

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: P366879

Luminaire Tested: **MSA-SA1C-727-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-727-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3874 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

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



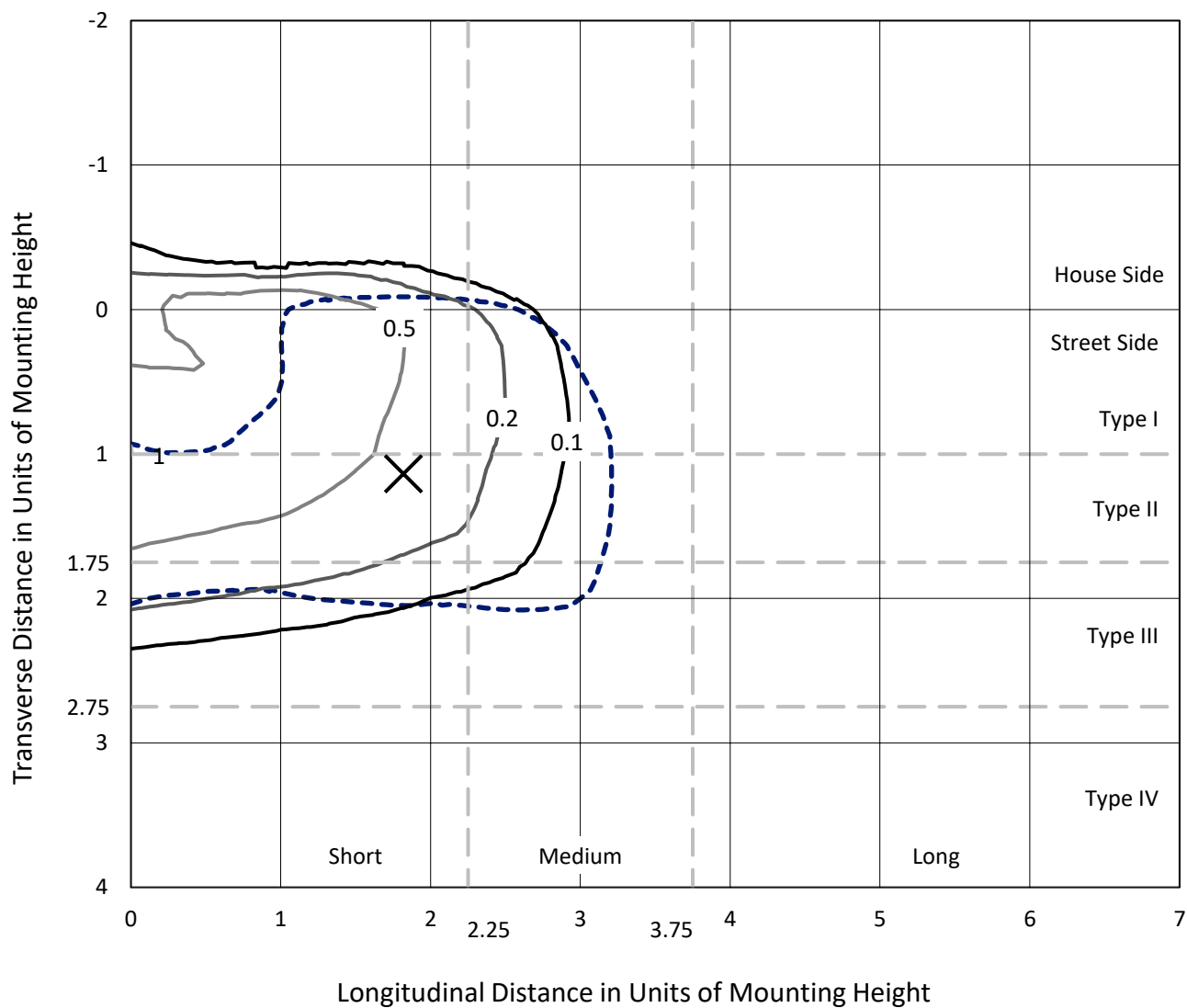
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

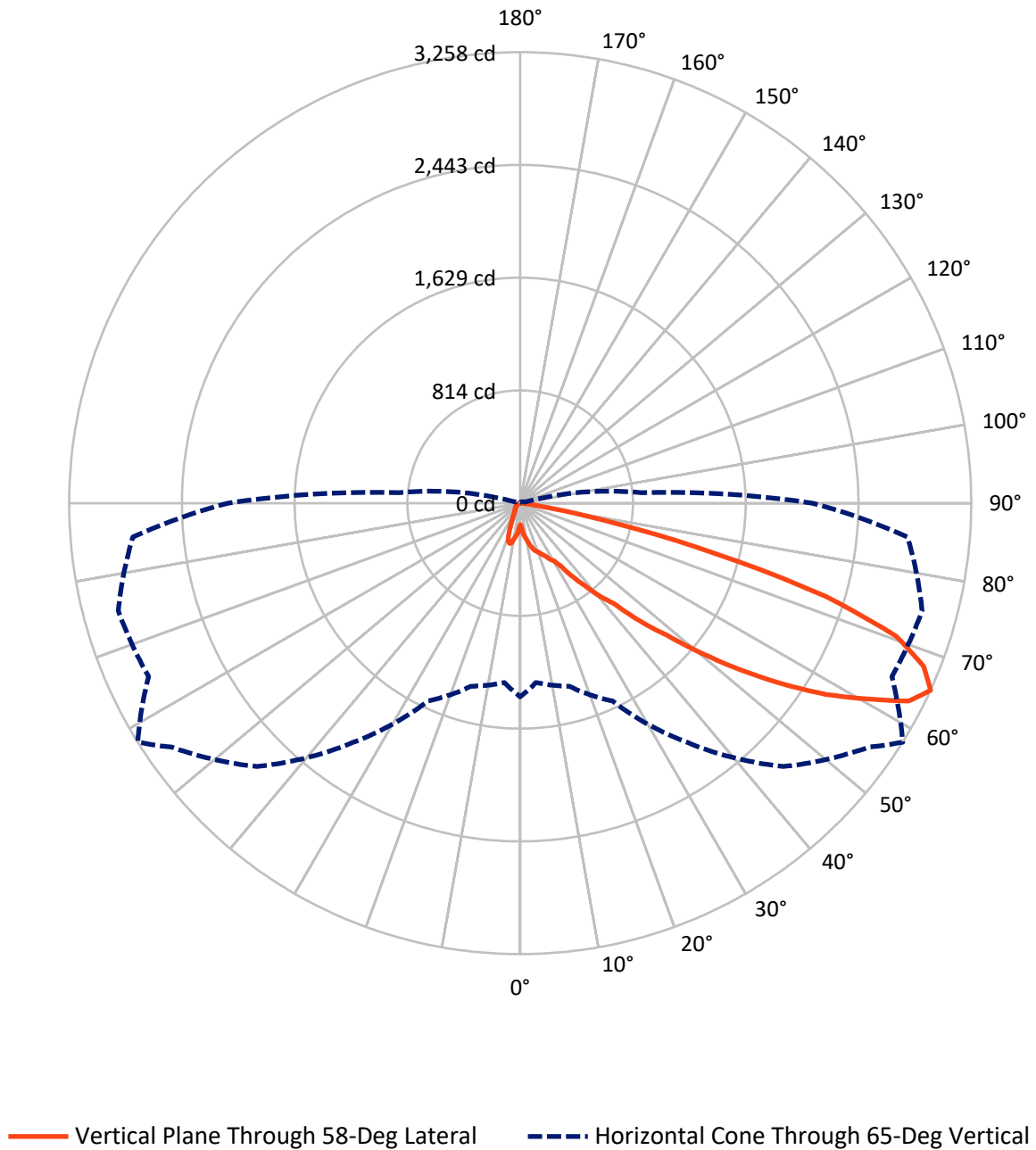


Based on 25 foot mounting height. Maximum calculated value = 1 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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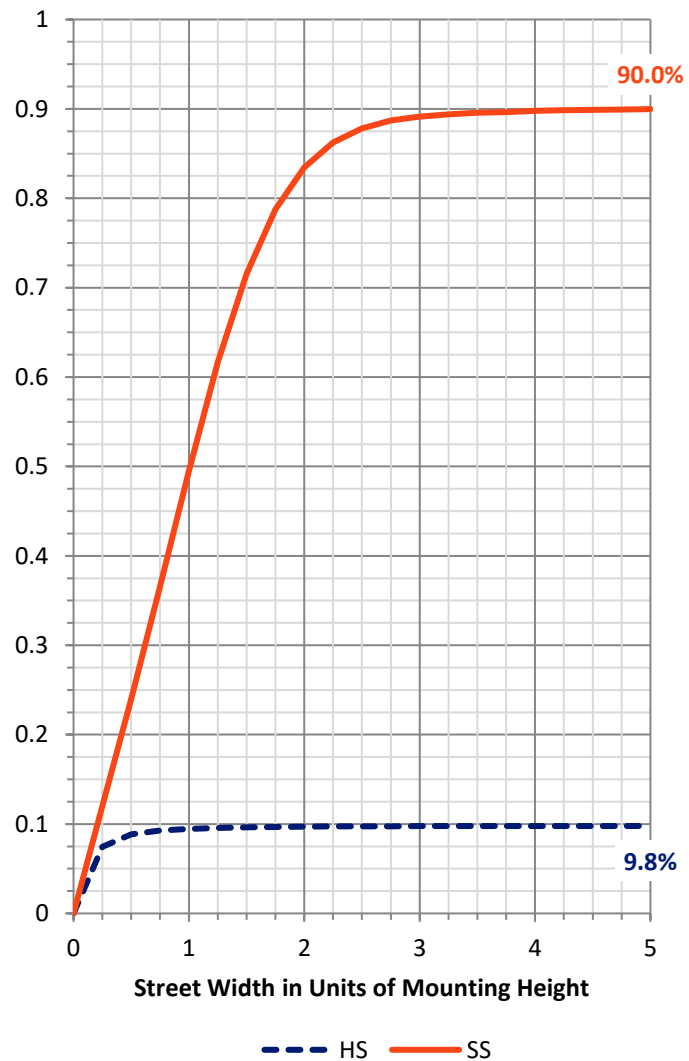
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	382.3	0.0	382.3
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	3491.7	0.0	3491.7
	% Fixture	90.1	0.0	90.1
Total	Lumens	3874.0	0.0	3874.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.8	0.6
10°-20°	79.5	2.1
20°-30°	153.9	4.0
30°-40°	307.1	7.9
40°-50°	627.8	16.2
50°-60°	1113.6	28.7
60°-70°	1174.0	30.3
70°-80°	380.6	9.8
80°-90°	15.6	0.4
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°	3874.0	100.0
0°-180°	3874.0	100.0

Coefficient of Utilization



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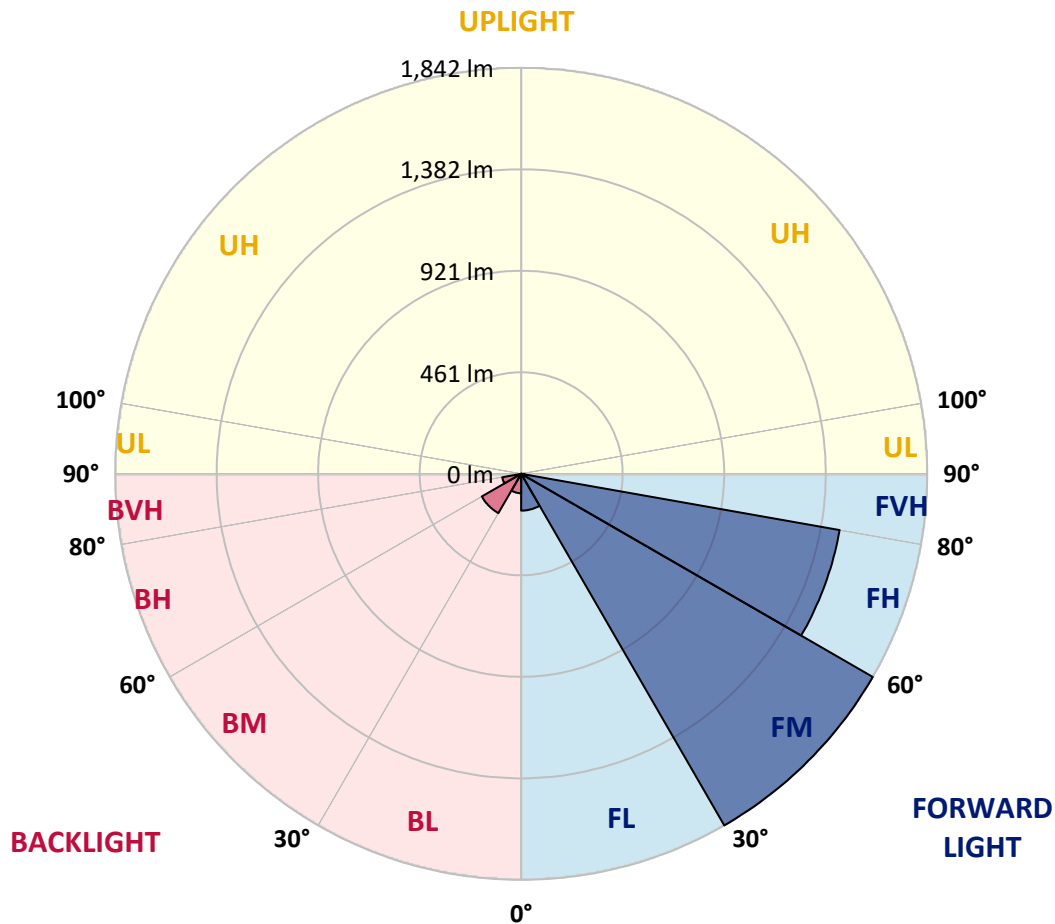
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	167.1	4.3			
FM	(30°-60°)	1842.3	47.6			
FH	(60°-80°)	1467.4	37.9			G1/1800
FVH	(80°-90°)	14.9	0.4			G1/100
BL	(0°-30°)	88.1	2.3	B0/110		
BM	(30°-60°)	206.2	5.3	B0/220		
BH	(60°-80°)	87.2	2.3	B0/110		G0/110
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
2.5°	189.3	183.7	174.7	176.2	178.0	181.5	178.6	176.0	173.2	169.5	183.7
5°	228.6	219.2	218.3	216.4	214.8	214.6	218.1	217.0	218.6	225.5	232.7
7.5°	243.0	239.1	231.6	234.7	229.9	226.2	241.7	246.7	256.3	259.6	278.3
10°	241.5	235.8	238.8	240.4	243.6	257.2	267.0	272.4	280.7	298.6	294.9
12.5°	248.4	253.5	256.7	256.9	273.7	298.6	305.6	310.2	325.0	332.0	350.3
15°	271.8	280.1	274.8	277.0	282.5	312.8	329.1	339.2	360.1	382.8	387.4
17.5°	305.1	310.4	299.5	291.6	306.7	323.3	352.9	363.4	376.7	429.7	439.5
20°	347.2	356.2	332.6	301.4	321.3	340.9	373.2	378.2	392.4	461.5	477.0
22.5°	445.6	432.3	396.3	347.7	341.8	350.5	381.3	400.9	424.9	479.4	515.4
25°	542.7	538.1	485.1	430.8	391.5	371.9	412.7	423.6	462.8	522.0	541.8
27.5°	650.6	659.8	571.3	538.3	461.3	397.2	432.3	459.6	506.0	537.4	585.2
30°	793.1	778.5	674.6	641.7	553.8	466.8	483.1	484.9	553.1	588.5	633.9
32.5°	904.8	914.1	783.7	733.1	662.9	573.9	521.3	544.0	592.8	671.6	714.6
35°	1025.6	1024.7	897.6	829.5	737.7	661.3	634.5	651.1	712.4	801.6	812.9
37.5°	1206.2	1190.7	1040.6	941.0	862.9	797.7	777.2	755.1	818.4	903.4	946.0
40°	1376.5	1323.1	1184.4	1066.2	966.3	939.7	865.5	879.0	897.8	1010.1	1127.7
42.5°	1548.6	1515.5	1330.1	1231.1	1108.3	1045.0	996.6	990.3	1079.5	1212.5	1334.0
45°	1775.7	1674.3	1526.0	1438.9	1296.7	1233.2	1194.2	1217.5	1297.8	1492.1	1573.1
47.5°	1966.3	1873.0	1745.6	1613.4	1464.2	1535.6	1462.3	1425.4	1535.6	1736.4	1844.0
50°	2130.1	2026.1	1897.2	1799.3	1775.0	1843.5	1695.2	1708.7	1780.3	2016.3	2076.9
52.5°	2249.2	2139.7	2027.2	1979.9	2079.1	2113.6	2039.2	2009.3	2074.3	2254.9	2284.4
55°	2338.9	2226.8	2138.9	2204.1	2396.0	2384.7	2410.9	2308.8	2370.9	2503.8	2489.8
57.5°	2344.3	2211.5	2160.0	2264.9	2528.4	2704.0	2780.6	2607.0	2642.3	2698.3	2666.9
60°	2172.9	2040.7	2036.6	2185.5	2566.8	2786.7	2954.2	2869.6	2822.2	2863.9	2804.3
62.5°	1831.3	1738.8	1782.0	1946.7	2424.0	2741.1	3046.7	3148.5	2964.2	2973.6	2889.0
65°	1398.4	1301.3	1368.9	1576.3	2111.6	2690.1	3072.9	3257.6	2961.6	3004.8	2807.8
67.5°	926.1	869.9	946.4	1175.0	1678.9	2374.7	3059.3	3143.1	2867.6	2882.9	2506.6
70°	478.1	464.4	526.3	706.7	1128.8	1824.3	2926.5	2880.7	2676.7	2483.5	1933.4
72.5°	153.1	153.8	213.3	322.8	608.6	1110.7	2249.5	2312.3	2141.9	1816.7	1180.5
75°	67.8	66.7	89.2	135.5	253.7	498.0	1397.5	1465.3	1333.6	999.4	496.2
77.5°	48.9	47.3	57.1	79.2	125.6	168.8	655.2	707.1	604.6	346.4	113.6
80°	34.5	34.2	41.4	55.6	78.5	75.0	207.0	232.1	185.8	84.0	33.4
82.5°	19.4	20.1	28.8	39.3	47.8	37.5	58.2	64.1	62.6	44.7	14.6
85°	9.4	10.5	18.8	28.4	25.1	14.6	20.7	22.5	26.2	26.0	7.4
87.5°	0.0	0.0	7.6	12.9	6.8	2.2	6.3	7.2	7.0	8.3	1.7
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°	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
2.5°	186.5	185.2	168.6	169.9	173.6	172.1	173.4	170.4	166.9	181.0	180.8
5°	235.8	226.0	220.7	215.9	216.8	207.0	212.7	215.3	214.8	222.9	225.1
7.5°	279.0	265.9	255.4	245.4	230.1	216.4	224.9	230.3	234.0	248.0	253.5
10°	299.3	288.6	284.4	264.8	253.9	245.4	235.1	227.7	230.8	227.1	230.8
12.5°	343.8	336.6	320.6	300.8	287.7	270.2	232.1	200.2	180.6	180.8	179.5
15°	384.3	383.9	360.1	327.2	289.2	239.5	179.9	139.8	121.3	116.0	114.3
17.5°	437.3	430.8	387.4	338.7	270.5	185.4	122.6	95.8	94.0	97.1	95.8
20°	471.1	461.5	400.9	321.9	222.9	125.4	92.5	84.8	90.1	94.4	93.4
22.5°	504.9	490.5	411.2	301.4	158.6	91.8	83.5	82.2	85.5	91.0	91.8
25°	523.5	520.6	431.2	263.1	108.6	80.5	80.5	80.0	81.1	85.1	84.4
27.5°	577.4	539.0	416.2	205.2	84.0	73.9	75.0	74.6	70.7	74.6	74.8
30°	610.9	593.3	417.3	146.1	73.9	65.4	68.3	64.8	58.9	62.2	61.5
32.5°	678.6	634.5	414.0	98.6	67.4	62.4	58.0	53.0	48.6	49.9	48.9
35°	757.3	723.7	369.7	79.2	62.8	55.2	48.2	43.2	38.6	39.7	39.5
37.5°	913.9	807.3	333.1	71.3	59.8	50.6	42.5	35.6	33.2	33.8	34.5
40°	1059.0	946.6	264.8	67.8	54.5	45.2	35.1	30.1	28.6	29.0	29.7
42.5°	1275.8	1057.4	200.0	64.3	49.3	38.2	29.2	26.0	24.4	25.3	25.7
45°	1485.6	1151.7	149.4	61.3	44.9	32.9	24.6	22.5	20.7	21.4	22.2
47.5°	1695.2	1256.4	111.5	56.5	40.1	28.4	21.2	19.6	18.5	18.8	19.8
50°	1882.8	1305.2	87.7	50.6	36.2	24.6	19.2	17.7	17.2	17.4	18.3
52.5°	2020.6	1305.7	73.9	45.4	32.5	21.8	18.1	16.4	16.1	16.6	17.4
55°	2145.2	1270.8	64.1	40.8	29.2	19.8	17.2	15.7	15.7	16.1	17.0
57.5°	2227.9	1206.6	55.6	36.0	26.4	18.8	16.6	15.1	14.8	14.6	15.3
60°	2268.2	1119.2	47.1	31.6	23.8	18.1	16.1	13.3	13.1	12.7	13.1
62.5°	2242.7	1009.7	39.5	27.3	21.2	17.2	14.2	11.6	11.1	10.3	10.9
65°	2112.3	876.6	33.4	23.3	18.3	14.6	12.0	9.8	8.7	7.6	7.4
67.5°	1845.5	712.2	27.9	20.1	15.7	12.0	9.8	8.7	6.8	5.9	5.7
70°	1383.1	486.2	23.1	17.2	13.1	10.3	8.3	7.9	6.3	5.7	5.2
72.5°	811.4	262.4	19.4	15.1	11.1	8.5	6.8	7.2	6.3	5.2	4.8
75°	324.1	87.2	15.5	12.0	8.9	6.1	5.7	5.9	5.7	4.8	3.9
77.5°	73.9	27.5	12.0	9.4	7.0	3.9	4.6	5.0	5.0	3.9	2.8
80°	23.1	10.9	7.0	5.9	5.0	2.2	3.3	3.5	2.4	1.1	0.0
82.5°	7.4	3.1	2.4	2.4	2.2	0.4	0.7	0.4	0.0	0.0	0.0
85°	2.8	2.0	1.5	1.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	0.9	0.7	0.9	0.4	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)