

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: P596657

Luminaire Tested: **MSA-SA3A-827-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-827-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 7081 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

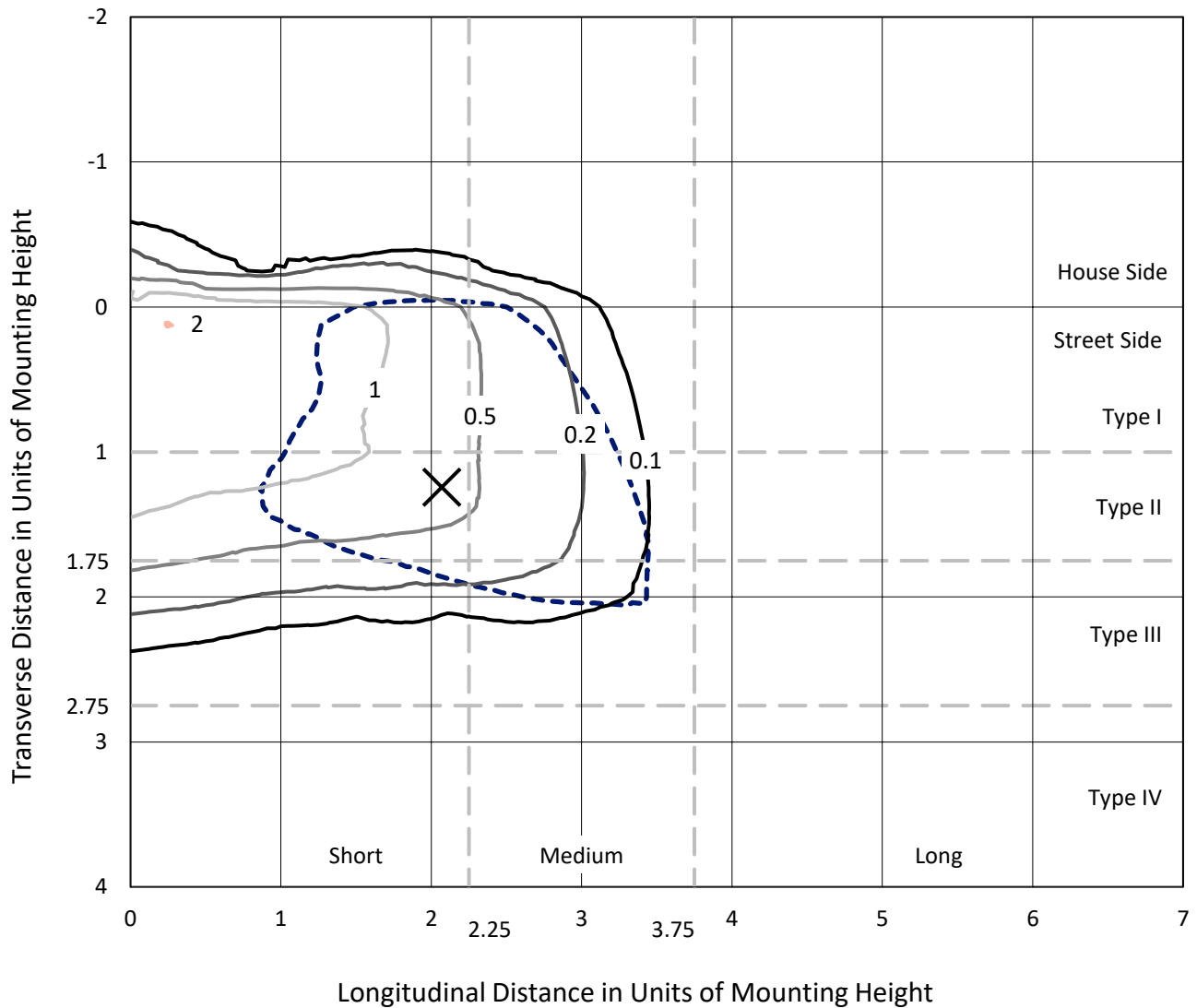
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

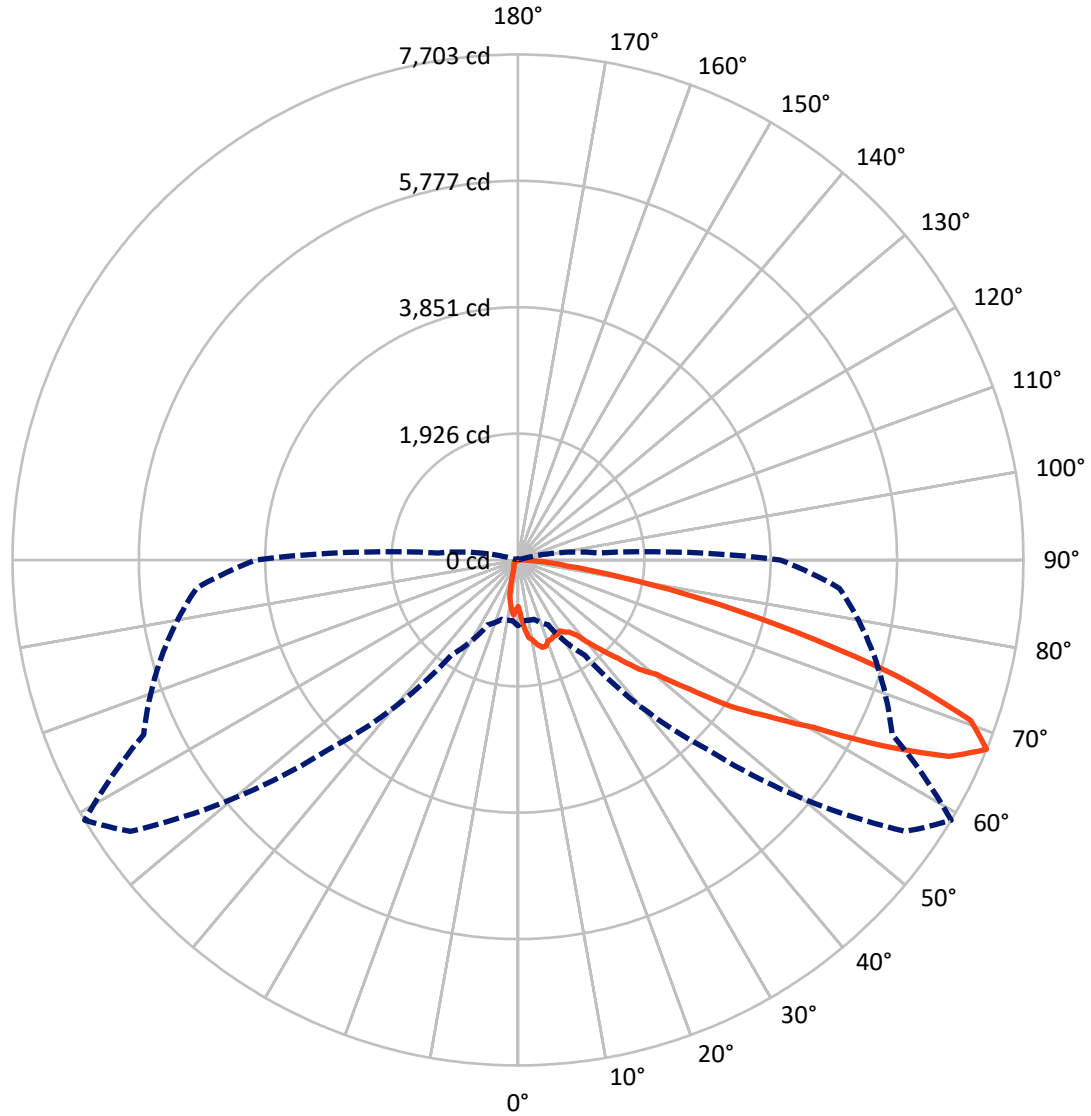
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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	602.2	0.0	602.2
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	6478.8	0.0	6478.8
	% Fixture	91.5	0.0	91.5
Total	Lumens	7081.0	0.0	7081.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	1.2
10°-20°	242.6	3.4
20°-30°	360.8	5.1
30°-40°	556.6	7.9
40°-50°	993.4	14.0
50°-60°	1767.7	25.0
60°-70°	2058.8	29.1
70°-80°	915.6	12.9
80°-90°	99.4	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°	7081.0	100.0
0°-180°	7081.0	100.0

Coefficient of Utilization

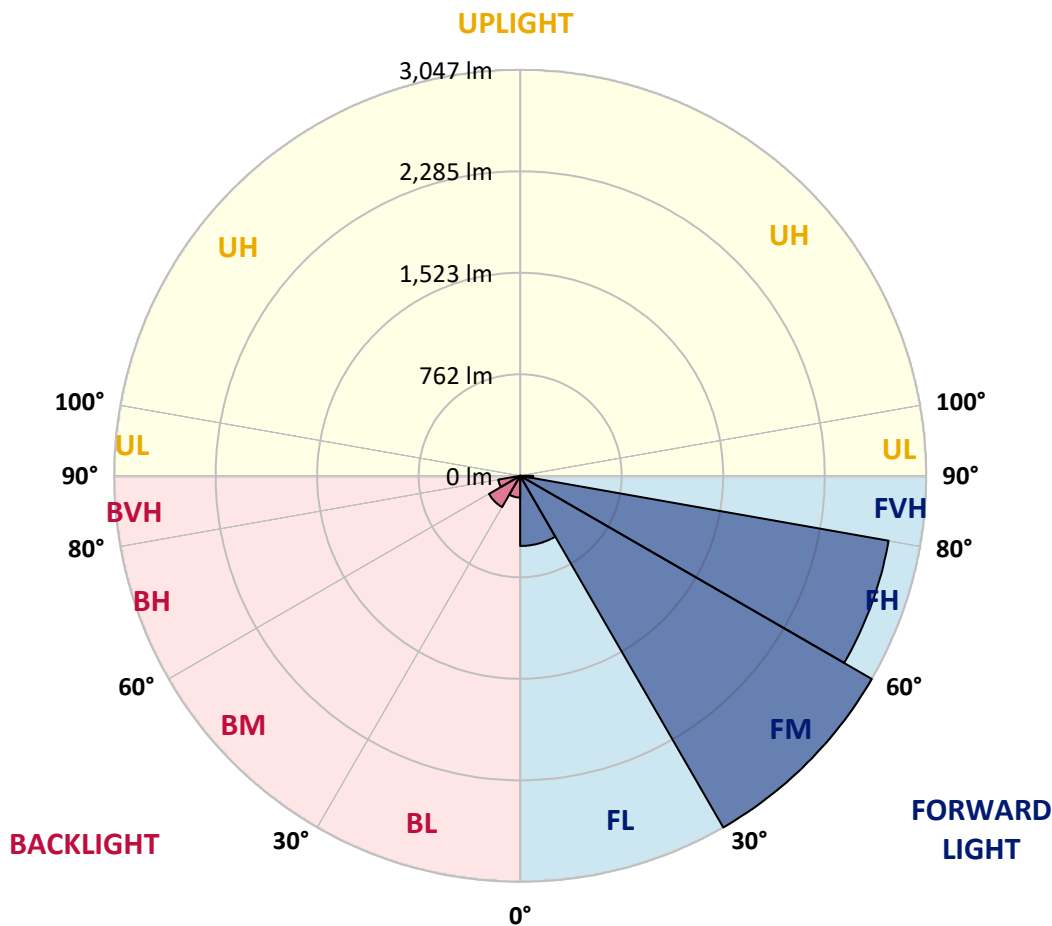


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	526.6	7.4			
FM (30°-60°)	3047.0	43.0			
FH (60°-80°)	2807.6	39.6			G2/5000
FVH (80°-90°)	97.7	1.4			G1/100
BL (0°-30°)	162.9	2.3	B1/500		
BM (30°-60°)	270.8	3.8	B1/1000		
BH (60°-80°)	166.8	2.4	B1/500		G1/500
BVH (80°-90°)	1.8	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°	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5
2.5°	923.6	888.8	839.3	854.0	867.3	879.9	859.1	847.2	841.5	790.6	854.4
5°	1134.1	1090.7	1068.1	1062.4	1048.0	1016.1	1069.2	1045.5	1053.4	1063.4	1084.2
7.5°	1198.2	1178.5	1145.9	1158.1	1103.6	1098.9	1172.4	1192.9	1219.8	1201.5	1226.6
10°	1165.3	1131.2	1146.6	1142.3	1140.2	1188.2	1239.8	1240.9	1281.1	1300.4	1215.5
12.5°	1100.0	1103.9	1159.2	1154.9	1226.6	1322.7	1334.5	1321.9	1387.6	1353.9	1340.9
15°	1143.4	1175.7	1145.2	1155.6	1181.0	1301.1	1343.1	1381.8	1443.8	1463.9	1376.8
17.5°	1195.7	1199.0	1143.4	1130.5	1194.7	1250.6	1349.5	1381.5	1387.6	1563.6	1457.5
20°	1167.4	1195.0	1128.7	1047.3	1147.0	1223.0	1323.4	1313.3	1354.2	1593.0	1475.8
22.5°	1242.7	1203.3	1118.3	1057.0	1090.7	1159.9	1244.9	1310.5	1371.8	1522.7	1499.4
25°	1249.9	1235.5	1159.9	1105.4	1099.6	1117.2	1235.5	1277.8	1373.9	1585.8	1479.3
27.5°	1330.5	1314.1	1159.2	1164.5	1110.8	1056.6	1190.4	1289.7	1413.0	1547.5	1522.0
30°	1434.5	1436.0	1236.2	1253.1	1176.4	1089.2	1227.3	1254.5	1439.5	1608.8	1553.6
32.5°	1539.9	1583.3	1388.6	1299.4	1275.3	1212.9	1181.4	1307.2	1410.5	1713.5	1632.4
35°	1700.2	1729.6	1514.1	1434.2	1339.9	1268.9	1306.2	1351.3	1514.8	1852.2	1736.1
37.5°	1971.6	1918.6	1739.3	1600.2	1577.6	1472.9	1491.5	1451.0	1621.3	2015.7	1941.1
40°	2124.4	2076.3	1889.9	1822.1	1678.0	1694.1	1635.3	1659.0	1775.9	2186.0	2127.9
42.5°	2283.5	2237.7	2074.2	2026.1	1888.8	1822.1	1795.6	1880.5	2012.8	2469.6	2395.8
45°	2443.5	2326.9	2257.7	2281.8	2220.1	2088.1	2057.3	2133.0	2271.7	2818.1	2678.3
47.5°	2578.3	2480.0	2428.0	2416.9	2392.9	2576.1	2450.6	2484.0	2545.3	3126.5	3030.4
50°	2821.4	2724.6	2643.2	2620.6	2737.5	2997.4	2803.8	2739.3	2861.9	3499.0	3438.4
52.5°	3172.4	3049.0	2919.6	2920.0	3140.5	3283.2	3374.9	3261.6	3284.6	3908.8	3881.9
55°	3454.5	3297.9	3190.7	3275.3	3604.1	3684.0	4034.3	3935.0	3905.2	4288.9	4255.9
57.5°	3493.3	3305.4	3254.5	3402.9	3852.9	4363.4	4740.3	4492.2	4446.6	4606.9	4672.5
60°	3131.9	2932.5	2970.9	3209.7	3933.9	4777.6	5388.5	5185.9	4896.6	4979.4	5024.6
62.5°	2335.9	2176.7	2284.3	2600.5	3621.6	5055.1	6138.9	6232.9	5418.6	5259.1	5249.4
65°	1515.6	1415.9	1486.5	1745.7	2740.7	5023.5	6809.4	7216.7	5829.9	5487.1	5320.0
67.5°	1002.5	926.8	936.9	1090.3	1772.3	4085.6	7210.3	7702.5	6292.4	5616.5	4915.2
70°	747.2	687.7	691.3	774.4	1052.0	2694.4	6651.3	7319.3	6461.3	5168.0	3967.3
72.5°	538.9	499.1	532.4	624.9	838.3	1424.8	4957.5	6027.8	5634.1	4076.3	2672.9
75°	373.2	347.1	401.6	522.8	765.1	884.5	3276.0	4339.1	3949.0	2557.5	1208.3
77.5°	206.9	199.0	277.5	425.9	694.5	725.0	2006.8	2851.1	2190.3	916.8	287.5
80°	90.4	87.5	134.5	319.8	583.7	655.1	1129.8	1580.8	861.6	163.5	92.9
82.5°	38.7	37.3	57.4	192.5	424.2	547.9	696.6	760.8	296.5	50.6	52.7
85°	6.8	7.5	22.9	101.5	258.1	278.2	504.5	450.3	149.2	24.0	37.6
87.5°	0.0	0.0	3.6	19.7	48.4	79.6	218.7	157.8	28.3	7.9	6.5
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°	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5	708.5
2.5°	863.4	843.3	766.9	757.2	746.8	731.4	725.7	692.7	688.4	730.7	730.7
5°	1074.5	1002.8	930.1	872.7	821.4	750.4	730.3	709.6	692.7	688.4	701.7
7.5°	1186.1	1098.6	984.2	838.3	720.0	617.0	574.0	543.9	510.2	520.2	525.6
10°	1180.0	1087.1	941.2	753.7	622.4	508.8	399.4	335.6	300.1	282.5	280.4
12.5°	1239.8	1152.4	912.1	686.2	518.8	361.8	251.3	205.8	179.6	180.0	177.8
15°	1274.6	1179.2	878.4	600.9	365.4	232.7	174.3	164.2	160.6	164.6	162.4
17.5°	1335.9	1207.6	802.1	473.6	251.3	175.7	160.3	156.3	161.0	169.2	167.1
20°	1331.3	1158.4	693.4	333.8	185.7	158.1	151.7	145.6	155.2	163.9	162.4
22.5°	1327.0	1110.4	591.2	246.3	155.2	144.1	138.8	136.2	141.3	151.3	153.5
25°	1289.0	1086.7	487.6	185.0	140.5	130.9	128.4	126.2	128.0	136.2	135.9
27.5°	1335.6	1026.9	376.5	155.2	130.2	118.7	116.5	112.9	109.4	116.5	117.6
30°	1325.9	1035.1	295.1	136.6	119.8	104.3	105.1	97.5	91.1	97.5	97.5
32.5°	1361.0	974.9	236.3	124.1	109.4	98.2	89.3	81.4	76.7	80.7	81.4
35°	1412.3	977.4	185.0	116.2	100.4	87.5	76.7	68.8	64.5	66.3	67.4
37.5°	1584.0	960.2	154.5	110.1	97.2	81.0	69.9	59.5	56.6	58.8	59.9
40°	1695.9	1006.1	136.2	106.8	88.9	74.6	59.9	52.3	49.8	50.9	52.7
42.5°	1906.7	1031.5	127.3	103.3	81.4	63.8	51.3	47.0	43.4	44.8	46.3
45°	2132.2	1074.9	120.5	99.3	75.7	55.9	45.2	41.6	36.9	37.3	38.7
47.5°	2409.4	1178.2	112.6	92.5	67.8	50.9	40.2	34.8	30.5	30.1	31.9
50°	2781.6	1316.2	105.4	83.9	62.7	46.6	35.1	28.3	24.7	23.7	25.1
52.5°	3178.8	1494.8	97.9	77.8	56.6	40.9	30.1	22.9	19.7	19.0	20.1
55°	3572.5	1666.1	90.7	73.9	50.2	35.1	25.5	19.0	16.1	15.4	16.1
57.5°	4021.0	1851.5	81.4	66.0	44.1	30.5	21.2	15.8	13.3	12.5	12.9
60°	4358.8	1916.8	73.5	57.4	38.4	26.9	17.9	12.5	10.8	10.0	10.4
62.5°	4519.0	1810.3	66.0	49.8	33.7	23.3	15.1	10.4	9.0	8.2	8.2
65°	4477.5	1574.4	58.4	42.7	29.0	19.4	11.8	9.0	7.9	6.8	6.5
67.5°	3997.0	1231.9	49.8	35.9	24.4	15.8	10.0	8.6	7.2	6.5	5.4
70°	3169.9	892.0	40.5	29.8	20.4	12.9	7.9	7.9	6.8	6.5	5.0
72.5°	2077.7	561.5	33.0	24.0	16.9	10.0	6.1	7.2	6.5	6.5	4.7
75°	900.3	200.8	26.5	19.4	14.0	6.8	5.4	6.5	6.8	6.5	5.4
77.5°	210.8	62.4	20.8	15.4	11.5	4.7	5.4	6.5	6.8	6.1	4.7
80°	79.2	26.5	13.6	10.0	9.0	2.9	4.7	3.9	3.6	2.5	0.7
82.5°	48.0	11.1	7.2	5.0	4.3	0.7	2.2	1.4	0.7	0.7	0.0
85°	34.1	5.4	3.9	3.6	2.2	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	4.7	1.4	1.8	1.8	1.4	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)