

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: P597031

Luminaire Tested: **MSA-SA3B-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597031
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-SA3B-835-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: 9952 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

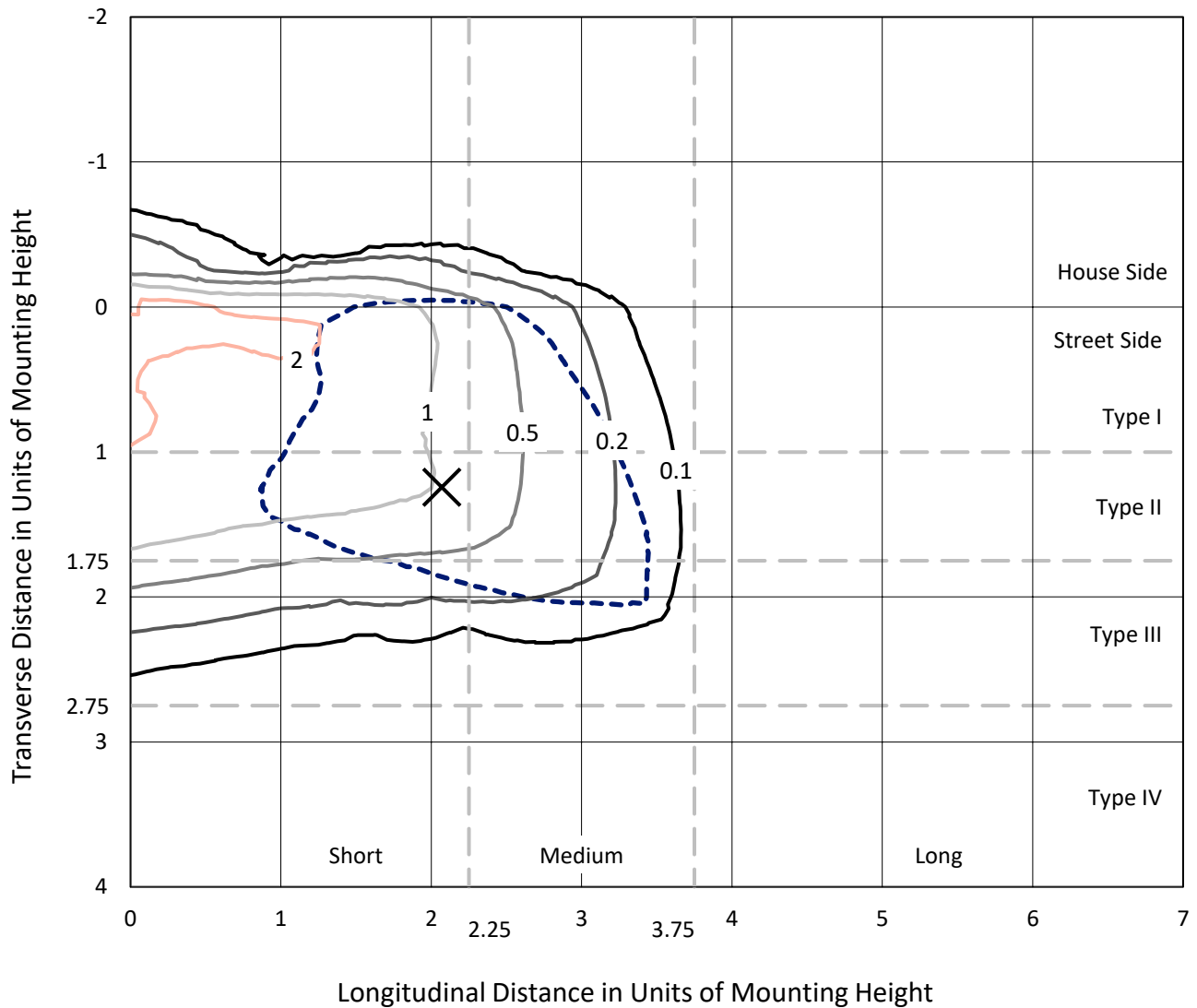
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

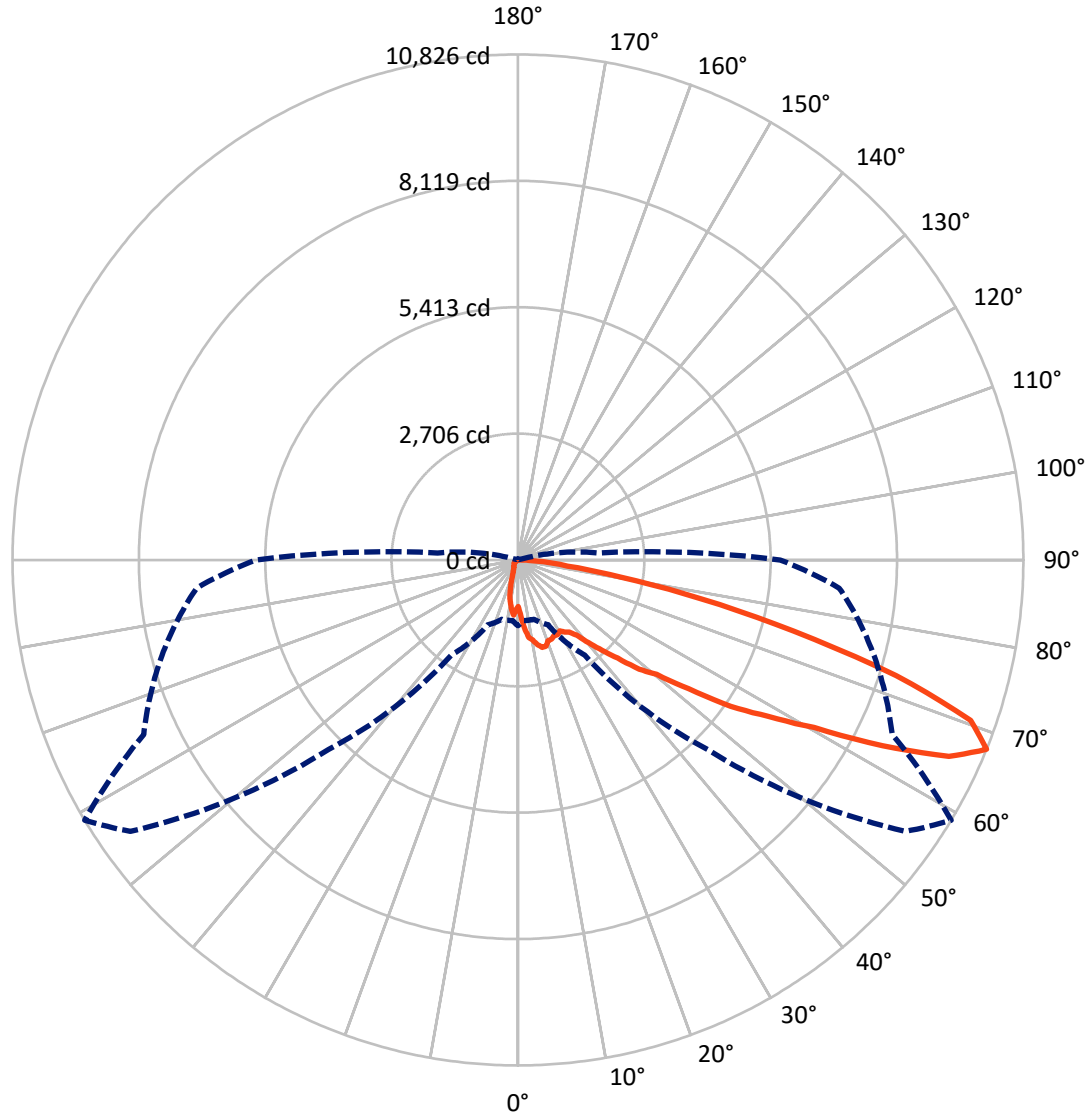
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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	846.4	0.0	846.4
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	9105.6	0.0	9105.6
	% Fixture	91.5	0.0	91.5
Total	Lumens	9952.0	0.0	9952.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.1	1.2
10°-20°	340.9	3.4
20°-30°	507.1	5.1
30°-40°	782.3	7.9
40°-50°	1396.1	14.0
50°-60°	2484.5	25.0
60°-70°	2893.5	29.1
70°-80°	1286.8	12.9
80°-90°	139.7	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°	9952.0	100.0
0°-180°	9952.0	100.0

Coefficient of Utilization



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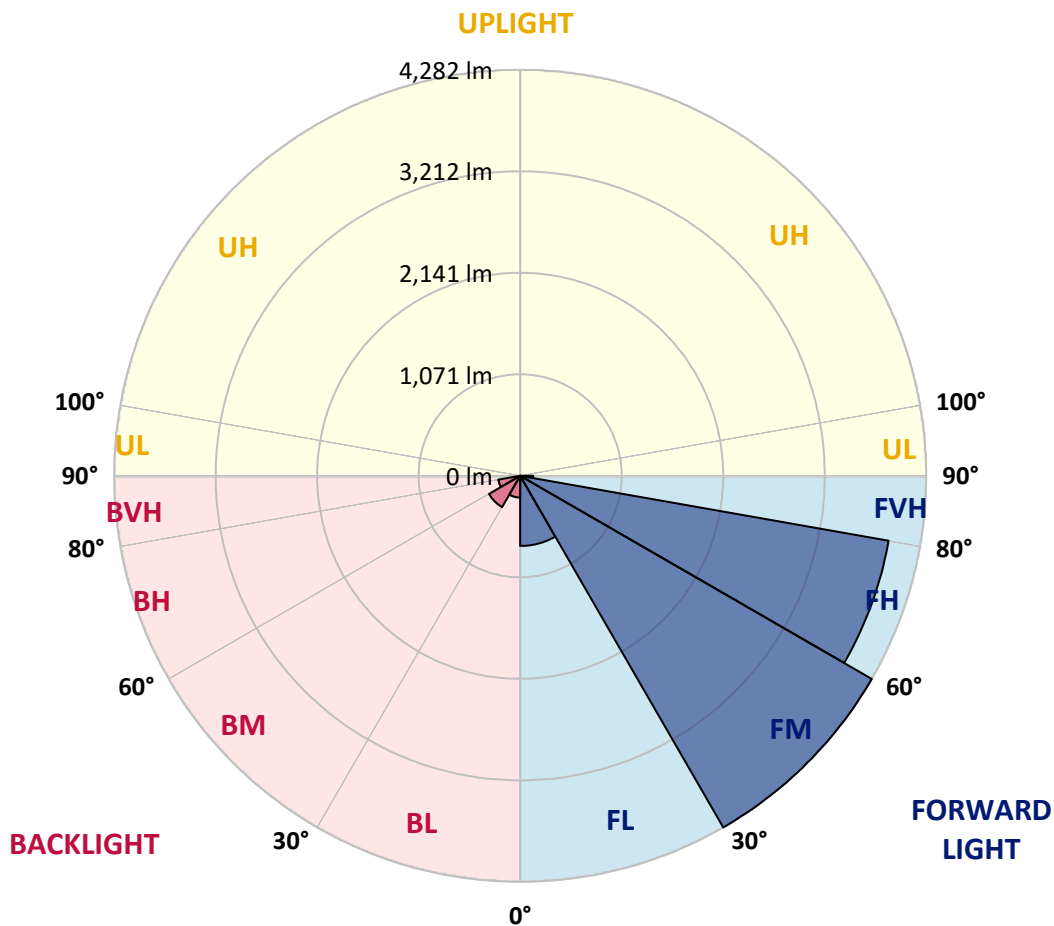
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	740.2	7.4			
FM (30°-60°)	4282.3	43.0			
FH (60°-80°)	3945.9	39.6			G2/5000
FVH (80°-90°)	137.3	1.4			G2/225
BL (0°-30°)	228.9	2.3	B1/500		
BM (30°-60°)	380.5	3.8	B1/1000		
BH (60°-80°)	234.4	2.4	B1/500		G1/500
BVH (80°-90°)	2.5	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°	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7
2.5°	1298.1	1249.2	1179.7	1200.3	1219.0	1236.6	1207.4	1190.7	1182.7	1111.1	1200.8
5°	1593.9	1532.9	1501.2	1493.1	1472.9	1428.1	1502.7	1469.4	1480.5	1494.6	1523.8
7.5°	1684.1	1656.4	1610.5	1627.6	1551.0	1544.5	1647.8	1676.5	1714.3	1688.6	1723.9
10°	1637.7	1589.8	1611.5	1605.5	1602.4	1670.0	1742.5	1744.0	1800.5	1827.7	1708.3
12.5°	1546.0	1551.5	1629.1	1623.1	1723.9	1858.9	1875.6	1857.9	1950.1	1902.8	1884.6
15°	1607.0	1652.3	1609.5	1624.1	1659.9	1828.7	1887.7	1942.1	2029.3	2057.5	1935.0
17.5°	1680.5	1685.1	1607.0	1588.8	1679.0	1757.6	1896.7	1941.6	1950.1	2197.6	2048.4
20°	1640.7	1679.5	1586.3	1471.9	1612.0	1718.8	1859.9	1845.8	1903.3	2238.9	2074.1
22.5°	1746.6	1691.1	1571.7	1485.5	1532.9	1630.2	1749.6	1841.8	1928.0	2140.1	2107.4
25°	1756.6	1736.5	1630.2	1553.6	1545.5	1570.2	1736.5	1795.9	1931.0	2228.8	2079.1
27.5°	1870.0	1846.8	1629.1	1636.7	1561.1	1485.0	1673.0	1812.6	1985.9	2174.9	2139.1
30°	2016.2	2018.2	1737.5	1761.2	1653.3	1530.9	1724.9	1763.2	2023.2	2261.1	2183.4
32.5°	2164.3	2225.3	1951.6	1826.2	1792.4	1704.7	1660.4	1837.3	1982.4	2408.2	2294.3
35°	2389.5	2430.9	2128.0	2015.6	1883.1	1783.3	1835.8	1899.2	2129.0	2603.2	2439.9
37.5°	2771.0	2696.4	2444.5	2249.0	2217.2	2070.1	2096.3	2039.3	2278.7	2833.0	2728.2
40°	2985.7	2918.2	2656.1	2560.9	2358.3	2381.0	2298.3	2331.6	2495.9	3072.3	2990.7
42.5°	3209.4	3144.9	2915.1	2847.6	2654.6	2560.9	2523.6	2643.0	2829.0	3470.9	3367.1
45°	3434.2	3270.4	3173.1	3206.9	3120.2	2934.8	2891.4	2997.8	3192.8	3960.7	3764.2
47.5°	3623.6	3485.6	3412.5	3396.9	3363.1	3620.6	3444.2	3491.1	3577.3	4394.1	4259.1
50°	3965.3	3829.2	3714.8	3683.1	3847.4	4212.7	3940.6	3849.9	4022.2	4917.7	4832.5
52.5°	4458.6	4285.3	4103.4	4103.9	4413.8	4614.3	4743.3	4584.1	4616.3	5493.6	5455.9
55°	4855.2	4635.0	4484.3	4603.2	5065.3	5177.7	5670.0	5530.4	5488.6	6027.8	5981.4
57.5°	4909.6	4645.6	4574.0	4782.6	5415.0	6132.6	6662.2	6313.5	6249.5	6474.8	6567.0
60°	4401.7	4121.5	4175.4	4511.0	5528.9	6714.6	7573.3	7288.6	6881.9	6998.3	7061.8
62.5°	3283.0	3059.2	3210.4	3654.9	5090.0	7104.7	8628.0	8760.0	7615.6	7391.4	7377.8
65°	2130.0	1989.9	2089.2	2453.5	3851.9	7060.3	9570.3	10142.7	8193.6	7711.9	7477.0
67.5°	1408.9	1302.6	1316.7	1532.4	2490.8	5742.1	10133.7	10825.5	8843.7	7893.8	6908.1
70°	1050.2	966.5	971.5	1088.4	1478.5	3786.9	9348.1	10286.9	9081.0	7263.4	5575.8
72.5°	757.4	701.4	748.3	878.3	1178.1	2002.5	6967.6	8471.8	7918.5	5729.0	3756.7
75°	524.6	487.8	564.4	734.7	1075.3	1243.2	4604.2	6098.3	5550.1	3594.4	1698.2
77.5°	290.8	279.7	390.0	598.6	976.1	1018.9	2820.4	4007.1	3078.4	1288.5	404.1
80°	127.0	123.0	189.0	449.5	820.4	920.6	1587.8	2221.7	1210.9	229.8	130.5
82.5°	54.4	52.4	80.6	270.6	596.1	770.0	979.1	1069.3	416.7	71.1	74.1
85°	9.6	10.6	32.3	142.6	362.8	391.0	709.0	632.9	209.6	33.8	52.9
87.5°	0.0	0.0	5.0	27.7	68.0	111.9	307.4	221.7	39.8	11.1	9.1
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°	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7	995.7
2.5°	1213.4	1185.2	1077.9	1064.3	1049.6	1028.0	1019.9	973.6	967.5	1027.0	1027.0
5°	1510.2	1409.4	1307.1	1226.5	1154.5	1054.7	1026.5	997.2	973.6	967.5	986.2
7.5°	1666.9	1544.0	1383.2	1178.1	1011.9	867.2	806.8	764.4	717.1	731.2	738.7
10°	1658.4	1527.9	1322.8	1059.2	874.8	715.1	561.4	471.7	421.8	397.1	394.1
12.5°	1742.5	1619.6	1282.0	964.5	729.2	508.4	353.2	289.2	252.5	253.0	249.9
15°	1791.4	1657.4	1234.6	844.6	513.5	327.0	244.9	230.8	225.8	231.3	228.3
17.5°	1877.6	1697.2	1127.3	665.7	353.2	246.9	225.2	219.7	226.3	237.8	234.8
20°	1871.0	1628.1	974.6	469.1	261.0	222.2	213.2	204.6	218.2	230.3	228.3
22.5°	1865.0	1560.6	831.0	346.2	218.2	202.6	195.0	191.5	198.5	212.7	215.7
25°	1811.6	1527.4	685.3	260.0	197.5	183.9	180.4	177.4	179.9	191.5	191.0
27.5°	1877.1	1443.2	529.1	218.2	182.9	166.8	163.8	158.7	153.7	163.8	165.3
30°	1863.5	1454.8	414.7	192.0	168.3	146.6	147.6	137.1	128.0	137.1	137.1
32.5°	1912.8	1370.1	332.1	174.4	153.7	138.1	125.5	114.4	107.8	113.4	114.4
35°	1984.9	1373.7	260.0	163.3	141.1	123.0	107.8	96.8	90.7	93.2	94.7
37.5°	2226.3	1349.5	217.2	154.7	136.6	113.9	98.3	83.6	79.6	82.6	84.2
40°	2383.5	1414.0	191.5	150.2	125.0	104.8	84.2	73.6	70.0	71.6	74.1
42.5°	2679.8	1449.8	178.9	145.1	114.4	89.7	72.1	66.0	61.0	63.0	65.0
45°	2996.8	1510.7	169.3	139.6	106.3	78.6	63.5	58.5	51.9	52.4	54.4
47.5°	3386.3	1655.9	158.2	130.0	95.2	71.6	56.4	48.9	42.8	42.3	44.8
50°	3909.3	1849.9	148.2	117.9	88.2	65.5	49.4	39.8	34.8	33.3	35.3
52.5°	4467.7	2100.8	137.6	109.3	79.6	57.4	42.3	32.3	27.7	26.7	28.2
55°	5021.0	2341.7	127.5	103.8	70.5	49.4	35.8	26.7	22.7	21.7	22.7
57.5°	5651.4	2602.2	114.4	92.7	62.0	42.8	29.7	22.2	18.6	17.6	18.1
60°	6126.1	2693.9	103.3	80.6	53.9	37.8	25.2	17.6	15.1	14.1	14.6
62.5°	6351.3	2544.3	92.7	70.0	47.4	32.8	21.2	14.6	12.6	11.6	11.6
65°	6292.8	2212.7	82.1	60.0	40.8	27.2	16.6	12.6	11.1	9.6	9.1
67.5°	5617.6	1731.4	70.0	50.4	34.3	22.2	14.1	12.1	10.1	9.1	7.6
70°	4455.1	1253.7	56.9	41.8	28.7	18.1	11.1	11.1	9.6	9.1	7.1
72.5°	2920.2	789.1	46.4	33.8	23.7	14.1	8.6	10.1	9.1	9.1	6.6
75°	1265.3	282.2	37.3	27.2	19.7	9.6	7.6	9.1	9.6	9.1	7.6
77.5°	296.3	87.7	29.2	21.7	16.1	6.6	7.6	9.1	9.6	8.6	6.6
80°	111.4	37.3	19.1	14.1	12.6	4.0	6.6	5.5	5.0	3.5	1.0
82.5°	67.5	15.6	10.1	7.1	6.0	1.0	3.0	2.0	1.0	1.0	0.0
85°	47.9	7.6	5.5	5.0	3.0	0.0	0.5	0.0	0.0	0.5	0.0
87.5°	6.6	2.0	2.5	2.5	2.0	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)