

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: P596688

Luminaire Tested: **MSA-SA3B-827-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596688
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-SA3B-827-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10778 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

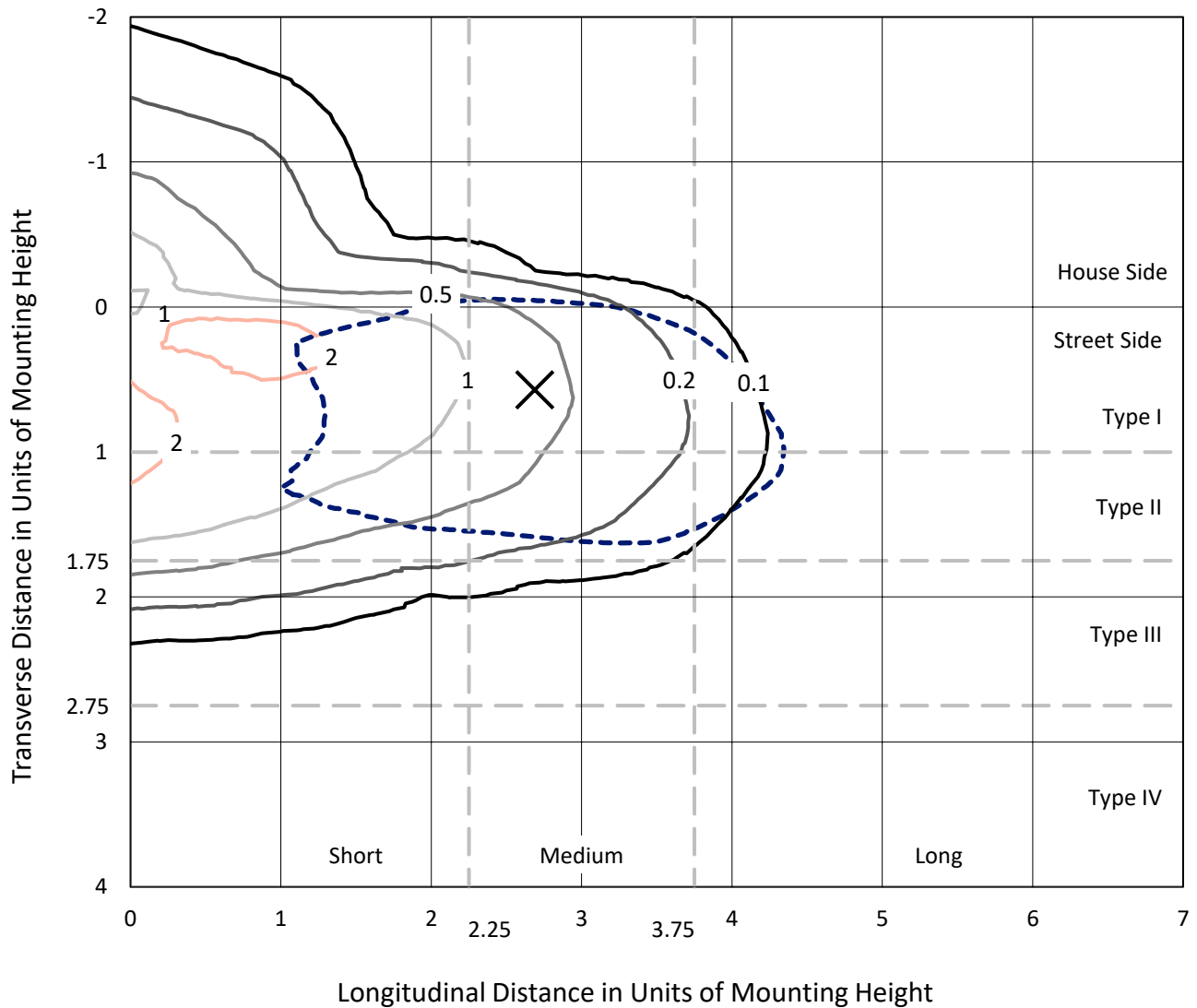
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

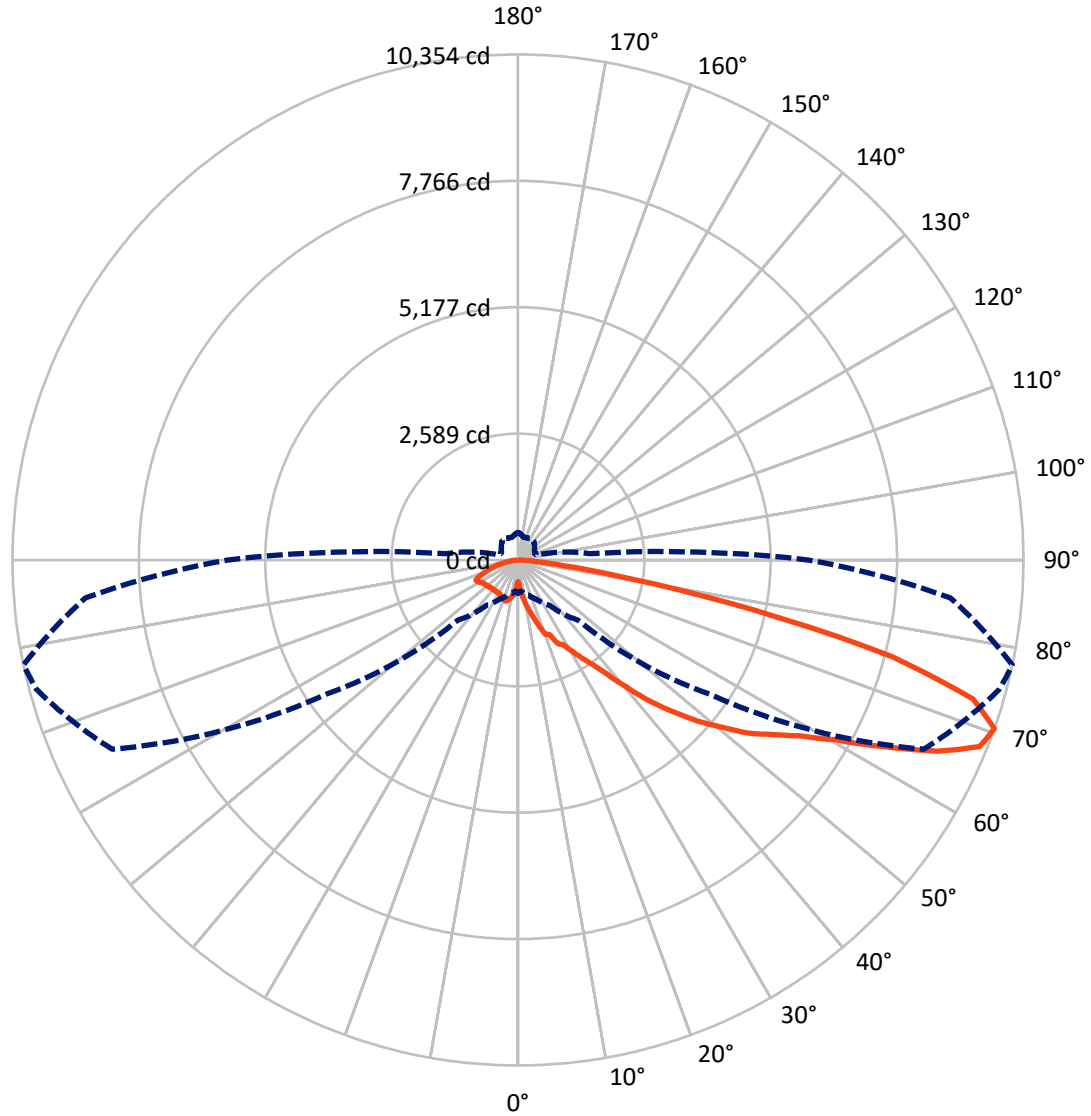
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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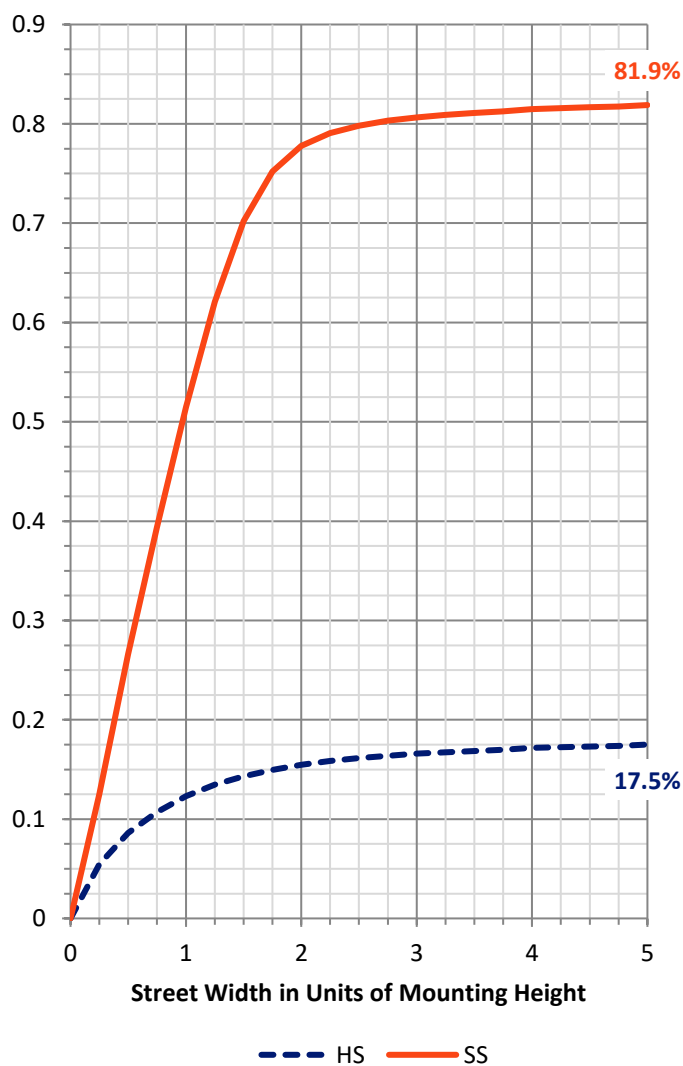
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1923.7	0.0	1923.7
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	8854.3	0.0	8854.3
	% Fixture	82.2	0.0	82.2
Total	Lumens	10778.0	0.0	10778.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	0.6
10°-20°	299.2	2.8
20°-30°	575.9	5.3
30°-40°	970.0	9.0
40°-50°	1678.4	15.6
50°-60°	2534.2	23.5
60°-70°	2807.0	26.0
70°-80°	1618.3	15.0
80°-90°	227.0	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°	10778.0	100.0
0°-180°	10778.0	100.0

Coefficient of Utilization



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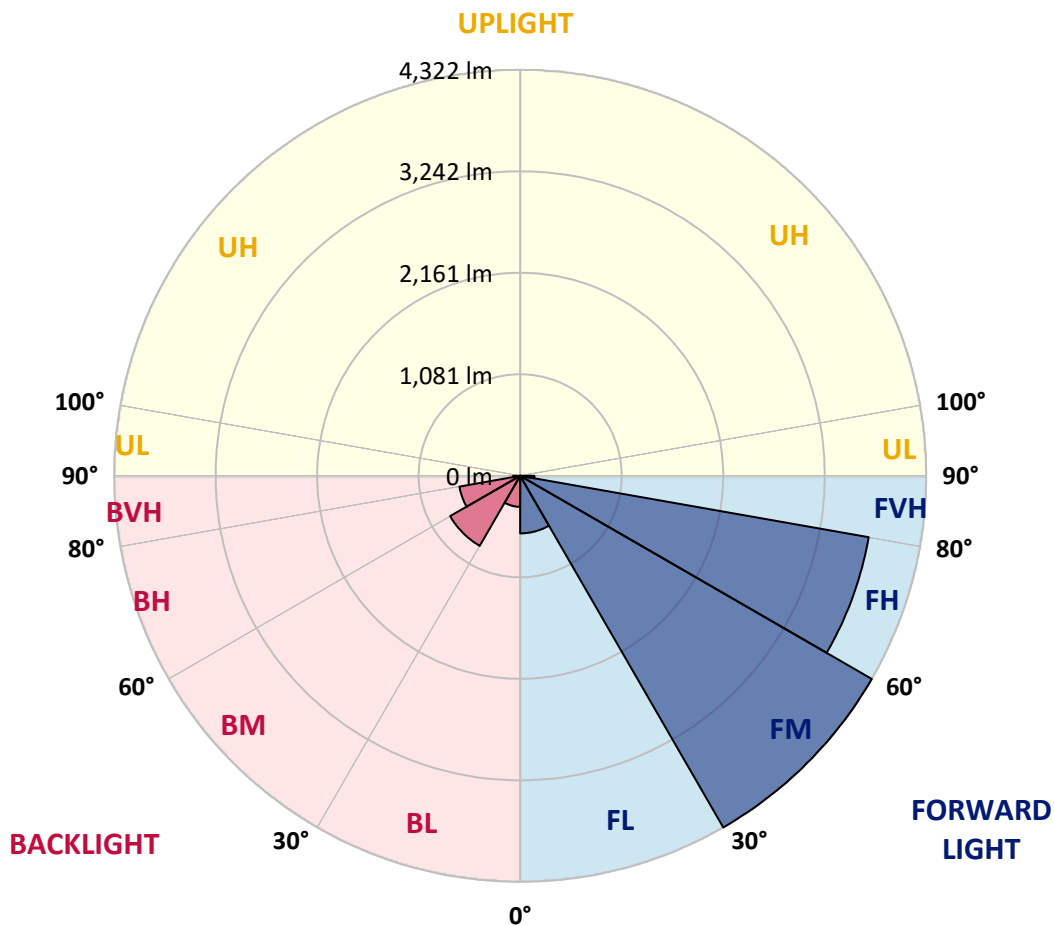
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	612.7	5.7			
FM (30°-60°)	4322.3	40.1			
FH (60°-80°)	3767.9	35.0			G2/5000
FVH (80°-90°)	151.4	1.4			G2/225
BL (0°-30°)	330.3	3.1	B1/500		
BM (30°-60°)	860.4	8.0	B1/1000		
BH (60°-80°)	657.4	6.1	B2/1000		G2/1000
BVH (80°-90°)	75.6	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°	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4
2.5°	565.7	545.5	514.9	527.5	542.8	544.6	539.6	511.8	502.3	523.4	529.7
5°	792.6	758.4	737.8	731.0	708.1	660.5	694.6	677.1	680.7	670.4	690.6
7.5°	983.5	960.6	930.1	921.5	869.0	831.7	855.0	847.4	810.6	796.2	819.1
10°	1080.6	1055.4	1056.8	1038.4	1024.4	1028.0	1016.3	982.6	955.2	935.9	880.6
12.5°	1139.0	1145.3	1179.0	1169.6	1222.1	1265.3	1232.5	1182.6	1095.9	1078.3	1023.5
15°	1277.8	1301.2	1269.7	1284.1	1306.6	1389.3	1375.8	1365.0	1273.3	1239.2	1138.1
17.5°	1420.7	1425.2	1377.6	1369.9	1423.9	1465.6	1518.2	1457.6	1468.8	1445.0	1281.4
20°	1451.3	1482.3	1414.0	1366.8	1477.8	1560.4	1625.6	1561.3	1620.7	1626.9	1399.6
22.5°	1563.1	1525.9	1436.0	1389.7	1486.8	1588.3	1694.3	1730.3	1711.4	1658.4	1513.7
25°	1640.9	1621.1	1529.4	1478.2	1515.1	1608.5	1794.5	1888.4	1905.1	1897.9	1622.5
27.5°	1785.1	1795.0	1606.3	1620.7	1569.4	1578.0	1854.7	2098.3	1994.5	1965.7	1757.2
30°	2012.9	1968.9	1757.2	1768.9	1684.0	1669.6	1981.9	2279.3	2186.3	2151.7	1868.2
32.5°	2250.6	2254.6	1997.6	1897.9	1852.5	1838.1	1956.7	2374.1	2429.0	2384.0	2035.8
35°	2585.8	2562.4	2258.2	2127.0	1963.0	1937.9	2136.0	2649.1	2749.8	2624.0	2234.9
37.5°	3096.2	3025.6	2671.6	2368.3	2247.0	2218.2	2392.1	2895.8	3122.2	2965.9	2560.2
40°	3506.0	3362.6	3040.9	2671.6	2466.3	2501.8	2574.1	3195.0	3508.7	3420.6	2861.2
42.5°	3832.6	3705.4	3302.4	3042.7	2763.7	2719.7	2798.7	3565.7	4034.3	3948.1	3236.8
45°	4145.8	3887.0	3596.3	3362.6	3094.4	3147.9	3136.2	3944.0	4679.1	4413.6	3568.9
47.5°	4454.9	4211.8	3907.6	3593.6	3323.5	3656.5	3532.0	4225.3	5114.0	4917.2	3918.4
50°	4852.1	4584.7	4238.3	3922.5	3760.7	4004.2	3795.3	4463.4	5601.1	5370.1	4248.2
52.5°	5115.8	4855.7	4551.9	4326.4	4311.6	4217.7	4164.2	4764.9	6027.9	5887.7	4597.8
55°	5084.8	4834.1	4696.6	4721.3	4904.7	4587.9	4544.3	5211.1	6473.2	6311.0	4975.2
57.5°	4696.2	4422.5	4451.8	4598.2	5090.7	5238.0	5163.9	5687.8	6870.4	6796.7	5442.0
60°	3658.3	3517.6	3755.3	4023.1	4841.8	5428.5	5949.7	6269.2	7359.2	7476.9	6175.3
62.5°	2376.4	2188.6	2564.2	3018.9	4099.0	5302.7	6750.0	7371.8	8159.9	8427.2	7289.6
65°	1231.1	1201.0	1463.8	1881.7	2853.6	4521.4	7032.1	8528.3	9133.1	9444.5	8354.0
67.5°	895.0	839.3	961.1	1206.8	1742.0	3083.2	6497.5	9413.0	9914.4	10199.8	8972.7
70°	681.6	640.3	733.3	885.6	1137.6	1741.5	4796.4	9171.7	10215.9	10354.3	8890.5
72.5°	510.4	474.9	556.2	698.2	876.6	980.4	2835.1	7541.2	9701.5	9748.7	7979.3
75°	407.5	380.1	415.2	551.3	714.4	667.2	1506.1	5463.6	7882.2	7922.7	6094.9
77.5°	334.3	310.9	325.3	413.4	555.8	501.9	747.2	3475.4	5004.4	4942.4	3429.1
80°	272.7	252.5	259.3	298.8	423.2	374.7	419.7	1813.0	2387.2	2291.0	1426.1
82.5°	209.8	192.8	206.2	219.7	306.4	269.1	244.9	824.9	977.7	910.7	523.0
85°	140.6	124.9	179.3	164.9	200.4	165.3	133.9	328.4	364.4	339.7	183.8
87.5°	38.6	36.4	60.2	82.2	82.2	62.5	49.0	79.5	101.5	89.0	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4	439.4
2.5°	532.4	522.5	496.5	494.2	500.5	501.4	497.4	487.9	483.0	510.0	505.9
5°	685.6	650.6	629.5	610.2	583.2	563.9	568.8	582.3	586.8	607.0	609.3
7.5°	804.7	758.4	712.2	650.1	609.3	583.2	603.0	617.4	628.6	657.3	669.0
10°	856.4	806.1	740.5	675.3	664.1	668.6	657.3	660.9	678.5	679.8	685.6
12.5°	952.5	895.5	777.3	718.4	715.3	724.7	720.7	737.3	749.4	782.2	768.3
15°	1044.6	971.9	805.2	745.0	731.9	750.8	772.8	800.7	826.7	857.7	842.0
17.5°	1156.5	1046.9	806.5	732.8	735.1	775.5	798.4	813.7	891.4	934.1	912.5
20°	1227.1	1054.5	776.4	702.7	735.1	771.5	803.4	820.0	907.2	971.4	986.2
22.5°	1290.9	1057.2	753.0	686.5	707.2	755.3	803.4	840.2	895.9	957.5	959.7
25°	1325.9	1055.0	722.9	687.9	706.8	730.6	773.3	807.0	848.3	934.1	936.4
27.5°	1415.8	1025.8	693.3	693.3	703.2	704.1	758.4	778.2	784.0	862.2	876.2
30°	1441.8	1032.1	689.7	692.4	697.3	688.3	712.2	725.2	733.7	801.1	803.4
32.5°	1483.6	981.7	700.5	684.3	678.0	676.7	682.5	694.2	697.8	739.1	746.8
35°	1534.4	961.5	704.1	682.1	669.5	662.7	680.3	665.9	677.1	725.6	731.0
37.5°	1699.7	933.7	722.5	682.1	665.9	658.2	649.7	656.4	696.4	743.2	771.9
40°	1805.3	942.2	718.0	688.8	653.7	646.6	632.2	656.9	718.9	801.6	823.1
42.5°	1990.4	947.1	723.4	685.6	657.8	629.9	639.4	666.3	731.5	778.7	811.9
45°	2181.8	962.4	719.8	676.2	648.8	661.8	648.8	673.1	704.1	705.4	730.6
47.5°	2369.7	1024.0	712.2	656.9	646.6	680.7	647.5	651.5	653.7	661.8	691.5
50°	2590.3	1089.6	701.4	629.9	649.7	681.6	652.4	632.6	630.4	656.9	690.1
52.5°	2841.0	1163.7	687.4	603.9	631.3	673.1	669.5	634.0	614.7	640.3	673.5
55°	3136.2	1248.2	671.3	577.8	611.1	674.0	678.9	624.5	615.1	643.0	678.5
57.5°	3528.4	1370.4	639.8	540.1	586.3	660.0	654.6	613.8	604.8	634.4	671.3
60°	4197.9	1605.4	594.9	502.8	559.8	625.9	634.9	594.4	585.4	618.2	656.9
62.5°	5094.3	1888.0	540.5	466.4	527.5	589.0	610.2	566.6	565.7	607.5	647.9
65°	5928.6	2048.4	484.4	433.1	494.2	554.9	582.3	540.5	542.3	594.9	635.3
67.5°	6275.5	1859.7	434.0	403.5	456.0	515.8	559.4	520.3	514.5	577.8	615.1
70°	5949.7	1477.3	390.4	372.0	412.9	473.6	527.5	493.3	479.9	537.4	566.6
72.5°	5264.6	1231.6	349.6	335.2	375.2	429.1	484.4	456.9	439.4	483.5	509.5
75°	4115.2	1010.5	302.8	298.8	332.0	388.7	439.4	420.6	398.1	425.9	452.0
77.5°	2343.1	639.4	254.3	257.0	280.8	340.6	385.5	370.7	347.8	359.4	389.6
80°	937.7	322.6	204.4	206.2	226.5	279.9	319.5	314.1	290.3	299.7	320.4
82.5°	350.5	177.0	151.0	151.9	172.1	221.5	272.7	270.0	247.6	240.8	252.5
85°	139.3	87.6	92.6	96.6	115.9	159.5	218.8	194.1	167.6	146.9	154.1
87.5°	33.2	27.9	32.4	34.1	37.7	49.9	80.0	64.3	66.0	53.0	39.5
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)