

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: P596701

Luminaire Tested: **MSA-SA3C-827-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596701
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-827-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: 10990 lumens
Efficiency: N/A
Efficacy: 66.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

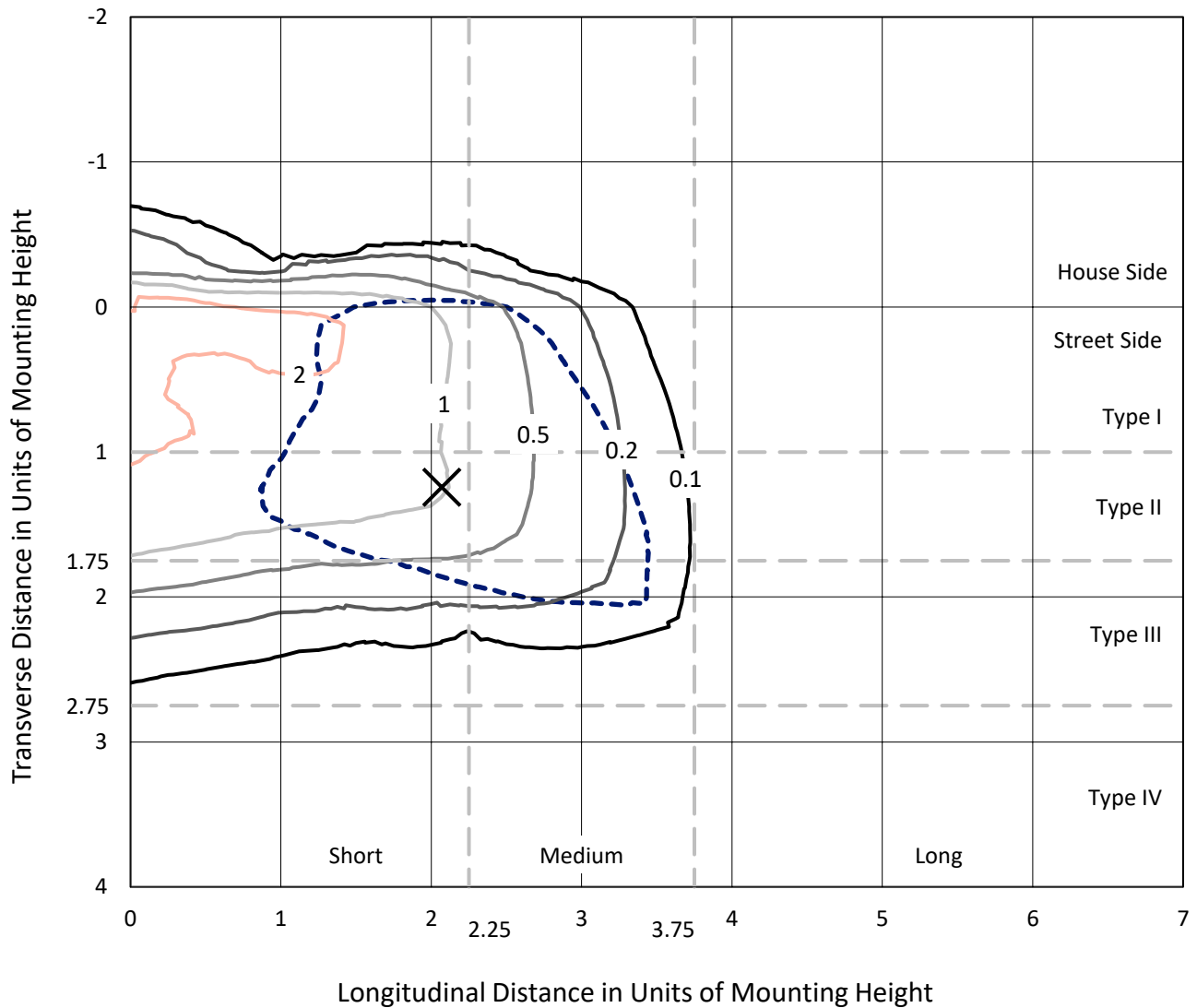
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

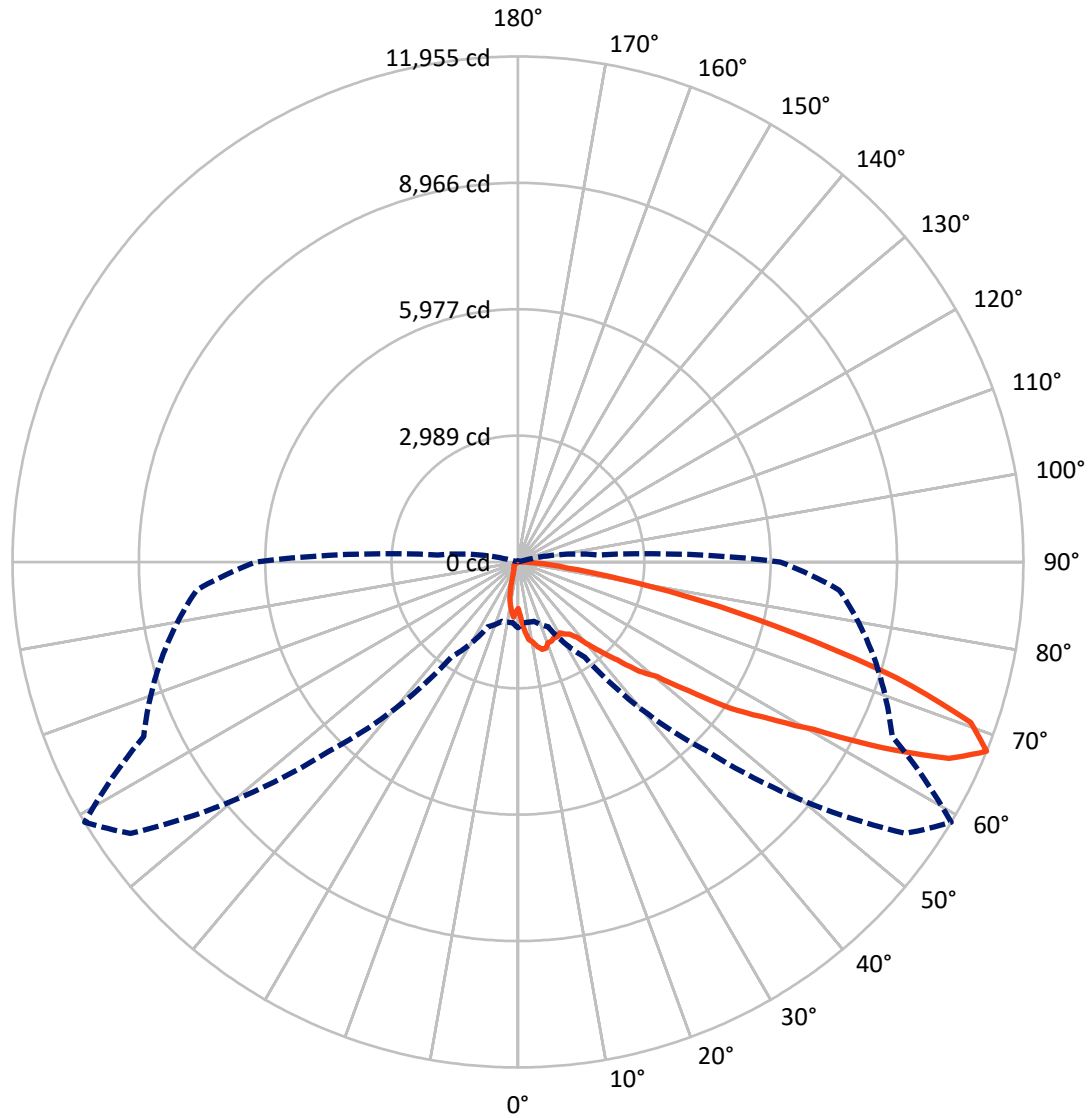
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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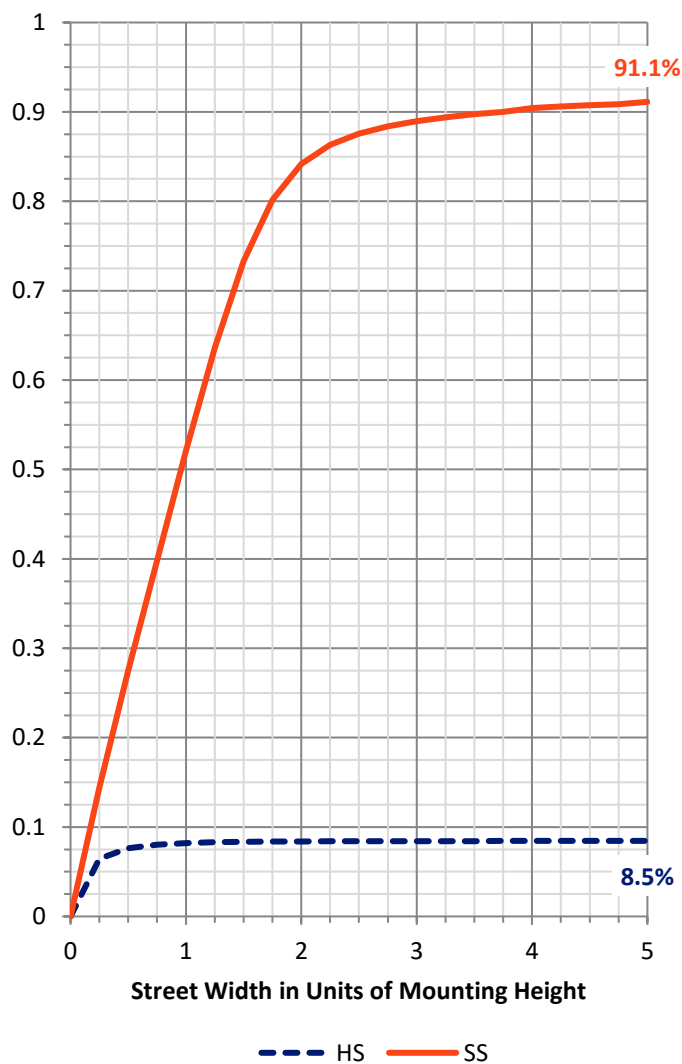
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	934.6	0.0	934.6
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	10055.4	0.0	10055.4
	% Fixture	91.5	0.0	91.5
Total	Lumens	10990.0	0.0	10990.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	1.2
10°-20°	376.5	3.4
20°-30°	560.0	5.1
30°-40°	863.9	7.9
40°-50°	1541.8	14.0
50°-60°	2743.6	25.0
60°-70°	3195.3	29.1
70°-80°	1421.0	12.9
80°-90°	154.3	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°	10990.0	100.0
0°-180°	10990.0	100.0

Coefficient of Utilization



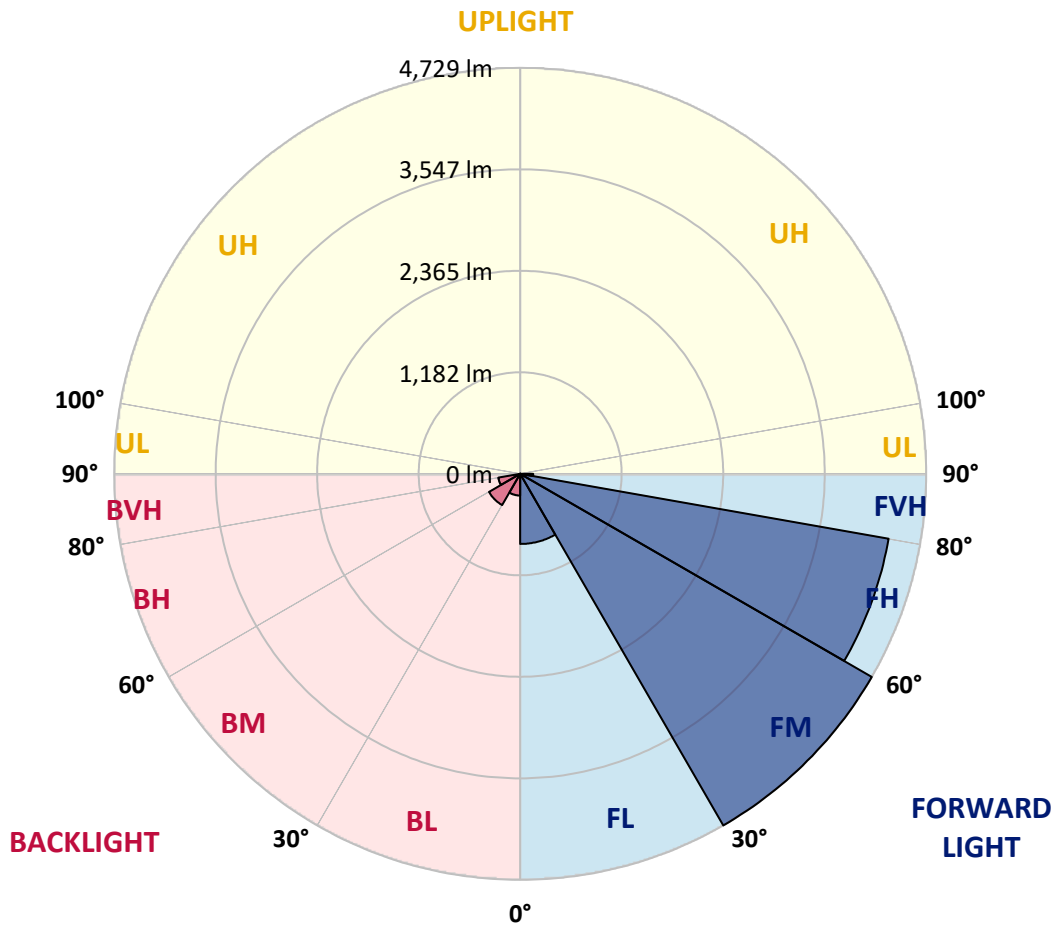
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	817.4	7.4			
FM (30°-60°)	4729.0	43.0			
FH (60°-80°)	4357.4	39.6			G2/5000
FVH (80°-90°)	151.6	1.4			G2/225
BL (0°-30°)	252.8	2.3	B1/500		
BM (30°-60°)	420.2	3.8	B1/1000		
BH (60°-80°)	258.9	2.4	B1/500		G1/500
BVH (80°-90°)	2.7	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°	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6
2.5°	1433.5	1379.5	1302.7	1325.5	1346.1	1365.6	1333.3	1314.9	1306.0	1227.0	1326.1
5°	1760.1	1692.8	1657.7	1648.8	1626.6	1577.0	1659.4	1622.7	1634.9	1650.5	1682.8
7.5°	1859.7	1829.1	1778.5	1797.4	1712.8	1705.6	1819.7	1851.4	1893.1	1864.7	1903.7
10°	1808.5	1755.7	1779.6	1772.9	1769.6	1844.1	1924.3	1925.9	1988.3	2018.3	1886.4
12.5°	1707.2	1713.4	1799.1	1792.4	1903.7	2052.8	2071.2	2051.7	2153.5	2101.2	2081.2
15°	1774.6	1824.7	1777.4	1793.5	1833.0	2019.4	2084.5	2144.6	2240.9	2272.1	2136.8
17.5°	1855.8	1860.8	1774.6	1754.5	1854.2	1941.0	2094.6	2144.1	2153.5	2426.8	2262.1
20°	1811.9	1854.7	1751.8	1625.4	1780.1	1898.1	2053.9	2038.3	2101.8	2472.4	2290.4
22.5°	1928.7	1867.5	1735.6	1640.5	1692.8	1800.2	1932.1	2033.9	2129.1	2363.3	2327.2
25°	1939.9	1917.6	1800.2	1715.6	1706.7	1734.0	1917.6	1983.3	2132.4	2461.3	2296.0
27.5°	2065.1	2039.5	1799.1	1807.4	1723.9	1639.9	1847.5	2001.6	2193.0	2401.7	2362.2
30°	2226.4	2228.7	1918.7	1944.9	1825.8	1690.6	1904.8	1947.1	2234.2	2496.9	2411.2
32.5°	2390.0	2457.4	2155.2	2016.6	1979.4	1882.5	1833.6	2028.9	2189.2	2659.4	2533.6
35°	2638.8	2684.4	2350.0	2225.9	2079.5	1969.3	2027.2	2097.3	2351.1	2874.7	2694.4
37.5°	3060.0	2977.7	2699.4	2483.5	2448.5	2286.0	2314.9	2252.0	2516.4	3128.5	3012.7
40°	3297.1	3222.5	2933.2	2828.0	2604.3	2629.3	2538.1	2574.8	2756.2	3392.8	3302.6
42.5°	3544.2	3472.9	3219.2	3144.6	2931.5	2828.0	2786.8	2918.7	3124.0	3833.0	3718.3
45°	3792.3	3611.5	3504.1	3541.4	3445.7	3240.9	3193.0	3310.4	3525.8	4373.9	4156.8
47.5°	4001.6	3849.1	3768.4	3751.2	3713.9	3998.2	3803.5	3855.2	3950.4	4852.4	4703.3
50°	4378.9	4228.6	4102.3	4067.2	4248.6	4652.1	4351.6	4251.4	4441.7	5430.6	5336.5
52.5°	4923.6	4732.2	4531.3	4531.9	4874.1	5095.6	5238.1	5062.2	5097.8	6066.6	6024.9
55°	5361.6	5118.4	4952.0	5083.4	5593.6	5717.7	6261.4	6107.3	6061.1	6656.5	6605.3
57.5°	5421.7	5130.1	5051.1	5281.5	5979.8	6772.2	7357.1	6972.0	6901.3	7150.1	7251.9
60°	4860.8	4551.4	4610.9	4981.5	6105.6	7415.0	8363.2	8048.8	7599.7	7728.3	7798.4
62.5°	3625.4	3378.3	3545.3	4036.1	5620.9	7845.7	9527.9	9673.7	8409.9	8162.3	8147.3
65°	2352.2	2197.5	2307.1	2709.5	4253.7	7796.7	10568.5	11200.6	9048.2	8516.2	8256.9
67.5°	1555.9	1438.5	1454.1	1692.2	2750.6	6341.0	11190.6	11954.6	9766.0	8717.1	7628.6
70°	1159.7	1067.3	1072.9	1202.0	1632.7	4181.9	10323.1	11359.8	10028.1	8021.0	6157.3
72.5°	836.4	774.6	826.4	969.9	1301.0	2211.4	7694.3	9355.4	8744.4	6326.5	4148.5
75°	579.3	538.7	623.2	811.3	1187.5	1372.8	5084.5	6734.4	6129.0	3969.3	1875.3
77.5°	321.1	308.8	430.7	661.1	1077.9	1125.2	3114.6	4425.0	3399.5	1422.9	446.3
80°	140.2	135.8	208.7	496.4	905.9	1016.7	1753.4	2453.5	1337.2	253.8	144.1
82.5°	60.1	57.9	89.0	298.8	658.3	850.3	1081.2	1180.8	460.2	78.5	81.8
85°	10.6	11.7	35.6	157.5	400.7	431.8	783.0	698.9	231.5	37.3	58.4
87.5°	0.0	0.0	5.6	30.6	75.1	123.5	339.4	244.8	44.0	12.2	10.0
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°	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6	1099.6
2.5°	1340.0	1308.8	1190.3	1175.3	1159.1	1135.2	1126.3	1075.1	1068.4	1134.1	1134.1
5°	1667.7	1556.4	1443.5	1354.4	1274.9	1164.7	1133.5	1101.3	1075.1	1068.4	1089.0
7.5°	1840.8	1705.0	1527.5	1301.0	1117.4	957.7	890.9	844.2	791.9	807.4	815.8
10°	1831.3	1687.2	1460.7	1169.7	966.0	789.6	619.9	520.9	465.8	438.5	435.2
12.5°	1924.3	1788.5	1415.7	1065.1	805.2	561.5	390.1	319.4	278.8	279.3	276.0
15°	1978.3	1830.2	1363.4	932.6	567.0	361.1	270.4	254.9	249.3	255.4	252.1
17.5°	2073.4	1874.2	1244.8	735.1	390.1	272.7	248.7	242.6	249.9	262.7	259.3
20°	2066.2	1798.0	1076.2	518.1	288.3	245.4	235.4	225.9	241.0	254.3	252.1
22.5°	2059.5	1723.4	917.6	382.3	241.0	223.7	215.4	211.5	219.2	234.8	238.2
25°	2000.5	1686.7	756.8	287.1	218.1	203.1	199.2	195.9	198.7	211.5	210.9
27.5°	2072.9	1593.7	584.3	241.0	202.0	184.2	180.9	175.3	169.7	180.9	182.5
30°	2057.8	1606.5	458.0	212.0	185.9	161.9	163.0	151.4	141.3	151.4	151.4
32.5°	2112.4	1513.0	366.7	192.5	169.7	152.5	138.6	126.3	119.1	125.2	126.3
35°	2191.9	1516.9	287.1	180.3	155.8	135.8	119.1	106.8	100.2	102.9	104.6
37.5°	2458.5	1490.2	239.8	170.8	150.8	125.8	108.5	92.4	87.9	91.3	92.9
40°	2632.1	1561.5	211.5	165.8	138.0	115.7	92.9	81.2	77.3	79.0	81.8
42.5°	2959.3	1601.0	197.5	160.3	126.3	99.1	79.6	72.9	67.3	69.6	71.8
45°	3309.3	1668.3	187.0	154.1	117.4	86.8	70.1	64.6	57.3	57.9	60.1
47.5°	3739.5	1828.6	174.7	143.6	105.2	79.0	62.3	54.0	47.3	46.7	49.5
50°	4317.1	2042.8	163.6	130.2	97.4	72.3	54.5	44.0	38.4	36.7	39.0
52.5°	4933.7	2319.9	151.9	120.8	87.9	63.4	46.7	35.6	30.6	29.5	31.2
55°	5544.7	2585.9	140.8	114.6	77.9	54.5	39.5	29.5	25.0	23.9	25.0
57.5°	6240.8	2873.6	126.3	102.4	68.4	47.3	32.8	24.5	20.6	19.5	20.0
60°	6765.0	2974.9	114.1	89.0	59.5	41.7	27.8	19.5	16.7	15.6	16.1
62.5°	7013.7	2809.6	102.4	77.3	52.3	36.2	23.4	16.1	13.9	12.8	12.8
65°	6949.2	2443.5	90.7	66.2	45.1	30.0	18.4	13.9	12.2	10.6	10.0
67.5°	6203.5	1912.0	77.3	55.6	37.8	24.5	15.6	13.4	11.1	10.0	8.3
70°	4919.8	1384.5	62.9	46.2	31.7	20.0	12.2	12.2	10.6	10.0	7.8
72.5°	3224.7	871.4	51.2	37.3	26.2	15.6	9.5	11.1	10.0	10.0	7.2
75°	1397.3	311.6	41.2	30.0	21.7	10.6	8.3	10.0	10.6	10.0	8.3
77.5°	327.2	96.8	32.3	23.9	17.8	7.2	8.3	10.0	10.6	9.5	7.2
80°	123.0	41.2	21.1	15.6	13.9	4.5	7.2	6.1	5.6	3.9	1.1
82.5°	74.6	17.3	11.1	7.8	6.7	1.1	3.3	2.2	1.1	1.1	0.0
85°	52.9	8.3	6.1	5.6	3.3	0.0	0.6	0.0	0.0	0.6	0.0
87.5°	7.2	2.2	2.8	2.8	2.2	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)