

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: P366891

Luminaire Tested: **MSA-SA1C-730-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-730-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4691 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

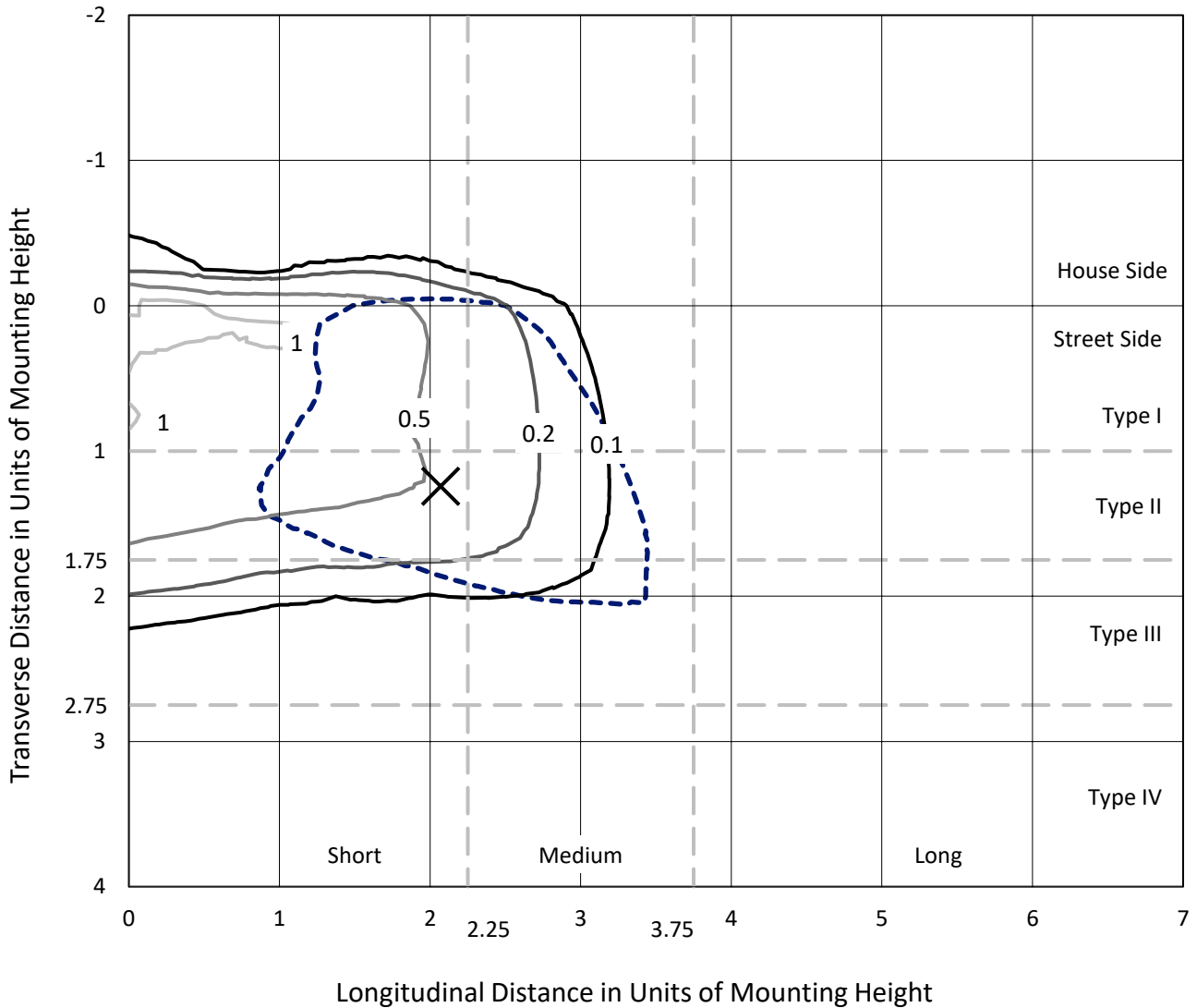
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

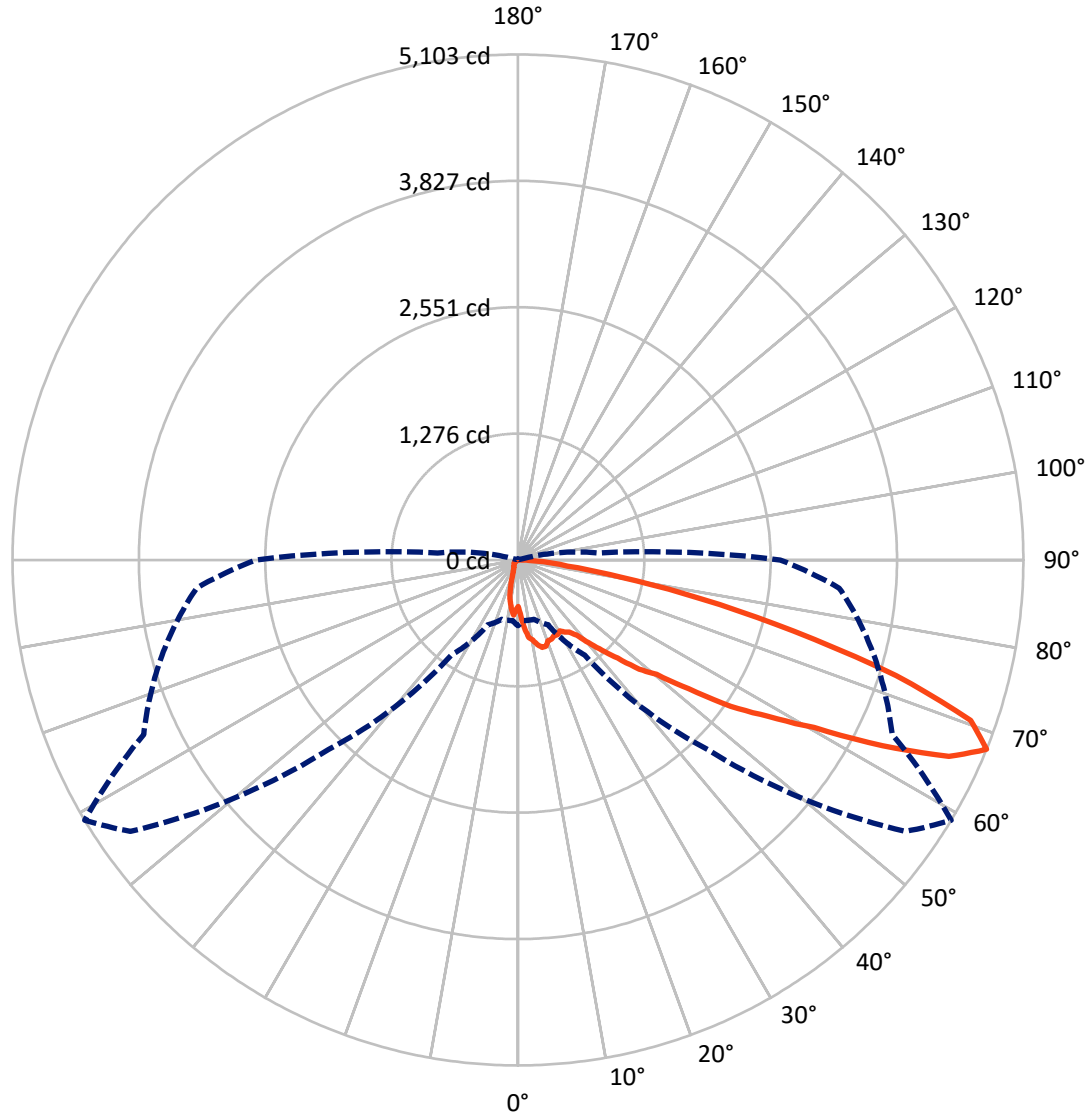
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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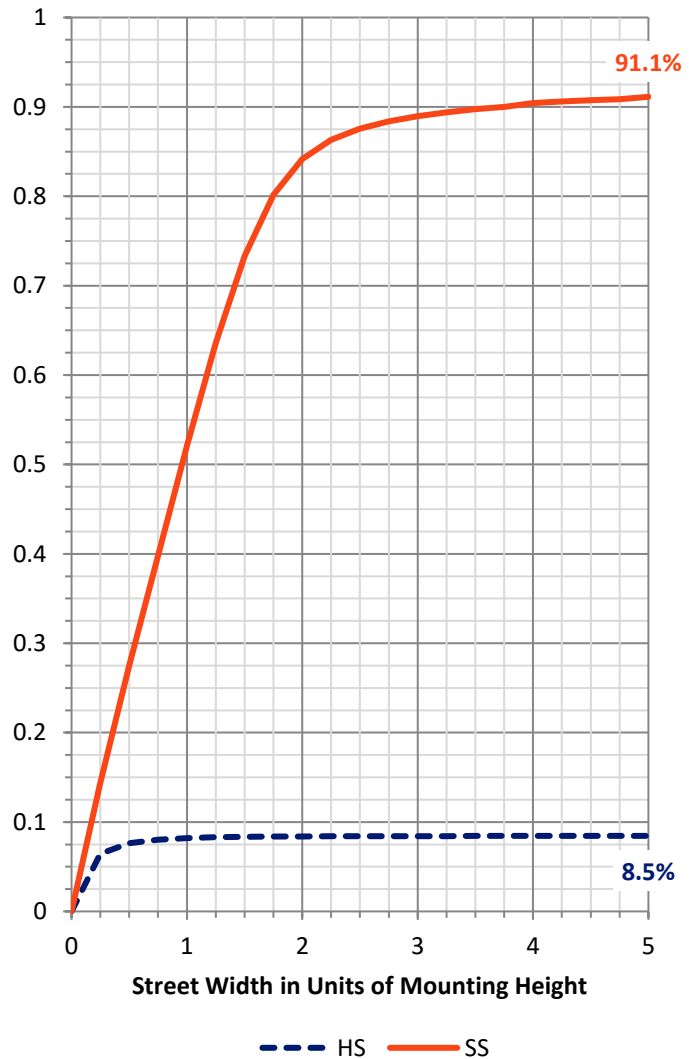
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	398.9	0.0	398.9
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	4292.1	0.0	4292.1
	% Fixture	91.5	0.0	91.5
Total	Lumens	4691.0	0.0	4691.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	1.2
10°-20°	160.7	3.4
20°-30°	239.0	5.1
30°-40°	368.7	7.9
40°-50°	658.1	14.0
50°-60°	1171.1	25.0
60°-70°	1363.9	29.1
70°-80°	606.6	12.9
80°-90°	65.9	1.4
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°	4691.0	100.0
0°-180°	4691.0	100.0

Coefficient of Utilization



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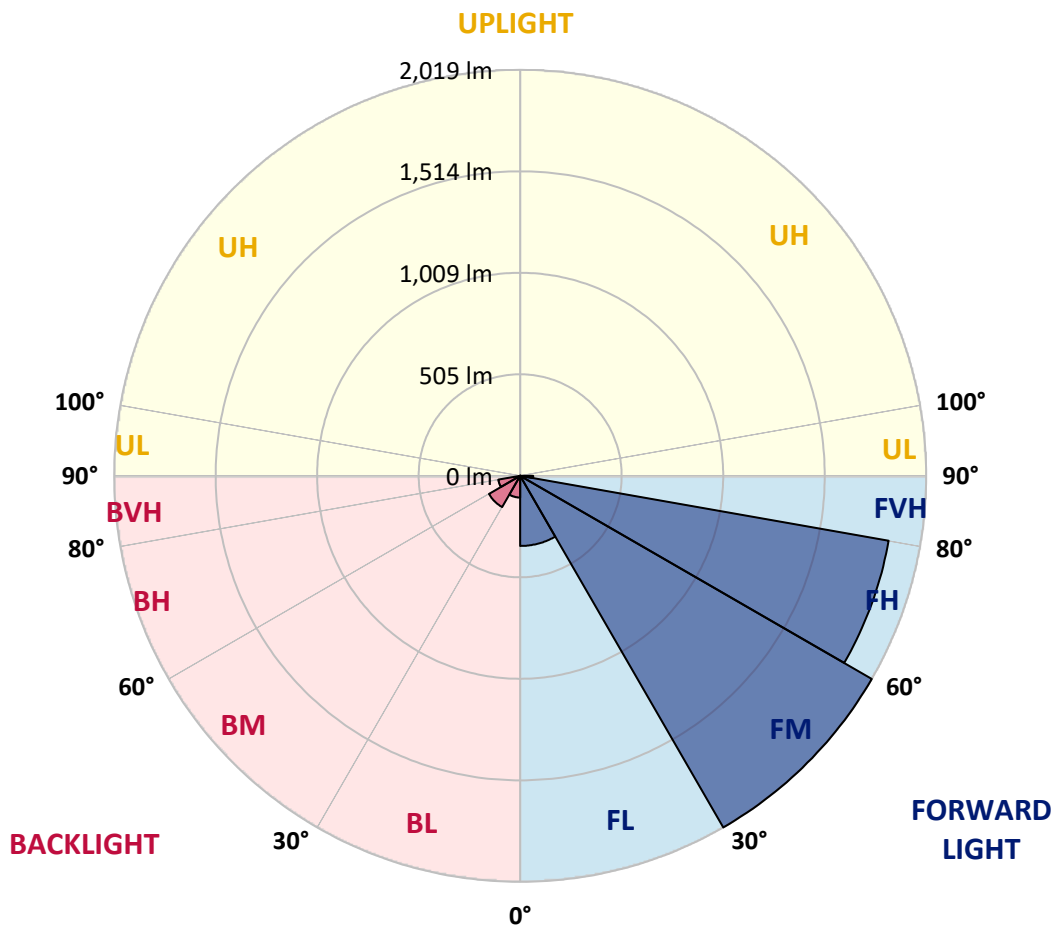
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	348.9	7.4			
FM (30°-60°)	2018.5	43.0			
FH (60°-80°)	1859.9	39.6			G2/5000
FVH (80°-90°)	64.7	1.4			G1/100
BL (0°-30°)	107.9	2.3	B0/110		
BM (30°-60°)	179.4	3.8	B0/220		
BH (60°-80°)	110.5	2.4	B1/500		G1/500
BVH (80°-90°)	1.2	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3
2.5°	611.9	588.8	556.0	565.8	574.6	582.9	569.1	561.3	557.5	523.7	566.0
5°	751.3	722.6	707.6	703.8	694.3	673.1	708.3	692.6	697.8	704.5	718.3
7.5°	793.8	780.7	759.1	767.2	731.1	728.0	776.7	790.2	808.1	795.9	812.6
10°	772.0	749.4	759.6	756.8	755.3	787.2	821.4	822.1	848.7	861.5	805.2
12.5°	728.7	731.3	767.9	765.1	812.6	876.2	884.1	875.8	919.2	896.9	888.3
15°	757.5	778.8	758.7	765.5	782.4	862.0	889.8	915.4	956.5	969.8	912.1
17.5°	792.1	794.3	757.5	748.9	791.4	828.5	894.0	915.2	919.2	1035.8	965.5
20°	773.4	791.7	747.7	693.8	759.8	810.2	876.7	870.1	897.1	1055.3	977.7
22.5°	823.3	797.1	740.8	700.2	722.6	768.4	824.7	868.2	908.8	1008.8	993.3
25°	828.0	818.5	768.4	732.3	728.5	740.1	818.5	846.5	910.2	1050.6	980.0
27.5°	881.5	870.5	767.9	771.5	735.9	700.0	788.6	854.4	936.1	1025.2	1008.3
30°	950.3	951.3	819.0	830.2	779.3	721.6	813.0	831.1	953.7	1065.8	1029.2
32.5°	1020.2	1048.9	919.9	860.8	844.9	803.5	782.6	866.0	934.4	1135.1	1081.5
35°	1126.3	1145.8	1003.1	950.1	887.6	840.6	865.3	895.2	1003.5	1227.1	1150.1
37.5°	1306.2	1271.0	1152.2	1060.1	1045.1	975.8	988.1	961.3	1074.1	1335.4	1286.0
40°	1407.3	1375.5	1252.0	1207.1	1111.6	1122.3	1083.4	1099.0	1176.5	1448.2	1409.7
42.5°	1512.8	1482.4	1374.1	1342.3	1251.3	1207.1	1189.5	1245.8	1333.5	1636.1	1587.1
45°	1618.7	1541.5	1495.7	1511.6	1470.8	1383.3	1362.9	1413.0	1505.0	1866.9	1774.3
47.5°	1708.0	1643.0	1608.5	1601.2	1585.2	1706.6	1623.5	1645.6	1686.2	2071.2	2007.6
50°	1869.1	1805.0	1751.0	1736.1	1813.5	1985.7	1857.4	1814.7	1895.9	2318.0	2277.9
52.5°	2101.6	2019.9	1934.2	1934.4	2080.5	2175.0	2235.8	2160.8	2176.0	2589.5	2571.7
55°	2288.6	2184.8	2113.7	2169.8	2387.6	2440.6	2672.6	2606.8	2587.1	2841.3	2819.4
57.5°	2314.2	2189.7	2156.0	2254.4	2552.4	2890.7	3140.3	2976.0	2945.8	3052.0	3095.4
60°	2074.8	1942.7	1968.1	2126.3	2606.1	3165.0	3569.8	3435.6	3243.9	3298.7	3328.7
62.5°	1547.5	1442.0	1513.3	1722.8	2399.2	3348.9	4066.9	4129.1	3589.7	3484.0	3477.6
65°	1004.0	938.0	984.8	1156.5	1815.6	3328.0	4511.1	4780.9	3862.2	3635.1	3524.4
67.5°	664.1	614.0	620.7	722.3	1174.1	2706.6	4776.6	5102.8	4168.6	3720.8	3256.2
70°	495.0	455.6	457.9	513.1	696.9	1785.0	4406.3	4848.8	4280.4	3423.7	2628.2
72.5°	357.0	330.6	352.7	414.0	555.3	943.9	3284.3	3993.3	3732.5	2700.4	1770.7
75°	247.3	229.9	266.0	346.3	506.9	586.0	2170.3	2874.5	2616.1	1694.3	800.5
77.5°	137.1	131.8	183.8	282.2	460.1	480.3	1329.4	1888.8	1451.0	607.4	190.5
80°	59.9	58.0	89.1	211.9	386.7	434.0	748.4	1047.2	570.8	108.3	61.5
82.5°	25.7	24.7	38.0	127.6	281.0	362.9	461.5	504.0	196.4	33.5	34.9
85°	4.5	5.0	15.2	67.2	171.0	184.3	334.2	298.3	98.8	15.9	24.9
87.5°	0.0	0.0	2.4	13.1	32.1	52.7	144.9	104.5	18.8	5.2	4.3
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°	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3
2.5°	572.0	558.7	508.1	501.7	494.8	484.6	480.8	458.9	456.0	484.1	484.1
5°	711.9	664.4	616.1	578.1	544.2	497.1	483.8	470.1	458.9	456.0	464.8
7.5°	785.7	727.8	652.0	555.3	477.0	408.8	380.3	360.3	338.0	344.6	348.2
10°	781.7	720.2	623.5	499.3	412.3	337.0	264.6	222.3	198.8	187.2	185.7
12.5°	821.4	763.4	604.3	454.6	343.7	239.7	166.5	136.3	119.0	119.2	117.8
15°	844.4	781.2	581.9	398.1	242.0	154.2	115.4	108.8	106.4	109.0	107.6
17.5°	885.0	800.0	531.3	313.8	166.5	116.4	106.2	103.6	106.6	112.1	110.7
20°	881.9	767.4	459.4	221.1	123.0	104.7	100.5	96.4	102.8	108.5	107.6
22.5°	879.1	735.6	391.7	163.2	102.8	95.5	91.9	90.3	93.6	100.2	101.7
25°	853.9	719.9	323.0	122.6	93.1	86.7	85.0	83.6	84.8	90.3	90.0
27.5°	884.8	680.3	249.4	102.8	86.2	78.6	77.2	74.8	72.4	77.2	77.9
30°	878.4	685.7	195.5	90.5	79.3	69.1	69.6	64.6	60.3	64.6	64.6
32.5°	901.6	645.8	156.5	82.2	72.4	65.1	59.1	53.9	50.8	53.4	53.9
35°	935.6	647.5	122.6	77.0	66.5	58.0	50.8	45.6	42.8	43.9	44.7
37.5°	1049.4	636.1	102.4	72.9	64.4	53.7	46.3	39.4	37.5	39.0	39.7
40°	1123.5	666.5	90.3	70.8	58.9	49.4	39.7	34.7	33.0	33.7	34.9
42.5°	1263.2	683.4	84.3	68.4	53.9	42.3	34.0	31.1	28.7	29.7	30.6
45°	1412.6	712.1	79.8	65.8	50.1	37.1	29.9	27.6	24.5	24.7	25.7
47.5°	1596.2	780.5	74.6	61.3	44.9	33.7	26.6	23.0	20.2	20.0	21.1
50°	1842.7	872.0	69.8	55.6	41.6	30.9	23.3	18.8	16.4	15.7	16.6
52.5°	2105.9	990.2	64.8	51.5	37.5	27.1	20.0	15.2	13.1	12.6	13.3
55°	2366.7	1103.8	60.1	48.9	33.3	23.3	16.9	12.6	10.7	10.2	10.7
57.5°	2663.8	1226.6	53.9	43.7	29.2	20.2	14.0	10.5	8.8	8.3	8.6
60°	2887.6	1269.8	48.7	38.0	25.4	17.8	11.9	8.3	7.1	6.7	6.9
62.5°	2993.8	1199.3	43.7	33.0	22.3	15.4	10.0	6.9	5.9	5.5	5.5
65°	2966.2	1043.0	38.7	28.3	19.2	12.8	7.8	5.9	5.2	4.5	4.3
67.5°	2647.9	816.1	33.0	23.8	16.2	10.5	6.7	5.7	4.8	4.3	3.6
70°	2100.0	591.0	26.8	19.7	13.5	8.6	5.2	5.2	4.5	4.3	3.3
72.5°	1376.5	372.0	21.9	15.9	11.2	6.7	4.0	4.8	4.3	4.3	3.1
75°	596.4	133.0	17.6	12.8	9.3	4.5	3.6	4.3	4.5	4.3	3.6
77.5°	139.7	41.3	13.8	10.2	7.6	3.1	3.6	4.3	4.5	4.0	3.1
80°	52.5	17.6	9.0	6.7	5.9	1.9	3.1	2.6	2.4	1.7	0.5
82.5°	31.8	7.4	4.8	3.3	2.9	0.5	1.4	1.0	0.5	0.5	0.0
85°	22.6	3.6	2.6	2.4	1.4	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	3.1	1.0	1.2	1.2	1.0	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)