

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: P596973

Luminaire Tested: **MSA-SA2C-835-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596973
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-835-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 7670 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

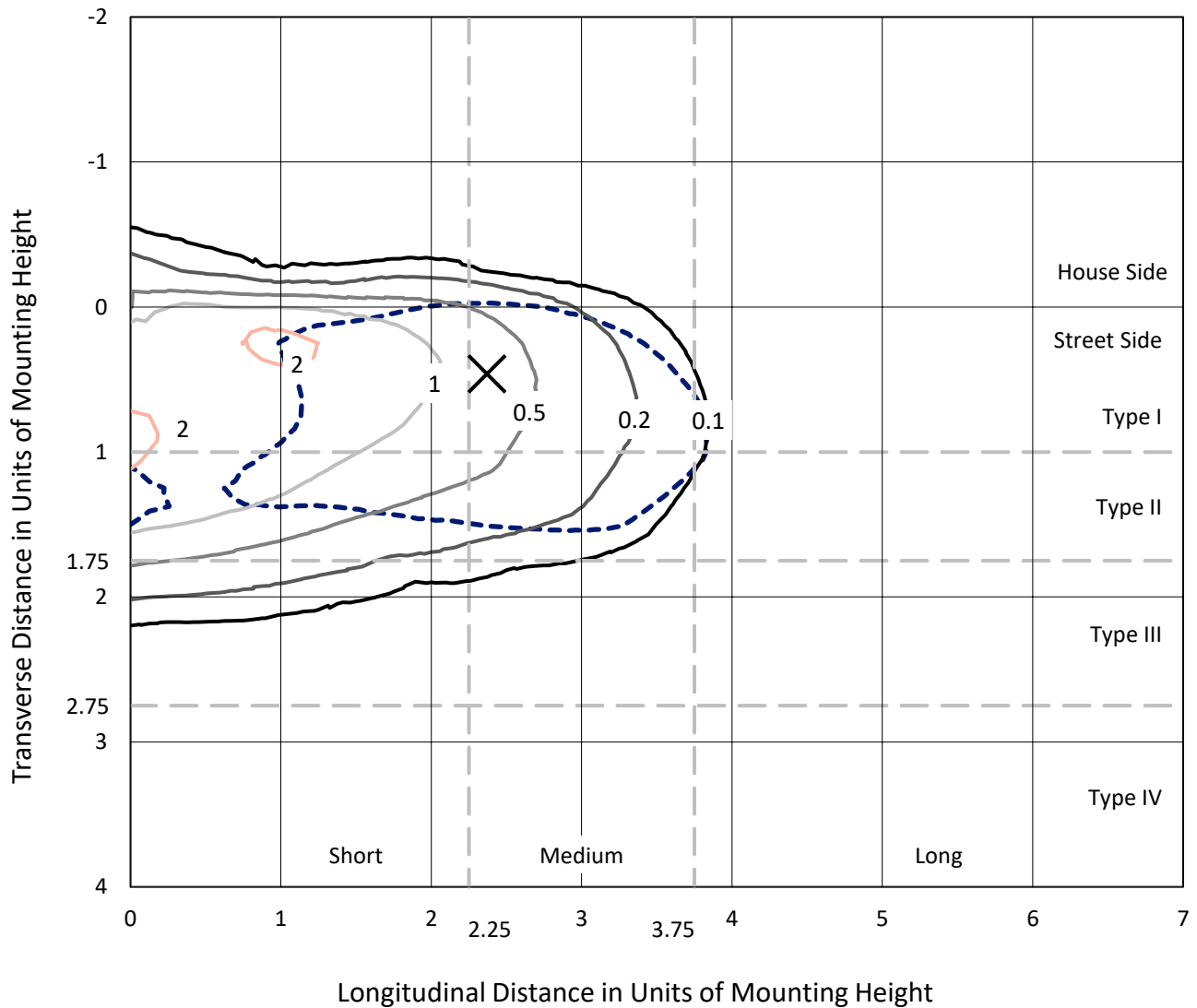
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

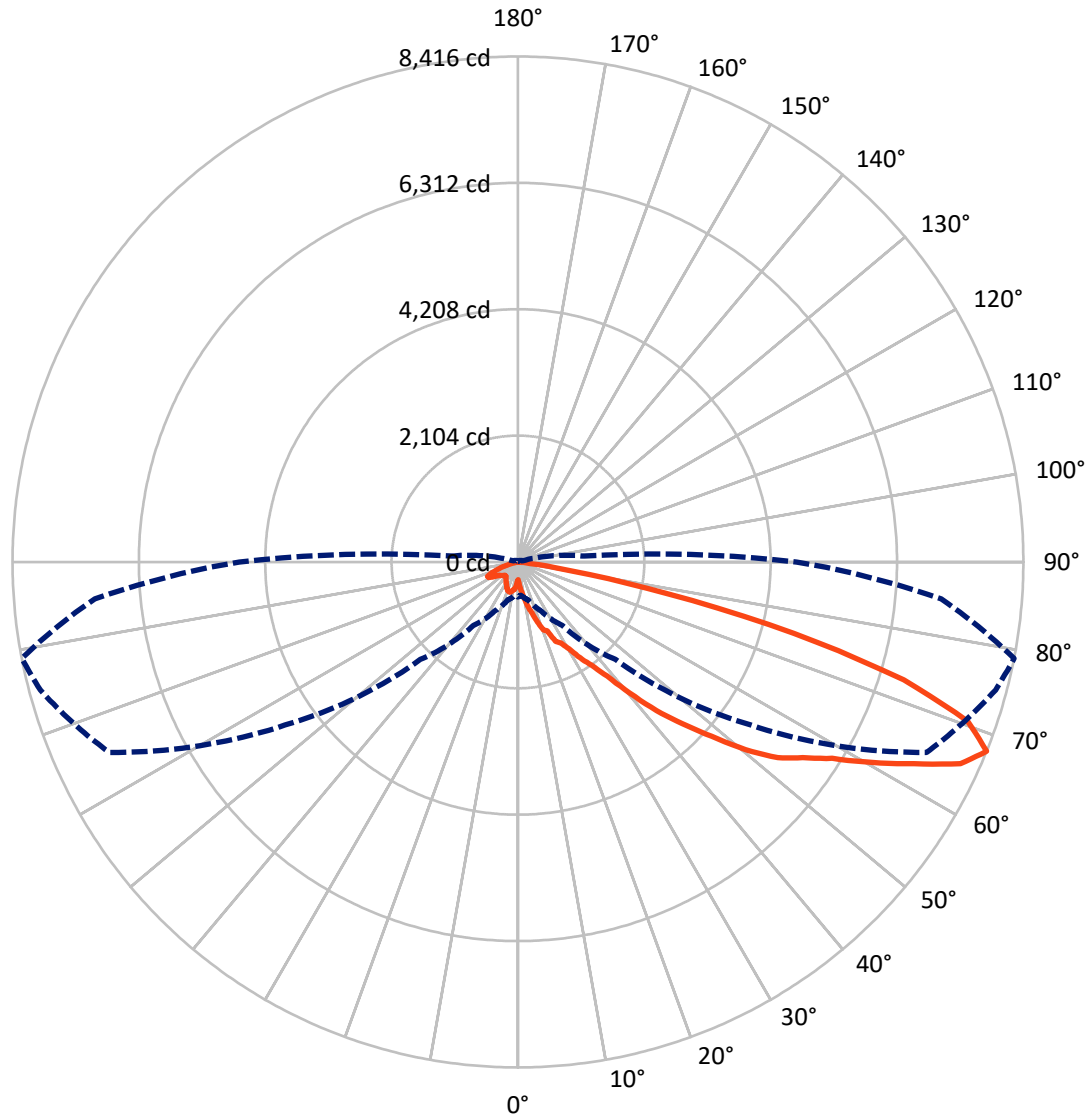
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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

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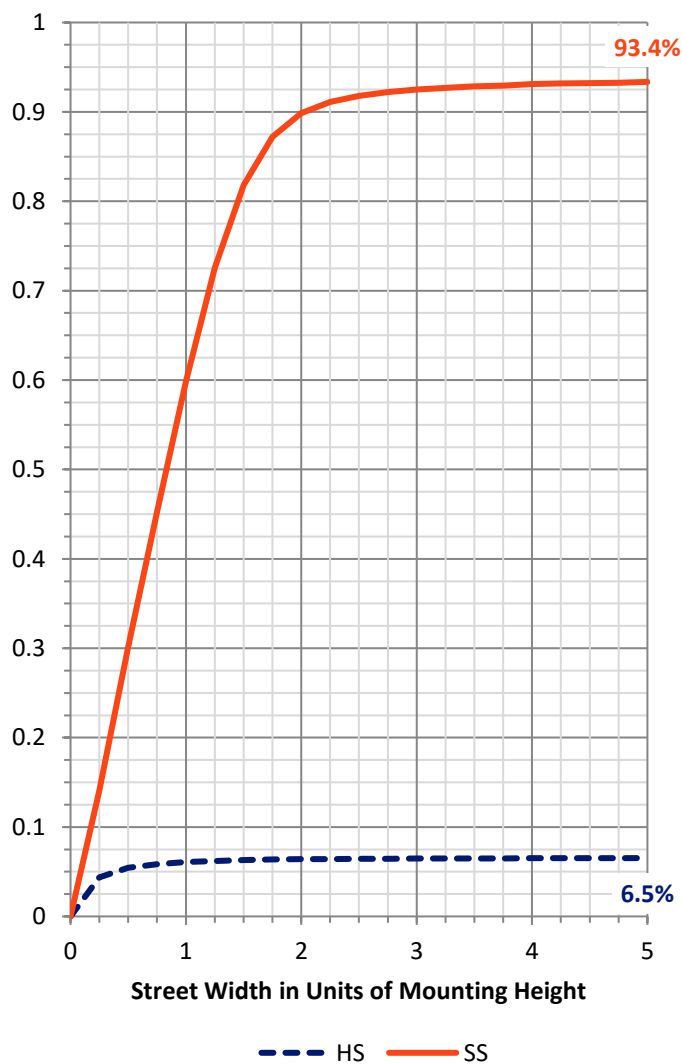
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	504.0	0.0	504.0
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	7166.0	0.0	7166.0
	% Fixture	93.4	0.0	93.4
Total	Lumens	7670.0	0.0	7670.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	0.6
10°-20°	171.4	2.2
20°-30°	330.6	4.3
30°-40°	649.5	8.5
40°-50°	1301.1	17.0
50°-60°	2079.6	27.1
60°-70°	2092.4	27.3
70°-80°	944.0	12.3
80°-90°	58.4	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°	7670.0	100.0
0°-180°	7670.0	100.0

Coefficient of Utilization



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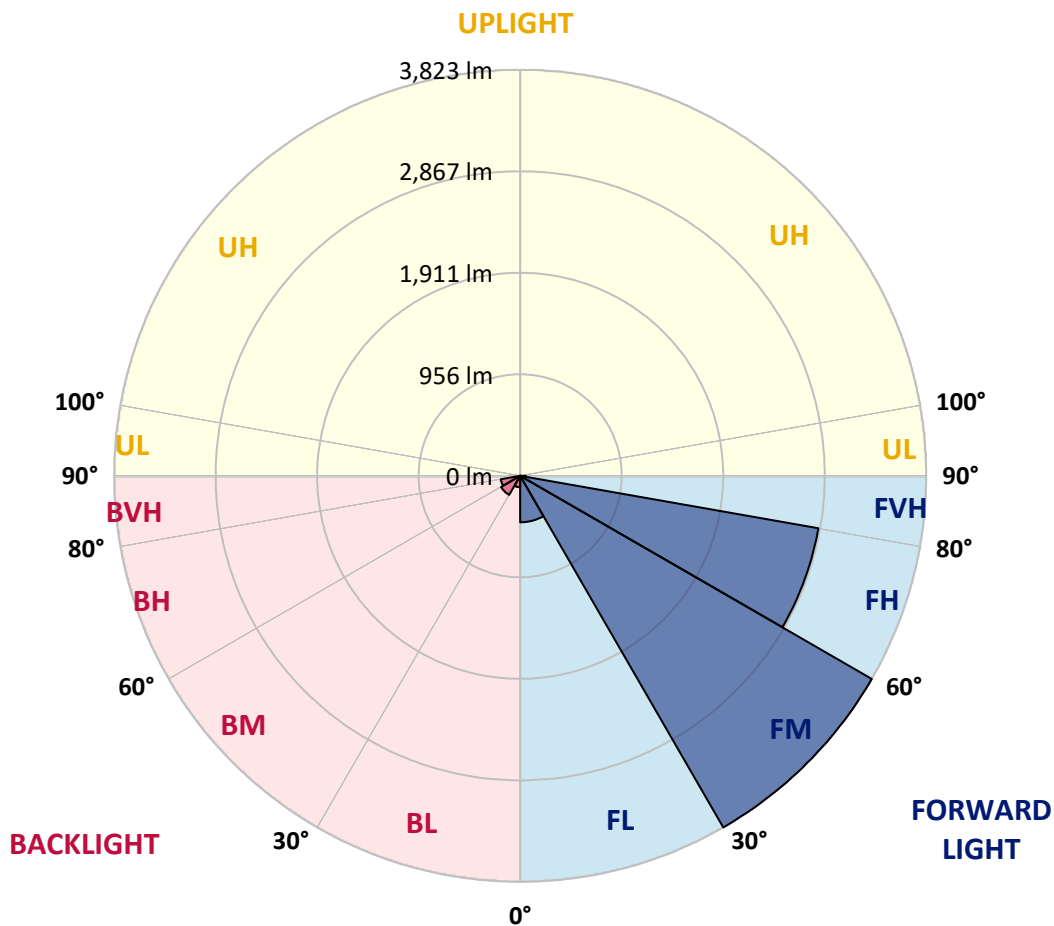
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	437.9	5.7			
FM (30°-60°)	3822.8	49.8			
FH (60°-80°)	2850.6	37.2			G2/5000
FVH (80°-90°)	54.7	0.7			G1/100
BL (0°-30°)	107.1	1.4	B0/110		
BM (30°-60°)	207.3	2.7	B0/220		
BH (60°-80°)	185.8	2.4	B1/500		G1/500
BVH (80°-90°)	3.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5
2.5°	399.1	384.8	361.5	374.6	373.8	380.5	367.8	353.9	331.5	353.9	355.6
5°	574.6	548.0	531.1	527.7	509.1	491.7	487.9	473.5	462.6	442.7	460.4
7.5°	715.8	703.6	673.5	670.2	624.5	599.1	607.2	600.8	559.0	538.2	555.6
10°	775.9	754.7	758.9	754.7	735.3	742.5	726.0	706.9	673.5	639.3	596.2
12.5°	799.1	795.7	830.8	826.6	872.3	927.2	890.4	858.7	781.4	772.9	714.1
15°	849.0	870.1	865.1	882.8	912.0	1005.4	1004.6	1012.2	930.2	886.2	801.2
17.5°	893.4	909.0	883.7	904.0	983.5	1040.1	1115.8	1086.2	1095.5	1050.7	919.2
20°	874.4	892.1	866.8	854.5	994.5	1101.8	1202.9	1181.3	1237.1	1209.2	1027.9
22.5°	993.2	959.8	895.9	856.2	960.6	1100.6	1233.8	1323.8	1314.1	1245.6	1128.9
25°	1139.9	1119.6	1043.1	972.9	982.2	1093.0	1331.0	1463.3	1492.1	1462.9	1224.9
27.5°	1337.8	1333.1	1176.7	1146.2	1055.8	1059.6	1346.2	1639.2	1573.7	1528.0	1336.9
30°	1596.1	1559.3	1373.7	1334.0	1200.4	1134.8	1439.2	1791.0	1742.8	1680.7	1442.2
32.5°	1873.9	1879.4	1642.6	1511.6	1404.2	1326.4	1402.5	1862.1	1952.1	1901.8	1573.7
35°	2189.3	2213.8	1924.2	1770.3	1561.4	1446.9	1560.6	2080.2	2241.7	2109.4	1750.0
37.5°	2675.1	2674.3	2336.0	2029.5	1877.7	1753.4	1824.0	2278.5	2597.8	2411.7	2066.3
40°	3102.6	3009.6	2695.0	2342.8	2106.0	2072.2	2021.0	2550.0	2977.9	2865.8	2347.4
42.5°	3421.8	3356.3	2976.2	2702.2	2408.8	2301.4	2283.2	2947.8	3538.9	3382.1	2748.7
45°	3803.6	3588.8	3308.9	3062.0	2763.1	2731.8	2689.1	3351.6	4191.8	3838.3	3097.5
47.5°	4145.7	3943.6	3678.9	3361.8	3018.4	3276.4	3112.3	3706.4	4666.6	4334.7	3482.3
50°	4433.6	4218.8	3922.4	3681.0	3533.9	3708.9	3435.3	3998.5	5179.4	4910.5	3842.1
52.5°	4580.3	4337.2	4108.0	3958.8	4048.8	4009.5	3873.4	4352.4	5616.6	5415.4	4160.9
55°	4459.8	4222.2	4126.2	4200.2	4473.8	4360.0	4371.0	4900.8	6029.3	5751.9	4438.2
57.5°	3925.4	3708.5	3751.2	3953.7	4478.0	4775.7	4938.4	5433.5	6360.3	6171.4	4866.1
60°	2969.4	2794.8	2952.9	3312.3	4056.9	4692.8	5341.0	5966.3	6833.5	6774.3	5513.9
62.5°	1813.4	1718.7	1942.8	2391.0	3232.8	4286.5	5575.6	6676.6	7339.6	7402.6	6200.9
65°	925.1	882.4	1069.3	1463.3	2184.2	3521.2	5406.1	7118.0	7862.6	8095.1	6855.9
67.5°	582.6	555.2	654.9	892.6	1288.7	2296.7	4733.4	7504.1	8232.1	8416.1	7074.5
70°	403.8	386.4	472.7	612.7	813.1	1237.1	3514.4	7143.8	7939.1	7947.6	6545.5
72.5°	256.2	242.7	326.8	453.7	600.0	638.9	2014.7	5605.6	6795.8	6717.6	5300.8
75°	166.2	159.4	207.6	332.3	460.9	394.1	995.7	3782.5	4872.9	4750.3	3520.7
77.5°	119.2	115.0	139.1	222.0	328.1	275.7	446.5	2254.4	2793.9	2525.9	1709.0
80°	71.9	71.5	100.6	139.1	233.4	194.5	206.3	1023.6	1083.2	883.3	522.2
82.5°	35.9	37.2	56.2	89.6	150.1	127.3	94.3	340.8	290.9	214.4	105.7
85°	8.5	10.6	29.6	61.7	75.3	50.7	44.8	89.2	79.9	60.5	30.9
87.5°	0.0	0.0	9.3	14.8	20.3	8.5	15.2	16.9	21.6	16.9	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5
2.5°	356.0	350.9	320.1	312.0	311.2	302.3	304.4	296.0	296.4	315.4	315.4
5°	453.7	424.1	394.5	368.3	350.5	325.1	315.8	312.0	308.7	316.3	320.9
7.5°	532.7	489.2	435.9	378.8	326.0	289.6	284.6	275.3	271.9	279.5	285.4
10°	567.8	513.7	440.6	357.3	307.8	278.2	253.7	240.6	238.0	237.6	239.7
12.5°	642.3	575.0	445.6	349.2	295.5	263.0	235.1	213.1	192.8	194.9	192.8
15°	701.9	622.4	445.6	329.8	265.9	233.4	184.3	173.4	170.4	175.0	171.2
17.5°	791.9	669.3	423.2	295.1	240.6	181.4	162.8	161.9	167.9	174.6	170.4
20°	846.0	675.7	385.6	255.4	197.5	157.3	150.5	143.8	152.2	157.7	155.6
22.5°	902.3	676.1	348.0	234.2	159.0	143.3	132.3	126.8	128.1	133.2	134.0
25°	926.4	659.6	312.9	206.3	144.2	128.1	116.7	110.8	108.7	111.2	110.4
27.5°	991.9	627.9	274.8	175.9	137.0	113.7	103.2	96.0	89.6	93.9	94.7
30°	1001.2	617.7	254.1	156.4	127.7	100.6	91.3	83.7	79.1	85.0	85.0
32.5°	1030.8	561.9	243.5	148.4	118.0	93.0	80.3	74.8	74.0	77.8	78.2
35°	1076.5	537.4	227.9	142.1	109.1	84.1	72.3	69.8	68.9	71.9	71.9
37.5°	1231.2	507.0	210.6	136.6	101.5	79.5	70.2	66.0	66.4	68.9	70.6
40°	1334.0	510.8	184.8	129.8	92.6	75.3	66.0	63.0	62.6	63.8	65.1
42.5°	1524.7	513.7	173.4	122.6	85.8	70.2	61.7	59.6	57.9	59.2	60.5
45°	1737.8	529.4	167.4	116.7	82.0	67.2	57.9	56.7	52.9	53.7	55.4
47.5°	1943.2	586.4	160.2	108.2	78.6	65.5	54.1	51.2	48.6	48.2	49.9
50°	2176.6	641.8	152.2	98.9	75.3	63.0	50.3	45.7	44.0	44.0	45.2
52.5°	2385.5	694.7	144.6	92.6	72.7	58.3	46.9	42.3	41.0	41.0	42.7
55°	2605.4	750.1	137.8	86.7	69.3	53.7	44.0	39.7	39.3	38.5	39.7
57.5°	2993.5	871.0	129.4	81.6	64.7	49.9	41.4	37.2	36.4	35.1	36.4
60°	3558.8	1056.6	118.4	76.5	59.2	47.4	39.3	34.2	33.0	30.9	31.3
62.5°	4111.4	1206.7	105.7	70.2	54.1	44.8	35.9	30.9	28.8	26.2	26.6
65°	4585.0	1265.9	92.2	62.6	49.0	38.9	31.3	27.1	24.1	20.7	20.3
67.5°	4640.8	1117.9	79.1	55.4	44.0	33.0	26.6	24.1	19.4	16.5	15.6
70°	4176.5	832.9	66.0	49.0	38.1	27.9	22.8	21.1	18.2	15.6	14.4
72.5°	3325.8	614.8	55.4	43.5	33.4	23.7	19.4	19.9	18.2	15.2	13.5
75°	2199.5	351.8	45.2	36.4	27.9	19.0	17.8	17.8	17.3	14.4	12.7
77.5°	1058.3	151.8	34.7	28.8	22.4	14.4	16.1	16.1	16.5	13.1	10.6
80°	300.2	45.7	21.6	19.4	16.5	9.7	12.7	12.3	11.0	7.6	4.7
82.5°	53.7	17.8	9.7	10.1	9.3	3.8	7.2	6.8	5.5	3.0	0.4
85°	14.8	6.8	5.5	5.9	4.7	1.3	3.0	3.8	3.0	1.7	0.0
87.5°	3.8	3.0	3.8	4.2	3.4	0.4	1.3	0.4	1.3	0.4	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)