

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: P400907

Luminaire Tested: **ENV-SA1A-727-U-T4W-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400907  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1A-727-U-T4W-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1705.1 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B0 - U0 - G1

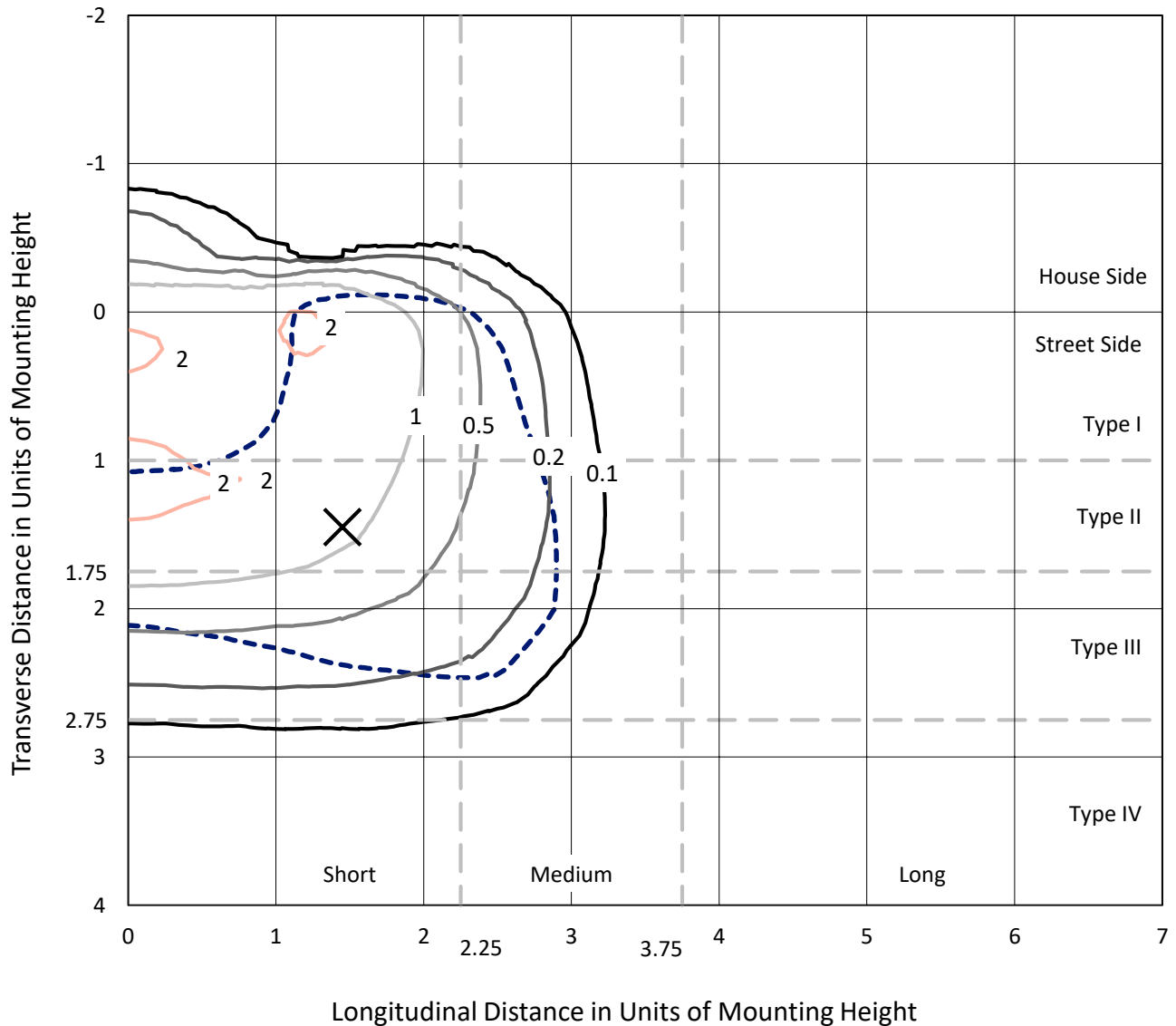
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P400907  
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### Iso-Footcandle Lines of Horizontal Illumination

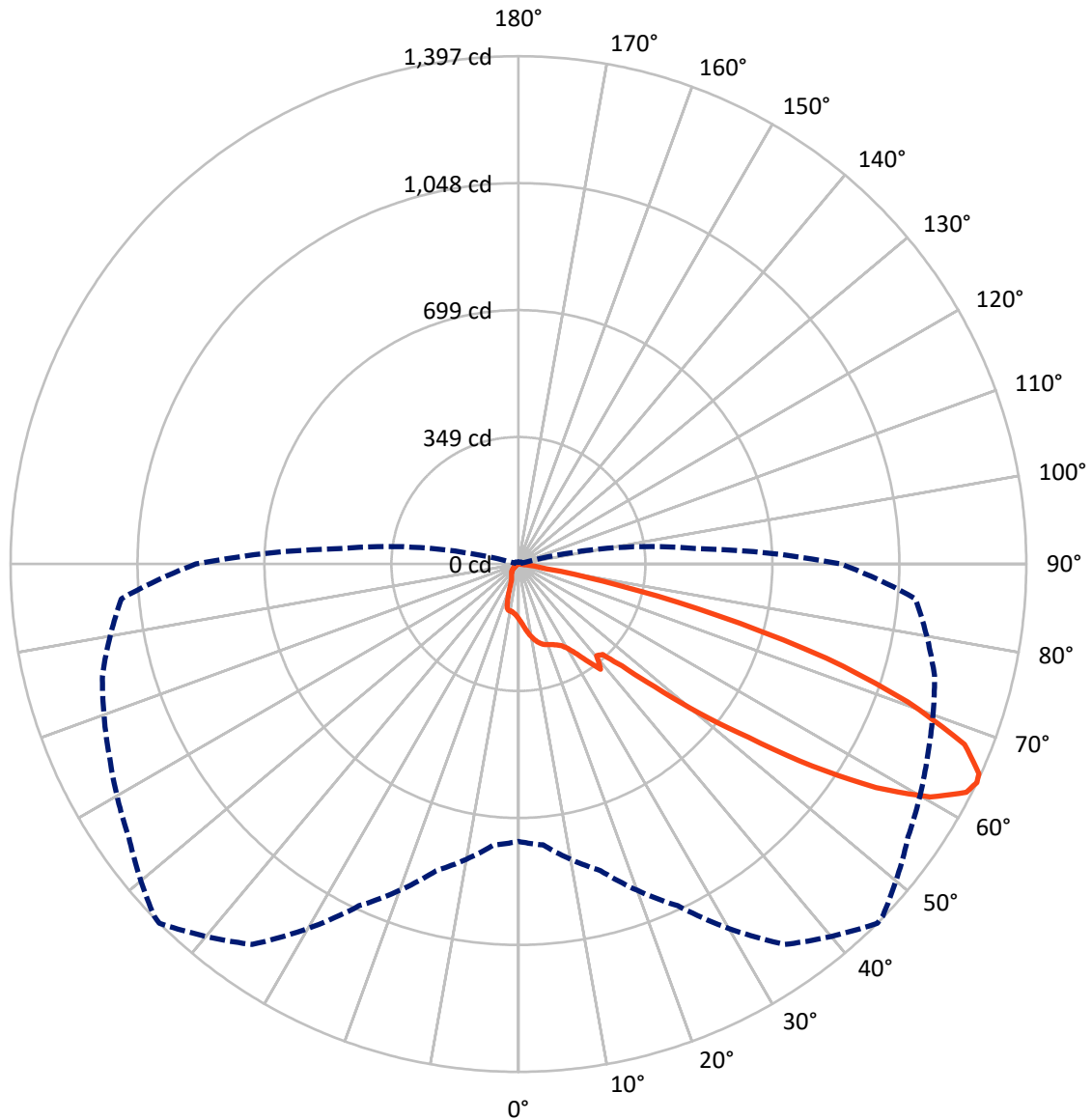
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.3 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P400907  
CATALOG NUMBER: ENV-SA1A-727-U-T4W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

REPORT NUMBER: P400907

CATALOG NUMBER: ENV-SA1A-727-U-T4W-HSS

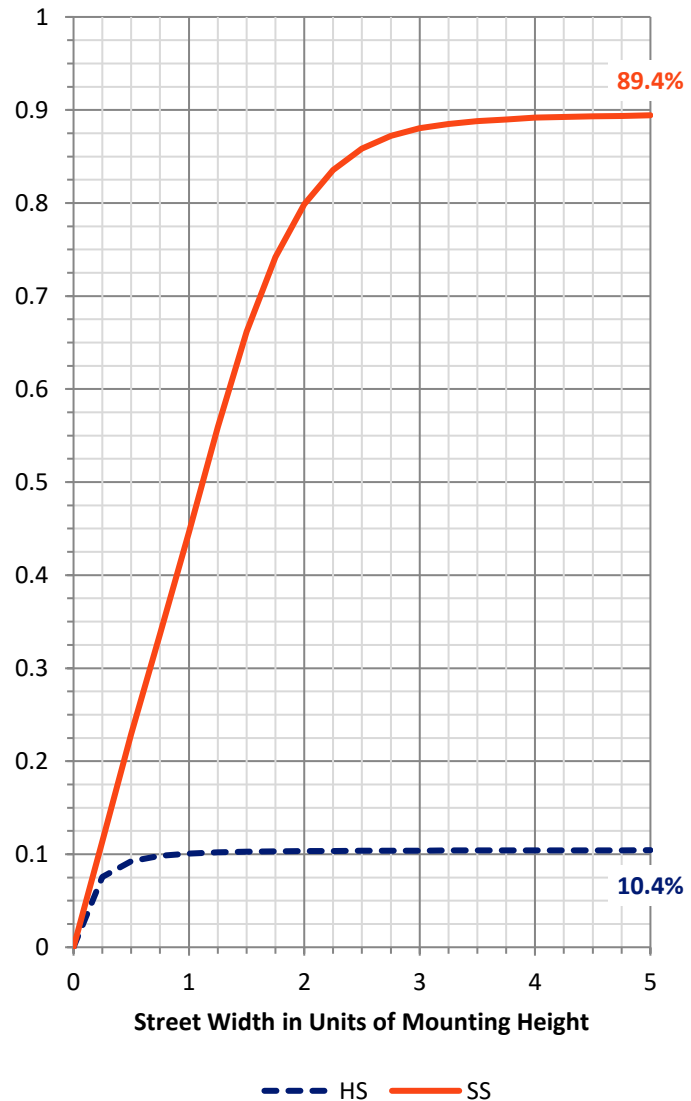
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	179.9	0.0	179.9
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	1525.1	0.0	1525.1
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	1705.1	0.0	1705.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	15.3	0.9
10°-20°	47.8	2.8
20°-30°	77.8	4.6
30°-40°	123.6	7.2
40°-50°	235.4	13.8
50°-60°	485.1	28.5
60°-70°	541.8	31.8
70°-80°	171.1	10.0
80°-90°	7.0	0.4
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°	1705.1	100.0
0°-180°	1705.1	100.0



REPORT NUMBER: P400907

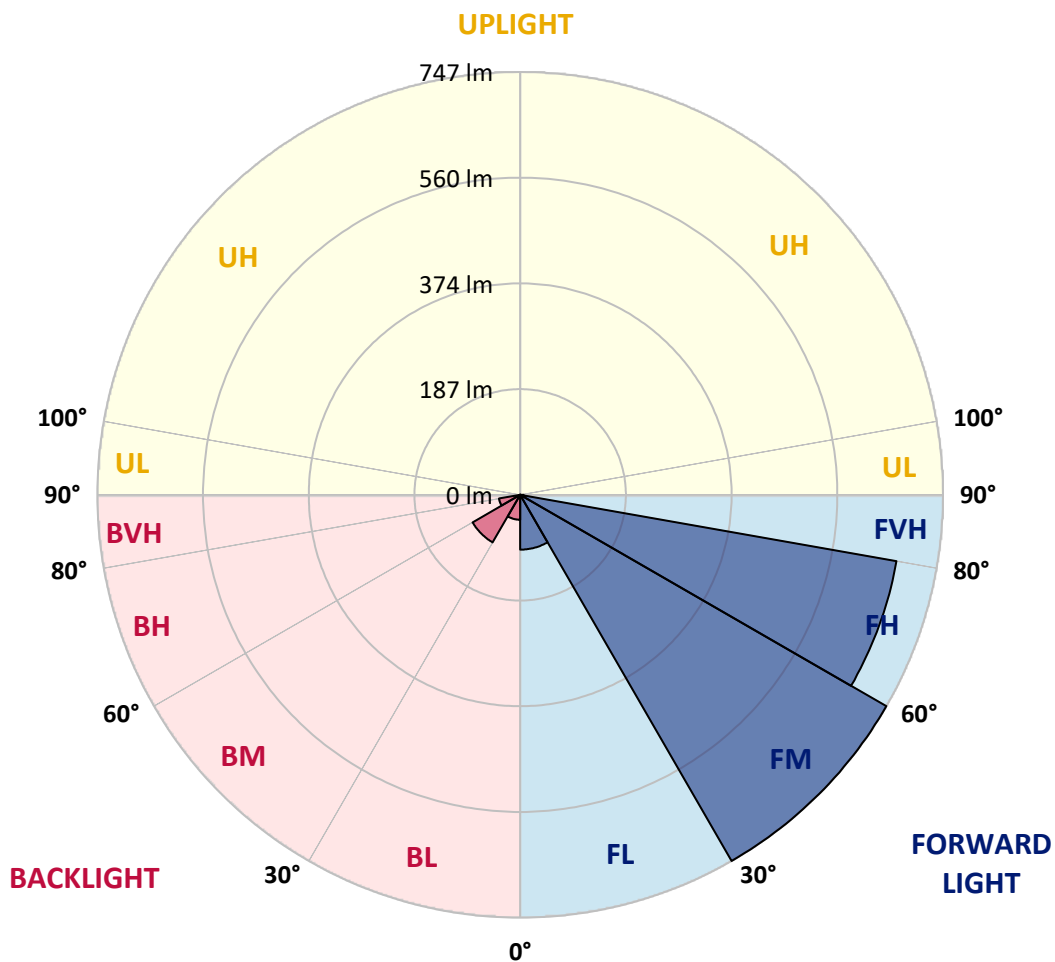
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	96.9	5.7			
FM	(30°-60°)	747.1	43.8			
FH	(60°-80°)	675.0	39.6			G1/1800
FVH	(80°-90°)	6.1	0.4			G0/10
BL	(0°-30°)	44.1	2.6	B0/110		
BM	(30°-60°)	97.1	5.7	B0/220		
BH	(60°-80°)	37.9	2.2	B0/110		G0/110
BVH	(80°-90°)	0.8	0.0			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: P400907

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1
2.5°	166.7	167.4	166.4	165.1	163.8	161.5	161.9	158.9	156.7	155.0	152.4
5°	187.9	187.5	185.6	182.7	179.7	175.5	174.9	170.3	165.4	160.2	155.4
7.5°	209.3	208.3	206.4	202.5	197.0	191.4	189.8	183.3	176.2	168.4	159.9
10°	226.9	226.2	223.9	219.7	213.2	204.8	204.8	195.7	186.2	176.8	166.7
12.5°	241.2	240.5	237.9	232.7	224.9	217.4	216.5	208.3	197.9	186.9	174.5
15°	249.9	249.3	246.4	240.5	233.7	226.9	225.9	218.1	208.7	196.0	181.7
17.5°	252.2	251.6	249.3	244.1	238.9	233.0	231.7	224.9	216.8	203.8	189.2
20°	251.2	249.9	248.6	244.4	240.2	236.3	235.6	230.8	223.6	212.6	197.0
22.5°	248.6	247.3	246.4	243.4	241.2	240.8	240.2	237.3	232.7	223.3	208.7
25°	247.7	246.7	245.7	243.8	243.4	246.7	246.4	246.0	244.1	236.0	220.7
27.5°	253.2	252.9	250.6	247.3	249.0	254.5	254.8	256.4	255.1	249.9	238.2
30°	272.7	271.1	265.9	258.7	262.9	270.1	271.4	276.6	276.9	277.6	261.6
32.5°	299.0	296.4	287.6	278.5	281.1	294.5	294.8	302.9	320.1	309.4	274.3
35°	317.2	314.0	300.6	295.8	308.8	329.9	332.8	349.4	350.7	311.7	273.3
37.5°	368.2	363.4	339.0	309.4	322.1	367.6	370.8	367.9	340.6	308.4	287.3
40°	436.5	431.9	410.2	360.4	324.7	331.5	333.1	341.9	347.1	331.2	332.2
42.5°	525.2	519.4	496.9	436.2	365.3	340.3	343.5	361.4	395.5	403.0	441.4
45°	615.9	612.6	589.9	524.2	439.4	400.1	401.7	423.5	484.6	531.7	564.2
47.5°	704.6	705.3	685.8	630.2	547.3	503.8	501.8	530.1	607.4	640.9	674.1
50°	829.7	829.1	794.3	759.9	695.2	643.5	640.3	656.2	730.6	743.0	794.3
52.5°	972.1	971.4	919.1	902.9	875.6	792.4	801.1	787.5	841.1	863.2	936.0
55°	1039.7	1033.8	1011.7	1032.2	1064.7	981.2	979.9	927.9	969.8	988.7	1056.6
57.5°	1032.9	1035.1	1056.3	1124.2	1230.8	1160.9	1162.9	1066.3	1090.7	1102.4	1152.1
60°	994.2	995.8	1044.9	1158.0	1313.7	1301.6	1294.8	1195.7	1179.8	1174.9	1198.6
62.5°	883.7	884.3	964.0	1109.2	1313.0	1382.9	1376.4	1286.7	1237.0	1205.8	1162.5
64°	763.4	775.8	873.3	1037.4	1277.6	1397.2	1393.6	1308.8	1242.2	1185.0	1096.2
65°	664.6	683.2	801.1	973.7	1237.6	1392.3	1388.1	1304.9	1235.0	1146.0	1027.7
67.5°	453.4	463.1	569.1	766.4	1085.2	1323.7	1322.4	1254.8	1157.3	990.0	806.3
70°	267.5	274.6	353.0	535.0	834.0	1137.2	1154.4	1130.0	960.7	711.1	513.5
72.5°	83.2	87.4	155.7	297.1	546.7	886.0	908.4	890.8	699.4	444.3	284.7
75°	31.2	32.5	51.4	129.0	272.0	566.5	573.3	593.8	426.1	234.7	124.5
77.5°	17.2	17.6	25.4	48.4	119.6	278.2	284.7	282.1	226.5	110.8	39.7
80°	8.5	8.8	12.4	21.5	46.5	78.7	93.3	123.2	80.0	54.6	12.7
82.5°	2.9	2.6	5.5	9.8	15.6	21.1	23.7	34.1	33.5	29.9	4.6
85°	0.0	0.0	0.3	0.3	0.3	0.7	0.7	4.2	8.5	9.8	1.3
87.5°	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.7
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: P400907

CATALOG NUMBER: ENV-SA1A-727-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1
2.5°	151.1	150.5	148.2	145.9	144.3	142.4	142.0	140.7	140.4	140.4	140.4
5°	152.8	150.8	146.6	143.0	139.8	136.8	135.5	134.2	133.3	132.9	132.9
7.5°	156.3	153.4	146.6	141.4	136.5	132.9	131.0	129.7	128.7	128.7	128.7
10°	161.5	157.0	148.5	141.4	135.5	131.0	128.1	126.1	124.8	124.5	124.8
12.5°	168.0	162.2	151.8	143.0	136.2	130.3	124.2	112.8	105.3	101.1	100.4
15°	174.2	167.4	155.4	145.3	137.2	124.2	101.7	84.2	72.5	68.9	68.3
17.5°	181.0	173.9	160.2	148.5	133.6	100.1	72.5	57.9	55.6	56.2	56.2
20°	189.5	181.0	165.4	151.8	115.1	71.2	53.0	51.0	51.7	53.0	53.0
22.5°	199.2	190.1	172.6	149.8	87.8	52.0	48.4	48.8	49.4	50.7	50.7
25°	211.9	202.5	180.4	135.2	61.1	45.5	45.8	46.2	47.1	48.4	48.8
27.5°	230.8	219.4	189.8	113.4	46.2	42.3	42.6	43.6	44.5	46.2	46.2
30°	250.9	236.9	198.3	87.4	40.3	38.7	39.0	40.0	41.6	42.9	43.6
32.5°	259.7	247.3	199.9	59.8	37.4	35.8	35.1	36.1	37.4	38.7	39.0
35°	264.6	259.4	192.1	43.2	35.1	33.2	31.9	31.5	31.9	32.8	32.8
37.5°	288.6	285.0	176.5	37.1	32.8	30.9	28.9	27.3	26.7	26.3	26.7
40°	334.8	327.0	156.0	34.1	30.9	28.6	26.0	23.4	21.1	20.2	20.2
42.5°	436.5	397.2	126.8	32.2	28.9	26.3	22.4	18.9	16.3	15.6	15.6
45°	546.0	484.3	95.2	30.6	27.0	23.7	18.9	15.0	12.7	12.0	12.0
47.5°	651.3	548.6	66.6	28.6	24.7	20.8	15.6	12.0	10.4	10.1	10.1
50°	761.8	604.5	46.5	26.3	22.4	17.9	12.7	9.8	8.8	8.8	8.8
52.5°	869.4	645.8	34.1	24.1	19.5	15.0	10.7	8.8	8.1	8.1	8.1
55°	950.6	661.7	26.0	21.1	16.6	12.7	9.8	8.5	7.8	7.5	7.5
57.5°	1004.9	648.4	21.1	17.6	14.0	11.1	8.8	7.8	7.2	6.8	6.8
60°	1003.6	604.2	16.9	14.3	11.4	9.4	8.1	7.2	6.5	6.2	6.2
62.5°	944.8	532.4	13.3	11.4	9.4	8.1	7.2	6.5	5.9	5.5	5.2
64°	887.3	487.8	11.4	9.8	8.5	7.5	6.5	5.9	5.2	4.6	4.6
65°	824.9	445.6	10.4	8.8	7.5	6.8	6.2	5.5	4.6	3.9	3.9
67.5°	627.3	329.9	8.5	6.8	5.9	5.5	4.9	4.2	3.3	2.6	2.6
70°	407.2	213.5	7.2	5.5	4.9	4.9	4.6	3.6	2.6	2.3	2.0
72.5°	208.7	106.3	5.9	4.6	4.2	4.2	3.9	2.9	2.3	2.0	1.6
75°	88.4	43.2	4.9	3.9	3.6	3.3	2.9	2.6	2.0	1.6	1.6
77.5°	30.9	16.3	4.6	3.9	2.9	2.6	2.6	2.6	2.6	2.3	2.0
80°	10.4	6.2	2.9	2.9	3.3	3.6	3.6	3.3	3.6	2.9	2.3
82.5°	4.2	2.3	1.0	1.3	2.3	2.6	2.9	2.9	2.9	2.3	2.0
85°	1.0	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	1.0	0.7	1.0	1.0	1.0
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)