

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: P367815

Luminaire Tested: **MSA-SA3B-730-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367815
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-SA3B-730-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: 10994 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

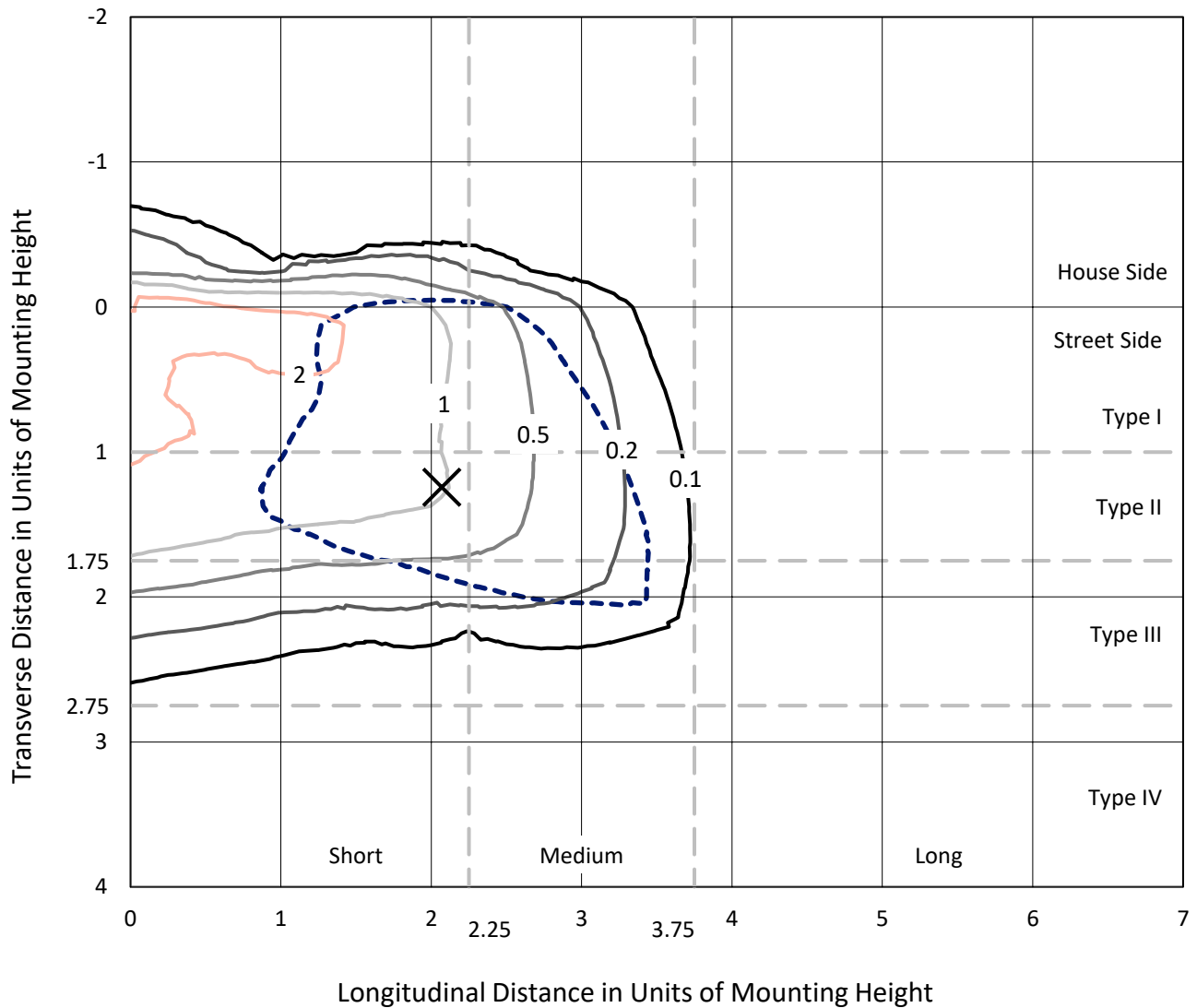
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

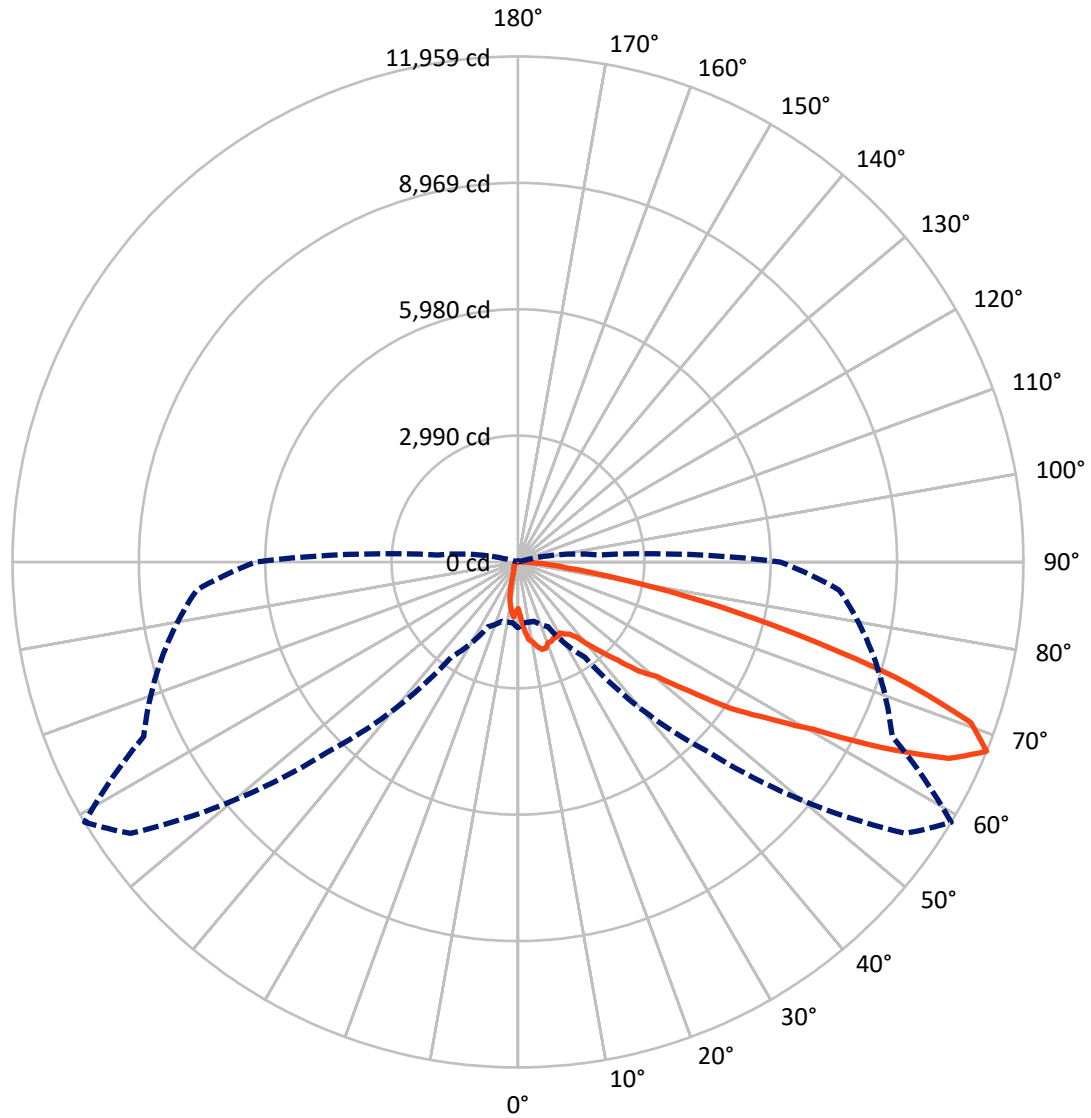
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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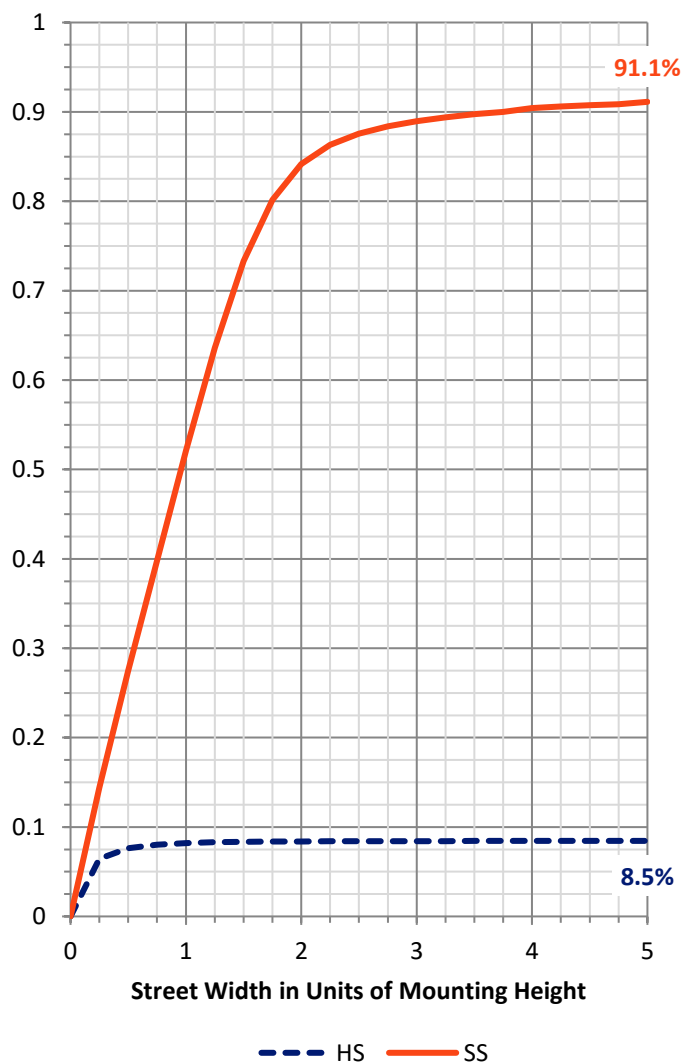
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	935.0	0.0	935.0
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	10059.0	0.0	10059.0
	% Fixture	91.5	0.0	91.5
Total	Lumens	10994.0	0.0	10994.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	1.2
10°-20°	376.6	3.4
20°-30°	560.2	5.1
30°-40°	864.2	7.9
40°-50°	1542.3	14.0
50°-60°	2744.6	25.0
60°-70°	3196.5	29.1
70°-80°	1421.5	12.9
80°-90°	154.4	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°	10994.0	100.0
0°-180°	10994.0	100.0

Coefficient of Utilization



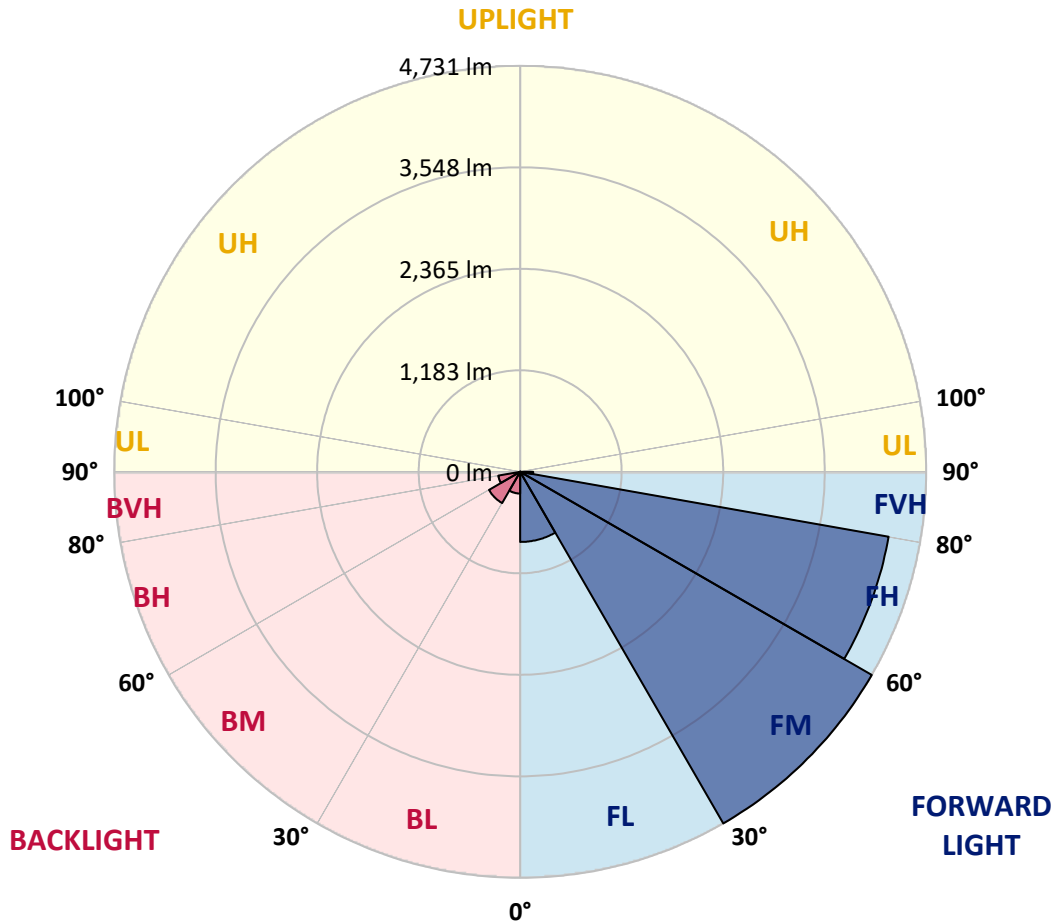
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	817.6	7.4			
FM (30°-60°)	4730.7	43.0			
FH (60°-80°)	4359.0	39.6			G2/5000
FVH (80°-90°)	151.6	1.4			G2/225
BL (0°-30°)	252.8	2.3	B1/500		
BM (30°-60°)	420.4	3.8	B1/1000		
BH (60°-80°)	259.0	2.4	B1/500		G1/500
BVH (80°-90°)	2.7	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0
2.5°	1434.0	1380.0	1303.2	1326.0	1346.6	1366.1	1333.8	1315.4	1306.5	1227.5	1326.6
5°	1760.8	1693.4	1658.3	1649.4	1627.2	1577.6	1660.0	1623.3	1635.5	1651.1	1683.4
7.5°	1860.4	1829.8	1779.1	1798.1	1713.4	1706.2	1820.3	1852.0	1893.8	1865.4	1904.4
10°	1809.2	1756.3	1780.2	1773.6	1770.2	1844.8	1925.0	1926.6	1989.0	2019.1	1887.1
12.5°	1707.9	1714.0	1799.7	1793.0	1904.4	2053.6	2071.9	2052.5	2154.3	2102.0	2082.0
15°	1775.2	1825.3	1778.0	1794.2	1833.7	2020.2	2085.3	2145.4	2241.7	2272.9	2137.6
17.5°	1856.5	1861.5	1775.2	1755.2	1854.8	1941.7	2095.3	2144.9	2154.3	2427.6	2262.9
20°	1812.5	1855.4	1752.4	1626.0	1780.8	1898.8	2054.7	2039.1	2102.6	2473.3	2291.3
22.5°	1929.4	1868.2	1736.3	1641.1	1693.4	1800.8	1932.8	2034.6	2129.8	2364.2	2328.0
25°	1940.6	1918.3	1800.8	1716.2	1707.3	1734.6	1918.3	1984.0	2133.2	2462.2	2296.8
27.5°	2065.8	2040.2	1799.7	1808.1	1724.6	1640.5	1848.2	2002.4	2193.8	2402.6	2363.1
30°	2227.2	2229.5	1919.4	1945.6	1826.4	1691.2	1905.5	1947.8	2235.0	2497.8	2412.1
32.5°	2390.9	2458.3	2156.0	2017.4	1980.1	1883.2	1834.2	2029.6	2189.9	2660.3	2534.5
35°	2639.7	2685.4	2350.8	2226.7	2080.3	1970.1	2028.0	2098.1	2351.9	2875.8	2695.4
37.5°	3061.1	2978.8	2700.4	2484.4	2449.4	2286.8	2315.8	2252.9	2517.3	3129.6	3013.8
40°	3298.3	3223.7	2934.2	2829.0	2605.2	2630.3	2539.0	2575.7	2757.2	3394.0	3303.9
42.5°	3545.4	3474.2	3220.4	3145.8	2932.6	2829.0	2787.8	2919.7	3125.2	3834.4	3719.7
45°	3793.7	3612.8	3505.4	3542.7	3446.9	3242.1	3194.2	3311.6	3527.1	4375.4	4158.3
47.5°	4003.0	3850.5	3769.8	3752.5	3715.2	3999.7	3804.9	3856.6	3951.8	4854.2	4705.0
50°	4380.5	4230.2	4103.8	4068.7	4250.2	4653.8	4353.2	4253.0	4443.4	5432.6	5338.5
52.5°	4925.4	4733.9	4533.0	4533.5	4875.9	5097.5	5240.0	5064.1	5099.7	6068.8	6027.1
55°	5363.5	5120.3	4953.8	5085.2	5595.7	5719.8	6263.7	6109.5	6063.3	6658.9	6607.7
57.5°	5423.7	5132.0	5052.9	5283.4	5982.0	6774.7	7359.8	6974.6	6903.9	7152.7	7254.6
60°	4862.5	4553.0	4612.6	4983.3	6107.8	7417.7	8366.2	8051.7	7602.5	7731.1	7801.2
62.5°	3626.7	3379.6	3546.6	4037.5	5622.9	7848.5	9531.3	9677.2	8413.0	8165.3	8150.2
65°	2353.1	2198.3	2308.0	2710.4	4255.2	7799.5	10572.3	11204.7	9051.5	8519.3	8259.9
67.5°	1556.5	1439.0	1454.6	1692.8	2751.6	6343.3	11194.7	11959.0	9769.6	8720.3	7631.4
70°	1160.1	1067.7	1073.3	1202.4	1633.3	4183.4	10326.8	11363.9	10031.8	8023.9	6159.6
72.5°	836.7	774.9	826.7	970.3	1301.5	2212.2	7697.1	9358.8	8747.6	6328.8	4150.0
75°	579.5	538.9	623.5	811.6	1187.9	1373.3	5086.3	6736.9	6131.2	3970.7	1876.0
77.5°	321.2	309.0	430.9	661.3	1078.3	1125.6	3115.7	4426.7	3400.7	1423.4	446.5
80°	140.3	135.8	208.8	496.6	906.3	1017.0	1754.1	2454.4	1337.7	253.8	144.2
82.5°	60.1	57.9	89.1	298.9	658.5	850.6	1081.6	1181.3	460.4	78.5	81.8
85°	10.6	11.7	35.6	157.5	400.8	432.0	783.2	699.2	231.6	37.3	58.5
87.5°	0.0	0.0	5.6	30.6	75.2	123.6	339.6	244.9	44.0	12.2	10.0
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°	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0	1100.0
2.5°	1340.5	1309.3	1190.7	1175.7	1159.5	1135.6	1126.7	1075.5	1068.8	1134.5	1134.5
5°	1668.3	1557.0	1444.0	1354.9	1275.3	1165.1	1133.9	1101.7	1075.5	1068.8	1089.4
7.5°	1841.5	1705.6	1528.1	1301.5	1117.8	958.0	891.2	844.5	792.1	807.7	816.1
10°	1832.0	1687.8	1461.3	1170.1	966.4	789.9	620.1	521.0	465.9	438.7	435.3
12.5°	1925.0	1789.1	1416.2	1065.5	805.5	561.7	390.2	319.5	278.9	279.4	276.1
15°	1979.0	1830.9	1363.8	933.0	567.2	361.3	270.5	255.0	249.4	255.5	252.2
17.5°	2074.2	1874.9	1245.3	735.4	390.2	272.8	248.8	242.7	249.9	262.7	259.4
20°	2066.9	1798.6	1076.6	518.3	288.4	245.5	235.5	226.0	241.0	254.4	252.2
22.5°	2060.2	1724.0	918.0	382.4	241.0	223.8	215.4	211.5	219.3	234.9	238.3
25°	2001.2	1687.3	757.1	287.2	218.2	203.2	199.3	195.9	198.7	211.5	211.0
27.5°	2073.6	1594.3	584.5	241.0	202.1	184.3	180.9	175.4	169.8	180.9	182.6
30°	2058.6	1607.1	458.1	212.1	185.9	162.0	163.1	151.4	141.4	151.4	151.4
32.5°	2113.1	1513.6	366.8	192.6	169.8	152.5	138.6	126.4	119.1	125.3	126.4
35°	2192.7	1517.5	287.2	180.4	155.9	135.8	119.1	106.9	100.2	103.0	104.7
37.5°	2459.4	1490.8	239.9	170.9	150.9	125.8	108.6	92.4	88.0	91.3	93.0
40°	2633.1	1562.0	211.5	165.9	138.1	115.8	93.0	81.3	77.4	79.0	81.8
42.5°	2960.4	1601.5	197.6	160.3	126.4	99.1	79.6	72.9	67.4	69.6	71.8
45°	3310.5	1668.9	187.0	154.2	117.5	86.8	70.1	64.6	57.3	57.9	60.1
47.5°	3740.8	1829.2	174.8	143.6	105.2	79.0	62.3	54.0	47.3	46.8	49.5
50°	4318.7	2043.5	163.7	130.3	97.4	72.4	54.6	44.0	38.4	36.7	39.0
52.5°	4935.5	2320.8	152.0	120.8	88.0	63.5	46.8	35.6	30.6	29.5	31.2
55°	5546.7	2586.9	140.8	114.7	77.9	54.6	39.5	29.5	25.1	23.9	25.1
57.5°	6243.1	2874.7	126.4	102.4	68.5	47.3	32.8	24.5	20.6	19.5	20.0
60°	6767.5	2976.0	114.1	89.1	59.6	41.8	27.8	19.5	16.7	15.6	16.1
62.5°	7016.3	2810.6	102.4	77.4	52.3	36.2	23.4	16.1	13.9	12.8	12.8
65°	6951.7	2444.3	90.7	66.2	45.1	30.1	18.4	13.9	12.2	10.6	10.0
67.5°	6205.8	1912.7	77.4	55.7	37.9	24.5	15.6	13.4	11.1	10.0	8.4
70°	4921.5	1385.0	62.9	46.2	31.7	20.0	12.2	12.2	10.6	10.0	7.8
72.5°	3225.9	871.7	51.2	37.3	26.2	15.6	9.5	11.1	10.0	10.0	7.2
75°	1397.8	311.7	41.2	30.1	21.7	10.6	8.4	10.0	10.6	10.0	8.4
77.5°	327.3	96.9	32.3	23.9	17.8	7.2	8.4	10.0	10.6	9.5	7.2
80°	123.0	41.2	21.2	15.6	13.9	4.5	7.2	6.1	5.6	3.9	1.1
82.5°	74.6	17.3	11.1	7.8	6.7	1.1	3.3	2.2	1.1	1.1	0.0
85°	52.9	8.4	6.1	5.6	3.3	0.0	0.6	0.0	0.0	0.6	0.0
87.5°	7.2	2.2	2.8	2.8	2.2	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)