

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: P366965

Luminaire Tested: **MSA-SA1C-760-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366965
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-SA1C-760-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: 4730 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

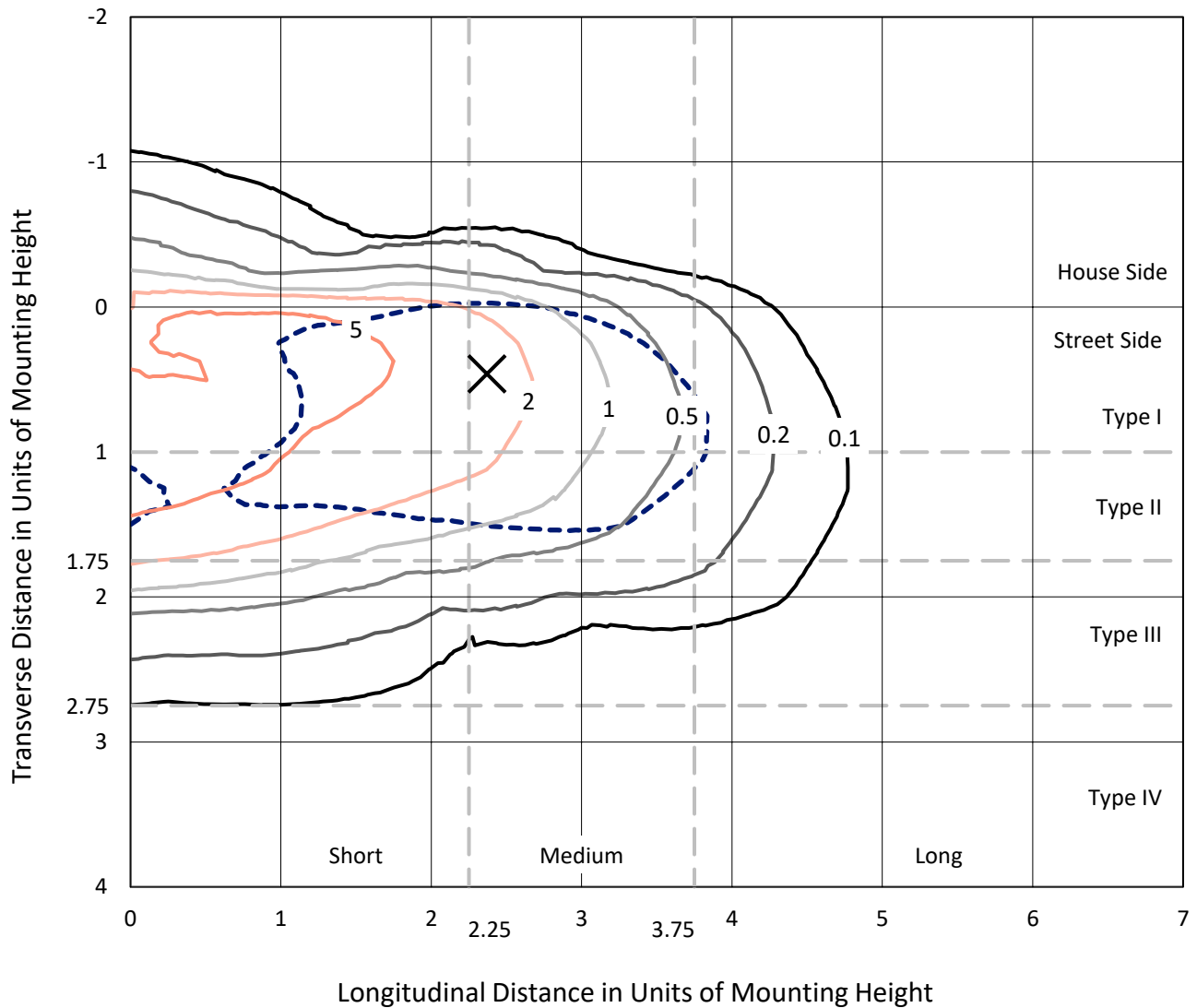
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

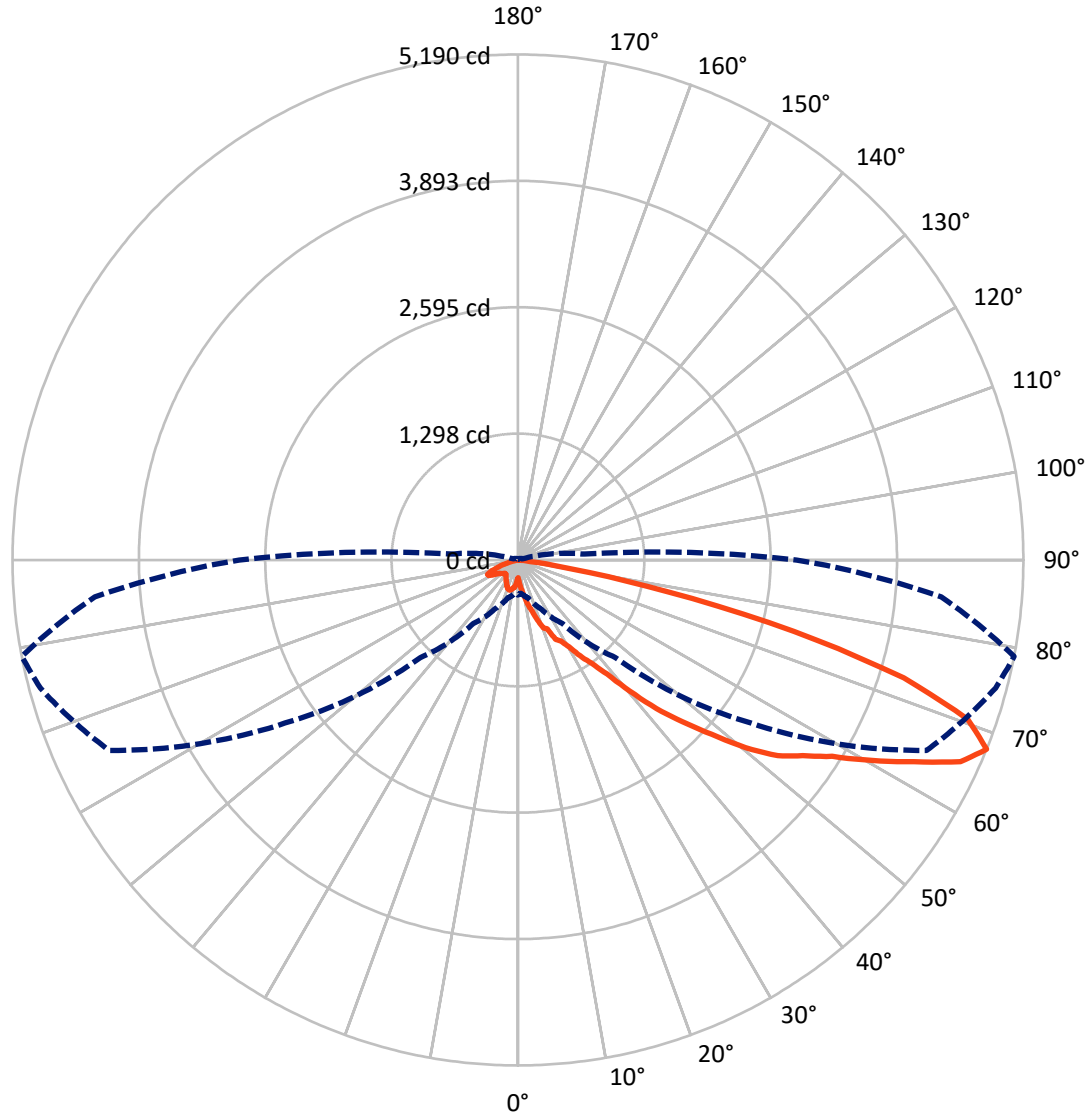
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 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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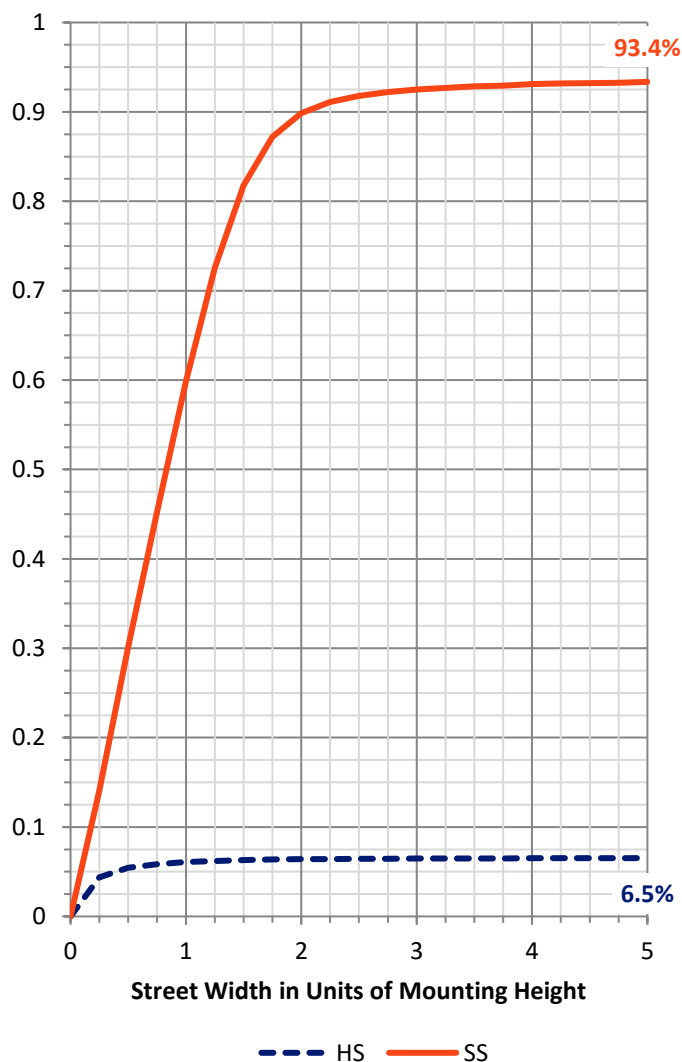
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	310.8	0.0	310.8
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	4419.2	0.0	4419.2
	% Fixture	93.4	0.0	93.4
Total	Lumens	4730.0	0.0	4730.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	0.6
10°-20°	105.7	2.2
20°-30°	203.9	4.3
30°-40°	400.5	8.5
40°-50°	802.4	17.0
50°-60°	1282.5	27.1
60°-70°	1290.4	27.3
70°-80°	582.1	12.3
80°-90°	36.0	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°	4730.0	100.0
0°-180°	4730.0	100.0

Coefficient of Utilization



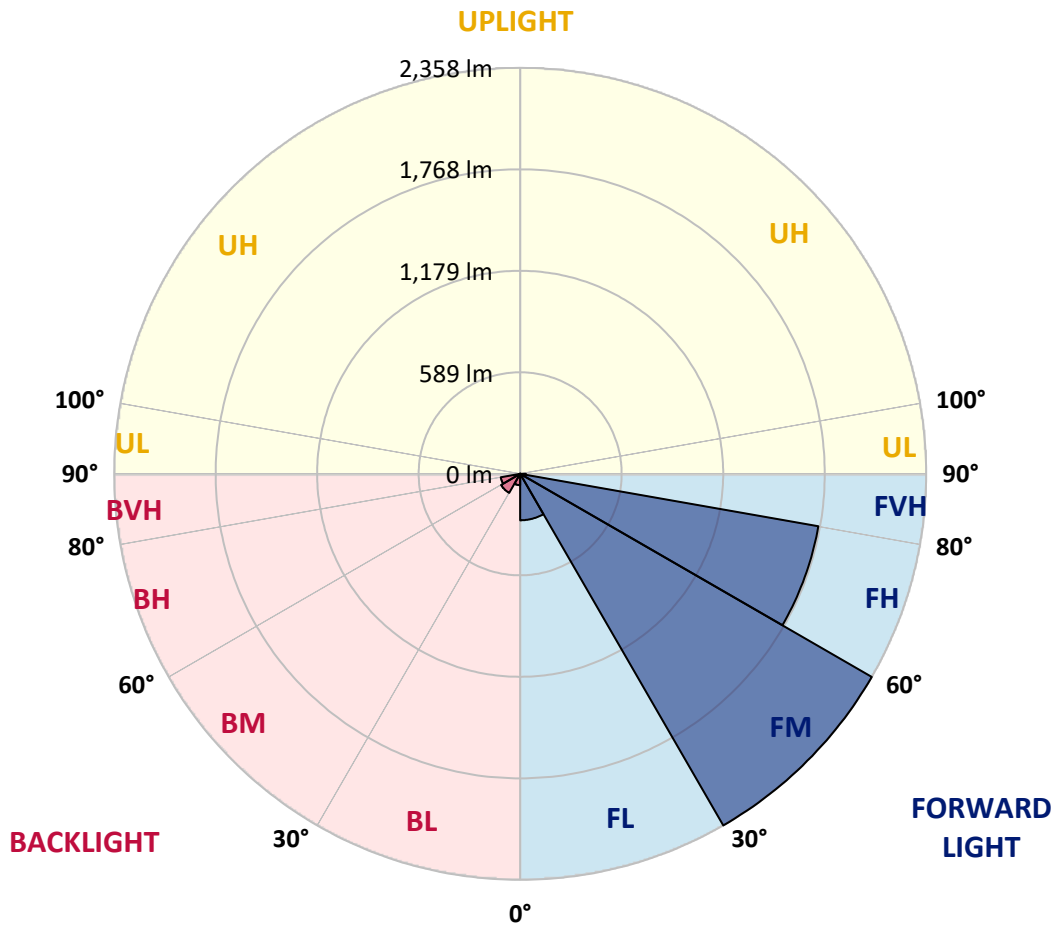
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	270.0	5.7			
FM (30°-60°)	2357.5	49.8			
FH (60°-80°)	1757.9	37.2			G1/1800
FVH (80°-90°)	33.7	0.7			G1/100
BL (0°-30°)	66.1	1.4	B0/110		
BM (30°-60°)	127.9	2.7	B0/220		
BH (60°-80°)	114.6	2.4	B1/500		G1/500
BVH (80°-90°)	2.3	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-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3
2.5°	246.1	237.3	222.9	231.0	230.5	234.7	226.8	218.2	204.4	218.2	219.3
5°	354.3	337.9	327.5	325.4	313.9	303.2	300.9	292.0	285.3	273.0	283.9
7.5°	441.4	433.9	415.4	413.3	385.1	369.5	374.4	370.5	344.7	331.9	342.6
10°	478.5	465.4	468.0	465.4	453.4	457.9	447.7	436.0	415.4	394.2	367.6
12.5°	492.8	490.7	512.4	509.8	537.9	571.8	549.1	529.6	481.9	476.6	440.4
15°	523.6	536.6	533.5	544.4	562.4	620.0	619.5	624.2	573.6	546.5	494.1
17.5°	550.9	560.6	545.0	557.5	606.5	641.4	688.1	669.8	675.6	647.9	566.9
20°	539.2	550.2	534.5	527.0	613.3	679.5	741.8	728.5	762.9	745.7	633.9
22.5°	612.5	591.9	552.5	528.0	592.4	678.7	760.8	816.4	810.4	768.1	696.2
25°	703.0	690.4	643.3	600.0	605.7	674.0	820.8	902.4	920.2	902.2	755.4
27.5°	825.0	822.1	725.6	706.9	651.1	653.4	830.2	1010.9	970.5	942.3	824.5
30°	984.3	961.6	847.2	822.6	740.2	699.8	887.6	1104.5	1074.8	1036.5	889.4
32.5°	1155.6	1159.0	1013.0	932.2	865.9	818.0	864.9	1148.3	1203.8	1172.8	970.5
35°	1350.1	1365.2	1186.6	1091.7	962.9	892.3	962.4	1282.9	1382.5	1300.8	1079.2
37.5°	1649.7	1649.2	1440.6	1251.6	1158.0	1081.3	1124.8	1405.1	1602.0	1487.3	1274.3
40°	1913.3	1856.0	1662.0	1444.8	1298.8	1277.9	1246.4	1572.5	1836.4	1767.3	1447.6
42.5°	2110.2	2069.8	1835.4	1666.4	1485.5	1419.2	1408.0	1817.9	2182.4	2085.7	1695.1
45°	2345.6	2213.2	2040.6	1888.3	1704.0	1684.7	1658.3	2066.9	2585.0	2367.0	1910.2
47.5°	2556.6	2431.9	2268.7	2073.2	1861.4	2020.5	1919.3	2285.7	2877.8	2673.1	2147.5
50°	2734.1	2601.7	2418.9	2270.0	2179.3	2287.2	2118.5	2465.8	3194.1	3028.3	2369.4
52.5°	2824.6	2674.7	2533.4	2441.3	2496.9	2472.6	2388.7	2684.1	3463.7	3339.6	2566.0
55°	2750.3	2603.8	2544.6	2590.2	2758.9	2688.8	2695.6	3022.3	3718.2	3547.1	2737.0
57.5°	2420.7	2287.0	2313.3	2438.2	2761.5	2945.1	3045.5	3350.8	3922.4	3805.8	3000.9
60°	1831.2	1723.5	1821.0	2042.7	2501.8	2894.0	3293.7	3679.3	4214.1	4177.6	3400.3
62.5°	1118.3	1059.9	1198.1	1474.5	1993.6	2643.4	3438.4	4117.4	4526.2	4565.1	3824.1
65°	570.5	544.2	659.4	902.4	1347.0	2171.5	3333.9	4389.6	4848.8	4992.2	4227.9
67.5°	359.3	342.4	403.9	550.4	794.7	1416.4	2919.0	4627.7	5076.7	5190.1	4362.7
70°	249.0	238.3	291.5	377.8	501.4	762.9	2167.3	4405.5	4896.0	4901.2	4036.6
72.5°	158.0	149.7	201.6	279.8	370.0	394.0	1242.4	3456.9	4190.9	4142.7	3268.9
75°	102.5	98.3	128.0	204.9	284.2	243.0	614.0	2332.6	3005.1	2929.4	2171.2
77.5°	73.5	70.9	85.8	136.9	202.3	170.0	275.3	1390.3	1723.0	1557.7	1053.9
80°	44.3	44.1	62.1	85.8	143.9	119.9	127.2	631.3	668.0	544.7	322.0
82.5°	22.2	22.9	34.7	55.3	92.6	78.5	58.1	210.2	179.4	132.2	65.2
85°	5.2	6.5	18.3	38.1	46.4	31.3	27.6	55.0	49.3	37.3	19.0
87.5°	0.0	0.0	5.7	9.1	12.5	5.2	9.4	10.4	13.3	10.4	3.9
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°	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3	182.3
2.5°	219.5	216.4	197.4	192.4	191.9	186.4	187.7	182.5	182.8	194.5	194.5
5°	279.8	261.5	243.3	227.1	216.2	200.5	194.8	192.4	190.3	195.0	197.9
7.5°	328.5	301.7	268.8	233.6	201.0	178.6	175.5	169.7	167.7	172.4	176.0
10°	350.2	316.8	271.7	220.3	189.8	171.6	156.4	148.4	146.8	146.5	147.8
12.5°	396.1	354.6	274.8	215.4	182.3	162.2	145.0	131.4	118.9	120.2	118.9
15°	432.8	383.8	274.8	203.4	164.0	143.9	113.7	106.9	105.1	107.9	105.6
17.5°	488.4	412.8	261.0	182.0	148.4	111.9	100.4	99.9	103.5	107.7	105.1
20°	521.7	416.7	237.8	157.5	121.8	97.0	92.8	88.7	93.9	97.3	96.0
22.5°	556.4	416.9	214.6	144.5	98.0	88.4	81.6	78.2	79.0	82.1	82.7
25°	571.3	406.8	192.9	127.2	88.9	79.0	72.0	68.3	67.0	68.6	68.1
27.5°	611.7	387.2	169.5	108.5	84.5	70.1	63.6	59.2	55.3	57.9	58.4
30°	617.4	380.9	156.7	96.5	78.7	62.1	56.3	51.6	48.8	52.4	52.4
32.5°	635.7	346.5	150.2	91.5	72.7	57.4	49.5	46.2	45.6	48.0	48.2
35°	663.9	331.4	140.5	87.6	67.3	51.9	44.6	43.0	42.5	44.3	44.3
37.5°	759.3	312.6	129.8	84.2	62.6	49.0	43.3	40.7	40.9	42.5	43.5
40°	822.6	315.0	113.9	80.0	57.1	46.4	40.7	38.9	38.6	39.4	40.2
42.5°	940.2	316.8	106.9	75.6	52.9	43.3	38.1	36.8	35.7	36.5	37.3
45°	1071.7	326.4	103.3	72.0	50.6	41.5	35.7	34.9	32.6	33.1	34.2
47.5°	1198.4	361.7	98.8	66.8	48.5	40.4	33.4	31.5	30.0	29.7	30.8
50°	1342.3	395.8	93.9	61.0	46.4	38.9	31.0	28.2	27.1	27.1	27.9
52.5°	1471.1	428.4	89.2	57.1	44.8	36.0	28.9	26.1	25.3	25.3	26.3
55°	1606.7	462.6	85.0	53.5	42.8	33.1	27.1	24.5	24.2	23.7	24.5
57.5°	1846.1	537.1	79.8	50.3	39.9	30.8	25.6	22.9	22.4	21.6	22.4
60°	2194.7	651.6	73.0	47.2	36.5	29.2	24.2	21.1	20.3	19.0	19.3
62.5°	2535.5	744.2	65.2	43.3	33.4	27.6	22.2	19.0	17.7	16.2	16.4
65°	2827.5	780.7	56.8	38.6	30.2	24.0	19.3	16.7	14.9	12.8	12.5
67.5°	2861.9	689.4	48.8	34.2	27.1	20.3	16.4	14.9	12.0	10.2	9.6
70°	2575.6	513.7	40.7	30.2	23.5	17.2	14.1	13.0	11.2	9.6	8.9
72.5°	2051.0	379.1	34.2	26.9	20.6	14.6	12.0	12.3	11.2	9.4	8.3
75°	1356.4	216.9	27.9	22.4	17.2	11.7	11.0	11.0	10.7	8.9	7.8
77.5°	652.6	93.6	21.4	17.7	13.8	8.9	9.9	9.9	10.2	8.1	6.5
80°	185.1	28.2	13.3	12.0	10.2	6.0	7.8	7.6	6.8	4.7	2.9
82.5°	33.1	11.0	6.0	6.3	5.7	2.3	4.4	4.2	3.4	1.8	0.3
85°	9.1	4.2	3.4	3.7	2.9	0.8	1.8	2.3	1.8	1.0	0.0
87.5°	2.3	1.8	2.3	2.6	2.1	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)