

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: P565303

Luminaire Tested: **MSA-SA1D-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565303
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-730-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

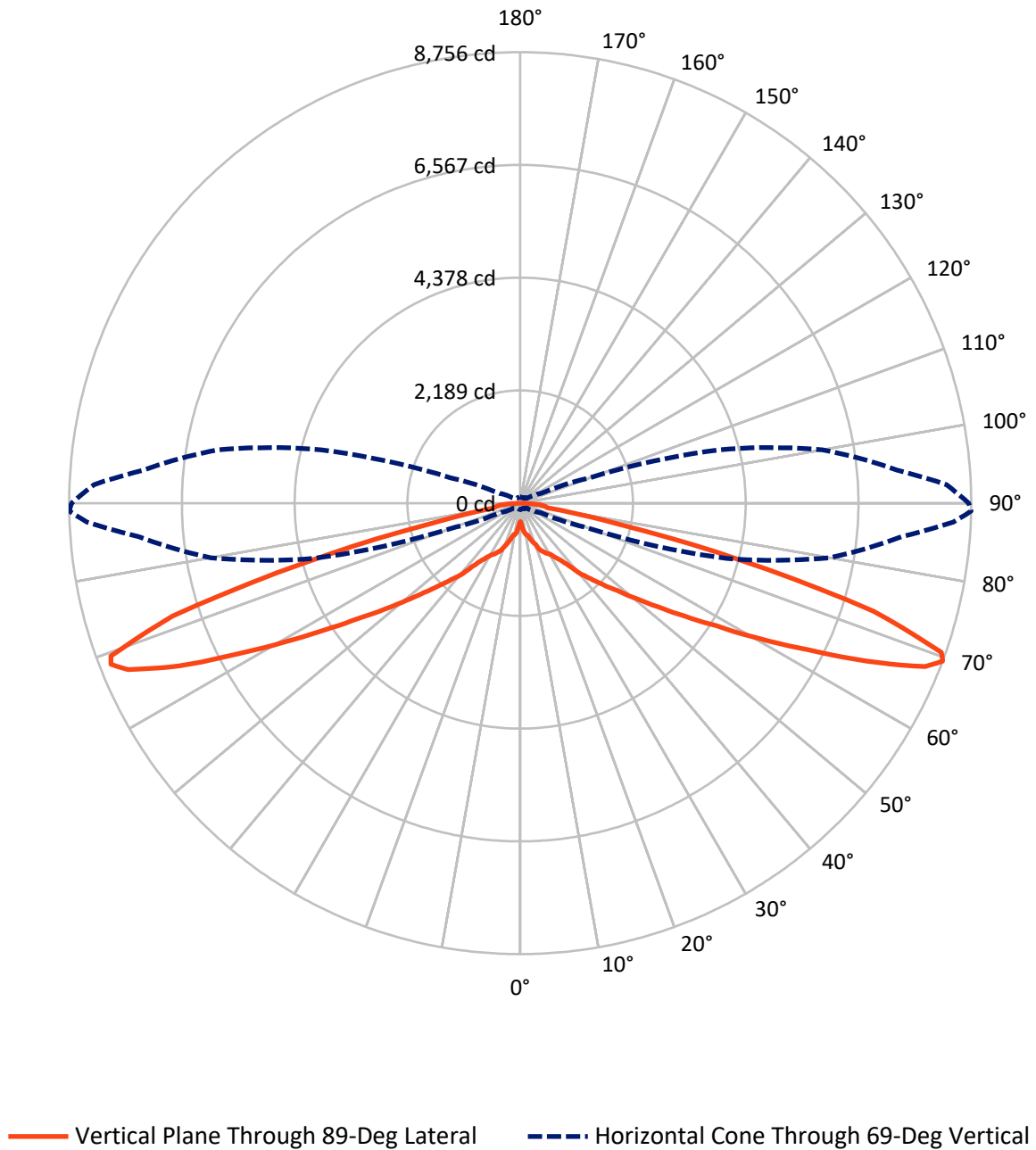
Lumens per Lamp: N/A
Luminaire Lumens: 5647 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

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



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Luminous Intensity Polar Plot



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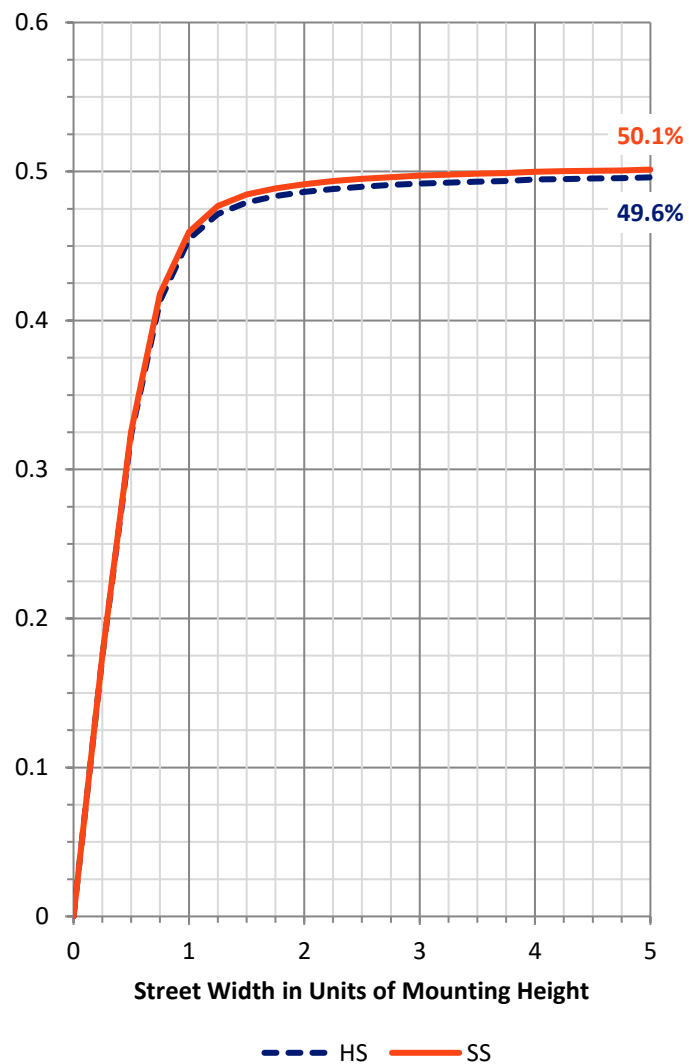
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2823.4	0.0	2823.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2823.6	0.0	2823.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	5647.0	0.0	5647.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	0.8
10°-20°	207.1	3.7
20°-30°	413.1	7.3
30°-40°	624.8	11.1
40°-50°	907.0	16.1
50°-60°	1191.6	21.1
60°-70°	1453.6	25.7
70°-80°	734.9	13.0
80°-90°	70.0	1.2
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°	5647.0	100.0
0°-180°	5647.0	100.0

Coefficient of Utilization



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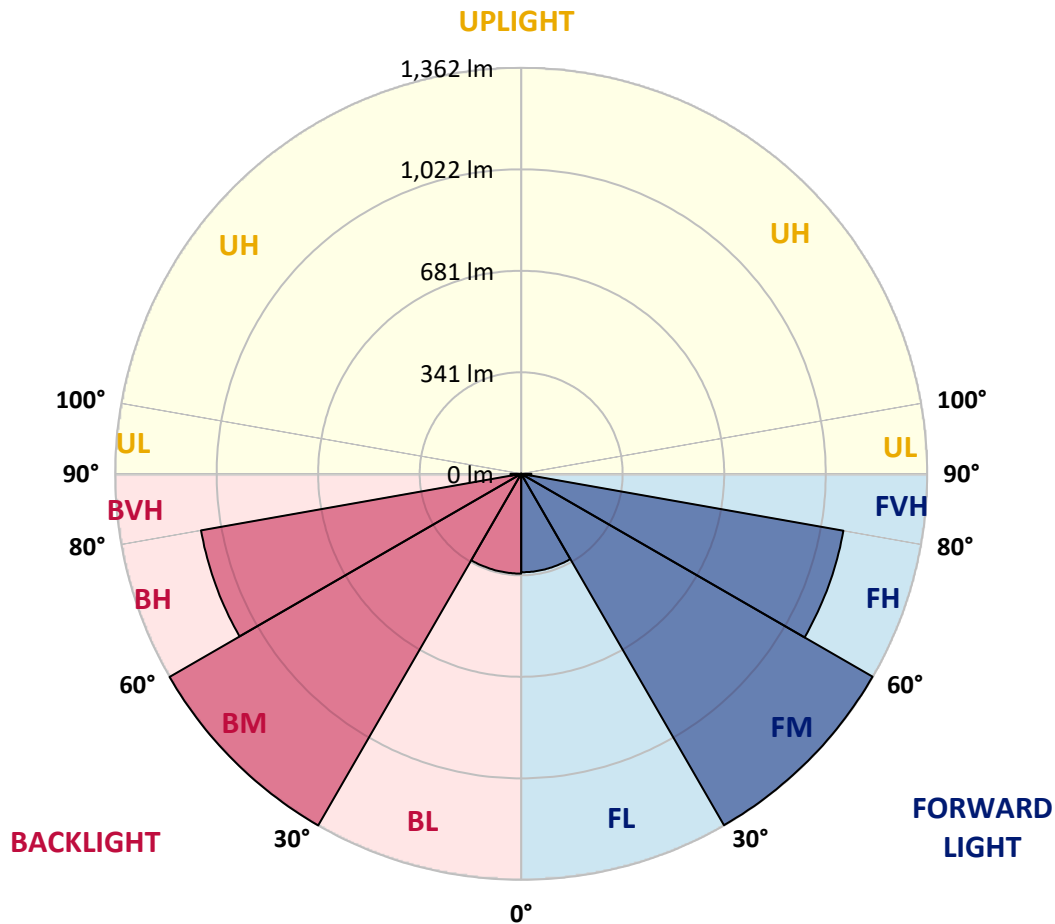
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	330.2	5.8			
FM	(30°-60°)	1361.2	24.1			
FH	(60°-80°)	1097.7	19.4			G1/1800
FVH	(80°-90°)	34.4	0.6			G1/100
BL	(0°-30°)	334.9	5.9	B1/500		
BM	(30°-60°)	1362.1	24.1	B2/2500		
BH	(60°-80°)	1090.7	19.3	B3/2500		G3/2500
BVH	(80°-90°)	35.7	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7
2.5°	419.7	371.4	367.1	355.6	364.0	367.1	359.8	349.3	360.8	367.1	355.6
5°	529.2	457.6	433.4	413.4	373.5	356.6	373.5	416.6	421.9	448.2	440.8
7.5°	582.8	571.2	540.7	474.5	410.3	374.5	419.7	481.8	513.4	538.6	564.9
10°	622.8	616.5	562.8	515.5	489.2	491.3	492.3	512.3	539.7	581.8	596.5
12.5°	632.3	630.1	638.6	628.0	630.1	641.7	630.1	624.9	640.7	654.3	639.6
15°	693.3	692.2	695.4	697.5	739.6	757.4	739.6	723.8	712.2	700.6	724.8
17.5°	735.3	730.1	731.1	751.1	798.5	847.9	838.4	817.4	791.1	806.9	826.9
20°	758.5	749.0	755.3	763.8	843.7	898.4	904.7	876.3	860.5	880.5	897.4
22.5°	780.6	765.9	743.8	752.2	825.8	904.7	935.2	927.9	939.4	945.8	942.6
25°	754.3	763.8	739.6	763.8	838.4	911.0	972.1	1015.2	1016.2	1013.1	1036.2
27.5°	738.5	731.1	690.1	752.2	814.2	859.5	1015.2	1087.8	1109.9	1042.5	1087.8
30°	711.2	722.7	667.0	718.5	797.4	873.2	1064.6	1168.8	1136.2	1127.7	1138.3
32.5°	694.3	687.0	660.7	689.1	749.0	914.2	1096.2	1216.1	1257.1	1237.2	1235.1
35°	667.0	672.2	631.2	661.7	745.9	879.5	1117.2	1335.0	1398.1	1382.3	1369.7
37.5°	671.2	653.3	623.8	645.9	725.9	898.4	1169.8	1449.7	1549.6	1558.0	1500.2
40°	639.6	629.1	584.9	621.7	688.0	886.8	1182.5	1580.1	1749.5	1787.4	1704.2
42.5°	594.4	580.7	555.5	596.5	665.9	830.0	1200.3	1736.9	1952.5	2031.4	1955.7
45°	529.2	511.3	498.6	553.4	617.5	815.3	1181.4	1867.3	2147.1	2255.5	2253.4
47.5°	450.3	438.7	432.4	490.2	577.5	778.5	1142.5	1949.4	2282.8	2560.6	2518.5
50°	360.8	352.4	351.4	412.4	510.2	702.7	1098.3	1990.4	2489.0	2840.4	2877.2
52.5°	289.3	283.0	281.9	331.4	427.1	600.7	1005.7	2021.9	2685.8	3158.1	3347.5
55°	226.2	219.9	220.9	261.9	339.8	491.3	864.7	1986.2	2858.3	3483.2	3841.9
57.5°	185.2	178.8	179.9	203.0	259.8	375.6	689.1	1908.3	2936.1	3885.0	4418.4
60°	163.1	156.7	153.6	164.1	199.9	283.0	512.3	1605.4	2948.8	4218.5	5044.4
62.5°	151.5	145.2	142.0	145.2	165.2	216.7	369.3	1271.9	2876.2	4503.6	5617.7
65°	141.0	135.7	131.5	134.7	145.2	172.5	269.3	871.1	2496.4	4634.1	6034.3
67.5°	129.4	125.2	121.0	125.2	132.6	145.2	209.3	551.2	1871.5	4464.7	6207.9
69°	123.1	116.8	114.7	117.8	125.2	133.6	180.9	439.7	1423.4	4142.8	6102.7
70°	116.8	112.6	109.4	114.7	121.0	127.3	163.1	373.5	1116.2	3729.3	5841.8
72.5°	103.1	99.9	97.8	103.1	108.4	112.6	133.6	266.2	647.0	2539.5	4633.0
75°	90.5	87.3	86.3	90.5	94.7	96.8	112.6	183.0	381.9	1328.7	2779.4
77.5°	75.7	71.5	72.6	77.8	81.0	82.1	94.7	131.5	225.1	601.7	1287.7
80°	55.8	55.8	60.0	64.2	64.2	64.2	75.7	95.7	136.8	276.7	534.4
82.5°	38.9	40.0	41.0	47.3	48.4	44.2	57.9	69.4	85.2	121.0	185.2
85°	22.1	23.1	24.2	28.4	29.5	26.3	37.9	44.2	49.4	60.0	96.8
87.5°	8.4	9.5	12.6	14.7	15.8	11.6	17.9	21.0	21.0	25.2	43.1
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7
2.5°	379.8	387.1	400.8	404.0	392.4	379.8	351.4	369.3	376.6	362.9	367.1
5°	470.2	486.0	502.9	482.9	470.2	461.8	448.2	449.2	441.8	417.6	377.7
7.5°	572.3	554.4	567.0	580.7	560.7	561.8	574.4	548.1	528.1	487.1	412.4
10°	619.6	619.6	622.8	622.8	614.4	614.4	613.3	571.2	547.0	529.2	508.1
12.5°	622.8	621.7	634.4	624.9	627.0	629.1	634.4	653.3	647.0	623.8	642.8
15°	710.1	705.9	710.1	709.0	712.2	721.7	717.5	713.3	714.3	731.1	759.5
17.5°	792.2	794.3	790.1	797.4	797.4	803.7	818.5	803.7	791.1	822.7	844.8
20°	886.8	879.5	862.6	875.3	878.4	879.5	903.7	885.8	867.9	879.5	905.8
22.5°	982.6	981.5	983.6	984.7	988.9	973.1	940.5	935.2	946.8	931.0	934.2
25°	1041.5	1042.5	1047.8	1048.8	1031.0	1047.8	1059.4	1024.7	1024.7	1021.5	1000.5
27.5°	1113.0	1097.2	1103.6	1112.0	1104.6	1108.8	1095.1	1044.6	1098.3	1105.7	1021.5
30°	1161.4	1154.0	1146.7	1155.1	1162.5	1181.4	1142.5	1137.2	1141.4	1180.3	1069.9
32.5°	1263.5	1274.0	1260.3	1246.6	1260.3	1256.1	1239.3	1231.9	1284.5	1232.9	1103.6
35°	1358.1	1362.3	1363.4	1361.3	1369.7	1355.0	1355.0	1382.3	1398.1	1342.4	1114.1
37.5°	1586.4	1571.7	1541.2	1526.5	1552.8	1574.8	1509.6	1542.2	1535.9	1441.2	1193.0
40°	1750.5	1784.2	1793.7	1789.5	1793.7	1730.5	1744.2	1768.4	1740.0	1583.3	1165.6
42.5°	1990.4	2011.4	2004.1	1994.6	1998.8	1987.2	1946.2	2035.6	1933.6	1742.1	1207.7
45°	2209.2	2256.5	2259.7	2227.1	2253.4	2212.4	2229.2	2260.8	2157.7	1861.0	1196.1
47.5°	2470.1	2567.9	2531.1	2531.1	2557.4	2469.0	2509.0	2551.1	2277.6	1940.9	1133.0
50°	2856.2	2908.8	2906.7	2897.2	2908.8	2861.4	2855.1	2849.9	2461.7	2016.7	1094.1
52.5°	3292.8	3364.3	3337.0	3347.5	3363.3	3273.8	3344.3	3151.8	2692.1	2045.1	1005.7
55°	3850.3	3899.8	3872.4	3818.8	3890.3	3833.5	3856.6	3481.1	2852.0	1964.1	858.4
57.5°	4514.1	4539.4	4494.2	4488.9	4536.2	4475.2	4436.3	3851.4	2935.1	1903.1	685.9
60°	5289.5	5368.4	5340.0	5294.7	5337.9	5284.2	4989.6	4165.9	2918.3	1618.0	531.3
62.5°	6219.4	6299.4	6267.8	6237.3	6264.7	6124.8	5509.3	4414.2	2842.5	1282.4	388.2
65°	6987.4	7348.2	7395.6	7396.6	7264.1	6940.1	5923.8	4511.0	2442.7	895.3	284.0
67.5°	7492.4	8242.4	8476.0	8391.8	8087.8	7348.2	6091.1	4321.6	1886.2	566.0	212.5
69°	7434.5	8418.1	8755.8	8708.5	8281.4	7341.9	5960.6	4002.9	1441.2	450.3	179.9
70°	7167.3	8274.0	8674.8	8695.9	8158.3	7060.0	5728.2	3636.8	1165.6	384.0	165.2
72.5°	5719.7	6818.0	7170.4	7308.3	6774.9	5653.5	4697.2	2565.8	675.4	268.3	133.6
75°	3543.1	4134.4	4426.8	4506.8	4183.8	3521.1	2850.9	1427.6	411.3	189.4	112.6
77.5°	1588.5	1760.0	1928.3	1928.3	1802.1	1607.5	1306.6	690.1	233.5	134.7	94.7
80°	532.3	552.3	537.6	542.8	521.8	501.8	524.9	297.7	144.1	101.0	76.8
82.5°	361.9	454.5	482.9	482.9	453.4	357.7	202.0	136.8	88.4	72.6	58.9
85°	294.6	359.8	386.1	397.7	374.5	301.9	106.3	66.3	52.6	46.3	40.0
87.5°	98.9	92.6	87.3	85.2	89.4	93.6	52.6	28.4	24.2	22.1	21.0
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):

	135°	145°	155°	165°	175°	180°
0°	357.7	357.7	357.7	357.7	357.7	357.7
2.5°	374.5	361.9	367.1	372.4	410.3	438.7
5°	372.4	390.3	430.3	480.8	503.9	560.7
7.5°	382.9	448.2	522.8	575.4	596.5	614.4
10°	512.3	523.9	549.1	599.6	641.7	649.1
12.5°	661.7	658.6	640.7	663.8	642.8	657.5
15°	778.5	743.8	719.6	716.4	709.0	709.0
17.5°	842.7	812.1	778.5	770.1	748.0	765.9
20°	918.4	865.8	781.6	773.2	765.9	749.0
22.5°	903.7	851.1	763.8	753.2	792.2	790.1
25°	921.6	851.1	768.0	756.4	774.3	774.3
27.5°	877.4	819.5	759.5	690.1	744.8	757.4
30°	865.8	800.6	731.1	669.1	724.8	713.3
32.5°	926.8	753.2	684.9	665.9	706.9	698.5
35°	879.5	744.8	673.3	638.6	687.0	678.5
37.5°	899.5	734.3	653.3	623.8	662.8	675.4
40°	895.3	684.9	630.1	592.3	631.2	637.5
42.5°	824.8	647.0	591.2	553.4	573.3	594.4
45°	803.7	623.8	553.4	500.8	501.8	526.0
47.5°	764.8	571.2	483.9	435.5	435.5	455.5
50°	699.6	500.8	405.0	360.8	359.8	375.6
52.5°	602.8	432.4	341.9	293.5	290.4	306.1
55°	493.4	348.2	269.3	237.8	231.4	237.8
57.5°	384.0	271.4	212.5	187.3	186.2	191.5
60°	297.7	212.5	169.4	154.6	156.7	165.2
62.5°	225.1	169.4	144.1	138.9	142.0	150.4
65°	178.8	146.2	131.5	128.3	131.5	139.9
67.5°	145.2	132.6	122.0	117.8	119.9	128.3
69°	133.6	125.2	116.8	111.5	113.6	119.9
70°	127.3	121.0	112.6	107.3	109.4	115.7
72.5°	111.5	108.4	102.0	96.8	97.8	103.1
75°	97.8	95.7	91.5	85.2	85.2	91.5
77.5°	82.1	83.1	78.9	72.6	71.5	74.7
80°	65.2	67.3	65.2	58.9	56.8	56.8
82.5°	47.3	51.5	49.4	43.1	42.1	42.1
85°	29.5	32.6	31.6	27.4	27.4	24.2
87.5°	13.7	17.9	16.8	14.7	13.7	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)