

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: P367419

Luminaire Tested: **MSA-SA2C-730-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367419
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-SA2C-730-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: 9226 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

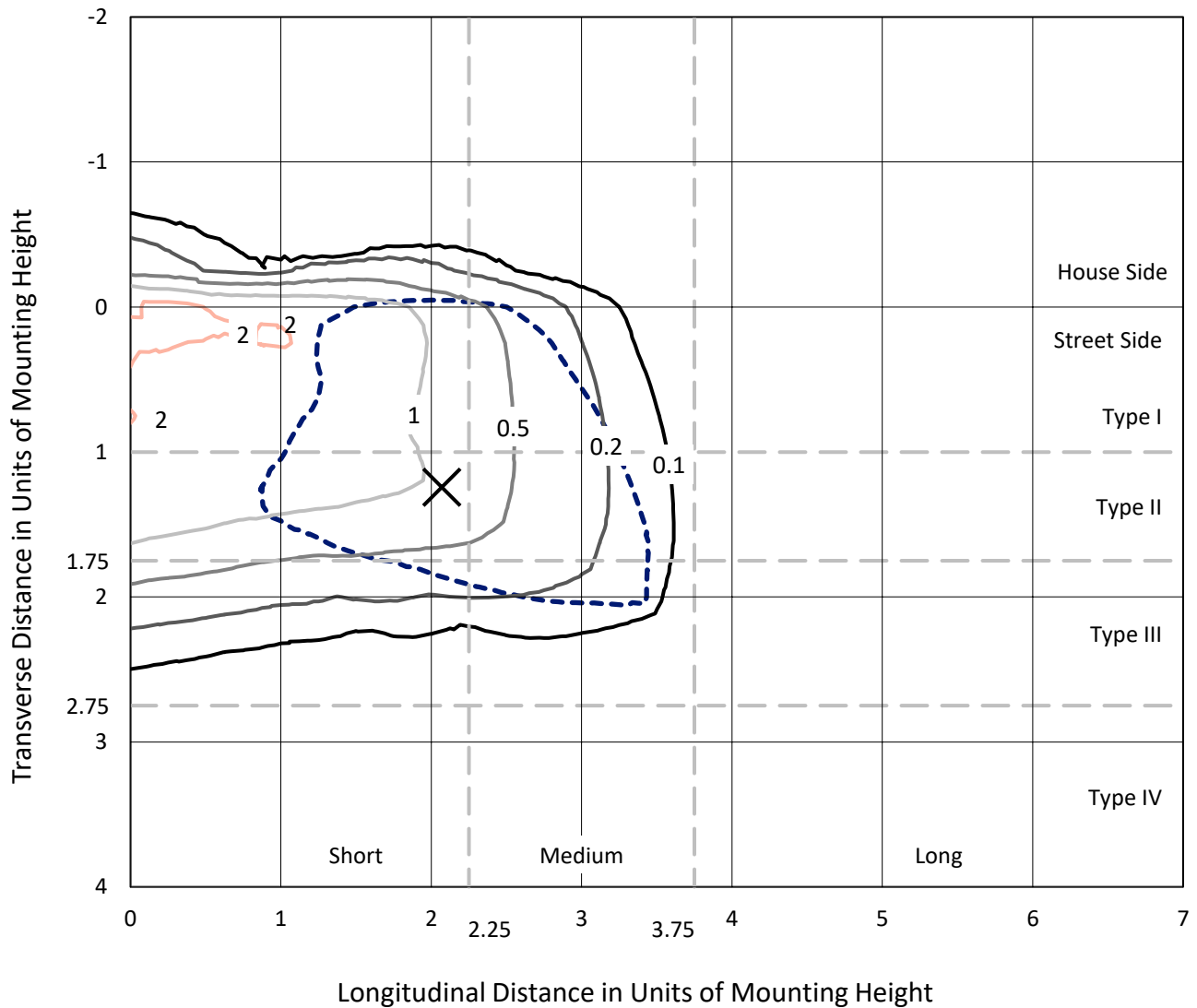
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

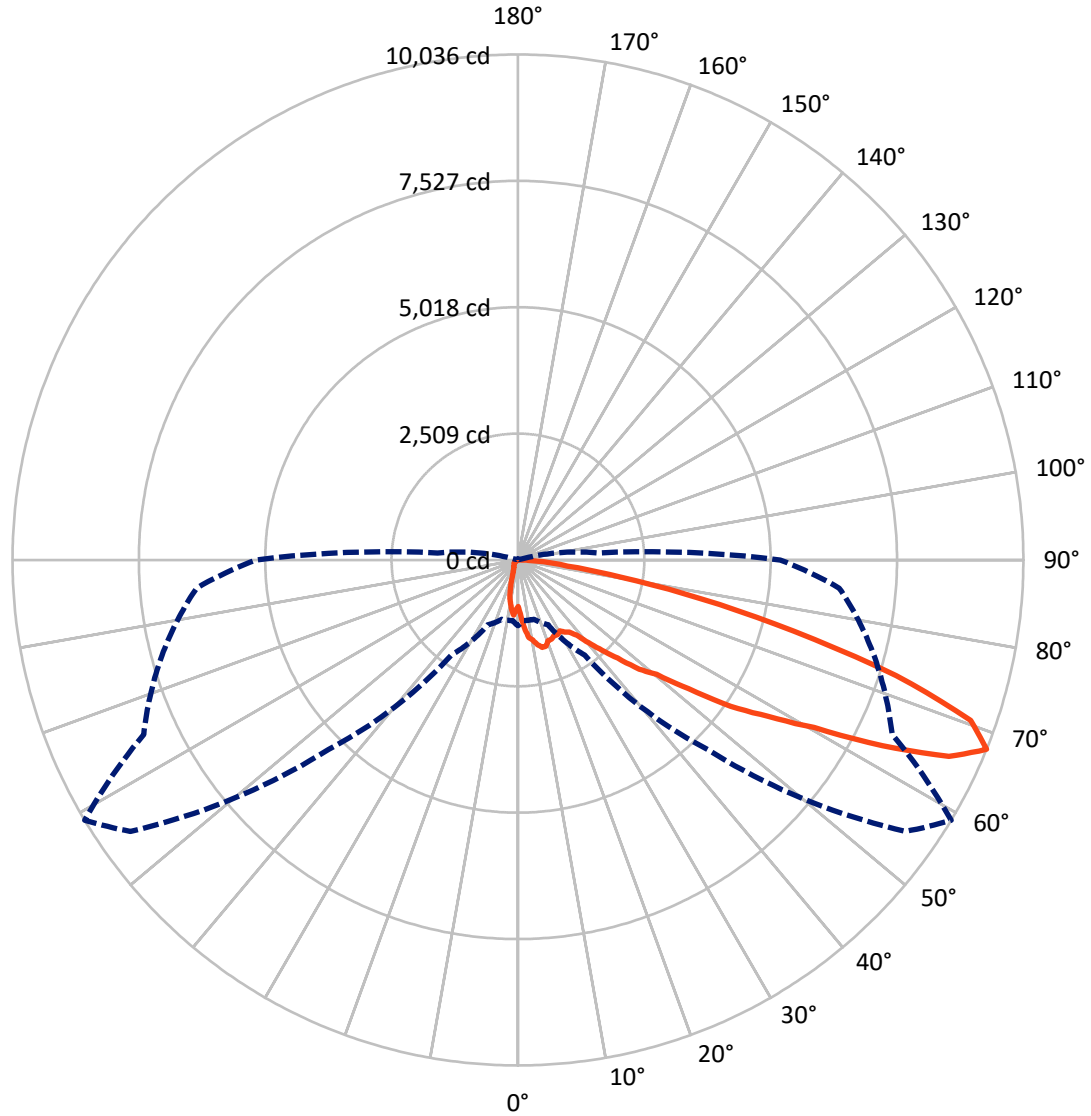
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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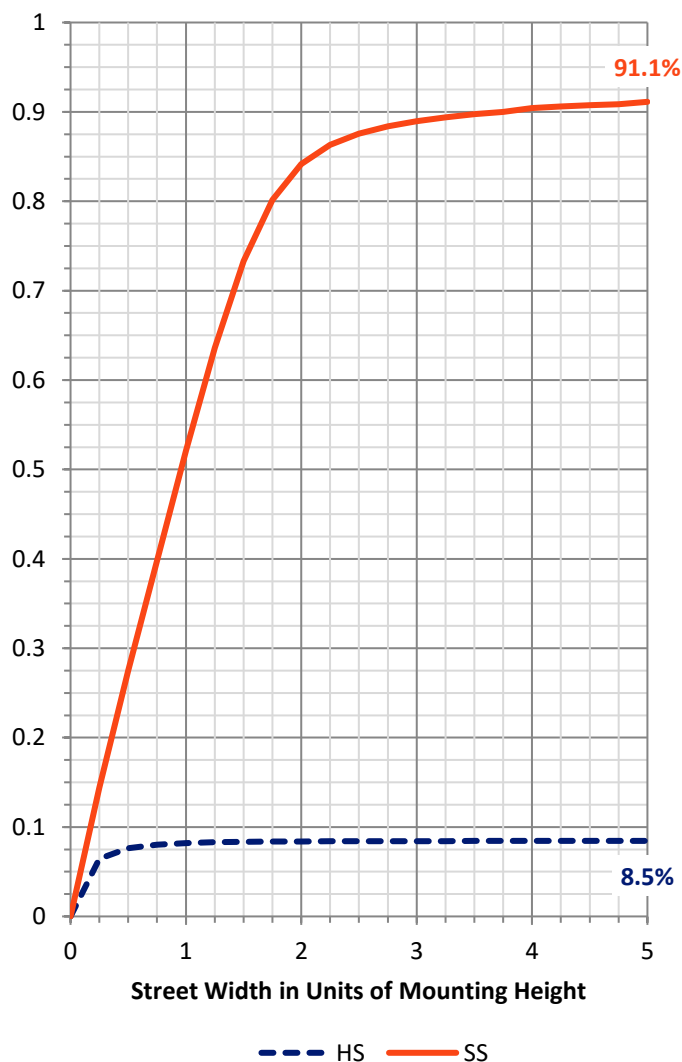
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	784.6	0.0	784.6
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	8441.4	0.0	8441.4
	% Fixture	91.5	0.0	91.5
Total	Lumens	9226.0	0.0	9226.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.2	1.2
10°-20°	316.0	3.4
20°-30°	470.1	5.1
30°-40°	725.2	7.9
40°-50°	1294.3	14.0
50°-60°	2303.2	25.0
60°-70°	2682.5	29.1
70°-80°	1192.9	12.9
80°-90°	129.6	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°	9226.0	100.0
0°-180°	9226.0	100.0

Coefficient of Utilization



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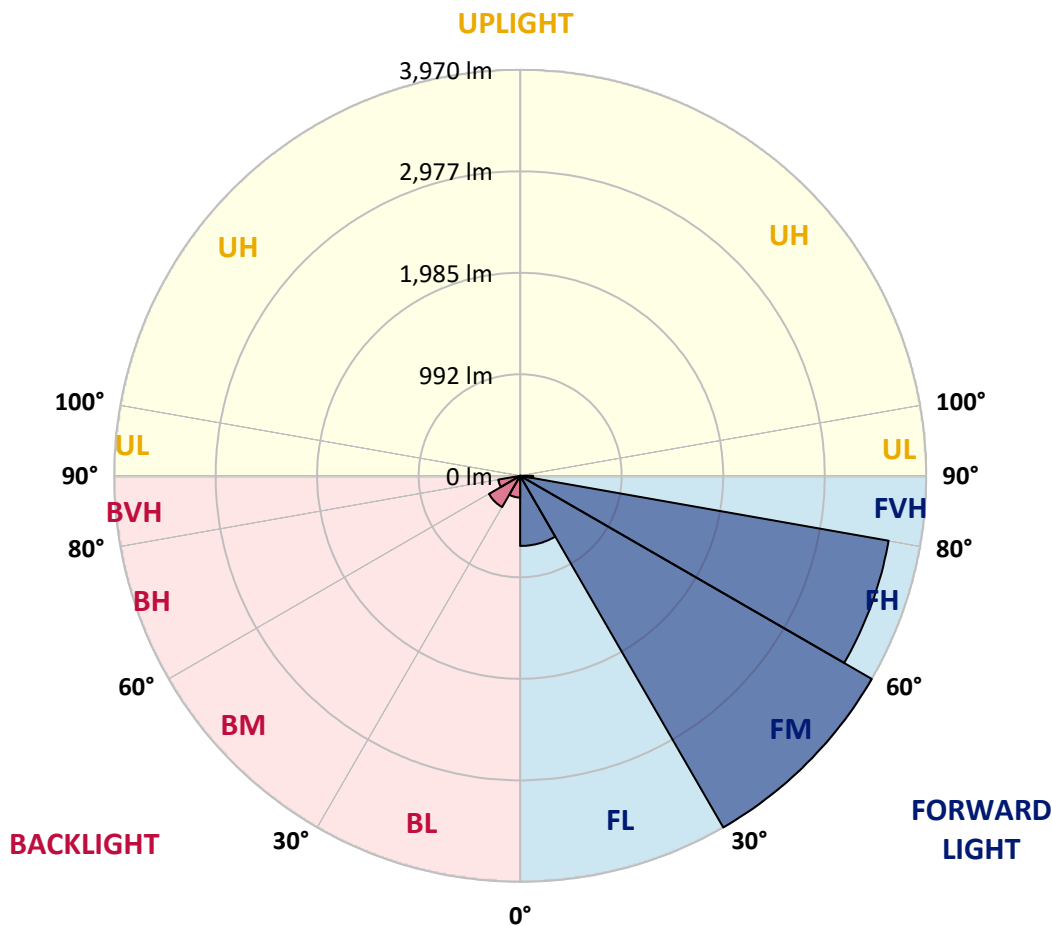
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	686.2	7.4			
FM (30°-60°)	3970.0	43.0			
FH (60°-80°)	3658.0	39.6			G2/5000
FVH (80°-90°)	127.2	1.4			G2/225
BL (0°-30°)	212.2	2.3	B1/500		
BM (30°-60°)	352.8	3.8	B1/1000		
BH (60°-80°)	217.3	2.4	B1/500		G1/500
BVH (80°-90°)	2.3	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°	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1
2.5°	1203.4	1158.1	1093.6	1112.8	1130.0	1146.4	1119.3	1103.9	1096.4	1030.1	1113.2
5°	1477.6	1421.1	1391.6	1384.2	1365.5	1323.9	1393.0	1362.2	1372.5	1385.6	1412.7
7.5°	1561.2	1535.5	1493.0	1508.9	1437.9	1431.8	1527.6	1554.2	1589.2	1565.4	1598.1
10°	1518.2	1473.9	1493.9	1488.3	1485.5	1548.1	1615.4	1616.8	1669.1	1694.4	1583.6
12.5°	1433.2	1438.4	1510.3	1504.7	1598.1	1723.3	1738.7	1722.4	1807.9	1764.0	1747.1
15°	1489.7	1531.8	1492.1	1505.6	1538.8	1695.3	1749.9	1800.4	1881.2	1907.4	1793.9
17.5°	1557.9	1562.2	1489.7	1472.9	1556.5	1629.4	1758.4	1799.9	1807.9	2037.2	1899.0
20°	1521.0	1557.0	1470.6	1364.5	1494.4	1593.5	1724.3	1711.2	1764.4	2075.6	1922.8
22.5°	1619.1	1567.8	1457.0	1377.2	1421.1	1511.2	1621.9	1707.4	1787.3	1984.0	1953.6
25°	1628.5	1609.8	1511.2	1440.2	1432.8	1455.6	1609.8	1664.9	1790.1	2066.2	1927.5
27.5°	1733.6	1712.1	1510.3	1517.3	1447.2	1376.7	1550.9	1680.3	1841.0	2016.2	1983.1
30°	1869.1	1870.9	1610.7	1632.7	1532.7	1419.2	1599.1	1634.6	1875.6	2096.1	2024.2
32.5°	2006.4	2062.9	1809.3	1693.0	1661.7	1580.4	1539.3	1703.2	1837.8	2232.5	2126.9
35°	2215.2	2253.5	1972.8	1868.6	1745.7	1653.2	1701.8	1760.7	1973.7	2413.3	2261.9
37.5°	2568.9	2499.7	2266.2	2084.9	2055.5	1919.1	1943.3	1890.6	2112.5	2626.3	2529.2
40°	2767.9	2705.3	2462.4	2374.1	2186.3	2207.3	2130.7	2161.5	2313.8	2848.2	2772.5
42.5°	2975.3	2915.5	2702.5	2639.9	2461.0	2374.1	2339.5	2450.2	2622.6	3217.7	3121.5
45°	3183.6	3031.8	2941.7	2973.0	2892.6	2720.7	2680.5	2779.1	2959.9	3671.8	3489.6
47.5°	3359.3	3231.3	3163.5	3149.1	3117.8	3356.5	3193.0	3236.4	3316.3	4073.6	3948.4
50°	3676.0	3549.9	3443.8	3414.4	3566.7	3905.4	3653.1	3569.0	3728.8	4558.9	4480.0
52.5°	4133.4	3972.7	3804.0	3804.5	4091.8	4277.7	4397.3	4249.7	4279.6	5092.9	5057.8
55°	4501.0	4296.9	4157.2	4267.4	4695.8	4800.0	5256.4	5127.0	5088.2	5588.1	5545.1
57.5°	4551.5	4306.7	4240.3	4433.7	5020.0	5685.2	6176.2	5852.9	5793.6	6002.4	6087.9
60°	4080.6	3820.8	3870.8	4181.9	5125.6	6224.8	7020.8	6756.9	6379.9	6487.8	6546.7
62.5°	3043.5	2836.1	2976.2	3388.2	4718.7	6586.4	7998.6	8121.0	7060.1	6852.2	6839.6
65°	1974.6	1844.8	1936.8	2274.6	3570.9	6545.3	8872.1	9402.8	7595.9	7149.3	6931.6
67.5°	1306.2	1207.6	1220.7	1420.6	2309.1	5323.2	9394.4	10035.8	8198.5	7317.9	6404.2
70°	973.5	896.0	900.7	1009.0	1370.6	3510.6	8666.1	9536.4	8418.5	6733.5	5169.0
72.5°	702.1	650.3	693.7	814.2	1092.2	1856.5	6459.3	7853.7	7340.8	5311.0	3482.6
75°	486.3	452.2	523.2	681.1	996.9	1152.5	4268.4	5653.5	5145.2	3332.2	1574.3
77.5°	269.5	259.3	361.6	555.0	904.9	944.6	2614.6	3714.8	2853.8	1194.5	374.7
80°	117.7	114.0	175.2	416.7	760.5	853.5	1472.0	2059.7	1122.6	213.0	121.0
82.5°	50.5	48.6	74.7	250.9	552.6	713.8	907.7	991.3	386.3	65.9	68.7
85°	8.9	9.8	29.9	132.2	336.3	362.5	657.3	586.7	194.3	31.3	49.1
87.5°	0.0	0.0	4.7	25.7	63.1	103.7	285.0	205.5	36.9	10.3	8.4
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°	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1
2.5°	1124.9	1098.7	999.2	986.6	973.1	953.0	945.5	902.5	896.9	952.1	952.1
5°	1400.1	1306.6	1211.8	1137.0	1070.2	977.7	951.6	924.5	902.5	896.9	914.2
7.5°	1545.3	1431.4	1282.3	1092.2	938.0	804.0	747.9	708.7	664.8	677.8	684.8
10°	1537.4	1416.4	1226.3	982.0	811.0	662.9	520.4	437.3	391.0	368.1	365.3
12.5°	1615.4	1501.4	1188.4	894.1	676.0	471.4	327.5	268.1	234.0	234.5	231.7
15°	1660.7	1536.5	1144.5	782.9	476.0	303.2	227.0	214.0	209.3	214.4	211.6
17.5°	1740.6	1573.4	1045.0	617.1	327.5	228.9	208.8	203.7	209.8	220.5	217.7
20°	1734.5	1509.4	903.5	434.9	242.0	206.0	197.6	189.7	202.3	213.5	211.6
22.5°	1728.9	1446.8	770.3	320.9	202.3	187.8	180.8	177.5	184.1	197.1	199.9
25°	1679.4	1415.9	635.3	241.1	183.1	170.5	167.2	164.4	166.8	177.5	177.1
27.5°	1740.1	1337.9	490.5	202.3	169.6	154.6	151.8	147.2	142.5	151.8	153.2
30°	1727.5	1348.7	384.5	178.0	156.0	135.9	136.9	127.1	118.7	127.1	127.1
32.5°	1773.3	1270.2	307.9	161.6	142.5	128.0	116.3	106.0	100.0	105.1	106.0
35°	1840.1	1273.5	241.1	151.4	130.8	114.0	100.0	89.7	84.1	86.4	87.8
37.5°	2063.9	1251.0	201.3	143.4	126.6	105.6	91.1	77.5	73.8	76.6	78.0
40°	2209.6	1310.8	177.5	139.2	115.9	97.2	78.0	68.2	64.9	66.3	68.7
42.5°	2484.3	1344.0	165.8	134.5	106.0	83.2	66.8	61.2	56.5	58.4	60.3
45°	2778.1	1400.5	157.0	129.4	98.6	72.9	58.9	54.2	48.1	48.6	50.5
47.5°	3139.3	1535.1	146.7	120.5	88.3	66.3	52.3	45.3	39.7	39.2	41.6
50°	3624.2	1714.9	137.3	109.3	81.8	60.7	45.8	36.9	32.2	30.8	32.7
52.5°	4141.8	1947.6	127.5	101.4	73.8	53.3	39.2	29.9	25.7	24.8	26.2
55°	4654.7	2170.9	118.2	96.2	65.4	45.8	33.2	24.8	21.0	20.1	21.0
57.5°	5239.1	2412.4	106.0	86.0	57.5	39.7	27.6	20.6	17.3	16.4	16.8
60°	5679.2	2497.4	95.8	74.7	50.0	35.0	23.4	16.4	14.0	13.1	13.5
62.5°	5888.0	2358.6	86.0	64.9	43.9	30.4	19.6	13.5	11.7	10.7	10.7
65°	5833.8	2051.3	76.1	55.6	37.8	25.2	15.4	11.7	10.3	8.9	8.4
67.5°	5207.8	1605.1	64.9	46.7	31.8	20.6	13.1	11.2	9.3	8.4	7.0
70°	4130.1	1162.3	52.8	38.8	26.6	16.8	10.3	10.3	8.9	8.4	6.5
72.5°	2707.1	731.6	43.0	31.3	22.0	13.1	7.9	9.3	8.4	8.4	6.1
75°	1173.0	261.6	34.6	25.2	18.2	8.9	7.0	8.4	8.9	8.4	7.0
77.5°	274.7	81.3	27.1	20.1	14.9	6.1	7.0	8.4	8.9	7.9	6.1
80°	103.2	34.6	17.8	13.1	11.7	3.7	6.1	5.1	4.7	3.3	0.9
82.5°	62.6	14.5	9.3	6.5	5.6	0.9	2.8	1.9	0.9	0.9	0.0
85°	44.4	7.0	5.1	4.7	2.8	0.0	0.5	0.0	0.0	0.5	0.0
87.5°	6.1	1.9	2.3	2.3	1.9	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)