

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: P367927

Luminaire Tested: **MSA-SA3C-727-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-727-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12592 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

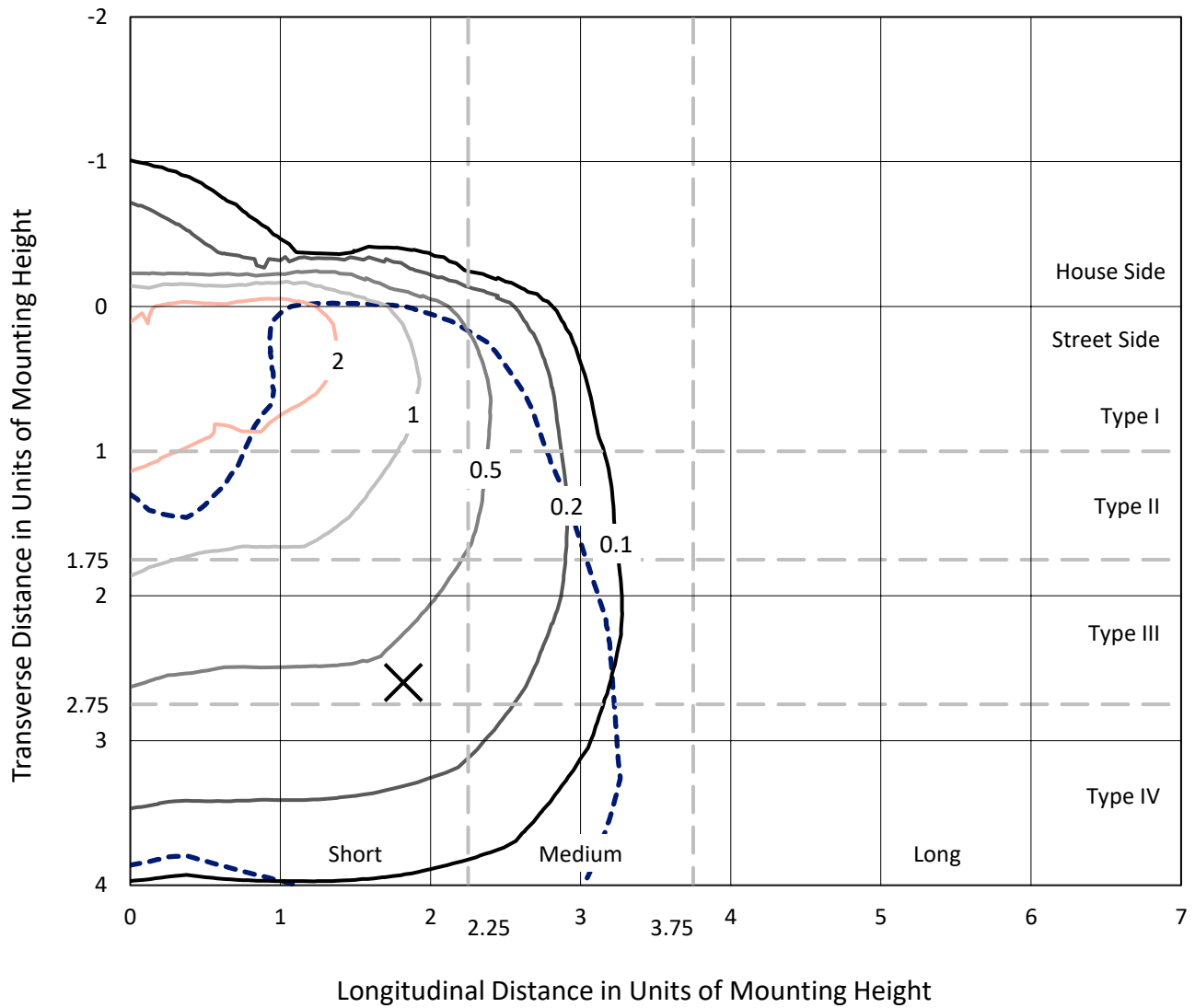
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

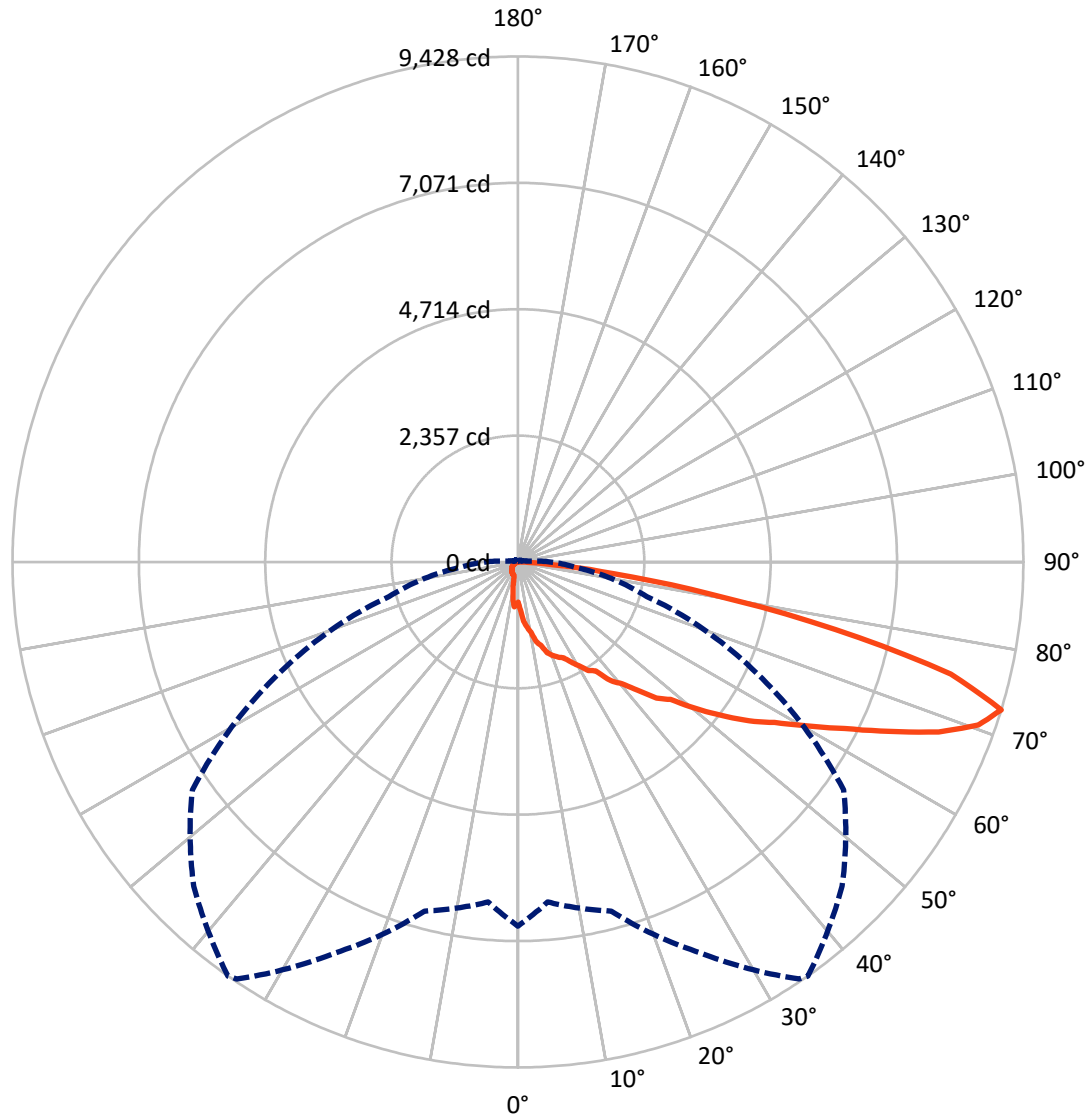
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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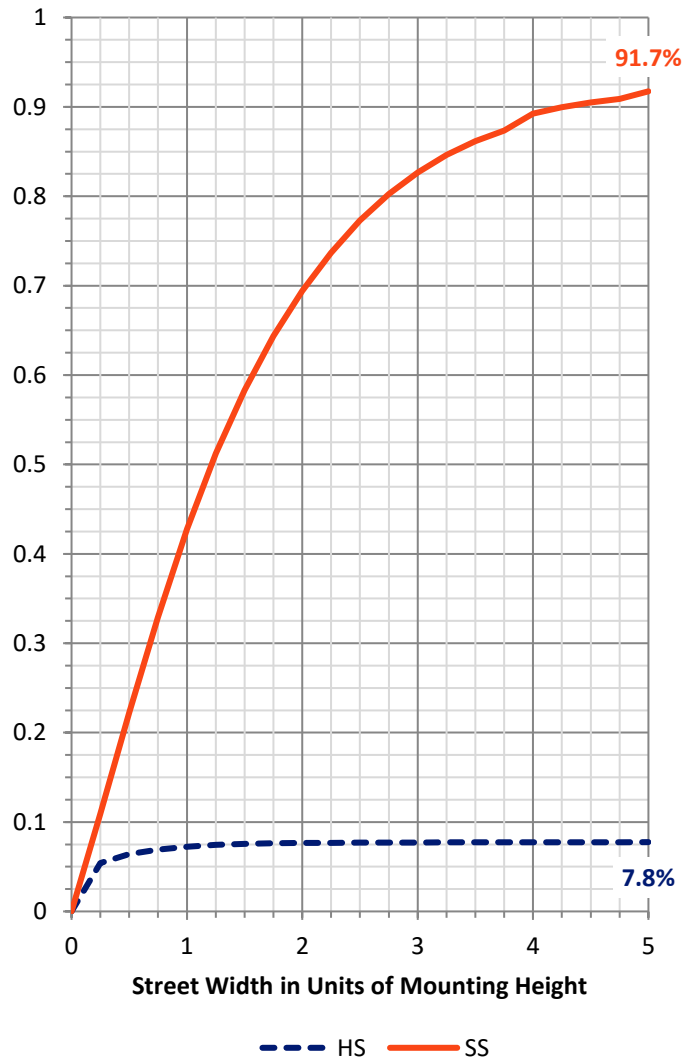
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	982.2	0.0	982.2
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	11609.8	0.0	11609.8
	% Fixture	92.2	0.0	92.2
Total	Lumens	12592.0	0.0	12592.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	0.8
10°-20°	322.3	2.6
20°-30°	586.8	4.7
30°-40°	1012.3	8.0
40°-50°	1799.4	14.3
50°-60°	2685.2	21.3
60°-70°	3430.6	27.2
70°-80°	2386.8	19.0
80°-90°	273.0	2.2
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°	12592.0	100.0
0°-180°	12592.0	100.0

Coefficient of Utilization



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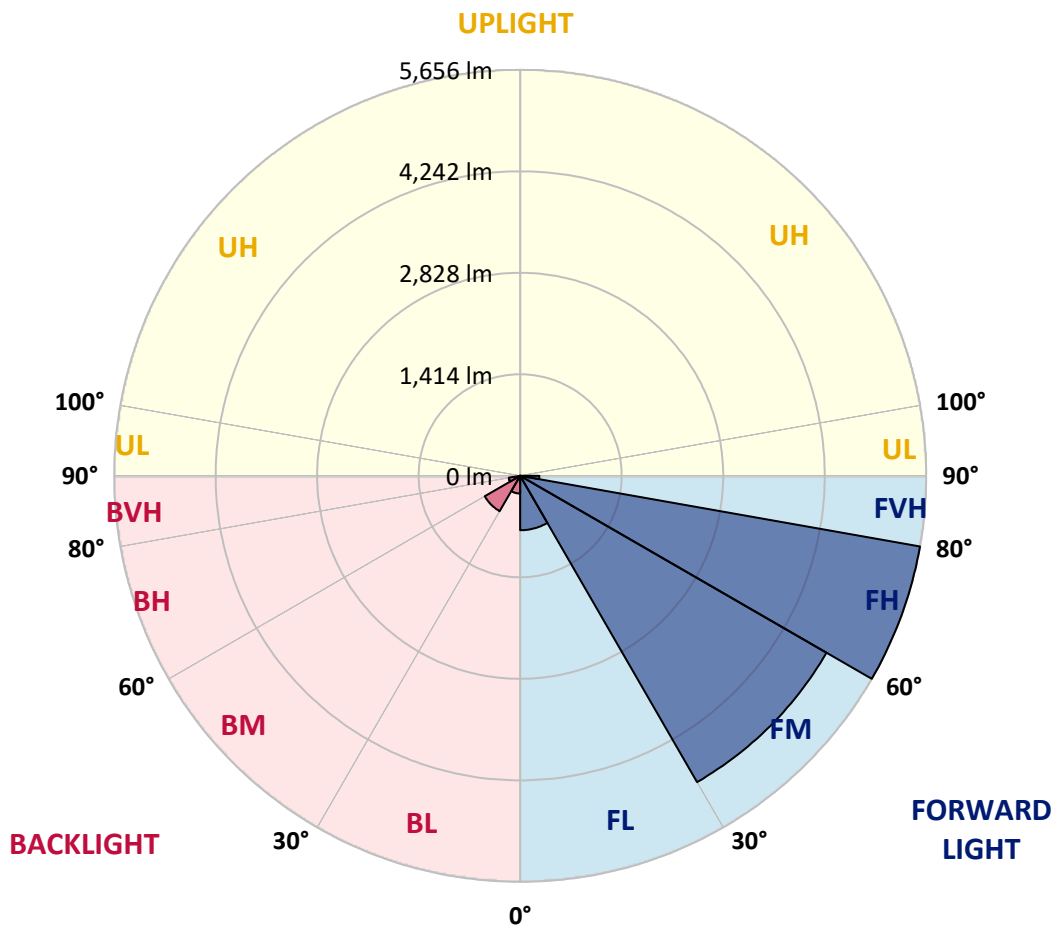
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	757.7	6.0			
FM (30°-60°)	4927.3	39.1			
FH (60°-80°)	5656.4	44.9			G3/7500
FVH (80°-90°)	268.4	2.1			G3/500
BL (0°-30°)	247.0	2.0	B1/500		
BM (30°-60°)	569.5	4.5	B1/1000		
BH (60°-80°)	161.0	1.3	B1/500		G1/500
BVH (80°-90°)	4.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1
2.5°	954.6	917.2	856.4	860.9	888.1	893.8	902.0	880.5	861.5	828.0	893.2
5°	1223.0	1169.1	1135.0	1124.2	1108.4	1109.6	1071.0	1085.0	1081.2	1105.8	1135.6
7.5°	1374.2	1344.5	1301.4	1289.4	1231.2	1224.9	1177.4	1241.3	1247.6	1238.8	1287.5
10°	1434.4	1395.1	1400.2	1355.3	1326.1	1333.7	1341.3	1346.4	1354.6	1362.8	1303.3
12.5°	1469.8	1476.8	1545.8	1498.9	1528.1	1528.1	1579.3	1524.9	1526.8	1467.3	1477.4
15°	1629.3	1668.0	1636.9	1636.3	1604.7	1612.9	1672.4	1629.3	1651.5	1633.8	1565.4
17.5°	1829.4	1837.0	1778.1	1752.1	1780.6	1781.3	1755.9	1754.0	1676.8	1807.2	1724.3
20°	1893.3	1936.3	1852.8	1751.5	1869.9	1864.2	1862.3	1832.5	1704.0	1885.1	1816.7
22.5°	2067.4	2006.0	1949.0	1882.5	1928.7	1928.7	1921.8	1856.6	1806.6	1878.1	1907.2
25°	2121.8	2129.4	2055.3	2033.8	2035.1	1978.1	1973.1	1945.2	1897.1	2019.3	1961.0
27.5°	2309.2	2306.0	2128.1	2188.3	2111.7	2112.3	1972.4	2035.1	2043.3	2026.2	2091.4
30°	2493.4	2544.7	2276.3	2352.2	2271.8	2247.8	2111.1	2166.8	2181.3	2161.7	2244.0
32.5°	2728.2	2803.6	2542.8	2468.1	2345.3	2413.6	2319.3	2187.6	2259.8	2435.1	2481.4
35°	2977.0	3013.7	2735.8	2631.4	2492.7	2492.1	2489.0	2499.7	2579.5	2777.0	2816.2
37.5°	3423.9	3337.2	3085.9	2846.6	2877.6	2808.6	2760.5	2811.1	2894.1	3219.4	3387.2
40°	3673.3	3610.6	3256.8	3115.0	2961.2	2986.5	3116.9	3111.2	3332.1	3672.7	3924.0
42.5°	3915.7	3856.2	3508.1	3393.5	3196.0	3265.0	3322.0	3394.1	3846.7	4396.2	4534.2
45°	4131.6	3956.9	3711.3	3715.7	3613.2	3621.4	3722.0	3788.5	4443.0	5006.4	5103.2
47.5°	4262.0	4118.3	3882.8	3878.4	3872.1	3833.4	4307.6	4368.3	4918.4	5587.5	5596.3
50°	4445.6	4265.8	4059.4	4063.2	4209.4	4291.1	4857.0	4850.7	5377.3	6072.4	5867.9
52.5°	4674.1	4454.4	4227.2	4396.2	4622.2	4755.1	5214.6	5402.0	5870.4	6376.8	5974.2
55°	4966.5	4691.8	4472.8	4689.3	5182.4	5233.6	5564.7	5960.3	6407.8	6687.6	6008.4
57.5°	5309.6	4981.7	4804.5	5153.2	5645.1	5646.4	6074.3	6555.3	6737.6	6814.2	5969.8
60°	5679.3	5296.9	5118.4	5432.4	6155.3	6207.2	6640.8	6883.9	7072.5	6878.2	5900.8
62.5°	6004.6	5582.4	5443.8	5812.8	6714.9	6837.7	7134.5	7099.7	7314.3	6958.6	5725.5
65°	6392.0	5952.1	5860.9	6405.9	7445.3	7614.3	7689.0	7482.7	7395.3	6896.5	5269.1
67.5°	6775.6	6364.2	6361.6	7063.6	8403.1	8461.3	8382.8	8022.6	7301.0	6349.6	4432.9
70°	7045.9	6604.1	6770.6	7784.0	9273.4	9110.1	8779.7	8277.7	6619.9	4866.5	2896.0
72.5°	6792.1	6366.1	6741.4	8040.4	9381.0	9427.9	8549.9	7414.9	4918.4	2489.0	1048.2
75°	5161.5	4900.7	5853.3	7133.3	8329.0	8339.8	7136.4	5229.8	2421.9	676.0	289.9
77.5°	2599.7	2516.8	3704.9	5064.0	6076.8	6059.1	4903.2	2801.7	779.2	224.7	146.2
80°	1316.0	1249.5	1576.8	2732.0	3608.7	3635.3	2799.8	1254.6	393.1	122.2	101.3
82.5°	808.3	767.2	862.8	1236.2	1751.5	1793.9	1062.2	794.4	243.7	72.2	92.4
85°	156.4	164.6	495.6	619.1	699.5	683.0	314.6	653.9	73.4	43.0	67.1
87.5°	0.0	2.5	114.6	201.9	202.6	179.8	71.5	145.0	10.1	12.0	8.2
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°	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1	750.1
2.5°	903.9	894.4	815.3	806.4	808.3	795.0	790.6	762.8	755.8	798.8	806.4
5°	1122.9	1059.6	986.2	959.6	918.5	848.9	838.7	821.0	801.4	809.0	803.3
7.5°	1257.1	1172.9	1094.5	954.6	838.7	737.4	721.0	690.6	660.2	660.9	680.5
10°	1278.7	1207.8	1099.5	929.2	796.9	670.3	560.2	480.4	444.4	412.1	421.6
12.5°	1403.4	1337.5	1138.1	921.6	736.2	538.7	394.4	316.5	282.3	270.9	269.7
15°	1503.4	1451.5	1204.0	898.2	601.3	379.2	282.3	259.5	253.2	264.0	260.8
17.5°	1652.1	1558.4	1197.0	801.4	458.3	288.0	260.2	257.0	264.6	270.9	272.8
20°	1717.3	1582.5	1149.5	649.5	343.1	264.0	253.8	247.5	261.4	280.4	276.6
22.5°	1783.2	1623.6	1093.8	531.7	276.0	252.6	246.9	241.8	252.6	270.9	275.4
25°	1812.9	1689.5	1031.8	415.2	256.4	239.3	235.5	237.4	246.2	262.7	260.8
27.5°	1962.9	1697.1	913.4	327.9	248.1	229.8	229.8	234.2	234.2	256.4	254.5
30°	2056.6	1825.6	817.2	276.0	238.6	216.5	224.1	226.0	222.8	246.9	248.8
32.5°	2221.2	1861.0	723.5	253.2	223.4	214.6	213.3	214.6	217.1	240.5	241.2
35°	2474.4	2035.7	595.7	244.3	215.9	205.1	196.2	203.2	209.5	226.6	229.8
37.5°	2969.4	2214.9	485.5	237.4	212.1	196.2	193.1	191.8	203.2	222.8	229.1
40°	3370.1	2532.0	395.0	231.7	204.5	191.2	182.9	183.6	193.7	208.3	217.8
42.5°	3937.3	2761.1	334.9	222.8	193.7	180.4	170.9	176.6	181.0	196.2	202.6
45°	4410.7	2939.0	295.0	217.1	182.9	170.3	162.7	169.0	164.6	172.2	181.0
47.5°	4787.4	3094.1	265.2	203.2	176.0	164.6	155.1	153.2	145.6	147.5	155.7
50°	4994.4	3068.1	240.5	189.3	167.1	158.9	145.6	132.3	122.2	121.5	126.6
52.5°	5067.8	2929.5	220.3	177.2	156.4	146.2	131.0	112.7	102.5	99.4	103.8
55°	5088.0	2730.1	201.9	163.9	146.2	130.4	114.6	94.9	84.2	79.1	83.6
57.5°	5022.2	2423.1	184.2	151.3	134.2	115.2	98.1	77.9	67.7	61.4	65.2
60°	4859.5	2033.2	168.4	135.5	121.5	101.9	82.9	62.7	51.9	46.2	48.1
62.5°	4499.4	1593.9	151.3	120.9	108.2	89.3	69.6	49.4	39.2	34.2	34.8
65°	3951.2	1188.1	131.7	107.0	96.2	77.2	55.7	38.0	29.8	25.3	24.7
67.5°	3147.9	805.2	112.0	92.4	85.5	65.2	44.3	29.8	23.4	20.3	19.0
70°	1850.3	405.8	93.1	79.8	73.4	54.4	34.8	24.1	21.5	19.0	17.7
72.5°	610.2	175.3	72.8	65.8	60.8	43.7	27.2	22.2	20.9	18.4	17.1
75°	212.7	101.3	53.8	50.6	48.1	32.9	22.8	20.3	20.3	17.7	15.8
77.5°	139.3	78.5	39.9	36.7	36.1	24.1	19.6	19.0	17.7	14.6	12.0
80°	115.8	44.3	27.9	26.0	25.3	15.2	15.8	13.9	10.8	6.3	2.5
82.5°	107.0	26.6	14.6	15.8	14.6	5.7	8.9	7.6	5.7	2.5	0.0
85°	62.7	12.0	8.2	8.2	6.3	1.3	4.4	4.4	2.5	0.6	0.0
87.5°	7.0	5.7	4.4	4.4	3.2	0.0	1.9	1.3	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)