

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: P597095

Luminaire Tested: **MSA-SA4A-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-835-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) 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: 10475 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

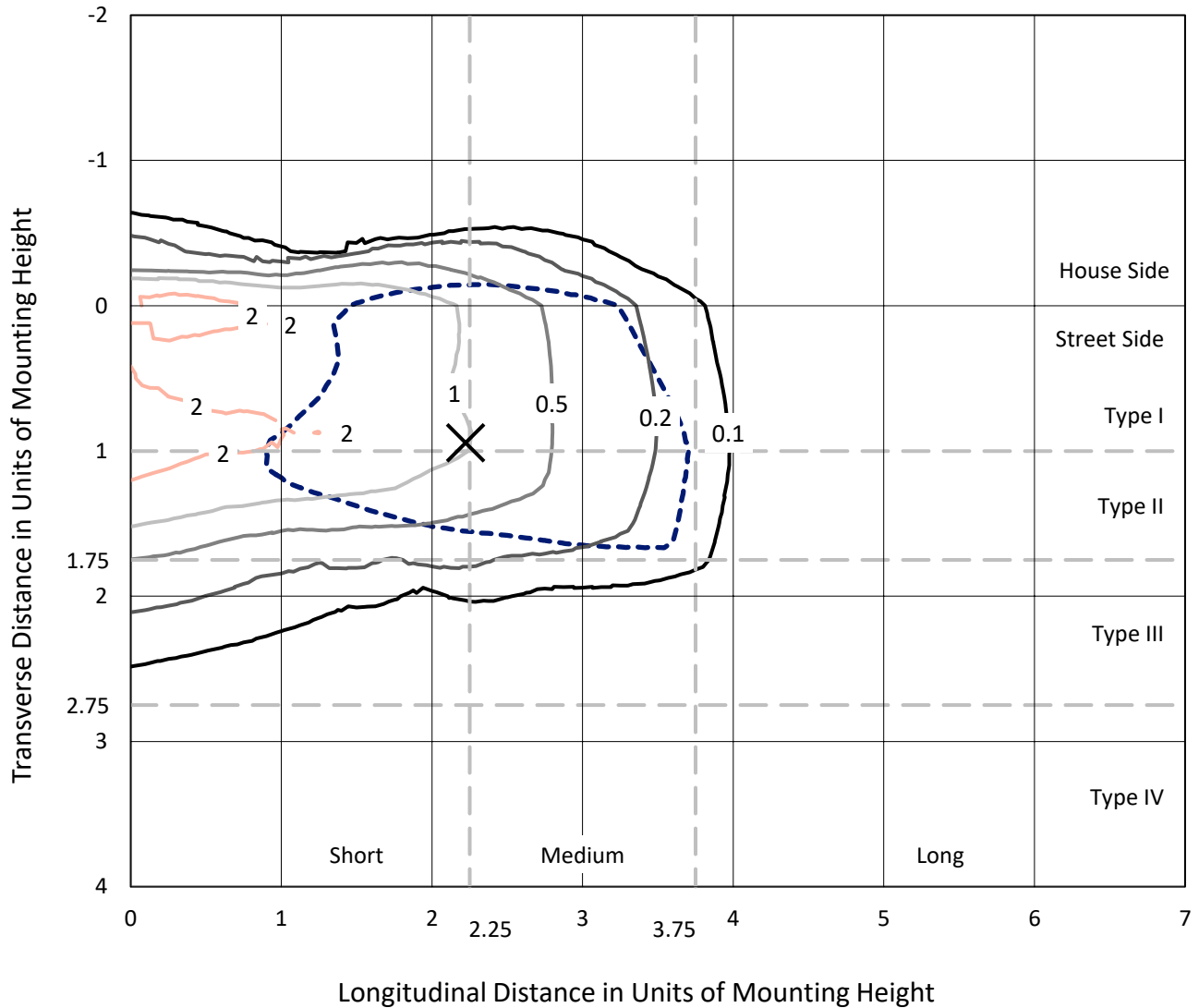
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

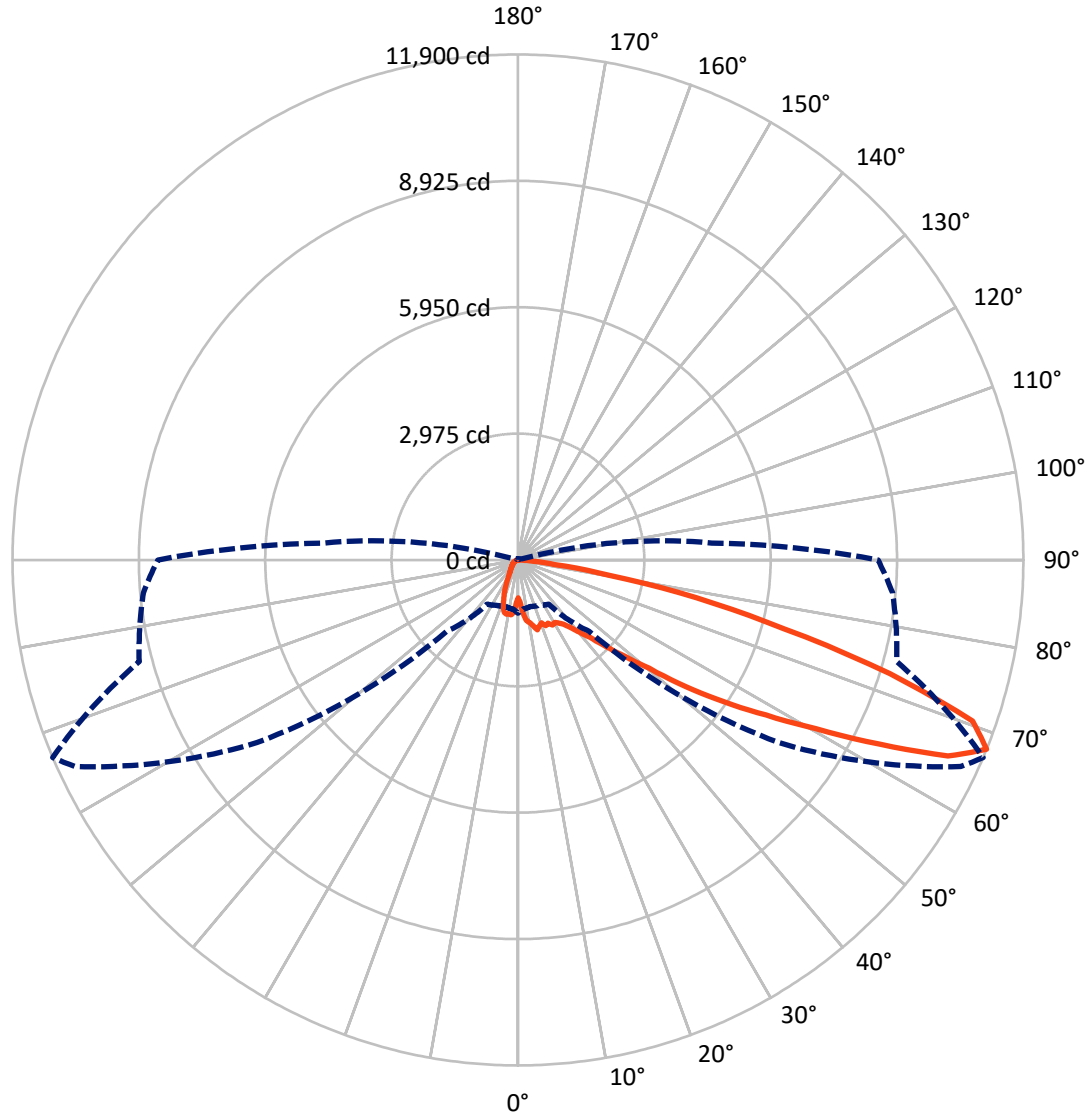
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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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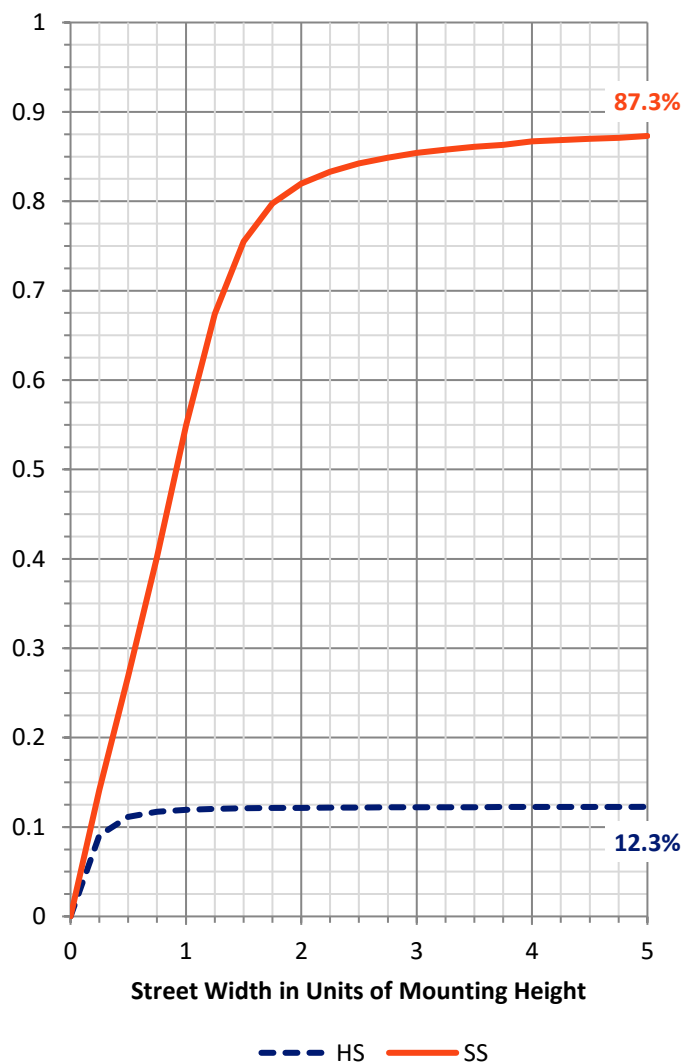
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1295.5	0.0	1295.5
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	9179.5	0.0	9179.5
	% Fixture	87.6	0.0	87.6
Total	Lumens	10475.0	0.0	10475.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	1.1
10°-20°	331.4	3.2
20°-30°	519.3	5.0
30°-40°	837.3	8.0
40°-50°	1538.6	14.7
50°-60°	2598.5	24.8
60°-70°	2872.8	27.4
70°-80°	1503.6	14.4
80°-90°	161.5	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°	10475.0	100.0
0°-180°	10475.0	100.0

Coefficient of Utilization

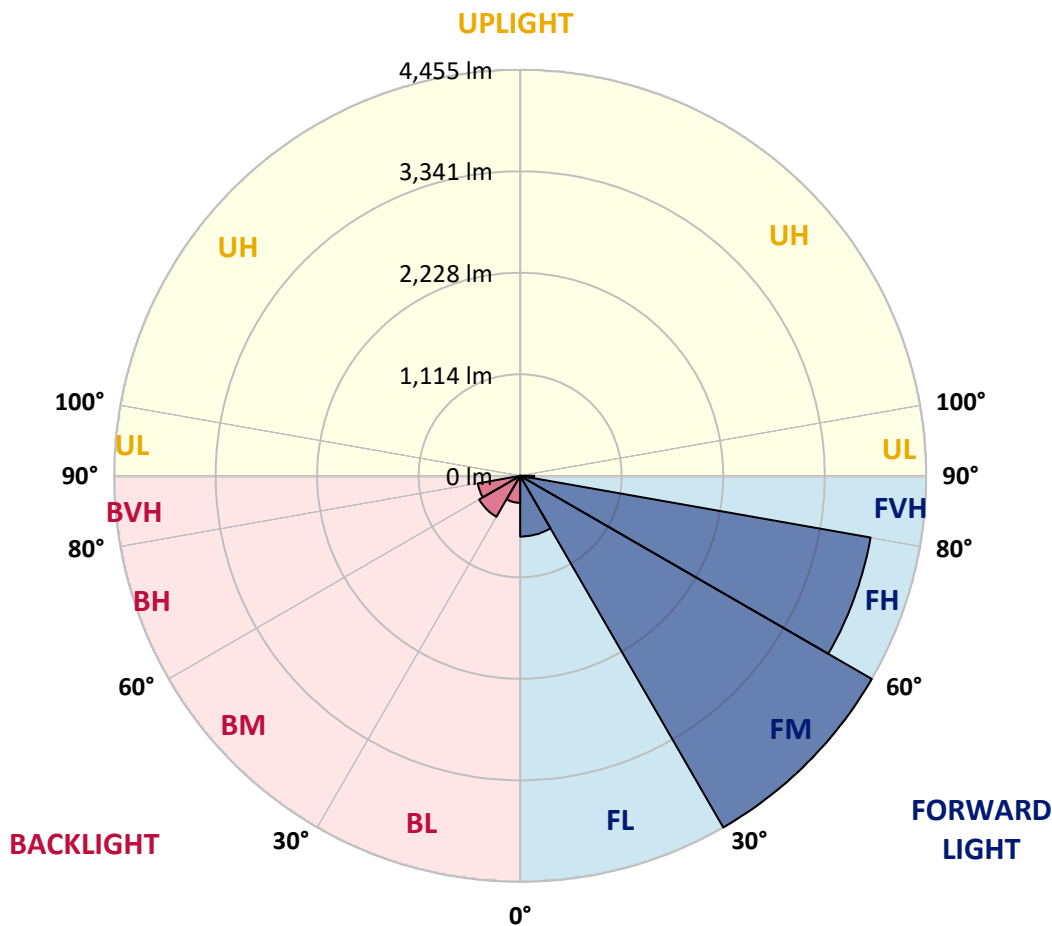


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	666.0	6.4			
FM (30°-60°)	4455.1	42.5			
FH (60°-80°)	3903.9	37.3			G2/5000
FVH (80°-90°)	154.6	1.5			G2/225
BL (0°-30°)	296.6	2.8	B1/500		
BM (30°-60°)	519.4	5.0	B1/1000		
BH (60°-80°)	472.5	4.5	B1/500		G1/500
BVH (80°-90°)	6.9	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°	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2
2.5°	1053.2	1017.6	957.0	974.5	1009.6	1038.8	1025.0	997.9	998.5	970.8	1070.2
5°	1225.3	1177.5	1142.5	1154.7	1153.1	1152.0	1217.4	1242.4	1253.0	1298.7	1366.2
7.5°	1274.8	1257.8	1221.1	1232.3	1195.6	1198.2	1313.0	1421.4	1438.4	1466.6	1586.7
10°	1255.6	1222.7	1236.0	1236.0	1236.5	1296.0	1373.1	1476.7	1497.4	1605.8	1618.6
12.5°	1234.9	1236.5	1289.1	1279.5	1351.8	1458.6	1484.7	1601.0	1590.9	1685.0	1824.7
15°	1312.0	1352.3	1318.3	1331.6	1338.5	1463.9	1505.9	1660.5	1705.2	1824.2	1915.1
17.5°	1444.3	1449.6	1378.9	1359.8	1409.7	1445.3	1529.8	1604.2	1634.0	1946.4	2075.0
20°	1468.2	1502.2	1430.5	1319.9	1425.7	1474.6	1533.5	1569.1	1581.9	1984.1	2165.3
22.5°	1612.2	1574.5	1459.7	1375.7	1406.0	1459.2	1495.8	1603.2	1679.7	1912.9	2252.0
25°	1686.0	1676.0	1566.5	1494.8	1463.9	1459.7	1543.6	1624.9	1649.4	1986.8	2273.2
27.5°	1863.0	1840.1	1628.1	1619.1	1517.6	1428.3	1545.2	1691.4	1737.1	1917.2	2352.9
30°	2103.7	2095.2	1813.0	1807.2	1645.7	1485.2	1631.3	1732.3	1704.6	1952.8	2406.1
32.5°	2346.0	2415.1	2126.6	1961.8	1840.7	1694.0	1606.9	1719.5	1768.9	2039.4	2503.8
35°	2638.8	2688.7	2394.9	2275.3	2005.9	1791.8	1768.9	1841.2	1862.5	2142.5	2614.9
37.5°	3151.0	3075.6	2825.3	2621.8	2480.5	2140.9	2028.3	1970.9	2020.3	2282.2	2841.8
40°	3529.4	3481.6	3173.4	3051.7	2726.5	2527.7	2233.4	2179.7	2235.0	2425.7	2999.6
42.5°	3985.8	3886.5	3596.3	3514.0	3179.2	2796.1	2497.5	2516.1	2481.5	2708.9	3276.4
45°	4398.7	4174.5	4012.9	4031.5	3853.0	3335.4	2938.0	2928.9	2900.2	3119.2	3567.6
47.5°	4676.6	4480.5	4323.3	4271.7	4250.5	4283.9	3574.5	3414.1	3392.8	3550.1	4026.2
50°	4825.9	4611.3	4416.8	4427.4	4858.9	5183.5	4231.3	4003.4	4011.3	4175.5	4653.2
52.5°	4725.5	4482.7	4277.6	4476.8	5330.7	5783.5	5318.5	4773.3	4958.2	4916.3	5494.4
55°	4261.6	4050.7	3905.1	4261.6	5382.3	6429.1	6657.0	5932.3	5890.8	5795.2	6352.0
57.5°	3481.0	3299.3	3209.5	3585.7	4818.5	6949.3	8001.4	7242.1	6888.7	6488.1	7064.1
60°	2593.6	2459.7	2366.2	2564.9	3796.7	6444.0	8881.9	8476.5	8067.3	7156.0	7703.9
62.5°	1920.9	1812.0	1712.6	1730.7	2614.4	5542.2	9219.9	9784.2	9549.3	7861.1	8307.5
65°	1533.0	1433.6	1364.0	1324.2	1619.1	4169.7	8749.6	10856.0	11127.0	8525.4	8743.2
67.5°	1251.9	1168.0	1133.4	1179.1	1270.0	2376.8	7493.4	11506.4	11899.6	9230.0	8850.6
70°	1018.6	949.6	945.8	1069.1	1169.6	1449.1	5511.9	11057.4	11353.3	9350.0	8207.1
72.5°	709.9	679.6	728.0	902.8	1158.9	1206.7	3165.4	9150.3	9160.9	8258.1	6750.6
75°	401.7	396.9	473.5	720.0	1128.6	1194.5	1764.7	6466.3	6471.1	6245.8	4676.6
77.5°	221.1	206.7	275.8	486.7	969.2	1166.9	1138.2	4415.2	4302.0	3475.7	2136.1
80°	102.0	96.2	149.3	311.9	708.9	1103.7	912.4	2426.8	2188.2	1132.4	521.3
82.5°	42.0	39.9	68.5	200.3	447.9	889.0	768.9	1076.6	864.0	215.2	161.0
85°	7.4	8.0	28.2	121.2	250.8	409.7	623.3	511.2	375.7	59.5	88.2
87.5°	0.0	0.0	5.8	29.2	60.6	112.1	252.9	142.9	98.3	17.5	26.0
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°	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2	892.2
2.5°	1089.8	1080.8	989.4	993.7	1000.0	994.2	993.1	967.6	944.3	1021.3	1020.2
5°	1378.4	1314.1	1250.9	1226.4	1173.8	1104.7	1105.3	1083.5	1061.2	1092.5	1092.5
7.5°	1584.0	1495.3	1415.0	1272.1	1132.9	1007.0	995.8	966.0	932.0	972.9	980.9
10°	1631.8	1554.8	1451.2	1241.3	1109.5	986.8	851.8	740.7	689.2	665.3	661.0
12.5°	1779.0	1721.7	1490.0	1257.8	1068.1	860.3	639.2	507.5	417.7	410.8	401.2
15°	1877.3	1837.0	1528.2	1216.8	892.7	618.5	401.7	308.2	272.1	268.9	264.1
17.5°	2029.8	1959.7	1491.6	1086.7	698.2	408.1	269.9	243.4	247.6	257.2	249.7
20°	2092.0	1954.9	1411.9	898.0	490.5	273.7	234.3	220.0	231.1	240.2	235.9
22.5°	2155.8	1968.7	1341.2	740.2	320.4	226.4	208.8	201.4	202.5	211.5	212.0
25°	2155.3	2007.0	1259.4	576.5	238.6	201.4	188.6	179.1	175.4	181.7	180.1
27.5°	2259.9	1962.9	1110.0	427.8	209.9	180.1	167.9	156.2	142.9	149.3	149.3
30°	2260.5	2034.6	1005.9	307.1	192.4	160.5	149.8	131.8	116.4	121.7	122.2
32.5°	2320.5	1972.5	909.7	234.9	178.5	148.8	125.4	108.9	99.9	103.1	103.1
35°	2389.1	2025.6	762.0	207.2	164.7	132.3	107.3	94.1	87.1	89.8	89.8
37.5°	2615.4	2014.4	659.4	192.9	155.7	119.6	97.8	82.9	79.7	81.3	83.4
40°	2697.3	2093.6	520.2	184.4	140.8	107.9	86.1	74.9	70.7	71.7	72.3
42.5°	2905.6	2111.1	415.5	177.5	127.5	93.5	76.5	68.5	63.2	63.2	64.8
45°	3135.6	2155.3	330.5	171.6	116.4	84.0	69.1	62.7	54.7	53.7	55.8
47.5°	3468.8	2324.2	269.4	159.9	103.1	78.1	63.8	54.2	47.8	45.7	47.8
50°	4026.2	2611.2	238.1	145.6	93.5	73.3	56.3	46.2	41.4	38.8	40.4
52.5°	4812.6	3106.9	221.6	132.3	85.0	65.9	50.5	40.4	35.6	33.5	34.5
55°	5686.2	3675.5	213.6	119.0	77.6	57.9	44.1	35.6	31.4	28.7	29.2
57.5°	6493.9	4210.1	205.6	106.3	70.1	51.5	38.8	31.4	27.1	24.4	25.0
60°	7289.9	4636.8	186.5	91.4	63.2	46.2	34.0	27.1	24.4	21.3	21.3
62.5°	7994.0	4891.8	158.9	79.2	56.9	40.9	30.3	24.4	22.3	19.1	19.1
65°	8473.3	4903.5	128.1	68.0	49.9	35.1	26.6	22.8	20.7	17.0	16.5
67.5°	8480.2	4584.7	102.6	60.6	44.1	30.8	23.9	21.8	19.1	15.9	14.9
70°	7590.1	3787.6	85.6	53.1	38.3	27.1	20.7	20.7	18.6	15.4	13.8
72.5°	6071.5	2894.4	71.7	46.2	34.0	23.4	19.1	19.7	18.1	15.4	13.8
75°	4080.9	1660.0	59.5	39.3	29.8	19.7	18.6	19.1	18.6	15.4	13.3
77.5°	1879.5	528.7	46.2	32.4	25.5	16.5	18.1	18.1	17.0	13.8	11.7
80°	423.5	130.2	33.5	23.9	20.7	12.2	16.5	14.9	13.3	9.6	6.9
82.5°	154.1	39.9	20.2	14.9	12.8	4.8	10.6	10.6	9.6	6.9	4.3
85°	88.2	20.7	11.2	9.6	6.9	2.1	5.8	6.4	5.3	4.8	2.1
87.5°	28.7	4.8	5.3	5.8	5.3	1.1	2.1	2.1	1.6	1.1	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)