

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: P401791

Luminaire Tested: **ENV-SA1F-727-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401791
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1F-727-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS 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: 5263 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

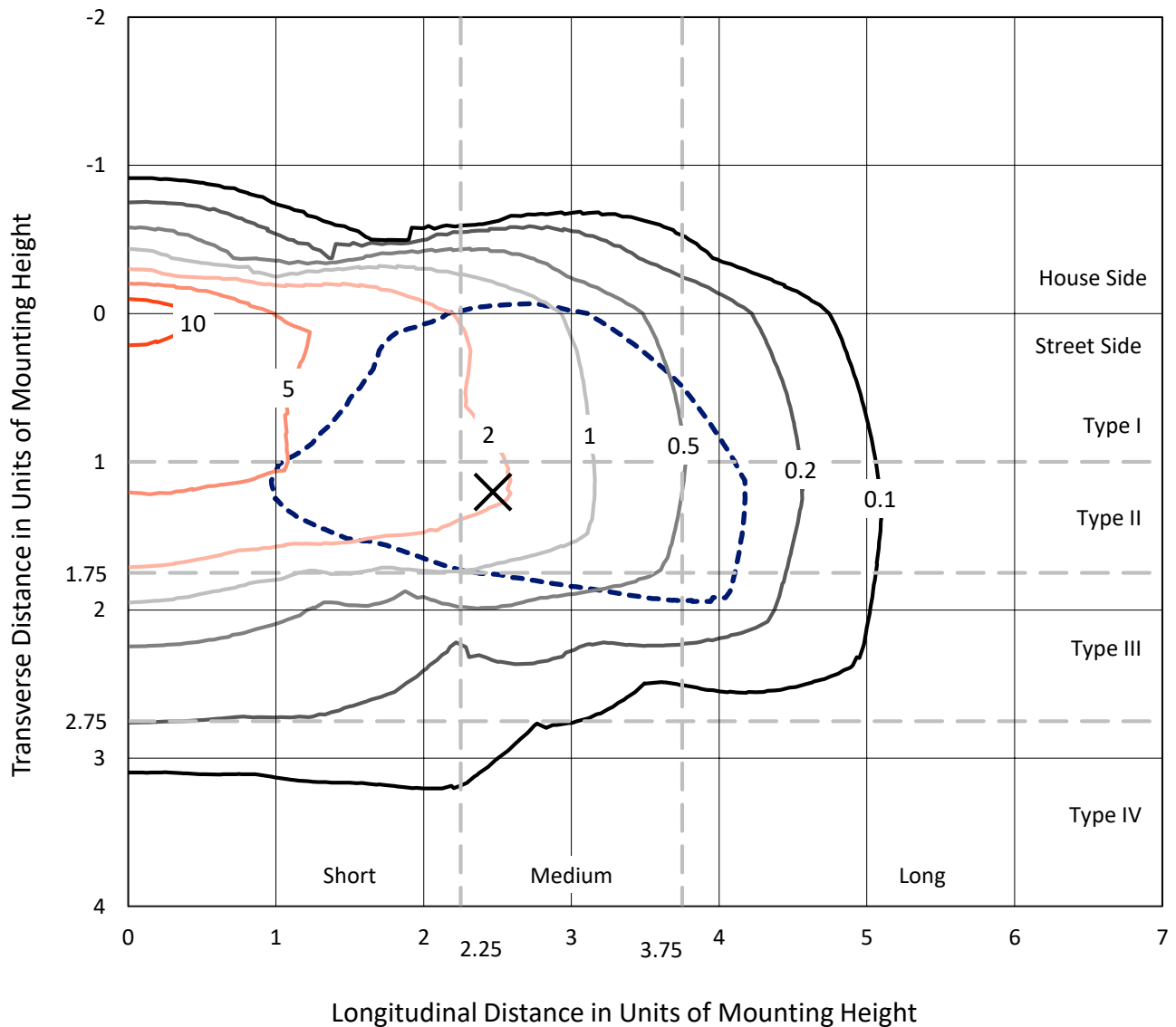
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

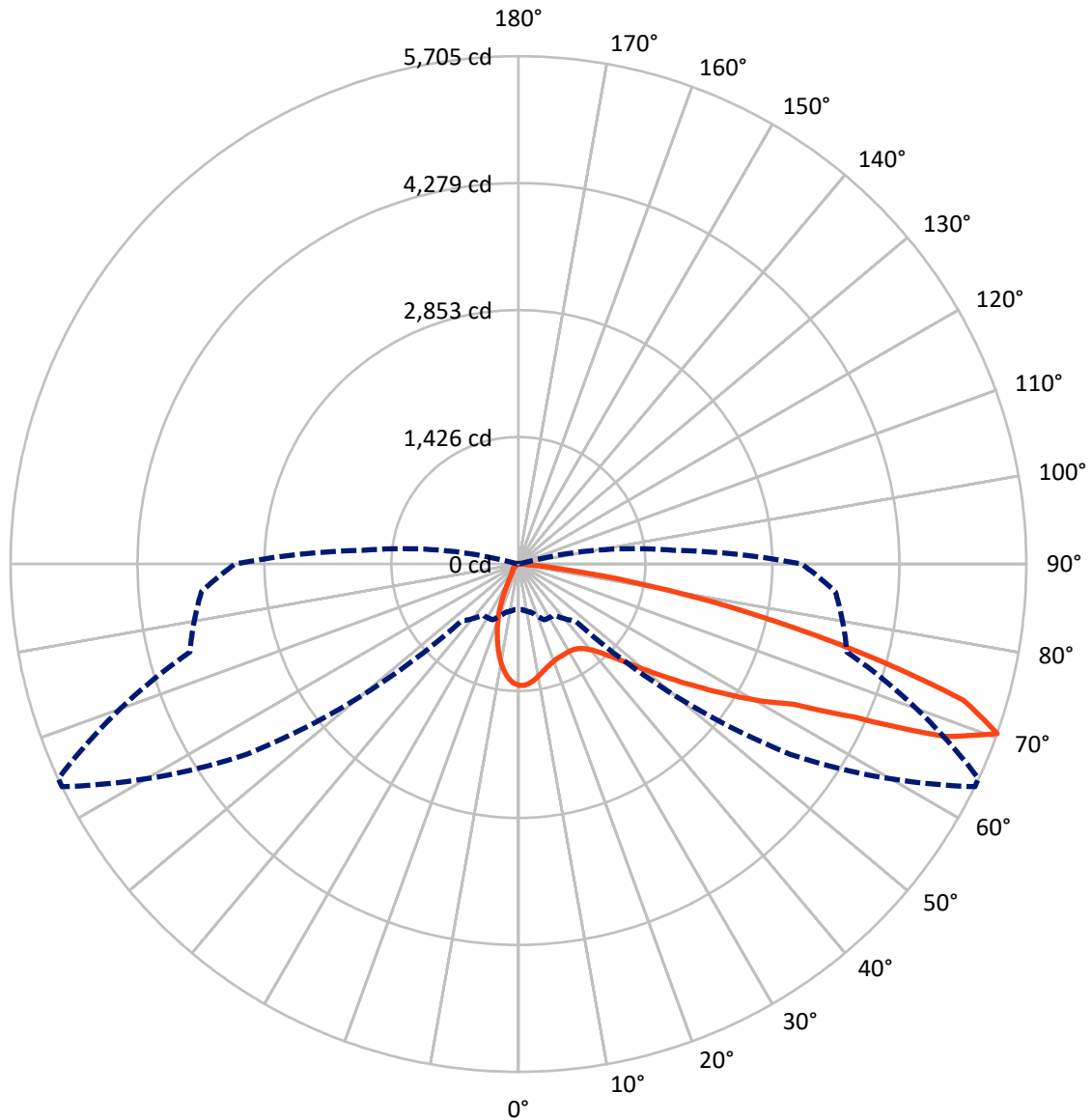
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	676.1	0.0	676.1
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	4586.9	0.0	4586.9
	% Fixture	87.2	0.0	87.2
Total	Lumens	5263.0	0.0	5263.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	2.2
10°-20°	254.8	4.8
20°-30°	350.9	6.7
30°-40°	483.1	9.2
40°-50°	720.1	13.7
50°-60°	1137.6	21.6
60°-70°	1289.0	24.5
70°-80°	846.4	16.1
80°-90°	66.4	1.3
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°	5263.0	100.0
0°-180°	5263.0	100.0



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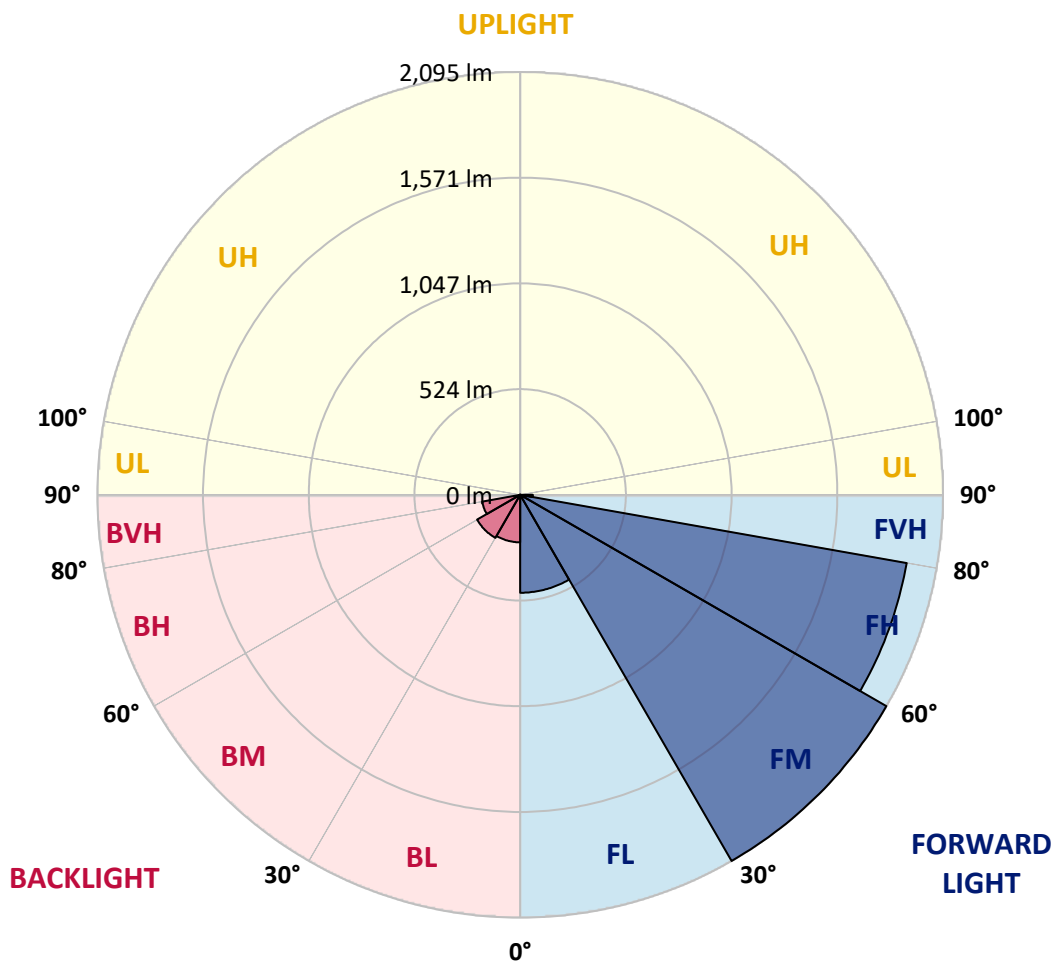
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	485.1	9.2			
FM	(30°-60°)	2094.6	39.8			
FH	(60°-80°)	1944.5	36.9			G2/5000
FVH	(80°-90°)	62.7	1.2			G1/100
BL	(0°-30°)	235.3	4.5	B1/500		
BM	(30°-60°)	246.2	4.7	B1/1000		
BH	(60°-80°)	190.9	3.6	B1/500		G1/500
BVH	(80°-90°)	3.7	0.1			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4
2.5°	1324.4	1324.4	1330.9	1337.4	1341.1	1351.3	1358.7	1364.2	1364.2	1367.9	1361.5
5°	1236.5	1236.5	1242.1	1257.8	1274.5	1295.8	1319.8	1343.9	1348.5	1366.1	1365.2
7.5°	1155.1	1162.5	1171.7	1187.5	1205.1	1236.5	1269.8	1311.5	1316.1	1358.7	1367.9
10°	1098.6	1103.2	1108.8	1126.4	1152.3	1188.4	1224.5	1273.5	1281.9	1345.7	1367.9
12.5°	1053.3	1054.2	1062.5	1082.0	1106.9	1142.1	1182.8	1236.5	1246.7	1322.6	1364.2
15°	1020.9	1019.9	1029.2	1047.7	1071.8	1107.9	1147.7	1204.1	1215.2	1303.2	1363.3
17.5°	1001.4	1002.4	1009.8	1023.6	1046.8	1081.0	1121.8	1177.3	1188.4	1287.4	1367.9
20°	1001.4	1001.4	1006.1	1012.5	1030.1	1060.7	1100.5	1157.8	1169.0	1277.2	1374.4
22.5°	1020.9	1019.0	1022.7	1017.2	1025.5	1046.8	1087.5	1144.9	1156.9	1272.6	1384.6
25°	1056.0	1052.3	1055.1	1043.1	1033.8	1043.1	1079.2	1139.3	1152.3	1273.5	1393.9
27.5°	1105.1	1105.1	1099.5	1082.9	1059.7	1049.6	1078.3	1135.6	1148.6	1273.5	1400.3
30°	1173.6	1170.8	1162.5	1145.8	1109.7	1075.5	1087.5	1135.6	1148.6	1274.5	1402.2
32.5°	1242.1	1243.9	1248.6	1231.9	1182.8	1119.9	1109.7	1144.0	1155.1	1273.5	1399.4
35°	1311.5	1312.4	1332.8	1334.6	1271.7	1191.2	1147.7	1166.2	1173.6	1282.8	1401.3
37.5°	1372.6	1377.2	1417.0	1436.4	1384.6	1282.8	1207.8	1207.8	1211.5	1307.8	1412.4
40°	1441.1	1453.1	1501.2	1544.7	1524.4	1400.3	1295.8	1268.9	1270.8	1353.1	1437.4
42.5°	1520.7	1535.5	1598.4	1661.3	1660.4	1544.7	1406.8	1366.1	1367.9	1431.8	1488.3
45°	1621.5	1631.7	1711.3	1790.0	1806.6	1703.9	1546.6	1492.9	1494.7	1551.2	1587.3
47.5°	1744.6	1756.7	1833.5	1927.9	1970.5	1895.5	1728.0	1669.7	1664.1	1703.9	1729.8
50°	1905.7	1928.8	1974.2	2064.9	2167.6	2117.6	1940.9	1882.5	1875.1	1906.6	1914.9
52.5°	2059.3	2080.6	2099.1	2182.4	2381.4	2393.4	2201.9	2138.0	2130.6	2138.0	2148.2
55°	2082.5	2094.5	2108.4	2221.3	2554.5	2744.2	2499.0	2423.1	2401.8	2387.9	2422.1
57.5°	1898.3	1890.9	1937.2	2090.8	2583.2	3132.0	2900.6	2753.5	2733.1	2656.3	2622.0
60°	1503.1	1492.9	1536.4	1746.5	2422.1	3324.5	3457.8	3119.1	3069.1	2811.8	2778.5
62.5°	1056.0	1044.0	1100.5	1224.5	1878.8	3286.6	4086.2	3465.2	3366.2	2949.7	2904.3
65°	813.5	808.0	838.5	866.3	1146.7	2847.0	4432.4	4140.9	3936.3	3099.6	3041.3
67.5°	637.7	645.1	683.0	763.6	740.4	1774.3	4400.0	5171.9	4967.4	3375.4	3338.4
70°	512.7	514.6	561.8	690.5	698.8	903.3	3725.3	5705.0	5702.2	3820.6	3574.4
72.5°	310.1	318.4	395.2	597.0	705.3	691.4	2504.5	5227.4	5299.6	3924.3	3223.6
75°	149.0	157.3	204.5	400.8	700.6	672.9	1355.0	3957.6	4050.2	3518.9	2613.7
77.5°	55.5	62.9	94.4	196.2	519.2	616.4	712.7	2668.3	2741.4	2575.8	1770.6
80°	17.6	20.4	37.0	89.8	263.8	509.0	459.1	1504.9	1554.0	1127.3	595.1
82.5°	1.9	2.8	10.2	30.5	101.8	259.2	269.3	566.4	591.4	220.3	120.3
85°	0.0	0.0	0.0	0.0	1.9	1.9	66.6	108.3	88.9	21.3	35.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.9	1.9	2.8	2.8	2.8	3.7
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°	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4	1362.4
2.5°	1360.5	1360.5	1354.1	1343.9	1330.9	1312.4	1307.8	1293.0	1293.0	1280.9	1279.1
5°	1362.4	1356.8	1335.6	1304.1	1260.6	1213.4	1183.8	1151.4	1123.6	1106.0	1107.9
7.5°	1362.4	1350.4	1307.8	1238.4	1156.9	1075.5	1013.5	941.3	908.0	885.7	895.9
10°	1358.7	1338.3	1264.3	1158.8	1030.1	917.2	815.4	732.1	674.7	650.7	630.3
12.5°	1350.4	1320.7	1209.7	1059.7	895.0	746.9	606.2	497.0	421.1	383.2	378.5
15°	1343.0	1302.2	1145.8	951.5	742.3	548.8	391.5	286.9	222.1	207.3	209.2
17.5°	1341.1	1284.6	1084.7	836.7	593.3	365.6	225.8	182.3	173.1	169.4	168.4
20°	1342.0	1268.9	1018.1	722.8	420.2	227.7	171.2	161.0	157.3	155.5	154.6
22.5°	1345.7	1251.3	952.4	603.5	286.9	166.6	152.7	146.2	141.6	138.8	137.9
25°	1345.7	1231.9	879.3	476.7	187.9	146.2	137.0	128.6	122.2	118.5	118.5
27.5°	1343.0	1209.7	803.4	361.9	149.0	130.5	120.3	109.2	100.9	96.3	96.3
30°	1334.6	1182.8	730.2	252.7	130.5	116.6	103.7	89.8	79.6	75.0	73.1
32.5°	1322.6	1154.1	646.0	177.7	117.5	101.8	87.0	72.2	62.9	57.4	57.4
35°	1309.6	1125.5	555.3	136.1	106.4	89.8	73.1	58.3	50.0	46.3	45.4
37.5°	1303.2	1094.9	466.5	117.5	95.3	76.8	59.2	47.2	40.7	37.9	37.0
40°	1307.8	1071.8	379.5	105.5	85.1	64.8	49.1	39.8	34.2	30.5	30.5
42.5°	1335.6	1058.8	297.1	96.3	75.9	54.6	40.7	32.4	26.8	24.1	24.1
45°	1392.0	1068.1	225.8	87.9	64.8	45.4	34.2	25.9	20.4	17.6	17.6
47.5°	1486.4	1105.1	171.2	80.5	55.5	37.0	27.8	20.4	15.7	13.9	13.0
50°	1624.3	1178.2	134.2	73.1	46.3	31.5	23.1	15.7	12.0	10.2	10.2
52.5°	1823.3	1305.0	114.8	64.8	37.9	25.9	18.5	12.0	9.3	7.4	7.4
55°	2067.7	1466.1	103.7	57.4	30.5	21.3	14.8	9.3	6.5	5.6	4.6
57.5°	2265.7	1593.8	97.2	50.0	25.9	18.5	11.1	7.4	5.6	3.7	3.7
60°	2440.6	1676.1	86.1	41.6	22.2	14.8	9.3	5.6	3.7	2.8	2.8
62.5°	2582.3	1729.8	71.3	33.3	18.5	12.0	7.4	4.6	3.7	2.8	2.8
65°	2743.3	1773.3	58.3	25.9	15.7	10.2	6.5	3.7	2.8	2.8	2.8
67.5°	3058.9	1870.5	43.5	20.4	12.0	8.3	5.6	3.7	2.8	1.9	1.9
70°	3182.0	1756.7	34.2	16.7	9.3	7.4	5.6	3.7	1.9	1.9	1.9
72.5°	2708.1	1315.2	26.8	13.9	8.3	6.5	5.6	3.7	2.8	2.8	1.9
75°	2148.2	888.5	21.3	11.1	8.3	7.4	5.6	5.6	4.6	3.7	3.7
77.5°	1371.6	393.4	16.7	9.3	8.3	9.3	8.3	5.6	5.6	4.6	4.6
80°	409.1	94.4	12.0	7.4	6.5	7.4	8.3	5.6	3.7	2.8	2.8
82.5°	88.9	22.2	7.4	3.7	4.6	3.7	5.6	5.6	3.7	2.8	2.8
85°	29.6	8.3	4.6	3.7	2.8	2.8	2.8	2.8	2.8	2.8	1.9
87.5°	1.9	2.8	2.8	1.9	1.9	1.9	1.9	0.9	0.9	1.9	1.9
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)