

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: P367376

Luminaire Tested: **MSA-SA2B-830-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-830-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7767 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

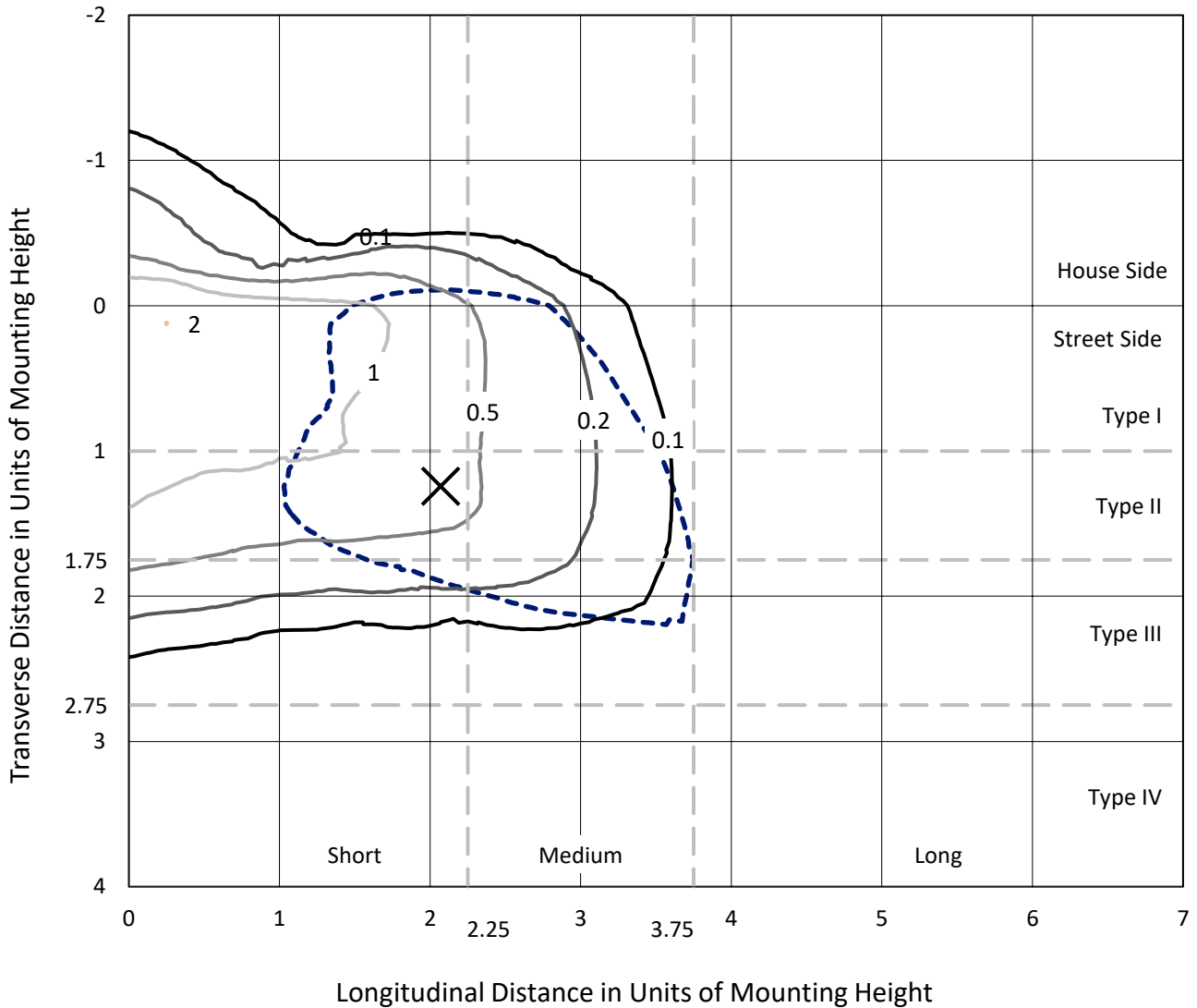
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367376
 CATALOG NUMBER: MSA-SA2B-830-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

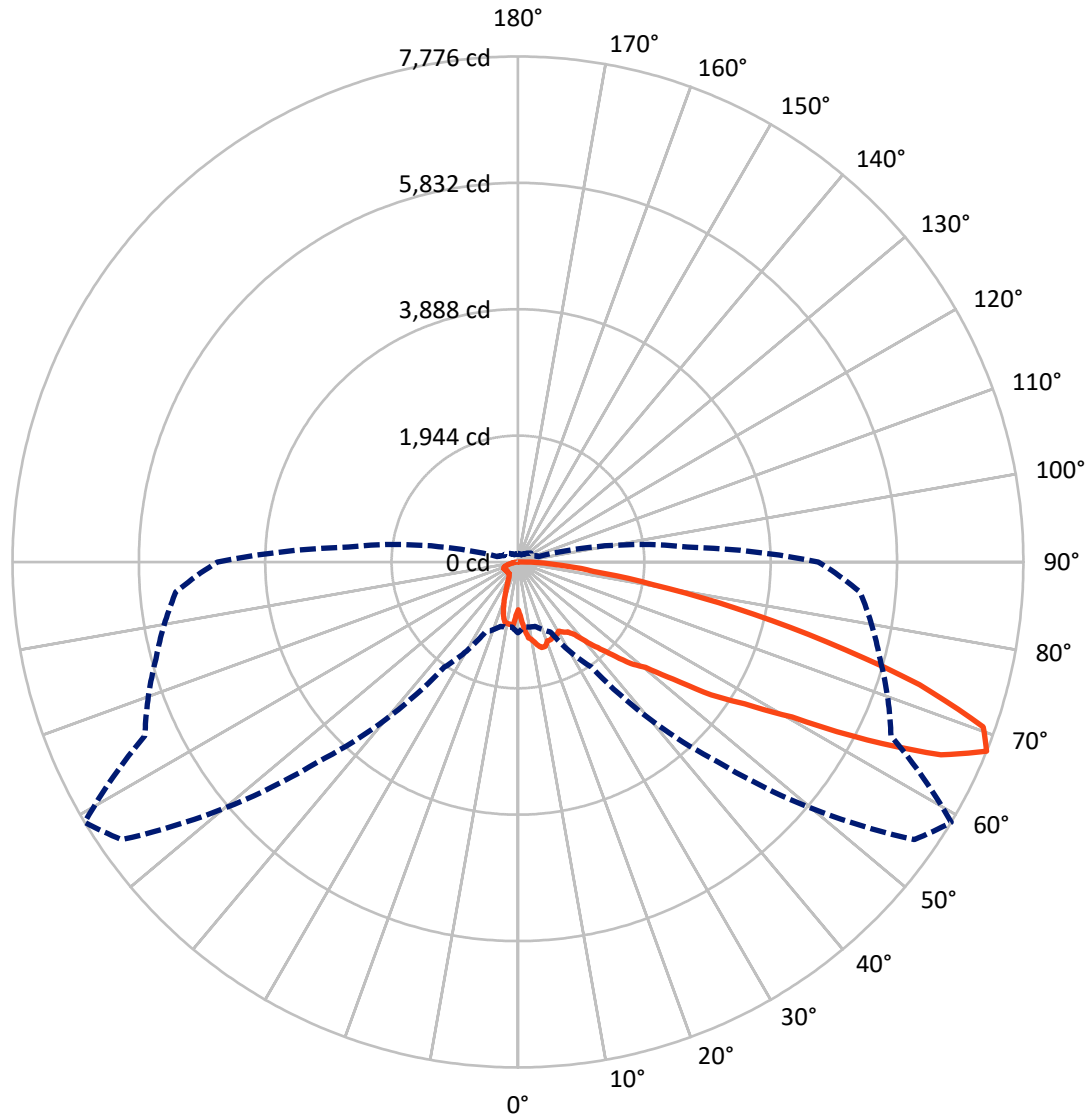
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type III - Short - N/A

REPORT NUMBER: P367376
CATALOG NUMBER: MSA-SA2B-830-U-SL3

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367376

CATALOG NUMBER: MSA-SA2B-830-U-SL3

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1169.1	0.0	1169.1
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	6597.9	0.0	6597.9
	% Fixture	84.9	0.0	84.9
Total	Lumens	7767.0	0.0	7767.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	1.2
10°-20°	284.1	3.7
20°-30°	405.7	5.2
30°-40°	597.8	7.7
40°-50°	1009.9	13.0
50°-60°	1757.5	22.6
60°-70°	2239.5	28.8
70°-80°	1185.9	15.3
80°-90°	190.8	2.5
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°	7767.0	100.0
0°-180°	7767.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367376

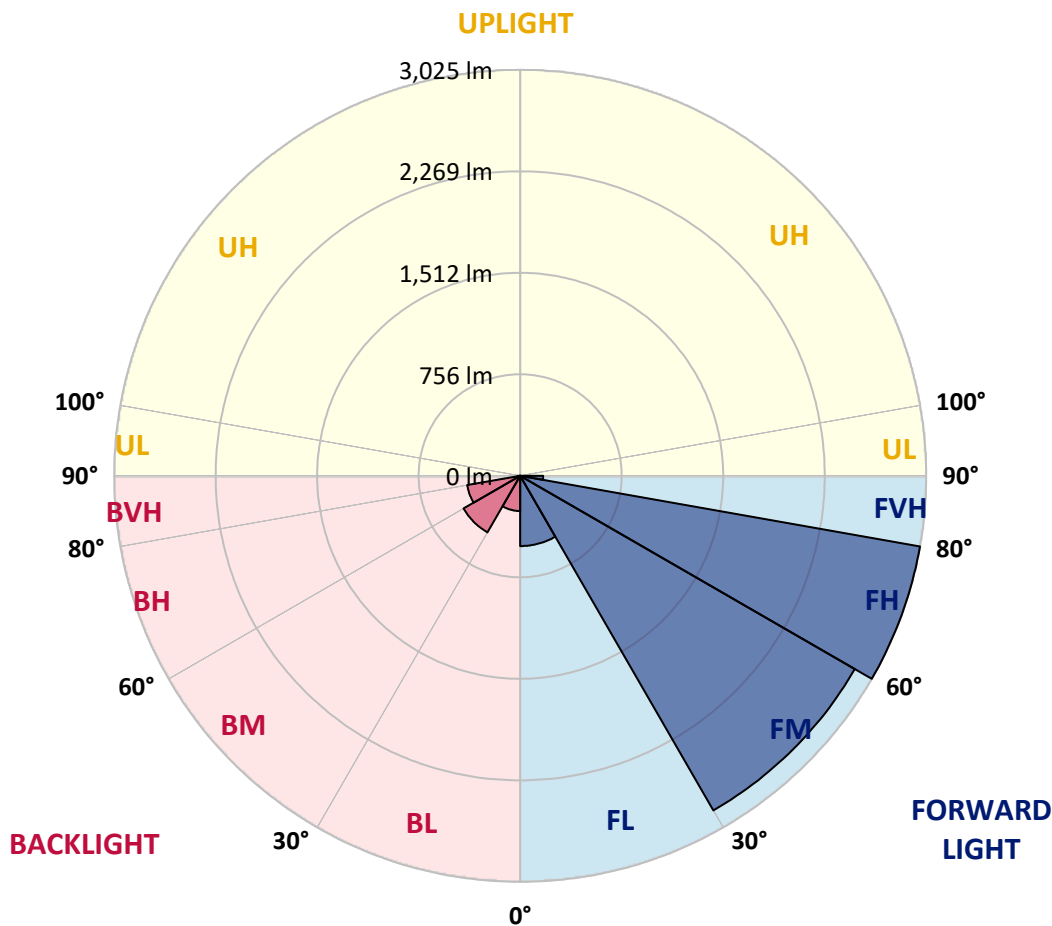
CATALOG NUMBER: MSA-SA2B-830-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	523.5	6.7			
FM (30°-60°)	2878.3	37.1			
FH (60°-80°)	3024.7	38.9			G2/5000
FVH (80°-90°)	171.3	2.2			G2/225
BL (0°-30°)	262.2	3.4	B1/500		
BM (30°-60°)	486.8	6.3	B1/1000		
BH (60°-80°)	400.7	5.2	B1/500		G1/500
BVH (80°-90°)	19.4	0.3			G1/100
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





REPORT NUMBER: P367376

CATALOG NUMBER: MSA-SA2B-830-U-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
2.5°	917.6	874.8	829.4	842.3	868.3	880.1	867.3	854.8	838.6	819.6	884.7
5°	1112.8	1049.3	1040.1	1039.7	1030.5	993.7	1041.1	1037.8	1056.9	1076.6	1127.3
7.5°	1168.4	1144.7	1119.1	1131.2	1084.8	1082.9	1156.6	1177.7	1214.5	1202.3	1270.5
10°	1139.8	1113.1	1126.6	1121.7	1126.0	1174.7	1219.8	1221.1	1260.6	1299.4	1255.7
12.5°	1089.4	1091.4	1145.1	1143.1	1212.2	1302.7	1316.2	1305.7	1370.2	1343.9	1381.4
15°	1125.3	1149.3	1135.9	1147.4	1174.7	1289.9	1327.4	1365.6	1426.8	1450.5	1413.0
17.5°	1182.6	1195.4	1134.9	1128.6	1184.9	1239.5	1332.7	1365.3	1374.8	1543.7	1490.7
20°	1158.2	1184.2	1125.0	1049.0	1142.4	1214.8	1306.7	1296.8	1343.2	1550.9	1506.8
22.5°	1227.4	1184.2	1108.9	1054.9	1087.8	1154.3	1232.3	1297.1	1352.1	1508.4	1530.2
25°	1240.5	1220.1	1149.7	1096.0	1084.8	1108.5	1219.8	1262.2	1355.1	1566.4	1517.7
27.5°	1320.8	1290.2	1146.7	1148.4	1092.7	1050.9	1180.3	1269.5	1388.6	1530.5	1548.3
30°	1420.6	1397.2	1217.1	1223.7	1146.7	1069.7	1207.3	1234.3	1408.0	1586.4	1586.8
32.5°	1495.3	1536.4	1355.7	1266.2	1238.9	1181.3	1165.8	1287.3	1385.3	1687.8	1652.6
35°	1629.9	1661.8	1462.4	1390.6	1298.1	1233.3	1278.4	1322.1	1479.8	1821.1	1750.4
37.5°	1879.0	1842.2	1660.5	1547.6	1513.0	1419.6	1444.6	1414.0	1582.5	1970.9	1941.9
40°	2023.2	1991.3	1800.1	1737.5	1600.6	1612.4	1581.2	1603.6	1719.7	2130.2	2121.0
42.5°	2165.4	2122.6	1961.0	1917.6	1781.0	1723.0	1728.6	1801.0	1931.4	2387.6	2357.0
45°	2305.9	2196.3	2125.6	2137.1	2071.3	1952.4	1960.7	2028.8	2162.4	2681.8	2611.4
47.5°	2413.6	2323.0	2267.8	2253.6	2221.0	2380.0	2308.9	2336.5	2395.5	2943.8	2917.1
50°	2617.3	2511.6	2439.6	2419.2	2529.7	2750.9	2606.1	2546.5	2671.9	3282.5	3268.7
52.5°	2943.5	2811.8	2691.7	2690.4	2850.3	2993.8	3095.9	2993.2	3039.3	3629.4	3668.9
55°	3228.2	3075.8	2967.8	3027.4	3255.2	3343.0	3689.6	3609.3	3570.5	3979.6	4092.5
57.5°	3334.5	3156.4	3086.0	3173.9	3509.6	3961.2	4327.5	4116.2	4078.3	4375.9	4612.5
60°	3101.1	2912.9	2917.1	3082.7	3664.3	4415.0	5024.9	4845.6	4623.7	4869.3	5100.3
62.5°	2436.3	2266.1	2377.0	2628.8	3534.6	4856.1	5959.7	6035.4	5246.8	5278.4	5370.9
65°	1655.9	1538.1	1638.1	1884.6	2866.8	5096.7	6850.0	7153.5	5814.2	5546.3	5487.7
67.5°	1089.8	1006.5	1025.9	1189.8	1973.5	4344.9	7445.4	7776.2	6332.9	5766.2	5281.7
70°	843.9	776.8	768.2	854.1	1170.4	3018.5	7092.6	7595.5	6648.9	5560.1	4603.6
72.5°	662.2	611.2	615.8	698.4	906.4	1674.6	5488.4	6459.0	6173.0	4795.2	3536.9
75°	516.4	474.6	498.0	592.4	838.3	1040.7	3786.7	4902.2	4772.5	3550.7	2017.3
77.5°	374.9	347.9	381.1	504.6	788.0	892.9	2357.3	3420.1	3057.4	1823.1	692.2
80°	245.9	230.7	258.0	411.4	714.6	859.4	1456.8	2095.6	1510.7	512.1	262.0
82.5°	144.8	138.2	160.9	278.4	574.3	805.4	971.6	1164.5	618.1	216.6	139.2
85°	76.0	71.1	95.4	160.0	396.0	735.3	764.9	697.1	298.5	94.1	66.5
87.5°	25.3	24.7	40.5	61.9	149.8	390.4	408.1	331.1	123.1	27.3	14.5
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: P367376

CATALOG NUMBER: MSA-SA2B-830-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
2.5°	893.6	880.4	804.7	815.3	825.1	820.2	817.2	783.0	779.7	828.4	824.5
5°	1126.0	1071.3	1006.8	1003.9	961.4	918.0	926.5	912.7	916.6	936.7	938.7
7.5°	1248.7	1180.6	1119.1	1019.0	934.1	865.3	876.2	872.9	864.0	909.4	921.6
10°	1246.4	1185.9	1116.4	995.3	938.0	882.1	814.9	751.4	732.7	710.3	712.3
12.5°	1328.7	1275.1	1123.7	1000.2	922.6	826.1	700.4	631.0	564.5	563.2	546.4
15°	1354.4	1314.9	1139.1	971.9	814.3	676.0	546.0	470.7	422.6	413.1	398.9
17.5°	1419.2	1357.4	1092.1	880.4	688.6	528.6	410.4	357.8	353.8	360.4	353.2
20°	1423.5	1323.1	1007.2	745.2	553.3	400.6	334.7	308.4	322.6	338.7	338.0
22.5°	1419.9	1280.0	933.8	630.0	415.7	321.9	293.3	287.3	300.5	324.5	327.5
25°	1383.0	1265.9	841.9	517.4	337.4	275.8	267.9	271.5	288.0	316.3	316.3
27.5°	1421.5	1208.3	726.7	421.0	283.7	245.5	251.1	260.3	272.5	304.8	310.7
30°	1409.0	1227.4	633.9	339.0	250.1	224.5	237.0	246.2	260.0	293.6	296.6
32.5°	1442.6	1176.3	555.9	285.0	228.1	216.2	219.2	231.7	249.8	276.1	281.4
35°	1494.0	1195.1	466.4	256.4	217.2	206.7	212.3	222.2	240.3	265.9	270.2
37.5°	1657.9	1194.1	404.5	240.6	215.3	204.7	207.4	214.3	235.3	258.7	268.6
40°	1763.2	1262.6	348.2	237.0	213.0	203.7	201.4	209.0	225.8	253.4	260.3
42.5°	1961.0	1304.4	323.9	235.7	212.6	198.1	195.8	204.7	221.2	246.9	257.4
45°	2170.0	1363.9	304.5	235.0	211.6	197.2	190.2	201.4	215.3	239.9	252.1
47.5°	2415.9	1490.0	293.6	232.7	209.7	198.5	188.3	193.9	209.3	234.0	246.2
50°	2737.8	1656.9	295.9	229.4	212.6	198.8	185.3	187.9	202.1	226.1	238.6
52.5°	3129.1	1915.2	310.7	230.7	214.6	197.2	184.0	182.7	194.8	215.9	228.4
55°	3600.8	2281.9	355.1	237.0	214.6	196.8	182.0	176.1	185.3	202.4	214.6
57.5°	4169.8	2706.5	442.0	239.9	213.0	194.8	177.7	167.2	172.8	186.9	198.5
60°	4658.6	3049.1	531.6	241.9	216.2	190.2	169.2	156.0	159.6	170.5	180.7
62.5°	4907.8	3145.2	558.5	240.3	225.1	187.3	159.0	144.2	144.5	153.7	162.9
65°	4954.5	3017.2	450.3	238.6	236.6	186.9	151.7	134.0	131.7	138.2	146.1
67.5°	4621.4	2618.9	324.9	235.0	238.0	185.0	146.8	125.7	119.8	124.4	131.0
70°	3924.0	2109.1	272.9	227.8	222.2	175.1	138.2	117.2	109.3	112.6	117.5
72.5°	2925.4	1560.4	238.0	212.3	193.5	149.8	125.1	107.6	99.4	101.7	105.3
75°	1625.3	832.4	199.1	184.6	158.0	121.1	106.6	95.4	88.2	89.2	93.1
77.5°	539.8	307.1	146.1	146.5	119.5	93.5	87.9	81.6	76.0	76.4	79.7
80°	244.5	169.8	104.7	105.3	83.3	67.8	67.5	65.5	61.9	60.9	63.2
82.5°	141.9	103.0	71.8	68.5	53.6	44.1	49.0	48.1	47.1	43.4	44.1
85°	69.8	55.3	37.5	35.5	29.6	22.1	26.3	27.3	26.3	22.4	22.1
87.5°	17.1	18.1	9.2	8.6	4.9	2.3	3.9	3.9	4.9	3.3	1.6
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)