

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: P596547

Luminaire Tested: **MSA-SA1D-827-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-827-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4140 lumens
Efficiency: N/A
Efficacy: 61.8 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

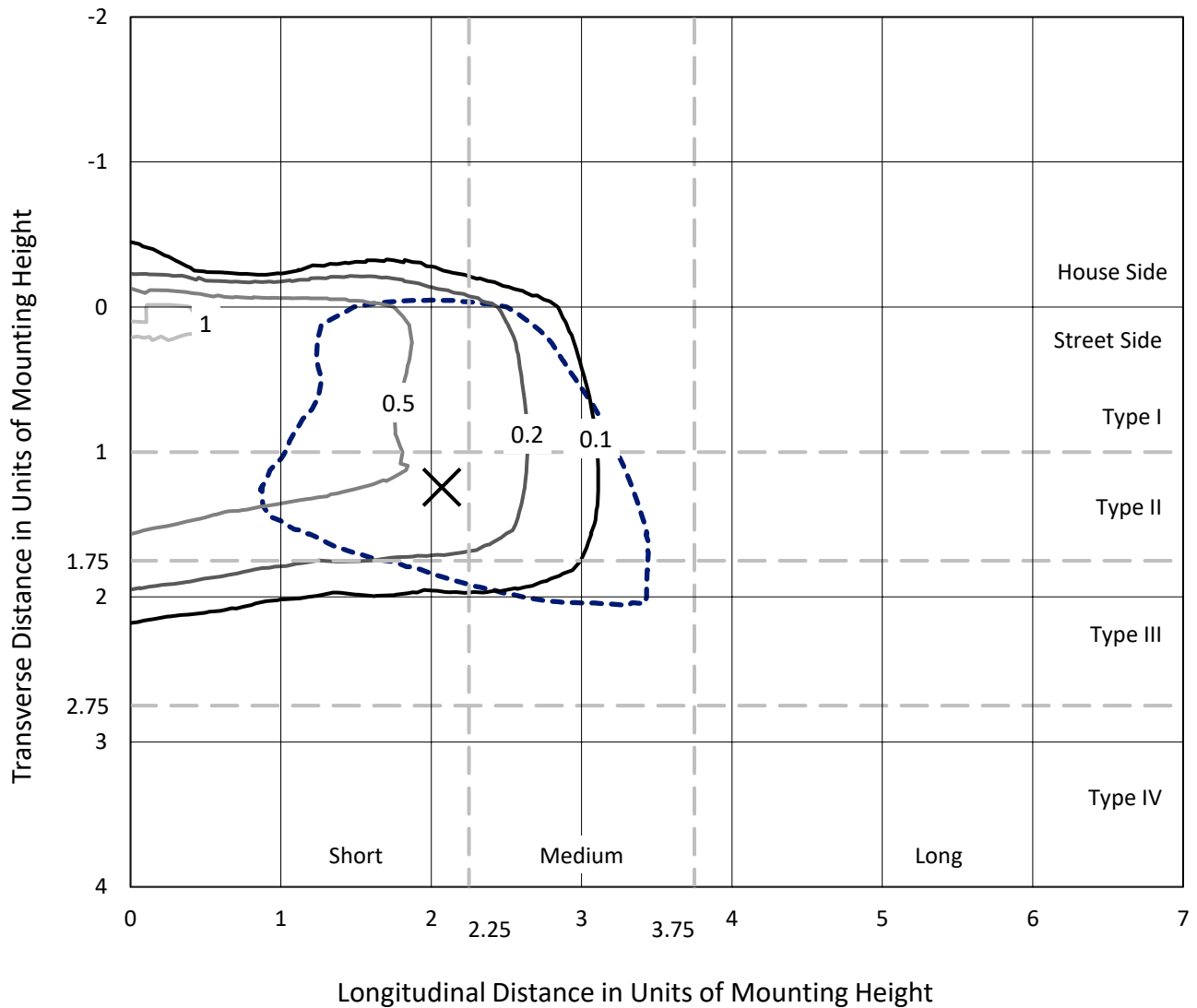
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596547
 CATALOG NUMBER: MSA-SA1D-827-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

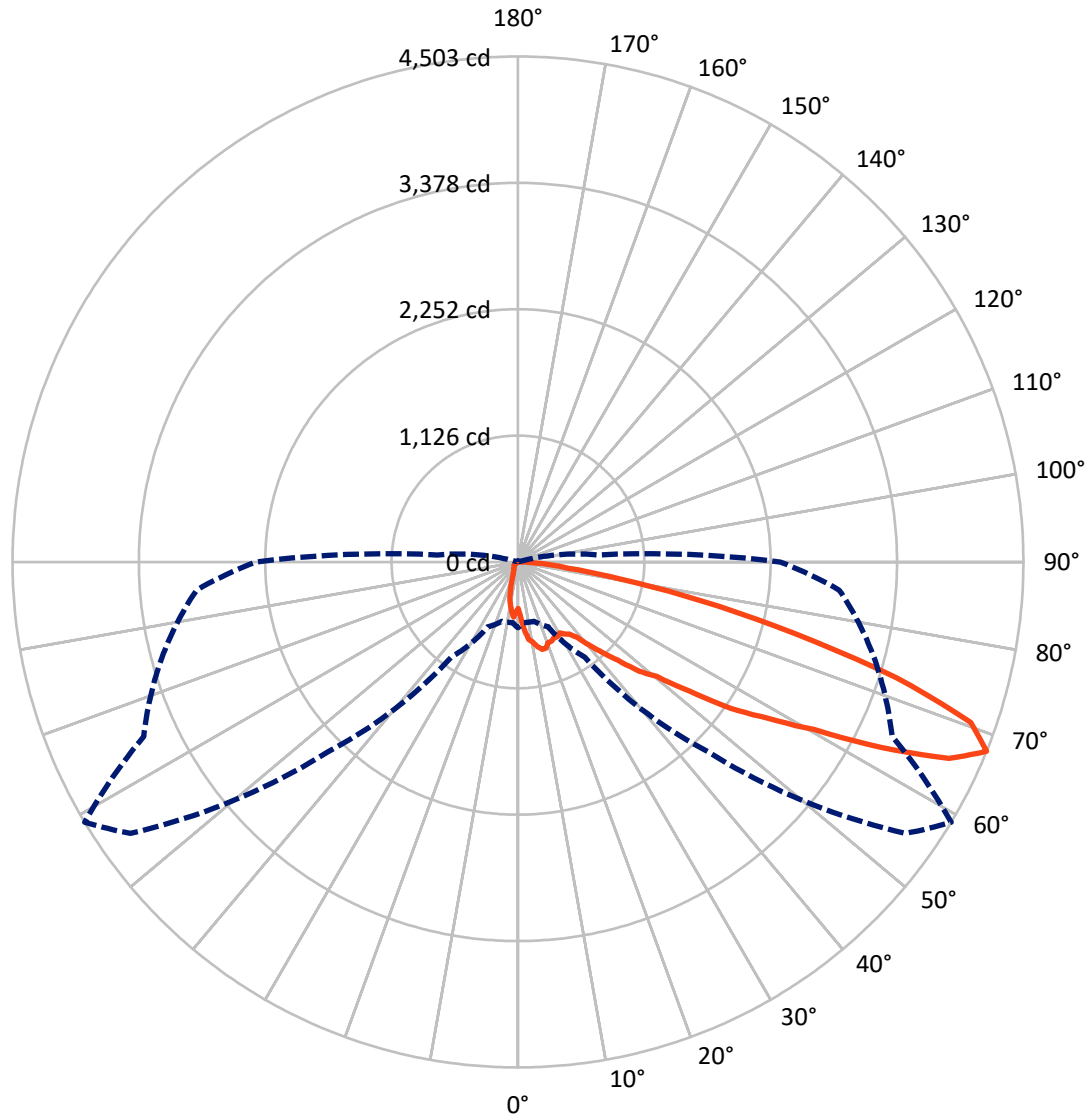
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type III - Short - N/A

REPORT NUMBER: P596547
CATALOG NUMBER: MSA-SA1D-827-U-SL3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P596547
 CATALOG NUMBER: MSA-SA1D-827-U-SL3-HSS

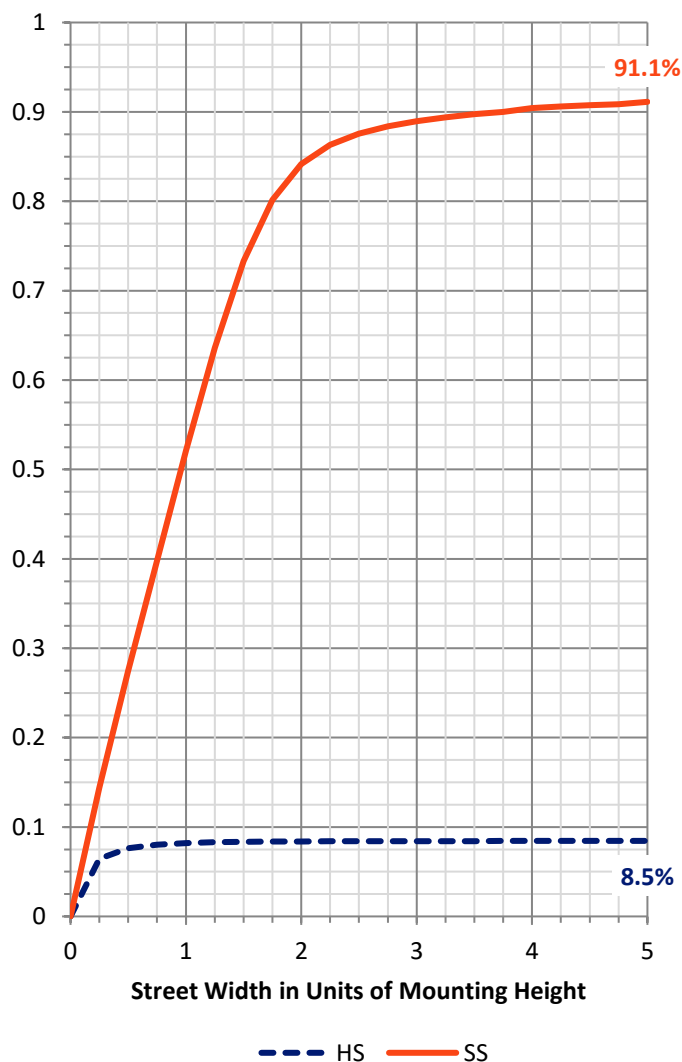
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	352.1	0.0	352.1
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	3787.9	0.0	3787.9
	% Fixture	91.5	0.0	91.5
Total	Lumens	4140.0	0.0	4140.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	1.2
10°-20°	141.8	3.4
20°-30°	210.9	5.1
30°-40°	325.4	7.9
40°-50°	580.8	14.0
50°-60°	1033.5	25.0
60°-70°	1203.7	29.1
70°-80°	535.3	12.9
80°-90°	58.1	1.4
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°	4140.0	100.0
0°-180°	4140.0	100.0

Coefficient of Utilization



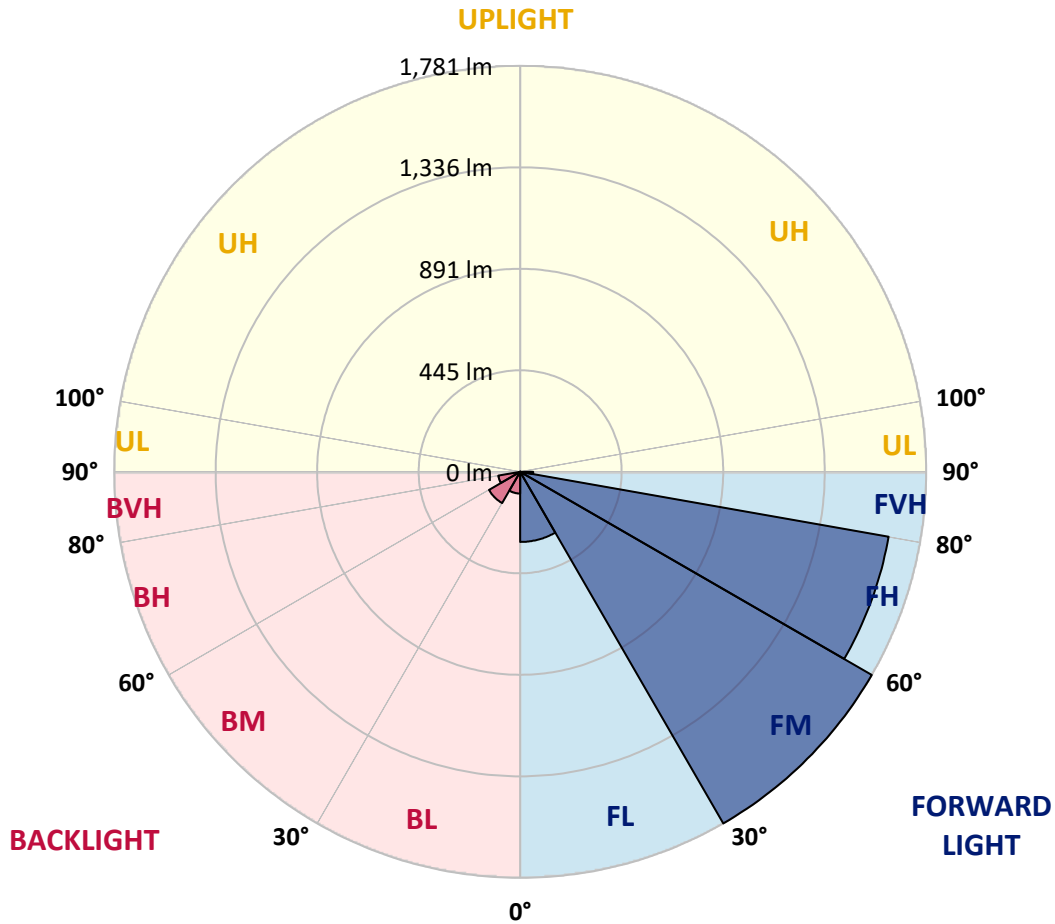
REPORT NUMBER: P596547
 CATALOG NUMBER: MSA-SA1D-827-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	307.9	7.4			
FM (30°-60°)	1781.4	43.0			
FH (60°-80°)	1641.5	39.6			G1/1800
FVH (80°-90°)	57.1	1.4			G1/100
BL (0°-30°)	95.2	2.3	B0/110		
BM (30°-60°)	158.3	3.8	B0/220		
BH (60°-80°)	97.5	2.4	B0/110		G0/110
BVH (80°-90°)	1.0	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





REPORT NUMBER: P596547
 CATALOG NUMBER: MSA-SA1D-827-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2
2.5°	540.0	519.7	490.7	499.3	507.1	514.4	502.3	495.3	492.0	462.2	499.5
5°	663.0	637.7	624.5	621.1	612.7	594.1	625.1	611.3	615.9	621.7	633.9
7.5°	700.6	689.0	670.0	677.1	645.2	642.5	685.5	697.4	713.1	702.5	717.1
10°	681.3	661.4	670.4	667.9	666.6	694.7	724.9	725.5	749.0	760.3	710.6
12.5°	643.1	645.4	677.7	675.2	717.1	773.3	780.2	772.9	811.3	791.5	784.0
15°	668.5	687.4	669.5	675.6	690.5	760.7	785.3	807.9	844.2	855.9	805.0
17.5°	699.1	701.0	668.5	660.9	698.5	731.2	789.0	807.7	811.3	914.2	852.1
20°	682.5	698.7	659.9	612.3	670.6	715.0	773.7	767.9	791.8	931.4	862.8
22.5°	726.6	703.5	653.8	618.0	637.7	678.1	727.8	766.2	802.0	890.3	876.7
25°	730.8	722.4	678.1	646.3	642.9	653.2	722.4	747.1	803.3	927.2	864.9
27.5°	777.9	768.3	677.7	680.9	649.4	617.8	696.0	754.0	826.1	904.7	889.9
30°	838.7	839.6	722.8	732.6	687.8	636.8	717.5	733.5	841.6	940.6	908.3
32.5°	900.3	925.7	811.9	759.7	745.6	709.2	690.7	764.3	824.7	1001.8	954.4
35°	994.0	1011.2	885.2	838.5	783.4	741.9	763.7	790.1	885.7	1082.9	1015.0
37.5°	1152.7	1121.7	1016.9	935.6	922.4	861.1	872.0	848.4	947.9	1178.5	1134.9
40°	1242.0	1213.9	1104.9	1065.3	981.0	990.5	956.1	969.9	1038.3	1278.1	1244.1
42.5°	1335.1	1308.3	1212.7	1184.6	1104.3	1065.3	1049.8	1099.5	1176.8	1443.9	1400.7
45°	1428.6	1360.5	1320.0	1334.1	1298.0	1220.9	1202.8	1247.1	1328.2	1647.7	1565.9
47.5°	1507.4	1450.0	1419.6	1413.1	1399.0	1506.2	1432.8	1452.3	1488.1	1827.9	1771.8
50°	1649.5	1592.9	1545.4	1532.2	1600.5	1752.5	1639.3	1601.5	1673.2	2045.7	2010.3
52.5°	1854.8	1782.7	1707.0	1707.2	1836.1	1919.5	1973.2	1907.0	1920.4	2285.3	2269.6
55°	2019.7	1928.1	1865.5	1914.9	2107.2	2153.9	2358.7	2300.6	2283.2	2507.5	2488.3
57.5°	2042.4	1932.5	1902.8	1989.6	2252.6	2551.1	2771.5	2626.4	2599.8	2693.5	2731.8
60°	1831.1	1714.5	1737.0	1876.6	2300.0	2793.3	3150.5	3032.0	2862.9	2911.3	2937.7
62.5°	1365.7	1272.6	1335.5	1520.4	2117.4	2955.5	3589.2	3644.1	3168.1	3074.8	3069.1
65°	886.1	827.8	869.1	1020.7	1602.4	2937.1	3981.2	4219.3	3408.5	3208.1	3110.4
67.5°	586.1	541.9	547.8	637.5	1036.2	2388.7	4215.6	4503.4	3678.9	3283.8	2873.8
70°	436.9	402.1	404.2	452.8	615.0	1575.3	3888.8	4279.3	3777.7	3021.5	2319.5
72.5°	315.1	291.8	311.3	365.4	490.1	833.1	2898.5	3524.2	3294.1	2383.2	1562.8
75°	218.2	202.9	234.8	305.6	447.3	517.1	1915.3	2536.9	2308.8	1495.3	706.4
77.5°	121.0	116.3	162.3	249.0	406.0	423.9	1173.3	1666.9	1280.6	536.0	168.1
80°	52.8	51.1	78.6	187.0	341.3	383.0	660.5	924.2	503.7	95.6	54.3
82.5°	22.6	21.8	33.5	112.6	248.0	320.3	407.3	444.8	173.4	29.6	30.8
85°	4.0	4.4	13.4	59.3	150.9	162.7	294.9	263.3	87.2	14.0	22.0
87.5°	0.0	0.0	2.1	11.5	28.3	46.5	127.9	92.2	16.6	4.6	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596547
 CATALOG NUMBER: MSA-SA1D-827-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2	414.2
2.5°	504.8	493.0	448.4	442.7	436.7	427.6	424.3	405.0	402.5	427.2	427.2
5°	628.2	586.3	543.8	510.2	480.3	438.7	427.0	414.8	405.0	402.5	410.2
7.5°	693.4	642.3	575.4	490.1	420.9	360.8	335.6	318.0	298.3	304.2	307.3
10°	689.9	635.6	550.3	440.6	363.9	297.5	233.5	196.2	175.5	165.2	163.9
12.5°	724.9	673.7	533.3	401.2	303.3	211.5	146.9	120.3	105.0	105.2	104.0
15°	745.2	689.5	513.6	351.3	213.6	136.0	101.9	96.0	93.9	96.2	95.0
17.5°	781.1	706.0	468.9	276.9	146.9	102.7	93.7	91.4	94.1	98.9	97.7
20°	778.3	677.3	405.4	195.2	108.6	92.4	88.7	85.1	90.8	95.8	95.0
22.5°	775.8	649.2	345.7	144.0	90.8	84.3	81.1	79.7	82.6	88.5	89.7
25°	753.6	635.4	285.1	108.2	82.2	76.5	75.0	73.8	74.8	79.7	79.4
27.5°	780.9	600.4	220.1	90.8	76.1	69.4	68.1	66.0	63.9	68.1	68.8
30°	775.2	605.2	172.5	79.9	70.0	61.0	61.4	57.0	53.2	57.0	57.0
32.5°	795.7	570.0	138.1	72.5	63.9	57.4	52.2	47.6	44.9	47.2	47.6
35°	825.7	571.4	108.2	67.9	58.7	51.1	44.9	40.2	37.7	38.8	39.4
37.5°	926.1	561.4	90.3	64.4	56.8	47.4	40.9	34.8	33.1	34.4	35.0
40°	991.5	588.2	79.7	62.5	52.0	43.6	35.0	30.6	29.1	29.8	30.8
42.5°	1114.8	603.1	74.4	60.4	47.6	37.3	30.0	27.5	25.4	26.2	27.0
45°	1246.6	628.5	70.4	58.1	44.2	32.7	26.4	24.3	21.6	21.8	22.6
47.5°	1408.7	688.8	65.8	54.1	39.6	29.8	23.5	20.3	17.8	17.6	18.7
50°	1626.3	769.5	61.6	49.1	36.7	27.3	20.5	16.6	14.5	13.8	14.7
52.5°	1858.5	873.9	57.2	45.5	33.1	23.9	17.6	13.4	11.5	11.1	11.7
55°	2088.7	974.1	53.0	43.2	29.3	20.5	14.9	11.1	9.4	9.0	9.4
57.5°	2351.0	1082.5	47.6	38.6	25.8	17.8	12.4	9.2	7.8	7.3	7.5
60°	2548.4	1120.7	43.0	33.5	22.4	15.7	10.5	7.3	6.3	5.9	6.1
62.5°	2642.1	1058.4	38.6	29.1	19.7	13.6	8.8	6.1	5.2	4.8	4.8
65°	2617.8	920.5	34.2	24.9	17.0	11.3	6.9	5.2	4.6	4.0	3.8
67.5°	2336.9	720.3	29.1	21.0	14.3	9.2	5.9	5.0	4.2	3.8	3.1
70°	1853.3	521.5	23.7	17.4	11.9	7.5	4.6	4.6	4.0	3.8	2.9
72.5°	1214.8	328.3	19.3	14.0	9.9	5.9	3.6	4.2	3.8	3.8	2.7
75°	526.4	117.4	15.5	11.3	8.2	4.0	3.1	3.8	4.0	3.8	3.1
77.5°	123.3	36.5	12.2	9.0	6.7	2.7	3.1	3.8	4.0	3.6	2.7
80°	46.3	15.5	8.0	5.9	5.2	1.7	2.7	2.3	2.1	1.5	0.4
82.5°	28.1	6.5	4.2	2.9	2.5	0.4	1.3	0.8	0.4	0.4	0.0
85°	19.9	3.1	2.3	2.1	1.3	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.7	0.8	1.0	1.0	0.8	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)