

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: P400855

Luminaire Tested: **ENV-SA1-830-U-SL2-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400855  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-830-U-SL2-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 496 lumens  
Efficiency: N/A  
Efficacy: 38.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G0

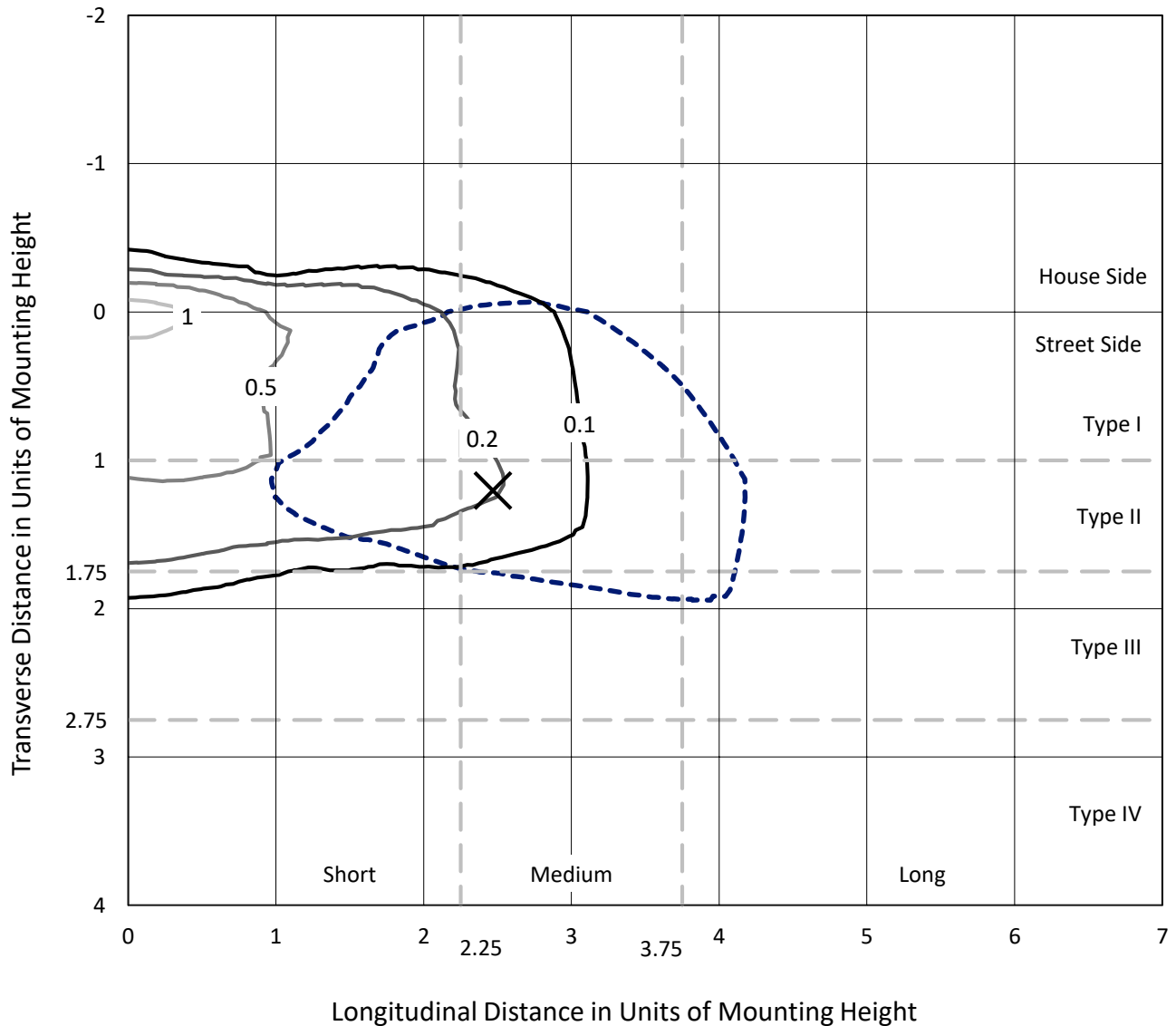
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

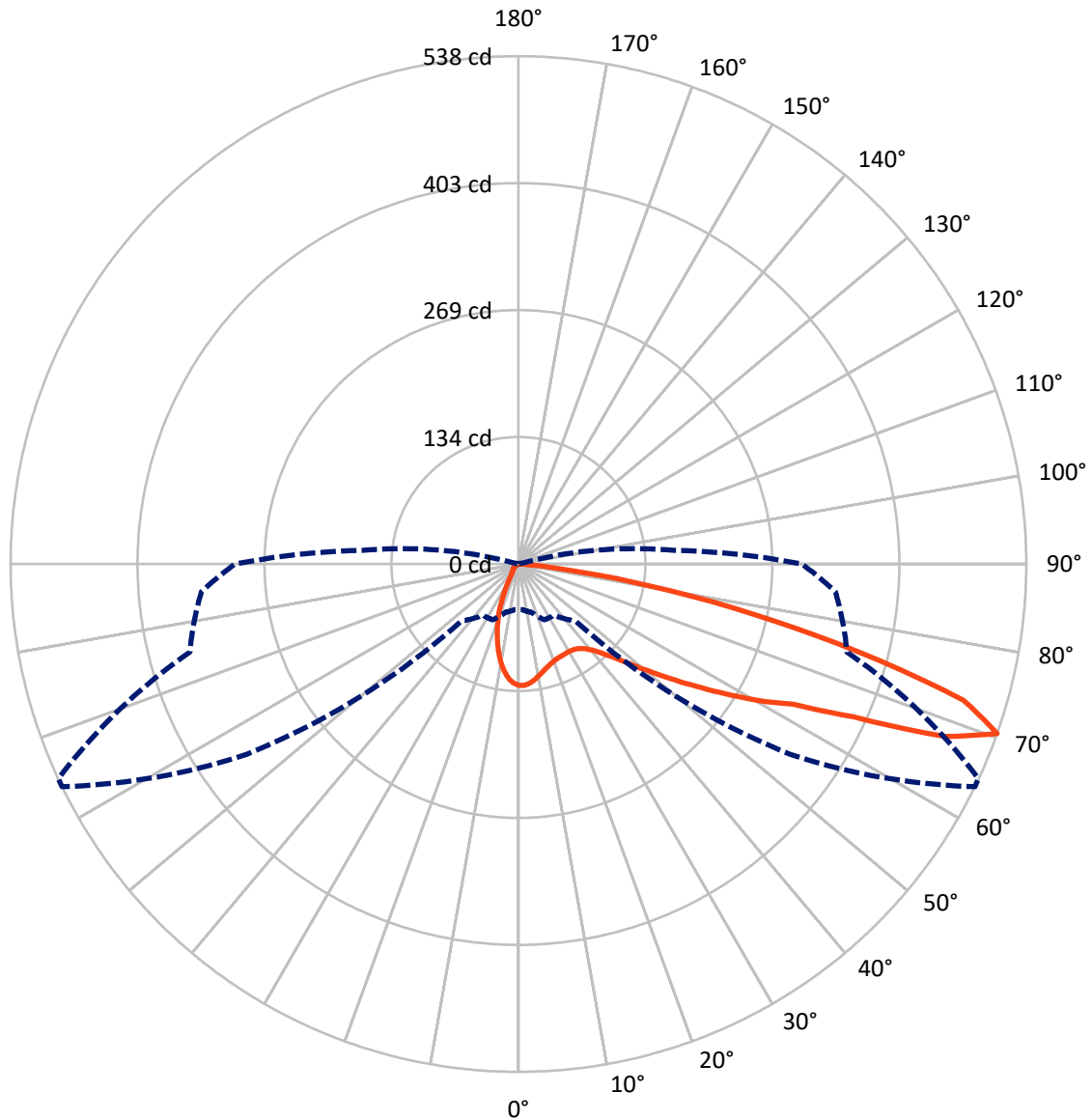
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.3 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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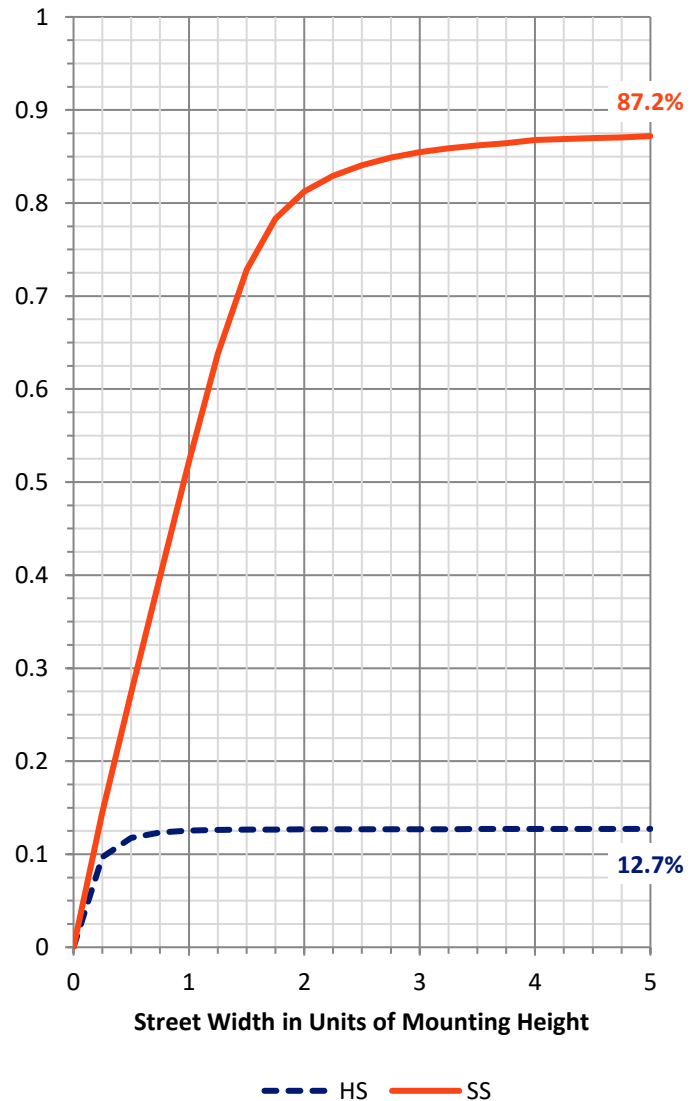
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	63.7	0.0	63.7
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	432.3	0.0	432.3
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	496.0	0.0	496.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	10.8	2.2
10°-20°	24.0	4.8
20°-30°	33.1	6.7
30°-40°	45.5	9.2
40°-50°	67.9	13.7
50°-60°	107.2	21.6
60°-70°	121.5	24.5
70°-80°	79.8	16.1
80°-90°	6.3	1.3
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°	496.0	100.0
0°-180°	496.0	100.0



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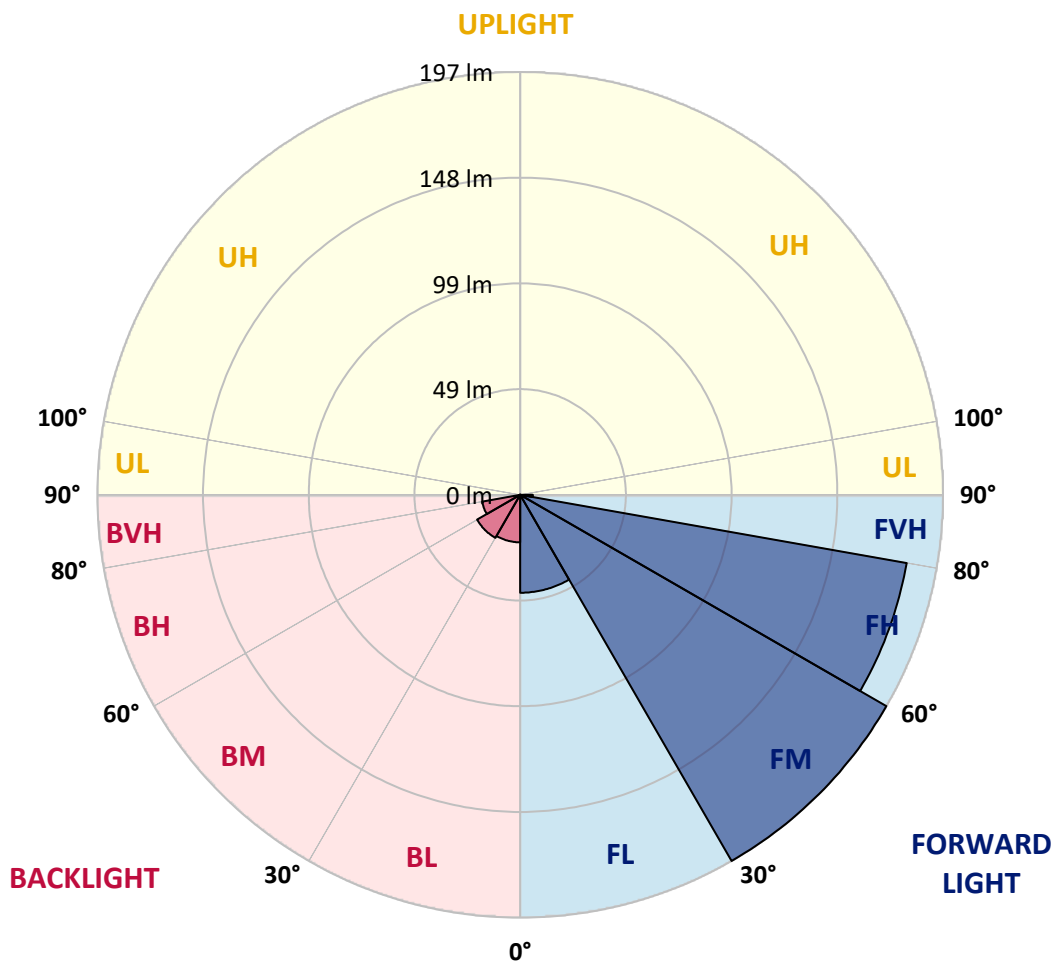
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	45.7	9.2			
FM	(30°-60°)	197.4	39.8			
FH	(60°-80°)	183.3	36.9			G0/660
FVH	(80°-90°)	5.9	1.2			G0/10
BL	(0°-30°)	22.2	4.5	B0/110		
BM	(30°-60°)	23.2	4.7	B0/220		
BH	(60°-80°)	18.0	3.6	B0/110		G0/110
BVH	(80°-90°)	0.4	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G0**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4
2.5°	124.8	124.8	125.4	126.0	126.4	127.3	128.0	128.6	128.6	128.9	128.3
5°	116.5	116.5	117.1	118.5	120.1	122.1	124.4	126.7	127.1	128.7	128.7
7.5°	108.9	109.6	110.4	111.9	113.6	116.5	119.7	123.6	124.0	128.0	128.9
10°	103.5	104.0	104.5	106.2	108.6	112.0	115.4	120.0	120.8	126.8	128.9
12.5°	99.3	99.3	100.1	102.0	104.3	107.6	111.5	116.5	117.5	124.6	128.6
15°	96.2	96.1	97.0	98.7	101.0	104.4	108.2	113.5	114.5	122.8	128.5
17.5°	94.4	94.5	95.2	96.5	98.7	101.9	105.7	111.0	112.0	121.3	128.9
20°	94.4	94.4	94.8	95.4	97.1	100.0	103.7	109.1	110.2	120.4	129.5
22.5°	96.2	96.0	96.4	95.9	96.6	98.7	102.5	107.9	109.0	119.9	130.5
25°	99.5	99.2	99.4	98.3	97.4	98.3	101.7	107.4	108.6	120.0	131.4
27.5°	104.1	104.1	103.6	102.1	99.9	98.9	101.6	107.0	108.2	120.0	132.0
30°	110.6	110.3	109.6	108.0	104.6	101.4	102.5	107.0	108.2	120.1	132.1
32.5°	117.1	117.2	117.7	116.1	111.5	105.5	104.6	107.8	108.9	120.0	131.9
35°	123.6	123.7	125.6	125.8	119.8	112.3	108.2	109.9	110.6	120.9	132.1
37.5°	129.4	129.8	133.5	135.4	130.5	120.9	113.8	113.8	114.2	123.2	133.1
40°	135.8	136.9	141.5	145.6	143.7	132.0	122.1	119.6	119.8	127.5	135.5
42.5°	143.3	144.7	150.6	156.6	156.5	145.6	132.6	128.7	128.9	134.9	140.3
45°	152.8	153.8	161.3	168.7	170.3	160.6	145.8	140.7	140.9	146.2	149.6
47.5°	164.4	165.6	172.8	181.7	185.7	178.6	162.8	157.4	156.8	160.6	163.0
50°	179.6	181.8	186.1	194.6	204.3	199.6	182.9	177.4	176.7	179.7	180.5
52.5°	194.1	196.1	197.8	205.7	224.4	225.6	207.5	201.5	200.8	201.5	202.4
55°	196.3	197.4	198.7	209.3	240.7	258.6	235.5	228.4	226.3	225.0	228.3
57.5°	178.9	178.2	182.6	197.0	243.4	295.2	273.4	259.5	257.6	250.3	247.1
60°	141.7	140.7	144.8	164.6	228.3	313.3	325.9	293.9	289.2	265.0	261.9
62.5°	99.5	98.4	103.7	115.4	177.1	309.7	385.1	326.6	317.2	278.0	273.7
65°	76.7	76.1	79.0	81.6	108.1	268.3	417.7	390.2	371.0	292.1	286.6
67.5°	60.1	60.8	64.4	72.0	69.8	167.2	414.7	487.4	468.1	318.1	314.6
70°	48.3	48.5	52.9	65.1	65.9	85.1	351.1	537.7	537.4	360.1	336.9
72.5°	29.2	30.0	37.2	56.3	66.5	65.2	236.0	492.6	499.5	369.8	303.8
75°	14.0	14.8	19.3	37.8	66.0	63.4	127.7	373.0	381.7	331.6	246.3
77.5°	5.2	5.9	8.9	18.5	48.9	58.1	67.2	251.5	258.4	242.7	166.9
80°	1.7	1.9	3.5	8.5	24.9	48.0	43.3	141.8	146.5	106.2	56.1
82.5°	0.2	0.3	1.0	2.9	9.6	24.4	25.4	53.4	55.7	20.8	11.3
85°	0.0	0.0	0.0	0.0	0.2	0.2	6.3	10.2	8.4	2.0	3.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.3
90°	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4
2.5°	128.2	128.2	127.6	126.7	125.4	123.7	123.2	121.9	121.9	120.7	120.5
5°	128.4	127.9	125.9	122.9	118.8	114.4	111.6	108.5	105.9	104.2	104.4
7.5°	128.4	127.3	123.2	116.7	109.0	101.4	95.5	88.7	85.6	83.5	84.4
10°	128.0	126.1	119.1	109.2	97.1	86.4	76.8	69.0	63.6	61.3	59.4
12.5°	127.3	124.5	114.0	99.9	84.3	70.4	57.1	46.8	39.7	36.1	35.7
15°	126.6	122.7	108.0	89.7	70.0	51.7	36.9	27.0	20.9	19.5	19.7
17.5°	126.4	121.1	102.2	78.9	55.9	34.5	21.3	17.2	16.3	16.0	15.9
20°	126.5	119.6	95.9	68.1	39.6	21.5	16.1	15.2	14.8	14.7	14.6
22.5°	126.8	117.9	89.8	56.9	27.0	15.7	14.4	13.8	13.3	13.1	13.0
25°	126.8	116.1	82.9	44.9	17.7	13.8	12.9	12.1	11.5	11.2	11.2
27.5°	126.6	114.0	75.7	34.1	14.0	12.3	11.3	10.3	9.5	9.1	9.1
30°	125.8	111.5	68.8	23.8	12.3	11.0	9.8	8.5	7.5	7.1	6.9
32.5°	124.6	108.8	60.9	16.7	11.1	9.6	8.2	6.8	5.9	5.4	5.4
35°	123.4	106.1	52.3	12.8	10.0	8.5	6.9	5.5	4.7	4.4	4.3
37.5°	122.8	103.2	44.0	11.1	9.0	7.2	5.6	4.4	3.8	3.6	3.5
40°	123.2	101.0	35.8	9.9	8.0	6.1	4.6	3.8	3.2	2.9	2.9
42.5°	125.9	99.8	28.0	9.1	7.2	5.1	3.8	3.1	2.5	2.3	2.3
45°	131.2	100.7	21.3	8.3	6.1	4.3	3.2	2.4	1.9	1.7	1.7
47.5°	140.1	104.1	16.1	7.6	5.2	3.5	2.6	1.9	1.5	1.3	1.2
50°	153.1	111.0	12.6	6.9	4.4	3.0	2.2	1.5	1.1	1.0	1.0
52.5°	171.8	123.0	10.8	6.1	3.6	2.4	1.7	1.1	0.9	0.7	0.7
55°	194.9	138.2	9.8	5.4	2.9	2.0	1.4	0.9	0.6	0.5	0.4
57.5°	213.5	150.2	9.2	4.7	2.4	1.7	1.0	0.7	0.5	0.3	0.3
60°	230.0	158.0	8.1	3.9	2.1	1.4	0.9	0.5	0.3	0.3	0.3
62.5°	243.4	163.0	6.7	3.1	1.7	1.1	0.7	0.4	0.3	0.3	0.3
65°	258.5	167.1	5.5	2.4	1.5	1.0	0.6	0.3	0.3	0.3	0.3
67.5°	288.3	176.3	4.1	1.9	1.1	0.8	0.5	0.3	0.3	0.2	0.2
70°	299.9	165.6	3.2	1.6	0.9	0.7	0.5	0.3	0.2	0.2	0.2
72.5°	255.2	123.9	2.5	1.3	0.8	0.6	0.5	0.3	0.3	0.3	0.2
75°	202.4	83.7	2.0	1.0	0.8	0.7	0.5	0.5	0.4	0.3	0.3
77.5°	129.3	37.1	1.6	0.9	0.8	0.9	0.8	0.5	0.5	0.4	0.4
80°	38.6	8.9	1.1	0.7	0.6	0.7	0.8	0.5	0.3	0.3	0.3
82.5°	8.4	2.1	0.7	0.3	0.4	0.3	0.5	0.5	0.3	0.3	0.3
85°	2.8	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
87.5°	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
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)