

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: P368091

Luminaire Tested: **MSA-SA3D-730-U-T4FT-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368091
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-SA3D-730-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: 13575 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

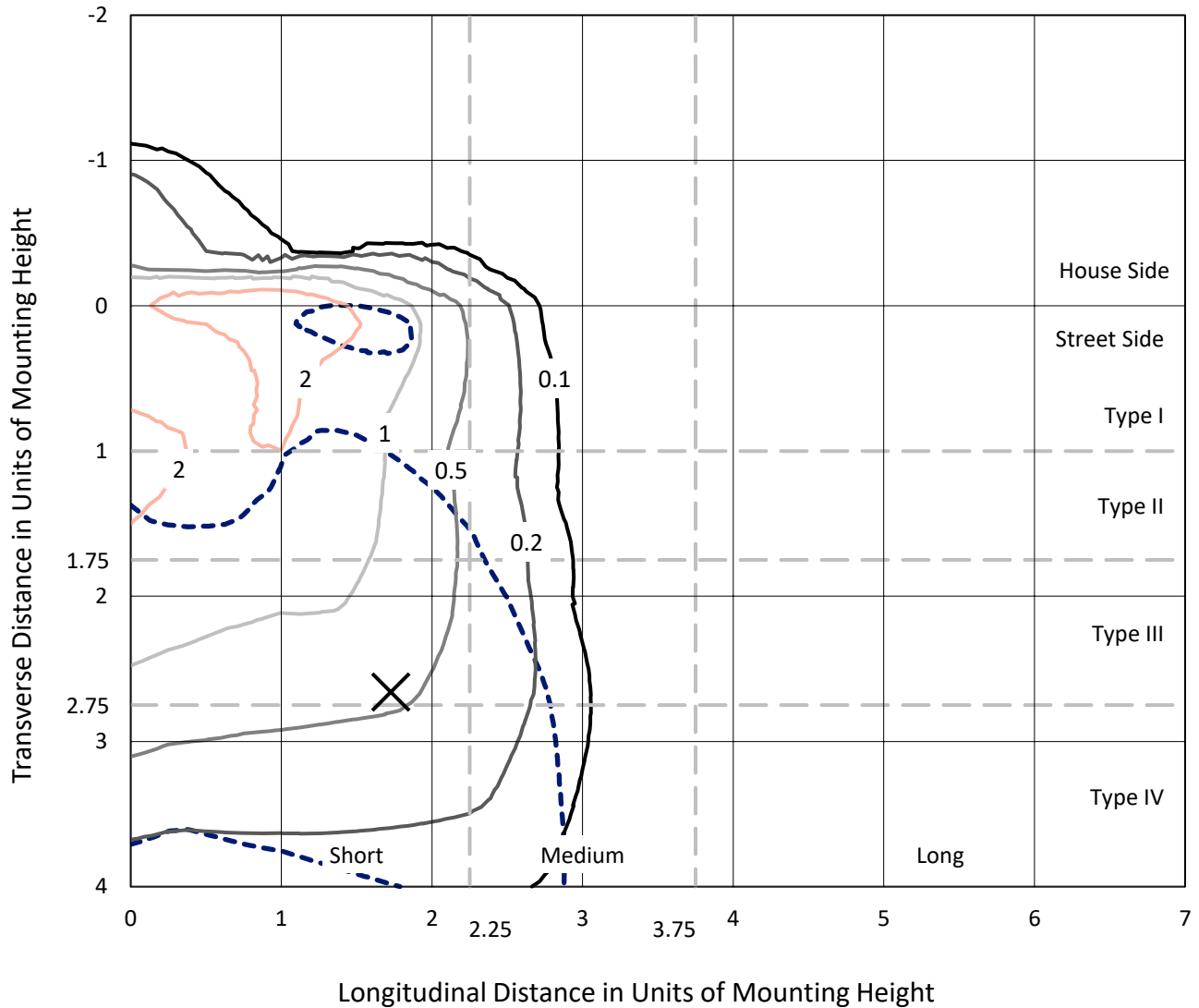
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368091
 CATALOG NUMBER: MSA-SA3D-730-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

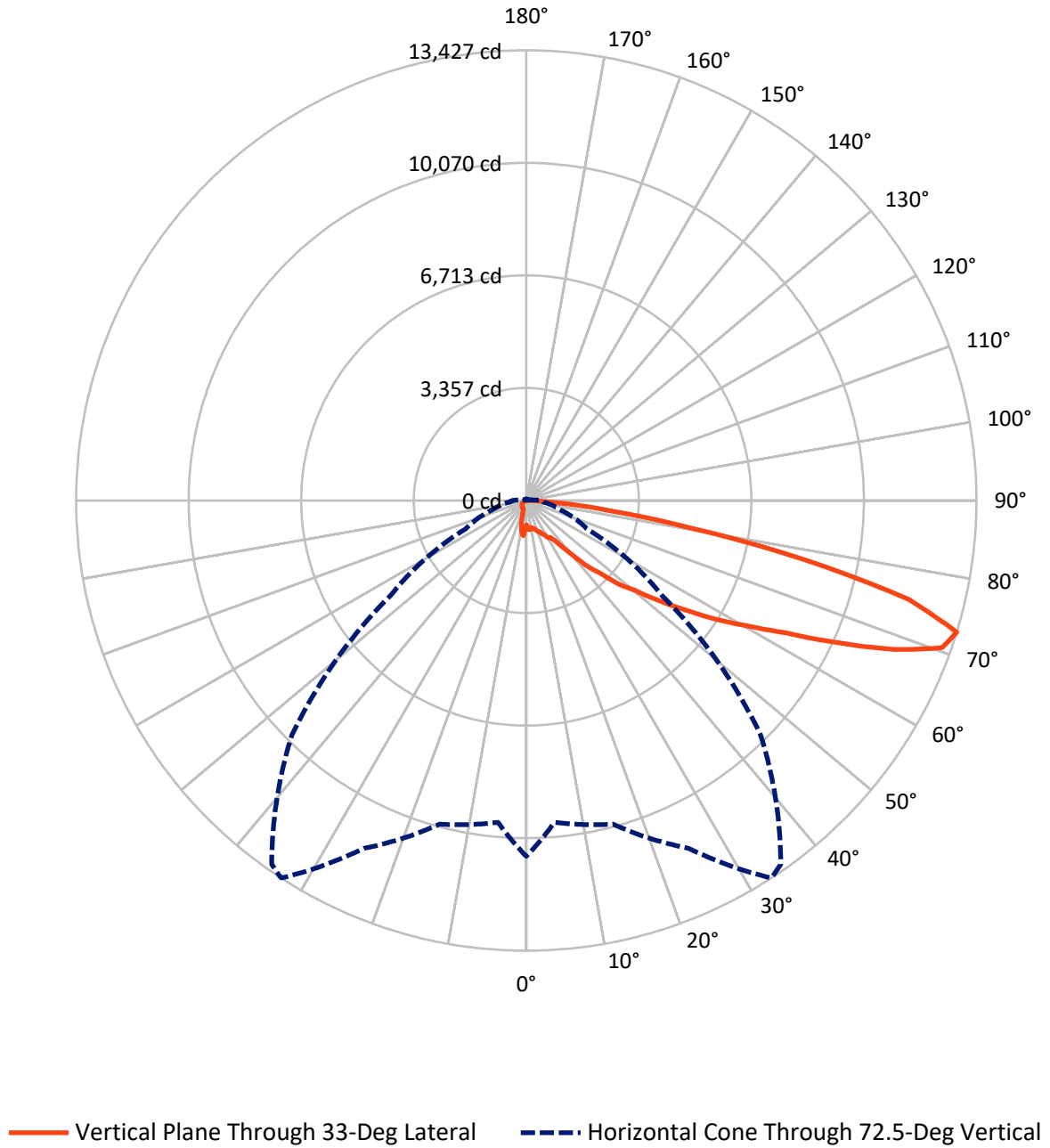
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

REPORT NUMBER: P368091
CATALOG NUMBER: MSA-SA3D-730-U-T4FT-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P368091
 CATALOG NUMBER: MSA-SA3D-730-U-T4FT-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1255.2	0.0	1255.2
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	12319.8	0.0	12319.8
	% Fixture	90.8	0.0	90.8
Total	Lumens	13575.0	0.0	13575.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	0.7
10°-20°	278.5	2.1
20°-30°	472.3	3.5
30°-40°	864.3	6.4
40°-50°	1824.2	13.4
50°-60°	3052.0	22.5
60°-70°	4085.2	30.1
70°-80°	2668.5	19.7
80°-90°	236.6	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°	13575.0	100.0
0°-180°	13575.0	100.0

Coefficient of Utilization



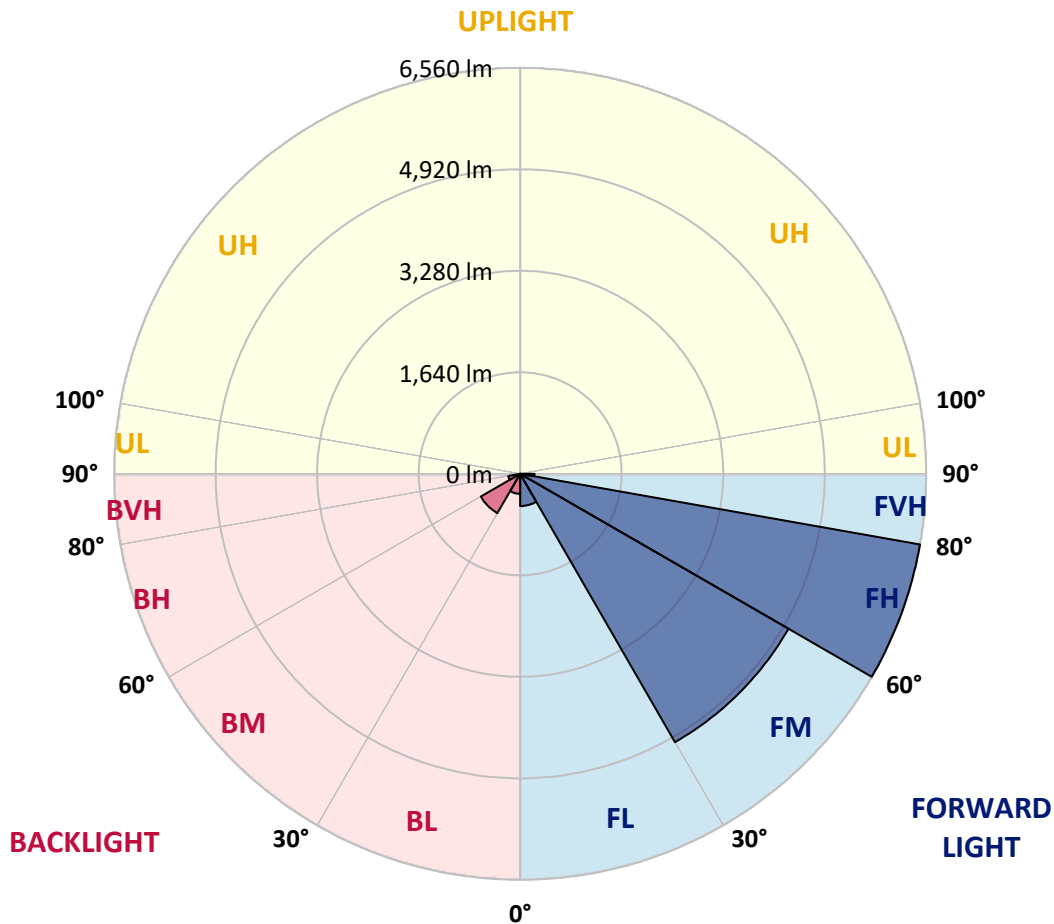
REPORT NUMBER: P368091
 CATALOG NUMBER: MSA-SA3D-730-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	521.1	3.8			
FM (30°-60°)	5006.7	36.9			
FH (60°-80°)	6560.0	48.3			G3/7500
FVH (80°-90°)	232.0	1.7			G3/500
BL (0°-30°)	323.1	2.4	B1/500		
BM (30°-60°)	733.8	5.4	B1/1000		
BH (60°-80°)	193.7	1.4	B1/500		G1/500
BVH (80°-90°)	4.6	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





REPORT NUMBER: P368091

CATALOG NUMBER: MSA-SA3D-730-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
2.5°	860.7	827.5	779.3	782.3	790.6	797.4	815.5	808.0	793.6	792.9	860.7
5°	912.0	875.0	872.0	876.5	874.3	886.3	871.3	920.3	961.7	1011.4	1091.3
7.5°	887.1	869.8	847.9	870.5	869.8	863.7	873.5	973.0	1073.3	1136.6	1268.5
10°	815.5	795.9	812.5	820.0	814.7	841.1	906.7	988.1	1107.9	1240.6	1304.6
12.5°	795.1	807.2	813.2	813.2	863.7	877.3	977.5	1054.4	1196.9	1301.6	1487.8
15°	874.3	897.6	856.2	847.1	863.0	870.5	982.1	1074.8	1257.2	1448.6	1604.6
17.5°	1000.1	998.6	934.6	899.1	924.0	942.1	1003.9	1112.4	1219.5	1563.9	1790.0
20°	1086.8	1088.3	973.0	899.1	981.3	991.9	1060.4	1147.1	1231.5	1621.9	1911.4
22.5°	1198.4	1158.4	1031.0	959.4	1015.2	1025.0	1100.4	1169.0	1293.3	1615.2	2066.6
25°	1289.6	1263.9	1103.4	1053.7	1103.4	1089.8	1158.4	1261.7	1359.7	1722.9	2157.8
27.5°	1431.3	1387.5	1154.6	1163.7	1160.7	1170.5	1186.3	1344.6	1476.5	1728.2	2368.8
30°	1563.1	1537.5	1269.2	1269.2	1298.6	1279.8	1291.1	1482.5	1589.5	1850.3	2606.3
32.5°	1699.6	1701.1	1404.1	1332.5	1309.2	1386.8	1462.9	1549.6	1725.9	2059.8	2969.5
35°	2060.6	2030.4	1662.6	1484.0	1465.2	1460.6	1582.7	1817.1	1967.9	2332.7	3458.7
37.5°	2787.9	2683.1	2218.9	1827.7	1756.8	1732.7	1871.4	2111.8	2261.8	2733.6	4267.4
40°	3534.0	3341.8	2826.3	2385.4	2155.5	2051.5	2212.8	2417.1	2683.9	3176.8	5015.8
42.5°	4189.0	3951.6	3283.8	2986.9	2687.6	2642.4	2490.9	2823.3	3286.8	3821.9	5749.1
45°	4827.4	4360.1	3690.8	3455.7	3092.4	3118.0	3066.8	3354.7	3913.1	4528.9	6399.6
47.5°	5266.8	4847.0	4189.7	3884.5	3739.0	3589.1	3996.0	4295.3	4470.9	4978.1	6961.8
50°	5740.1	5315.0	4618.6	4405.3	4213.9	4365.4	4893.7	4933.6	4919.3	5397.2	7344.7
52.5°	6351.3	5850.1	5110.8	4869.6	4978.1	5128.8	5738.6	5746.1	5318.0	5749.9	7620.5
55°	6916.6	6361.1	5766.5	5538.8	5765.7	5893.1	6569.1	6321.2	5550.2	5989.6	7756.2
57.5°	7713.2	7070.3	6638.5	6237.5	6697.3	6575.2	7299.5	6930.9	5810.9	6148.6	7706.5
60°	8720.2	7963.5	7530.8	7106.5	7599.4	7682.3	8012.4	7235.4	5911.9	6200.6	7407.2
62.5°	9744.4	8983.2	8414.2	8126.3	8685.5	8958.3	8672.7	7386.9	5790.6	6098.8	6729.7
65°	11015.1	10040.6	9375.9	9207.0	10243.4	10644.3	9453.5	7423.8	5556.2	5538.8	5410.7
67.5°	11885.6	10936.8	10327.0	10609.7	11861.5	11893.9	10154.4	7435.1	4767.1	4336.7	3551.4
70°	12092.2	11076.2	10803.4	11635.4	13152.6	12744.9	10380.5	6862.3	3535.5	2573.8	1623.4
72.5°	10614.9	9636.6	9991.6	11441.7	13426.9	13240.0	9880.8	4951.0	1990.5	1029.5	498.2
75°	6511.1	5919.5	7495.4	9700.7	11786.2	11665.6	7708.7	2558.0	801.9	411.5	186.2
77.5°	2831.6	2629.6	3911.6	6436.5	8469.2	8361.4	4516.8	942.1	414.5	289.4	94.2
80°	936.8	908.9	1481.7	3047.9	4960.8	4865.8	1903.1	391.9	295.4	232.1	52.8
82.5°	222.3	220.8	517.0	1402.6	2527.1	2448.0	584.1	216.3	214.0	183.1	27.9
85°	55.8	57.3	143.2	573.6	1026.5	905.2	152.2	107.8	150.7	124.4	14.3
87.5°	0.0	0.0	36.9	82.2	155.3	97.2	16.6	28.6	42.2	44.5	7.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P368091
 CATALOG NUMBER: MSA-SA3D-730-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
2.5°	875.8	867.5	799.7	816.2	841.9	839.6	856.2	843.4	832.1	887.8	882.6
5°	1113.9	1068.7	1047.6	1077.0	1061.2	1024.3	1055.2	1049.9	1040.8	1059.7	1074.0
7.5°	1292.6	1251.1	1232.3	1170.5	1080.8	1009.9	1021.2	994.9	970.0	999.4	1029.5
10°	1351.4	1328.8	1326.5	1205.9	1121.5	1019.0	897.6	792.9	765.0	728.1	744.6
12.5°	1511.1	1524.7	1439.5	1298.6	1135.8	939.1	723.5	575.1	514.8	475.6	477.8
15°	1642.3	1689.8	1566.2	1312.9	999.4	716.0	481.6	348.2	310.5	300.7	297.7
17.5°	1837.5	1883.5	1605.4	1211.2	805.7	485.4	309.8	271.3	273.6	280.4	278.9
20°	1982.2	1975.4	1571.4	1031.0	593.9	318.1	259.3	254.0	266.1	285.6	281.1
22.5°	2121.6	2074.9	1550.3	864.5	384.4	255.5	250.2	249.5	260.8	279.6	284.9
25°	2221.1	2228.7	1514.9	676.8	279.6	237.4	241.9	248.7	260.0	280.4	277.4
27.5°	2506.0	2295.0	1367.2	491.4	235.9	227.6	238.9	252.5	256.3	281.9	282.6
30°	2690.7	2545.2	1270.7	330.9	217.8	210.3	232.9	251.0	255.5	288.7	290.9
32.5°	3012.5	2653.0	1159.2	245.7	202.7	205.0	219.3	243.4	264.5	300.0	301.5
35°	3412.7	2998.9	957.2	220.8	197.5	193.7	200.5	228.4	263.0	301.5	309.0
37.5°	4174.7	3206.2	759.0	214.0	197.5	190.7	197.5	214.0	258.5	316.5	332.4
40°	4684.9	3628.3	547.2	212.5	193.7	187.7	189.9	206.5	245.7	307.5	330.9
42.5°	5313.5	3806.1	403.2	208.8	189.9	180.9	182.4	203.5	232.9	288.7	306.0
45°	5828.3	3935.8	317.3	207.3	180.9	177.9	180.9	201.2	220.8	248.0	263.8
47.5°	6219.4	4086.5	254.7	197.5	178.6	177.9	174.1	188.4	200.5	207.3	217.8
50°	6505.8	4052.6	211.0	182.4	171.1	175.6	168.8	171.1	174.1	170.3	182.4
52.5°	6681.4	3930.5	175.6	164.3	162.0	165.8	157.5	150.7	145.5	142.4	150.0
55°	6745.5	3685.5	149.2	140.9	146.2	147.7	140.9	128.9	119.8	115.3	121.3
57.5°	6624.2	3312.5	129.6	116.8	128.9	128.9	119.8	107.0	96.5	88.9	95.0
60°	6316.7	2900.2	115.3	97.2	110.0	110.8	100.2	86.7	78.4	70.8	74.6
62.5°	5743.9	2451.0	101.0	84.4	95.0	95.7	82.9	70.1	64.1	55.8	58.8
65°	4598.2	1874.4	85.9	74.6	82.2	79.9	68.6	59.5	52.0	44.5	46.0
67.5°	2984.6	1156.9	74.6	67.8	69.3	67.1	58.0	52.0	43.7	37.7	38.4
70°	1336.3	498.2	65.6	61.0	60.3	56.5	49.0	48.2	43.0	37.7	37.7
72.5°	412.3	187.7	56.5	55.0	52.0	47.5	43.0	46.0	42.2	36.2	35.4
75°	162.8	85.9	46.7	46.7	45.2	39.2	38.4	41.5	39.2	33.2	31.7
77.5°	85.2	54.3	38.4	39.9	39.2	30.1	34.7	37.7	36.2	27.9	23.4
80°	50.5	33.2	28.6	32.4	31.7	21.1	26.4	24.1	17.3	8.3	2.3
82.5°	27.9	15.1	12.8	18.8	18.8	7.5	13.6	12.1	6.8	0.0	0.0
85°	13.6	10.6	9.8	10.6	7.5	2.3	6.8	6.8	3.8	0.0	0.0
87.5°	6.8	6.0	4.5	3.8	3.0	0.0	2.3	3.0	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)