

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: P597116

Luminaire Tested: **MSA-SA4B-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-835-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16449 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

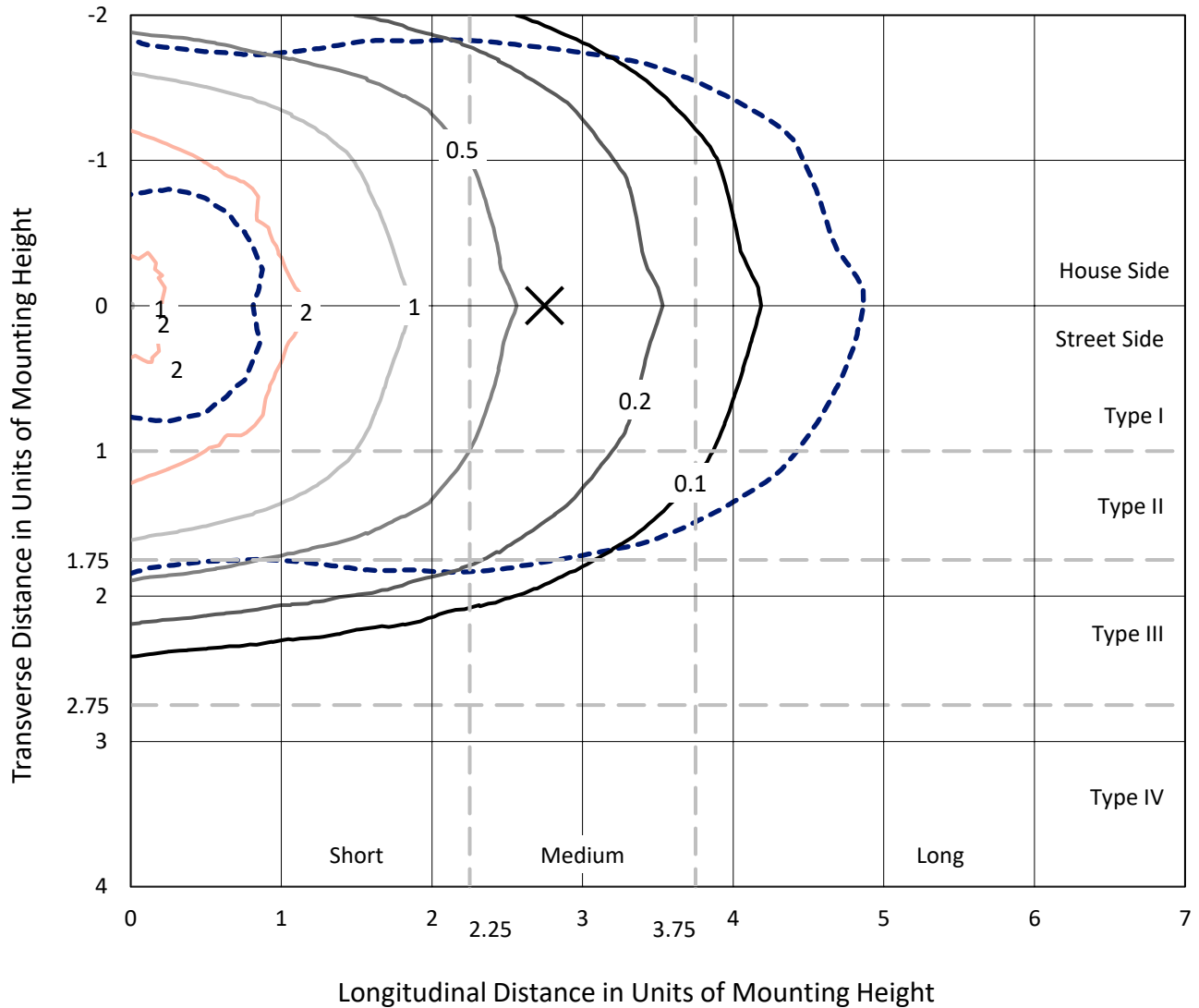
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P597116
 CATALOG NUMBER: MSA-SA4B-835-U-RW

Iso-Footcandle Lines of Horizontal Illumination

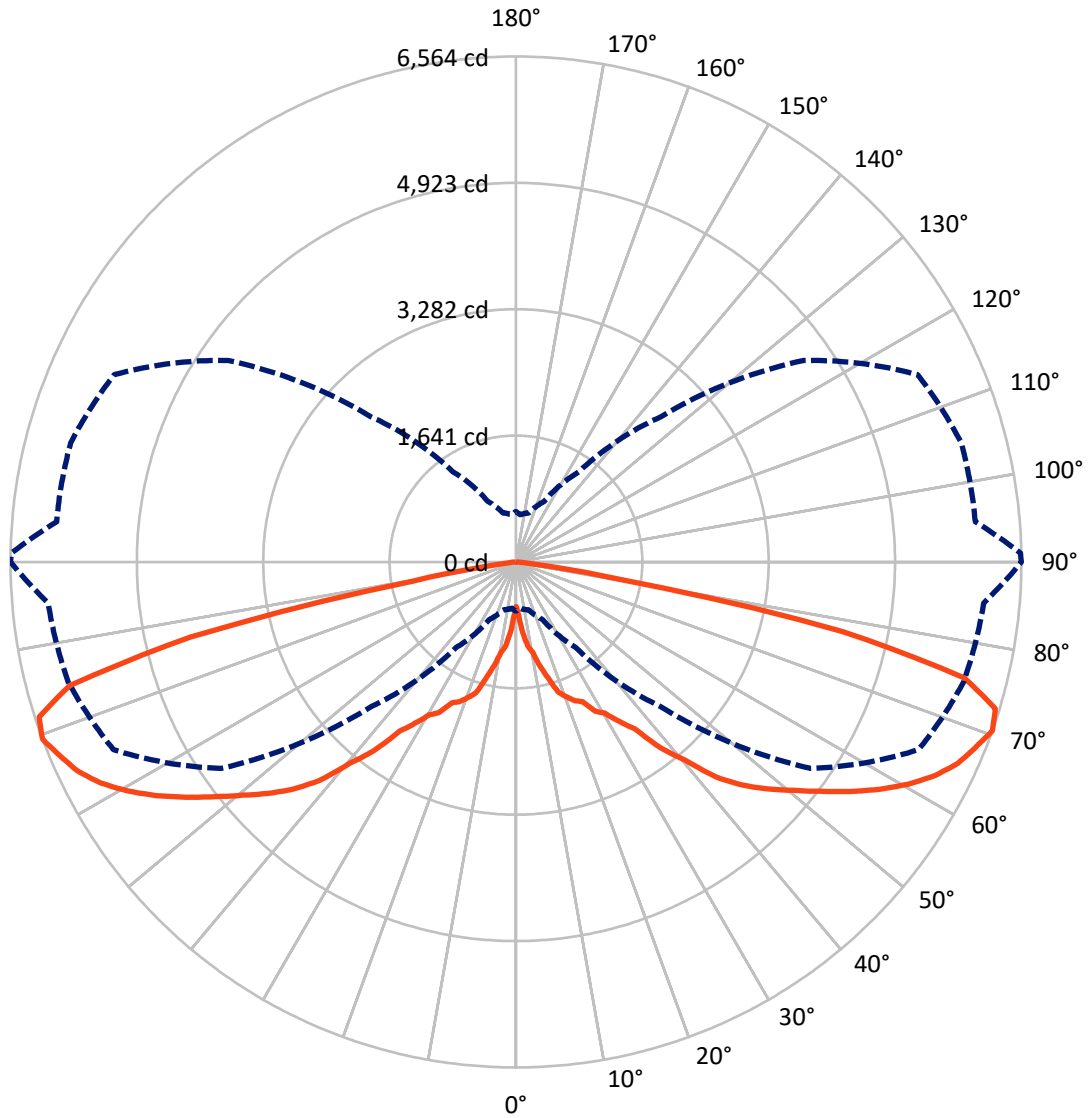
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type III - Short - N/A

REPORT NUMBER: P597116
CATALOG NUMBER: MSA-SA4B-835-U-RW

Luminous Intensity Polar Plot



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



REPORT NUMBER: P597116
 CATALOG NUMBER: MSA-SA4B-835-U-RW

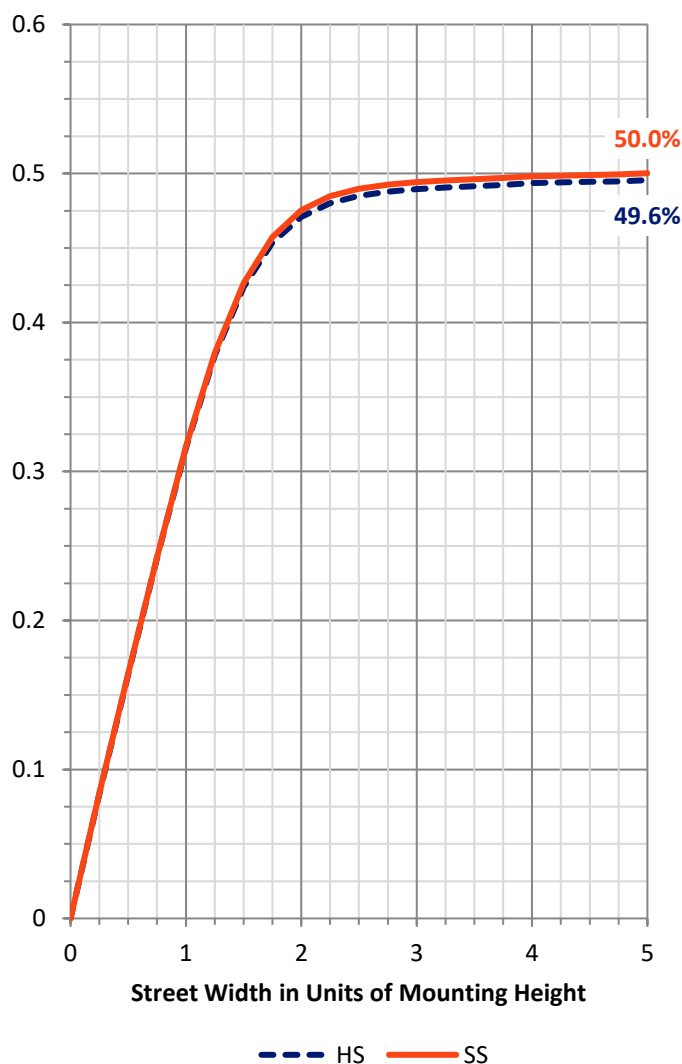
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8194.0	0.0	8194.0
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	8255.0	0.0	8255.0
	% Fixture	50.2	0.0	50.2
Total	Lumens	16449.0	0.0	16449.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	0.5
10°-20°	399.2	2.4
20°-30°	863.0	5.2
30°-40°	1646.6	10.0
40°-50°	2991.3	18.2
50°-60°	4202.0	25.5
60°-70°	4012.1	24.4
70°-80°	2059.0	12.5
80°-90°	188.8	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°	16449.0	100.0
0°-180°	16449.0	100.0

Coefficient of Utilization



REPORT NUMBER: P597116

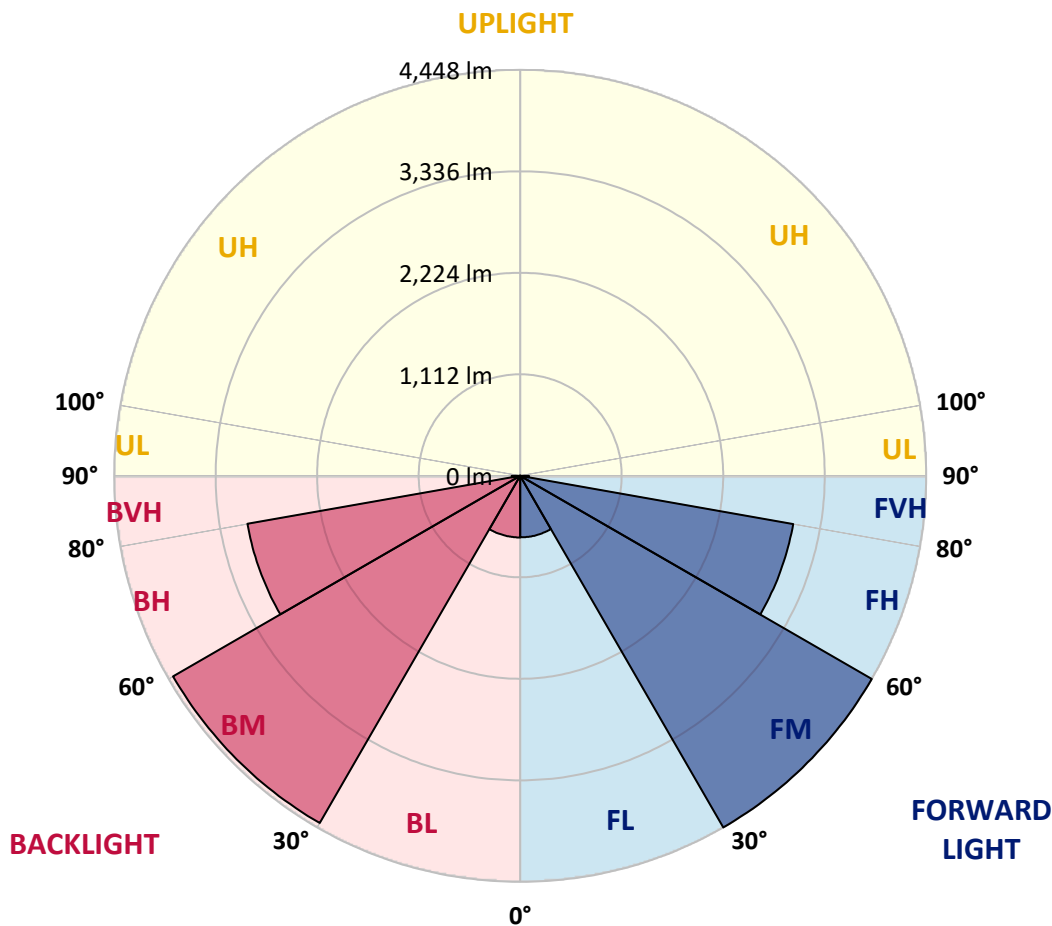
CATALOG NUMBER: MSA-SA4B-835-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	674.0	4.1			
FM (30°-60°)	4448.0	27.0			
FH (60°-80°)	3037.2	18.5			G2/5000
FVH (80°-90°)	95.8	0.6			G1/100
BL (0°-30°)	675.3	4.1	B2/1000		
BM (30°-60°)	4391.9	26.7	B3/5000		
BH (60°-80°)	3033.9	18.4	B4/5000		G4/5000
BVH (80°-90°)	93.0	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





REPORT NUMBER: P597116

CATALOG NUMBER: MSA-SA4B-835-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3
2.5°	699.3	673.3	640.7	660.0	668.0	682.0	680.0	673.3	644.7	692.7	698.0
5°	875.3	834.0	818.7	816.0	820.0	806.7	850.0	837.3	860.7	904.0	914.0
7.5°	996.6	966.0	933.3	943.3	902.0	896.0	952.0	1002.0	1014.6	1094.0	1099.3
10°	1054.0	1024.0	1032.6	1026.6	1022.0	1060.6	1086.6	1123.3	1176.0	1183.3	1194.6
12.5°	1102.6	1114.6	1152.6	1151.3	1214.0	1282.6	1272.6	1310.6	1319.3	1411.3	1383.3
15°	1226.0	1250.6	1248.0	1271.3	1298.6	1411.3	1412.0	1476.6	1536.0	1572.0	1562.6
17.5°	1406.6	1415.3	1379.3	1380.6	1460.0	1506.0	1557.3	1546.0	1700.6	1771.3	1776.0
20°	1514.6	1536.6	1495.3	1440.6	1581.3	1644.6	1673.3	1607.3	1772.6	1868.0	1868.0
22.5°	1703.3	1646.6	1584.0	1547.3	1671.3	1738.6	1735.3	1716.6	1804.6	1973.3	1957.3
25°	1807.3	1775.3	1744.0	1753.3	1816.0	1850.6	1896.6	1853.3	1936.0	2061.3	2008.6
27.5°	2004.6	1945.3	1791.3	1914.0	1914.0	1888.0	1985.3	2006.0	1952.0	2156.0	2195.3
30°	2228.0	2207.3	1989.3	2119.3	2079.3	2006.0	2192.6	2179.3	2088.6	2296.6	2278.6
32.5°	2439.3	2507.3	2300.6	2229.3	2289.3	2317.3	2219.3	2259.3	2276.6	2477.3	2468.6
35°	2763.3	2820.6	2546.6	2528.6	2428.6	2402.6	2477.3	2490.6	2492.0	2703.3	2664.6
37.5°	3323.9	3241.3	2970.6	2843.3	2854.6	2823.3	2837.9	2732.6	2747.3	3053.9	3073.3
40°	3733.9	3640.6	3339.3	3247.9	3023.9	3157.9	3039.3	3028.6	2999.3	3396.6	3385.9
42.5°	4186.6	4058.6	3725.3	3603.3	3365.3	3310.6	3255.9	3379.3	3371.3	3739.3	3820.6
45°	4528.6	4269.9	4095.9	4019.9	3877.3	3743.3	3691.3	3746.6	3721.3	3994.6	4136.6
47.5°	4744.6	4519.9	4319.9	4159.9	4023.3	4351.9	4088.6	4014.6	3963.3	4269.3	4405.9
50°	4916.6	4657.2	4421.3	4367.9	4475.9	4766.6	4351.3	4187.9	4250.6	4475.9	4661.9
52.5°	4963.2	4688.6	4476.6	4442.6	4734.6	4787.2	4719.9	4445.3	4428.6	4723.9	4948.6
55°	4820.6	4557.2	4456.6	4642.6	4965.2	4921.2	5023.9	4848.6	4730.6	4977.2	5259.9
57.5°	4453.3	4191.9	4167.9	4435.9	4842.6	5217.2	5267.9	5129.2	4974.6	5235.9	5569.2
60°	3849.9	3611.3	3671.9	3967.9	4581.2	5114.6	5383.9	5257.2	5209.2	5469.2	5855.9
62.5°	2910.6	2724.6	2886.6	3299.3	4103.9	4981.9	5543.9	5523.9	5454.6	5717.2	6109.2
65°	1856.0	1758.0	1923.3	2342.6	3363.3	4740.6	5620.6	5647.2	5711.2	5908.6	6305.2
67.5°	1078.6	1026.6	1127.3	1470.6	2395.3	3892.6	5477.9	5860.6	5893.9	6007.2	6433.9
70°	638.0	604.0	645.3	826.0	1356.0	2652.0	4672.6	5767.2	6019.2	6097.9	6563.9
72.5°	486.7	454.7	436.7	488.7	708.0	1370.0	3159.3	4888.6	5918.6	6037.9	6509.2
75°	420.7	390.0	368.7	373.3	421.3	650.7	1712.6	3496.6	5043.2	5497.9	6012.6
77.5°	361.3	334.0	318.7	317.3	323.3	357.3	716.0	1896.0	3158.6	3951.9	4334.6
80°	289.3	268.0	264.7	264.7	256.0	253.3	356.0	721.3	1202.0	1425.3	1366.6
82.5°	211.3	190.0	211.3	208.7	195.3	184.7	226.7	312.0	370.7	292.7	231.3
85°	142.7	123.3	139.3	142.0	129.3	96.0	136.0	156.0	160.0	100.0	82.7
87.5°	50.0	48.7	78.7	68.7	56.0	32.7	50.0	54.0	56.7	35.3	24.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P597116

CATALOG NUMBER: MSA-SA4B-835-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3
2.5°	700.0	692.0	652.0	658.0	673.3	680.7	688.0	658.0	643.3	690.0	685.3
5°	916.6	887.3	854.7	850.0	852.0	823.3	840.0	832.7	836.0	866.0	872.0
7.5°	1098.0	1062.6	1019.3	985.3	926.6	880.0	919.3	939.3	945.3	998.6	1018.6
10°	1196.0	1166.0	1153.3	1089.3	1070.0	1064.0	1054.6	1022.6	1058.0	1045.3	1055.3
12.5°	1388.0	1382.0	1316.0	1274.0	1278.0	1289.3	1230.6	1198.6	1152.6	1224.6	1198.6
15°	1551.3	1577.3	1511.3	1434.6	1396.6	1416.0	1371.3	1324.6	1283.3	1305.3	1277.3
17.5°	1760.0	1759.3	1630.6	1548.6	1545.3	1544.0	1478.0	1375.3	1424.6	1409.3	1410.6
20°	1870.6	1852.6	1692.6	1598.0	1678.6	1650.0	1590.6	1458.6	1516.0	1534.6	1546.6
22.5°	1963.3	1953.3	1759.3	1690.0	1742.0	1742.6	1683.3	1614.0	1606.6	1664.6	1633.3
25°	2028.0	2068.0	1885.3	1868.6	1891.3	1868.6	1810.6	1765.3	1736.0	1822.6	1736.0
27.5°	2181.3	2124.6	1904.6	1999.3	2013.3	1899.3	1972.0	1918.6	1837.3	1944.6	1980.0
30°	2290.6	2324.0	2040.6	2183.3	2166.6	2061.3	2091.3	2089.3	1992.0	2201.3	2176.6
32.5°	2478.6	2438.6	2262.6	2251.3	2291.3	2286.6	2236.0	2260.6	2284.6	2436.6	2473.3
35°	2671.3	2713.9	2404.6	2481.3	2470.0	2398.0	2530.6	2515.3	2586.6	2898.6	2795.3
37.5°	3105.9	2902.6	2723.3	2713.3	2789.3	2800.6	2757.9	2825.3	2979.3	3219.3	3329.9
40°	3390.6	3297.9	2993.3	3005.3	2899.9	3081.3	2961.3	3177.9	3295.3	3699.9	3660.6
42.5°	3821.3	3595.3	3302.6	3342.6	3321.3	3233.9	3391.9	3503.3	3671.3	3979.9	4179.3
45°	4141.9	3831.9	3693.3	3668.6	3665.9	3817.9	3797.9	3975.9	4035.9	4267.9	4433.3
47.5°	4385.3	4121.9	3916.6	3944.6	3863.3	4297.3	4065.9	4121.3	4242.6	4461.3	4653.9
50°	4673.9	4380.6	4147.3	4216.6	4414.6	4581.2	4371.9	4277.3	4336.6	4594.6	4809.2
52.5°	4941.2	4632.6	4375.9	4433.9	4757.2	4681.2	4658.6	4419.3	4411.9	4619.2	4863.2
55°	5253.9	4905.9	4679.2	4863.2	4977.9	4883.9	4847.9	4556.6	4376.6	4491.9	4721.9
57.5°	5560.6	5176.6	4951.2	4989.2	5134.6	5041.2	4771.2	4322.6	4097.9	4120.6	4353.3
60°	5847.9	5425.2	5239.2	5202.6	5318.6	4952.6	4479.9	3893.9	3595.9	3541.3	3742.6
62.5°	6093.9	5633.2	5457.2	5357.2	5467.9	4955.9	4025.9	3205.9	2878.6	2693.3	2849.9
65°	6289.2	5805.9	5680.6	5628.6	5668.6	4654.6	3318.6	2354.0	1952.6	1747.3	1838.6
67.5°	6419.2	5902.6	5845.2	5913.2	5379.9	3876.6	2458.6	1506.6	1135.3	1023.3	1080.6
70°	6553.9	5987.9	5985.9	5754.6	4561.9	2672.6	1436.0	868.7	660.7	617.3	653.3
72.5°	6508.5	5886.6	5916.6	5032.6	3161.3	1428.6	758.0	491.3	447.3	462.7	494.7
75°	6027.2	5351.9	5207.2	3617.9	1793.3	664.0	436.7	372.0	369.3	392.7	424.0
77.5°	4371.9	3727.3	3344.6	2050.6	768.7	359.3	321.3	310.7	310.7	329.3	357.3
80°	1441.3	1247.3	1300.0	793.3	363.3	248.0	250.7	255.3	254.0	258.7	282.0
82.5°	236.7	245.3	379.3	324.0	219.3	169.3	189.3	198.7	201.3	180.0	204.7
85°	84.0	94.7	161.3	150.0	126.7	85.3	124.7	139.3	137.3	120.0	132.7
87.5°	26.0	33.3	58.7	45.3	38.0	23.3	46.7	54.7	68.7	28.0	25.3
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)