

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: P367966

Luminaire Tested: **MSA-SA3C-740-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-740-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18696 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

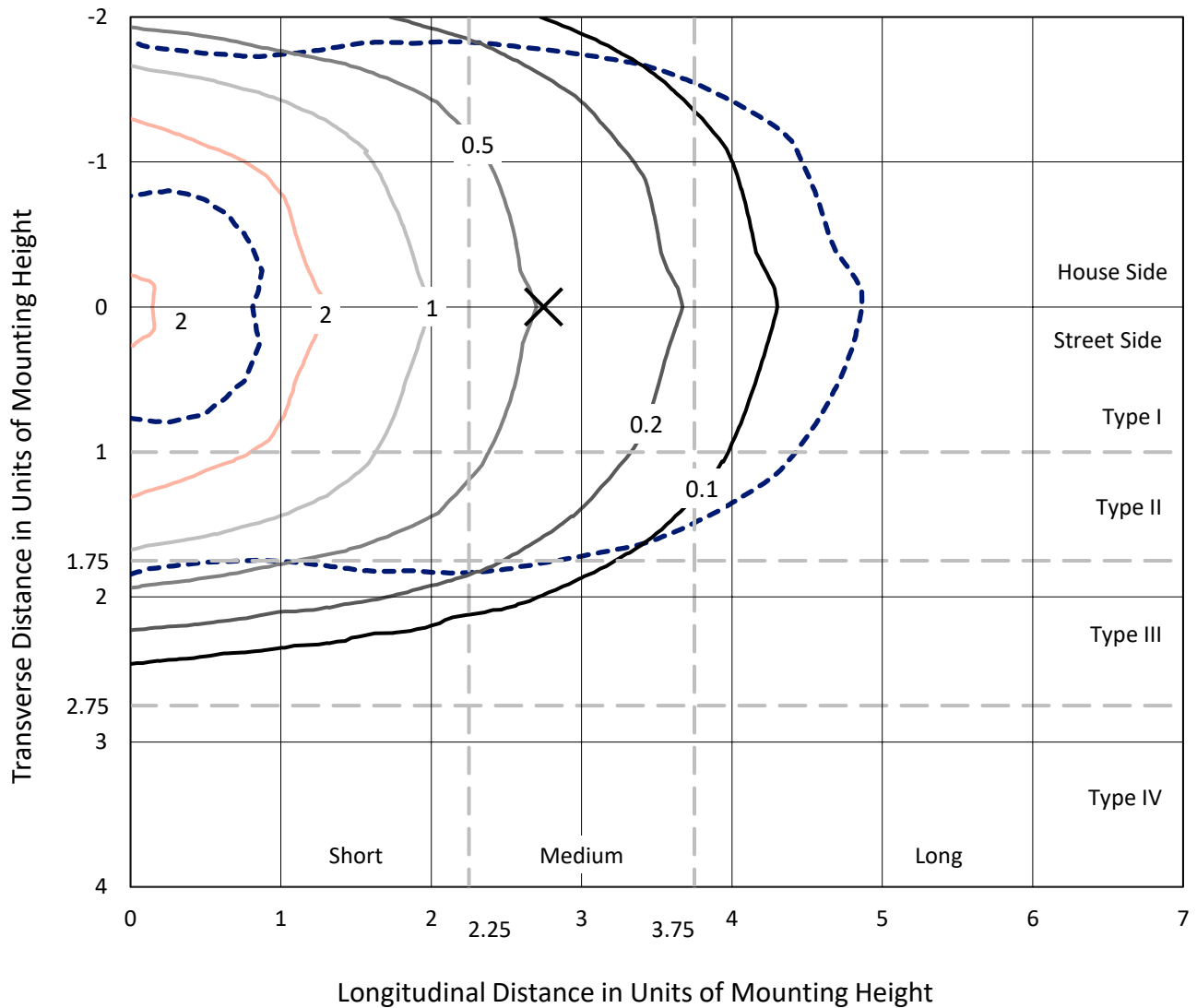
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

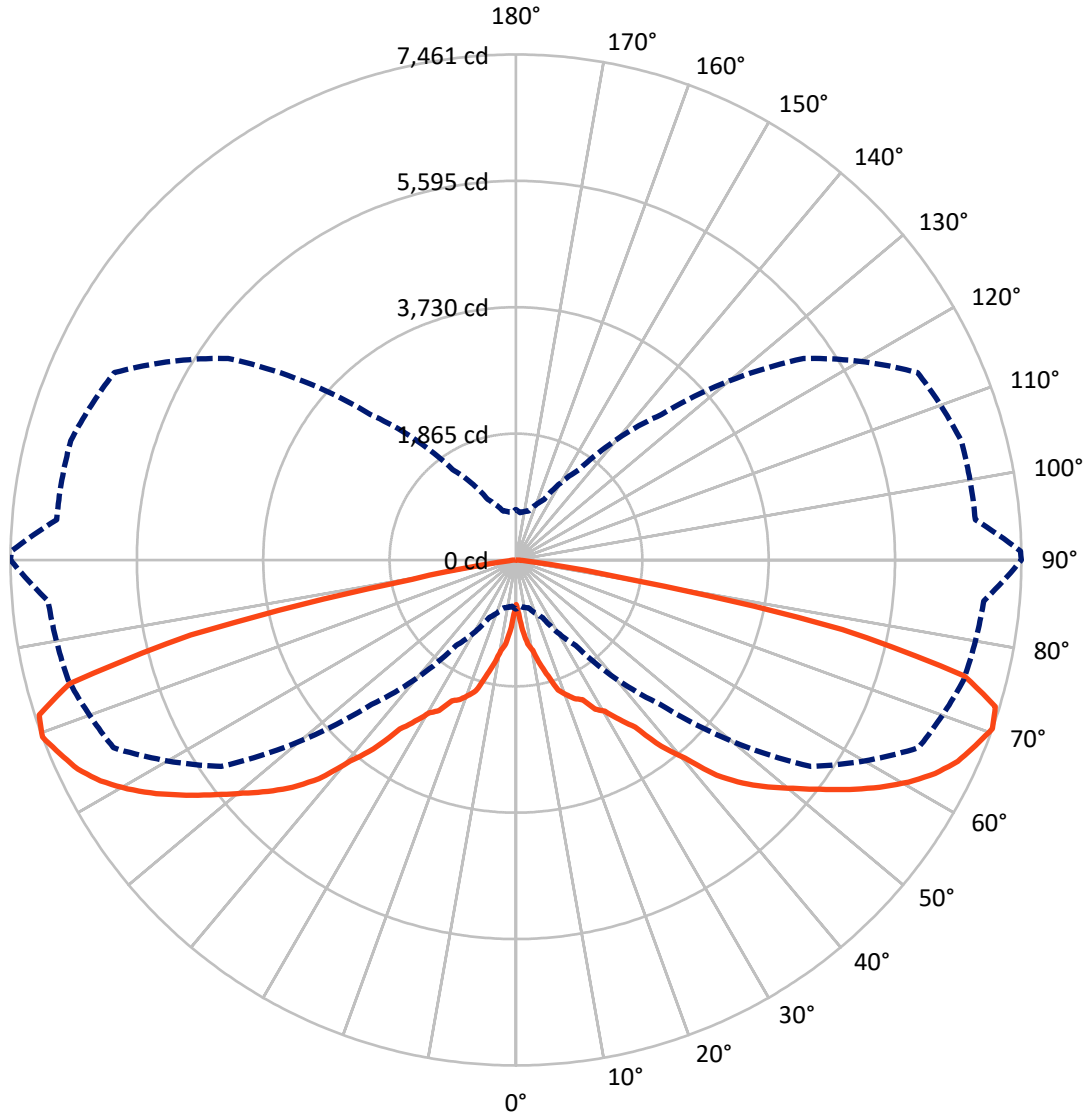
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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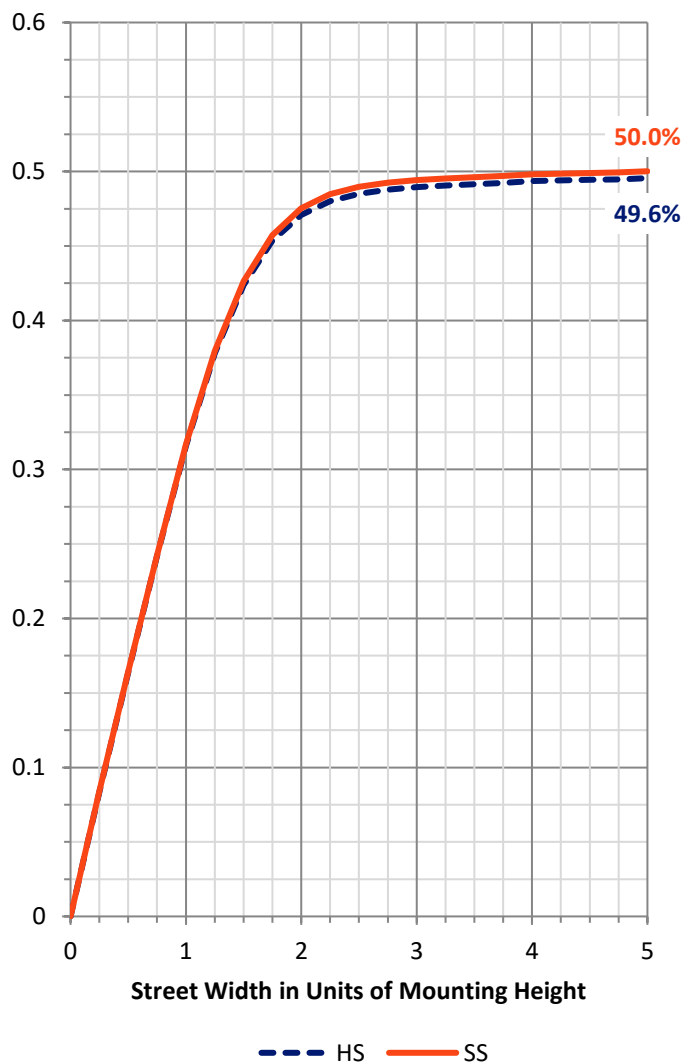
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9313.4	0.0	9313.4
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	9382.6	0.0	9382.6
	% Fixture	50.2	0.0	50.2
Total	Lumens	18696.0	0.0	18696.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	0.5
10°-20°	453.7	2.4
20°-30°	980.9	5.2
30°-40°	1871.5	10.0
40°-50°	3399.9	18.2
50°-60°	4776.0	25.5
60°-70°	4560.2	24.4
70°-80°	2340.3	12.5
80°-90°	214.6	1.1
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°	18696.0	100.0
0°-180°	18696.0	100.0

Coefficient of Utilization



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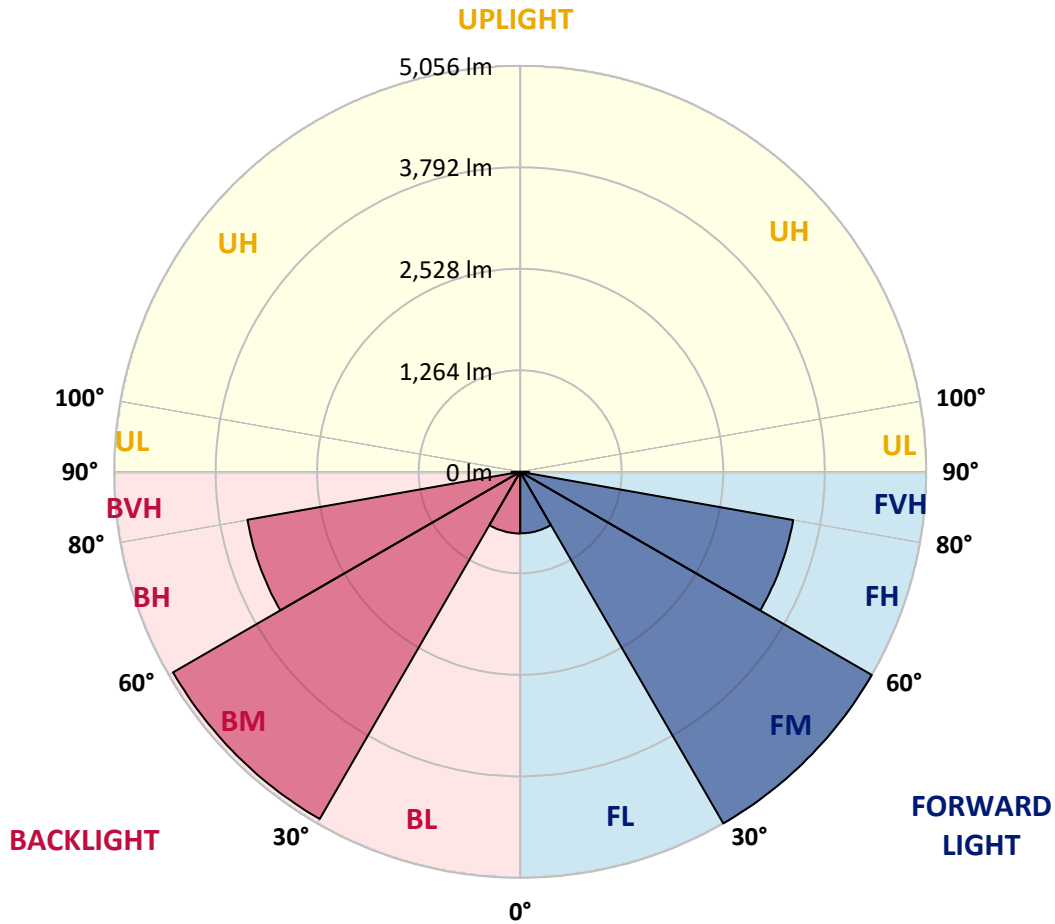
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	766.0	4.1			
FM (30°-60°)	5055.6	27.0			
FH (60°-80°)	3452.1	18.5			G2/5000
FVH (80°-90°)	108.9	0.6			G2/225
BL (0°-30°)	767.5	4.1	B2/1000		
BM (30°-60°)	4991.8	26.7	B3/5000		
BH (60°-80°)	3448.3	18.4	B4/5000		G4/5000
BVH (80°-90°)	105.7	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2
2.5°	794.9	765.3	728.2	750.1	759.2	775.1	772.9	765.3	732.7	787.3	793.3
5°	994.9	947.9	930.5	927.5	932.0	916.8	966.1	951.7	978.2	1027.5	1038.8
7.5°	1132.8	1097.9	1060.8	1072.2	1025.2	1018.4	1082.0	1138.9	1153.3	1243.4	1249.5
10°	1198.0	1163.9	1173.7	1166.9	1161.6	1205.5	1235.1	1276.8	1336.6	1345.0	1357.8
12.5°	1253.3	1266.9	1310.1	1308.6	1379.8	1457.9	1446.5	1489.7	1499.5	1604.1	1572.3
15°	1393.5	1421.5	1418.5	1445.0	1476.0	1604.1	1604.9	1678.4	1745.8	1786.7	1776.1
17.5°	1598.8	1608.6	1567.7	1569.2	1659.4	1711.7	1770.0	1757.2	1932.9	2013.3	2018.6
20°	1721.5	1746.5	1699.6	1637.4	1797.3	1869.3	1901.9	1826.9	2014.8	2123.1	2123.1
22.5°	1936.0	1871.6	1800.3	1758.7	1899.6	1976.1	1972.4	1951.1	2051.2	2242.9	2224.7
25°	2054.2	2017.8	1982.2	1992.8	2064.0	2103.4	2155.7	2106.5	2200.4	2342.9	2283.0
27.5°	2278.5	2211.0	2036.0	2175.4	2175.4	2145.9	2256.5	2280.0	2218.6	2450.5	2495.2
30°	2532.3	2508.8	2261.0	2408.8	2363.3	2280.0	2492.1	2477.0	2373.9	2610.4	2589.9
32.5°	2772.5	2849.8	2614.9	2533.8	2602.0	2633.8	2522.5	2567.9	2587.6	2815.7	2805.8
35°	3140.8	3205.9	2894.5	2874.0	2760.4	2730.8	2815.7	2830.8	2832.4	3072.6	3028.6
37.5°	3778.0	3684.0	3376.4	3231.7	3244.6	3209.0	3225.6	3105.9	3122.6	3471.1	3493.1
40°	4244.0	4137.9	3795.4	3691.6	3437.0	3589.3	3454.5	3442.3	3409.0	3860.6	3848.5
42.5°	4758.5	4613.0	4234.2	4095.5	3825.0	3762.8	3700.7	3840.9	3831.8	4250.1	4342.5
45°	5147.2	4853.2	4655.4	4569.1	4406.9	4254.6	4195.5	4258.4	4229.6	4540.3	4701.7
47.5°	5392.7	5137.4	4910.0	4728.2	4572.9	4946.4	4647.1	4563.0	4504.7	4852.5	5007.8
50°	5588.2	5293.4	5025.2	4964.6	5087.3	5417.7	4945.7	4760.0	4831.2	5087.3	5298.8
52.5°	5641.2	5329.1	5088.1	5049.5	5381.3	5441.2	5364.7	5052.5	5033.5	5369.2	5624.6
55°	5479.1	5179.8	5065.4	5276.8	5643.5	5593.5	5710.2	5510.9	5376.8	5657.2	5978.4
57.5°	5061.6	4764.6	4737.3	5041.9	5504.1	5929.9	5987.5	5829.9	5654.1	5951.1	6330.0
60°	4375.8	4104.6	4173.5	4510.0	5207.1	5813.2	6119.4	5975.4	5920.8	6216.4	6655.8
62.5°	3308.2	3096.8	3280.9	3750.0	4664.5	5662.5	6301.2	6278.5	6199.7	6498.2	6943.8
65°	2109.5	1998.1	2186.0	2662.6	3822.7	5388.2	6388.4	6418.7	6491.4	6715.7	7166.5
67.5°	1226.0	1166.9	1281.3	1671.5	2722.5	4424.3	6226.2	6661.1	6699.0	6827.8	7312.8
70°	725.1	686.5	733.5	938.8	1541.2	3014.2	5310.9	6555.1	6841.5	6930.9	7460.5
72.5°	553.1	516.8	496.3	555.4	804.7	1557.1	3590.8	5556.4	6727.1	6862.7	7398.4
75°	478.1	443.3	419.0	424.3	478.9	739.5	1946.6	3974.3	5732.2	6248.9	6833.9
77.5°	410.7	379.6	362.2	360.7	367.5	406.1	813.8	2155.0	3590.1	4491.8	4926.7
80°	328.9	304.6	300.8	300.8	291.0	287.9	404.6	819.9	1366.2	1620.0	1553.3
82.5°	240.2	216.0	240.2	237.2	222.0	209.9	257.6	354.6	421.3	332.6	262.9
85°	162.2	140.2	158.4	161.4	147.0	109.1	154.6	177.3	181.9	113.7	94.0
87.5°	56.8	55.3	89.4	78.0	63.6	37.1	56.8	61.4	64.4	40.2	27.3
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2	656.2
2.5°	795.6	786.5	741.1	747.9	765.3	773.6	782.0	747.9	731.2	784.2	778.9
5°	1041.9	1008.5	971.4	966.1	968.4	935.8	954.7	946.4	950.2	984.3	991.1
7.5°	1248.0	1207.8	1158.6	1119.9	1053.2	1000.2	1044.9	1067.6	1074.4	1135.1	1157.8
10°	1359.4	1325.3	1310.9	1238.1	1216.1	1209.3	1198.7	1162.3	1202.5	1188.1	1199.5
12.5°	1577.6	1570.8	1495.7	1448.0	1452.6	1465.4	1398.8	1362.4	1310.1	1391.9	1362.4
15°	1763.2	1792.8	1717.8	1630.6	1587.4	1609.4	1558.6	1505.6	1458.6	1483.6	1451.8
17.5°	2000.4	1999.6	1853.4	1760.2	1756.4	1754.9	1679.9	1563.2	1619.3	1601.8	1603.3
20°	2126.2	2105.7	1923.9	1816.3	1907.9	1875.4	1807.9	1657.9	1723.1	1744.3	1757.9
22.5°	2231.5	2220.1	1999.6	1920.8	1979.9	1980.7	1913.2	1834.4	1826.1	1892.0	1856.4
25°	2305.0	2350.5	2142.8	2123.9	2149.7	2123.9	2058.0	2006.4	1973.1	2071.6	1973.1
27.5°	2479.3	2414.9	2164.8	2272.4	2288.3	2158.8	2241.3	2180.7	2088.3	2210.3	2250.4
30°	2603.5	2641.4	2319.4	2481.5	2462.6	2342.9	2377.0	2374.7	2264.1	2502.0	2474.0
32.5°	2817.2	2771.7	2571.7	2558.8	2604.3	2599.0	2541.4	2569.4	2596.7	2769.5	2811.1
35°	3036.2	3084.7	2733.1	2820.2	2807.4	2725.5	2876.3	2858.9	2940.0	3294.6	3177.1
37.5°	3530.2	3299.1	3095.3	3083.9	3170.3	3183.2	3134.7	3211.2	3386.3	3659.0	3784.8
40°	3853.8	3748.5	3402.2	3415.8	3296.1	3502.2	3365.8	3612.1	3745.4	4205.4	4160.7
42.5°	4343.3	4086.4	3753.8	3799.2	3775.0	3675.7	3855.3	3981.8	4172.8	4523.6	4750.2
45°	4707.7	4355.4	4197.8	4169.7	4166.7	4339.5	4316.7	4519.1	4587.2	4850.9	5038.9
47.5°	4984.3	4685.0	4451.6	4483.4	4391.0	4884.3	4621.3	4684.2	4822.1	5070.7	5289.7
50°	5312.4	4979.0	4713.8	4792.6	5017.6	5207.1	4969.1	4861.5	4929.0	5222.2	5466.2
52.5°	5616.2	5265.4	4973.7	5039.6	5407.1	5320.7	5295.0	5022.9	5014.6	5250.3	5527.6
55°	5971.6	5576.1	5318.5	5527.6	5657.9	5551.1	5510.2	5179.0	4974.4	5105.5	5366.9
57.5°	6320.2	5883.7	5627.6	5670.8	5836.0	5729.9	5423.0	4913.1	4657.7	4683.5	4947.9
60°	6646.7	6166.3	5954.9	5913.3	6045.1	5629.1	5091.9	4425.9	4087.2	4025.0	4253.9
62.5°	6926.3	6402.8	6202.7	6089.1	6214.8	5632.9	4575.9	3643.9	3271.8	3061.2	3239.3
65°	7148.3	6599.0	6456.5	6397.4	6442.9	5290.4	3771.9	2675.5	2219.4	1986.0	2089.8
67.5°	7296.1	6708.9	6643.7	6721.0	6114.8	4406.2	2794.5	1712.5	1290.4	1163.1	1228.3
70°	7449.2	6805.9	6803.6	6540.7	5185.1	3037.7	1632.1	987.3	750.9	701.7	742.6
72.5°	7397.6	6690.7	6724.8	5720.0	3593.1	1623.8	861.5	558.4	508.4	525.9	562.2
75°	6850.6	6083.0	5918.6	4112.2	2038.3	754.7	496.3	422.8	419.8	446.3	481.9
77.5°	4969.1	4236.4	3801.5	2330.8	873.7	408.4	365.2	353.1	353.1	374.3	406.1
80°	1638.2	1417.7	1477.6	901.7	413.0	281.9	284.9	290.2	288.7	294.0	320.5
82.5°	269.0	278.8	431.1	368.3	249.3	192.5	215.2	225.8	228.8	204.6	232.6
85°	95.5	107.6	183.4	170.5	144.0	97.0	141.7	158.4	156.1	136.4	150.8
87.5°	29.6	37.9	66.7	51.5	43.2	26.5	53.0	62.1	78.0	31.8	28.8
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)