

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: P368011

Luminaire Tested: **MSA-SA3C-760-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368011
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-760-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14921 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

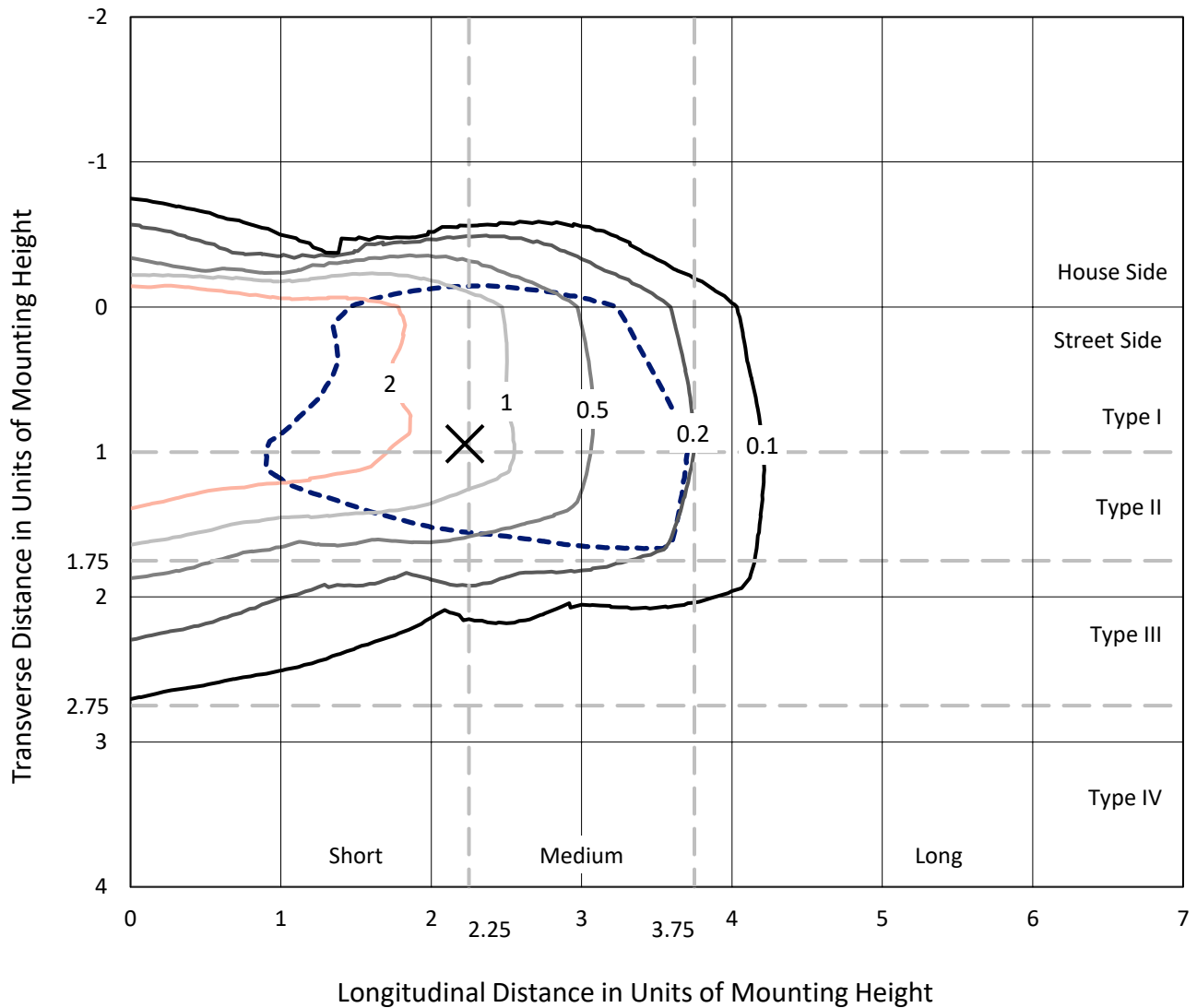
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

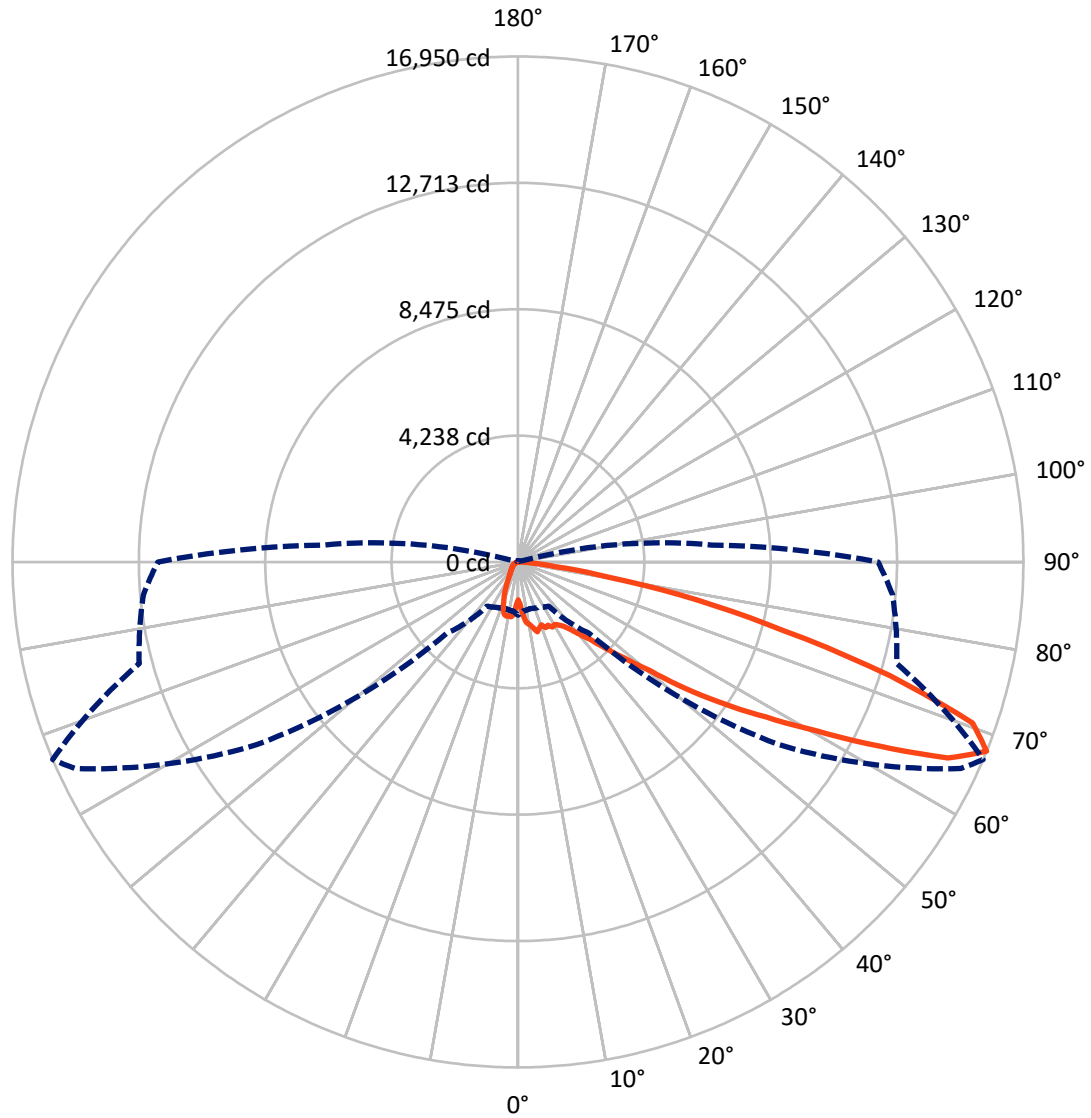
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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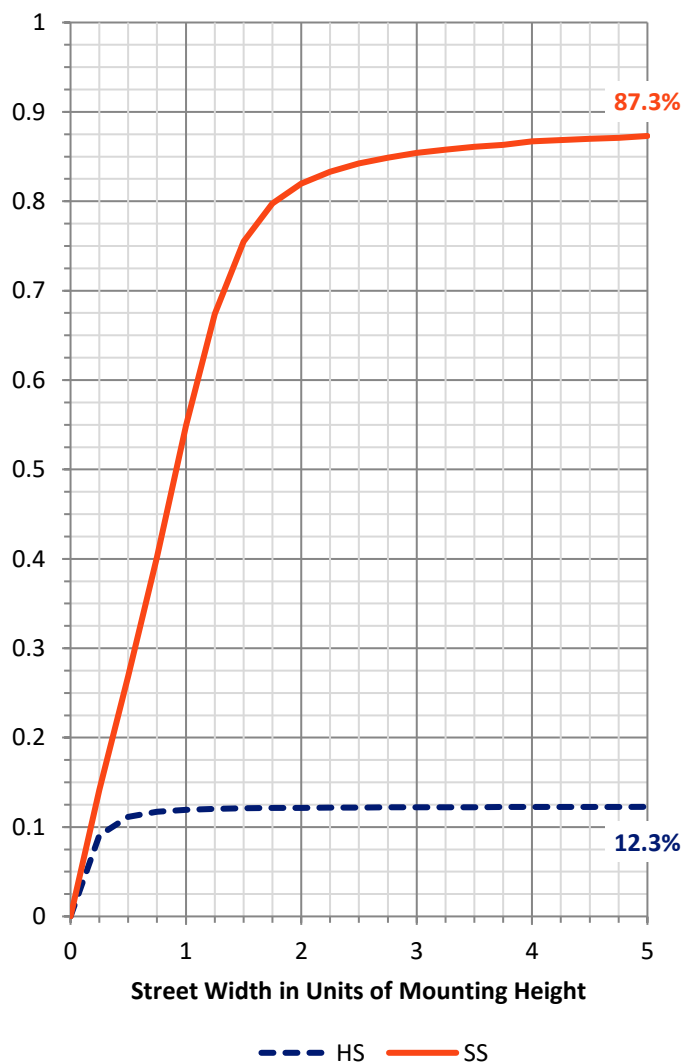
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1845.3	0.0	1845.3
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	13075.7	0.0	13075.7
	% Fixture	87.6	0.0	87.6
Total	Lumens	14921.0	0.0	14921.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.5	1.1
10°-20°	472.0	3.2
20°-30°	739.7	5.0
30°-40°	1192.7	8.0
40°-50°	2191.7	14.7
50°-60°	3701.5	24.8
60°-70°	4092.1	27.4
70°-80°	2141.8	14.4
80°-90°	230.0	1.5
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°	14921.0	100.0
0°-180°	14921.0	100.0

Coefficient of Utilization



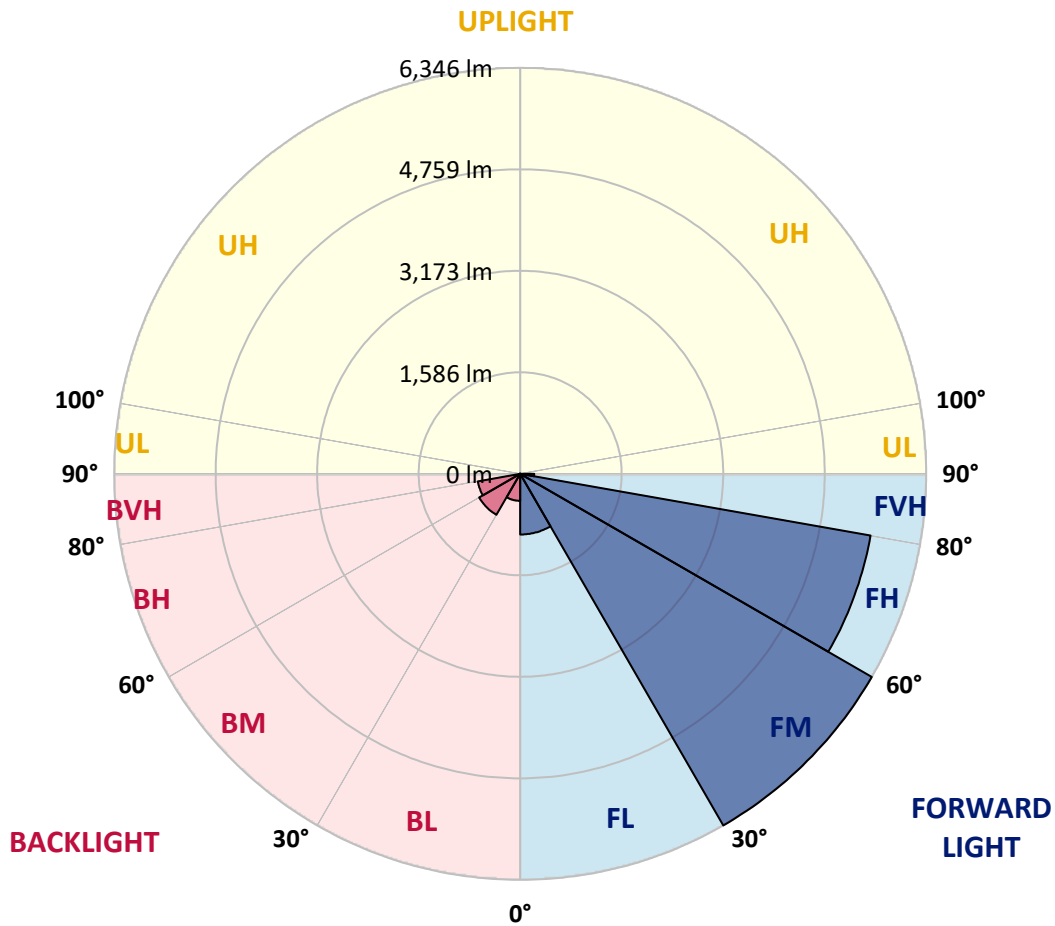
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	948.7	6.4			
FM (30°-60°)	6346.0	42.5			
FH (60°-80°)	5560.8	37.3			G3/7500
FVH (80°-90°)	220.2	1.5			G2/225
BL (0°-30°)	422.5	2.8	B1/500		
BM (30°-60°)	739.9	5.0	B1/1000		
BH (60°-80°)	673.1	4.5	B2/1000		G2/1000
BVH (80°-90°)	9.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9
2.5°	1500.2	1449.5	1363.2	1388.2	1438.1	1479.8	1460.1	1421.5	1422.2	1382.9	1524.4
5°	1745.4	1677.3	1627.4	1644.8	1642.5	1641.0	1734.1	1769.7	1784.8	1849.9	1946.0
7.5°	1815.8	1791.6	1739.4	1755.3	1703.0	1706.8	1870.3	2024.7	2049.0	2089.1	2260.1
10°	1788.6	1741.6	1760.6	1760.6	1761.3	1846.1	1955.9	2103.5	2133.0	2287.4	2305.5
12.5°	1759.1	1761.3	1836.3	1822.6	1925.6	2077.7	2114.8	2280.6	2266.2	2400.2	2599.2
15°	1868.8	1926.3	1877.9	1896.8	1906.7	2085.3	2145.1	2365.3	2428.9	2598.5	2727.9
17.5°	2057.3	2064.8	1964.2	1936.9	2008.1	2058.8	2179.1	2285.1	2327.5	2772.6	2955.7
20°	2091.3	2139.8	2037.6	1880.2	2030.8	2100.4	2184.4	2235.2	2253.3	2826.3	3084.4
22.5°	2296.5	2242.7	2079.2	1959.6	2002.8	2078.5	2130.7	2283.6	2392.6	2724.9	3207.8
25°	2401.7	2387.3	2231.4	2129.2	2085.3	2079.2	2198.8	2314.6	2349.4	2830.1	3238.1
27.5°	2653.7	2621.2	2319.2	2306.3	2161.7	2034.6	2201.1	2409.2	2474.3	2730.9	3351.6
30°	2996.6	2984.5	2582.6	2574.2	2344.1	2115.6	2323.7	2467.5	2428.2	2781.6	3427.3
32.5°	3341.8	3440.2	3029.2	2794.5	2621.9	2413.0	2288.9	2449.4	2519.8	2905.0	3566.6
35°	3758.8	3830.0	3411.4	3241.1	2857.3	2552.3	2519.8	2622.7	2653.0	3051.9	3724.8
37.5°	4488.5	4381.0	4024.5	3734.6	3533.3	3049.6	2889.1	2807.4	2877.8	3250.9	4048.0
40°	5027.4	4959.3	4520.3	4346.9	3883.7	3600.6	3181.3	3104.8	3183.6	3455.3	4272.8
42.5°	5677.6	5536.0	5122.8	5005.4	4528.6	3982.9	3557.5	3584.0	3534.8	3858.7	4667.1
45°	6265.7	5946.3	5716.2	5742.7	5488.3	4751.1	4185.0	4172.1	4131.2	4443.1	5081.9
47.5°	6661.6	6382.3	6158.2	6084.8	6054.5	6102.2	5091.7	4863.1	4832.9	5056.9	5735.1
50°	6874.2	6568.5	6291.4	6306.6	6921.2	7383.6	6027.3	5702.6	5713.9	5947.8	6628.3
52.5°	6731.2	6385.3	6093.1	6377.0	7593.3	8238.2	7575.9	6799.3	7062.7	7002.9	7826.4
55°	6070.4	5769.9	5562.5	6070.4	7666.7	9157.8	9482.6	8450.1	8391.1	8254.9	9048.1
57.5°	4958.5	4699.6	4571.7	5107.6	6863.7	9898.9	11397.5	10315.9	9812.6	9241.9	10062.4
60°	3694.5	3503.7	3370.5	3653.6	5408.1	9179.0	12651.7	12074.2	11491.4	10193.3	10973.7
62.5°	2736.2	2581.1	2439.5	2465.3	3724.0	7894.6	13133.1	13937.0	13602.4	11197.7	11833.5
65°	2183.7	2042.1	1943.0	1886.2	2306.3	5939.5	12463.3	15463.7	15849.7	12143.9	12454.2
67.5°	1783.3	1663.7	1614.5	1679.6	1809.0	3385.7	10673.9	16390.1	16950.2	13147.5	12607.1
70°	1451.0	1352.6	1347.3	1522.9	1666.0	2064.1	7851.4	15750.5	16172.1	13318.6	11690.5
72.5°	1011.2	968.1	1037.0	1286.0	1650.8	1718.9	4508.9	13034.0	13049.1	11763.1	9615.8
75°	572.2	565.4	674.4	1025.6	1607.7	1701.5	2513.7	9210.8	9217.6	8896.7	6661.6
77.5°	314.9	294.4	392.8	693.3	1380.6	1662.2	1621.3	6289.2	6127.9	4950.9	3042.8
80°	145.3	137.0	212.7	444.3	1009.7	1572.1	1299.6	3456.8	3117.0	1613.0	742.5
82.5°	59.8	56.8	97.6	285.4	638.1	1266.3	1095.2	1533.5	1230.7	306.5	229.3
85°	10.6	11.4	40.1	172.6	357.3	583.6	887.9	728.1	535.1	84.8	125.6
87.5°	0.0	0.0	8.3	41.6	86.3	159.7	360.3	203.6	140.0	25.0	37.1
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°	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9
2.5°	1552.4	1539.6	1409.4	1415.4	1424.5	1416.2	1414.7	1378.3	1345.0	1454.8	1453.3
5°	1963.4	1871.8	1781.8	1746.9	1672.0	1573.6	1574.4	1543.3	1511.5	1556.2	1556.2
7.5°	2256.3	2129.9	2015.6	1812.0	1613.7	1434.3	1418.4	1376.1	1327.6	1385.9	1397.3
10°	2324.5	2214.7	2067.1	1768.1	1580.4	1405.6	1213.3	1055.1	981.7	947.7	941.6
12.5°	2534.1	2452.4	2122.4	1791.6	1521.4	1225.4	910.6	722.8	594.9	585.1	571.5
15°	2674.2	2616.6	2176.9	1733.3	1271.6	881.0	572.2	439.0	387.5	383.0	376.2
17.5°	2891.4	2791.5	2124.6	1547.9	994.6	581.3	384.5	346.7	352.7	366.3	355.7
20°	2980.0	2784.7	2011.1	1279.2	698.6	389.8	333.8	313.4	329.3	342.1	336.1
22.5°	3070.8	2804.3	1910.4	1054.4	456.4	322.4	297.5	286.9	288.4	301.2	302.0
25°	3070.0	2858.8	1793.9	821.2	339.9	286.9	268.7	255.1	249.8	258.9	256.6
27.5°	3219.1	2796.0	1581.2	609.3	299.0	256.6	239.2	222.5	203.6	212.7	212.7
30°	3219.9	2898.2	1432.8	437.5	274.0	228.6	213.4	187.7	165.8	173.3	174.1
32.5°	3305.4	2809.6	1295.8	334.6	254.3	211.9	178.6	155.2	142.3	146.8	146.8
35°	3403.1	2885.3	1085.4	295.2	234.6	188.5	152.9	134.0	124.1	127.9	127.9
37.5°	3725.5	2869.4	939.3	274.8	221.8	170.3	139.3	118.1	113.5	115.8	118.8
40°	3842.1	2982.2	741.0	262.6	200.6	153.7	122.6	106.7	100.7	102.2	102.9
42.5°	4138.8	3007.2	591.9	252.8	181.7	133.2	109.0	97.6	90.1	90.1	92.3
45°	4466.5	3070.0	470.8	244.5	165.8	119.6	98.4	89.3	78.0	76.4	79.5
47.5°	4941.1	3310.7	383.8	227.8	146.8	111.3	90.8	77.2	68.1	65.1	68.1
50°	5735.1	3719.5	339.1	207.4	133.2	104.5	80.2	65.9	59.0	55.3	57.5
52.5°	6855.3	4425.6	315.6	188.5	121.1	93.9	71.9	57.5	50.7	47.7	49.2
55°	8099.7	5235.5	304.3	169.5	110.5	82.5	62.8	50.7	44.7	40.9	41.6
57.5°	9250.2	5997.0	292.9	151.4	99.9	73.4	55.3	44.7	38.6	34.8	35.6
60°	10384.0	6604.8	265.7	130.2	90.1	65.9	48.4	38.6	34.8	30.3	30.3
62.5°	11386.9	6968.1	226.3	112.8	81.0	58.3	43.1	34.8	31.8	27.2	27.2
65°	12069.7	6984.8	182.4	96.9	71.1	50.0	37.8	32.5	29.5	24.2	23.5
67.5°	12079.5	6530.6	146.1	86.3	62.8	43.9	34.1	31.0	27.2	22.7	21.2
70°	10811.7	5395.2	121.9	75.7	54.5	38.6	29.5	29.5	26.5	22.0	19.7
72.5°	8648.4	4122.9	102.2	65.9	48.4	33.3	27.2	28.0	25.7	22.0	19.7
75°	5813.1	2364.6	84.8	56.0	42.4	28.0	26.5	27.2	26.5	22.0	18.9
77.5°	2677.2	753.1	65.9	46.2	36.3	23.5	25.7	25.7	24.2	19.7	16.7
80°	603.3	185.4	47.7	34.1	29.5	17.4	23.5	21.2	18.9	13.6	9.8
82.5°	219.5	56.8	28.8	21.2	18.2	6.8	15.1	15.1	13.6	9.8	6.1
85°	125.6	29.5	15.9	13.6	9.8	3.0	8.3	9.1	7.6	6.8	3.0
87.5°	40.9	6.8	7.6	8.3	7.6	1.5	3.0	3.0	2.3	1.5	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)