

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: P596626

Luminaire Tested: **MSA-SA2C-827-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-827-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9090 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

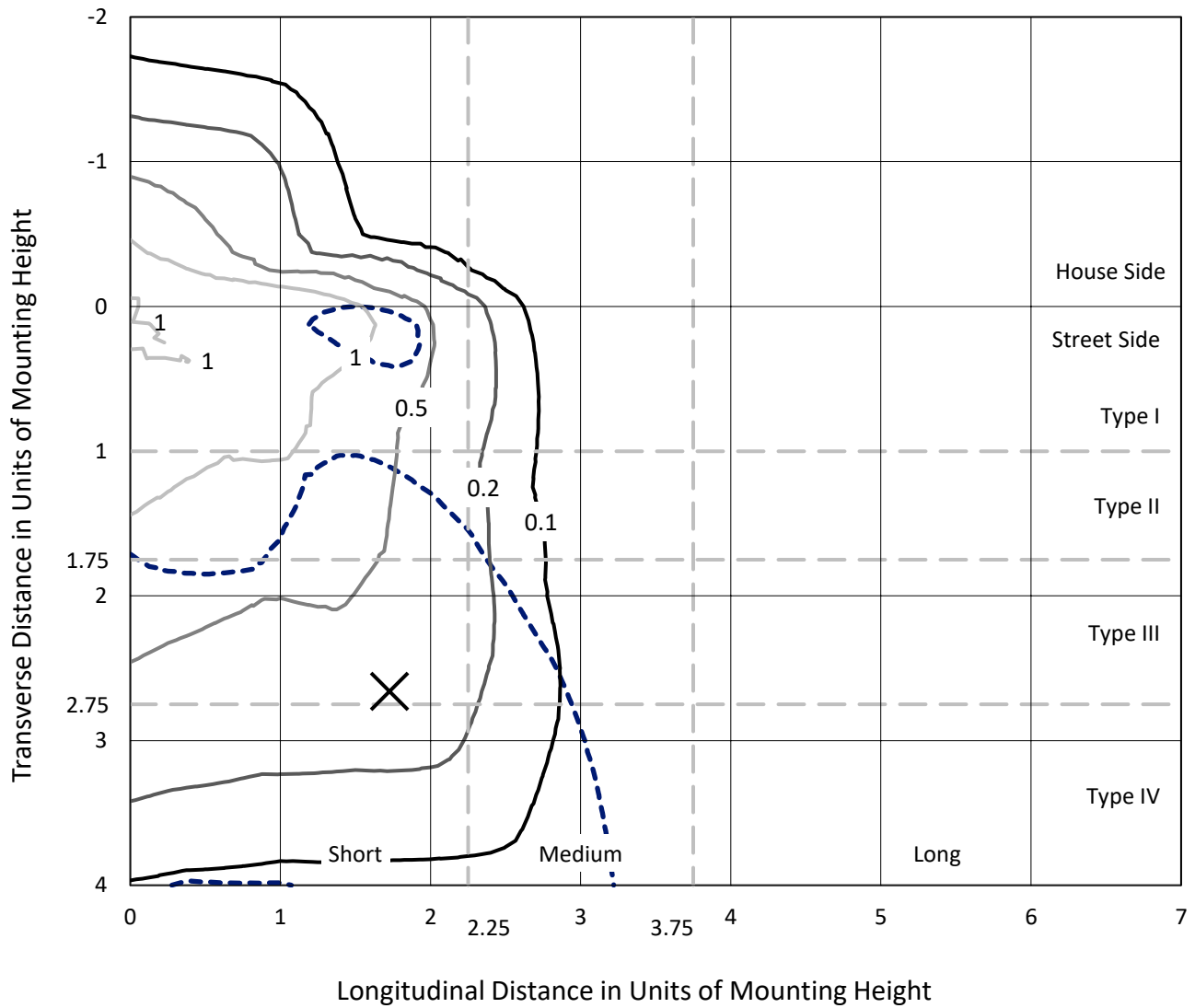
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

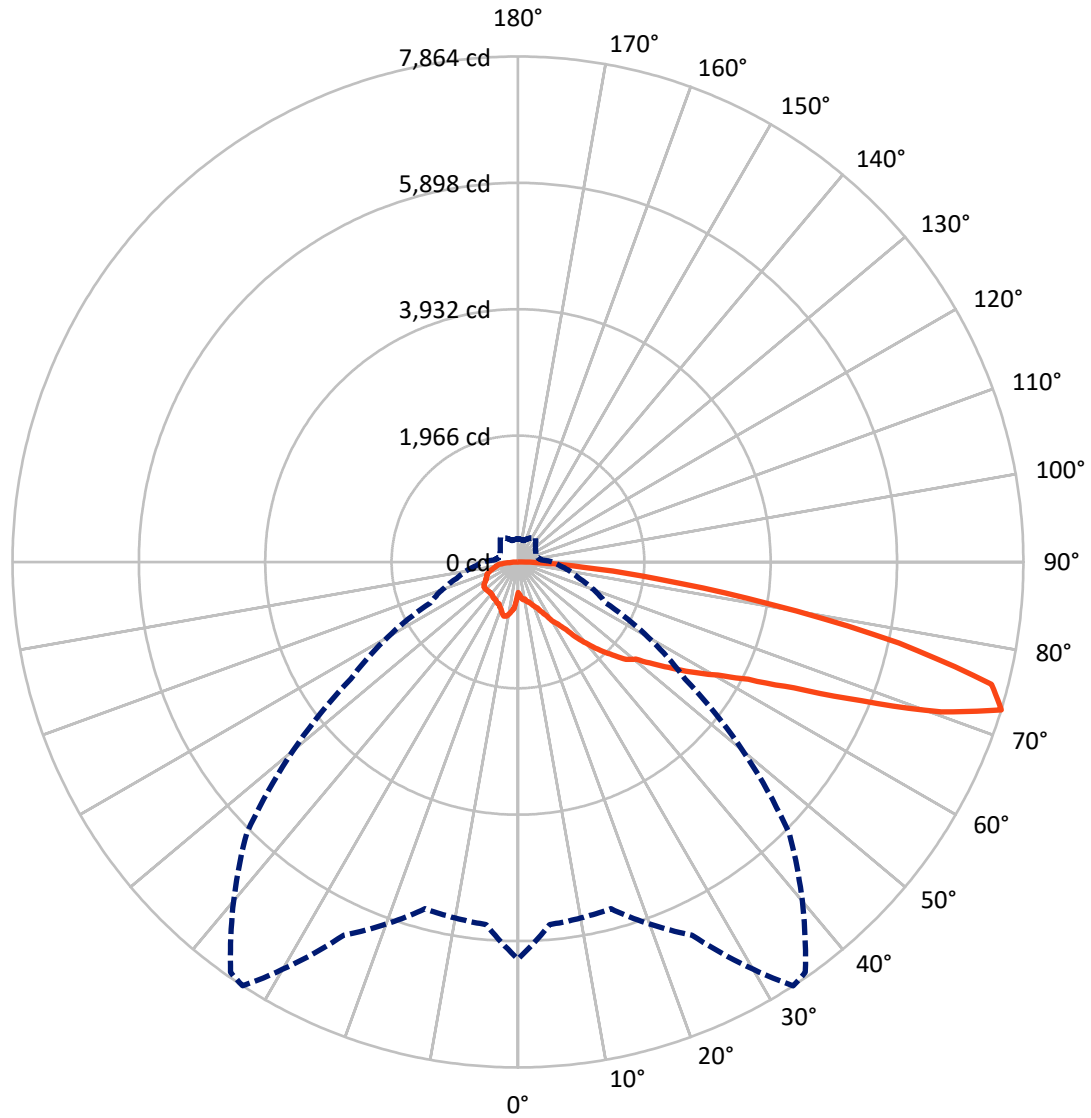
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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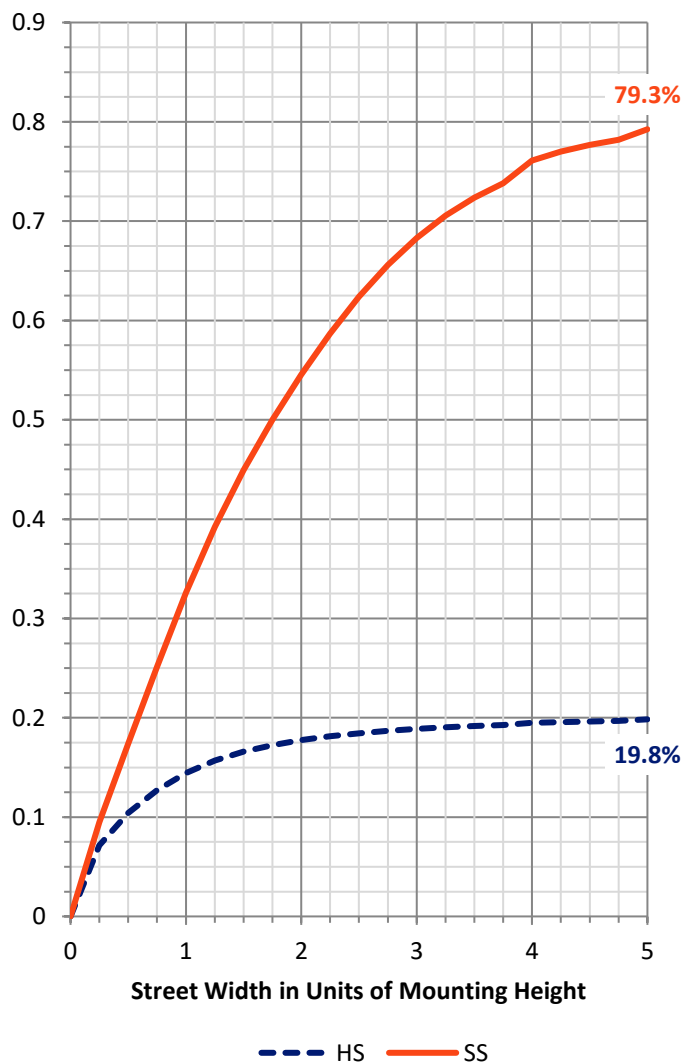
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1838.9	0.0	1838.9
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	7251.1	0.0	7251.1
	% Fixture	79.8	0.0	79.8
Total	Lumens	9090.0	0.0	9090.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	0.7
10°-20°	242.2	2.7
20°-30°	441.6	4.9
30°-40°	747.2	8.2
40°-50°	1243.0	13.7
50°-60°	1824.2	20.1
60°-70°	2333.6	25.7
70°-80°	1898.6	20.9
80°-90°	294.0	3.2
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°	9090.0	100.0
0°-180°	9090.0	100.0

Coefficient of Utilization



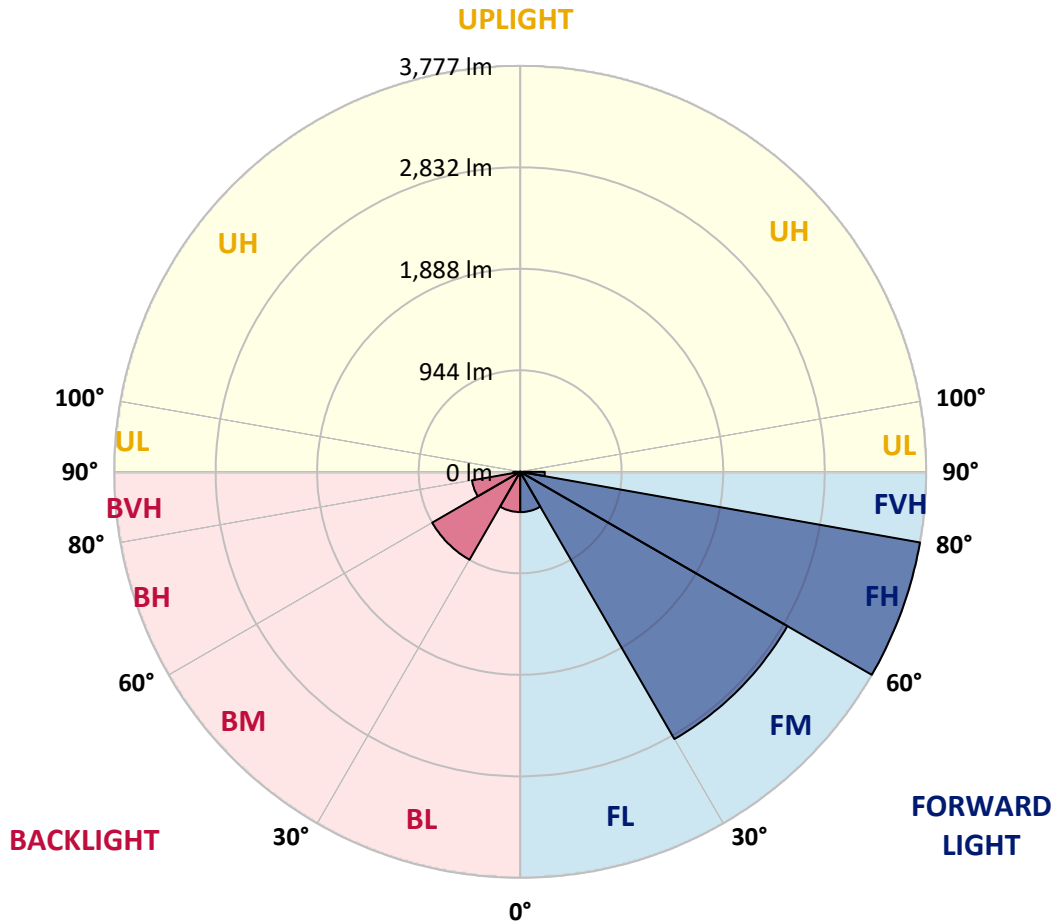
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	375.1	4.1			
FM (30°-60°)	2869.9	31.6			
FH (60°-80°)	3776.5	41.5			G2/5000
FVH (80°-90°)	229.5	2.5			G3/500
BL (0°-30°)	374.2	4.1	B1/500		
BM (30°-60°)	944.4	10.4	B1/1000		
BH (60°-80°)	455.6	5.0	B1/500		G1/500
BVH (80°-90°)	64.6	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6
2.5°	540.4	523.4	495.5	494.7	510.2	513.6	523.8	524.5	528.3	522.3	565.3
5°	596.2	578.1	567.1	570.9	563.8	572.4	572.4	597.3	630.5	669.0	723.6
7.5°	609.4	596.2	583.7	593.2	594.7	586.4	594.3	652.7	712.7	751.2	838.7
10°	583.0	569.8	579.2	582.2	581.9	600.7	641.8	688.6	755.3	826.2	873.3
12.5°	578.1	587.5	592.0	597.3	633.1	638.8	701.0	749.3	816.4	878.6	1001.2
15°	650.9	663.3	635.4	633.5	645.2	650.5	715.0	763.6	861.7	966.1	1076.2
17.5°	754.6	759.1	708.9	683.3	692.0	696.1	724.4	785.5	845.8	1038.9	1176.1
20°	854.9	857.9	763.6	706.3	736.8	741.4	767.8	802.8	850.3	1079.6	1243.6
22.5°	960.1	940.8	837.5	765.1	782.8	784.0	799.4	818.7	886.2	1073.2	1325.9
25°	1075.1	1063.0	932.9	863.5	862.8	847.3	848.1	875.6	924.3	1141.8	1379.8
27.5°	1227.8	1229.3	1040.4	1003.1	944.6	934.4	883.5	934.8	990.2	1142.6	1496.3
30°	1425.8	1389.2	1190.1	1129.8	1072.1	1050.6	981.6	1025.3	1049.4	1207.8	1623.0
32.5°	1586.8	1576.2	1346.2	1255.0	1160.7	1185.6	1109.4	1070.9	1114.3	1320.2	1814.9
35°	1741.0	1706.3	1511.4	1392.6	1293.4	1278.3	1228.9	1235.4	1261.7	1462.4	2065.7
37.5°	1971.1	1952.2	1745.2	1555.1	1508.7	1447.3	1416.0	1436.0	1415.2	1644.5	2441.7
40°	2228.2	2118.9	1940.5	1771.2	1684.5	1641.1	1652.0	1633.2	1617.3	1848.9	2778.8
42.5°	2474.5	2374.9	2070.2	1994.1	1880.9	1899.0	1839.1	1852.3	1897.1	2138.9	3090.6
45°	2742.6	2527.3	2207.9	2140.8	2059.7	2082.7	2130.6	2116.2	2189.8	2480.9	3384.4
47.5°	2876.5	2671.7	2376.8	2267.5	2266.3	2218.4	2509.9	2541.6	2426.6	2734.3	3682.7
50°	3005.4	2804.1	2502.4	2428.5	2374.9	2477.5	2873.8	2801.0	2640.8	3025.0	4010.7
52.5°	3184.9	2955.3	2646.4	2567.6	2634.0	2729.0	3164.2	3149.8	2850.8	3324.1	4295.8
55°	3321.8	3089.9	2863.3	2790.1	2916.8	3009.9	3459.8	3373.5	3030.7	3543.5	4476.5
57.5°	3561.6	3323.7	3183.4	3020.9	3248.6	3247.1	3744.9	3678.2	3223.0	3723.8	4549.2
60°	3942.9	3663.4	3516.8	3329.3	3573.3	3660.4	4070.7	3878.4	3359.1	3837.7	4418.0
62.5°	4478.0	4146.1	3908.2	3722.7	4020.2	4177.8	4473.1	4024.3	3367.8	3805.2	4073.0
65°	5139.8	4736.3	4424.4	4228.3	4719.3	4944.4	4959.5	4114.5	3287.9	3470.0	3347.4
67.5°	5785.3	5331.7	5006.3	5043.6	5760.5	5867.2	5486.7	4189.9	2858.4	2786.3	2324.4
70°	6210.3	5718.6	5501.8	5897.7	6986.8	6877.4	5913.9	3991.1	2250.9	1806.3	1308.9
72.5°	6178.3	5663.5	5585.5	6405.3	7863.9	7795.6	5966.0	3174.0	1507.6	987.6	652.7
75°	5033.4	4633.3	4810.6	6063.6	7611.2	7607.8	5179.7	1964.6	773.4	507.2	412.5
77.5°	2782.9	2627.6	3148.3	4591.1	6060.2	6091.2	3499.8	891.1	417.1	359.4	310.7
80°	974.8	960.5	1364.3	2477.5	3986.6	3994.2	1627.5	407.6	303.2	271.9	228.1
82.5°	356.4	353.3	565.6	1150.9	2195.1	2190.1	617.3	253.8	224.7	192.3	150.5
85°	142.2	139.1	258.7	511.0	1008.3	992.1	239.8	144.0	147.1	114.6	73.9
87.5°	39.2	40.7	87.9	159.9	308.8	286.2	60.3	48.6	59.6	46.8	23.4
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°	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6	476.6
2.5°	572.8	576.6	539.2	552.4	569.4	578.5	583.0	563.8	570.2	597.3	596.2
5°	735.0	719.9	705.5	720.2	710.4	696.5	719.1	718.0	732.7	747.4	750.8
7.5°	856.0	836.4	829.6	796.4	763.2	729.7	758.7	776.8	780.6	817.2	832.6
10°	899.7	892.2	894.8	851.1	846.9	850.3	823.6	794.5	812.3	797.2	808.5
12.5°	1000.8	1019.7	972.9	943.1	940.5	919.7	866.2	847.3	827.3	848.1	837.5
15°	1081.9	1116.9	1066.8	1014.4	955.2	923.1	877.5	848.8	835.6	840.2	827.3
17.5°	1200.7	1233.5	1106.0	1025.7	964.6	917.5	847.7	786.6	819.0	821.7	807.0
20°	1279.5	1281.7	1119.2	997.8	942.7	860.9	793.0	739.5	776.8	814.9	831.5
22.5°	1356.4	1339.4	1135.4	975.5	863.2	784.0	750.8	747.4	775.3	807.4	811.1
25°	1414.1	1416.7	1144.9	967.2	816.4	708.6	708.6	733.1	757.6	833.8	830.0
27.5°	1554.0	1451.0	1108.3	929.2	751.5	664.4	708.9	741.7	753.4	836.0	844.3
30°	1655.8	1588.7	1115.8	863.9	685.9	643.7	680.3	721.4	753.8	849.2	846.2
32.5°	1826.6	1646.0	1133.5	772.3	636.9	635.8	668.2	711.6	750.4	834.9	839.4
35°	2015.6	1814.9	1084.1	702.5	625.2	631.3	673.1	690.5	736.1	829.2	833.4
37.5°	2365.1	1903.2	1052.8	648.6	617.7	635.0	650.9	677.6	723.6	800.9	828.1
40°	2570.3	2084.9	936.7	617.3	601.8	632.0	639.9	662.6	687.4	767.0	784.4
42.5°	2840.3	2142.3	837.5	582.6	593.9	619.6	643.3	649.0	665.6	713.5	745.1
45°	3065.4	2185.2	732.3	554.7	567.1	647.1	648.6	646.0	642.9	660.7	686.7
47.5°	3298.4	2300.6	635.4	523.8	557.0	669.7	651.2	627.1	614.7	616.9	641.1
50°	3555.6	2384.4	566.8	498.5	559.2	669.7	664.1	607.9	583.0	576.6	601.8
52.5°	3781.9	2394.2	514.7	478.2	549.8	646.7	672.7	595.8	553.9	538.5	562.2
55°	3905.2	2270.1	477.0	459.7	525.7	626.0	668.2	589.0	518.9	507.2	528.3
57.5°	3902.5	2064.2	445.0	434.0	498.1	596.9	642.9	552.1	497.4	490.6	511.3
60°	3761.9	1822.9	420.5	412.9	469.9	554.7	597.7	527.9	476.6	473.3	495.9
62.5°	3442.8	1573.6	396.7	390.7	443.5	524.9	576.2	501.2	455.1	454.8	476.3
65°	2819.5	1263.3	374.5	372.9	418.9	495.5	555.8	478.5	432.9	440.4	462.3
67.5°	1942.8	887.7	350.7	355.2	396.3	467.2	540.4	463.4	409.5	425.0	444.6
70°	1066.0	549.0	324.3	333.3	367.7	434.4	516.2	438.9	379.0	402.7	416.3
72.5°	542.3	366.2	291.5	305.8	332.6	386.1	471.0	403.5	346.2	355.2	362.4
75°	364.3	275.7	254.9	270.8	290.0	340.1	417.8	370.3	314.9	313.7	321.7
77.5°	275.3	215.3	216.5	234.6	247.0	299.0	375.6	342.4	288.5	285.8	297.5
80°	201.4	163.3	174.2	193.1	204.4	268.5	348.1	311.5	252.7	242.1	251.9
82.5°	133.5	115.8	129.0	147.8	156.9	224.4	316.0	264.3	205.9	179.1	180.6
85°	63.0	60.7	76.9	86.0	97.7	139.1	236.4	182.9	131.2	108.6	113.5
87.5°	14.3	19.2	25.3	24.9	29.0	37.3	73.5	51.3	38.1	26.0	17.3
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)