

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: P596943

Luminaire Tested: **MSA-SA2B-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596943
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-SA2B-835-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 6743 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

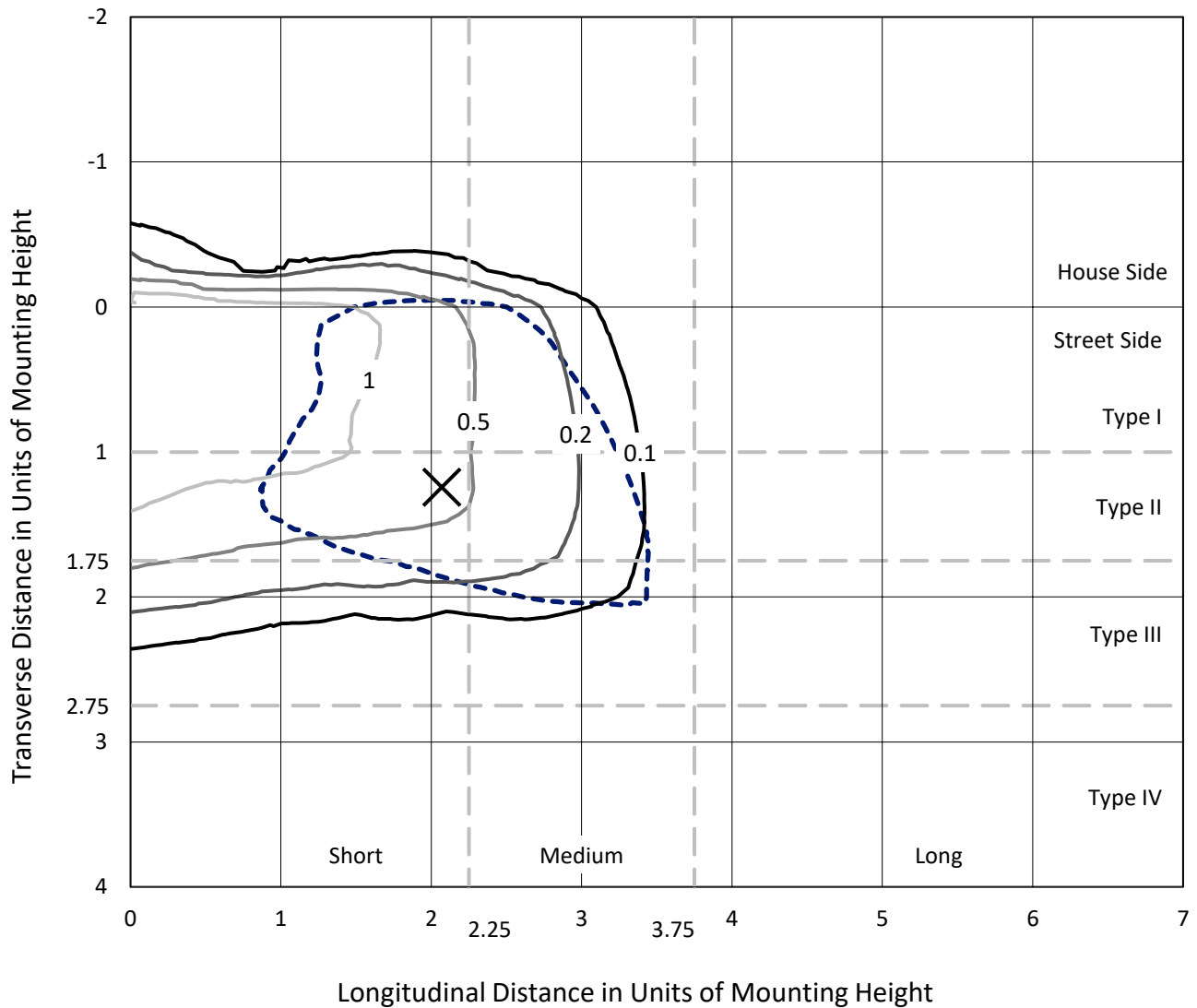
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

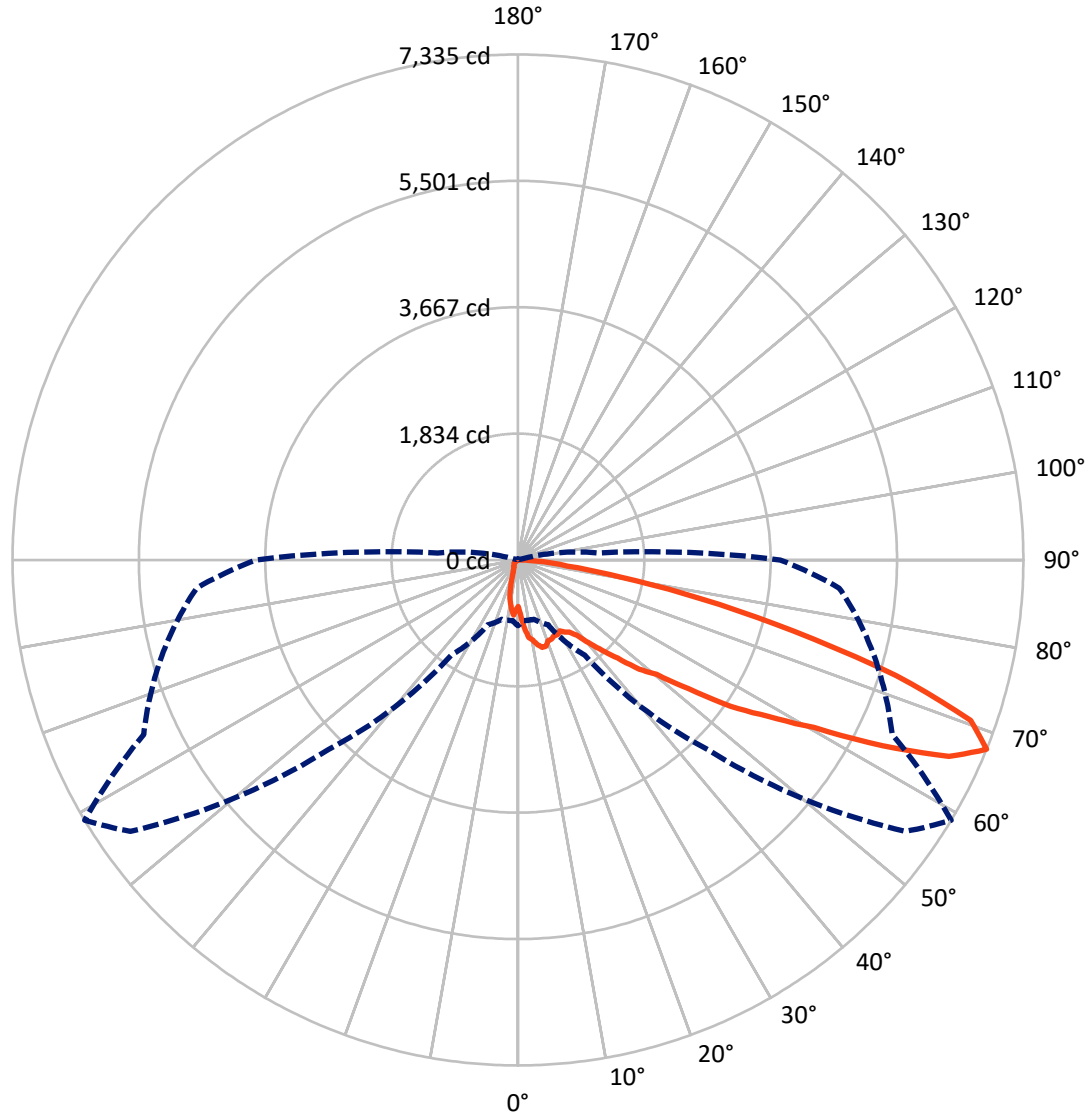
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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	573.4	0.0	573.4
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	6169.5	0.0	6169.5
	% Fixture	91.5	0.0	91.5
Total	Lumens	6743.0	0.0	6743.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.0	1.2
10°-20°	231.0	3.4
20°-30°	343.6	5.1
30°-40°	530.0	7.9
40°-50°	946.0	14.0
50°-60°	1683.3	25.0
60°-70°	1960.5	29.1
70°-80°	871.9	12.9
80°-90°	94.7	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°	6743.0	100.0
0°-180°	6743.0	100.0

Coefficient of Utilization



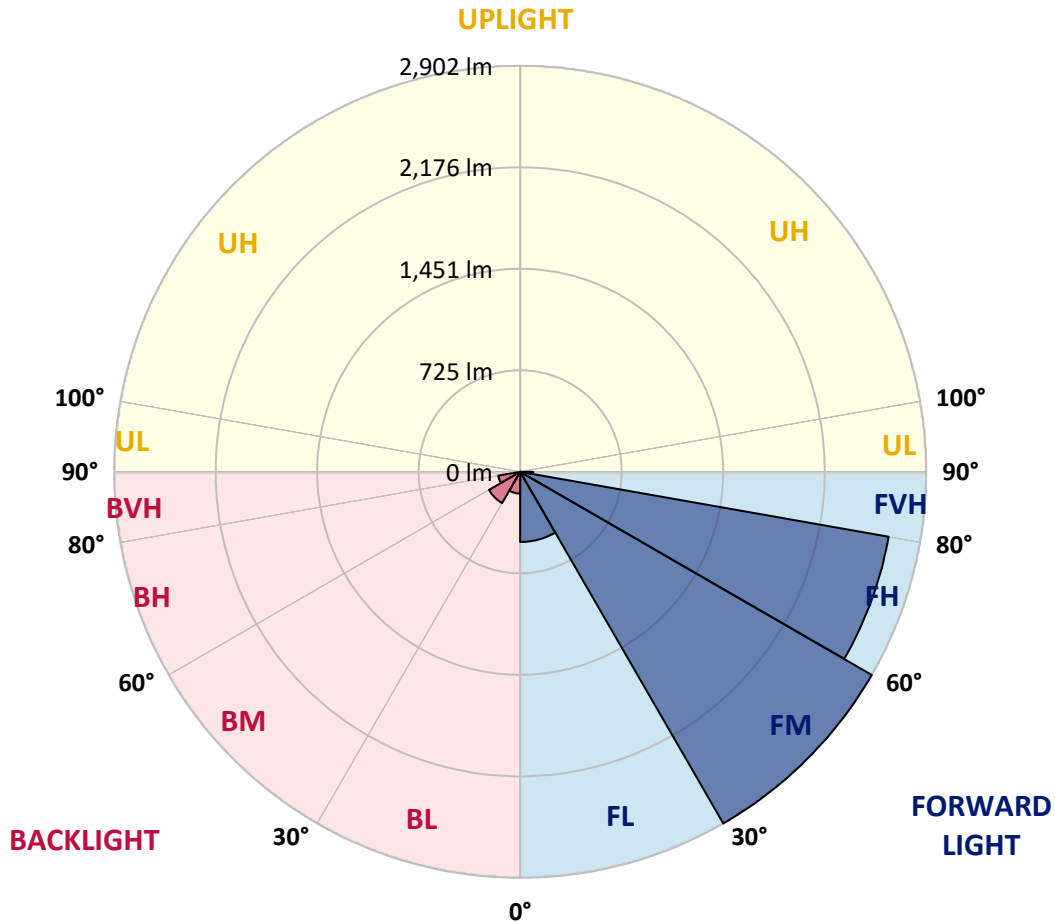
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	501.5	7.4			
FM (30°-60°)	2901.5	43.0			
FH (60°-80°)	2673.5	39.6			G2/5000
FVH (80°-90°)	93.0	1.4			G1/100
BL (0°-30°)	155.1	2.3	B1/500		
BM (30°-60°)	257.8	3.8	B1/1000		
BH (60°-80°)	158.8	2.4	B1/500		G1/500
BVH (80°-90°)	1.7	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°	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7
2.5°	879.5	846.4	799.3	813.3	825.9	837.9	818.1	806.8	801.3	752.8	813.6
5°	1079.9	1038.6	1017.1	1011.6	998.0	967.6	1018.1	995.6	1003.1	1012.7	1032.5
7.5°	1141.0	1122.3	1091.2	1102.8	1050.9	1046.5	1116.5	1135.9	1161.5	1144.1	1168.0
10°	1109.6	1077.2	1091.9	1087.8	1085.7	1131.5	1180.7	1181.7	1219.9	1238.4	1157.4
12.5°	1047.5	1051.3	1103.8	1099.7	1168.0	1259.5	1270.8	1258.8	1321.3	1289.2	1276.9
15°	1088.8	1119.5	1090.5	1100.4	1124.7	1239.0	1279.0	1315.9	1374.9	1394.0	1311.1
17.5°	1138.7	1141.7	1088.8	1076.5	1137.6	1190.9	1285.1	1315.5	1321.3	1489.0	1387.9
20°	1111.7	1138.0	1074.8	997.3	1092.2	1164.6	1260.2	1250.6	1289.6	1517.0	1405.3
22.5°	1183.4	1145.8	1064.9	1006.5	1038.6	1104.5	1185.4	1247.9	1306.3	1450.0	1427.8
25°	1190.2	1176.6	1104.5	1052.6	1047.2	1063.9	1176.6	1216.8	1308.3	1510.1	1408.7
27.5°	1267.0	1251.3	1103.8	1109.0	1057.7	1006.2	1133.5	1228.1	1345.6	1473.6	1449.4
30°	1366.0	1367.4	1177.2	1193.3	1120.2	1037.3	1168.7	1194.7	1370.8	1532.0	1479.4
32.5°	1466.4	1507.7	1322.3	1237.3	1214.5	1155.0	1125.0	1244.8	1343.2	1631.7	1554.5
35°	1619.0	1647.0	1441.8	1365.7	1275.9	1208.3	1243.8	1286.8	1442.5	1763.8	1653.2
37.5°	1877.5	1827.0	1656.3	1523.8	1502.3	1402.6	1420.3	1381.8	1543.9	1919.5	1848.5
40°	2023.0	1977.2	1799.7	1735.1	1597.9	1613.2	1557.2	1579.8	1691.1	2081.7	2026.4
42.5°	2174.5	2130.8	1975.2	1929.4	1798.6	1735.1	1709.9	1790.8	1916.8	2351.7	2281.4
45°	2326.8	2215.9	2150.0	2172.8	2114.1	1988.5	1959.1	2031.1	2163.3	2683.6	2550.5
47.5°	2455.2	2361.6	2312.1	2301.6	2278.7	2453.1	2333.7	2365.4	2423.8	2977.2	2885.7
50°	2686.7	2594.5	2517.0	2495.5	2606.8	2854.3	2670.0	2608.5	2725.3	3332.0	3274.3
52.5°	3020.9	2903.5	2780.2	2780.6	2990.6	3126.4	3213.8	3106.0	3127.8	3722.2	3696.6
55°	3289.6	3140.4	3038.4	3118.9	3432.0	3508.2	3841.7	3747.2	3718.8	4084.1	4052.7
57.5°	3326.5	3147.6	3099.1	3240.5	3669.0	4155.2	4514.0	4277.7	4234.4	4387.0	4449.5
60°	2982.4	2792.5	2829.1	3056.5	3746.1	4549.5	5131.3	4938.4	4662.9	4741.7	4784.8
62.5°	2224.4	2072.8	2175.2	2476.4	3448.7	4813.8	5845.9	5935.4	5160.0	5008.0	4998.8
65°	1443.2	1348.3	1415.6	1662.4	2609.9	4783.7	6484.4	6872.2	5551.6	5225.2	5066.1
67.5°	954.6	882.6	892.1	1038.3	1687.7	3890.6	6866.1	7334.9	5992.0	5348.4	4680.6
70°	711.5	654.9	658.3	737.5	1001.7	2565.8	6333.8	6969.9	6152.8	4921.3	3777.9
72.5°	513.2	475.3	507.0	595.1	798.3	1356.8	4720.9	5740.1	5365.2	3881.7	2545.3
75°	355.4	330.5	382.4	497.8	728.6	842.3	3119.6	4131.9	3760.5	2435.4	1150.6
77.5°	197.0	189.5	264.3	405.6	661.3	690.4	1911.0	2715.0	2085.8	873.0	273.8
80°	86.0	83.3	128.0	304.6	555.8	623.8	1075.8	1505.3	820.4	155.7	88.4
82.5°	36.9	35.5	54.6	183.3	403.9	521.7	663.4	724.5	282.4	48.1	50.2
85°	6.5	7.2	21.9	96.6	245.8	264.9	480.4	428.8	142.0	22.9	35.8
87.5°	0.0	0.0	3.4	18.8	46.1	75.8	208.3	150.2	27.0	7.5	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°	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7	674.7
2.5°	822.2	803.0	730.3	721.1	711.2	696.5	691.0	659.6	655.5	695.8	695.8
5°	1023.3	955.0	885.7	831.0	782.2	714.6	695.5	675.7	659.6	655.5	668.2
7.5°	1129.4	1046.1	937.2	798.3	685.6	587.6	546.6	517.9	485.8	495.4	500.5
10°	1123.6	1035.2	896.2	717.7	592.7	484.5	380.3	319.6	285.8	269.0	267.0
12.5°	1180.7	1097.3	868.6	653.5	494.0	344.5	239.3	196.0	171.1	171.4	169.3
15°	1213.8	1123.0	836.5	572.2	347.9	221.6	165.9	156.4	153.0	156.7	154.7
17.5°	1272.2	1149.9	763.8	451.0	239.3	167.3	152.6	148.9	153.3	161.2	159.1
20°	1267.7	1103.1	660.3	317.9	176.9	150.6	144.4	138.6	147.8	156.0	154.7
22.5°	1263.6	1057.4	563.0	234.6	147.8	137.3	132.1	129.7	134.5	144.1	146.1
25°	1227.4	1034.9	464.3	176.2	133.8	124.6	122.2	120.2	121.9	129.7	129.4
27.5°	1271.8	977.8	358.5	147.8	123.9	113.0	111.0	107.5	104.1	111.0	112.0
30°	1262.6	985.7	281.0	130.1	114.0	99.4	100.0	92.9	86.7	92.9	92.9
32.5°	1296.1	928.3	225.0	118.1	104.1	93.6	85.0	77.5	73.1	76.8	77.5
35°	1344.9	930.7	176.2	110.6	95.6	83.3	73.1	65.6	61.5	63.2	64.2
37.5°	1508.4	914.3	147.2	104.8	92.5	77.2	66.6	56.7	53.9	56.0	57.0
40°	1614.9	958.0	129.7	101.7	84.7	71.0	57.0	49.8	47.5	48.5	50.2
42.5°	1815.7	982.3	121.2	98.3	77.5	60.8	48.8	44.7	41.3	42.7	44.0
45°	2030.5	1023.6	114.7	94.6	72.0	53.3	43.0	39.6	35.2	35.5	36.9
47.5°	2294.4	1121.9	107.2	88.1	64.5	48.5	38.2	33.1	29.0	28.7	30.4
50°	2648.8	1253.4	100.4	79.9	59.7	44.4	33.5	27.0	23.6	22.5	23.9
52.5°	3027.1	1423.4	93.2	74.1	53.9	38.9	28.7	21.9	18.8	18.1	19.1
55°	3402.0	1586.6	86.4	70.3	47.8	33.5	24.2	18.1	15.4	14.7	15.4
57.5°	3829.1	1763.1	77.5	62.8	42.0	29.0	20.1	15.0	12.6	11.9	12.3
60°	4150.7	1825.3	70.0	54.6	36.5	25.6	17.1	11.9	10.2	9.6	9.9
62.5°	4303.3	1723.9	62.8	47.5	32.1	22.2	14.3	9.9	8.5	7.9	7.9
65°	4263.7	1499.2	55.7	40.6	27.7	18.4	11.3	8.5	7.5	6.5	6.1
67.5°	3806.2	1173.1	47.5	34.1	23.2	15.0	9.6	8.2	6.8	6.1	5.1
70°	3018.6	849.5	38.6	28.3	19.5	12.3	7.5	7.5	6.5	6.1	4.8
72.5°	1978.6	534.7	31.4	22.9	16.0	9.6	5.8	6.8	6.1	6.1	4.4
75°	857.3	191.2	25.3	18.4	13.3	6.5	5.1	6.1	6.5	6.1	5.1
77.5°	200.8	59.4	19.8	14.7	10.9	4.4	5.1	6.1	6.5	5.8	4.4
80°	75.5	25.3	13.0	9.6	8.5	2.7	4.4	3.8	3.4	2.4	0.7
82.5°	45.8	10.6	6.8	4.8	4.1	0.7	2.0	1.4	0.7	0.7	0.0
85°	32.4	5.1	3.8	3.4	2.0	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	4.4	1.4	1.7	1.7	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)