

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: P367879

Luminaire Tested: **MSA-SA3B-760-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-760-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12048 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

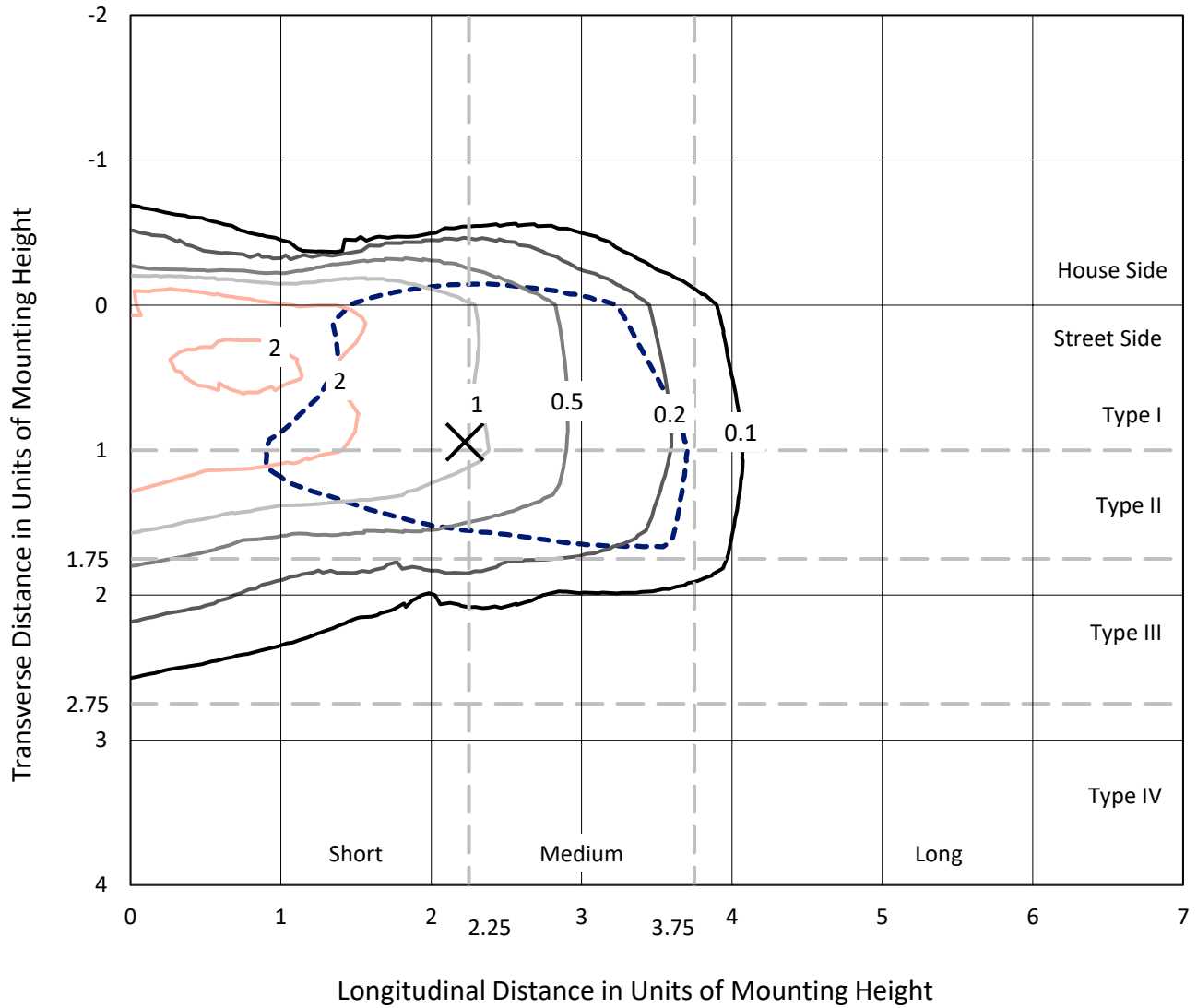
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

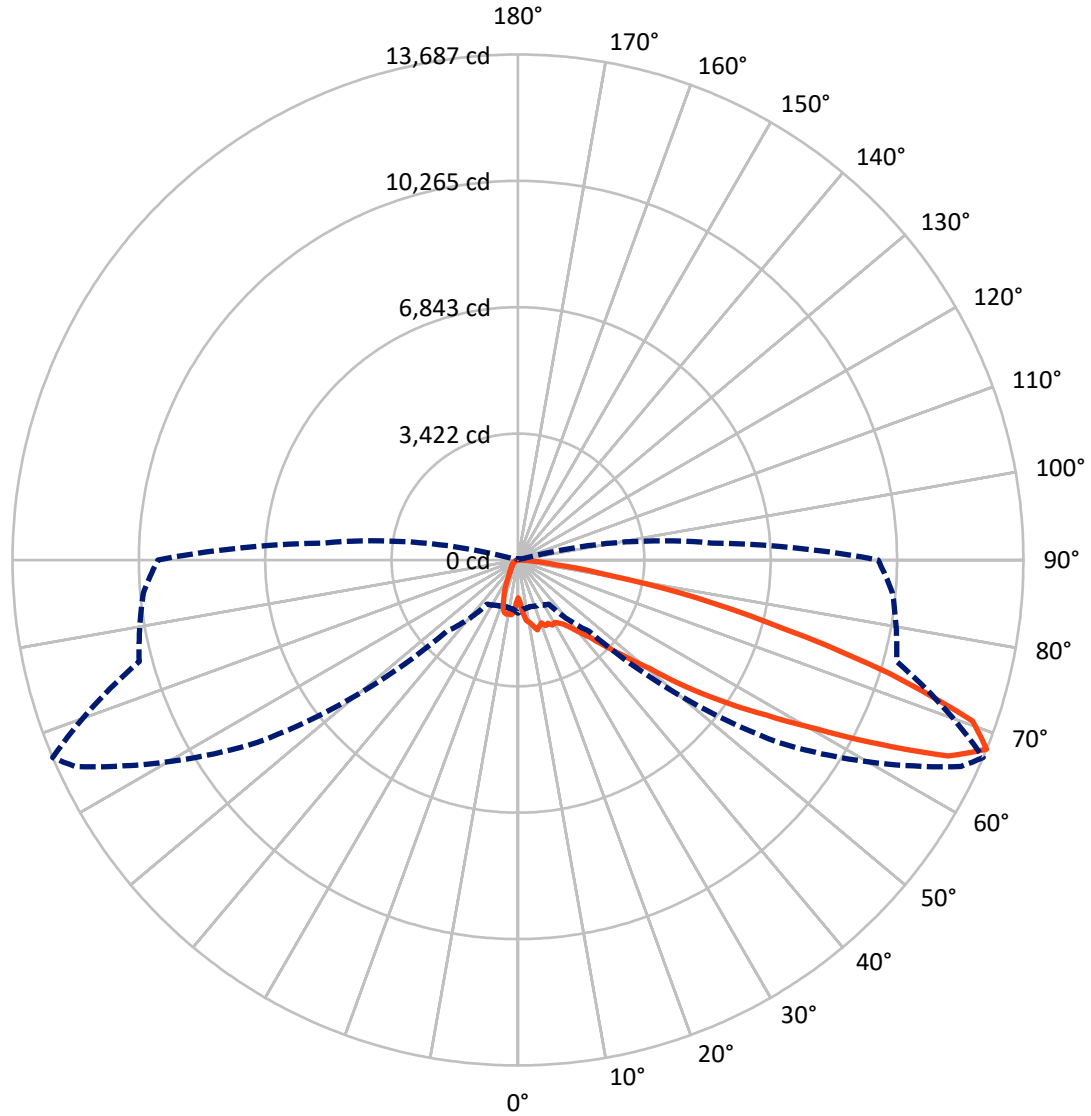
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1490.0	0.0	1490.0
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	10558.0	0.0	10558.0
	% Fixture	87.6	0.0	87.6
Total	Lumens	12048.0	0.0	12048.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	1.1
10°-20°	381.1	3.2
20°-30°	597.3	5.0
30°-40°	963.1	8.0
40°-50°	1769.7	14.7
50°-60°	2988.8	24.8
60°-70°	3304.2	27.4
70°-80°	1729.4	14.4
80°-90°	185.7	1.5
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°	12048.0	100.0
0°-180°	12048.0	100.0

Coefficient of Utilization

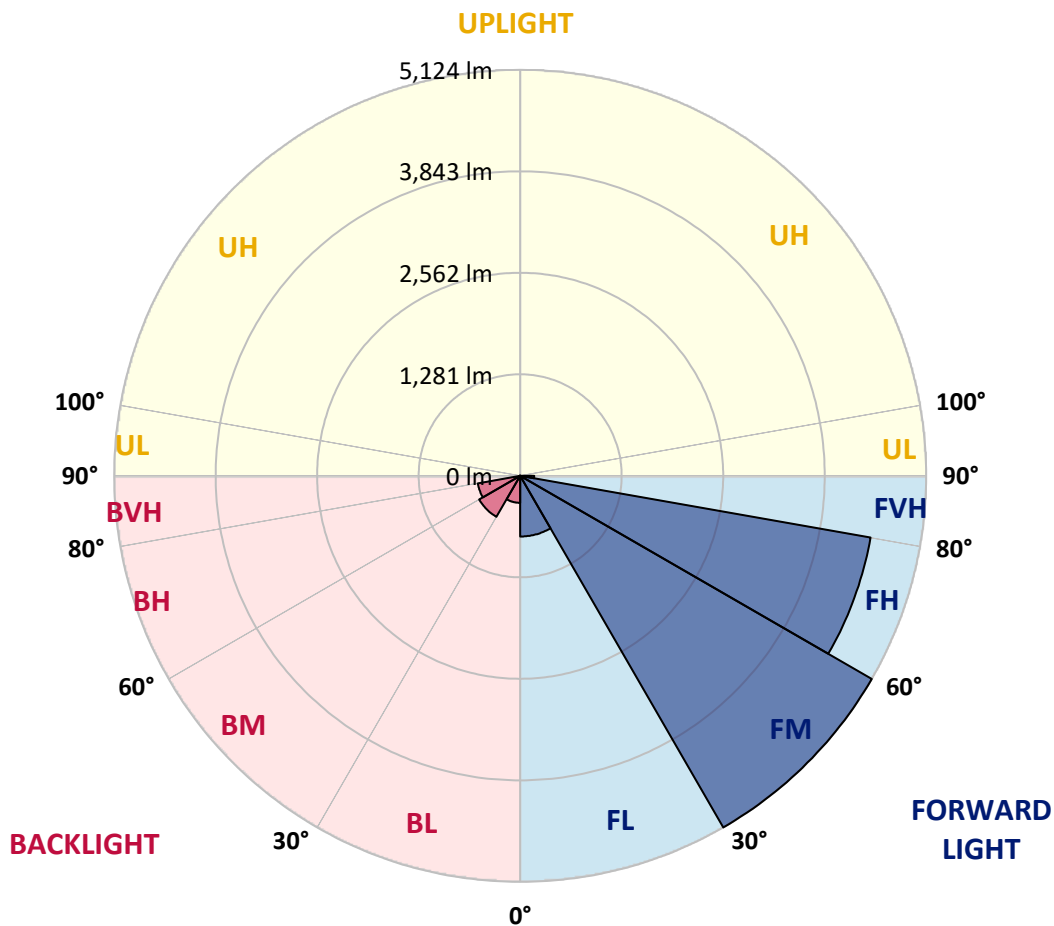


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	766.1	6.4			
FM (30°-60°)	5124.1	42.5			
FH (60°-80°)	4490.1	37.3			G2/5000
FVH (80°-90°)	177.8	1.5			G2/225
BL (0°-30°)	341.2	2.8	B1/500		
BM (30°-60°)	597.4	5.0	B1/1000		
BH (60°-80°)	543.5	4.5	B2/1000		G2/1000
BVH (80°-90°)	7.9	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2
2.5°	1211.3	1170.4	1100.7	1120.9	1161.2	1194.8	1178.9	1147.8	1148.4	1116.6	1230.9
5°	1409.4	1354.3	1314.0	1328.1	1326.2	1325.0	1400.2	1428.9	1441.1	1493.7	1571.3
7.5°	1466.2	1446.6	1404.5	1417.3	1375.1	1378.2	1510.2	1634.9	1654.4	1686.8	1824.9
10°	1444.2	1406.3	1421.6	1421.6	1422.2	1490.6	1579.3	1698.4	1722.3	1847.0	1861.6
12.5°	1420.4	1422.2	1482.7	1471.7	1554.8	1677.7	1707.6	1841.5	1829.8	1938.0	2098.8
15°	1509.0	1555.4	1516.3	1531.6	1539.5	1683.8	1732.1	1909.9	1961.2	2098.1	2202.7
17.5°	1661.2	1667.3	1586.0	1564.0	1621.4	1662.4	1759.6	1845.1	1879.3	2238.7	2386.6
20°	1688.7	1727.8	1645.3	1518.1	1639.8	1696.0	1763.8	1804.8	1819.4	2282.1	2490.5
22.5°	1854.3	1810.9	1678.9	1582.3	1617.2	1678.3	1720.4	1843.9	1931.9	2200.2	2590.1
25°	1939.2	1927.6	1801.7	1719.2	1683.8	1678.9	1775.4	1869.0	1897.1	2285.2	2614.6
27.5°	2142.8	2116.5	1872.6	1862.2	1745.5	1642.8	1777.3	1945.3	1997.9	2205.1	2706.3
30°	2419.6	2409.8	2085.3	2078.6	1892.8	1708.2	1876.3	1992.4	1960.6	2246.0	2767.4
32.5°	2698.3	2777.8	2445.9	2256.4	2117.1	1948.4	1848.2	1977.7	2034.6	2345.7	2879.8
35°	3035.1	3092.5	2754.5	2617.0	2307.2	2060.9	2034.6	2117.7	2142.1	2464.2	3007.6
37.5°	3624.2	3537.4	3249.6	3015.5	2852.9	2462.4	2332.8	2266.8	2323.7	2625.0	3268.5
40°	4059.4	4004.4	3649.9	3509.9	3135.9	2907.3	2568.7	2507.0	2570.6	2790.0	3450.0
42.5°	4584.4	4470.1	4136.4	4041.7	3656.6	3216.0	2872.5	2893.9	2854.2	3115.7	3768.5
45°	5059.3	4801.3	4615.5	4636.9	4431.6	3836.3	3379.1	3368.8	3335.8	3587.6	4103.4
47.5°	5378.9	5153.4	4972.5	4913.2	4888.7	4927.2	4111.3	3926.8	3902.3	4083.2	4630.8
50°	5550.6	5303.7	5080.0	5092.3	5588.5	5961.9	4866.7	4604.5	4613.7	4802.6	5352.0
52.5°	5435.1	5155.8	4919.9	5149.1	6131.2	6652.0	6117.2	5490.1	5702.8	5654.5	6319.5
55°	4901.6	4658.9	4491.5	4901.6	6190.5	7394.5	7656.7	6823.1	6775.4	6665.4	7305.9
57.5°	4003.8	3794.7	3691.5	4124.2	5542.1	7992.9	9203.0	8329.6	7923.2	7462.4	8124.9
60°	2983.1	2829.1	2721.5	2950.1	4366.8	7411.6	10215.7	9749.4	9278.8	8230.6	8860.7
62.5°	2209.4	2084.1	1969.8	1990.6	3006.9	6374.5	10604.4	11253.4	10983.3	9041.6	9555.0
65°	1763.2	1648.9	1568.9	1523.0	1862.2	4795.8	10063.5	12486.2	12797.9	9805.6	10056.2
67.5°	1439.9	1343.3	1303.6	1356.2	1460.7	2733.8	8618.7	13234.2	13686.5	10616.0	10179.6
70°	1171.6	1092.2	1087.9	1229.7	1345.2	1666.7	6339.6	12717.8	13058.2	10754.1	9439.5
72.5°	816.5	781.7	837.3	1038.4	1333.0	1388.0	3640.7	10524.3	10536.5	9498.2	7764.3
75°	462.0	456.5	544.6	828.1	1298.1	1373.9	2029.7	7437.3	7442.8	7183.7	5378.9
77.5°	254.2	237.7	317.2	559.8	1114.8	1342.1	1309.1	5078.2	4948.0	3997.7	2456.9
80°	117.3	110.6	171.7	358.8	815.3	1269.4	1049.4	2791.2	2516.8	1302.4	599.6
82.5°	48.3	45.8	78.8	230.4	515.2	1022.5	884.4	1238.2	993.8	247.5	185.2
85°	8.6	9.2	32.4	139.3	288.5	471.2	716.9	587.9	432.1	68.5	101.5
87.5°	0.0	0.0	6.7	33.6	69.7	129.0	290.9	164.4	113.1	20.2	29.9
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°	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2	1026.2
2.5°	1253.5	1243.1	1138.0	1142.9	1150.2	1143.5	1142.3	1112.9	1086.0	1174.7	1173.4
5°	1585.4	1511.4	1438.7	1410.6	1350.1	1270.6	1271.2	1246.2	1220.5	1256.6	1256.6
7.5°	1821.9	1719.8	1627.5	1463.1	1303.0	1158.2	1145.3	1111.1	1072.0	1119.0	1128.2
10°	1876.9	1788.3	1669.1	1427.7	1276.1	1134.9	979.7	852.0	792.7	765.2	760.3
12.5°	2046.2	1980.2	1713.7	1446.6	1228.4	989.5	735.2	583.7	480.4	472.4	461.4
15°	2159.3	2112.8	1757.7	1399.6	1026.8	711.4	462.0	354.5	312.9	309.3	303.8
17.5°	2334.7	2254.0	1715.5	1249.8	803.1	469.4	310.5	279.9	284.8	295.8	287.2
20°	2406.2	2248.5	1623.9	1032.9	564.1	314.8	269.5	253.0	265.9	276.2	271.4
22.5°	2479.5	2264.4	1542.6	851.4	368.5	260.4	240.2	231.6	232.9	243.2	243.9
25°	2478.9	2308.4	1448.5	663.1	274.4	231.6	217.0	206.0	201.7	209.0	207.2
27.5°	2599.3	2257.7	1276.7	492.0	241.4	207.2	193.1	179.7	164.4	171.7	171.7
30°	2599.9	2340.2	1156.9	353.3	221.2	184.6	172.3	151.6	133.8	140.0	140.6
32.5°	2669.0	2268.7	1046.3	270.1	205.4	171.1	144.2	125.3	114.9	118.6	118.6
35°	2747.8	2329.8	876.4	238.4	189.5	152.2	123.5	108.2	100.2	103.3	103.3
37.5°	3008.2	2316.9	758.5	221.9	179.1	137.5	112.5	95.3	91.7	93.5	96.0
40°	3102.3	2408.0	598.3	212.1	162.0	124.1	99.0	86.2	81.3	82.5	83.1
42.5°	3341.9	2428.2	477.9	204.1	146.7	107.6	88.0	78.8	72.7	72.7	74.6
45°	3606.5	2478.9	380.1	197.4	133.8	96.6	79.5	72.1	63.0	61.7	64.2
47.5°	3989.7	2673.3	309.9	184.0	118.6	89.8	73.3	62.3	55.0	52.6	55.0
50°	4630.8	3003.3	273.8	167.5	107.6	84.3	64.8	53.2	47.7	44.6	46.4
52.5°	5535.4	3573.5	254.9	152.2	97.8	75.8	58.1	46.4	40.9	38.5	39.7
55°	6540.1	4227.5	245.7	136.9	89.2	66.6	50.7	40.9	36.1	33.0	33.6
57.5°	7469.1	4842.3	236.5	122.2	80.7	59.3	44.6	36.1	31.2	28.1	28.7
60°	8384.6	5333.1	214.5	105.1	72.7	53.2	39.1	31.2	28.1	24.4	24.4
62.5°	9194.4	5626.4	182.7	91.1	65.4	47.1	34.8	28.1	25.7	22.0	22.0
65°	9745.7	5639.9	147.3	78.2	57.4	40.3	30.6	26.3	23.8	19.6	18.9
67.5°	9753.6	5273.2	118.0	69.7	50.7	35.4	27.5	25.1	22.0	18.3	17.1
70°	8729.9	4356.4	98.4	61.1	44.0	31.2	23.8	23.8	21.4	17.7	15.9
72.5°	6983.2	3329.0	82.5	53.2	39.1	26.9	22.0	22.6	20.8	17.7	15.9
75°	4693.8	1909.3	68.5	45.2	34.2	22.6	21.4	22.0	21.4	17.7	15.3
77.5°	2161.7	608.1	53.2	37.3	29.3	18.9	20.8	20.8	19.6	15.9	13.4
80°	487.1	149.7	38.5	27.5	23.8	14.1	18.9	17.1	15.3	11.0	7.9
82.5°	177.2	45.8	23.2	17.1	14.7	5.5	12.2	12.2	11.0	7.9	4.9
85°	101.5	23.8	12.8	11.0	7.9	2.4	6.7	7.3	6.1	5.5	2.4
87.5°	33.0	5.5	6.1	6.7	6.1	1.2	2.4	2.4	1.8	1.2	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)