

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: P366639

Luminaire Tested: **MSA-SA1A-730-U-T4FT-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366639
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-730-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2756 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

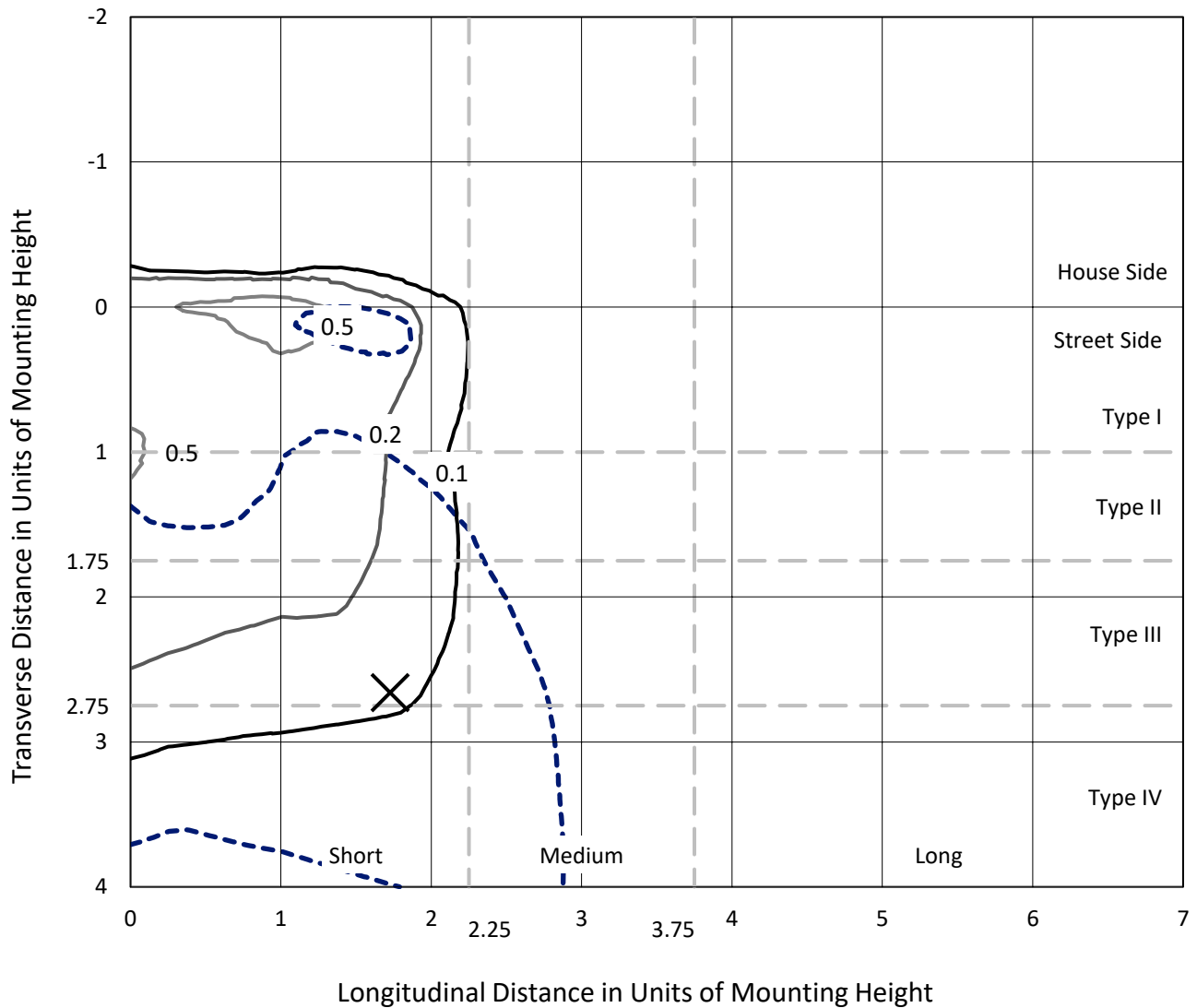
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

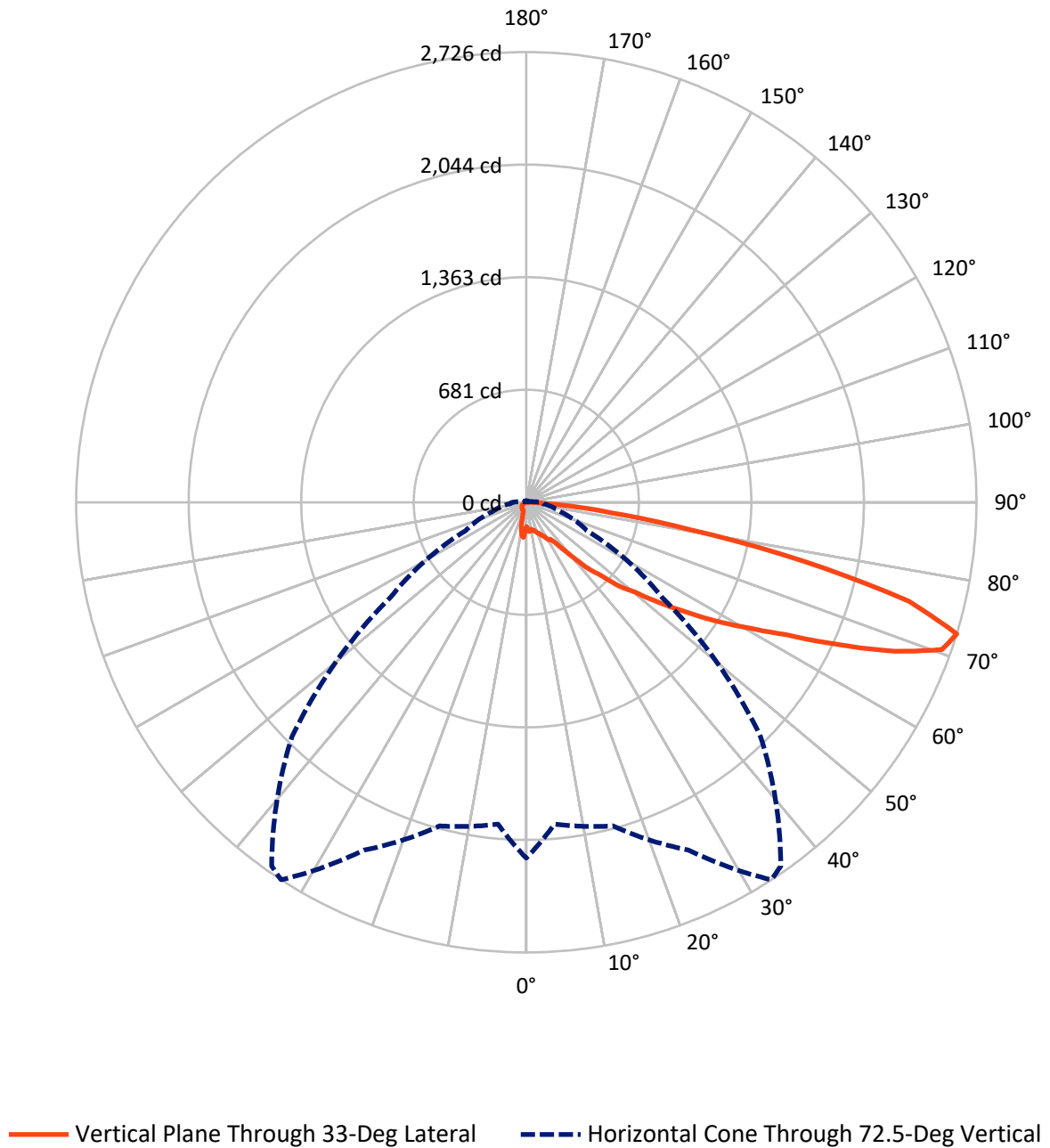
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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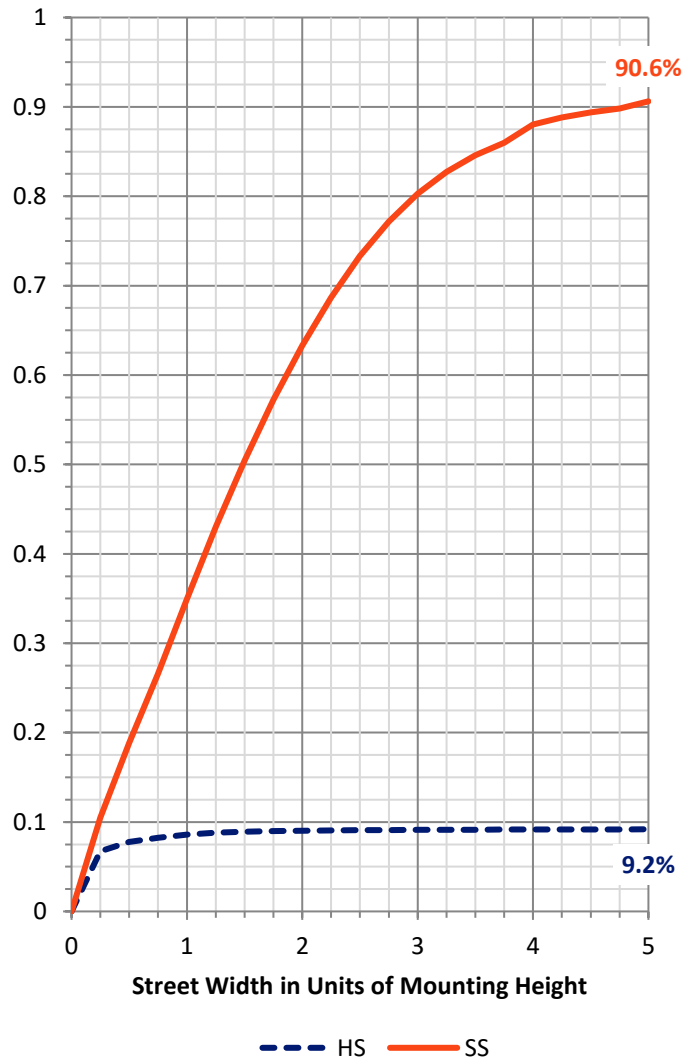
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	254.8	0.0	254.8
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	2501.2	0.0	2501.2
	% Fixture	90.8	0.0	90.8
Total	Lumens	2756.0	0.0	2756.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.0	0.7
10°-20°	56.5	2.1
20°-30°	95.9	3.5
30°-40°	175.5	6.4
40°-50°	370.3	13.4
50°-60°	619.6	22.5
60°-70°	829.4	30.1
70°-80°	541.8	19.7
80°-90°	48.0	1.7
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°	2756.0	100.0
0°-180°	2756.0	100.0

Coefficient of Utilization

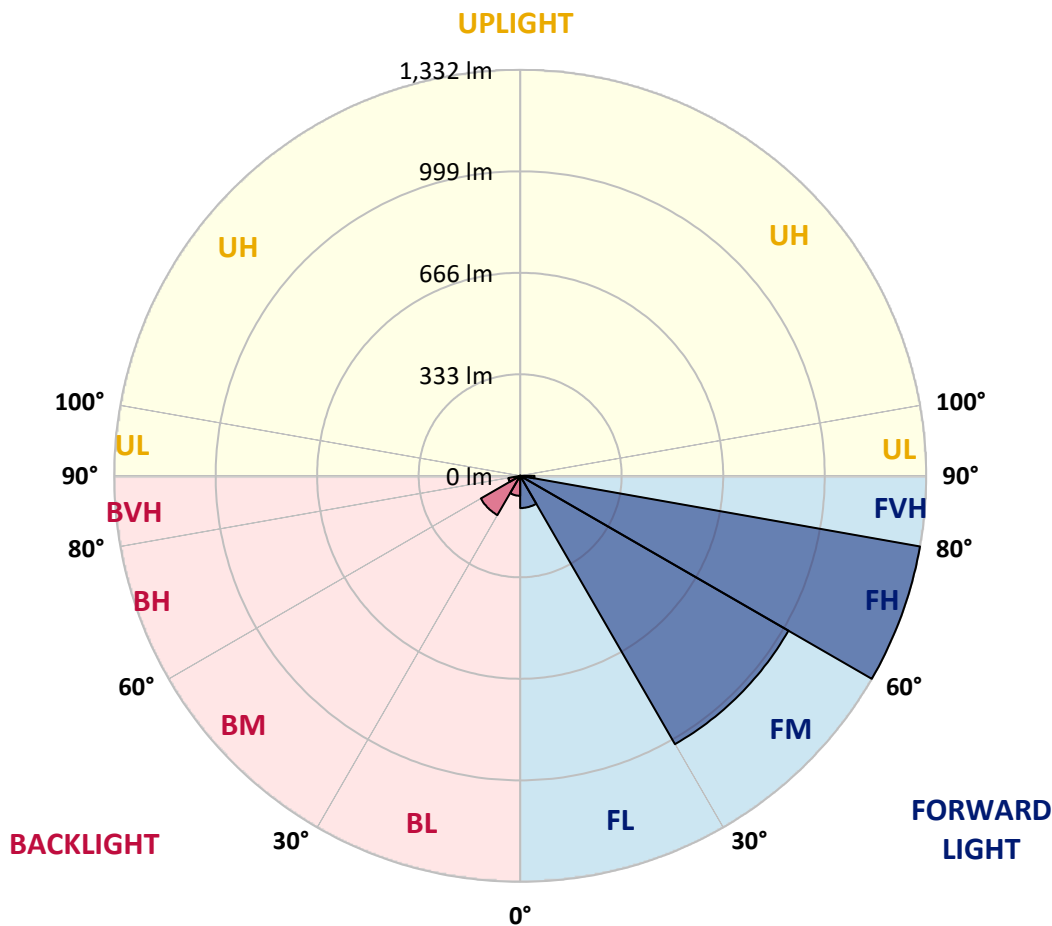


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	105.8	3.8			
FM (30°-60°)	1016.5	36.9			
FH (60°-80°)	1331.8	48.3			G1/1800
FVH (80°-90°)	47.1	1.7			G1/100
BL (0°-30°)	65.6	2.4	B0/110		
BM (30°-60°)	149.0	5.4	B0/220		
BH (60°-80°)	39.3	1.4	B0/110		G0/110
BVH (80°-90°)	0.9	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6
2.5°	174.7	168.0	158.2	158.8	160.5	161.9	165.6	164.0	161.1	161.0	174.7
5°	185.1	177.6	177.0	178.0	177.5	179.9	176.9	186.8	195.2	205.3	221.6
7.5°	180.1	176.6	172.1	176.7	176.6	175.4	177.3	197.5	217.9	230.7	257.5
10°	165.6	161.6	164.9	166.5	165.4	170.8	184.1	200.6	224.9	251.9	264.9
12.5°	161.4	163.9	165.1	165.1	175.4	178.1	198.5	214.1	243.0	264.3	302.0
15°	177.5	182.2	173.8	172.0	175.2	176.7	199.4	218.2	255.2	294.1	325.8
17.5°	203.0	202.7	189.7	182.5	187.6	191.3	203.8	225.8	247.6	317.5	363.4
20°	220.6	221.0	197.5	182.5	199.2	201.4	215.3	232.9	250.0	329.3	388.0
22.5°	243.3	235.2	209.3	194.8	206.1	208.1	223.4	237.3	262.6	327.9	419.6
25°	261.8	256.6	224.0	213.9	224.0	221.3	235.2	256.1	276.0	349.8	438.1
27.5°	290.6	281.7	234.4	236.3	235.6	237.6	240.8	273.0	299.8	350.9	480.9
30°	317.4	312.1	257.7	257.7	263.6	259.8	262.1	301.0	322.7	375.6	529.1
32.5°	345.0	345.4	285.1	270.5	265.8	281.5	297.0	314.6	350.4	418.2	602.9
35°	418.3	412.2	337.5	301.3	297.5	296.5	321.3	368.9	399.5	473.6	702.2
37.5°	566.0	544.7	450.5	371.1	356.7	351.8	379.9	428.7	459.2	555.0	866.4
40°	717.5	678.5	573.8	484.3	437.6	416.5	449.2	490.7	544.9	645.0	1018.3
42.5°	850.5	802.3	666.7	606.4	545.6	536.5	505.7	573.2	667.3	775.9	1167.2
45°	980.1	885.2	749.3	701.6	627.8	633.0	622.6	681.1	794.4	919.5	1299.2
47.5°	1069.3	984.0	850.6	788.6	759.1	728.7	811.3	872.0	907.7	1010.7	1413.4
50°	1165.4	1079.1	937.7	894.4	855.5	886.3	993.5	1001.6	998.7	1095.7	1491.1
52.5°	1289.4	1187.7	1037.6	988.6	1010.7	1041.3	1165.0	1166.6	1079.7	1167.3	1547.1
55°	1404.2	1291.4	1170.7	1124.5	1170.6	1196.4	1333.7	1283.3	1126.8	1216.0	1574.7
57.5°	1565.9	1435.4	1347.7	1266.3	1359.7	1334.9	1481.9	1407.1	1179.7	1248.3	1564.6
60°	1770.4	1616.7	1528.9	1442.8	1542.8	1559.7	1626.7	1468.9	1200.2	1258.8	1503.8
62.5°	1978.3	1823.8	1708.2	1649.8	1763.3	1818.7	1760.7	1499.7	1175.6	1238.2	1366.3
65°	2236.3	2038.4	1903.5	1869.2	2079.6	2161.0	1919.3	1507.2	1128.0	1124.5	1098.5
67.5°	2413.0	2220.4	2096.6	2154.0	2408.1	2414.7	2061.6	1509.5	967.8	880.4	721.0
70°	2455.0	2248.7	2193.3	2362.2	2670.2	2587.5	2107.5	1393.2	717.8	522.5	329.6
72.5°	2155.0	1956.4	2028.5	2322.9	2725.9	2688.0	2006.0	1005.1	404.1	209.0	101.1
75°	1321.9	1201.8	1521.7	1969.4	2392.8	2368.3	1565.0	519.3	162.8	83.5	37.8
77.5°	574.9	533.9	794.1	1306.7	1719.4	1697.5	917.0	191.3	84.2	58.8	19.1
80°	190.2	184.5	300.8	618.8	1007.1	987.9	386.4	79.6	60.0	47.1	10.7
82.5°	45.1	44.8	105.0	284.8	513.1	497.0	118.6	43.9	43.5	37.2	5.7
85°	11.3	11.6	29.1	116.4	208.4	183.8	30.9	21.9	30.6	25.2	2.9
87.5°	0.0	0.0	7.5	16.7	31.5	19.7	3.4	5.8	8.6	9.0	1.5
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°	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6	146.6
2.5°	177.8	176.1	162.3	165.7	170.9	170.5	173.8	171.2	168.9	180.3	179.2
5°	226.2	217.0	212.7	218.7	215.4	207.9	214.2	213.1	211.3	215.1	218.0
7.5°	262.4	254.0	250.2	237.6	219.4	205.0	207.3	202.0	196.9	202.9	209.0
10°	274.4	269.8	269.3	244.8	227.7	206.9	182.2	161.0	155.3	147.8	151.2
12.5°	306.8	309.5	292.3	263.6	230.6	190.7	146.9	116.7	104.5	96.6	97.0
15°	333.4	343.1	318.0	266.5	202.9	145.4	97.8	70.7	63.0	61.1	60.4
17.5°	373.0	382.4	325.9	245.9	163.6	98.5	62.9	55.1	55.5	56.9	56.6
20°	402.4	401.0	319.0	209.3	120.6	64.6	52.6	51.6	54.0	58.0	57.1
22.5°	430.7	421.2	314.7	175.5	78.0	51.9	50.8	50.6	52.9	56.8	57.8
25°	450.9	452.5	307.6	137.4	56.8	48.2	49.1	50.5	52.8	56.9	56.3
27.5°	508.8	465.9	277.6	99.8	47.9	46.2	48.5	51.3	52.0	57.2	57.4
30°	546.3	516.7	258.0	67.2	44.2	42.7	47.3	51.0	51.9	58.6	59.1
32.5°	611.6	538.6	235.3	49.9	41.2	41.6	44.5	49.4	53.7	60.9	61.2
35°	692.8	608.8	194.3	44.8	40.1	39.3	40.7	46.4	53.4	61.2	62.7
37.5°	847.5	650.9	154.1	43.5	40.1	38.7	40.1	43.5	52.5	64.3	67.5
40°	951.1	736.6	111.1	43.1	39.3	38.1	38.6	41.9	49.9	62.4	67.2
42.5°	1078.7	772.7	81.9	42.4	38.6	36.7	37.0	41.3	47.3	58.6	62.1
45°	1183.3	799.0	64.4	42.1	36.7	36.1	36.7	40.9	44.8	50.3	53.6
47.5°	1262.7	829.6	51.7	40.1	36.3	36.1	35.3	38.3	40.7	42.1	44.2
50°	1320.8	822.8	42.8	37.0	34.7	35.7	34.3	34.7	35.3	34.6	37.0
52.5°	1356.5	798.0	35.7	33.4	32.9	33.7	32.0	30.6	29.5	28.9	30.4
55°	1369.5	748.2	30.3	28.6	29.7	30.0	28.6	26.2	24.3	23.4	24.6
57.5°	1344.8	672.5	26.3	23.7	26.2	26.2	24.3	21.7	19.6	18.1	19.3
60°	1282.4	588.8	23.4	19.7	22.3	22.5	20.4	17.6	15.9	14.4	15.1
62.5°	1166.1	497.6	20.5	17.1	19.3	19.4	16.8	14.2	13.0	11.3	11.9
65°	933.5	380.5	17.4	15.1	16.7	16.2	13.9	12.1	10.6	9.0	9.3
67.5°	605.9	234.9	15.1	13.8	14.1	13.6	11.8	10.6	8.9	7.7	7.8
70°	271.3	101.1	13.3	12.4	12.2	11.5	9.9	9.8	8.7	7.7	7.7
72.5°	83.7	38.1	11.5	11.2	10.6	9.6	8.7	9.3	8.6	7.3	7.2
75°	33.1	17.4	9.5	9.5	9.2	8.0	7.8	8.4	8.0	6.7	6.4
77.5°	17.3	11.0	7.8	8.1	8.0	6.1	7.0	7.7	7.3	5.7	4.7
80°	10.3	6.7	5.8	6.6	6.4	4.3	5.4	4.9	3.5	1.7	0.5
82.5°	5.7	3.1	2.6	3.8	3.8	1.5	2.8	2.4	1.4	0.0	0.0
85°	2.8	2.1	2.0	2.1	1.5	0.5	1.4	1.4	0.8	0.0	0.0
87.5°	1.4	1.2	0.9	0.8	0.6	0.0	0.5	0.6	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)