

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: P596680

Luminaire Tested: **MSA-SA3B-827-U-SL3**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596680  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3B-827-U-SL3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10603 lumens  
Efficiency: N/A  
Efficacy: 84.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

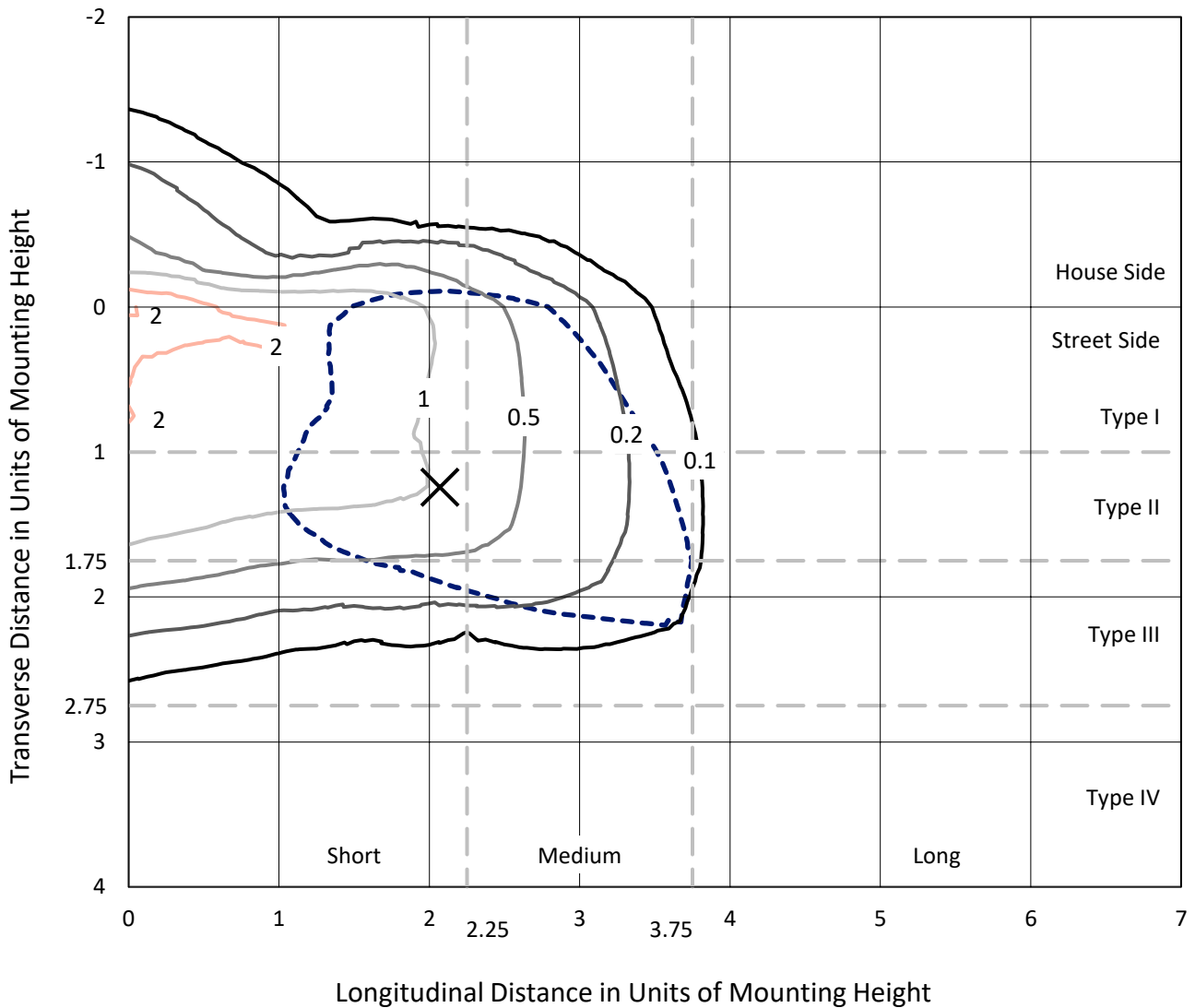
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

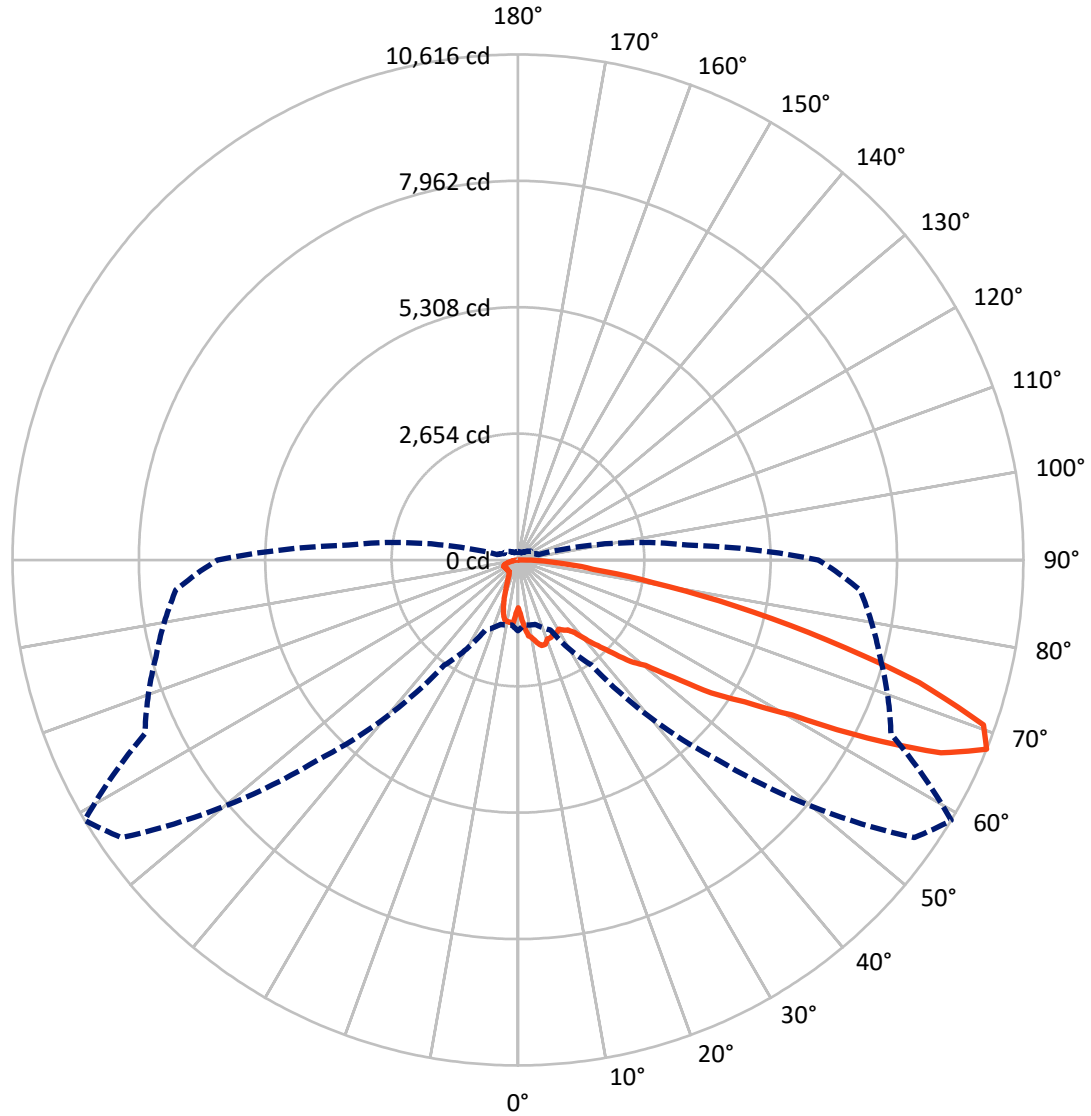
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1596.0	0.0	1596.0
	% Fixture	15.1	0.0	15.1
<b>Street Side</b>	Lumens	9007.0	0.0	9007.0
	% Fixture	84.9	0.0	84.9
<b>Total</b>	Lumens	10603.0	0.0	10603.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.0	1.2
10°-20°	387.8	3.7
20°-30°	553.8	5.2
30°-40°	816.0	7.7
40°-50°	1378.7	13.0
50°-60°	2399.2	22.6
60°-70°	3057.3	28.8
70°-80°	1618.9	15.3
80°-90°	260.4	2.5
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°	10603.0	100.0
0°-180°	10603.0	100.0

**Coefficient of Utilization**



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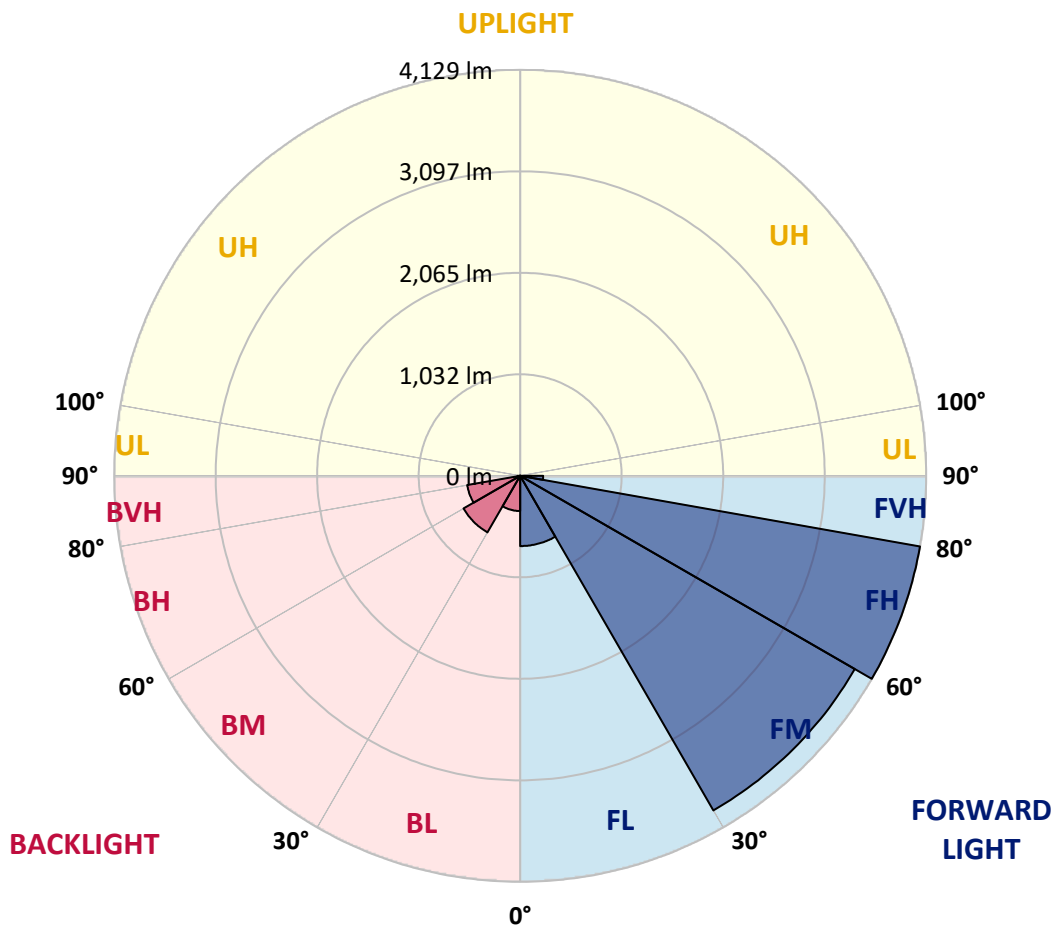
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	714.7	6.7			
FM (30°-60°)	3929.3	37.1			
FH (60°-80°)	4129.1	38.9			G2/5000
FVH (80°-90°)	233.9	2.2			G3/500
BL (0°-30°)	357.9	3.4	B1/500		
BM (30°-60°)	664.6	6.3	B1/1000		
BH (60°-80°)	547.0	5.2	B2/1000		G2/1000
BVH (80°-90°)	26.5	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3
2.5°	1252.7	1194.3	1132.3	1149.8	1185.3	1201.5	1183.9	1166.9	1144.9	1118.8	1207.8
5°	1519.1	1432.4	1419.8	1419.4	1406.8	1356.5	1421.2	1416.7	1442.8	1469.7	1538.9
7.5°	1595.1	1562.7	1527.7	1544.3	1480.9	1478.3	1578.9	1607.7	1658.0	1641.4	1734.4
10°	1556.0	1519.6	1538.0	1531.3	1537.1	1603.6	1665.2	1667.0	1720.9	1773.9	1714.1
12.5°	1487.2	1489.9	1563.2	1560.5	1654.8	1778.4	1796.8	1782.4	1870.5	1834.6	1885.8
15°	1536.2	1569.0	1550.6	1566.3	1603.6	1760.9	1812.1	1864.2	1947.8	1980.1	1928.9
17.5°	1614.4	1631.9	1549.2	1540.7	1617.5	1692.1	1819.3	1863.8	1876.8	2107.3	2035.0
20°	1581.1	1616.6	1535.8	1432.0	1559.6	1658.4	1783.8	1770.3	1833.7	2117.2	2057.0
22.5°	1675.5	1616.6	1513.7	1440.1	1485.0	1575.8	1682.2	1770.8	1845.8	2059.2	2088.9
25°	1693.5	1665.6	1569.5	1496.2	1480.9	1513.3	1665.2	1723.1	1849.8	2138.3	2071.8
27.5°	1803.1	1761.3	1565.4	1567.7	1491.7	1434.7	1611.2	1733.0	1895.7	2089.3	2113.6
30°	1939.2	1907.3	1661.6	1670.6	1565.4	1460.3	1648.1	1684.9	1922.2	2165.7	2166.2
32.5°	2041.2	2097.4	1850.7	1728.5	1691.2	1612.6	1591.5	1757.3	1891.2	2304.1	2256.0
35°	2225.0	2268.6	1996.3	1898.4	1772.1	1683.6	1745.1	1804.9	2020.1	2486.1	2389.5
37.5°	2565.1	2514.8	2266.8	2112.7	2065.5	1937.9	1972.0	1930.3	2160.3	2690.5	2651.0
40°	2761.9	2718.4	2457.3	2371.9	2185.0	2201.2	2158.5	2189.1	2347.7	2908.0	2895.4
42.5°	2956.1	2897.6	2677.0	2617.7	2431.3	2352.2	2359.8	2458.7	2636.6	3259.3	3217.6
45°	3147.9	2998.3	2901.7	2917.4	2827.5	2665.3	2676.6	2769.6	2952.0	3661.0	3564.9
47.5°	3294.8	3171.3	3095.8	3076.5	3032.0	3249.0	3152.0	3189.7	3270.1	4018.7	3982.3
50°	3573.0	3428.7	3330.3	3302.5	3453.4	3755.4	3557.7	3476.4	3647.5	4481.0	4462.2
52.5°	4018.2	3838.5	3674.5	3672.7	3891.1	4087.0	4226.3	4086.1	4149.0	4954.6	5008.5
55°	4406.9	4198.9	4051.5	4132.8	4443.7	4563.7	5036.8	4927.2	4874.2	5432.7	5586.8
57.5°	4552.0	4308.9	4212.8	4332.8	4791.1	5407.5	5907.6	5619.1	5567.5	5973.7	6296.7
60°	4233.5	3976.4	3982.3	4208.3	5002.2	6027.1	6859.7	6614.8	6312.0	6647.2	6962.6
62.5°	3325.8	3093.5	3245.0	3588.7	4825.2	6629.2	8135.8	8239.1	7162.6	7205.7	7331.9
65°	2260.5	2099.7	2236.2	2572.8	3913.5	6957.7	9351.2	9765.4	7937.2	7571.4	7491.5
67.5°	1487.7	1374.0	1400.5	1624.3	2694.1	5931.4	10164.0	10615.5	8645.3	7871.6	7210.2
70°	1152.0	1060.4	1048.7	1166.0	1597.8	4120.7	9682.3	10368.9	9076.6	7590.3	6284.6
72.5°	904.0	834.4	840.7	953.4	1237.4	2286.1	7492.3	8817.4	8426.9	6546.1	4828.4
75°	705.0	647.9	679.8	808.8	1144.4	1420.7	5169.4	6692.1	6515.1	4847.2	2753.9
77.5°	511.8	474.9	520.3	688.8	1075.7	1219.0	3218.0	4668.8	4173.7	2488.8	944.9
80°	335.6	315.0	352.3	561.6	975.5	1173.2	1988.7	2860.8	2062.4	699.1	357.7
82.5°	197.7	188.7	219.7	380.1	784.1	1099.5	1326.4	1589.7	843.8	295.7	190.1
85°	103.8	97.1	130.3	218.4	540.5	1003.8	1044.2	951.7	407.5	128.5	90.8
87.5°	34.6	33.7	55.3	84.5	204.4	532.9	557.2	452.0	168.0	37.3	19.8
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°	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3	1003.3
2.5°	1219.9	1201.9	1098.6	1113.0	1126.4	1119.7	1115.7	1068.9	1064.4	1130.9	1125.5
5°	1537.1	1462.5	1374.5	1370.4	1312.5	1253.1	1264.8	1246.0	1251.3	1278.8	1281.5
7.5°	1704.7	1611.7	1527.7	1391.1	1275.2	1181.3	1196.1	1191.6	1179.5	1241.5	1258.1
10°	1701.6	1618.9	1524.1	1358.7	1280.6	1204.2	1112.5	1025.8	1000.2	969.6	972.3
12.5°	1813.9	1740.7	1534.0	1365.5	1259.4	1127.8	956.1	861.3	770.6	768.8	745.9
15°	1848.9	1795.0	1555.1	1326.8	1111.6	922.9	745.4	642.5	576.9	563.9	544.6
17.5°	1937.5	1853.0	1490.8	1201.9	940.0	721.6	560.3	488.4	483.0	492.0	482.1
20°	1943.3	1806.3	1374.9	1017.3	755.3	546.8	457.0	421.0	440.3	462.3	461.4
22.5°	1938.4	1747.4	1274.7	860.0	567.5	439.4	400.3	392.3	410.2	443.0	447.1
25°	1888.0	1728.1	1149.4	706.3	460.5	376.5	365.7	370.7	393.2	431.8	431.8
27.5°	1940.6	1649.4	992.1	574.7	387.3	335.2	342.8	355.4	372.0	416.1	424.2
30°	1923.5	1675.5	865.4	462.8	341.5	306.4	323.5	336.1	355.0	400.8	404.8
32.5°	1969.4	1605.9	758.9	389.1	311.4	295.2	299.2	316.3	341.0	377.0	384.2
35°	2039.4	1631.5	636.7	350.0	296.5	282.2	289.8	303.3	328.0	363.0	368.9
37.5°	2263.2	1630.1	552.2	328.5	293.9	279.5	283.1	292.5	321.3	353.2	366.6
40°	2407.0	1723.6	475.4	323.5	290.7	278.1	275.0	285.3	308.2	346.0	355.4
42.5°	2677.0	1780.6	442.1	321.7	290.3	270.5	267.3	279.5	301.9	337.0	351.4
45°	2962.3	1862.0	415.6	320.8	288.9	269.1	259.7	275.0	293.9	327.6	344.2
47.5°	3298.0	2034.1	400.8	317.7	286.2	270.9	257.0	264.6	285.8	319.5	336.1
50°	3737.4	2261.9	403.9	313.2	290.3	271.4	253.0	256.6	275.9	308.7	325.8
52.5°	4271.7	2614.6	424.2	315.0	293.0	269.1	251.2	249.4	266.0	294.8	311.8
55°	4915.5	3115.1	484.8	323.5	293.0	268.7	248.5	240.4	253.0	276.3	293.0
57.5°	5692.4	3694.7	603.4	327.6	290.7	266.0	242.6	228.3	235.9	255.2	270.9
60°	6359.6	4162.5	725.6	330.2	295.2	259.7	230.9	213.0	217.9	232.7	246.7
62.5°	6699.8	4293.7	762.5	328.0	307.3	255.7	217.0	196.8	197.2	209.8	222.4
65°	6763.6	4118.9	614.7	325.8	323.1	255.2	207.1	182.9	179.7	188.7	199.5
67.5°	6308.9	3575.2	443.5	320.8	324.9	252.5	200.4	171.6	163.6	169.8	178.8
70°	5356.7	2879.2	372.5	310.9	303.3	239.0	188.7	160.0	149.2	153.7	160.4
72.5°	3993.5	2130.2	324.9	289.8	264.2	204.4	170.7	146.9	135.7	138.8	143.8
75°	2218.7	1136.3	271.8	252.1	215.7	165.3	145.6	130.3	120.4	121.8	127.2
77.5°	736.9	419.2	199.5	199.9	163.1	127.6	120.0	111.4	103.8	104.2	108.7
80°	333.8	231.8	142.9	143.8	113.7	92.6	92.1	89.4	84.5	83.1	86.3
82.5°	193.7	140.6	98.0	93.5	73.2	60.2	66.9	65.6	64.3	59.3	60.2
85°	95.3	75.5	51.2	48.5	40.4	30.1	35.9	37.3	35.9	30.6	30.1
87.5°	23.4	24.7	12.6	11.7	6.7	3.1	5.4	5.4	6.7	4.5	2.2
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)