

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: P596931

Luminaire Tested: **MSA-SA2A-835-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596931
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-835-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4839 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

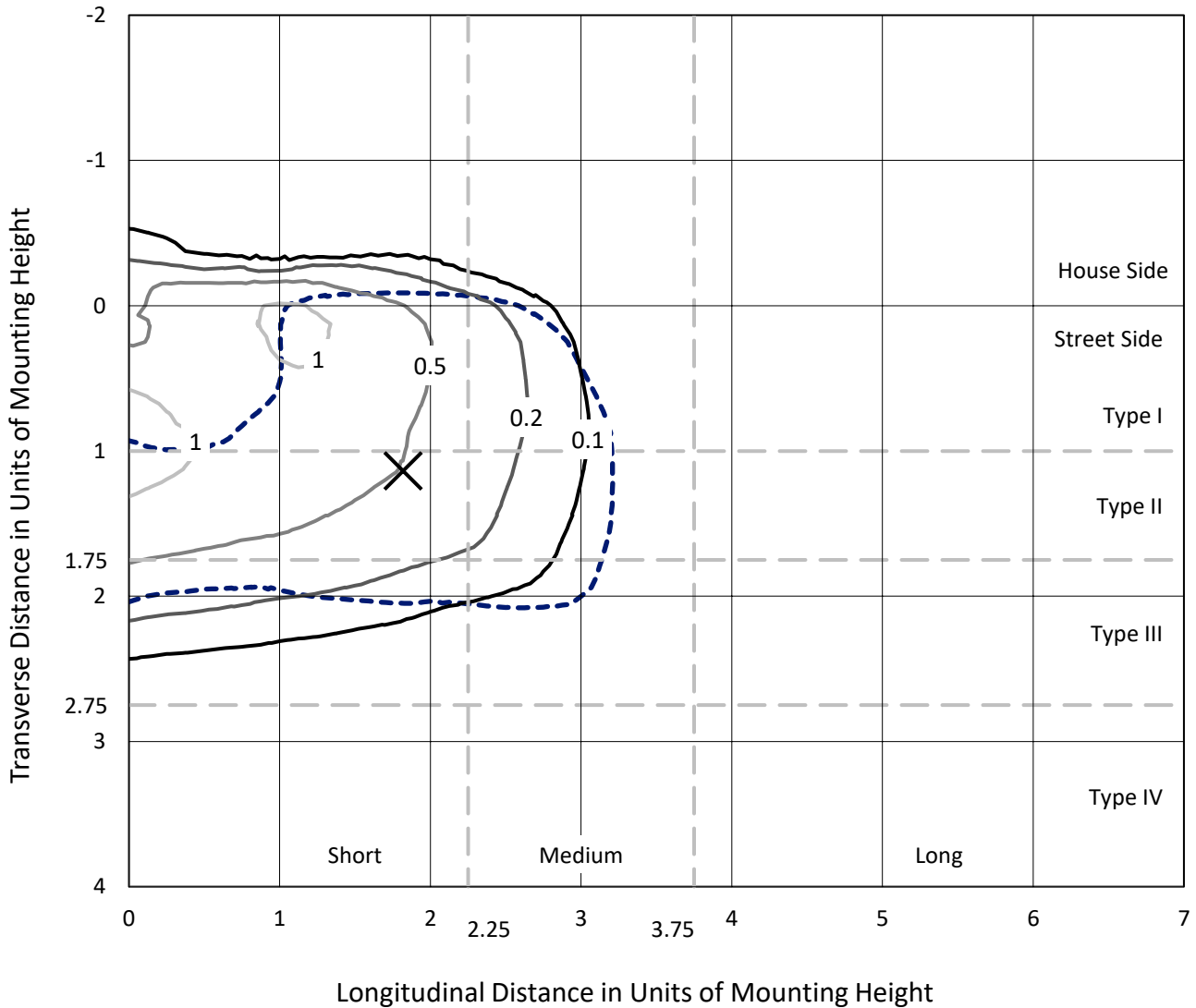
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596931
 CATALOG NUMBER: MSA-SA2A-835-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

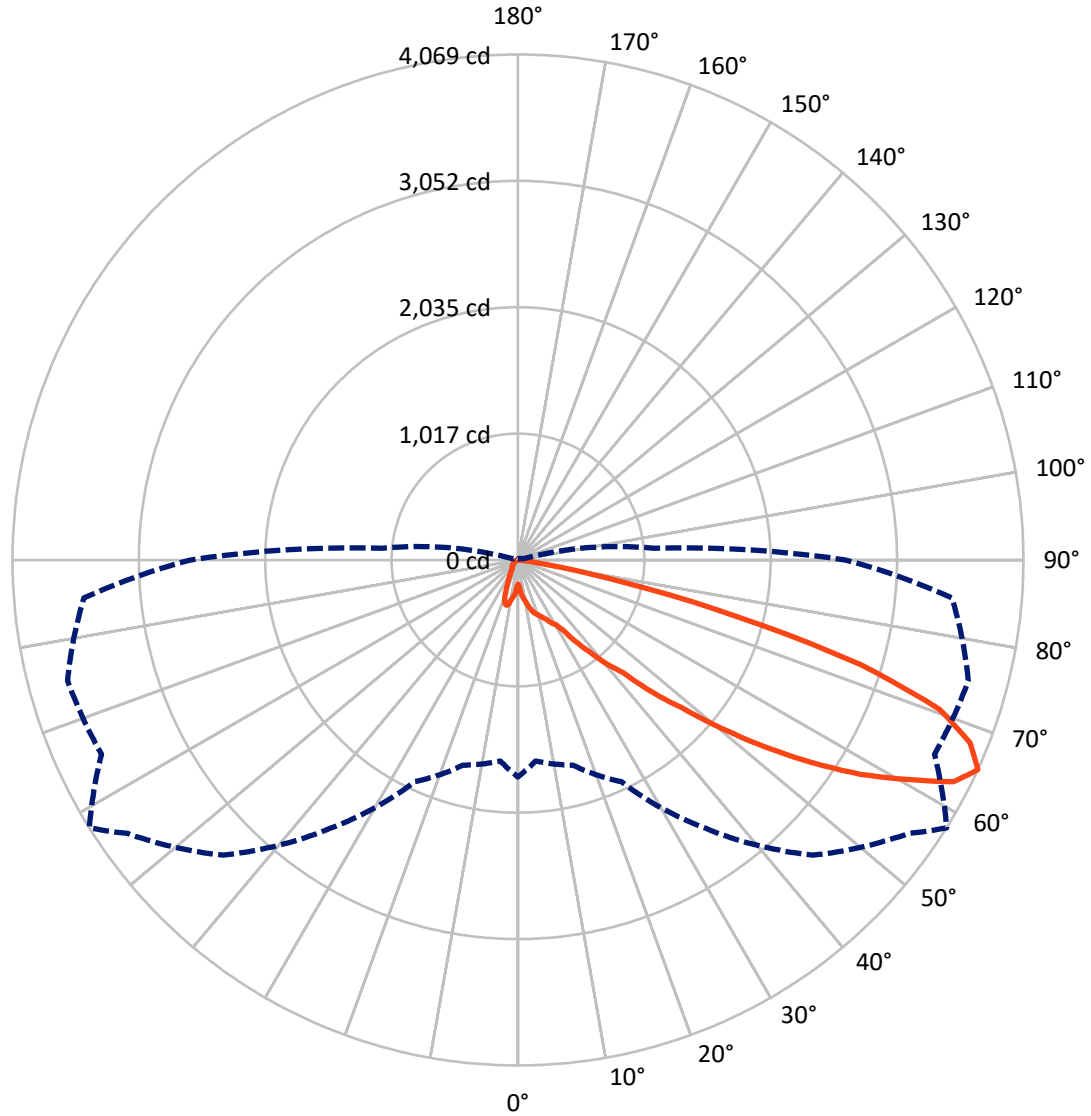
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P596931
CATALOG NUMBER: MSA-SA2A-835-U-T3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P596931

CATALOG NUMBER: MSA-SA2A-835-U-T3-HSS

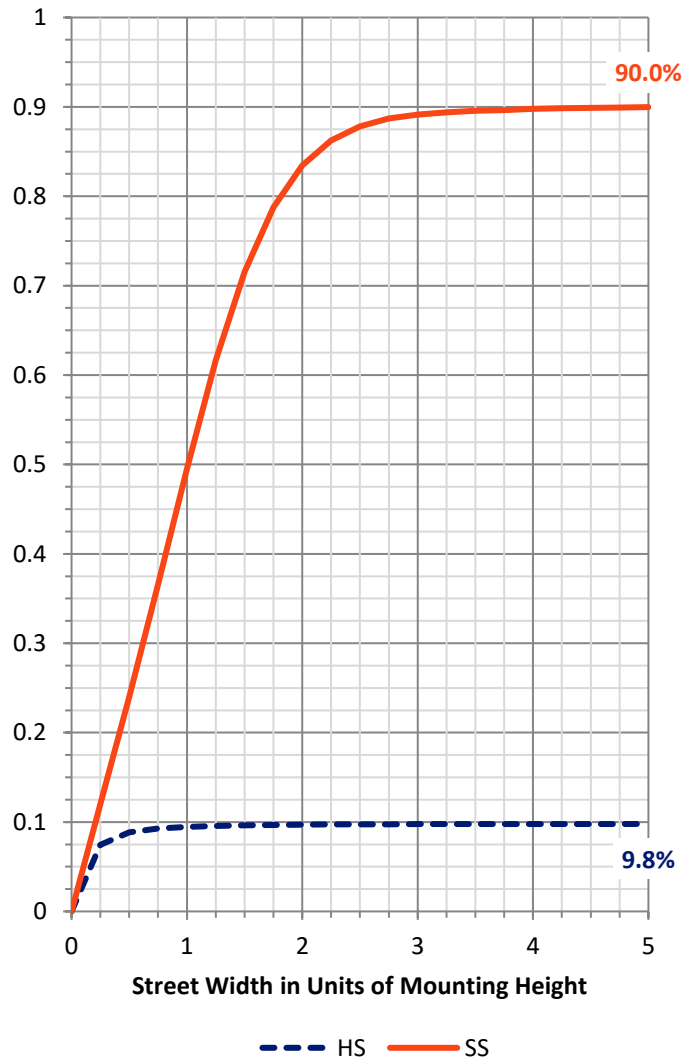
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	477.5	0.0	477.5
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	4361.5	0.0	4361.5
	% Fixture	90.1	0.0	90.1
Total	Lumens	4839.0	0.0	4839.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.2	0.6
10°-20°	99.3	2.1
20°-30°	192.3	4.0
30°-40°	383.6	7.9
40°-50°	784.2	16.2
50°-60°	1391.0	28.7
60°-70°	1466.5	30.3
70°-80°	475.4	9.8
80°-90°	19.4	0.4
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°	4839.0	100.0
0°-180°	4839.0	100.0

Coefficient of Utilization



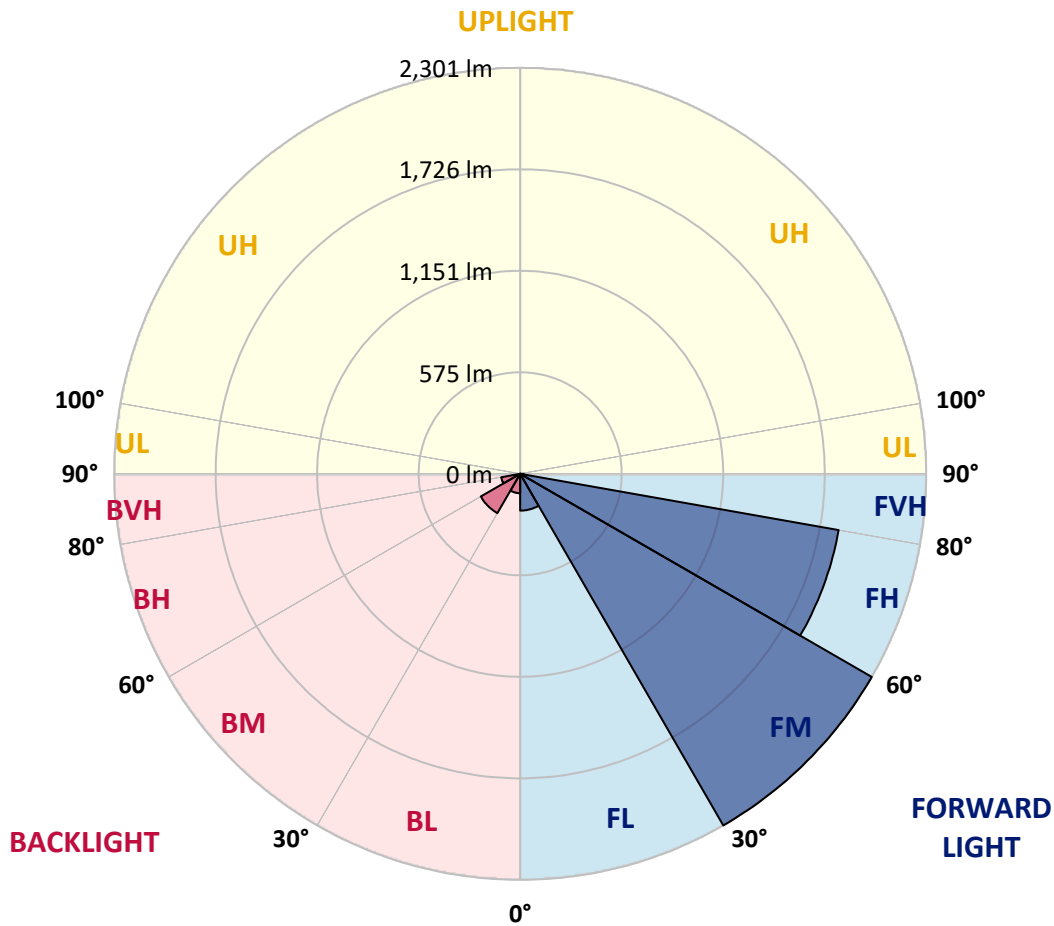
REPORT NUMBER: P596931
 CATALOG NUMBER: MSA-SA2A-835-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	208.8	4.3			
FM (30°-60°)	2301.2	47.6			
FH (60°-80°)	1832.9	37.9			G2/5000
FVH (80°-90°)	18.6	0.4			G1/100
BL (0°-30°)	110.1	2.3	B1/500		
BM (30°-60°)	257.6	5.3	B1/1000		
BH (60°-80°)	109.0	2.3	B0/110		G0/110
BVH (80°-90°)	0.8	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 III Short





REPORT NUMBER: P596931
 CATALOG NUMBER: MSA-SA2A-835-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7
2.5°	236.5	229.4	218.2	220.1	222.3	226.7	223.1	219.9	216.3	211.7	229.4
5°	285.5	273.8	272.7	270.3	268.4	268.1	272.5	271.1	273.0	281.7	290.7
7.5°	303.5	298.6	289.3	293.2	287.2	282.5	301.9	308.1	320.1	324.2	347.6
10°	301.6	294.5	298.3	300.2	304.3	321.2	333.5	340.3	350.6	373.0	368.4
12.5°	310.3	316.6	320.7	320.9	341.9	373.0	381.7	387.4	406.0	414.7	437.6
15°	339.5	349.8	343.3	346.0	352.8	390.7	411.1	423.7	449.8	478.2	483.9
17.5°	381.2	387.7	374.1	364.3	383.1	403.8	440.8	453.9	470.5	536.7	549.0
20°	433.7	444.9	415.5	376.5	401.3	425.8	466.2	472.4	490.1	576.5	595.9
22.5°	556.6	540.0	495.0	434.3	426.9	437.8	476.2	500.8	530.7	598.8	643.8
25°	677.9	672.1	605.9	538.1	489.0	464.5	515.5	529.1	578.1	652.0	676.8
27.5°	812.7	824.2	713.5	672.4	576.2	496.1	540.0	574.1	632.1	671.3	731.0
30°	990.6	972.4	842.7	801.6	691.8	583.0	603.5	605.7	690.9	735.1	791.7
32.5°	1130.1	1141.8	978.9	915.7	828.0	716.8	651.2	679.5	740.5	838.9	892.5
35°	1281.1	1280.0	1121.1	1036.1	921.4	826.1	792.6	813.3	889.8	1001.3	1015.4
37.5°	1506.7	1487.3	1299.9	1175.4	1077.8	996.4	970.7	943.2	1022.2	1128.5	1181.6
40°	1719.4	1652.7	1479.4	1331.7	1207.0	1173.7	1081.1	1098.0	1121.4	1261.7	1408.6
42.5°	1934.4	1893.0	1661.4	1537.7	1384.3	1305.3	1244.8	1236.9	1348.4	1514.6	1666.3
45°	2218.0	2091.3	1906.1	1797.4	1619.7	1540.4	1491.7	1520.8	1621.1	1863.8	1964.9
47.5°	2456.1	2339.5	2180.4	2015.3	1829.0	1918.1	1826.5	1780.5	1918.1	2169.0	2303.3
50°	2660.8	2530.8	2369.8	2247.4	2217.2	2302.8	2117.5	2134.4	2223.7	2518.5	2594.3
52.5°	2809.5	2672.7	2532.2	2473.0	2597.0	2640.1	2547.1	2509.8	2591.0	2816.6	2853.4
55°	2921.5	2781.5	2671.7	2753.1	2992.9	2978.7	3011.4	2883.9	2961.5	3127.5	3110.0
57.5°	2928.3	2762.4	2698.1	2829.1	3158.3	3377.6	3473.2	3256.3	3300.5	3370.5	3331.3
60°	2714.2	2549.1	2543.9	2730.0	3206.2	3480.8	3690.1	3584.4	3525.2	3577.3	3502.9
62.5°	2287.5	2172.0	2225.9	2431.6	3027.7	3423.9	3805.6	3932.8	3702.6	3714.3	3608.6
65°	1746.7	1625.4	1709.9	1969.0	2637.6	3360.1	3838.3	4069.1	3699.3	3753.3	3507.3
67.5°	1156.8	1086.5	1182.2	1467.7	2097.1	2966.2	3821.4	3926.0	3581.9	3601.0	3131.0
70°	597.2	580.0	657.4	882.7	1409.9	2278.8	3655.5	3598.3	3343.5	3102.1	2415.0
72.5°	191.3	192.1	266.5	403.2	760.1	1387.3	2809.8	2888.3	2675.5	2269.2	1474.5
75°	84.7	83.4	111.4	169.2	316.9	622.0	1745.6	1830.3	1665.8	1248.4	619.8
77.5°	61.0	59.1	71.4	98.9	156.9	210.9	818.4	883.3	755.2	432.7	141.9
80°	43.0	42.8	51.8	69.5	98.1	93.7	258.6	289.9	232.1	104.9	41.7
82.5°	24.2	25.1	36.0	49.0	59.7	46.9	72.7	80.1	78.2	55.9	18.3
85°	11.7	13.1	23.4	35.4	31.3	18.3	25.9	28.1	32.7	32.4	9.3
87.5°	0.0	0.0	9.5	16.1	8.4	2.7	7.9	9.0	8.7	10.4	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596931
 CATALOG NUMBER: MSA-SA2A-835-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7	193.7
2.5°	232.9	231.3	210.6	212.2	216.9	215.0	216.6	212.8	208.4	226.1	225.9
5°	294.5	282.3	275.7	269.7	270.8	258.6	265.6	268.9	268.4	278.4	281.2
7.5°	348.5	332.1	319.0	306.5	287.4	270.3	280.9	287.7	292.3	309.8	316.6
10°	373.8	360.5	355.3	330.8	317.1	306.5	293.7	284.4	288.3	283.6	288.3
12.5°	429.4	420.4	400.5	375.7	359.4	337.6	289.9	250.1	225.6	225.9	224.2
15°	480.1	479.5	449.8	408.7	361.3	299.2	224.8	174.6	151.5	144.9	142.8
17.5°	546.3	538.1	483.9	423.1	337.8	231.6	153.1	119.6	117.4	121.2	119.6
20°	588.5	576.5	500.8	402.1	278.4	156.7	115.5	106.0	112.5	118.0	116.6
22.5°	630.7	612.7	513.6	376.5	198.1	114.7	104.3	102.7	106.8	113.6	114.7
25°	653.9	650.3	538.6	328.6	135.7	100.5	100.5	100.0	101.4	106.3	105.4
27.5°	721.2	673.2	519.8	256.4	104.9	92.4	93.7	93.2	88.3	93.2	93.5
30°	763.1	741.1	521.2	182.5	92.4	81.7	85.3	80.9	73.6	77.6	76.8
32.5°	847.6	792.6	517.1	123.1	84.2	77.9	72.5	66.2	60.8	62.4	61.0
35°	945.9	904.0	461.8	98.9	78.5	68.9	60.2	53.9	48.2	49.6	49.3
37.5°	1141.6	1008.3	416.0	89.1	74.7	63.2	53.1	44.4	41.4	42.2	43.0
40°	1322.7	1182.4	330.8	84.7	68.1	56.4	43.9	37.6	35.7	36.2	37.1
42.5°	1593.6	1320.8	249.8	80.4	61.6	47.7	36.5	32.4	30.5	31.6	32.1
45°	1855.7	1438.5	186.6	76.6	56.1	41.1	30.8	28.1	25.9	26.7	27.8
47.5°	2117.5	1569.3	139.2	70.6	50.1	35.4	26.4	24.5	23.2	23.4	24.8
50°	2351.8	1630.3	109.5	63.2	45.2	30.8	24.0	22.1	21.5	21.8	22.9
52.5°	2524.0	1630.9	92.4	56.7	40.6	27.2	22.6	20.4	20.2	20.7	21.8
55°	2679.6	1587.3	80.1	50.9	36.5	24.8	21.5	19.6	19.6	20.2	21.3
57.5°	2782.8	1507.2	69.5	45.0	33.0	23.4	20.7	18.8	18.5	18.3	19.1
60°	2833.2	1397.9	58.8	39.5	29.7	22.6	20.2	16.6	16.3	15.8	16.3
62.5°	2801.3	1261.2	49.3	34.1	26.4	21.5	17.7	14.4	13.9	12.8	13.6
65°	2638.4	1095.0	41.7	29.2	22.9	18.3	15.0	12.3	10.9	9.5	9.3
67.5°	2305.2	889.6	34.9	25.1	19.6	15.0	12.3	10.9	8.4	7.4	7.1
70°	1727.6	607.3	28.9	21.5	16.3	12.8	10.4	9.8	7.9	7.1	6.5
72.5°	1013.5	327.8	24.2	18.8	13.9	10.6	8.4	9.0	7.9	6.5	6.0
75°	404.9	109.0	19.3	15.0	11.2	7.6	7.1	7.4	7.1	6.0	4.9
77.5°	92.4	34.3	15.0	11.7	8.7	4.9	5.7	6.3	6.3	4.9	3.5
80°	28.9	13.6	8.7	7.4	6.3	2.7	4.1	4.4	3.0	1.4	0.0
82.5°	9.3	3.8	3.0	3.0	2.7	0.5	0.8	0.5	0.0	0.0	0.0
85°	3.5	2.5	1.9	1.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.1	0.8	1.1	0.5	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)