

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: P596951

Luminaire Tested: **MSA-SA2B-835-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596951
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-835-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: 6193 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

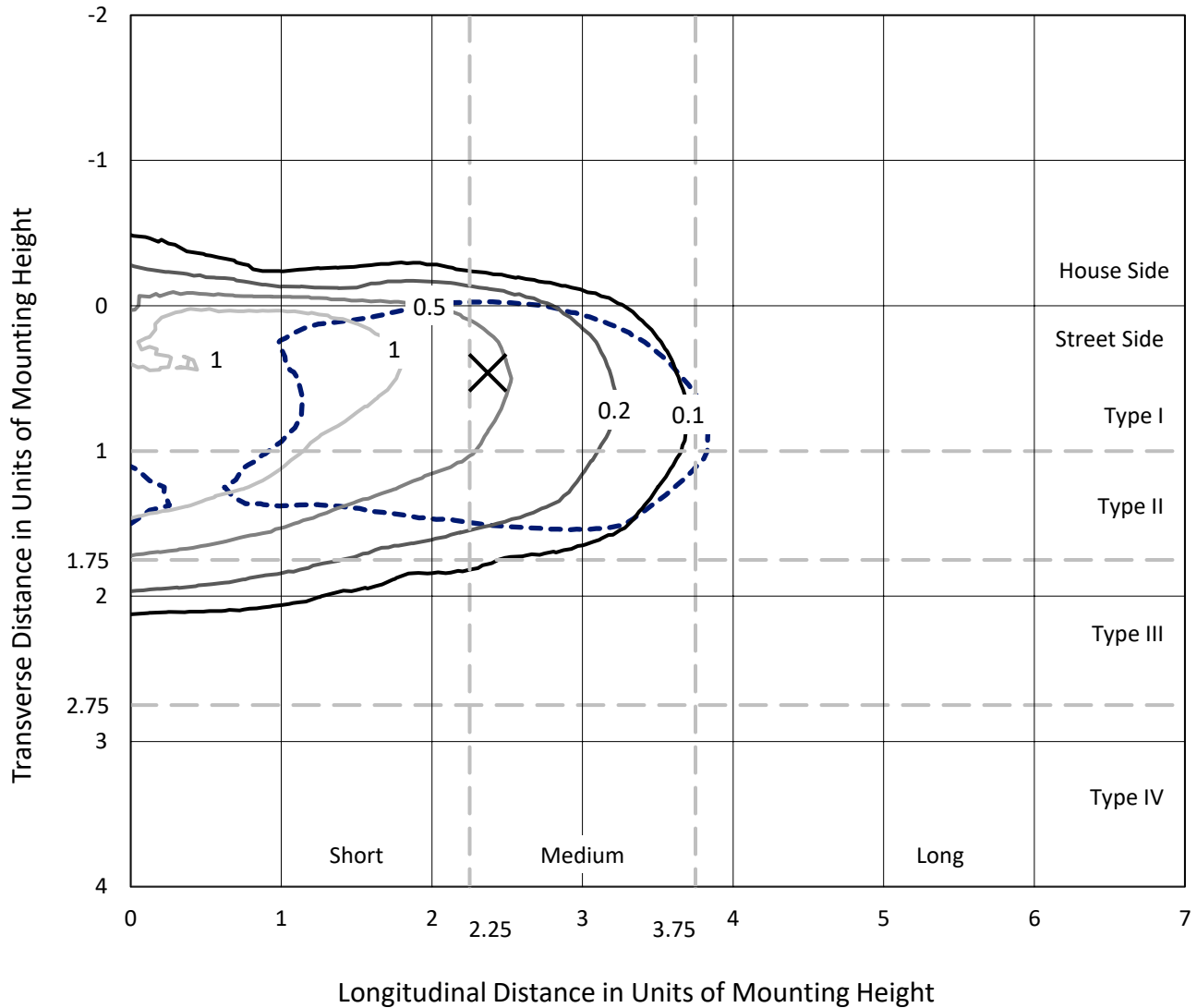
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

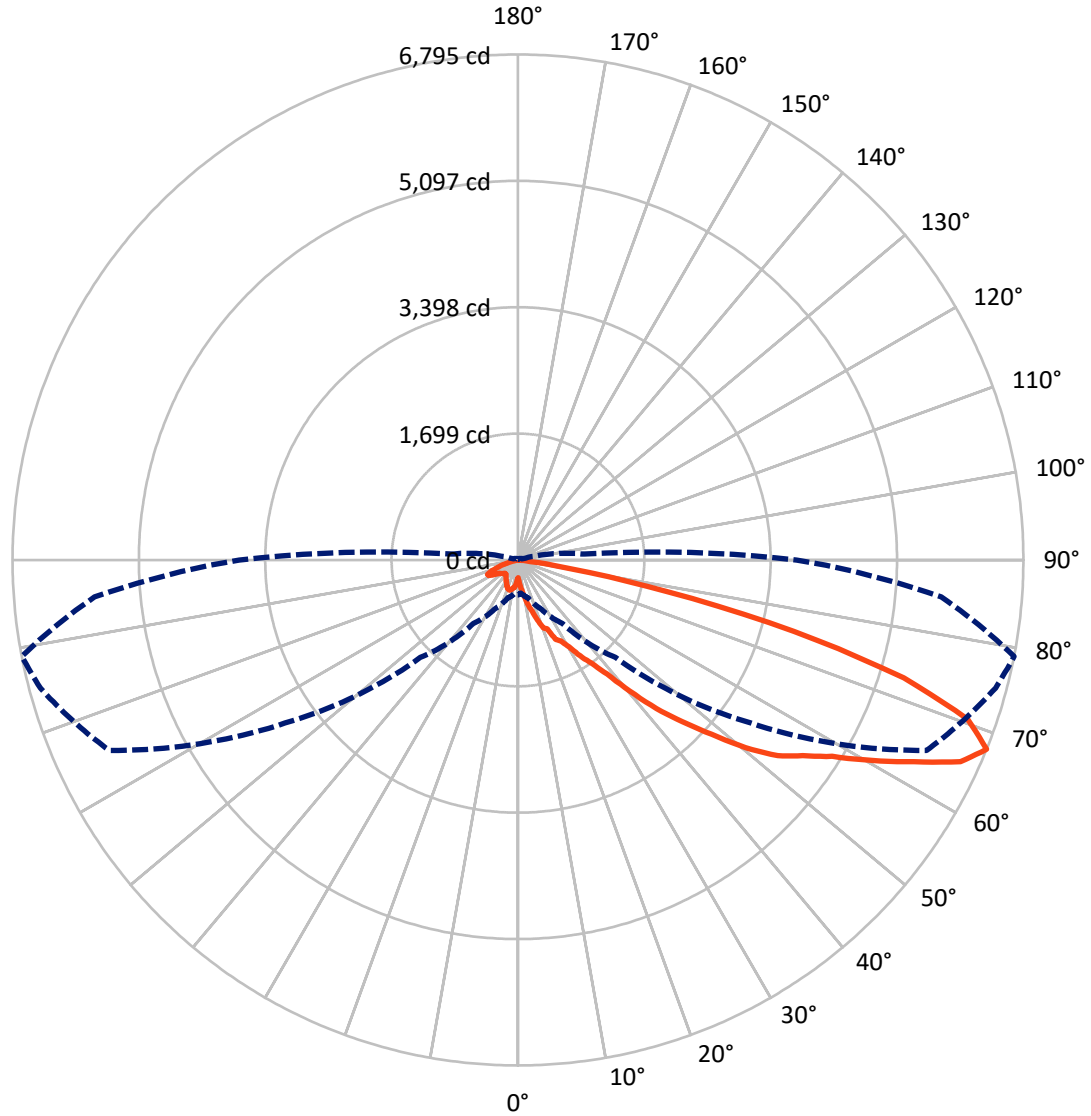
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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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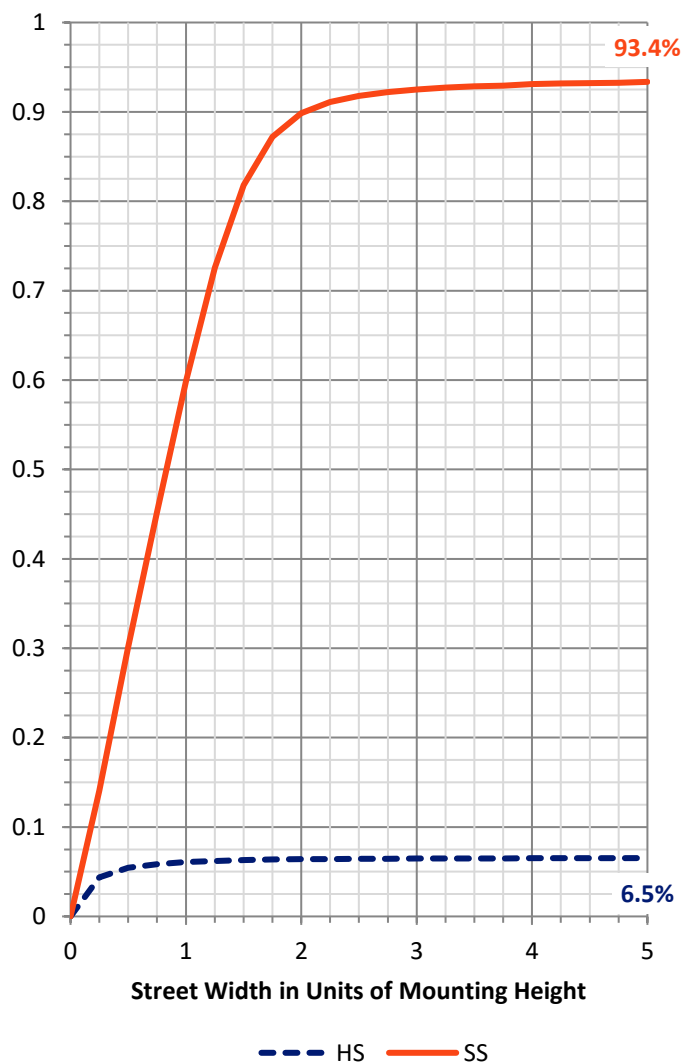
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	406.9	0.0	406.9
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	5786.1	0.0	5786.1
	% Fixture	93.4	0.0	93.4
Total	Lumens	6193.0	0.0	6193.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.7	0.6
10°-20°	138.4	2.2
20°-30°	267.0	4.3
30°-40°	524.4	8.5
40°-50°	1050.5	17.0
50°-60°	1679.1	27.1
60°-70°	1689.5	27.3
70°-80°	762.2	12.3
80°-90°	47.2	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°	6193.0	100.0
0°-180°	6193.0	100.0

Coefficient of Utilization



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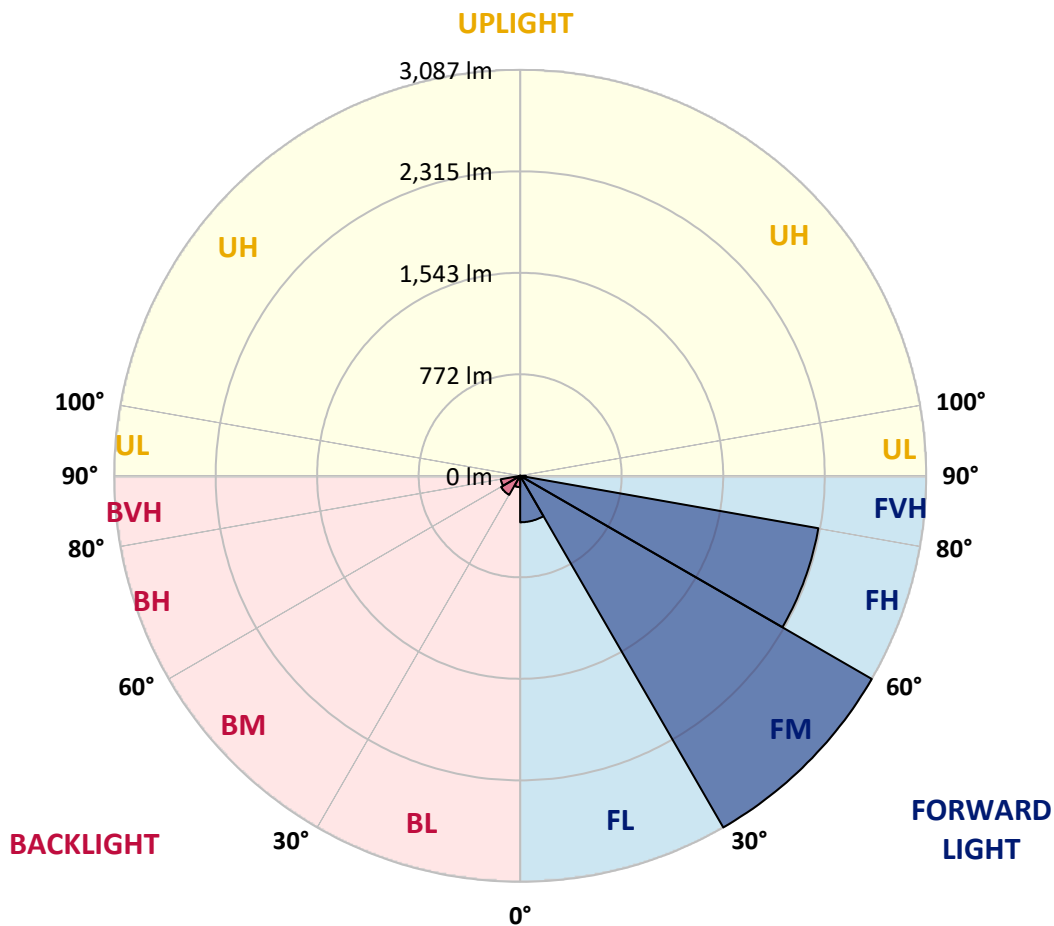
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	353.6	5.7			
FM (30°-60°)	3086.7	49.8			
FH (60°-80°)	2301.7	37.2			G2/5000
FVH (80°-90°)	44.2	0.7			G1/100
BL (0°-30°)	86.5	1.4	B0/110		
BM (30°-60°)	167.4	2.7	B0/220		
BH (60°-80°)	150.0	2.4	B1/500		G1/500
BVH (80°-90°)	3.0	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°	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6
2.5°	322.3	310.7	291.9	302.5	301.8	307.3	297.0	285.7	267.7	285.7	287.1
5°	464.0	442.4	428.8	426.1	411.0	397.0	394.0	382.4	373.5	357.4	371.8
7.5°	578.0	568.1	543.8	541.1	504.2	483.8	490.2	485.1	451.3	434.6	448.6
10°	626.5	609.4	612.8	609.4	593.7	599.5	586.2	570.8	543.8	516.2	481.4
12.5°	645.2	642.5	670.8	667.4	704.3	748.7	719.0	693.4	630.9	624.1	576.6
15°	685.5	702.6	698.5	712.8	736.4	811.8	811.1	817.3	751.1	715.6	646.9
17.5°	721.4	734.0	713.5	729.9	794.1	839.8	900.9	877.0	884.5	848.4	742.2
20°	706.0	720.3	699.9	690.0	803.0	889.7	971.3	953.8	998.9	976.4	829.9
22.5°	801.9	775.0	723.4	691.3	775.6	888.6	996.2	1068.9	1061.0	1005.7	911.5
25°	920.4	904.0	842.2	785.5	793.1	882.5	1074.7	1181.6	1204.8	1181.2	989.0
27.5°	1080.2	1076.4	950.1	925.5	852.5	855.5	1087.0	1323.6	1270.7	1233.8	1079.5
30°	1288.8	1259.1	1109.2	1077.1	969.2	916.3	1162.1	1446.1	1407.2	1357.0	1164.5
32.5°	1513.0	1517.5	1326.3	1220.5	1133.8	1070.9	1132.4	1503.5	1576.2	1535.6	1270.7
35°	1767.7	1787.5	1553.7	1429.4	1260.8	1168.2	1260.1	1679.6	1810.1	1703.2	1413.0
37.5°	2160.0	2159.3	1886.2	1638.7	1516.1	1415.7	1472.8	1839.8	2097.5	1947.3	1668.4
40°	2505.1	2430.0	2176.0	1891.6	1700.5	1673.2	1631.8	2058.9	2404.4	2313.9	1895.4
42.5°	2762.9	2710.0	2403.1	2181.8	1944.9	1858.2	1843.5	2380.2	2857.4	2730.8	2219.4
45°	3071.2	2897.7	2671.7	2472.4	2231.0	2205.7	2171.2	2706.2	3384.6	3099.1	2501.0
47.5°	3347.3	3184.2	2970.4	2714.4	2437.2	2645.4	2513.0	2992.6	3767.9	3499.9	2811.7
50°	3579.8	3406.4	3167.1	2972.2	2853.3	2994.7	2773.8	3228.5	4182.0	3964.9	3102.2
52.5°	3698.3	3502.0	3317.0	3196.4	3269.2	3237.4	3127.5	3514.3	4535.0	4372.5	3359.6
55°	3601.0	3409.1	3331.6	3391.4	3612.3	3520.4	3529.3	3957.1	4868.2	4644.3	3583.6
57.5°	3169.5	2994.3	3028.8	3192.3	3615.7	3856.0	3987.4	4387.2	5135.5	4982.9	3929.1
60°	2397.6	2256.6	2384.3	2674.5	3275.6	3789.1	4312.5	4817.4	5517.6	5469.8	4452.1
62.5°	1464.2	1387.8	1568.7	1930.6	2610.3	3461.0	4501.9	5390.9	5926.2	5977.1	5006.8
65°	747.0	712.5	863.4	1181.6	1763.6	2843.1	4365.0	5747.3	6348.5	6536.3	5535.7
67.5°	470.4	448.2	528.8	720.7	1040.6	1854.4	3821.9	6059.0	6646.9	6795.4	5712.2
70°	326.0	312.0	381.7	494.7	656.5	998.9	2837.6	5768.1	6410.3	6417.1	5285.1
72.5°	206.9	196.0	263.9	366.3	484.4	515.8	1626.7	4526.2	5487.2	5424.0	4280.0
75°	134.2	128.7	167.6	268.3	372.1	318.2	804.0	3054.1	3934.5	3835.5	2842.8
77.5°	96.3	92.9	112.3	179.2	264.9	222.6	360.5	1820.3	2255.9	2039.5	1379.9
80°	58.0	57.7	81.3	112.3	188.4	157.0	166.6	826.5	874.6	713.2	421.6
82.5°	29.0	30.0	45.4	72.4	121.2	102.8	76.1	275.2	234.9	173.1	85.3
85°	6.8	8.5	23.9	49.8	60.8	41.0	36.2	72.0	64.5	48.8	24.9
87.5°	0.0	0.0	7.5	11.9	16.4	6.8	12.3	13.7	17.4	13.7	5.1
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°	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6	238.6
2.5°	287.5	283.4	258.4	251.9	251.3	244.1	245.8	239.0	239.3	254.7	254.7
5°	366.3	342.4	318.5	297.4	283.0	262.5	255.0	251.9	249.2	255.4	259.1
7.5°	430.2	395.0	352.0	305.9	263.2	233.9	229.8	222.2	219.5	225.7	230.4
10°	458.5	414.8	355.7	288.5	248.5	224.6	204.8	194.3	192.2	191.9	193.6
12.5°	518.6	464.3	359.8	282.0	238.6	212.3	189.8	172.1	155.7	157.4	155.7
15°	566.7	502.5	359.8	266.3	214.7	188.4	148.8	140.0	137.6	141.3	138.3
17.5°	639.4	540.4	341.7	238.3	194.3	146.5	131.4	130.8	135.5	141.0	137.6
20°	683.1	545.5	311.3	206.2	159.4	127.0	121.5	116.1	122.9	127.3	125.6
22.5°	728.5	545.9	281.0	189.1	128.4	115.7	106.9	102.4	103.4	107.5	108.2
25°	748.0	532.6	252.6	166.6	116.4	103.4	94.2	89.4	87.7	89.8	89.1
27.5°	800.9	507.0	221.9	142.0	110.6	91.8	83.3	77.5	72.4	75.8	76.5
30°	808.4	498.8	205.2	126.3	103.1	81.3	73.7	67.6	63.8	68.6	68.6
32.5°	832.3	453.7	196.6	119.8	95.2	75.1	64.9	60.4	59.7	62.8	63.2
35°	869.2	433.9	184.0	114.7	88.1	67.9	58.4	56.3	55.6	58.0	58.0
37.5°	994.1	409.3	170.0	110.3	81.9	64.2	56.7	53.3	53.6	55.6	57.0
40°	1077.1	412.4	149.2	104.8	74.8	60.8	53.3	50.9	50.5	51.6	52.6
42.5°	1231.1	414.8	140.0	99.0	69.3	56.7	49.8	48.1	46.8	47.8	48.8
45°	1403.1	427.4	135.2	94.2	66.2	54.3	46.8	45.7	42.7	43.4	44.7
47.5°	1569.0	473.5	129.4	87.4	63.5	52.9	43.7	41.3	39.3	38.9	40.3
50°	1757.5	518.2	122.9	79.9	60.8	50.9	40.6	36.9	35.5	35.5	36.5
52.5°	1926.1	560.9	116.8	74.8	58.7	47.1	37.9	34.1	33.1	33.1	34.5
55°	2103.7	605.6	111.3	70.0	56.0	43.4	35.5	32.1	31.7	31.1	32.1
57.5°	2417.0	703.3	104.5	65.9	52.2	40.3	33.5	30.0	29.4	28.3	29.4
60°	2873.5	853.1	95.6	61.8	47.8	38.2	31.7	27.7	26.6	24.9	25.3
62.5°	3319.7	974.3	85.3	56.7	43.7	36.2	29.0	24.9	23.2	21.2	21.5
65°	3702.0	1022.1	74.4	50.5	39.6	31.4	25.3	21.8	19.5	16.7	16.4
67.5°	3747.1	902.6	63.8	44.7	35.5	26.6	21.5	19.5	15.7	13.3	12.6
70°	3372.3	672.5	53.3	39.6	30.7	22.5	18.4	17.1	14.7	12.6	11.6
72.5°	2685.4	496.4	44.7	35.2	27.0	19.1	15.7	16.0	14.7	12.3	10.9
75°	1775.9	284.0	36.5	29.4	22.5	15.4	14.3	14.3	14.0	11.6	10.2
77.5°	854.5	122.6	28.0	23.2	18.1	11.6	13.0	13.0	13.3	10.6	8.5
80°	242.4	36.9	17.4	15.7	13.3	7.9	10.2	9.9	8.9	6.1	3.8
82.5°	43.4	14.3	7.9	8.2	7.5	3.1	5.8	5.5	4.4	2.4	0.3
85°	11.9	5.5	4.4	4.8	3.8	1.0	2.4	3.1	2.4	1.4	0.0
87.5°	3.1	2.4	3.1	3.4	2.7	0.3	1.0	0.3	1.0	0.3	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)