

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: P596963

Luminaire Tested: **MSA-SA2C-835-U-SL2-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596963  
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-SA2C-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: 8335 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

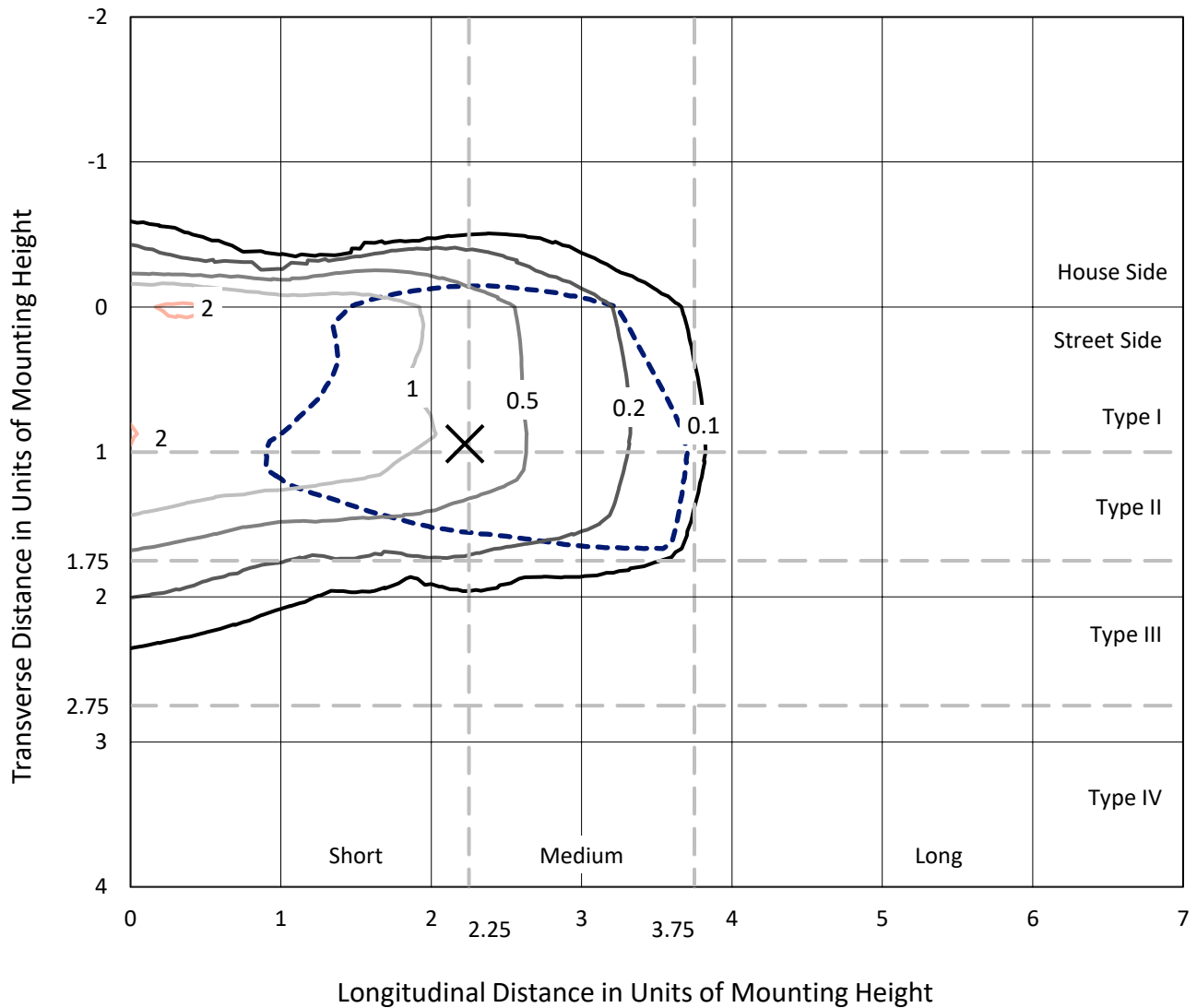
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

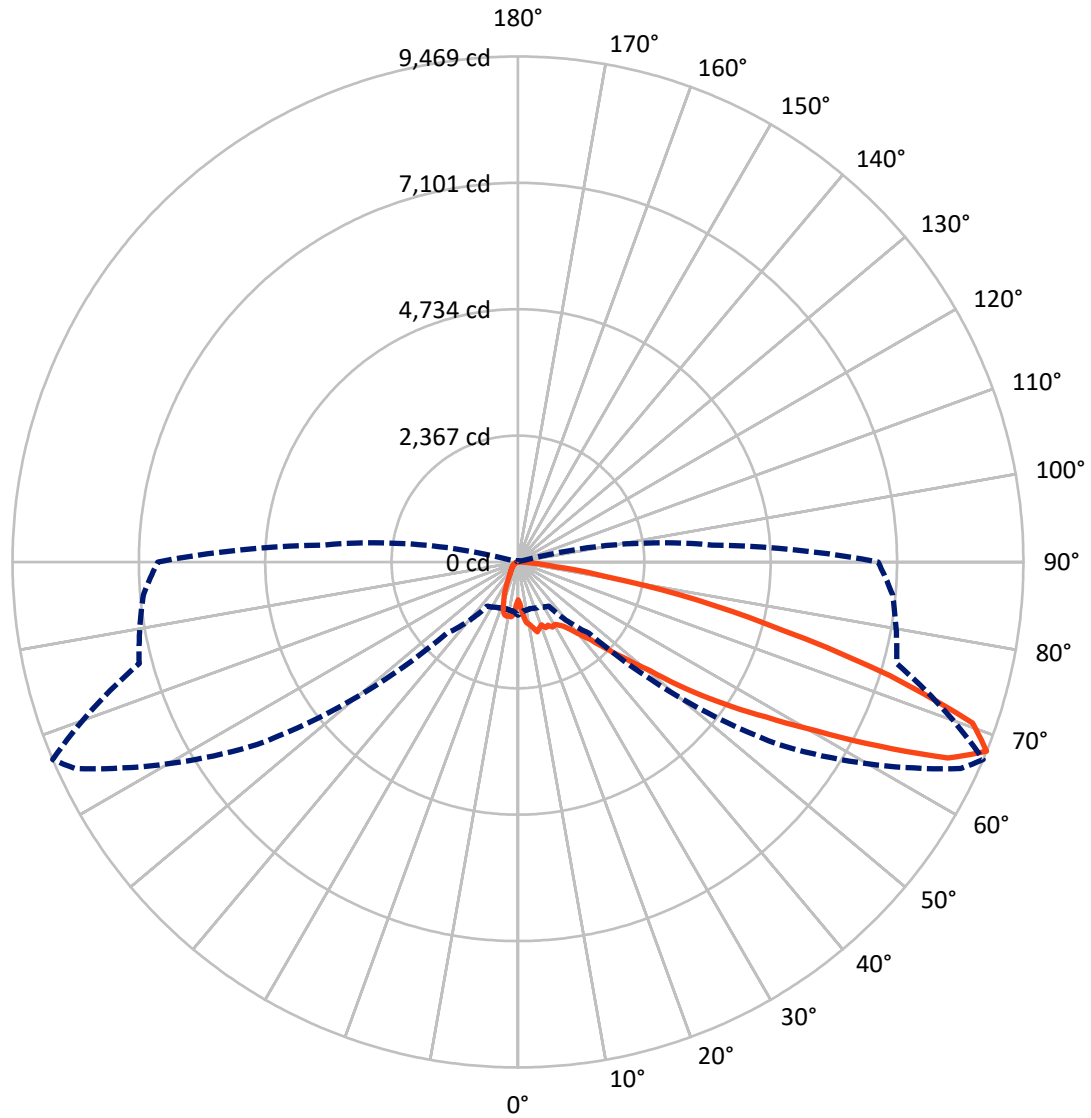
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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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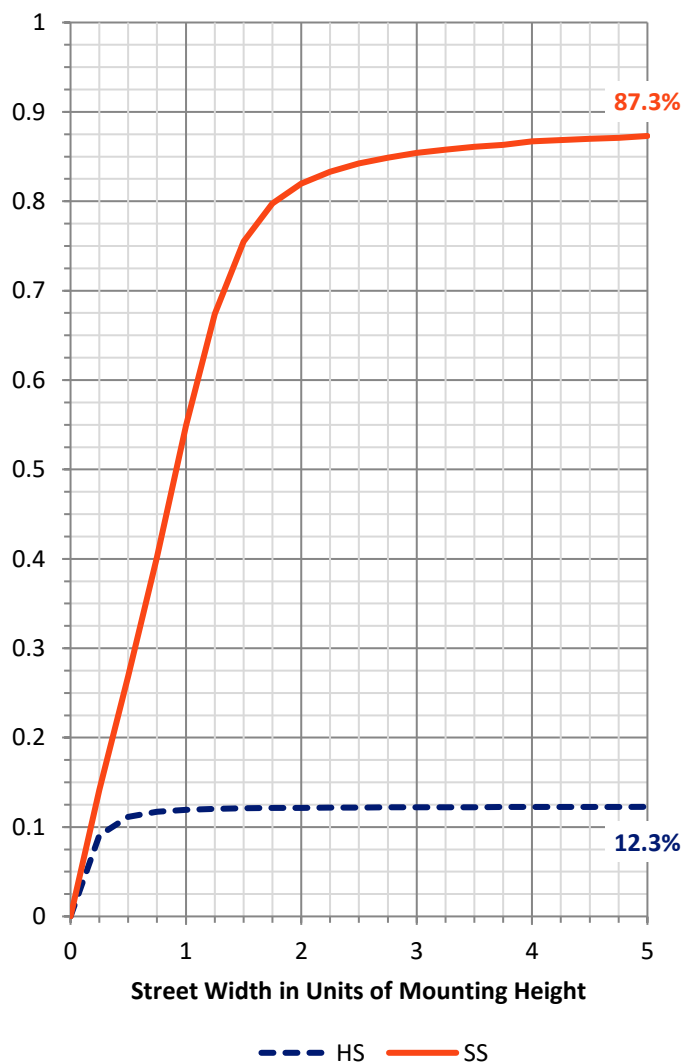
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1030.8	0.0	1030.8
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	7304.2	0.0	7304.2
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	8335.0	0.0	8335.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.1	1.1
10°-20°	263.7	3.2
20°-30°	413.2	5.0
30°-40°	666.3	8.0
40°-50°	1224.3	14.7
50°-60°	2067.7	24.8
60°-70°	2285.9	27.4
70°-80°	1196.4	14.4
80°-90°	128.5	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°	8335.0	100.0
0°-180°	8335.0	100.0

**Coefficient of Utilization**

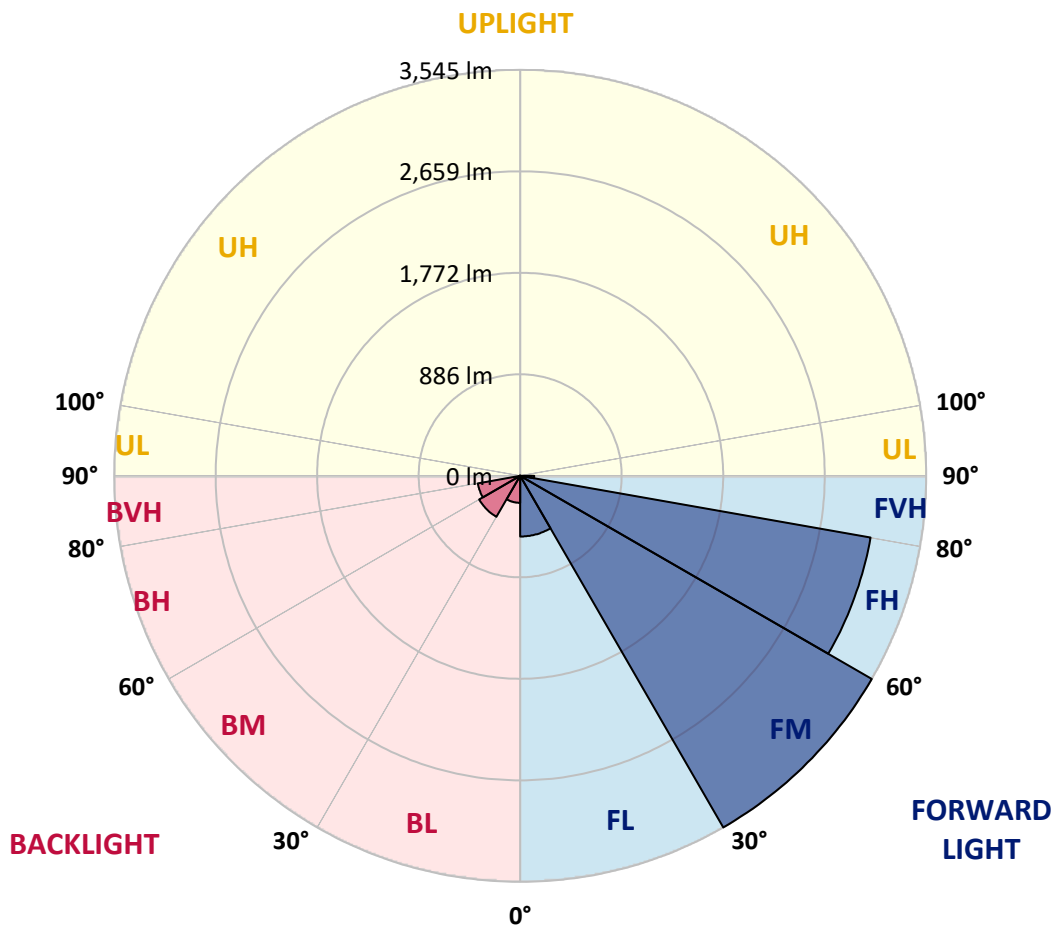


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	530.0	6.4			
FM (30°-60°)	3544.9	42.5			
FH (60°-80°)	3106.3	37.3			G2/5000
FVH (80°-90°)	123.0	1.5			G2/225
BL (0°-30°)	236.0	2.8	B1/500		
BM (30°-60°)	413.3	5.0	B1/1000		
BH (60°-80°)	376.0	4.5	B1/500		G1/500
BVH (80°-90°)	5.5	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°	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9
2.5°	838.0	809.7	761.5	775.4	803.4	826.6	815.6	794.0	794.5	772.5	851.6
5°	975.0	937.0	909.1	918.8	917.5	916.7	968.7	988.5	997.0	1033.4	1087.1
7.5°	1014.3	1000.8	971.6	980.5	951.3	953.5	1044.8	1131.0	1144.6	1167.0	1262.5
10°	999.1	972.9	983.5	983.5	983.9	1031.2	1092.6	1175.0	1191.5	1277.8	1287.9
12.5°	982.6	983.9	1025.8	1018.1	1075.6	1160.6	1181.3	1273.9	1265.9	1340.7	1452.0
15°	1043.9	1076.1	1049.0	1059.6	1065.1	1164.9	1198.3	1321.3	1356.8	1451.5	1523.8
17.5°	1149.2	1153.4	1097.2	1082.0	1121.7	1150.1	1217.3	1276.5	1300.2	1548.8	1651.1
20°	1168.2	1195.3	1138.2	1050.3	1134.4	1173.3	1220.2	1248.6	1258.7	1578.8	1723.0
22.5°	1282.8	1252.8	1161.5	1094.7	1118.8	1161.1	1190.2	1275.6	1336.5	1522.1	1791.9
25°	1341.6	1333.6	1246.5	1189.4	1164.9	1161.5	1228.3	1293.0	1312.4	1580.9	1808.8
27.5°	1482.4	1464.2	1295.5	1288.3	1207.6	1136.5	1229.5	1345.8	1382.2	1525.5	1872.2
30°	1673.9	1667.2	1442.6	1438.0	1309.5	1181.8	1298.0	1378.4	1356.4	1553.8	1914.5
32.5°	1866.7	1921.7	1692.1	1561.0	1464.6	1347.9	1278.6	1368.2	1407.6	1622.8	1992.3
35°	2099.7	2139.4	1905.6	1810.5	1596.1	1425.7	1407.6	1465.1	1482.0	1704.8	2080.7
37.5°	2507.3	2447.3	2248.1	2086.2	1973.7	1703.5	1613.9	1568.2	1607.5	1816.0	2261.2
40°	2808.3	2770.3	2525.1	2428.2	2169.5	2011.3	1777.1	1734.4	1778.4	1930.2	2386.8
42.5°	3171.5	3092.5	2861.6	2796.1	2529.7	2224.9	1987.2	2002.0	1974.6	2155.5	2607.1
45°	3500.1	3321.6	3193.1	3207.9	3065.8	2654.0	2337.7	2330.6	2307.7	2481.9	2838.8
47.5°	3721.2	3565.2	3440.0	3399.0	3382.1	3408.7	2844.3	2716.6	2699.7	2824.8	3203.7
50°	3840.0	3669.2	3514.4	3522.9	3866.2	4124.6	3366.9	3185.5	3191.8	3322.5	3702.6
52.5°	3760.1	3566.9	3403.7	3562.2	4241.7	4601.9	4232.0	3798.2	3945.3	3911.9	4371.9
55°	3391.0	3223.1	3107.3	3391.0	4282.7	5115.7	5297.0	4720.3	4687.3	4611.2	5054.3
57.5°	2769.9	2625.3	2553.8	2853.2	3834.1	5529.6	6366.8	5762.6	5481.4	5162.6	5620.9
60°	2063.8	1957.2	1882.8	2040.9	3021.0	5127.5	7067.4	6744.8	6419.2	5694.1	6130.0
62.5°	1528.5	1441.8	1362.7	1377.1	2080.3	4410.0	7336.3	7785.3	7598.4	6255.1	6610.3
65°	1219.8	1140.8	1085.4	1053.7	1288.3	3317.8	6962.1	8638.1	8853.8	6783.7	6957.0
67.5°	996.2	929.3	901.9	938.2	1010.5	1891.3	5962.6	9155.7	9468.5	7344.3	7042.4
70°	810.5	755.6	752.6	850.7	930.6	1153.0	4385.9	8798.4	9033.9	7439.9	6530.4
72.5°	564.9	540.8	579.3	718.4	922.2	960.2	2518.7	7280.9	7289.3	6571.0	5371.5
75°	319.6	315.8	376.7	572.9	898.1	950.5	1404.2	5145.2	5149.1	4969.8	3721.2
77.5°	175.9	164.5	219.4	387.3	771.2	928.5	905.7	3513.2	3423.1	2765.6	1699.7
80°	81.2	76.5	118.8	248.2	564.0	878.2	726.0	1931.0	1741.2	901.0	414.8
82.5°	33.4	31.7	54.5	159.4	356.4	707.4	611.8	856.6	687.5	171.2	128.1
85°	5.9	6.3	22.4	96.4	199.6	326.0	496.0	406.7	298.9	47.4	70.2
87.5°	0.0	0.0	4.7	23.3	48.2	89.2	201.3	113.7	78.2	14.0	20.7
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°	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9	709.9
2.5°	867.2	860.0	787.3	790.7	795.7	791.1	790.2	769.9	751.3	812.7	811.8
5°	1096.8	1045.6	995.3	975.9	934.0	879.0	879.5	862.1	844.4	869.3	869.3
7.5°	1260.4	1189.8	1126.0	1012.2	901.4	801.2	792.4	768.7	741.6	774.2	780.5
10°	1298.5	1237.2	1154.7	987.7	882.8	785.2	677.8	589.4	548.4	529.4	526.0
12.5°	1415.6	1369.9	1185.6	1000.8	849.9	684.5	508.6	403.8	332.3	326.8	319.2
15°	1493.8	1461.7	1216.0	968.2	710.3	492.2	319.6	245.2	216.5	213.9	210.1
17.5°	1615.2	1559.3	1186.8	864.7	555.6	324.7	214.8	193.6	197.0	204.6	198.7
20°	1664.6	1555.5	1123.4	714.6	390.3	217.8	186.5	175.0	183.9	191.1	187.7
22.5°	1715.4	1566.5	1067.2	589.0	255.0	180.1	166.2	160.2	161.1	168.3	168.7
25°	1714.9	1597.0	1002.1	458.8	189.8	160.2	150.1	142.5	139.5	144.6	143.3
27.5°	1798.2	1561.9	883.3	340.4	167.0	143.3	133.6	124.3	113.7	118.8	118.8
30°	1798.7	1619.0	800.4	244.4	153.1	127.7	119.2	104.9	92.6	96.8	97.2
32.5°	1846.4	1569.5	723.9	186.9	142.1	118.4	99.8	86.7	79.5	82.0	82.0
35°	1901.0	1611.8	606.3	164.9	131.1	105.3	85.4	74.8	69.3	71.5	71.5
37.5°	2081.1	1602.9	524.7	153.5	123.9	95.1	77.8	66.0	63.4	64.7	66.4
40°	2146.2	1665.9	413.9	146.7	112.0	85.8	68.5	59.6	56.2	57.1	57.5
42.5°	2312.0	1679.8	330.6	141.2	101.5	74.4	60.9	54.5	50.3	50.3	51.6
45°	2495.0	1714.9	263.0	136.6	92.6	66.8	55.0	49.9	43.6	42.7	44.4
47.5°	2760.1	1849.4	214.4	127.3	82.0	62.2	50.7	43.1	38.1	36.4	38.1
50°	3203.7	2077.7	189.4	115.9	74.4	58.3	44.8	36.8	33.0	30.9	32.1
52.5°	3829.4	2472.2	176.3	105.3	67.7	52.4	40.2	32.1	28.3	26.6	27.5
55°	4524.6	2924.6	170.0	94.7	61.7	46.1	35.1	28.3	24.9	22.8	23.3
57.5°	5167.2	3350.0	163.6	84.6	55.8	41.0	30.9	24.9	21.6	19.4	19.9
60°	5800.6	3689.5	148.4	72.7	50.3	36.8	27.1	21.6	19.4	16.9	16.9
62.5°	6360.8	3892.4	126.4	63.0	45.2	32.6	24.1	19.4	17.8	15.2	15.2
65°	6742.2	3901.7	101.9	54.1	39.7	27.9	21.1	18.2	16.5	13.5	13.1
67.5°	6747.7	3648.1	81.6	48.2	35.1	24.5	19.0	17.3	15.2	12.7	11.8
70°	6039.5	3013.8	68.1	42.3	30.4	21.6	16.5	16.5	14.8	12.3	11.0
72.5°	4831.1	2303.1	57.1	36.8	27.1	18.6	15.2	15.6	14.4	12.3	11.0
75°	3247.2	1320.9	47.4	31.3	23.7	15.6	14.8	15.2	14.8	12.3	10.6
77.5°	1495.5	420.7	36.8	25.8	20.3	13.1	14.4	14.4	13.5	11.0	9.3
80°	337.0	103.6	26.6	19.0	16.5	9.7	13.1	11.8	10.6	7.6	5.5
82.5°	122.6	31.7	16.1	11.8	10.1	3.8	8.5	8.5	7.6	5.5	3.4
85°	70.2	16.5	8.9	7.6	5.5	1.7	4.7	5.1	4.2	3.8	1.7
87.5°	22.8	3.8	4.2	4.7	4.2	0.8	1.7	1.7	1.3	0.8	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)