

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: P367494

Luminaire Tested: **MSA-SA2C-760-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-760-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12304 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

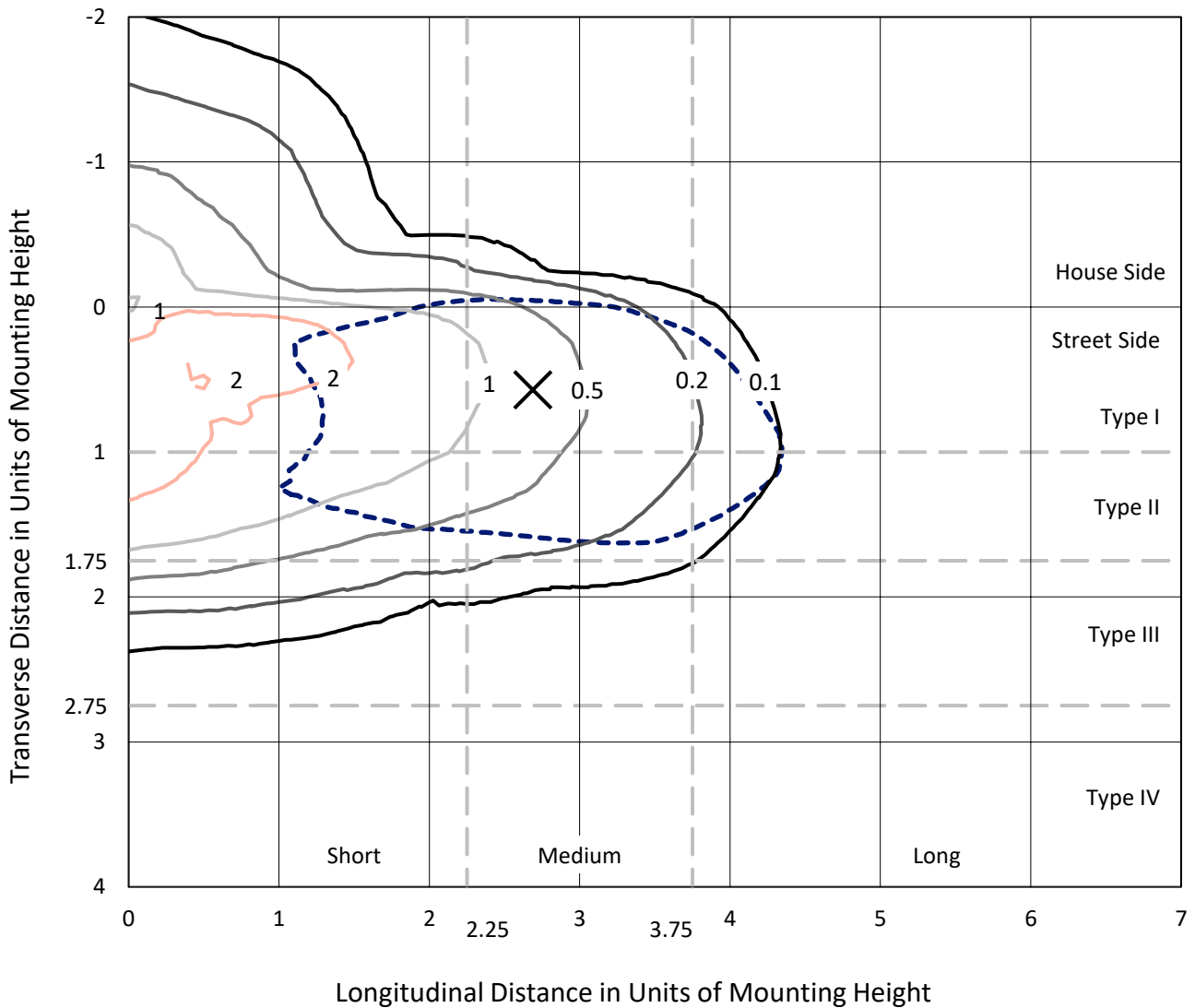
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

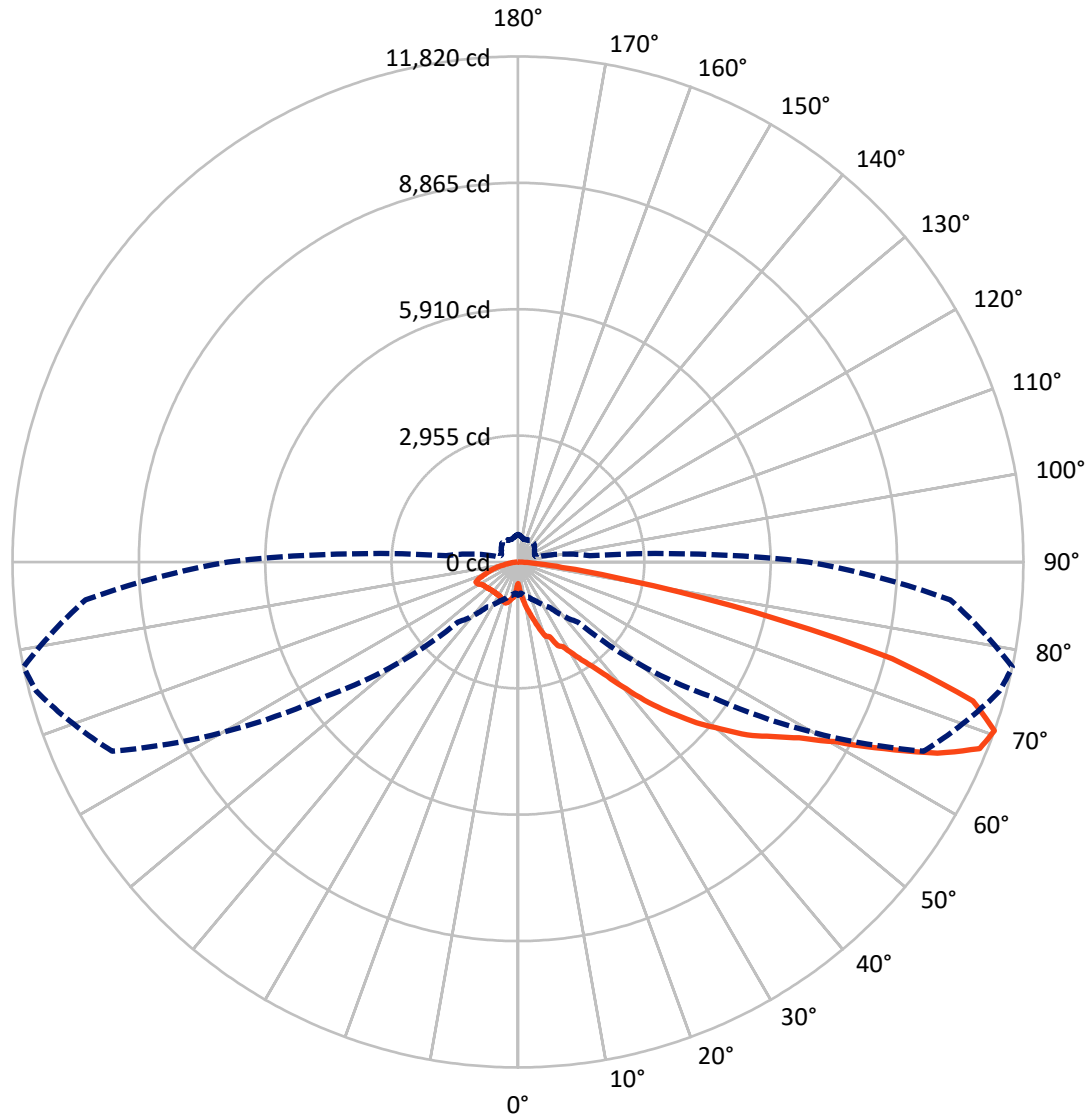
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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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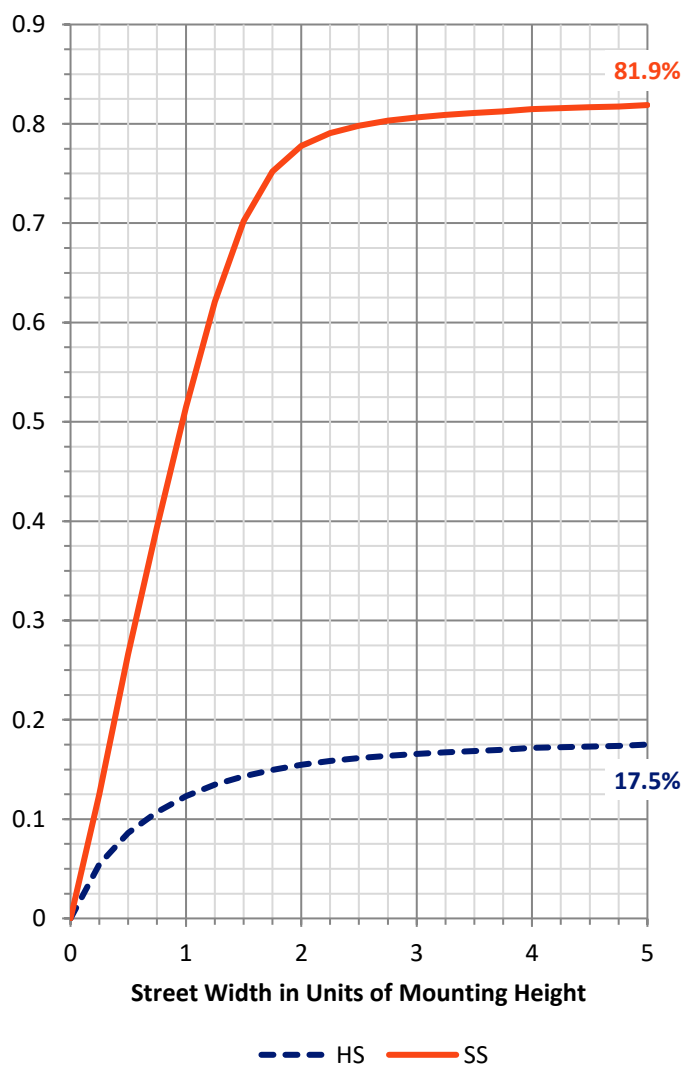
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2196.1	0.0	2196.1
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	10107.9	0.0	10107.9
	% Fixture	82.2	0.0	82.2
Total	Lumens	12304.0	0.0	12304.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.5	0.6
10°-20°	341.6	2.8
20°-30°	657.4	5.3
30°-40°	1107.4	9.0
40°-50°	1916.1	15.6
50°-60°	2893.0	23.5
60°-70°	3204.4	26.0
70°-80°	1847.5	15.0
80°-90°	259.1	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°	12304.0	100.0
0°-180°	12304.0	100.0

Coefficient of Utilization



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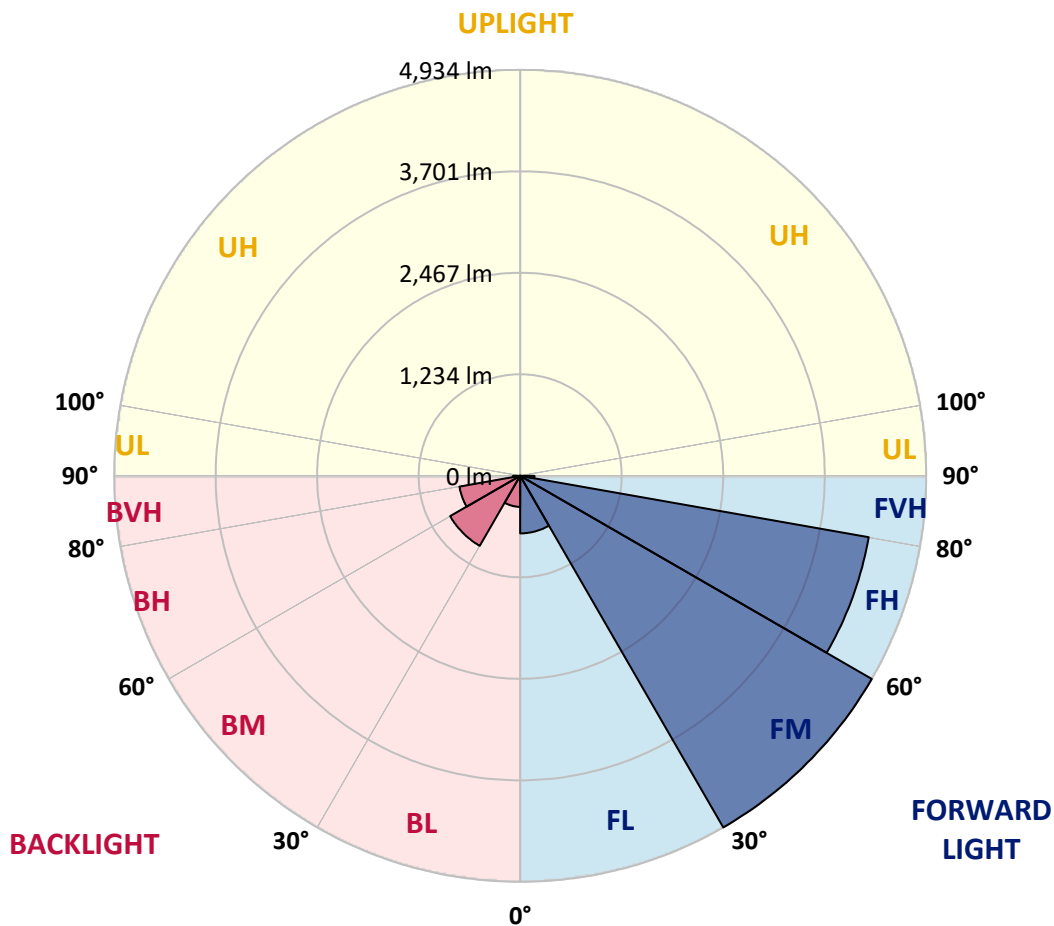
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	699.4	5.7			
FM (30°-60°)	4934.3	40.1			
FH (60°-80°)	4301.3	35.0			G2/5000
FVH (80°-90°)	172.8	1.4			G2/225
BL (0°-30°)	377.1	3.1	B1/500		
BM (30°-60°)	982.2	8.0	B1/1000		
BH (60°-80°)	750.5	6.1	B2/1000		G2/1000
BVH (80°-90°)	86.3	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°	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6
2.5°	645.8	622.7	587.8	602.2	619.6	621.7	616.0	584.2	573.4	597.6	604.7
5°	904.8	865.8	842.2	834.5	808.4	754.0	793.0	773.0	777.1	765.3	788.4
7.5°	1122.8	1096.6	1061.8	1052.0	992.0	949.4	976.1	967.4	925.3	908.9	935.1
10°	1233.6	1204.9	1206.4	1185.4	1169.5	1173.6	1160.2	1121.8	1090.5	1068.4	1005.3
12.5°	1300.3	1307.4	1345.9	1335.1	1395.2	1444.4	1407.0	1350.0	1251.0	1231.0	1168.4
15°	1458.8	1485.4	1449.5	1465.9	1491.6	1586.0	1570.6	1558.3	1453.6	1414.6	1299.2
17.5°	1621.9	1627.0	1572.6	1563.9	1625.5	1673.2	1733.2	1663.9	1676.7	1649.6	1462.9
20°	1656.7	1692.1	1614.2	1560.3	1687.0	1781.4	1855.8	1782.4	1850.1	1857.3	1597.8
22.5°	1784.5	1741.9	1639.3	1586.5	1697.3	1813.2	1934.2	1975.3	1953.7	1893.2	1728.0
25°	1873.2	1850.6	1746.0	1687.5	1729.6	1836.3	2048.6	2155.8	2174.8	2166.6	1852.2
27.5°	2037.8	2049.1	1833.7	1850.1	1791.6	1801.4	2117.4	2395.4	2276.9	2244.0	2006.0
30°	2297.9	2247.6	2006.0	2019.4	1922.4	1906.0	2262.5	2602.1	2495.9	2456.4	2132.7
32.5°	2569.2	2573.9	2280.5	2166.6	2114.8	2098.4	2233.8	2710.3	2772.9	2721.6	2324.1
35°	2951.9	2925.2	2578.0	2428.2	2241.0	2212.2	2438.4	3024.2	3139.1	2995.5	2551.3
37.5°	3534.6	3454.0	3049.8	2703.6	2565.1	2532.3	2730.8	3305.8	3564.3	3385.8	2922.6
40°	4002.3	3838.7	3471.5	3049.8	2815.4	2856.0	2938.5	3647.4	4005.4	3904.9	3266.3
42.5°	4375.2	4230.1	3770.0	3473.5	3155.0	3104.7	3195.0	4070.6	4605.5	4507.1	3695.1
45°	4732.7	4437.3	4105.4	3838.7	3532.5	3593.5	3580.2	4502.4	5341.6	5038.5	4074.2
47.5°	5085.6	4808.1	4460.9	4102.4	3794.1	4174.2	4032.1	4823.5	5838.1	5613.4	4473.2
50°	5539.1	5233.9	4838.4	4477.8	4293.2	4571.2	4332.7	5095.4	6394.1	6130.5	4849.7
52.5°	5840.2	5543.2	5196.4	4938.9	4922.0	4814.8	4753.8	5439.6	6881.4	6721.4	5248.8
55°	5804.8	5518.5	5361.6	5389.8	5599.1	5237.5	5187.7	5948.9	7389.7	7204.5	5679.6
57.5°	5361.1	5048.7	5082.1	5249.3	5811.4	5979.7	5895.0	6493.1	7843.1	7759.0	6212.5
60°	4176.2	4015.7	4287.0	4592.7	5527.3	6197.1	6792.1	7156.8	8401.2	8535.6	7049.6
62.5°	2712.9	2498.5	2927.3	3446.3	4679.4	6053.5	7705.7	8415.5	9315.2	9620.4	8321.7
65°	1405.4	1371.0	1671.1	2148.1	3257.6	5161.6	8027.8	9735.8	10426.2	10781.7	9536.8
67.5°	1021.7	958.1	1097.1	1377.7	1988.6	3519.7	7417.4	10745.8	11318.2	11643.9	10243.1
70°	778.1	730.9	837.1	1011.0	1298.7	1988.1	5475.5	10470.3	11662.4	11820.3	10149.2
72.5°	582.7	542.2	635.0	797.1	1000.7	1119.2	3236.6	8608.9	11075.1	11128.9	9109.0
75°	465.2	433.9	473.9	629.4	815.5	761.7	1719.3	6237.2	8998.2	9044.4	6957.8
77.5°	381.6	354.9	371.4	471.9	634.5	572.9	853.0	3967.5	5712.9	5642.2	3914.6
80°	311.3	288.3	296.0	341.1	483.2	427.8	479.1	2069.6	2725.2	2615.4	1628.0
82.5°	239.5	220.0	235.4	250.8	349.8	307.2	279.5	941.7	1116.1	1039.7	597.0
85°	160.5	142.6	204.7	188.2	228.8	188.8	152.9	374.9	416.0	387.8	209.8
87.5°	44.1	41.5	68.7	93.9	93.9	71.3	55.9	90.8	115.9	101.6	49.2
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°	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6	501.6
2.5°	607.8	596.5	566.8	564.2	571.4	572.4	567.8	557.0	551.4	582.2	577.6
5°	782.7	742.7	718.6	696.6	665.8	643.7	649.4	664.7	669.9	693.0	695.5
7.5°	918.6	865.8	813.0	742.2	695.5	665.8	688.3	704.8	717.6	750.4	763.7
10°	977.6	920.2	845.3	770.9	758.1	763.2	750.4	754.5	774.5	776.1	782.7
12.5°	1087.4	1022.3	887.4	820.2	816.6	827.3	822.7	841.7	855.6	893.0	877.1
15°	1192.5	1109.5	919.2	850.4	835.6	857.1	882.2	914.0	943.8	979.2	961.2
17.5°	1320.3	1195.1	920.7	836.6	839.1	885.3	911.5	928.9	1017.6	1066.4	1041.7
20°	1400.8	1203.8	886.3	802.2	839.1	880.7	917.1	936.1	1035.6	1108.9	1125.9
22.5°	1473.6	1206.9	859.7	783.7	807.3	862.2	917.1	959.2	1022.8	1093.0	1095.6
25°	1513.6	1204.3	825.3	785.3	806.8	834.0	882.7	921.2	968.4	1066.4	1068.9
27.5°	1616.2	1171.0	791.4	791.4	802.7	803.8	865.8	888.4	895.1	984.3	1000.2
30°	1646.0	1178.2	787.3	790.4	796.1	785.8	813.0	827.9	837.6	914.5	917.1
32.5°	1693.7	1120.7	799.6	781.2	774.0	772.5	779.1	792.5	796.6	843.8	852.5
35°	1751.6	1097.7	803.8	778.6	764.3	756.6	776.6	760.2	773.0	828.4	834.5
37.5°	1940.4	1065.9	824.8	778.6	760.2	751.4	741.7	749.4	795.0	848.4	881.2
40°	2060.9	1075.6	819.7	786.3	746.3	738.1	721.7	749.9	820.7	915.1	939.7
42.5°	2272.3	1081.2	825.8	782.7	750.9	719.1	729.9	760.7	835.0	888.9	926.9
45°	2490.8	1098.7	821.7	772.0	740.7	755.5	740.7	768.4	803.8	805.3	834.0
47.5°	2705.2	1169.0	813.0	749.9	738.1	777.1	739.1	743.7	746.3	755.5	789.4
50°	2957.0	1243.8	800.7	719.1	741.7	778.1	744.8	722.2	719.6	749.9	787.9
52.5°	3243.2	1328.5	784.8	689.4	720.7	768.4	764.3	723.7	701.7	730.9	768.9
55°	3580.2	1424.9	766.3	659.6	697.6	769.4	775.0	713.0	702.2	734.0	774.5
57.5°	4028.0	1564.4	730.4	616.5	669.4	753.5	747.3	700.7	690.4	724.2	766.3
60°	4792.2	1832.7	679.1	574.0	639.1	714.5	724.8	678.6	668.3	705.8	749.9
62.5°	5815.5	2155.3	617.0	532.4	602.2	672.4	696.6	646.8	645.8	693.5	739.6
65°	6768.0	2338.4	552.9	494.5	564.2	633.5	664.7	617.0	619.1	679.1	725.3
67.5°	7164.0	2123.0	495.5	460.6	520.6	588.8	638.6	594.0	587.3	659.6	702.2
70°	6792.1	1686.5	445.7	424.7	471.4	540.6	602.2	563.2	547.8	613.5	646.8
72.5°	6009.9	1405.9	399.1	382.6	428.3	489.8	552.9	521.6	501.6	551.9	581.7
75°	4697.9	1153.6	345.7	341.1	379.1	443.7	501.6	480.1	454.5	486.3	516.0
77.5°	2674.9	729.9	290.3	293.4	320.6	388.8	440.1	423.2	397.0	410.3	444.7
80°	1070.5	368.3	233.4	235.4	258.5	319.6	364.7	358.5	331.3	342.1	365.7
82.5°	400.1	202.1	172.3	173.4	196.4	252.9	311.3	308.3	282.6	274.9	288.3
85°	159.0	100.0	105.7	110.3	132.3	182.1	249.8	221.6	191.3	167.7	175.9
87.5°	38.0	31.8	36.9	39.0	43.1	56.9	91.3	73.3	75.4	60.5	45.1
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)