

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: P596703

Luminaire Tested: **MSA-SA3C-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596703
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-827-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 11068 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

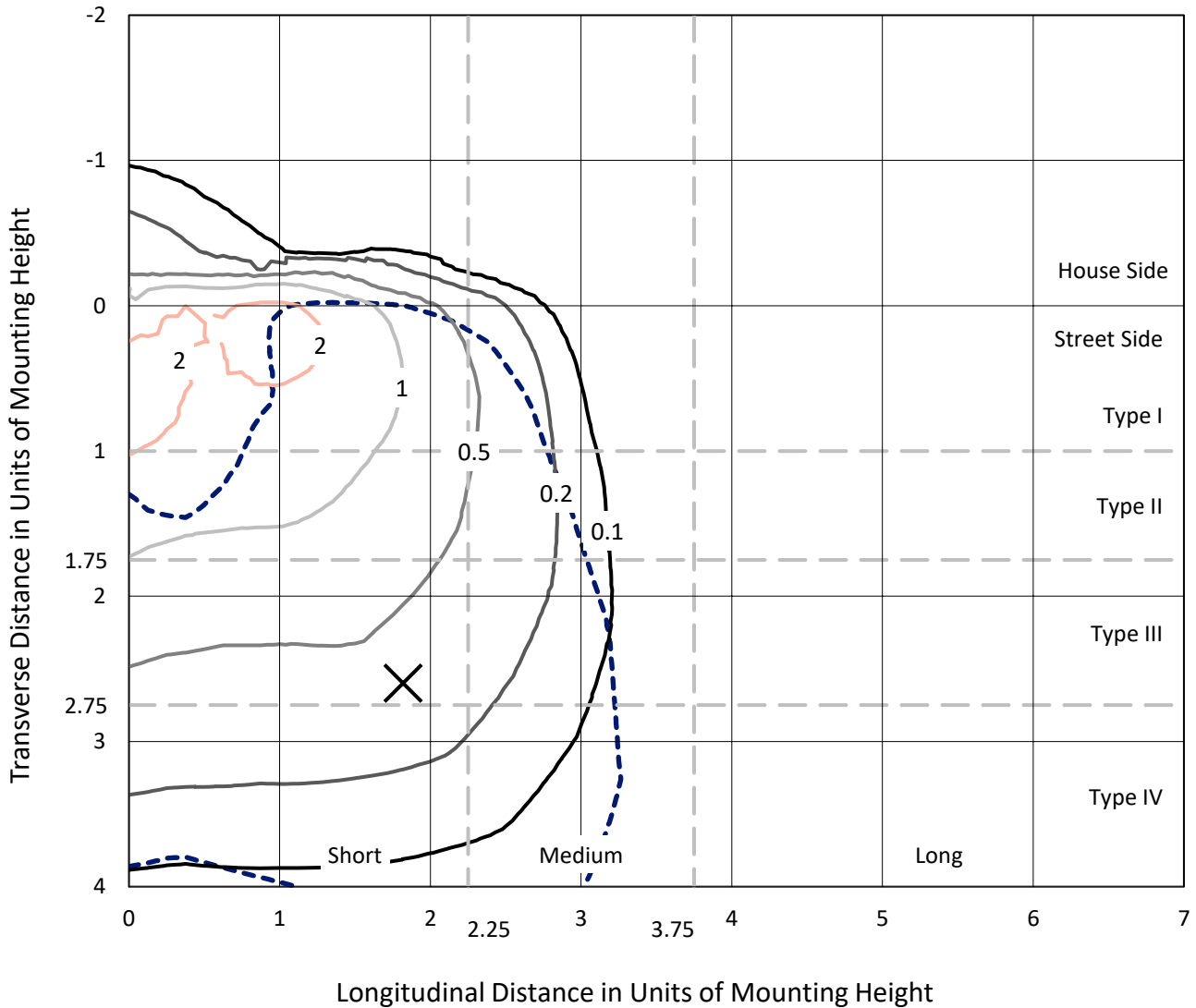
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

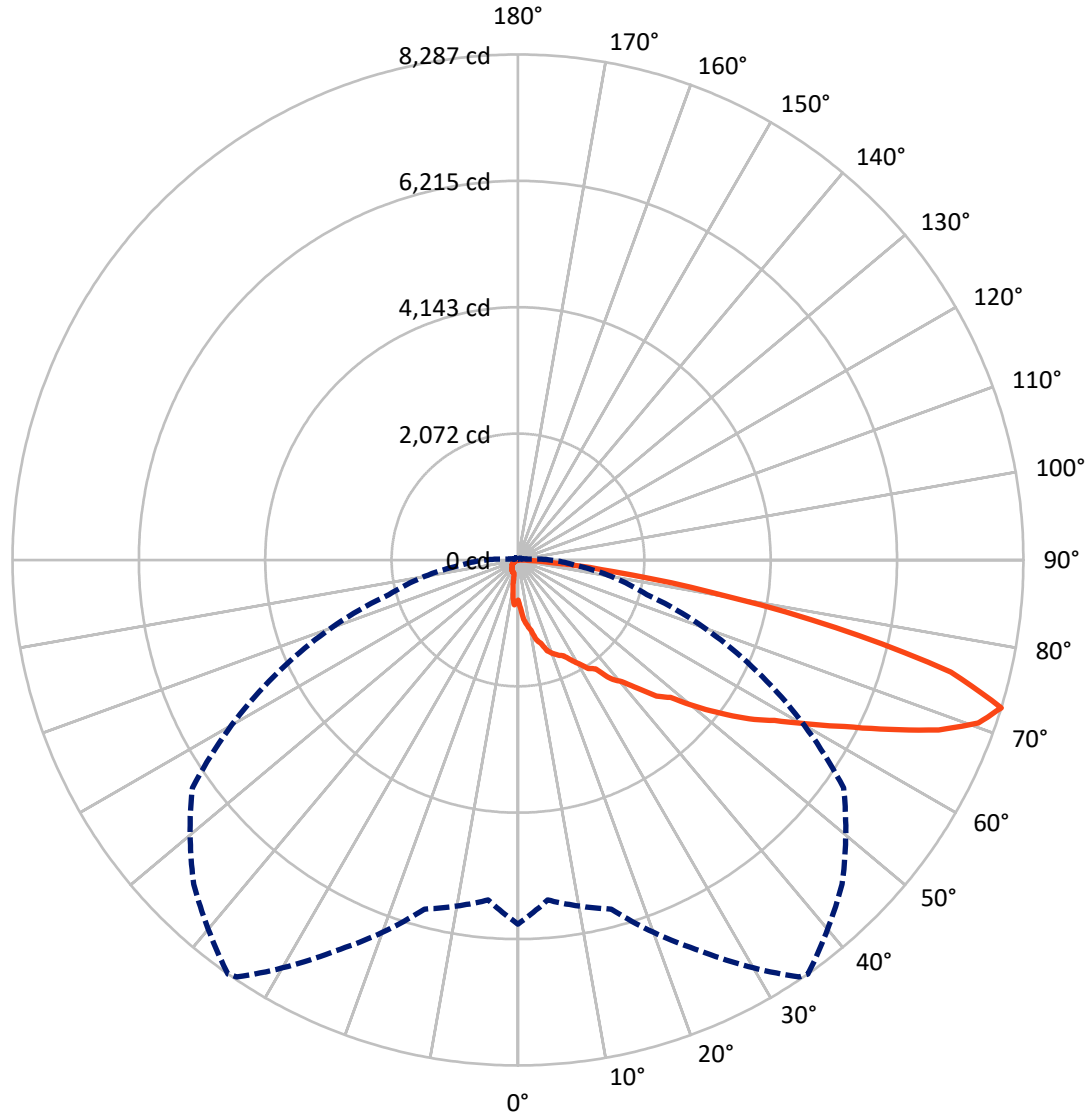
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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	863.3	0.0	863.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	10204.7	0.0	10204.7
	% Fixture	92.2	0.0	92.2
Total	Lumens	11068.0	0.0	11068.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.1	0.8
10°-20°	283.2	2.6
20°-30°	515.8	4.7
30°-40°	889.7	8.0
40°-50°	1581.6	14.3
50°-60°	2360.2	21.3
60°-70°	3015.4	27.2
70°-80°	2097.9	19.0
80°-90°	240.0	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°	11068.0	100.0
0°-180°	11068.0	100.0

Coefficient of Utilization



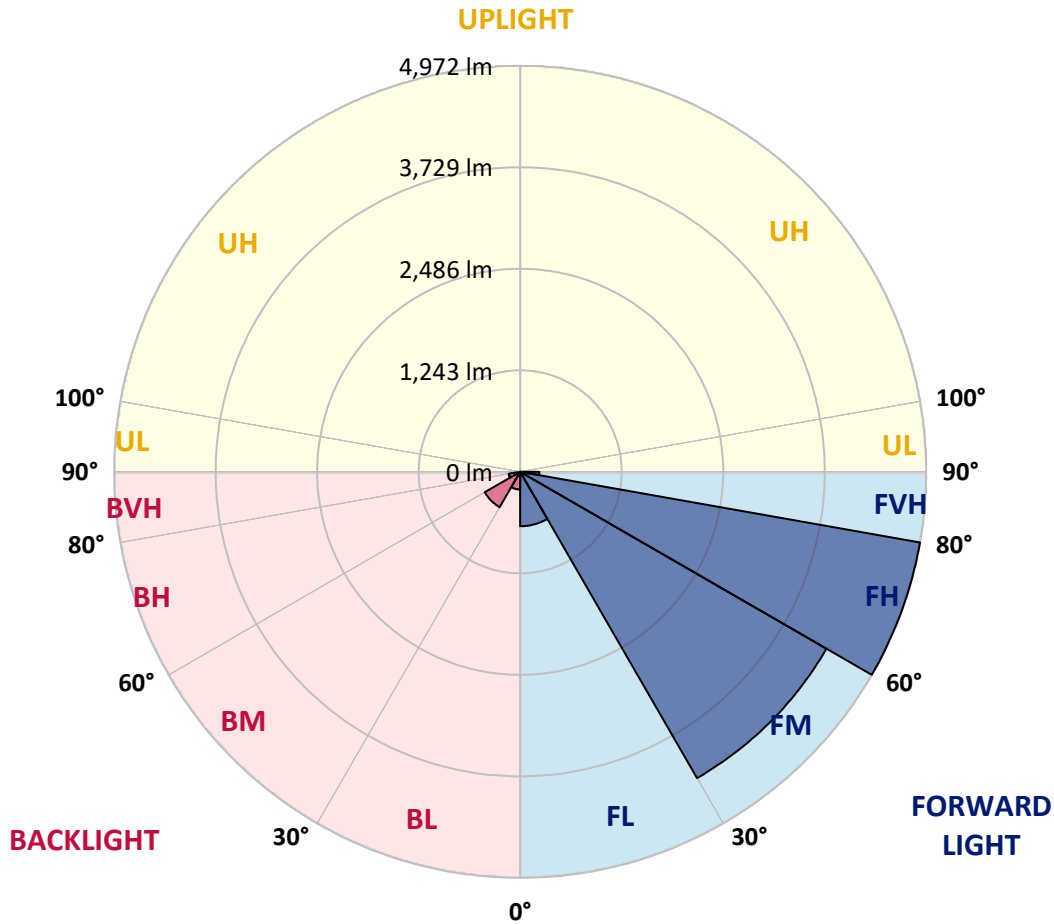
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	666.0	6.0			
FM (30°-60°)	4331.0	39.1			
FH (60°-80°)	4971.8	44.9			G2/5000
FVH (80°-90°)	235.9	2.1			G3/500
BL (0°-30°)	217.1	2.0	B1/500		
BM (30°-60°)	500.6	4.5	B1/1000		
BH (60°-80°)	141.5	1.3	B1/500		G1/500
BVH (80°-90°)	4.0	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3
2.5°	839.0	806.2	752.8	756.7	780.6	785.6	792.9	773.9	757.2	727.8	785.1
5°	1074.9	1027.6	997.6	988.1	974.2	975.3	941.4	953.6	950.3	972.0	998.2
7.5°	1207.9	1181.8	1143.9	1133.4	1082.2	1076.6	1034.9	1091.1	1096.6	1088.9	1131.7
10°	1260.8	1226.3	1230.7	1191.2	1165.6	1172.3	1179.0	1183.4	1190.7	1197.9	1145.6
12.5°	1291.9	1298.1	1358.7	1317.5	1343.1	1343.1	1388.2	1340.3	1342.0	1289.7	1298.6
15°	1432.1	1466.1	1438.8	1438.3	1410.4	1417.7	1470.0	1432.1	1451.6	1436.0	1375.9
17.5°	1608.0	1614.6	1562.9	1540.1	1565.1	1565.7	1543.4	1541.7	1473.9	1588.5	1515.6
20°	1664.2	1702.0	1628.5	1539.5	1643.6	1638.6	1636.9	1610.7	1497.8	1656.9	1596.8
22.5°	1817.2	1763.2	1713.1	1654.7	1695.3	1695.3	1689.2	1631.9	1587.9	1650.8	1676.4
25°	1865.0	1871.7	1806.6	1787.7	1788.8	1738.7	1734.3	1709.8	1667.5	1774.9	1723.7
27.5°	2029.7	2026.9	1870.6	1923.4	1856.1	1856.7	1733.7	1788.8	1796.0	1781.0	1838.3
30°	2191.6	2236.7	2000.8	2067.5	1996.9	1975.7	1855.6	1904.5	1917.3	1900.1	1972.4
32.5°	2398.0	2464.2	2235.0	2169.4	2061.4	2121.5	2038.6	1922.9	1986.3	2140.4	2181.0
35°	2616.7	2649.0	2404.7	2312.9	2191.1	2190.5	2187.7	2197.2	2267.3	2440.9	2475.4
37.5°	3009.5	2933.3	2712.4	2502.1	2529.3	2468.7	2426.4	2470.9	2543.8	2829.8	2977.2
40°	3228.7	3173.6	2862.6	2738.0	2602.8	2625.0	2739.7	2734.6	2928.8	3228.2	3449.0
42.5°	3441.8	3389.5	3083.5	2982.8	2809.2	2869.8	2919.9	2983.4	3381.2	3864.1	3985.4
45°	3631.5	3478.0	3262.1	3266.0	3175.9	3183.1	3271.6	3330.0	3905.3	4400.5	4485.6
47.5°	3746.2	3619.9	3412.9	3409.0	3403.4	3369.5	3786.2	3839.6	4323.1	4911.2	4919.0
50°	3907.5	3749.5	3568.1	3571.5	3700.0	3771.8	4269.2	4263.6	4726.5	5337.4	5157.7
52.5°	4108.4	3915.3	3715.6	3864.1	4062.7	4179.6	4583.5	4748.2	5159.9	5605.0	5251.2
55°	4365.4	4123.9	3931.4	4121.7	4555.1	4600.2	4891.2	5238.9	5632.3	5878.2	5281.2
57.5°	4667.0	4378.8	4223.0	4529.6	4961.9	4963.0	5339.1	5761.9	5922.2	5989.5	5247.3
60°	4991.9	4655.9	4498.9	4774.9	5410.3	5455.9	5837.1	6050.7	6216.5	6045.7	5186.6
62.5°	5277.9	4906.8	4784.9	5109.3	5902.2	6010.1	6271.0	6240.4	6429.1	6116.4	5032.5
65°	5618.4	5231.7	5151.6	5630.6	6544.2	6692.8	6758.4	6577.1	6500.3	6061.8	4631.4
67.5°	5955.6	5593.9	5591.7	6208.7	7386.0	7437.2	7368.2	7051.7	6417.4	5581.1	3896.4
70°	6193.1	5804.8	5951.1	6841.9	8151.1	8007.5	7717.1	7275.9	5818.7	4277.5	2545.5
72.5°	5970.0	5595.6	5925.5	7067.2	8245.7	8286.8	7515.1	6517.5	4323.1	2187.7	921.4
75°	4536.8	4307.6	5144.9	6269.9	7320.9	7330.4	6272.7	4596.9	2128.7	594.2	254.8
77.5°	2285.1	2212.2	3256.5	4451.1	5341.3	5325.7	4309.8	2462.6	684.9	197.5	128.5
80°	1156.7	1098.3	1386.0	2401.4	3172.0	3195.3	2460.9	1102.8	345.5	107.4	89.0
82.5°	710.5	674.3	758.4	1086.6	1539.5	1576.8	933.6	698.3	214.2	63.4	81.2
85°	137.4	144.7	435.7	544.1	614.8	600.3	276.5	574.7	64.5	37.8	59.0
87.5°	0.0	2.2	100.7	177.5	178.0	158.0	62.9	127.4	8.9	10.6	7.2
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°	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3	659.3
2.5°	794.5	786.2	716.6	708.8	710.5	698.8	694.9	670.4	664.3	702.2	708.8
5°	987.0	931.4	866.9	843.5	807.3	746.1	737.2	721.6	704.4	711.1	706.1
7.5°	1105.0	1031.0	962.0	839.0	737.2	648.2	633.7	607.0	580.3	580.9	598.1
10°	1123.9	1061.6	966.4	816.8	700.5	589.2	492.4	422.3	390.6	362.2	370.6
12.5°	1233.5	1175.6	1000.4	810.1	647.1	473.5	346.6	278.2	248.1	238.1	237.0
15°	1321.4	1275.8	1058.2	789.5	528.6	333.3	248.1	228.1	222.6	232.0	229.2
17.5°	1452.2	1369.8	1052.1	704.4	402.8	253.2	228.7	225.9	232.6	238.1	239.8
20°	1509.5	1391.0	1010.4	570.9	301.6	232.0	223.1	217.5	229.8	246.5	243.1
22.5°	1567.3	1427.1	961.4	467.4	242.6	222.0	217.0	212.5	222.0	238.1	242.0
25°	1593.5	1485.0	906.9	365.0	225.3	210.3	207.0	208.6	216.4	230.9	229.2
27.5°	1725.4	1491.7	802.9	288.2	218.1	202.0	202.0	205.9	205.9	225.3	223.7
30°	1807.7	1604.6	718.3	242.6	209.8	190.3	197.0	198.6	195.8	217.0	218.7
32.5°	1952.4	1635.8	636.0	222.6	196.4	188.6	187.5	188.6	190.8	211.4	212.0
35°	2174.9	1789.3	523.6	214.8	189.7	180.3	172.5	178.6	184.2	199.2	202.0
37.5°	2610.0	1946.8	426.7	208.6	186.4	172.5	169.7	168.6	178.6	195.8	201.4
40°	2962.2	2225.6	347.2	203.6	179.7	168.0	160.8	161.4	170.3	183.1	191.4
42.5°	3460.7	2427.0	294.3	195.8	170.3	158.6	150.2	155.2	159.1	172.5	178.0
45°	3876.9	2583.3	259.3	190.8	160.8	149.7	143.0	148.6	144.7	151.3	159.1
47.5°	4208.0	2719.6	233.1	178.6	154.7	144.7	136.3	134.6	128.0	129.6	136.9
50°	4389.9	2696.8	211.4	166.4	146.9	139.7	128.0	116.3	107.4	106.8	111.3
52.5°	4454.4	2575.0	193.6	155.8	137.4	128.5	115.2	99.0	90.1	87.4	91.2
55°	4472.2	2399.7	177.5	144.1	128.5	114.6	100.7	83.5	74.0	69.5	73.4
57.5°	4414.4	2129.9	161.9	133.0	118.0	101.3	86.2	68.4	59.5	54.0	57.3
60°	4271.4	1787.1	148.0	119.1	106.8	89.6	72.9	55.1	45.6	40.6	42.3
62.5°	3954.8	1401.0	133.0	106.3	95.1	78.5	61.2	43.4	34.5	30.0	30.6
65°	3473.0	1044.3	115.7	94.0	84.6	67.9	49.0	33.4	26.2	22.3	21.7
67.5°	2766.9	707.7	98.5	81.2	75.1	57.3	38.9	26.2	20.6	17.8	16.7
70°	1626.3	356.6	81.8	70.1	64.5	47.8	30.6	21.1	18.9	16.7	15.6
72.5°	536.4	154.1	64.0	57.9	53.4	38.4	23.9	19.5	18.4	16.1	15.0
75°	186.9	89.0	47.3	44.5	42.3	28.9	20.0	17.8	17.8	15.6	13.9
77.5°	122.4	69.0	35.1	32.3	31.7	21.1	17.2	16.7	15.6	12.8	10.6
80°	101.8	38.9	24.5	22.8	22.3	13.4	13.9	12.2	9.5	5.6	2.2
82.5°	94.0	23.4	12.8	13.9	12.8	5.0	7.8	6.7	5.0	2.2	0.0
85°	55.1	10.6	7.2	7.2	5.6	1.1	3.9	3.9	2.2	0.6	0.0
87.5°	6.1	5.0	3.9	3.9	2.8	0.0	1.7	1.1	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)