

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: P400903

Luminaire Tested: **ENT-SA1A-727-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400903  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1A-727-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1757 lumens  
Efficiency: N/A  
Efficacy: 87.4 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 - G0

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

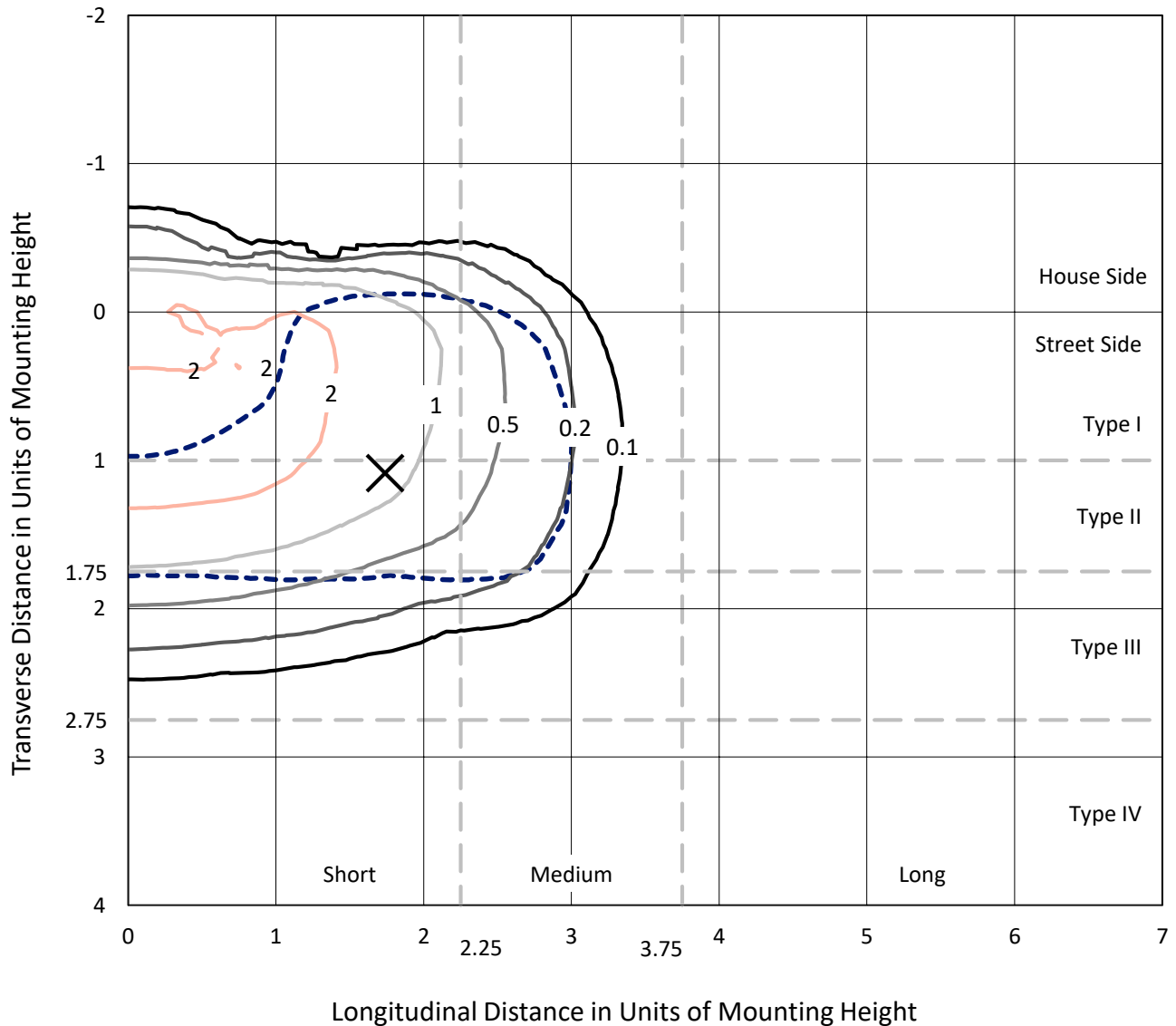


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

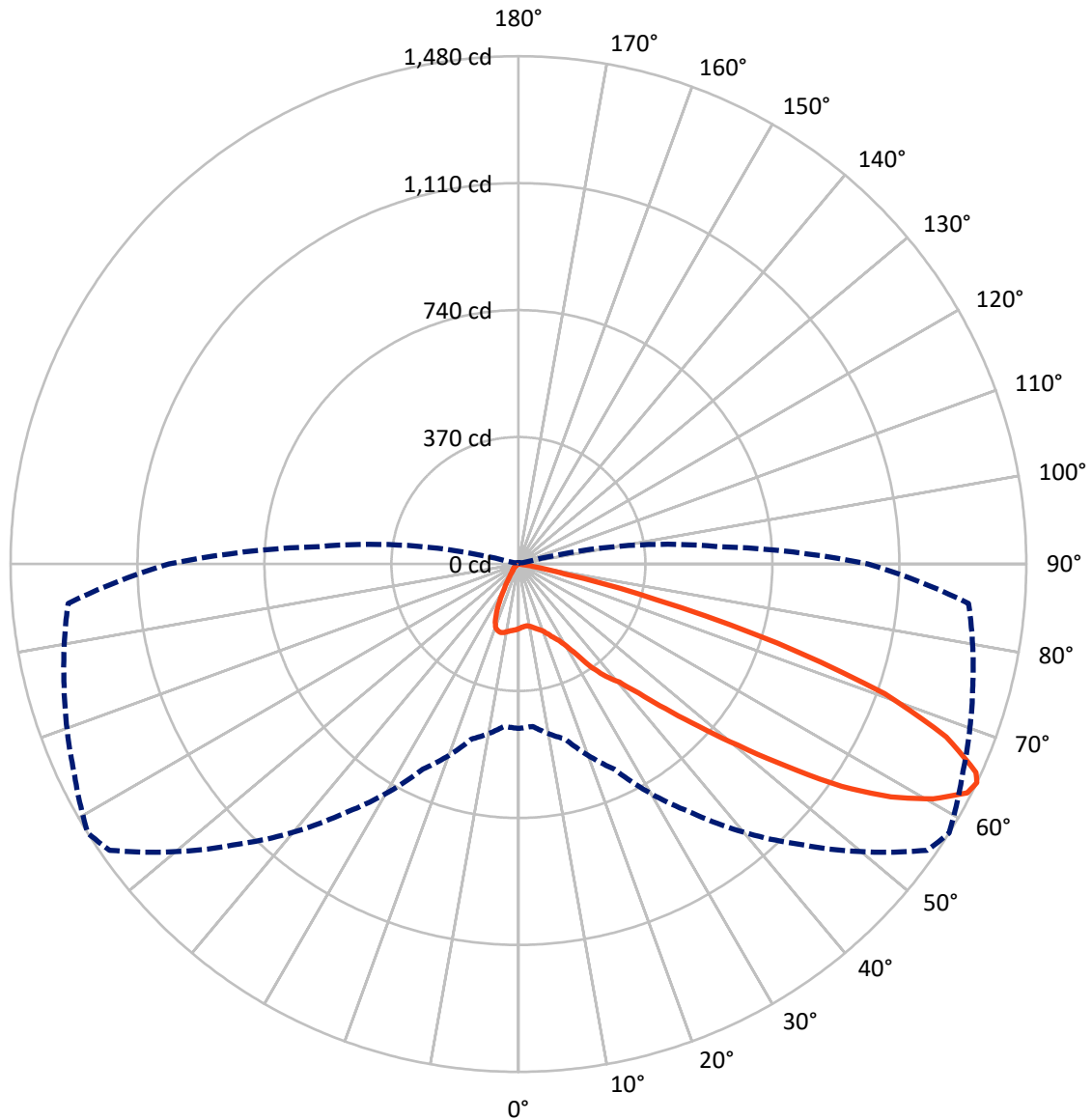


Based on 10 foot mounting height. Maximum calculated value = 2.8 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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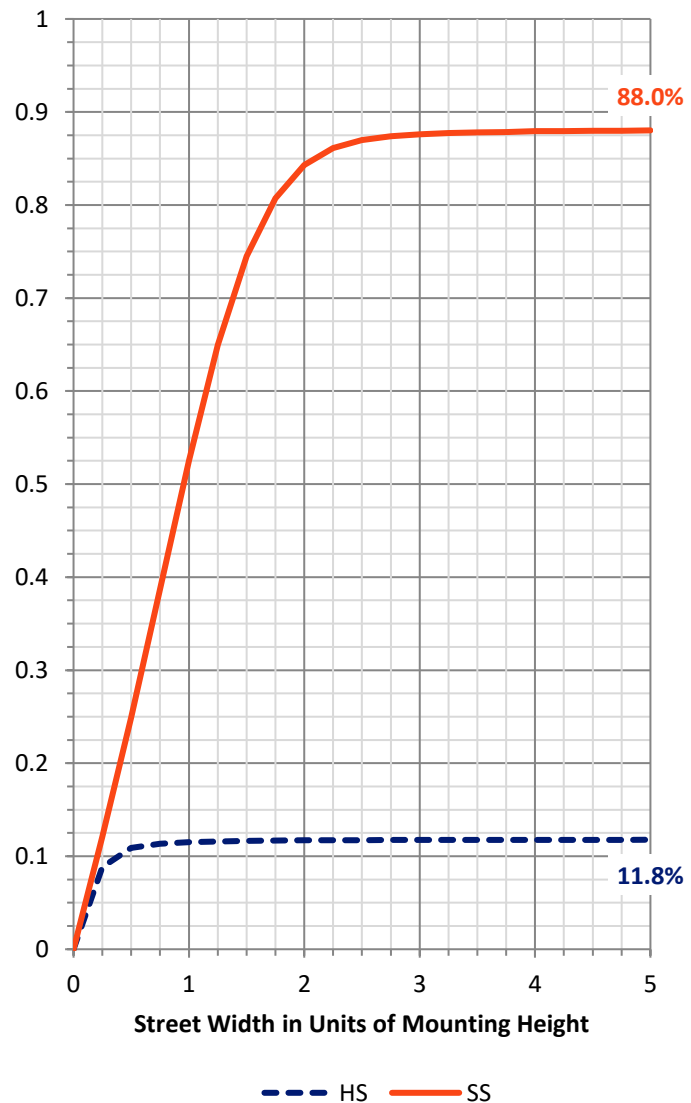
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	209.5	0.0	209.5
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	1547.5	0.0	1547.5
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	1757.0	0.0	1757.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.8	1.0
10°-20°	51.8	3.0
20°-30°	93.2	5.3
30°-40°	163.3	9.3
40°-50°	298.6	17.0
50°-60°	510.7	29.1
60°-70°	495.5	28.2
70°-80°	122.7	7.0
80°-90°	3.5	0.2
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°	1757.0	100.0
0°-180°	1757.0	100.0



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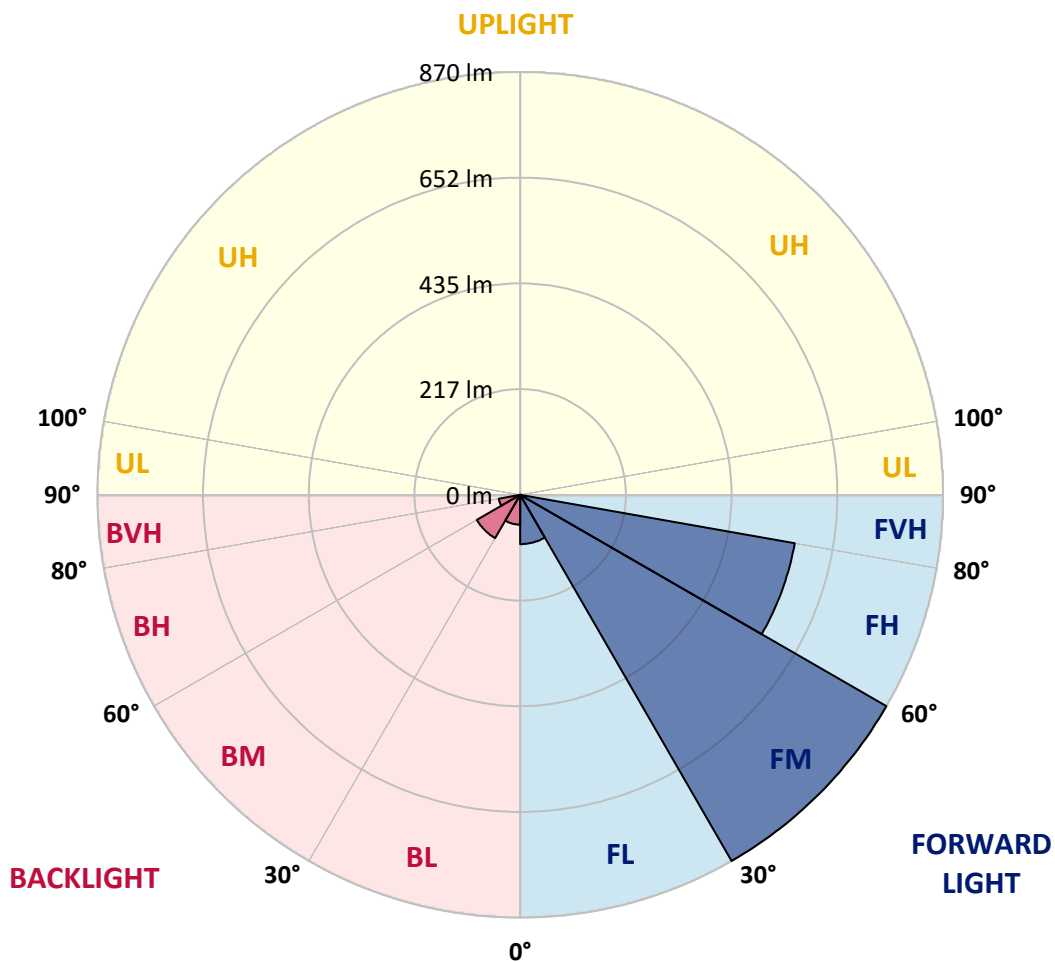
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	101.4	5.8			
FM (30°-60°)	869.7	49.5			
FH (60°-80°)	573.4	32.6			G0/660
FVH (80°-90°)	3.0	0.2			G0/10
BL (0°-30°)	61.3	3.5	B0/110		
BM (30°-60°)	102.9	5.9	B0/220		
BH (60°-80°)	44.7	2.5	B0/110		G0/110
BVH (80°-90°)	0.5	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-G0**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2
2.5°	180.4	180.4	181.1	181.4	182.4	183.3	184.6	185.0	185.6	187.2	187.9
5°	170.7	171.0	171.6	173.3	175.5	178.1	181.4	182.4	185.0	188.2	190.5
7.5°	166.8	167.1	168.1	170.0	172.9	176.8	180.7	182.0	185.6	190.8	194.1
10°	166.1	166.1	167.4	170.3	173.9	178.8	183.0	184.6	189.5	195.7	200.9
12.5°	166.1	166.1	167.7	171.3	175.5	181.7	187.6	189.8	195.4	203.2	209.7
15°	169.0	169.7	170.7	172.9	177.8	184.6	192.8	195.4	202.2	211.6	219.7
17.5°	189.8	189.2	185.9	183.0	182.0	187.9	197.6	201.2	211.3	223.3	232.1
20°	230.1	229.8	224.0	209.7	197.0	193.7	205.1	209.3	224.0	239.9	246.4
22.5°	278.9	280.5	271.4	252.2	226.2	209.7	216.2	222.0	240.9	260.0	263.9
25°	327.3	329.3	320.8	296.8	264.9	236.0	231.4	236.6	258.1	277.3	275.6
27.5°	384.5	382.9	374.5	347.2	310.1	271.4	251.9	252.9	269.5	290.9	285.7
30°	426.5	424.2	416.1	397.5	362.8	318.5	281.2	278.2	283.1	306.8	301.3
32.5°	464.8	466.4	460.3	435.6	402.7	367.0	325.0	317.2	315.3	335.5	326.3
35°	502.9	502.5	500.3	478.5	446.3	412.5	377.4	371.9	371.2	390.7	366.0
37.5°	548.4	546.1	541.9	519.8	494.1	461.9	424.5	415.7	414.1	418.0	389.1
40°	597.1	600.0	593.2	570.1	542.2	518.1	465.8	452.5	441.4	452.8	434.3
42.5°	669.6	671.9	659.9	643.9	607.8	585.4	532.4	514.2	509.0	526.3	505.5
45°	760.6	756.4	748.3	737.2	707.3	673.2	617.9	600.7	595.2	624.7	590.6
47.5°	831.5	830.8	831.2	828.9	824.3	783.4	717.7	706.0	700.5	743.1	705.4
50°	876.3	878.9	890.0	918.3	939.1	921.8	844.8	830.5	826.3	870.5	819.5
52.5°	910.1	916.3	934.8	990.8	1057.4	1063.2	999.5	979.4	969.6	982.0	911.1
55°	927.4	930.3	958.6	1041.1	1145.5	1187.4	1160.8	1143.8	1104.5	1081.1	1018.7
57.5°	887.1	882.5	931.3	1036.3	1191.0	1287.5	1298.9	1279.7	1216.7	1198.5	1149.4
60°	781.4	779.5	834.4	960.5	1151.3	1310.9	1401.3	1389.3	1331.4	1288.2	1242.0
62.5°	596.1	599.4	657.6	786.0	1009.9	1243.6	1458.2	1467.9	1406.5	1342.1	1310.6
64°	478.8	474.9	528.2	658.9	886.1	1153.9	1453.9	1479.6	1429.2	1370.4	1316.8
65°	402.1	393.6	444.7	563.0	781.4	1088.9	1424.0	1465.3	1430.9	1377.2	1294.3
67.5°	211.6	216.2	237.9	342.0	527.6	823.4	1282.3	1344.7	1358.7	1283.9	1127.9
70°	94.9	95.6	109.5	174.6	291.9	534.1	1031.4	1132.5	1140.3	1054.8	817.2
72.5°	31.5	31.9	48.4	69.9	122.5	247.4	696.6	788.6	805.5	683.9	443.4
75°	19.5	20.2	25.7	37.7	56.9	86.5	353.0	415.4	419.0	303.3	161.2
77.5°	12.4	13.0	15.6	22.4	31.2	32.8	115.7	140.1	158.6	109.2	50.1
80°	7.8	7.8	10.1	13.7	16.3	14.0	31.5	41.6	50.1	36.7	16.9
82.5°	2.9	2.9	5.2	7.5	6.8	4.9	8.5	11.1	19.2	18.2	8.1
85°	0.0	0.0	0.3	0.7	0.3	0.7	1.6	2.3	3.6	5.2	2.6
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.7	0.7	0.7	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2
2.5°	188.9	189.5	190.8	191.1	191.5	190.5	191.5	190.5	191.1	191.1	191.1
5°	191.8	192.8	193.7	194.1	193.7	191.5	192.1	190.5	190.2	190.2	190.2
7.5°	195.7	196.7	198.3	197.3	195.4	192.1	191.8	189.5	188.5	188.5	188.9
10°	202.8	203.8	204.5	202.5	198.6	193.7	190.2	185.3	183.0	182.0	182.0
12.5°	211.9	212.9	212.6	209.3	202.2	192.1	182.0	172.6	165.8	163.2	160.6
15°	221.7	223.0	222.3	215.5	201.9	184.0	164.5	142.4	128.7	119.9	118.3
17.5°	233.1	234.4	231.1	218.8	197.0	166.8	129.7	99.8	80.0	72.5	72.2
20°	247.0	246.4	238.6	219.1	188.2	134.9	86.8	62.4	54.0	52.0	51.7
22.5°	263.0	260.0	245.7	217.1	164.2	91.7	55.9	49.4	48.4	47.8	47.8
25°	272.1	266.9	248.3	211.6	126.4	58.5	47.5	46.2	44.9	43.6	43.2
27.5°	279.2	271.4	249.3	193.4	84.2	44.9	42.9	41.6	39.7	37.7	37.4
30°	292.2	280.5	250.9	161.5	51.7	38.4	37.4	35.1	32.2	30.2	29.6
32.5°	315.6	298.7	257.4	120.9	37.7	33.8	31.2	28.3	25.0	23.1	23.1
35°	340.7	315.9	260.7	79.6	32.8	29.6	25.7	22.1	19.2	17.6	17.2
37.5°	363.7	340.7	259.7	48.8	29.3	25.4	21.1	17.6	15.0	13.7	13.7
40°	410.9	383.9	246.4	33.5	25.7	21.5	17.2	13.7	12.0	11.1	11.1
42.5°	478.1	431.3	216.8	28.6	22.4	17.9	13.7	11.4	10.1	9.1	9.1
45°	553.6	483.7	172.9	25.7	19.5	15.0	11.4	9.4	8.1	7.8	7.8
47.5°	652.4	547.1	127.1	23.1	16.9	12.7	9.4	7.8	7.2	6.8	6.8
50°	738.8	598.4	86.8	20.2	15.0	10.7	8.1	7.2	6.5	6.2	6.2
52.5°	817.5	634.2	57.2	17.6	13.3	8.8	7.5	6.5	6.2	5.9	5.9
55°	910.1	661.5	38.7	15.3	11.7	8.1	7.2	6.5	5.9	5.9	5.5
57.5°	988.8	677.7	27.6	13.0	10.4	7.5	6.8	6.2	5.5	5.2	5.2
60°	1034.6	658.6	20.2	11.4	9.1	6.8	6.2	5.5	5.2	4.9	4.9
62.5°	1047.3	621.5	15.6	9.8	7.8	6.2	5.5	4.9	4.6	4.2	4.2
64°	1018.1	581.8	13.3	8.5	6.8	5.5	5.2	4.6	3.9	3.3	3.3
65°	976.8	545.1	12.0	7.8	6.2	5.2	4.9	4.2	3.3	2.6	2.6
67.5°	813.9	434.6	9.8	6.5	4.9	4.6	3.9	3.3	2.3	1.6	1.6
70°	577.9	303.9	7.5	5.2	4.2	4.2	3.6	2.6	1.3	0.7	0.7
72.5°	305.9	158.0	6.2	4.2	3.3	3.3	2.9	1.6	1.0	0.7	0.3
75°	106.9	52.0	5.2	3.6	2.9	2.3	2.0	1.3	1.0	0.7	0.3
77.5°	32.5	17.2	4.6	3.6	2.6	2.0	2.3	2.0	2.0	1.3	1.0
80°	10.4	6.2	2.6	2.3	2.6	2.6	2.3	2.0	2.3	1.6	1.3
82.5°	3.9	2.3	1.0	1.3	1.3	1.6	1.6	1.3	1.0	0.3	0.0
85°	1.3	1.0	0.7	1.0	1.0	1.0	0.7	0.7	0.3	0.0	0.0
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.0	0.0	0.0
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)