

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: P596699

Luminaire Tested: **MSA-SA3C-827-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596699
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-SA3C-827-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 10969 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

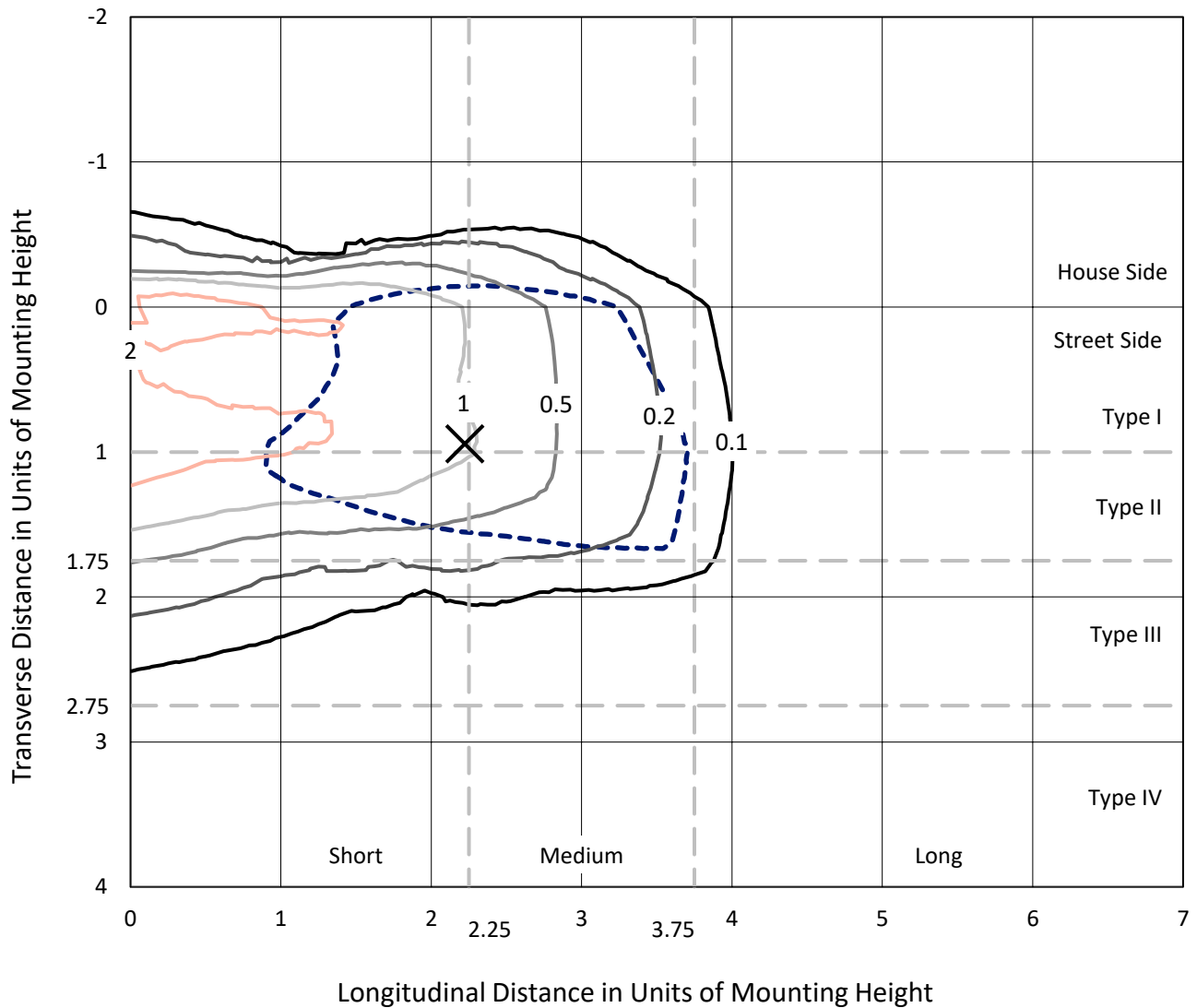
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

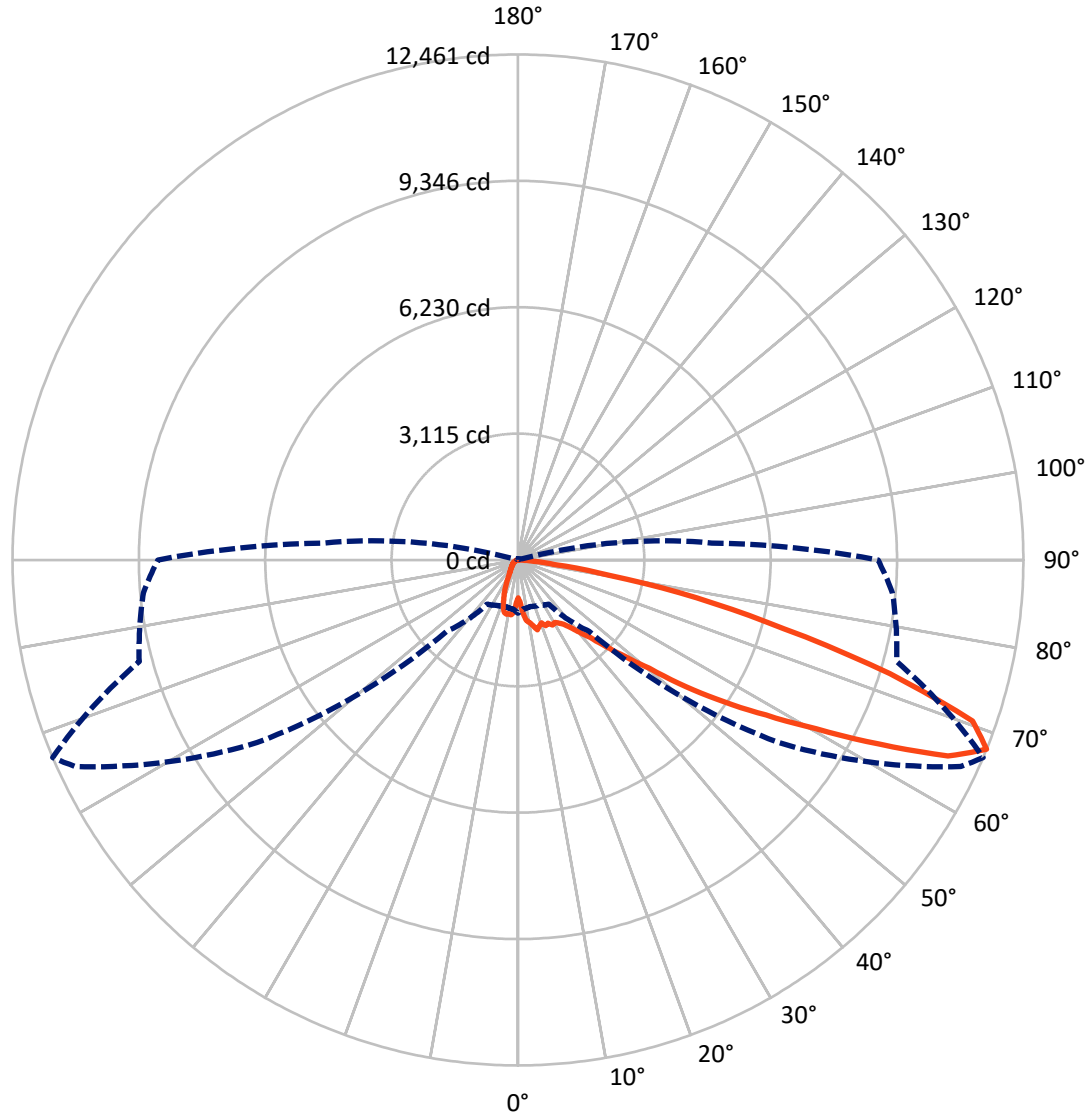
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type 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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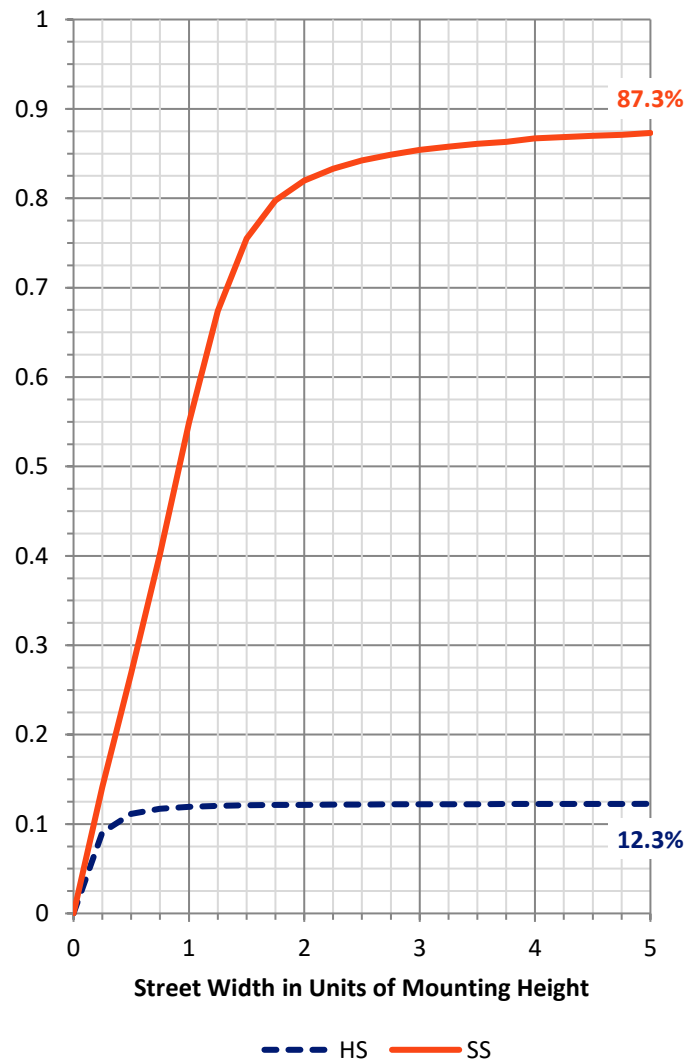
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1356.5	0.0	1356.5
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	9612.5	0.0	9612.5
	% Fixture	87.6	0.0	87.6
Total	Lumens	10969.0	0.0	10969.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.3	1.1
10°-20°	347.0	3.2
20°-30°	543.8	5.0
30°-40°	876.8	8.0
40°-50°	1611.2	14.7
50°-60°	2721.1	24.8
60°-70°	3008.3	27.4
70°-80°	1574.5	14.4
80°-90°	169.1	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°	10969.0	100.0
0°-180°	10969.0	100.0

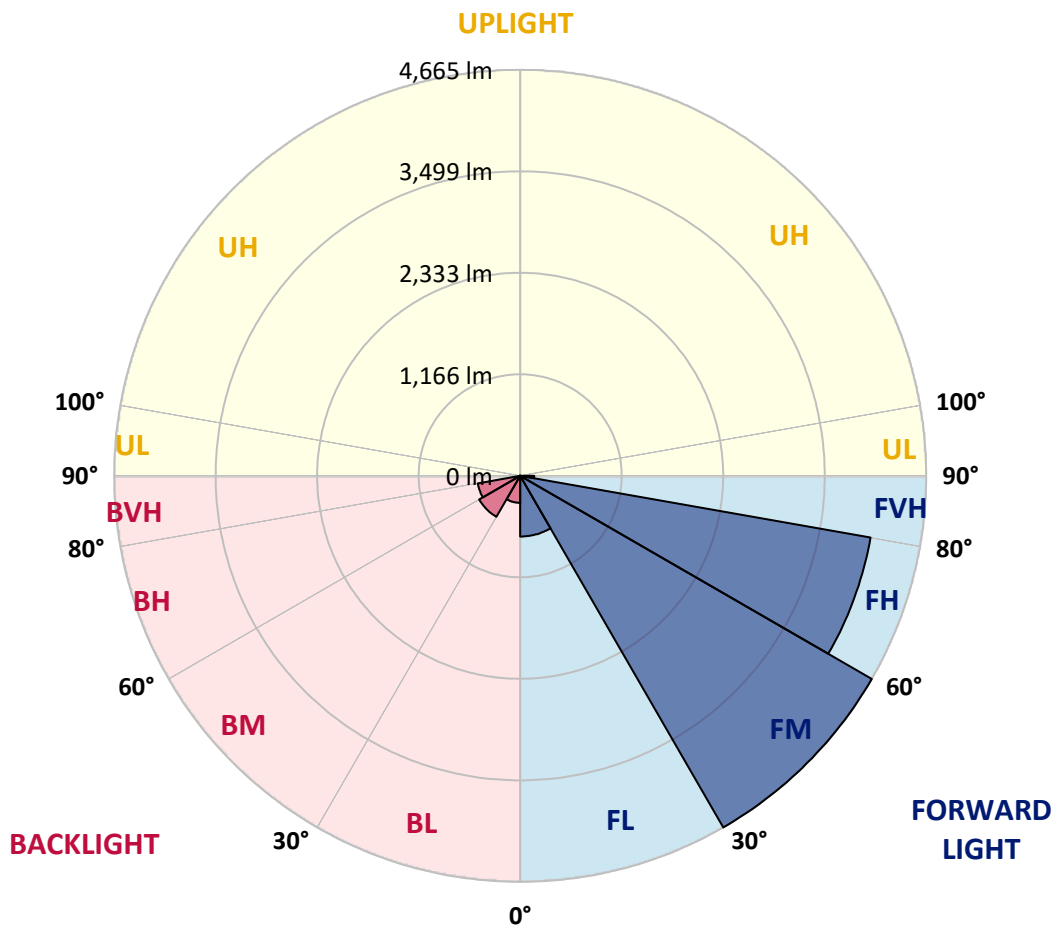


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	697.5	6.4			
FM (30°-60°)	4665.2	42.5			
FH (60°-80°)	4088.0	37.3			G2/5000
FVH (80°-90°)	161.9	1.5			G2/225
BL (0°-30°)	310.6	2.8	B1/500		
BM (30°-60°)	543.9	5.0	B1/1000		
BH (60°-80°)	494.8	4.5	B1/500		G1/500
BVH (80°-90°)	7.2	0.1			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3
2.5°	1102.9	1065.6	1002.1	1020.5	1057.2	1087.8	1073.4	1045.0	1045.5	1016.6	1120.7
5°	1283.1	1233.1	1196.3	1209.1	1207.5	1206.3	1274.8	1300.9	1312.1	1359.9	1430.6
7.5°	1334.9	1317.1	1278.7	1290.4	1252.0	1254.8	1374.9	1488.5	1506.3	1535.8	1661.5
10°	1314.9	1280.4	1294.3	1294.3	1294.8	1357.1	1437.8	1546.3	1568.0	1681.5	1694.9
12.5°	1293.2	1294.8	1349.9	1339.9	1415.6	1527.4	1554.7	1676.5	1666.0	1764.4	1910.8
15°	1373.8	1416.1	1380.5	1394.4	1401.7	1533.0	1576.9	1738.9	1785.6	1910.2	2005.4
17.5°	1512.4	1517.9	1443.9	1423.9	1476.2	1513.5	1602.0	1679.9	1711.0	2038.2	2172.9
20°	1537.4	1573.0	1497.9	1382.2	1492.9	1544.1	1605.9	1643.1	1656.5	2077.7	2267.5
22.5°	1688.2	1648.7	1528.5	1440.6	1472.3	1528.0	1566.4	1678.8	1758.9	2003.2	2358.2
25°	1765.6	1755.0	1640.4	1565.2	1533.0	1528.5	1616.4	1701.6	1727.2	2080.5	2380.4
27.5°	1950.9	1926.9	1704.9	1695.5	1589.2	1495.7	1618.1	1771.1	1819.0	2007.6	2463.9
30°	2202.9	2194.0	1898.5	1892.4	1723.3	1555.2	1708.2	1814.0	1785.0	2044.9	2519.5
32.5°	2456.7	2529.0	2226.8	2054.4	1927.5	1773.9	1682.7	1800.6	1852.4	2135.6	2621.9
35°	2763.2	2815.6	2507.8	2382.6	2100.5	1876.3	1852.4	1928.0	1950.3	2243.5	2738.2
37.5°	3299.6	3220.6	2958.6	2745.4	2597.4	2241.9	2123.9	2063.8	2115.6	2389.9	2975.8
40°	3695.8	3645.7	3323.0	3195.6	2855.1	2647.0	2338.7	2282.5	2340.4	2540.1	3141.1
42.5°	4173.8	4069.8	3765.9	3679.7	3329.1	2928.0	2615.2	2634.7	2598.5	2836.7	3431.0
45°	4606.2	4371.3	4202.2	4221.7	4034.7	3492.7	3076.5	3067.1	3037.0	3266.3	3735.9
47.5°	4897.2	4691.8	4527.1	4473.2	4450.9	4486.0	3743.1	3575.1	3552.8	3717.5	4216.1
50°	5053.5	4828.7	4625.1	4636.2	5088.0	5428.0	4430.9	4192.2	4200.5	4372.5	4872.7
52.5°	4948.4	4694.1	4479.3	4687.9	5582.1	6056.2	5569.3	4998.4	5192.1	5148.1	5753.5
55°	4462.6	4241.7	4089.2	4462.6	5636.1	6732.3	6971.0	6212.0	6168.6	6068.5	6651.6
57.5°	3645.2	3454.9	3360.9	3754.8	5045.7	7277.0	8378.8	7583.6	7213.6	6794.0	7397.2
60°	2715.9	2575.7	2477.8	2685.9	3975.7	6747.9	9300.8	8876.2	8447.8	7493.5	8067.2
62.5°	2011.5	1897.4	1793.4	1812.3	2737.7	5803.6	9654.7	10245.6	9999.7	8231.9	8699.3
65°	1605.3	1501.3	1428.4	1386.6	1695.5	4366.3	9162.2	11367.9	11651.7	8927.4	9155.5
67.5°	1311.0	1223.0	1186.9	1234.7	1329.9	2488.9	7846.8	12049.0	12460.8	9665.2	9267.9
70°	1066.7	994.3	990.5	1119.5	1224.7	1517.4	5771.9	11578.8	11888.7	9791.0	8594.1
72.5°	743.4	711.7	762.3	945.4	1213.6	1263.7	3314.7	9581.8	9592.9	8647.5	7068.9
75°	420.7	415.7	495.8	754.0	1181.9	1250.9	1847.9	6771.2	6776.2	6540.3	4897.2
77.5°	231.5	216.5	288.8	509.7	1014.9	1221.9	1191.9	4623.4	4504.9	3639.6	2236.9
80°	106.8	100.7	156.4	326.6	742.3	1155.7	955.4	2541.2	2291.4	1185.8	545.9
82.5°	44.0	41.7	71.8	209.8	469.1	930.9	805.2	1127.3	904.8	225.4	168.6
85°	7.8	8.3	29.5	126.9	262.6	429.0	652.7	535.3	393.4	62.3	92.4
87.5°	0.0	0.0	6.1	30.6	63.4	117.4	264.9	149.7	102.9	18.4	27.3
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°	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3	934.3
2.5°	1141.2	1131.8	1036.1	1040.5	1047.2	1041.1	1040.0	1013.3	988.8	1069.5	1068.4
5°	1443.4	1376.1	1309.8	1284.2	1229.2	1156.8	1157.4	1134.6	1111.2	1144.0	1144.0
7.5°	1658.7	1565.8	1481.8	1332.1	1186.3	1054.4	1042.8	1011.6	976.0	1018.8	1027.2
10°	1708.8	1628.1	1519.6	1299.8	1161.8	1033.3	892.0	775.7	721.7	696.7	692.2
12.5°	1862.9	1802.8	1560.2	1317.1	1118.4	900.9	669.4	531.4	437.4	430.1	420.1
15°	1965.9	1923.6	1600.3	1274.2	934.8	647.7	420.7	322.7	284.9	281.6	276.5
17.5°	2125.6	2052.1	1561.9	1137.9	731.2	427.3	282.7	254.8	259.3	269.3	261.5
20°	2190.7	2047.1	1478.4	940.4	513.6	286.6	245.4	230.4	242.0	251.5	247.1
22.5°	2257.4	2061.6	1404.4	775.1	335.5	237.0	218.7	210.9	212.0	221.5	222.0
25°	2256.9	2101.6	1318.7	603.7	249.8	210.9	197.5	187.5	183.6	190.3	188.6
27.5°	2366.5	2055.5	1162.4	447.9	219.8	188.6	175.8	163.6	149.7	156.4	156.4
30°	2367.1	2130.6	1053.3	321.6	201.4	168.0	156.9	138.0	121.9	127.4	128.0
32.5°	2429.9	2065.5	952.6	245.9	187.0	155.8	131.3	114.1	104.6	107.9	107.9
35°	2501.7	2121.1	797.9	217.0	172.5	138.6	112.4	98.5	91.3	94.0	94.0
37.5°	2738.8	2109.4	690.5	202.0	163.0	125.2	102.4	86.8	83.5	85.1	87.4
40°	2824.5	2192.3	544.7	193.1	147.5	113.0	90.1	78.5	74.0	75.1	75.7
42.5°	3042.6	2210.7	435.1	185.8	133.5	97.9	80.1	71.8	66.2	66.2	67.9
45°	3283.5	2256.9	346.1	179.7	121.9	87.9	72.3	65.7	57.3	56.2	58.4
47.5°	3632.4	2433.8	282.1	167.5	107.9	81.8	66.8	56.8	50.1	47.9	50.1
50°	4216.1	2734.3	249.3	152.5	97.9	76.8	59.0	48.4	43.4	40.6	42.3
52.5°	5039.6	3253.5	232.0	138.6	89.0	69.0	52.9	42.3	37.3	35.1	36.2
55°	5954.4	3848.8	223.7	124.6	81.2	60.7	46.2	37.3	32.8	30.0	30.6
57.5°	6800.2	4408.6	215.3	111.3	73.4	54.0	40.6	32.8	28.4	25.6	26.2
60°	7633.7	4855.4	195.3	95.7	66.2	48.4	35.6	28.4	25.6	22.3	22.3
62.5°	8371.0	5122.5	166.4	82.9	59.5	42.8	31.7	25.6	23.4	20.0	20.0
65°	8872.9	5134.8	134.1	71.2	52.3	36.7	27.8	23.9	21.7	17.8	17.2
67.5°	8880.1	4800.9	107.4	63.4	46.2	32.3	25.0	22.8	20.0	16.7	15.6
70°	7948.1	3966.3	89.6	55.6	40.1	28.4	21.7	21.7	19.5	16.1	14.5
72.5°	6357.8	3030.9	75.1	48.4	35.6	24.5	20.0	20.6	18.9	16.1	14.5
75°	4273.4	1738.3	62.3	41.2	31.2	20.6	19.5	20.0	19.5	16.1	13.9
77.5°	1968.1	553.7	48.4	33.9	26.7	17.2	18.9	18.9	17.8	14.5	12.2
80°	443.5	136.3	35.1	25.0	21.7	12.8	17.2	15.6	13.9	10.0	7.2
82.5°	161.4	41.7	21.1	15.6	13.4	5.0	11.1	11.1	10.0	7.2	4.5
85°	92.4	21.7	11.7	10.0	7.2	2.2	6.1	6.7	5.6	5.0	2.2
87.5°	30.0	5.0	5.6	6.1	5.6	1.1	2.2	2.2	1.7	1.1	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)