

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: P597153

Luminaire Tested: **MSA-SA4C-835-U-T4FT-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-835-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14854 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

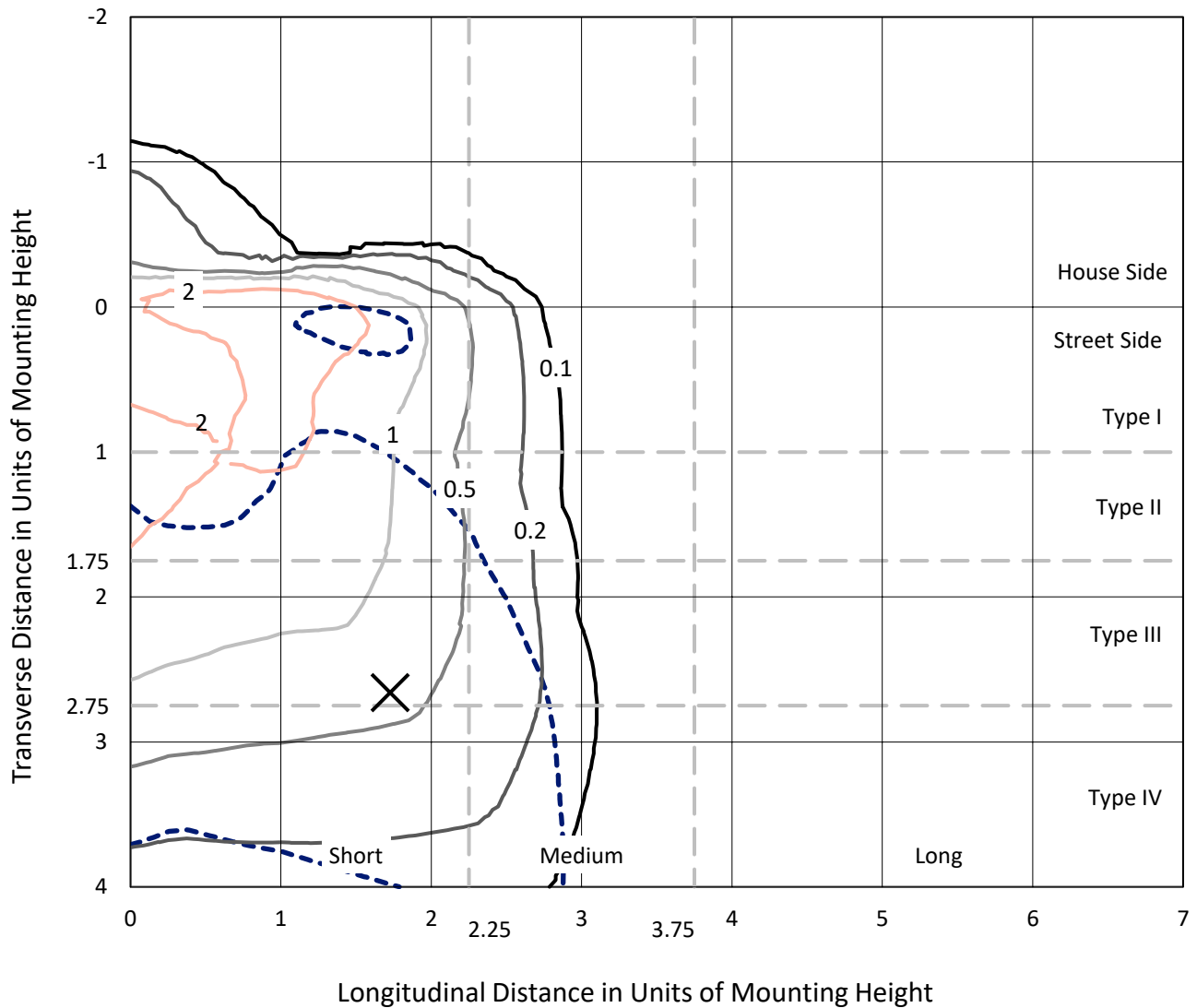
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

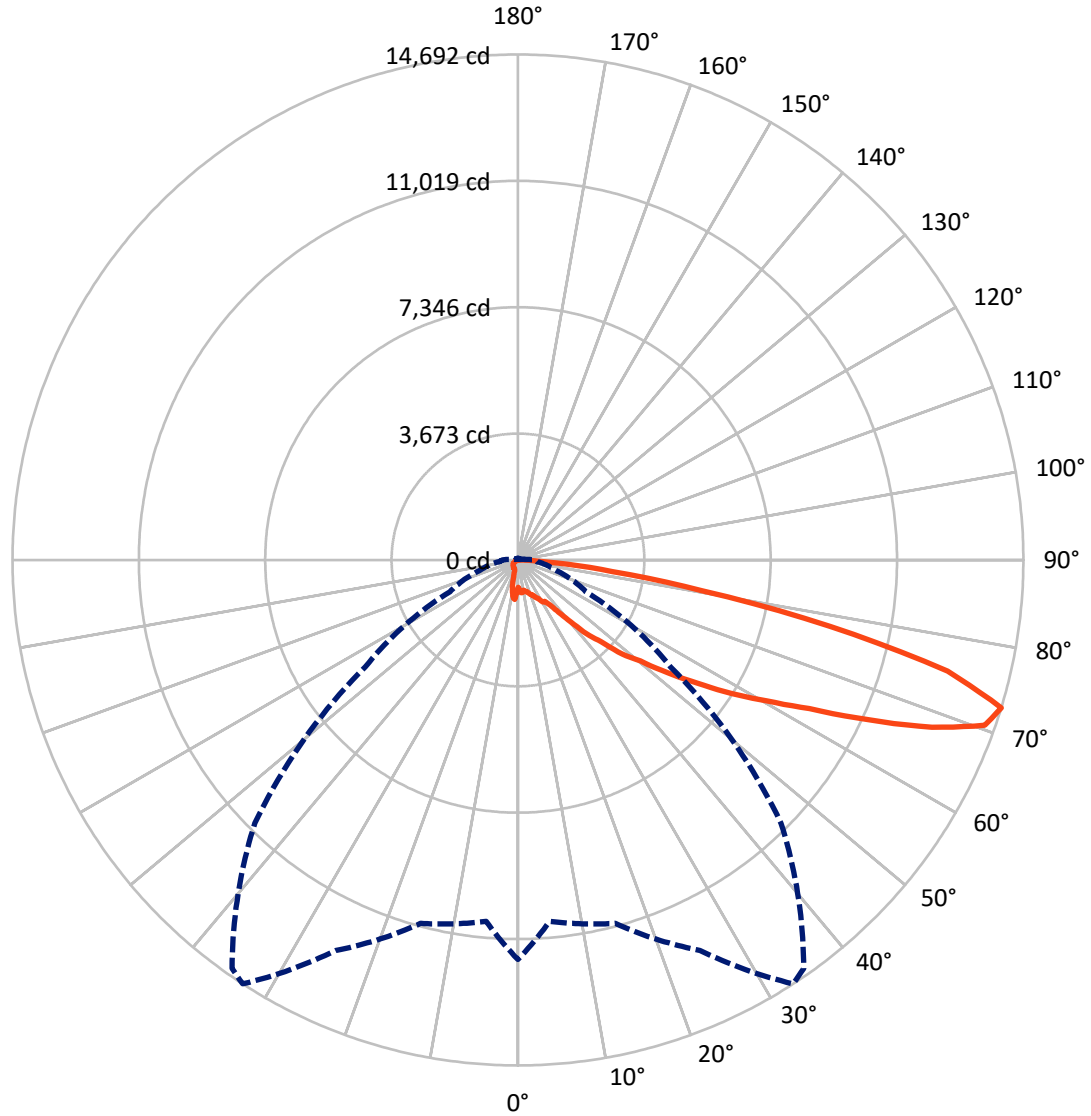
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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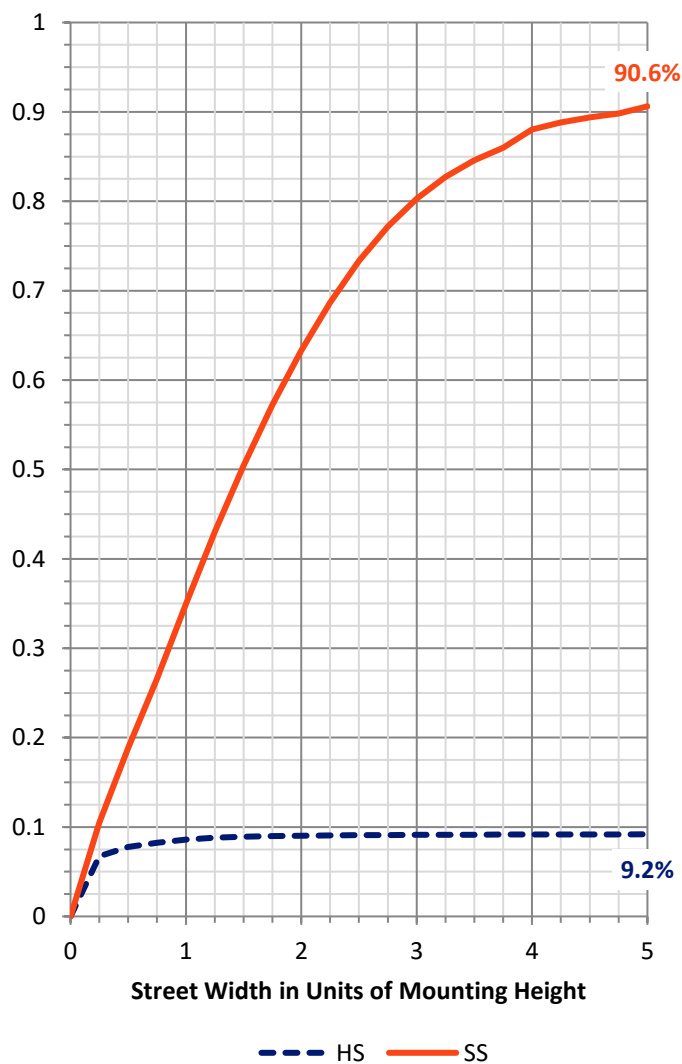
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1373.5	0.0	1373.5
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	13480.5	0.0	13480.5
	% Fixture	90.8	0.0	90.8
Total	Lumens	14854.0	0.0	14854.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	0.7
10°-20°	304.7	2.1
20°-30°	516.8	3.5
30°-40°	945.7	6.4
40°-50°	1996.0	13.4
50°-60°	3339.5	22.5
60°-70°	4470.1	30.1
70°-80°	2919.9	19.7
80°-90°	258.9	1.7
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°	14854.0	100.0
0°-180°	14854.0	100.0

Coefficient of Utilization

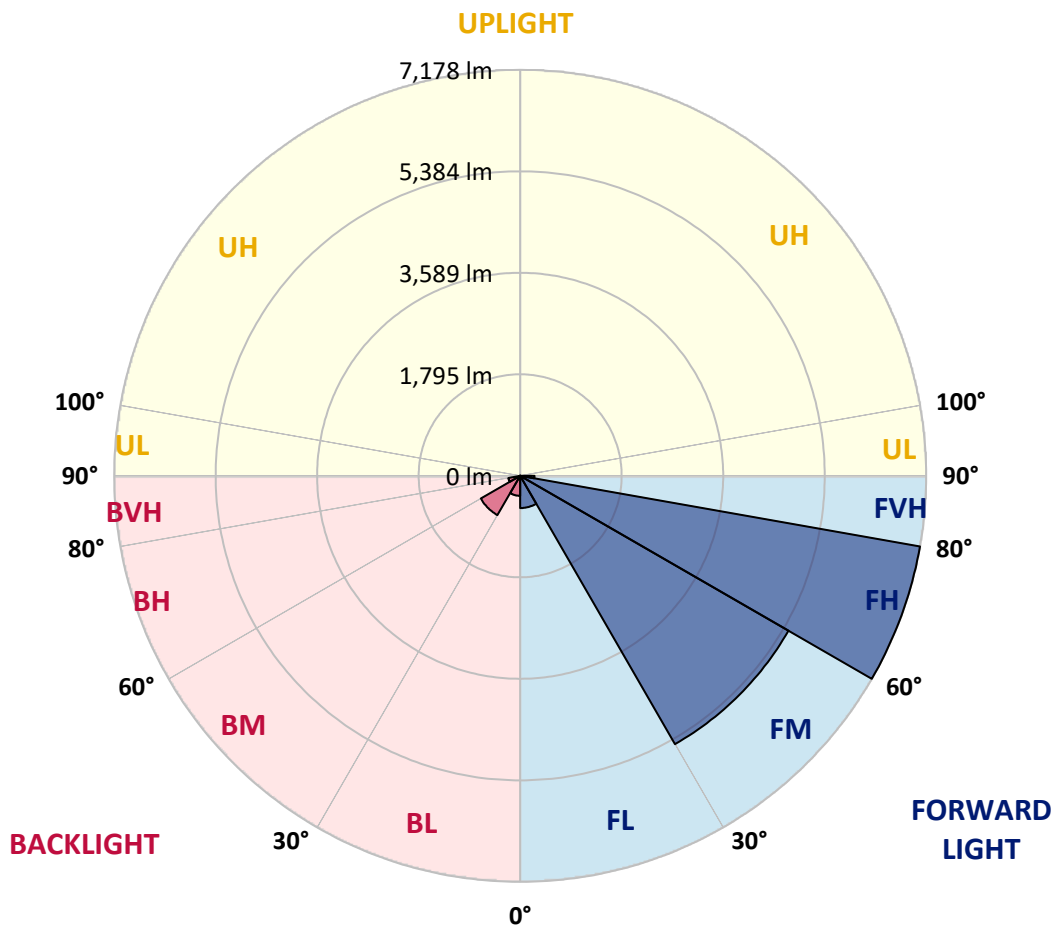


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	570.2	3.8			
FM (30°-60°)	5478.4	36.9			
FH (60°-80°)	7178.1	48.3			G3/7500
FVH (80°-90°)	253.9	1.7			G3/500
BL (0°-30°)	353.5	2.4	B1/500		
BM (30°-60°)	802.9	5.4	B1/1000		
BH (60°-80°)	212.0	1.4	B1/500		G1/500
BVH (80°-90°)	5.0	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-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1
2.5°	941.8	905.5	852.7	856.0	865.1	872.5	892.3	884.1	868.4	867.6	941.8
5°	997.9	957.5	954.2	959.1	956.6	969.8	953.4	1007.0	1052.3	1106.7	1194.2
7.5°	970.7	951.7	927.8	952.5	951.7	945.1	955.8	1064.7	1174.4	1243.6	1388.0
10°	892.3	870.9	889.0	897.3	891.5	920.4	992.1	1081.2	1212.3	1357.5	1427.6
12.5°	870.1	883.3	889.8	889.8	945.1	959.9	1069.6	1153.8	1309.6	1424.3	1628.0
15°	956.6	982.2	936.9	927.0	944.3	952.5	1074.6	1176.0	1375.6	1585.1	1755.8
17.5°	1094.4	1092.7	1022.6	983.9	1011.1	1030.9	1098.5	1217.3	1334.4	1711.2	1958.7
20°	1189.2	1190.9	1064.7	983.9	1073.8	1085.3	1160.3	1255.2	1347.6	1774.7	2091.4
22.5°	1311.3	1267.6	1128.2	1049.8	1110.9	1121.6	1204.1	1279.1	1415.2	1767.3	2261.3
25°	1411.1	1383.0	1207.4	1152.9	1207.4	1192.5	1267.6	1380.5	1487.8	1885.3	2361.1
27.5°	1566.1	1518.3	1263.4	1273.3	1270.0	1280.8	1298.1	1471.3	1615.6	1891.0	2592.0
30°	1710.4	1682.4	1388.8	1388.8	1421.0	1400.3	1412.7	1622.2	1739.3	2024.6	2851.8
32.5°	1859.7	1861.3	1536.4	1458.1	1432.5	1517.4	1600.7	1695.6	1888.6	2253.9	3249.3
35°	2254.7	2221.7	1819.3	1623.8	1603.2	1598.3	1731.9	1988.3	2153.3	2552.4	3784.5
37.5°	3050.6	2935.9	2427.9	1999.9	1922.4	1896.0	2047.7	2310.8	2474.9	2991.2	4669.4
40°	3867.0	3656.7	3092.6	2610.2	2358.6	2244.8	2421.3	2644.8	2936.7	3476.1	5488.4
42.5°	4583.7	4323.9	3593.2	3268.3	2940.9	2891.4	2725.6	3089.3	3596.5	4182.0	6290.8
45°	5282.2	4770.9	4038.5	3781.2	3383.7	3411.8	3355.7	3670.7	4281.8	4955.6	7002.5
47.5°	5763.0	5303.6	4584.5	4250.5	4091.3	3927.2	4372.5	4700.0	4892.1	5447.1	7617.7
50°	6280.9	5815.8	5053.7	4820.4	4610.9	4776.6	5354.8	5398.5	5382.8	5905.7	8036.7
52.5°	6949.7	6401.3	5592.3	5328.4	5447.1	5612.1	6279.2	6287.5	5819.1	6291.6	8338.5
55°	7568.2	6960.4	6309.8	6060.7	6308.9	6448.3	7188.1	6916.7	6073.1	6553.9	8487.0
57.5°	8440.0	7736.5	7263.9	6825.2	7328.3	7194.7	7987.2	7583.9	6358.4	6727.9	8432.5
60°	9541.8	8713.8	8240.4	7776.1	8315.4	8406.1	8767.4	7917.1	6468.9	6784.8	8105.1
62.5°	10662.5	9829.6	9206.9	8891.9	9503.8	9802.4	9489.8	8082.9	6336.2	6673.5	7363.7
65°	12053.0	10986.6	10259.2	10074.5	11208.5	11647.2	10344.2	8123.3	6079.7	6060.7	5920.5
67.5°	13005.5	11967.2	11300.0	11609.3	12979.1	13014.6	11111.2	8135.6	5216.2	4745.3	3886.0
70°	13231.4	12119.8	11821.2	12731.7	14391.8	13945.6	11358.6	7508.9	3868.7	2816.3	1776.4
72.5°	11615.0	10544.6	10933.0	12519.7	14692.0	14487.5	10811.8	5417.4	2178.0	1126.5	545.1
75°	7124.6	6477.2	8201.6	10614.7	12896.6	12764.7	8435.0	2799.0	877.5	450.3	203.7
77.5°	3098.4	2877.4	4280.2	7042.9	9267.1	9149.2	4942.4	1030.9	453.6	316.7	103.1
80°	1025.1	994.6	1621.4	3335.1	5428.2	5324.2	2082.4	428.8	323.3	254.0	57.7
82.5°	243.3	241.6	565.7	1534.8	2765.2	2678.6	639.1	236.7	234.2	200.4	30.5
85°	61.0	62.7	156.7	627.6	1123.2	990.5	166.6	117.9	164.9	136.1	15.7
87.5°	0.0	0.0	40.4	89.9	169.9	106.4	18.1	31.3	46.2	48.7	8.2
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°	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1	790.1
2.5°	958.3	949.2	875.0	893.1	921.2	918.7	936.9	922.8	910.5	971.5	965.7
5°	1218.9	1169.4	1146.3	1178.5	1161.2	1120.8	1154.6	1148.8	1138.9	1159.5	1175.2
7.5°	1414.4	1369.0	1348.4	1280.8	1182.6	1105.1	1117.5	1088.6	1061.4	1093.5	1126.5
10°	1478.7	1453.9	1451.5	1319.5	1227.1	1115.0	982.2	867.6	837.1	796.7	814.8
12.5°	1653.5	1668.4	1575.2	1421.0	1242.8	1027.6	791.7	629.2	563.3	520.4	522.9
15°	1797.0	1849.0	1713.7	1436.6	1093.5	783.5	527.0	381.0	339.8	329.1	325.8
17.5°	2010.6	2060.9	1756.6	1325.3	881.6	531.1	339.0	296.9	299.4	306.8	305.1
20°	2169.0	2161.5	1719.5	1128.2	649.9	348.0	283.7	277.9	291.1	312.6	307.6
22.5°	2321.5	2270.4	1696.4	945.9	420.6	279.6	273.8	273.0	285.3	306.0	311.7
25°	2430.4	2438.6	1657.6	740.6	306.0	259.8	264.7	272.2	284.5	306.8	303.5
27.5°	2742.1	2511.2	1496.0	537.7	258.1	249.1	261.4	276.3	280.4	308.4	309.3
30°	2944.2	2785.0	1390.4	362.0	238.3	230.1	254.8	274.6	279.6	315.9	318.3
32.5°	3296.3	2902.9	1268.4	268.9	221.8	224.3	240.0	266.4	289.5	328.2	329.9
35°	3734.2	3281.5	1047.4	241.6	216.1	211.9	219.4	249.9	287.8	329.9	338.1
37.5°	4568.0	3508.3	830.5	234.2	216.1	208.6	216.1	234.2	282.9	346.4	363.7
40°	5126.3	3970.1	598.7	232.6	211.9	205.3	207.8	226.0	268.9	336.5	362.0
42.5°	5814.1	4164.7	441.2	228.4	207.8	197.9	199.6	222.7	254.8	315.9	334.8
45°	6377.4	4306.6	347.2	226.8	197.9	194.6	197.9	220.2	241.6	271.3	288.6
47.5°	6805.4	4471.5	278.7	216.1	195.5	194.6	190.5	206.2	219.4	226.8	238.3
50°	7118.8	4434.4	230.9	199.6	187.2	192.2	184.7	187.2	190.5	186.4	199.6
52.5°	7310.9	4300.8	192.2	179.8	177.3	181.4	172.4	164.9	159.2	155.9	164.1
55°	7381.0	4032.8	163.3	154.2	160.0	161.6	154.2	141.0	131.1	126.2	132.8
57.5°	7248.3	3624.5	141.8	127.8	141.0	141.0	131.1	117.1	105.6	97.3	103.9
60°	6911.8	3173.4	126.2	106.4	120.4	121.2	109.7	94.8	85.8	77.5	81.6
62.5°	6285.0	2681.9	110.5	92.4	103.9	104.7	90.7	76.7	70.1	61.0	64.3
65°	5031.5	2051.0	94.0	81.6	89.9	87.4	75.0	65.2	56.9	48.7	50.3
67.5°	3265.8	1265.9	81.6	74.2	75.9	73.4	63.5	56.9	47.8	41.2	42.1
70°	1462.2	545.1	71.7	66.8	66.0	61.9	53.6	52.8	47.0	41.2	41.2
72.5°	451.1	205.3	61.9	60.2	56.9	52.0	47.0	50.3	46.2	39.6	38.8
75°	178.1	94.0	51.1	51.1	49.5	42.9	42.1	45.4	42.9	36.3	34.6
77.5°	93.2	59.4	42.1	43.7	42.9	33.0	37.9	41.2	39.6	30.5	25.6
80°	55.3	36.3	31.3	35.5	34.6	23.1	28.9	26.4	19.0	9.1	2.5
82.5°	30.5	16.5	14.0	20.6	20.6	8.2	14.8	13.2	7.4	0.0	0.0
85°	14.8	11.5	10.7	11.5	8.2	2.5	7.4	7.4	4.1	0.0	0.0
87.5°	7.4	6.6	4.9	4.1	3.3	0.0	2.5	3.3	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)