

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: P367814

Luminaire Tested: **MSA-SA3B-730-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367814
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-730-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13299 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

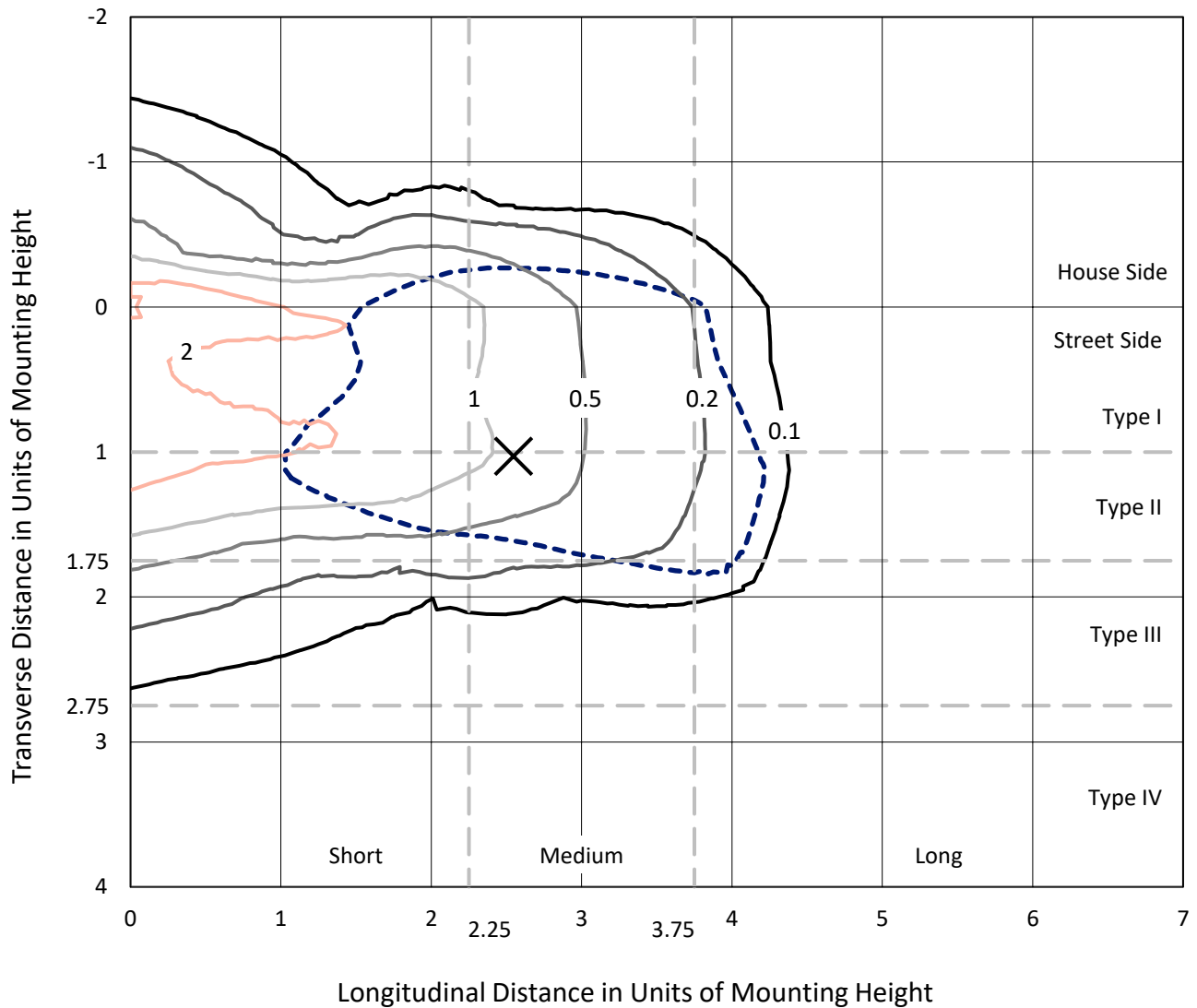
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

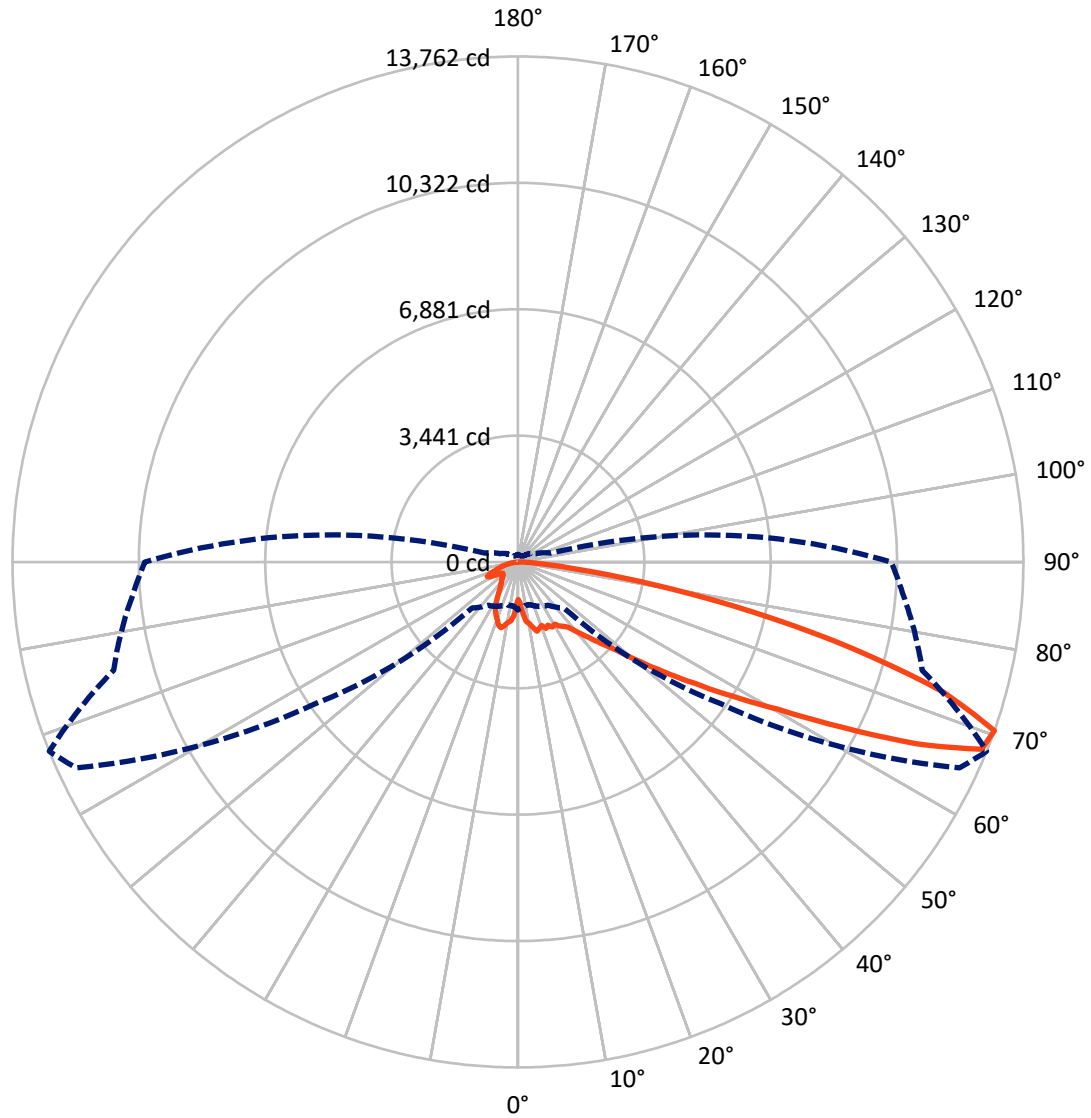
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2539.1	0.0	2539.1
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	10759.9	0.0	10759.9
	% Fixture	80.9	0.0	80.9
Total	Lumens	13299.0	0.0	13299.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.2	1.0
10°-20°	443.9	3.3
20°-30°	675.2	5.1
30°-40°	1031.3	7.8
40°-50°	1773.3	13.3
50°-60°	2935.2	22.1
60°-70°	3618.7	27.2
70°-80°	2324.6	17.5
80°-90°	360.6	2.7
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°	13299.0	100.0
0°-180°	13299.0	100.0

Coefficient of Utilization



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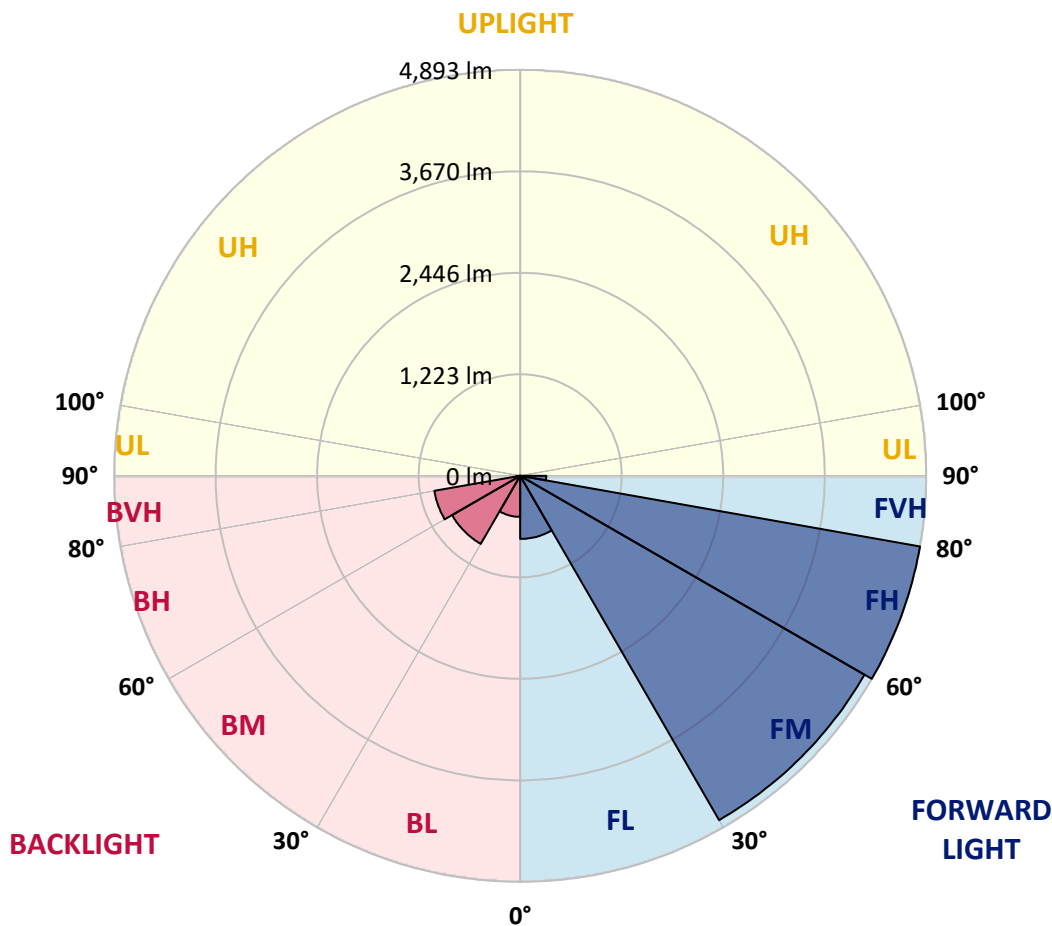
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	760.5	5.7			
FM (30°-60°)	4792.1	36.0			
FH (60°-80°)	4893.0	36.8			G2/5000
FVH (80°-90°)	314.3	2.4			G3/500
BL (0°-30°)	494.8	3.7	B1/500		
BM (30°-60°)	947.7	7.1	B1/1000		
BH (60°-80°)	1050.3	7.9	B3/2500		G3/2500
BVH (80°-90°)	46.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7
2.5°	1171.6	1124.3	1076.5	1099.8	1137.1	1170.0	1163.3	1167.2	1122.1	1116.0	1234.5
5°	1380.4	1299.1	1297.4	1298.5	1301.9	1264.0	1356.4	1404.3	1414.9	1463.8	1580.2
7.5°	1452.7	1419.9	1386.5	1403.2	1360.9	1364.8	1478.3	1603.0	1632.5	1668.1	1827.3
10°	1437.7	1406.5	1416.5	1419.3	1427.1	1490.0	1562.9	1682.6	1707.6	1821.2	1862.4
12.5°	1439.9	1434.3	1481.1	1482.8	1566.3	1679.2	1708.2	1818.4	1828.4	1911.9	2083.9
15°	1516.2	1554.6	1528.4	1542.3	1558.5	1693.7	1735.5	1893.5	1953.6	2061.1	2190.2
17.5°	1664.8	1675.9	1597.4	1576.8	1629.7	1670.9	1766.1	1834.5	1897.4	2197.4	2375.5
20°	1699.3	1729.3	1635.8	1529.5	1641.4	1698.7	1765.0	1796.1	1845.1	2217.5	2470.2
22.5°	1847.3	1785.0	1672.0	1579.6	1616.4	1672.0	1719.9	1837.3	1965.9	2160.1	2564.8
25°	1931.4	1895.2	1794.5	1695.4	1664.2	1665.9	1758.3	1863.5	1908.0	2244.2	2583.7
27.5°	2134.5	2076.7	1850.1	1831.2	1713.8	1622.5	1764.4	1928.0	2006.0	2178.5	2676.1
30°	2388.9	2344.9	2047.7	2022.7	1843.4	1684.3	1842.3	1975.9	1964.8	2221.4	2740.1
32.5°	2594.8	2668.3	2368.3	2170.7	2043.3	1890.8	1817.8	1967.6	2078.3	2321.0	2848.7
35°	2888.7	2957.7	2618.2	2484.6	2208.0	1986.5	1988.7	2082.2	2150.7	2437.3	2970.0
37.5°	3397.5	3336.8	3063.5	2852.5	2675.6	2344.9	2245.9	2213.0	2268.1	2579.8	3207.7
40°	3764.2	3713.0	3391.3	3271.1	2926.6	2734.5	2462.9	2431.8	2529.2	2726.8	3401.9
42.5°	4199.0	4107.7	3808.2	3709.1	3349.0	3002.8	2729.0	2746.8	2794.1	3003.9	3664.6
45°	4641.4	4419.9	4250.2	4242.4	4001.9	3523.8	3155.9	3141.4	3143.1	3411.9	3959.6
47.5°	4992.7	4793.4	4599.1	4506.7	4385.4	4424.9	3775.9	3606.2	3555.0	3822.7	4402.1
50°	5230.3	5001.0	4781.1	4759.4	5083.4	5296.6	4358.1	4176.7	4208.4	4410.5	4992.1
52.5°	5235.3	4963.2	4733.8	4885.8	5648.9	5953.9	5361.1	4854.1	4955.4	5092.8	5761.9
55°	4871.3	4589.1	4440.0	4786.2	5869.8	6733.7	6770.4	5939.4	5822.5	5873.2	6681.9
57.5°	4103.8	3818.8	3732.0	4146.6	5450.7	7485.6	8472.5	7236.3	6893.4	6681.9	7624.8
60°	3089.1	2842.5	2788.5	3052.9	4519.0	7264.7	9850.6	8850.4	8151.9	7585.3	8570.4
62.5°	2316.5	2139.5	2058.3	2096.1	3126.9	6546.1	10755.6	10889.8	9900.7	8571.6	9494.4
65°	1882.4	1739.4	1667.0	1618.0	1944.7	5061.7	10592.0	12606.3	11943.4	9607.4	10213.5
67.5°	1572.4	1445.5	1412.1	1459.9	1537.3	2936.6	9311.8	13566.4	13611.5	10629.3	10633.7
70°	1305.2	1211.2	1198.9	1334.7	1436.6	1772.2	6725.9	13264.8	13762.4	11395.7	10535.2
72.5°	1008.5	957.9	956.2	1169.4	1427.1	1510.6	4005.3	11459.2	12127.6	11150.8	9571.2
75°	699.6	664.6	691.3	961.2	1394.3	1532.3	2285.9	8925.6	9425.9	9488.8	7667.1
77.5°	481.5	452.0	480.9	695.2	1245.1	1569.0	1599.1	6453.7	6509.4	6363.0	4391.5
80°	335.1	314.5	336.7	492.0	969.0	1552.9	1361.4	4063.1	3728.1	2839.7	1406.0
82.5°	207.6	201.5	226.0	350.7	682.4	1412.6	1290.2	2096.7	1600.8	783.7	502.0
85°	109.1	100.2	131.4	228.8	426.9	1108.7	1208.9	956.8	617.8	278.3	201.5
87.5°	32.3	28.9	50.7	92.4	180.9	497.0	691.8	405.8	230.4	81.8	62.9
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°	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7	1019.7
2.5°	1242.9	1236.8	1154.4	1165.0	1182.8	1187.2	1186.7	1156.6	1124.9	1213.4	1210.6
5°	1583.0	1527.9	1486.7	1477.8	1427.1	1376.5	1394.3	1388.1	1380.4	1420.4	1425.4
7.5°	1827.9	1751.6	1703.7	1580.7	1463.8	1362.5	1394.8	1404.8	1384.8	1457.2	1478.9
10°	1892.4	1832.3	1780.5	1622.5	1557.9	1498.9	1411.5	1311.9	1298.5	1256.8	1261.8
12.5°	2058.8	2050.5	1874.1	1734.9	1650.9	1533.4	1344.7	1224.0	1120.4	1125.4	1095.4
15°	2190.2	2194.7	1982.6	1787.8	1562.4	1383.1	1161.1	1010.8	904.5	883.3	861.6
17.5°	2366.6	2357.7	1991.5	1724.3	1438.8	1176.1	903.9	754.7	736.9	749.2	730.3
20°	2443.5	2365.0	1934.7	1566.8	1245.7	893.3	682.9	603.9	638.4	687.4	688.5
22.5°	2512.5	2378.3	1905.2	1439.9	988.5	649.5	548.2	533.8	574.4	640.6	646.2
25°	2509.7	2440.1	1852.3	1311.9	766.4	507.1	476.4	487.0	535.4	604.5	608.4
27.5°	2636.0	2392.8	1714.9	1143.8	577.2	434.1	441.9	461.4	484.2	549.9	562.7
30°	2634.9	2480.7	1645.9	939.5	463.6	398.0	418.0	434.7	453.6	513.7	521.0
32.5°	2697.3	2423.4	1604.1	730.8	415.8	389.1	394.1	410.8	438.0	478.7	483.7
35°	2772.4	2488.5	1470.5	580.5	398.0	381.3	385.2	394.6	419.7	457.0	462.0
37.5°	3013.4	2500.8	1417.6	489.2	396.9	377.9	377.4	382.4	410.8	444.7	459.7
40°	3107.5	2612.7	1263.5	457.0	393.0	377.9	370.1	372.9	396.3	439.7	451.4
42.5°	3332.9	2649.9	1149.4	445.8	393.0	371.2	359.0	363.5	390.7	429.1	447.5
45°	3565.0	2702.8	1013.6	443.6	392.4	370.7	347.3	357.3	379.6	411.9	431.9
47.5°	3895.6	2893.2	877.7	436.9	387.9	373.5	344.5	344.0	363.5	391.3	410.2
50°	4434.9	3190.4	772.6	428.6	388.5	371.2	339.0	331.2	344.0	368.5	386.8
52.5°	5185.8	3696.9	731.4	424.1	384.1	362.3	329.5	317.3	324.5	344.0	361.8
55°	6057.4	4381.0	772.0	424.1	375.1	348.4	316.1	301.7	305.6	318.9	336.2
57.5°	7076.0	5230.9	968.5	418.0	364.0	331.7	300.0	283.3	284.4	296.1	311.7
60°	8139.6	6180.4	1408.7	413.0	356.2	313.4	281.1	263.8	262.2	273.3	287.2
62.5°	9205.0	7056.5	1871.8	424.7	354.0	297.8	261.0	243.8	243.2	253.3	264.9
65°	10052.1	7655.4	1987.0	472.0	368.5	280.0	240.4	224.3	223.2	231.5	244.3
67.5°	10467.9	7742.2	1509.5	531.0	399.1	263.3	220.4	205.4	204.3	213.2	224.3
70°	10160.1	7148.9	931.7	537.1	397.4	243.8	199.8	187.0	184.8	194.3	202.6
72.5°	9021.3	6253.3	708.0	475.3	344.0	216.0	179.2	168.1	164.8	173.1	180.9
75°	7240.7	4964.8	567.2	383.5	271.1	182.0	158.6	148.1	144.2	152.0	158.6
77.5°	4217.9	2793.0	414.7	299.4	204.8	148.6	135.3	125.8	121.3	129.7	134.7
80°	1371.4	930.6	260.5	214.8	149.7	116.3	109.6	103.0	98.5	104.1	105.8
82.5°	492.6	346.2	144.2	131.9	99.6	83.5	82.9	79.0	73.5	75.7	75.7
85°	218.2	158.1	85.7	70.7	59.6	44.5	52.3	49.5	44.0	42.9	41.2
87.5°	61.2	52.3	31.2	23.9	19.5	7.2	16.7	15.0	12.2	11.1	7.8
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)