

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: P367421

Luminaire Tested: **MSA-SA2C-730-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-730-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9292 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

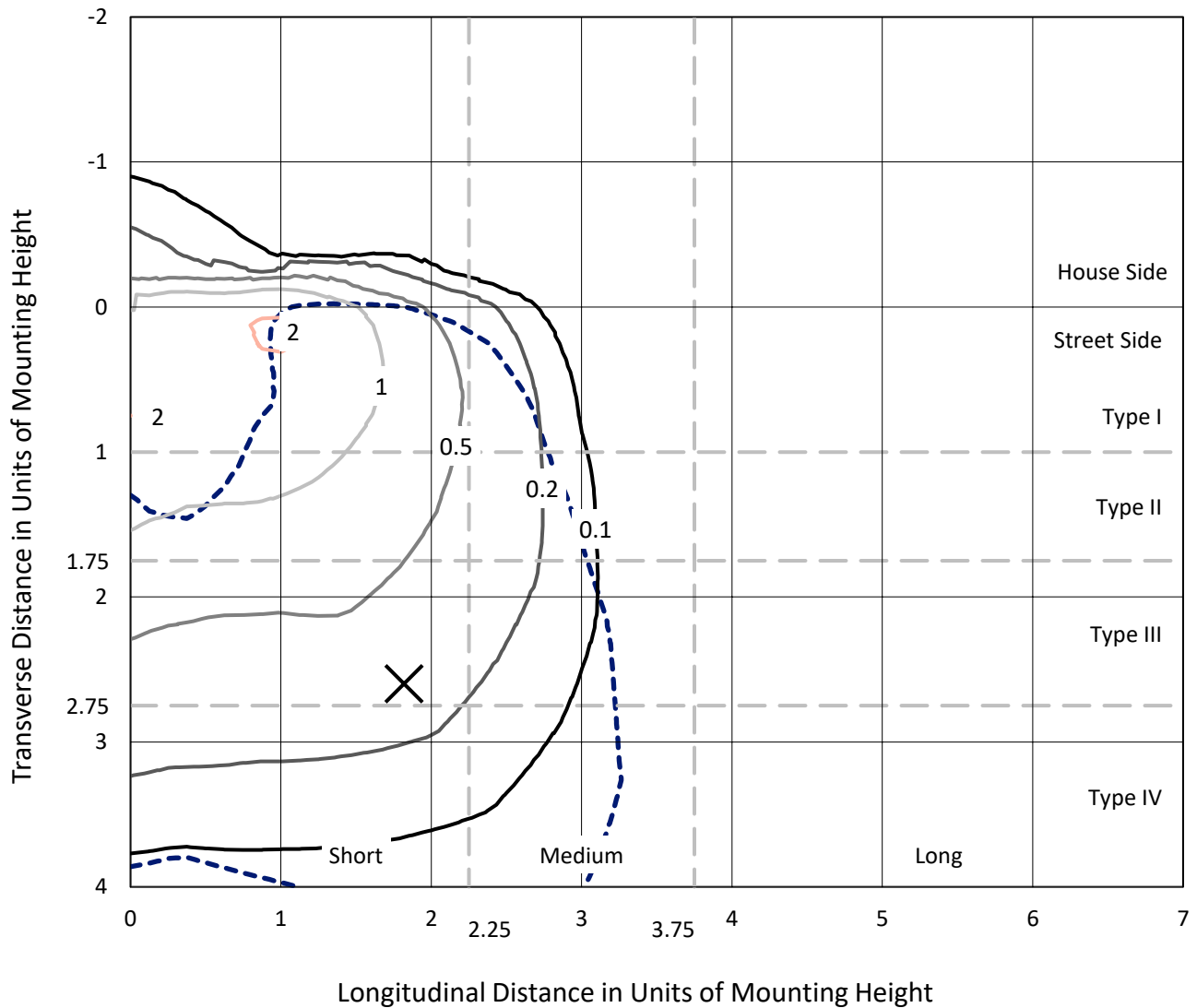
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

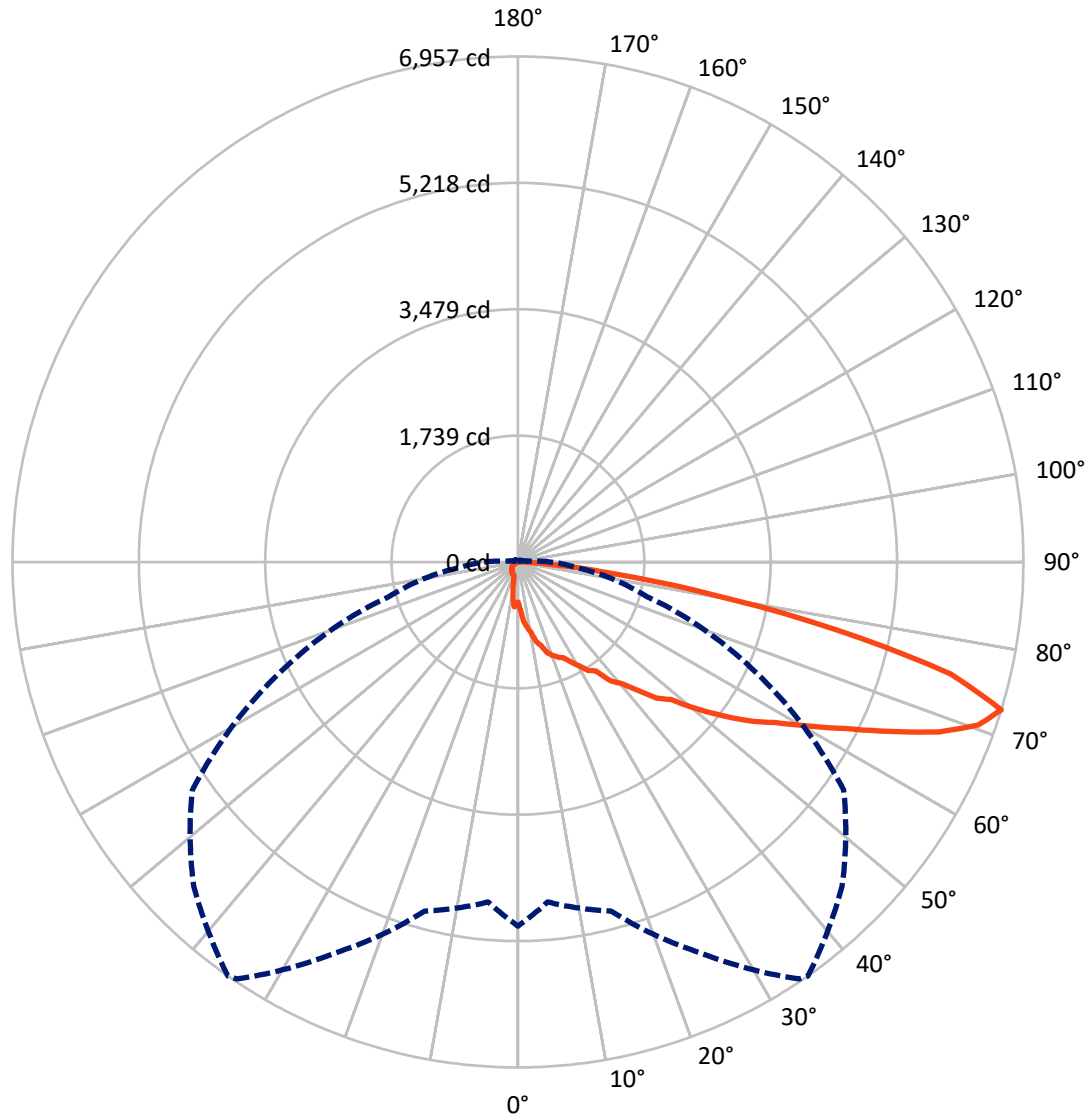
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	724.8	0.0	724.8
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	8567.2	0.0	8567.2
	% Fixture	92.2	0.0	92.2
Total	Lumens	9292.0	0.0	9292.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	0.8
10°-20°	237.8	2.6
20°-30°	433.1	4.7
30°-40°	747.0	8.0
40°-50°	1327.8	14.3
50°-60°	1981.5	21.3
60°-70°	2531.5	27.2
70°-80°	1761.3	19.0
80°-90°	201.5	2.2
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°	9292.0	100.0
0°-180°	9292.0	100.0

Coefficient of Utilization



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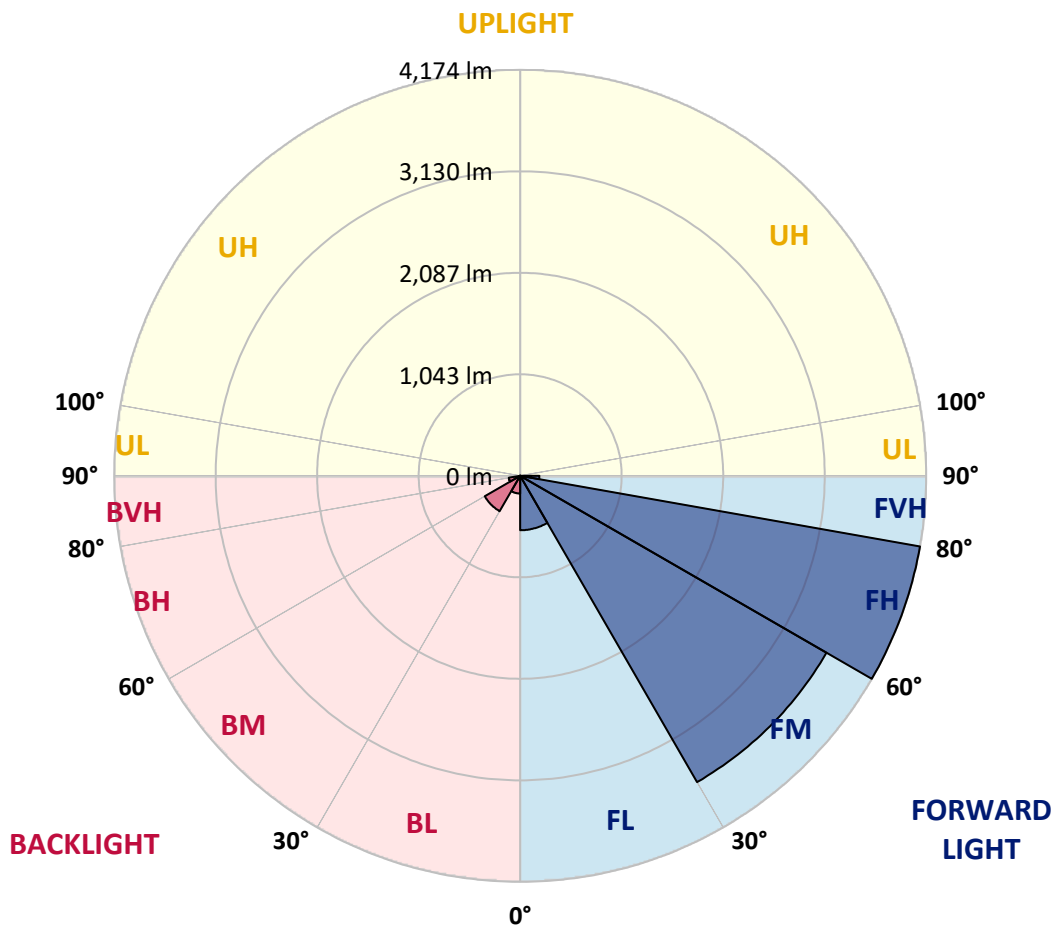
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	559.2	6.0			
FM (30°-60°)	3636.0	39.1			
FH (60°-80°)	4174.0	44.9			G2/5000
FVH (80°-90°)	198.1	2.1			G2/225
BL (0°-30°)	182.3	2.0	B1/500		
BM (30°-60°)	420.3	4.5	B1/1000		
BH (60°-80°)	118.8	1.3	B1/500		G1/500
BVH (80°-90°)	3.4	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
2.5°	704.4	676.8	632.0	635.3	655.4	659.6	665.6	649.7	635.7	611.0	659.1
5°	902.5	862.7	837.5	829.6	817.9	818.8	790.3	800.6	797.8	816.0	838.0
7.5°	1014.1	992.1	960.4	951.5	908.5	903.9	868.8	916.0	920.7	914.1	950.1
10°	1058.5	1029.5	1033.2	1000.1	978.6	984.2	989.8	993.5	999.6	1005.7	961.8
12.5°	1084.6	1089.8	1140.7	1106.1	1127.6	1127.6	1165.4	1125.3	1126.7	1082.8	1090.2
15°	1202.3	1230.8	1207.9	1207.5	1184.1	1190.2	1234.1	1202.3	1218.7	1205.6	1155.2
17.5°	1349.9	1355.5	1312.1	1293.0	1314.0	1314.4	1295.8	1294.4	1237.4	1333.6	1272.4
20°	1397.1	1428.9	1367.2	1292.5	1379.8	1375.6	1374.2	1352.3	1257.5	1391.0	1340.6
22.5°	1525.6	1480.3	1438.2	1389.2	1423.3	1423.3	1418.1	1370.0	1333.1	1385.9	1407.4
25°	1565.7	1571.4	1516.7	1500.8	1501.8	1459.7	1456.0	1435.4	1399.9	1490.1	1447.1
27.5°	1704.0	1701.7	1570.4	1614.8	1558.3	1558.7	1455.5	1501.8	1507.8	1495.2	1543.3
30°	1839.9	1877.8	1679.7	1735.8	1676.5	1658.7	1557.8	1598.9	1609.7	1595.2	1655.9
32.5°	2013.2	2068.8	1876.4	1821.3	1730.6	1781.1	1711.5	1614.3	1667.6	1797.0	1831.1
35°	2196.8	2223.9	2018.8	1941.8	1839.5	1839.0	1836.7	1844.6	1903.5	2049.2	2078.2
37.5°	2526.6	2462.6	2277.2	2100.6	2123.5	2072.6	2037.1	2074.4	2135.6	2375.7	2499.5
40°	2710.6	2664.4	2403.3	2298.6	2185.1	2203.8	2300.0	2295.8	2458.9	2710.2	2895.6
42.5°	2889.5	2845.6	2588.7	2504.2	2358.4	2409.3	2451.4	2504.6	2838.6	3244.1	3345.9
45°	3048.8	2919.9	2738.7	2741.9	2666.3	2672.3	2746.6	2795.6	3278.6	3694.4	3765.8
47.5°	3145.0	3039.0	2865.2	2862.0	2857.3	2828.8	3178.7	3223.5	3629.4	4123.2	4129.7
50°	3280.5	3147.8	2995.6	2998.4	3106.3	3166.5	3584.1	3579.4	3968.1	4481.0	4330.1
52.5°	3449.1	3287.0	3119.3	3244.1	3410.8	3508.9	3848.0	3986.3	4332.0	4705.6	4408.6
55°	3664.9	3462.2	3300.6	3460.3	3824.2	3862.1	4106.3	4398.3	4728.5	4935.0	4433.8
57.5°	3918.1	3676.1	3545.4	3802.7	4165.7	4166.6	4482.4	4837.4	4971.9	5028.4	4405.3
60°	4190.9	3908.8	3777.0	4008.7	4542.2	4580.5	4900.4	5079.8	5219.0	5075.6	4354.4
62.5°	4431.0	4119.4	4017.1	4289.5	4955.1	5045.7	5264.8	5239.1	5397.4	5134.9	4225.0
65°	4716.9	4392.2	4325.0	4727.1	5494.1	5618.8	5674.0	5521.7	5457.2	5089.1	3888.2
67.5°	4999.9	4696.3	4694.4	5212.5	6200.9	6243.8	6185.9	5920.1	5387.6	4685.6	3271.2
70°	5199.4	4873.3	4996.2	5744.0	6843.1	6722.6	6478.8	6108.4	4885.0	3591.1	2137.0
72.5°	5012.1	4697.7	4974.7	5933.2	6922.5	6957.1	6309.2	5471.7	3629.4	1836.7	773.5
75°	3808.8	3616.4	4319.3	5263.8	6146.2	6154.2	5266.2	3859.2	1787.2	498.9	213.9
77.5°	1918.4	1857.2	2734.0	3736.9	4484.2	4471.2	3618.2	2067.4	575.0	165.8	107.9
80°	971.1	922.1	1163.6	2016.0	2663.0	2682.6	2066.0	925.8	290.1	90.2	74.7
82.5°	596.5	566.1	636.7	912.3	1292.5	1323.8	783.8	586.2	179.8	53.3	68.2
85°	115.4	121.4	365.7	456.8	516.2	504.0	232.2	482.5	54.2	31.8	49.5
87.5°	0.0	1.9	84.5	149.0	149.5	132.7	52.8	107.0	7.5	8.9	6.1
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°	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
2.5°	667.0	660.0	601.6	595.1	596.5	586.7	583.4	562.9	557.7	589.5	595.1
5°	828.6	781.9	727.8	708.1	677.8	626.4	618.9	605.8	591.4	597.0	592.8
7.5°	927.7	865.6	807.6	704.4	618.9	544.2	532.0	509.6	487.2	487.7	502.1
10°	943.6	891.2	811.4	685.7	588.1	494.7	413.4	354.5	327.9	304.1	311.1
12.5°	1035.6	987.0	839.9	680.1	543.2	397.5	291.0	233.6	208.3	199.9	199.0
15°	1109.4	1071.1	888.4	662.8	443.8	279.8	208.3	191.5	186.8	194.8	192.4
17.5°	1219.2	1150.0	883.3	591.4	338.2	212.5	192.0	189.6	195.3	199.9	201.3
20°	1267.3	1167.8	848.3	479.3	253.2	194.8	187.3	182.6	192.9	206.9	204.1
22.5°	1315.8	1198.1	807.2	392.4	203.7	186.4	182.2	178.4	186.4	199.9	203.2
25°	1337.8	1246.7	761.4	306.4	189.2	176.6	173.8	175.2	181.7	193.8	192.4
27.5°	1448.5	1252.3	674.0	242.0	183.1	169.6	169.6	172.8	172.8	189.2	187.8
30°	1517.6	1347.1	603.0	203.7	176.1	159.8	165.4	166.8	164.4	182.2	183.6
32.5°	1639.1	1373.3	533.9	186.8	164.9	158.3	157.4	158.3	160.2	177.5	178.0
35°	1825.9	1502.2	439.5	180.3	159.3	151.3	144.8	149.9	154.6	167.2	169.6
37.5°	2191.2	1634.4	358.3	175.2	156.5	144.8	142.5	141.5	149.9	164.4	169.1
40°	2486.9	1868.4	291.5	171.0	150.9	141.1	135.0	135.5	142.9	153.7	160.7
42.5°	2905.4	2037.5	247.1	164.4	142.9	133.1	126.1	130.3	133.6	144.8	149.5
45°	3254.8	2168.8	217.7	160.2	135.0	125.7	120.0	124.7	121.4	127.1	133.6
47.5°	3532.7	2283.2	195.7	149.9	129.9	121.4	114.4	113.0	107.4	108.8	114.9
50°	3685.5	2264.1	177.5	139.7	123.3	117.2	107.4	97.6	90.2	89.7	93.4
52.5°	3739.7	2161.8	162.6	130.8	115.4	107.9	96.7	83.1	75.7	73.3	76.6
55°	3754.6	2014.6	149.0	121.0	107.9	96.2	84.5	70.1	62.1	58.4	61.7
57.5°	3706.0	1788.1	135.9	111.6	99.0	85.0	72.4	57.5	50.0	45.3	48.1
60°	3586.0	1500.4	124.3	100.0	89.7	75.2	61.2	46.2	38.3	34.1	35.5
62.5°	3320.2	1176.2	111.6	89.2	79.9	65.9	51.4	36.4	29.0	25.2	25.7
65°	2915.7	876.8	97.2	78.9	71.0	57.0	41.1	28.0	22.0	18.7	18.2
67.5°	2322.9	594.2	82.7	68.2	63.1	48.1	32.7	22.0	17.3	14.9	14.0
70°	1365.4	299.4	68.7	58.9	54.2	40.2	25.7	17.8	15.9	14.0	13.1
72.5°	450.3	129.4	53.7	48.6	44.8	32.2	20.1	16.3	15.4	13.5	12.6
75°	156.9	74.7	39.7	37.4	35.5	24.3	16.8	14.9	14.9	13.1	11.7
77.5°	102.8	57.9	29.4	27.1	26.6	17.8	14.5	14.0	13.1	10.7	8.9
80°	85.5	32.7	20.6	19.2	18.7	11.2	11.7	10.3	7.9	4.7	1.9
82.5°	78.9	19.6	10.7	11.7	10.7	4.2	6.5	5.6	4.2	1.9	0.0
85°	46.2	8.9	6.1	6.1	4.7	0.9	3.3	3.3	1.9	0.5	0.0
87.5°	5.1	4.2	3.3	3.3	2.3	0.0	1.4	0.9	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)