

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: P368045

Luminaire Tested: **MSA-SA3C-830-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368045
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-830-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10684 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

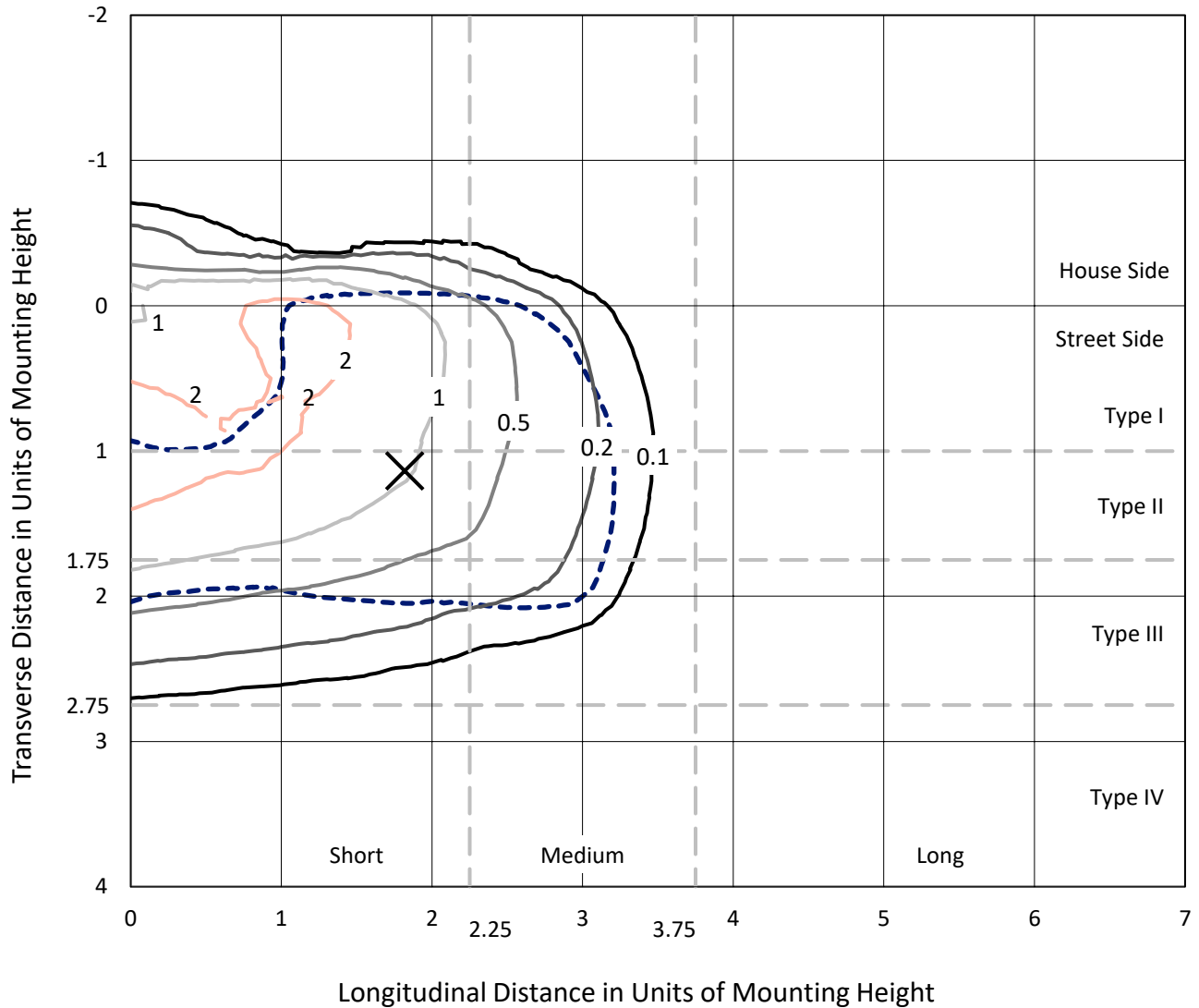
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

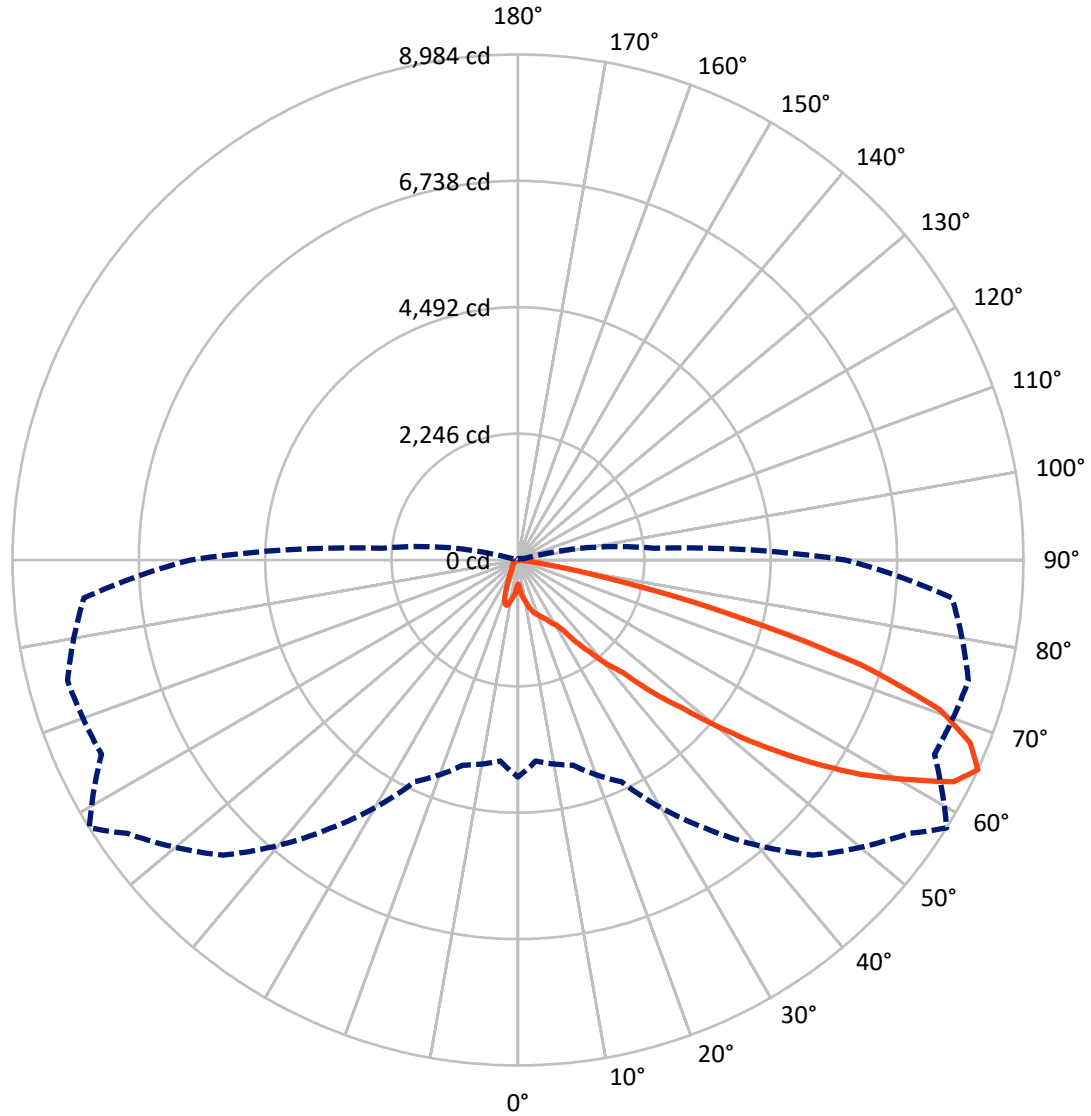
✕ Max cd
 - - - 1/2 Max cd



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 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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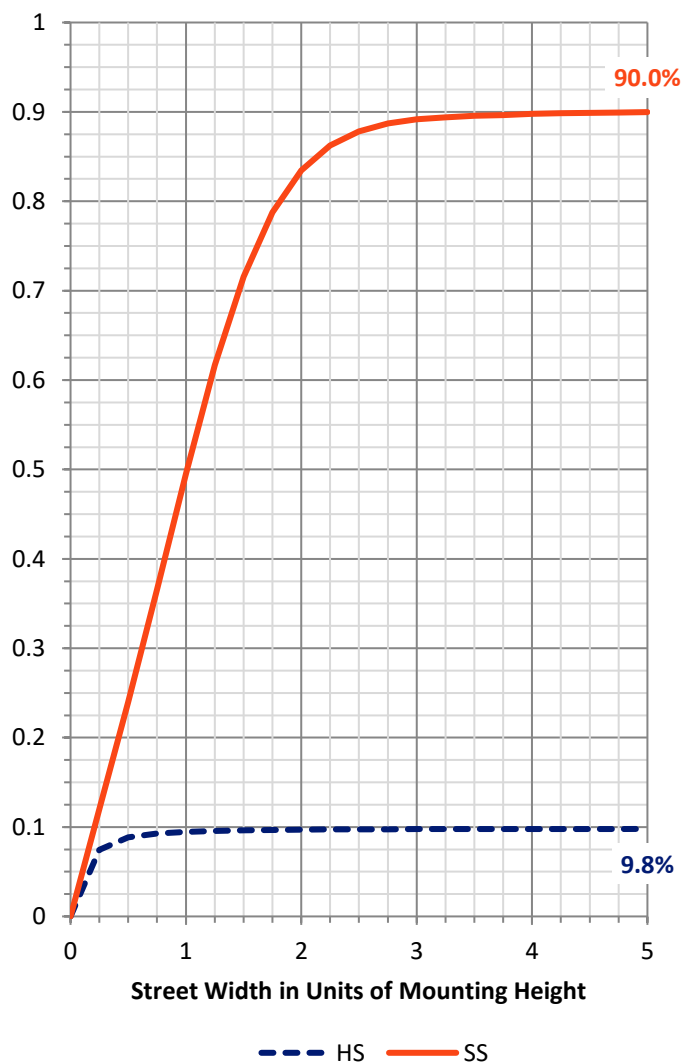
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1054.2	0.0	1054.2
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	9629.8	0.0	9629.8
	% Fixture	90.1	0.0	90.1
Total	Lumens	10684.0	0.0	10684.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	0.6
10°-20°	219.3	2.1
20°-30°	424.5	4.0
30°-40°	847.0	7.9
40°-50°	1731.5	16.2
50°-60°	3071.1	28.7
60°-70°	3237.8	30.3
70°-80°	1049.7	9.8
80°-90°	42.9	0.4
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°	10684.0	100.0
0°-180°	10684.0	100.0

Coefficient of Utilization

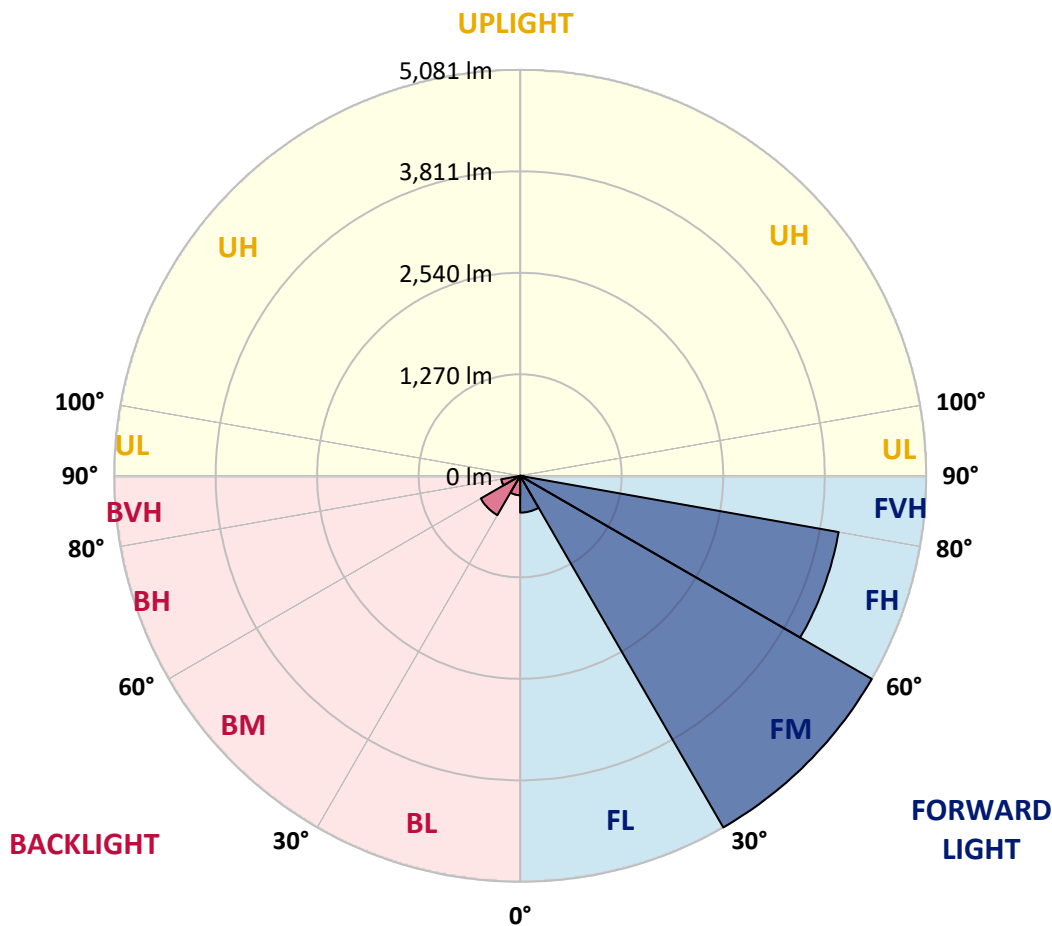


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	460.9	4.3			
FM (30°-60°)	5080.8	47.6			
FH (60°-80°)	4047.0	37.9			G2/5000
FVH (80°-90°)	41.1	0.4			G1/100
BL (0°-30°)	243.0	2.3	B1/500		
BM (30°-60°)	568.8	5.3	B1/1000		
BH (60°-80°)	240.6	2.3	B1/500		G1/500
BVH (80°-90°)	1.8	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
2.5°	522.1	506.5	481.8	486.0	490.9	500.5	492.7	485.4	477.6	467.4	506.5
5°	630.4	604.6	602.1	596.7	592.5	591.9	601.5	598.5	602.7	622.0	641.8
7.5°	670.1	659.3	638.8	647.3	634.0	623.8	666.5	680.3	706.8	715.8	767.6
10°	665.9	650.3	658.7	662.9	671.9	709.2	736.3	751.3	774.2	823.5	813.3
12.5°	685.2	699.0	708.0	708.6	754.9	823.5	842.8	855.4	896.3	915.5	966.1
15°	749.5	772.4	757.9	764.0	779.0	862.6	907.7	935.4	993.1	1055.7	1068.3
17.5°	841.6	856.0	825.9	804.3	845.8	891.5	973.3	1002.2	1038.9	1185.0	1212.1
20°	957.7	982.3	917.4	831.3	886.1	940.2	1029.2	1043.1	1082.2	1272.9	1315.6
22.5°	1229.0	1192.3	1093.0	958.9	942.6	966.7	1051.5	1105.6	1171.8	1322.2	1421.4
25°	1496.6	1484.0	1337.8	1188.0	1079.8	1025.6	1138.1	1168.2	1276.5	1439.5	1494.2
27.5°	1794.4	1819.7	1575.4	1484.6	1272.3	1095.4	1192.3	1267.5	1395.6	1482.2	1613.9
30°	2187.2	2146.9	1860.6	1769.7	1527.3	1287.3	1332.4	1337.2	1525.5	1623.0	1748.1
32.5°	2495.2	2521.1	2161.3	2021.8	1828.1	1582.7	1437.7	1500.2	1635.0	1852.2	1970.7
35°	2828.5	2826.0	2475.3	2287.7	2034.4	1823.9	1749.9	1795.6	1964.6	2210.7	2242.0
37.5°	3326.5	3283.8	2870.0	2595.1	2379.7	2199.8	2143.3	2082.5	2257.0	2491.6	2608.9
40°	3796.3	3649.0	3266.4	2940.3	2664.8	2591.4	2386.9	2424.2	2476.0	2785.7	3110.0
42.5°	4271.0	4179.5	3668.2	3395.1	3056.4	2882.0	2748.4	2731.0	2977.0	3344.0	3679.0
45°	4897.2	4617.4	4208.4	3968.4	3576.2	3401.1	3293.4	3357.8	3579.2	4115.2	4338.3
47.5°	5422.9	5165.4	4814.1	4449.6	4038.2	4234.9	4032.7	3931.1	4234.9	4788.9	5085.4
50°	5874.7	5587.7	5232.2	4962.1	4895.4	5084.2	4675.2	4712.5	4909.8	5560.7	5727.9
52.5°	6203.1	5901.1	5590.7	5460.2	5733.9	5829.0	5623.8	5541.4	5720.7	6218.8	6300.0
55°	6450.3	6141.2	5898.7	6078.6	6607.9	6576.7	6648.9	6367.3	6538.8	6905.1	6866.6
57.5°	6465.4	6099.0	5957.1	6246.4	6973.1	7457.3	7668.5	7189.6	7287.1	7441.7	7355.1
60°	5992.6	5628.0	5616.6	6027.5	7079.0	7685.3	8147.3	7913.9	7783.4	7898.3	7734.0
62.5°	5050.6	4795.5	4914.6	5368.8	6684.9	7559.6	8402.4	8683.3	8175.0	8200.8	7967.4
65°	3856.5	3588.8	3775.3	4347.4	5823.5	7418.8	8474.5	8984.0	8167.8	8286.9	7743.7
67.5°	2554.2	2399.0	2610.1	3240.5	4630.1	6549.0	8437.2	8668.2	7908.5	7950.6	6912.9
70°	1318.6	1280.7	1451.5	1949.0	3113.0	5031.3	8070.9	7944.6	7382.1	6849.2	5332.1
72.5°	422.3	424.1	588.3	890.3	1678.3	3063.1	6203.7	6377.0	5907.2	5010.3	3255.6
75°	187.1	184.1	246.0	373.6	699.6	1373.3	3854.1	4041.2	3677.8	2756.3	1368.5
77.5°	134.7	130.5	157.6	218.4	346.5	465.6	1807.0	1950.2	1667.5	955.3	313.4
80°	95.0	94.4	114.3	153.4	216.6	206.9	570.9	640.0	512.5	231.6	92.0
82.5°	53.5	55.3	79.4	108.3	131.7	103.5	160.6	176.9	172.6	123.3	40.3
85°	25.9	28.9	51.7	78.2	69.2	40.3	57.1	62.0	72.2	71.6	20.5
87.5°	0.0	0.0	21.1	35.5	18.6	6.0	17.4	19.9	19.2	22.9	4.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
2.5°	514.3	510.7	465.0	468.6	478.8	474.6	478.2	469.8	460.2	499.3	498.7
5°	650.3	623.2	608.8	595.5	597.9	570.9	586.5	593.7	592.5	614.8	620.8
7.5°	769.4	733.3	704.4	676.7	634.6	596.7	620.2	635.2	645.5	684.0	699.0
10°	825.3	795.8	784.4	730.3	700.2	676.7	648.5	628.0	636.4	626.2	636.4
12.5°	948.0	928.2	884.3	829.5	793.4	745.3	640.0	552.2	498.1	498.7	495.1
15°	1059.9	1058.7	993.1	902.3	797.6	660.5	496.3	385.6	334.5	320.0	315.2
17.5°	1206.1	1188.0	1068.3	934.2	745.9	511.3	338.1	264.1	259.3	267.7	264.1
20°	1299.3	1272.9	1105.6	887.9	614.8	345.9	255.1	234.0	248.4	260.5	257.5
22.5°	1392.6	1352.9	1133.9	831.3	437.3	253.2	230.4	226.8	235.8	250.8	253.2
25°	1443.7	1435.9	1189.3	725.5	299.6	222.0	222.0	220.8	223.8	234.6	232.8
27.5°	1592.3	1486.4	1147.7	566.1	231.6	203.9	206.9	205.7	194.9	205.7	206.3
30°	1684.9	1636.2	1150.8	403.0	203.9	180.5	188.3	178.7	162.4	171.4	169.6
32.5°	1871.4	1749.9	1141.7	271.9	185.9	172.0	160.0	146.2	134.1	137.8	134.7
35°	2088.6	1995.9	1019.6	218.4	173.2	152.2	132.9	119.1	106.5	109.5	108.9
37.5°	2520.5	2226.3	918.6	196.7	164.8	139.6	117.3	98.1	91.4	93.2	95.0
40°	2920.5	2610.7	730.3	187.1	150.4	124.5	96.8	83.0	78.8	80.0	81.8
42.5°	3518.4	2916.3	551.6	177.5	135.9	105.3	80.6	71.6	67.4	69.8	71.0
45°	4097.1	3176.1	412.1	169.0	123.9	90.8	68.0	62.0	57.1	59.0	61.4
47.5°	4675.2	3464.9	307.4	155.8	110.7	78.2	58.3	54.1	51.1	51.7	54.7
50°	5192.5	3599.6	241.8	139.6	99.9	68.0	52.9	48.7	47.5	48.1	50.5
52.5°	5572.7	3600.8	203.9	125.1	89.6	60.2	49.9	45.1	44.5	45.7	48.1
55°	5916.2	3504.6	176.9	112.5	80.6	54.7	47.5	43.3	43.3	44.5	46.9
57.5°	6144.2	3327.7	153.4	99.3	72.8	51.7	45.7	41.5	40.9	40.3	42.1
60°	6255.4	3086.5	129.9	87.2	65.6	49.9	44.5	36.7	36.1	34.9	36.1
62.5°	6185.1	2784.5	108.9	75.2	58.3	47.5	39.1	31.9	30.7	28.3	30.1
65°	5825.3	2417.6	92.0	64.4	50.5	40.3	33.1	27.1	24.1	21.1	20.5
67.5°	5089.7	1964.0	77.0	55.3	43.3	33.1	27.1	24.1	18.6	16.2	15.6
70°	3814.4	1340.8	63.8	47.5	36.1	28.3	22.9	21.7	17.4	15.6	14.4
72.5°	2237.7	723.7	53.5	41.5	30.7	23.5	18.6	19.9	17.4	14.4	13.2
75°	893.9	240.6	42.7	33.1	24.7	16.8	15.6	16.2	15.6	13.2	10.8
77.5°	203.9	75.8	33.1	25.9	19.2	10.8	12.6	13.8	13.8	10.8	7.8
80°	63.8	30.1	19.2	16.2	13.8	6.0	9.0	9.6	6.6	3.0	0.0
82.5°	20.5	8.4	6.6	6.6	6.0	1.2	1.8	1.2	0.0	0.0	0.0
85°	7.8	5.4	4.2	4.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	2.4	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	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)