

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: P596876

Luminaire Tested: **MSA-SA1C-835-U-SL2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596876
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-835-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5137 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

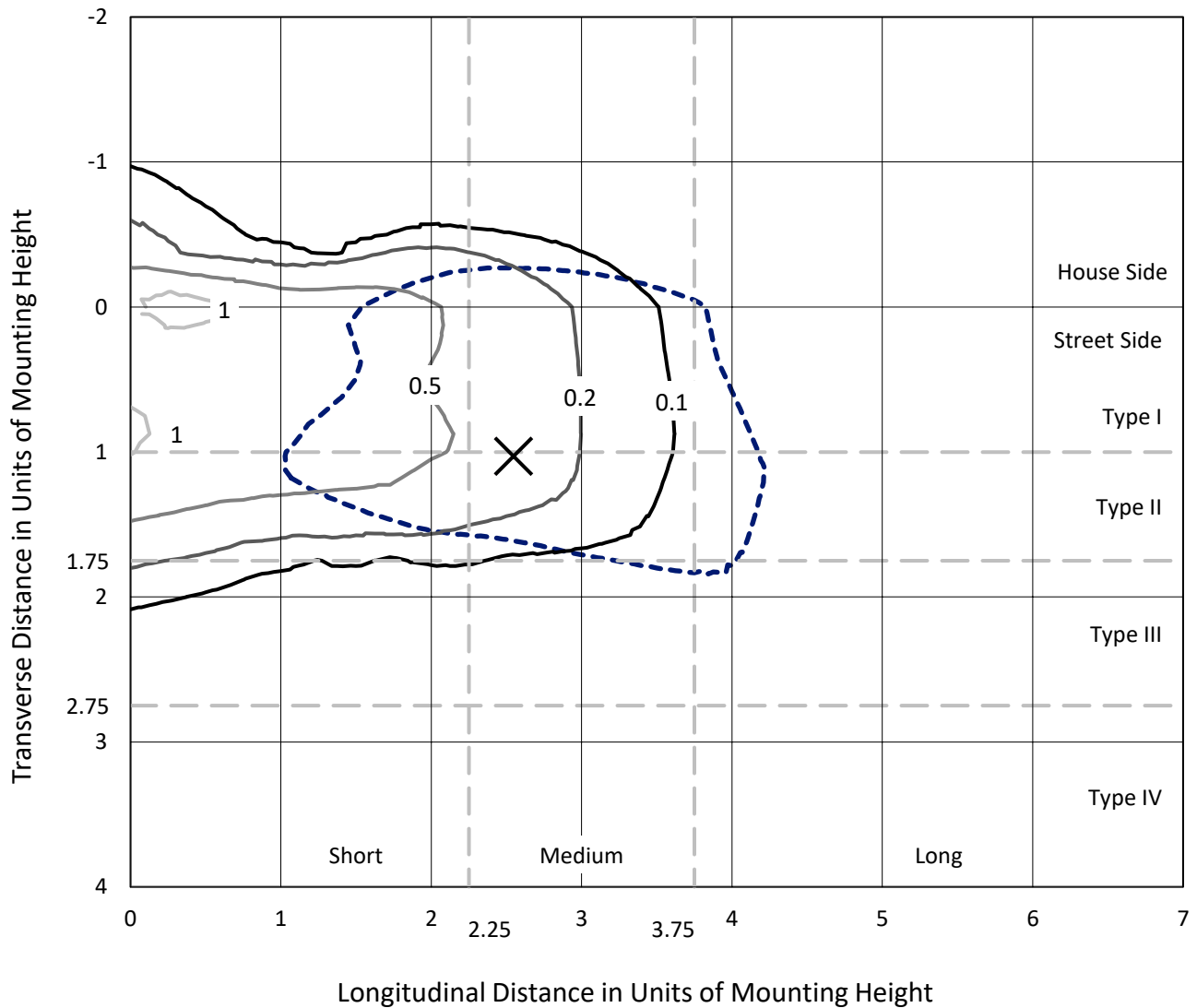
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

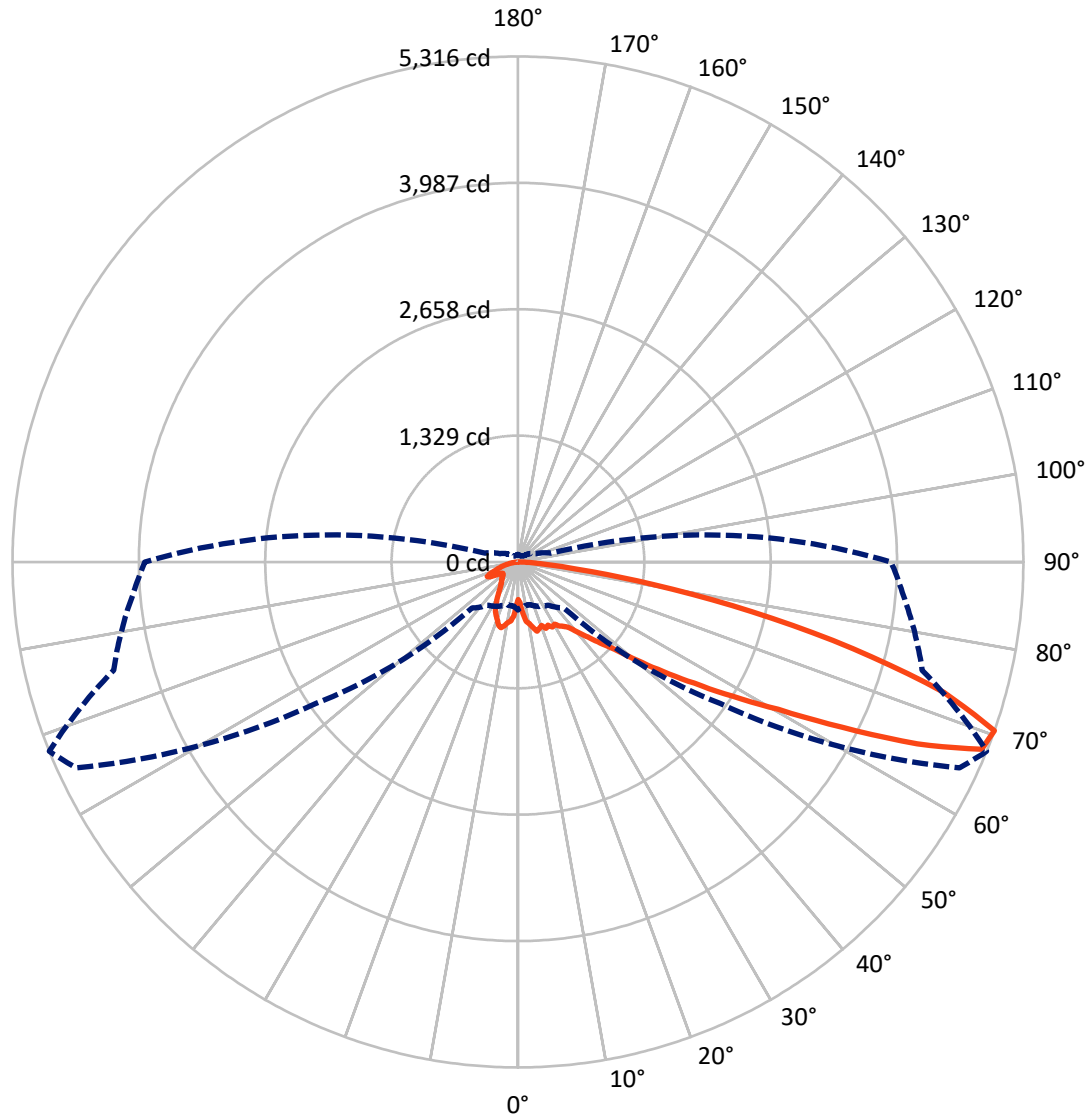
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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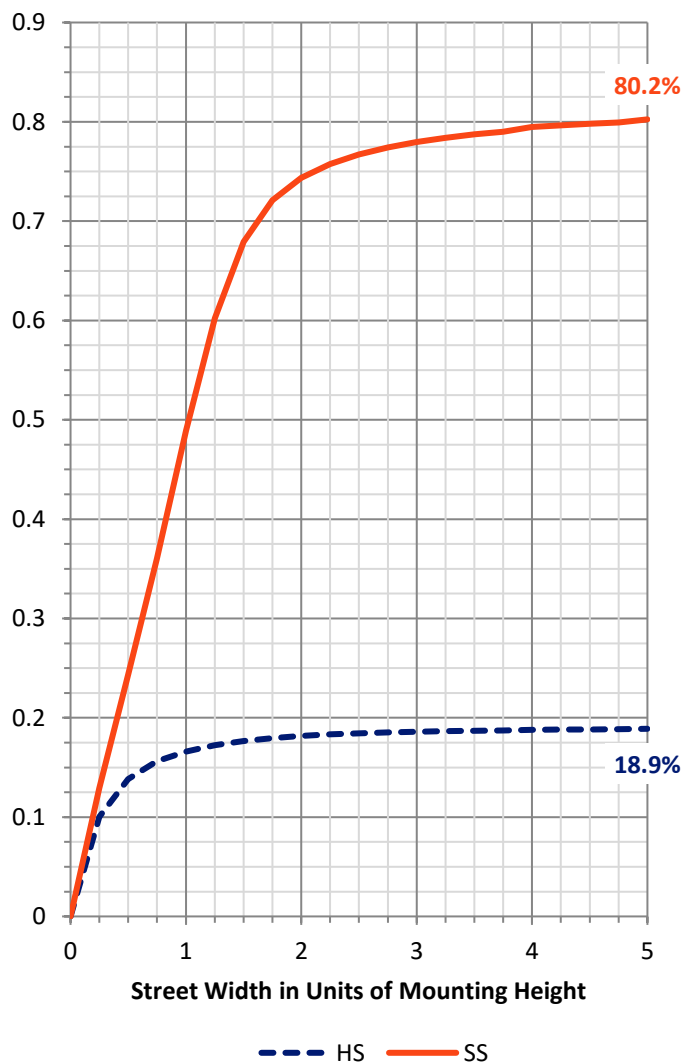
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	980.8	0.0	980.8
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	4156.2	0.0	4156.2
	% Fixture	80.9	0.0	80.9
Total	Lumens	5137.0	0.0	5137.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	1.0
10°-20°	171.5	3.3
20°-30°	260.8	5.1
30°-40°	398.4	7.8
40°-50°	685.0	13.3
50°-60°	1133.8	22.1
60°-70°	1397.8	27.2
70°-80°	897.9	17.5
80°-90°	139.3	2.7
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°	5137.0	100.0
0°-180°	5137.0	100.0

Coefficient of Utilization



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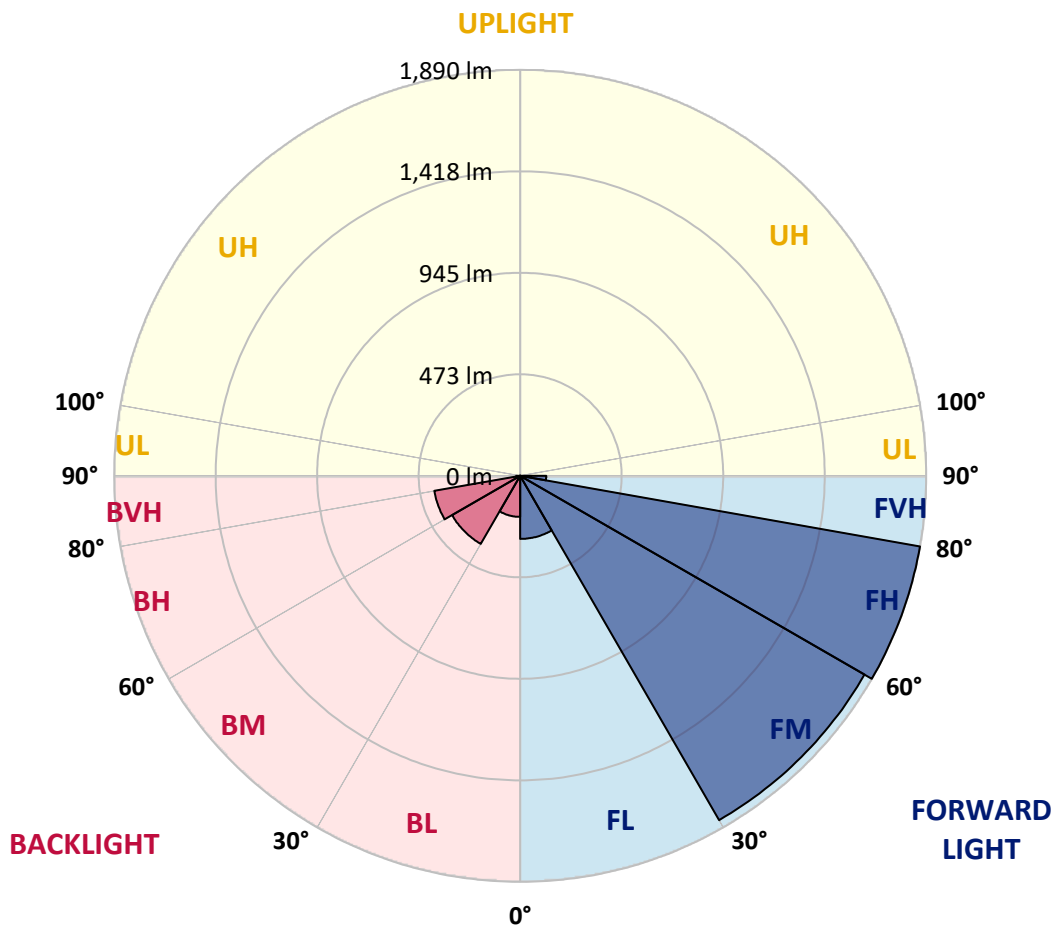
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	293.7	5.7			
FM (30°-60°)	1851.1	36.0			
FH (60°-80°)	1890.0	36.8			G2/5000
FVH (80°-90°)	121.4	2.4			G2/225
BL (0°-30°)	191.1	3.7	B1/500		
BM (30°-60°)	366.1	7.1	B1/1000		
BH (60°-80°)	405.7	7.9	B1/500		G1/500
BVH (80°-90°)	17.9	0.3			G1/100
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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9
2.5°	452.6	434.3	415.8	424.8	439.2	451.9	449.3	450.8	433.4	431.1	476.9
5°	533.2	501.8	501.2	501.6	502.9	488.3	523.9	542.4	546.5	565.4	610.4
7.5°	561.1	548.5	535.6	542.0	525.7	527.2	571.0	619.2	630.6	644.3	705.8
10°	555.3	543.3	547.2	548.2	551.2	575.5	603.7	649.9	659.6	703.5	719.4
12.5°	556.2	554.0	572.1	572.7	605.0	648.6	659.8	702.4	706.3	738.5	804.9
15°	585.6	600.5	590.4	595.8	602.0	654.2	670.4	731.4	754.6	796.1	846.0
17.5°	643.1	647.4	617.0	609.1	629.5	645.4	682.2	708.6	732.9	848.8	917.6
20°	656.4	668.0	631.9	590.8	634.0	656.2	681.8	693.8	712.7	856.5	954.2
22.5°	713.6	689.5	645.8	610.2	624.3	645.8	664.3	709.7	759.4	834.4	990.7
25°	746.0	732.1	693.1	654.9	642.8	643.5	679.2	719.8	737.0	866.9	998.0
27.5°	824.5	802.1	714.6	707.3	662.0	626.7	681.5	744.7	774.8	841.5	1033.7
30°	922.8	905.8	791.0	781.3	712.1	650.6	711.6	763.2	758.9	858.0	1058.4
32.5°	1002.3	1030.7	914.8	838.5	789.2	730.3	702.2	760.0	802.8	896.5	1100.3
35°	1115.8	1142.5	1011.3	959.7	852.9	767.3	768.2	804.3	830.7	941.5	1147.2
37.5°	1312.3	1288.9	1183.3	1101.9	1033.5	905.8	867.5	854.8	876.1	996.5	1239.0
40°	1454.0	1434.2	1310.0	1263.5	1130.4	1056.3	951.4	939.3	976.9	1053.3	1314.1
42.5°	1621.9	1586.7	1471.0	1432.7	1293.6	1159.9	1054.1	1061.0	1079.3	1160.3	1415.5
45°	1792.8	1707.3	1641.7	1638.7	1545.8	1361.1	1219.0	1213.4	1214.1	1317.9	1529.5
47.5°	1928.5	1851.5	1776.5	1740.8	1694.0	1709.2	1458.5	1393.0	1373.2	1476.6	1700.4
50°	2020.3	1931.7	1846.8	1838.4	1963.6	2045.9	1683.4	1613.3	1625.6	1703.6	1928.3
52.5°	2022.2	1917.1	1828.5	1887.2	2182.0	2299.8	2070.8	1875.0	1914.1	1967.2	2225.6
55°	1881.6	1772.6	1715.0	1848.7	2267.3	2601.0	2615.2	2294.2	2249.1	2268.6	2581.0
57.5°	1585.2	1475.1	1441.5	1601.7	2105.5	2891.5	3272.7	2795.2	2662.7	2581.0	2945.2
60°	1193.2	1098.0	1077.1	1179.3	1745.5	2806.1	3805.0	3418.6	3148.8	2930.0	3310.5
62.5°	894.8	826.4	795.1	809.7	1207.8	2528.6	4154.6	4206.4	3824.3	3310.9	3667.4
65°	727.1	671.9	643.9	625.0	751.2	1955.2	4091.4	4869.4	4613.4	3711.0	3945.2
67.5°	607.4	558.3	545.4	563.9	593.8	1134.3	3596.9	5240.3	5257.7	4105.8	4107.5
70°	504.2	467.8	463.1	515.6	554.9	684.5	2598.0	5123.8	5316.0	4401.8	4069.4
72.5°	389.6	370.0	369.4	451.7	551.2	583.5	1547.1	4426.3	4684.5	4307.2	3697.1
75°	270.2	256.7	267.0	371.3	538.6	591.9	883.0	3447.7	3641.0	3665.2	2961.6
77.5°	186.0	174.6	185.8	268.5	480.9	606.1	617.7	2492.9	2514.4	2457.8	1696.3
80°	129.4	121.5	130.1	190.1	374.3	599.8	525.9	1569.5	1440.0	1096.9	543.1
82.5°	80.2	77.8	87.3	135.4	263.6	545.7	498.4	809.9	618.3	302.7	193.9
85°	42.1	38.7	50.7	88.4	164.9	428.3	467.0	369.6	238.6	107.5	77.8
87.5°	12.5	11.2	19.6	35.7	69.9	192.0	267.2	156.7	89.0	31.6	24.3
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°	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9
2.5°	480.1	477.7	445.9	450.0	456.9	458.6	458.4	446.8	434.5	468.7	467.6
5°	611.4	590.2	574.3	570.8	551.2	531.7	538.6	536.2	533.2	548.7	550.6
7.5°	706.0	676.6	658.1	610.6	565.4	526.3	538.8	542.6	534.9	562.9	571.2
10°	731.0	707.8	687.8	626.7	601.8	579.0	545.2	506.7	501.6	485.5	487.4
12.5°	795.3	792.0	723.9	670.1	637.7	592.3	519.4	472.8	432.8	434.7	423.1
15°	846.0	847.7	765.8	690.6	603.5	534.3	448.5	390.4	349.4	341.2	332.8
17.5°	914.2	910.7	769.3	666.1	555.8	454.3	349.2	291.5	284.7	289.4	282.1
20°	943.8	913.5	747.3	605.2	481.2	345.1	263.8	233.3	246.6	265.5	265.9
22.5°	970.5	918.7	735.9	556.2	381.8	250.9	211.8	206.2	221.9	247.5	249.6
25°	969.4	942.5	715.5	506.7	296.0	195.9	184.0	188.1	206.8	233.5	235.0
27.5°	1018.2	924.3	662.4	441.8	223.0	167.7	170.7	178.2	187.0	212.4	217.4
30°	1017.8	958.2	635.7	362.9	179.1	153.7	161.5	167.9	175.2	198.4	201.2
32.5°	1041.9	936.1	619.6	282.3	160.6	150.3	152.2	158.7	169.2	184.9	186.8
35°	1070.9	961.2	568.0	224.2	153.7	147.3	148.8	152.4	162.1	176.5	178.4
37.5°	1164.0	966.0	547.6	189.0	153.3	146.0	145.8	147.7	158.7	171.8	177.6
40°	1200.3	1009.2	488.0	176.5	151.8	146.0	143.0	144.0	153.1	169.8	174.4
42.5°	1287.4	1023.6	444.0	172.2	151.8	143.4	138.7	140.4	150.9	165.8	172.9
45°	1377.0	1044.0	391.5	171.4	151.6	143.2	134.2	138.0	146.6	159.1	166.8
47.5°	1504.8	1117.5	339.0	168.8	149.9	144.3	133.1	132.9	140.4	151.1	158.5
50°	1713.1	1232.4	298.4	165.5	150.1	143.4	130.9	127.9	132.9	142.3	149.4
52.5°	2003.1	1428.0	282.5	163.8	148.3	140.0	127.3	122.5	125.3	132.9	139.7
55°	2339.8	1692.2	298.2	163.8	144.9	134.6	122.1	116.5	118.0	123.2	129.9
57.5°	2733.2	2020.5	374.1	161.5	140.6	128.1	115.9	109.4	109.9	114.4	120.4
60°	3144.1	2387.3	544.2	159.5	137.6	121.0	108.6	101.9	101.3	105.6	110.9
62.5°	3555.6	2725.7	723.0	164.0	136.7	115.0	100.8	94.2	94.0	97.8	102.3
65°	3882.8	2957.0	767.5	182.3	142.3	108.1	92.9	86.6	86.2	89.4	94.4
67.5°	4043.4	2990.6	583.1	205.1	154.2	101.7	85.1	79.3	78.9	82.3	86.6
70°	3924.5	2761.4	359.9	207.5	153.5	94.2	77.2	72.2	71.4	75.0	78.3
72.5°	3484.6	2415.5	273.5	183.6	132.9	83.4	69.2	64.9	63.6	66.9	69.9
75°	2796.9	1917.8	219.1	148.1	104.7	70.3	61.3	57.2	55.7	58.7	61.3
77.5°	1629.2	1078.8	160.2	115.7	79.1	57.4	52.2	48.6	46.9	50.1	52.0
80°	529.7	359.5	100.6	83.0	57.8	44.9	42.4	39.8	38.1	40.2	40.8
82.5°	190.3	133.7	55.7	51.0	38.5	32.2	32.0	30.5	28.4	29.2	29.2
85°	84.3	61.1	33.1	27.3	23.0	17.2	20.2	19.1	17.0	16.6	15.9
87.5°	23.6	20.2	12.0	9.2	7.5	2.8	6.4	5.8	4.7	4.3	3.0
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)