

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: P596557

Luminaire Tested: **MSA-SA1D-827-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-827-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3723 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

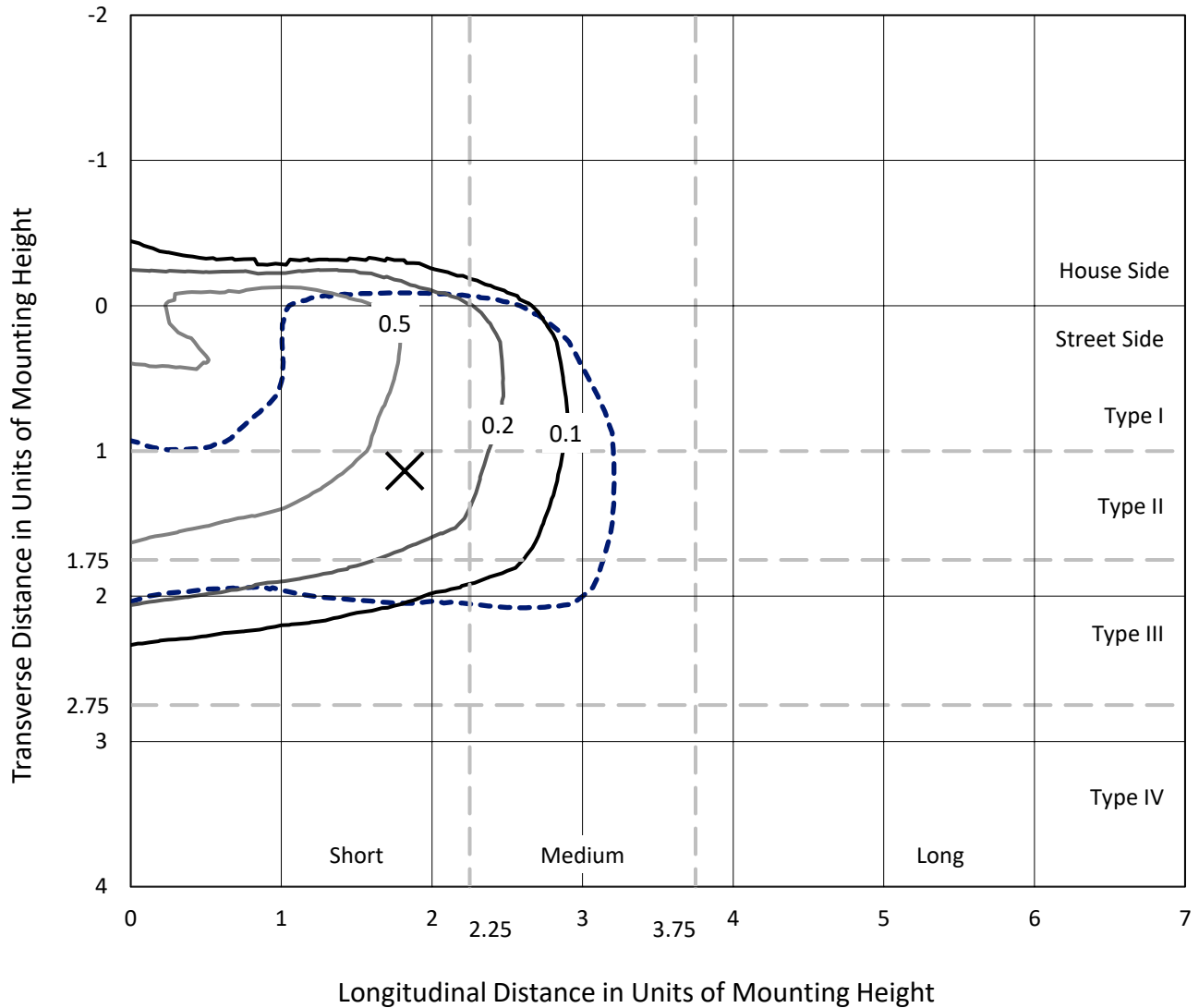
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

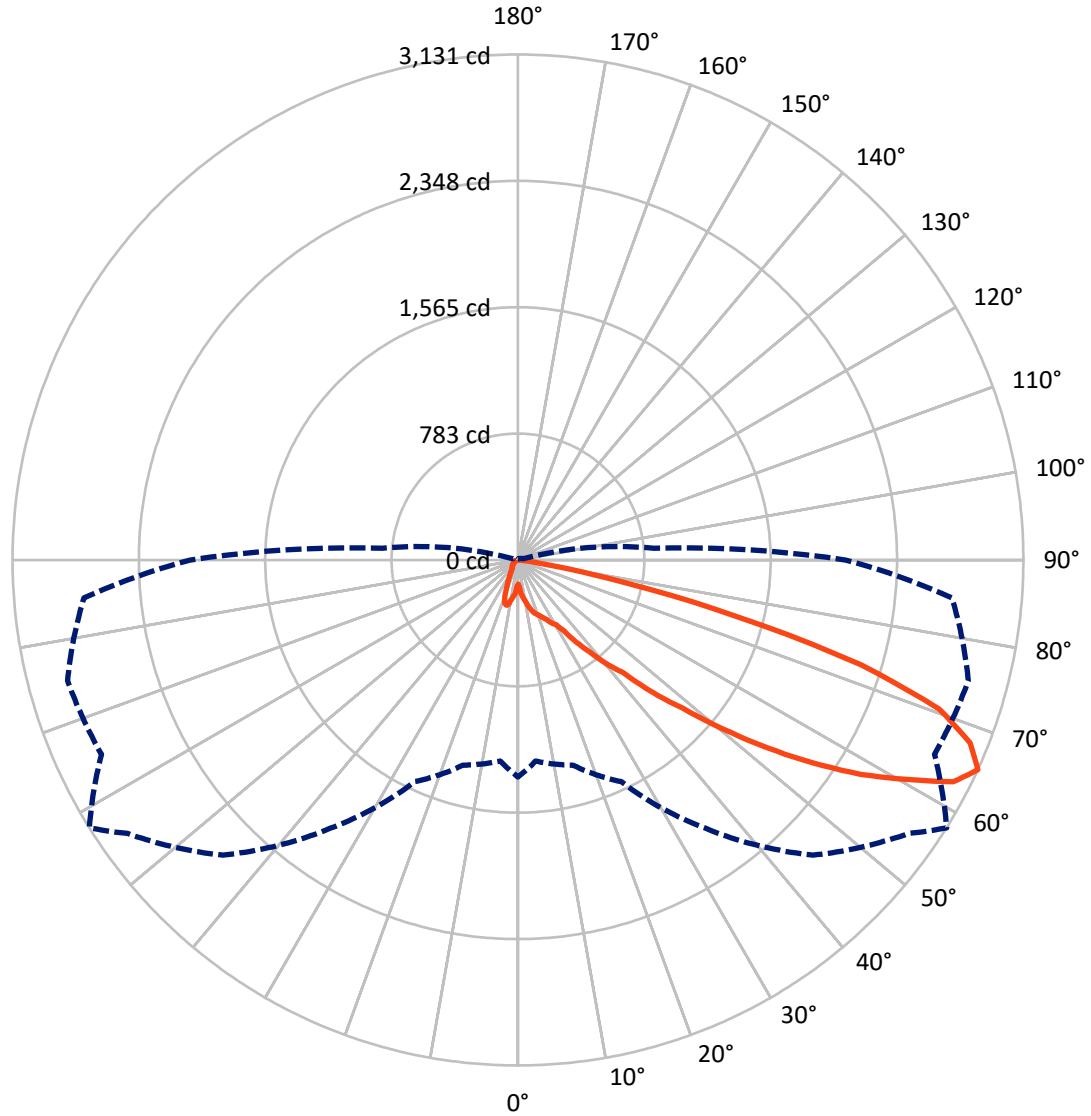
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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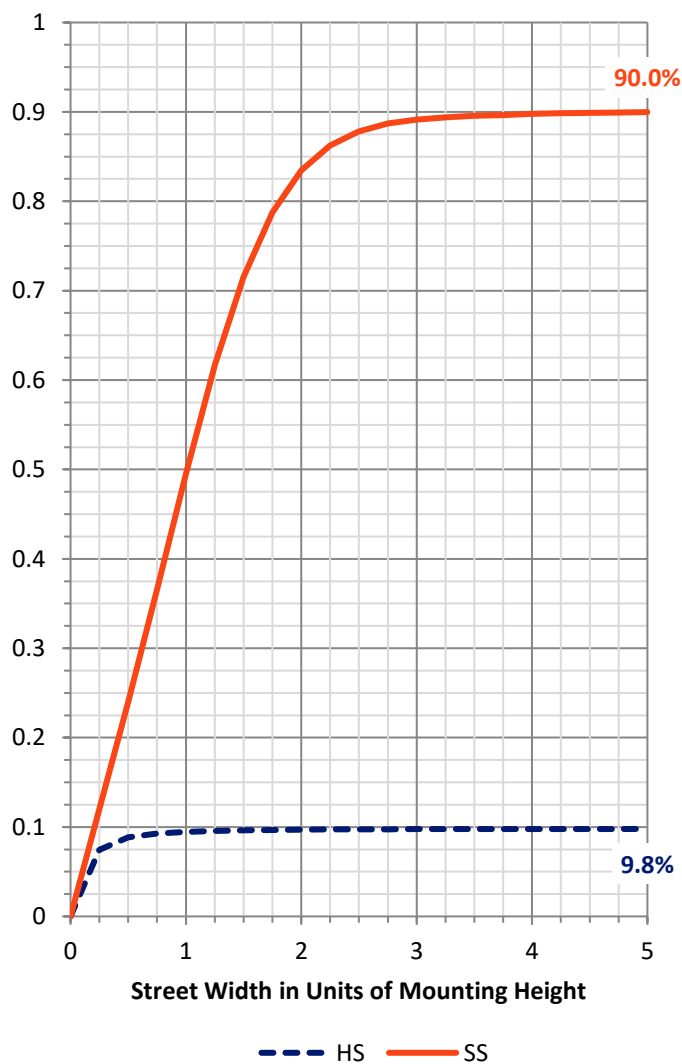
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	367.4	0.0	367.4
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	3355.6	0.0	3355.6
	% Fixture	90.1	0.0	90.1
Total	Lumens	3723.0	0.0	3723.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	0.6
10°-20°	76.4	2.1
20°-30°	147.9	4.0
30°-40°	295.1	7.9
40°-50°	603.4	16.2
50°-60°	1070.2	28.7
60°-70°	1128.3	30.3
70°-80°	365.8	9.8
80°-90°	15.0	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°	3723.0	100.0
0°-180°	3723.0	100.0

Coefficient of Utilization

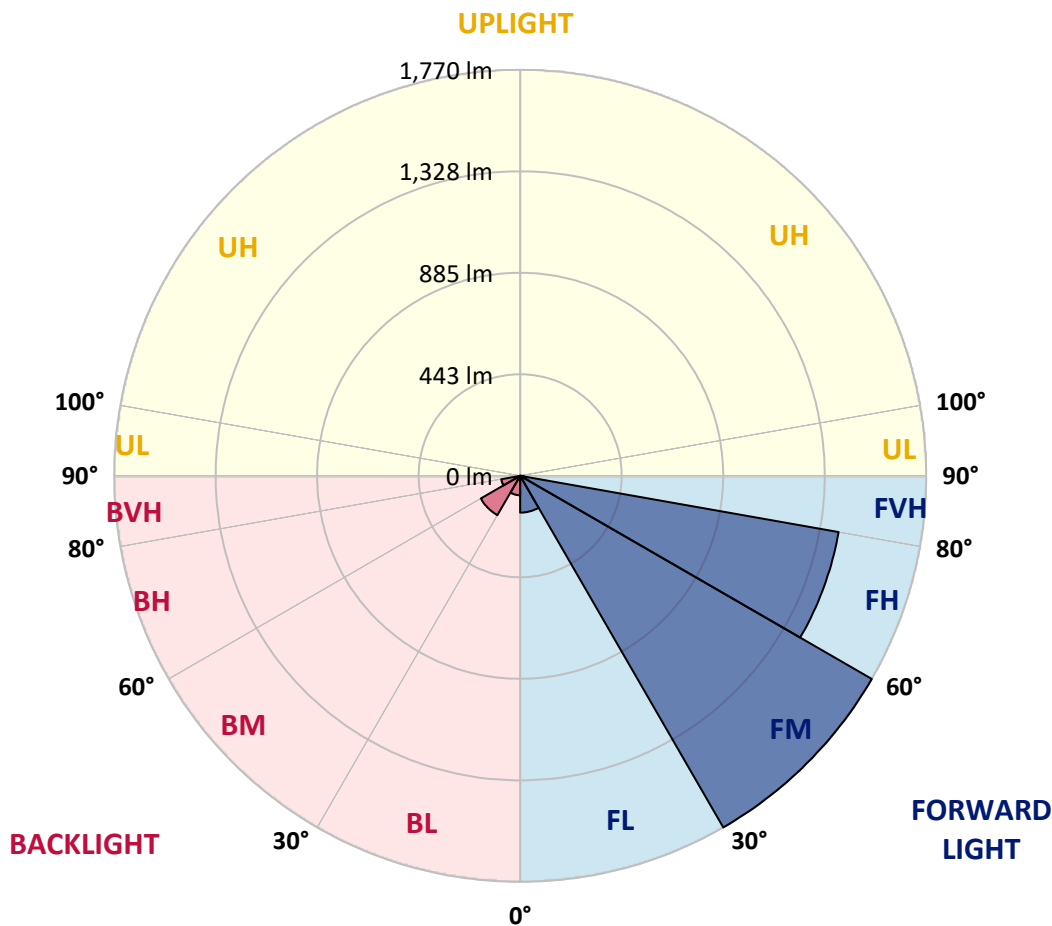


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	160.6	4.3			
FM (30°-60°)	1770.5	47.6			
FH (60°-80°)	1410.2	37.9			G1/1800
FVH (80°-90°)	14.3	0.4			G1/100
BL (0°-30°)	84.7	2.3	B0/110		
BM (30°-60°)	198.2	5.3	B0/220		
BH (60°-80°)	83.8	2.3	B0/110		G0/110
BVH (80°-90°)	0.6	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°	55°	58°	65°	75°	85°
0°	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0
2.5°	181.9	176.5	167.9	169.4	171.0	174.4	171.7	169.2	166.4	162.9	176.5
5°	219.7	210.7	209.8	207.9	206.5	206.3	209.6	208.6	210.0	216.7	223.7
7.5°	233.5	229.7	222.6	225.5	220.9	217.4	232.3	237.1	246.3	249.4	267.5
10°	232.0	226.6	229.5	231.0	234.1	247.1	256.6	261.8	269.8	287.0	283.4
12.5°	238.8	243.6	246.7	246.9	263.1	287.0	293.7	298.1	312.3	319.0	336.6
15°	261.2	269.1	264.1	266.2	271.5	300.6	316.3	326.0	346.1	367.9	372.3
17.5°	293.3	298.3	287.8	280.3	294.7	310.7	339.2	349.2	362.0	412.9	422.4
20°	333.7	342.3	319.7	289.7	308.8	327.6	358.7	363.5	377.1	443.5	458.4
22.5°	428.2	415.5	380.9	334.1	328.5	336.9	366.4	385.3	408.3	460.7	495.3
25°	521.5	517.1	466.2	414.0	376.3	357.4	396.6	407.1	444.8	501.6	520.7
27.5°	625.3	634.1	549.0	517.3	443.3	381.7	415.5	441.7	486.3	516.5	562.4
30°	762.2	748.1	648.3	616.7	532.2	448.6	464.3	466.0	531.6	565.5	609.1
32.5°	869.5	878.5	753.2	704.5	637.0	551.5	501.0	522.8	569.7	645.4	686.7
35°	985.6	984.8	862.6	797.2	708.9	635.6	609.8	625.7	684.6	770.3	781.2
37.5°	1159.2	1144.3	1000.1	904.3	829.2	766.6	746.9	725.7	786.5	868.2	909.1
40°	1322.9	1271.5	1138.2	1024.6	928.6	903.0	831.8	844.8	862.8	970.7	1083.7
42.5°	1488.3	1456.4	1278.2	1183.1	1065.1	1004.3	957.7	951.7	1037.4	1165.3	1282.0
45°	1706.5	1609.0	1466.5	1382.8	1246.2	1185.2	1147.7	1170.1	1247.2	1434.0	1511.8
47.5°	1889.7	1800.0	1677.6	1550.5	1407.2	1475.7	1405.3	1369.8	1475.7	1668.8	1772.1
50°	2047.1	1947.1	1823.2	1729.1	1705.9	1771.7	1629.1	1642.1	1710.9	1937.7	1996.0
52.5°	2161.6	2056.3	1948.2	1902.7	1998.1	2031.2	1959.7	1931.0	1993.5	2167.0	2195.3
55°	2247.7	2140.0	2055.5	2118.2	2302.6	2291.7	2316.9	2218.8	2278.5	2406.2	2392.8
57.5°	2253.0	2125.3	2075.8	2176.7	2429.9	2598.6	2672.2	2505.3	2539.3	2593.2	2563.0
60°	2088.2	1961.2	1957.2	2100.4	2466.8	2678.1	2839.0	2757.7	2712.2	2752.3	2695.0
62.5°	1759.9	1671.1	1712.6	1870.8	2329.5	2634.3	2927.9	3025.8	2848.7	2857.7	2776.4
65°	1343.9	1250.6	1315.6	1514.9	2029.3	2585.2	2953.1	3130.6	2846.2	2887.7	2698.4
67.5°	890.0	836.0	909.5	1129.2	1613.4	2282.1	2940.1	3020.6	2755.8	2770.5	2408.9
70°	459.5	446.3	505.8	679.2	1084.8	1753.2	2812.4	2768.4	2572.4	2386.7	1858.0
72.5°	147.2	147.8	205.0	310.2	584.8	1067.4	2161.8	2222.1	2058.4	1745.9	1134.4
75°	65.2	64.1	85.7	130.2	243.8	478.6	1343.0	1408.2	1281.6	960.5	476.9
77.5°	47.0	45.5	54.9	76.1	120.7	162.2	629.7	679.6	581.1	332.9	109.2
80°	33.1	32.9	39.8	53.5	75.5	72.1	198.9	223.0	178.6	80.7	32.1
82.5°	18.7	19.3	27.7	37.7	45.9	36.1	56.0	61.6	60.2	43.0	14.0
85°	9.0	10.1	18.0	27.3	24.1	14.0	19.9	21.6	25.2	24.9	7.1
87.5°	0.0	0.0	7.3	12.4	6.5	2.1	6.1	6.9	6.7	8.0	1.7
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°	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0	149.0
2.5°	179.2	178.0	162.0	163.3	166.9	165.4	166.6	163.7	160.4	174.0	173.8
5°	226.6	217.2	212.1	207.5	208.4	198.9	204.4	206.9	206.5	214.2	216.3
7.5°	268.1	255.5	245.5	235.8	221.1	207.9	216.1	221.4	224.9	238.3	243.6
10°	287.6	277.3	273.3	254.5	244.0	235.8	226.0	218.8	221.8	218.2	221.8
12.5°	330.4	323.4	308.1	289.1	276.5	259.7	223.0	192.4	173.6	173.8	172.5
15°	369.3	368.9	346.1	314.4	278.0	230.2	172.9	134.4	116.5	111.5	109.8
17.5°	420.3	414.0	372.3	325.5	259.9	178.2	117.8	92.0	90.3	93.3	92.0
20°	452.8	443.5	385.3	309.4	214.2	120.5	88.9	81.5	86.6	90.8	89.7
22.5°	485.3	471.4	395.1	289.7	152.4	88.2	80.3	79.0	82.2	87.4	88.2
25°	503.1	500.4	414.4	252.8	104.4	77.3	77.3	76.9	78.0	81.8	81.1
27.5°	554.9	518.0	399.9	197.2	80.7	71.1	72.1	71.7	67.9	71.7	71.9
30°	587.1	570.2	401.0	140.4	71.1	62.9	65.6	62.3	56.6	59.7	59.1
32.5°	652.1	609.8	397.9	94.7	64.8	60.0	55.8	50.9	46.7	48.0	47.0
35°	727.8	695.5	355.3	76.1	60.4	53.0	46.3	41.5	37.1	38.2	37.9
37.5°	878.3	775.8	320.1	68.5	57.4	48.6	40.9	34.2	31.9	32.5	33.1
40°	1017.7	909.7	254.5	65.2	52.4	43.4	33.7	28.9	27.5	27.9	28.5
42.5°	1226.0	1016.2	192.2	61.8	47.4	36.7	28.1	24.9	23.5	24.3	24.7
45°	1427.7	1106.8	143.6	58.9	43.2	31.7	23.7	21.6	19.9	20.5	21.4
47.5°	1629.1	1207.4	107.1	54.3	38.6	27.3	20.3	18.9	17.8	18.0	19.1
50°	1809.4	1254.3	84.3	48.6	34.8	23.7	18.4	17.0	16.6	16.8	17.6
52.5°	1941.9	1254.8	71.1	43.6	31.2	21.0	17.4	15.7	15.5	15.9	16.8
55°	2061.6	1221.2	61.6	39.2	28.1	19.1	16.6	15.1	15.1	15.5	16.4
57.5°	2141.0	1159.6	53.5	34.6	25.4	18.0	15.9	14.5	14.3	14.0	14.7
60°	2179.8	1075.5	45.3	30.4	22.8	17.4	15.5	12.8	12.6	12.2	12.6
62.5°	2155.3	970.3	37.9	26.2	20.3	16.6	13.6	11.1	10.7	9.9	10.5
65°	2029.9	842.4	32.1	22.4	17.6	14.0	11.5	9.4	8.4	7.3	7.1
67.5°	1773.6	684.4	26.8	19.3	15.1	11.5	9.4	8.4	6.5	5.7	5.5
70°	1329.2	467.2	22.2	16.6	12.6	9.9	8.0	7.5	6.1	5.5	5.0
72.5°	779.8	252.2	18.7	14.5	10.7	8.2	6.5	6.9	6.1	5.0	4.6
75°	311.5	83.8	14.9	11.5	8.6	5.9	5.5	5.7	5.5	4.6	3.8
77.5°	71.1	26.4	11.5	9.0	6.7	3.8	4.4	4.8	4.8	3.8	2.7
80°	22.2	10.5	6.7	5.7	4.8	2.1	3.1	3.4	2.3	1.0	0.0
82.5°	7.1	2.9	2.3	2.3	2.1	0.4	0.6	0.4	0.0	0.0	0.0
85°	2.7	1.9	1.5	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.8	0.6	0.8	0.4	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

(END OF REPORT)