

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: P596690

Luminaire Tested: **MSA-SA3B-827-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-827-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10791 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

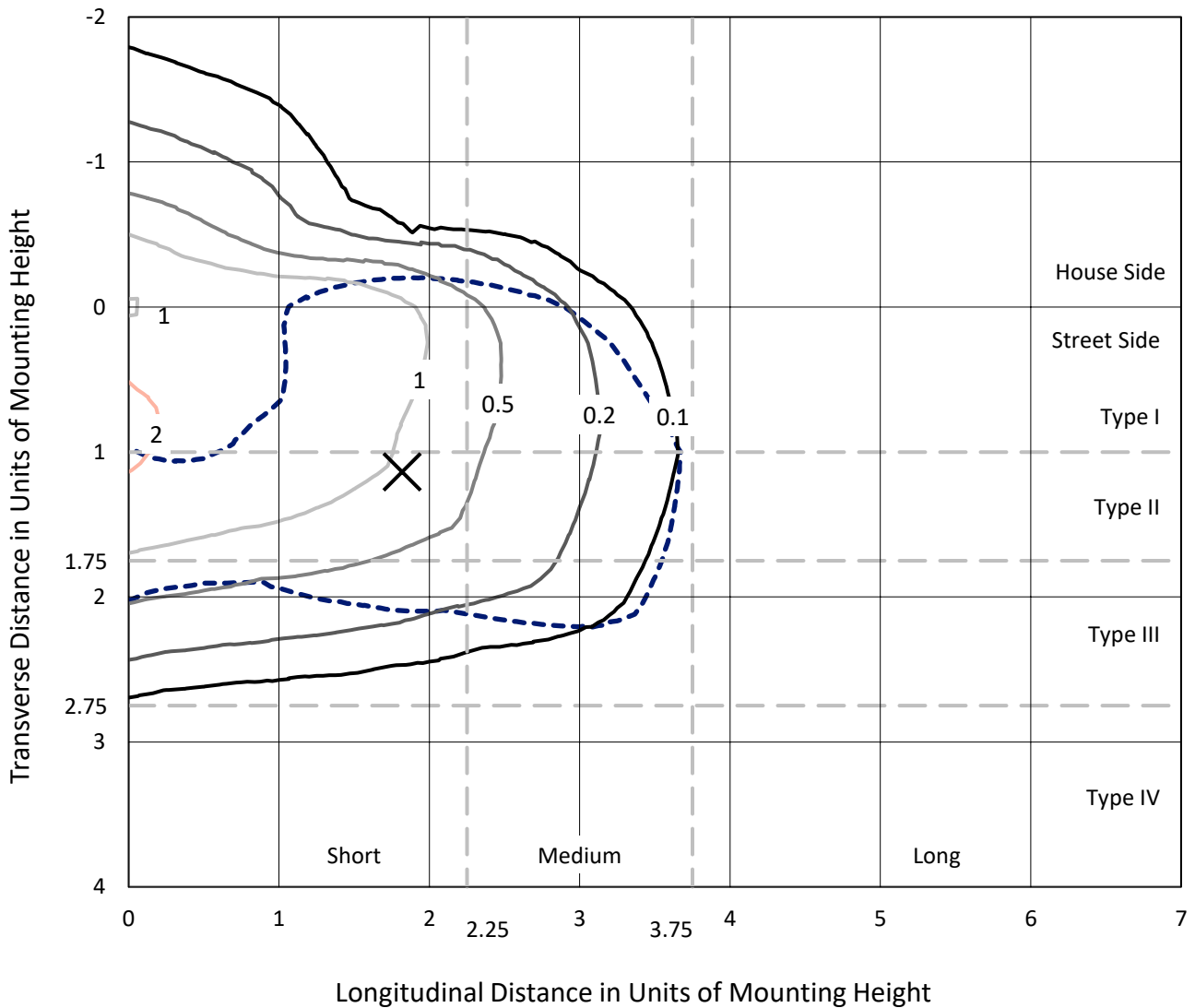
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

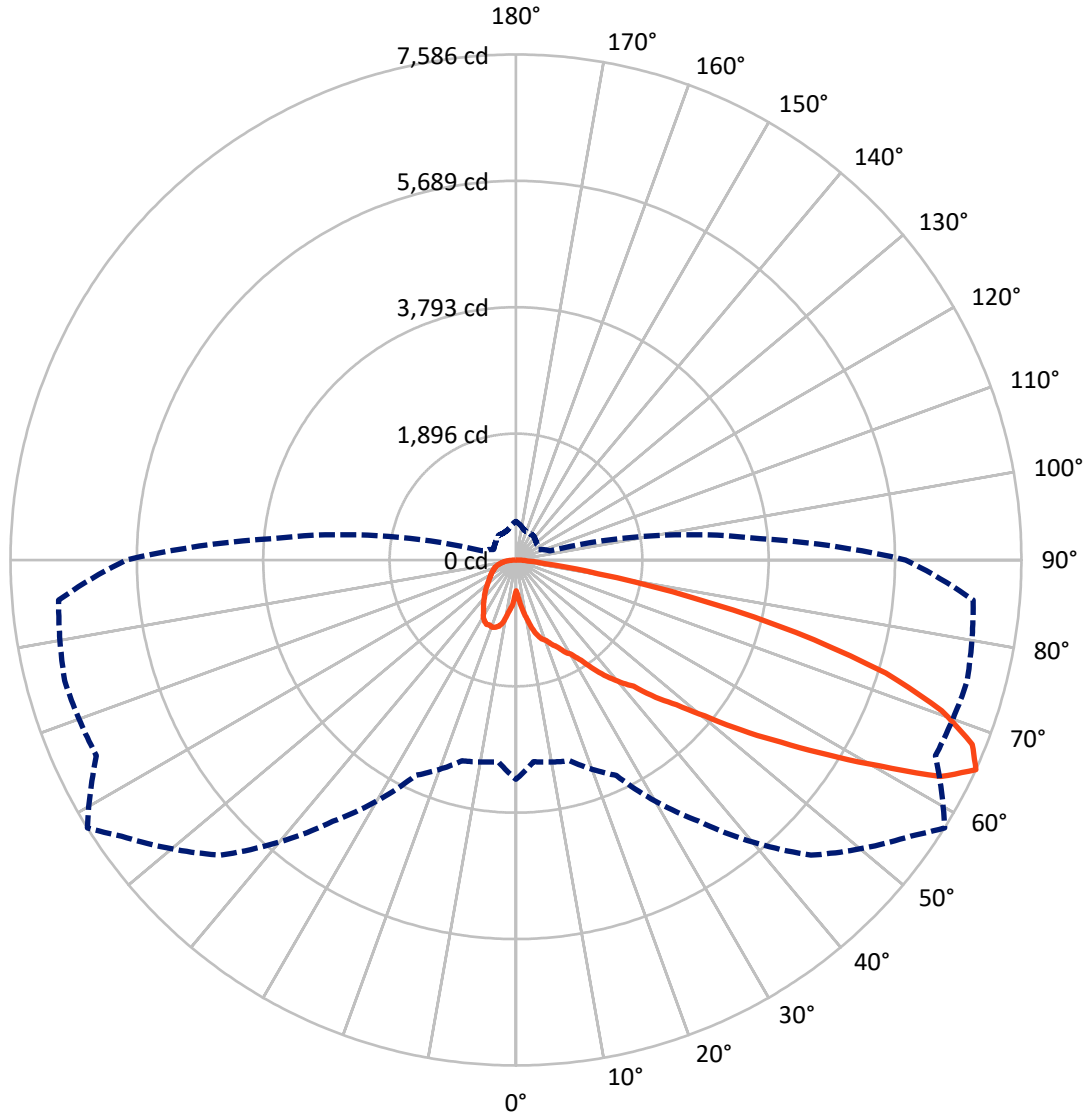
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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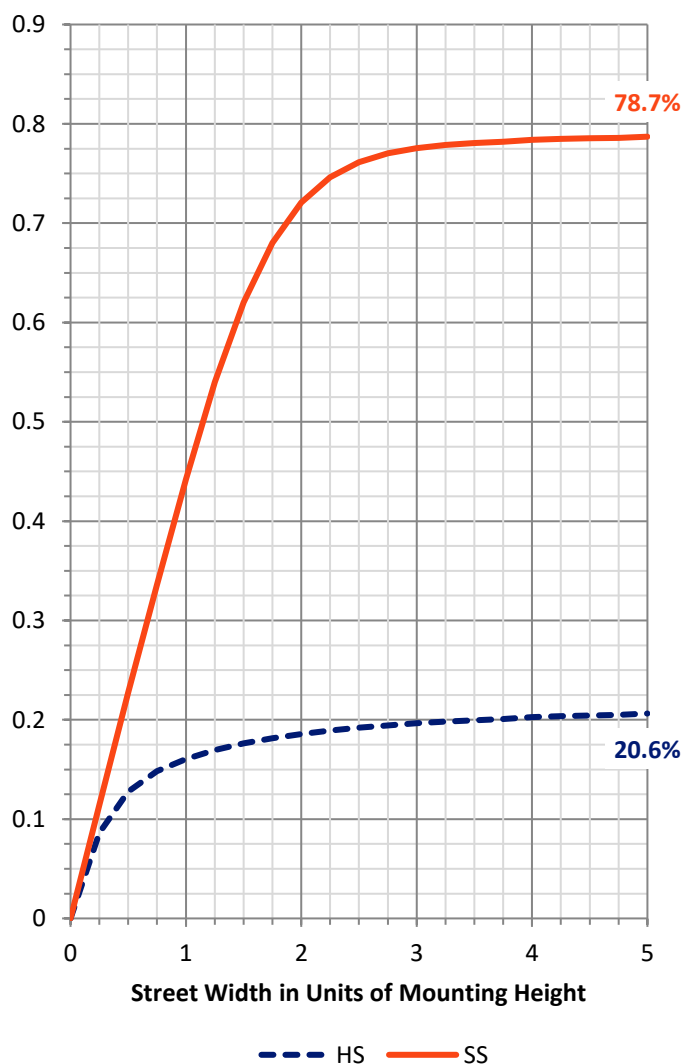
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2272.9	0.0	2272.9
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	8518.1	0.0	8518.1
	% Fixture	78.9	0.0	78.9
Total	Lumens	10791.0	0.0	10791.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	0.7
10°-20°	308.0	2.9
20°-30°	590.9	5.5
30°-40°	975.6	9.0
40°-50°	1621.6	15.0
50°-60°	2678.0	24.8
60°-70°	3004.2	27.8
70°-80°	1366.0	12.7
80°-90°	176.2	1.6
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°	10791.0	100.0
0°-180°	10791.0	100.0

Coefficient of Utilization



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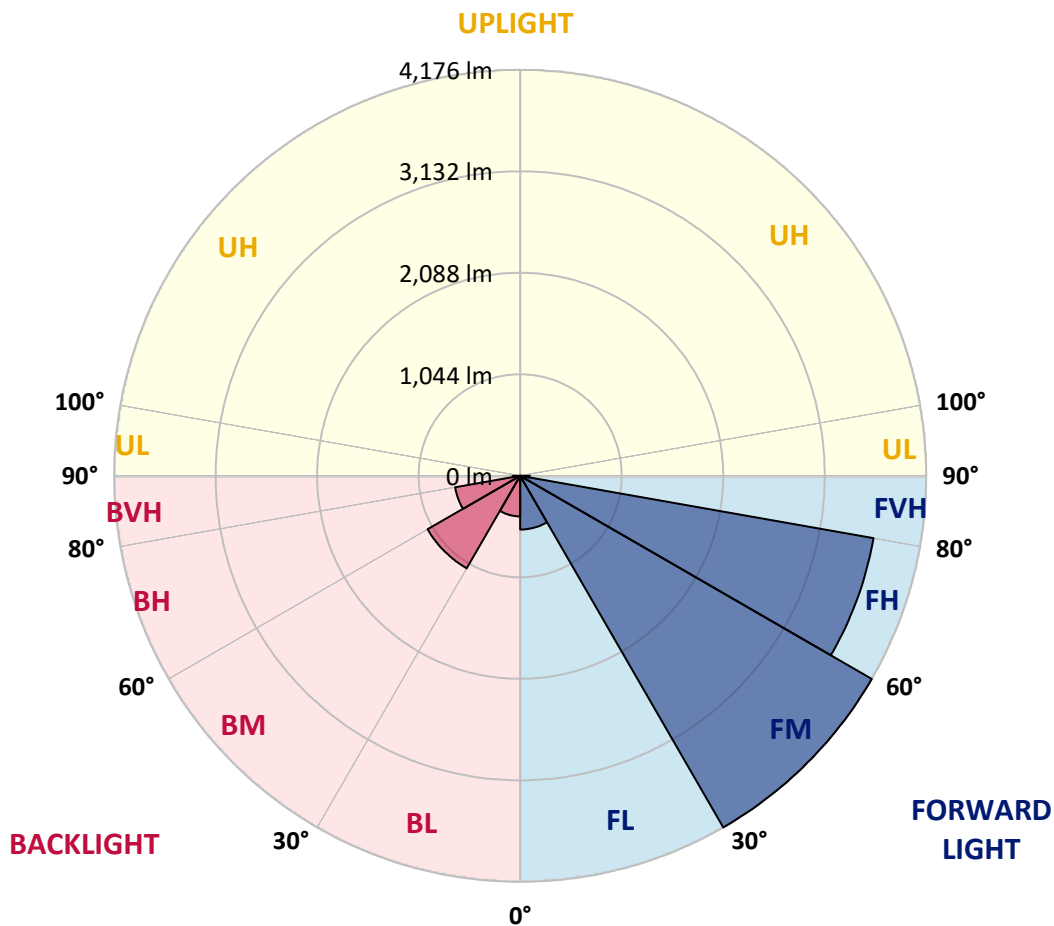
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	552.2	5.1			
FM (30°-60°)	4175.9	38.7			
FH (60°-80°)	3690.7	34.2			G2/5000
FVH (80°-90°)	99.2	0.9			G1/100
BL (0°-30°)	417.3	3.9	B1/500		
BM (30°-60°)	1099.2	10.2	B2/2500		
BH (60°-80°)	679.4	6.3	B2/1000		G2/1000
BVH (80°-90°)	77.0	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3
2.5°	553.2	536.6	508.7	515.4	531.6	540.6	535.2	528.0	518.6	516.8	558.1
5°	716.3	684.4	671.4	666.0	646.2	634.5	654.8	652.1	662.8	682.6	723.1
7.5°	835.4	812.9	791.4	789.1	750.9	737.4	764.4	778.8	798.1	798.6	853.4
10°	899.2	879.9	879.4	859.2	856.1	881.7	882.1	892.9	895.2	918.1	907.3
12.5°	968.4	967.1	991.8	991.3	1020.1	1062.3	1041.2	1041.2	1047.5	1019.7	1053.8
15°	1133.3	1147.7	1101.4	1109.1	1109.1	1150.4	1149.1	1157.2	1176.5	1169.3	1154.0
17.5°	1305.0	1314.0	1262.8	1215.1	1218.7	1209.7	1242.1	1245.2	1226.8	1310.4	1292.0
20°	1415.6	1450.6	1342.8	1283.0	1294.7	1305.0	1306.4	1287.0	1277.6	1406.1	1381.0
22.5°	1552.2	1522.5	1423.7	1357.6	1375.1	1361.2	1358.5	1373.3	1386.4	1434.9	1475.8
25°	1643.4	1641.2	1522.5	1450.2	1430.8	1426.8	1454.2	1448.4	1479.4	1567.5	1541.8
27.5°	1776.0	1817.3	1607.0	1625.0	1540.0	1450.6	1538.7	1565.2	1620.9	1606.6	1663.6
30°	2033.0	2002.0	1782.3	1777.3	1681.2	1606.1	1667.2	1644.8	1745.0	1741.8	1784.1
32.5°	2242.9	2264.5	1988.1	1936.4	1864.9	1774.6	1734.2	1796.6	1850.6	1939.1	1962.9
35°	2464.9	2459.9	2198.8	2094.6	1976.4	1939.1	1989.0	2015.0	2129.6	2211.0	2154.4
37.5°	2810.0	2770.9	2472.1	2274.8	2186.3	2172.8	2258.2	2220.4	2344.4	2363.8	2395.7
40°	3130.9	3013.1	2721.9	2495.9	2355.2	2405.6	2408.3	2413.2	2479.7	2532.3	2690.0
42.5°	3436.0	3353.3	2975.8	2806.0	2598.8	2549.8	2580.4	2590.7	2758.8	2866.2	3084.6
45°	3853.0	3631.5	3340.7	3166.4	2934.5	2872.0	2850.5	2939.4	3101.7	3346.1	3533.5
47.5°	4205.8	4005.8	3728.6	3498.9	3239.6	3418.0	3295.8	3245.9	3463.9	3766.7	4065.1
50°	4498.3	4278.1	4006.3	3873.7	3832.4	3991.4	3674.2	3680.0	3879.5	4306.9	4648.9
52.5°	4724.8	4489.8	4248.9	4181.5	4412.5	4504.2	4275.0	4240.4	4386.0	4891.1	5301.8
55°	4936.5	4687.1	4501.0	4638.6	5027.7	5038.1	5021.9	4830.0	5005.3	5517.1	5977.7
57.5°	4990.9	4722.1	4598.6	4795.8	5322.1	5731.5	5892.3	5515.8	5694.2	6086.5	6556.5
60°	4710.9	4480.8	4431.4	4699.2	5481.2	6079.7	6499.9	6274.8	6207.8	6543.5	6961.9
62.5°	4137.5	3870.6	3910.6	4282.6	5313.5	6217.7	6979.9	7155.6	6750.2	6907.1	7138.9
65°	3293.1	3038.3	3119.2	3566.8	4787.3	6263.5	7225.2	7585.6	6946.1	7010.0	6888.2
67.5°	2322.4	2091.0	2193.0	2771.8	3982.5	5676.6	7267.5	7385.2	6737.6	6716.5	6203.3
70°	1315.8	1170.6	1281.2	1763.8	2810.9	4522.2	6936.3	6781.2	6363.7	6064.5	5190.4
72.5°	603.5	553.6	606.7	897.9	1618.2	3009.1	5662.7	5803.4	5483.4	5109.1	3948.7
75°	320.9	303.3	325.8	448.5	757.2	1637.1	4023.3	4339.7	4169.4	3875.1	2575.9
77.5°	238.6	225.1	235.9	290.8	404.4	640.4	2286.0	2685.1	2749.8	2478.8	1430.4
80°	182.9	172.1	182.9	219.7	280.0	304.2	977.4	1251.5	1425.5	1151.8	568.5
82.5°	135.7	128.5	145.2	164.9	196.8	190.1	346.9	431.9	556.8	380.6	221.5
85°	107.9	98.9	105.2	111.9	125.8	104.3	158.6	177.5	187.8	157.3	81.8
87.5°	42.2	39.1	76.4	60.2	51.2	31.5	47.6	53.9	55.3	53.0	23.8
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°	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3	463.3
2.5°	562.6	558.1	531.6	540.2	554.1	556.8	562.6	546.5	538.4	568.0	569.4
5°	726.7	702.4	689.8	691.2	682.2	668.2	689.4	703.3	708.7	730.7	738.8
7.5°	853.8	824.6	803.5	779.2	745.1	723.1	759.9	786.9	801.3	847.1	865.1
10°	910.5	887.1	882.6	852.0	851.1	850.7	848.9	839.5	870.5	866.0	878.5
12.5°	1027.3	1022.4	979.7	967.5	968.9	967.5	929.8	928.0	928.4	969.8	954.9
15°	1136.0	1136.9	1097.8	1053.8	1014.3	1002.1	987.3	980.6	990.4	1013.8	999.4
17.5°	1270.4	1274.9	1163.0	1093.4	1041.2	1039.9	1004.4	962.6	1022.8	1037.2	1021.5
20°	1357.1	1338.3	1200.8	1083.9	1069.1	1028.6	984.6	927.1	979.2	1014.3	1024.1
22.5°	1439.4	1406.6	1235.8	1100.5	1029.5	981.5	938.8	901.5	918.1	957.2	950.9
25°	1495.1	1486.1	1284.3	1140.5	1028.2	921.2	863.7	839.9	848.4	909.1	903.3
27.5°	1628.1	1531.1	1275.8	1150.9	985.1	839.0	810.2	784.6	776.1	841.7	859.7
30°	1717.1	1677.1	1332.9	1134.7	930.7	771.6	729.4	724.0	726.7	801.3	806.2
32.5°	1868.1	1764.3	1426.3	1072.7	851.6	721.7	673.2	675.4	687.6	741.9	753.2
35°	2025.4	1963.4	1438.9	1028.2	787.3	668.7	648.9	633.2	639.9	687.6	689.8
37.5°	2317.5	2103.1	1516.2	959.4	740.1	648.5	610.7	596.8	600.4	627.3	646.7
40°	2574.5	2384.0	1480.3	892.9	681.7	621.5	574.3	564.0	553.2	579.7	591.8
42.5°	2986.6	2584.4	1468.1	819.7	654.3	585.1	552.7	525.3	515.0	537.5	559.5
45°	3398.7	2797.0	1402.1	745.5	615.7	582.4	521.3	495.2	497.9	518.1	540.6
47.5°	3858.0	3082.3	1290.2	673.6	573.4	569.4	489.8	478.6	486.7	509.2	531.6
50°	4400.8	3385.2	1197.6	608.9	543.3	530.3	485.8	472.3	479.9	506.5	528.5
52.5°	4994.5	3717.3	1130.2	549.1	509.2	499.3	491.2	478.1	487.1	510.1	533.0
55°	5584.5	4020.7	1084.4	508.3	479.9	486.2	502.4	493.0	497.5	514.5	537.5
57.5°	6022.2	4180.6	992.2	464.7	456.1	478.6	503.8	488.0	490.7	514.5	539.3
60°	6276.6	4211.2	840.8	429.2	437.3	463.3	489.8	469.6	467.8	506.9	537.9
62.5°	6248.7	4033.7	666.9	396.8	415.7	440.4	468.7	449.4	454.3	507.8	540.6
65°	5849.6	3671.0	530.3	369.4	389.6	415.2	451.2	443.5	467.4	543.8	579.3
67.5°	5148.6	3141.2	426.0	343.8	365.4	398.2	463.3	483.5	493.9	580.6	617.0
70°	4172.5	2440.6	355.0	321.3	346.0	406.2	498.4	494.3	485.8	563.1	591.8
72.5°	3014.5	1673.1	312.3	299.3	322.2	382.0	499.3	477.7	466.9	514.1	534.8
75°	1886.1	998.1	272.8	271.4	285.8	342.4	476.8	457.5	428.3	451.6	478.6
77.5°	1077.2	511.0	229.6	241.8	250.3	297.0	426.9	409.4	383.3	393.2	419.7
80°	411.2	247.2	193.7	214.8	212.6	251.7	361.8	357.7	328.1	331.2	347.4
82.5°	193.7	138.4	160.9	184.7	172.6	200.4	293.9	292.5	266.5	241.3	254.4
85°	71.9	73.7	117.7	140.7	120.0	129.4	212.6	206.7	181.6	153.2	169.4
87.5°	16.2	26.5	58.0	73.2	41.8	40.0	85.8	74.6	71.9	42.7	44.9
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)