

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: P368351

Luminaire Tested: **MSA-SA4B-730-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368351
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-730-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13345 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

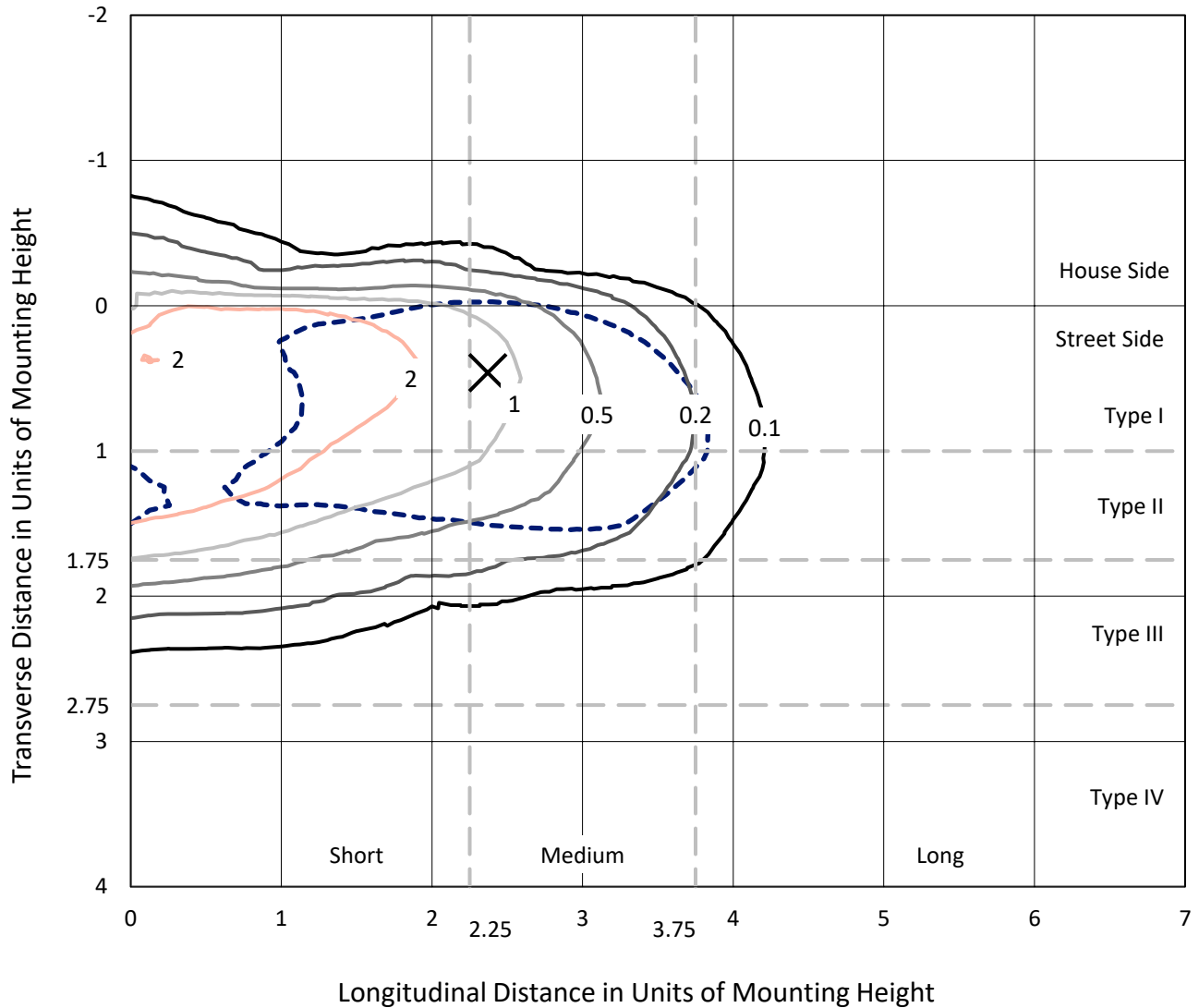
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368351
 CATALOG NUMBER: MSA-SA4B-730-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

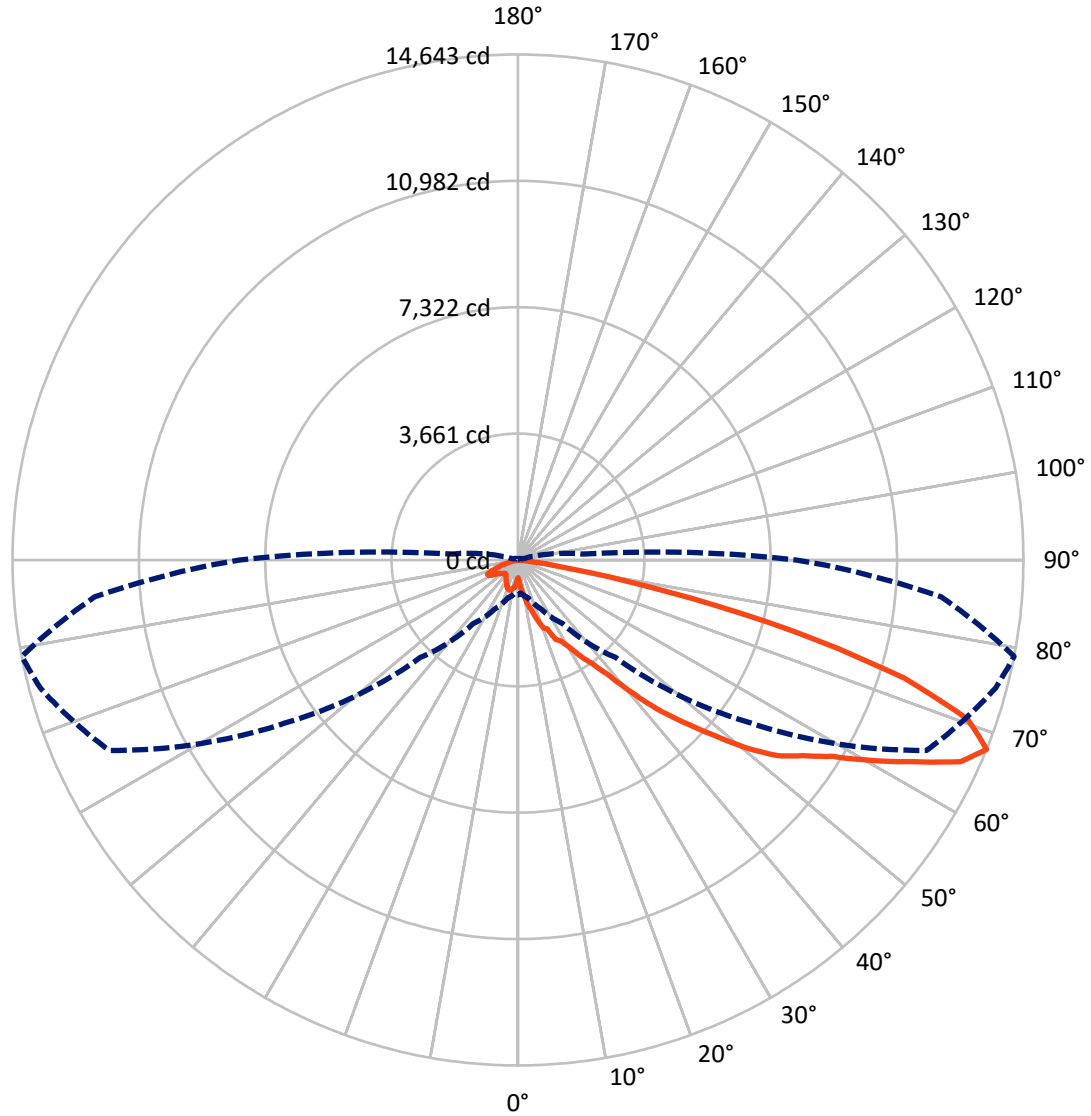
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type II - Medium - N/A

REPORT NUMBER: P368351
CATALOG NUMBER: MSA-SA4B-730-U-T2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P368351

CATALOG NUMBER: MSA-SA4B-730-U-T2-HSS

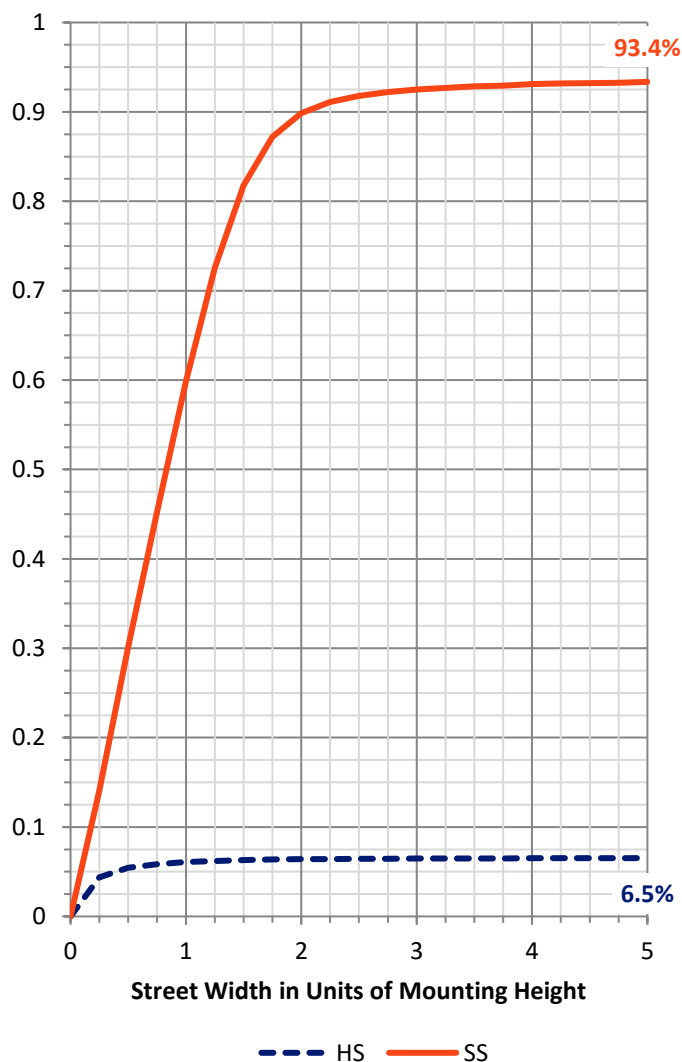
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	876.9	0.0	876.9
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	12468.1	0.0	12468.1
	% Fixture	93.4	0.0	93.4
Total	Lumens	13345.0	0.0	13345.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	0.6
10°-20°	298.2	2.2
20°-30°	575.3	4.3
30°-40°	1130.0	8.5
40°-50°	2263.8	17.0
50°-60°	3618.3	27.1
60°-70°	3640.6	27.3
70°-80°	1642.4	12.3
80°-90°	101.6	0.8
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°	13345.0	100.0
0°-180°	13345.0	100.0

Coefficient of Utilization

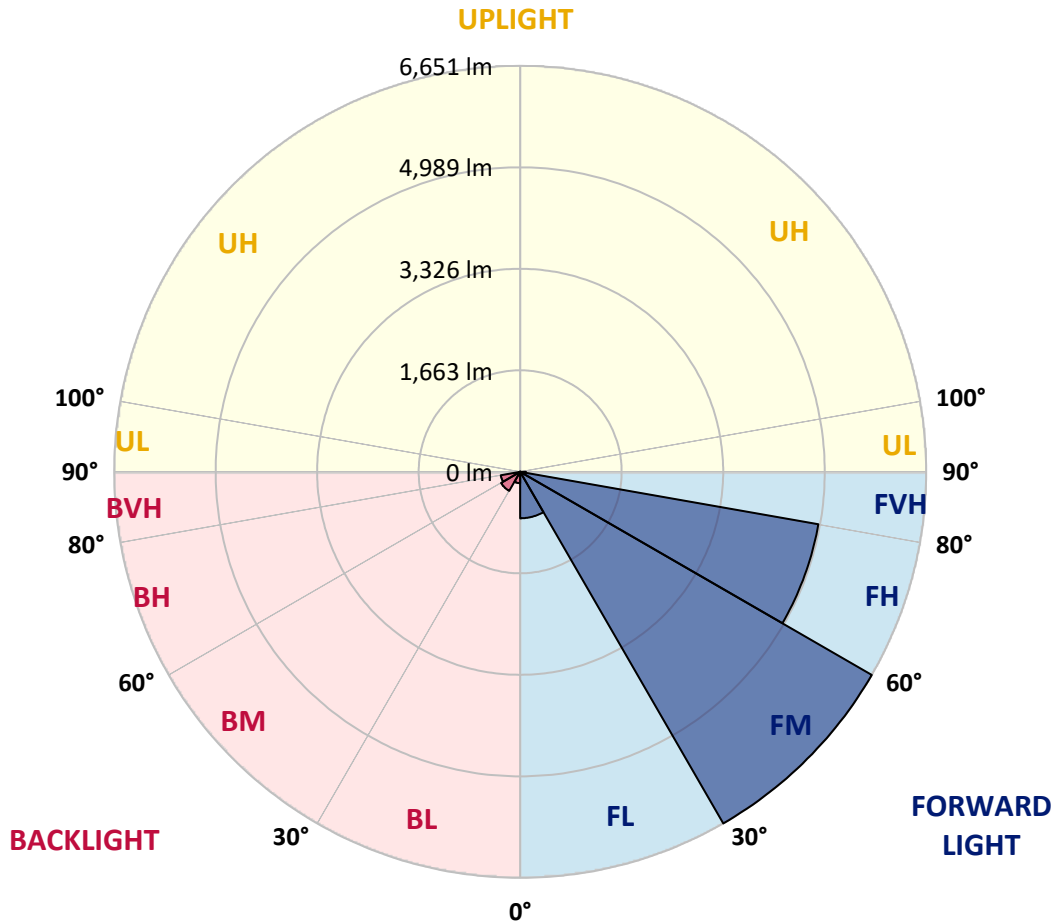


REPORT NUMBER: P368351
 CATALOG NUMBER: MSA-SA4B-730-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	761.9	5.7			
FM (30°-60°)	6651.3	49.8			
FH (60°-80°)	4959.8	37.2			G2/5000
FVH (80°-90°)	95.1	0.7			G1/100
BL (0°-30°)	186.4	1.4	B1/500		
BM (30°-60°)	360.8	2.7	B1/1000		
BH (60°-80°)	323.2	2.4	B1/500		G1/500
BVH (80°-90°)	6.5	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 II Medium





REPORT NUMBER: P368351

CATALOG NUMBER: MSA-SA4B-730-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2
2.5°	694.5	669.4	629.0	651.8	650.3	662.1	640.0	615.7	576.7	615.7	618.7
5°	999.7	953.4	924.0	918.1	885.7	855.6	848.9	823.9	804.8	770.2	801.1
7.5°	1245.5	1224.1	1171.9	1166.0	1086.6	1042.4	1056.4	1045.4	972.5	936.5	966.6
10°	1349.9	1313.1	1320.5	1313.1	1279.3	1291.8	1263.1	1230.0	1171.9	1112.3	1037.3
12.5°	1390.4	1384.5	1445.5	1438.2	1517.6	1613.3	1549.3	1494.1	1359.5	1344.8	1242.5
15°	1477.2	1514.0	1505.1	1536.0	1586.8	1749.4	1747.9	1761.1	1618.4	1541.9	1394.1
17.5°	1554.4	1581.6	1537.5	1572.8	1711.1	1809.7	1941.4	1889.9	1906.1	1828.1	1599.3
20°	1521.3	1552.2	1508.1	1486.7	1730.2	1917.1	2092.9	2055.4	2152.5	2104.0	1788.4
22.5°	1728.0	1669.9	1558.8	1489.7	1671.4	1914.9	2146.6	2303.3	2286.4	2167.2	1964.2
25°	1983.3	1948.0	1814.8	1692.7	1708.9	1901.6	2315.8	2546.1	2596.1	2545.3	2131.2
27.5°	2327.6	2319.5	2047.3	1994.3	1836.9	1843.5	2342.3	2852.1	2738.1	2658.6	2326.1
30°	2777.1	2713.1	2390.1	2321.0	2088.5	1974.5	2504.1	3116.2	3032.3	2924.2	2509.3
32.5°	3260.4	3270.0	2858.0	2629.9	2443.1	2307.7	2440.1	3239.8	3396.5	3308.9	2738.1
35°	3809.2	3851.9	3347.9	3080.2	2716.7	2517.4	2715.3	3619.4	3900.4	3670.1	3044.8
37.5°	4654.4	4653.0	4064.5	3531.1	3267.0	3050.7	3173.6	3964.4	4519.8	4196.1	3595.1
40°	5398.2	5236.3	4689.0	4076.2	3664.3	3605.4	3516.4	4436.7	5181.2	4986.2	4084.3
42.5°	5953.6	5839.6	5178.2	4701.5	4191.0	4004.1	3972.5	5128.9	6157.4	5884.4	4782.4
45°	6617.9	6244.2	5757.2	5327.6	4807.5	4753.0	4678.7	5831.5	7293.2	6678.2	5389.4
47.5°	7213.0	6861.4	6400.9	5849.1	5251.8	5700.5	5415.1	6448.7	8119.3	7541.9	6058.8
50°	7714.0	7340.3	6824.6	6404.5	6148.5	6453.1	5977.1	6957.0	9011.7	8543.8	6684.8
52.5°	7969.3	7546.3	7147.6	6887.9	7044.6	6976.1	6739.3	7572.8	9772.3	9422.2	7239.5
55°	7759.6	7346.2	7179.2	7307.9	7783.9	7586.0	7605.1	8526.9	10490.3	10007.7	7722.1
57.5°	6829.8	6452.4	6526.7	6879.0	7791.2	8309.1	8592.4	9453.8	11066.3	10737.5	8466.6
60°	5166.5	4862.6	5137.8	5763.1	7058.5	8165.0	9292.7	10380.7	11889.5	11786.5	9593.6
62.5°	3155.2	2990.4	3380.3	4160.1	5624.8	7458.0	9701.0	11616.6	12770.1	12879.7	10789.0
65°	1609.6	1535.3	1860.5	2546.1	3800.4	6126.5	9406.0	12384.6	13680.1	14084.7	11928.5
67.5°	1013.7	965.9	1139.5	1553.0	2242.3	3996.0	8235.6	13056.3	14323.1	14643.1	12308.9
70°	702.5	672.4	822.5	1066.0	1414.7	2152.5	6114.7	12429.5	13813.3	13828.0	11388.6
72.5°	445.8	422.3	568.7	789.3	1043.9	1111.6	3505.4	9753.2	11824.1	11688.0	9222.8
75°	289.1	277.3	361.2	578.2	801.9	685.6	1732.4	6581.1	8478.3	8265.0	6125.7
77.5°	207.5	200.1	242.0	386.2	570.9	479.6	776.8	3922.5	4861.2	4394.8	2973.5
80°	125.1	124.3	175.1	242.0	406.1	338.4	359.0	1781.0	1884.7	1536.8	908.5
82.5°	62.5	64.7	97.8	156.0	261.2	221.4	164.0	592.9	506.1	373.0	183.9
85°	14.7	18.4	51.5	107.4	130.9	88.3	78.0	155.2	139.0	105.2	53.7
87.5°	0.0	0.0	16.2	25.7	35.3	14.7	26.5	29.4	37.5	29.4	11.0
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: P368351
 CATALOG NUMBER: MSA-SA4B-730-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2	514.2
2.5°	619.4	610.6	556.9	542.9	541.4	526.0	529.7	515.0	515.7	548.8	548.8
5°	789.3	737.9	686.4	640.7	609.9	565.7	549.5	542.9	537.0	550.3	558.4
7.5°	926.9	851.1	758.5	659.1	567.2	503.9	495.1	478.9	473.0	486.3	496.6
10°	988.0	893.8	766.5	621.6	535.6	484.1	441.4	418.6	414.2	413.4	417.1
12.5°	1117.4	1000.5	775.4	607.6	514.2	457.6	409.0	370.8	335.5	339.1	335.5
15°	1221.2	1082.9	775.4	573.8	462.7	406.1	320.7	301.6	296.5	304.6	297.9
17.5°	1377.9	1164.5	736.4	513.5	418.6	315.6	283.2	281.8	292.1	303.8	296.5
20°	1472.0	1175.6	670.9	444.3	343.5	273.7	261.9	250.1	264.8	274.4	270.7
22.5°	1569.9	1176.3	605.4	407.5	276.6	249.4	230.3	220.7	222.9	231.7	233.2
25°	1611.8	1147.6	544.4	359.0	250.9	222.9	203.0	192.7	189.1	193.5	192.0
27.5°	1725.8	1092.4	478.2	306.0	238.3	197.9	179.5	167.0	156.0	163.3	164.8
30°	1742.0	1074.8	442.1	272.2	222.2	175.1	158.9	145.7	137.6	147.9	147.9
32.5°	1793.5	977.7	423.7	258.2	205.2	161.8	139.8	130.2	128.7	135.4	136.1
35°	1873.0	935.0	396.5	247.2	189.8	146.4	125.8	121.4	119.9	125.1	125.1
37.5°	2142.2	882.0	366.4	237.6	176.6	138.3	122.1	114.8	115.5	119.9	122.9
40°	2321.0	888.7	321.5	225.8	161.1	130.9	114.8	109.6	108.9	111.1	113.3
42.5°	2652.7	893.8	301.6	213.3	149.3	122.1	107.4	103.7	100.8	103.0	105.2
45°	3023.5	921.0	291.3	203.0	142.7	117.0	100.8	98.6	92.0	93.4	96.4
47.5°	3381.0	1020.3	278.8	188.3	136.8	114.0	94.2	89.0	84.6	83.9	86.8
50°	3787.1	1116.7	264.8	172.1	130.9	109.6	87.5	79.4	76.5	76.5	78.7
52.5°	4150.5	1208.7	251.6	161.1	126.5	101.5	81.7	73.6	71.4	71.4	74.3
55°	4533.1	1305.0	239.8	150.8	120.6	93.4	76.5	69.2	68.4	66.9	69.2
57.5°	5208.4	1515.4	225.1	142.0	112.6	86.8	72.1	64.7	63.3	61.1	63.3
60°	6191.9	1838.4	206.0	133.2	103.0	82.4	68.4	59.6	57.4	53.7	54.4
62.5°	7153.4	2099.5	183.9	122.1	94.2	78.0	62.5	53.7	50.0	45.6	46.3
65°	7977.4	2202.5	160.4	108.9	85.3	67.7	54.4	47.1	41.9	36.0	35.3
67.5°	8074.5	1945.1	137.6	96.4	76.5	57.4	46.3	41.9	33.8	28.7	27.2
70°	7266.7	1449.2	114.8	85.3	66.2	48.6	39.7	36.8	31.6	27.2	25.0
72.5°	5786.6	1069.6	96.4	75.8	58.1	41.2	33.8	34.6	31.6	26.5	23.5
75°	3826.8	612.1	78.7	63.3	48.6	33.1	30.9	30.9	30.2	25.0	22.1
77.5°	1841.3	264.1	60.3	50.0	39.0	25.0	28.0	28.0	28.7	22.8	18.4
80°	522.3	79.4	37.5	33.8	28.7	16.9	22.1	21.3	19.1	13.2	8.1
82.5°	93.4	30.9	16.9	17.7	16.2	6.6	12.5	11.8	9.6	5.1	0.7
85°	25.7	11.8	9.6	10.3	8.1	2.2	5.1	6.6	5.1	2.9	0.0
87.5°	6.6	5.1	6.6	7.4	5.9	0.7	2.2	0.7	2.2	0.7	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)