

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: P366957

Luminaire Tested: **MSA-SA1C-760-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366957
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-760-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5150 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

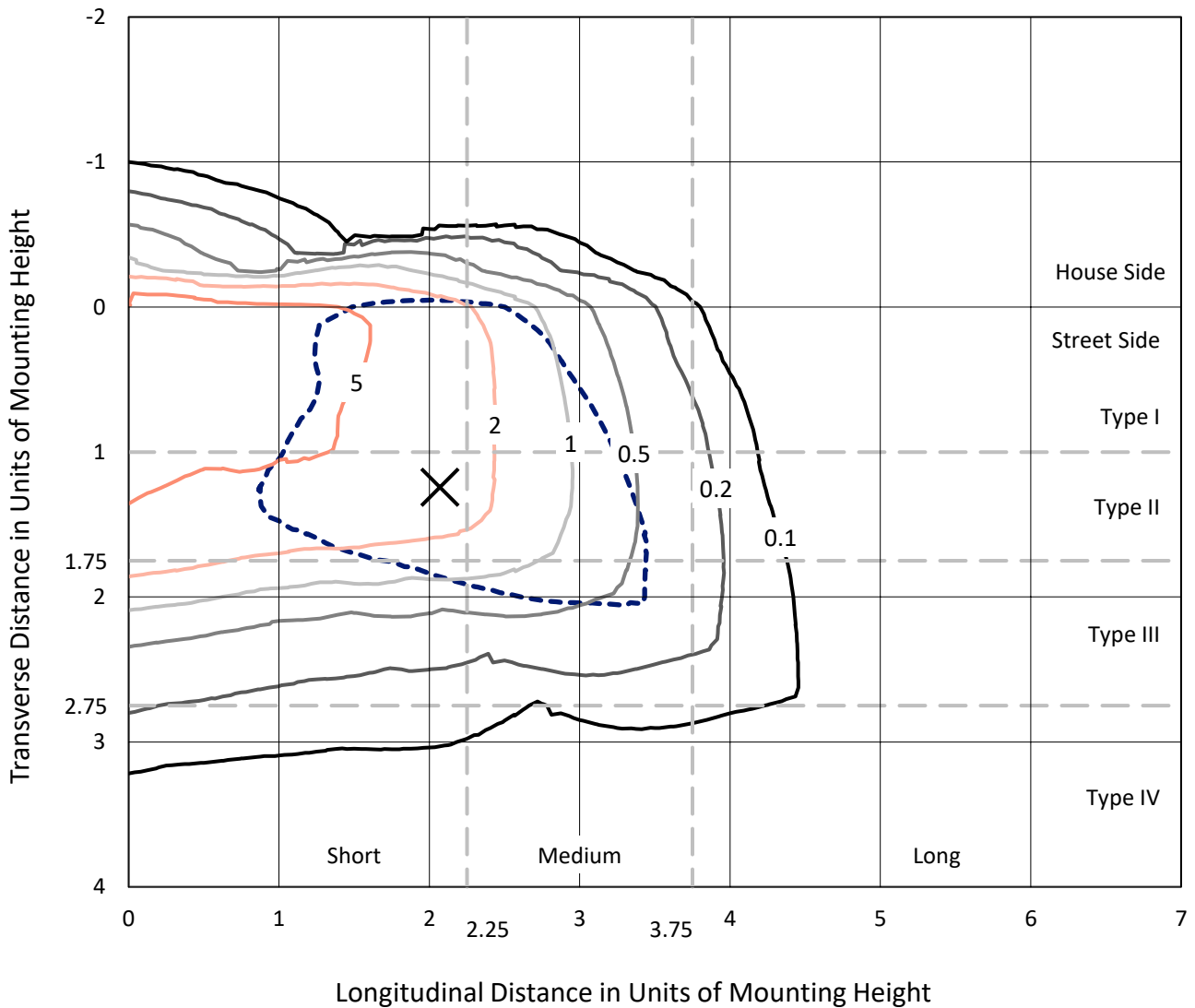
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

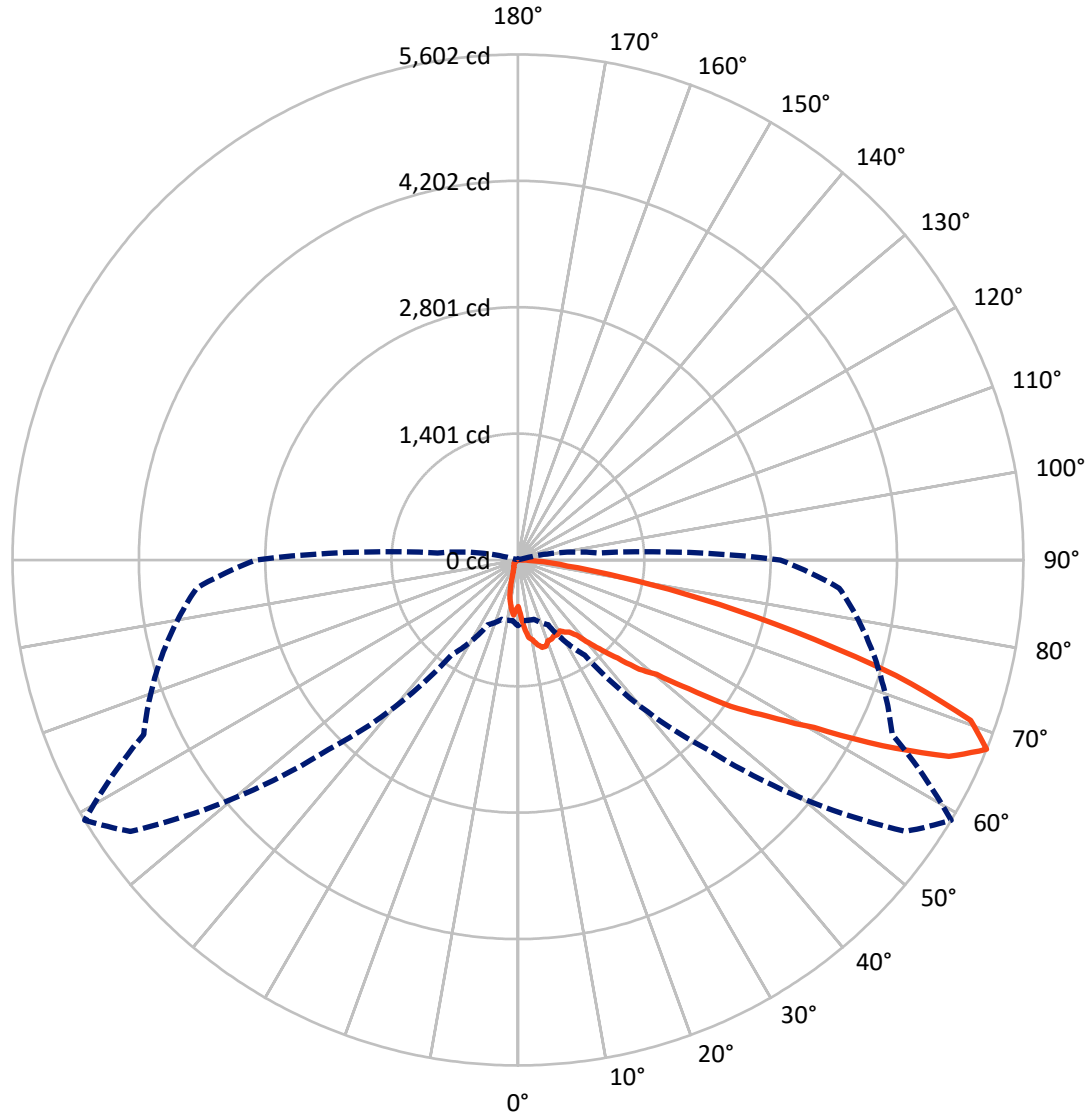
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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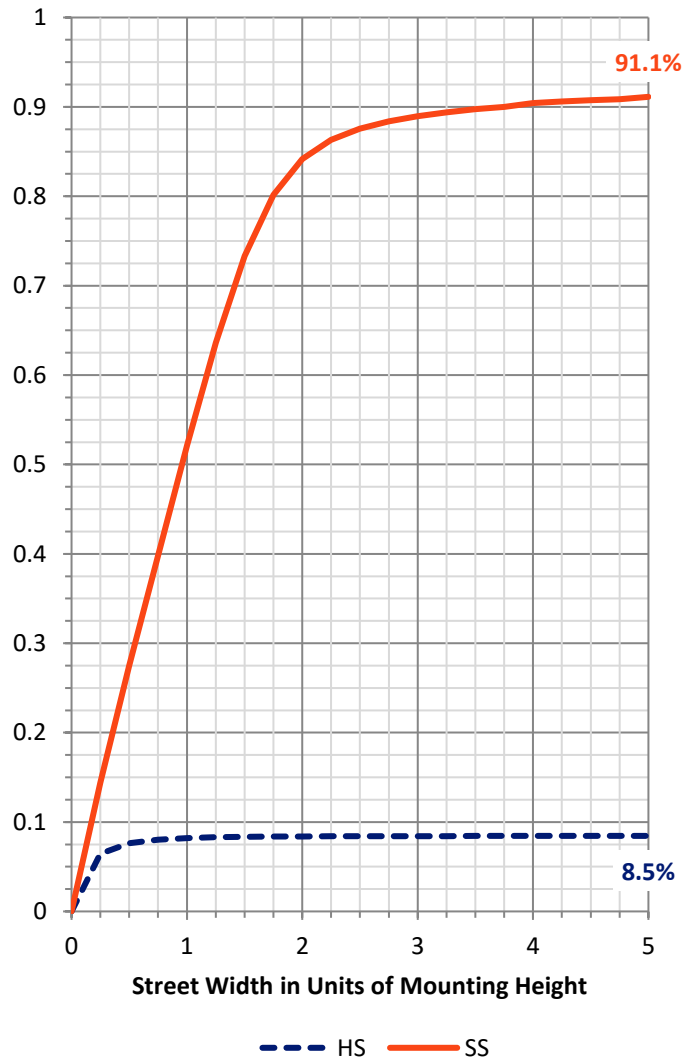
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	438.0	0.0	438.0
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	4712.0	0.0	4712.0
	% Fixture	91.5	0.0	91.5
Total	Lumens	5150.0	0.0	5150.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.7	1.2
10°-20°	176.4	3.4
20°-30°	262.4	5.1
30°-40°	404.8	7.9
40°-50°	722.5	14.0
50°-60°	1285.7	25.0
60°-70°	1497.4	29.1
70°-80°	665.9	12.9
80°-90°	72.3	1.4
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°	5150.0	100.0
0°-180°	5150.0	100.0

Coefficient of Utilization



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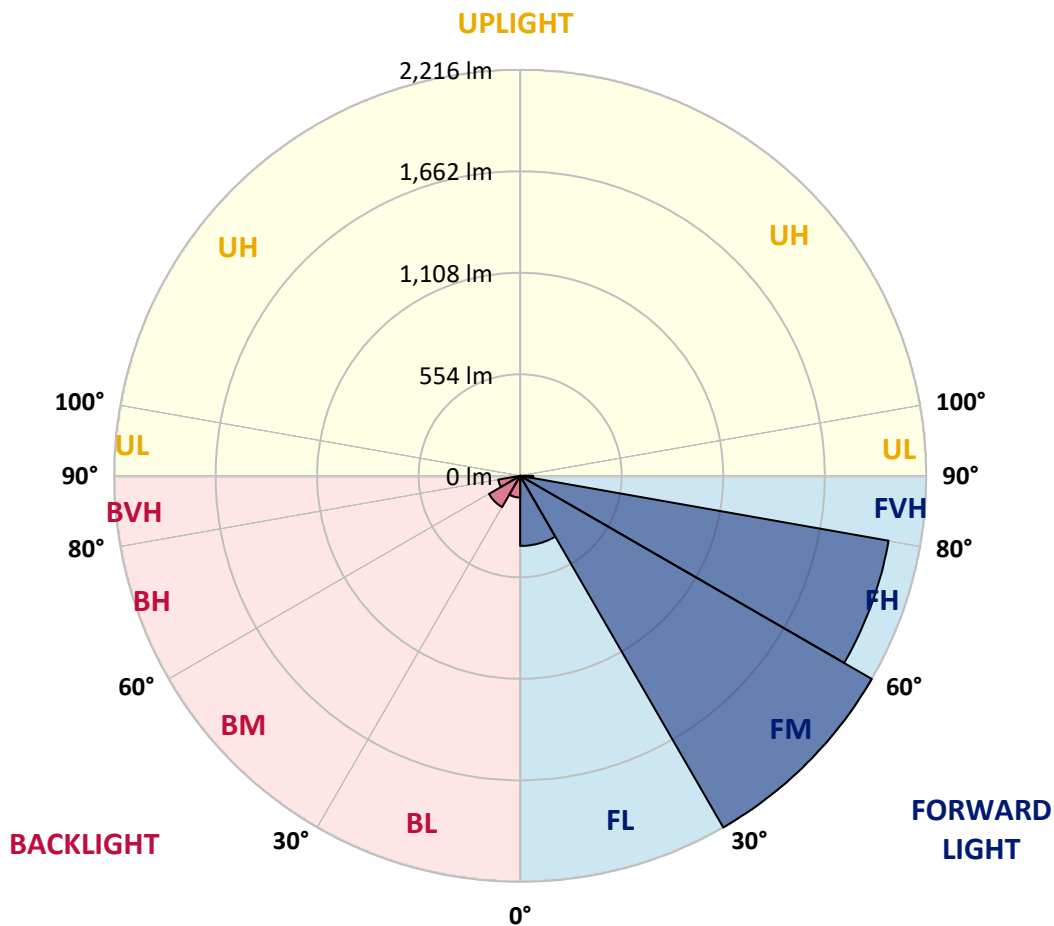
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	383.0	7.4			
FM (30°-60°)	2216.0	43.0			
FH (60°-80°)	2041.9	39.6			G2/5000
FVH (80°-90°)	71.0	1.4			G1/100
BL (0°-30°)	118.4	2.3	B1/500		
BM (30°-60°)	196.9	3.8	B0/220		
BH (60°-80°)	121.3	2.4	B1/500		G1/500
BVH (80°-90°)	1.3	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	671.7	646.4	610.5	621.1	630.8	639.9	624.8	616.2	612.0	575.0	621.4
5°	824.8	793.3	776.8	772.7	762.2	739.0	777.6	760.4	766.1	773.4	788.6
7.5°	871.5	857.1	833.4	842.3	802.6	799.2	852.7	867.6	887.1	873.8	892.1
10°	847.5	822.7	833.9	830.8	829.2	864.2	901.7	902.5	931.7	945.8	884.0
12.5°	800.0	802.9	843.1	839.9	892.1	962.0	970.6	961.4	1009.2	984.7	975.3
15°	831.6	855.1	832.9	840.4	859.0	946.3	976.8	1005.0	1050.1	1064.7	1001.3
17.5°	869.7	872.0	831.6	822.2	868.9	909.6	981.5	1004.7	1009.2	1137.2	1060.0
20°	849.1	869.1	820.9	761.7	834.2	889.5	962.5	955.2	984.9	1158.6	1073.3
22.5°	903.8	875.1	813.3	768.7	793.3	843.6	905.4	953.1	997.7	1107.5	1090.5
25°	909.0	898.6	843.6	803.9	799.8	812.5	898.6	929.4	999.3	1153.4	1075.9
27.5°	967.7	955.7	843.1	847.0	807.9	768.5	865.7	938.0	1027.7	1125.5	1107.0
30°	1043.3	1044.4	899.1	911.4	855.6	792.2	892.6	912.4	1047.0	1170.1	1129.9
32.5°	1120.0	1151.5	1009.9	945.0	927.5	882.2	859.2	950.8	1025.9	1246.2	1187.3
35°	1236.6	1257.9	1101.2	1043.1	974.5	922.9	950.0	982.8	1101.7	1347.1	1262.6
37.5°	1434.0	1395.4	1265.0	1163.8	1147.4	1071.2	1084.8	1055.3	1179.2	1466.0	1411.8
40°	1545.0	1510.1	1374.5	1325.2	1220.4	1232.1	1189.4	1206.6	1291.6	1589.9	1547.6
42.5°	1660.8	1627.4	1508.5	1473.6	1373.7	1325.2	1305.9	1367.7	1463.9	1796.2	1742.4
45°	1777.1	1692.4	1642.0	1659.5	1614.7	1518.7	1496.3	1551.3	1652.2	2049.6	1947.9
47.5°	1875.2	1803.7	1765.9	1757.8	1740.4	1873.6	1782.3	1806.6	1851.2	2273.9	2204.0
50°	2052.0	1981.6	1922.4	1905.9	1990.9	2180.0	2039.2	1992.3	2081.4	2544.8	2500.7
52.5°	2307.3	2217.6	2123.4	2123.7	2284.1	2387.8	2454.6	2372.2	2388.9	2842.9	2823.3
55°	2512.5	2398.5	2320.6	2382.1	2621.2	2679.4	2934.1	2861.9	2840.3	3119.3	3095.3
57.5°	2540.6	2404.0	2367.0	2474.9	2802.2	3173.5	3447.6	3267.1	3234.0	3350.6	3398.3
60°	2277.8	2132.8	2160.7	2334.4	2861.1	3474.7	3919.1	3771.7	3561.3	3621.5	3654.4
62.5°	1698.9	1583.1	1661.3	1891.3	2634.0	3676.5	4464.8	4533.2	3941.0	3824.9	3817.9
65°	1102.3	1029.8	1081.1	1269.7	1993.3	3653.6	4952.5	5248.7	4240.1	3990.8	3869.2
67.5°	729.1	674.1	681.4	793.0	1289.0	2971.4	5244.0	5602.0	4576.4	4084.9	3574.8
70°	543.4	500.1	502.8	563.3	765.1	1959.7	4837.5	5323.3	4699.3	3758.7	2885.4
72.5°	391.9	363.0	387.2	454.5	609.7	1036.3	3605.6	4384.0	4097.7	2964.7	1944.0
75°	271.5	252.4	292.1	380.2	556.5	643.3	2382.6	3155.8	2872.1	1860.0	878.8
77.5°	150.5	144.7	201.8	309.8	505.1	527.3	1459.5	2073.6	1593.0	666.8	209.1
80°	65.7	63.6	97.8	232.6	424.5	476.4	821.7	1149.7	626.6	118.9	67.5
82.5°	28.2	27.1	41.7	140.0	308.5	398.5	506.7	553.3	215.7	36.8	38.3
85°	5.0	5.5	16.7	73.8	187.8	202.4	366.9	327.5	108.5	17.5	27.4
87.5°	0.0	0.0	2.6	14.3	35.2	57.9	159.1	114.7	20.6	5.7	4.7
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°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	627.9	613.3	557.8	550.7	543.2	532.0	527.8	503.8	500.7	531.4	531.4
5°	781.5	729.4	676.4	634.7	597.4	545.8	531.2	516.1	503.8	500.7	510.3
7.5°	862.6	799.0	715.8	609.7	523.6	448.8	417.5	395.6	371.1	378.4	382.3
10°	858.2	790.6	684.5	548.1	452.7	370.0	290.5	244.1	218.3	205.5	203.9
12.5°	901.7	838.1	663.4	499.1	377.3	263.1	182.8	149.7	130.6	130.9	129.3
15°	927.0	857.7	638.9	437.0	265.7	169.2	126.7	119.4	116.8	119.7	118.1
17.5°	971.6	878.3	583.3	344.5	182.8	127.8	116.6	113.7	117.1	123.1	121.5
20°	968.2	842.5	504.3	242.8	135.1	115.0	110.3	105.9	112.9	119.2	118.1
22.5°	965.1	807.6	430.0	179.1	112.9	104.8	100.9	99.1	102.7	110.0	111.6
25°	937.5	790.4	354.6	134.6	102.2	95.2	93.4	91.8	93.1	99.1	98.8
27.5°	971.4	746.8	273.8	112.9	94.7	86.3	84.7	82.1	79.5	84.7	85.5
30°	964.3	752.8	214.6	99.4	87.1	75.9	76.4	70.9	66.2	70.9	70.9
32.5°	989.9	709.0	171.8	90.2	79.5	71.4	64.9	59.2	55.8	58.7	59.2
35°	1027.2	710.8	134.6	84.5	73.0	63.6	55.8	50.1	46.9	48.2	49.0
37.5°	1152.1	698.3	112.4	80.1	70.7	58.9	50.8	43.3	41.2	42.8	43.5
40°	1233.4	731.7	99.1	77.7	64.7	54.2	43.5	38.1	36.2	37.0	38.3
42.5°	1386.8	750.2	92.6	75.1	59.2	46.4	37.3	34.2	31.6	32.6	33.6
45°	1550.8	781.8	87.6	72.2	55.0	40.7	32.9	30.2	26.9	27.1	28.2
47.5°	1752.3	856.9	81.9	67.3	49.3	37.0	29.2	25.3	22.2	21.9	23.2
50°	2023.0	957.3	76.7	61.0	45.6	33.9	25.6	20.6	18.0	17.2	18.3
52.5°	2312.0	1087.1	71.2	56.6	41.2	29.7	21.9	16.7	14.3	13.8	14.6
55°	2598.3	1211.8	66.0	53.7	36.5	25.6	18.5	13.8	11.7	11.2	11.7
57.5°	2924.5	1346.6	59.2	48.0	32.1	22.2	15.4	11.5	9.6	9.1	9.4
60°	3170.1	1394.1	53.5	41.7	27.9	19.6	13.0	9.1	7.8	7.3	7.6
62.5°	3286.7	1316.6	48.0	36.2	24.5	16.9	11.0	7.6	6.5	6.0	6.0
65°	3256.4	1145.0	42.5	31.0	21.1	14.1	8.6	6.5	5.7	5.0	4.7
67.5°	2907.0	896.0	36.2	26.1	17.7	11.5	7.3	6.3	5.2	4.7	3.9
70°	2305.4	648.8	29.5	21.6	14.9	9.4	5.7	5.7	5.0	4.7	3.7
72.5°	1511.1	408.4	24.0	17.5	12.3	7.3	4.4	5.2	4.7	4.7	3.4
75°	654.8	146.0	19.3	14.1	10.2	5.0	3.9	4.7	5.0	4.7	3.9
77.5°	153.3	45.4	15.1	11.2	8.3	3.4	3.9	4.7	5.0	4.4	3.4
80°	57.6	19.3	9.9	7.3	6.5	2.1	3.4	2.9	2.6	1.8	0.5
82.5°	34.9	8.1	5.2	3.7	3.1	0.5	1.6	1.0	0.5	0.5	0.0
85°	24.8	3.9	2.9	2.6	1.6	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	3.4	1.0	1.3	1.3	1.0	0.0	0.0	0.0	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)