

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: P400891

Luminaire Tested: **ENV-SA1A-727-U-SL2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400891  
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-SA1A-727-U-SL2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE 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: 1848 lumens  
Efficiency: N/A  
Efficacy: 91.9 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 - G1

Input Watts (W): 20.1  
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

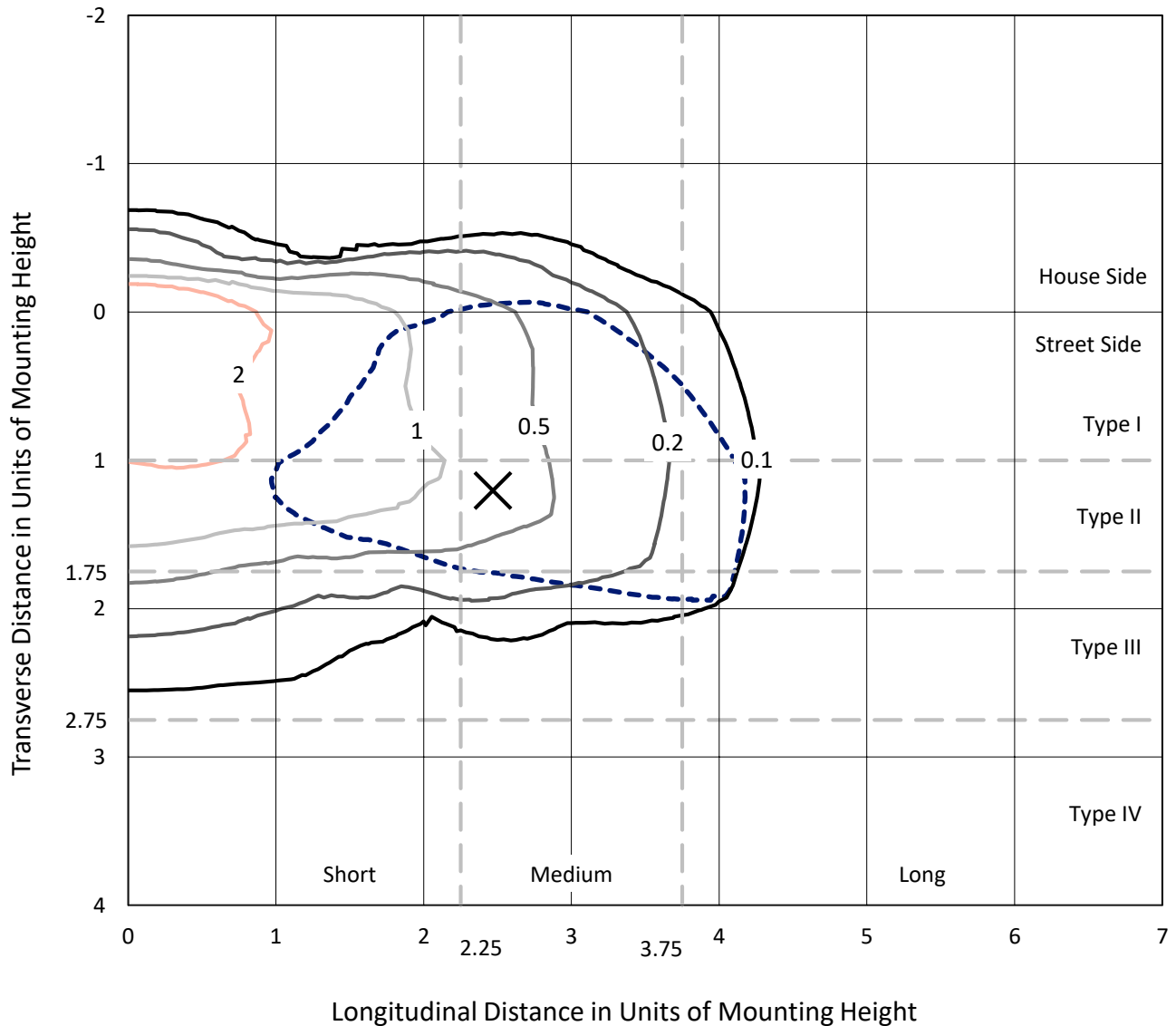


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### Iso-Footcandle Lines of Horizontal Illumination

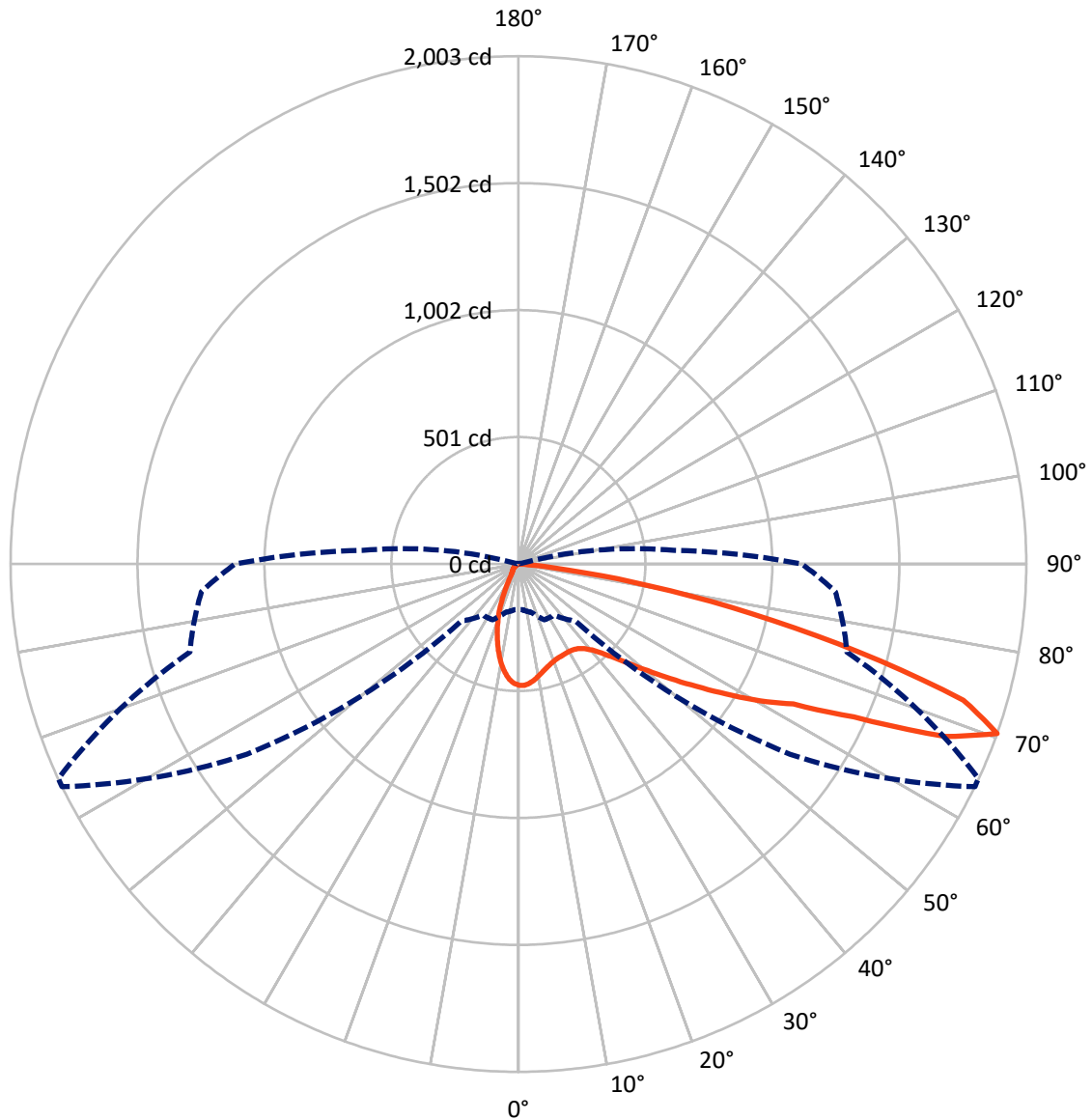
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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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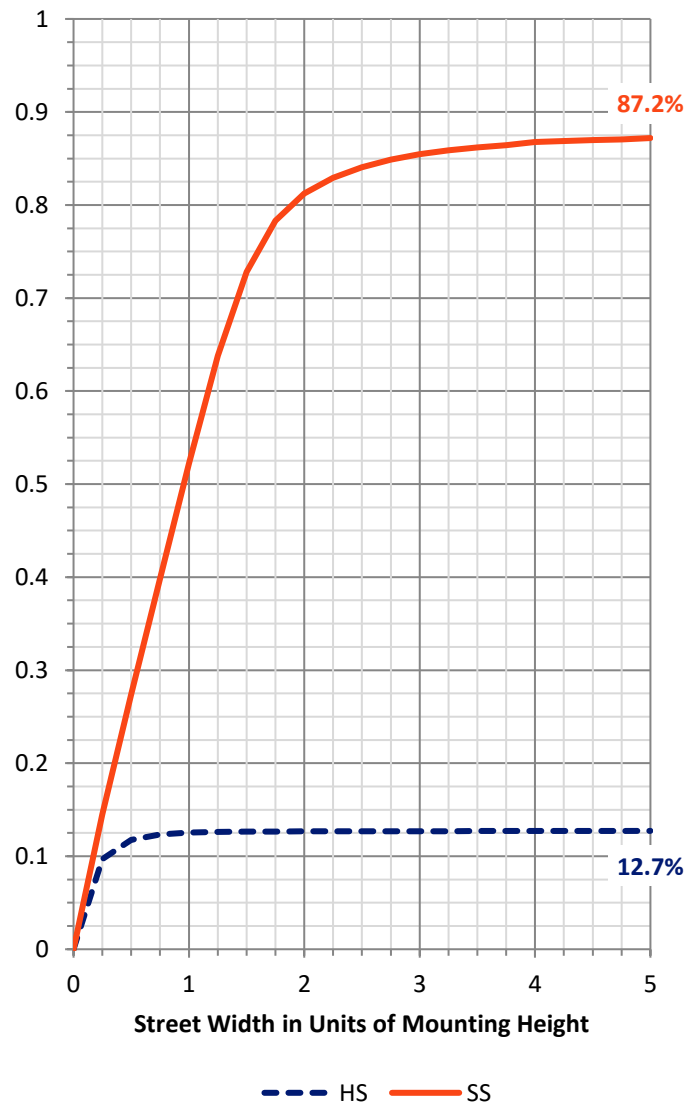
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	237.4	0.0	237.4
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	1610.6	0.0	1610.6
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	1848.0	0.0	1848.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	2.2
10°-20°	89.5	4.8
20°-30°	123.2	6.7
30°-40°	169.6	9.2
40°-50°	252.8	13.7
50°-60°	399.4	21.6
60°-70°	452.6	24.5
70°-80°	297.2	16.1
80°-90°	23.3	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°	1848.0	100.0
0°-180°	1848.0	100.0



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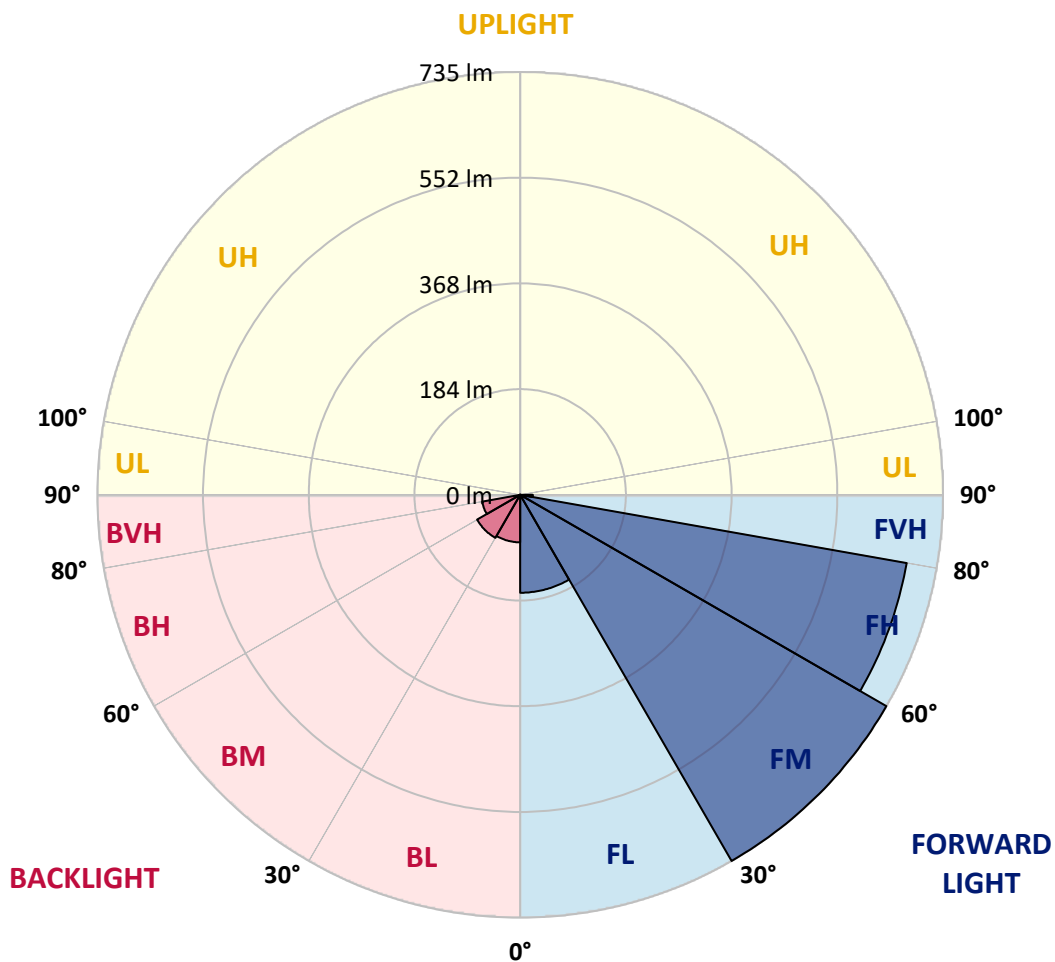
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	170.4	9.2			
FM	(30°-60°)	735.5	39.8			
FH	(60°-80°)	682.8	36.9			G1/1800
FVH	(80°-90°)	22.0	1.2			G1/100
BL	(0°-30°)	82.6	4.5	B0/110		
BM	(30°-60°)	86.4	4.7	B0/220		
BH	(60°-80°)	67.0	3.6	B0/110		G0/110
BVH	(80°-90°)	1.3	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-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4
2.5°	465.1	465.1	467.3	469.6	470.9	474.5	477.1	479.0	479.0	480.3	478.1
5°	434.2	434.2	436.1	441.7	447.5	455.0	463.4	471.9	473.5	479.7	479.4
7.5°	405.6	408.2	411.4	417.0	423.1	434.2	445.9	460.5	462.1	477.1	480.3
10°	385.8	387.4	389.3	395.5	404.6	417.3	430.0	447.2	450.1	472.5	480.3
12.5°	369.8	370.2	373.1	379.9	388.7	401.0	415.3	434.2	437.8	464.4	479.0
15°	358.5	358.1	361.4	367.9	376.3	389.0	403.0	422.8	426.7	457.6	478.7
17.5°	351.6	352.0	354.6	359.4	367.6	379.6	393.9	413.4	417.3	452.1	480.3
20°	351.6	351.6	353.3	355.5	361.7	372.4	386.4	406.6	410.5	448.5	482.6
22.5°	358.5	357.8	359.1	357.2	360.1	367.6	381.9	402.0	406.2	446.9	486.2
25°	370.8	369.5	370.5	366.3	363.0	366.3	378.9	400.1	404.6	447.2	489.4
27.5°	388.0	388.0	386.1	380.2	372.1	368.5	378.6	398.8	403.3	447.2	491.7
30°	412.1	411.1	408.2	402.3	389.7	377.6	381.9	398.8	403.3	447.5	492.4
32.5°	436.1	436.8	438.4	432.6	415.3	393.2	389.7	401.7	405.6	447.2	491.4
35°	460.5	460.8	468.0	468.6	446.5	418.3	403.0	409.5	412.1	450.4	492.0
37.5°	482.0	483.6	497.6	504.4	486.2	450.4	424.1	424.1	425.4	459.2	495.9
40°	506.0	510.2	527.1	542.4	535.2	491.7	455.0	445.6	446.2	475.1	504.7
42.5°	533.9	539.1	561.2	583.3	583.0	542.4	494.0	479.7	480.3	502.8	522.6
45°	569.4	572.9	600.9	628.5	634.4	598.3	543.0	524.2	524.9	544.7	557.3
47.5°	612.6	616.8	643.8	676.9	691.9	665.6	606.7	586.3	584.3	598.3	607.4
50°	669.1	677.3	693.2	725.0	761.1	743.6	681.5	661.0	658.4	669.5	672.4
52.5°	723.1	730.6	737.1	766.3	836.2	840.4	773.1	750.7	748.1	750.7	754.3
55°	731.2	735.4	740.3	780.0	897.0	963.6	877.5	850.8	843.3	838.5	850.5
57.5°	666.5	663.9	680.2	734.1	907.0	1099.7	1018.5	966.8	959.7	932.7	920.7
60°	527.8	524.2	539.5	613.2	850.5	1167.3	1214.1	1095.2	1077.6	987.3	975.6
62.5°	370.8	366.6	386.4	430.0	659.7	1154.0	1434.8	1216.7	1182.0	1035.7	1019.8
65°	285.7	283.7	294.4	304.2	402.7	999.7	1556.4	1454.0	1382.2	1088.4	1067.9
67.5°	223.9	226.5	239.8	268.1	260.0	623.0	1545.0	1816.0	1744.2	1185.2	1172.2
70°	180.0	180.7	197.3	242.4	245.4	317.2	1308.1	2003.2	2002.2	1341.5	1255.1
72.5°	108.9	111.8	138.8	209.6	247.6	242.8	879.4	1835.5	1860.9	1377.9	1131.9
75°	52.3	55.2	71.8	140.7	246.0	236.3	475.8	1389.6	1422.1	1235.6	917.8
77.5°	19.5	22.1	33.1	68.9	182.3	216.4	250.2	936.9	962.6	904.4	621.7
80°	6.2	7.1	13.0	31.5	92.6	178.7	161.2	528.4	545.6	395.8	209.0
82.5°	0.6	1.0	3.6	10.7	35.7	91.0	94.6	198.9	207.7	77.3	42.2
85°	0.0	0.0	0.0	0.0	0.6	0.6	23.4	38.0	31.2	7.5	12.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.3	0.6	1.0	1.0	1.0	1.3
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°	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4
2.5°	477.7	477.7	475.5	471.9	467.3	460.8	459.2	454.0	454.0	449.8	449.1
5°	478.4	476.4	469.0	457.9	442.6	426.1	415.7	404.3	394.5	388.4	389.0
7.5°	478.4	474.2	459.2	434.8	406.2	377.6	355.9	330.5	318.8	311.0	314.6
10°	477.1	469.9	443.9	406.9	361.7	322.1	286.3	257.1	236.9	228.5	221.3
12.5°	474.2	463.8	424.8	372.1	314.3	262.3	212.9	174.5	147.9	134.5	132.9
15°	471.6	457.3	402.3	334.1	260.6	192.7	137.5	100.7	78.0	72.8	73.4
17.5°	470.9	451.1	380.9	293.8	208.3	128.4	79.3	64.0	60.8	59.5	59.1
20°	471.2	445.6	357.5	253.8	147.5	79.9	60.1	56.5	55.2	54.6	54.3
22.5°	472.5	439.4	334.4	211.9	100.7	58.5	53.6	51.3	49.7	48.7	48.4
25°	472.5	432.6	308.7	167.4	66.0	51.3	48.1	45.2	42.9	41.6	41.6
27.5°	471.6	424.8	282.1	127.1	52.3	45.8	42.2	38.3	35.4	33.8	33.8
30°	468.6	415.3	256.4	88.7	45.8	40.9	36.4	31.5	27.9	26.3	25.7
32.5°	464.4	405.3	226.8	62.4	41.3	35.7	30.5	25.3	22.1	20.1	20.1
35°	459.9	395.2	195.0	47.8	37.4	31.5	25.7	20.5	17.5	16.2	15.9
37.5°	457.6	384.5	163.8	41.3	33.5	27.0	20.8	16.6	14.3	13.3	13.0
40°	459.2	376.3	133.2	37.0	29.9	22.7	17.2	14.0	12.0	10.7	10.7
42.5°	469.0	371.8	104.3	33.8	26.6	19.2	14.3	11.4	9.4	8.4	8.4
45°	488.8	375.0	79.3	30.9	22.7	15.9	12.0	9.1	7.1	6.2	6.2
47.5°	521.9	388.0	60.1	28.3	19.5	13.0	9.7	7.1	5.5	4.9	4.5
50°	570.3	413.7	47.1	25.7	16.2	11.0	8.1	5.5	4.2	3.6	3.6
52.5°	640.2	458.2	40.3	22.7	13.3	9.1	6.5	4.2	3.2	2.6	2.6
55°	726.0	514.8	36.4	20.1	10.7	7.5	5.2	3.2	2.3	1.9	1.6
57.5°	795.6	559.6	34.1	17.5	9.1	6.5	3.9	2.6	1.9	1.3	1.3
60°	857.0	588.5	30.2	14.6	7.8	5.2	3.2	1.9	1.3	1.0	1.0
62.5°	906.7	607.4	25.0	11.7	6.5	4.2	2.6	1.6	1.3	1.0	1.0
65°	963.3	622.7	20.5	9.1	5.5	3.6	2.3	1.3	1.0	1.0	1.0
67.5°	1074.1	656.8	15.3	7.1	4.2	2.9	1.9	1.3	1.0	0.6	0.6
70°	1117.3	616.8	12.0	5.8	3.2	2.6	1.9	1.3	0.6	0.6	0.6
72.5°	950.9	461.8	9.4	4.9	2.9	2.3	1.9	1.3	1.0	1.0	0.6
75°	754.3	312.0	7.5	3.9	2.9	2.6	1.9	1.9	1.6	1.3	1.3
77.5°	481.6	138.1	5.8	3.2	2.9	3.2	2.9	1.9	1.9	1.6	1.6
80°	143.6	33.1	4.2	2.6	2.3	2.6	2.9	1.9	1.3	1.0	1.0
82.5°	31.2	7.8	2.6	1.3	1.6	1.3	1.9	1.9	1.3	1.0	1.0
85°	10.4	2.9	1.6	1.3	1.0	1.0	1.0	1.0	1.0	1.0	0.6
87.5°	0.6	1.0	1.0	0.6	0.6	0.6	0.6	0.3	0.3	0.6	0.6
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)