

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: P368013

Luminaire Tested: **MSA-SA3C-760-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368013
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-SA3C-760-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: 14950 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

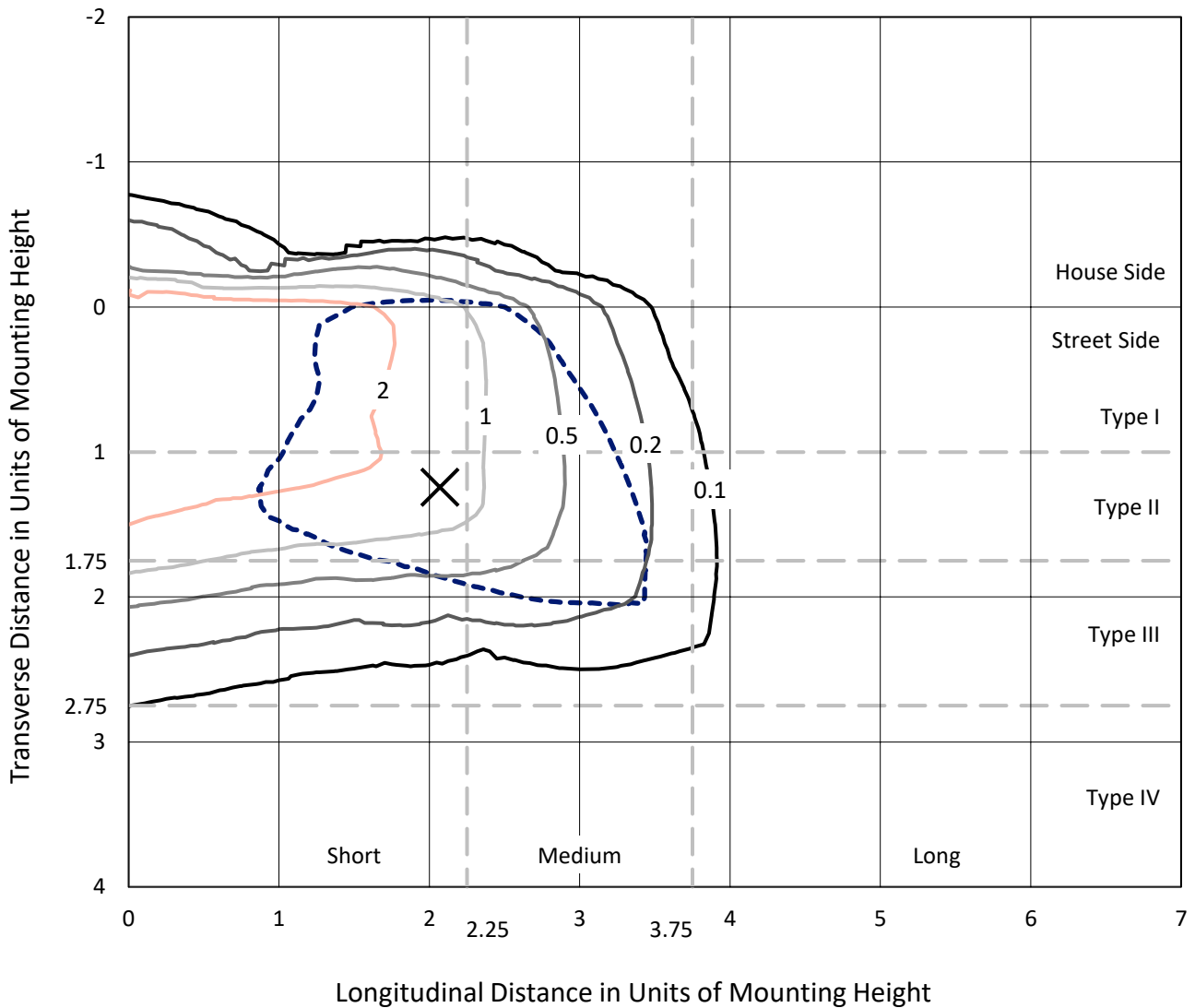
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

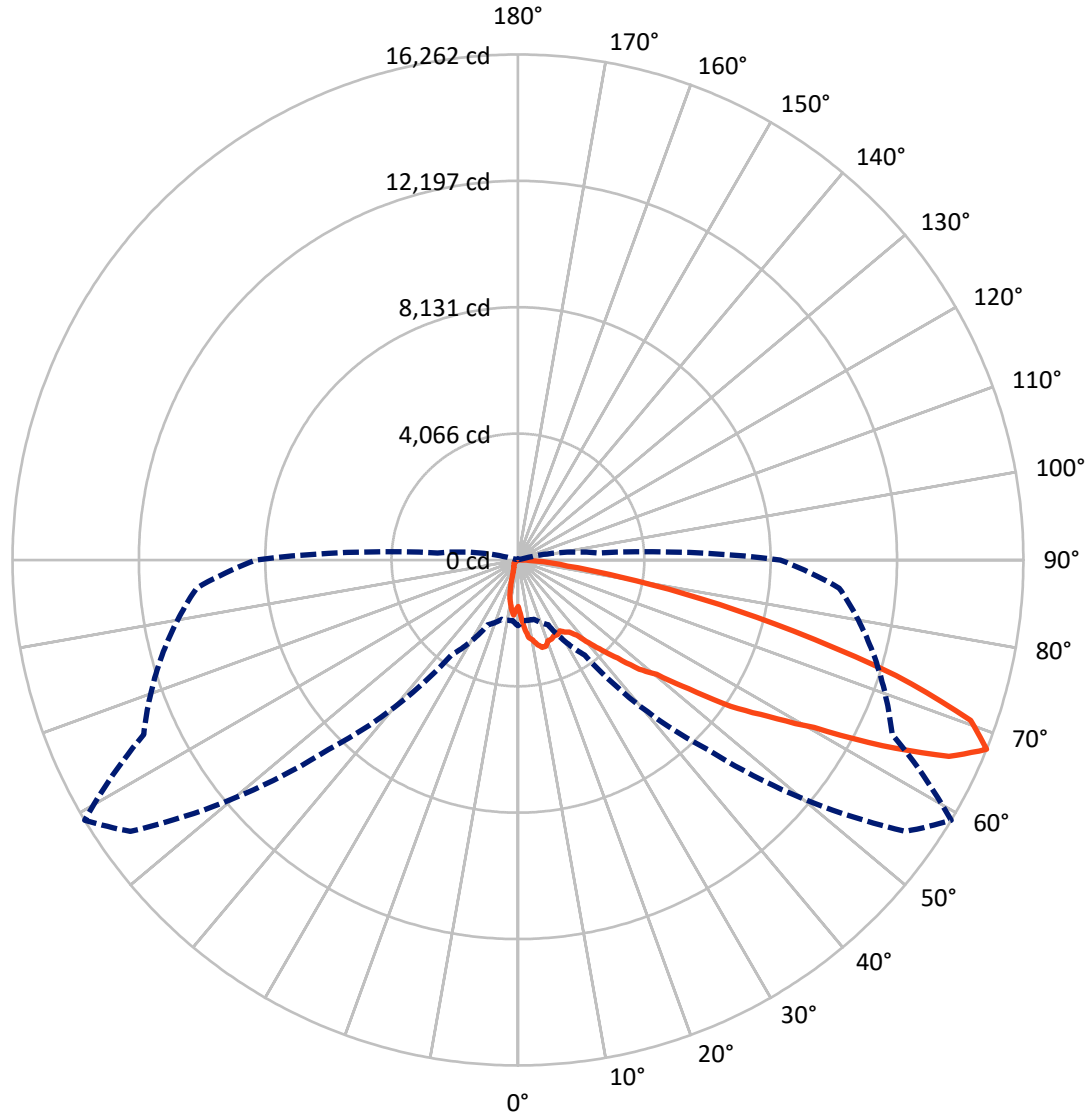
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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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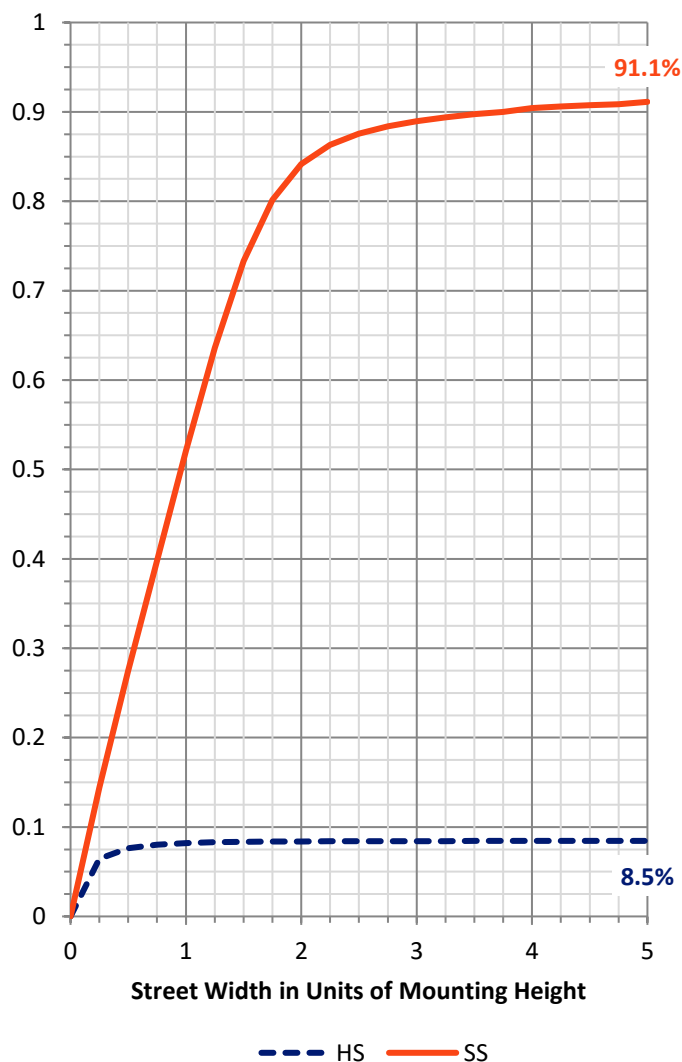
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1271.4	0.0	1271.4
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	13678.6	0.0	13678.6
	% Fixture	91.5	0.0	91.5
Total	Lumens	14950.0	0.0	14950.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	1.2
10°-20°	512.1	3.4
20°-30°	761.7	5.1
30°-40°	1175.2	7.9
40°-50°	2097.3	14.0
50°-60°	3732.2	25.0
60°-70°	4346.7	29.1
70°-80°	1933.0	12.9
80°-90°	209.9	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°	14950.0	100.0
0°-180°	14950.0	100.0

Coefficient of Utilization



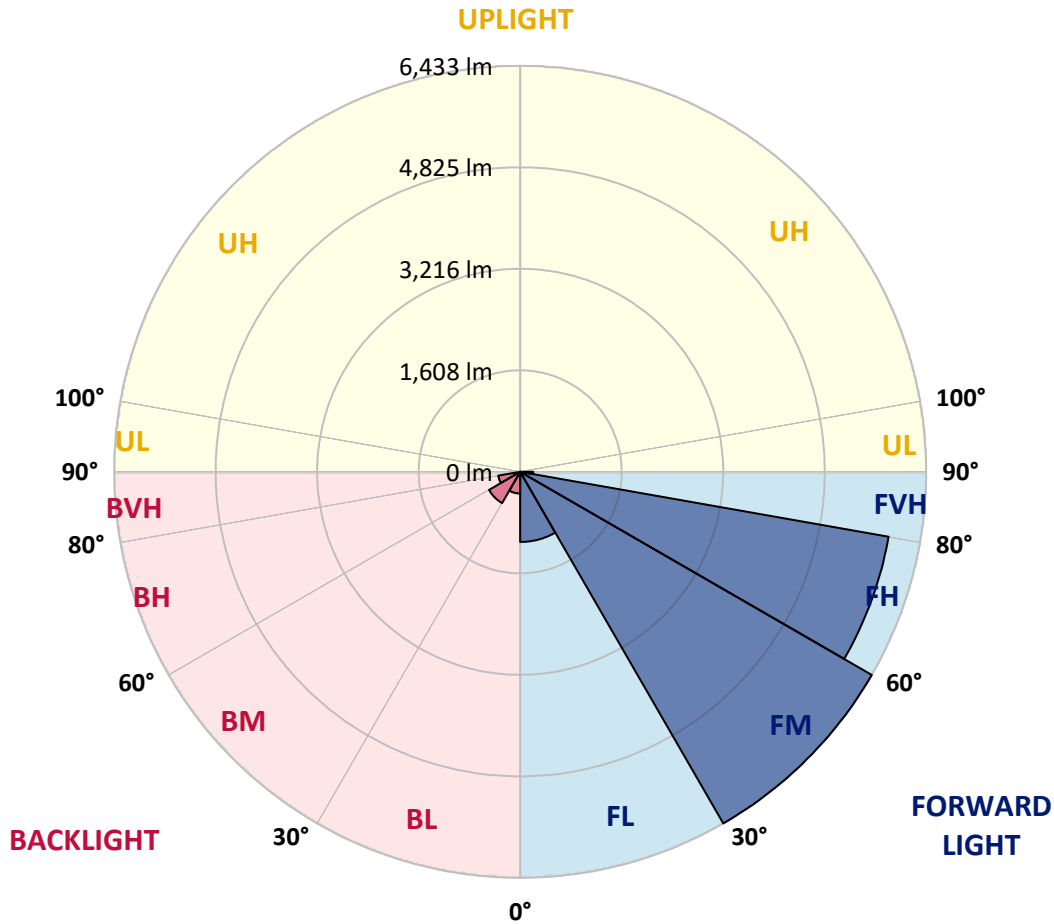
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1111.9	7.4			
FM (30°-60°)	6433.0	43.0			
FH (60°-80°)	5927.6	39.6			G3/7500
FVH (80°-90°)	206.2	1.4			G2/225
BL (0°-30°)	343.8	2.3	B1/500		
BM (30°-60°)	571.7	3.8	B1/1000		
BH (60°-80°)	352.2	2.4	B1/500		G1/500
BVH (80°-90°)	3.7	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8
2.5°	1950.0	1876.6	1772.1	1803.1	1831.1	1857.6	1813.7	1788.7	1776.6	1669.1	1803.9
5°	2394.3	2302.7	2255.0	2242.9	2212.7	2145.3	2257.3	2207.4	2224.0	2245.2	2289.1
7.5°	2529.8	2488.2	2419.3	2445.1	2330.0	2320.1	2475.3	2518.5	2575.3	2536.6	2589.6
10°	2460.2	2388.3	2420.8	2411.7	2407.2	2508.6	2617.6	2619.9	2704.7	2745.6	2566.2
12.5°	2322.4	2330.7	2447.3	2438.2	2589.6	2792.5	2817.5	2791.0	2929.5	2858.4	2831.1
15°	2414.0	2482.1	2417.8	2439.8	2493.5	2747.1	2835.7	2917.4	3048.4	3090.8	2906.8
17.5°	2524.5	2531.3	2414.0	2386.8	2522.3	2640.4	2849.3	2916.6	2929.5	3301.2	3077.1
20°	2464.7	2523.0	2383.0	2211.1	2421.6	2582.1	2794.0	2772.8	2859.1	3363.3	3115.7
22.5°	2623.7	2540.4	2361.0	2231.6	2302.7	2448.8	2628.2	2766.8	2896.2	3214.9	3165.7
25°	2638.8	2608.6	2448.8	2333.8	2321.7	2358.8	2608.6	2697.9	2900.8	3348.1	3123.3
27.5°	2809.2	2774.3	2447.3	2458.7	2345.1	2230.8	2513.2	2722.9	2983.3	3267.1	3213.4
30°	3028.7	3031.7	2610.1	2645.7	2483.7	2299.7	2591.1	2648.7	3039.3	3396.6	3280.0
32.5°	3251.2	3342.8	2931.8	2743.3	2692.6	2560.9	2494.3	2760.0	2978.0	3617.6	3446.5
35°	3589.6	3651.7	3196.7	3027.9	2828.8	2679.0	2757.7	2853.1	3198.2	3910.6	3665.3
37.5°	4162.6	4050.6	3672.1	3378.4	3330.7	3109.7	3149.0	3063.5	3423.1	4255.7	4098.3
40°	4485.1	4383.7	3990.0	3847.0	3542.7	3576.7	3452.6	3502.6	3749.3	4615.3	4492.7
42.5°	4821.2	4724.3	4379.1	4277.7	3987.8	3847.0	3791.0	3970.4	4249.7	5214.1	5058.2
45°	5158.8	4912.8	4766.7	4817.4	4687.2	4408.7	4343.6	4503.3	4796.2	5949.9	5654.7
47.5°	5443.5	5236.0	5126.3	5102.8	5052.1	5438.9	5174.0	5244.4	5373.8	6600.9	6398.0
50°	5956.7	5752.3	5580.5	5532.8	5779.6	6328.4	5919.6	5783.3	6042.2	7387.4	7259.5
52.5°	6697.8	6437.4	6164.1	6164.9	6630.4	6931.7	7125.5	6886.3	6934.7	8252.6	8195.8
55°	7293.5	6962.7	6736.4	6915.0	7609.2	7778.0	8517.6	8307.9	8245.0	9055.0	8985.4
57.5°	7375.3	6978.6	6871.1	7184.5	8134.5	9212.5	10008.1	9484.2	9388.1	9726.5	9865.0
60°	6612.2	6191.4	6272.3	6776.5	8305.6	10086.8	11376.7	10949.0	10338.1	10513.0	10608.3
62.5°	4931.7	4595.6	4822.7	5490.4	7646.3	10672.7	12961.0	13159.4	11440.3	11103.4	11083.0
65°	3199.8	2989.3	3138.4	3685.7	5786.4	10606.1	14376.6	15236.5	12308.5	11584.8	11232.1
67.5°	2116.5	1956.8	1978.0	2302.0	3741.8	8625.8	15222.9	16262.2	13285.0	11858.1	10377.5
70°	1577.5	1451.9	1459.5	1635.1	2221.0	5688.7	14042.8	15453.0	13641.6	10911.1	8376.0
72.5°	1137.7	1053.7	1124.1	1319.4	1769.8	3008.2	10466.8	12726.4	11895.2	8606.1	5643.3
75°	788.0	732.8	847.8	1103.7	1615.4	1867.5	6916.5	9161.0	8337.4	5399.5	2551.0
77.5°	436.8	420.1	585.9	899.3	1466.3	1530.6	4236.8	6019.5	4624.4	1935.6	607.1
80°	190.8	184.7	283.9	675.2	1232.4	1383.0	2385.2	3337.5	1819.0	345.2	196.1
82.5°	81.8	78.7	121.1	406.5	895.5	1156.7	1470.8	1606.3	626.0	106.7	111.3
85°	14.4	15.9	48.4	214.2	545.0	587.4	1065.1	950.8	314.9	50.7	79.5
87.5°	0.0	0.0	7.6	41.6	102.2	168.0	461.8	333.1	59.8	16.7	13.6
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°	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8	1495.8
2.5°	1822.8	1780.4	1619.2	1598.7	1576.8	1544.2	1532.1	1462.5	1453.4	1542.7	1542.7
5°	2268.7	2117.3	1963.6	1842.5	1734.2	1584.4	1542.0	1498.1	1462.5	1453.4	1481.4
7.5°	2504.1	2319.4	2077.9	1769.8	1520.0	1302.8	1211.9	1148.3	1077.2	1098.4	1109.7
10°	2491.2	2295.2	1987.1	1591.2	1314.1	1074.2	843.3	708.5	633.6	596.5	592.0
12.5°	2617.6	2432.9	1925.8	1448.9	1095.4	763.8	530.6	434.5	379.2	380.0	375.5
15°	2691.1	2489.7	1854.6	1268.7	771.4	491.3	367.9	346.7	339.1	347.5	342.9
17.5°	2820.5	2549.5	1693.4	1000.0	530.6	370.9	338.4	330.0	339.9	357.3	352.8
20°	2810.7	2445.8	1464.0	704.7	392.1	333.8	320.2	307.3	327.8	345.9	342.9
22.5°	2801.6	2344.4	1248.3	520.0	327.8	304.3	293.0	287.7	298.3	319.4	324.0
25°	2721.3	2294.4	1029.5	390.6	296.7	276.3	271.0	266.5	270.2	287.7	286.9
27.5°	2819.8	2168.0	794.8	327.8	274.8	250.6	246.0	238.4	230.9	246.0	248.3
30°	2799.3	2185.4	623.0	288.4	252.8	220.3	221.8	205.9	192.3	205.9	205.9
32.5°	2873.5	2058.2	498.9	261.9	230.9	207.4	188.5	171.8	162.0	170.3	171.8
35°	2981.8	2063.5	390.6	245.3	212.0	184.7	162.0	145.3	136.3	140.0	142.3
37.5°	3344.3	2027.2	326.3	232.4	205.1	171.1	147.6	125.7	119.6	124.1	126.4
40°	3580.5	2124.1	287.7	225.6	187.7	157.5	126.4	110.5	105.2	107.5	111.3
42.5°	4025.6	2177.8	268.7	218.0	171.8	134.7	108.2	99.2	91.6	94.6	97.7
45°	4501.8	2269.4	254.3	209.7	159.7	118.1	95.4	87.8	78.0	78.7	81.8
47.5°	5086.9	2487.4	237.7	195.3	143.1	107.5	84.8	73.4	64.3	63.6	67.4
50°	5872.7	2778.9	222.6	177.1	132.5	98.4	74.2	59.8	52.2	50.0	53.0
52.5°	6711.4	3155.9	206.7	164.3	119.6	86.3	63.6	48.4	41.6	40.1	42.4
55°	7542.6	3517.7	191.5	155.9	106.0	74.2	53.7	40.1	34.1	32.6	34.1
57.5°	8489.5	3909.1	171.8	139.3	93.1	64.3	44.7	33.3	28.0	26.5	27.3
60°	9202.6	4046.8	155.2	121.1	81.0	56.8	37.8	26.5	22.7	21.2	22.0
62.5°	9541.0	3822.0	139.3	105.2	71.2	49.2	31.8	22.0	18.9	17.4	17.4
65°	9453.2	3323.9	123.4	90.1	61.3	40.9	25.0	18.9	16.7	14.4	13.6
67.5°	8438.8	2601.0	105.2	75.7	51.5	33.3	21.2	18.2	15.1	13.6	11.4
70°	6692.5	1883.4	85.5	62.8	43.1	27.3	16.7	16.7	14.4	13.6	10.6
72.5°	4386.7	1185.4	69.6	50.7	35.6	21.2	12.9	15.1	13.6	13.6	9.8
75°	1900.8	423.9	56.0	40.9	29.5	14.4	11.4	13.6	14.4	13.6	11.4
77.5°	445.1	131.7	43.9	32.6	24.2	9.8	11.4	13.6	14.4	12.9	9.8
80°	167.3	56.0	28.8	21.2	18.9	6.1	9.8	8.3	7.6	5.3	1.5
82.5°	101.4	23.5	15.1	10.6	9.1	1.5	4.5	3.0	1.5	1.5	0.0
85°	71.9	11.4	8.3	7.6	4.5	0.0	0.8	0.0	0.0	0.8	0.0
87.5°	9.8	3.0	3.8	3.8	3.0	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)