

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: P596941

Luminaire Tested: **MSA-SA2B-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-835-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6730 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

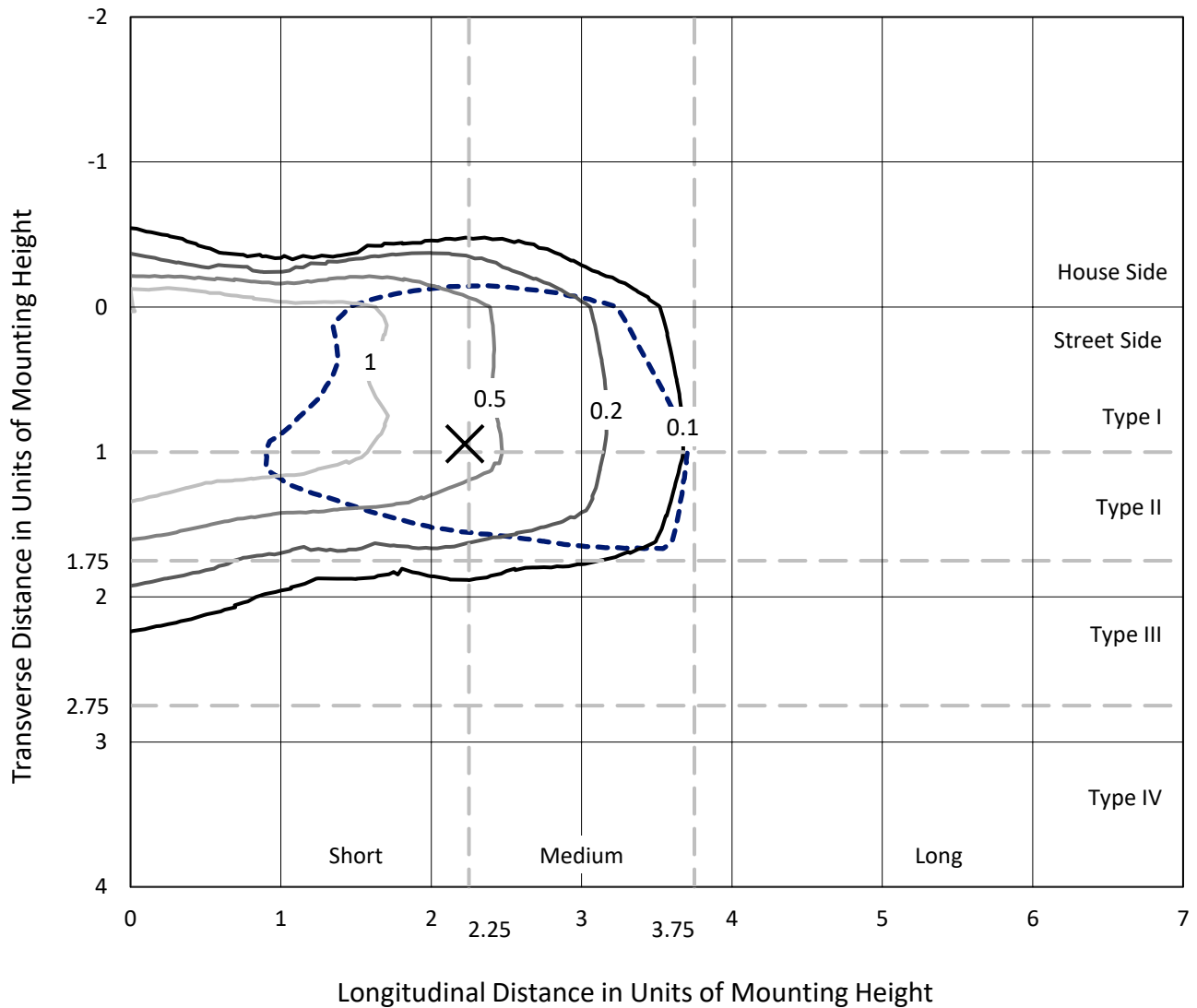
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

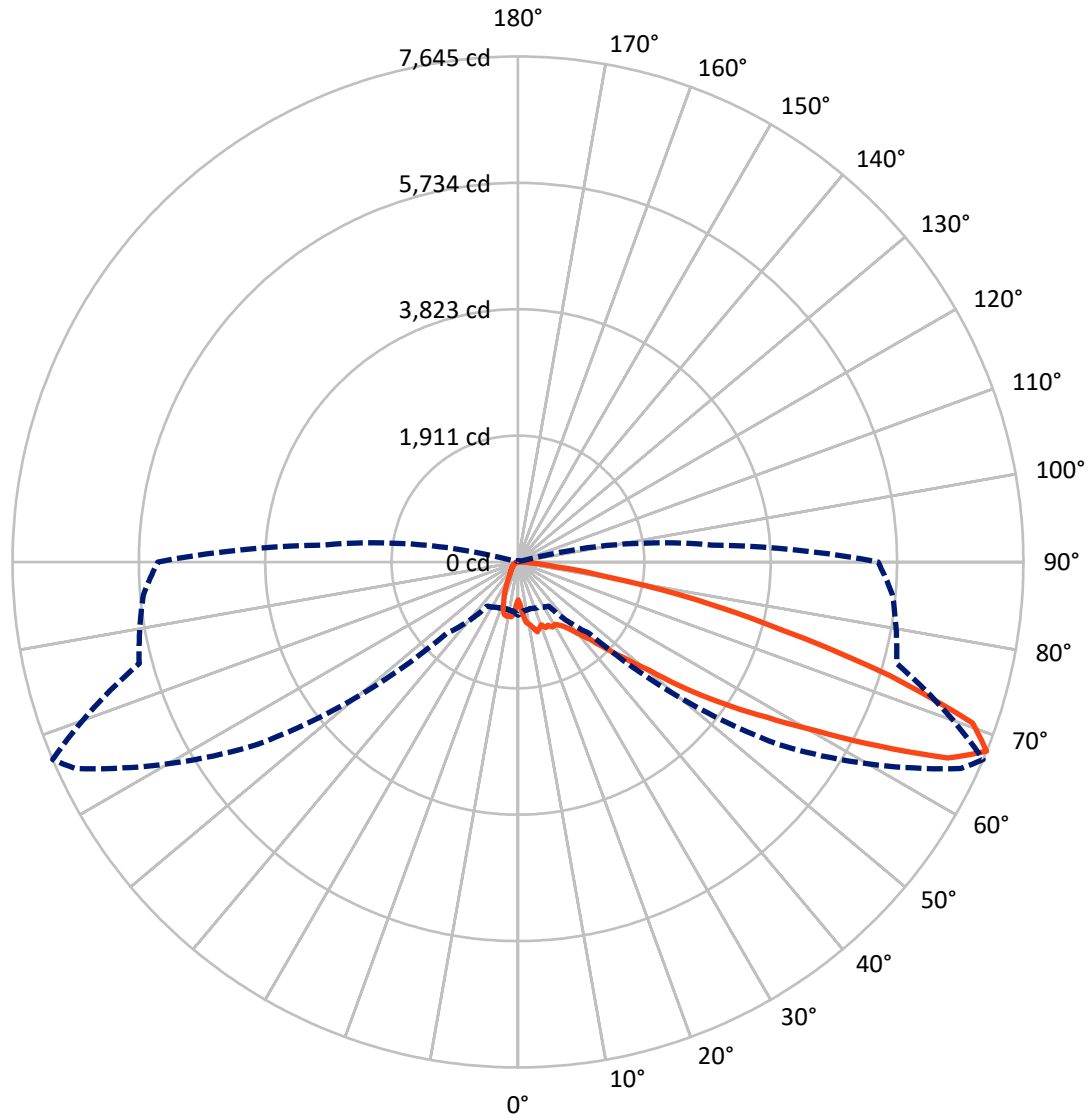
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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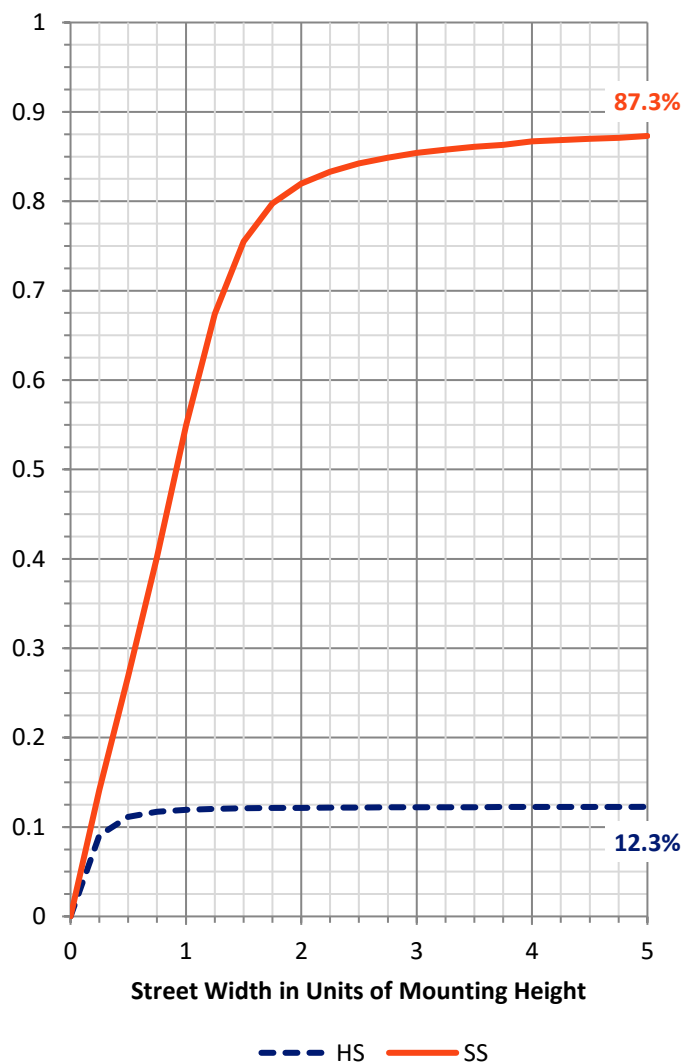
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	832.3	0.0	832.3
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	5897.7	0.0	5897.7
	% Fixture	87.6	0.0	87.6
Total	Lumens	6730.0	0.0	6730.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	1.1
10°-20°	212.9	3.2
20°-30°	333.6	5.0
30°-40°	538.0	8.0
40°-50°	988.5	14.7
50°-60°	1669.5	24.8
60°-70°	1845.7	27.4
70°-80°	966.0	14.4
80°-90°	103.7	1.5
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°	6730.0	100.0
0°-180°	6730.0	100.0

Coefficient of Utilization



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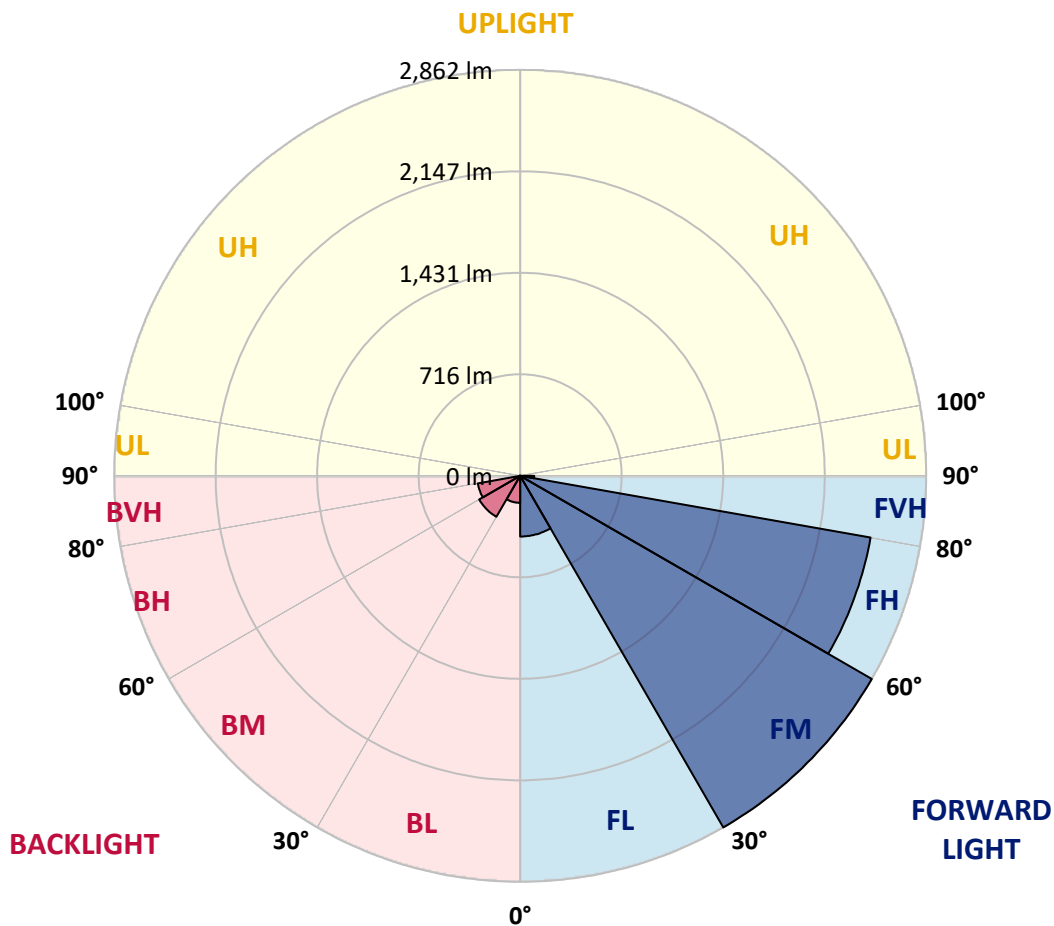
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	427.9	6.4			
FM (30°-60°)	2862.3	42.5			
FH (60°-80°)	2508.2	37.3			G2/5000
FVH (80°-90°)	99.3	1.5			G1/100
BL (0°-30°)	190.6	2.8	B1/500		
BM (30°-60°)	333.7	5.0	B1/1000		
BH (60°-80°)	303.6	4.5	B1/500		G1/500
BVH (80°-90°)	4.4	0.1			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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	676.7	653.8	614.9	626.1	648.7	667.4	658.6	641.1	641.5	623.7	687.6
5°	787.3	756.5	734.0	741.9	740.8	740.2	782.1	798.2	805.0	834.4	877.7
7.5°	819.0	808.1	784.5	791.7	768.1	769.9	843.6	913.2	924.2	942.3	1019.4
10°	806.7	785.6	794.1	794.1	794.4	832.7	882.2	948.7	962.1	1031.7	1039.9
12.5°	793.4	794.4	828.2	822.1	868.5	937.1	953.9	1028.6	1022.1	1082.6	1172.4
15°	842.9	868.9	847.0	855.5	860.0	940.6	967.5	1066.9	1095.5	1172.0	1230.4
17.5°	927.9	931.3	885.9	873.6	905.7	928.6	982.9	1030.7	1049.8	1250.5	1333.2
20°	943.3	965.1	919.0	848.0	916.0	947.4	985.3	1008.1	1016.3	1274.8	1391.2
22.5°	1035.8	1011.6	937.8	883.9	903.3	937.5	961.0	1030.0	1079.2	1229.0	1446.8
25°	1083.3	1076.8	1006.4	960.4	940.6	937.8	991.8	1044.0	1059.7	1276.5	1460.5
27.5°	1196.9	1182.3	1046.0	1040.2	975.0	917.7	992.8	1086.7	1116.0	1231.8	1511.7
30°	1351.6	1346.1	1164.8	1161.1	1057.3	954.2	1048.1	1113.0	1095.2	1254.6	1545.9
32.5°	1507.3	1551.7	1366.3	1260.4	1182.6	1088.4	1032.4	1104.8	1136.5	1310.3	1608.7
35°	1695.4	1727.5	1538.7	1461.9	1288.8	1151.2	1136.5	1182.9	1196.6	1376.5	1680.0
37.5°	2024.5	1976.0	1815.2	1684.5	1593.6	1375.5	1303.1	1266.2	1298.0	1466.3	1825.8
40°	2267.6	2236.8	2038.8	1960.6	1751.7	1624.0	1434.9	1400.4	1435.9	1558.5	1927.2
42.5°	2560.8	2497.0	2310.6	2257.7	2042.6	1796.4	1604.6	1616.5	1594.3	1740.4	2105.1
45°	2826.1	2682.0	2578.2	2590.2	2475.5	2143.0	1887.6	1881.8	1863.4	2004.0	2292.1
47.5°	3004.6	2878.7	2777.6	2744.5	2730.8	2752.4	2296.6	2193.5	2179.8	2280.9	2586.8
50°	3100.6	2962.7	2837.7	2844.5	3121.7	3330.3	2718.6	2572.1	2577.2	2682.7	2989.6
52.5°	3036.1	2880.0	2748.3	2876.3	3424.9	3715.8	3417.1	3066.8	3185.6	3158.6	3530.1
55°	2738.0	2602.5	2508.9	2738.0	3458.0	4130.6	4277.0	3811.4	3784.7	3723.3	4081.1
57.5°	2236.5	2119.7	2062.0	2303.8	3095.8	4464.8	5140.8	4652.9	4425.9	4168.5	4538.5
60°	1666.4	1580.3	1520.2	1647.9	2439.3	4140.1	5706.5	5446.0	5183.1	4597.6	4949.6
62.5°	1234.2	1164.2	1100.3	1111.9	1679.7	3560.8	5923.6	6286.2	6135.3	5050.6	5337.4
65°	984.9	921.1	876.4	850.8	1040.2	2678.9	5621.5	6974.8	7148.9	5477.4	5617.4
67.5°	804.3	750.4	728.2	757.6	815.9	1527.1	4814.4	7392.6	7645.3	5930.1	5686.3
70°	654.5	610.1	607.7	686.9	751.4	931.0	3541.3	7104.2	7294.3	6007.2	5272.9
72.5°	456.1	436.6	467.7	580.0	744.6	775.3	2033.7	5878.9	5885.7	5305.7	4337.1
75°	258.1	255.0	304.2	462.6	725.1	767.5	1133.8	4154.5	4157.5	4012.8	3004.6
77.5°	142.0	132.8	177.2	312.7	622.7	749.7	731.3	2836.7	2764.0	2233.1	1372.4
80°	65.5	61.8	95.9	200.4	455.4	709.1	586.2	1559.2	1405.9	727.5	334.9
82.5°	27.0	25.6	44.0	128.7	287.8	571.2	494.0	691.7	555.1	138.3	103.4
85°	4.8	5.1	18.1	77.8	161.1	263.2	400.5	328.4	241.4	38.2	56.7
87.5°	0.0	0.0	3.8	18.8	38.9	72.0	162.5	91.8	63.2	11.3	16.7
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°	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2	573.2
2.5°	700.2	694.4	635.7	638.4	642.5	638.8	638.1	621.7	606.7	656.2	655.5
5°	885.6	844.3	803.7	787.9	754.1	709.8	710.1	696.1	681.8	701.9	701.9
7.5°	1017.7	960.7	909.1	817.3	727.9	646.9	639.8	620.7	598.8	625.1	630.2
10°	1048.4	998.9	932.4	797.5	712.8	634.0	547.3	475.9	442.8	427.4	424.7
12.5°	1143.0	1106.1	957.3	808.1	686.2	552.7	410.7	326.0	268.3	263.9	257.8
15°	1206.2	1180.2	981.9	781.8	573.5	397.4	258.1	198.0	174.8	172.7	169.7
17.5°	1304.1	1259.1	958.3	698.2	448.6	262.2	173.4	156.4	159.1	165.2	160.5
20°	1344.1	1256.0	907.1	577.0	315.1	175.8	150.6	141.3	148.5	154.3	151.6
22.5°	1385.1	1264.9	861.7	475.6	205.9	145.4	134.2	129.4	130.1	135.9	136.2
25°	1384.7	1289.5	809.1	370.4	153.3	129.4	121.2	115.1	112.7	116.8	115.7
27.5°	1452.0	1261.1	713.2	274.8	134.9	115.7	107.9	100.4	91.8	95.9	95.9
30°	1452.3	1307.2	646.3	197.3	123.6	103.1	96.3	84.7	74.8	78.2	78.5
32.5°	1490.9	1267.3	584.5	150.9	114.7	95.6	80.6	70.0	64.2	66.2	66.2
35°	1534.9	1301.4	489.6	133.1	105.8	85.0	69.0	60.4	56.0	57.7	57.7
37.5°	1680.4	1294.2	423.7	123.9	100.0	76.8	62.8	53.3	51.2	52.2	53.6
40°	1732.9	1345.1	334.2	118.5	90.5	69.3	55.3	48.1	45.4	46.1	46.4
42.5°	1866.8	1356.4	267.0	114.0	81.9	60.1	49.2	44.0	40.6	40.6	41.7
45°	2014.6	1384.7	212.3	110.3	74.8	53.9	44.4	40.3	35.2	34.5	35.8
47.5°	2228.6	1493.3	173.1	102.8	66.2	50.2	41.0	34.8	30.7	29.4	30.7
50°	2586.8	1677.6	152.9	93.5	60.1	47.1	36.2	29.7	26.6	24.9	25.9
52.5°	3092.0	1996.2	142.4	85.0	54.6	42.3	32.4	25.9	22.9	21.5	22.2
55°	3653.3	2361.4	137.2	76.5	49.8	37.2	28.3	22.9	20.1	18.4	18.8
57.5°	4172.2	2704.9	132.1	68.3	45.1	33.1	24.9	20.1	17.4	15.7	16.0
60°	4683.6	2979.0	119.8	58.7	40.6	29.7	21.8	17.4	15.7	13.7	13.7
62.5°	5136.0	3142.9	102.1	50.9	36.5	26.3	19.5	15.7	14.3	12.3	12.3
65°	5443.9	3150.4	82.3	43.7	32.1	22.5	17.1	14.7	13.3	10.9	10.6
67.5°	5448.4	2945.6	65.9	38.9	28.3	19.8	15.4	14.0	12.3	10.2	9.6
70°	4876.5	2433.5	55.0	34.1	24.6	17.4	13.3	13.3	11.9	9.9	8.9
72.5°	3900.8	1859.6	46.1	29.7	21.8	15.0	12.3	12.6	11.6	9.9	8.9
75°	2621.9	1066.5	38.2	25.3	19.1	12.6	11.9	12.3	11.9	9.9	8.5
77.5°	1207.5	339.7	29.7	20.8	16.4	10.6	11.6	11.6	10.9	8.9	7.5
80°	272.1	83.6	21.5	15.4	13.3	7.9	10.6	9.6	8.5	6.1	4.4
82.5°	99.0	25.6	13.0	9.6	8.2	3.1	6.8	6.8	6.1	4.4	2.7
85°	56.7	13.3	7.2	6.1	4.4	1.4	3.8	4.1	3.4	3.1	1.4
87.5°	18.4	3.1	3.4	3.8	3.4	0.7	1.4	1.4	1.0	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)