6	42.3	48.0	48.8	43.1	34.1	29.3	24.4	21.1	19.5	18.7
35°	51.2	53.6	60.1	58.5	50.4	40.6	33.3	28.4	24.4	21.9	21.1
37.5°	65.0	67.5	72.3	69.1	58.5	47.1	39.0	33.3	28.4	25.2	25.2
40°	82.9	84.5	88.6	80.5	67.5	56.1	47.1	39.8	34.9	32.5	32.5
42.5°	104.8	105.7	106.5	94.3	78.8	65.8	56.9	51.2	43.9	42.3	41.5
45°	127.6	126.0	125.2	109.7	90.2	74.8	67.5	61.0	55.3	52.8	52.8
47.5°	148.7	145.5	143.0	122.7	101.6	85.3	74.8	68.3	64.2	63.4	63.4
50°	172.3	163.4	156.9	134.9	110.5	92.7	82.1	76.4	72.3	71.5	72.3
52.5°	192.6	178.8	168.2	145.5	118.7	99.2	87.0	82.1	79.7	78.8	78.8
55°	211.3	189.4	174.7	152.0	123.5	102.4	91.0	86.2	85.3	82.9	82.9
57.5°	229.2	196.7	176.4	153.6	124.4	104.0	92.7	88.6	87.8	85.3	84.5
60°	243.0	202.4	173.1	151.2	122.7	102.4	91.8	90.2	89.4	85.3	84.5
62.5°	254.4	205.6	164.2	146.3	119.5	100.0	89.4	89.4	88.6	84.5	83.7
65°	254.4	207.3	151.2	136.5	112.2	95.1	84.5	87.8	86.2	81.3	80.5
67.5°	247.1	204.0	134.1	122.7	101.6	87.0	79.7	82.9	81.3	77.2	76.4
70°	229.2	191.0	114.6	105.7	88.6	77.2	73.2	75.6	74.8	69.9	69.9
72.5°	201.6	171.5	97.5	86.2	73.2	67.5	64.2	67.5	66.6	61.8	62.6
75°	167.4	143.0	78.8	65.8	57.7	55.3	54.5	56.9	55.3	53.6	53.6
77.5°	128.4	108.1	58.5	46.3	42.3	43.1	43.1	45.5	43.9	43.1	43.9
80°	80.5	69.1	37.4	30.1	29.3	30.9	30.9	33.3	33.3	32.5	31.7
82.5°	34.1	26.8	18.7	17.1	17.1	18.7	18.7	20.3	21.1	21.1	21.1
85°	5.7	5.7	7.3	7.3	8.1	7.3	7.3	8.1	8.9	10.6	10.6
87.5°	4.1	4.1	4.9	5.7	5.7	5.7	5.7	5.7	6.5	8.1	8.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)