

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: P596834

Luminaire Tested: **MSA-SA1A-835-U-SL3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596834
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-835-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3269 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

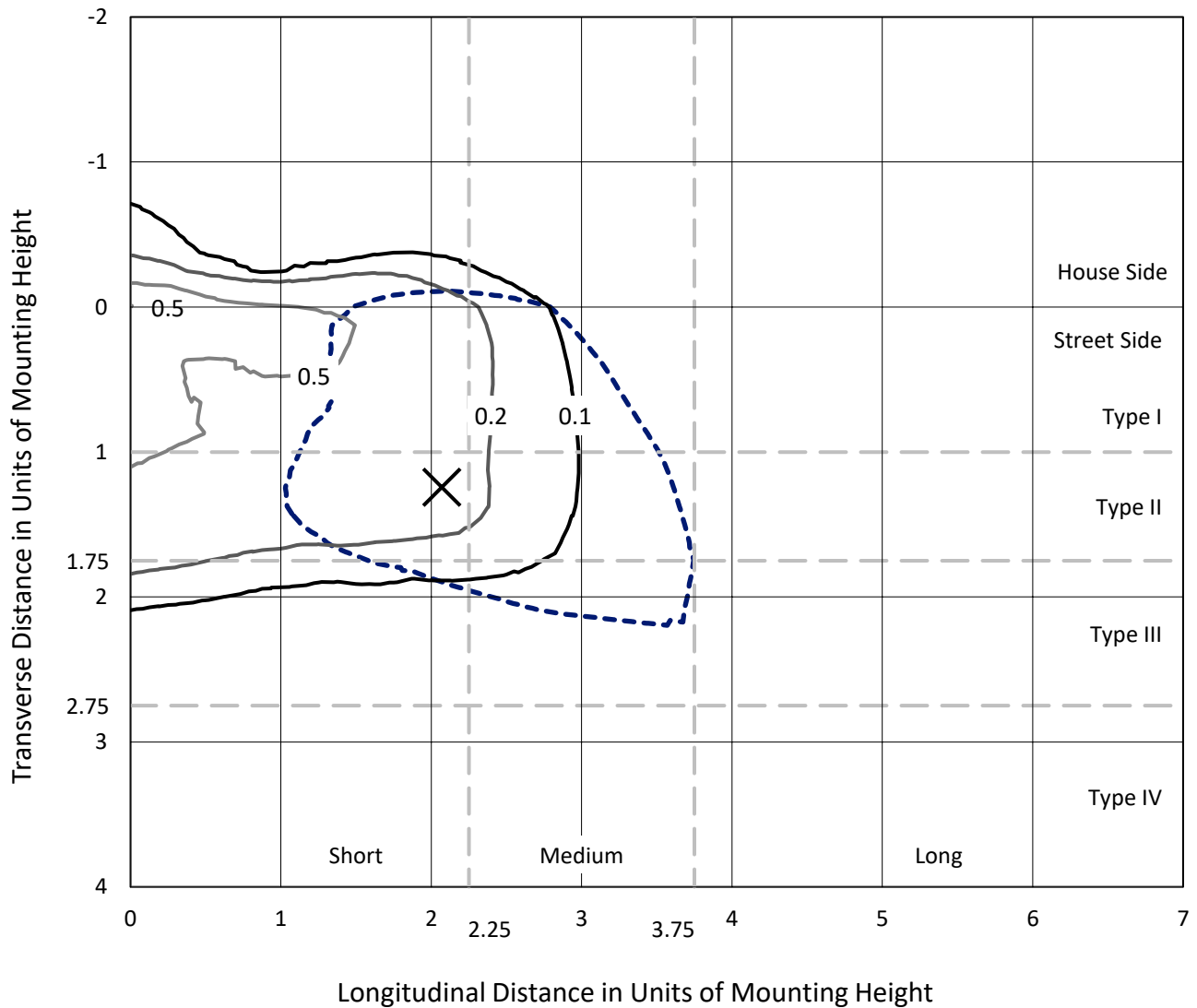
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

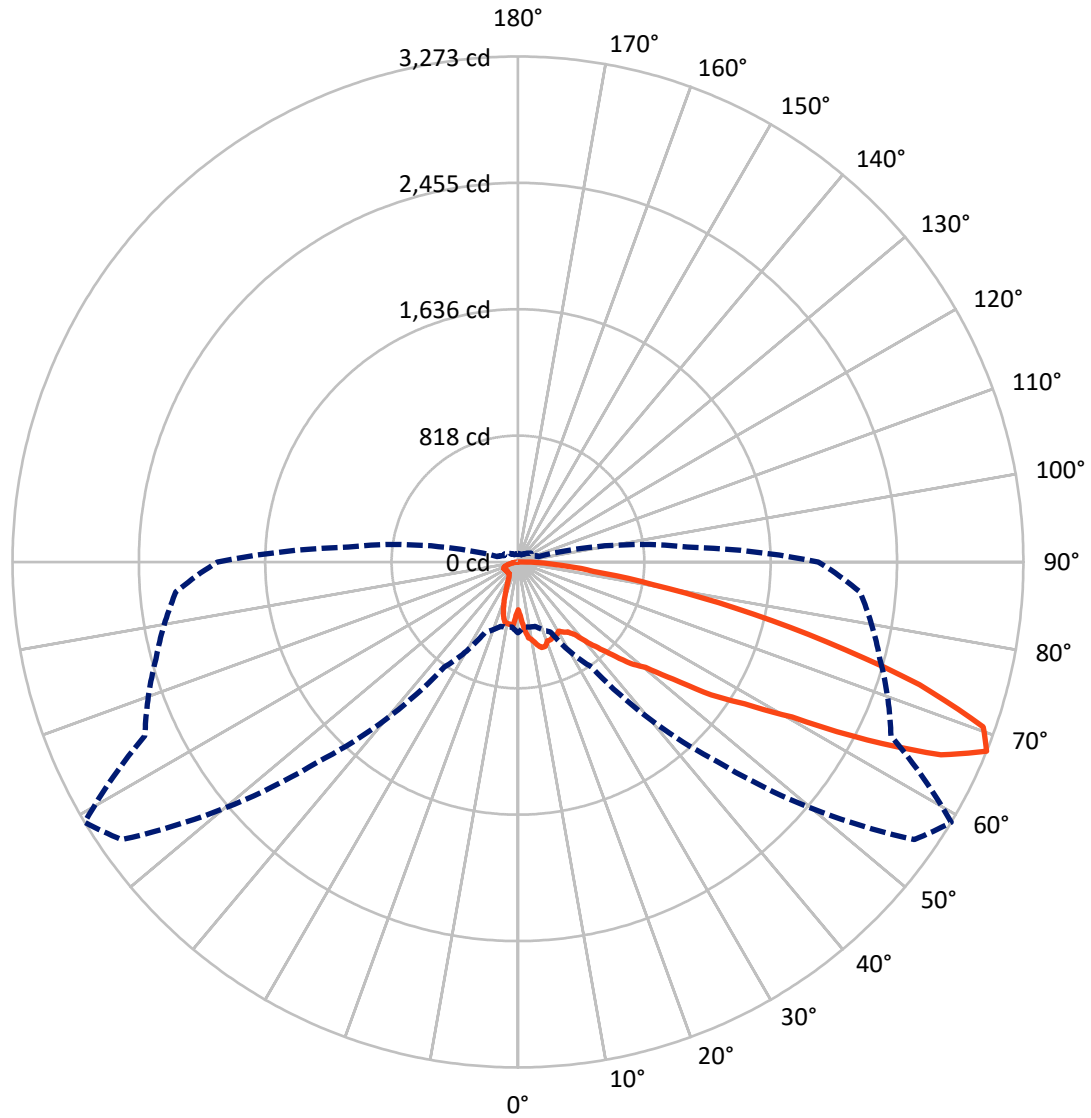
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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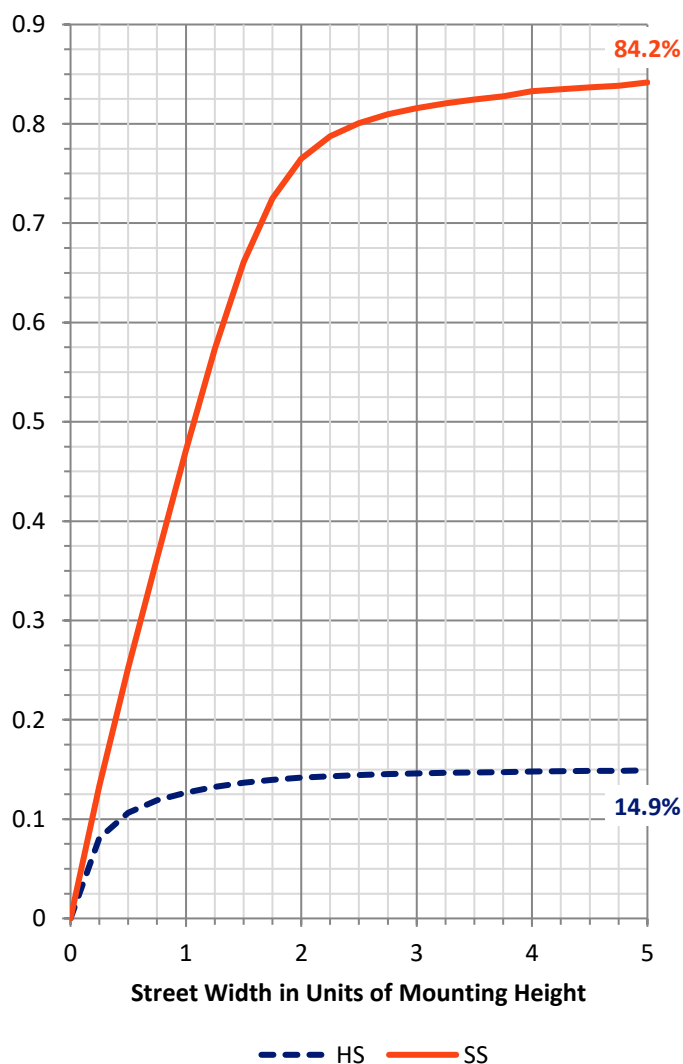
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	492.1	0.0	492.1
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	2776.9	0.0	2776.9
	% Fixture	84.9	0.0	84.9
Total	Lumens	3269.0	0.0	3269.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	1.2
10°-20°	119.6	3.7
20°-30°	170.7	5.2
30°-40°	251.6	7.7
40°-50°	425.1	13.0
50°-60°	739.7	22.6
60°-70°	942.6	28.8
70°-80°	499.1	15.3
80°-90°	80.3	2.5
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°	3269.0	100.0
0°-180°	3269.0	100.0

Coefficient of Utilization



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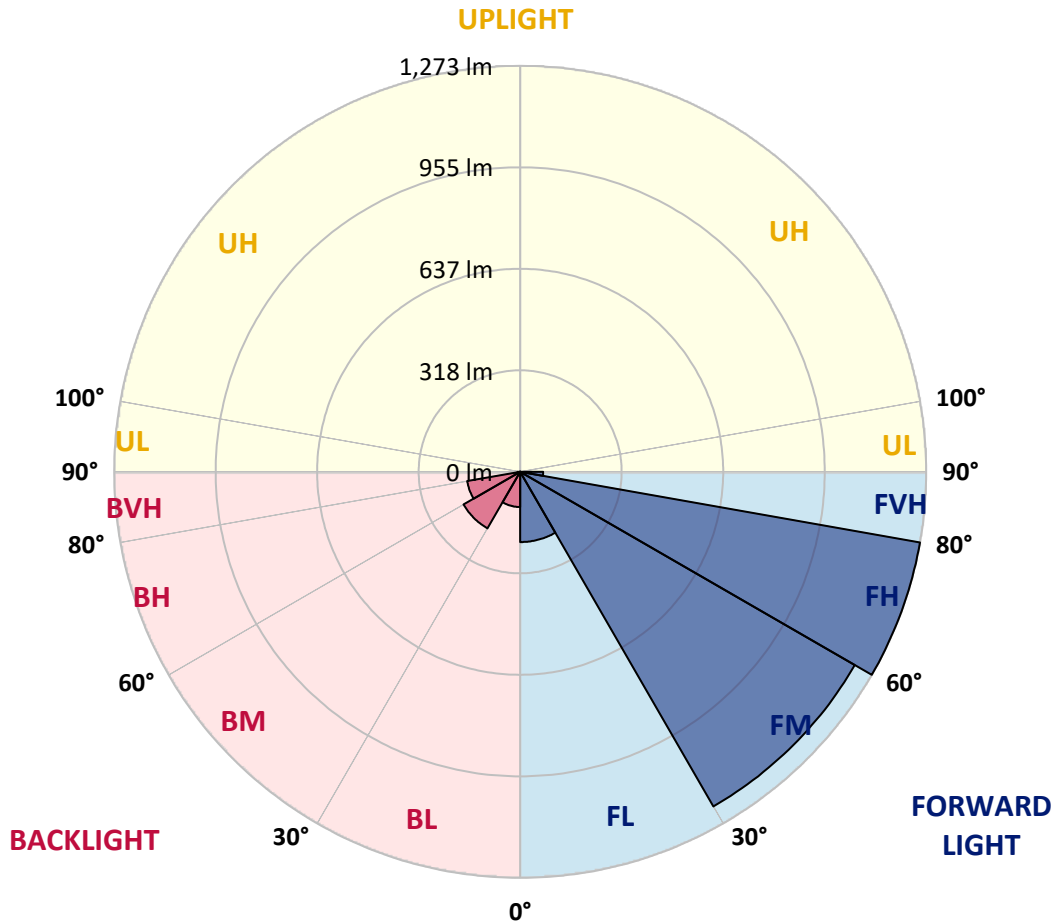
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	220.3	6.7			
FM (30°-60°)	1211.4	37.1			
FH (60°-80°)	1273.0	38.9			G1/1800
FVH (80°-90°)	72.1	2.2			G1/100
BL (0°-30°)	110.3	3.4	B1/500		
BM (30°-60°)	204.9	6.3	B0/220		
BH (60°-80°)	168.6	5.2	B1/500		G1/500
BVH (80°-90°)	8.2	0.3			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3
2.5°	386.2	368.2	349.1	354.5	365.4	370.4	365.0	359.8	353.0	344.9	372.4
5°	468.4	441.6	437.7	437.6	433.7	418.2	438.2	436.8	444.8	453.1	474.5
7.5°	491.8	481.8	471.0	476.1	456.6	455.8	486.8	495.7	511.2	506.0	534.7
10°	479.7	468.5	474.2	472.1	473.9	494.4	513.4	513.9	530.6	546.9	528.5
12.5°	458.5	459.4	481.9	481.1	510.2	548.3	554.0	549.5	576.7	565.6	581.4
15°	473.6	483.7	478.1	482.9	494.4	542.9	558.7	574.8	600.5	610.5	594.7
17.5°	497.7	503.1	477.6	475.0	498.7	521.7	560.9	574.6	578.6	649.7	627.4
20°	487.5	498.4	473.5	441.5	480.8	511.3	550.0	545.8	565.3	652.7	634.2
22.5°	516.6	498.4	466.7	444.0	457.8	485.8	518.6	545.9	569.1	634.9	644.0
25°	522.1	513.5	483.9	461.3	456.6	466.6	513.4	531.3	570.3	659.3	638.8
27.5°	555.9	543.0	482.6	483.3	459.9	442.3	496.8	534.3	584.5	644.2	651.6
30°	597.9	588.1	512.3	515.0	482.6	450.2	508.1	519.5	592.6	667.7	667.8
32.5°	629.3	646.6	570.6	532.9	521.4	497.2	490.7	541.8	583.1	710.4	695.6
35°	686.0	699.4	615.5	585.3	546.4	519.1	538.0	556.5	622.8	766.5	736.7
37.5°	790.9	775.3	698.9	651.4	636.8	597.5	608.0	595.1	666.0	829.5	817.3
40°	851.5	838.1	757.6	731.3	673.7	678.6	665.5	674.9	723.8	896.6	892.7
42.5°	911.4	893.4	825.4	807.1	749.6	725.2	727.6	758.0	812.9	1004.9	992.0
45°	970.5	924.4	894.6	899.5	871.8	821.7	825.2	853.9	910.1	1128.7	1099.1
47.5°	1015.8	977.7	954.5	948.5	934.8	1001.7	971.8	983.4	1008.2	1239.0	1227.8
50°	1101.6	1057.1	1026.8	1018.2	1064.7	1157.8	1096.9	1071.8	1124.6	1381.5	1375.7
52.5°	1238.9	1183.4	1132.9	1132.3	1199.7	1260.1	1303.0	1259.8	1279.2	1527.6	1544.2
55°	1358.7	1294.5	1249.1	1274.2	1370.0	1407.0	1552.9	1519.1	1502.8	1674.9	1722.5
57.5°	1403.4	1328.5	1298.8	1335.8	1477.1	1667.2	1821.4	1732.4	1716.5	1841.7	1941.3
60°	1305.2	1226.0	1227.8	1297.5	1542.2	1858.2	2114.9	2039.4	1946.0	2049.4	2146.6
62.5°	1025.4	953.8	1000.5	1106.4	1487.7	2043.8	2508.3	2540.2	2208.3	2221.6	2260.5
65°	696.9	647.3	689.5	793.2	1206.6	2145.1	2883.0	3010.8	2447.1	2334.3	2309.7
67.5°	458.7	423.6	431.8	500.8	830.6	1828.7	3133.6	3272.9	2665.4	2426.9	2223.0
70°	355.2	326.9	323.3	359.5	492.6	1270.4	2985.1	3196.8	2798.4	2340.2	1937.6
72.5°	278.7	257.2	259.2	294.0	381.5	704.8	2310.0	2718.5	2598.1	2018.2	1488.6
75°	217.4	199.8	209.6	249.4	352.8	438.0	1593.8	2063.2	2008.7	1494.4	849.0
77.5°	157.8	146.4	160.4	212.4	331.6	375.8	992.1	1439.4	1286.8	767.3	291.3
80°	103.5	97.1	108.6	173.2	300.7	361.7	613.1	882.0	635.8	215.5	110.3
82.5°	61.0	58.2	67.7	117.2	241.7	339.0	408.9	490.1	260.2	91.2	58.6
85°	32.0	29.9	40.2	67.3	166.6	309.5	321.9	293.4	125.6	39.6	28.0
87.5°	10.7	10.4	17.0	26.0	63.0	164.3	171.8	139.4	51.8	11.5	6.1
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°	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3	309.3
2.5°	376.1	370.6	338.7	343.1	347.3	345.2	344.0	329.6	328.2	348.7	347.0
5°	473.9	450.9	423.8	422.5	404.6	386.4	390.0	384.1	385.8	394.3	395.1
7.5°	525.6	496.9	471.0	428.9	393.1	364.2	368.8	367.4	363.6	382.8	387.9
10°	524.6	499.1	469.9	418.9	394.8	371.3	343.0	316.3	308.4	298.9	299.8
12.5°	559.2	536.7	472.9	421.0	388.3	347.7	294.8	265.6	237.6	237.0	230.0
15°	570.0	553.4	479.4	409.1	342.7	284.5	229.8	198.1	177.9	173.9	167.9
17.5°	597.3	571.3	459.6	370.6	289.8	222.5	172.7	150.6	148.9	151.7	148.6
20°	599.1	556.9	423.9	313.6	232.9	168.6	140.9	129.8	135.8	142.5	142.3
22.5°	597.6	538.7	393.0	265.1	175.0	135.5	123.4	120.9	126.5	136.6	137.8
25°	582.1	532.8	354.4	217.8	142.0	116.1	112.8	114.3	121.2	133.1	133.1
27.5°	598.3	508.5	305.9	177.2	119.4	103.3	105.7	109.6	114.7	128.3	130.8
30°	593.0	516.6	266.8	142.7	105.3	94.5	99.7	103.6	109.4	123.6	124.8
32.5°	607.2	495.1	234.0	120.0	96.0	91.0	92.3	97.5	105.1	116.2	118.4
35°	628.8	503.0	196.3	107.9	91.4	87.0	89.4	93.5	101.1	111.9	113.7
37.5°	697.8	502.6	170.3	101.3	90.6	86.2	87.3	90.2	99.0	108.9	113.0
40°	742.1	531.4	146.6	99.7	89.6	85.7	84.8	88.0	95.0	106.7	109.6
42.5°	825.4	549.0	136.3	99.2	89.5	83.4	82.4	86.2	93.1	103.9	108.3
45°	913.3	574.1	128.1	98.9	89.1	83.0	80.1	84.8	90.6	101.0	106.1
47.5°	1016.8	627.1	123.6	97.9	88.2	83.5	79.2	81.6	88.1	98.5	103.6
50°	1152.3	697.4	124.5	96.6	89.5	83.7	78.0	79.1	85.1	95.2	100.4
52.5°	1317.0	806.1	130.8	97.1	90.3	83.0	77.4	76.9	82.0	90.9	96.1
55°	1515.5	960.4	149.5	99.7	90.3	82.8	76.6	74.1	78.0	85.2	90.3
57.5°	1755.0	1139.1	186.0	101.0	89.6	82.0	74.8	70.4	72.7	78.7	83.5
60°	1960.7	1283.3	223.7	101.8	91.0	80.1	71.2	65.7	67.2	71.8	76.1
62.5°	2065.6	1323.8	235.1	101.1	94.8	78.8	66.9	60.7	60.8	64.7	68.6
65°	2085.3	1269.9	189.5	100.4	99.6	78.7	63.9	56.4	55.4	58.2	61.5
67.5°	1945.1	1102.3	136.7	98.9	100.2	77.9	61.8	52.9	50.4	52.4	55.1
70°	1651.5	887.7	114.8	95.9	93.5	73.7	58.2	49.3	46.0	47.4	49.5
72.5°	1231.2	656.8	100.2	89.4	81.5	63.0	52.6	45.3	41.8	42.8	44.3
75°	684.1	350.3	83.8	77.7	66.5	51.0	44.9	40.2	37.1	37.5	39.2
77.5°	227.2	129.2	61.5	61.6	50.3	39.3	37.0	34.4	32.0	32.1	33.5
80°	102.9	71.5	44.1	44.3	35.0	28.5	28.4	27.6	26.0	25.6	26.6
82.5°	59.7	43.4	30.2	28.8	22.6	18.6	20.6	20.2	19.8	18.3	18.6
85°	29.4	23.3	15.8	15.0	12.5	9.3	11.1	11.5	11.1	9.4	9.3
87.5°	7.2	7.6	3.9	3.6	2.1	1.0	1.7	1.7	2.1	1.4	0.7
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)