

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: P401755

Luminaire Tested: **ENT-SA1E-830-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401755
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: ENT-SA1E-830-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA 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: 4518 lumens
Efficiency: N/A
Efficacy: 79.0 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 - G1

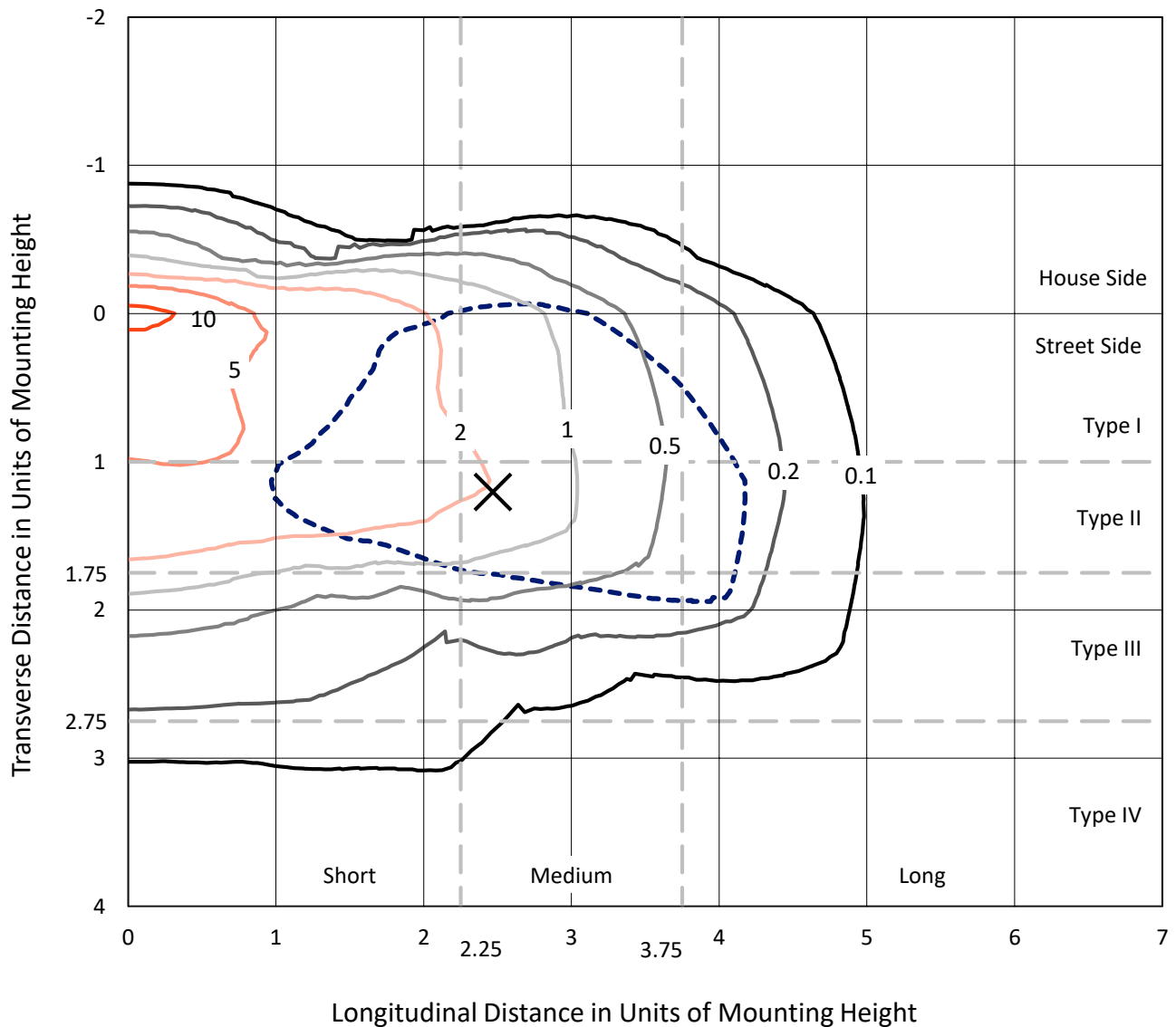
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

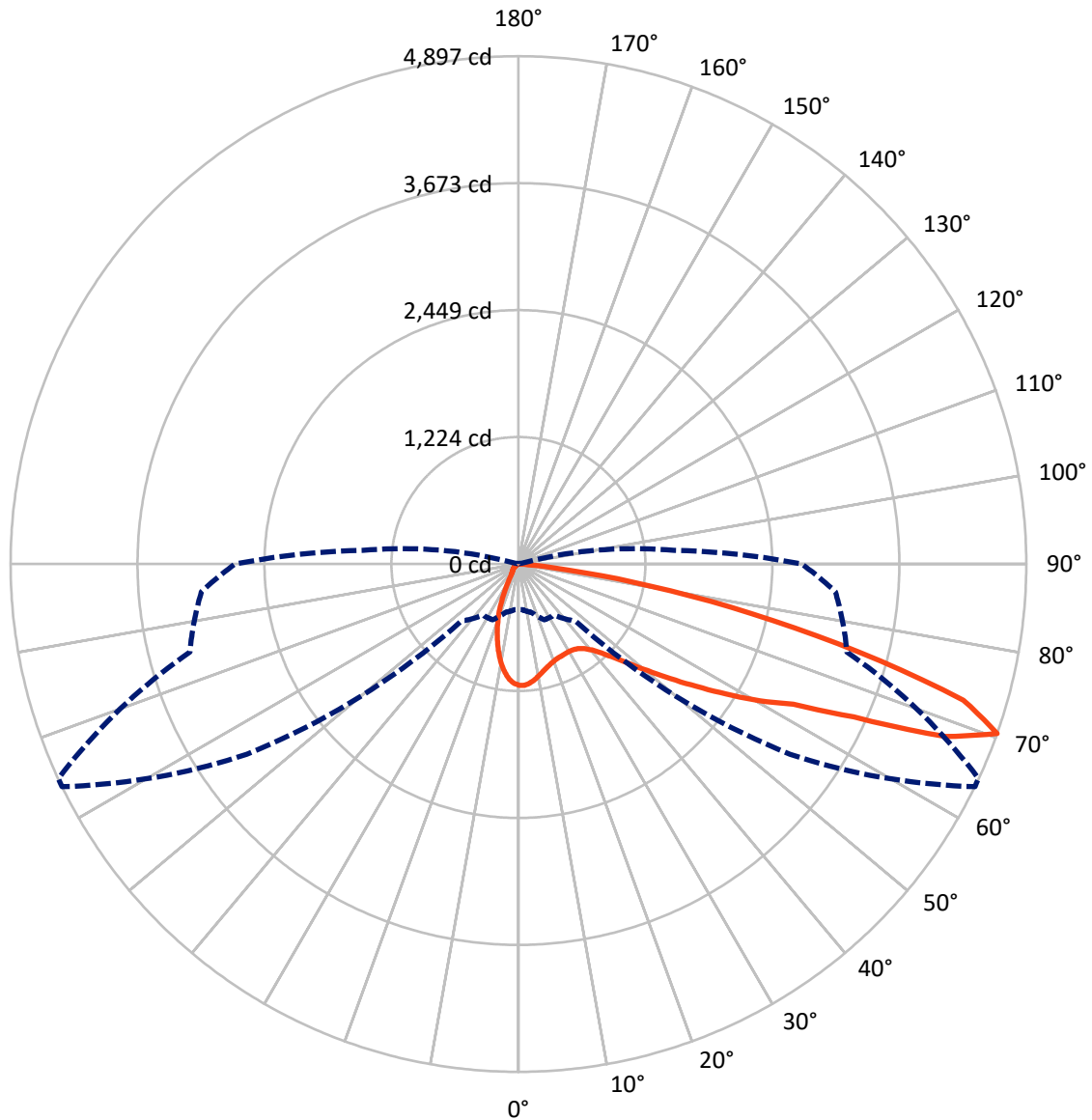
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.7 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	580.4	0.0	580.4
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	3937.6	0.0	3937.6
	% Fixture	87.2	0.0	87.2
Total	Lumens	4518.0	0.0	4518.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	2.2
10°-20°	218.7	4.8
20°-30°	301.2	6.7
30°-40°	414.8	9.2
40°-50°	618.2	13.7
50°-60°	976.6	21.6
60°-70°	1106.5	24.5
70°-80°	726.6	16.1
80°-90°	57.0	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°	4518.0	100.0
0°-180°	4518.0	100.0



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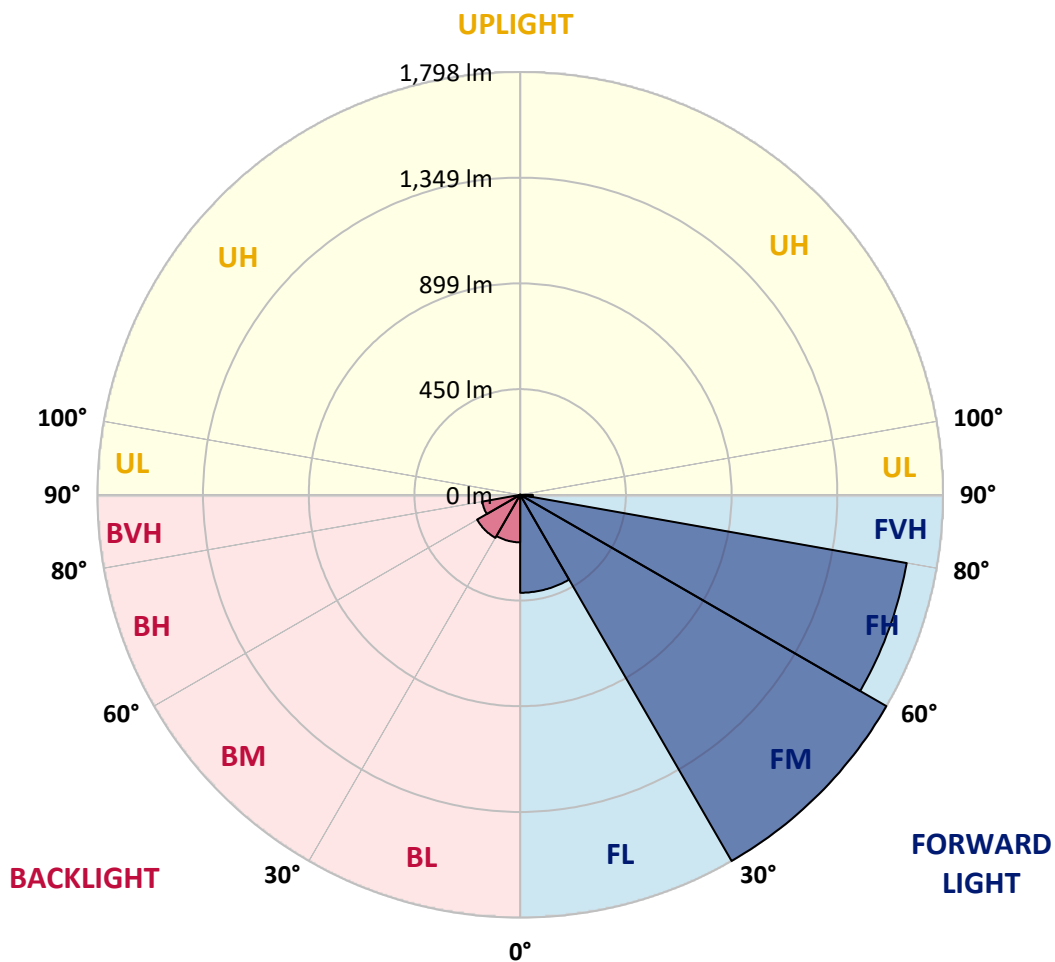
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	416.5	9.2			
FM	(30°-60°)	1798.1	39.8			
FH	(60°-80°)	1669.2	36.9			G1/1800
FVH	(80°-90°)	53.8	1.2			G1/100
BL	(0°-30°)	202.0	4.5	B1/500		
BM	(30°-60°)	211.4	4.7	B0/220		
BH	(60°-80°)	163.9	3.6	B1/500		G1/500
BVH	(80°-90°)	3.2	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-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5
2.5°	1137.0	1137.0	1142.5	1148.1	1151.3	1160.0	1166.4	1171.1	1171.1	1174.3	1168.7
5°	1061.5	1061.5	1066.3	1079.8	1094.1	1112.3	1133.0	1153.6	1157.6	1172.7	1171.9
7.5°	991.6	997.9	1005.9	1019.4	1034.5	1061.5	1090.1	1125.8	1129.8	1166.4	1174.3
10°	943.1	947.1	951.8	966.9	989.2	1020.2	1051.2	1093.3	1100.4	1155.2	1174.3
12.5°	904.2	905.0	912.1	928.8	950.3	980.4	1015.4	1061.5	1070.2	1135.4	1171.1
15°	876.4	875.6	883.5	899.4	920.1	951.0	985.2	1033.7	1043.2	1118.7	1170.3
17.5°	859.7	860.5	866.8	878.7	898.6	928.0	963.0	1010.6	1020.2	1105.2	1174.3
20°	859.7	859.7	863.6	869.2	884.3	910.5	944.7	993.9	1003.5	1096.4	1179.9
22.5°	876.4	874.8	877.9	873.2	880.3	898.6	933.6	982.8	993.2	1092.5	1188.6
25°	906.6	903.4	905.8	895.4	887.5	895.4	926.4	978.1	989.2	1093.3	1196.6
27.5°	948.7	948.7	943.9	929.6	909.7	901.0	925.6	974.9	986.0	1093.3	1202.1
30°	1007.5	1005.1	997.9	983.6	952.6	923.2	933.6	974.9	986.0	1094.1	1203.7
32.5°	1066.3	1067.8	1071.8	1057.5	1015.4	961.4	952.6	982.0	991.6	1093.3	1201.3
35°	1125.8	1126.6	1144.1	1145.7	1091.7	1022.6	985.2	1001.1	1007.5	1101.2	1202.9
37.5°	1178.3	1182.3	1216.4	1233.1	1188.6	1101.2	1036.9	1036.9	1040.0	1122.7	1212.4
40°	1237.1	1247.4	1288.7	1326.1	1308.6	1202.1	1112.3	1089.3	1090.9	1161.6	1233.9
42.5°	1305.4	1318.1	1372.1	1426.2	1425.4	1326.1	1207.7	1172.7	1174.3	1229.1	1277.6
45°	1392.0	1400.7	1469.1	1536.6	1550.9	1462.7	1327.6	1281.6	1283.2	1331.6	1362.6
47.5°	1497.7	1508.0	1574.0	1655.0	1691.5	1627.2	1483.4	1433.3	1428.6	1462.7	1485.0
50°	1635.9	1655.8	1694.7	1772.6	1860.8	1817.9	1666.1	1616.1	1609.7	1636.7	1643.9
52.5°	1767.8	1786.1	1802.0	1873.5	2044.3	2054.6	1890.2	1835.4	1829.0	1835.4	1844.1
55°	1787.7	1798.0	1809.9	1906.9	2192.9	2355.8	2145.2	2080.1	2061.8	2049.9	2079.3
57.5°	1629.6	1623.2	1662.9	1794.8	2217.5	2688.7	2490.0	2363.7	2346.2	2280.3	2250.9
60°	1290.3	1281.6	1318.9	1499.3	2079.3	2853.9	2968.3	2677.5	2634.6	2413.8	2385.2
62.5°	906.6	896.2	944.7	1051.2	1612.9	2821.4	3507.8	2974.7	2889.7	2532.1	2493.2
65°	698.4	693.6	719.8	743.7	984.4	2444.0	3805.0	3554.7	3379.1	2660.9	2610.8
67.5°	547.4	553.8	586.4	655.5	635.6	1523.1	3777.2	4439.8	4264.2	2897.6	2865.8
70°	440.2	441.8	482.3	592.7	599.9	775.5	3198.0	4897.4	4895.1	3279.8	3068.5
72.5°	266.2	273.3	339.3	512.5	605.4	593.5	2150.0	4487.5	4549.4	3368.8	2767.3
75°	127.9	135.1	175.6	344.0	601.5	577.6	1163.2	3397.4	3476.8	3020.8	2243.7
77.5°	47.7	54.0	81.0	168.4	445.7	529.2	611.8	2290.6	2353.4	2211.2	1519.9
80°	15.1	17.5	31.8	77.1	226.4	437.0	394.1	1291.9	1334.0	967.7	510.9
82.5°	1.6	2.4	8.7	26.2	87.4	222.5	231.2	486.2	507.7	189.1	103.3
85°	0.0	0.0	0.0	0.0	1.6	1.6	57.2	93.0	76.3	18.3	30.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.6	2.4	2.4	2.4	3.2
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°	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5	1169.5
2.5°	1168.0	1168.0	1162.4	1153.6	1142.5	1126.6	1122.7	1110.0	1110.0	1099.6	1098.0
5°	1169.5	1164.8	1146.5	1119.5	1082.1	1041.6	1016.2	988.4	964.6	949.5	951.0
7.5°	1169.5	1159.2	1122.7	1063.1	993.2	923.2	870.0	808.0	779.4	760.4	769.1
10°	1166.4	1148.9	1085.3	994.7	884.3	787.4	700.0	628.5	579.2	558.6	541.1
12.5°	1159.2	1133.8	1038.4	909.7	768.3	641.2	520.4	426.7	361.5	328.9	325.0
15°	1152.9	1117.9	983.6	816.8	637.2	471.2	336.1	246.3	190.7	178.0	179.6
17.5°	1151.3	1102.8	931.2	718.2	509.3	313.8	193.9	156.5	148.6	145.4	144.6
20°	1152.1	1089.3	874.0	620.5	360.7	195.5	147.0	138.2	135.1	133.5	132.7
22.5°	1155.2	1074.2	817.6	518.0	246.3	143.0	131.1	125.5	121.6	119.2	118.4
25°	1155.2	1057.5	754.8	409.2	161.3	125.5	117.6	110.4	104.9	101.7	101.7
27.5°	1152.9	1038.4	689.6	310.7	127.9	112.0	103.3	93.8	86.6	82.6	82.6
30°	1145.7	1015.4	626.9	216.9	112.0	100.1	89.0	77.1	68.3	64.4	62.8
32.5°	1135.4	990.8	554.6	152.5	100.9	87.4	74.7	62.0	54.0	49.3	49.3
35°	1124.3	966.1	476.7	116.8	91.4	77.1	62.8	50.1	42.9	39.7	38.9
37.5°	1118.7	939.9	400.4	100.9	81.8	65.9	50.8	40.5	35.0	32.6	31.8
40°	1122.7	920.1	325.8	90.6	73.1	55.6	42.1	34.2	29.4	26.2	26.2
42.5°	1146.5	908.9	255.0	82.6	65.2	46.9	35.0	27.8	23.0	20.7	20.7
45°	1195.0	916.9	193.9	75.5	55.6	38.9	29.4	22.2	17.5	15.1	15.1
47.5°	1276.0	948.7	147.0	69.1	47.7	31.8	23.8	17.5	13.5	11.9	11.1
50°	1394.4	1011.4	115.2	62.8	39.7	27.0	19.9	13.5	10.3	8.7	8.7
52.5°	1565.2	1120.3	98.5	55.6	32.6	22.2	15.9	10.3	7.9	6.4	6.4
55°	1775.0	1258.5	89.0	49.3	26.2	18.3	12.7	7.9	5.6	4.8	4.0
57.5°	1945.0	1368.2	83.4	42.9	22.2	15.9	9.5	6.4	4.8	3.2	3.2
60°	2095.2	1438.9	73.9	35.8	19.1	12.7	7.9	4.8	3.2	2.4	2.4
62.5°	2216.7	1485.0	61.2	28.6	15.9	10.3	6.4	4.0	3.2	2.4	2.4
65°	2355.0	1522.3	50.1	22.2	13.5	8.7	5.6	3.2	2.4	2.4	2.4
67.5°	2625.9	1605.7	37.3	17.5	10.3	7.2	4.8	3.2	2.4	1.6	1.6
70°	2731.6	1508.0	29.4	14.3	7.9	6.4	4.8	3.2	1.6	1.6	1.6
72.5°	2324.8	1129.0	23.0	11.9	7.2	5.6	4.8	3.2	2.4	2.4	1.6
75°	1844.1	762.7	18.3	9.5	7.2	6.4	4.8	4.8	4.0	3.2	3.2
77.5°	1177.5	337.7	14.3	7.9	7.2	7.9	7.2	4.8	4.8	4.0	4.0
80°	351.2	81.0	10.3	6.4	5.6	6.4	7.2	4.8	3.2	2.4	2.4
82.5°	76.3	19.1	6.4	3.2	4.0	3.2	4.8	4.8	3.2	2.4	2.4
85°	25.4	7.2	4.0	3.2	2.4	2.4	2.4	2.4	2.4	2.4	1.6
87.5°	1.6	2.4	2.4	1.6	1.6	1.6	1.6	0.8	0.8	1.6	1.6
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)