

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: P367133

Luminaire Tested: **MSA-SA2A-727-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367133
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-SA2A-727-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 5459 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

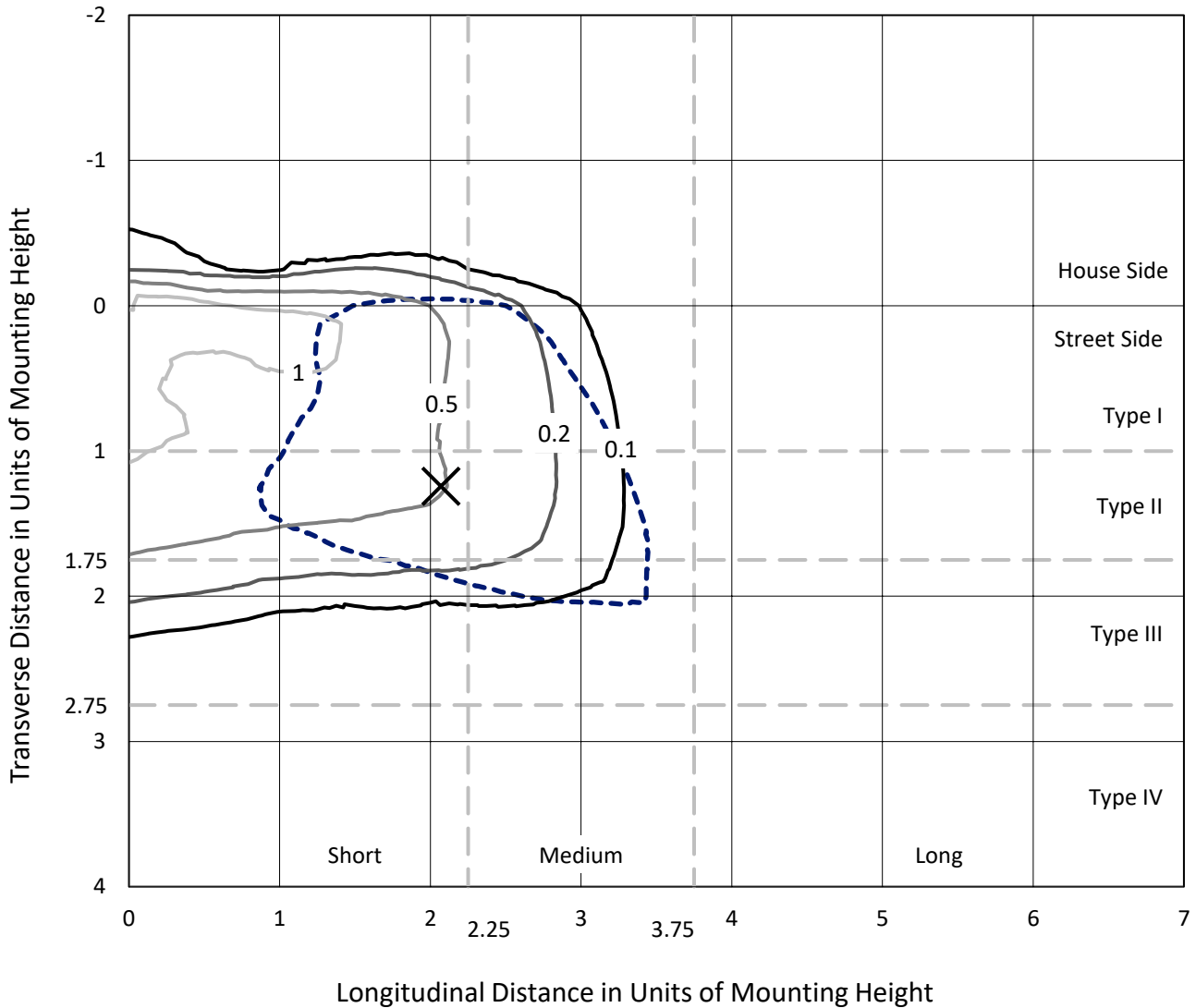
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

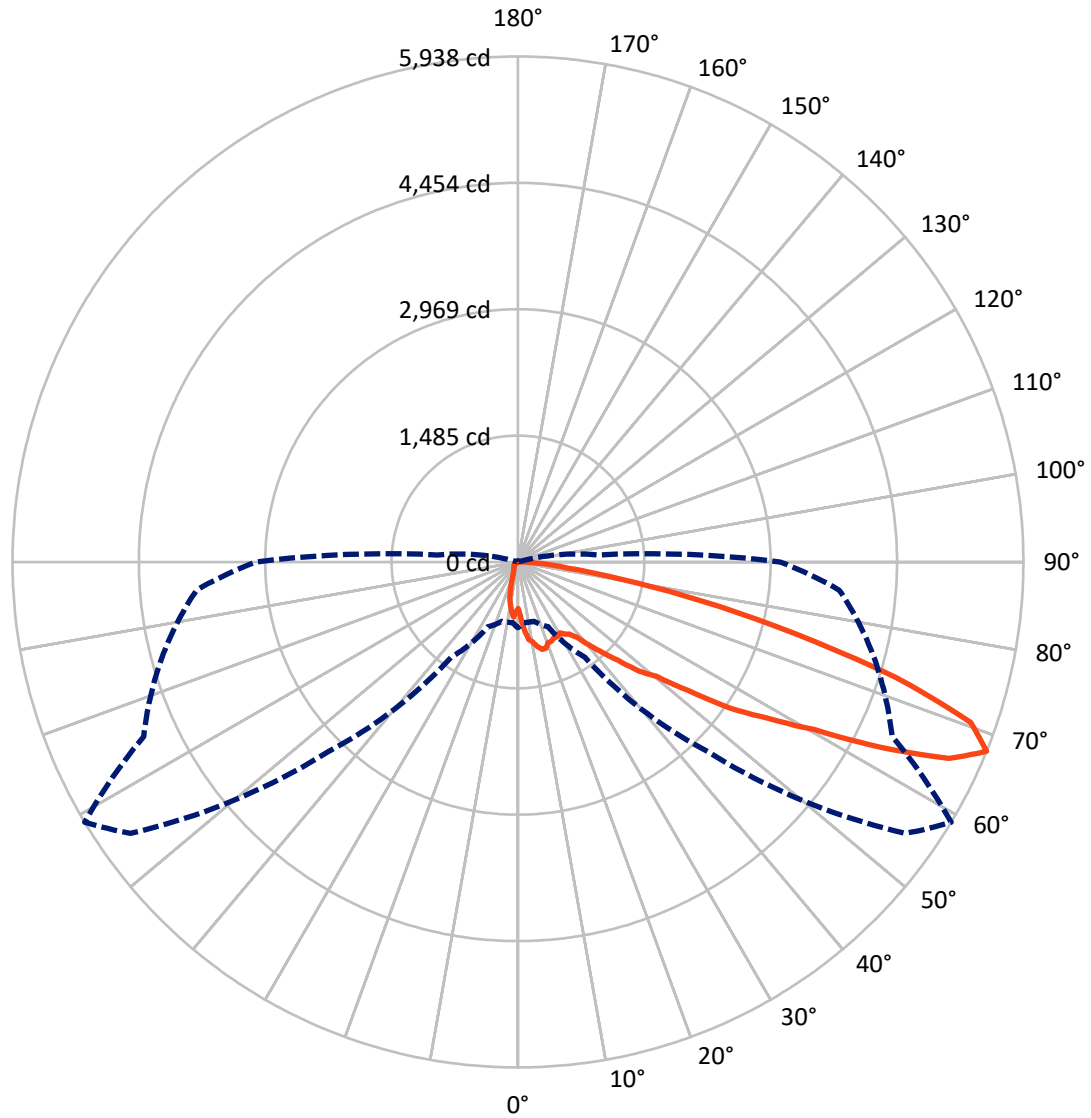
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 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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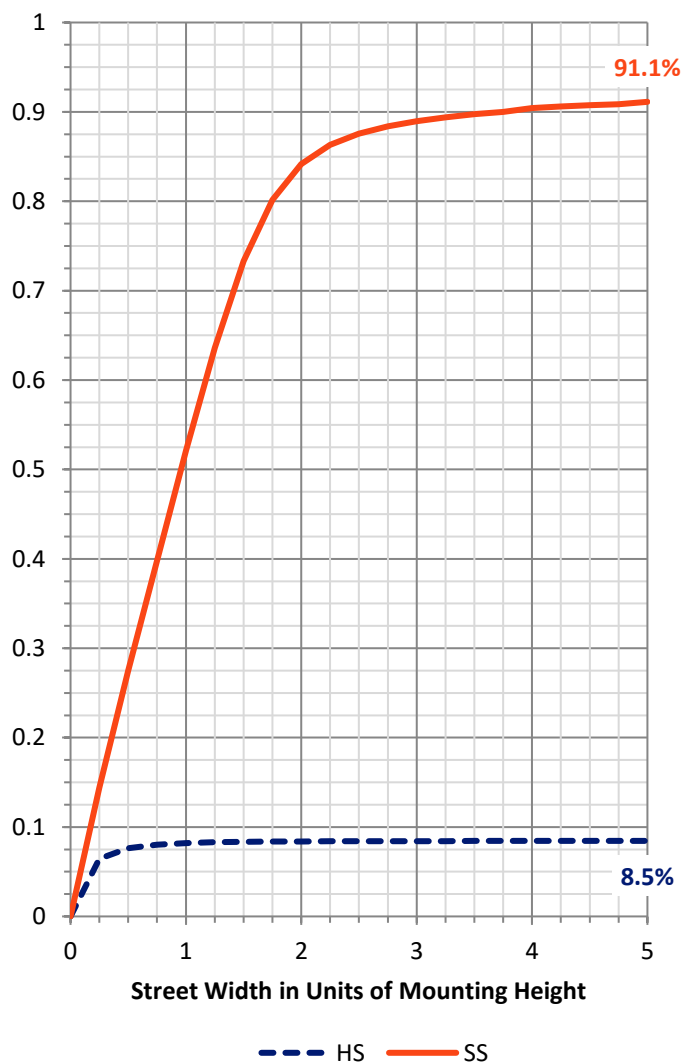
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	464.3	0.0	464.3
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	4994.7	0.0	4994.7
	% Fixture	91.5	0.0	91.5
Total	Lumens	5459.0	0.0	5459.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	1.2
10°-20°	187.0	3.4
20°-30°	278.1	5.1
30°-40°	429.1	7.9
40°-50°	765.8	14.0
50°-60°	1362.8	25.0
60°-70°	1587.2	29.1
70°-80°	705.9	12.9
80°-90°	76.7	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°	5459.0	100.0
0°-180°	5459.0	100.0

Coefficient of Utilization



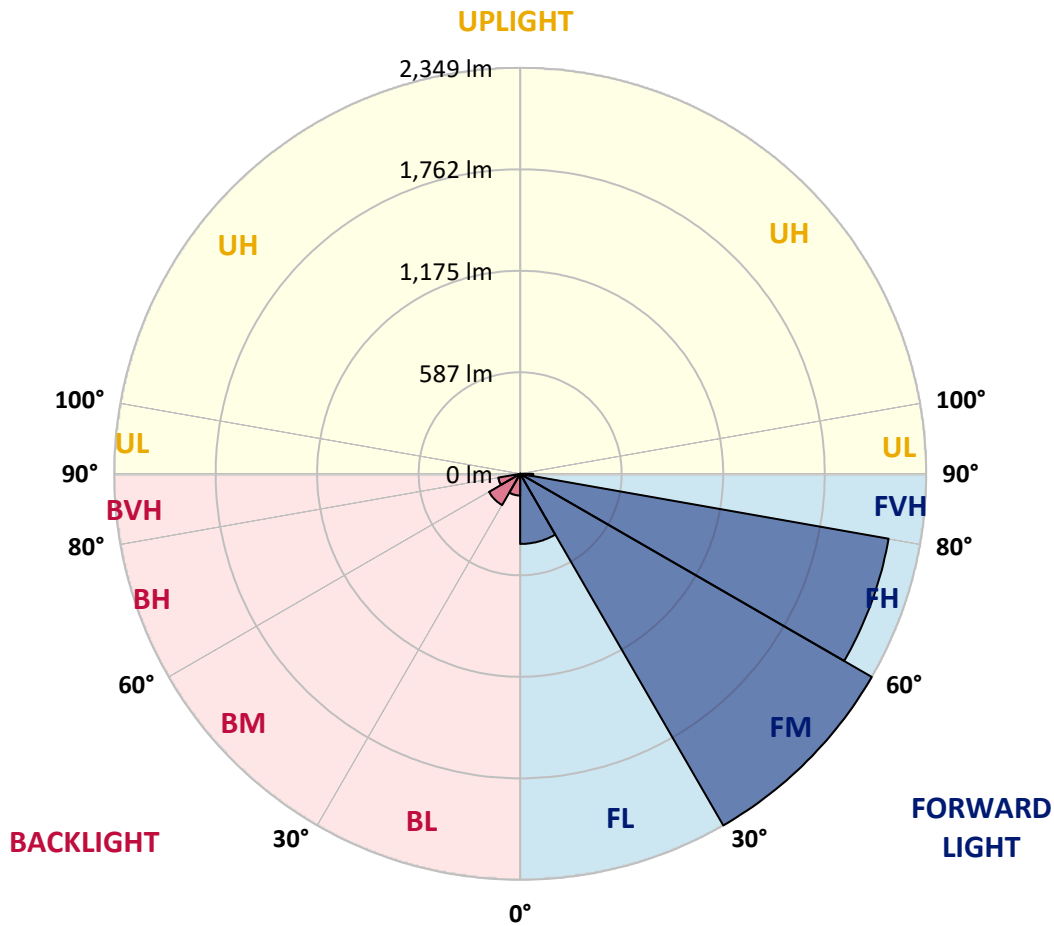
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	406.0	7.4			
FM (30°-60°)	2349.0	43.0			
FH (60°-80°)	2164.4	39.6			G2/5000
FVH (80°-90°)	75.3	1.4			G1/100
BL (0°-30°)	125.5	2.3	B1/500		
BM (30°-60°)	208.7	3.8	B0/220		
BH (60°-80°)	128.6	2.4	B1/500		G1/500
BVH (80°-90°)	1.4	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°	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2
2.5°	712.0	685.2	647.1	658.4	668.6	678.3	662.3	653.2	648.7	609.5	658.7
5°	874.3	840.8	823.4	819.0	808.0	783.4	824.3	806.0	812.1	819.8	835.9
7.5°	923.8	908.6	883.4	892.8	850.8	847.2	903.9	919.6	940.4	926.3	945.6
10°	898.3	872.1	884.0	880.6	879.0	916.0	955.8	956.7	987.6	1002.5	937.0
12.5°	848.0	851.1	893.6	890.3	945.6	1019.7	1028.8	1019.1	1069.7	1043.7	1033.8
15°	881.5	906.4	882.9	890.9	910.5	1003.1	1035.4	1065.3	1113.1	1128.6	1061.4
17.5°	921.8	924.3	881.5	871.5	921.0	964.1	1040.4	1065.0	1069.7	1205.4	1123.6
20°	900.0	921.3	870.1	807.4	884.2	942.8	1020.2	1012.5	1044.0	1228.1	1137.7
22.5°	958.0	927.6	862.1	814.9	840.8	894.2	959.7	1010.3	1057.6	1173.9	1156.0
25°	963.6	952.5	894.2	852.2	847.8	861.3	952.5	985.1	1059.2	1222.6	1140.5
27.5°	1025.8	1013.1	893.6	897.8	856.3	814.6	917.7	994.3	1089.3	1193.0	1173.4
30°	1105.9	1107.0	953.1	966.1	906.9	839.7	946.2	967.2	1109.8	1240.3	1197.7
32.5°	1187.2	1220.6	1070.5	1001.7	983.2	935.1	910.8	1007.8	1087.4	1321.0	1258.5
35°	1310.7	1333.4	1167.3	1105.6	1033.0	978.2	1007.0	1041.8	1167.8	1427.9	1338.4
37.5°	1520.0	1479.1	1340.9	1233.6	1216.2	1135.5	1149.9	1118.6	1249.9	1554.0	1496.5
40°	1637.7	1600.7	1457.0	1404.7	1293.6	1306.0	1260.7	1279.0	1369.1	1685.3	1640.5
42.5°	1760.5	1725.1	1599.0	1562.0	1456.1	1404.7	1384.3	1449.8	1551.8	1903.9	1847.0
45°	1883.7	1793.9	1740.6	1759.1	1711.5	1609.8	1586.1	1644.4	1751.3	2172.6	2064.8
47.5°	1987.7	1911.9	1871.9	1863.3	1844.8	1986.0	1889.3	1915.0	1962.2	2410.3	2336.2
50°	2175.1	2100.5	2037.7	2020.3	2110.4	2310.8	2161.5	2111.8	2206.3	2697.5	2650.8
52.5°	2445.7	2350.6	2250.8	2251.1	2421.1	2531.1	2601.9	2514.5	2532.2	3013.4	2992.7
55°	2663.2	2542.4	2459.8	2525.0	2778.5	2840.1	3110.2	3033.6	3010.7	3306.4	3281.0
57.5°	2693.1	2548.2	2509.0	2623.4	2970.3	3363.9	3654.4	3463.2	3428.1	3551.6	3602.2
60°	2414.5	2260.8	2290.4	2474.4	3032.8	3683.2	4154.2	3998.0	3775.0	3838.8	3873.6
62.5°	1800.8	1678.1	1761.0	2004.8	2792.0	3897.1	4732.7	4805.1	4177.4	4054.4	4047.0
65°	1168.4	1091.6	1146.0	1345.9	2112.9	3872.8	5249.6	5563.6	4494.5	4230.2	4101.4
67.5°	772.8	714.5	722.3	840.6	1366.3	3149.7	5558.6	5938.2	4851.0	4330.0	3789.3
70°	576.0	530.2	532.9	597.1	811.0	2077.2	5127.7	5642.7	4981.2	3984.2	3058.5
72.5°	415.4	384.8	410.5	481.8	646.3	1098.5	3822.0	4647.0	4343.5	3142.5	2060.7
75°	287.7	267.6	309.6	403.0	589.9	681.9	2525.6	3345.1	3044.4	1971.6	931.5
77.5°	159.5	153.4	213.9	328.4	535.4	558.9	1547.1	2198.0	1688.6	706.8	221.7
80°	69.7	67.4	103.7	246.6	450.0	505.0	871.0	1218.7	664.2	126.0	71.6
82.5°	29.9	28.7	44.2	148.4	327.0	422.4	537.1	586.5	228.6	39.0	40.6
85°	5.3	5.8	17.7	78.2	199.0	214.5	388.9	347.2	115.0	18.5	29.0
87.5°	0.0	0.0	2.8	15.2	37.3	61.4	168.6	121.6	21.8	6.1	5.0
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°	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2	546.2
2.5°	665.6	650.1	591.2	583.8	575.8	563.9	559.5	534.0	530.7	563.3	563.3
5°	828.4	773.1	717.0	672.8	633.3	578.5	563.1	547.0	534.0	530.7	540.9
7.5°	914.4	846.9	758.8	646.3	555.0	475.7	442.5	419.3	393.3	401.1	405.2
10°	909.7	838.1	725.6	581.0	479.9	392.2	307.9	258.7	231.4	217.8	216.2
12.5°	955.8	888.4	703.2	529.1	400.0	278.9	193.8	158.7	138.5	138.8	137.1
15°	982.6	909.1	677.2	463.3	281.7	179.4	134.3	126.6	123.8	126.9	125.2
17.5°	1029.9	931.0	618.3	365.1	193.8	135.4	123.6	120.5	124.1	130.5	128.8
20°	1026.3	893.1	534.6	257.3	143.2	121.9	116.9	112.2	119.7	126.3	125.2
22.5°	1023.0	856.0	455.8	189.9	119.7	111.1	107.0	105.0	108.9	116.6	118.3
25°	993.7	837.8	375.9	142.6	108.4	100.9	99.0	97.3	98.7	105.0	104.8
27.5°	1029.6	791.6	290.2	119.7	100.3	91.5	89.8	87.1	84.3	89.8	90.7
30°	1022.2	798.0	227.5	105.3	92.3	80.4	81.0	75.2	70.2	75.2	75.2
32.5°	1049.3	751.6	182.2	95.6	84.3	75.7	68.8	62.7	59.2	62.2	62.7
35°	1088.8	753.5	142.6	89.6	77.4	67.4	59.2	53.1	49.8	51.1	52.0
37.5°	1221.2	740.2	119.1	84.9	74.9	62.5	53.9	45.9	43.7	45.3	46.2
40°	1307.4	775.6	105.0	82.4	68.6	57.5	46.2	40.4	38.4	39.3	40.6
42.5°	1470.0	795.2	98.1	79.6	62.7	49.2	39.5	36.2	33.4	34.6	35.7
45°	1643.8	828.7	92.9	76.6	58.3	43.1	34.8	32.1	28.5	28.7	29.9
47.5°	1857.5	908.3	86.8	71.3	52.2	39.3	31.0	26.8	23.5	23.2	24.6
50°	2144.4	1014.7	81.3	64.7	48.4	35.9	27.1	21.8	19.1	18.2	19.3
52.5°	2450.7	1152.4	75.5	60.0	43.7	31.5	23.2	17.7	15.2	14.6	15.5
55°	2754.2	1284.5	69.9	56.9	38.7	27.1	19.6	14.6	12.4	11.9	12.4
57.5°	3100.0	1427.4	62.7	50.9	34.0	23.5	16.3	12.2	10.2	9.7	10.0
60°	3360.3	1477.7	56.7	44.2	29.6	20.7	13.8	9.7	8.3	7.7	8.0
62.5°	3483.9	1395.6	50.9	38.4	26.0	18.0	11.6	8.0	6.9	6.4	6.4
65°	3451.8	1213.7	45.1	32.9	22.4	14.9	9.1	6.9	6.1	5.3	5.0
67.5°	3081.4	949.8	38.4	27.6	18.8	12.2	7.7	6.6	5.5	5.0	4.1
70°	2443.8	687.7	31.2	22.9	15.8	10.0	6.1	6.1	5.3	5.0	3.9
72.5°	1601.8	432.9	25.4	18.5	13.0	7.7	4.7	5.5	5.0	5.0	3.6
75°	694.1	154.8	20.5	14.9	10.8	5.3	4.1	5.0	5.3	5.0	4.1
77.5°	162.5	48.1	16.0	11.9	8.8	3.6	4.1	5.0	5.3	4.7	3.6
80°	61.1	20.5	10.5	7.7	6.9	2.2	3.6	3.0	2.8	1.9	0.6
82.5°	37.0	8.6	5.5	3.9	3.3	0.6	1.7	1.1	0.6	0.6	0.0
85°	26.3	4.1	3.0	2.8	1.7	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	3.6	1.1	1.4	1.4	1.1	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)