

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: P596914

Luminaire Tested: **MSA-SA1D-835-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596914
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-835-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5732 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

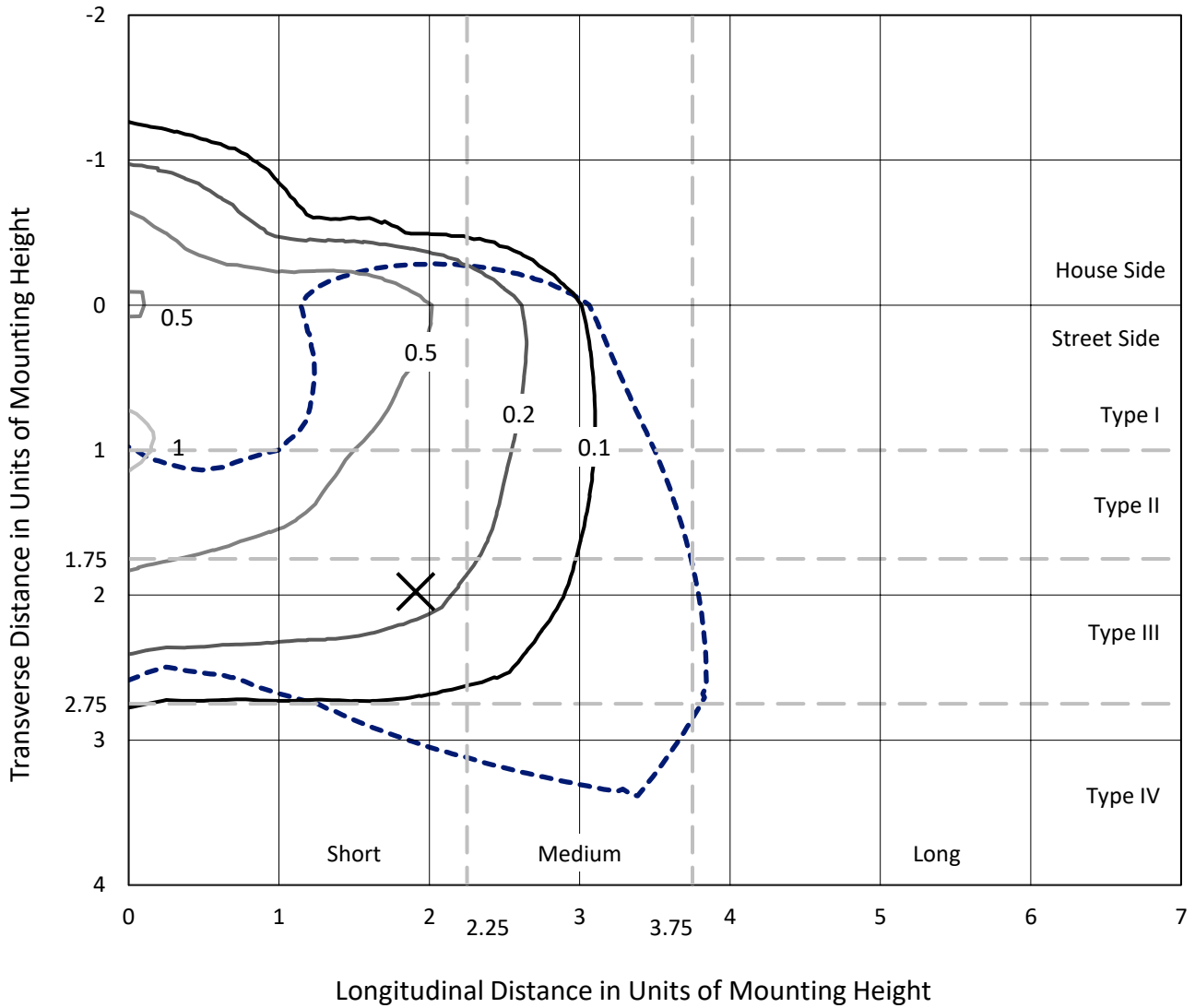
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596914
 CATALOG NUMBER: MSA-SA1D-835-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

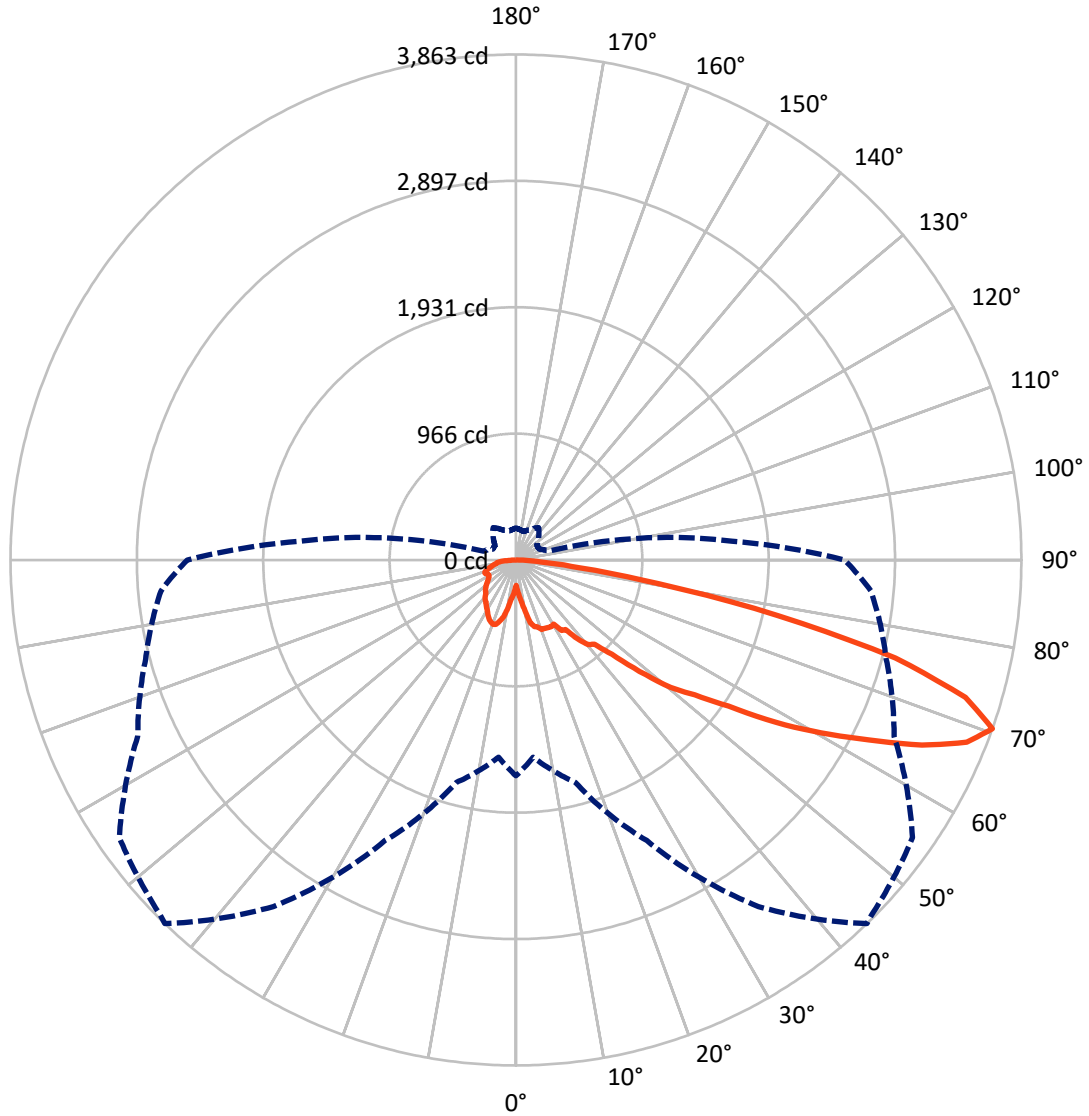
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P596914
CATALOG NUMBER: MSA-SA1D-835-U-T4W

Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P596914
 CATALOG NUMBER: MSA-SA1D-835-U-T4W

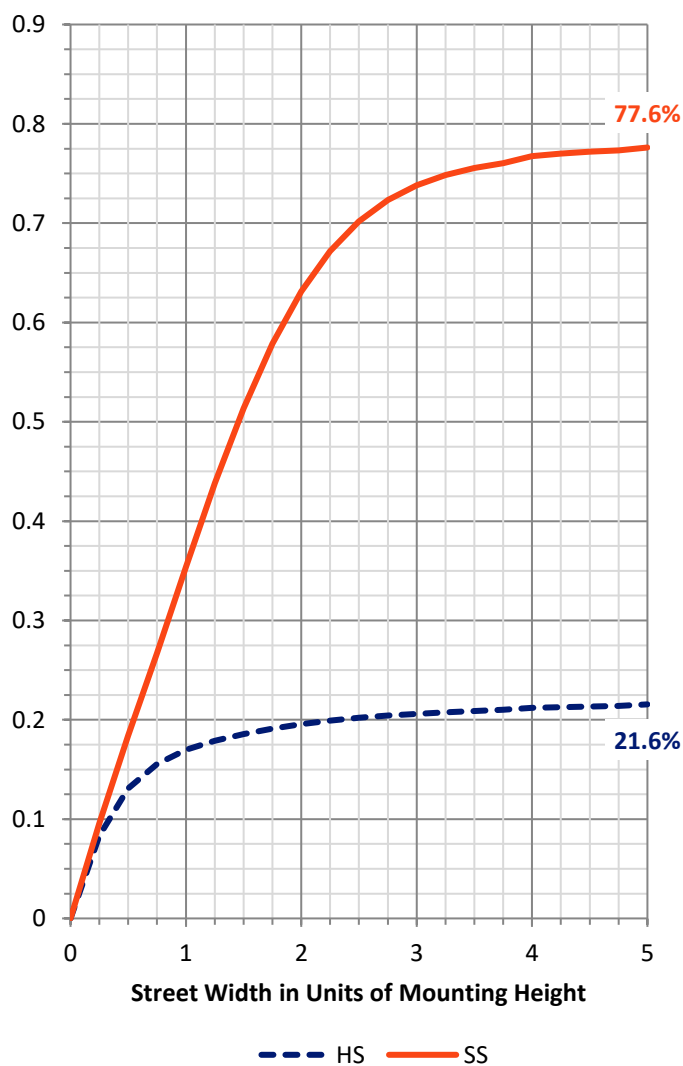
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1264.7	0.0	1264.7
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	4467.3	0.0	4467.3
	% Fixture	77.9	0.0	77.9
Total	Lumens	5732.0	0.0	5732.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.5	0.5
10°-20°	140.7	2.5
20°-30°	262.9	4.6
30°-40°	422.0	7.4
40°-50°	712.2	12.4
50°-60°	1269.2	22.1
60°-70°	1736.1	30.3
70°-80°	1020.9	17.8
80°-90°	137.5	2.4
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°	5732.0	100.0
0°-180°	5732.0	100.0

Coefficient of Utilization

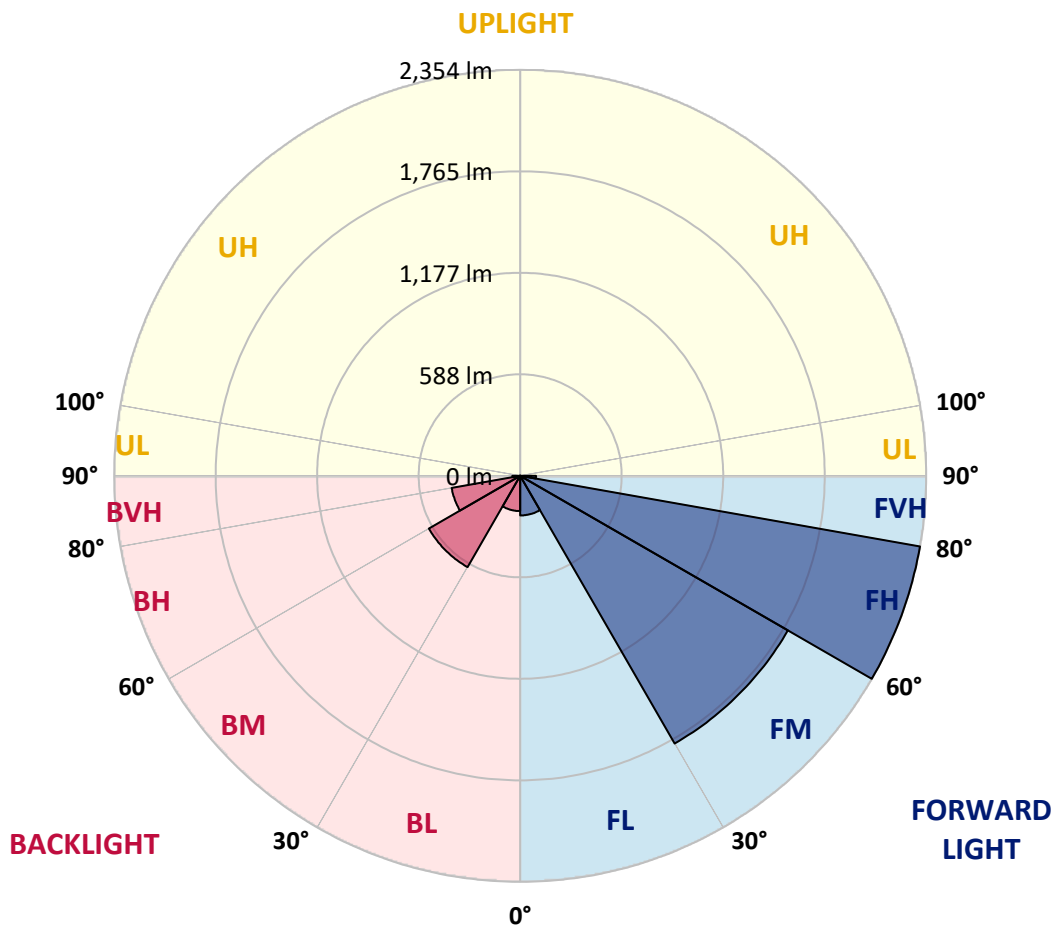


REPORT NUMBER: P596914
 CATALOG NUMBER: MSA-SA1D-835-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	229.7	4.0			
FM (30°-60°)	1792.2	31.3			
FH (60°-80°)	2353.7	41.1			G2/5000
FVH (80°-90°)	91.6	1.6			G1/100
BL (0°-30°)	204.4	3.6	B1/500		
BM (30°-60°)	611.2	10.7	B1/1000		
BH (60°-80°)	403.3	7.0	B1/500		G1/500
BVH (80°-90°)	45.8	0.8			G1/100
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





REPORT NUMBER: P596914

CATALOG NUMBER: MSA-SA1D-835-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8
2.5°	236.4	231.7	220.5	224.2	228.9	230.8	230.3	229.9	222.6	220.0	232.9
5°	321.3	310.9	302.7	299.4	288.6	280.2	275.0	288.6	286.5	290.0	299.0
7.5°	401.2	394.6	376.0	369.5	347.4	332.8	331.2	342.0	344.8	339.1	354.4
10°	452.7	441.4	437.6	421.9	406.6	404.2	402.8	397.9	391.1	390.6	377.0
12.5°	492.6	498.5	501.5	483.5	483.9	492.4	487.9	467.9	456.4	436.2	437.9
15°	564.3	572.8	548.6	537.0	514.9	527.6	526.0	509.3	507.7	494.5	479.2
17.5°	626.8	630.6	590.2	563.8	556.3	538.0	542.9	543.4	521.8	545.3	531.6
20°	632.0	645.4	598.9	546.4	569.0	566.7	567.4	562.7	534.2	573.0	567.8
22.5°	657.4	636.9	595.1	556.8	562.7	566.2	569.5	563.8	562.2	583.8	599.6
25°	652.7	646.1	603.8	571.4	572.1	572.8	574.4	591.3	589.5	618.8	627.1
27.5°	696.6	686.5	606.4	598.4	580.0	576.1	564.8	600.0	627.5	626.8	672.2
30°	780.3	770.0	666.5	643.3	610.1	569.2	590.9	637.9	659.5	666.8	724.4
32.5°	911.0	927.9	785.0	691.2	650.1	641.2	638.8	634.1	687.7	723.7	776.1
35°	1098.5	1085.1	924.6	793.9	692.2	653.8	659.0	687.7	751.4	774.7	823.1
37.5°	1313.3	1285.6	1103.5	910.3	813.4	765.5	748.3	776.1	790.2	808.5	907.4
40°	1531.7	1464.0	1279.0	1063.3	886.3	850.1	835.1	801.0	834.1	871.2	997.0
42.5°	1742.5	1690.1	1470.1	1245.9	1009.0	879.9	871.7	838.3	941.1	980.3	1126.3
45°	1963.4	1841.9	1665.9	1452.0	1188.3	1026.4	1014.1	954.2	1085.8	1167.6	1308.6
47.5°	2112.0	1999.4	1845.2	1619.3	1338.5	1271.3	1248.0	1145.5	1264.9	1371.2	1590.4
50°	2252.5	2136.6	1974.7	1802.4	1610.4	1533.1	1483.5	1312.9	1488.0	1660.9	1951.7
52.5°	2453.7	2350.0	2125.1	1986.9	1902.6	1712.4	1675.5	1581.7	1748.8	1982.2	2346.5
55°	2668.7	2527.5	2323.7	2247.1	2213.0	1969.5	1939.5	1879.8	2096.2	2311.0	2730.3
57.5°	2763.7	2616.3	2504.0	2458.2	2455.3	2343.2	2308.7	2267.1	2451.3	2593.1	3091.6
60°	2839.1	2681.0	2636.1	2661.7	2754.8	2681.0	2636.1	2599.4	2740.4	2871.8	3386.3
62.5°	2825.3	2666.6	2689.7	2767.7	3005.3	3026.9	2992.4	2903.5	3026.9	3100.3	3555.3
65°	2601.5	2454.9	2589.1	2774.3	3238.2	3411.0	3409.1	3176.6	3219.4	3219.4	3537.4
67.5°	2209.5	2057.7	2277.4	2716.2	3399.2	3715.3	3715.8	3466.2	3237.0	3207.4	3261.0
70°	1649.9	1512.4	1759.4	2365.6	3233.0	3862.7	3841.3	3699.8	3188.6	2929.9	2724.0
72.5°	985.5	896.6	1123.9	1722.1	2757.8	3591.7	3648.6	3430.7	2919.0	2436.5	1947.2
75°	447.5	408.9	528.1	989.2	1968.8	2995.9	3057.7	2895.3	2318.6	1752.4	1125.3
77.5°	191.5	181.2	230.6	438.8	1085.6	2048.7	2175.4	2069.2	1570.9	1018.4	497.8
80°	123.2	116.6	141.7	211.1	504.1	1107.0	1216.0	1176.3	800.3	396.0	175.3
82.5°	73.6	71.4	94.7	132.6	275.0	487.2	549.0	563.6	332.3	177.7	100.4
85°	40.2	40.7	51.9	80.4	165.0	189.7	203.1	220.9	156.5	102.9	48.7
87.5°	13.4	15.5	20.9	32.7	58.8	53.6	53.8	62.5	66.0	42.8	15.5
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: P596914
 CATALOG NUMBER: MSA-SA1D-835-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8	194.8
2.5°	235.0	230.8	220.0	220.7	224.7	225.6	226.8	220.0	218.6	231.5	232.7
5°	300.4	286.5	280.2	278.0	271.9	269.8	281.1	286.3	291.4	301.5	306.5
7.5°	352.8	337.3	325.7	315.2	306.2	301.1	320.1	334.7	343.6	364.3	373.7
10°	376.7	363.4	359.1	350.7	357.5	373.0	376.5	377.0	396.7	396.3	400.3
12.5°	424.5	415.8	401.9	405.0	422.8	438.8	434.3	441.1	448.2	465.1	457.4
15°	467.9	465.6	452.7	454.8	458.3	478.3	480.9	487.7	498.5	511.9	502.7
17.5°	521.5	520.6	489.1	486.3	494.5	514.0	507.9	495.9	531.6	546.0	542.2
20°	558.0	550.9	510.5	498.5	519.4	522.0	514.9	495.9	526.9	558.2	566.7
22.5°	588.3	580.0	538.4	514.9	510.7	511.9	511.9	508.4	523.6	549.3	549.0
25°	612.7	620.5	567.6	545.0	522.5	494.3	490.7	493.8	502.5	551.8	550.2
27.5°	674.1	652.7	577.5	560.5	514.2	469.8	479.5	484.2	487.0	541.0	550.0
30°	714.0	720.6	612.7	569.7	502.3	442.6	445.8	459.5	475.9	539.9	542.4
32.5°	767.8	753.7	667.7	554.4	470.3	426.1	420.0	438.3	462.8	520.8	527.9
35°	817.9	834.6	691.0	551.6	448.0	401.4	408.0	414.4	439.7	499.7	507.9
37.5°	935.4	897.3	756.3	538.0	429.4	389.0	381.9	391.6	413.2	459.5	478.5
40°	1024.7	1027.1	770.4	520.8	393.9	371.1	356.1	365.7	374.9	411.8	420.0
42.5°	1192.3	1141.1	805.0	483.2	371.6	344.3	335.9	340.1	341.5	357.0	370.6
45°	1405.5	1285.4	818.6	432.7	342.2	333.3	316.1	314.0	306.2	308.4	320.3
47.5°	1700.4	1510.5	808.7	378.9	316.1	318.9	294.3	284.6	273.8	276.4	287.7
50°	2081.9	1798.2	808.0	333.3	298.3	300.1	279.9	262.5	251.7	257.1	267.0
52.5°	2509.9	2086.8	811.3	302.0	278.7	277.8	270.5	249.4	240.7	246.3	257.6
55°	2919.3	2335.0	835.8	282.3	258.5	260.2	263.0	245.1	235.5	240.7	252.4
57.5°	3275.6	2531.0	826.6	261.4	239.7	247.2	254.8	239.3	232.0	239.5	251.2
60°	3524.7	2622.0	754.2	241.4	225.9	236.2	250.8	238.6	237.6	253.8	267.9
62.5°	3615.7	2588.4	613.2	225.6	217.6	234.8	259.9	254.1	255.0	275.0	294.5
65°	3482.9	2411.6	457.4	215.5	211.3	241.6	281.1	263.2	250.3	266.8	284.6
67.5°	3105.2	2097.4	334.2	206.8	204.0	252.4	300.6	262.3	238.3	255.0	269.6
70°	2512.2	1655.5	258.8	195.8	194.4	245.1	302.5	255.2	225.4	236.2	244.4
72.5°	1721.3	1133.5	214.3	185.2	177.7	217.2	287.2	239.5	209.9	216.2	223.0
75°	962.0	636.2	180.3	172.0	155.6	193.4	269.3	230.1	198.4	200.2	209.6
77.5°	431.7	275.2	153.0	154.6	135.6	171.1	246.1	215.1	180.7	176.5	185.9
80°	163.3	134.2	124.1	130.7	114.0	148.3	221.9	201.4	162.2	156.8	162.2
82.5°	94.7	81.3	92.1	100.6	90.5	136.3	211.8	189.0	142.9	129.3	134.0
85°	44.0	42.1	55.2	65.3	63.2	106.2	181.2	142.2	101.8	86.0	95.2
87.5°	11.5	12.9	19.5	23.0	23.5	36.4	69.8	52.9	39.7	30.1	28.9
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)