

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: P367439

Luminaire Tested: **MSA-SA2C-740-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367439
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-SA2C-740-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 10111 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

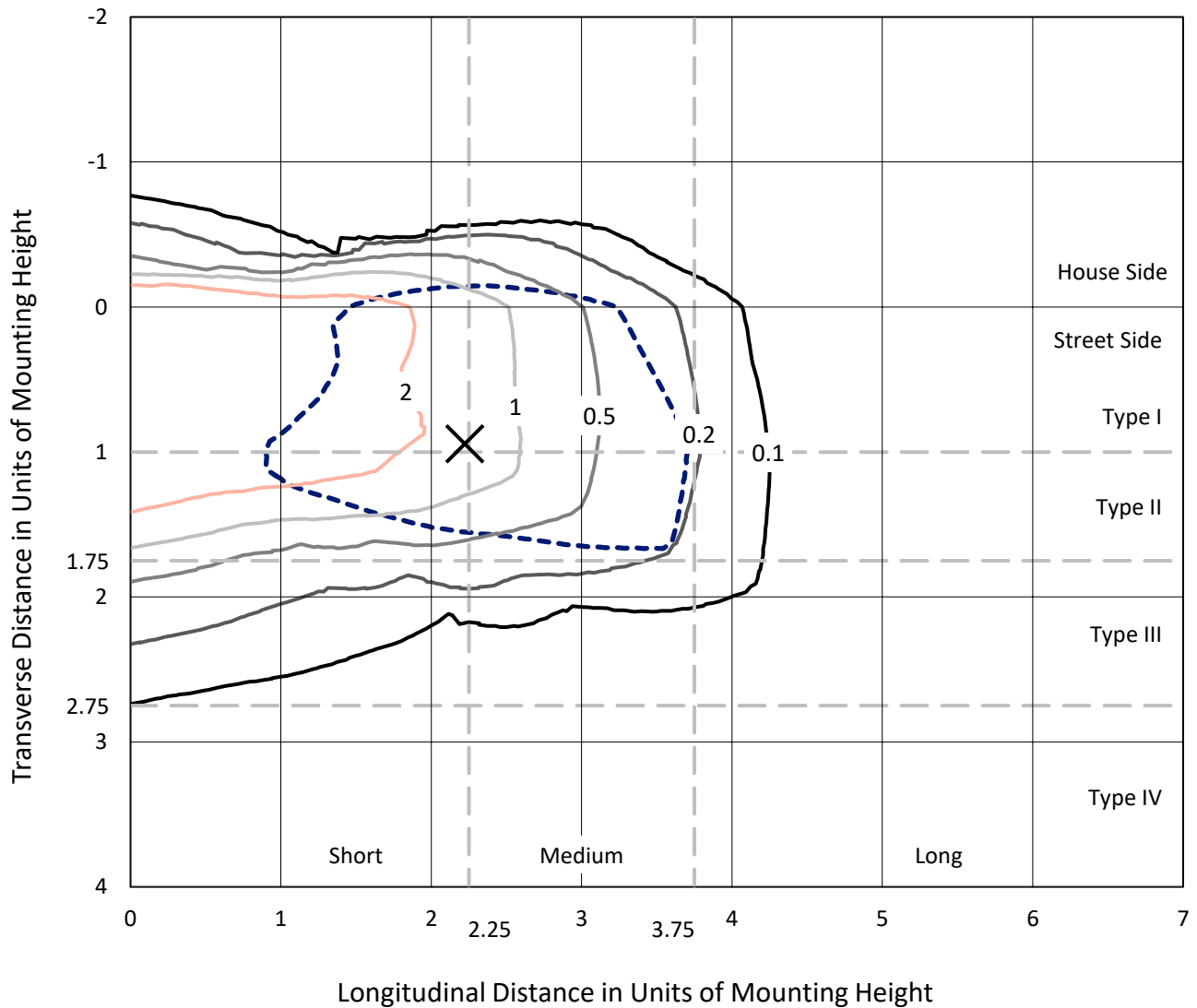
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

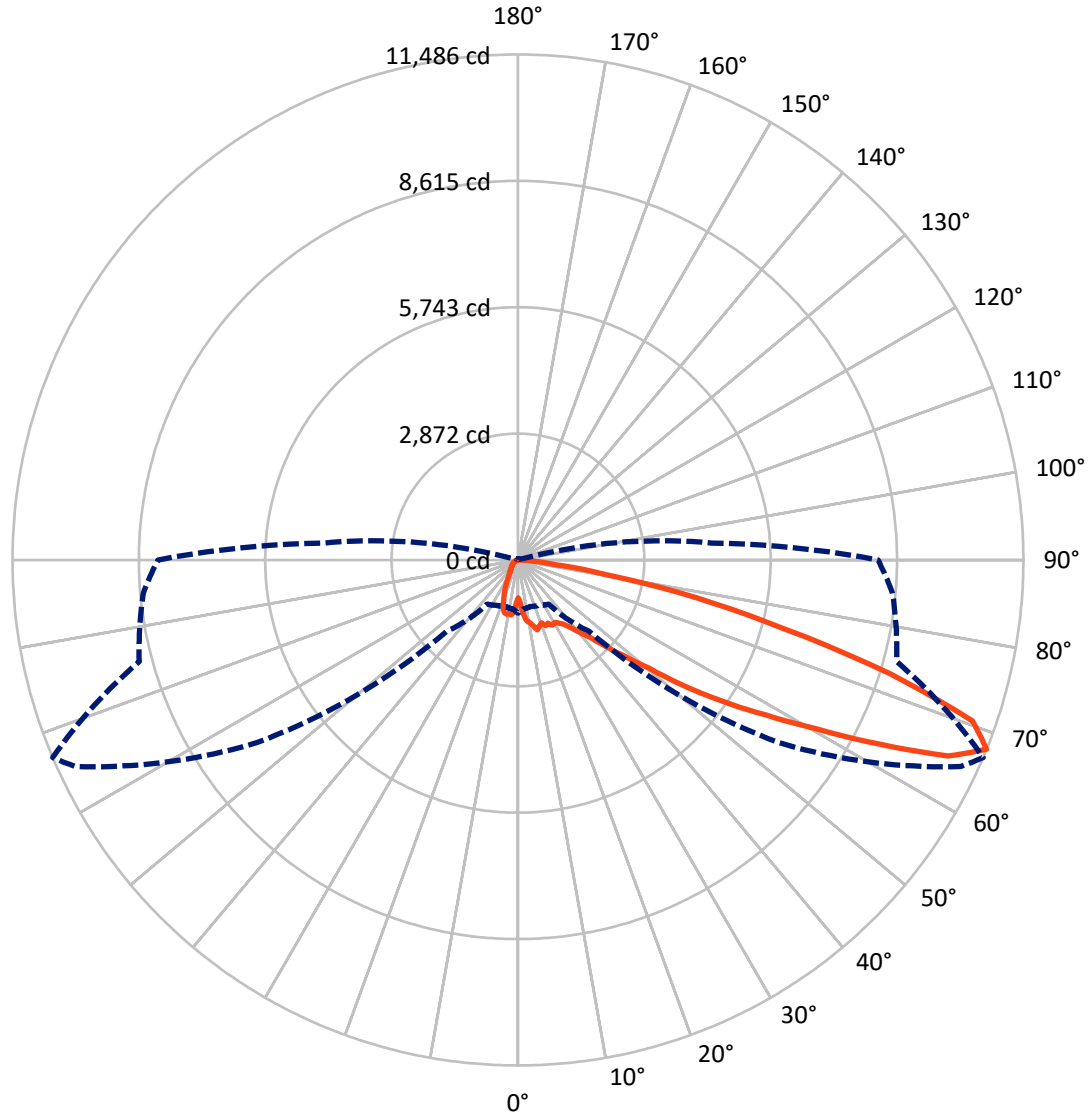
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.2 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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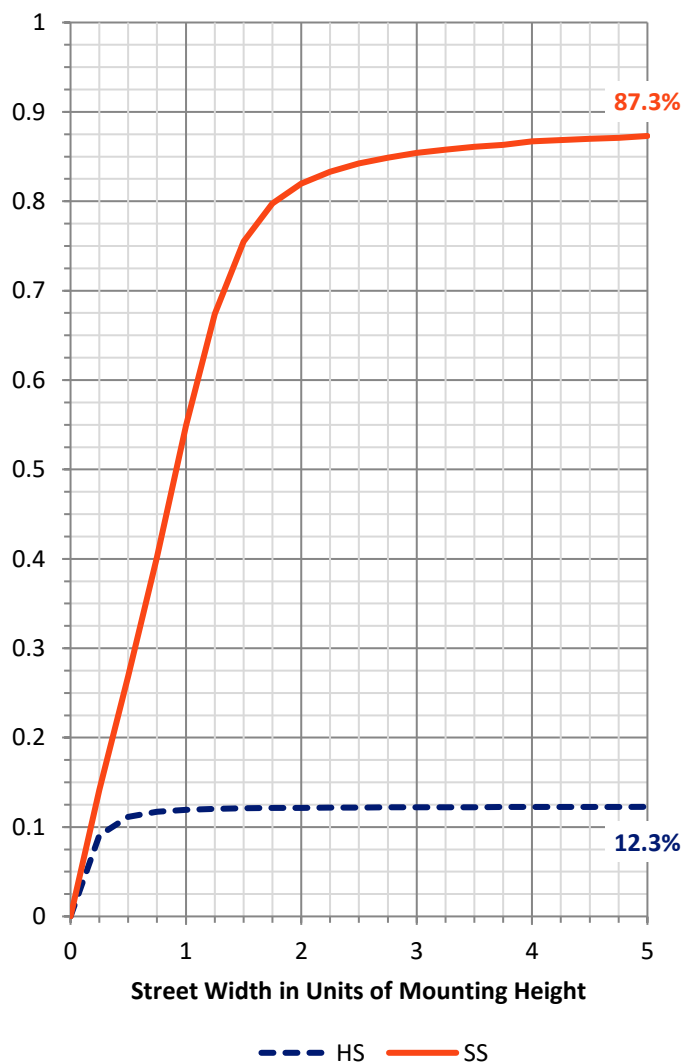
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1250.4	0.0	1250.4
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	8860.6	0.0	8860.6
	% Fixture	87.6	0.0	87.6
Total	Lumens	10111.0	0.0	10111.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	1.1
10°-20°	319.8	3.2
20°-30°	501.3	5.0
30°-40°	808.2	8.0
40°-50°	1485.2	14.7
50°-60°	2508.2	24.8
60°-70°	2773.0	27.4
70°-80°	1451.3	14.4
80°-90°	155.9	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°	10111.0	100.0
0°-180°	10111.0	100.0

Coefficient of Utilization

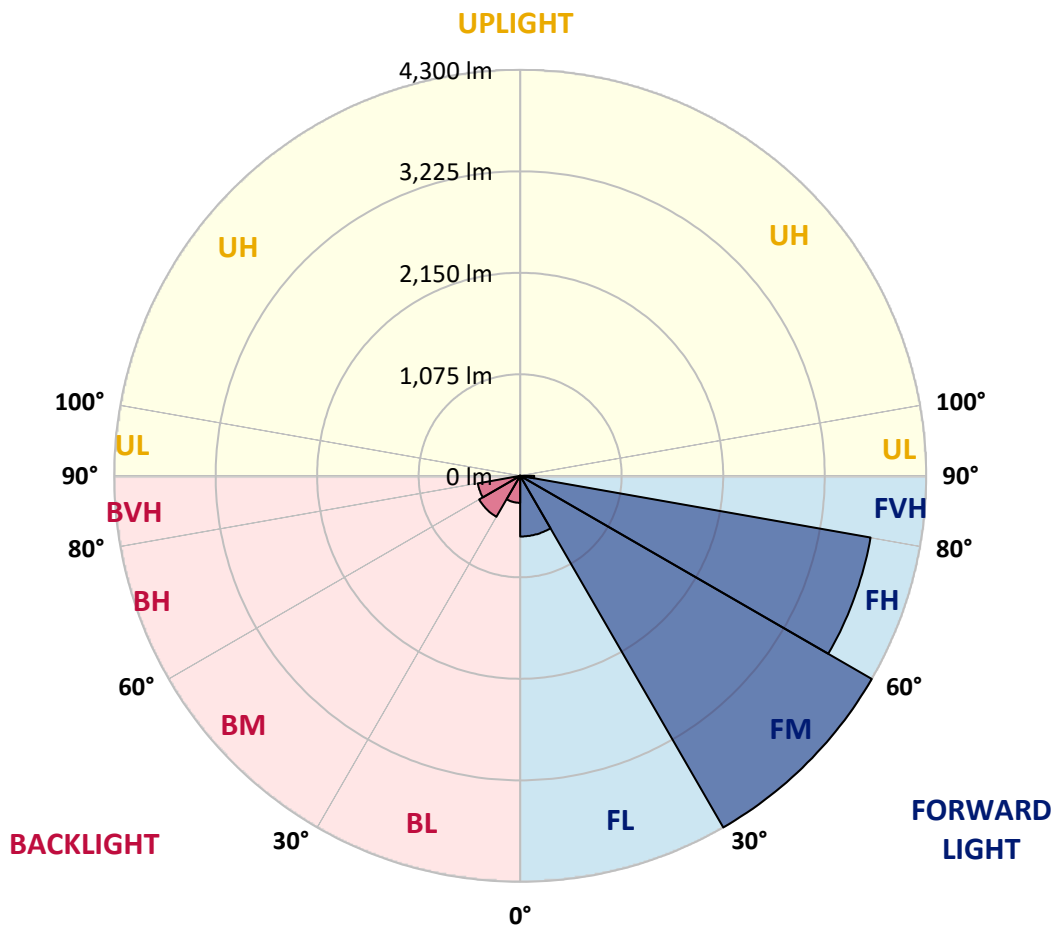


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	642.9	6.4			
FM (30°-60°)	4300.2	42.5			
FH (60°-80°)	3768.2	37.3			G2/5000
FVH (80°-90°)	149.2	1.5			G2/225
BL (0°-30°)	286.3	2.8	B1/500		
BM (30°-60°)	501.4	5.0	B1/1000		
BH (60°-80°)	456.1	4.5	B1/500		G1/500
BVH (80°-90°)	6.6	0.1			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2
2.5°	1016.6	982.2	923.7	940.7	974.5	1002.7	989.4	963.2	963.8	937.1	1033.0
5°	1182.8	1136.6	1102.8	1114.6	1113.0	1112.0	1175.1	1199.2	1209.4	1253.5	1318.7
7.5°	1230.5	1214.1	1178.7	1189.4	1154.0	1156.6	1267.4	1372.0	1388.4	1415.6	1531.5
10°	1212.0	1180.2	1193.0	1193.0	1193.5	1251.0	1325.4	1425.4	1445.4	1550.0	1562.3
12.5°	1192.0	1193.5	1244.3	1235.1	1304.8	1407.9	1433.1	1545.4	1535.6	1626.4	1761.3
15°	1266.4	1305.4	1272.5	1285.3	1292.0	1413.1	1453.6	1602.8	1645.9	1760.8	1848.5
17.5°	1394.1	1399.2	1331.0	1312.5	1360.7	1395.1	1476.7	1548.5	1577.2	1878.8	2002.9
20°	1417.2	1450.0	1380.7	1274.1	1376.1	1423.3	1480.3	1514.6	1526.9	1915.2	2090.1
22.5°	1556.2	1519.7	1409.0	1327.9	1357.2	1408.4	1443.8	1547.4	1621.3	1846.5	2173.7
25°	1627.5	1617.7	1512.1	1442.8	1413.1	1409.0	1490.0	1568.5	1592.1	1917.8	2194.2
27.5°	1798.3	1776.2	1571.6	1562.8	1464.9	1378.7	1491.5	1632.6	1676.7	1850.6	2271.2
30°	2030.6	2022.4	1750.0	1744.4	1588.5	1433.6	1574.6	1672.1	1645.4	1884.9	2322.5
32.5°	2264.5	2331.2	2052.7	1893.7	1776.7	1635.2	1551.0	1659.8	1707.5	1968.5	2416.8
35°	2547.1	2595.3	2311.7	2196.3	1936.2	1729.5	1707.5	1777.2	1797.7	2068.0	2524.0
37.5°	3041.5	2968.7	2727.1	2530.7	2394.3	2066.5	1957.8	1902.4	1950.1	2202.9	2743.0
40°	3406.7	3360.6	3063.1	2945.6	2631.7	2439.9	2155.8	2104.0	2157.3	2341.4	2895.4
42.5°	3847.3	3751.4	3471.4	3391.9	3068.7	2698.9	2410.7	2428.6	2395.3	2614.8	3162.6
45°	4245.9	4029.4	3873.5	3891.4	3719.1	3219.5	2835.9	2827.2	2799.5	3010.8	3443.7
47.5°	4514.1	4324.8	4173.0	4123.3	4102.8	4135.1	3450.3	3295.4	3274.9	3426.7	3886.3
50°	4658.2	4451.0	4263.3	4273.6	4690.0	5003.4	4084.3	3864.3	3871.9	4030.4	4491.5
52.5°	4561.3	4326.9	4128.9	4321.3	5145.5	5582.5	5133.7	4607.5	4786.0	4745.4	5303.5
55°	4113.5	3909.9	3769.4	4113.5	5195.3	6205.7	6425.7	5726.1	5686.1	5593.8	6131.3
57.5°	3360.1	3184.6	3098.0	3461.1	4651.1	6707.8	7723.4	6990.4	6649.3	6262.6	6818.6
60°	2503.5	2374.3	2284.0	2475.8	3664.7	6220.0	8573.3	8181.9	7787.0	6907.3	7436.1
62.5°	1854.2	1749.0	1653.1	1670.5	2523.5	5349.6	8899.5	9444.2	9217.5	7588.0	8018.8
65°	1479.7	1383.8	1316.6	1278.2	1562.8	4024.8	8445.6	10478.7	10740.3	8229.1	8439.4
67.5°	1208.4	1127.4	1094.0	1138.1	1225.9	2294.2	7233.0	11106.5	11486.1	8909.2	8543.0
70°	983.2	916.6	913.0	1032.0	1128.9	1398.7	5320.4	10673.1	10958.8	9025.1	7921.9
72.5°	685.2	656.0	702.7	871.4	1118.7	1164.8	3055.4	8832.3	8842.5	7971.1	6516.0
75°	387.8	383.1	457.0	695.0	1089.4	1153.0	1703.4	6241.6	6246.2	6028.7	4514.1
77.5°	213.4	199.5	266.2	469.8	935.5	1126.3	1098.7	4261.8	4152.5	3354.9	2061.9
80°	98.5	92.8	144.1	301.1	684.2	1065.3	880.7	2342.5	2112.2	1093.0	503.2
82.5°	40.5	38.5	66.2	193.4	432.4	858.1	742.2	1039.2	834.0	207.7	155.4
85°	7.2	7.7	27.2	116.9	242.1	395.5	601.6	493.4	362.6	57.4	85.1
87.5°	0.0	0.0	5.6	28.2	58.5	108.2	244.1	138.0	94.9	16.9	25.1
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°	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2	861.2
2.5°	1052.0	1043.3	955.0	959.1	965.3	959.7	958.6	934.0	911.4	985.8	984.8
5°	1330.5	1268.4	1207.4	1183.8	1133.0	1066.3	1066.8	1045.8	1024.3	1054.5	1054.5
7.5°	1529.0	1443.3	1365.9	1227.9	1093.5	972.0	961.2	932.5	899.6	939.1	946.8
10°	1575.1	1500.8	1400.8	1198.2	1071.0	952.5	822.2	715.0	665.2	642.2	638.1
12.5°	1717.2	1661.8	1438.2	1214.1	1030.9	830.4	617.0	489.8	403.1	396.5	387.2
15°	1812.1	1773.1	1475.1	1174.6	861.7	597.0	387.8	297.5	262.6	259.5	254.9
17.5°	1959.3	1891.6	1439.7	1048.9	674.0	393.9	260.6	234.9	239.0	248.2	241.1
20°	2019.3	1887.0	1362.8	866.8	473.4	264.1	226.2	212.3	223.1	231.8	227.7
22.5°	2080.9	1900.3	1294.6	714.5	309.3	218.5	201.6	194.4	195.4	204.1	204.7
25°	2080.4	1937.3	1215.6	556.5	230.3	194.4	182.1	172.9	169.3	175.4	173.9
27.5°	2181.4	1894.7	1071.5	412.9	202.6	173.9	162.1	150.8	138.0	144.1	144.1
30°	2181.9	1963.9	970.9	296.5	185.7	154.9	144.6	127.2	112.3	117.5	118.0
32.5°	2239.9	1903.9	878.1	226.7	172.3	143.6	121.0	105.1	96.4	99.5	99.5
35°	2306.0	1955.2	735.5	200.0	159.0	127.7	103.6	90.8	84.1	86.7	86.7
37.5°	2524.5	1944.4	636.5	186.2	150.3	115.4	94.4	80.0	76.9	78.5	80.5
40°	2603.5	2020.9	502.1	178.0	135.9	104.1	83.1	72.3	68.2	69.2	69.8
42.5°	2804.6	2037.8	401.1	171.3	123.1	90.3	73.9	66.2	61.0	61.0	62.6
45°	3026.7	2080.4	319.0	165.7	112.3	81.0	66.7	60.5	52.8	51.8	53.9
47.5°	3348.3	2243.5	260.0	154.4	99.5	75.4	61.5	52.3	46.2	44.1	46.2
50°	3886.3	2520.4	229.8	140.5	90.3	70.8	54.4	44.6	40.0	37.4	39.0
52.5°	4645.4	2999.0	213.9	127.7	82.1	63.6	48.7	39.0	34.4	32.3	33.3
55°	5488.6	3547.8	206.2	114.9	74.9	55.9	42.6	34.4	30.3	27.7	28.2
57.5°	6268.3	4063.8	198.5	102.6	67.7	49.8	37.4	30.3	26.2	23.6	24.1
60°	7036.6	4475.6	180.0	88.2	61.0	44.6	32.8	26.2	23.6	20.5	20.5
62.5°	7716.2	4721.8	153.4	76.4	54.9	39.5	29.2	23.6	21.5	18.5	18.5
65°	8178.8	4733.1	123.6	65.7	48.2	33.9	25.6	22.1	20.0	16.4	15.9
67.5°	8185.5	4425.4	99.0	58.5	42.6	29.7	23.1	21.0	18.5	15.4	14.4
70°	7326.4	3656.0	82.6	51.3	36.9	26.2	20.0	20.0	18.0	14.9	13.3
72.5°	5860.5	2793.8	69.2	44.6	32.8	22.6	18.5	19.0	17.4	14.9	13.3
75°	3939.1	1602.3	57.4	38.0	28.7	19.0	18.0	18.5	18.0	14.9	12.8
77.5°	1814.2	510.3	44.6	31.3	24.6	15.9	17.4	17.4	16.4	13.3	11.3
80°	408.8	125.7	32.3	23.1	20.0	11.8	15.9	14.4	12.8	9.2	6.7
82.5°	148.7	38.5	19.5	14.4	12.3	4.6	10.3	10.3	9.2	6.7	4.1
85°	85.1	20.0	10.8	9.2	6.7	2.1	5.6	6.2	5.1	4.6	2.1
87.5°	27.7	4.6	5.1	5.6	5.1	1.0	2.1	2.1	1.5	1.0	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)