

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: P596754

Luminaire Tested: **MSA-SA4A-827-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596754
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-827-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11367 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

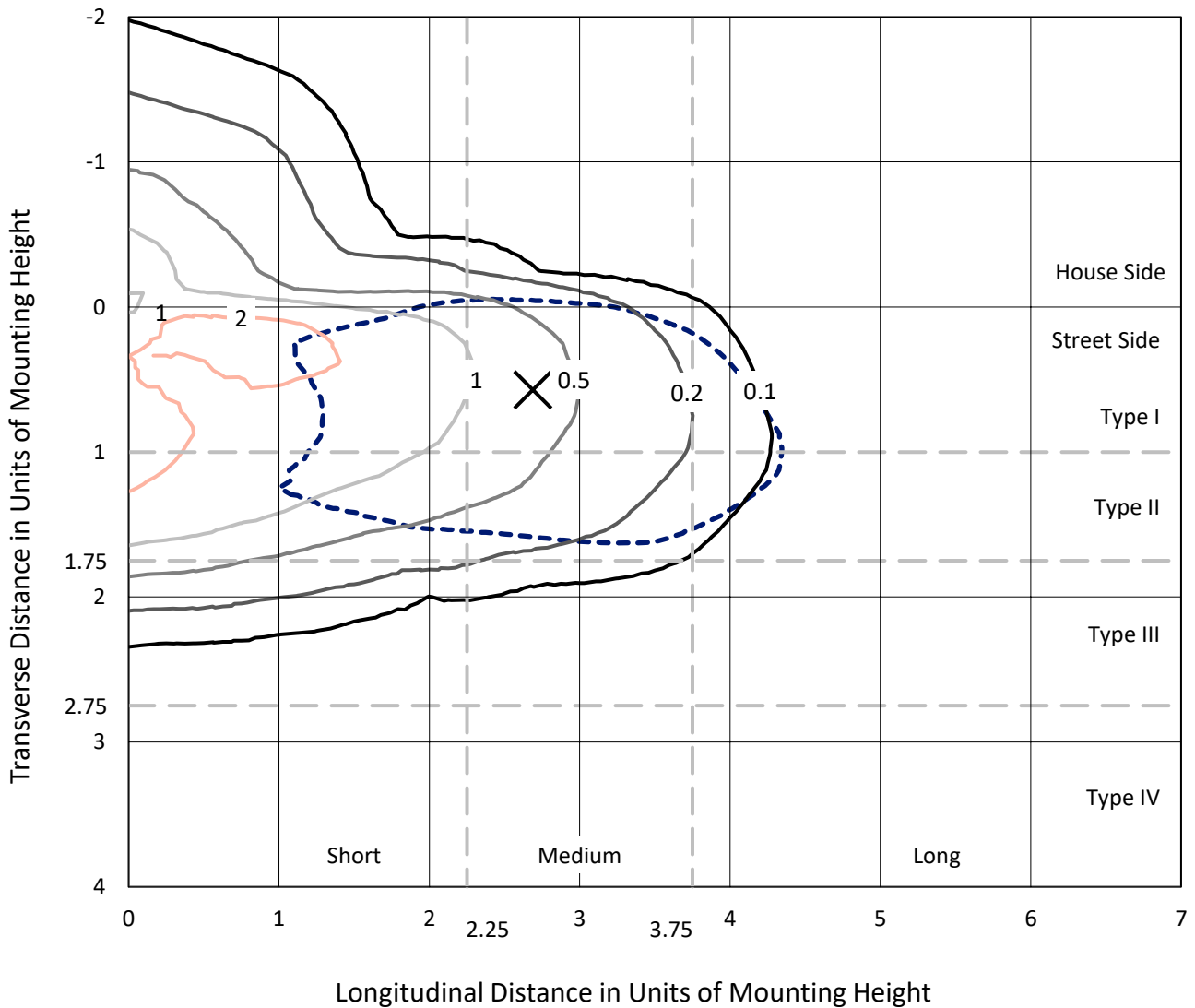
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

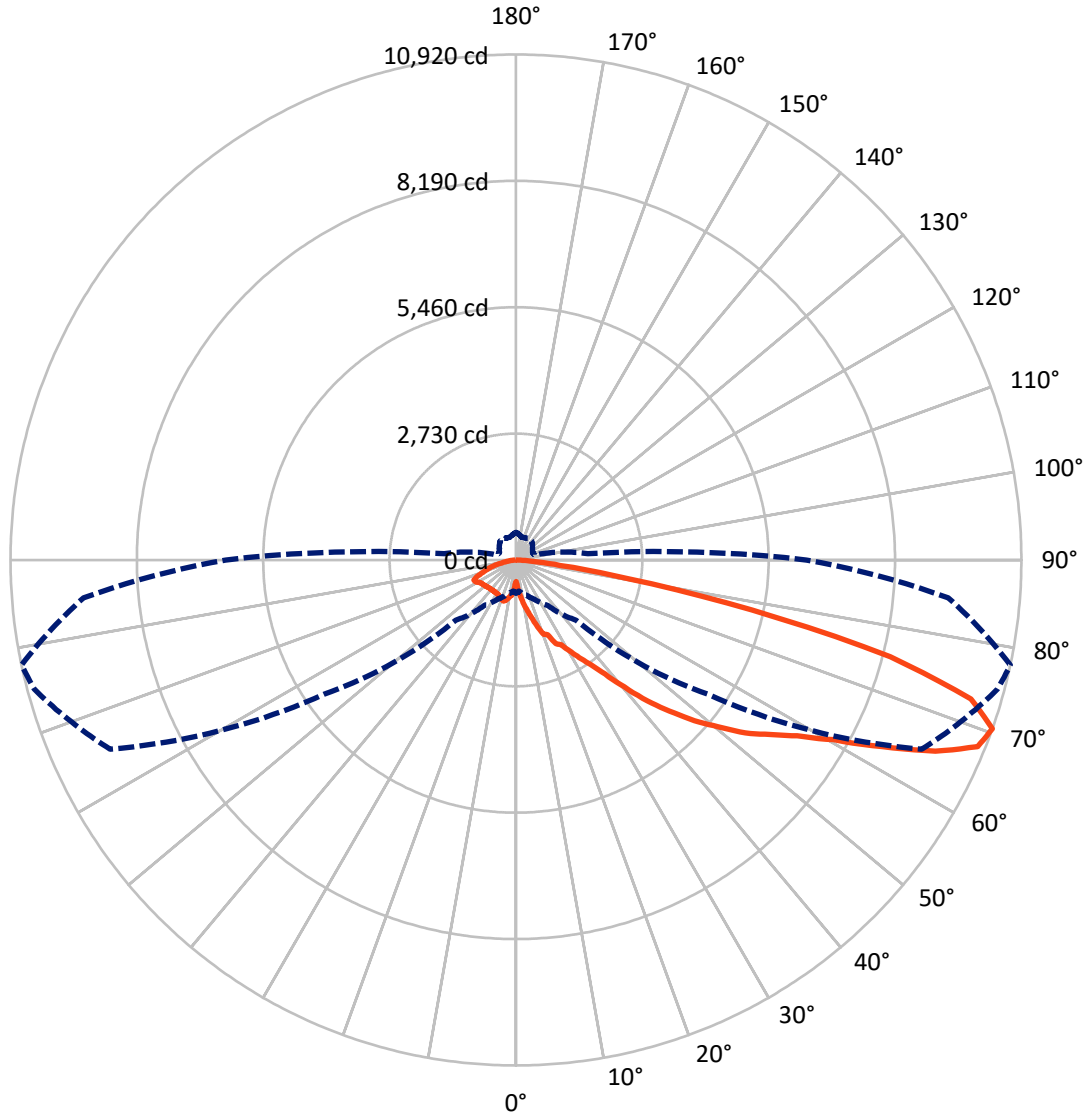
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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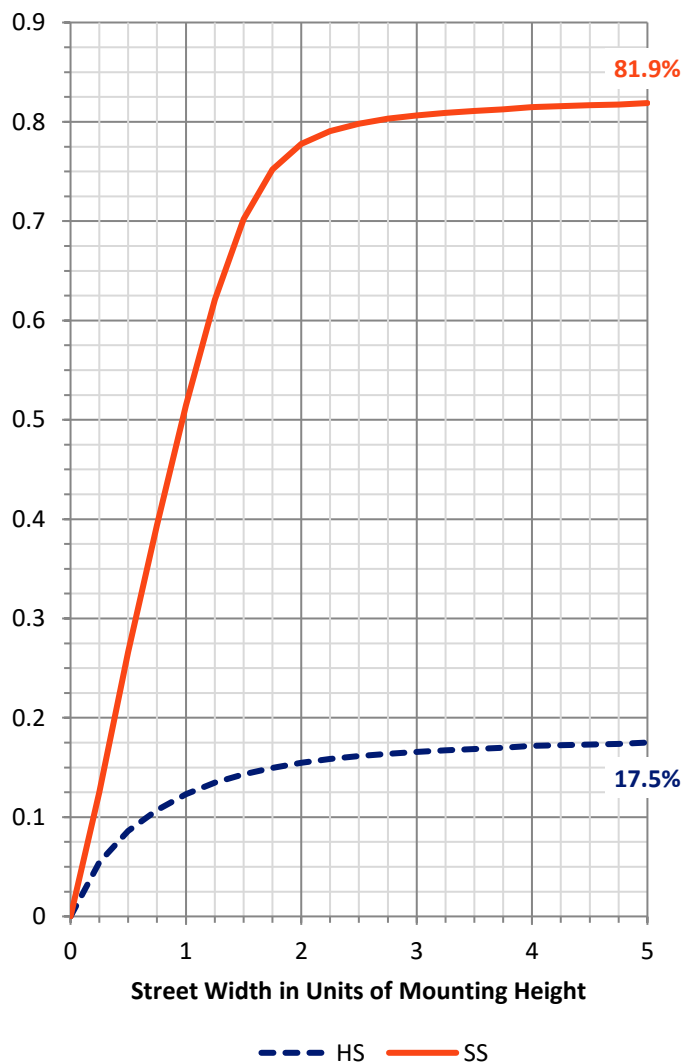
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2028.9	0.0	2028.9
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	9338.1	0.0	9338.1
	% Fixture	82.2	0.0	82.2
Total	Lumens	11367.0	0.0	11367.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	0.6
10°-20°	315.5	2.8
20°-30°	607.4	5.3
30°-40°	1023.1	9.0
40°-50°	1770.2	15.6
50°-60°	2672.7	23.5
60°-70°	2960.4	26.0
70°-80°	1706.8	15.0
80°-90°	239.4	2.1
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°	11367.0	100.0
0°-180°	11367.0	100.0

Coefficient of Utilization



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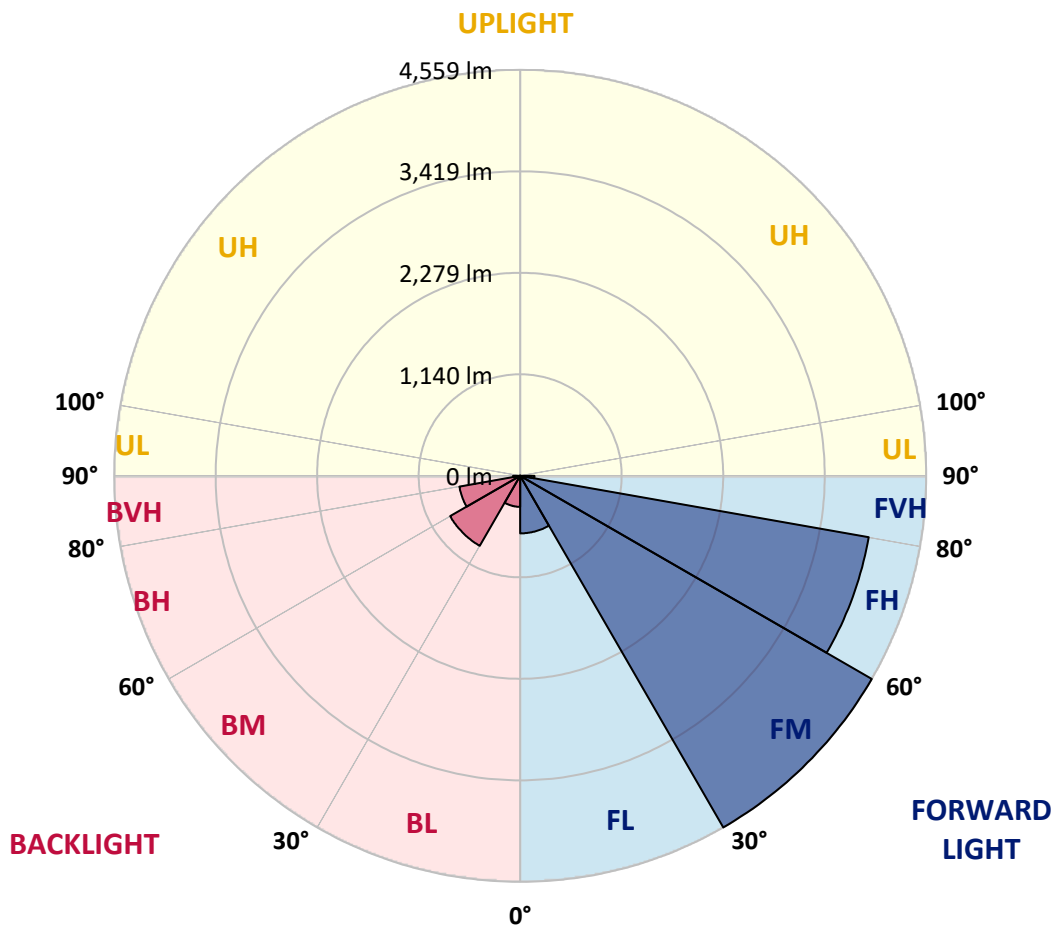
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	646.2	5.7			
FM (30°-60°)	4558.5	40.1			
FH (60°-80°)	3973.8	35.0			G2/5000
FVH (80°-90°)	159.7	1.4			G2/225
BL (0°-30°)	348.4	3.1	B1/500		
BM (30°-60°)	907.4	8.0	B1/1000		
BH (60°-80°)	693.4	6.1	B2/1000		G2/1000
BVH (80°-90°)	79.7	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4
2.5°	596.6	575.3	543.0	556.3	572.4	574.3	569.1	539.7	529.8	552.1	558.7
5°	835.9	799.9	778.1	771.0	746.8	696.6	732.6	714.1	717.9	707.0	728.3
7.5°	1037.3	1013.1	980.9	971.9	916.5	877.1	901.8	893.7	854.8	839.7	863.9
10°	1139.6	1113.1	1114.5	1095.1	1080.4	1084.2	1071.9	1036.3	1007.4	987.1	928.8
12.5°	1201.2	1207.9	1243.4	1233.5	1288.9	1334.4	1299.8	1247.2	1155.8	1137.3	1079.5
15°	1347.7	1372.3	1339.1	1354.3	1378.0	1465.2	1451.0	1439.6	1342.9	1306.9	1200.3
17.5°	1498.4	1503.1	1452.9	1444.8	1501.7	1545.7	1601.2	1537.2	1549.1	1523.9	1351.5
20°	1530.6	1563.3	1491.2	1441.5	1558.5	1645.7	1714.4	1646.7	1709.2	1715.9	1476.1
22.5°	1648.6	1609.2	1514.5	1465.7	1568.0	1675.1	1786.9	1824.8	1804.9	1749.0	1596.4
25°	1730.5	1709.7	1613.0	1559.0	1597.9	1696.4	1892.6	1991.6	2009.2	2001.6	1711.1
27.5°	1882.7	1893.1	1694.1	1709.2	1655.2	1664.2	1956.1	2212.9	2103.5	2073.1	1853.3
30°	2122.9	2076.5	1853.3	1865.6	1776.0	1760.9	2090.2	2403.9	2305.8	2269.3	1970.3
32.5°	2373.6	2377.8	2106.8	2001.6	1953.7	1938.6	2063.7	2503.9	2561.7	2514.3	2147.1
35°	2727.1	2702.4	2381.6	2243.3	2070.3	2043.8	2252.7	2793.9	2900.0	2767.4	2357.0
37.5°	3265.4	3191.0	2817.6	2497.7	2369.8	2339.5	2522.8	3054.0	3292.9	3128.0	2700.1
40°	3697.6	3546.4	3207.1	2817.6	2601.0	2638.5	2714.8	3369.6	3700.4	3607.5	3017.6
42.5°	4042.0	3907.9	3482.9	3209.0	2914.7	2868.3	2951.7	3760.6	4254.8	4163.8	3413.7
45°	4372.3	4099.4	3792.8	3546.4	3263.5	3319.9	3307.6	4159.6	4934.8	4654.8	3763.9
47.5°	4698.3	4442.0	4121.2	3790.0	3505.2	3856.3	3725.0	4456.2	5393.5	5186.0	4132.6
50°	5117.2	4835.3	4469.9	4136.8	3966.2	4223.1	4002.7	4707.4	5907.2	5663.6	4480.4
52.5°	5395.4	5121.0	4800.7	4562.8	4547.2	4448.1	4391.8	5025.3	6357.3	6209.5	4849.0
55°	5362.7	5098.3	4953.3	4979.3	5172.7	4838.6	4792.6	5495.9	6826.9	6655.9	5247.1
57.5°	4952.8	4664.2	4695.0	4849.5	5368.9	5524.3	5446.1	5998.6	7245.8	7168.1	5739.4
60°	3858.2	3709.9	3960.5	4243.0	5106.3	5725.2	6274.9	6611.8	7761.4	7885.6	6512.8
62.5°	2506.3	2308.2	2704.3	3183.9	4323.0	5592.5	7118.8	7774.7	8605.8	8887.8	7687.9
65°	1298.4	1266.6	1543.8	1984.5	3009.5	4768.5	7416.4	8994.4	9632.2	9960.6	8810.5
67.5°	943.9	885.2	1013.6	1272.8	1837.2	3251.6	6852.5	9927.4	10456.3	10757.2	9463.0
70°	718.8	675.3	773.3	934.0	1199.8	1836.7	5058.5	9673.0	10774.2	10920.2	9376.3
72.5°	538.3	500.9	586.6	736.4	924.5	1034.0	2990.1	7953.3	10231.6	10281.4	8415.3
75°	429.8	400.9	437.8	581.4	753.4	703.7	1588.4	5762.2	8313.0	8355.6	6427.9
77.5°	352.6	327.9	343.1	436.0	586.2	529.3	788.0	3665.3	5277.9	5212.5	3616.5
80°	287.6	266.3	273.4	315.1	446.4	395.2	442.6	1912.0	2517.6	2416.2	1504.0
82.5°	221.3	203.3	217.5	231.7	323.2	283.8	258.3	870.0	1031.1	960.5	551.6
85°	148.3	131.7	189.1	173.9	211.3	174.4	141.2	346.4	384.3	358.2	193.8
87.5°	40.8	38.4	63.5	86.7	86.7	65.9	51.7	83.9	107.1	93.8	45.5
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°	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4	463.4
2.5°	561.5	551.1	523.6	521.2	527.9	528.8	524.6	514.6	509.4	537.8	533.6
5°	723.1	686.2	663.9	643.5	615.1	594.7	599.9	614.1	618.9	640.2	642.6
7.5°	848.7	799.9	751.1	685.7	642.6	615.1	635.9	651.1	662.9	693.3	705.6
10°	903.2	850.1	780.9	712.2	700.4	705.1	693.3	697.1	715.5	717.0	723.1
12.5°	1004.6	944.4	819.8	757.7	754.4	764.3	760.1	777.6	790.4	825.0	810.3
15°	1101.7	1025.0	849.2	785.7	771.9	791.8	815.0	844.4	871.9	904.6	888.0
17.5°	1219.7	1104.1	850.6	772.9	775.2	817.9	842.1	858.2	940.1	985.2	962.4
20°	1294.1	1112.2	818.8	741.1	775.2	813.6	847.3	864.8	956.7	1024.5	1040.1
22.5°	1361.4	1115.0	794.2	724.1	745.9	796.6	847.3	886.1	944.9	1009.8	1012.2
25°	1398.4	1112.6	762.4	725.5	745.4	770.5	815.5	851.1	894.7	985.2	987.5
27.5°	1493.1	1081.8	731.2	731.2	741.6	742.5	799.9	820.7	826.9	909.3	924.0
30°	1520.6	1088.5	727.4	730.2	735.4	726.0	751.1	764.8	773.8	844.9	847.3
32.5°	1564.7	1035.4	738.8	721.7	715.1	713.6	719.8	732.1	735.9	779.5	787.6
35°	1618.2	1014.1	742.5	719.3	706.1	698.9	717.4	702.3	714.1	765.3	771.0
37.5°	1792.6	984.7	762.0	719.3	702.3	694.2	685.2	692.3	734.5	783.8	814.1
40°	1904.0	993.7	757.2	726.4	689.5	681.9	666.7	692.8	758.2	845.4	868.1
42.5°	2099.2	998.9	762.9	723.1	693.7	664.4	674.3	702.7	771.4	821.2	856.3
45°	2301.1	1015.0	759.1	713.2	684.3	698.0	684.3	709.8	742.5	744.0	770.5
47.5°	2499.2	1079.9	751.1	692.8	681.9	717.9	682.8	687.1	689.5	698.0	729.3
50°	2731.8	1149.1	739.7	664.4	685.2	718.8	688.0	667.2	664.8	692.8	727.9
52.5°	2996.2	1227.3	725.0	636.9	665.8	709.8	706.1	668.6	648.2	675.3	710.3
55°	3307.6	1316.4	708.0	609.4	644.5	710.8	716.0	658.7	648.7	678.1	715.5
57.5°	3721.2	1445.3	674.8	569.6	618.4	696.1	690.4	647.3	637.8	669.1	708.0
60°	4427.3	1693.1	627.4	530.3	590.4	660.1	669.6	626.9	617.4	652.0	692.8
62.5°	5372.7	1991.2	570.1	491.9	556.3	621.2	643.5	597.5	596.6	640.7	683.3
65°	6252.6	2160.3	510.8	456.8	521.2	585.2	614.1	570.1	572.0	627.4	670.0
67.5°	6618.4	1961.3	457.8	425.5	481.0	544.0	590.0	548.7	542.6	609.4	648.7
70°	6274.9	1558.1	411.8	392.4	435.5	499.5	556.3	520.3	506.1	566.7	597.5
72.5°	5552.2	1298.9	368.7	353.5	395.7	452.5	510.8	481.9	463.4	509.9	537.4
75°	4340.1	1065.7	319.4	315.1	350.2	409.9	463.4	443.5	419.8	449.2	476.7
77.5°	2471.2	674.3	268.2	271.0	296.2	359.2	406.6	390.9	366.8	379.1	410.8
80°	989.0	340.2	215.6	217.5	238.8	295.2	336.9	331.2	306.1	316.1	337.9
82.5°	369.6	186.7	159.2	160.2	181.5	233.6	287.6	284.8	261.1	254.0	266.3
85°	146.9	92.4	97.6	101.9	122.3	168.2	230.8	204.7	176.8	155.0	162.5
87.5°	35.1	29.4	34.1	36.0	39.8	52.6	84.3	67.8	69.7	55.9	41.7
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)