

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: P596379

Luminaire Tested: **MSA-SA3D-722-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596379
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-722-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11036 lumens
Efficiency: N/A
Efficacy: 57.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

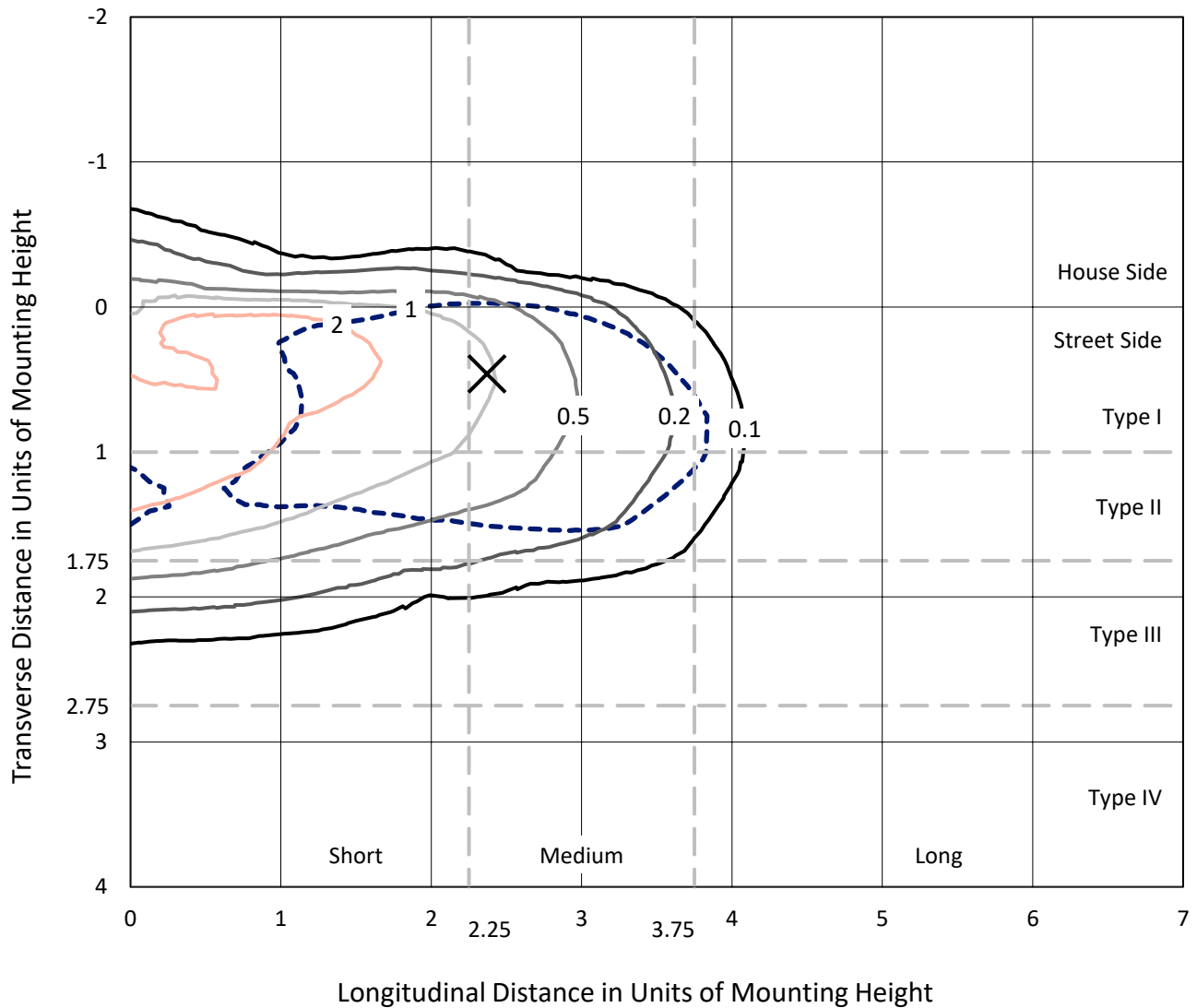
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

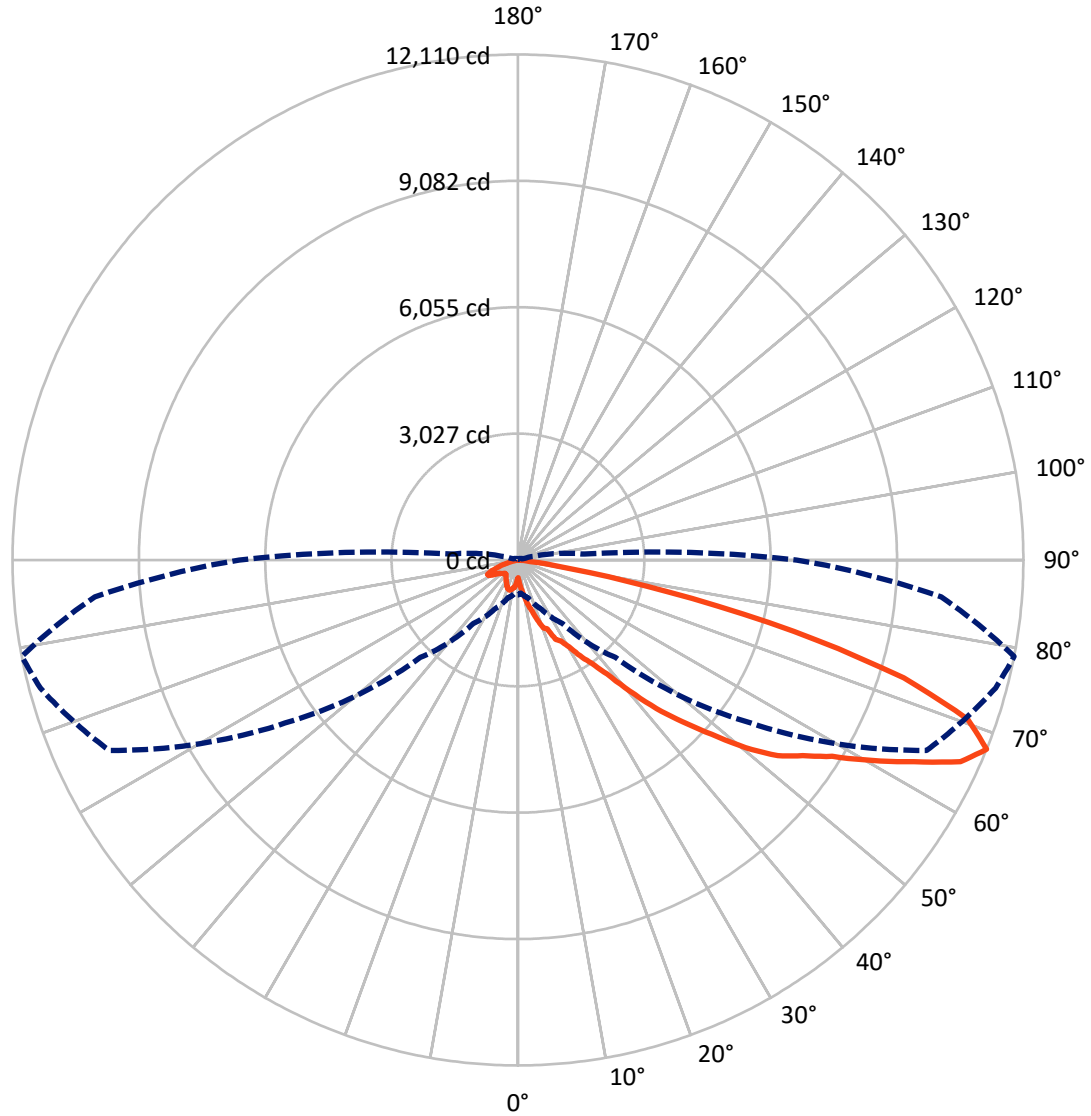
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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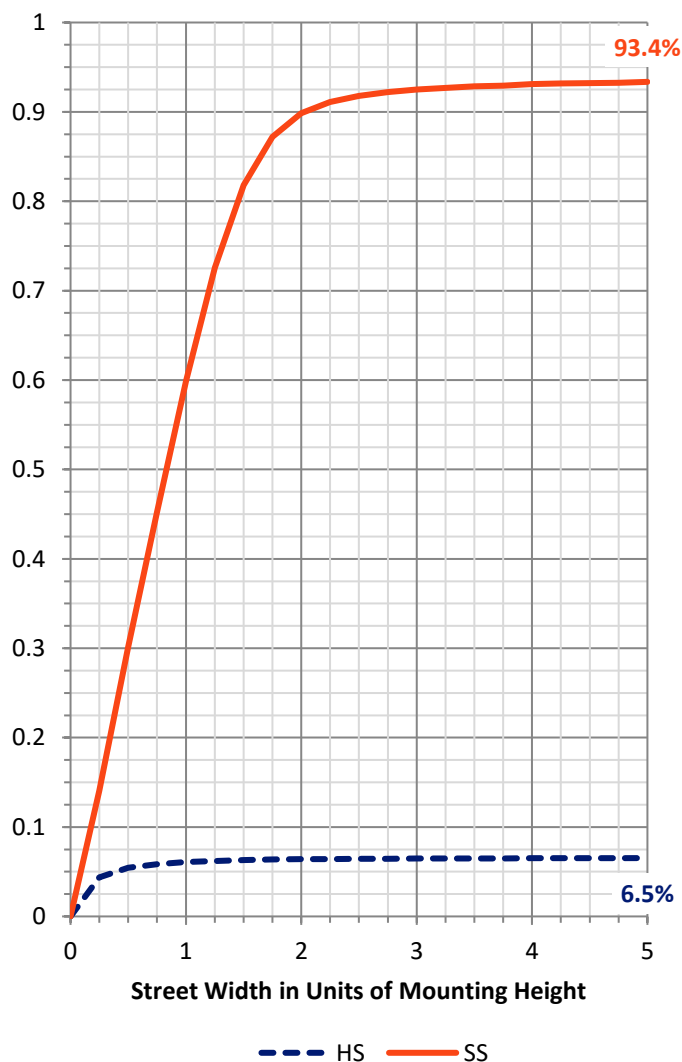
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	725.2	0.0	725.2
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	10310.9	0.0	10310.9
	% Fixture	93.4	0.0	93.4
Total	Lumens	11036.0	0.0	11036.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	0.6
10°-20°	246.6	2.2
20°-30°	475.7	4.3
30°-40°	934.5	8.5
40°-50°	1872.1	17.0
50°-60°	2992.3	27.1
60°-70°	3010.7	27.3
70°-80°	1358.2	12.3
80°-90°	84.0	0.8
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°	11036.0	100.0
0°-180°	11036.0	100.0

Coefficient of Utilization



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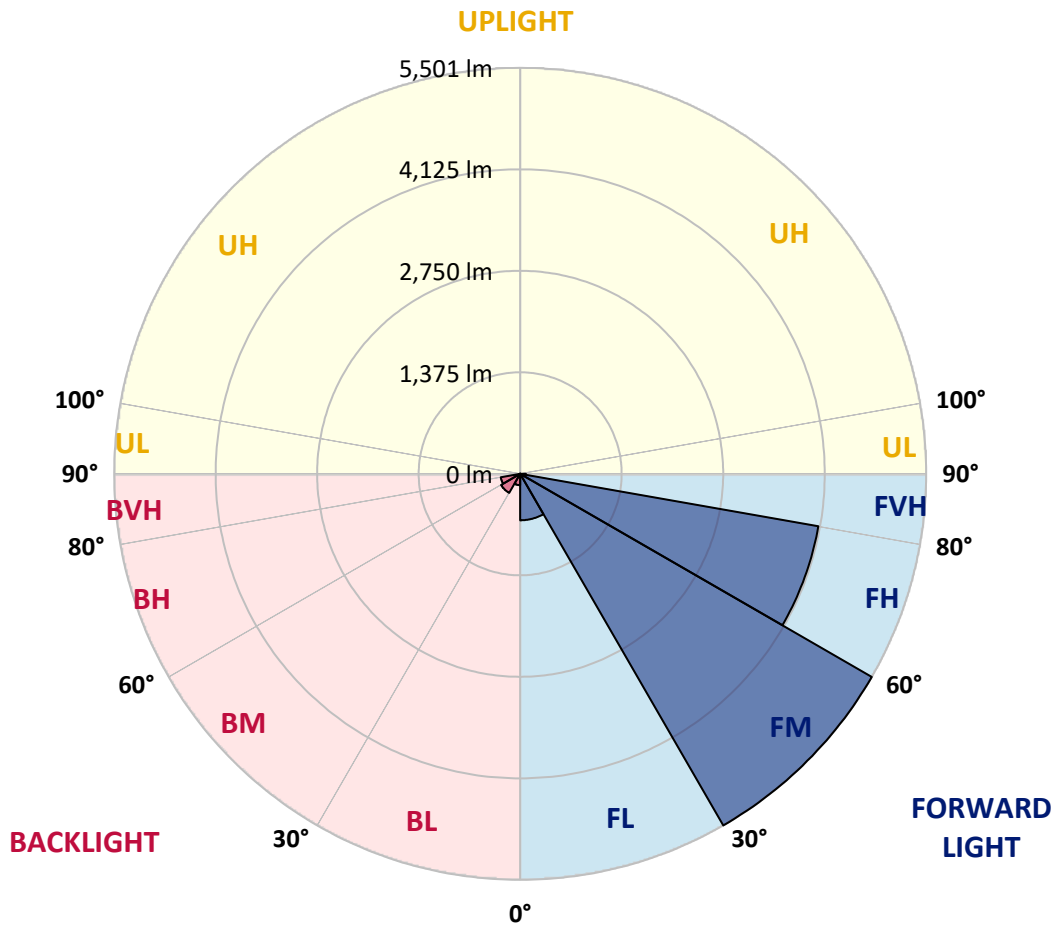
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	630.0	5.7			
FM (30°-60°)	5500.5	49.8			
FH (60°-80°)	4101.6	37.2			G2/5000
FVH (80°-90°)	78.7	0.7			G1/100
BL (0°-30°)	154.1	1.4	B1/500		
BM (30°-60°)	298.3	2.7	B1/1000		
BH (60°-80°)	267.3	2.4	B1/500		G1/500
BVH (80°-90°)	5.4	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2
2.5°	574.3	553.6	520.2	539.0	537.8	547.5	529.3	509.2	477.0	509.2	511.6
5°	826.8	788.4	764.1	759.2	732.5	707.5	702.1	681.4	665.5	637.0	662.5
7.5°	1030.0	1012.3	969.1	964.3	898.6	862.1	873.6	864.5	804.3	774.4	799.4
10°	1116.3	1085.9	1092.0	1085.9	1057.9	1068.3	1044.6	1017.2	969.1	919.8	857.8
12.5°	1149.8	1144.9	1195.4	1189.3	1255.1	1334.1	1281.2	1235.6	1124.3	1112.1	1027.5
15°	1221.6	1252.0	1244.7	1270.3	1312.2	1446.7	1445.5	1456.4	1338.4	1275.1	1152.8
17.5°	1285.5	1308.0	1271.5	1300.7	1415.1	1496.6	1605.5	1562.9	1576.3	1511.8	1322.6
20°	1258.1	1283.6	1247.1	1229.5	1430.9	1585.4	1730.8	1699.8	1780.1	1739.9	1478.9
22.5°	1429.0	1381.0	1289.1	1231.9	1382.2	1583.6	1775.2	1904.8	1890.8	1792.2	1624.3
25°	1640.1	1610.9	1500.8	1399.8	1413.2	1572.6	1915.1	2105.5	2146.9	2104.9	1762.4
27.5°	1924.9	1918.2	1693.1	1649.3	1519.1	1524.6	1937.0	2358.6	2264.3	2198.6	1923.6
30°	2296.6	2243.6	1976.6	1919.4	1727.1	1632.8	2070.9	2577.0	2507.7	2418.2	2075.1
32.5°	2696.3	2704.2	2363.5	2174.9	2020.4	1908.4	2017.9	2679.2	2808.8	2736.4	2264.3
35°	3150.1	3185.4	2768.7	2547.2	2246.7	2081.8	2245.5	2993.1	3225.5	3035.1	2518.0
37.5°	3849.1	3847.9	3361.2	2920.1	2701.7	2522.9	2624.5	3278.5	3737.8	3470.1	2973.1
40°	4464.2	4330.3	3877.7	3370.9	3030.3	2981.6	2908.0	3669.0	4284.7	4123.5	3377.6
42.5°	4923.5	4829.2	4282.3	3888.0	3465.8	3311.3	3285.2	4241.5	5092.0	4866.3	3955.0
45°	5472.8	5163.8	4761.0	4405.8	3975.7	3930.6	3869.2	4822.5	6031.3	5522.7	4456.9
47.5°	5965.0	5674.2	5293.4	4837.1	4343.1	4714.2	4478.2	5332.9	6714.5	6236.9	5010.5
50°	6379.3	6070.2	5643.8	5296.4	5084.7	5336.6	4943.0	5753.3	7452.4	7065.5	5528.2
52.5°	6590.4	6240.6	5910.9	5696.1	5825.7	5769.1	5573.2	6262.5	8081.5	7791.9	5986.9
55°	6417.0	6075.1	5937.0	6043.5	6437.1	6273.4	6289.3	7051.5	8675.3	8276.2	6386.0
57.5°	5648.0	5336.0	5397.4	5688.8	6443.2	6871.5	7105.7	7818.1	9151.6	8879.7	7001.7
60°	4272.5	4021.3	4248.8	4765.9	5837.2	6752.2	7684.8	8584.6	9832.4	9747.2	7933.7
62.5°	2609.3	2473.0	2795.4	3440.3	4651.5	6167.6	8022.5	9606.7	10560.6	10651.2	8922.3
65°	1331.1	1269.7	1538.6	2105.5	3142.8	5066.4	7778.5	10241.8	11313.1	11647.7	9864.6
67.5°	838.3	798.8	942.4	1284.3	1854.3	3304.6	6810.6	10797.2	11844.8	12109.5	10179.1
70°	581.0	556.0	680.1	881.5	1169.9	1780.1	5056.7	10278.9	11423.2	11435.4	9418.1
72.5°	368.7	349.2	470.3	652.8	863.3	919.2	2898.9	8065.7	9778.2	9665.7	7627.0
75°	239.1	229.4	298.7	478.2	663.1	567.0	1432.7	5442.4	7011.4	6835.0	5065.8
77.5°	171.6	165.5	200.2	319.4	472.1	396.7	642.4	3243.8	4020.1	3634.4	2459.0
80°	103.4	102.8	144.8	200.2	335.8	279.8	296.9	1472.8	1558.6	1270.9	751.3
82.5°	51.7	53.5	80.9	129.0	216.0	183.1	135.7	490.3	418.6	308.4	152.1
85°	12.2	15.2	42.6	88.8	108.3	73.0	64.5	128.4	115.0	87.0	44.4
87.5°	0.0	0.0	13.4	21.3	29.2	12.2	21.9	24.3	31.0	24.3	9.1
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°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2
2.5°	512.2	504.9	460.5	449.0	447.8	435.0	438.0	425.9	426.5	453.8	453.8
5°	652.8	610.2	567.6	529.9	504.3	467.8	454.4	449.0	444.1	455.1	461.7
7.5°	766.5	703.9	627.2	545.1	469.0	416.7	409.4	396.0	391.2	402.1	410.6
10°	817.0	739.2	633.9	514.1	442.9	400.3	365.0	346.2	342.5	341.9	344.9
12.5°	924.1	827.4	641.2	502.5	425.2	378.4	338.2	306.6	277.4	280.5	277.4
15°	1009.9	895.5	641.2	474.5	382.7	335.8	265.2	249.4	245.2	251.9	246.4
17.5°	1139.5	963.0	609.0	424.6	346.2	261.0	234.2	233.0	241.5	251.3	245.2
20°	1217.3	972.2	554.8	367.5	284.1	226.3	216.6	206.8	219.0	226.9	223.9
22.5°	1298.2	972.8	500.7	337.0	228.7	206.2	190.4	182.5	184.3	191.6	192.9
25°	1332.9	949.0	450.2	296.9	207.5	184.3	167.9	159.4	156.3	160.0	158.8
27.5°	1427.2	903.4	395.4	253.1	197.1	163.6	148.4	138.1	129.0	135.1	136.3
30°	1440.6	888.8	365.6	225.1	183.7	144.8	131.4	120.5	113.8	122.3	122.3
32.5°	1483.2	808.5	350.4	213.5	169.7	133.8	115.6	107.7	106.5	111.9	112.5
35°	1548.9	773.2	327.9	204.4	157.0	121.1	104.0	100.4	99.2	103.4	103.4
37.5°	1771.6	729.4	303.0	196.5	146.0	114.4	101.0	94.9	95.5	99.2	101.6
40°	1919.4	734.9	265.9	186.8	133.2	108.3	94.9	90.6	90.0	91.9	93.7
42.5°	2193.8	739.2	249.4	176.4	123.5	101.0	88.8	85.8	83.3	85.2	87.0
45°	2500.4	761.7	240.9	167.9	118.0	96.7	83.3	81.5	76.0	77.3	79.7
47.5°	2796.0	843.8	230.6	155.7	113.2	94.3	77.9	73.6	70.0	69.4	71.8
50°	3131.9	923.5	219.0	142.4	108.3	90.6	72.4	65.7	63.3	63.3	65.1
52.5°	3432.4	999.5	208.1	133.2	104.6	84.0	67.5	60.8	59.0	59.0	61.4
55°	3748.7	1079.2	198.3	124.7	99.8	77.3	63.3	57.2	56.6	55.4	57.2
57.5°	4307.2	1253.2	186.2	117.4	93.1	71.8	59.6	53.5	52.3	50.5	52.3
60°	5120.6	1520.3	170.3	110.1	85.2	68.1	56.6	49.3	47.5	44.4	45.0
62.5°	5915.7	1736.3	152.1	101.0	77.9	64.5	51.7	44.4	41.4	37.7	38.3
65°	6597.1	1821.4	132.6	90.0	70.6	56.0	45.0	38.9	34.7	29.8	29.2
67.5°	6677.4	1608.5	113.8	79.7	63.3	47.5	38.3	34.7	28.0	23.7	22.5
70°	6009.4	1198.5	94.9	70.6	54.8	40.2	32.9	30.4	26.2	22.5	20.7
72.5°	4785.4	884.6	79.7	62.7	48.1	34.1	28.0	28.6	26.2	21.9	19.5
75°	3164.7	506.2	65.1	52.3	40.2	27.4	25.6	25.6	24.9	20.7	18.3
77.5°	1522.7	218.4	49.9	41.4	32.2	20.7	23.1	23.1	23.7	18.9	15.2
80°	431.9	65.7	31.0	28.0	23.7	14.0	18.3	17.6	15.8	11.0	6.7
82.5°	77.3	25.6	14.0	14.6	13.4	5.5	10.3	9.7	7.9	4.3	0.6
85°	21.3	9.7	7.9	8.5	6.7	1.8	4.3	5.5	4.3	2.4	0.0
87.5°	5.5	4.3	5.5	6.1	4.9	0.6	1.8	0.6	1.8	0.6	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)