

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: P367141

Luminaire Tested: **MSA-SA2A-727-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-727-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5013 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
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

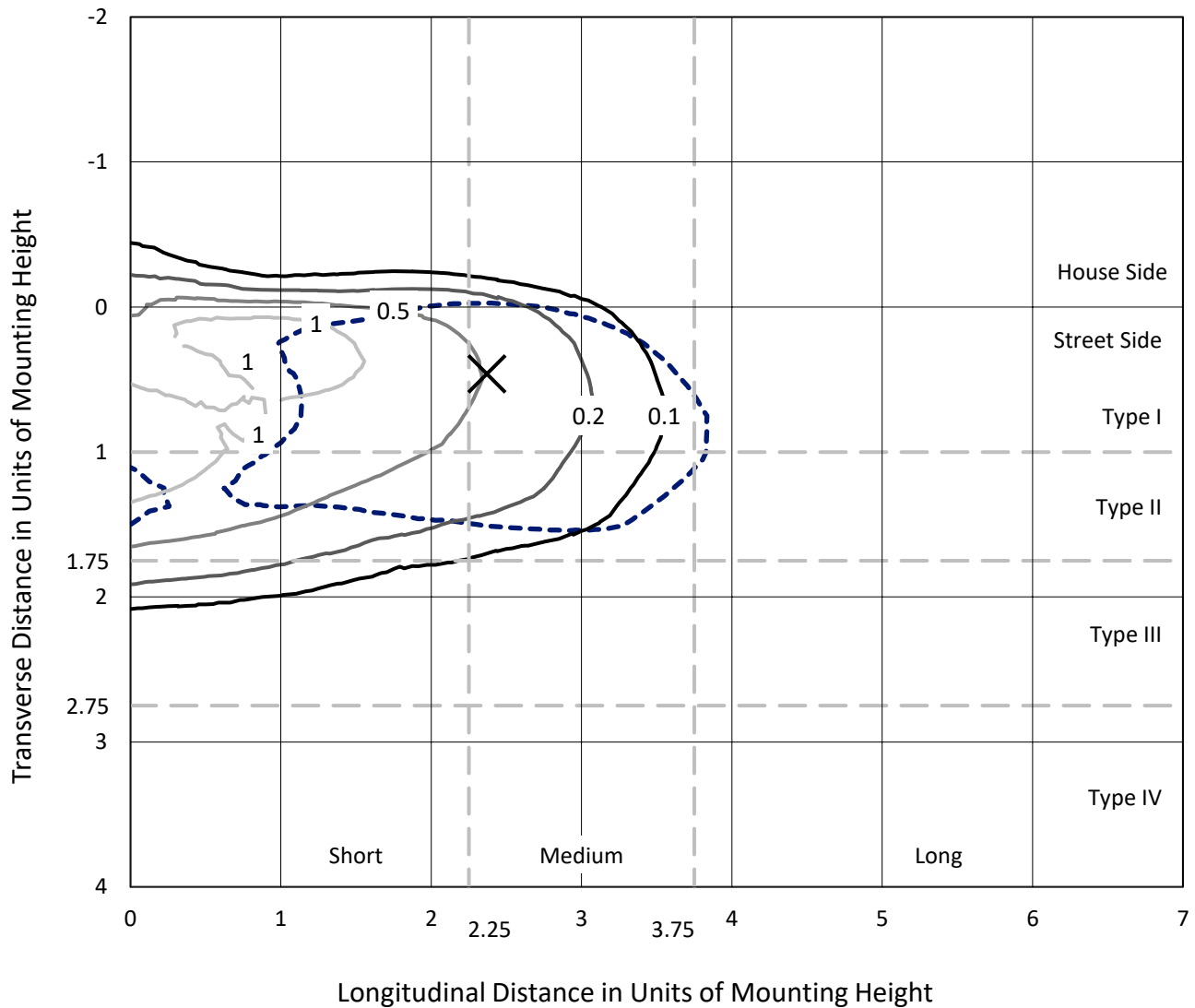


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

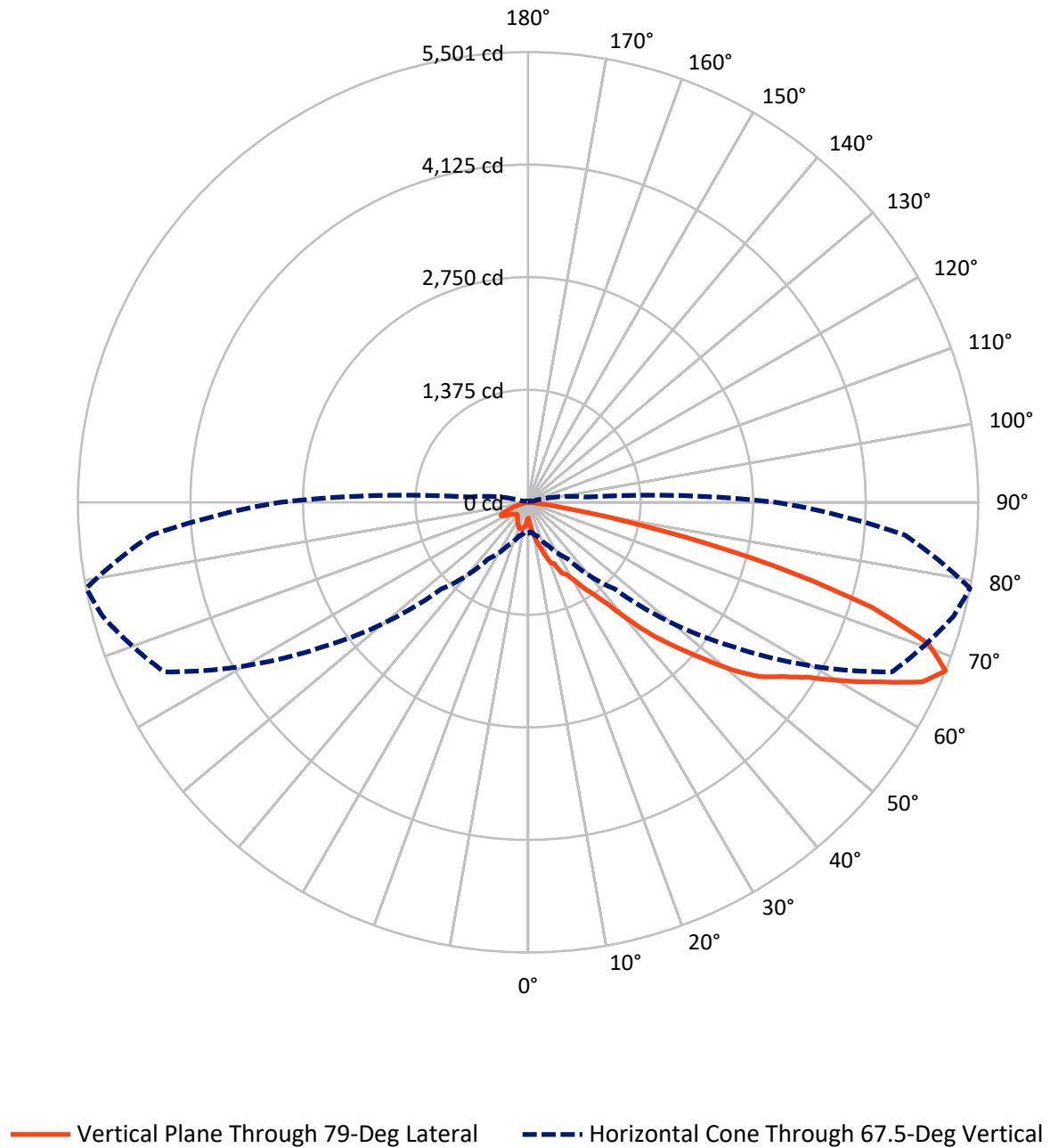


Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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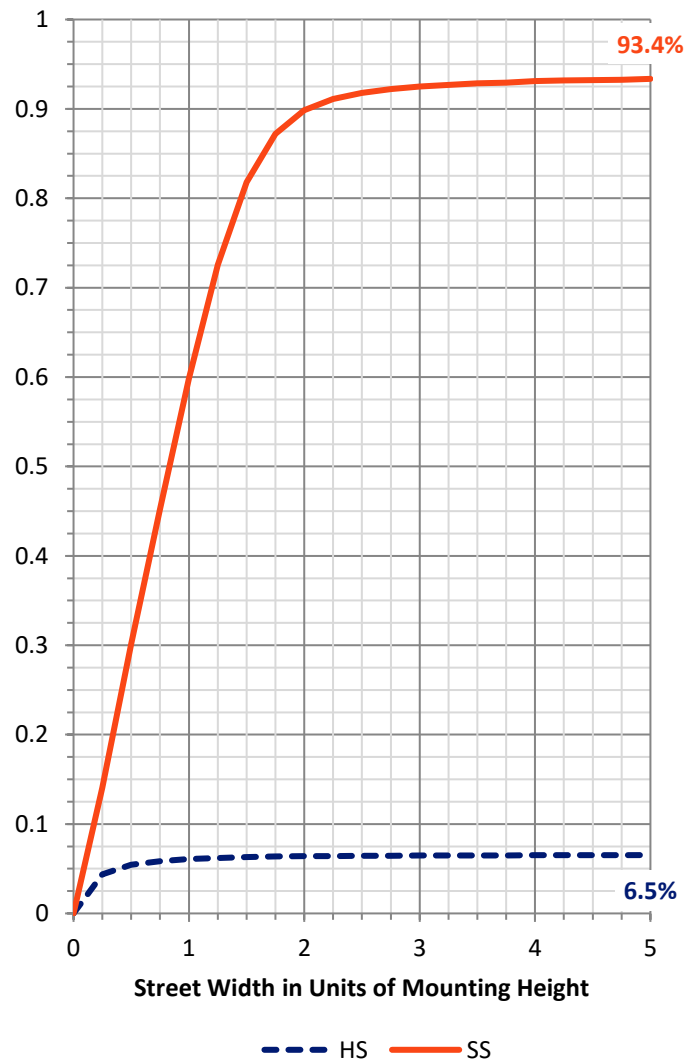
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	329.4	0.0	329.4
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	4683.6	0.0	4683.6
	% Fixture	93.4	0.0	93.4
Total	Lumens	5013.0	0.0	5013.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.1	0.6
10°-20°	112.0	2.2
20°-30°	216.1	4.3
30°-40°	424.5	8.5
40°-50°	850.4	17.0
50°-60°	1359.2	27.1
60°-70°	1367.6	27.3
70°-80°	617.0	12.3
80°-90°	38.2	0.8
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°	5013.0	100.0
0°-180°	5013.0	100.0

Coefficient of Utilization



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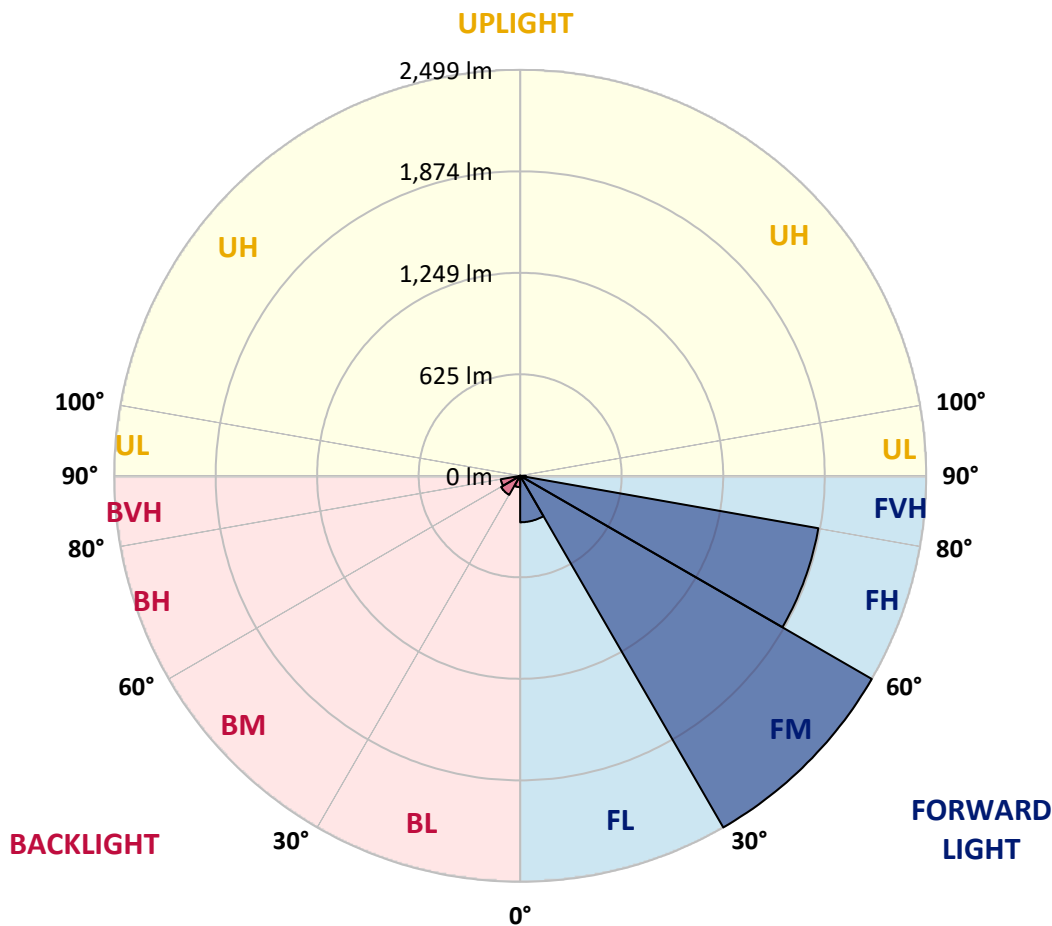
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	286.2	5.7			
FM	(30°-60°)	2498.6	49.8			
FH	(60°-80°)	1863.1	37.2			G2/5000
FVH	(80°-90°)	35.7	0.7			G1/100
BL	(0°-30°)	70.0	1.4	B0/110		
BM	(30°-60°)	135.5	2.7	B0/220		
BH	(60°-80°)	121.4	2.4	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2
2.5°	260.9	251.5	236.3	244.8	244.3	248.7	240.4	231.3	216.7	231.3	232.4
5°	375.6	358.1	347.1	344.9	332.7	321.4	318.9	309.5	302.3	289.3	300.9
7.5°	467.8	459.8	440.2	438.0	408.2	391.6	396.8	392.7	365.3	351.8	363.1
10°	507.1	493.3	496.0	493.3	480.6	485.3	474.5	462.0	440.2	417.8	389.6
12.5°	522.3	520.1	543.0	540.3	570.1	606.0	582.0	561.3	510.7	505.2	466.7
15°	554.9	568.7	565.4	577.0	596.1	657.1	656.6	661.6	608.0	579.2	523.7
17.5°	583.9	594.1	577.6	590.8	642.8	679.8	729.3	709.9	716.0	686.7	600.8
20°	571.5	583.1	566.5	558.5	650.0	720.2	786.2	772.1	808.6	790.3	671.8
22.5°	649.1	627.3	585.6	559.6	627.9	719.3	806.4	865.2	858.9	814.1	737.8
25°	745.0	731.8	681.7	635.9	641.9	714.3	869.9	956.4	975.2	956.1	800.6
27.5°	874.4	871.3	769.1	749.2	690.0	692.5	879.9	1071.4	1028.5	998.7	873.8
30°	1043.2	1019.2	897.8	871.9	784.5	741.7	940.7	1170.6	1139.1	1098.5	942.6
32.5°	1224.8	1228.3	1073.6	987.9	917.7	866.9	916.6	1217.0	1275.9	1243.0	1028.5
35°	1430.9	1446.9	1257.6	1157.0	1020.5	945.6	1020.0	1359.6	1465.2	1378.7	1143.8
37.5°	1748.4	1747.9	1526.8	1326.4	1227.2	1146.0	1192.1	1489.2	1697.9	1576.3	1350.5
40°	2027.8	1967.0	1761.4	1531.2	1376.5	1354.4	1320.9	1666.6	1946.3	1873.1	1534.3
42.5°	2236.4	2193.6	1945.2	1766.1	1574.3	1504.1	1492.3	1926.7	2313.0	2210.5	1796.5
45°	2486.0	2345.6	2162.7	2001.3	1805.9	1785.5	1757.5	2190.6	2739.7	2508.6	2024.5
47.5°	2709.5	2577.5	2404.5	2197.2	1972.8	2141.4	2034.2	2422.4	3050.0	2833.1	2276.0
50°	2897.7	2757.4	2563.6	2405.8	2309.7	2424.1	2245.3	2613.4	3385.2	3209.5	2511.1
52.5°	2993.6	2834.7	2685.0	2587.4	2646.3	2620.6	2531.6	2844.7	3670.9	3539.4	2719.5
55°	2914.9	2759.6	2696.8	2745.2	2924.0	2849.7	2856.8	3203.1	3940.7	3759.4	2900.8
57.5°	2565.6	2423.8	2451.7	2584.1	2926.8	3121.3	3227.7	3551.3	4157.0	4033.5	3180.4
60°	1940.8	1826.6	1930.0	2164.9	2651.5	3067.1	3490.8	3899.5	4466.3	4427.6	3603.8
62.5°	1185.2	1123.3	1269.8	1562.7	2112.9	2801.6	3644.1	4363.7	4797.0	4838.2	4052.9
65°	604.6	576.7	698.9	956.4	1427.6	2301.4	3533.3	4652.2	5138.9	5290.9	4480.9
67.5°	380.8	362.8	428.1	583.4	842.3	1501.1	3093.7	4904.5	5380.4	5500.6	4623.8
70°	263.9	252.6	309.0	400.4	531.4	808.6	2297.0	4669.1	5188.9	5194.4	4278.1
72.5°	167.5	158.6	213.6	296.5	392.1	417.6	1316.8	3663.8	4441.7	4390.5	3464.5
75°	108.6	104.2	135.7	217.2	301.2	257.6	650.8	2472.2	3184.9	3104.7	2301.1
77.5°	77.9	75.2	90.9	145.1	214.4	180.2	291.8	1473.5	1826.1	1650.9	1117.0
80°	47.0	46.7	65.8	90.9	152.5	127.1	134.9	669.0	708.0	577.3	341.3
82.5°	23.5	24.3	36.8	58.6	98.1	83.2	61.6	222.7	190.1	140.1	69.1
85°	5.5	6.9	19.3	40.3	49.2	33.2	29.3	58.3	52.2	39.5	20.2
87.5°	0.0	0.0	6.1	9.7	13.3	5.5	9.9	11.1	14.1	11.1	4.1
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°	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2	193.2
2.5°	232.7	229.4	209.2	203.9	203.4	197.6	199.0	193.4	193.7	206.2	206.2
5°	296.5	277.2	257.8	240.7	229.1	212.5	206.4	203.9	201.7	206.7	209.7
7.5°	348.2	319.7	284.9	247.6	213.1	189.3	186.0	179.9	177.7	182.7	186.5
10°	371.1	335.8	287.9	233.5	201.2	181.8	165.8	157.2	155.6	155.3	156.7
12.5°	419.8	375.8	291.3	228.3	193.2	171.9	153.6	139.3	126.0	127.4	126.0
15°	458.7	406.8	291.3	215.5	173.8	152.5	120.5	113.3	111.4	114.4	111.9
17.5°	517.6	437.5	276.6	192.9	157.2	118.6	106.4	105.8	109.7	114.1	111.4
20°	553.0	441.6	252.0	166.9	129.1	102.8	98.4	94.0	99.5	103.1	101.7
22.5°	589.7	441.9	227.4	153.1	103.9	93.7	86.5	82.9	83.7	87.0	87.6
25°	605.5	431.1	204.5	134.9	94.2	83.7	76.3	72.4	71.0	72.7	72.1
27.5°	648.3	410.4	179.6	115.0	89.5	74.3	67.4	62.7	58.6	61.3	61.9
30°	654.4	403.7	166.1	102.2	83.5	65.8	59.7	54.7	51.7	55.5	55.5
32.5°	673.7	367.3	159.2	97.0	77.1	60.8	52.5	48.9	48.4	50.8	51.1
35°	703.6	351.2	148.9	92.9	71.3	55.0	47.3	45.6	45.0	47.0	47.0
37.5°	804.7	331.3	137.6	89.3	66.3	52.0	45.9	43.1	43.4	45.0	46.1
40°	871.9	333.8	120.8	84.8	60.5	49.2	43.1	41.2	40.9	41.7	42.6
42.5°	996.5	335.8	113.3	80.1	56.1	45.9	40.3	39.0	37.9	38.7	39.5
45°	1135.8	346.0	109.4	76.3	53.6	43.9	37.9	37.0	34.5	35.1	36.2
47.5°	1270.1	383.3	104.7	70.7	51.4	42.8	35.4	33.4	31.8	31.5	32.6
50°	1422.6	419.5	99.5	64.7	49.2	41.2	32.9	29.8	28.7	28.7	29.6
52.5°	1559.1	454.0	94.5	60.5	47.5	38.1	30.7	27.6	26.8	26.8	27.9
55°	1702.8	490.2	90.1	56.7	45.3	35.1	28.7	26.0	25.7	25.1	26.0
57.5°	1956.5	569.3	84.6	53.3	42.3	32.6	27.1	24.3	23.8	22.9	23.8
60°	2326.0	690.6	77.4	50.0	38.7	31.0	25.7	22.4	21.6	20.2	20.4
62.5°	2687.2	788.7	69.1	45.9	35.4	29.3	23.5	20.2	18.8	17.1	17.4
65°	2996.7	827.4	60.2	40.9	32.1	25.4	20.4	17.7	15.8	13.5	13.3
67.5°	3033.1	730.7	51.7	36.2	28.7	21.6	17.4	15.8	12.7	10.8	10.2
70°	2729.7	544.4	43.1	32.1	24.9	18.2	14.9	13.8	11.9	10.2	9.4
72.5°	2173.7	401.8	36.2	28.5	21.8	15.5	12.7	13.0	11.9	9.9	8.8
75°	1437.5	229.9	29.6	23.8	18.2	12.4	11.6	11.6	11.3	9.4	8.3
77.5°	691.7	99.2	22.7	18.8	14.6	9.4	10.5	10.5	10.8	8.6	6.9
80°	196.2	29.8	14.1	12.7	10.8	6.4	8.3	8.0	7.2	5.0	3.0
82.5°	35.1	11.6	6.4	6.6	6.1	2.5	4.7	4.4	3.6	1.9	0.3
85°	9.7	4.4	3.6	3.9	3.0	0.8	1.9	2.5	1.9	1.1	0.0
87.5°	2.5	1.9	2.5	2.8	2.2	0.3	0.8	0.3	0.8	0.3	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)