

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: P367944

Luminaire Tested: **MSA-SA3C-730-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367944
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-730-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17027 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

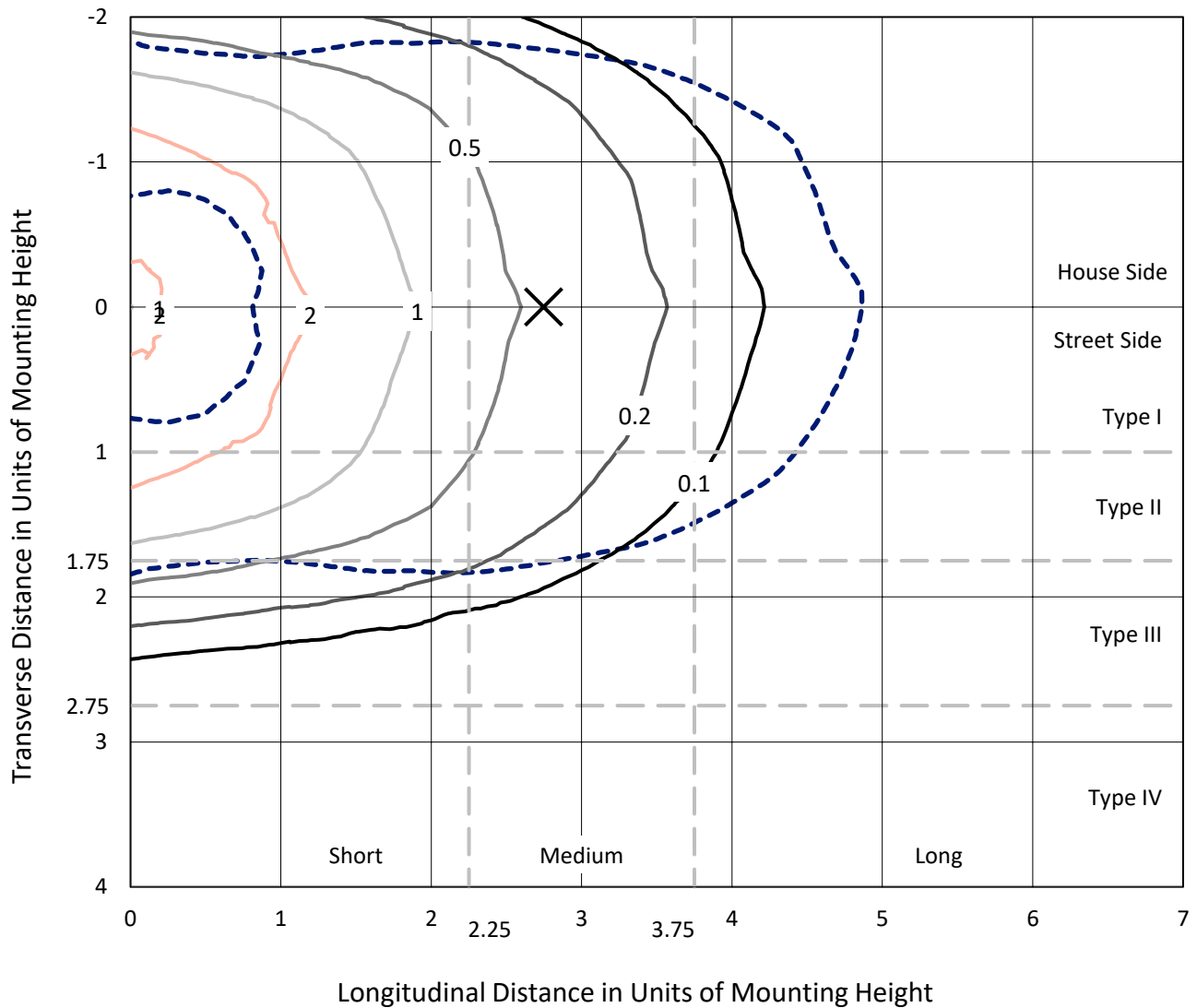
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

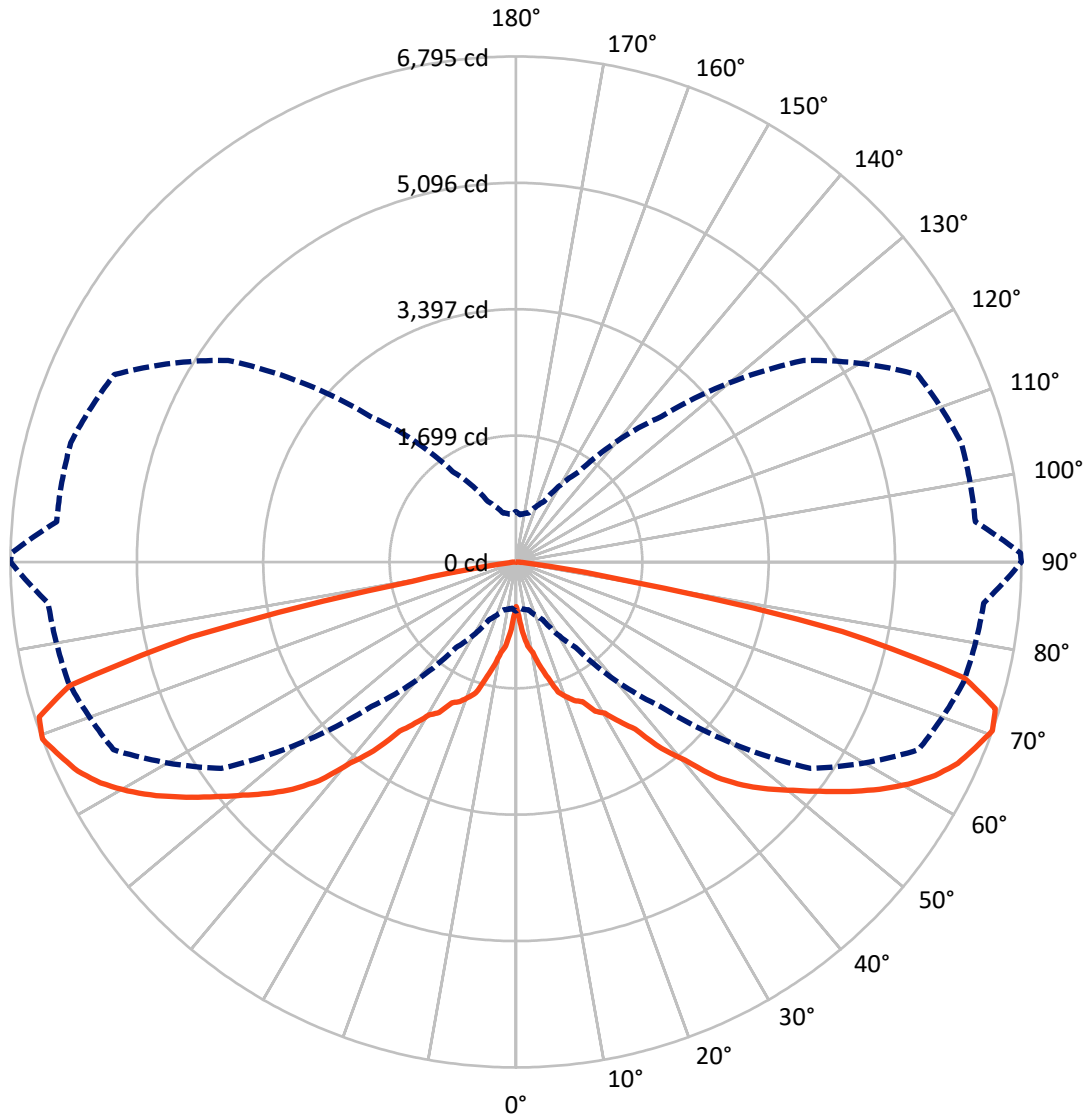
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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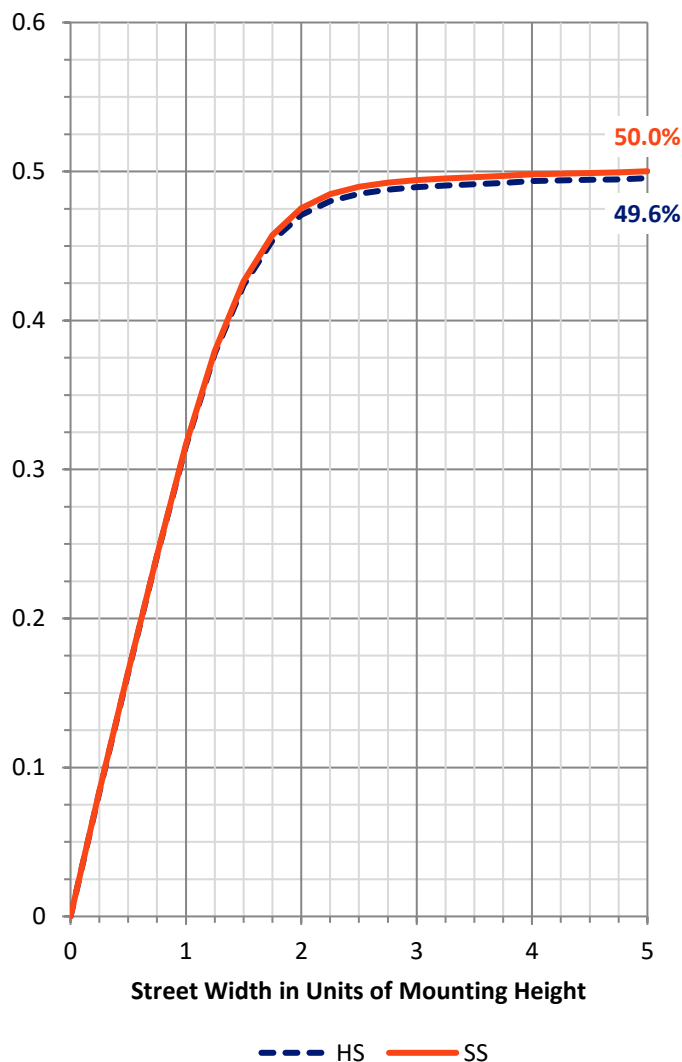
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8482.0	0.0	8482.0
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	8545.0	0.0	8545.0
	% Fixture	50.2	0.0	50.2
Total	Lumens	17027.0	0.0	17027.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	0.5
10°-20°	413.2	2.4
20°-30°	893.3	5.2
30°-40°	1704.4	10.0
40°-50°	3096.4	18.2
50°-60°	4349.7	25.5
60°-70°	4153.1	24.4
70°-80°	2131.4	12.5
80°-90°	195.4	1.1
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°	17027.0	100.0
0°-180°	17027.0	100.0

Coefficient of Utilization



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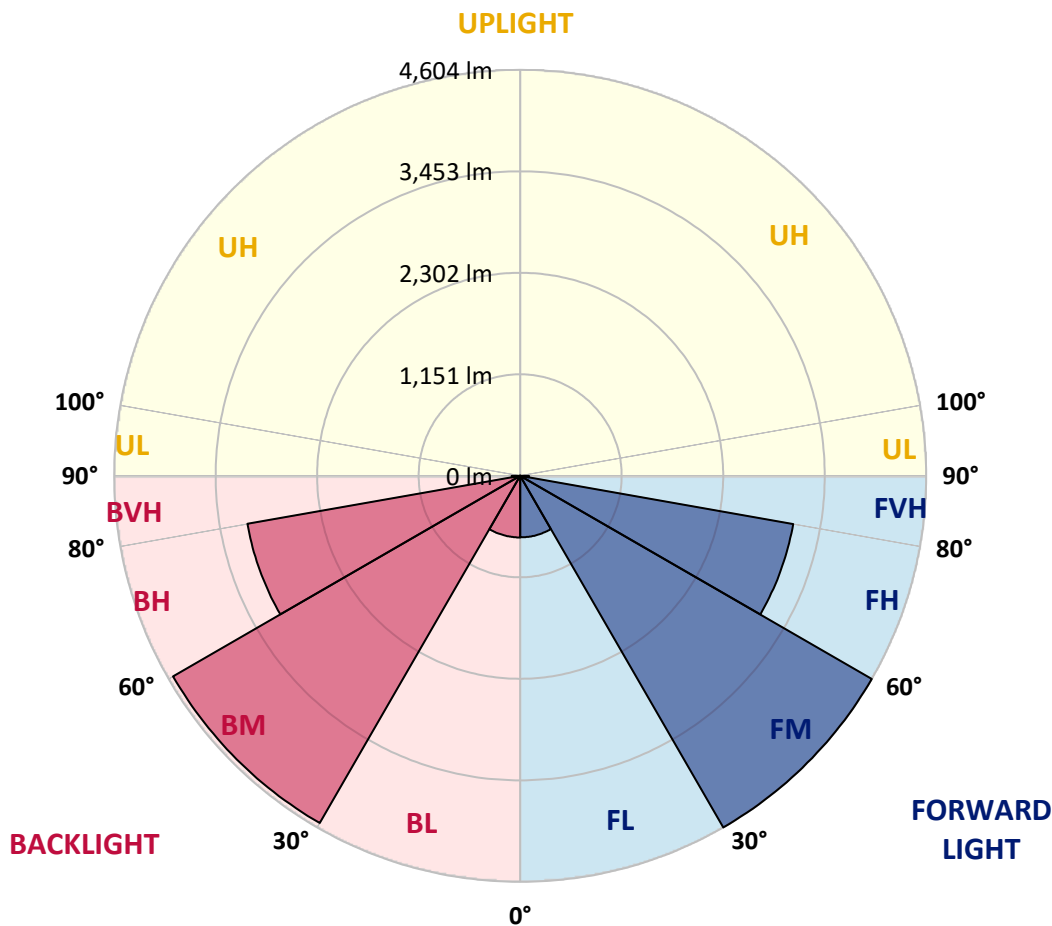
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	697.6	4.1			
FM (30°-60°)	4604.3	27.0			
FH (60°-80°)	3143.9	18.5			G2/5000
FVH (80°-90°)	99.2	0.6			G1/100
BL (0°-30°)	699.0	4.1	B2/1000		
BM (30°-60°)	4546.2	26.7	B3/5000		
BH (60°-80°)	3140.5	18.4	B4/5000		G4/5000
BVH (80°-90°)	96.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6
2.5°	723.9	697.0	663.2	683.2	691.5	706.0	703.9	697.0	667.3	717.0	722.5
5°	906.1	863.3	847.4	844.7	848.8	835.0	879.9	866.7	890.9	935.7	946.1
7.5°	1031.7	999.9	966.1	976.5	933.7	927.5	985.4	1037.2	1050.3	1132.4	1137.9
10°	1091.0	1060.0	1068.9	1062.7	1057.9	1097.9	1124.8	1162.8	1217.3	1224.9	1236.6
12.5°	1141.4	1153.8	1193.1	1191.8	1256.6	1327.7	1317.4	1356.7	1365.7	1460.9	1431.9
15°	1269.1	1294.6	1291.8	1316.0	1344.3	1460.9	1461.6	1528.5	1589.9	1627.2	1617.5
17.5°	1456.1	1465.0	1427.8	1429.2	1511.3	1558.9	1612.0	1600.3	1760.4	1833.5	1838.4
20°	1567.9	1590.6	1547.8	1491.3	1636.9	1702.4	1732.1	1663.8	1834.9	1933.6	1933.6
22.5°	1763.2	1704.5	1639.6	1601.7	1730.0	1799.7	1796.3	1777.0	1868.0	2042.6	2026.1
25°	1870.8	1837.7	1805.2	1814.9	1879.8	1915.7	1963.3	1918.4	2004.0	2133.7	2079.2
27.5°	2075.1	2013.7	1854.2	1981.2	1981.2	1954.3	2055.1	2076.5	2020.6	2231.7	2272.4
30°	2306.2	2284.9	2059.2	2193.8	2152.4	2076.5	2269.7	2255.9	2162.0	2377.3	2358.7
32.5°	2525.0	2595.4	2381.5	2307.6	2369.7	2398.7	2297.3	2338.7	2356.6	2564.3	2555.4
35°	2860.4	2919.7	2636.1	2617.5	2514.0	2487.0	2564.3	2578.1	2579.5	2798.3	2758.2
37.5°	3440.7	3355.2	3075.0	2943.2	2954.9	2922.5	2937.7	2828.6	2843.8	3161.3	3181.3
40°	3865.1	3768.5	3456.6	3362.1	3130.2	3268.9	3146.1	3135.0	3104.7	3516.0	3504.9
42.5°	4333.7	4201.2	3856.2	3729.9	3483.5	3426.9	3370.3	3498.0	3489.7	3870.7	3954.8
45°	4687.7	4420.0	4239.9	4161.2	4013.5	3874.8	3821.0	3878.2	3852.0	4135.0	4281.9
47.5°	4911.3	4678.7	4471.7	4306.1	4164.6	4504.8	4232.3	4155.7	4102.5	4419.3	4560.7
50°	5089.3	4820.9	4576.6	4521.4	4633.2	4934.1	4504.2	4335.1	4399.9	4633.2	4825.7
52.5°	5137.6	4853.3	4633.9	4598.7	4900.9	4955.5	4885.8	4601.5	4584.2	4889.9	5122.5
55°	4990.0	4717.4	4613.2	4805.7	5139.7	5094.2	5200.4	5019.0	4896.8	5152.1	5444.7
57.5°	4609.7	4339.2	4314.4	4591.8	5012.7	5400.6	5453.0	5309.5	5149.4	5419.9	5764.9
60°	3985.2	3738.2	3801.0	4107.4	4742.2	5294.3	5573.1	5442.0	5392.3	5661.4	6061.7
62.5°	3012.9	2820.4	2988.0	3415.2	4248.1	5157.0	5738.7	5718.0	5646.2	5918.1	6323.9
65°	1921.2	1819.7	1990.9	2424.9	3481.5	4907.2	5818.1	5845.7	5911.9	6116.2	6526.8
67.5°	1116.5	1062.7	1166.9	1522.3	2479.5	4029.4	5670.4	6066.5	6101.0	6218.3	6660.0
70°	660.4	625.2	668.0	855.0	1403.6	2745.1	4836.8	5969.9	6230.7	6312.2	6794.5
72.5°	503.8	470.6	452.0	505.8	732.9	1418.1	3270.3	5060.4	6126.5	6250.1	6737.9
75°	435.4	403.7	381.6	386.4	436.1	673.5	1772.8	3619.5	5220.5	5691.1	6223.8
77.5°	374.0	345.7	329.9	328.5	334.7	369.9	741.1	1962.6	3269.6	4090.8	4486.9
80°	299.5	277.4	274.0	274.0	265.0	262.2	368.5	746.7	1244.2	1475.4	1414.7
82.5°	218.8	196.7	218.8	216.0	202.2	191.2	234.6	323.0	383.7	302.9	239.5
85°	147.7	127.7	144.2	147.0	133.9	99.4	140.8	161.5	165.6	103.5	85.6
87.5°	51.8	50.4	81.4	71.1	58.0	33.8	51.8	55.9	58.7	36.6	24.8
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6
2.5°	724.6	716.3	674.9	681.1	697.0	704.6	712.2	681.1	665.9	714.2	709.4
5°	948.9	918.5	884.7	879.9	881.9	852.2	869.5	861.9	865.4	896.4	902.6
7.5°	1136.6	1100.0	1055.1	1019.9	959.2	910.9	951.6	972.3	978.5	1033.7	1054.4
10°	1238.0	1206.9	1193.8	1127.6	1107.6	1101.4	1091.7	1058.6	1095.2	1082.0	1092.4
12.5°	1436.7	1430.5	1362.2	1318.7	1322.9	1334.6	1273.9	1240.8	1193.1	1267.7	1240.8
15°	1605.8	1632.7	1564.4	1485.1	1445.7	1465.7	1419.5	1371.2	1328.4	1351.2	1322.2
17.5°	1821.8	1821.1	1687.9	1603.1	1599.6	1598.2	1529.9	1423.6	1474.7	1458.8	1460.2
20°	1936.4	1917.7	1752.1	1654.1	1737.6	1707.9	1646.5	1509.9	1569.2	1588.6	1601.0
22.5°	2032.3	2021.9	1821.1	1749.4	1803.2	1803.9	1742.5	1670.7	1663.1	1723.1	1690.7
25°	2099.2	2140.6	1951.5	1934.3	1957.8	1934.3	1874.3	1827.3	1797.0	1886.7	1797.0
27.5°	2257.9	2199.3	1971.6	2069.5	2084.0	1966.0	2041.3	1986.0	1901.9	2013.0	2049.5
30°	2371.1	2405.6	2112.3	2260.0	2242.8	2133.7	2164.8	2162.7	2062.0	2278.6	2253.1
32.5°	2565.7	2524.3	2342.1	2330.4	2371.8	2367.0	2314.5	2340.1	2364.9	2522.2	2560.2
35°	2765.1	2809.3	2489.1	2568.5	2556.7	2482.2	2619.5	2603.7	2677.5	3000.5	2893.5
37.5°	3215.1	3004.6	2819.0	2808.6	2887.3	2899.0	2854.9	2924.6	3084.0	3332.4	3446.9
40°	3509.7	3413.8	3098.5	3110.9	3001.8	3189.5	3065.3	3289.6	3411.1	3829.9	3789.2
42.5°	3955.5	3721.6	3418.7	3460.1	3438.0	3347.6	3511.1	3626.4	3800.3	4119.8	4326.1
45°	4287.5	3966.6	3823.0	3797.5	3794.7	3952.1	3931.4	4115.6	4177.7	4417.9	4589.0
47.5°	4539.3	4266.8	4054.2	4083.2	3999.0	4448.3	4208.8	4266.1	4391.7	4618.0	4817.4
50°	4838.1	4534.5	4293.0	4364.8	4569.7	4742.2	4525.5	4427.6	4489.0	4756.0	4978.2
52.5°	5114.9	4795.4	4529.7	4589.7	4924.4	4845.7	4822.3	4574.5	4566.9	4781.6	5034.1
55°	5438.5	5078.3	4843.7	5034.1	5152.8	5055.5	5018.3	4716.7	4530.4	4649.8	4887.8
57.5°	5756.0	5358.5	5125.2	5164.6	5315.0	5218.4	4938.9	4474.5	4241.9	4265.4	4506.2
60°	6053.4	5615.9	5423.3	5385.4	5505.5	5126.6	4637.3	4030.8	3722.3	3665.7	3874.1
62.5°	6308.0	5831.2	5649.0	5545.5	5660.0	5130.1	4167.4	3318.6	2979.8	2787.9	2950.1
65°	6510.2	6009.9	5880.2	5826.3	5867.7	4818.1	3435.2	2436.7	2021.2	1808.7	1903.2
67.5°	6644.8	6110.0	6050.6	6121.0	5568.9	4012.8	2545.0	1559.6	1175.2	1059.3	1118.6
70°	6784.2	6198.3	6196.2	5956.8	4722.2	2766.5	1486.4	899.2	683.9	639.0	676.3
72.5°	6737.2	6093.4	6124.5	5209.4	3272.4	1478.8	784.6	508.6	463.0	478.9	512.0
75°	6239.0	5540.0	5390.2	3745.1	1856.3	687.3	452.0	385.1	382.3	406.5	438.9
77.5°	4525.5	3858.2	3462.1	2122.7	795.7	372.0	332.6	321.6	321.6	340.9	369.9
80°	1492.0	1291.1	1345.7	821.2	376.1	256.7	259.5	264.3	262.9	267.8	291.9
82.5°	245.0	253.9	392.7	335.4	227.0	175.3	196.0	205.6	208.4	186.3	211.9
85°	87.0	98.0	167.0	155.3	131.1	88.3	129.0	144.2	142.2	124.2	137.3
87.5°	26.9	34.5	60.7	46.9	39.3	24.2	48.3	56.6	71.1	29.0	26.2
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)