

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: P401121

Luminaire Tested: **ENT-SA1B-735-U-T4FT-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401121  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1B-735-U-T4FT-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2281 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

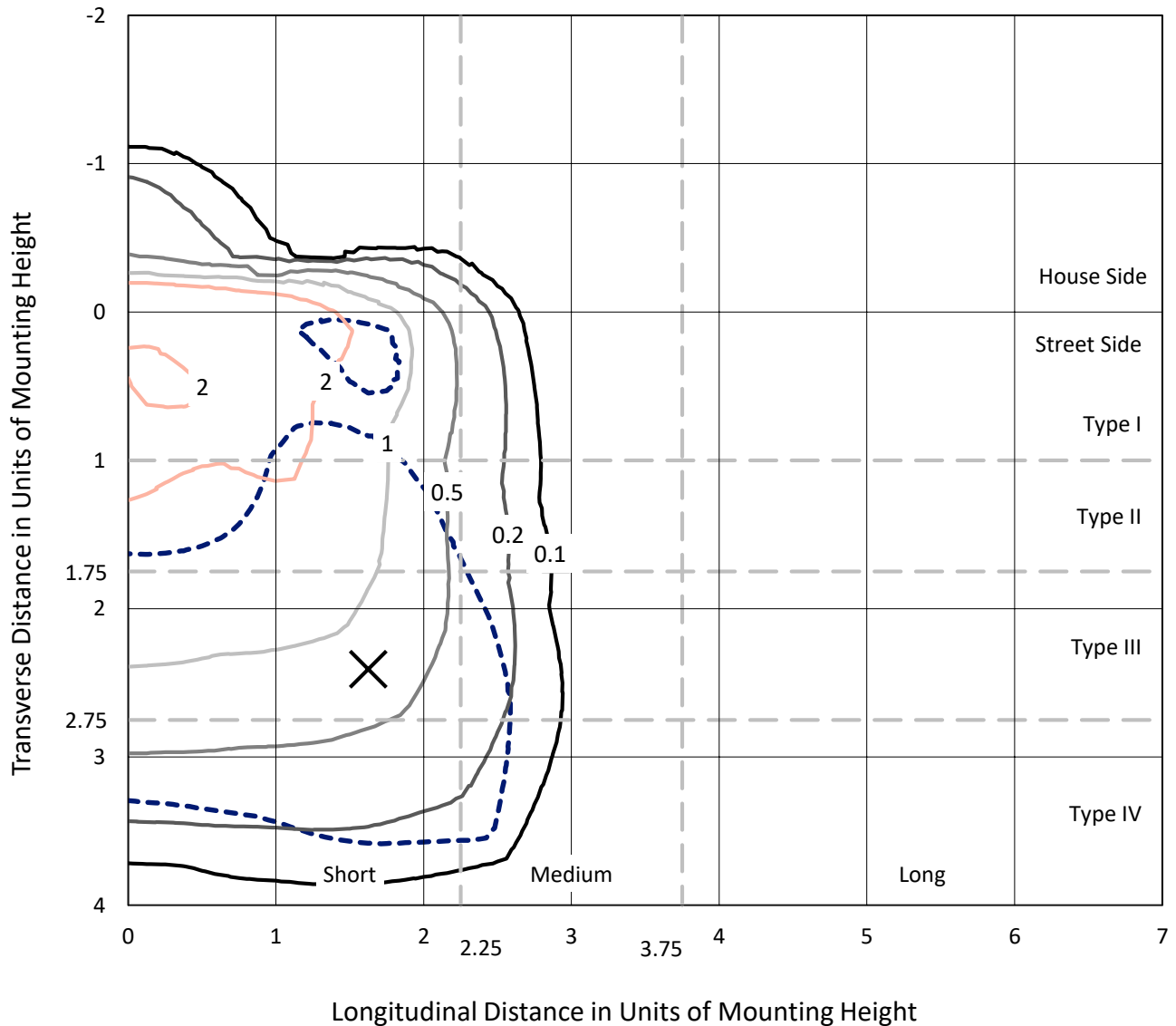
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

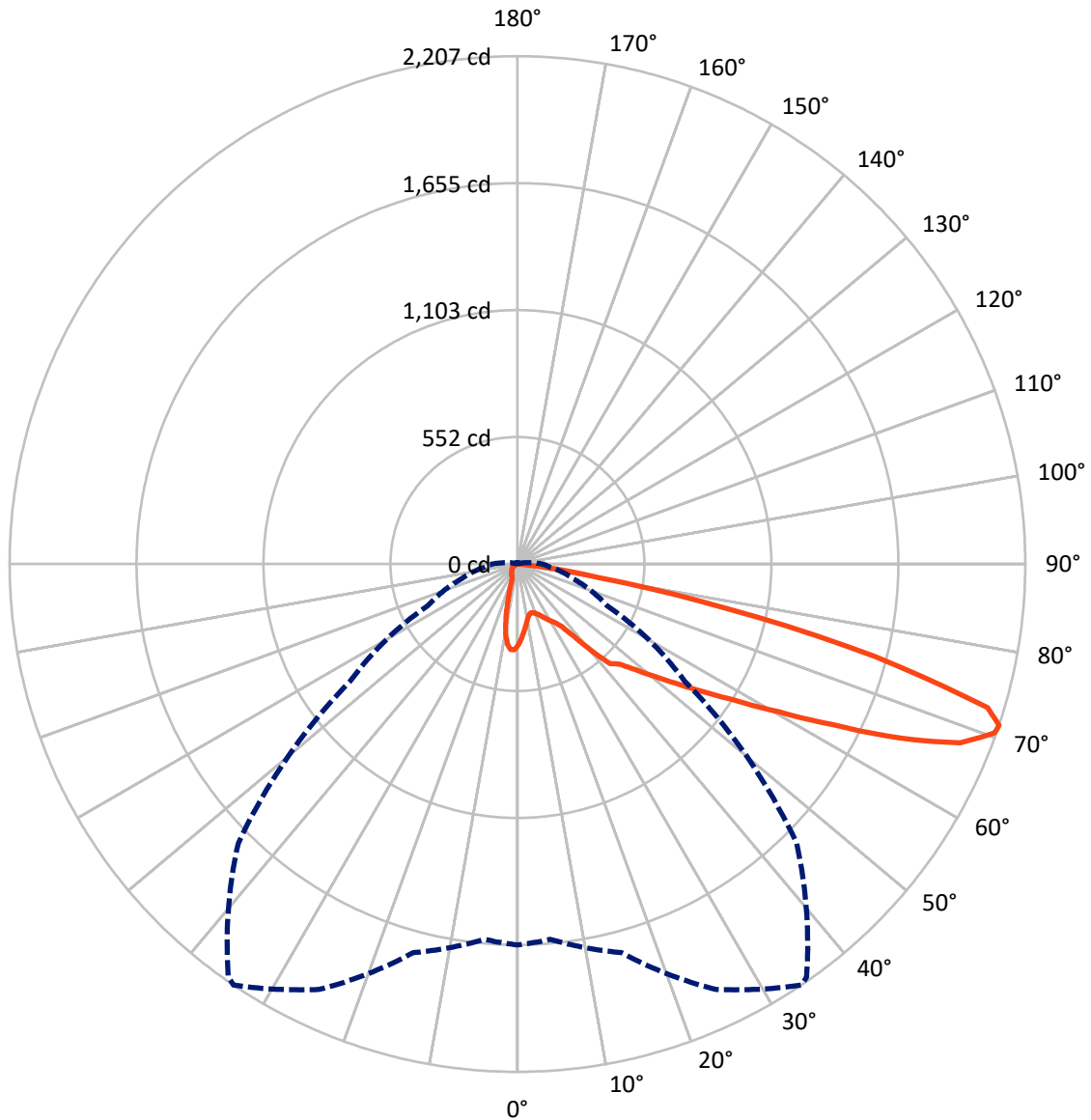
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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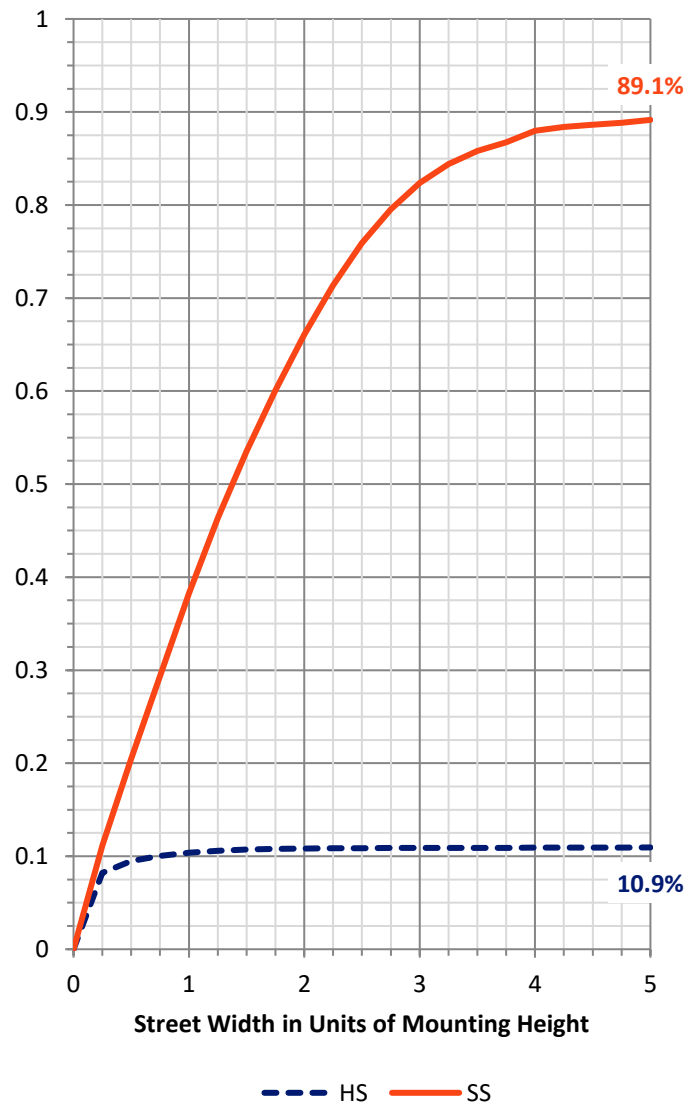
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	252.2	0.0	252.2
	% Fixture	11.1	0.0	11.1
<b>Street Side</b>	Lumens	2028.8	0.0	2028.8
	% Fixture	88.9	0.0	88.9
<b>Total</b>	Lumens	2281.0	0.0	2281.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.2	1.4
10°-20°	71.4	3.1
20°-30°	106.6	4.7
30°-40°	178.0	7.8
40°-50°	321.4	14.1
50°-60°	510.0	22.4
60°-70°	685.4	30.0
70°-80°	363.7	15.9
80°-90°	13.4	0.6
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°	2281.0	100.0
0°-180°	2281.0	100.0



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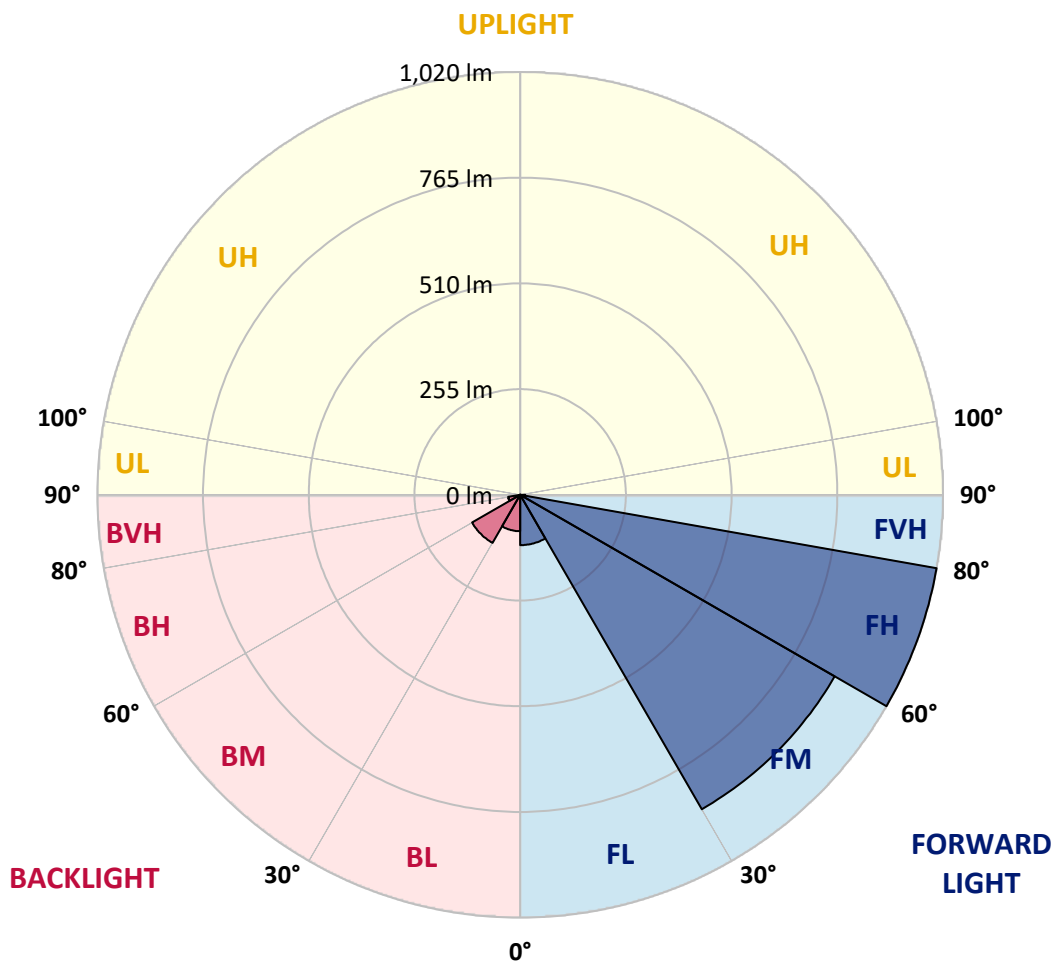
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	121.4	5.3			
FM	(30°-60°)	875.6	38.4			
FH	(60°-80°)	1019.6	44.7			G1/1800
FVH	(80°-90°)	12.2	0.5			G1/100
BL	(0°-30°)	87.7	3.8	B0/110		
BM	(30°-60°)	133.8	5.9	B0/220		
BH	(60°-80°)	29.4	1.3	B0/110		G0/110
BVH	(80°-90°)	1.2	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4
2.5°	321.8	317.7	321.4	323.2	324.6	326.4	329.2	334.2	339.7	346.1	349.8
5°	280.6	282.9	284.3	289.3	294.4	295.3	304.0	314.1	326.9	339.7	350.7
7.5°	247.2	247.2	251.3	259.1	267.4	268.3	283.4	296.7	315.0	334.7	352.5
10°	220.7	221.6	224.8	232.6	243.1	245.4	262.3	280.6	303.5	329.2	354.3
12.5°	212.0	211.5	211.1	216.5	225.2	227.5	246.3	268.3	295.3	326.4	358.9
15°	217.5	216.1	212.9	213.8	219.3	221.6	238.1	260.0	290.3	326.0	366.7
17.5°	226.2	224.3	218.4	216.5	222.5	224.8	238.5	257.7	288.4	328.2	375.9
20°	236.7	234.9	225.7	223.4	229.4	231.2	245.4	261.9	289.3	332.8	388.2
22.5°	251.8	249.5	236.2	233.5	239.4	241.3	256.4	271.5	294.8	341.1	405.2
25°	270.1	267.4	250.4	246.8	254.1	255.9	271.0	285.2	304.0	352.1	426.7
27.5°	290.3	287.0	269.2	261.9	270.1	272.9	287.0	302.6	317.3	365.8	455.1
30°	308.6	304.9	287.5	279.3	287.5	288.9	305.8	323.2	338.8	389.1	496.7
32.5°	359.4	350.2	323.2	299.4	304.9	307.6	328.2	355.7	379.1	417.1	550.3
35°	435.4	428.1	395.1	353.9	334.7	335.6	362.1	396.9	407.5	449.6	616.7
37.5°	508.6	502.2	473.4	435.4	398.8	400.1	404.7	438.1	450.5	505.9	697.7
40°	588.7	578.7	555.8	519.6	494.4	488.5	466.0	489.4	516.4	576.8	786.1
42.5°	625.8	616.2	592.4	594.7	591.9	581.4	537.0	569.5	599.7	679.8	883.6
45°	687.2	668.4	619.4	623.1	619.4	620.3	631.3	678.5	704.6	788.8	993.9
47.5°	743.9	722.4	671.1	667.5	683.5	691.7	750.8	808.0	810.3	883.6	1080.4
50°	795.7	780.1	733.0	733.4	762.7	771.9	890.0	942.2	895.9	956.4	1148.2
52.5°	864.3	842.4	800.3	815.4	861.1	869.4	1028.7	1059.8	957.7	1022.3	1201.3
55°	928.0	916.1	884.9	907.4	977.4	998.9	1169.7	1150.5	1001.2	1080.9	1226.9
57.5°	1032.4	1020.9	1012.7	1024.1	1118.0	1145.0	1312.5	1214.6	1035.1	1119.8	1215.0
60°	1206.3	1194.9	1170.2	1180.7	1302.9	1316.7	1424.7	1279.6	1048.4	1130.8	1168.3
62.5°	1421.0	1406.8	1367.0	1415.5	1538.2	1537.8	1541.0	1313.9	1031.4	1098.3	1045.2
65°	1614.7	1595.0	1574.4	1673.3	1822.5	1801.9	1664.6	1318.0	977.9	941.3	808.5
67.5°	1755.7	1747.9	1759.4	1913.6	2074.3	2053.7	1784.5	1261.3	814.0	679.4	499.5
70°	1750.2	1734.2	1807.0	2053.3	2199.3	2182.4	1779.5	1036.5	543.0	359.8	209.2
71°	1655.4	1637.1	1747.9	2039.5	2206.6	2190.6	1715.4	886.8	429.4	254.1	137.8
72.5°	1279.1	1334.5	1510.8	1892.6	2136.1	2115.5	1541.0	678.9	271.9	147.0	69.1
75°	541.1	571.3	896.8	1351.0	1602.3	1591.8	1038.8	313.6	125.0	66.4	26.6
77.5°	139.2	137.3	274.7	579.6	933.0	949.5	478.9	107.6	65.0	47.2	15.1
80°	27.0	29.3	78.3	201.4	356.2	365.8	156.1	47.2	43.5	37.1	7.8
82.5°	2.7	3.2	13.7	62.3	119.5	115.4	34.3	17.9	26.6	25.2	3.7
85°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.8	6.4	6.9	0.9
87.5°	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4	353.4
2.5°	352.5	356.6	361.2	364.4	367.6	368.1	372.7	371.7	373.1	373.6	373.1
5°	356.6	362.1	370.8	375.4	377.2	374.0	373.1	368.1	366.2	364.0	361.7
7.5°	361.2	368.1	378.2	380.4	374.0	362.1	352.5	340.2	328.7	321.4	322.3
10°	366.2	374.9	383.2	377.2	360.8	337.4	310.4	282.9	258.7	249.5	252.7
12.5°	372.7	383.2	386.8	370.4	338.3	291.2	242.2	200.5	175.3	160.2	158.4
15°	382.3	392.8	388.7	359.4	302.6	228.9	168.0	125.9	101.6	93.9	89.7
17.5°	394.2	404.2	388.7	339.7	251.8	163.9	102.1	76.5	68.7	66.8	67.3
20°	408.8	418.4	386.8	309.9	194.1	100.7	68.2	63.2	63.2	63.2	62.7
22.5°	428.5	433.5	384.1	270.6	133.7	68.2	60.4	60.0	60.4	60.4	60.4
25°	452.3	451.4	379.1	223.4	84.2	58.1	57.7	57.7	58.1	58.6	58.6
27.5°	483.9	474.3	370.4	167.1	59.5	54.0	54.9	55.9	56.8	57.7	57.7
30°	527.9	504.5	356.2	113.1	50.4	49.9	51.7	54.5	55.9	56.8	56.8
32.5°	575.0	535.6	331.9	72.3	46.2	45.8	47.6	51.7	55.4	56.3	56.3
35°	634.5	569.1	295.7	52.2	43.5	42.6	44.4	48.1	53.6	56.3	56.3
37.5°	697.2	604.8	243.1	43.9	40.7	39.8	41.2	43.9	50.4	55.4	55.9
40°	764.1	636.4	182.7	40.7	38.0	37.5	38.0	40.7	45.8	52.6	54.0
42.5°	831.4	662.9	127.7	37.5	35.7	34.8	35.7	37.5	42.1	48.1	49.0
45°	905.5	692.2	85.2	34.8	33.9	33.0	33.9	35.3	38.5	41.7	42.1
47.5°	959.6	702.7	58.6	31.6	31.1	31.6	32.0	33.0	34.8	35.3	34.8
50°	995.3	697.2	42.1	28.4	28.8	30.2	30.2	30.7	30.7	29.3	28.8
52.5°	1021.4	677.1	32.5	24.3	27.0	28.4	28.4	27.5	26.6	24.7	24.3
55°	1024.1	631.8	25.6	21.1	24.3	26.6	26.1	24.3	22.4	20.6	20.6
57.5°	989.3	563.1	21.1	17.9	21.1	23.3	22.4	20.6	18.3	16.9	16.9
60°	933.0	492.6	17.9	15.1	17.4	19.7	18.3	16.9	14.6	13.3	13.3
62.5°	829.1	423.0	14.6	12.4	14.2	15.6	15.1	13.7	11.4	10.5	10.1
65°	635.4	321.8	11.0	9.6	11.0	12.8	11.9	10.5	9.2	7.8	7.3
67.5°	381.8	193.7	8.7	7.3	8.7	10.1	9.2	7.8	6.4	5.5	5.5
70°	161.6	82.9	6.9	5.5	6.4	7.8	7.3	6.4	5.0	4.6	4.6
71°	109.9	59.1	6.0	5.0	6.0	7.3	6.9	6.0	5.0	4.6	4.6
72.5°	56.3	30.2	5.0	4.1	5.5	6.4	6.4	5.5	4.6	4.6	4.6
75°	20.1	12.8	4.1	3.7	4.6	4.6	5.0	5.0	5.0	5.0	4.6
77.5°	11.4	7.8	3.7	3.7	3.7	4.1	5.0	5.5	6.0	6.0	5.5
80°	6.4	4.1	2.3	2.7	3.7	4.1	5.0	5.5	6.4	6.4	6.0
82.5°	3.2	1.4	0.5	1.4	2.3	3.7	4.1	4.6	5.5	5.0	5.0
85°	0.5	0.0	0.0	0.5	1.4	1.8	2.7	3.7	4.6	4.6	4.1
87.5°	0.0	0.0	0.0	0.0	0.5	0.9	1.4	2.3	3.2	3.7	3.2
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)