

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: P366890

Luminaire Tested: **MSA-SA1C-730-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-730-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5674 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

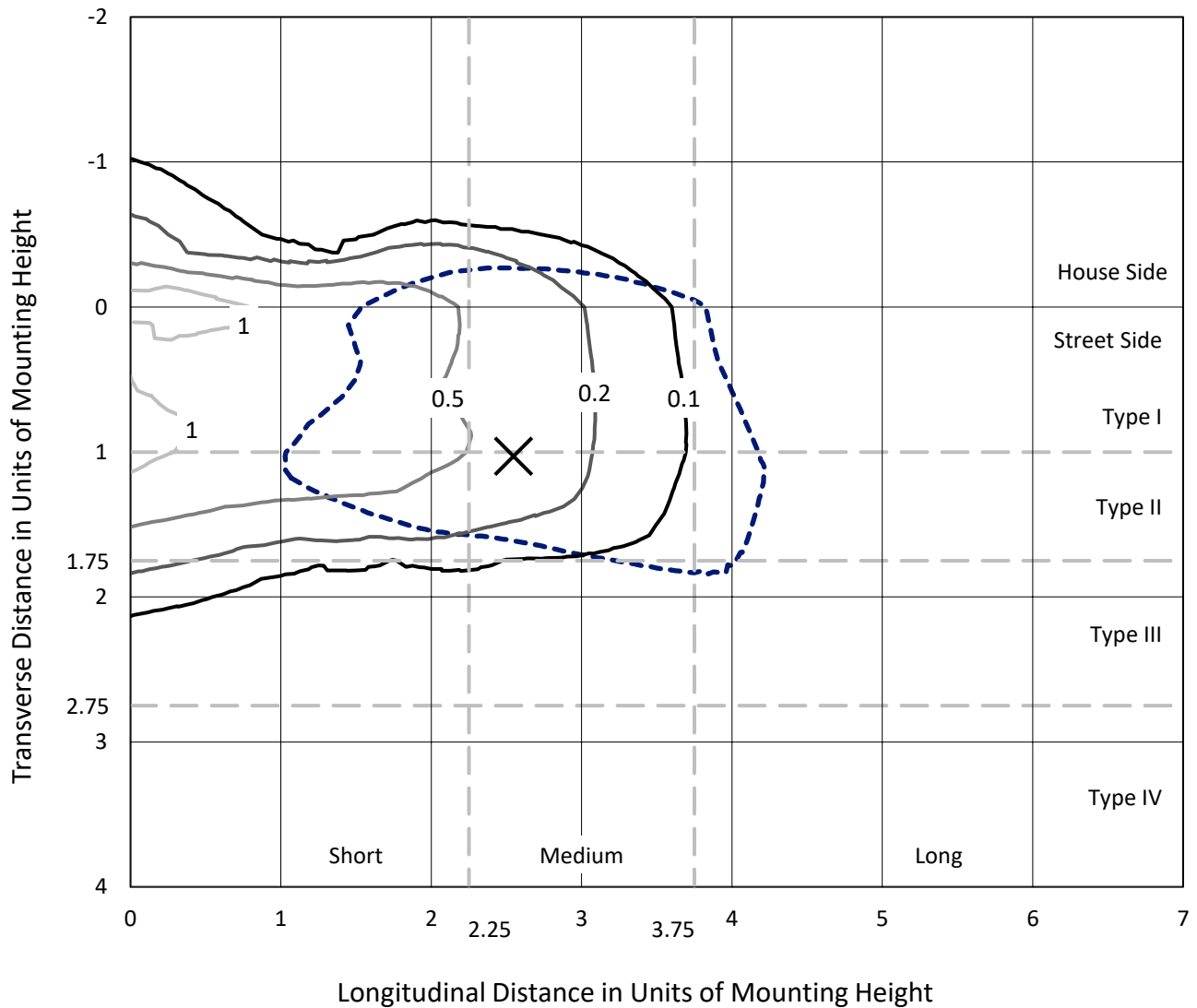
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

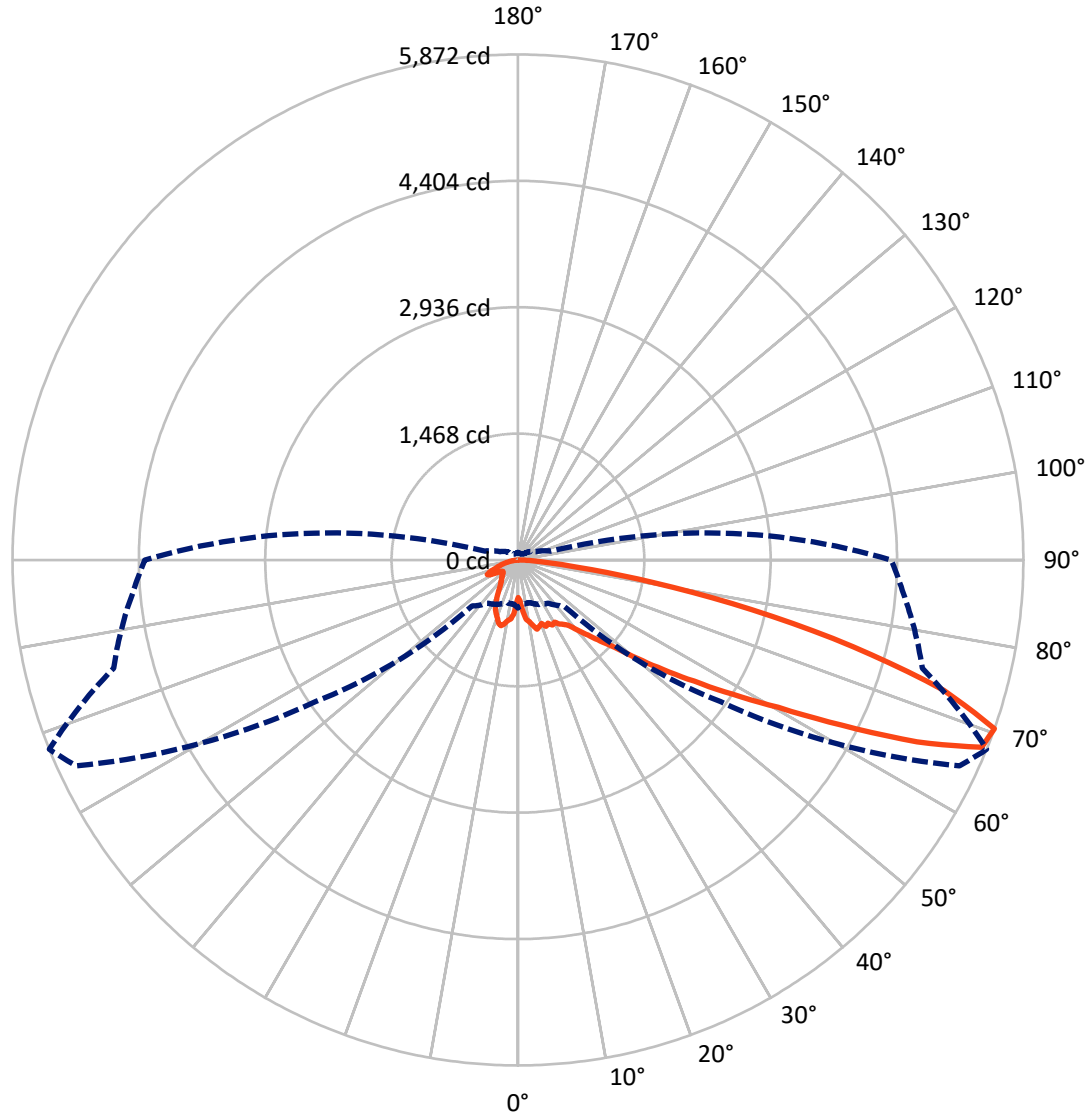
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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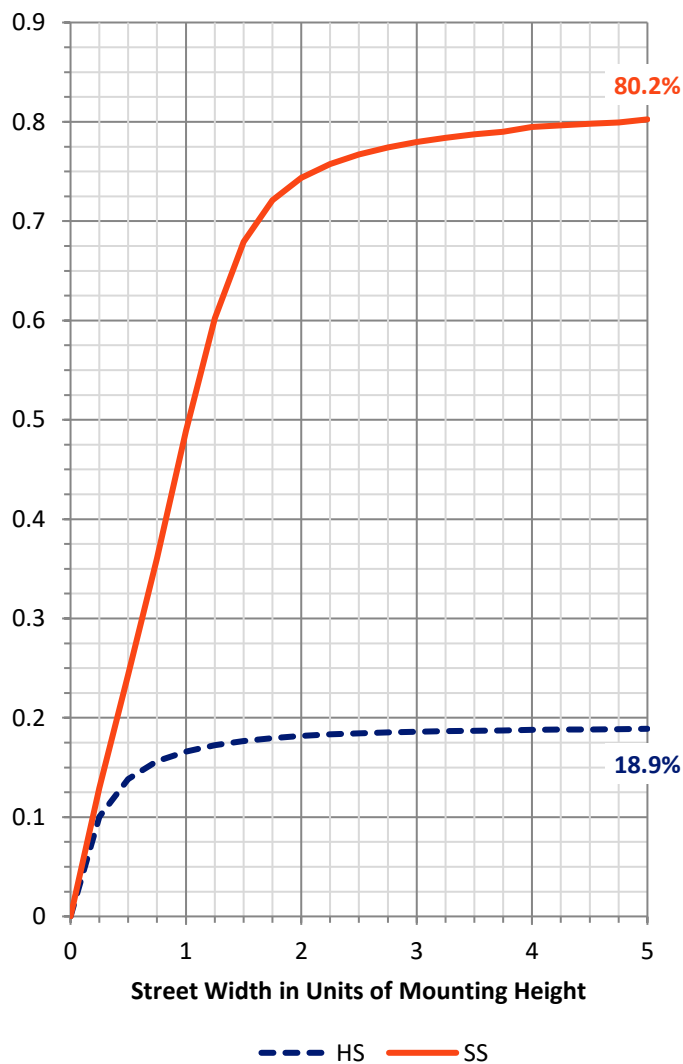
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1083.3	0.0	1083.3
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	4590.7	0.0	4590.7
	% Fixture	80.9	0.0	80.9
Total	Lumens	5674.0	0.0	5674.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	1.0
10°-20°	189.4	3.3
20°-30°	288.1	5.1
30°-40°	440.0	7.8
40°-50°	756.6	13.3
50°-60°	1252.3	22.1
60°-70°	1543.9	27.2
70°-80°	991.8	17.5
80°-90°	153.8	2.7
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°	5674.0	100.0
0°-180°	5674.0	100.0

Coefficient of Utilization



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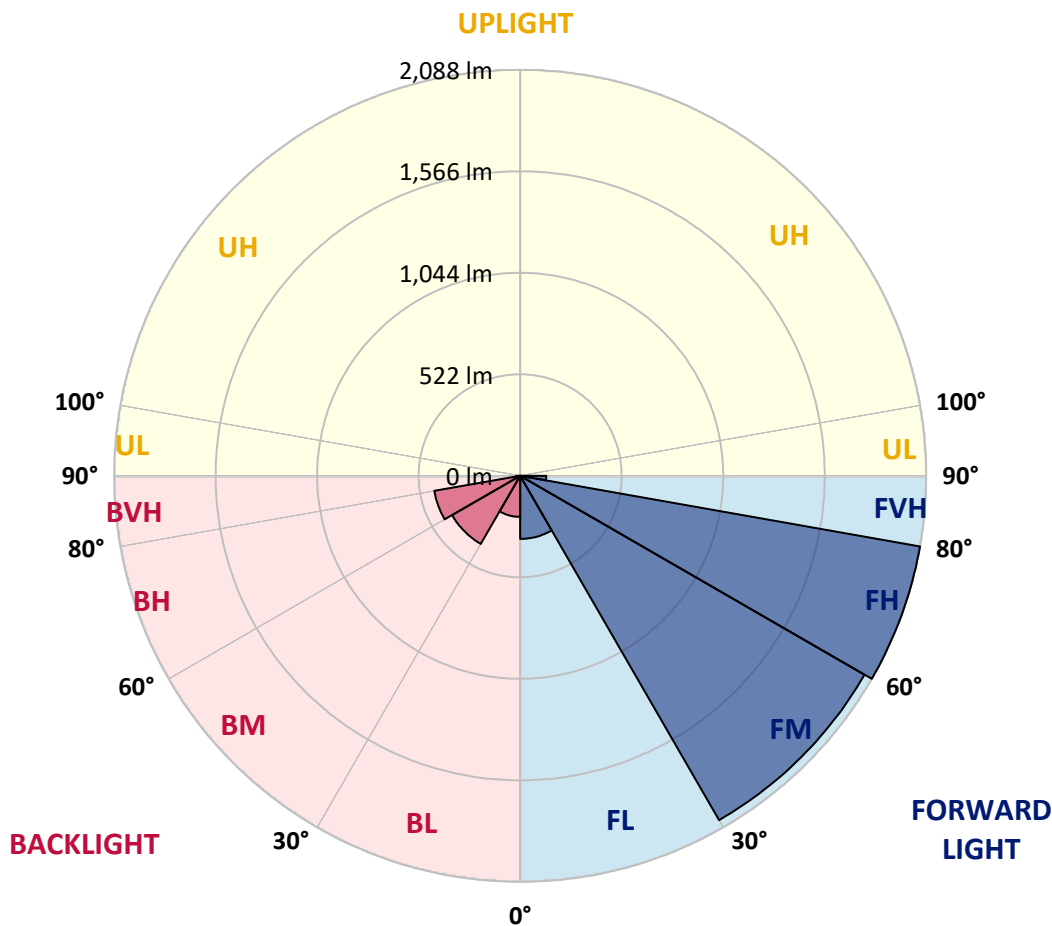
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	324.5	5.7			
FM (30°-60°)	2044.6	36.0			
FH (60°-80°)	2087.6	36.8			G2/5000
FVH (80°-90°)	134.1	2.4			G2/225
BL (0°-30°)	211.1	3.7	B1/500		
BM (30°-60°)	404.4	7.1	B1/1000		
BH (60°-80°)	448.1	7.9	B1/500		G1/500
BVH (80°-90°)	19.7	0.3			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0
2.5°	499.9	479.7	459.3	469.2	485.2	499.2	496.3	498.0	478.7	476.1	526.7
5°	588.9	554.3	553.5	554.0	555.4	539.3	578.7	599.1	603.6	624.5	674.2
7.5°	619.8	605.8	591.5	598.7	580.6	582.3	630.7	683.9	696.5	711.7	779.6
10°	613.4	600.1	604.4	605.5	608.9	635.7	666.8	717.9	728.6	777.0	794.6
12.5°	614.3	612.0	631.9	632.6	668.2	716.4	728.8	775.8	780.1	815.7	889.1
15°	646.9	663.3	652.1	658.0	664.9	722.6	740.4	807.9	833.5	879.4	934.4
17.5°	710.3	715.0	681.5	672.8	695.3	712.9	753.5	782.7	809.5	937.5	1013.5
20°	725.0	737.8	697.9	652.6	700.3	724.8	753.0	766.3	787.2	946.1	1053.9
22.5°	788.2	761.6	713.4	673.9	689.6	713.4	733.8	783.9	838.7	921.6	1094.3
25°	824.0	808.6	765.6	723.3	710.0	710.7	750.2	795.1	814.0	957.5	1102.3
27.5°	910.7	886.0	789.4	781.3	731.2	692.2	752.8	822.6	855.8	929.5	1141.8
30°	1019.2	1000.5	873.7	863.0	786.5	718.6	786.0	843.0	838.3	947.7	1169.1
32.5°	1107.1	1138.4	1010.4	926.1	871.8	806.7	775.6	839.5	886.7	990.3	1215.4
35°	1232.5	1261.9	1117.1	1060.1	942.0	847.5	848.5	888.4	917.6	1039.9	1267.1
37.5°	1449.5	1423.6	1307.0	1217.0	1141.5	1000.5	958.2	944.2	967.7	1100.7	1368.5
40°	1606.0	1584.2	1446.9	1395.6	1248.6	1166.7	1050.8	1037.5	1079.1	1163.4	1451.4
42.5°	1791.5	1752.5	1624.8	1582.5	1428.9	1281.2	1164.3	1171.9	1192.1	1281.6	1563.5
45°	1980.3	1885.8	1813.3	1810.0	1707.4	1503.4	1346.5	1340.3	1341.0	1455.7	1689.4
47.5°	2130.1	2045.1	1962.2	1922.8	1871.0	1887.9	1611.0	1538.6	1516.7	1630.9	1878.2
50°	2231.5	2133.7	2039.9	2030.6	2168.8	2259.8	1859.4	1782.0	1795.5	1881.7	2129.9
52.5°	2233.6	2117.5	2019.7	2084.5	2410.1	2540.2	2287.3	2071.0	2114.2	2172.9	2458.3
55°	2078.3	1957.9	1894.3	2042.0	2504.4	2872.9	2888.6	2534.0	2484.2	2505.8	2850.8
57.5°	1750.9	1629.3	1592.2	1769.2	2325.5	3193.7	3614.8	3087.4	2941.1	2850.8	3253.1
60°	1318.0	1212.8	1189.7	1302.5	1928.0	3099.5	4202.8	3776.0	3478.0	3236.2	3656.6
62.5°	988.4	912.8	878.2	894.3	1334.1	2792.9	4588.9	4646.1	4224.1	3657.0	4050.8
65°	803.1	742.1	711.2	690.3	829.7	2159.6	4519.1	5378.5	5095.6	4099.0	4357.6
67.5°	670.9	616.7	602.5	622.9	655.9	1252.9	3972.9	5788.1	5807.3	4535.0	4536.9
70°	556.9	516.7	511.5	569.5	612.9	756.1	2869.6	5659.4	5871.7	4862.0	4494.8
72.5°	430.3	408.7	408.0	498.9	608.9	644.5	1708.8	4889.0	5174.2	4757.5	4083.5
75°	298.5	283.5	294.9	410.1	594.9	653.8	975.3	3808.1	4021.6	4048.4	3271.2
77.5°	205.4	192.8	205.2	296.6	531.2	669.4	682.3	2753.5	2777.2	2714.8	1873.6
80°	143.0	134.2	143.7	209.9	413.4	662.5	580.9	1733.5	1590.6	1211.6	599.9
82.5°	88.6	86.0	96.4	149.6	291.1	602.7	550.5	894.6	683.0	334.4	214.2
85°	46.5	42.7	56.0	97.6	182.1	473.0	515.8	408.2	263.6	118.7	86.0
87.5°	13.8	12.3	21.6	39.4	77.2	212.1	295.2	173.1	98.3	34.9	26.8
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°	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0	435.0
2.5°	530.3	527.7	492.5	497.0	504.6	506.5	506.3	493.5	479.9	517.7	516.5
5°	675.4	651.9	634.3	630.5	608.9	587.3	594.9	592.3	588.9	606.0	608.2
7.5°	779.9	747.3	726.9	674.4	624.5	581.3	595.1	599.4	590.8	621.7	631.0
10°	807.4	781.8	759.7	692.2	664.7	639.5	602.2	559.7	554.0	536.2	538.3
12.5°	878.4	874.8	799.6	740.2	704.3	654.2	573.7	522.2	478.0	480.2	467.3
15°	934.4	936.3	845.9	762.8	666.6	590.1	495.4	431.2	385.9	376.9	367.6
17.5°	1009.7	1005.9	849.7	735.7	613.9	501.8	385.7	322.0	314.4	319.6	311.6
20°	1042.5	1009.0	825.4	668.5	531.5	381.1	291.4	257.7	272.4	293.3	293.8
22.5°	1071.9	1014.7	812.9	614.3	421.7	277.1	233.9	227.7	245.1	273.3	275.7
25°	1070.8	1041.1	790.3	559.7	327.0	216.3	203.3	207.8	228.4	257.9	259.6
27.5°	1124.7	1020.9	731.6	488.0	246.3	185.2	188.6	196.9	206.6	234.6	240.1
30°	1124.2	1058.4	702.2	400.8	197.8	169.8	178.3	185.5	193.5	219.2	222.3
32.5°	1150.8	1033.9	684.4	311.8	177.4	166.0	168.1	175.3	186.9	204.2	206.4
35°	1182.8	1061.7	627.4	247.7	169.8	162.7	164.3	168.4	179.1	195.0	197.1
37.5°	1285.7	1067.0	604.8	208.7	169.3	161.2	161.0	163.1	175.3	189.7	196.2
40°	1325.8	1114.7	539.1	195.0	167.7	161.2	157.9	159.1	169.1	187.6	192.6
42.5°	1422.0	1130.6	490.4	190.2	167.7	158.4	153.2	155.1	166.7	183.1	190.9
45°	1521.0	1153.2	432.4	189.3	167.4	158.2	148.2	152.5	162.0	175.7	184.3
47.5°	1662.1	1234.4	374.5	186.4	165.5	159.3	147.0	146.8	155.1	166.9	175.0
50°	1892.2	1361.2	329.6	182.9	165.8	158.4	144.6	141.3	146.8	157.2	165.0
52.5°	2212.5	1577.3	312.0	181.0	163.9	154.6	140.6	135.4	138.4	146.8	154.4
55°	2584.4	1869.1	329.4	181.0	160.1	148.7	134.9	128.7	130.4	136.1	143.4
57.5°	3019.0	2231.7	413.2	178.3	155.3	141.5	128.0	120.9	121.3	126.3	133.0
60°	3472.8	2636.9	601.0	176.2	152.0	133.7	119.9	112.6	111.8	116.6	122.5
62.5°	3927.3	3010.6	798.6	181.2	151.0	127.0	111.4	104.0	103.8	108.0	113.0
65°	4288.7	3266.2	847.8	201.4	157.2	119.4	102.6	95.7	95.2	98.8	104.2
67.5°	4466.1	3303.2	644.0	226.5	170.3	112.3	94.0	87.6	87.2	91.0	95.7
70°	4334.8	3050.1	397.5	229.2	169.6	104.0	85.3	79.8	78.8	82.9	86.4
72.5°	3848.9	2668.0	302.1	202.8	146.8	92.1	76.5	71.7	70.3	73.9	77.2
75°	3089.3	2118.2	242.0	163.6	115.6	77.7	67.7	63.2	61.5	64.8	67.7
77.5°	1799.6	1191.6	176.9	127.8	87.4	63.4	57.7	53.7	51.8	55.3	57.5
80°	585.1	397.1	111.1	91.7	63.9	49.6	46.8	43.9	42.0	44.4	45.1
82.5°	210.2	147.7	61.5	56.3	42.5	35.6	35.4	33.7	31.3	32.3	32.3
85°	93.1	67.4	36.6	30.2	25.4	19.0	22.3	21.1	18.8	18.3	17.6
87.5°	26.1	22.3	13.3	10.2	8.3	3.1	7.1	6.4	5.2	4.7	3.3
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)