

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: P597002

Luminaire Tested: **MSA-SA2D-835-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597002
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-SA2D-835-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11274 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

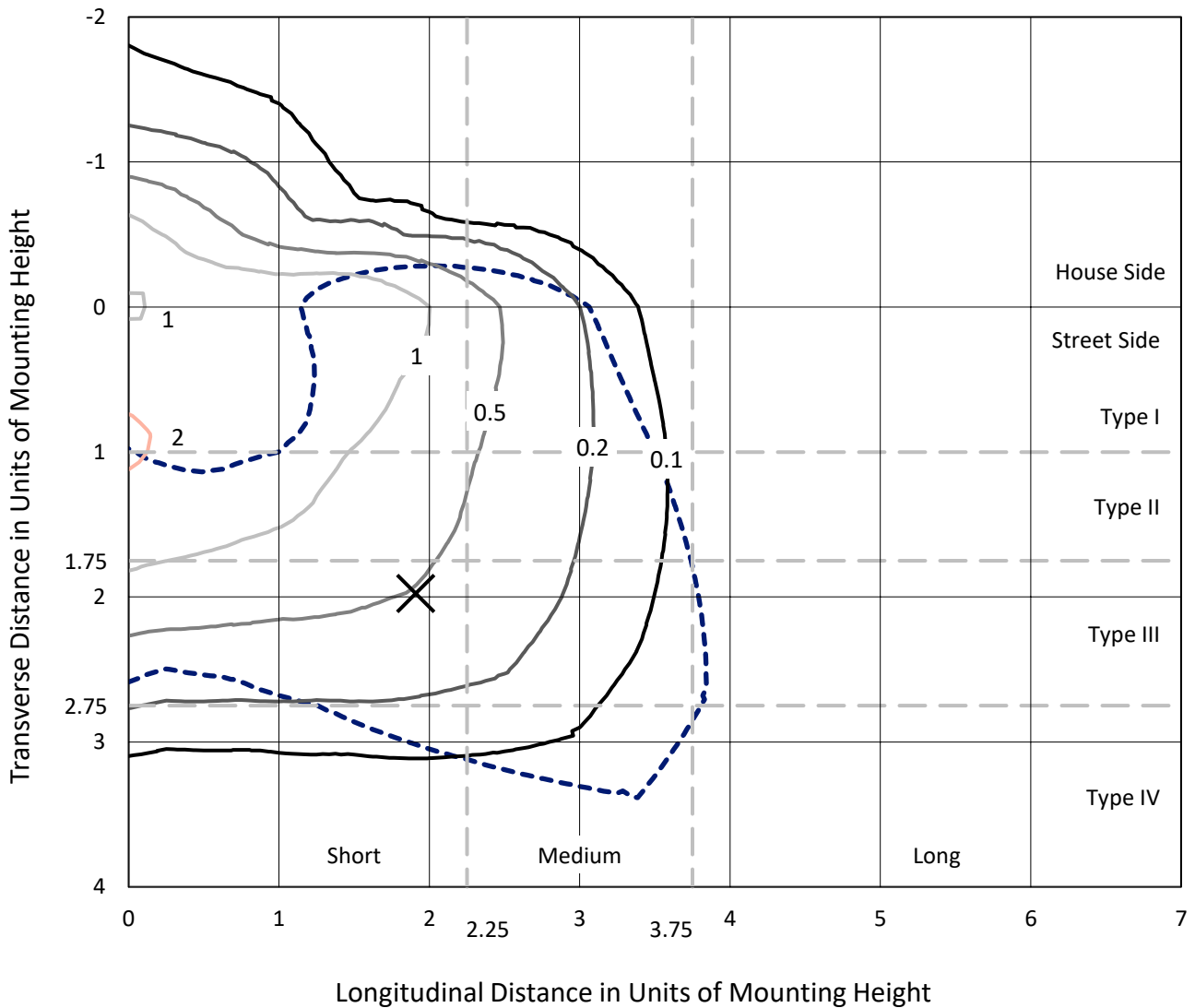
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

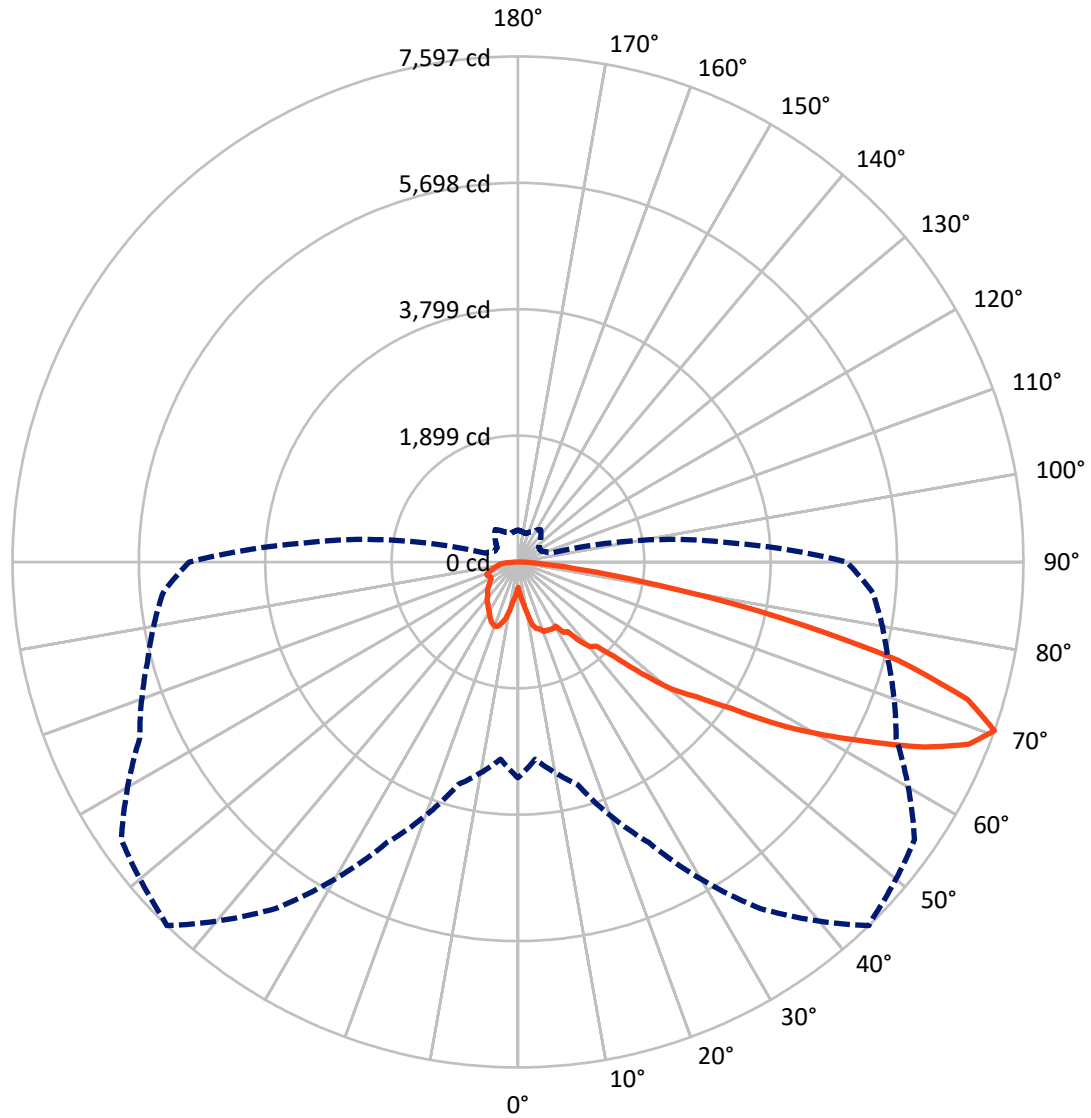
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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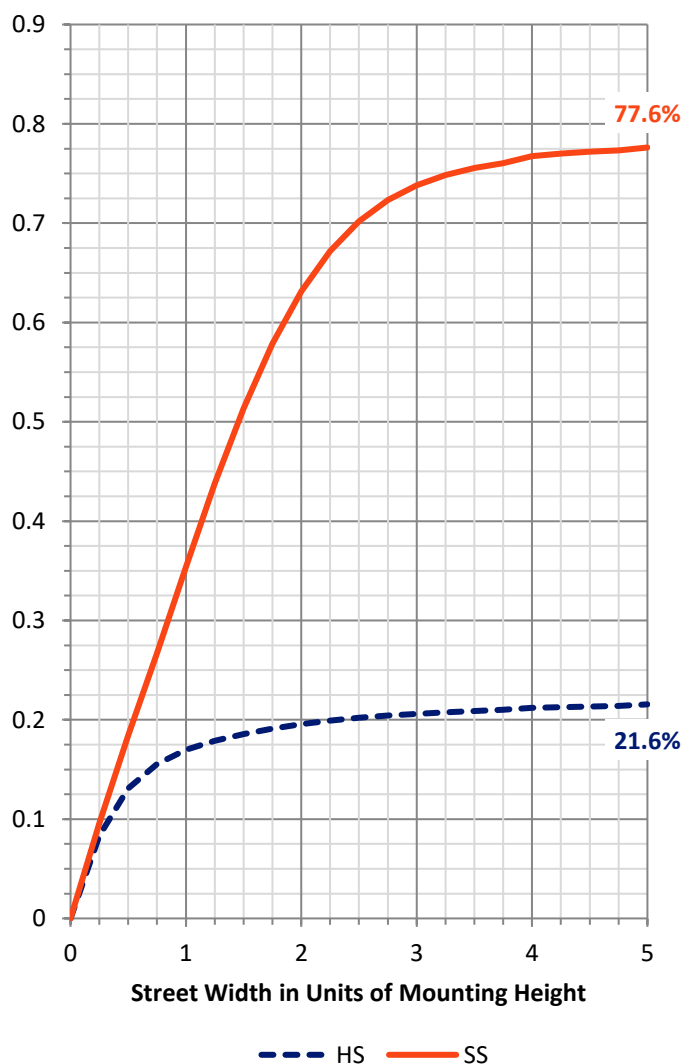
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2487.5	0.0	2487.5
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	8786.5	0.0	8786.5
	% Fixture	77.9	0.0	77.9
Total	Lumens	11274.0	0.0	11274.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	0.5
10°-20°	276.7	2.5
20°-30°	517.1	4.6
30°-40°	829.9	7.4
40°-50°	1400.9	12.4
50°-60°	2496.3	22.1
60°-70°	3414.7	30.3
70°-80°	2008.0	17.8
80°-90°	270.4	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°	11274.0	100.0
0°-180°	11274.0	100.0

Coefficient of Utilization

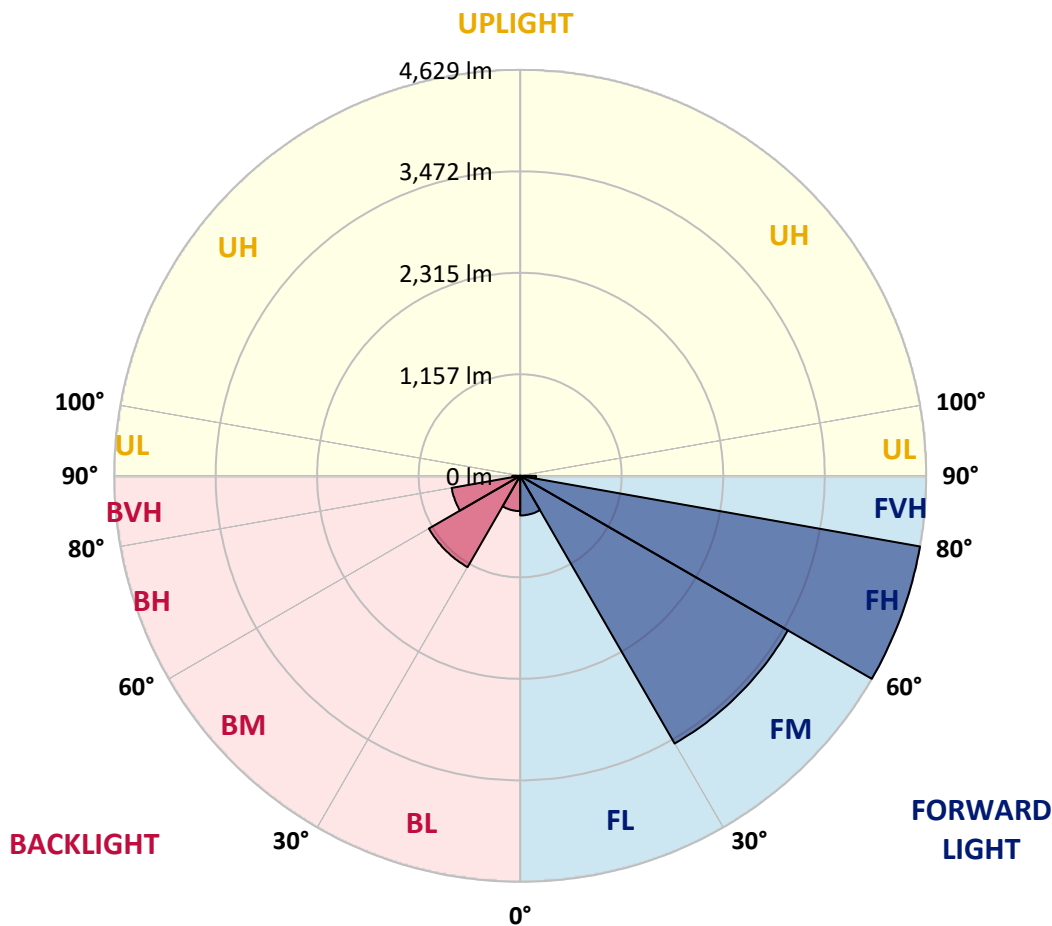


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	451.8	4.0			
FM (30°-60°)	3525.1	31.3			
FH (60°-80°)	4629.4	41.1			G2/5000
FVH (80°-90°)	180.2	1.6			G2/225
BL (0°-30°)	402.0	3.6	B1/500		
BM (30°-60°)	1202.1	10.7	B2/2500		
BH (60°-80°)	793.2	7.0	B2/1000		G2/1000
BVH (80°-90°)	90.2	0.8			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	465.0	455.8	433.6	441.0	450.2	453.9	453.0	452.1	437.8	432.7	458.1
5°	631.9	611.6	595.4	588.9	567.7	551.0	540.9	567.7	563.5	570.4	588.0
7.5°	789.1	776.1	739.6	726.7	683.2	654.6	651.3	672.6	678.1	667.0	697.1
10°	890.3	868.1	860.7	829.8	799.7	795.1	792.3	782.6	769.2	768.3	741.5
12.5°	968.9	980.5	986.5	950.9	951.8	968.4	959.7	920.4	897.7	858.0	861.2
15°	1109.9	1126.5	1078.9	1056.3	1012.8	1037.8	1034.6	1001.7	998.5	972.6	942.6
17.5°	1232.9	1240.3	1160.7	1109.0	1094.2	1058.1	1067.8	1068.8	1026.2	1072.5	1045.6
20°	1243.0	1269.4	1177.9	1074.8	1119.1	1114.5	1115.9	1106.7	1050.7	1127.0	1116.8
22.5°	1293.0	1252.7	1170.5	1095.1	1106.7	1113.6	1120.1	1109.0	1105.7	1148.3	1179.2
25°	1283.7	1270.8	1187.6	1123.8	1125.2	1126.5	1129.8	1163.1	1159.4	1217.1	1233.3
27.5°	1370.2	1350.3	1192.6	1176.9	1140.9	1133.0	1110.8	1180.2	1234.2	1232.9	1322.1
30°	1534.7	1514.4	1311.0	1265.2	1200.0	1119.6	1162.1	1254.6	1297.1	1311.4	1424.7
32.5°	1791.7	1825.0	1544.0	1359.5	1278.6	1261.1	1256.4	1247.2	1352.6	1423.3	1526.4
35°	2160.6	2134.3	1818.6	1561.5	1361.4	1286.0	1296.2	1352.6	1477.9	1523.6	1618.9
37.5°	2583.1	2528.6	2170.3	1790.4	1599.9	1505.6	1471.9	1526.4	1554.1	1590.2	1784.8
40°	3012.6	2879.5	2515.6	2091.3	1743.2	1672.0	1642.4	1575.4	1640.6	1713.6	1960.9
42.5°	3427.2	3324.2	2891.5	2450.5	1984.5	1730.7	1714.5	1648.9	1850.9	1928.1	2215.2
45°	3861.8	3622.8	3276.5	2855.9	2337.2	2018.7	1994.7	1876.8	2135.7	2296.5	2573.9
47.5°	4153.9	3932.5	3629.2	3185.0	2632.6	2500.4	2454.6	2253.1	2487.9	2696.9	3128.2
50°	4430.4	4202.5	3884.0	3545.1	3167.4	3015.4	2917.8	2582.2	2926.6	3266.8	3838.7
52.5°	4826.1	4622.2	4179.8	3908.0	3742.0	3368.1	3295.5	3111.0	3439.7	3898.7	4615.3
55°	5249.0	4971.2	4570.4	4419.7	4352.7	3873.8	3814.6	3697.2	4122.9	4545.5	5370.1
57.5°	5435.8	5145.9	4925.0	4834.8	4829.3	4608.8	4540.8	4459.0	4821.4	5100.2	6080.6
60°	5584.2	5273.1	5184.8	5235.2	5418.2	5273.1	5184.8	5112.7	5390.0	5648.4	6660.3
62.5°	5556.9	5244.9	5290.2	5443.6	5911.0	5953.5	5885.6	5710.8	5953.5	6097.7	6992.7
65°	5116.8	4828.4	5092.3	5456.6	6369.1	6708.9	6705.2	6248.0	6332.1	6332.1	6957.6
67.5°	4345.8	4047.1	4479.4	5342.4	6685.7	7307.5	7308.4	6817.5	6366.8	6308.5	6413.9
70°	3245.1	2974.7	3460.5	4652.7	6358.9	7597.3	7555.3	7277.0	6271.6	5762.6	5357.7
72.5°	1938.3	1763.5	2210.6	3387.0	5424.2	7064.3	7176.2	6747.7	5741.3	4792.3	3829.9
75°	880.2	804.3	1038.7	1945.7	3872.4	5892.5	6014.1	5694.6	4560.2	3446.7	2213.3
77.5°	376.7	356.4	453.5	863.0	2135.2	4029.6	4278.7	4069.8	3089.8	2003.0	979.1
80°	242.2	229.3	278.7	415.1	991.6	2177.3	2391.8	2313.6	1574.0	778.9	344.9
82.5°	144.7	140.5	186.3	260.7	540.9	958.3	1079.9	1108.5	653.6	349.5	197.4
85°	79.0	80.0	102.2	158.1	324.5	373.0	399.4	434.5	307.9	202.5	95.7
87.5°	26.3	30.5	41.1	64.3	115.6	105.4	105.9	123.0	129.9	84.1	30.5
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°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	462.3	453.9	432.7	434.1	441.9	443.8	446.1	432.7	429.9	455.3	457.6
5°	590.8	563.5	551.0	546.9	534.8	530.7	552.9	563.0	573.2	593.1	602.8
7.5°	693.9	663.4	640.7	619.9	602.3	592.2	629.6	658.3	675.8	716.5	735.0
10°	741.0	714.7	706.3	689.7	703.1	733.6	740.5	741.5	780.3	779.4	787.2
12.5°	834.9	817.7	790.5	796.5	831.6	863.0	854.3	867.7	881.5	914.8	899.6
15°	920.4	915.7	890.3	894.5	901.4	940.7	945.8	959.2	980.5	1006.8	988.8
17.5°	1025.8	1023.9	962.0	956.4	972.6	1011.0	999.0	975.4	1045.6	1073.8	1066.4
20°	1097.4	1083.6	1004.0	980.5	1021.6	1026.7	1012.8	975.4	1036.4	1097.9	1114.5
22.5°	1157.1	1140.9	1059.1	1012.8	1004.5	1006.8	1006.8	999.9	1029.9	1080.3	1079.9
25°	1205.1	1220.4	1116.4	1072.0	1027.6	972.1	965.2	971.2	988.3	1085.4	1082.2
27.5°	1325.8	1283.7	1135.8	1102.5	1011.4	924.1	943.0	952.3	957.8	1064.1	1081.7
30°	1404.4	1417.3	1205.1	1120.5	987.9	870.4	876.9	903.7	936.1	1061.8	1066.9
32.5°	1510.2	1482.5	1313.3	1090.5	925.0	838.1	826.1	862.1	910.2	1024.4	1038.2
35°	1608.7	1641.5	1359.1	1084.9	881.1	789.5	802.5	815.0	864.9	982.8	999.0
37.5°	1839.8	1764.9	1487.6	1058.1	844.6	765.0	751.2	770.1	812.7	903.7	941.2
40°	2015.5	2020.1	1515.3	1024.4	774.8	729.9	700.3	719.3	737.3	809.9	826.1
42.5°	2345.1	2244.3	1583.3	950.4	730.8	677.2	660.6	668.9	671.7	702.2	729.0
45°	2764.3	2528.1	1610.1	851.0	673.1	655.5	621.7	617.6	602.3	606.5	630.1
47.5°	3344.5	2971.0	1590.7	745.2	621.7	627.3	578.8	559.8	538.5	543.6	565.8
50°	4094.7	3536.8	1589.3	655.5	586.6	590.3	550.6	516.4	495.1	505.7	525.1
52.5°	4936.5	4104.5	1595.7	594.0	548.2	546.4	532.1	490.5	473.4	484.5	506.6
55°	5741.8	4592.6	1643.8	555.2	508.5	511.7	517.3	482.1	463.2	473.4	496.5
57.5°	6442.6	4978.1	1625.8	514.0	471.5	486.3	501.1	470.6	456.3	471.0	494.2
60°	6932.6	5157.0	1483.4	474.7	444.2	464.6	493.2	469.2	467.4	499.2	527.0
62.5°	7111.5	5090.9	1206.1	443.8	428.1	461.8	511.3	499.7	501.6	540.9	579.2
65°	6850.3	4743.3	899.6	423.9	415.6	475.2	552.9	517.7	492.3	524.7	559.8
67.5°	6107.5	4125.3	657.3	406.8	401.2	496.5	591.2	515.9	468.7	501.6	530.2
70°	4941.2	3256.2	509.0	385.1	382.3	482.1	594.9	502.0	443.3	464.6	480.8
72.5°	3385.6	2229.5	421.6	364.3	349.5	427.1	564.9	471.0	412.8	425.3	438.7
75°	1892.1	1251.4	354.6	338.4	306.0	380.4	529.8	452.6	390.2	393.9	412.3
77.5°	849.2	541.3	300.9	304.2	266.7	336.5	484.0	423.0	355.5	347.2	365.7
80°	321.3	264.0	244.1	257.0	224.2	291.7	436.4	396.2	319.0	308.3	319.0
82.5°	186.3	159.9	181.2	197.8	178.0	268.1	416.5	371.7	281.1	254.2	263.5
85°	86.4	82.7	108.6	128.5	124.3	208.9	356.4	279.7	200.2	169.2	187.2
87.5°	22.7	25.4	38.4	45.3	46.2	71.7	137.3	104.0	78.1	59.2	56.9
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)