

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: P366805

Luminaire Tested: **MSA-SA1B-750-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-750-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4188 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G2

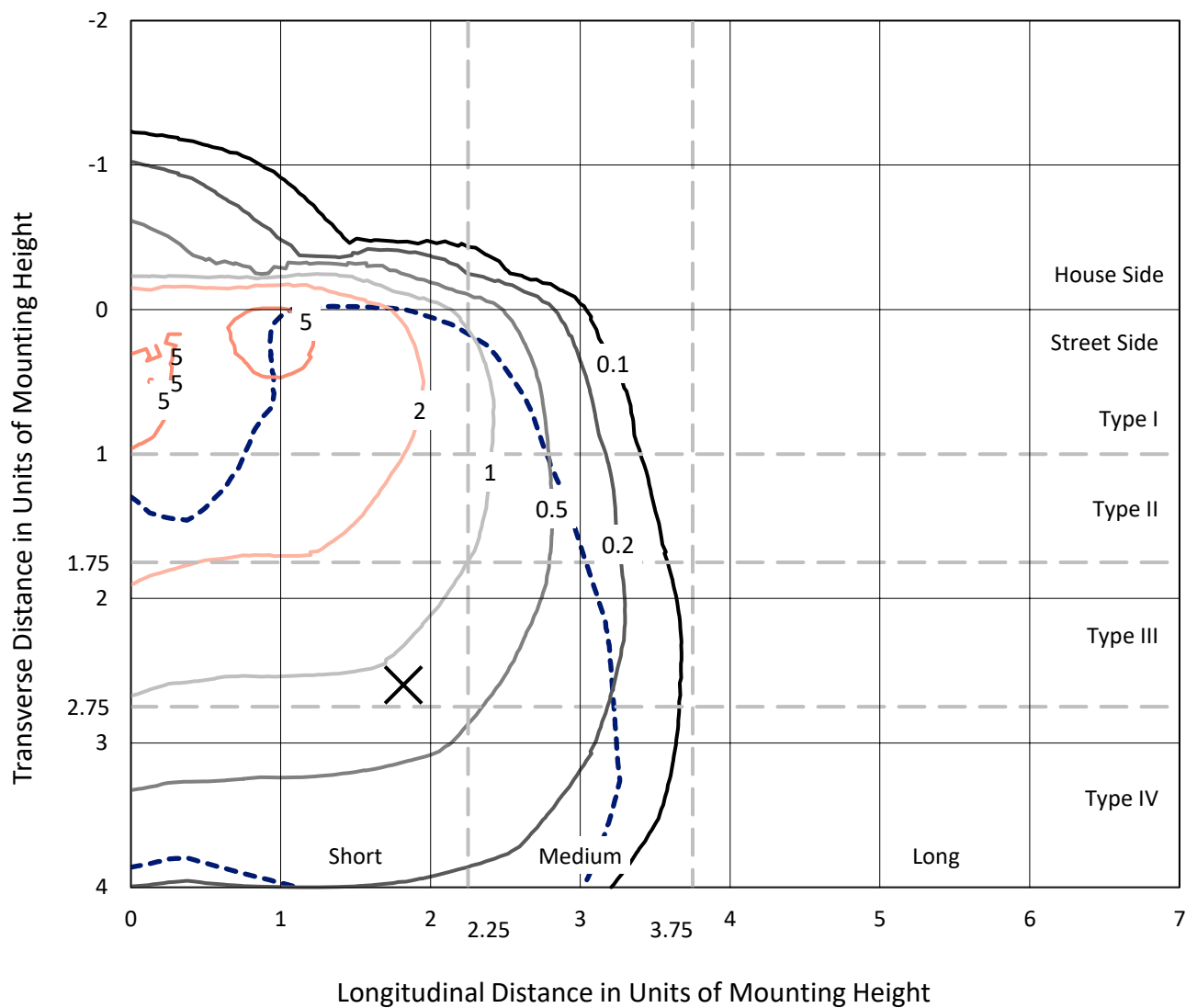
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

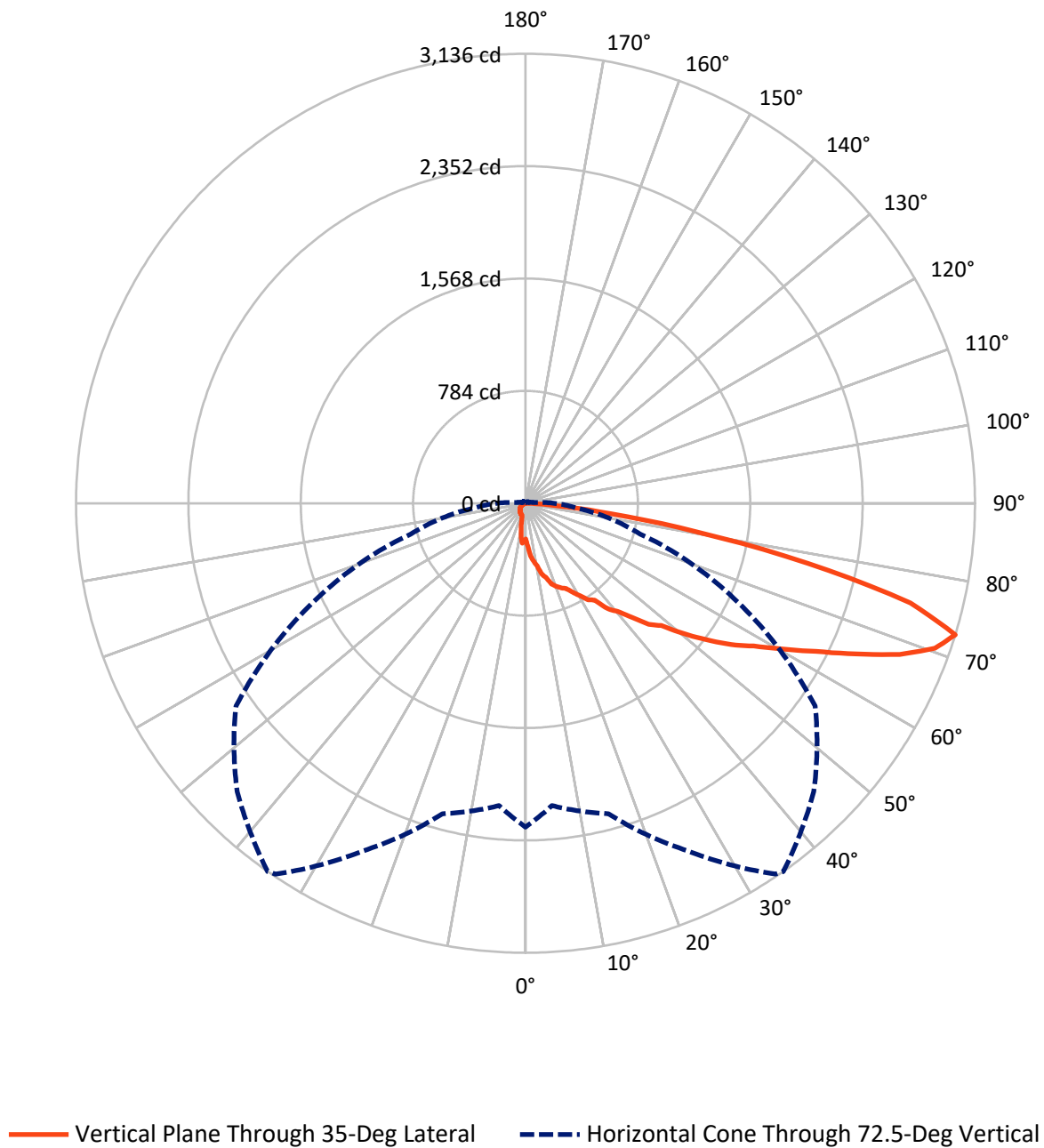
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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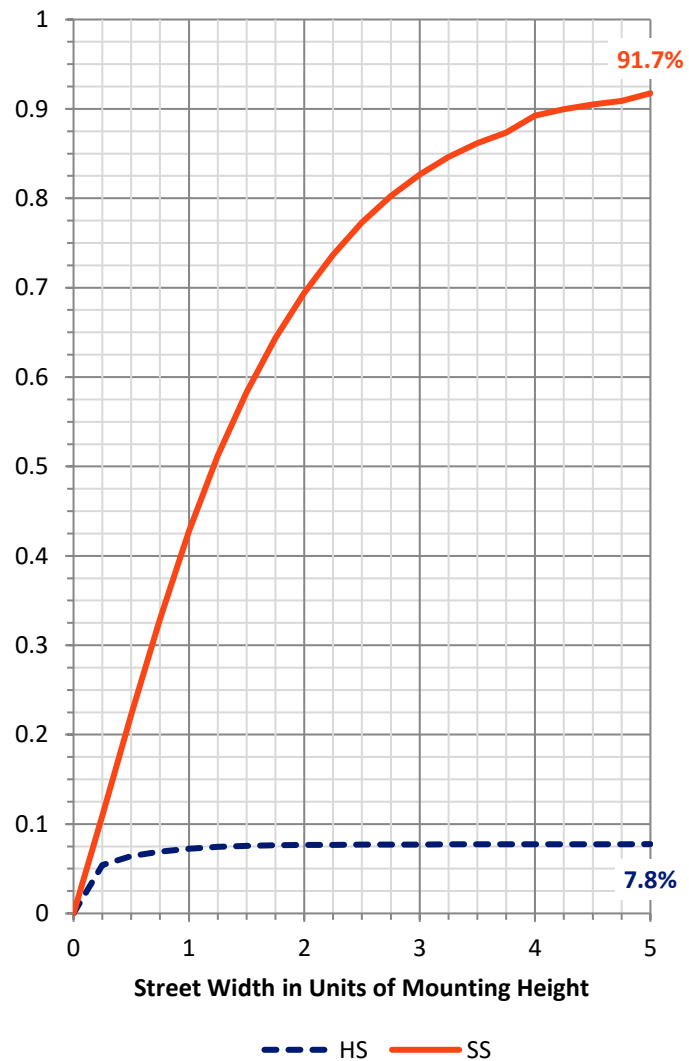
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	326.6	0.0	326.6
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3861.3	0.0	3861.3
	% Fixture	92.2	0.0	92.2
Total	Lumens	4188.0	0.0	4188.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.8	0.8
10°-20°	107.2	2.6
20°-30°	195.2	4.7
30°-40°	336.7	8.0
40°-50°	598.5	14.3
50°-60°	893.1	21.3
60°-70°	1141.0	27.2
70°-80°	793.8	19.0
80°-90°	90.8	2.2
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°	4188.0	100.0
0°-180°	4188.0	100.0

Coefficient of Utilization



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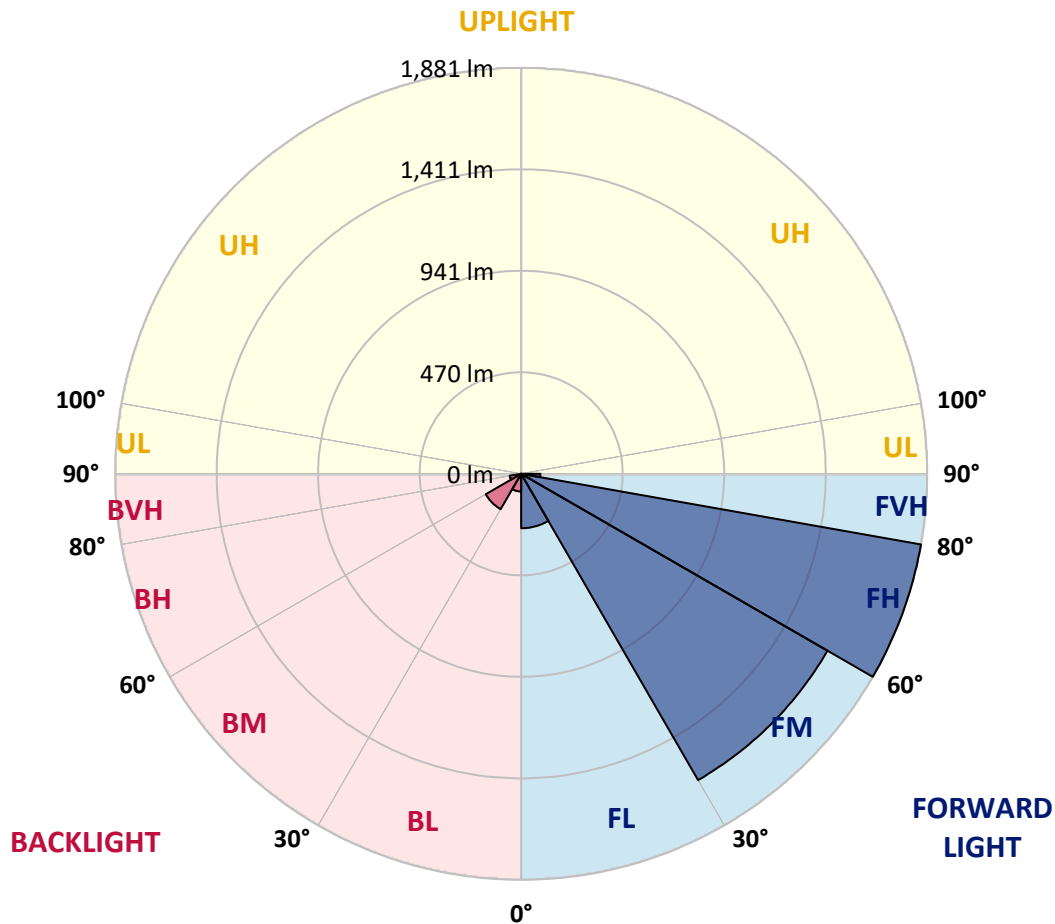
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	252.0	6.0			
FM	(30°-60°)	1638.8	39.1			
FH	(60°-80°)	1881.3	44.9			G2/5000
FVH	(80°-90°)	89.3	2.1			G1/100
BL	(0°-30°)	82.2	2.0	B0/110		
BM	(30°-60°)	189.4	4.5	B0/220		
BH	(60°-80°)	53.6	1.3	B0/110		G0/110
BVH	(80°-90°)	1.5	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5
2.5°	317.5	305.1	284.8	286.3	295.4	297.3	300.0	292.8	286.5	275.4	297.1
5°	406.7	388.8	377.5	373.9	368.6	369.1	356.2	360.8	359.6	367.8	377.7
7.5°	457.1	447.2	432.9	428.9	409.5	407.4	391.6	412.9	415.0	412.0	428.2
10°	477.1	464.0	465.7	450.7	441.1	443.6	446.1	447.8	450.5	453.3	433.5
12.5°	488.9	491.2	514.1	498.5	508.2	508.2	525.3	507.2	507.8	488.0	491.4
15°	541.9	554.7	544.4	544.2	533.7	536.4	556.2	541.9	549.3	543.4	520.6
17.5°	608.4	611.0	591.4	582.7	592.2	592.4	584.0	583.4	557.7	601.1	573.5
20°	629.7	644.0	616.2	582.5	621.9	620.0	619.4	609.5	566.7	627.0	604.2
22.5°	687.6	667.2	648.2	626.1	641.5	641.5	639.2	617.5	600.9	624.6	634.3
25°	705.7	708.2	683.6	676.4	676.9	657.9	656.2	647.0	631.0	671.6	652.2
27.5°	768.0	767.0	707.8	727.8	702.3	702.5	656.0	676.9	679.6	673.9	695.6
30°	829.3	846.3	757.1	782.3	755.6	747.6	702.1	720.6	725.5	719.0	746.3
32.5°	907.4	932.4	845.7	820.9	780.0	802.8	771.4	727.6	751.6	809.9	825.3
35°	990.1	1002.3	909.9	875.2	829.1	828.9	827.8	831.4	857.9	923.6	936.6
37.5°	1138.8	1109.9	1026.3	946.8	957.1	934.1	918.1	935.0	962.5	1070.8	1126.5
40°	1221.7	1200.9	1083.2	1036.0	984.9	993.3	1036.7	1034.8	1108.2	1221.5	1305.1
42.5°	1302.3	1282.6	1166.8	1128.7	1063.0	1085.9	1104.9	1128.9	1279.4	1462.1	1508.0
45°	1374.1	1316.0	1234.3	1235.8	1201.7	1204.4	1237.9	1260.0	1477.7	1665.1	1697.3
47.5°	1417.5	1369.7	1291.4	1289.9	1287.8	1275.0	1432.7	1452.9	1635.8	1858.4	1861.3
50°	1478.6	1418.8	1350.1	1351.4	1400.0	1427.2	1615.4	1613.3	1788.5	2019.6	1951.6
52.5°	1554.6	1481.5	1405.9	1462.1	1537.3	1581.5	1734.3	1796.7	1952.5	2120.9	1987.0
55°	1651.8	1560.5	1487.6	1559.6	1723.6	1740.7	1850.8	1982.4	2131.2	2224.3	1998.4
57.5°	1765.9	1656.9	1597.9	1713.9	1877.5	1877.9	2020.3	2180.3	2240.9	2266.4	1985.5
60°	1888.9	1761.7	1702.3	1806.8	2047.2	2064.5	2208.7	2289.5	2352.3	2287.6	1962.6
62.5°	1997.1	1856.7	1810.6	1933.3	2233.3	2274.1	2372.9	2361.3	2432.7	2314.4	1904.2
65°	2125.9	1979.6	1949.3	2130.6	2476.3	2532.5	2557.3	2488.7	2459.6	2293.7	1752.5
67.5°	2253.5	2116.7	2115.8	2349.3	2794.8	2814.2	2788.1	2668.3	2428.3	2111.8	1474.3
70°	2343.4	2196.5	2251.8	2588.9	3084.3	3030.0	2920.1	2753.1	2201.7	1618.6	963.2
72.5°	2259.0	2117.3	2242.1	2674.2	3120.1	3135.6	2843.6	2466.2	1635.8	827.8	348.6
75°	1716.7	1629.9	1946.8	2372.5	2770.2	2773.7	2373.5	1739.4	805.5	224.8	96.4
77.5°	864.6	837.1	1232.2	1684.2	2021.1	2015.2	1630.8	931.8	259.2	74.7	48.6
80°	437.7	415.6	524.4	908.6	1200.2	1209.1	931.2	417.3	130.7	40.6	33.7
82.5°	268.8	255.2	287.0	411.2	582.5	596.6	353.3	264.2	81.1	24.0	30.7
85°	52.0	54.7	164.8	205.9	232.6	227.2	104.6	217.5	24.4	14.3	22.3
87.5°	0.0	0.8	38.1	67.2	67.4	59.8	23.8	48.2	3.4	4.0	2.7
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°	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5	249.5
2.5°	300.6	297.5	271.2	268.2	268.8	264.4	263.0	253.7	251.4	265.7	268.2
5°	373.5	352.4	328.0	319.2	305.5	282.3	279.0	273.1	266.5	269.1	267.2
7.5°	418.1	390.1	364.0	317.5	279.0	245.3	239.8	229.7	219.6	219.8	226.3
10°	425.3	401.7	365.7	309.1	265.1	223.0	186.3	159.8	147.8	137.1	140.2
12.5°	466.7	444.9	378.5	306.5	244.8	179.2	131.2	105.3	93.9	90.1	89.7
15°	500.0	482.7	400.4	298.7	200.0	126.1	93.9	86.3	84.2	87.8	86.7
17.5°	549.5	518.3	398.1	266.5	152.4	95.8	86.5	85.5	88.0	90.1	90.7
20°	571.2	526.3	382.3	216.0	114.1	87.8	84.4	82.3	86.9	93.3	92.0
22.5°	593.1	540.0	363.8	176.8	91.8	84.0	82.1	80.4	84.0	90.1	91.6
25°	603.0	561.9	343.2	138.1	85.3	79.6	78.3	78.9	81.9	87.4	86.7
27.5°	652.9	564.4	303.8	109.1	82.5	76.4	76.4	77.9	77.9	85.3	84.6
30°	684.0	607.2	271.8	91.8	79.4	72.0	74.5	75.2	74.1	82.1	82.7
32.5°	738.8	619.0	240.6	84.2	74.3	71.4	70.9	71.4	72.2	80.0	80.2
35°	823.0	677.1	198.1	81.3	71.8	68.2	65.3	67.6	69.7	75.4	76.4
37.5°	987.6	736.6	161.5	78.9	70.5	65.3	64.2	63.8	67.6	74.1	76.2
40°	1120.9	842.1	131.4	77.1	68.0	63.6	60.8	61.1	64.4	69.3	72.4
42.5°	1309.5	918.3	111.4	74.1	64.4	60.0	56.8	58.7	60.2	65.3	67.4
45°	1467.0	977.5	98.1	72.2	60.8	56.6	54.1	56.2	54.7	57.3	60.2
47.5°	1592.2	1029.1	88.2	67.6	58.5	54.7	51.6	50.9	48.4	49.1	51.8
50°	1661.1	1020.4	80.0	62.9	55.6	52.8	48.4	44.0	40.6	40.4	42.1
52.5°	1685.5	974.3	73.3	58.9	52.0	48.6	43.6	37.5	34.1	33.1	34.5
55°	1692.2	908.0	67.2	54.5	48.6	43.4	38.1	31.6	28.0	26.3	27.8
57.5°	1670.3	805.9	61.3	50.3	44.6	38.3	32.6	25.9	22.5	20.4	21.7
60°	1616.2	676.2	56.0	45.1	40.4	33.9	27.6	20.8	17.3	15.4	16.0
62.5°	1496.5	530.1	50.3	40.2	36.0	29.7	23.2	16.4	13.1	11.4	11.6
65°	1314.1	395.2	43.8	35.6	32.0	25.7	18.5	12.6	9.9	8.4	8.2
67.5°	1047.0	267.8	37.3	30.7	28.4	21.7	14.7	9.9	7.8	6.7	6.3
70°	615.4	135.0	30.9	26.5	24.4	18.1	11.6	8.0	7.2	6.3	5.9
72.5°	203.0	58.3	24.2	21.9	20.2	14.5	9.1	7.4	6.9	6.1	5.7
75°	70.7	33.7	17.9	16.8	16.0	10.9	7.6	6.7	6.7	5.9	5.3
77.5°	46.3	26.1	13.3	12.2	12.0	8.0	6.5	6.3	5.9	4.8	4.0
80°	38.5	14.7	9.3	8.6	8.4	5.1	5.3	4.6	3.6	2.1	0.8
82.5°	35.6	8.8	4.8	5.3	4.8	1.9	2.9	2.5	1.9	0.8	0.0
85°	20.8	4.0	2.7	2.7	2.1	0.4	1.5	1.5	0.8	0.2	0.0
87.5°	2.3	1.9	1.5	1.5	1.1	0.0	0.6	0.4	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)