

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: P596977

Luminaire Tested: **MSA-SA2C-835-U-T4FT-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596977  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2C-835-U-T4FT-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7616 lumens  
Efficiency: N/A  
Efficacy: 67.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

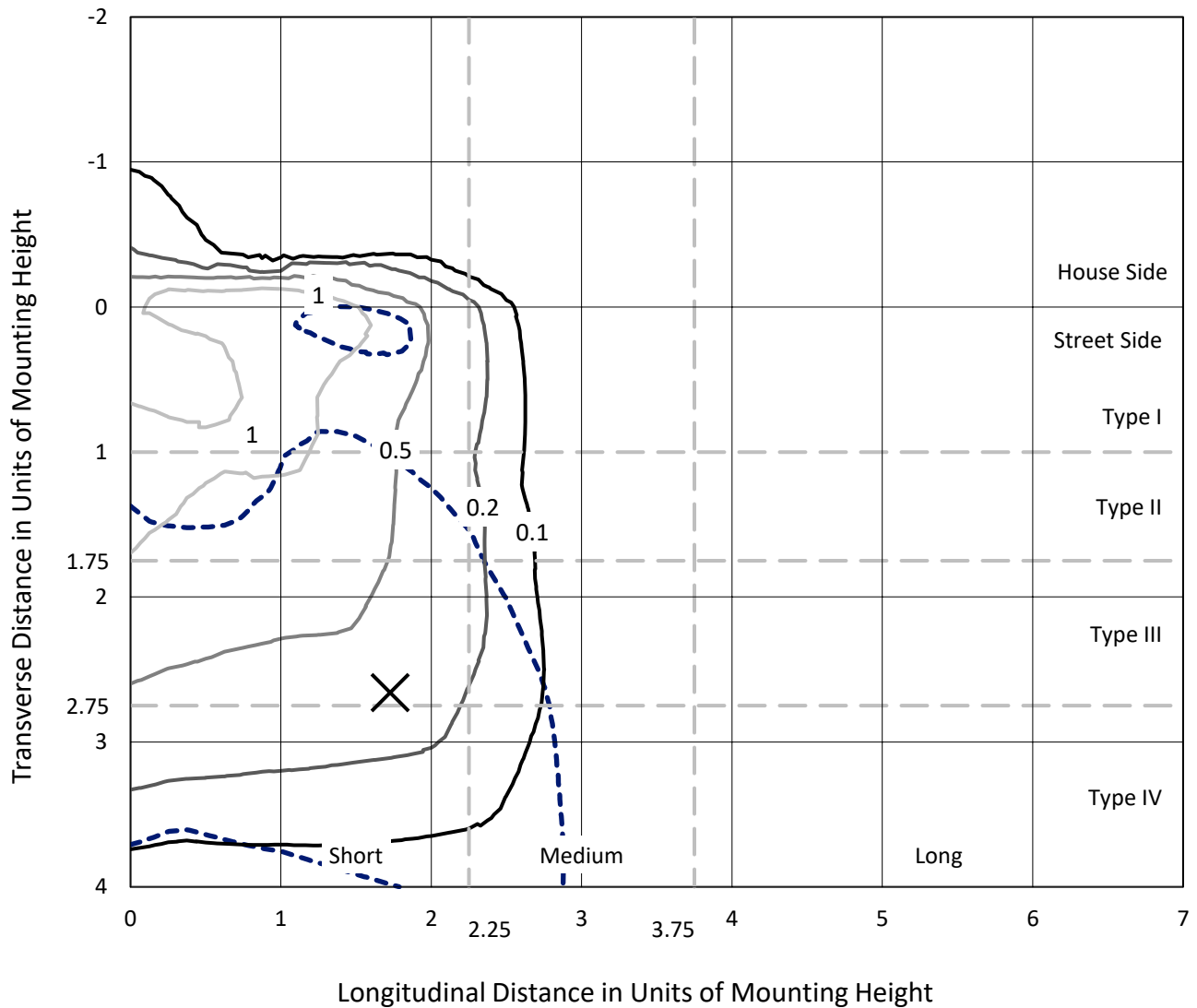
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

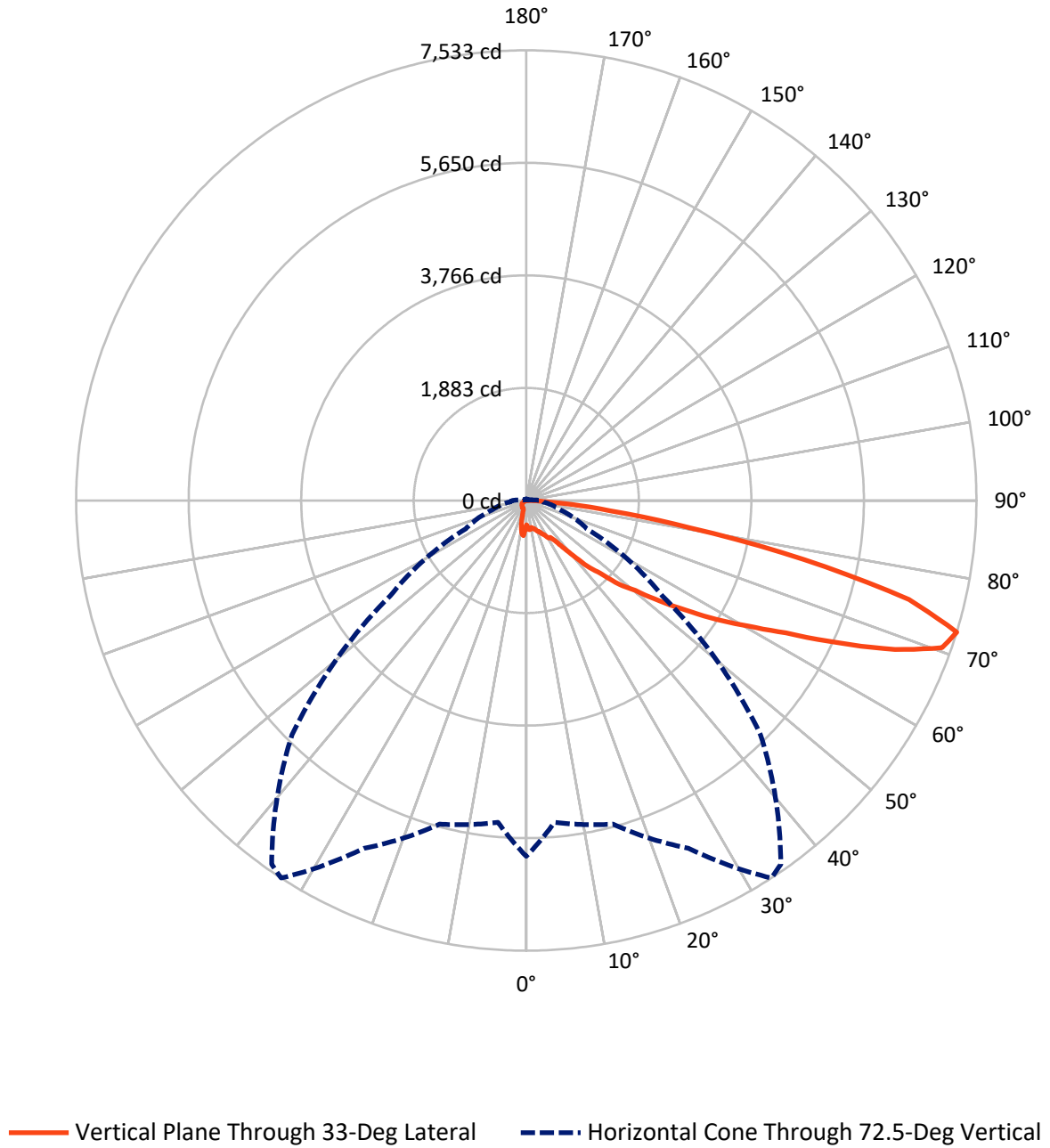
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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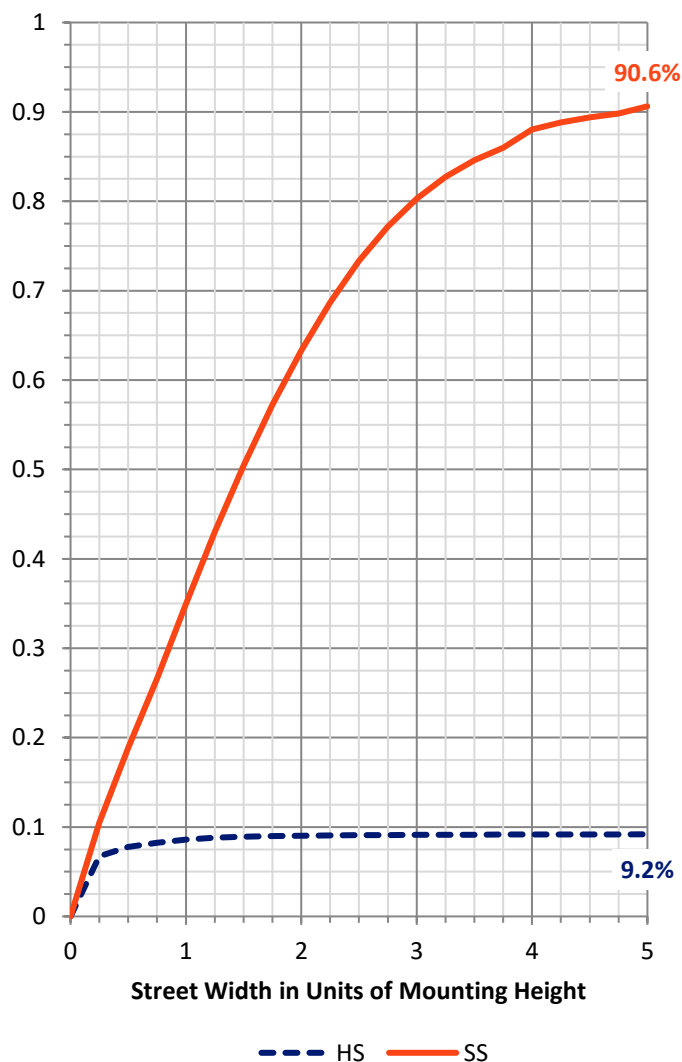
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	704.2	0.0	704.2
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	6911.8	0.0	6911.8
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	7616.0	0.0	7616.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.4	0.7
10°-20°	156.2	2.1
20°-30°	265.0	3.5
30°-40°	484.9	6.4
40°-50°	1023.4	13.4
50°-60°	1712.3	22.5
60°-70°	2291.9	30.1
70°-80°	1497.1	19.7
80°-90°	132.7	1.7
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°	7616.0	100.0
0°-180°	7616.0	100.0

**Coefficient of Utilization**

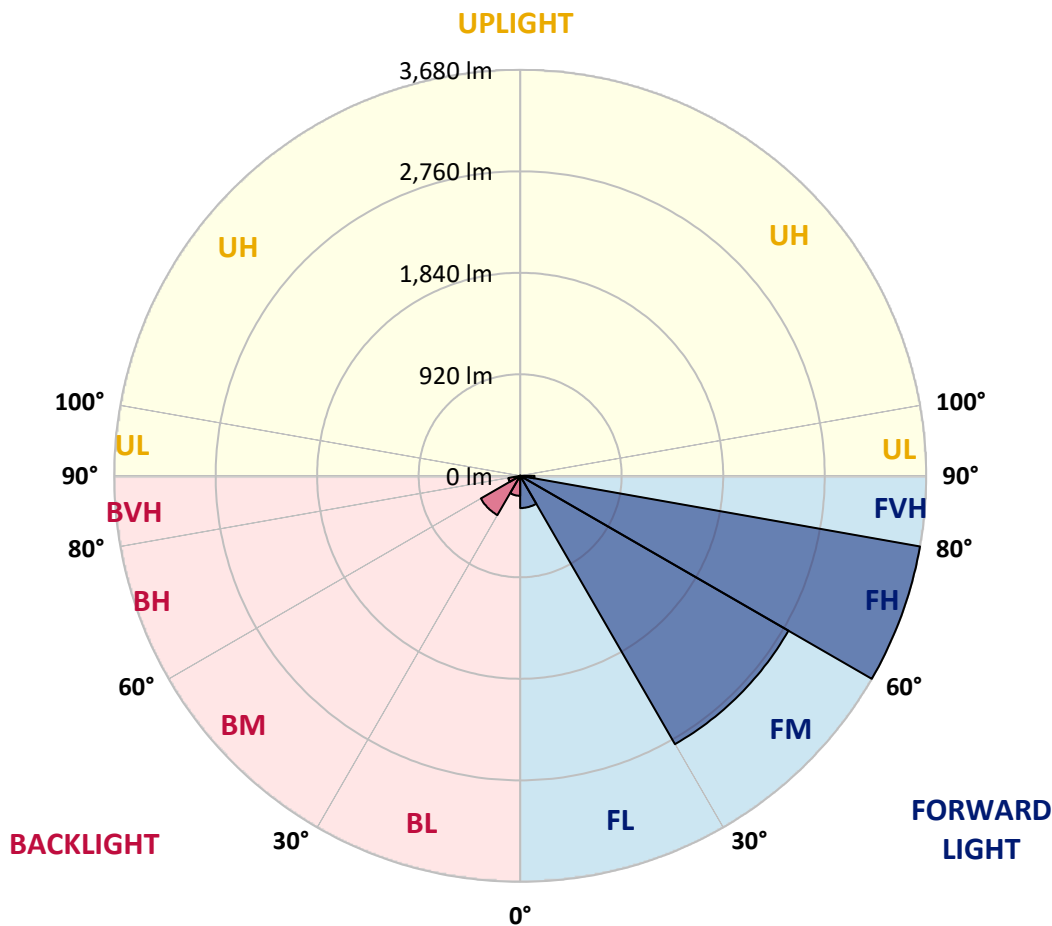


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	292.4	3.8			
FM (30°-60°)	2808.9	36.9			
FH (60°-80°)	3680.4	48.3			G2/5000
FVH (80°-90°)	130.2	1.7			G2/225
BL (0°-30°)	181.3	2.4	B1/500		
BM (30°-60°)	411.7	5.4	B1/1000		
BH (60°-80°)	108.7	1.4	B0/110		G0/110
BVH (80°-90°)	2.6	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	482.9	464.3	437.2	438.9	443.6	447.4	457.5	453.3	445.3	444.8	482.9
5°	511.6	490.9	489.2	491.8	490.5	497.3	488.8	516.3	539.5	567.5	612.3
7.5°	497.7	488.0	475.7	488.4	488.0	484.6	490.1	545.9	602.1	637.6	711.6
10°	457.5	446.5	455.8	460.1	457.1	471.9	508.7	554.3	621.6	696.0	731.9
12.5°	446.1	452.9	456.2	456.2	484.6	492.2	548.4	591.6	671.5	730.2	834.7
15°	490.5	503.6	480.3	475.3	484.2	488.4	551.0	603.0	705.3	812.7	900.2
17.5°	561.1	560.3	524.3	504.5	518.4	528.6	563.2	624.1	684.2	877.4	1004.3
20°	609.7	610.6	545.9	504.5	550.5	556.5	594.9	643.6	690.9	910.0	1072.3
22.5°	672.3	649.9	578.4	538.3	569.6	575.1	617.3	655.8	725.6	906.2	1159.4
25°	723.5	709.1	619.0	591.1	619.0	611.4	649.9	707.8	762.8	966.6	1210.6
27.5°	803.0	778.5	647.8	652.9	651.2	656.7	665.6	754.4	828.3	969.6	1329.0
30°	877.0	862.6	712.1	712.1	728.6	718.0	724.3	831.7	891.8	1038.1	1462.2
32.5°	953.5	954.4	787.8	747.6	734.5	778.0	820.7	869.4	968.3	1155.6	1666.0
35°	1156.1	1139.1	932.8	832.6	822.0	819.5	888.0	1019.5	1104.0	1308.7	1940.4
37.5°	1564.1	1505.3	1244.8	1025.4	985.6	972.1	1049.9	1184.8	1268.9	1533.6	2394.1
40°	1982.7	1874.9	1585.7	1338.3	1209.3	1151.0	1241.5	1356.1	1505.7	1782.3	2814.0
42.5°	2350.2	2217.0	1842.3	1675.7	1507.9	1482.5	1397.5	1584.0	1844.0	2144.2	3225.4
45°	2708.3	2446.1	2070.7	1938.7	1734.9	1749.3	1720.5	1882.1	2195.4	2540.9	3590.4
47.5°	2954.8	2719.3	2350.6	2179.3	2097.7	2013.6	2241.9	2409.8	2508.3	2792.9	3905.8
50°	3220.4	2981.9	2591.2	2471.5	2364.1	2449.1	2745.5	2767.9	2759.9	3028.0	4120.6
52.5°	3563.3	3282.1	2867.3	2732.0	2792.9	2877.4	3219.5	3223.7	2983.6	3225.9	4275.4
55°	3880.4	3568.8	3235.2	3107.5	3234.7	3306.2	3685.5	3546.4	3113.8	3360.3	4351.5
57.5°	4327.4	3966.7	3724.4	3499.4	3757.4	3688.9	4095.2	3888.5	3260.1	3449.5	4323.6
60°	4892.3	4467.7	4225.0	3987.0	4263.5	4310.0	4495.2	4059.3	3316.8	3478.7	4155.7
62.5°	5466.9	5039.9	4720.6	4559.1	4872.8	5025.9	4865.6	4144.3	3248.7	3421.6	3775.6
65°	6179.8	5633.1	5260.2	5165.4	5746.8	5971.8	5303.7	4165.0	3117.2	3107.5	3035.6
67.5°	6668.2	6135.9	5793.8	5952.3	6654.7	6672.9	5697.0	4171.3	2674.5	2433.0	1992.4
70°	6784.1	6214.1	6061.0	6527.8	7379.0	7150.3	5823.8	3850.0	1983.6	1444.0	910.8
72.5°	5955.3	5406.5	5605.6	6419.2	7532.9	7428.1	5543.5	2777.6	1116.7	577.6	279.5
75°	3652.9	3321.0	4205.2	5442.4	6612.4	6544.8	4324.8	1435.1	449.9	230.9	104.4
77.5°	1588.6	1475.3	2194.6	3611.1	4751.5	4691.0	2534.1	528.6	232.6	162.4	52.9
80°	525.6	509.9	831.3	1710.0	2783.1	2729.9	1067.7	219.9	165.8	130.2	29.6
82.5°	124.7	123.9	290.1	786.9	1417.8	1373.4	327.7	121.4	120.1	102.8	15.6
85°	31.3	32.1	80.3	321.8	575.9	507.8	85.4	60.5	84.6	69.8	8.0
87.5°	0.0	0.0	20.7	46.1	87.1	54.5	9.3	16.1	23.7	24.9	4.2
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°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	491.3	486.7	448.6	457.9	472.3	471.0	480.3	473.2	466.8	498.1	495.1
5°	625.0	599.6	587.8	604.2	595.4	574.6	592.0	589.0	583.9	594.5	602.6
7.5°	725.2	701.9	691.3	656.7	606.4	566.6	573.0	558.2	544.2	560.7	577.6
10°	758.2	745.5	744.2	676.5	629.2	571.7	503.6	444.8	429.2	408.5	417.8
12.5°	847.8	855.4	807.6	728.6	637.2	526.9	405.9	322.6	288.8	266.8	268.1
15°	921.4	948.0	878.7	736.6	560.7	401.7	270.2	195.4	174.2	168.7	167.0
17.5°	1030.9	1056.7	900.7	679.5	452.0	272.3	173.8	152.2	153.5	157.3	156.5
20°	1112.1	1108.3	881.6	578.4	333.2	178.4	145.5	142.5	149.3	160.3	157.7
22.5°	1190.3	1164.1	869.8	485.0	215.6	143.3	140.4	140.0	146.3	156.9	159.8
25°	1246.1	1250.3	849.9	379.7	156.9	133.2	135.7	139.5	145.9	157.3	155.6
27.5°	1406.0	1287.6	767.0	275.7	132.3	127.7	134.0	141.7	143.8	158.1	158.6
30°	1509.5	1427.9	712.9	185.6	122.2	118.0	130.7	140.8	143.3	161.9	163.2
32.5°	1690.1	1488.4	650.3	137.8	113.7	115.0	123.0	136.6	148.4	168.3	169.1
35°	1914.6	1682.5	537.0	123.9	110.8	108.7	112.5	128.1	147.6	169.1	173.4
37.5°	2342.1	1798.8	425.8	120.1	110.8	107.0	110.8	120.1	145.0	177.6	186.5
40°	2628.4	2035.6	307.0	119.2	108.7	105.3	106.6	115.9	137.8	172.5	185.6
42.5°	2981.0	2135.4	226.2	117.1	106.6	101.5	102.3	114.2	130.7	161.9	171.7
45°	3269.8	2208.1	178.0	116.3	101.5	99.8	101.5	112.9	123.9	139.1	148.0
47.5°	3489.3	2292.6	142.9	110.8	100.2	99.8	97.7	105.7	112.5	116.3	122.2
50°	3650.0	2273.6	118.4	102.3	96.0	98.5	94.7	96.0	97.7	95.6	102.3
52.5°	3748.5	2205.1	98.5	92.2	90.9	93.0	88.4	84.6	81.6	79.9	84.1
55°	3784.4	2067.7	83.7	79.1	82.0	82.9	79.1	72.3	67.2	64.7	68.1
57.5°	3716.4	1858.4	72.7	65.5	72.3	72.3	67.2	60.0	54.1	49.9	53.3
60°	3543.8	1627.1	64.7	54.5	61.7	62.2	56.2	48.6	44.0	39.7	41.9
62.5°	3222.5	1375.1	56.7	47.4	53.3	53.7	46.5	39.3	35.9	31.3	33.0
65°	2579.8	1051.6	48.2	41.9	46.1	44.8	38.5	33.4	29.2	24.9	25.8
67.5°	1674.5	649.1	41.9	38.1	38.9	37.6	32.6	29.2	24.5	21.1	21.6
70°	749.7	279.5	36.8	34.3	33.8	31.7	27.5	27.1	24.1	21.1	21.1
72.5°	231.3	105.3	31.7	30.9	29.2	26.6	24.1	25.8	23.7	20.3	19.9
75°	91.3	48.2	26.2	26.2	25.4	22.0	21.6	23.3	22.0	18.6	17.8
77.5°	47.8	30.4	21.6	22.4	22.0	16.9	19.5	21.1	20.3	15.6	13.1
80°	28.3	18.6	16.1	18.2	17.8	11.8	14.8	13.5	9.7	4.7	1.3
82.5°	15.6	8.5	7.2	10.6	10.6	4.2	7.6	6.8	3.8	0.0	0.0
85°	7.6	5.9	5.5	5.9	4.2	1.3	3.8	3.8	2.1	0.0	0.0
87.5°	3.8	3.4	2.5	2.1	1.7	0.0	1.3	1.7	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)