

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: P368047

Luminaire Tested: **MSA-SA3C-830-U-T4FT-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368047
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-830-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 10833 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

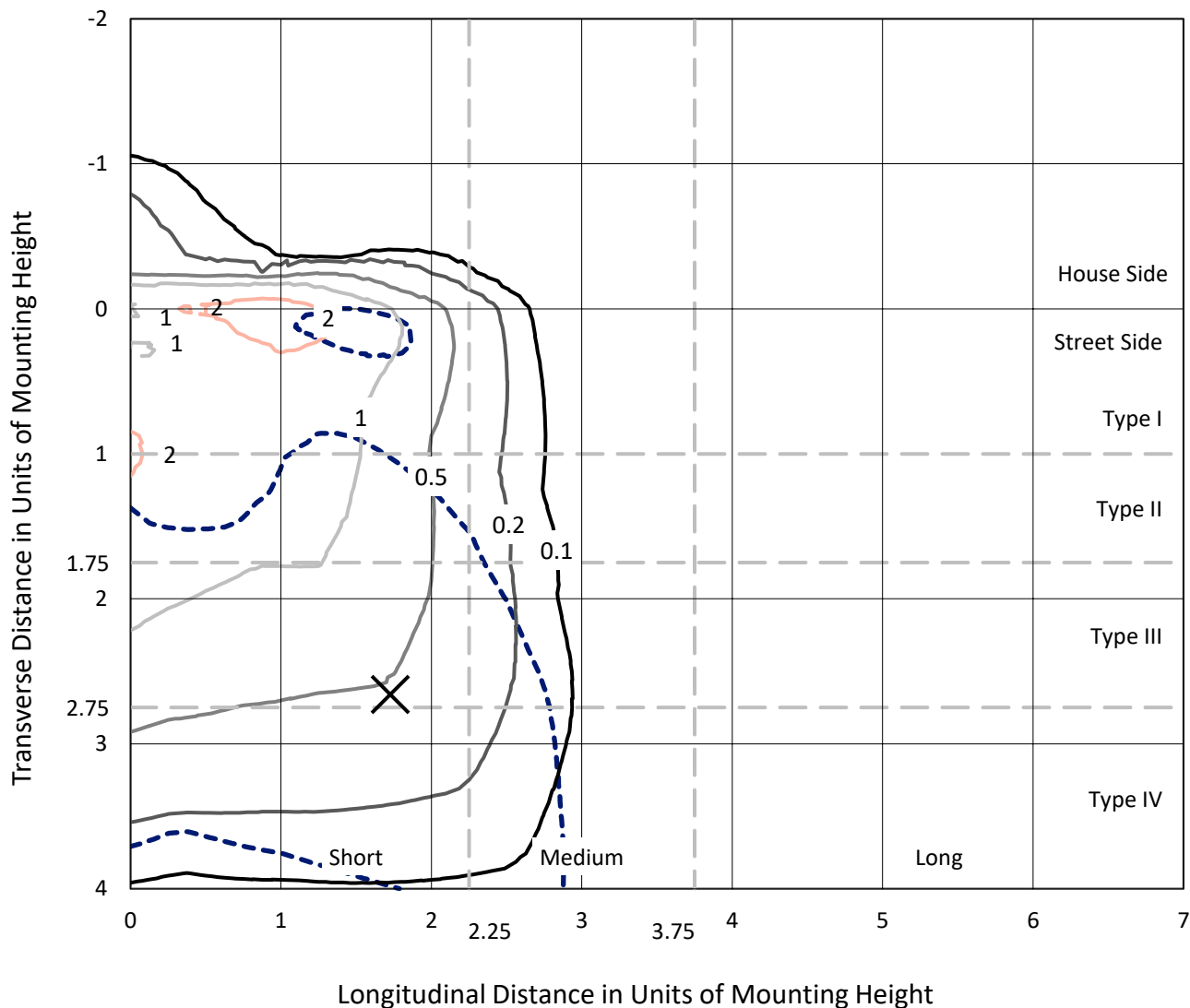
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

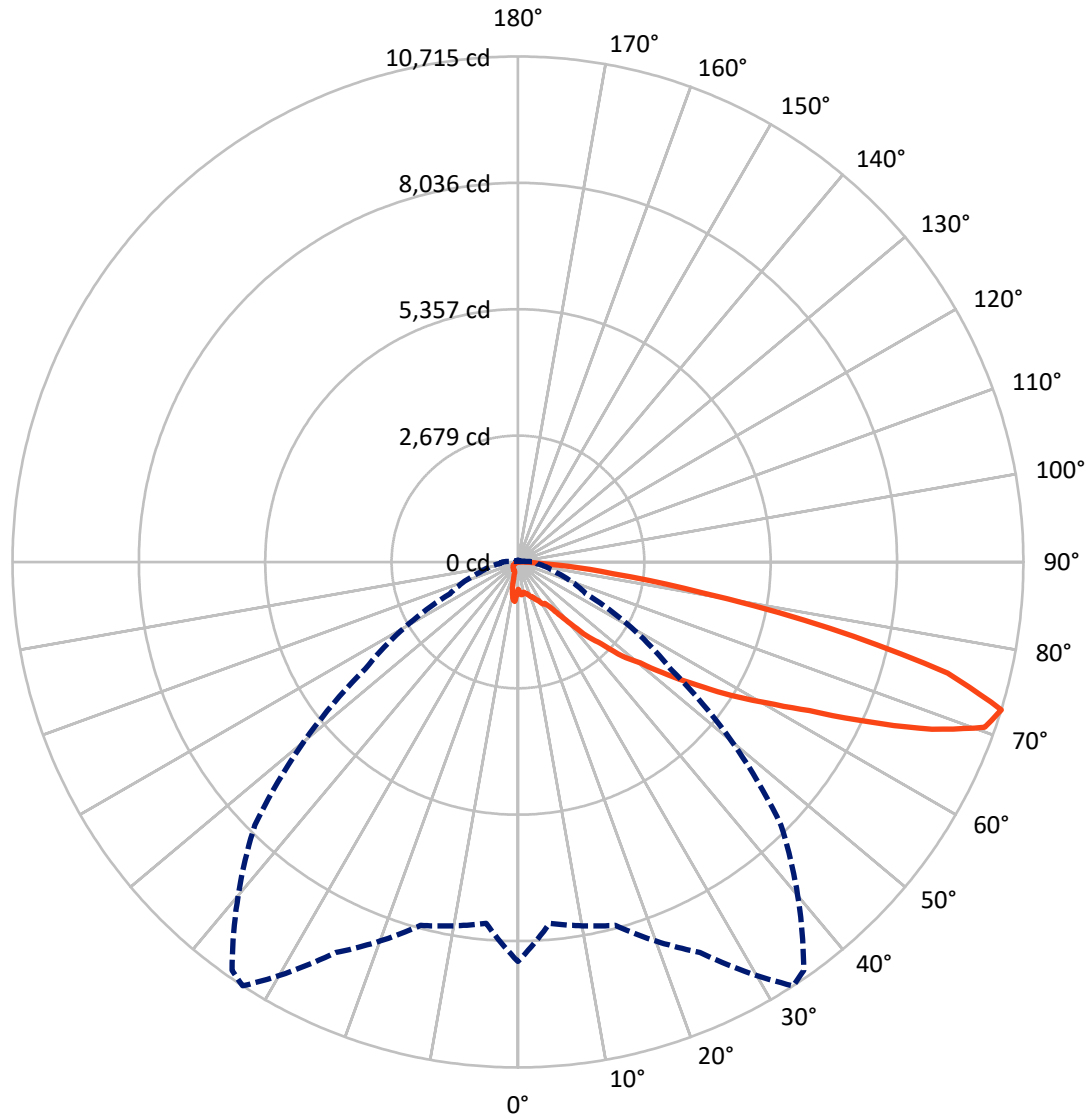
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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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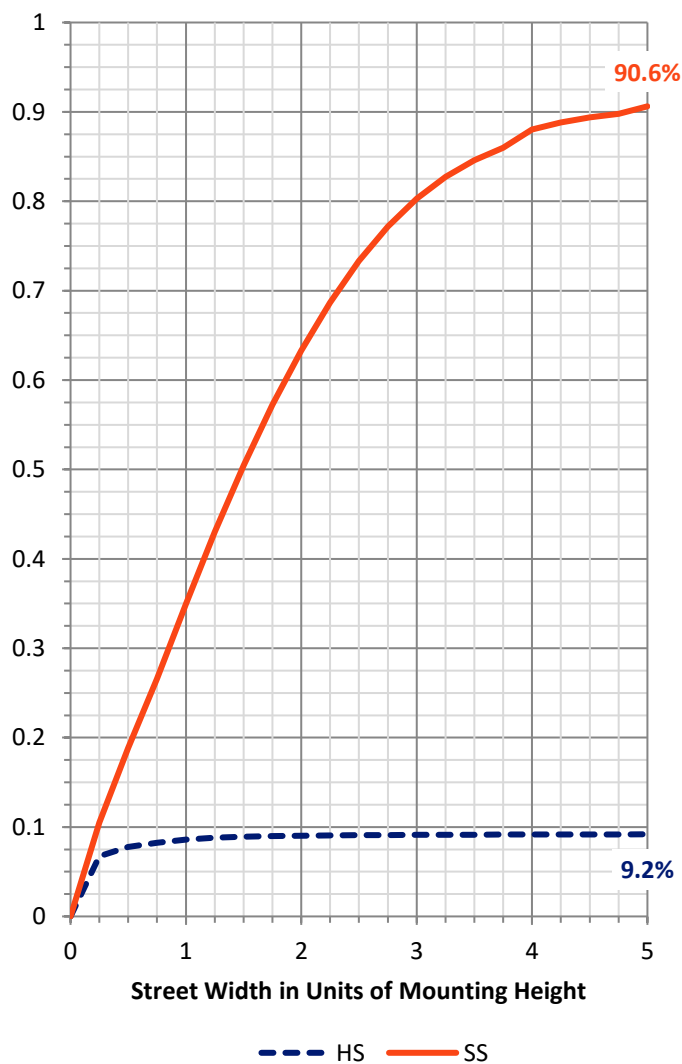
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1001.7	0.0	1001.7
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	9831.3	0.0	9831.3
	% Fixture	90.8	0.0	90.8
Total	Lumens	10833.0	0.0	10833.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	0.7
10°-20°	222.2	2.1
20°-30°	376.9	3.5
30°-40°	689.7	6.4
40°-50°	1455.7	13.4
50°-60°	2435.5	22.5
60°-70°	3260.1	30.1
70°-80°	2129.5	19.7
80°-90°	188.8	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°	10833.0	100.0
0°-180°	10833.0	100.0

Coefficient of Utilization

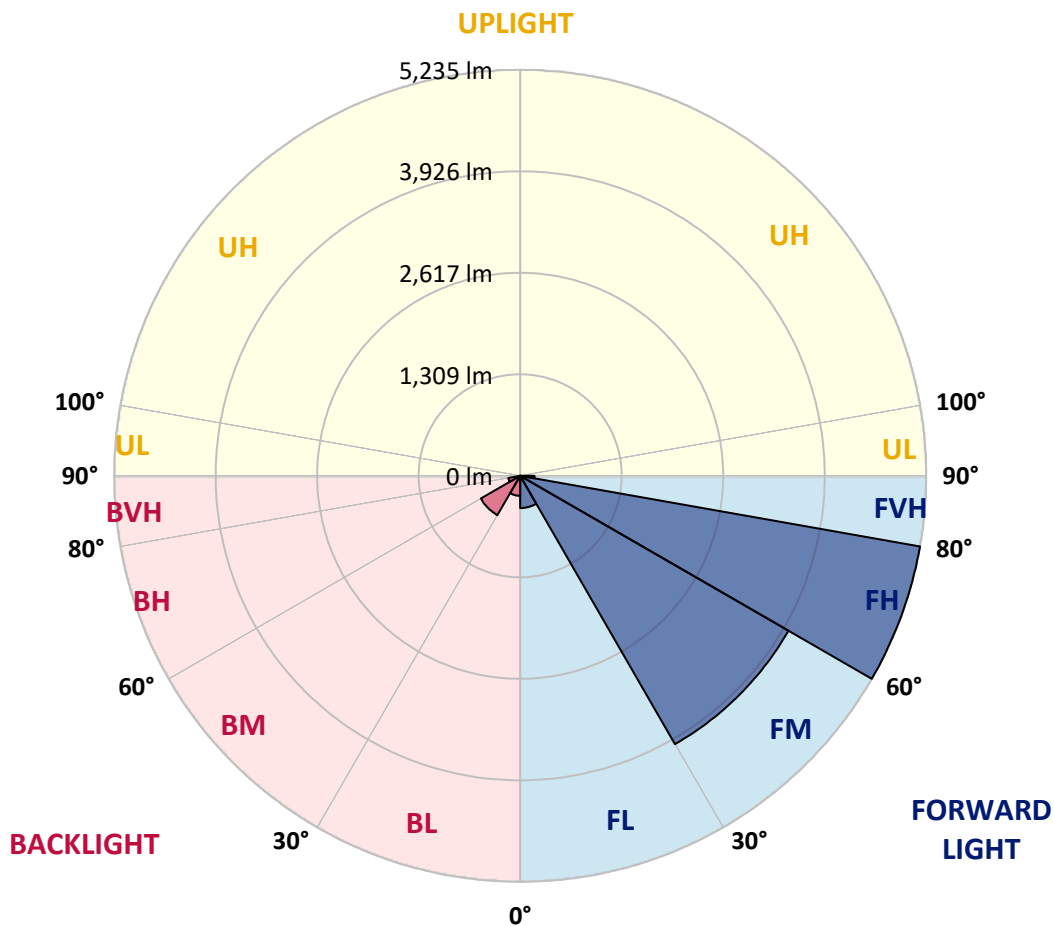


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	415.9	3.8			
FM (30°-60°)	3995.4	36.9			
FH (60°-80°)	5235.0	48.3			G3/7500
FVH (80°-90°)	185.1	1.7			G2/225
BL (0°-30°)	257.8	2.4	B1/500		
BM (30°-60°)	585.6	5.4	B1/1000		
BH (60°-80°)	154.6	1.4	B1/500		G1/500
BVH (80°-90°)	3.7	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-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2
2.5°	686.9	660.4	621.9	624.3	630.9	636.3	650.8	644.8	633.3	632.7	686.9
5°	727.8	698.3	695.9	699.5	697.7	707.3	695.3	734.4	767.5	807.1	870.9
7.5°	707.9	694.1	676.6	694.7	694.1	689.3	697.1	776.5	856.5	907.0	1012.2
10°	650.8	635.1	648.4	654.4	650.2	671.2	723.5	788.5	884.1	990.0	1041.1
12.5°	634.5	644.2	649.0	649.0	689.3	700.1	780.1	841.4	955.1	1038.7	1187.3
15°	697.7	716.3	683.2	676.0	688.7	694.7	783.7	857.7	1003.2	1156.0	1280.5
17.5°	798.1	796.9	745.8	717.5	737.4	751.8	801.1	887.7	973.1	1248.0	1428.4
20°	867.3	868.5	776.5	717.5	783.1	791.5	846.2	915.4	982.8	1294.3	1525.3
22.5°	956.3	924.4	822.8	765.6	810.2	818.0	878.1	932.9	1032.1	1288.9	1649.2
25°	1029.1	1008.6	880.5	840.8	880.5	869.7	924.4	1006.8	1085.0	1374.9	1722.0
27.5°	1142.2	1107.3	921.4	928.6	926.2	934.1	946.7	1073.0	1178.2	1379.1	1890.4
30°	1247.4	1227.0	1012.8	1012.8	1036.3	1021.3	1030.3	1183.1	1268.5	1476.6	2079.8
32.5°	1356.3	1357.5	1120.5	1063.4	1044.7	1106.7	1167.4	1236.6	1377.3	1643.8	2369.7
35°	1644.4	1620.3	1326.8	1184.3	1169.2	1165.6	1263.0	1450.1	1570.4	1861.5	2760.1
37.5°	2224.8	2141.2	1770.7	1458.5	1402.0	1382.7	1493.4	1685.3	1805.0	2181.5	3405.4
40°	2820.2	2666.8	2255.4	1903.6	1720.1	1637.1	1765.9	1928.9	2141.8	2535.1	4002.7
42.5°	3342.9	3153.4	2620.5	2383.5	2144.8	2108.7	1987.8	2253.0	2622.9	3050.0	4587.9
45°	3852.3	3479.4	2945.3	2757.7	2467.8	2488.2	2447.3	2677.1	3122.7	3614.1	5106.9
47.5°	4202.9	3867.9	3343.5	3099.9	2983.8	2864.1	3188.9	3427.7	3567.8	3972.6	5555.6
50°	4580.6	4241.4	3685.7	3515.5	3362.7	3483.6	3905.2	3937.1	3925.7	4307.0	5861.1
52.5°	5068.4	4668.5	4078.4	3886.0	3972.6	4092.9	4579.4	4585.5	4243.8	4588.5	6081.3
55°	5519.5	5076.2	4601.7	4420.1	4601.1	4702.7	5242.2	5044.4	4429.1	4779.7	6189.5
57.5°	6155.2	5642.2	5297.6	4977.6	5344.5	5247.1	5825.1	5530.9	4637.2	4906.6	6149.8
60°	6958.8	6354.9	6009.7	5671.1	6064.4	6130.6	6394.0	5773.9	4717.8	4948.1	5911.1
62.5°	7776.2	7168.7	6714.6	6484.8	6931.1	7148.8	6920.9	5894.8	4620.9	4866.9	5370.4
65°	8790.2	8012.5	7482.0	7347.3	8174.3	8494.3	7544.0	5924.3	4433.9	4420.1	4317.8
67.5°	9484.9	8727.7	8241.1	8466.6	9465.6	9491.5	8103.3	5933.3	3804.2	3460.7	2834.0
70°	9649.7	8838.9	8621.2	9285.2	10495.9	10170.5	8283.8	5476.2	2821.4	2054.0	1295.5
72.5°	8470.8	7690.1	7973.4	9130.6	10714.8	10565.7	7885.0	3950.9	1588.4	821.6	397.6
75°	5195.9	4723.8	5981.4	7741.3	9405.5	9309.3	6151.6	2041.3	639.9	328.4	148.6
77.5°	2259.7	2098.5	3121.5	5136.4	6758.5	6672.5	3604.5	751.8	330.8	231.0	75.2
80°	747.6	725.3	1182.5	2432.3	3958.7	3883.0	1518.7	312.8	235.8	185.2	42.1
82.5°	177.4	176.2	412.6	1119.3	2016.7	1953.5	466.1	172.6	170.8	146.2	22.3
85°	44.5	45.7	114.3	457.7	819.2	722.3	121.5	86.0	120.3	99.2	11.4
87.5°	0.0	0.0	29.5	65.6	123.9	77.6	13.2	22.9	33.7	35.5	6.0
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°	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2	576.2
2.5°	698.9	692.3	638.1	651.4	671.8	670.0	683.2	673.0	664.0	708.5	704.3
5°	888.9	852.9	836.0	859.5	846.8	817.4	842.0	837.8	830.6	845.6	857.1
7.5°	1031.5	998.4	983.4	934.1	862.5	805.9	815.0	793.9	774.1	797.5	821.6
10°	1078.4	1060.4	1058.6	962.3	895.0	813.2	716.3	632.7	610.5	581.0	594.2
12.5°	1205.9	1216.7	1148.8	1036.3	906.4	749.4	577.4	458.9	410.8	379.5	381.3
15°	1310.6	1348.5	1249.8	1047.7	797.5	571.4	384.3	277.9	247.8	240.0	237.6
17.5°	1466.3	1503.0	1281.1	966.5	643.0	387.3	247.2	216.5	218.3	223.7	222.5
20°	1581.8	1576.4	1254.0	822.8	473.9	253.8	206.9	202.7	212.3	227.9	224.3
22.5°	1693.1	1655.8	1237.2	689.9	306.7	203.9	199.7	199.1	208.1	223.1	227.3
25°	1772.5	1778.5	1208.9	540.1	223.1	189.5	193.1	198.5	207.5	223.7	221.3
27.5°	1999.8	1831.4	1091.0	392.1	188.3	181.6	190.7	201.5	204.5	224.9	225.5
30°	2147.2	2031.1	1014.0	264.0	173.8	167.8	185.8	200.3	203.9	230.4	232.2
32.5°	2404.0	2117.1	925.0	196.1	161.8	163.6	175.0	194.3	211.1	239.4	240.6
35°	2723.4	2393.2	763.8	176.2	157.6	154.6	160.0	182.2	209.9	240.6	246.6
37.5°	3331.4	2558.6	605.7	170.8	157.6	152.2	157.6	170.8	206.3	252.6	265.2
40°	3738.6	2895.4	436.7	169.6	154.6	149.8	151.6	164.8	196.1	245.4	264.0
42.5°	4240.2	3037.3	321.8	166.6	151.6	144.3	145.6	162.4	185.8	230.4	244.2
45°	4651.0	3140.8	253.2	165.4	144.3	141.9	144.3	160.6	176.2	197.9	210.5
47.5°	4963.2	3261.1	203.3	157.6	142.5	141.9	138.9	150.4	160.0	165.4	173.8
50°	5191.7	3234.0	168.4	145.6	136.5	140.1	134.7	136.5	138.9	135.9	145.6
52.5°	5331.9	3136.6	140.1	131.1	129.3	132.3	125.7	120.3	116.1	113.7	119.7
55°	5383.0	2941.1	119.1	112.5	116.7	117.9	112.5	102.8	95.6	92.0	96.8
57.5°	5286.2	2643.4	103.4	93.2	102.8	102.8	95.6	85.4	77.0	71.0	75.8
60°	5040.8	2314.4	92.0	77.6	87.8	88.4	80.0	69.2	62.6	56.5	59.5
62.5°	4583.7	1955.9	80.6	67.4	75.8	76.4	66.2	55.9	51.1	44.5	46.9
65°	3669.5	1495.8	68.6	59.5	65.6	63.8	54.7	47.5	41.5	35.5	36.7
67.5°	2381.7	923.2	59.5	54.1	55.3	53.5	46.3	41.5	34.9	30.1	30.7
70°	1066.4	397.6	52.3	48.7	48.1	45.1	39.1	38.5	34.3	30.1	30.1
72.5°	329.0	149.8	45.1	43.9	41.5	37.9	34.3	36.7	33.7	28.9	28.3
75°	129.9	68.6	37.3	37.3	36.1	31.3	30.7	33.1	31.3	26.5	25.3
77.5°	68.0	43.3	30.7	31.9	31.3	24.1	27.7	30.1	28.9	22.3	18.6
80°	40.3	26.5	22.9	25.9	25.3	16.8	21.1	19.2	13.8	6.6	1.8
82.5°	22.3	12.0	10.2	15.0	15.0	6.0	10.8	9.6	5.4	0.0	0.0
85°	10.8	8.4	7.8	8.4	6.0	1.8	5.4	5.4	3.0	0.0	0.0
87.5°	5.4	4.8	3.6	3.0	2.4	0.0	1.8	2.4	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)