

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: P596505

Luminaire Tested: **MSA-SA1B-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596505
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-827-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: 3079 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

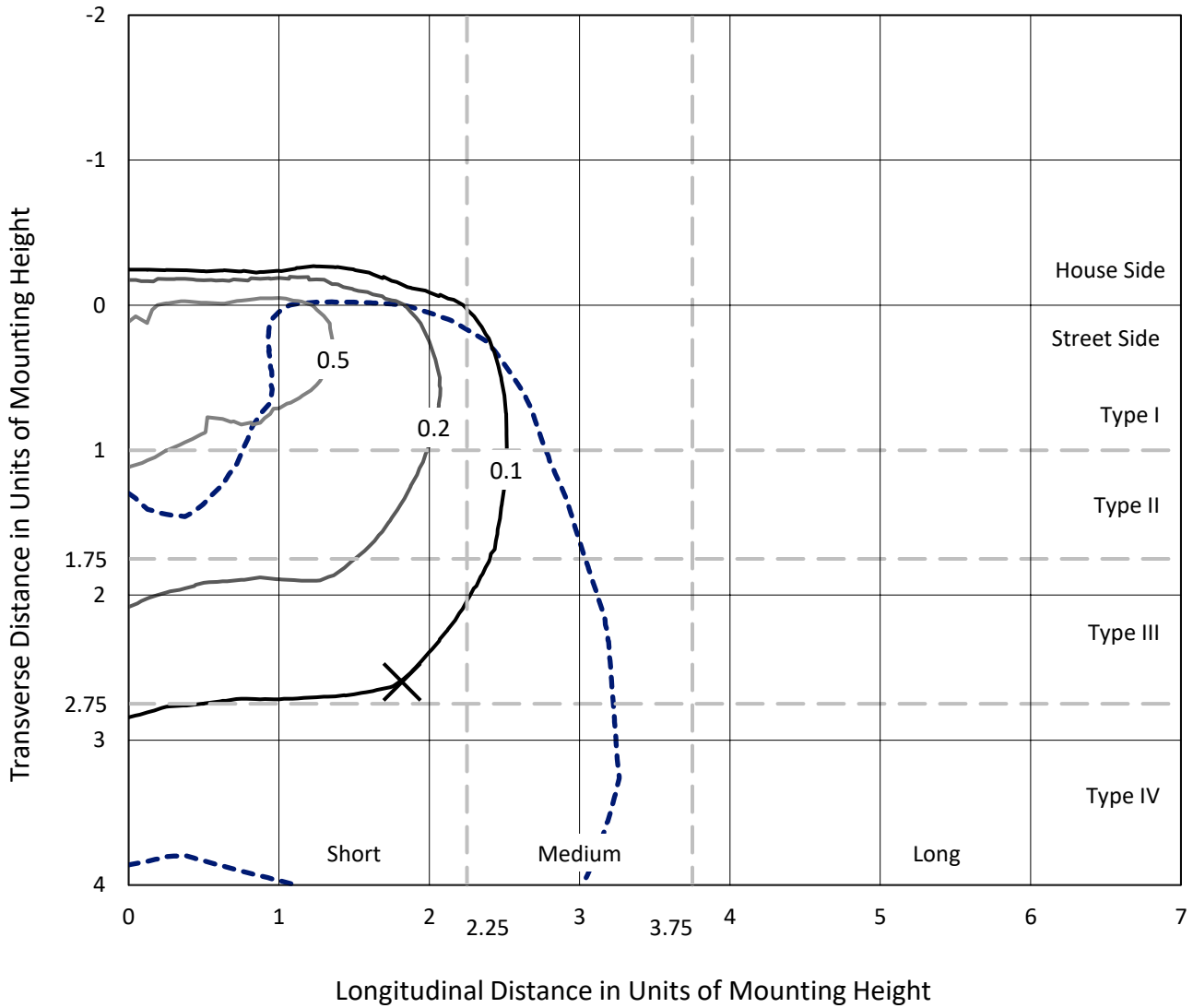
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

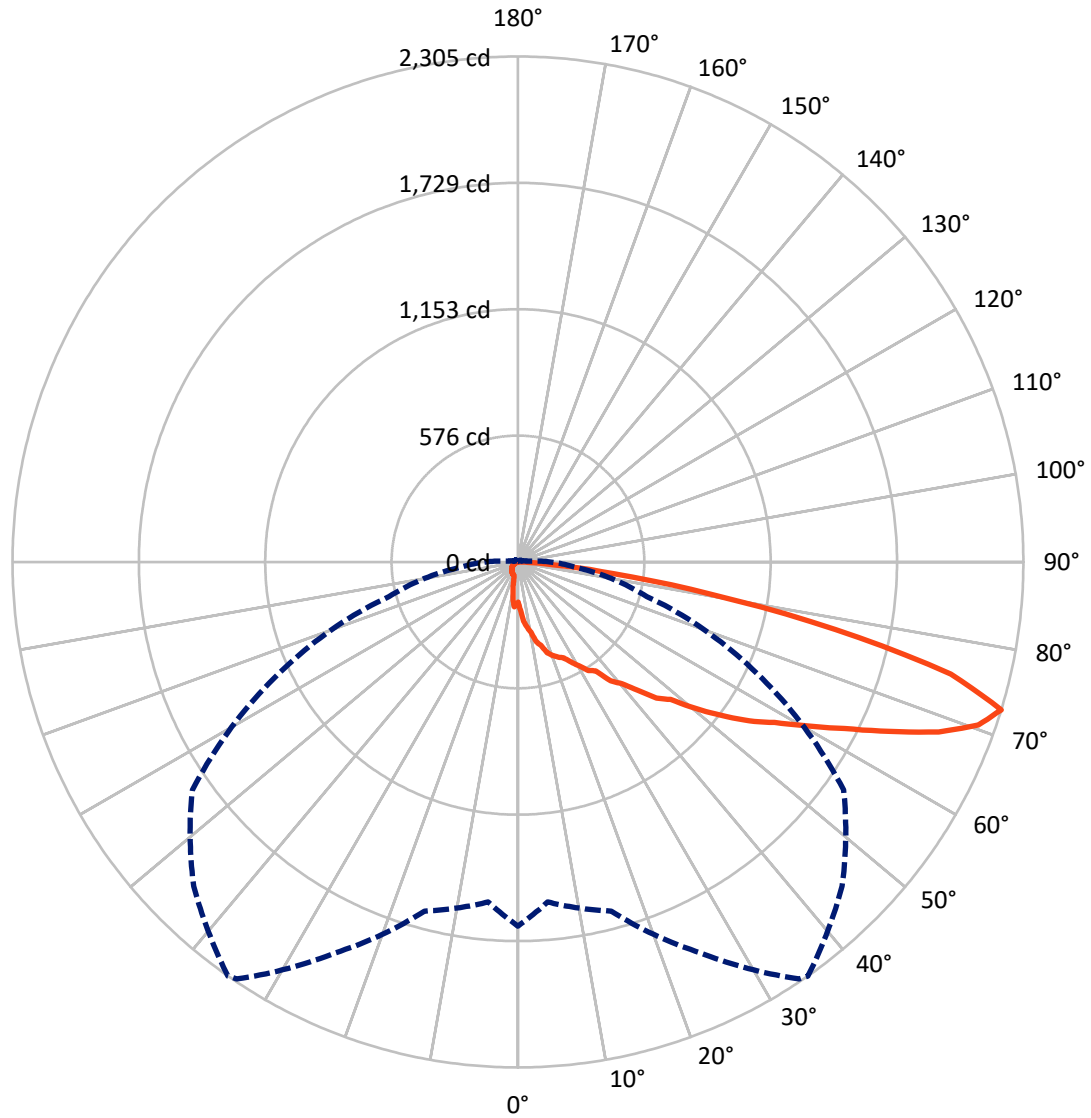
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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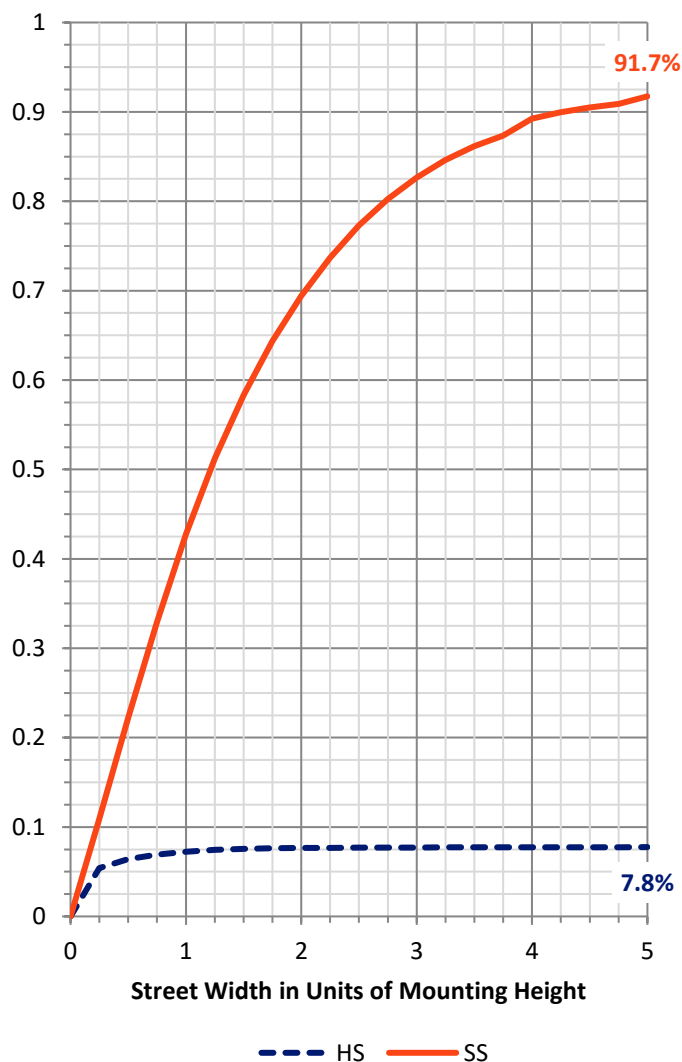
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	240.2	0.0	240.2
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	2838.8	0.0	2838.8
	% Fixture	92.2	0.0	92.2
Total	Lumens	3079.0	0.0	3079.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	0.8
10°-20°	78.8	2.6
20°-30°	143.5	4.7
30°-40°	247.5	8.0
40°-50°	440.0	14.3
50°-60°	656.6	21.3
60°-70°	838.8	27.2
70°-80°	583.6	19.0
80°-90°	66.8	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°	3079.0	100.0
0°-180°	3079.0	100.0

Coefficient of Utilization

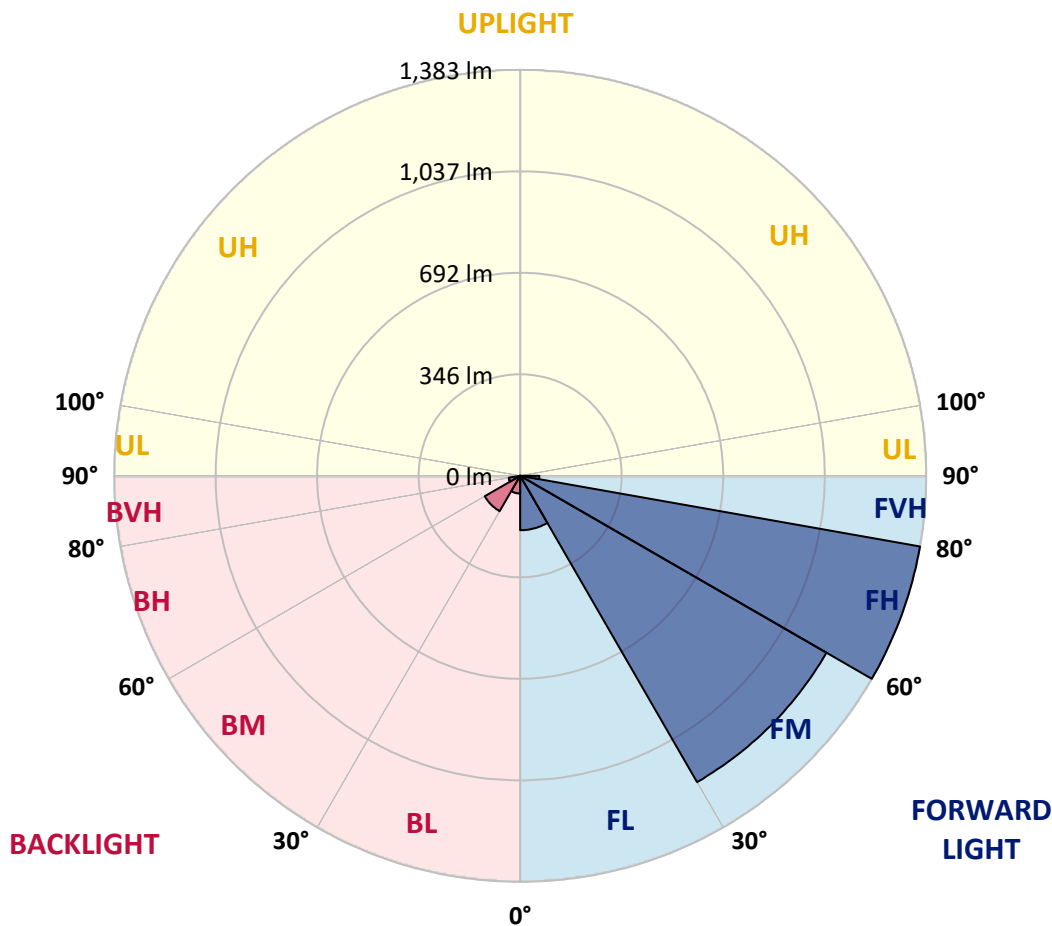


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	185.3	6.0			
FM (30°-60°)	1204.8	39.1			
FH (60°-80°)	1383.1	44.9			G1/1800
FVH (80°-90°)	65.6	2.1			G1/100
BL (0°-30°)	60.4	2.0	B0/110		
BM (30°-60°)	139.3	4.5	B0/220		
BH (60°-80°)	39.4	1.3	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4
2.5°	233.4	224.3	209.4	210.5	217.2	218.6	220.6	215.3	210.7	202.5	218.4
5°	299.0	285.9	277.5	274.9	271.0	271.3	261.9	265.3	264.4	270.4	277.7
7.5°	336.0	328.8	318.2	315.3	301.0	299.5	287.9	303.5	305.1	302.9	314.8
10°	350.7	341.1	342.4	331.4	324.3	326.1	328.0	329.2	331.2	333.2	318.7
12.5°	359.4	361.1	378.0	366.5	373.6	373.6	386.2	372.9	373.3	358.8	361.3
15°	398.4	407.8	400.3	400.1	392.4	394.4	408.9	398.4	403.8	399.5	382.8
17.5°	447.3	449.2	434.8	428.4	435.4	435.6	429.4	428.9	410.0	441.9	421.6
20°	463.0	473.5	453.0	428.3	457.2	455.8	455.4	448.1	416.7	460.9	444.2
22.5°	505.5	490.5	476.6	460.3	471.6	471.6	469.9	454.0	441.7	459.2	466.4
25°	518.8	520.7	502.6	497.3	497.6	483.7	482.5	475.6	463.9	493.8	479.5
27.5°	564.6	563.9	520.4	535.1	516.3	516.5	482.3	497.6	499.6	495.5	511.4
30°	609.7	622.2	556.6	575.2	555.5	549.6	516.2	529.8	533.4	528.6	548.7
32.5°	667.1	685.5	621.8	603.5	573.5	590.2	567.1	534.9	552.6	595.4	606.7
35°	727.9	736.9	669.0	643.4	609.5	609.4	608.6	611.2	630.7	679.0	688.6
37.5°	837.2	816.0	754.6	696.1	703.6	686.8	675.0	687.4	707.7	787.2	828.2
40°	898.2	882.9	796.3	761.7	724.1	730.3	762.1	760.7	814.8	898.0	959.5
42.5°	957.5	942.9	857.8	829.8	781.5	798.4	812.3	829.9	940.6	1075.0	1108.7
45°	1010.3	967.5	907.5	908.6	883.5	885.5	910.1	926.4	1086.4	1224.2	1247.8
47.5°	1042.1	1007.0	949.4	948.3	946.8	937.4	1053.3	1068.1	1202.6	1366.3	1368.4
50°	1087.0	1043.1	992.6	993.5	1029.3	1049.3	1187.6	1186.1	1314.9	1484.8	1434.8
52.5°	1142.9	1089.2	1033.6	1075.0	1130.2	1162.7	1275.1	1320.9	1435.4	1559.3	1460.8
55°	1214.4	1147.2	1093.7	1146.6	1267.2	1279.7	1360.7	1457.4	1566.8	1635.3	1469.2
57.5°	1298.3	1218.1	1174.8	1260.1	1380.3	1380.6	1485.3	1602.9	1647.5	1666.2	1459.7
60°	1388.7	1295.2	1251.6	1328.3	1505.1	1517.8	1623.8	1683.2	1729.4	1681.9	1442.9
62.5°	1468.3	1365.0	1331.1	1421.4	1641.9	1671.9	1744.5	1736.0	1788.5	1701.5	1400.0
65°	1563.0	1455.4	1433.1	1566.4	1820.5	1861.9	1880.1	1829.7	1808.3	1686.3	1288.4
67.5°	1656.8	1556.2	1555.6	1727.2	2054.7	2069.0	2049.8	1961.7	1785.2	1552.6	1083.9
70°	1722.9	1614.8	1655.5	1903.3	2267.5	2227.6	2146.8	2024.1	1618.7	1190.0	708.1
72.5°	1660.8	1556.6	1648.4	1966.0	2293.9	2305.3	2090.6	1813.1	1202.6	608.6	256.3
75°	1262.1	1198.3	1431.3	1744.2	2036.6	2039.2	1745.0	1278.8	592.2	165.3	70.9
77.5°	635.7	615.4	905.9	1238.2	1485.9	1481.6	1198.9	685.1	190.5	54.9	35.8
80°	321.8	305.5	385.6	668.0	882.4	888.9	684.6	306.8	96.1	29.9	24.8
82.5°	197.7	187.6	211.0	302.3	428.3	438.6	259.7	194.3	59.6	17.6	22.6
85°	38.2	40.2	121.2	151.4	171.0	167.0	76.9	159.9	18.0	10.5	16.4
87.5°	0.0	0.6	28.0	49.4	49.5	44.0	17.5	35.4	2.5	2.9	2.0
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°	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4	183.4
2.5°	221.0	218.7	199.4	197.2	197.7	194.4	193.3	186.5	184.8	195.3	197.2
5°	274.6	259.1	241.1	234.6	224.6	207.6	205.1	200.8	196.0	197.8	196.4
7.5°	307.4	286.8	267.6	233.4	205.1	180.3	176.3	168.9	161.4	161.6	166.4
10°	312.7	295.3	268.9	227.2	194.9	163.9	137.0	117.5	108.7	100.8	103.1
12.5°	343.1	327.1	278.3	225.4	180.0	131.7	96.4	77.4	69.0	66.2	65.9
15°	367.6	354.9	294.4	219.6	147.0	92.7	69.0	63.5	61.9	64.5	63.8
17.5°	404.0	381.1	292.7	196.0	112.1	70.4	63.6	62.8	64.7	66.2	66.7
20°	419.9	387.0	281.1	158.8	83.9	64.5	62.1	60.5	63.9	68.6	67.6
22.5°	436.0	397.0	267.5	130.0	67.5	61.8	60.4	59.1	61.8	66.2	67.3
25°	443.3	413.1	252.3	101.5	62.7	58.5	57.6	58.0	60.2	64.2	63.8
27.5°	480.0	415.0	223.3	80.2	60.7	56.2	56.2	57.3	57.3	62.7	62.2
30°	502.9	446.4	199.8	67.5	58.4	52.9	54.8	55.3	54.5	60.4	60.8
32.5°	543.1	455.1	176.9	61.9	54.6	52.5	52.2	52.5	53.1	58.8	59.0
35°	605.0	497.8	145.6	59.7	52.8	50.1	48.0	49.7	51.2	55.4	56.2
37.5°	726.1	541.6	118.7	58.0	51.9	48.0	47.2	46.9	49.7	54.5	56.0
40°	824.1	619.1	96.6	56.6	50.0	46.7	44.7	44.9	47.4	50.9	53.2
42.5°	962.7	675.2	81.9	54.5	47.4	44.1	41.8	43.2	44.3	48.0	49.5
45°	1078.5	718.6	72.1	53.1	44.7	41.6	39.8	41.3	40.2	42.1	44.3
47.5°	1170.6	756.6	64.9	49.7	43.0	40.2	37.9	37.5	35.6	36.1	38.1
50°	1221.2	750.2	58.8	46.3	40.9	38.9	35.6	32.3	29.9	29.7	31.0
52.5°	1239.2	716.3	53.9	43.3	38.2	35.8	32.0	27.6	25.1	24.3	25.4
55°	1244.1	667.6	49.4	40.1	35.8	31.9	28.0	23.2	20.6	19.3	20.4
57.5°	1228.0	592.5	45.0	37.0	32.8	28.2	24.0	19.0	16.6	15.0	15.9
60°	1188.3	497.2	41.2	33.1	29.7	24.9	20.3	15.3	12.7	11.3	11.8
62.5°	1100.2	389.7	37.0	29.6	26.5	21.8	17.0	12.1	9.6	8.4	8.5
65°	966.1	290.5	32.2	26.2	23.5	18.9	13.6	9.3	7.3	6.2	6.0
67.5°	769.7	196.9	27.4	22.6	20.9	15.9	10.8	7.3	5.7	5.0	4.6
70°	452.4	99.2	22.8	19.5	18.0	13.3	8.5	5.9	5.3	4.6	4.3
72.5°	149.2	42.9	17.8	16.1	14.9	10.7	6.7	5.4	5.1	4.5	4.2
75°	52.0	24.8	13.2	12.4	11.8	8.0	5.6	5.0	5.0	4.3	3.9
77.5°	34.1	19.2	9.8	9.0	8.8	5.9	4.8	4.6	4.3	3.6	2.9
80°	28.3	10.8	6.8	6.3	6.2	3.7	3.9	3.4	2.6	1.5	0.6
82.5°	26.2	6.5	3.6	3.9	3.6	1.4	2.2	1.9	1.4	0.6	0.0
85°	15.3	2.9	2.0	2.0	1.5	0.3	1.1	1.1	0.6	0.2	0.0
87.5°	1.7	1.4	1.1	1.1	0.8	0.0	0.5	0.3	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)