

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: P367903

Luminaire Tested: **MSA-SA3B-830-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367903
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-830-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: 9592 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

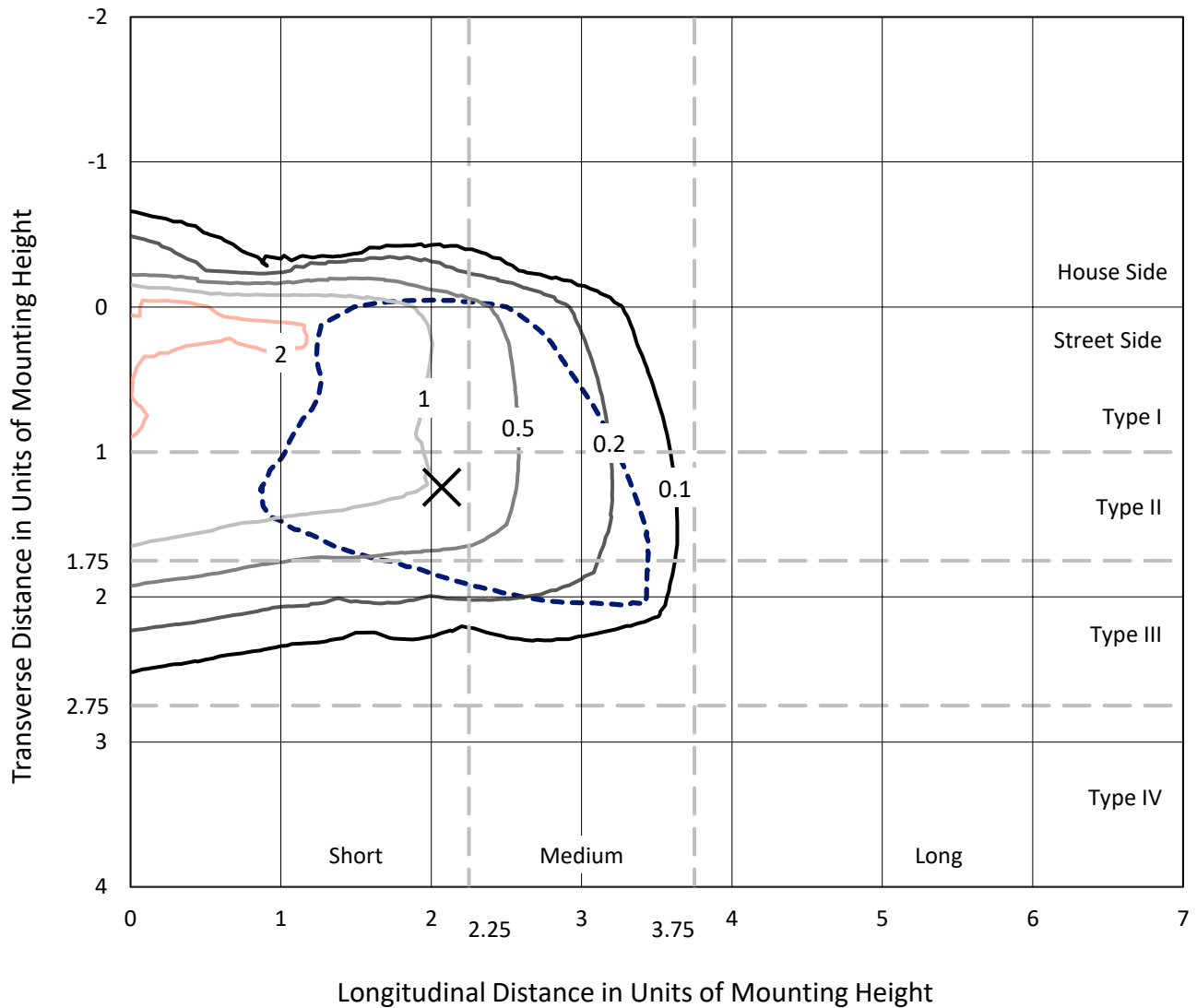
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

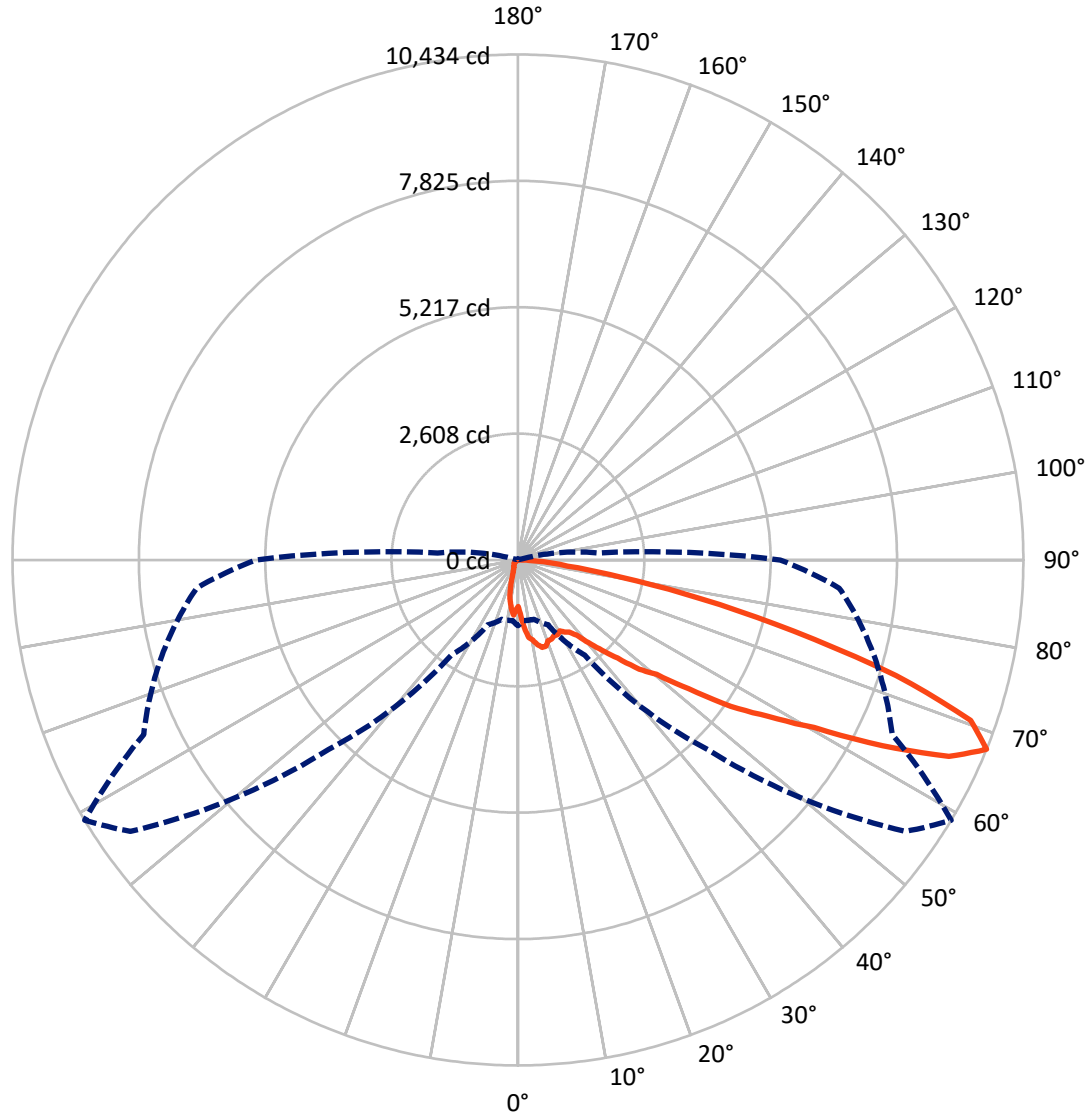
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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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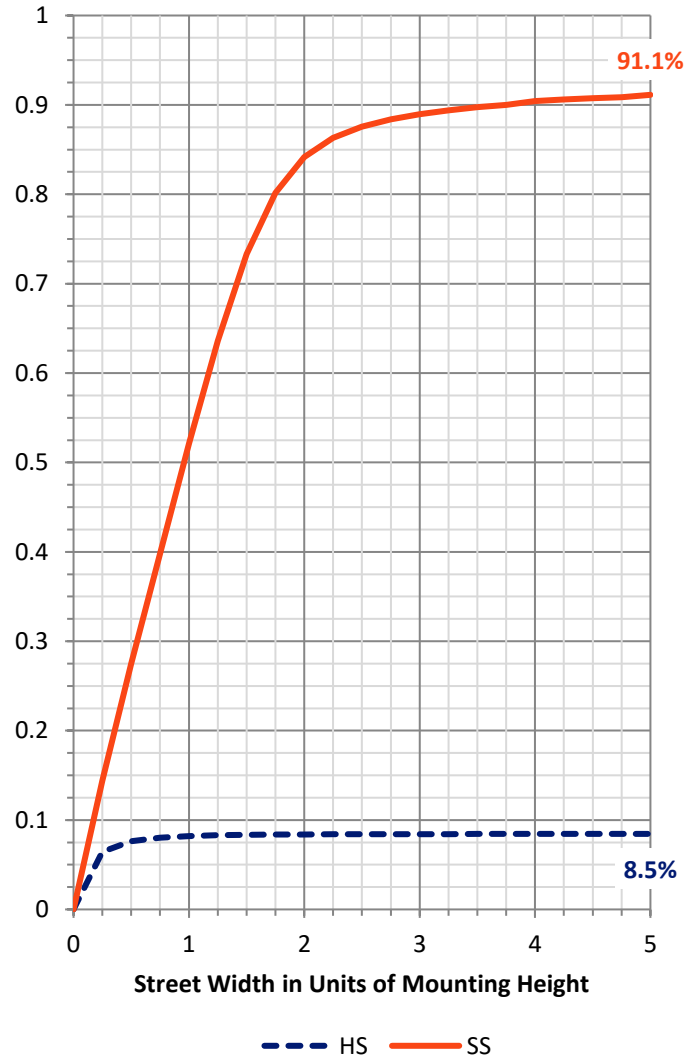
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	815.7	0.0	815.7
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	8776.3	0.0	8776.3
	% Fixture	91.5	0.0	91.5
Total	Lumens	9592.0	0.0	9592.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	1.2
10°-20°	328.6	3.4
20°-30°	488.7	5.1
30°-40°	754.0	7.9
40°-50°	1345.6	14.0
50°-60°	2394.6	25.0
60°-70°	2788.9	29.1
70°-80°	1240.2	12.9
80°-90°	134.7	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°	9592.0	100.0
0°-180°	9592.0	100.0

Coefficient of Utilization

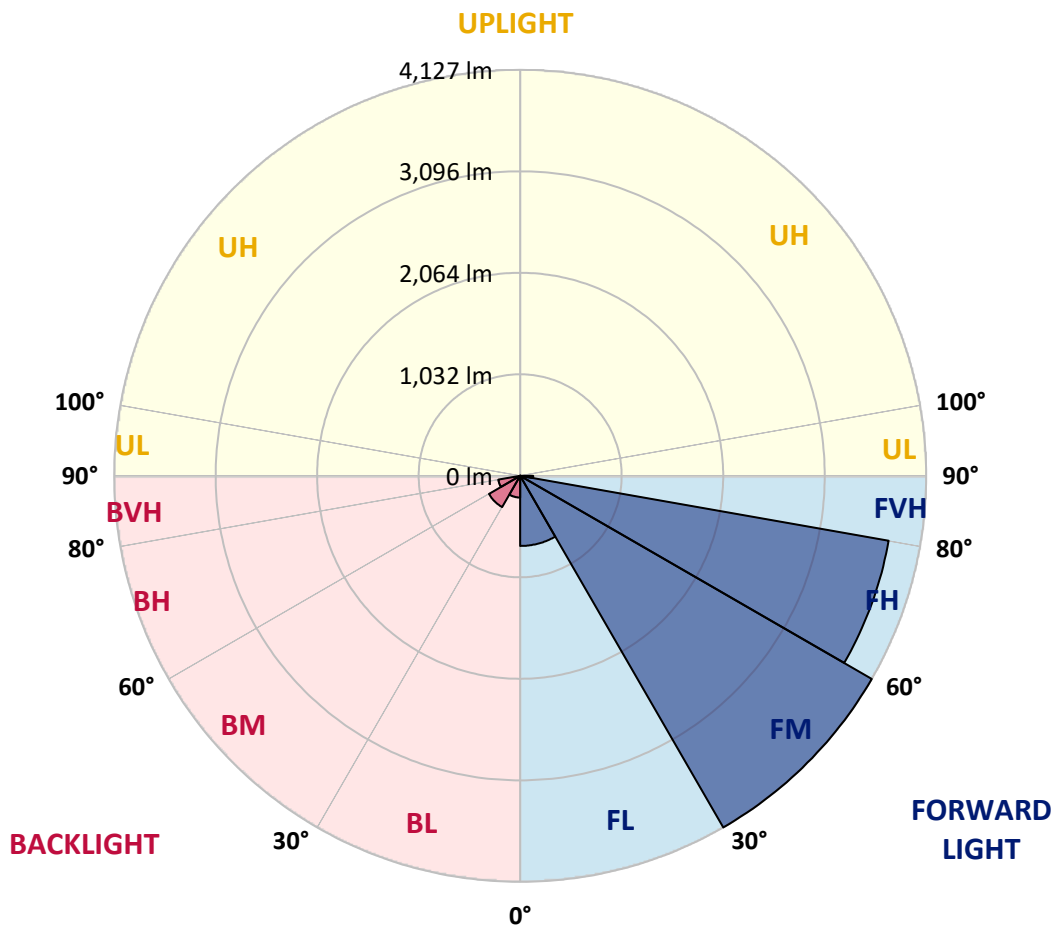


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	713.4	7.4			
FM (30°-60°)	4127.4	43.0			
FH (60°-80°)	3803.1	39.6			G2/5000
FVH (80°-90°)	132.3	1.4			G2/225
BL (0°-30°)	220.6	2.3	B1/500		
BM (30°-60°)	366.8	3.8	B1/1000		
BH (60°-80°)	226.0	2.4	B1/500		G1/500
BVH (80°-90°)	2.4	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°	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7
2.5°	1251.1	1204.0	1137.0	1156.9	1174.9	1191.9	1163.7	1147.7	1139.9	1070.9	1157.4
5°	1536.2	1477.4	1446.9	1439.1	1419.7	1376.4	1448.3	1416.3	1426.9	1440.5	1468.7
7.5°	1623.2	1596.4	1552.2	1568.8	1494.9	1488.6	1588.2	1615.9	1652.3	1627.5	1661.5
10°	1578.5	1532.3	1553.2	1547.4	1544.5	1609.6	1679.5	1681.0	1735.3	1761.6	1646.5
12.5°	1490.1	1495.4	1570.2	1564.4	1661.5	1791.7	1807.7	1790.7	1879.6	1833.9	1816.5
15°	1548.8	1592.6	1551.3	1565.4	1599.8	1762.5	1819.4	1871.8	1955.8	1983.0	1865.0
17.5°	1619.8	1624.1	1548.8	1531.4	1618.3	1694.1	1828.1	1871.3	1879.6	2118.1	1974.3
20°	1581.4	1618.8	1528.9	1418.7	1553.7	1656.7	1792.7	1779.1	1834.4	2157.9	1999.1
22.5°	1683.4	1630.0	1514.8	1431.8	1477.4	1571.2	1686.3	1775.2	1858.2	2062.7	2031.1
25°	1693.1	1673.7	1571.2	1497.4	1489.6	1513.4	1673.7	1731.0	1861.1	2148.2	2003.9
27.5°	1802.4	1780.0	1570.2	1577.5	1504.6	1431.3	1612.5	1747.0	1914.1	2096.2	2061.7
30°	1943.2	1945.2	1674.6	1697.5	1593.5	1475.5	1662.5	1699.4	1950.0	2179.3	2104.5
32.5°	2086.0	2144.8	1881.1	1760.1	1727.6	1643.1	1600.3	1770.8	1910.7	2321.1	2211.3
35°	2303.1	2342.9	2051.0	1942.7	1815.0	1718.8	1769.3	1830.5	2052.0	2509.0	2351.7
37.5°	2670.8	2598.9	2356.1	2167.6	2137.0	1995.2	2020.4	1965.6	2196.3	2730.5	2629.5
40°	2877.7	2812.6	2560.0	2468.2	2273.0	2294.9	2215.2	2247.3	2405.6	2961.2	2882.5
42.5°	3093.3	3031.1	2809.7	2744.6	2558.6	2468.2	2432.3	2547.4	2726.6	3345.4	3245.3
45°	3309.9	3152.1	3058.3	3090.9	3007.4	2828.6	2786.9	2889.3	3077.3	3817.5	3628.1
47.5°	3492.5	3359.5	3289.0	3274.0	3241.5	3489.6	3319.6	3364.8	3447.9	4235.2	4105.0
50°	3821.8	3690.7	3580.5	3549.9	3708.2	4060.3	3798.0	3710.6	3876.7	4739.8	4657.7
52.5°	4297.3	4130.3	3954.9	3955.4	4254.1	4447.4	4571.7	4418.3	4449.3	5294.9	5258.5
55°	4679.6	4467.3	4322.1	4436.7	4882.1	4990.4	5464.9	5330.4	5290.1	5809.7	5765.1
57.5°	4732.0	4477.5	4408.5	4609.6	5219.2	5910.8	6421.2	6085.1	6023.4	6240.5	6329.4
60°	4242.4	3972.4	4024.4	4347.8	5328.9	6471.7	7299.3	7024.9	6633.0	6745.2	6806.4
62.5°	3164.2	2948.6	3094.3	3522.7	4905.9	6847.6	8315.9	8443.1	7340.1	7124.0	7110.9
65°	2053.0	1918.0	2013.6	2364.8	3712.6	6804.9	9224.1	9775.8	7897.2	7432.9	7206.6
67.5°	1358.0	1255.5	1269.1	1477.0	2400.7	5534.4	9767.1	10433.9	8523.7	7608.2	6658.2
70°	1012.2	931.5	936.4	1049.1	1425.0	3649.9	9009.9	9914.7	8752.5	7000.6	5374.1
72.5°	730.0	676.1	721.2	846.5	1135.5	1930.1	6715.5	8165.3	7632.0	5521.7	3620.8
75°	505.6	470.1	544.0	708.1	1036.4	1198.2	4437.7	5877.7	5349.3	3464.4	1636.8
77.5°	280.2	269.6	375.9	577.0	940.8	982.1	2718.4	3862.2	2967.0	1241.9	389.5
80°	122.4	118.5	182.1	433.2	790.7	887.3	1530.4	2141.4	1167.1	221.5	125.8
82.5°	52.5	50.5	77.7	260.8	574.6	742.1	943.7	1030.6	401.7	68.5	71.4
85°	9.2	10.2	31.1	137.4	349.7	376.9	683.4	610.0	202.0	32.5	51.0
87.5°	0.0	0.0	4.9	26.7	65.6	107.8	296.3	213.7	38.4	10.7	8.7
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°	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7
2.5°	1169.5	1142.3	1038.9	1025.8	1011.7	990.8	983.0	938.3	932.5	989.8	989.8
5°	1455.6	1358.5	1259.9	1182.2	1112.7	1016.5	989.3	961.2	938.3	932.5	950.5
7.5°	1606.6	1488.1	1333.2	1135.5	975.3	835.9	777.6	736.8	691.1	704.7	712.0
10°	1598.4	1472.6	1274.9	1020.9	843.1	689.2	541.1	454.6	406.5	382.7	379.8
12.5°	1679.5	1561.0	1235.6	929.6	702.8	490.1	340.5	278.8	243.3	243.8	240.9
15°	1726.6	1597.4	1189.9	814.0	494.9	315.2	236.0	222.4	217.6	222.9	220.0
17.5°	1809.7	1635.8	1086.5	641.6	340.5	238.0	217.1	211.8	218.1	229.2	226.3
20°	1803.3	1569.2	939.3	452.2	251.6	214.2	205.4	197.2	210.3	222.0	220.0
22.5°	1797.5	1504.2	800.9	333.7	210.3	195.2	188.0	184.6	191.4	205.0	207.9
25°	1746.0	1472.1	660.5	250.6	190.4	177.3	173.9	171.0	173.4	184.6	184.1
27.5°	1809.2	1391.0	510.0	210.3	176.3	160.8	157.8	153.0	148.1	157.8	159.3
30°	1796.1	1402.2	399.7	185.0	162.2	141.3	142.3	132.1	123.4	132.1	132.1
32.5°	1843.7	1320.6	320.1	168.0	148.1	133.1	120.9	110.3	103.9	109.3	110.3
35°	1913.1	1324.0	250.6	157.4	136.0	118.5	103.9	93.3	87.4	89.9	91.3
37.5°	2145.7	1300.7	209.3	149.1	131.6	109.8	94.7	80.6	76.7	79.7	81.1
40°	2297.3	1362.8	184.6	144.7	120.4	101.0	81.1	70.9	67.5	69.0	71.4
42.5°	2582.9	1397.3	172.4	139.9	110.3	86.5	69.5	63.6	58.8	60.7	62.7
45°	2888.4	1456.1	163.2	134.5	102.5	75.8	61.2	56.3	50.0	50.5	52.5
47.5°	3263.8	1596.0	152.5	125.3	91.8	69.0	54.4	47.1	41.3	40.8	43.2
50°	3767.9	1782.9	142.8	113.6	85.0	63.1	47.6	38.4	33.5	32.1	34.0
52.5°	4306.1	2024.8	132.6	105.4	76.7	55.4	40.8	31.1	26.7	25.7	27.2
55°	4839.3	2257.0	122.9	100.1	68.0	47.6	34.5	25.7	21.9	20.9	21.9
57.5°	5446.9	2508.1	110.3	89.4	59.7	41.3	28.7	21.4	18.0	17.0	17.5
60°	5904.5	2596.5	99.6	77.7	52.0	36.4	24.3	17.0	14.6	13.6	14.1
62.5°	6121.6	2452.2	89.4	67.5	45.7	31.6	20.4	14.1	12.1	11.2	11.2
65°	6065.2	2132.6	79.2	57.8	39.3	26.2	16.0	12.1	10.7	9.2	8.7
67.5°	5414.4	1668.8	67.5	48.6	33.0	21.4	13.6	11.7	9.7	8.7	7.3
70°	4293.9	1208.4	54.9	40.3	27.7	17.5	10.7	10.7	9.2	8.7	6.8
72.5°	2814.5	760.6	44.7	32.5	22.8	13.6	8.3	9.7	8.7	8.7	6.3
75°	1219.6	272.0	35.9	26.2	18.9	9.2	7.3	8.7	9.2	8.7	7.3
77.5°	285.6	84.5	28.2	20.9	15.5	6.3	7.3	8.7	9.2	8.3	6.3
80°	107.3	35.9	18.5	13.6	12.1	3.9	6.3	5.3	4.9	3.4	1.0
82.5°	65.1	15.1	9.7	6.8	5.8	1.0	2.9	1.9	1.0	1.0	0.0
85°	46.1	7.3	5.3	4.9	2.9	0.0	0.5	0.0	0.0	0.5	0.0
87.5°	6.3	1.9	2.4	2.4	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)