

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: P367661

Luminaire Tested: **MSA-SA3A-727-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-727-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 8056 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

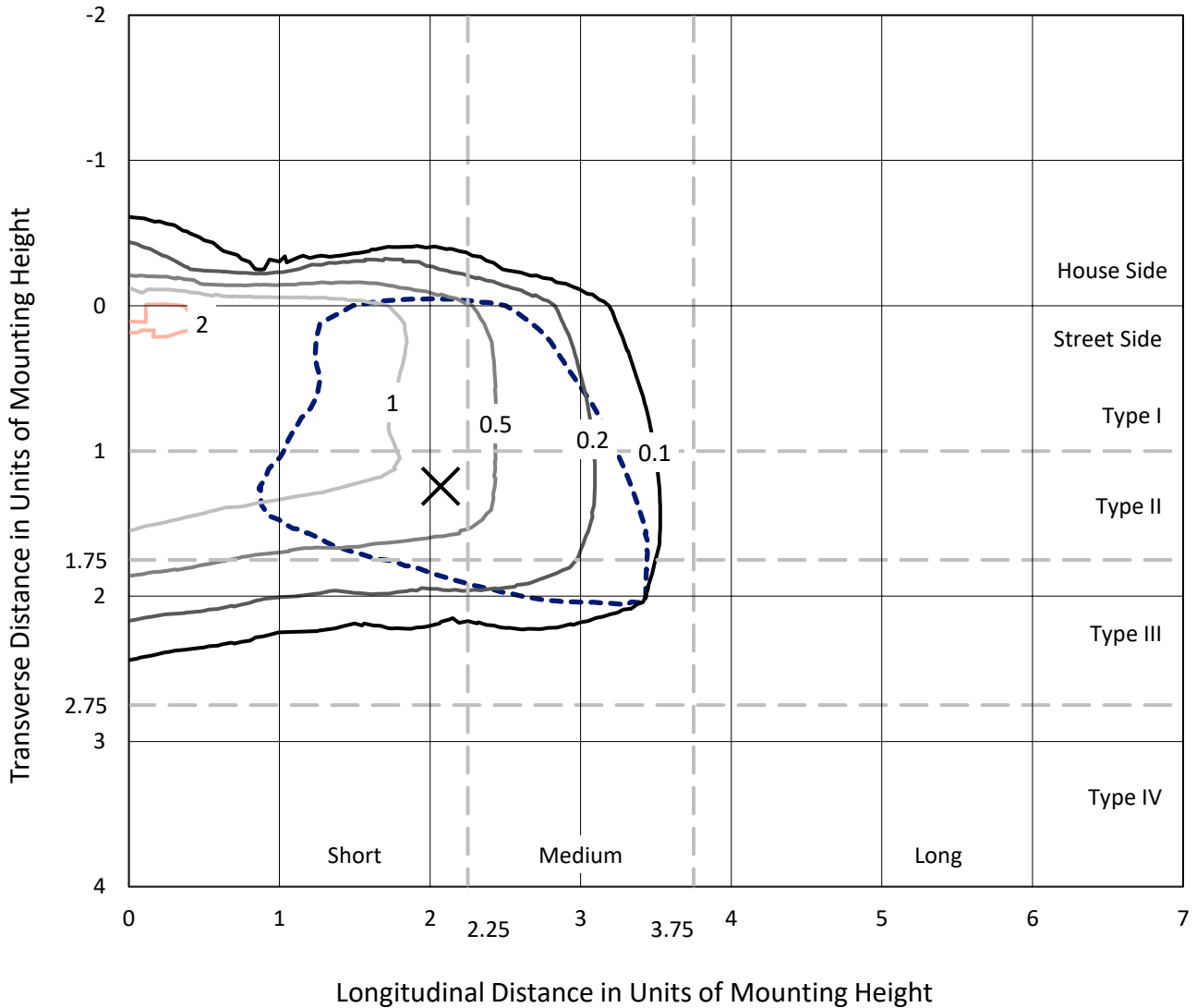
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

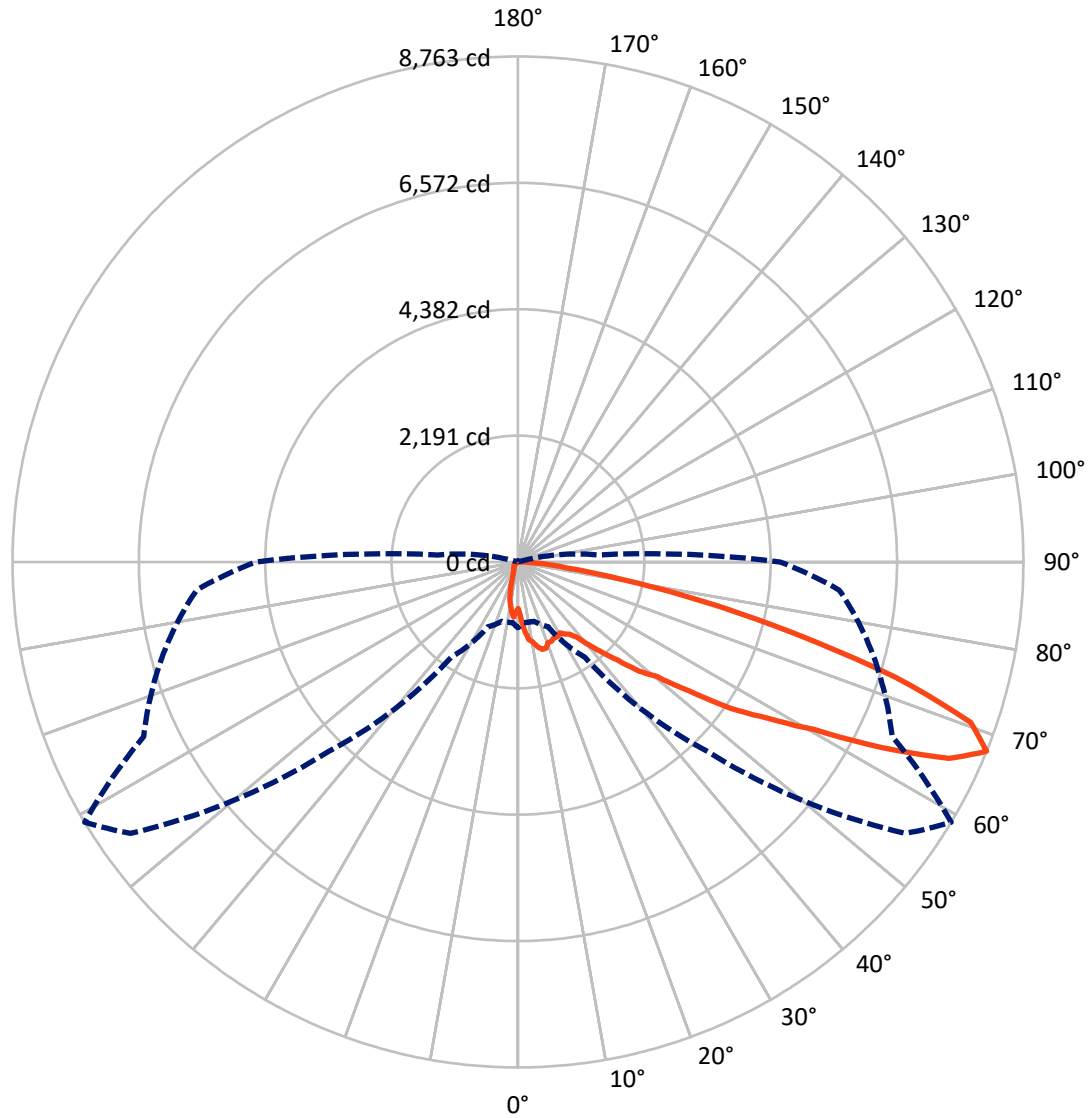
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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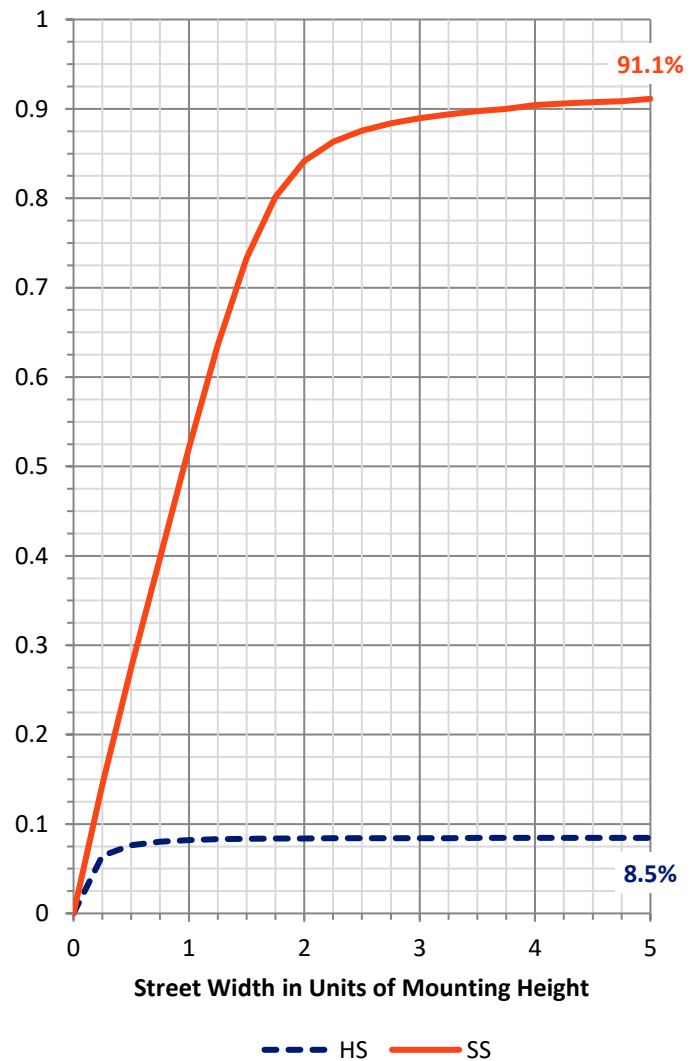
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	685.1	0.0	685.1
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	7370.9	0.0	7370.9
	% Fixture	91.5	0.0	91.5
Total	Lumens	8056.0	0.0	8056.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.0	1.2
10°-20°	276.0	3.4
20°-30°	410.5	5.1
30°-40°	633.3	7.9
40°-50°	1130.2	14.0
50°-60°	2011.1	25.0
60°-70°	2342.3	29.1
70°-80°	1041.6	12.9
80°-90°	113.1	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°	8056.0	100.0
0°-180°	8056.0	100.0



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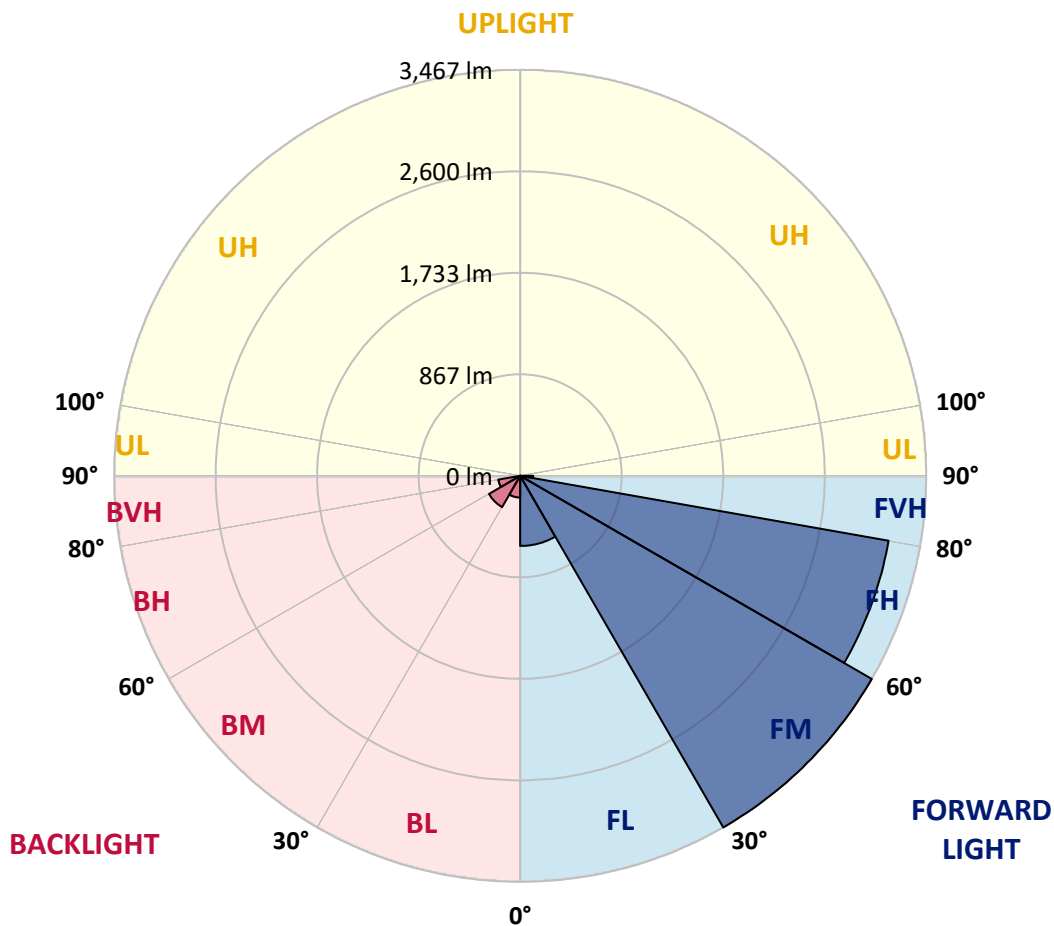
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	599.1	7.4			
FM (30°-60°)	3466.5	43.0			
FH (60°-80°)	3194.1	39.6			G2/5000
FVH (80°-90°)	111.1	1.4			G2/225
BL (0°-30°)	185.3	2.3	B1/500		
BM (30°-60°)	308.0	3.8	B1/1000		
BH (60°-80°)	189.8	2.4	B1/500		G1/500
BVH (80°-90°)	2.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0
2.5°	1050.8	1011.2	954.9	971.6	986.7	1001.0	977.4	963.9	957.4	899.4	972.0
5°	1290.2	1240.9	1215.2	1208.6	1192.3	1156.0	1216.4	1189.5	1198.4	1209.9	1233.5
7.5°	1363.2	1340.8	1303.7	1317.5	1255.5	1250.2	1333.9	1357.1	1387.7	1366.9	1395.5
10°	1325.7	1287.0	1304.5	1299.6	1297.2	1351.8	1410.6	1411.8	1457.5	1479.5	1382.8
12.5°	1251.5	1256.0	1318.8	1313.9	1395.5	1504.8	1518.2	1504.0	1578.6	1540.3	1525.6
15°	1300.8	1337.5	1302.9	1314.7	1343.7	1480.3	1528.0	1572.1	1642.7	1665.5	1566.4
17.5°	1360.4	1364.0	1300.8	1286.1	1359.2	1422.8	1535.4	1571.7	1578.6	1778.9	1658.2
20°	1328.2	1359.6	1284.1	1191.5	1304.9	1391.4	1505.6	1494.2	1540.7	1812.3	1679.0
22.5°	1413.8	1368.9	1272.3	1202.5	1240.9	1319.6	1416.3	1490.9	1560.7	1732.4	1705.9
25°	1422.0	1405.7	1319.6	1257.6	1251.1	1271.0	1405.7	1453.8	1563.1	1804.2	1683.0
27.5°	1513.8	1495.0	1318.8	1324.9	1263.7	1202.1	1354.3	1467.2	1607.6	1760.5	1731.6
30°	1632.0	1633.7	1406.5	1425.6	1338.4	1239.2	1396.3	1427.3	1637.8	1830.3	1767.5
32.5°	1752.0	1801.3	1579.8	1478.3	1450.9	1380.0	1344.1	1487.2	1604.7	1949.4	1857.2
35°	1934.3	1967.8	1722.6	1631.6	1524.4	1443.6	1486.0	1537.4	1723.4	2107.3	1975.1
37.5°	2243.1	2182.7	1978.8	1820.5	1794.8	1675.7	1696.9	1650.8	1844.6	2293.3	2208.4
40°	2416.9	2362.2	2150.1	2073.0	1909.0	1927.4	1860.5	1887.4	2020.4	2487.0	2420.9
42.5°	2598.0	2545.8	2359.8	2305.1	2148.9	2073.0	2042.8	2139.5	2290.0	2809.7	2725.6
45°	2779.9	2647.3	2568.6	2595.9	2525.8	2375.7	2340.6	2426.7	2584.5	3206.2	3047.1
47.5°	2933.3	2821.5	2762.4	2749.7	2722.4	2930.8	2788.1	2826.0	2895.7	3557.0	3447.6
50°	3209.8	3099.7	3007.1	2981.4	3114.4	3410.1	3189.9	3116.4	3255.9	3980.8	3911.8
52.5°	3609.2	3468.9	3321.6	3322.0	3572.9	3735.2	3839.6	3710.8	3736.9	4447.0	4416.4
55°	3930.2	3751.9	3630.0	3726.3	4100.3	4191.3	4589.8	4476.8	4442.9	4879.4	4841.9
57.5°	3974.3	3760.5	3702.6	3871.5	4383.4	4964.3	5393.0	5110.7	5058.9	5241.2	5315.9
60°	3563.1	3336.3	3379.9	3651.6	4475.6	5435.4	6130.5	5900.0	5570.8	5665.0	5716.4
62.5°	2657.5	2476.4	2598.8	2958.6	4120.3	5751.1	6984.2	7091.1	6164.7	5983.2	5972.2
65°	1724.2	1610.8	1691.2	1986.1	3118.1	5715.2	7747.0	8210.4	6632.6	6242.6	6052.6
67.5°	1140.5	1054.4	1065.9	1240.5	2016.3	4648.1	8203.1	8763.1	7158.8	6389.9	5592.0
70°	850.1	782.4	786.4	881.1	1196.8	3065.4	7567.1	8327.1	7350.9	5879.6	4513.5
72.5°	613.1	567.8	605.7	711.0	953.7	1621.0	5640.2	6857.8	6409.9	4637.5	3041.0
75°	424.6	394.9	456.9	594.7	870.5	1006.3	3727.1	4936.5	4492.7	2909.6	1374.7
77.5°	235.4	226.4	315.7	484.6	790.1	824.8	2283.1	3243.7	2491.9	1043.0	327.1
80°	102.8	99.5	153.0	363.9	664.1	745.3	1285.3	1798.5	980.2	186.0	105.6
82.5°	44.1	42.4	65.3	219.0	482.6	623.3	792.6	865.6	337.3	57.5	60.0
85°	7.8	8.6	26.1	115.4	293.7	316.5	573.9	512.3	169.7	27.3	42.8
87.5°	0.0	0.0	4.1	22.4	55.1	90.6	248.8	179.5	32.2	9.0	7.3
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°	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0
2.5°	982.2	959.4	872.5	861.5	849.7	832.1	825.6	788.1	783.2	831.3	831.3
5°	1222.5	1140.9	1058.1	992.9	934.5	853.8	830.9	807.3	788.1	783.2	798.3
7.5°	1349.4	1249.8	1119.7	953.7	819.1	702.0	653.1	618.8	580.5	591.9	598.0
10°	1342.4	1236.8	1070.8	857.4	708.1	578.8	454.4	381.8	341.4	321.4	319.0
12.5°	1410.6	1311.0	1037.7	780.7	590.2	411.6	285.9	234.1	204.4	204.8	202.3
15°	1450.1	1341.6	999.4	683.7	415.7	264.7	198.2	186.8	182.7	187.2	184.8
17.5°	1519.9	1373.8	912.5	538.8	285.9	199.9	182.3	177.8	183.2	192.5	190.1
20°	1514.6	1318.0	788.9	379.8	211.3	179.9	172.5	165.6	176.6	186.4	184.8
22.5°	1509.7	1263.3	672.6	280.2	176.6	164.0	157.9	155.0	160.7	172.1	174.6
25°	1466.4	1236.4	554.8	210.5	159.9	148.9	146.0	143.6	145.6	155.0	154.6
27.5°	1519.5	1168.3	428.3	176.6	148.1	135.0	132.6	128.5	124.4	132.6	133.8
30°	1508.4	1177.6	335.7	155.4	136.2	118.7	119.5	111.0	103.6	111.0	111.0
32.5°	1548.4	1109.1	268.8	141.1	124.4	111.8	101.6	92.6	87.3	91.8	92.6
35°	1606.8	1112.0	210.5	132.2	114.2	99.5	87.3	78.3	73.4	75.5	76.7
37.5°	1802.1	1092.4	175.8	125.2	110.5	92.2	79.5	67.7	64.4	66.9	68.1
40°	1929.4	1144.6	155.0	121.6	101.2	84.8	68.1	59.6	56.7	57.9	60.0
42.5°	2169.3	1173.6	144.8	117.5	92.6	72.6	58.3	53.4	49.4	51.0	52.6
45°	2425.8	1222.9	137.1	113.0	86.1	63.6	51.4	47.3	42.0	42.4	44.1
47.5°	2741.1	1340.4	128.1	105.2	77.1	57.9	45.7	39.6	34.7	34.3	36.3
50°	3164.6	1497.4	119.9	95.5	71.4	53.0	40.0	32.2	28.1	26.9	28.6
52.5°	3616.5	1700.6	111.4	88.5	64.4	46.5	34.3	26.1	22.4	21.6	22.8
55°	4064.4	1895.6	103.2	84.0	57.1	40.0	29.0	21.6	18.4	17.5	18.4
57.5°	4574.7	2106.4	92.6	75.1	50.2	34.7	24.1	17.9	15.1	14.3	14.7
60°	4959.0	2180.7	83.6	65.3	43.6	30.6	20.4	14.3	12.2	11.4	11.8
62.5°	5141.3	2059.5	75.1	56.7	38.3	26.5	17.1	11.8	10.2	9.4	9.4
65°	5094.0	1791.1	66.5	48.5	33.0	22.0	13.5	10.2	9.0	7.8	7.3
67.5°	4547.4	1401.6	56.7	40.8	27.7	17.9	11.4	9.8	8.2	7.3	6.1
70°	3606.3	1014.9	46.1	33.9	23.3	14.7	9.0	9.0	7.8	7.3	5.7
72.5°	2363.8	638.8	37.5	27.3	19.2	11.4	6.9	8.2	7.3	7.3	5.3
75°	1024.3	228.4	30.2	22.0	15.9	7.8	6.1	7.3	7.8	7.3	6.1
77.5°	239.9	71.0	23.7	17.5	13.1	5.3	6.1	7.3	7.8	6.9	5.3
80°	90.1	30.2	15.5	11.4	10.2	3.3	5.3	4.5	4.1	2.9	0.8
82.5°	54.7	12.6	8.2	5.7	4.9	0.8	2.4	1.6	0.8	0.8	0.0
85°	38.8	6.1	4.5	4.1	2.4	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	5.3	1.6	2.0	2.0	1.6	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)