

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: P596852

Luminaire Tested: **MSA-SA1B-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596852
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-SA1B-835-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4288 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

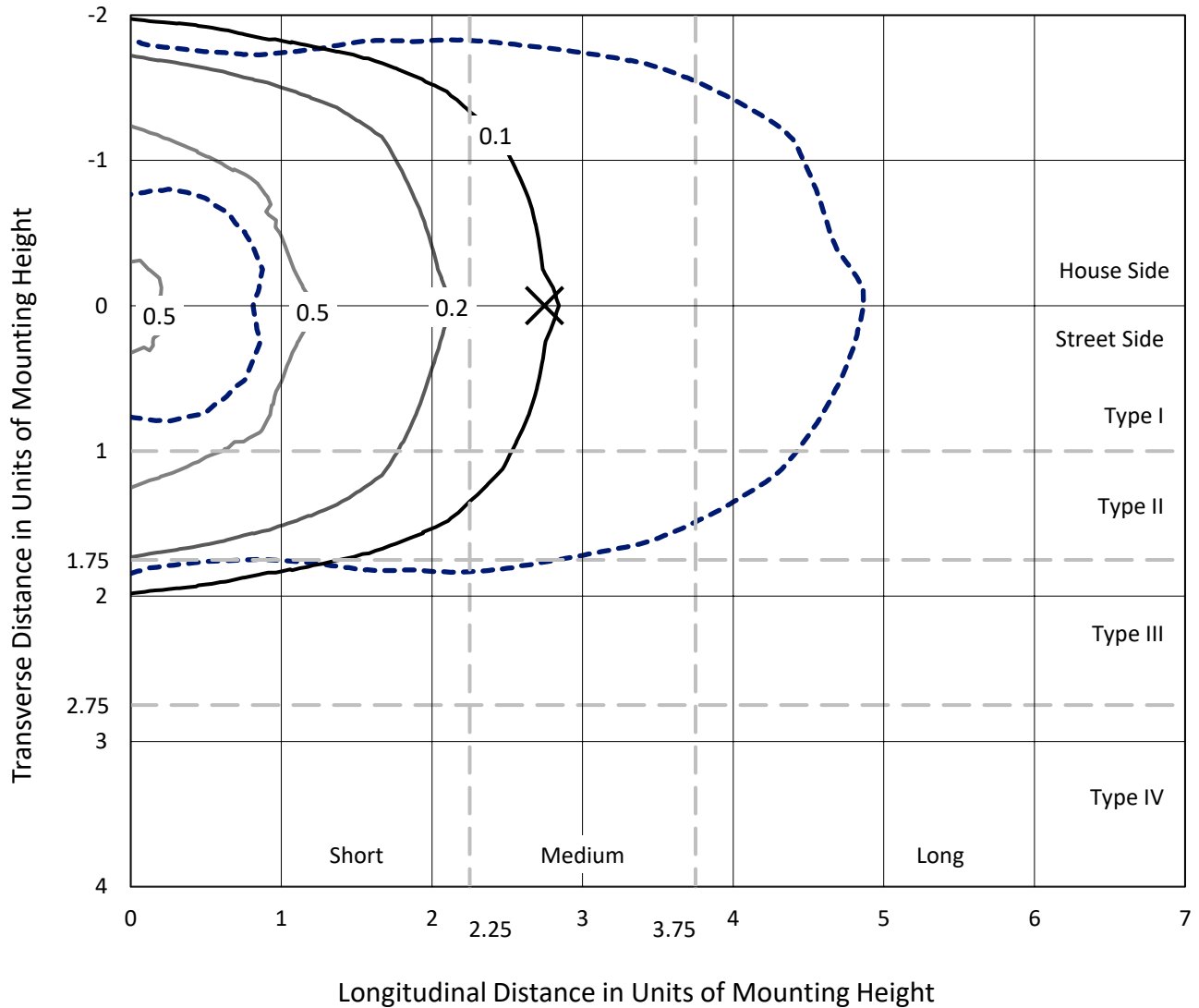
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596852
 CATALOG NUMBER: MSA-SA1B-835-U-RW

Iso-Footcandle Lines of Horizontal Illumination

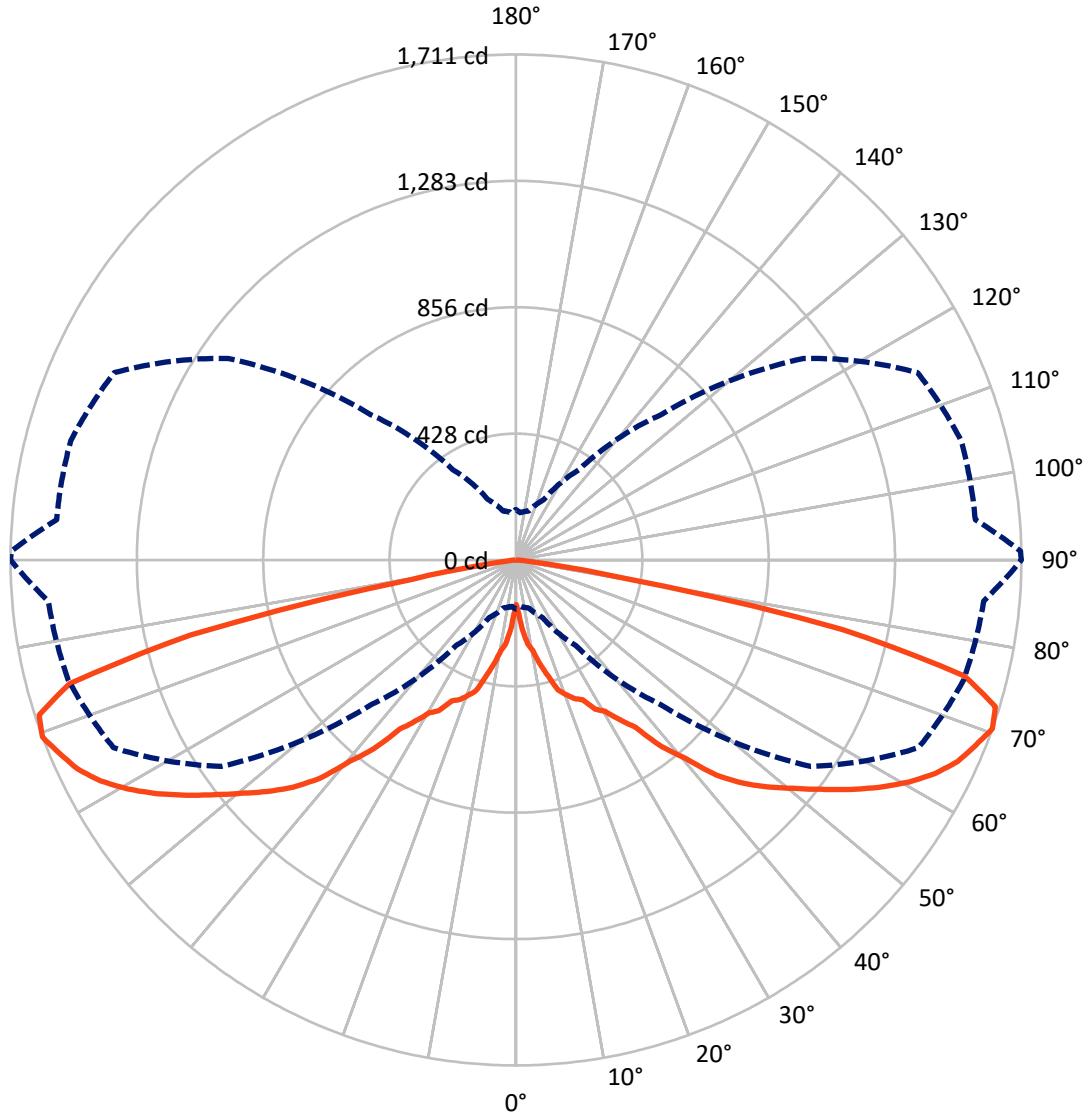
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type III - Short - N/A

REPORT NUMBER: P596852
CATALOG NUMBER: MSA-SA1B-835-U-RW

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596852

CATALOG NUMBER: MSA-SA1B-835-U-RW

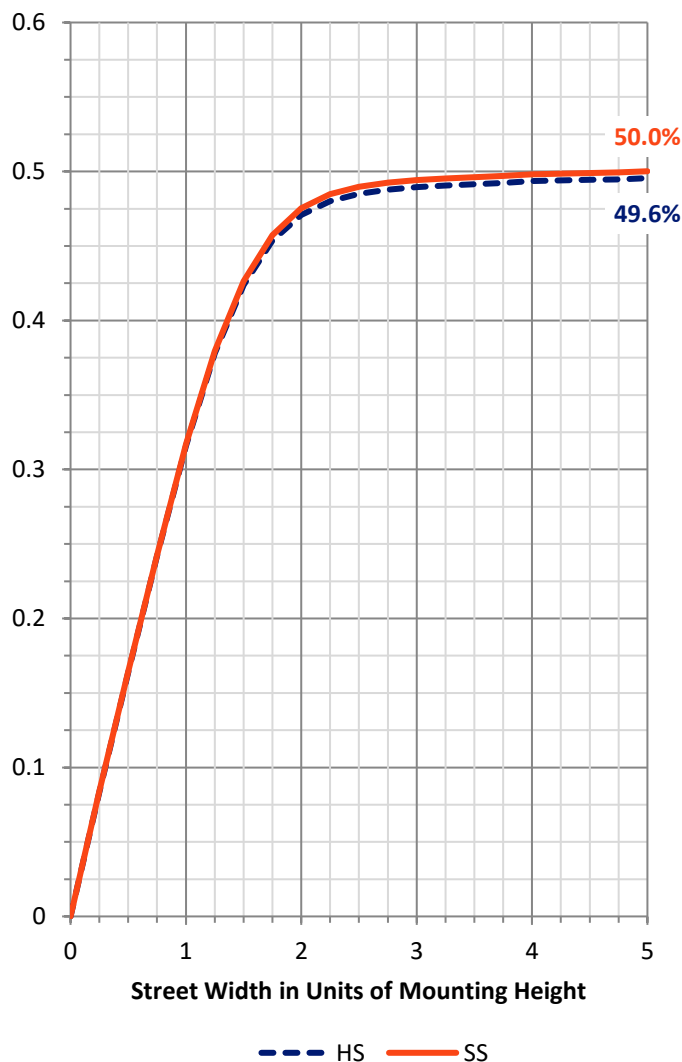
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2136.1	0.0	2136.1
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	2151.9	0.0	2151.9
	% Fixture	50.2	0.0	50.2
Total	Lumens	4288.0	0.0	4288.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	0.5
10°-20°	104.1	2.4
20°-30°	225.0	5.2
30°-40°	429.2	10.0
40°-50°	779.8	18.2
50°-60°	1095.4	25.5
60°-70°	1045.9	24.4
70°-80°	536.8	12.5
80°-90°	49.2	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°	4288.0	100.0
0°-180°	4288.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596852

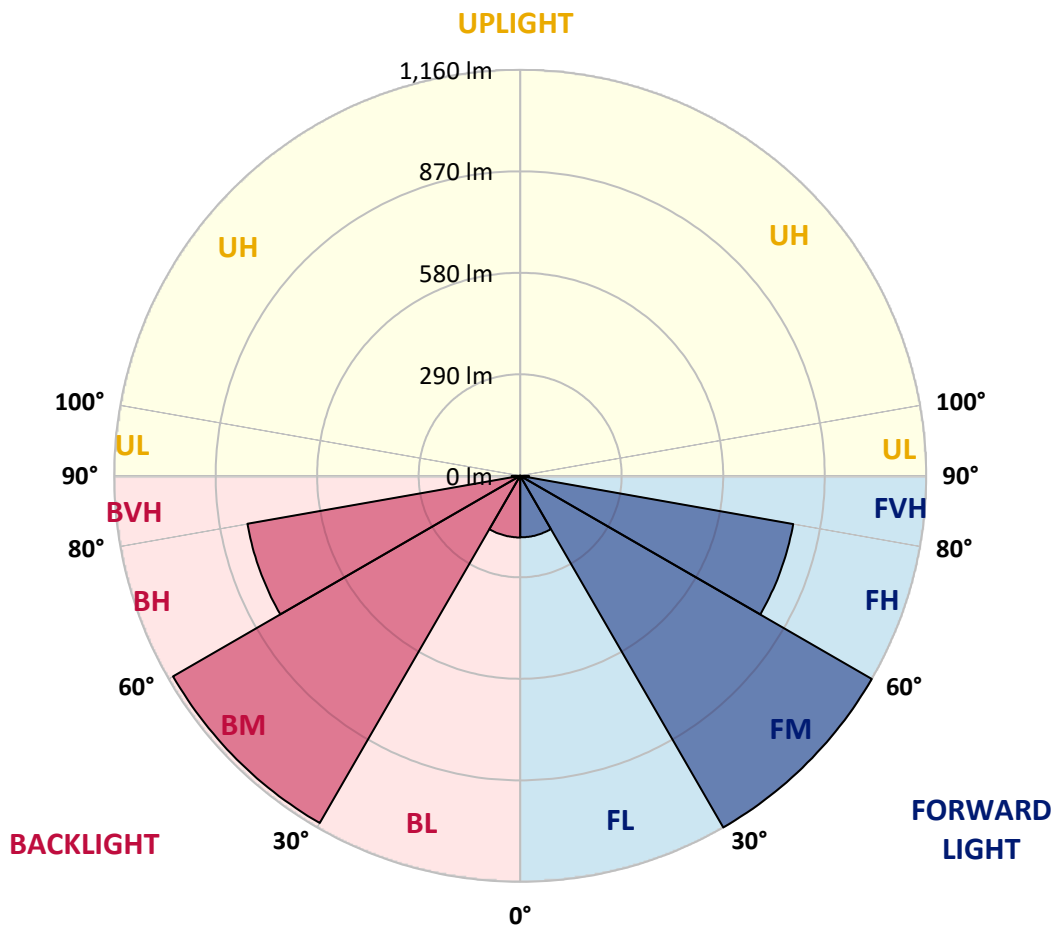
CATALOG NUMBER: MSA-SA1B-835-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	175.7	4.1			
FM (30°-60°)	1159.5	27.0			
FH (60°-80°)	791.8	18.5			G1/1800
FVH (80°-90°)	25.0	0.6			G1/100
BL (0°-30°)	176.0	4.1	B1/500		
BM (30°-60°)	1144.9	26.7	B2/2500		
BH (60°-80°)	790.9	18.4	B2/1000		G2/1000
BVH (80°-90°)	24.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





REPORT NUMBER: P596852
 CATALOG NUMBER: MSA-SA1B-835-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5
2.5°	182.3	175.5	167.0	172.0	174.1	177.8	177.3	175.5	168.1	180.6	182.0
5°	228.2	217.4	213.4	212.7	213.8	210.3	221.6	218.3	224.4	235.7	238.3
7.5°	259.8	251.8	243.3	245.9	235.1	233.6	248.2	261.2	264.5	285.2	286.6
10°	274.8	266.9	269.2	267.6	266.4	276.5	283.3	292.8	306.6	308.5	311.4
12.5°	287.4	290.6	300.5	300.1	316.5	334.4	331.8	341.7	343.9	367.9	360.6
15°	319.6	326.0	325.3	331.4	338.5	367.9	368.1	384.9	400.4	409.8	407.4
17.5°	366.7	368.9	359.6	359.9	380.6	392.6	406.0	403.0	443.3	461.8	463.0
20°	394.8	400.6	389.8	375.6	412.2	428.7	436.2	419.0	462.1	486.9	486.9
22.5°	444.0	429.3	412.9	403.4	435.7	453.2	452.4	447.5	470.4	514.4	510.2
25°	471.1	462.8	454.6	457.1	473.4	482.4	494.4	483.1	504.7	537.3	523.6
27.5°	522.6	507.1	467.0	498.9	498.9	492.2	517.5	522.9	508.8	562.0	572.3
30°	580.8	575.4	518.6	552.5	542.0	522.9	571.6	568.1	544.5	598.7	594.0
32.5°	635.9	653.6	599.7	581.1	596.8	604.1	578.5	589.0	593.5	645.8	643.5
35°	720.3	735.3	663.9	659.2	633.1	626.3	645.8	649.3	649.6	704.7	694.6
37.5°	866.5	844.9	774.4	741.2	744.2	736.0	739.8	712.4	716.2	796.1	801.2
40°	973.4	949.0	870.5	846.7	788.3	823.2	792.3	789.5	781.9	885.4	882.7
42.5°	1091.4	1058.0	971.1	939.3	877.3	863.0	848.8	880.9	878.8	974.8	996.0
45°	1180.5	1113.1	1067.7	1047.9	1010.7	975.8	962.3	976.7	970.1	1041.3	1078.3
47.5°	1236.8	1178.3	1126.1	1084.4	1048.8	1134.5	1065.8	1046.5	1033.2	1112.9	1148.6
50°	1281.7	1214.1	1152.6	1138.6	1166.8	1242.6	1134.3	1091.7	1108.1	1166.8	1215.3
52.5°	1293.8	1222.2	1167.0	1158.1	1234.2	1248.0	1230.4	1158.8	1154.5	1231.5	1290.0
55°	1256.7	1188.0	1161.8	1210.2	1294.4	1282.9	1309.7	1263.9	1233.2	1297.5	1371.2
57.5°	1160.9	1092.8	1086.5	1156.4	1262.4	1360.1	1373.3	1337.1	1296.8	1364.9	1451.8
60°	1003.6	941.4	957.2	1034.4	1194.3	1333.3	1403.5	1370.5	1358.0	1425.7	1526.5
62.5°	758.8	710.3	752.5	860.1	1069.8	1298.7	1445.2	1440.0	1421.9	1490.4	1592.6
65°	483.8	458.3	501.4	610.7	876.8	1235.8	1465.2	1472.1	1488.8	1540.3	1643.7
67.5°	281.2	267.6	293.9	383.4	624.4	1014.7	1428.0	1527.8	1536.4	1566.0	1677.2
70°	166.3	157.5	168.2	215.3	353.5	691.3	1218.1	1503.4	1569.1	1589.6	1711.1
72.5°	126.9	118.5	113.8	127.4	184.6	357.1	823.6	1274.4	1542.9	1574.0	1696.9
75°	109.7	101.7	96.1	97.3	109.8	169.6	446.5	911.5	1314.7	1433.2	1567.4
77.5°	94.2	87.1	83.1	82.7	84.3	93.1	186.6	494.2	823.4	1030.2	1130.0
80°	75.4	69.9	69.0	69.0	66.7	66.0	92.8	188.0	313.3	371.6	356.3
82.5°	55.1	49.5	55.1	54.4	50.9	48.1	59.1	81.3	96.6	76.3	60.3
85°	37.2	32.2	36.3	37.0	33.7	25.0	35.5	40.7	41.7	26.1	21.5
87.5°	13.0	12.7	20.5	17.9	14.6	8.5	13.0	14.1	14.8	9.2	6.3
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: P596852
 CATALOG NUMBER: MSA-SA1B-835-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5
2.5°	182.5	180.4	170.0	171.5	175.5	177.4	179.3	171.5	167.7	179.9	178.7
5°	239.0	231.3	222.8	221.6	222.1	214.6	219.0	217.1	217.9	225.7	227.3
7.5°	286.2	277.0	265.7	256.9	241.6	229.4	239.7	244.9	246.4	260.3	265.5
10°	311.8	304.0	300.7	284.0	278.9	277.4	274.9	266.6	275.8	272.5	275.1
12.5°	361.8	360.3	343.1	332.1	333.1	336.1	320.8	312.5	300.5	319.2	312.5
15°	404.4	411.2	394.0	374.0	364.1	369.1	357.5	345.3	334.5	340.3	333.0
17.5°	458.8	458.6	425.1	403.7	402.8	402.5	385.3	358.5	371.4	367.4	367.7
20°	487.6	483.0	441.2	416.6	437.6	430.1	414.7	380.2	395.2	400.1	403.2
22.5°	511.8	509.2	458.6	440.5	454.1	454.3	438.8	420.7	418.8	433.9	425.8
25°	528.7	539.1	491.5	487.1	493.0	487.1	472.0	460.2	452.5	475.1	452.5
27.5°	568.6	553.9	496.5	521.2	524.8	495.1	514.1	500.2	479.0	506.9	516.1
30°	597.1	605.8	532.0	569.2	564.8	537.3	545.2	544.6	519.3	573.8	567.4
32.5°	646.1	635.7	589.8	586.9	597.3	596.1	582.9	589.3	595.6	635.2	644.7
35°	696.4	707.5	626.8	646.8	643.9	625.1	659.7	655.7	674.3	755.6	728.7
37.5°	809.7	756.7	709.9	707.3	727.1	730.1	719.0	736.5	776.7	839.2	868.1
40°	883.9	859.7	780.3	783.4	756.0	803.2	772.0	828.4	859.0	964.5	954.3
42.5°	996.1	937.2	860.9	871.4	865.8	843.0	884.2	913.2	957.0	1037.5	1089.5
45°	1079.7	998.9	962.8	956.3	955.7	995.3	990.1	1036.5	1052.1	1112.6	1155.7
47.5°	1143.2	1074.5	1021.0	1028.3	1007.1	1120.2	1059.9	1074.3	1106.0	1163.0	1213.2
50°	1218.4	1142.0	1081.1	1099.2	1150.8	1194.3	1139.7	1115.0	1130.5	1197.7	1253.7
52.5°	1288.1	1207.6	1140.7	1155.9	1240.1	1220.3	1214.4	1152.0	1150.1	1204.2	1267.8
55°	1369.6	1278.9	1219.8	1267.8	1297.7	1273.2	1263.8	1187.8	1140.9	1171.0	1230.9
57.5°	1449.6	1349.5	1290.7	1300.6	1338.5	1314.2	1243.8	1126.8	1068.3	1074.2	1134.8
60°	1524.5	1414.3	1365.8	1356.2	1386.5	1291.1	1167.8	1015.1	937.4	923.2	975.6
62.5°	1588.6	1468.5	1422.6	1396.5	1425.4	1291.9	1049.5	835.7	750.4	702.1	742.9
65°	1639.5	1513.5	1480.8	1467.3	1477.7	1213.4	865.1	613.6	509.0	455.5	479.3
67.5°	1673.4	1538.7	1523.8	1541.5	1402.5	1010.6	640.9	392.8	296.0	266.8	281.7
70°	1708.5	1561.0	1560.4	1500.1	1189.2	696.7	374.3	226.4	172.2	160.9	170.3
72.5°	1696.7	1534.5	1542.4	1311.9	824.1	372.4	197.6	128.1	116.6	120.6	128.9
75°	1571.2	1395.2	1357.4	943.1	467.5	173.1	113.8	97.0	96.3	102.4	110.5
77.5°	1139.7	971.6	871.9	534.6	200.4	93.7	83.8	81.0	81.0	85.9	93.1
80°	375.7	325.2	338.9	206.8	94.7	64.6	65.3	66.6	66.2	67.4	73.5
82.5°	61.7	64.0	98.9	84.5	57.2	44.1	49.4	51.8	52.5	46.9	53.4
85°	21.9	24.7	42.1	39.1	33.0	22.2	32.5	36.3	35.8	31.3	34.6
87.5°	6.8	8.7	15.3	11.8	9.9	6.1	12.2	14.3	17.9	7.3	6.6
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)