

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: P367405

Luminaire Tested: **MSA-SA2C-727-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367405
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-727-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 7781 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

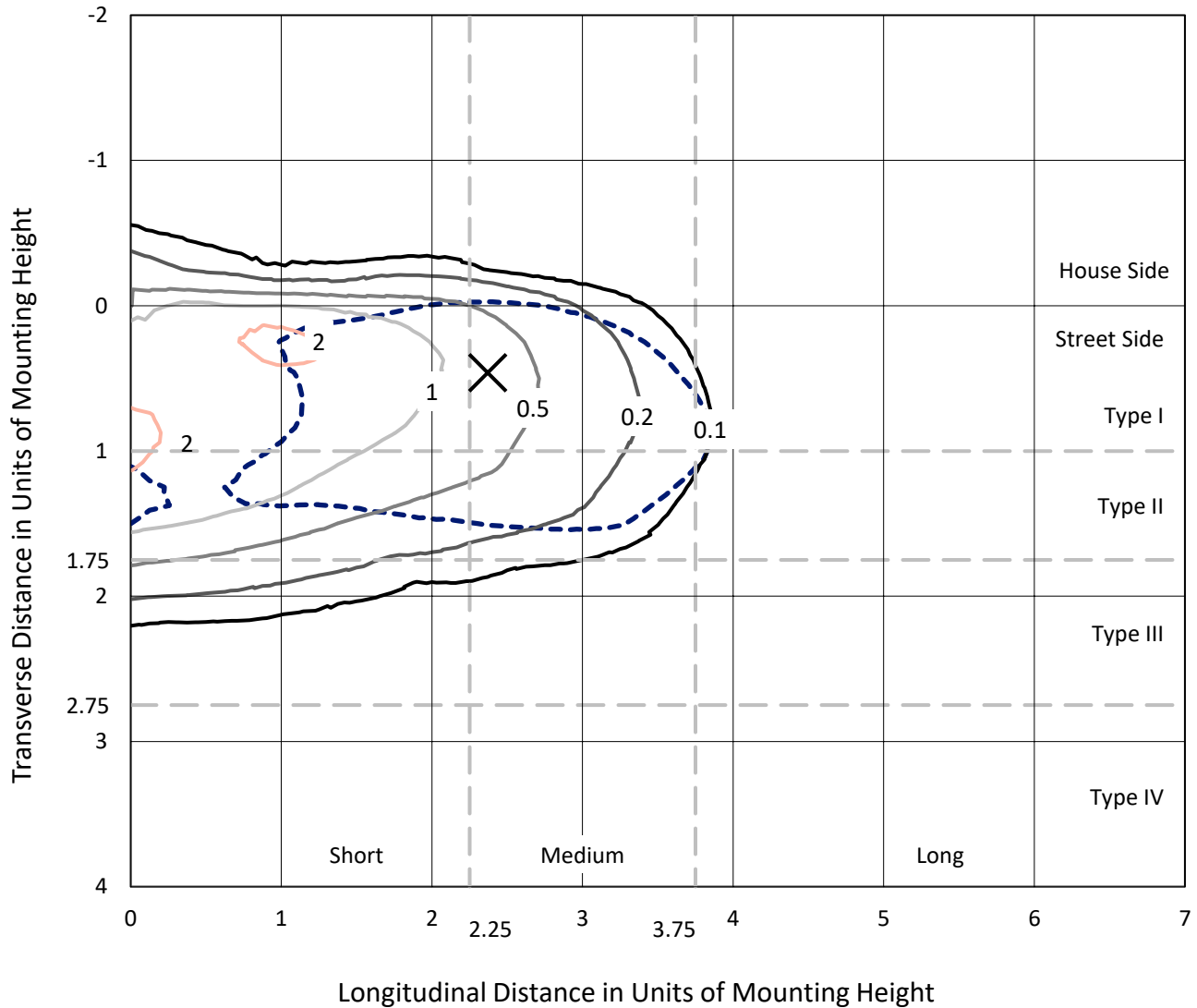
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

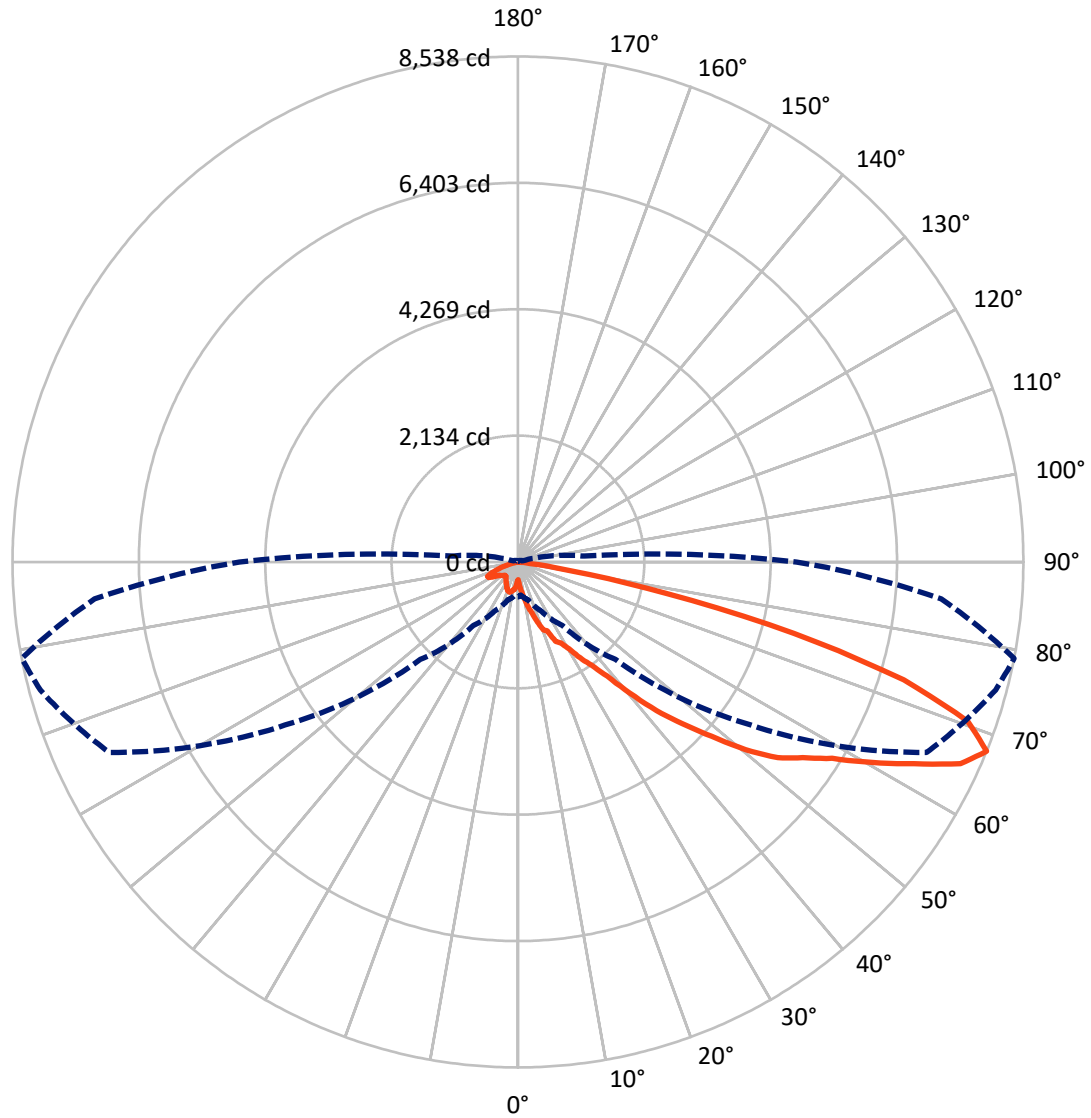
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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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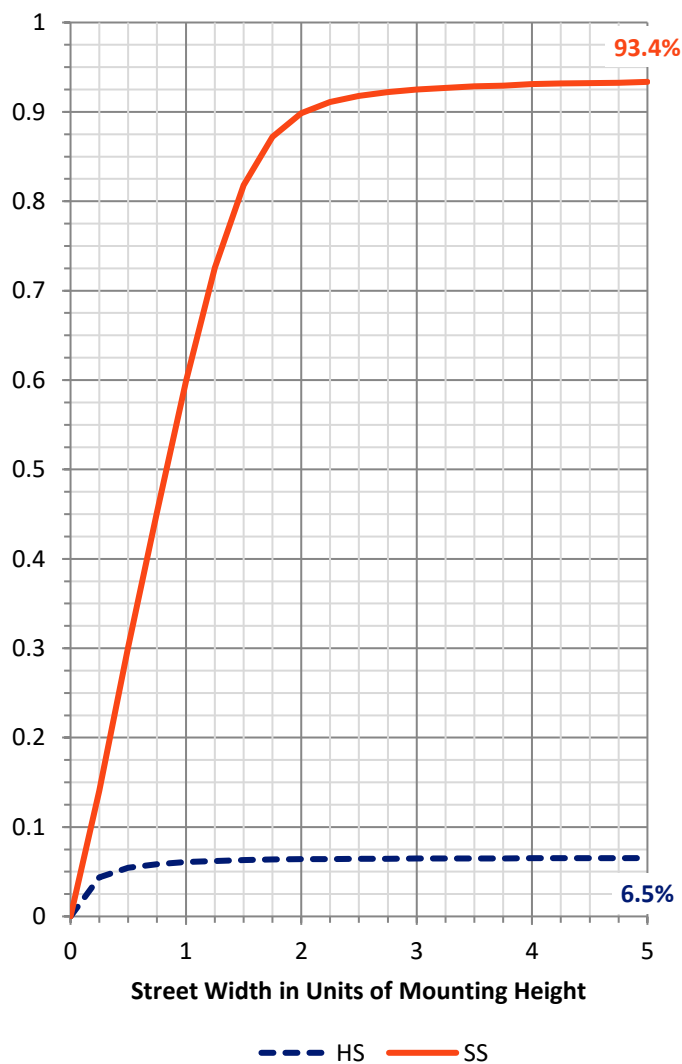
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	511.3	0.0	511.3
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	7269.7	0.0	7269.7
	% Fixture	93.4	0.0	93.4
Total	Lumens	7781.0	0.0	7781.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	0.6
10°-20°	173.9	2.2
20°-30°	335.4	4.3
30°-40°	658.9	8.5
40°-50°	1319.9	17.0
50°-60°	2109.7	27.1
60°-70°	2122.7	27.3
70°-80°	957.6	12.3
80°-90°	59.3	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°	7781.0	100.0
0°-180°	7781.0	100.0

Coefficient of Utilization



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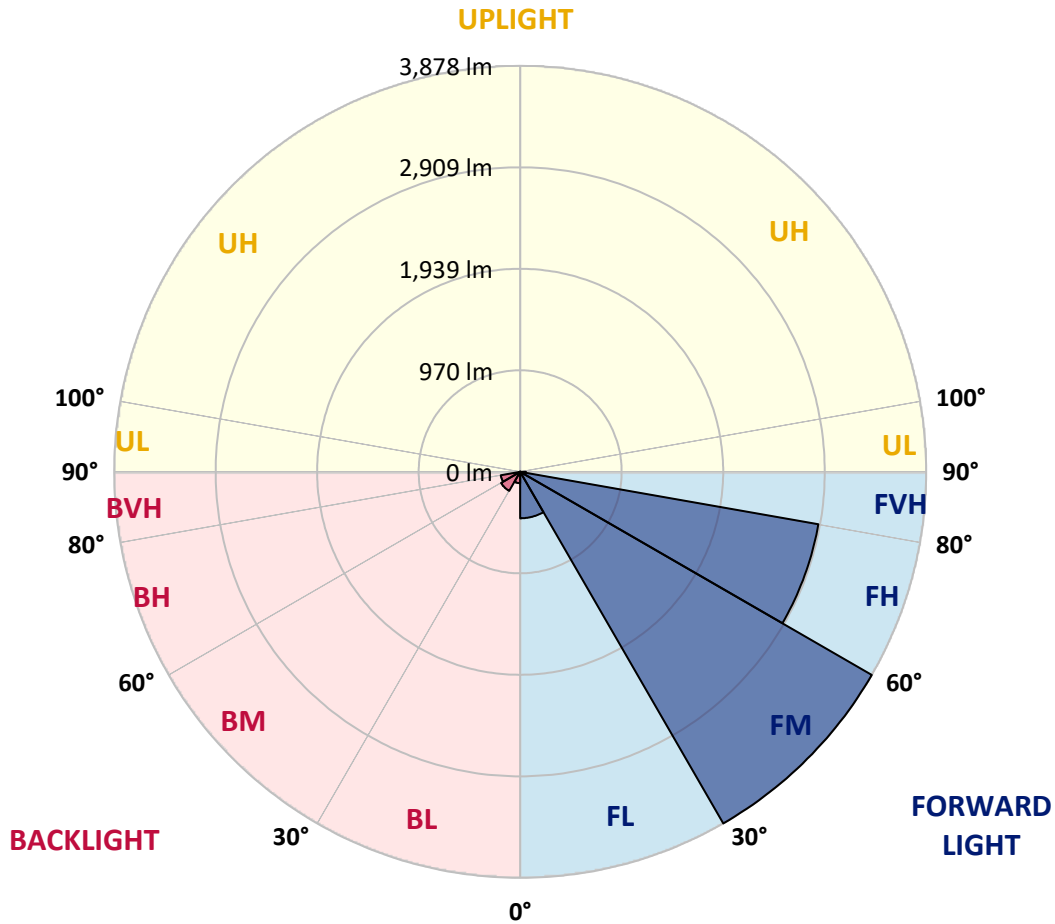
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	444.2	5.7			
FM (30°-60°)	3878.2	49.8			
FH (60°-80°)	2891.9	37.2			G2/5000
FVH (80°-90°)	55.5	0.7			G1/100
BL (0°-30°)	108.7	1.4	B0/110		
BM (30°-60°)	210.3	2.7	B0/220		
BH (60°-80°)	188.5	2.4	B1/500		G1/500
BVH (80°-90°)	3.8	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°	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8
2.5°	404.9	390.3	366.7	380.0	379.2	386.0	373.2	359.0	336.3	359.0	360.7
5°	582.9	555.9	538.7	535.3	516.4	498.8	495.0	480.4	469.2	449.1	467.1
7.5°	726.2	713.7	683.3	679.9	633.5	607.8	615.9	609.5	567.0	546.0	563.6
10°	787.1	765.6	769.9	765.6	745.9	753.2	736.5	717.2	683.3	648.5	604.8
12.5°	810.7	807.2	842.8	838.6	884.9	940.6	903.3	871.2	792.7	784.1	724.5
15°	861.3	882.7	877.6	895.6	925.2	1020.0	1019.1	1026.9	943.6	899.0	812.8
17.5°	906.3	922.2	896.5	917.1	997.7	1055.2	1131.9	1101.9	1111.4	1065.9	932.5
20°	887.0	905.0	879.3	866.9	1008.8	1117.8	1220.3	1198.4	1255.0	1226.7	1042.7
22.5°	1007.6	973.7	908.9	868.6	974.5	1116.5	1251.6	1343.0	1333.1	1263.6	1145.2
25°	1156.4	1135.8	1058.2	987.0	996.4	1108.8	1350.3	1484.5	1513.7	1484.1	1242.6
27.5°	1357.1	1352.4	1193.7	1162.8	1071.0	1074.9	1365.7	1663.0	1596.5	1550.2	1356.3
30°	1619.2	1581.9	1393.6	1353.3	1217.7	1151.2	1460.1	1816.9	1768.1	1705.0	1463.1
32.5°	1901.0	1906.6	1666.4	1533.4	1424.5	1345.6	1422.8	1889.0	1980.4	1929.3	1596.5
35°	2221.0	2245.9	1952.1	1795.9	1584.0	1467.8	1583.2	2110.3	2274.2	2139.9	1775.3
37.5°	2713.8	2713.0	2369.8	2058.9	1904.9	1778.8	1850.4	2311.5	2635.3	2446.6	2096.2
40°	3147.5	3053.1	2734.0	2376.7	2136.5	2102.2	2050.3	2586.9	3021.0	2907.3	2381.4
42.5°	3471.3	3404.8	3019.2	2741.3	2443.6	2334.7	2316.2	2990.5	3590.1	3431.0	2788.5
45°	3858.7	3640.8	3356.8	3106.3	2803.1	2771.3	2728.0	3400.1	4252.4	3893.8	3142.3
47.5°	4205.7	4000.6	3732.1	3410.4	3062.1	3323.8	3157.4	3760.0	4734.1	4397.4	3532.7
50°	4497.8	4279.9	3979.2	3734.3	3585.0	3762.6	3485.1	4056.4	5254.4	4981.6	3897.7
52.5°	4646.6	4400.0	4167.5	4016.1	4107.4	4067.5	3929.4	4415.4	5697.9	5493.7	4221.1
55°	4524.4	4283.3	4185.9	4261.0	4538.5	4423.1	4434.3	4971.7	6116.5	5835.2	4502.5
57.5°	3982.2	3762.1	3805.5	4010.9	4542.8	4844.8	5009.9	5512.2	6452.4	6260.7	4936.6
60°	3012.4	2835.2	2995.6	3360.2	4115.6	4760.7	5418.2	6052.6	6932.4	6872.3	5593.7
62.5°	1839.7	1743.6	1970.9	2425.6	3279.6	4348.5	5656.3	6773.2	7445.8	7509.7	6290.7
65°	938.5	895.2	1084.8	1484.5	2215.9	3572.1	5484.3	7221.0	7976.4	8212.3	6955.1
67.5°	591.1	563.2	664.4	905.5	1307.4	2329.9	4801.9	7612.7	8351.3	8537.9	7176.9
70°	409.6	392.0	479.5	621.5	824.8	1255.0	3565.3	7247.2	8054.0	8062.6	6640.3
72.5°	259.9	246.2	331.6	460.2	608.7	648.1	2043.9	5686.8	6894.2	6814.8	5377.5
75°	168.6	161.7	210.6	337.1	467.5	399.8	1010.1	3837.2	4943.4	4819.0	3571.7
77.5°	121.0	116.7	141.1	225.2	332.8	279.7	453.0	2287.1	2834.4	2562.4	1733.7
80°	72.9	72.5	102.1	141.1	236.8	197.3	209.3	1038.4	1098.9	896.0	529.7
82.5°	36.5	37.7	57.0	90.9	152.3	129.1	95.7	345.7	295.1	217.5	107.2
85°	8.6	10.7	30.0	62.6	76.3	51.5	45.5	90.5	81.1	61.3	31.3
87.5°	0.0	0.0	9.4	15.0	20.6	8.6	15.4	17.2	21.9	17.2	6.4
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°	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8	299.8
2.5°	361.2	356.0	324.7	316.6	315.7	306.7	308.8	300.3	300.7	320.0	320.0
5°	460.2	430.2	400.2	373.6	355.6	329.8	320.4	316.6	313.1	320.8	325.6
7.5°	540.5	496.3	442.2	384.3	330.7	293.8	288.7	279.2	275.8	283.5	289.5
10°	576.1	521.2	446.9	362.4	312.3	282.2	257.4	244.1	241.5	241.1	243.2
12.5°	651.5	583.3	452.1	354.3	299.8	266.8	238.5	216.2	195.6	197.7	195.6
15°	712.0	631.4	452.1	334.6	269.8	236.8	187.0	175.9	172.9	177.6	173.7
17.5°	803.4	679.0	429.4	299.4	244.1	184.0	165.1	164.3	170.3	177.1	172.9
20°	858.3	685.4	391.2	259.1	200.3	159.6	152.7	145.8	154.4	160.0	157.8
22.5°	915.3	685.9	353.0	237.6	161.3	145.4	134.3	128.7	130.0	135.1	136.0
25°	939.8	669.1	317.4	209.3	146.3	130.0	118.4	112.4	110.2	112.8	112.0
27.5°	1006.3	637.0	278.8	178.4	139.0	115.4	104.7	97.4	90.9	95.2	96.1
30°	1015.7	626.7	257.8	158.7	129.5	102.1	92.6	84.9	80.2	86.2	86.2
32.5°	1045.7	570.0	247.1	150.6	119.7	94.4	81.5	75.9	75.1	78.9	79.4
35°	1092.1	545.2	231.2	144.1	110.7	85.4	73.3	70.8	69.9	72.9	72.9
37.5°	1249.0	514.3	213.6	138.5	102.9	80.6	71.2	66.9	67.3	69.9	71.6
40°	1353.3	518.1	187.4	131.7	93.9	76.3	66.9	63.9	63.5	64.8	66.1
42.5°	1546.7	521.2	175.9	124.4	87.1	71.2	62.6	60.5	58.8	60.1	61.3
45°	1762.9	537.0	169.9	118.4	83.2	68.2	58.8	57.5	53.6	54.5	56.2
47.5°	1971.4	594.9	162.6	109.8	79.8	66.5	54.9	51.9	49.3	48.9	50.6
50°	2208.1	651.1	154.4	100.4	76.3	63.9	51.0	46.3	44.6	44.6	45.9
52.5°	2420.0	704.7	146.7	93.9	73.8	59.2	47.6	42.9	41.6	41.6	43.3
55°	2643.1	760.9	139.8	87.9	70.3	54.5	44.6	40.3	39.9	39.0	40.3
57.5°	3036.8	883.6	131.3	82.8	65.6	50.6	42.0	37.7	36.9	35.6	36.9
60°	3610.3	1071.9	120.1	77.6	60.1	48.0	39.9	34.7	33.5	31.3	31.7
62.5°	4170.9	1224.2	107.2	71.2	54.9	45.5	36.5	31.3	29.2	26.6	27.0
65°	4651.3	1284.2	93.5	63.5	49.8	39.5	31.7	27.5	24.4	21.0	20.6
67.5°	4707.9	1134.1	80.2	56.2	44.6	33.5	27.0	24.4	19.7	16.7	15.9
70°	4237.0	845.0	66.9	49.8	38.6	28.3	23.2	21.4	18.4	15.9	14.6
72.5°	3374.0	623.7	56.2	44.2	33.9	24.0	19.7	20.2	18.4	15.4	13.7
75°	2231.3	356.9	45.9	36.9	28.3	19.3	18.0	18.0	17.6	14.6	12.9
77.5°	1073.6	154.0	35.2	29.2	22.7	14.6	16.3	16.3	16.7	13.3	10.7
80°	304.5	46.3	21.9	19.7	16.7	9.9	12.9	12.4	11.2	7.7	4.7
82.5°	54.5	18.0	9.9	10.3	9.4	3.9	7.3	6.9	5.6	3.0	0.4
85°	15.0	6.9	5.6	6.0	4.7	1.3	3.0	3.9	3.0	1.7	0.0
87.5°	3.9	3.0	3.9	4.3	3.4	0.4	1.3	0.4	1.3	0.4	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)