

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: P596605

Luminaire Tested: **MSA-SA2B-827-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-827-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5520 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

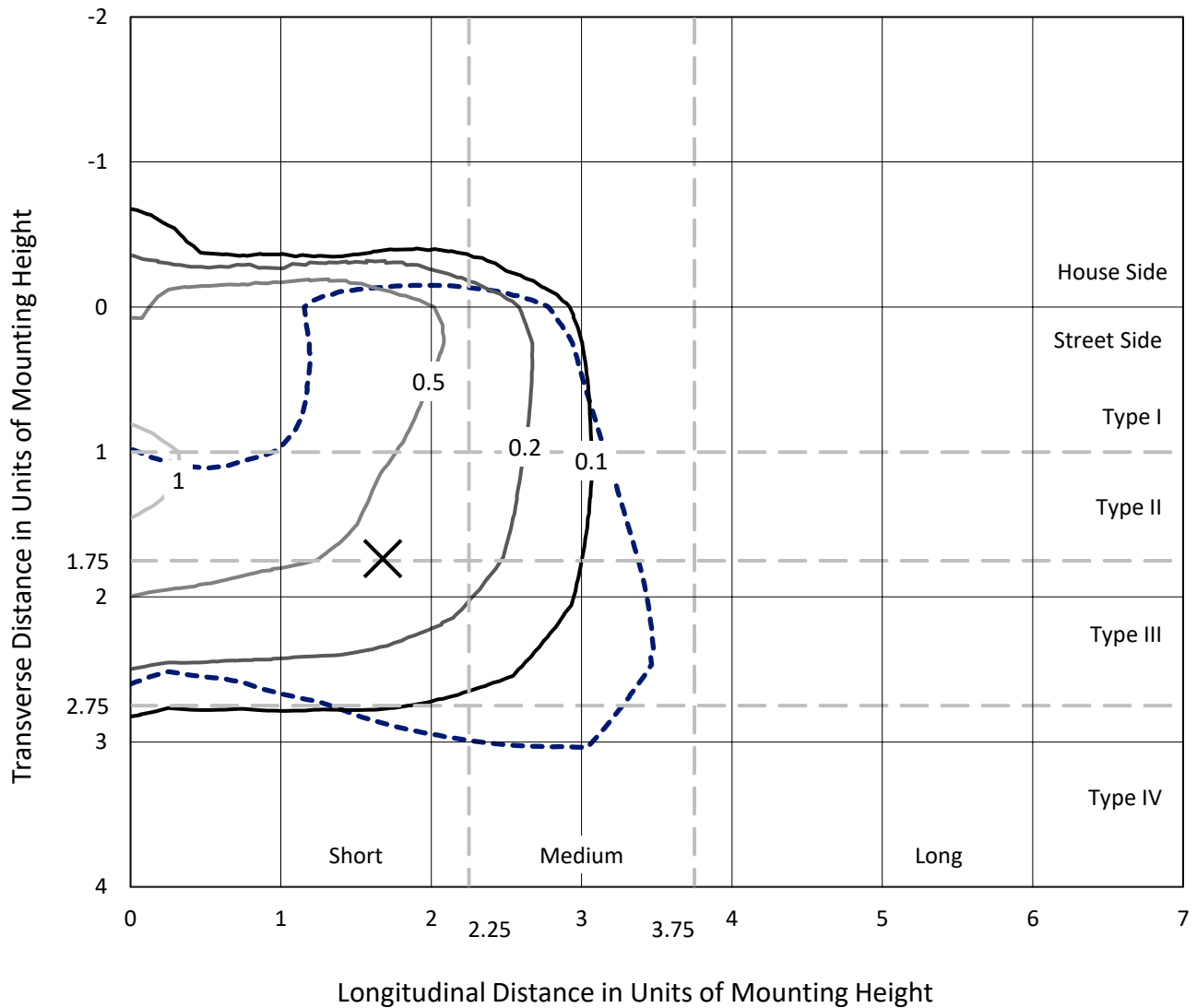
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

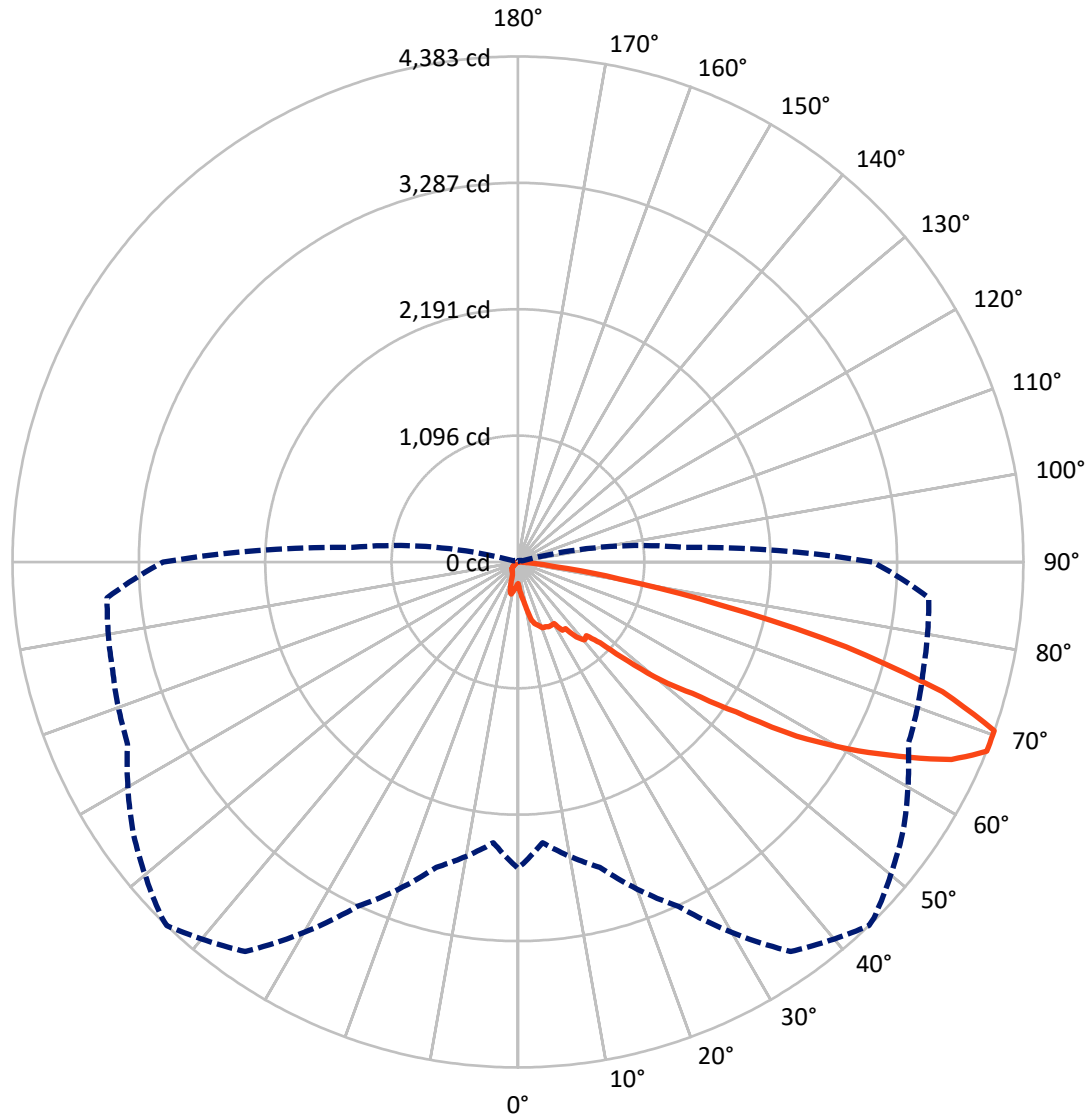
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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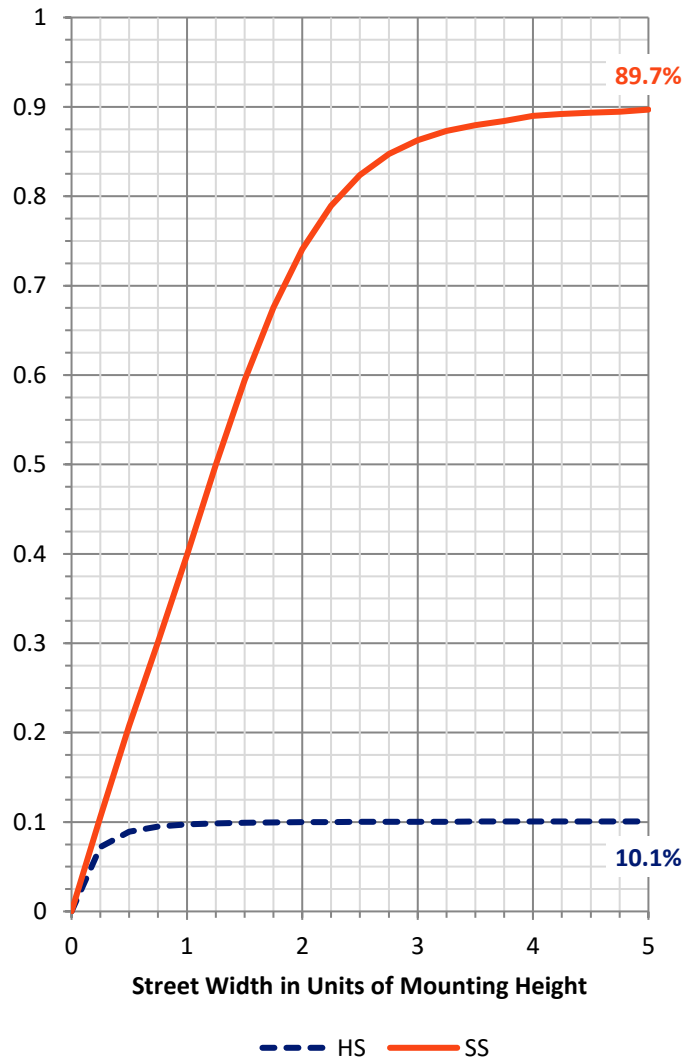
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	560.7	0.0	560.7
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	4959.3	0.0	4959.3
	% Fixture	89.8	0.0	89.8
Total	Lumens	5520.0	0.0	5520.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.6	0.5
10°-20°	115.4	2.1
20°-30°	204.4	3.7
30°-40°	332.3	6.0
40°-50°	665.0	12.0
50°-60°	1364.2	24.7
60°-70°	1874.0	33.9
70°-80°	880.8	16.0
80°-90°	56.4	1.0
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°	5520.0	100.0
0°-180°	5520.0	100.0

Coefficient of Utilization

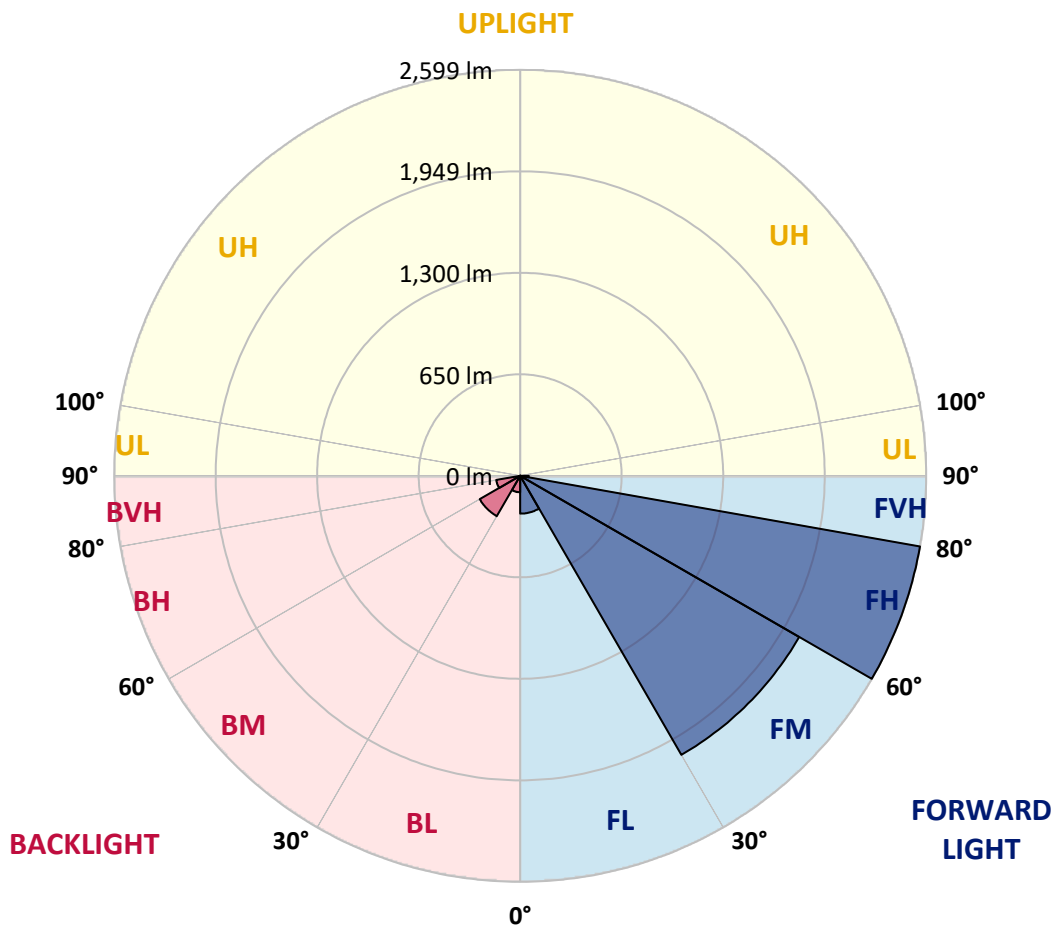


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	242.1	4.4			
FM (30°-60°)	2062.7	37.4			
FH (60°-80°)	2599.2	47.1			G2/5000
FVH (80°-90°)	55.3	1.0			G1/100
BL (0°-30°)	105.3	1.9	B0/110		
BM (30°-60°)	298.7	5.4	B1/1000		
BH (60°-80°)	155.6	2.8	B1/500		G1/500
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: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0
2.5°	236.5	228.9	217.9	220.4	221.6	224.9	225.2	221.0	208.8	205.5	220.4
5°	331.5	312.9	309.6	302.6	288.6	280.9	279.1	286.7	277.0	273.9	277.9
7.5°	423.4	407.6	390.2	380.8	351.6	333.6	332.7	335.7	337.6	326.9	332.4
10°	484.6	467.2	463.6	441.4	416.1	411.8	410.0	398.4	389.0	381.1	354.6
12.5°	540.0	539.7	546.4	514.4	510.5	514.7	513.2	471.8	462.4	429.2	421.6
15°	613.6	631.9	603.0	576.2	542.1	556.7	552.8	526.3	519.9	497.4	464.8
17.5°	690.0	694.9	646.5	605.4	596.6	577.4	581.4	571.9	539.7	557.6	525.4
20°	691.9	702.5	650.8	582.9	610.0	609.1	609.4	600.2	557.6	599.6	570.1
22.5°	717.4	691.3	643.2	599.9	604.8	609.4	614.3	603.0	593.9	604.2	609.7
25°	707.1	696.7	650.5	621.9	617.3	620.9	622.2	636.5	630.7	655.6	641.9
27.5°	733.9	719.0	636.2	641.3	625.2	620.9	613.6	661.4	678.5	658.7	695.2
30°	779.8	777.7	660.8	668.4	656.0	618.5	638.0	700.4	721.7	709.5	754.0
32.5°	851.7	859.0	733.0	683.7	690.0	706.8	699.5	700.4	754.3	781.4	816.7
35°	953.6	949.7	803.3	741.5	708.0	710.7	721.1	770.7	840.4	838.6	876.0
37.5°	1153.9	1110.7	927.8	800.5	810.6	824.3	816.7	883.3	890.0	892.5	981.9
40°	1449.2	1391.7	1124.1	925.0	828.2	888.8	885.2	901.6	946.3	963.1	1093.7
42.5°	1838.2	1760.9	1469.6	1153.9	913.5	871.8	894.3	925.3	1075.7	1123.5	1266.5
45°	2268.0	2111.5	1814.1	1480.2	1127.1	997.8	1014.8	1072.7	1281.2	1360.3	1518.3
47.5°	2546.5	2408.9	2155.4	1769.4	1350.0	1282.1	1283.6	1296.1	1522.5	1669.3	1881.1
50°	2788.5	2642.1	2406.8	2071.6	1744.1	1615.7	1586.5	1528.9	1830.0	2030.6	2265.5
52.5°	3130.0	2958.9	2658.2	2426.3	2193.7	1891.1	1880.8	1900.3	2192.5	2403.4	2659.7
55°	3438.0	3230.1	2943.1	2797.0	2706.3	2296.0	2304.8	2337.4	2657.9	2769.6	3010.4
57.5°	3574.1	3348.9	3201.2	3135.5	3087.1	2849.1	2819.2	2799.7	3025.0	3067.6	3377.8
60°	3663.3	3449.0	3382.0	3397.2	3544.0	3291.3	3264.2	3151.0	3328.8	3363.8	3707.1
62.5°	3607.0	3411.6	3425.9	3552.8	3878.5	3712.3	3634.1	3444.7	3577.1	3605.4	3943.6
65°	3252.4	3048.7	3232.6	3539.7	4133.6	4129.6	4093.4	3715.9	3714.7	3750.9	3961.9
67.5°	2656.7	2443.0	2740.4	3294.4	4122.9	4382.5	4365.5	4075.7	3734.5	3637.7	3575.3
70°	1847.0	1661.6	1998.9	2720.6	3755.5	4380.7	4353.3	4317.4	3578.1	3131.2	2772.0
72.5°	959.7	857.8	1171.9	1874.7	2993.6	3849.0	3939.4	3880.3	3055.1	2275.0	1632.4
75°	326.0	292.5	483.4	995.0	1990.1	2939.1	3045.1	2985.1	2075.0	1220.6	645.6
77.5°	126.3	117.5	173.2	403.9	998.4	1791.0	1906.1	1844.9	1112.8	447.1	151.9
80°	71.8	69.4	95.6	182.0	440.1	890.9	971.9	881.5	401.2	150.7	39.6
82.5°	30.4	31.4	53.3	98.3	221.3	314.4	350.7	319.9	168.0	103.2	14.6
85°	6.7	8.2	25.3	54.8	92.8	89.8	94.1	104.4	103.2	75.8	6.4
87.5°	0.0	0.0	7.9	14.9	22.2	14.6	11.6	20.4	31.7	30.4	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°	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0
2.5°	223.1	220.1	200.9	199.7	200.9	197.5	197.2	190.2	190.8	206.7	207.9
5°	277.9	262.7	246.2	241.1	236.2	225.2	231.3	231.3	231.3	241.4	244.4
7.5°	327.5	307.1	284.0	264.5	245.6	231.9	241.4	248.1	252.0	265.1	271.2
10°	350.0	330.0	309.3	281.6	266.9	261.8	250.8	245.0	252.0	249.3	252.6
12.5°	398.1	379.9	344.3	315.6	304.7	287.0	254.8	232.2	217.3	214.9	214.3
15°	445.0	433.7	386.0	347.6	309.6	268.8	213.7	183.8	168.0	165.3	165.6
17.5°	504.4	488.2	417.9	362.8	298.3	224.9	165.0	139.4	138.2	144.9	145.5
20°	543.9	517.5	434.1	350.3	261.2	170.2	129.1	123.0	132.7	144.9	143.7
22.5°	581.7	553.1	455.4	339.4	202.4	129.1	118.7	119.3	127.5	140.6	144.0
25°	606.6	596.3	481.5	313.8	154.3	111.7	113.5	118.1	125.1	137.6	137.6
27.5°	681.8	633.4	478.5	264.2	118.7	104.1	108.4	114.1	117.8	132.7	134.2
30°	727.5	711.7	494.3	213.7	104.1	94.4	102.6	107.8	110.2	127.2	127.8
32.5°	783.5	748.5	513.5	157.7	96.8	93.8	91.9	95.9	102.9	117.8	118.7
35°	851.7	841.3	486.1	123.9	94.4	87.7	84.0	86.1	90.7	100.8	102.9
37.5°	990.8	929.3	469.7	106.2	94.4	85.5	81.6	76.1	76.7	83.7	87.7
40°	1108.0	1089.1	423.7	103.2	90.1	82.5	72.7	66.1	61.5	63.6	65.1
42.5°	1323.2	1235.8	364.3	101.7	86.1	74.6	61.8	54.8	47.8	48.4	50.8
45°	1584.3	1395.9	311.4	100.1	83.4	66.7	52.0	43.8	36.5	36.8	39.3
47.5°	1933.2	1629.4	247.2	95.6	78.5	59.4	42.0	33.5	29.2	30.1	32.3
50°	2329.5	1834.2	195.4	88.6	72.7	52.4	34.1	27.1	25.6	26.5	28.9
52.5°	2683.5	1985.2	161.3	82.2	64.5	42.6	28.6	24.0	23.4	24.0	25.9
55°	2998.2	2072.9	134.8	74.9	55.4	34.4	25.9	22.2	21.9	21.6	22.8
57.5°	3293.5	2098.1	105.3	63.3	45.0	29.8	24.0	20.7	20.1	19.2	20.1
60°	3508.7	2054.9	77.3	50.8	36.8	27.1	22.5	18.6	17.7	16.1	16.7
62.5°	3612.4	1936.5	58.4	40.8	31.4	24.7	20.1	16.1	14.9	13.1	13.4
65°	3513.8	1741.4	46.0	34.4	26.8	20.7	17.0	13.7	12.2	10.3	10.3
67.5°	3077.0	1444.6	39.0	29.8	22.5	17.7	14.0	12.5	10.0	8.5	8.2
70°	2258.5	1039.2	33.5	26.2	19.5	15.2	11.9	11.3	9.7	8.2	7.6
72.5°	1274.8	588.1	28.6	23.1	16.4	12.8	10.0	10.3	9.4	7.6	7.0
75°	486.4	198.2	23.7	19.2	13.4	9.7	8.5	8.5	8.5	6.4	5.5
77.5°	120.5	50.5	18.9	15.5	10.7	6.4	7.0	7.3	7.3	5.5	4.0
80°	33.2	17.0	11.3	11.3	7.6	3.7	4.9	4.9	4.0	1.8	0.0
82.5°	12.2	6.4	4.0	4.9	3.3	1.2	1.8	1.2	0.9	0.0	0.0
85°	5.2	3.3	2.4	2.7	1.5	0.0	0.3	0.6	0.0	0.0	0.0
87.5°	2.1	1.5	1.2	1.2	0.6	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)