

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: P596181

Luminaire Tested: **MSA-SA1C-722-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-722-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 3477 lumens
Efficiency: N/A
Efficacy: 58.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G1

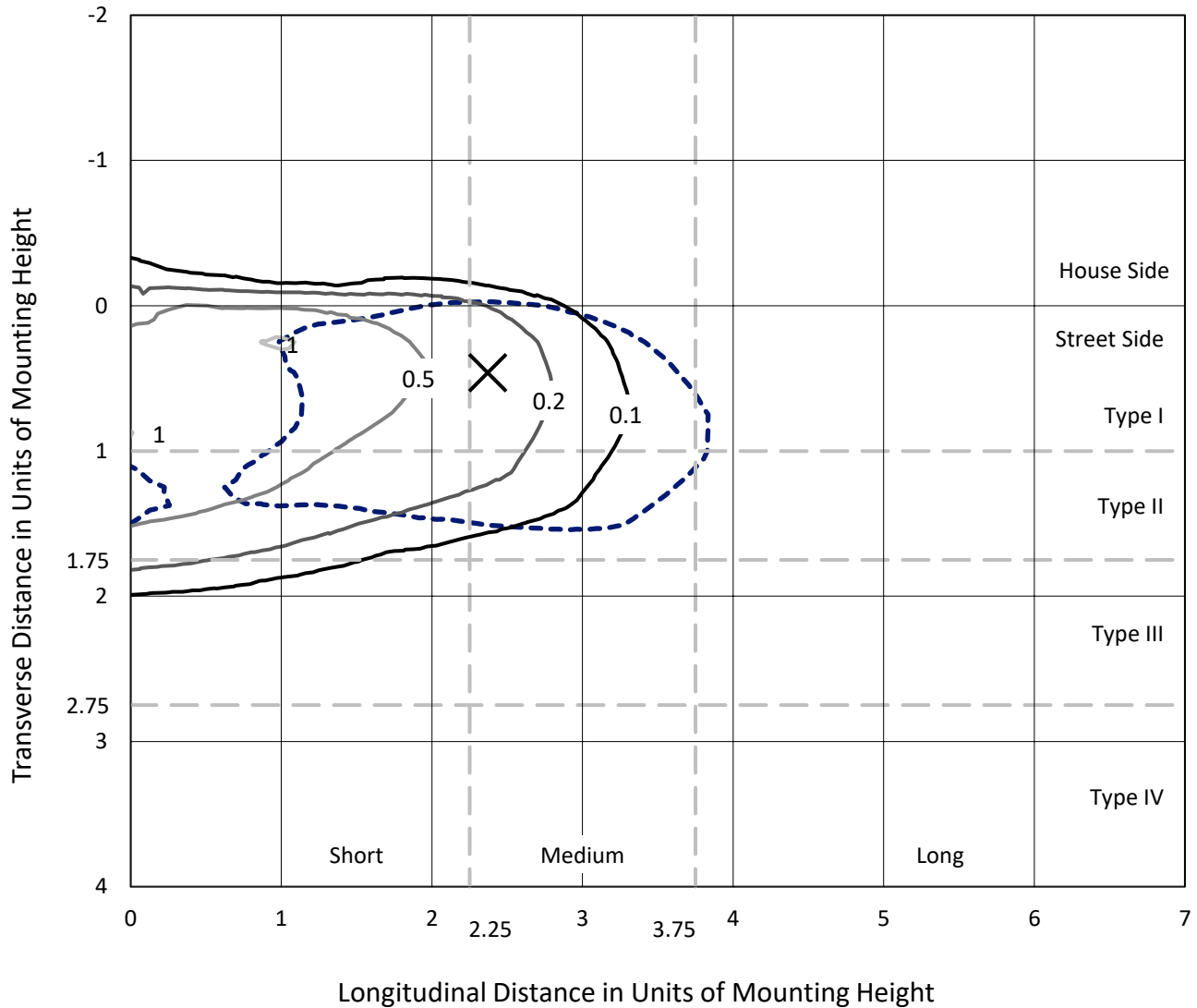
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

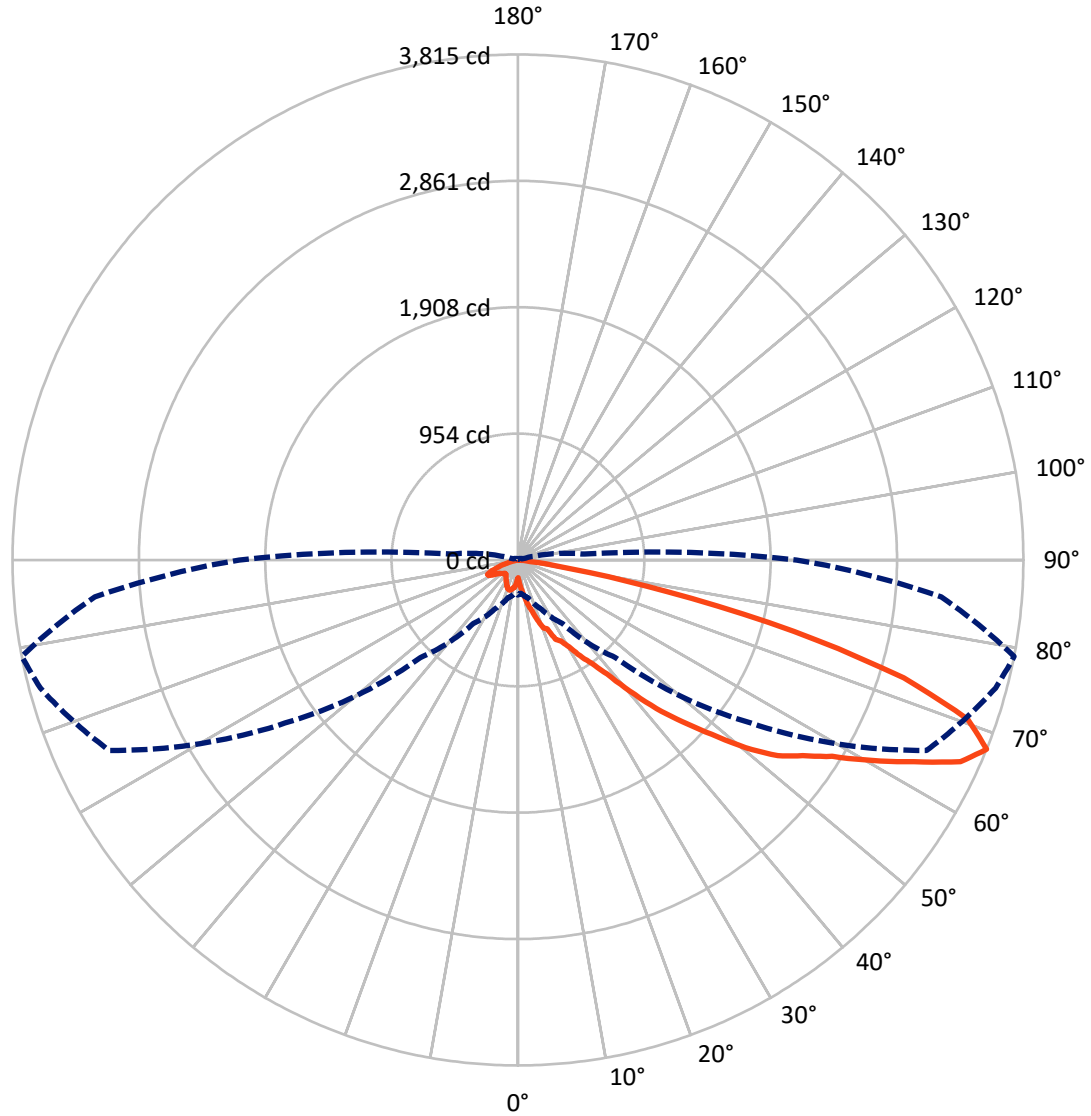
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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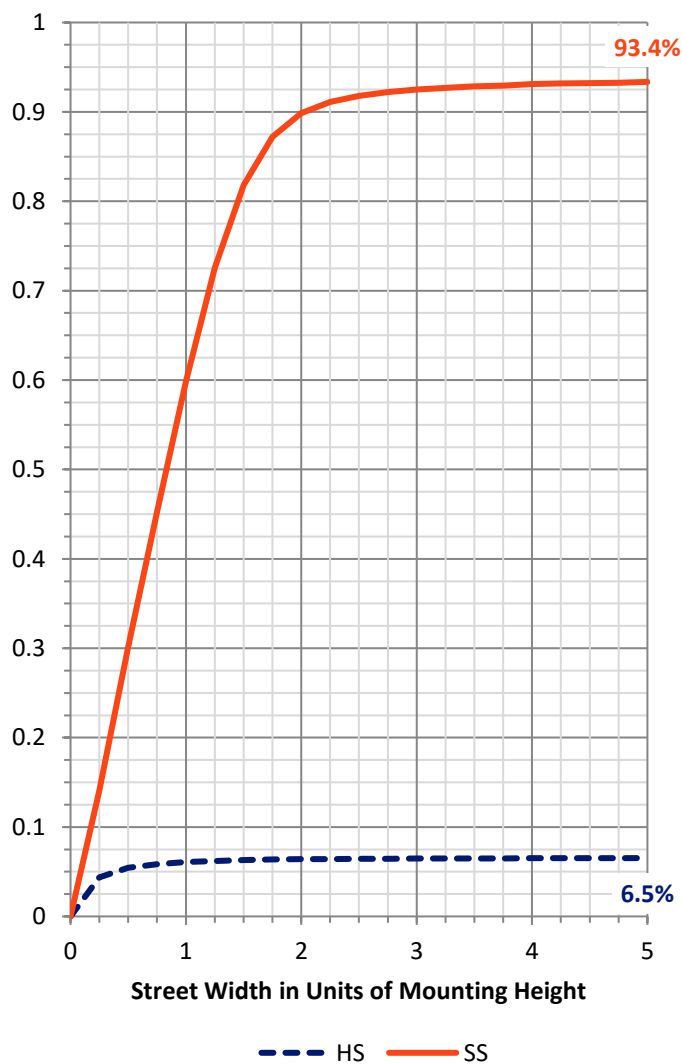
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	228.5	0.0	228.5
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	3248.5	0.0	3248.5
	% Fixture	93.4	0.0	93.4
Total	Lumens	3477.0	0.0	3477.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.5	0.6
10°-20°	77.7	2.2
20°-30°	149.9	4.3
30°-40°	294.4	8.5
40°-50°	589.8	17.0
50°-60°	942.7	27.1
60°-70°	948.6	27.3
70°-80°	427.9	12.3
80°-90°	26.5	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°	3477.0	100.0
0°-180°	3477.0	100.0

Coefficient of Utilization



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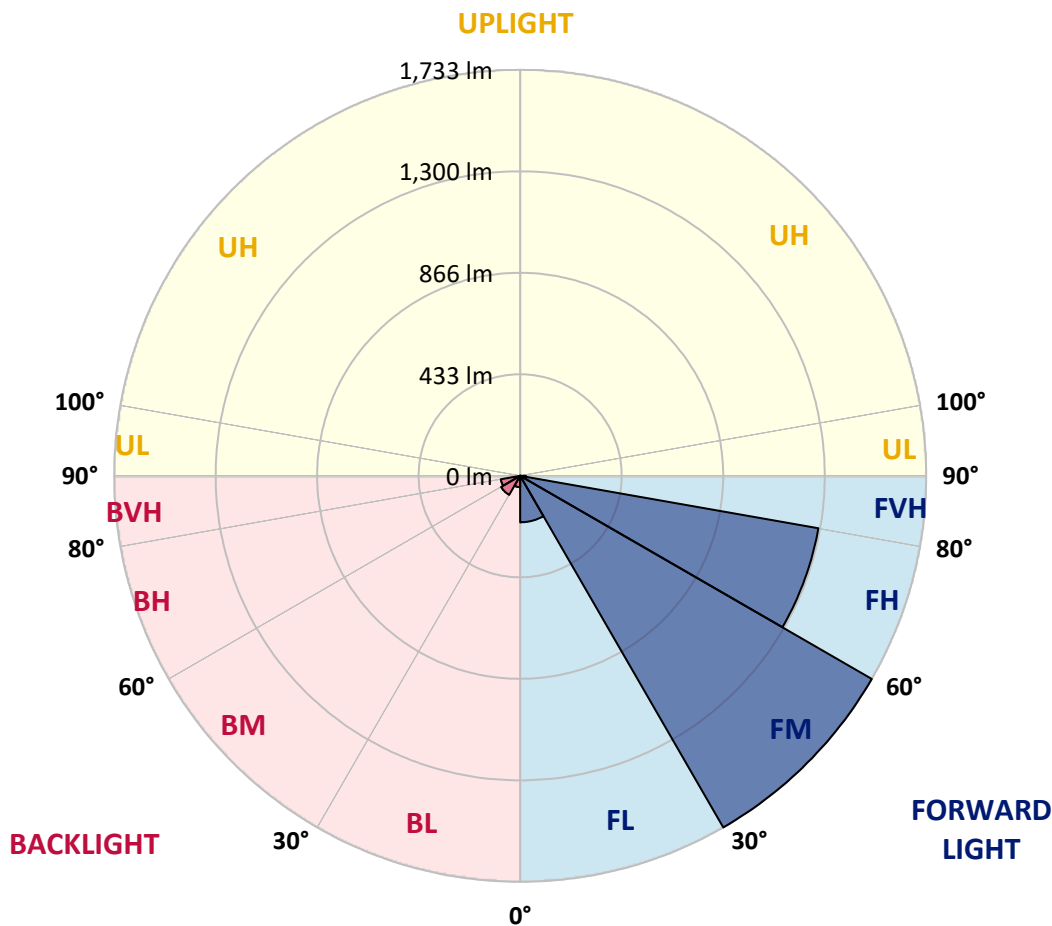
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	198.5	5.7			
FM (30°-60°)	1733.0	49.8			
FH (60°-80°)	1292.3	37.2			G1/1800
FVH (80°-90°)	24.8	0.7			G1/100
BL (0°-30°)	48.6	1.4	B0/110		
BM (30°-60°)	94.0	2.7	B0/220		
BH (60°-80°)	84.2	2.4	B0/110		G0/110
BVH (80°-90°)	1.7	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0
2.5°	180.9	174.4	163.9	169.8	169.4	172.5	166.8	160.4	150.3	160.4	161.2
5°	260.5	248.4	240.7	239.2	230.8	222.9	221.2	214.7	209.7	200.7	208.7
7.5°	324.5	318.9	305.3	303.8	283.1	271.6	275.2	272.4	253.4	244.0	251.9
10°	351.7	342.1	344.0	342.1	333.3	336.6	329.1	320.5	305.3	289.8	270.3
12.5°	362.3	360.7	376.6	374.7	395.4	420.3	403.7	389.3	354.2	350.4	323.7
15°	384.9	394.5	392.2	400.2	413.4	455.8	455.4	458.9	421.7	401.7	363.2
17.5°	405.0	412.1	400.6	409.8	445.8	471.5	505.8	492.4	496.6	476.3	416.7
20°	396.4	404.4	392.9	387.4	450.8	499.5	545.3	535.5	560.8	548.2	466.0
22.5°	450.2	435.1	406.2	388.1	435.5	498.9	559.3	600.1	595.7	564.7	511.8
25°	516.7	507.5	472.9	441.0	445.3	495.5	603.4	663.4	676.4	663.2	555.3
27.5°	606.4	604.3	533.4	519.6	478.6	480.3	610.3	743.1	713.4	692.7	606.1
30°	723.6	706.9	622.7	604.7	544.2	514.4	652.4	811.9	790.1	761.9	653.8
32.5°	849.5	852.0	744.6	685.2	636.5	601.3	635.8	844.1	884.9	862.1	713.4
35°	992.5	1003.6	872.3	802.5	707.8	655.9	707.5	943.0	1016.2	956.2	793.3
37.5°	1212.7	1212.3	1059.0	920.0	851.2	794.9	826.9	1032.9	1177.6	1093.3	936.7
40°	1406.5	1364.3	1221.7	1062.0	954.7	939.4	916.2	1156.0	1349.9	1299.1	1064.2
42.5°	1551.2	1521.5	1349.2	1225.0	1091.9	1043.3	1035.0	1336.3	1604.3	1533.2	1246.1
45°	1724.3	1626.9	1500.0	1388.1	1252.6	1238.4	1219.0	1519.4	1900.2	1740.0	1404.2
47.5°	1879.3	1787.7	1667.7	1524.0	1368.3	1485.3	1410.9	1680.2	2115.5	1965.0	1578.6
50°	2009.9	1912.5	1778.1	1668.7	1602.0	1681.3	1557.3	1812.6	2348.0	2226.1	1741.7
52.5°	2076.4	1966.2	1862.3	1794.6	1835.4	1817.6	1755.9	1973.1	2546.2	2454.9	1886.2
55°	2021.7	1914.0	1870.5	1904.1	2028.1	1976.5	1981.5	2221.7	2733.2	2607.5	2012.0
57.5°	1779.5	1681.1	1700.5	1792.3	2030.0	2164.9	2238.7	2463.2	2883.3	2797.6	2205.9
60°	1346.1	1266.9	1338.6	1501.5	1839.1	2127.4	2421.2	2704.7	3097.8	3070.9	2499.6
62.5°	822.1	779.1	880.7	1083.9	1465.5	1943.2	2527.6	3026.7	3327.2	3355.8	2811.0
65°	419.4	400.0	484.7	663.4	990.2	1596.2	2450.7	3226.8	3564.3	3669.7	3107.9
67.5°	264.1	251.7	296.9	404.6	584.2	1041.2	2145.8	3401.8	3731.8	3815.2	3207.0
70°	183.0	175.2	214.3	277.7	368.6	560.8	1593.2	3238.5	3599.0	3602.8	2967.3
72.5°	116.2	110.0	148.2	205.7	272.0	289.6	913.3	2541.2	3080.7	3045.3	2403.0
75°	75.3	72.3	94.1	150.7	208.9	178.6	451.4	1714.7	2209.0	2153.4	1596.0
77.5°	54.1	52.1	63.1	100.6	148.7	125.0	202.4	1022.0	1266.6	1145.0	774.7
80°	32.6	32.4	45.6	63.1	105.8	88.2	93.5	464.0	491.1	400.4	236.7
82.5°	16.3	16.9	25.5	40.6	68.0	57.7	42.7	154.5	131.9	97.2	47.9
85°	3.8	4.8	13.4	28.0	34.1	23.0	20.3	40.4	36.2	27.4	14.0
87.5°	0.0	0.0	4.2	6.7	9.2	3.8	6.9	7.7	9.8	7.7	2.9
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°	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0	134.0
2.5°	161.4	159.1	145.1	141.5	141.1	137.0	138.0	134.2	134.4	143.0	143.0
5°	205.7	192.2	178.8	166.9	158.9	147.4	143.2	141.5	139.9	143.4	145.5
7.5°	241.5	221.8	197.6	171.7	147.8	131.3	129.0	124.8	123.2	126.7	129.4
10°	257.4	232.9	199.7	162.0	139.5	126.1	115.0	109.1	107.9	107.7	108.7
12.5°	291.1	260.7	202.0	158.3	134.0	119.2	106.6	96.6	87.4	88.4	87.4
15°	318.2	282.1	202.0	149.5	120.6	105.8	83.6	78.6	77.2	79.4	77.6
17.5°	359.0	303.4	191.9	133.8	109.1	82.2	73.8	73.4	76.1	79.2	77.2
20°	383.5	306.3	174.8	115.8	89.5	71.3	68.2	65.2	69.0	71.5	70.5
22.5°	409.0	306.5	157.7	106.2	72.1	65.0	60.0	57.5	58.1	60.4	60.8
25°	420.0	299.0	141.8	93.5	65.4	58.1	52.9	50.2	49.3	50.4	50.0
27.5°	449.7	284.6	124.6	79.7	62.1	51.6	46.8	43.5	40.6	42.6	42.9
30°	453.9	280.0	115.2	70.9	57.9	45.6	41.4	38.0	35.8	38.5	38.5
32.5°	467.3	254.7	110.4	67.3	53.5	42.2	36.4	33.9	33.5	35.3	35.5
35°	488.0	243.6	103.3	64.4	49.5	38.1	32.8	31.6	31.2	32.6	32.6
37.5°	558.1	229.8	95.5	61.9	46.0	36.0	31.8	29.9	30.1	31.2	32.0
40°	604.7	231.5	83.8	58.8	42.0	34.1	29.9	28.6	28.4	28.9	29.5
42.5°	691.2	232.9	78.6	55.6	38.9	31.8	28.0	27.0	26.3	26.8	27.4
45°	787.8	240.0	75.9	52.9	37.2	30.5	26.3	25.7	24.0	24.3	25.1
47.5°	880.9	265.8	72.6	49.1	35.7	29.7	24.5	23.2	22.0	21.9	22.6
50°	986.7	291.0	69.0	44.9	34.1	28.6	22.8	20.7	19.9	19.9	20.5
52.5°	1081.4	314.9	65.6	42.0	33.0	26.5	21.3	19.2	18.6	18.6	19.4
55°	1181.1	340.0	62.5	39.3	31.4	24.3	19.9	18.0	17.8	17.4	18.0
57.5°	1357.0	394.8	58.7	37.0	29.3	22.6	18.8	16.9	16.5	15.9	16.5
60°	1613.3	479.0	53.7	34.7	26.8	21.5	17.8	15.5	15.0	14.0	14.2
62.5°	1863.8	547.0	47.9	31.8	24.5	20.3	16.3	14.0	13.0	11.9	12.1
65°	2078.5	573.9	41.8	28.4	22.2	17.6	14.2	12.3	10.9	9.4	9.2
67.5°	2103.8	506.8	35.8	25.1	19.9	15.0	12.1	10.9	8.8	7.5	7.1
70°	1893.3	377.6	29.9	22.2	17.3	12.7	10.4	9.6	8.2	7.1	6.5
72.5°	1507.7	278.7	25.1	19.7	15.1	10.7	8.8	9.0	8.2	6.9	6.1
75°	997.1	159.5	20.5	16.5	12.7	8.6	8.1	8.1	7.9	6.5	5.8
77.5°	479.8	68.8	15.7	13.0	10.2	6.5	7.3	7.3	7.5	5.9	4.8
80°	136.1	20.7	9.8	8.8	7.5	4.4	5.8	5.6	5.0	3.5	2.1
82.5°	24.3	8.1	4.4	4.6	4.2	1.7	3.3	3.1	2.5	1.3	0.2
85°	6.7	3.1	2.5	2.7	2.1	0.6	1.3	1.7	1.3	0.8	0.0
87.5°	1.7	1.3	1.7	1.9	1.5	0.2	0.6	0.2	0.6	0.2	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)