

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: P400997

Luminaire Tested: **ENT-SA1A-750-U-T4W-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400997  
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: ENT-SA1A-750-U-T4W-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5000K, 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: 2039 lumens  
Efficiency: N/A  
Efficacy: 101.4 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 - G1

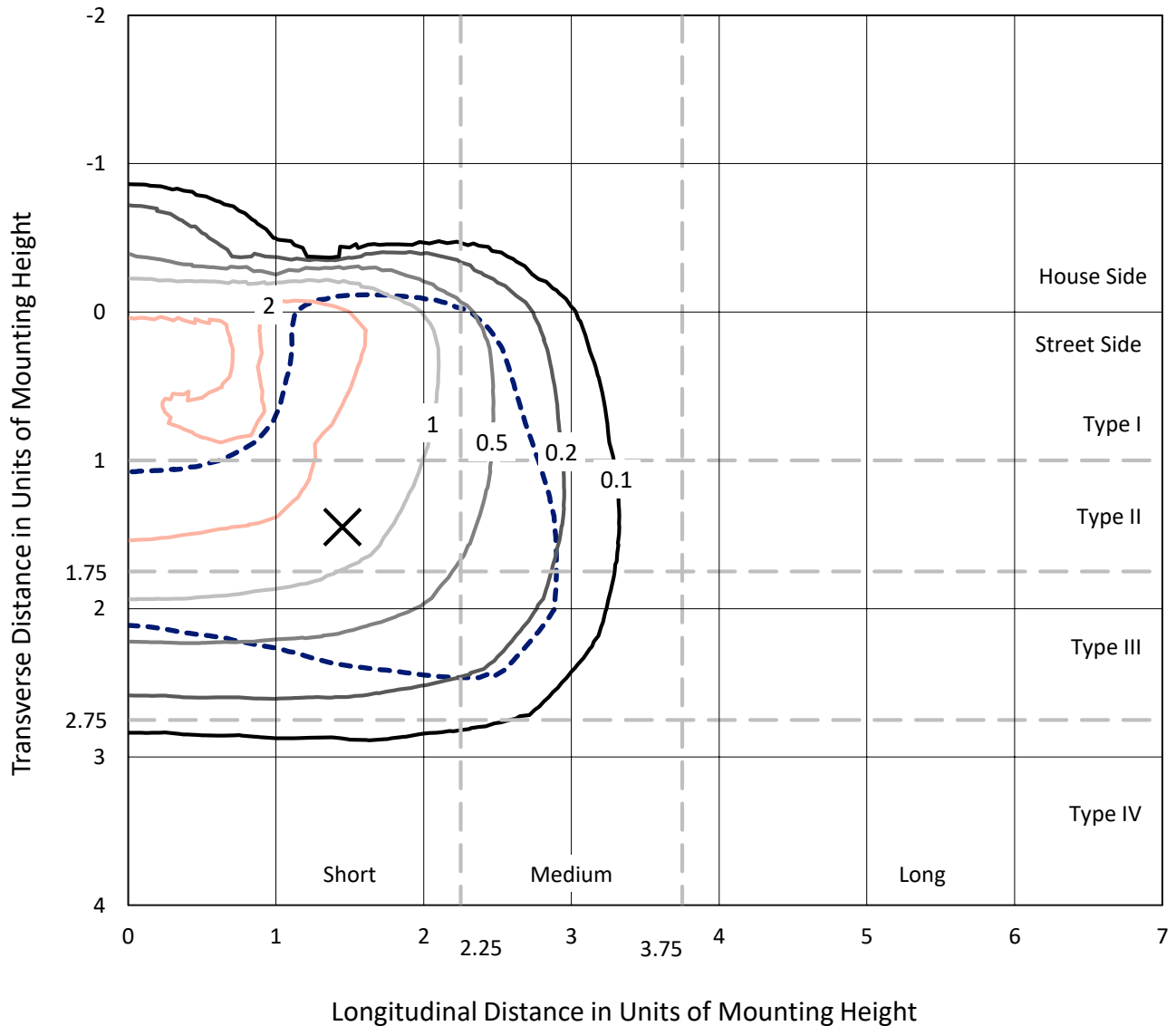
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

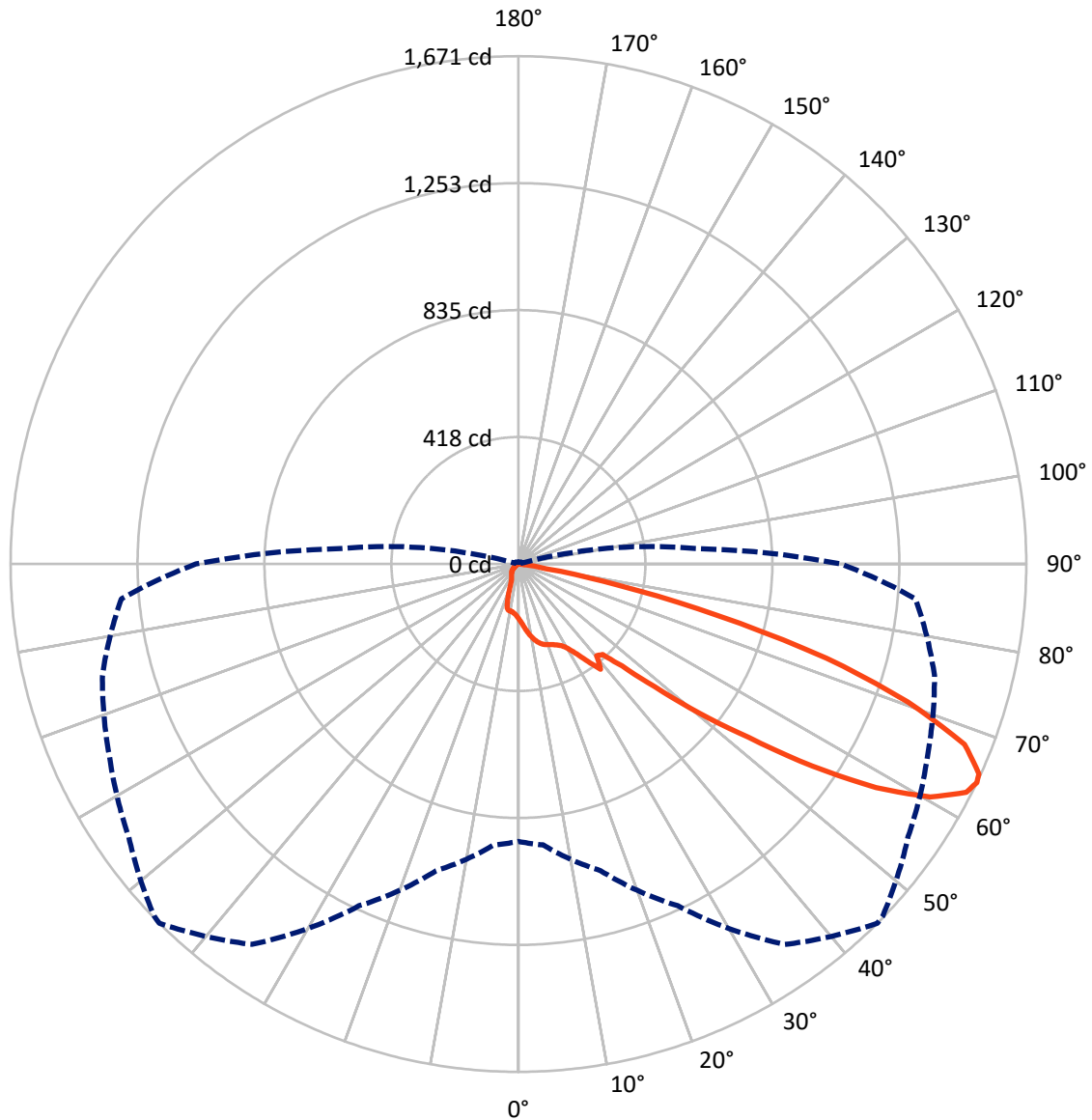
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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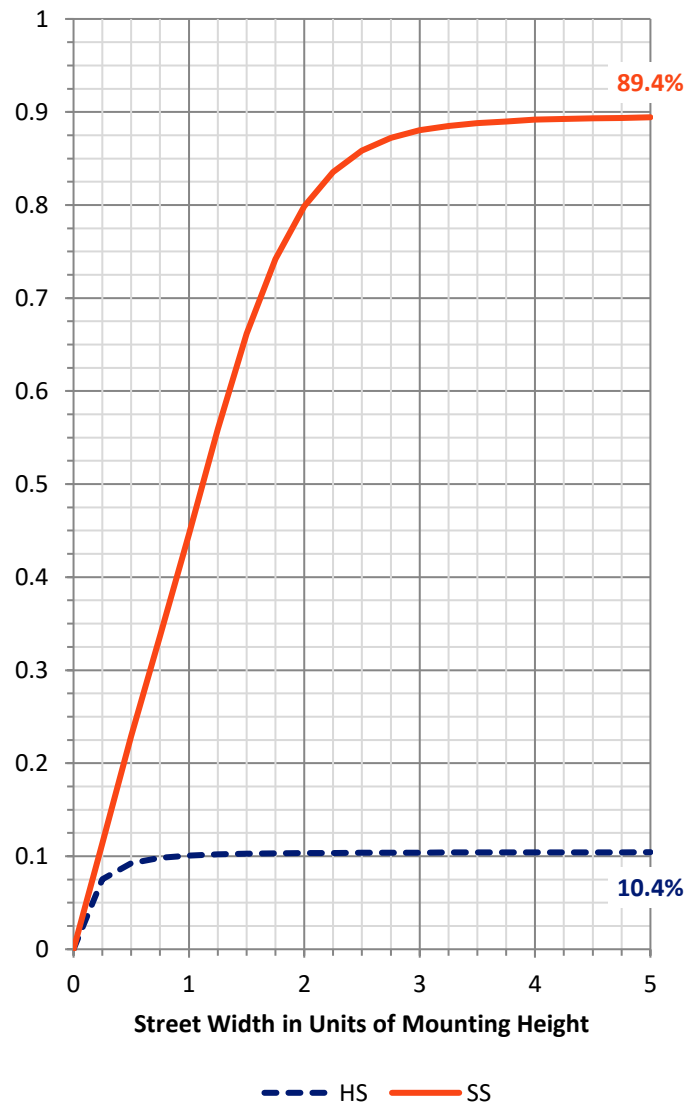
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	215.2	0.0	215.2
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	1823.9	0.0	1823.9
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	2039.0	0.0	2039.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.3	0.9
10°-20°	57.2	2.8
20°-30°	93.0	4.6
30°-40°	147.8	7.2
40°-50°	281.6	13.8
50°-60°	580.2	28.5
60°-70°	648.0	31.8
70°-80°	204.7	10.0
80°-90°	8.3	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°	2039.0	100.0
0°-180°	2039.0	100.0



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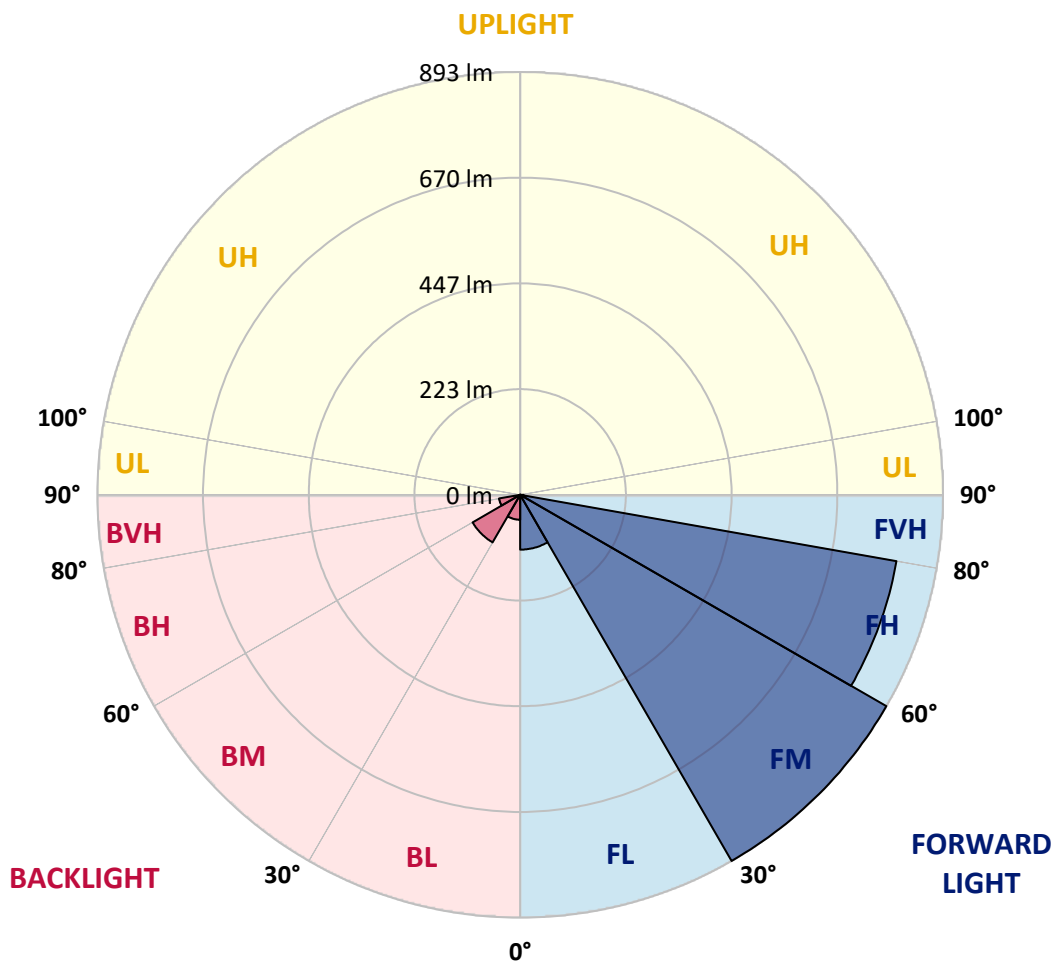
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	115.8	5.7			
FM	(30°-60°)	893.4	43.8			
FH	(60°-80°)	807.3	39.6			G1/1800
FVH	(80°-90°)	7.3	0.4			G0/10
BL	(0°-30°)	52.7	2.6	B0/110		
BM	(30°-60°)	116.1	5.7	B0/220		
BH	(60°-80°)	45.3	2.2	B0/110		G0/110
BVH	(80°-90°)	1.0	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7
2.5°	199.4	200.2	199.0	197.4	195.9	193.2	193.6	190.1	187.3	185.4	182.3
5°	224.7	224.3	221.9	218.4	214.9	209.9	209.1	203.7	197.8	191.6	185.8
7.5°	250.3	249.1	246.8	242.1	235.5	228.9	227.0	219.2	210.7	201.3	191.2
10°	271.3	270.5	267.8	262.7	255.0	244.9	244.9	234.0	222.7	211.4	199.4
12.5°	288.4	287.6	284.5	278.3	269.0	260.0	258.9	249.1	236.7	223.5	208.7
15°	298.9	298.1	294.6	287.6	279.5	271.3	270.1	260.8	249.5	234.4	217.3
17.5°	301.6	300.8	298.1	291.9	285.7	278.7	277.1	269.0	259.2	243.7	226.2
20°	300.4	298.9	297.3	292.3	287.2	282.6	281.8	276.0	267.4	254.2	235.5
22.5°	297.3	295.8	294.6	291.1	288.4	288.0	287.2	283.7	278.3	267.0	249.5
25°	296.2	295.0	293.8	291.5	291.1	295.0	294.6	294.2	291.9	282.2	263.9
27.5°	302.8	302.4	299.7	295.8	297.7	304.3	304.7	306.7	305.1	298.9	284.9
30°	326.1	324.2	317.9	309.4	314.4	323.0	324.5	330.8	331.1	331.9	312.9
32.5°	357.6	354.5	344.0	333.1	336.2	352.1	352.5	362.2	382.8	370.0	328.0
35°	379.3	375.5	359.5	353.7	369.2	394.5	398.0	417.8	419.4	372.7	326.9
37.5°	440.4	434.5	405.4	370.0	385.2	439.6	443.5	440.0	407.3	368.8	343.6
40°	522.0	516.5	490.5	431.0	388.3	396.4	398.4	408.9	415.1	396.1	397.2
42.5°	628.1	621.1	594.3	521.6	436.9	406.9	410.8	432.2	473.0	482.0	527.8
45°	736.5	732.6	705.4	626.9	525.5	478.5	480.4	506.4	579.5	635.9	674.7
47.5°	842.6	843.4	820.1	753.6	654.5	602.4	600.1	633.9	726.4	766.5	806.1
50°	992.3	991.5	949.9	908.7	831.4	769.6	765.7	784.7	873.7	888.5	949.9
52.5°	1162.5	1161.7	1099.2	1079.7	1047.1	947.6	958.1	941.7	1005.9	1032.3	1119.4
55°	1243.4	1236.4	1209.9	1234.4	1273.3	1173.4	1171.8	1109.7	1159.8	1182.3	1263.6
57.5°	1235.2	1237.9	1263.2	1344.4	1471.9	1388.3	1390.7	1275.2	1304.4	1318.4	1377.8
60°	1188.9	1190.9	1249.6	1384.8	1571.0	1556.6	1548.5	1429.9	1410.9	1405.0	1433.4
62.5°	1056.8	1057.6	1152.8	1326.5	1570.2	1653.8	1646.0	1538.7	1479.3	1442.0	1390.3
64°	913.0	927.8	1044.4	1240.6	1527.9	1670.9	1666.6	1565.2	1485.5	1417.1	1311.0
65°	794.8	817.0	958.1	1164.5	1480.1	1665.1	1660.0	1560.5	1476.9	1370.4	1229.0
67.5°	542.2	553.9	680.6	916.5	1297.8	1583.1	1581.5	1500.7	1384.1	1183.9	964.3
70°	319.9	328.4	422.1	639.7	997.3	1360.0	1380.6	1351.4	1148.9	850.4	614.1
72.5°	99.5	104.6	186.2	355.2	653.7	1059.5	1086.3	1065.3	836.4	531.3	340.5
75°	37.3	38.9	61.4	154.3	325.3	677.5	685.6	710.1	509.5	280.6	148.9
77.5°	20.6	21.0	30.3	57.9	143.0	332.7	340.5	337.4	270.9	132.5	47.4
80°	10.1	10.5	14.8	25.7	55.6	94.1	111.5	147.3	95.6	65.3	15.2
82.5°	3.5	3.1	6.6	11.7	18.7	25.3	28.4	40.8	40.0	35.8	5.4
85°	0.0	0.0	0.4	0.4	0.4	0.8	0.8	5.1	10.1	11.7	1.6
87.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8
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°	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7	180.7
2.5°	180.7	180.0	177.2	174.5	172.6	170.2	169.8	168.3	167.9	167.9	167.9
5°	182.7	180.3	175.3	171.0	167.1	163.6	162.1	160.5	159.4	159.0	159.0
7.5°	187.0	183.5	175.3	169.1	163.2	159.0	156.6	155.1	153.9	153.9	153.9
10°	193.2	187.7	177.6	169.1	162.1	156.6	153.1	150.8	149.2	148.9	149.2
12.5°	200.9	193.9	181.5	171.0	162.9	155.9	148.5	134.9	125.9	120.9	120.1
15°	208.3	200.2	185.8	173.7	164.0	148.5	121.7	100.7	86.7	82.4	81.6
17.5°	216.5	207.9	191.6	177.6	159.7	119.7	86.7	69.2	66.5	67.2	67.2
20°	226.6	216.5	197.8	181.5	137.6	85.1	63.4	61.0	61.8	63.4	63.4
22.5°	238.3	227.4	206.4	179.2	104.9	62.2	57.9	58.3	59.1	60.6	60.6
25°	253.4	242.1	215.7	161.7	73.1	54.4	54.8	55.2	56.4	57.9	58.3
27.5°	276.0	262.4	227.0	135.6	55.2	50.5	50.9	52.1	53.2	55.2	55.2
30°	300.1	283.3	237.1	104.6	48.2	46.3	46.6	47.8	49.7	51.3	52.1
32.5°	310.5	295.8	239.0	71.5	44.7	42.8	42.0	43.1	44.7	46.3	46.6
35°	316.4	310.2	229.7	51.7	42.0	39.6	38.1	37.7	38.1	39.3	39.3
37.5°	345.1	340.9	211.0	44.3	39.3	36.9	34.6	32.6	31.9	31.5	31.9
40°	400.3	391.0	186.6	40.8	36.9	34.2	31.1	28.0	25.3	24.1	24.1
42.5°	522.0	475.0	151.6	38.5	34.6	31.5	26.8	22.5	19.4	18.7	18.7
45°	653.0	579.1	113.9	36.5	32.3	28.4	22.5	17.9	15.2	14.4	14.4
47.5°	778.9	656.1	79.7	34.2	29.5	24.9	18.7	14.4	12.4	12.0	12.0
50°	911.0	722.9	55.6	31.5	26.8	21.4	15.2	11.7	10.5	10.5	10.5
52.5°	1039.7	772.3	40.8	28.8	23.3	17.9	12.8	10.5	9.7	9.7	9.7
55°	1136.9	791.3	31.1	25.3	19.8	15.2	11.7	10.1	9.3	8.9	8.9
57.5°	1201.8	775.4	25.3	21.0	16.7	13.2	10.5	9.3	8.6	8.2	8.2
60°	1200.2	722.5	20.2	17.1	13.6	11.3	9.7	8.6	7.8	7.4	7.4
62.5°	1129.9	636.6	15.9	13.6	11.3	9.7	8.6	7.8	7.0	6.6	6.2
64°	1061.1	583.4	13.6	11.7	10.1	8.9	7.8	7.0	6.2	5.4	5.4
65°	986.4	532.9	12.4	10.5	8.9	8.2	7.4	6.6	5.4	4.7	4.7
67.5°	750.1	394.5	10.1	8.2	7.0	6.6	5.8	5.1	3.9	3.1	3.1
70°	487.0	255.4	8.6	6.6	5.8	5.8	5.4	4.3	3.1	2.7	2.3
72.5°	249.5	127.1	7.0	5.4	5.1	5.1	4.7	3.5	2.7	2.3	1.9
75°	105.7	51.7	5.8	4.7	4.3	3.9	3.5	3.1	2.3	1.9	1.9
77.5°	36.9	19.4	5.4	4.7	3.5	3.1	3.1	3.1	3.1	2.7	2.3
80°	12.4	7.4	3.5	3.5	3.9	4.3	4.3	3.9	4.3	3.5	2.7
82.5°	5.1	2.7	1.2	1.6	2.7	3.1	3.5	3.5	3.5	2.7	2.3
85°	1.2	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.2	0.8	1.2	1.2	1.2
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)