

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: P596787

Luminaire Tested: **MSA-SA4C-827-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596787
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-827-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14497 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

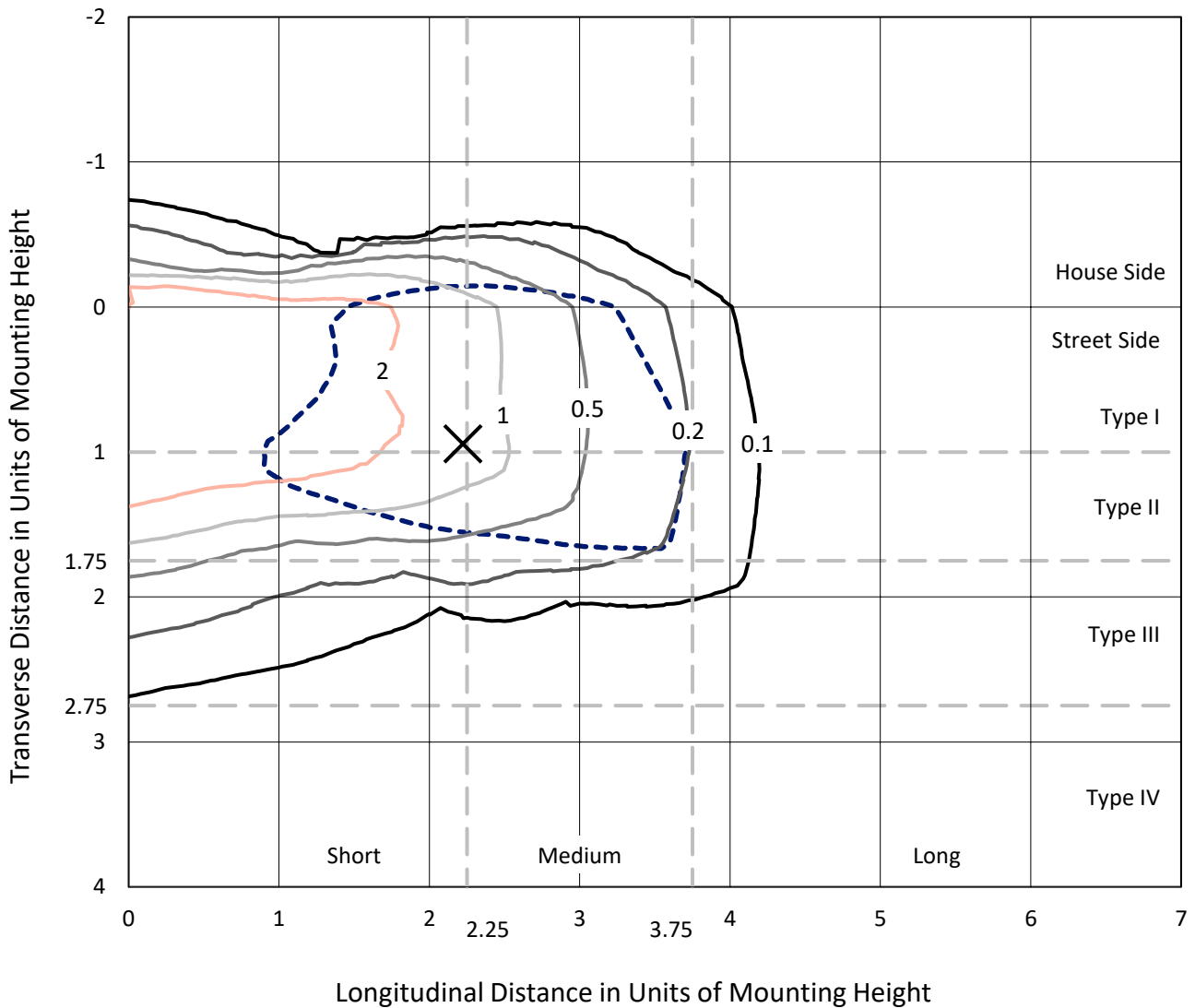
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

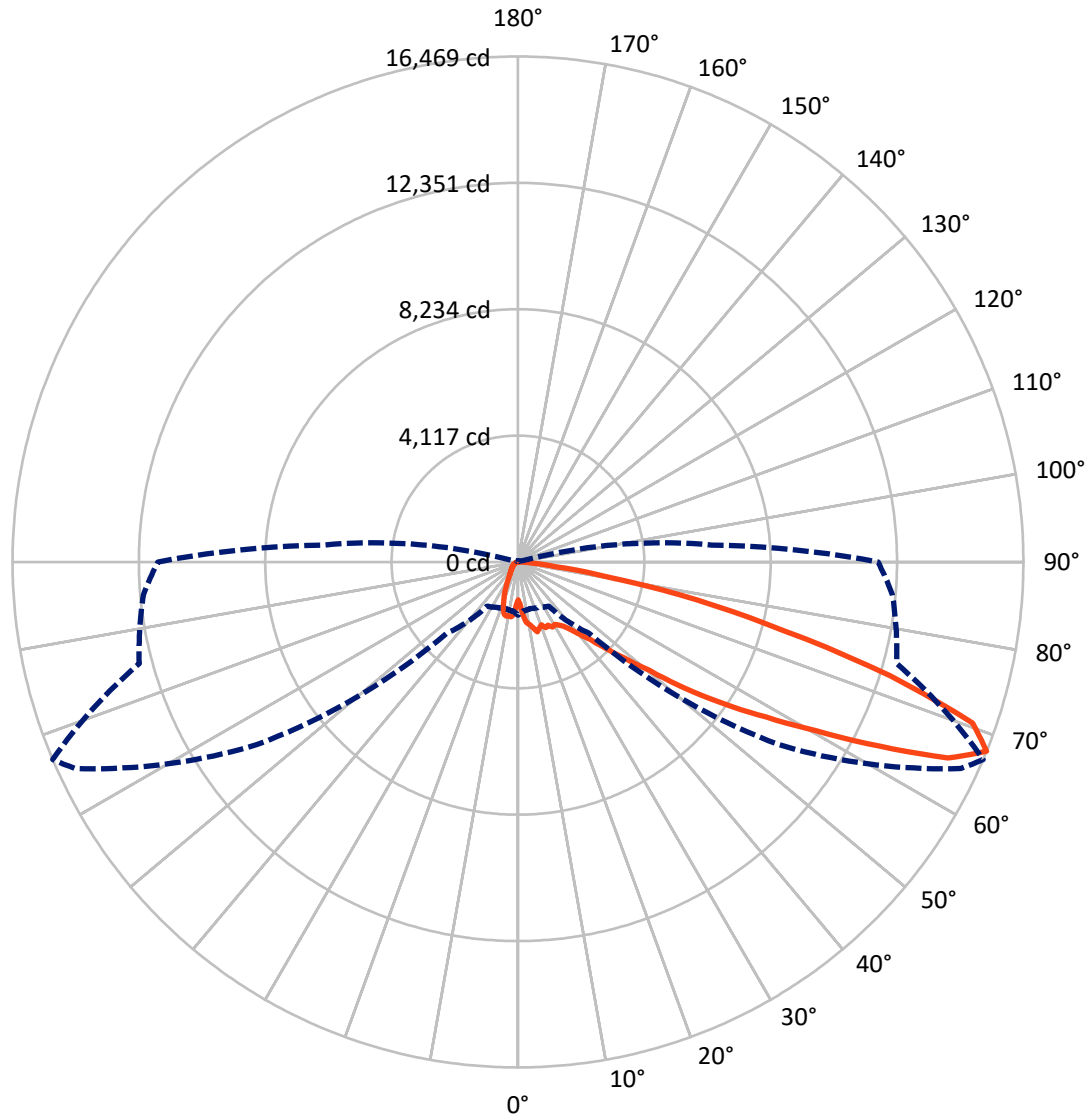
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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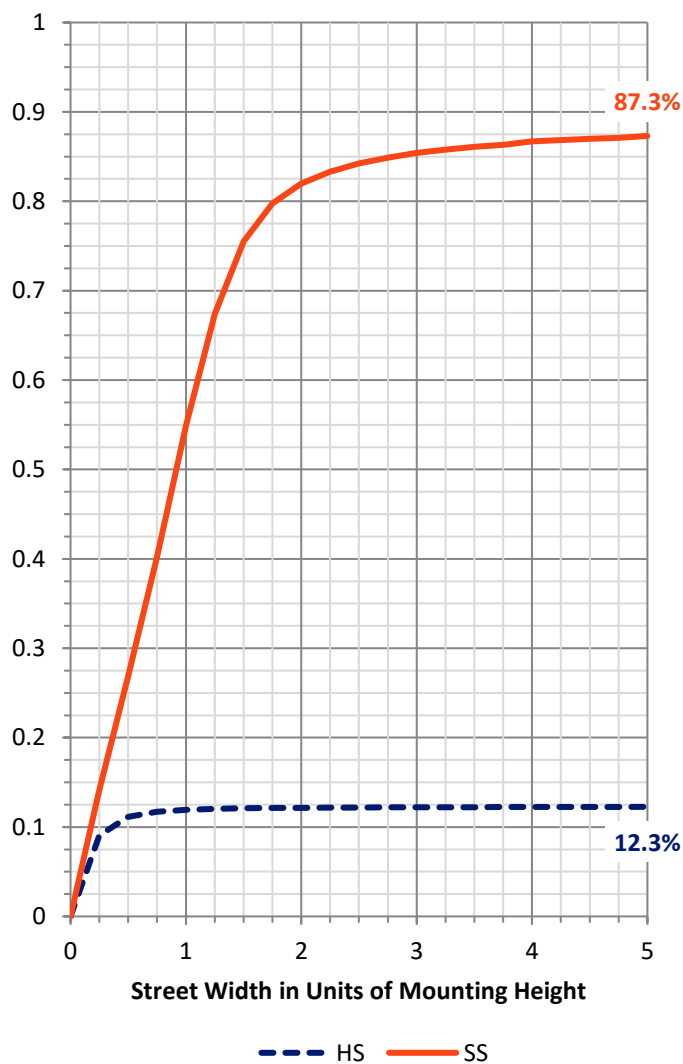
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1792.9	0.0	1792.9
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	12704.1	0.0	12704.1
	% Fixture	87.6	0.0	87.6
Total	Lumens	14497.0	0.0	14497.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.0	1.1
10°-20°	458.6	3.2
20°-30°	718.7	5.0
30°-40°	1158.8	8.0
40°-50°	2129.4	14.7
50°-60°	3596.3	24.8
60°-70°	3975.8	27.4
70°-80°	2080.9	14.4
80°-90°	223.5	1.5
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°	14497.0	100.0
0°-180°	14497.0	100.0

Coefficient of Utilization



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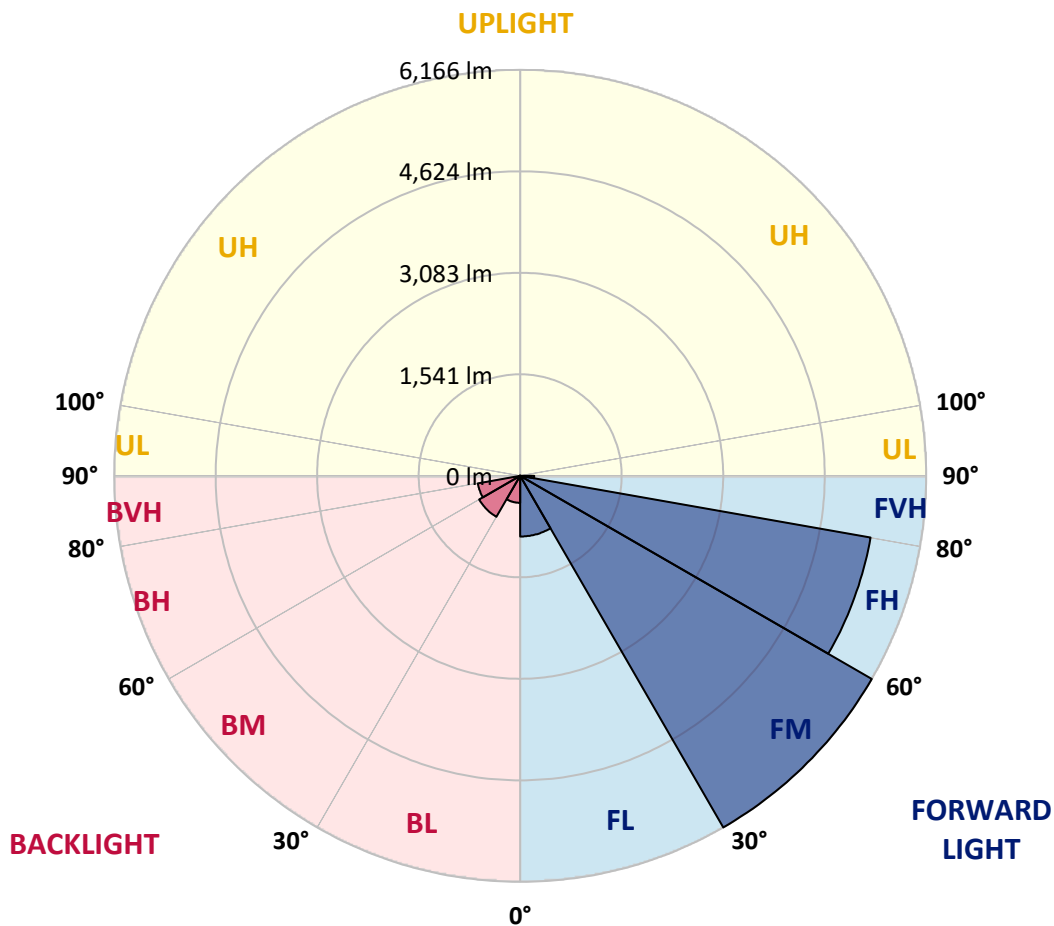
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	921.8	6.4			
FM (30°-60°)	6165.6	42.5			
FH (60°-80°)	5402.8	37.3			G3/7500
FVH (80°-90°)	213.9	1.5			G2/225
BL (0°-30°)	410.5	2.8	B1/500		
BM (30°-60°)	718.9	5.0	B1/1000		
BH (60°-80°)	654.0	4.5	B2/1000		G2/1000
BVH (80°-90°)	9.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7
2.5°	1457.6	1408.3	1324.5	1348.7	1397.3	1437.7	1418.6	1381.1	1381.8	1343.6	1481.1
5°	1695.8	1629.6	1581.1	1598.0	1595.8	1594.3	1684.8	1719.4	1734.1	1797.3	1890.7
7.5°	1764.2	1740.7	1690.0	1705.4	1654.7	1658.3	1817.2	1967.2	1990.7	2029.7	2195.9
10°	1737.8	1692.2	1710.5	1710.5	1711.3	1793.6	1900.3	2043.7	2072.4	2222.4	2240.0
12.5°	1709.1	1711.3	1784.1	1770.8	1870.9	2018.7	2054.7	2215.8	2201.8	2332.0	2525.4
15°	1815.7	1871.6	1824.5	1842.9	1852.5	2026.0	2084.1	2298.1	2359.9	2524.6	2650.4
17.5°	1998.8	2006.2	1908.4	1881.9	1951.0	2000.3	2117.2	2220.2	2261.4	2693.8	2871.7
20°	2031.9	2079.0	1979.7	1826.7	1973.1	2040.7	2122.4	2171.6	2189.3	2746.0	2996.8
22.5°	2231.2	2179.0	2020.1	1904.0	1945.9	2019.4	2070.2	2218.7	2324.6	2647.4	3116.6
25°	2333.4	2319.5	2168.0	2068.7	2026.0	2020.1	2136.3	2248.9	2282.7	2749.7	3146.0
27.5°	2578.3	2546.7	2253.3	2240.8	2100.3	1976.8	2138.5	2340.8	2404.0	2653.3	3256.4
30°	2911.5	2899.7	2509.2	2501.1	2277.5	2055.4	2257.7	2397.4	2359.2	2702.6	3329.9
32.5°	3246.8	3342.4	2943.1	2715.1	2547.4	2344.5	2223.9	2379.8	2448.1	2822.5	3465.2
35°	3652.0	3721.1	3314.5	3149.0	2776.1	2479.8	2448.1	2548.2	2577.6	2965.1	3618.9
37.5°	4360.9	4256.5	3910.1	3628.5	3432.9	2962.9	2807.0	2727.6	2796.0	3158.5	3932.9
40°	4884.5	4818.3	4391.8	4223.4	3773.3	3498.3	3090.9	3016.6	3093.1	3357.1	4151.3
42.5°	5516.2	5378.7	4977.2	4863.2	4399.9	3869.7	3456.4	3482.1	3434.3	3749.1	4534.5
45°	6087.6	5777.3	5553.7	5579.5	5332.4	4616.1	4066.0	4053.5	4013.8	4316.8	4937.5
47.5°	6472.3	6200.9	5983.2	5911.9	5882.5	5928.8	4947.0	4724.9	4695.5	4913.2	5572.1
50°	6678.9	6381.8	6112.7	6127.4	6724.5	7173.8	5856.0	5540.5	5551.5	5778.8	6439.9
52.5°	6539.9	6203.8	5920.0	6195.8	7377.5	8004.1	7360.6	6606.1	6862.0	6803.9	7604.0
55°	5897.9	5606.0	5404.5	5897.9	7448.9	8897.6	9213.1	8210.0	8152.7	8020.3	8791.0
57.5°	4817.6	4566.1	4441.8	4962.5	6668.6	9617.6	11073.7	10022.8	9533.7	8979.2	9776.4
60°	3589.5	3404.2	3274.7	3549.8	5254.4	8918.2	12292.2	11731.1	11164.9	9903.6	10661.8
62.5°	2658.5	2507.7	2370.2	2395.2	3618.2	7670.2	12759.9	13540.9	13215.9	10879.5	11497.3
65°	2121.6	1984.1	1887.8	1832.6	2240.8	5770.7	12109.1	15024.2	15399.3	11798.8	12100.3
67.5°	1732.6	1616.4	1568.6	1631.9	1757.6	3289.4	10370.6	15924.4	16468.6	12773.9	12248.8
70°	1409.8	1314.2	1309.0	1479.6	1618.6	2005.4	7628.3	15303.0	15712.6	12940.1	11358.3
72.5°	982.5	940.6	1007.5	1249.4	1603.9	1670.1	4380.8	12663.6	12678.3	11428.9	9342.5
75°	556.0	549.3	655.2	996.5	1562.0	1653.2	2442.3	8949.1	8955.7	8643.9	6472.3
77.5°	305.9	286.1	381.7	673.6	1341.4	1614.9	1575.2	6110.4	5953.8	4810.3	2956.3
80°	141.2	133.1	206.6	431.7	981.0	1527.4	1262.7	3358.6	3028.4	1567.1	721.4
82.5°	58.1	55.2	94.9	277.2	619.9	1230.3	1064.1	1489.9	1195.8	297.8	222.8
85°	10.3	11.0	39.0	167.7	347.1	567.0	862.6	707.5	519.9	82.4	122.1
87.5°	0.0	0.0	8.1	40.4	83.8	155.2	350.1	197.8	136.0	24.3	36.0
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°	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7	1234.7
2.5°	1508.3	1495.8	1369.3	1375.2	1384.0	1375.9	1374.5	1339.2	1306.8	1413.4	1412.0
5°	1907.6	1818.6	1731.1	1697.3	1624.5	1528.9	1529.6	1499.5	1468.6	1512.0	1512.0
7.5°	2192.2	2069.4	1958.4	1760.5	1567.9	1393.6	1378.1	1337.0	1289.9	1346.5	1357.5
10°	2258.4	2151.8	2008.4	1717.9	1535.5	1365.6	1178.8	1025.1	953.8	920.7	914.8
12.5°	2462.1	2382.7	2062.1	1740.7	1478.2	1190.6	884.7	702.3	578.0	568.5	555.2
15°	2598.2	2542.3	2115.0	1684.1	1235.5	856.0	556.0	426.5	376.5	372.1	365.5
17.5°	2809.2	2712.2	2064.3	1503.9	966.3	564.8	373.6	336.8	342.7	355.9	345.6
20°	2895.3	2705.5	1954.0	1242.8	678.8	378.7	324.3	304.5	319.9	332.4	326.5
22.5°	2983.5	2724.7	1856.2	1024.4	443.4	313.3	289.0	278.7	280.2	292.7	293.4
25°	2982.8	2777.6	1742.9	797.9	330.2	278.7	261.1	247.8	242.7	251.5	249.3
27.5°	3127.7	2716.6	1536.3	592.0	290.5	249.3	232.4	216.2	197.8	206.6	206.6
30°	3128.4	2815.8	1392.1	425.1	266.2	222.1	207.4	182.4	161.1	168.4	169.1
32.5°	3211.5	2729.8	1259.0	325.0	247.1	205.9	173.6	150.8	138.3	142.7	142.7
35°	3306.4	2803.3	1054.6	286.8	228.0	183.1	148.6	130.2	120.6	124.3	124.3
37.5°	3619.6	2787.9	912.6	267.0	215.5	165.5	135.3	114.7	110.3	112.5	115.5
40°	3732.9	2897.5	720.0	255.2	194.9	149.3	119.1	103.7	97.8	99.3	100.0
42.5°	4021.2	2921.7	575.1	245.6	176.5	129.4	105.9	94.9	87.5	87.5	89.7
45°	4339.6	2982.8	457.4	237.5	161.1	116.2	95.6	86.8	75.7	74.3	77.2
47.5°	4800.7	3216.6	372.8	221.4	142.7	108.1	88.2	75.0	66.2	63.2	66.2
50°	5572.1	3613.8	329.5	201.5	129.4	101.5	78.0	64.0	57.4	53.7	55.9
52.5°	6660.5	4299.9	306.7	183.1	117.7	91.2	69.9	55.9	49.3	46.3	47.8
55°	7869.5	5086.8	295.6	164.7	107.4	80.2	61.0	49.3	43.4	39.7	40.4
57.5°	8987.3	5826.6	284.6	147.1	97.1	71.3	53.7	43.4	37.5	33.8	34.6
60°	10089.0	6417.1	258.1	126.5	87.5	64.0	47.1	37.5	33.8	29.4	29.4
62.5°	11063.4	6770.1	219.9	109.6	78.7	56.6	41.9	33.8	30.9	26.5	26.5
65°	11726.7	6786.3	177.2	94.1	69.1	48.5	36.8	31.6	28.7	23.5	22.8
67.5°	11736.3	6345.0	141.9	83.8	61.0	42.7	33.1	30.2	26.5	22.1	20.6
70°	10504.5	5241.9	118.4	73.5	52.9	37.5	28.7	28.7	25.7	21.3	19.1
72.5°	8402.7	4005.7	99.3	64.0	47.1	32.4	26.5	27.2	25.0	21.3	19.1
75°	5647.9	2297.4	82.4	54.4	41.2	27.2	25.7	26.5	25.7	21.3	18.4
77.5°	2601.1	731.7	64.0	44.9	35.3	22.8	25.0	25.0	23.5	19.1	16.2
80°	586.1	180.2	46.3	33.1	28.7	16.9	22.8	20.6	18.4	13.2	9.6
82.5°	213.3	55.2	27.9	20.6	17.6	6.6	14.7	14.7	13.2	9.6	5.9
85°	122.1	28.7	15.4	13.2	9.6	2.9	8.1	8.8	7.4	6.6	2.9
87.5°	39.7	6.6	7.4	8.1	7.4	1.5	2.9	2.9	2.2	1.5	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)