

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: P597155

Luminaire Tested: **MSA-SA4C-835-U-T4W-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597155  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4C-835-U-T4W-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14955 lumens  
Efficiency: N/A  
Efficacy: 66.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

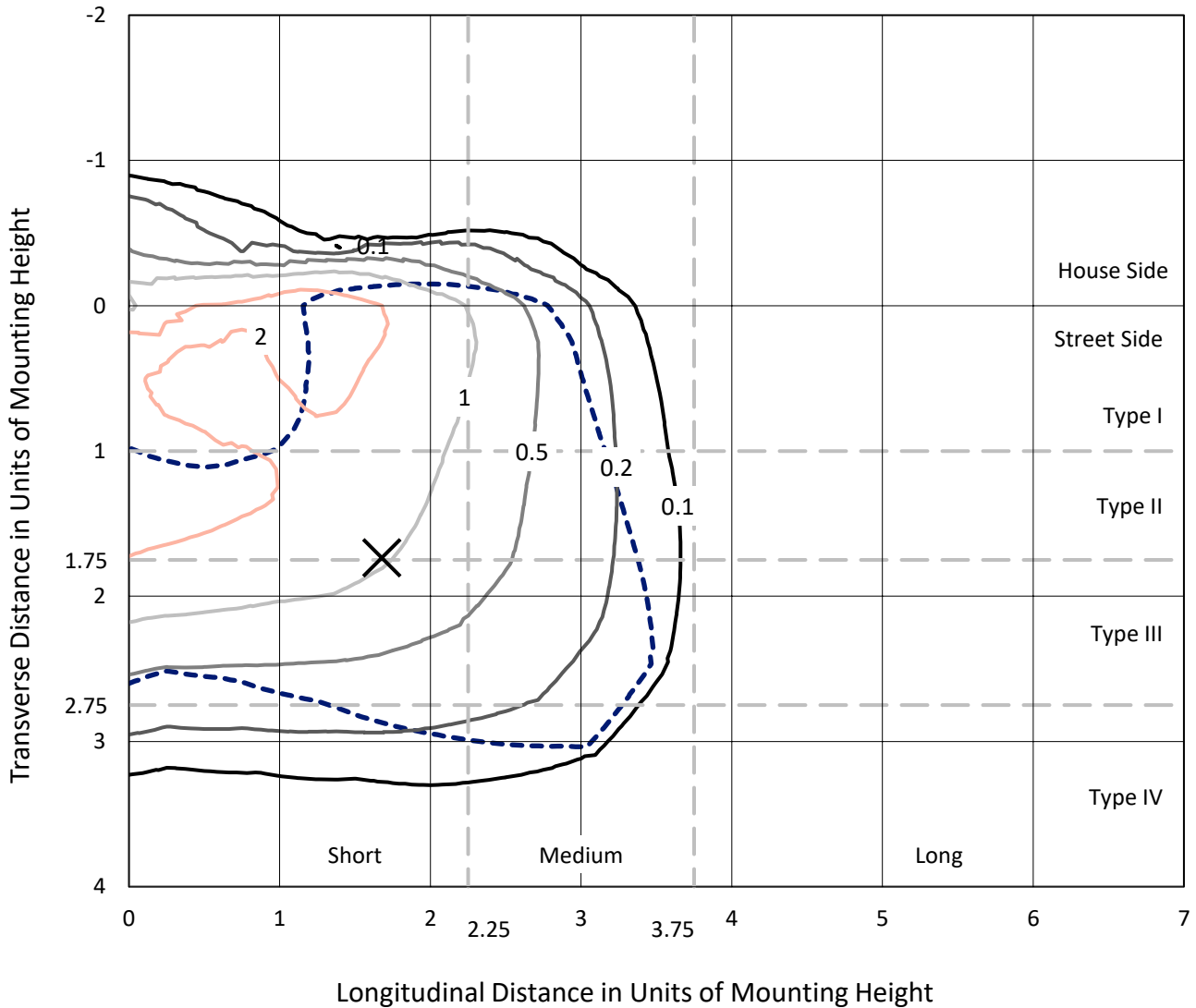
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

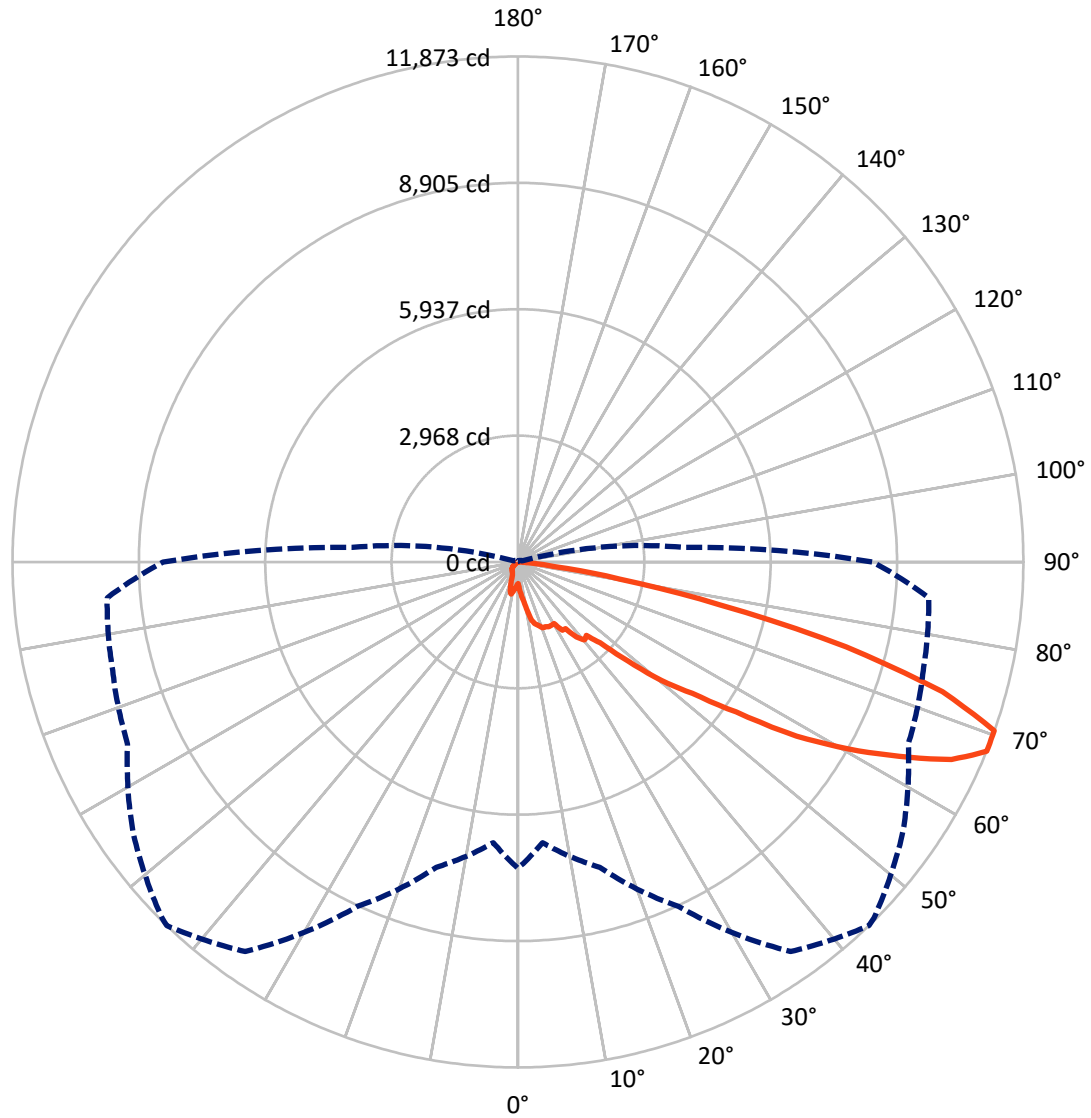
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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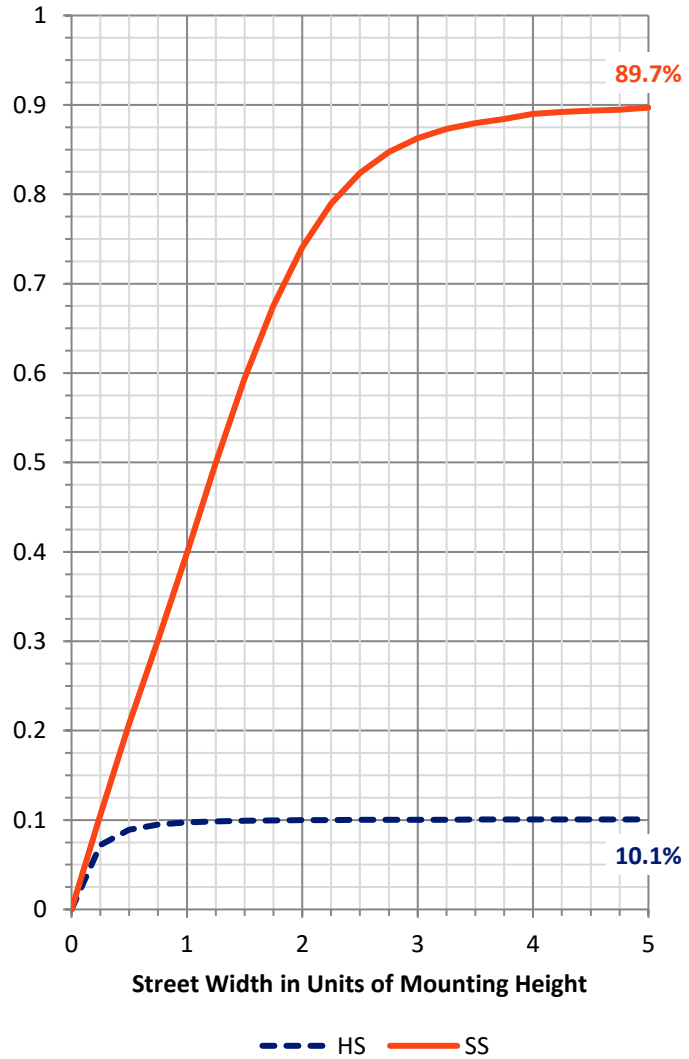
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1519.1	0.0	1519.1
	% Fixture	10.2	0.0	10.2
<b>Street Side</b>	Lumens	13435.9	0.0	13435.9
	% Fixture	89.8	0.0	89.8
<b>Total</b>	Lumens	14955.0	0.0	14955.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.7	0.5
10°-20°	312.7	2.1
20°-30°	553.9	3.7
30°-40°	900.3	6.0
40°-50°	1801.5	12.0
50°-60°	3695.9	24.7
60°-70°	5077.0	33.9
70°-80°	2386.3	16.0
80°-90°	152.8	1.0
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°	14955.0	100.0
0°-180°	14955.0	100.0

**Coefficient of Utilization**

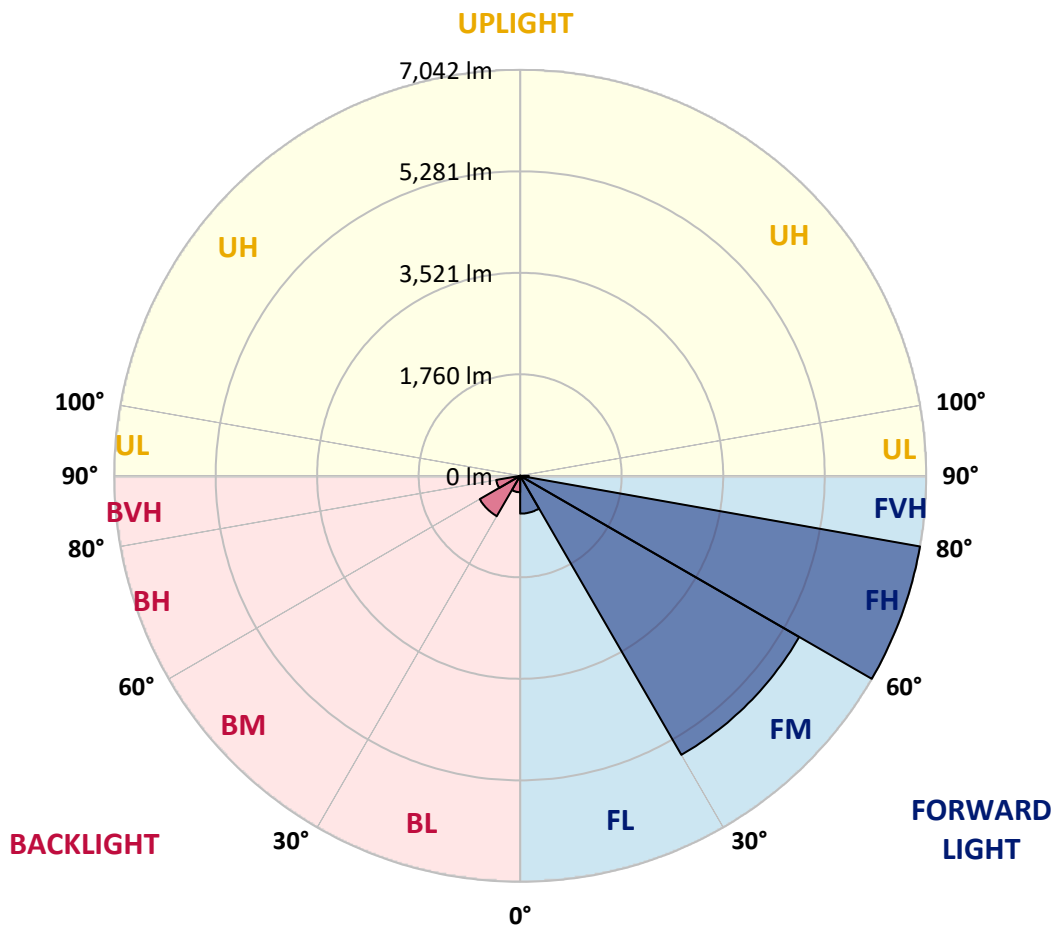


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	656.0	4.4			
FM (30°-60°)	5588.4	37.4			
FH (60°-80°)	7041.7	47.1			G3/7500
FVH (80°-90°)	149.7	1.0			G2/225
BL (0°-30°)	285.2	1.9	B1/500		
BM (30°-60°)	809.2	5.4	B1/1000		
BH (60°-80°)	421.6	2.8	B1/500		G1/500
BVH (80°-90°)	3.1	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-G3**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9
2.5°	640.8	620.1	590.5	597.0	600.3	609.4	610.2	598.7	565.7	556.6	597.0
5°	898.0	847.7	838.7	819.7	781.8	761.2	756.2	776.8	750.4	742.2	752.9
7.5°	1147.1	1104.2	1057.2	1031.6	952.5	903.8	901.3	909.6	914.5	885.7	900.5
10°	1312.8	1265.8	1255.9	1195.7	1127.3	1115.8	1110.8	1079.5	1053.9	1032.5	960.7
12.5°	1462.9	1462.1	1480.3	1393.7	1382.9	1394.5	1390.4	1278.2	1252.6	1162.8	1142.1
15°	1662.5	1712.0	1633.6	1561.1	1468.7	1508.3	1497.6	1425.8	1408.5	1347.5	1259.2
17.5°	1869.5	1882.7	1751.6	1640.2	1616.3	1564.4	1575.1	1549.5	1462.1	1510.8	1423.4
20°	1874.4	1903.3	1763.1	1579.2	1652.6	1650.1	1651.0	1626.2	1510.8	1624.6	1544.6
22.5°	1943.7	1872.8	1742.5	1625.4	1638.6	1651.0	1664.2	1633.6	1608.9	1636.9	1651.8
25°	1915.7	1887.6	1762.3	1684.8	1672.4	1682.3	1685.6	1724.4	1708.7	1776.3	1739.2
27.5°	1988.2	1947.8	1723.5	1737.5	1693.8	1682.3	1662.5	1792.0	1838.2	1784.6	1883.5
30°	2112.8	2107.0	1790.3	1810.9	1777.1	1675.7	1728.5	1897.5	1955.3	1922.3	2042.7
32.5°	2307.4	2327.2	1985.8	1852.2	1869.5	1914.8	1895.1	1897.5	2043.5	2116.9	2212.5
35°	2583.6	2572.9	2176.3	2008.9	1918.1	1925.6	1953.6	2088.0	2276.9	2271.9	2373.4
37.5°	3126.3	3009.2	2513.5	2168.8	2196.1	2233.2	2212.5	2393.1	2411.3	2417.9	2660.3
40°	3926.2	3770.3	3045.4	2506.1	2243.9	2408.0	2398.1	2442.6	2563.8	2609.2	2963.0
42.5°	4980.1	4770.6	3981.4	3126.3	2474.8	2361.8	2422.8	2506.9	2914.3	3043.8	3431.4
45°	6144.5	5720.6	4914.9	4010.3	3053.7	2703.2	2749.4	2906.1	3471.0	3685.4	4113.4
47.5°	6899.1	6526.3	5839.4	4793.7	3657.3	3473.4	3477.6	3511.4	4124.9	4522.4	5096.4
50°	7554.7	7158.0	6520.5	5612.6	4725.3	4377.3	4298.1	4142.2	4957.8	5501.3	6137.9
52.5°	8479.9	8016.5	7201.7	6573.3	5943.3	5123.6	5095.5	5148.3	5940.0	6511.5	7205.8
55°	9314.5	8751.2	7973.6	7577.7	7332.0	6220.4	6244.3	6332.5	7200.9	7503.5	8155.8
57.5°	9683.1	9072.8	8672.9	8494.8	8363.6	7718.8	7637.9	7585.2	8195.4	8310.9	9151.2
60°	9924.7	9344.2	9162.7	9204.0	9601.4	8917.0	8843.6	8536.8	9018.4	9113.2	10043.5
62.5°	9772.1	9242.7	9281.5	9625.4	10507.7	10057.5	9845.5	9332.6	9691.3	9768.0	10684.2
65°	8811.4	8259.7	8757.8	9589.9	11198.8	11188.1	11089.9	10067.4	10064.1	10162.2	10733.7
67.5°	7197.6	6618.7	7424.4	8925.2	11169.9	11873.4	11827.2	11042.1	10117.7	9855.4	9686.4
70°	5004.0	4501.8	5415.5	7370.8	10174.6	11868.4	11794.2	11696.9	9693.8	8483.2	7510.1
72.5°	2600.1	2323.9	3174.9	5079.0	8110.5	10427.7	10672.7	10512.7	8277.0	6163.5	4422.6
75°	883.2	792.5	1309.6	2695.8	5391.6	7962.9	8249.8	8087.4	5621.7	3306.9	1749.1
77.5°	342.2	318.3	469.2	1094.3	2704.9	4852.3	5164.0	4998.2	3014.9	1211.4	411.5
80°	194.6	188.0	258.9	493.1	1192.4	2413.8	2633.1	2388.2	1086.9	408.2	107.2
82.5°	82.5	84.9	144.3	266.4	599.5	851.9	950.0	866.7	455.2	279.6	39.6
85°	18.1	22.3	68.4	148.4	251.5	243.3	254.8	282.9	279.6	205.3	17.3
87.5°	0.0	0.0	21.4	40.4	60.2	39.6	31.3	55.3	85.8	82.5	7.4
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°	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9	503.9
2.5°	604.5	596.2	544.3	541.0	544.3	535.2	534.4	515.4	517.1	559.9	563.2
5°	752.9	711.7	667.1	653.1	639.9	610.2	626.7	626.7	626.7	654.0	662.2
7.5°	887.3	832.1	769.4	716.6	665.5	628.4	654.0	672.1	682.8	718.3	734.8
10°	948.4	893.9	837.8	762.8	723.2	709.2	679.5	663.8	682.8	675.4	684.5
12.5°	1078.6	1029.2	932.7	855.2	825.5	777.6	690.2	629.2	588.8	582.2	580.6
15°	1205.6	1175.1	1045.7	941.8	838.7	728.2	578.9	498.1	455.2	447.8	448.6
17.5°	1366.5	1322.7	1132.2	983.0	808.2	609.4	447.0	377.7	374.4	392.5	394.2
20°	1473.7	1401.9	1176.0	949.2	707.6	461.0	349.7	333.2	359.5	392.5	389.2
22.5°	1575.9	1498.4	1233.7	919.5	548.4	349.7	321.6	323.3	345.5	381.0	390.1
25°	1643.5	1615.5	1304.6	850.2	418.1	302.6	307.6	320.0	338.9	372.7	372.7
27.5°	1847.2	1716.1	1296.4	715.8	321.6	282.0	293.6	309.2	319.1	359.5	363.7
30°	1970.9	1928.0	1339.2	578.9	282.0	255.6	277.9	291.9	298.5	344.7	346.4
32.5°	2122.7	2027.8	1391.2	427.2	262.2	254.0	249.0	259.8	278.7	319.1	321.6
35°	2307.4	2279.3	1317.0	335.6	255.6	237.5	227.6	233.4	245.7	273.0	278.7
37.5°	2684.2	2517.7	1272.4	287.8	255.6	231.7	221.0	206.2	207.8	226.8	237.5
40°	3001.7	2950.6	1147.9	279.6	244.1	223.5	197.1	178.9	166.6	172.4	176.5
42.5°	3584.8	3348.1	987.1	275.4	233.4	202.0	167.4	148.4	129.5	131.1	137.7
45°	4292.3	3781.9	843.6	271.3	226.0	180.6	141.0	118.8	99.0	99.8	106.4
47.5°	5237.4	4414.4	669.6	258.9	212.8	160.8	113.8	90.7	79.2	81.6	87.4
50°	6311.1	4969.4	529.4	240.0	197.1	141.8	92.4	73.4	69.3	71.7	78.3
52.5°	7270.1	5378.4	437.1	222.7	174.8	115.5	77.5	65.1	63.5	65.1	70.1
55°	8122.8	5615.9	365.3	202.9	150.1	93.2	70.1	60.2	59.4	58.6	61.8
57.5°	8922.8	5684.3	285.3	171.5	122.0	80.8	65.1	56.1	54.4	52.0	54.4
60°	9505.8	5567.2	209.5	137.7	99.8	73.4	61.0	50.3	47.8	43.7	45.4
62.5°	9787.0	5246.4	158.3	110.5	84.9	66.8	54.4	43.7	40.4	35.5	36.3
65°	9519.8	4717.8	124.5	93.2	72.6	56.1	46.2	37.1	33.0	28.0	28.0
67.5°	8336.4	3913.8	105.6	80.8	61.0	47.8	37.9	33.8	27.2	23.1	22.3
70°	6118.9	2815.4	90.7	70.9	52.8	41.2	32.2	30.5	26.4	22.3	20.6
72.5°	3453.6	1593.2	77.5	62.7	44.5	34.6	27.2	28.0	25.6	20.6	19.0
75°	1317.8	536.8	64.3	52.0	36.3	26.4	23.1	23.1	23.1	17.3	14.8
77.5°	326.6	136.9	51.1	42.1	28.9	17.3	19.0	19.8	19.8	14.8	10.7
80°	89.9	46.2	30.5	30.5	20.6	9.9	13.2	13.2	10.7	4.9	0.0
82.5°	33.0	17.3	10.7	13.2	9.1	3.3	4.9	3.3	2.5	0.0	0.0
85°	14.0	9.1	6.6	7.4	4.1	0.0	0.8	1.6	0.0	0.0	0.0
87.5°	5.8	4.1	3.3	3.3	1.6	0.0	0.0	0.0	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)