

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: P367837

Luminaire Tested: **MSA-SA3B-740-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367837
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-740-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12071 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

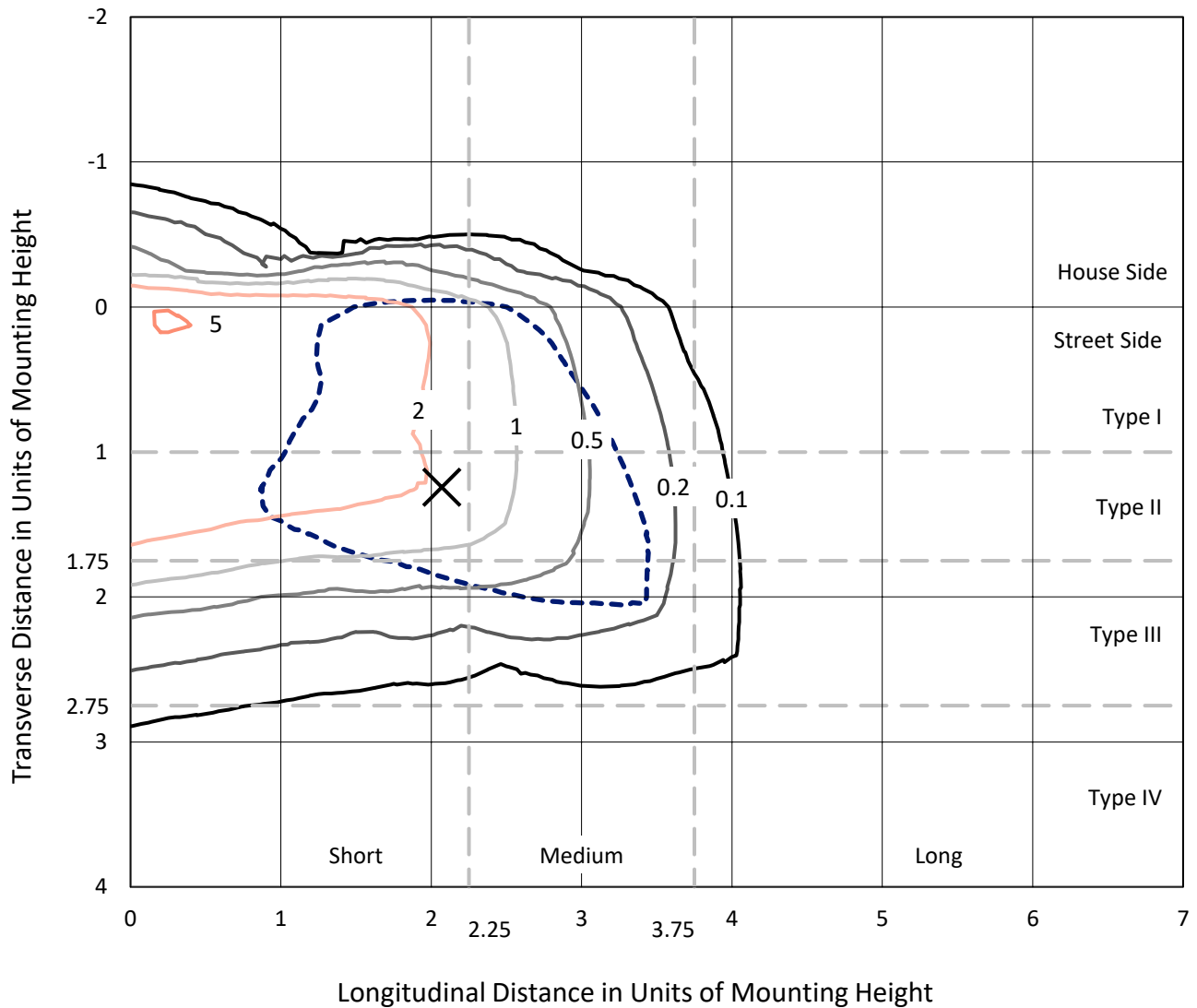
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

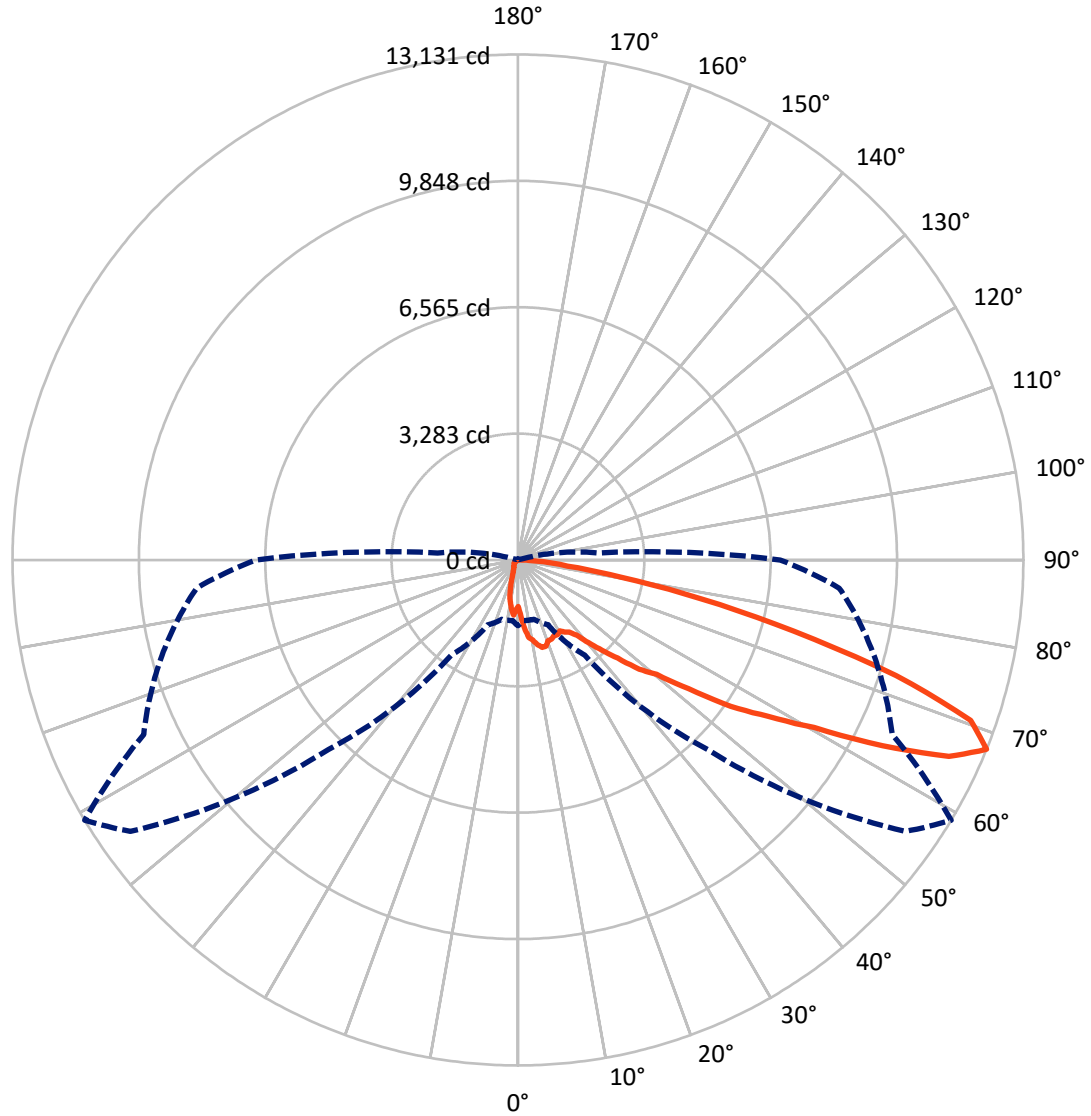
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 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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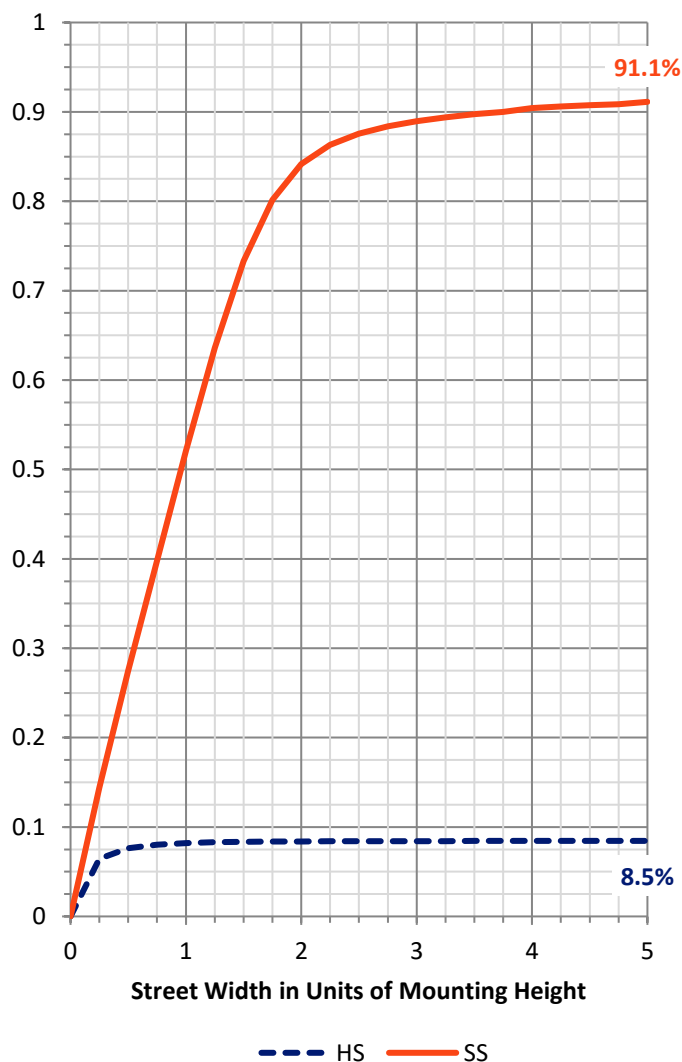
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1026.6	0.0	1026.6
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	11044.4	0.0	11044.4
	% Fixture	91.5	0.0	91.5
Total	Lumens	12071.0	0.0	12071.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.8	1.2
10°-20°	413.5	3.4
20°-30°	615.0	5.1
30°-40°	948.9	7.9
40°-50°	1693.4	14.0
50°-60°	3013.5	25.0
60°-70°	3509.6	29.1
70°-80°	1560.8	12.9
80°-90°	169.5	1.4
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°	12071.0	100.0
0°-180°	12071.0	100.0

Coefficient of Utilization

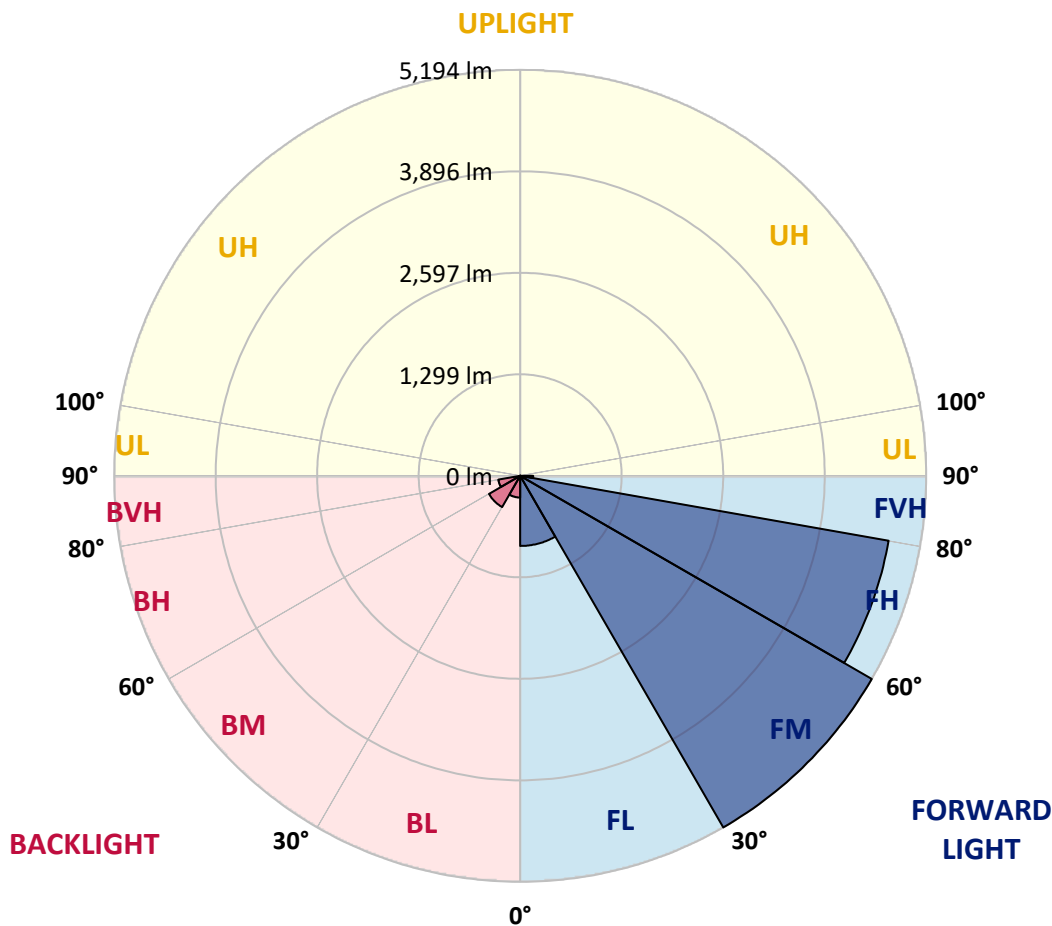


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	897.7	7.4			
FM (30°-60°)	5194.2	43.0			
FH (60°-80°)	4786.1	39.6			G2/5000
FVH (80°-90°)	166.5	1.4			G2/225
BL (0°-30°)	277.6	2.3	B1/500		
BM (30°-60°)	461.6	3.8	B1/1000		
BH (60°-80°)	284.4	2.4	B1/500		G1/500
BVH (80°-90°)	3.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7
2.5°	1574.5	1515.2	1430.8	1455.9	1478.5	1499.9	1464.4	1444.3	1434.5	1347.7	1456.5
5°	1933.2	1859.3	1820.8	1811.0	1786.6	1732.2	1822.6	1782.3	1795.7	1812.8	1848.3
7.5°	2042.6	2009.0	1953.4	1974.2	1881.3	1873.3	1998.6	2033.5	2079.3	2048.1	2090.9
10°	1986.4	1928.4	1954.6	1947.3	1943.6	2025.5	2113.5	2115.4	2183.8	2216.8	2072.0
12.5°	1875.2	1881.9	1976.0	1968.7	2090.9	2254.7	2274.9	2253.5	2365.4	2307.9	2285.9
15°	1949.1	2004.1	1952.2	1969.9	2013.3	2218.1	2289.6	2355.6	2461.3	2495.6	2347.0
17.5°	2038.4	2043.9	1949.1	1927.1	2036.5	2131.9	2300.6	2355.0	2365.4	2665.5	2484.6
20°	1990.1	2037.1	1924.1	1785.3	1955.2	2084.8	2256.0	2238.8	2308.5	2715.6	2515.7
22.5°	2118.4	2051.2	1906.4	1801.8	1859.3	1977.3	2122.1	2234.0	2338.5	2595.8	2556.1
25°	2130.7	2106.2	1977.3	1884.3	1874.6	1904.5	2106.2	2178.3	2342.1	2703.4	2521.8
27.5°	2268.2	2240.1	1976.0	1985.2	1893.5	1801.2	2029.2	2198.5	2408.8	2638.0	2594.6
30°	2445.4	2447.9	2107.4	2136.2	2005.4	1856.8	2092.2	2138.6	2454.0	2742.5	2648.4
32.5°	2625.1	2699.1	2367.2	2215.0	2174.1	2067.7	2013.9	2228.5	2404.5	2921.0	2782.8
35°	2898.3	2948.5	2581.1	2444.8	2284.1	2163.1	2226.6	2303.6	2582.3	3157.5	2959.5
37.5°	3361.0	3270.6	2965.0	2727.8	2689.3	2510.8	2542.6	2473.5	2763.9	3436.2	3309.1
40°	3621.4	3539.5	3221.7	3106.1	2860.4	2887.9	2787.7	2828.0	3027.3	3726.5	3627.5
42.5°	3892.8	3814.5	3535.8	3453.9	3219.8	3106.1	3060.9	3205.8	3431.3	4210.0	4084.1
45°	4165.4	3966.7	3848.8	3889.7	3784.6	3559.7	3507.1	3636.1	3872.6	4804.1	4565.7
47.5°	4395.2	4227.7	4139.1	4120.1	4079.2	4391.5	4177.6	4234.4	4338.9	5329.7	5165.9
50°	4809.6	4644.6	4505.8	4467.3	4666.6	5109.7	4779.6	4669.6	4878.6	5964.8	5861.5
52.5°	5407.9	5197.7	4977.0	4977.7	5353.5	5596.8	5753.3	5560.1	5599.3	6663.4	6617.5
55°	5889.0	5621.9	5439.1	5583.4	6143.8	6280.1	6877.3	6708.0	6657.3	7311.2	7255.0
57.5°	5955.0	5634.7	5547.9	5801.0	6568.0	7438.4	8080.7	7657.8	7580.2	7853.4	7965.2
60°	5338.9	4999.1	5064.4	5471.5	6706.1	8144.3	9185.8	8840.5	8347.2	8488.4	8565.4
62.5°	3982.0	3710.6	3894.0	4433.1	6173.8	8617.4	10465.1	10625.2	9237.2	8965.2	8948.7
65°	2583.6	2413.7	2534.1	2976.0	4672.1	8563.6	11608.0	12302.3	9938.2	9353.9	9069.1
67.5°	1708.9	1580.0	1597.1	1858.7	3021.2	6964.7	12291.3	13130.5	10726.7	9574.5	8379.0
70°	1273.8	1172.3	1178.4	1320.2	1793.3	4593.2	11338.5	12477.2	11014.5	8809.9	6763.0
72.5°	918.6	850.8	907.6	1065.3	1429.0	2428.9	8451.1	10275.6	9604.5	6948.8	4556.5
75°	636.3	591.6	684.6	891.1	1304.3	1507.8	5584.6	7396.8	6731.8	4359.7	2059.8
77.5°	352.7	339.2	473.1	726.1	1183.9	1235.9	3420.9	4860.3	3733.9	1562.9	490.2
80°	154.0	149.1	229.2	545.2	995.0	1116.7	1925.9	2694.8	1468.7	278.7	158.3
82.5°	66.0	63.6	97.8	328.2	723.1	933.9	1187.6	1297.0	505.5	86.2	89.8
85°	11.6	12.8	39.1	173.0	440.1	474.3	860.0	767.7	254.3	41.0	64.2
87.5°	0.0	0.0	6.1	33.6	82.5	135.7	372.8	268.9	48.3	13.4	11.0
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°	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7	1207.7
2.5°	1471.8	1437.6	1307.4	1290.9	1273.1	1246.9	1237.1	1180.8	1173.5	1245.6	1245.6
5°	1831.8	1709.5	1585.5	1487.7	1400.3	1279.3	1245.0	1209.6	1180.8	1173.5	1196.1
7.5°	2021.9	1872.7	1677.8	1429.0	1227.3	1051.9	978.5	927.2	869.7	886.9	896.0
10°	2011.5	1853.2	1604.4	1284.8	1061.1	867.3	680.9	572.1	511.6	481.6	478.0
12.5°	2113.5	1964.4	1554.9	1169.8	884.4	616.7	428.5	350.8	306.2	306.8	303.2
15°	2172.8	2010.3	1497.5	1024.4	622.8	396.7	297.0	279.9	273.8	280.5	276.9
17.5°	2277.4	2058.5	1367.3	807.4	428.5	299.5	273.2	266.5	274.4	288.5	284.8
20°	2269.4	1974.8	1182.1	569.0	316.6	269.5	258.5	248.1	264.7	279.3	276.9
22.5°	2262.1	1892.9	1007.9	419.9	264.7	245.7	236.5	232.3	240.8	257.9	261.6
25°	2197.3	1852.6	831.2	315.4	239.6	223.1	218.8	215.1	218.2	232.3	231.6
27.5°	2276.7	1750.5	641.8	264.7	221.9	202.3	198.6	192.5	186.4	198.6	200.5
30°	2260.2	1764.6	503.0	232.9	204.1	177.9	179.1	166.2	155.2	166.2	166.2
32.5°	2320.1	1661.9	402.8	211.5	186.4	167.5	152.2	138.7	130.8	137.5	138.7
35°	2407.5	1666.1	315.4	198.0	171.1	149.1	130.8	117.4	110.0	113.1	114.9
37.5°	2700.3	1636.8	263.4	187.6	165.6	138.1	119.2	101.5	96.6	100.2	102.1
40°	2891.0	1715.0	232.3	182.1	151.6	127.1	102.1	89.2	85.0	86.8	89.8
42.5°	3250.4	1758.4	217.0	176.0	138.7	108.8	87.4	80.1	74.0	76.4	78.8
45°	3634.8	1832.4	205.4	169.3	129.0	95.3	77.0	70.9	63.0	63.6	66.0
47.5°	4107.3	2008.4	191.9	157.7	115.5	86.8	68.5	59.3	52.0	51.3	54.4
50°	4741.7	2243.7	179.7	143.0	107.0	79.5	59.9	48.3	42.2	40.3	42.8
52.5°	5418.9	2548.1	166.9	132.6	96.6	69.7	51.3	39.1	33.6	32.4	34.2
55°	6090.1	2840.3	154.6	125.9	85.6	59.9	43.4	32.4	27.5	26.3	27.5
57.5°	6854.7	3156.3	138.7	112.5	75.2	52.0	36.1	26.9	22.6	21.4	22.0
60°	7430.4	3267.5	125.3	97.8	65.4	45.8	30.6	21.4	18.3	17.1	17.7
62.5°	7703.6	3086.0	112.5	85.0	57.5	39.7	25.7	17.7	15.3	14.1	14.1
65°	7632.7	2683.8	99.6	72.7	49.5	33.0	20.2	15.3	13.4	11.6	11.0
67.5°	6813.7	2100.1	85.0	61.1	41.6	26.9	17.1	14.7	12.2	11.0	9.2
70°	5403.7	1520.7	69.1	50.7	34.8	22.0	13.4	13.4	11.6	11.0	8.6
72.5°	3541.9	957.1	56.2	41.0	28.7	17.1	10.4	12.2	11.0	11.0	7.9
75°	1534.7	342.3	45.2	33.0	23.8	11.6	9.2	11.0	11.6	11.0	9.2
77.5°	359.4	106.3	35.4	26.3	19.6	7.9	9.2	11.0	11.6	10.4	7.9
80°	135.1	45.2	23.2	17.1	15.3	4.9	7.9	6.7	6.1	4.3	1.2
82.5°	81.9	18.9	12.2	8.6	7.3	1.2	3.7	2.4	1.2	1.2	0.0
85°	58.1	9.2	6.7	6.1	3.7	0.0	0.6	0.0	0.0	0.6	0.0
87.5°	7.9	2.4	3.1	3.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0
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)