

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: P401935

Luminaire Tested: **ENT-SA1F-830-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401935
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-SA1F-830-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 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: 5001 lumens
Efficiency: N/A
Efficacy: 75.7 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

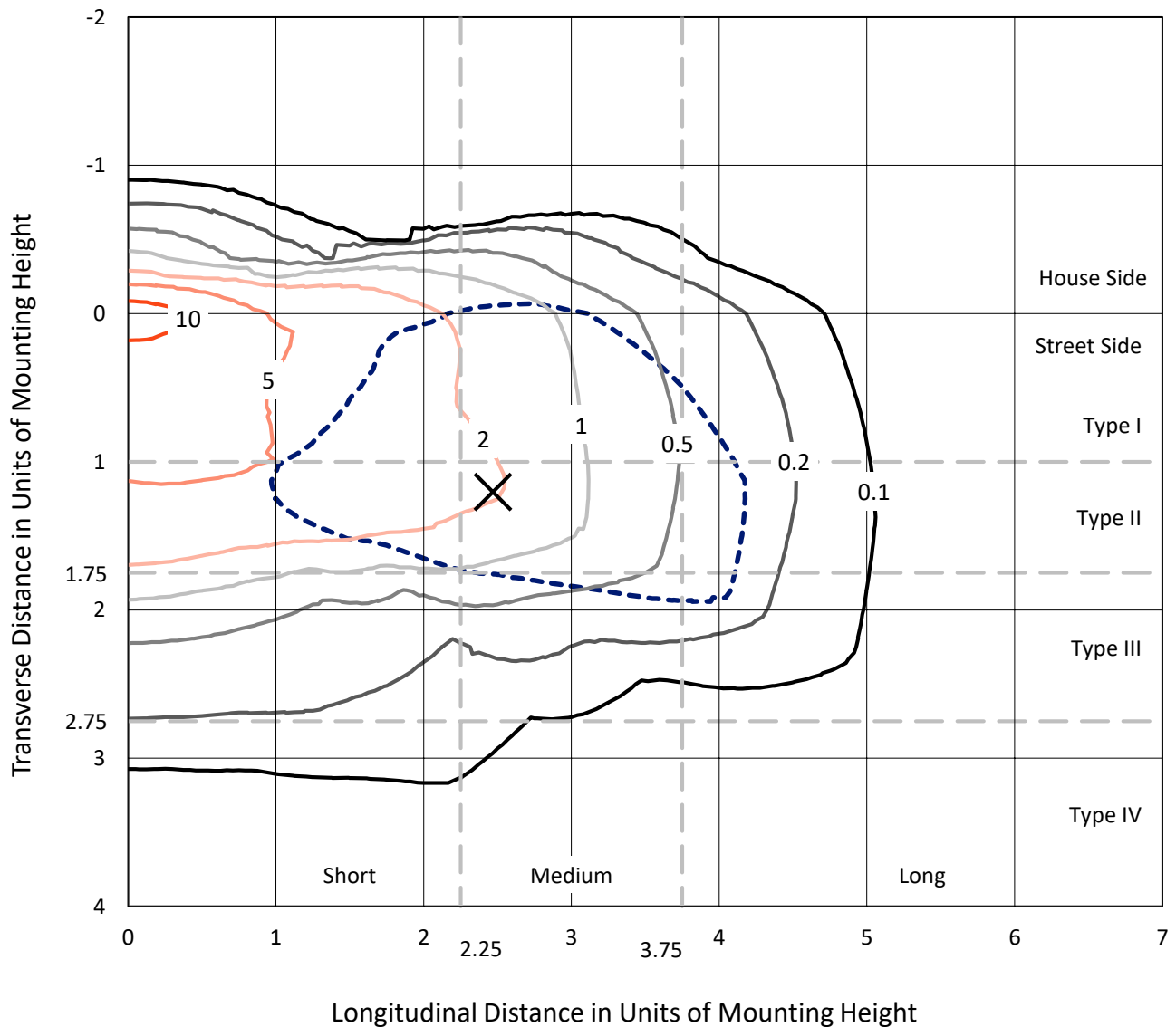


REPORT NUMBER: P401935

CATALOG NUMBER: ENT-SA1F-830-U-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

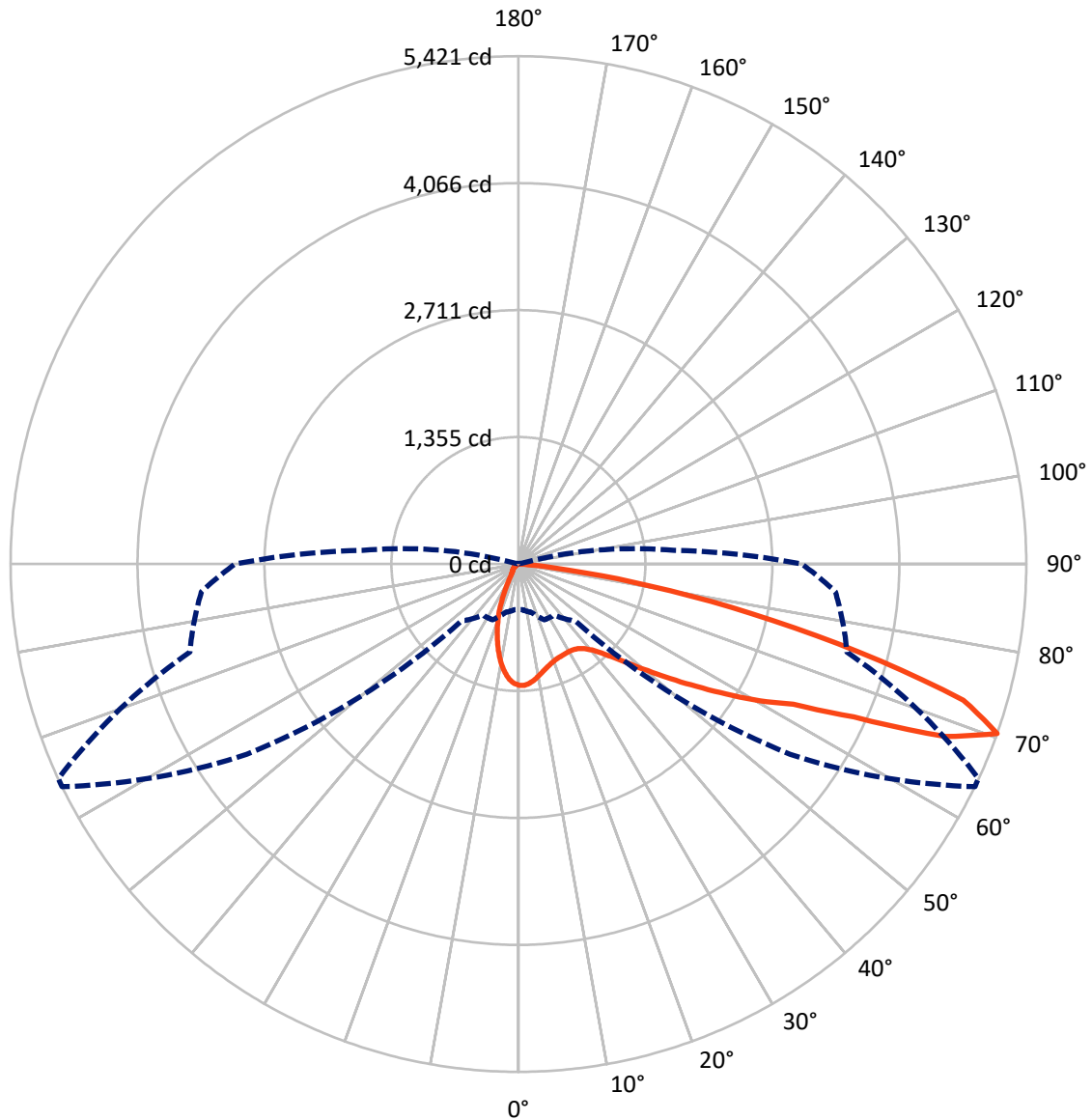


Based on 10 foot mounting height. Maximum calculated value = 12.9 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401935

CATALOG NUMBER: ENT-SA1F-830-U-SL2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401935

CATALOG NUMBER: ENT-SA1F-830-U-SL2-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	642.4	0.0	642.4
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	4358.5	0.0	4358.5
	% Fixture	87.2	0.0	87.2
Total	Lumens	5001.0	0.0	5001.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.1	2.2
10°-20°	242.1	4.8
20°-30°	333.4	6.7
30°-40°	459.1	9.2
40°-50°	684.3	13.7
50°-60°	1080.9	21.6
60°-70°	1224.8	24.5
70°-80°	804.2	16.1
80°-90°	63.0	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°	5001.0	100.0
0°-180°	5001.0	100.0



REPORT NUMBER: P401935

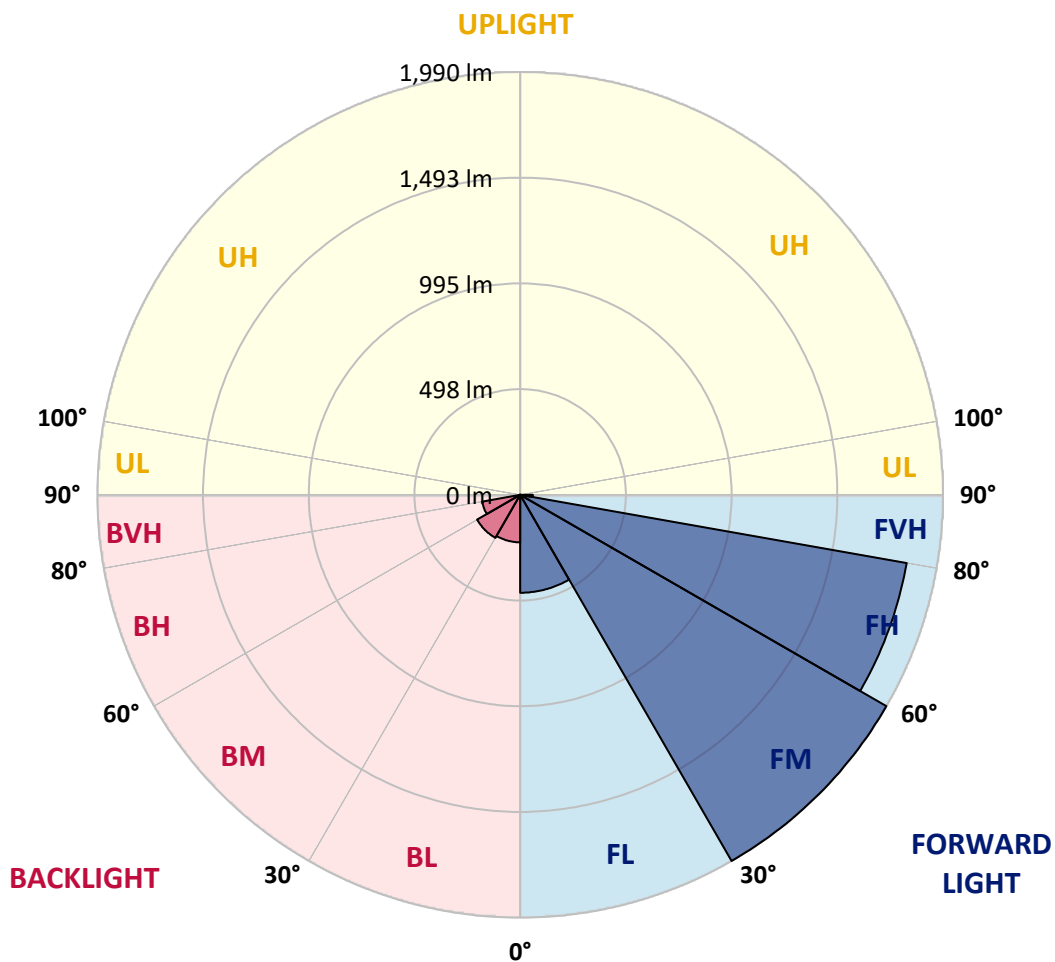
CATALOG NUMBER: ENT-SA1F-830-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	461.0	9.2			
FM (30°-60°)	1990.3	39.8			
FH (60°-80°)	1847.7	36.9			G2/5000
FVH (80°-90°)	59.6	1.2			G1/100
BL (0°-30°)	223.6	4.5	B1/500		
BM (30°-60°)	234.0	4.7	B1/1000		
BH (60°-80°)	181.4	3.6	B1/500		G1/500
BVH (80°-90°)	3.5	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





REPORT NUMBER: P401935

CATALOG NUMBER: ENT-SA1F-830-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6
2.5°	1258.5	1258.5	1264.7	1270.8	1274.3	1284.0	1291.1	1296.3	1296.3	1299.8	1293.7
5°	1175.0	1175.0	1180.2	1195.2	1211.0	1231.2	1254.1	1277.0	1281.4	1298.1	1297.2
7.5°	1097.6	1104.6	1113.4	1128.4	1145.1	1175.0	1206.6	1246.2	1250.6	1291.1	1299.8
10°	1043.9	1048.3	1053.6	1070.3	1094.9	1129.2	1163.5	1210.1	1218.1	1278.7	1299.8
12.5°	1000.8	1001.7	1009.6	1028.1	1051.8	1085.3	1124.0	1175.0	1184.6	1256.8	1296.3
15°	970.0	969.2	978.0	995.6	1018.4	1052.7	1090.5	1144.2	1154.7	1238.3	1295.4
17.5°	951.6	952.5	959.5	972.7	994.7	1027.2	1065.9	1118.7	1129.2	1223.3	1299.8
20°	951.6	951.6	956.0	962.1	978.8	1007.9	1045.7	1100.2	1110.8	1213.7	1306.0
22.5°	970.0	968.3	971.8	966.5	974.4	994.7	1033.4	1087.9	1099.3	1209.3	1315.7
25°	1003.5	999.9	1002.6	991.2	982.4	991.2	1025.5	1082.6	1094.9	1210.1	1324.5
27.5°	1050.1	1050.1	1044.8	1029.0	1007.0	997.3	1024.6	1079.1	1091.4	1210.1	1330.6
30°	1115.2	1112.5	1104.6	1088.8	1054.5	1021.9	1033.4	1079.1	1091.4	1211.0	1332.4
32.5°	1180.2	1182.0	1186.4	1170.6	1124.0	1064.2	1054.5	1087.0	1097.6	1210.1	1329.7
35°	1246.2	1247.1	1266.4	1268.2	1208.4	1131.9	1090.5	1108.1	1115.2	1218.9	1331.5
37.5°	1304.2	1308.6	1346.5	1364.9	1315.7	1218.9	1147.7	1147.7	1151.2	1242.7	1342.1
40°	1369.3	1380.8	1426.5	1467.8	1448.5	1330.6	1231.2	1205.7	1207.5	1285.8	1365.8
42.5°	1445.0	1459.0	1518.8	1578.6	1577.8	1467.8	1336.8	1298.1	1299.8	1360.5	1414.2
45°	1540.8	1550.5	1626.1	1700.9	1716.7	1619.1	1469.6	1418.6	1420.3	1474.0	1508.3
47.5°	1657.8	1669.2	1742.2	1831.9	1872.4	1801.1	1642.0	1586.6	1581.3	1619.1	1643.7
50°	1810.8	1832.8	1875.9	1962.1	2059.7	2012.2	1844.2	1788.8	1781.8	1811.7	1819.6
52.5°	1956.8	1977.0	1994.6	2073.8	2262.9	2274.3	2092.2	2031.6	2024.5	2031.6	2041.2
55°	1978.8	1990.2	2003.4	2110.7	2427.3	2607.6	2374.6	2302.4	2282.2	2269.0	2301.6
57.5°	1803.8	1796.7	1840.7	1986.7	2454.6	2976.1	2756.2	2616.4	2597.1	2524.1	2491.5
60°	1428.2	1418.6	1459.9	1659.5	2301.6	3159.0	3285.7	2963.8	2916.3	2671.8	2640.1
62.5°	1003.5	992.0	1045.7	1163.5	1785.3	3123.0	3882.8	3292.7	3198.6	2802.8	2759.8
65°	773.0	767.8	796.8	823.2	1089.7	2705.2	4211.7	3934.7	3740.4	2945.3	2889.9
67.5°	606.0	613.0	649.0	725.6	703.6	1685.9	4181.0	4914.4	4720.1	3207.4	3172.2
70°	487.2	489.0	533.8	656.1	664.0	858.4	3539.8	5421.0	5418.4	3630.4	3396.5
72.5°	294.6	302.5	375.5	567.3	670.2	657.0	2379.8	4967.2	5035.8	3728.9	3063.2
75°	141.6	149.5	194.4	380.8	665.8	639.4	1287.5	3760.6	3848.5	3343.7	2483.6
77.5°	52.8	59.8	89.7	186.4	493.4	585.7	677.2	2535.5	2605.0	2447.5	1682.4
80°	16.7	19.3	35.2	85.3	250.6	483.7	436.2	1430.0	1476.6	1071.2	565.5
82.5°	1.8	2.6	9.7	29.0	96.7	246.2	255.9	538.2	562.0	209.3	114.3
85°	0.0	0.0	0.0	0.0	1.8	1.8	63.3	102.9	84.4	20.2	33.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.9	1.8	2.6	2.6	2.6	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401935

CATALOG NUMBER: ENT-SA1F-830-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6	1294.6
2.5°	1292.8	1292.8	1286.7	1277.0	1264.7	1247.1	1242.7	1228.6	1228.6	1217.2	1215.4
5°	1294.6	1289.3	1269.1	1239.2	1197.8	1153.0	1124.8	1094.1	1067.7	1051.0	1052.7
7.5°	1294.6	1283.1	1242.7	1176.7	1099.3	1021.9	963.0	894.4	862.8	841.6	851.3
10°	1291.1	1271.7	1201.3	1101.1	978.8	871.5	774.8	695.7	641.1	618.3	598.9
12.5°	1283.1	1255.0	1149.5	1007.0	850.4	709.7	576.0	472.3	400.2	364.1	359.7
15°	1276.1	1237.4	1088.8	904.1	705.3	521.5	372.0	272.6	211.1	197.0	198.8
17.5°	1274.3	1220.7	1030.7	795.0	563.7	347.4	214.6	173.3	164.5	160.9	160.1
20°	1275.2	1205.7	967.4	686.9	399.3	216.3	162.7	153.0	149.5	147.7	146.9
22.5°	1278.7	1189.0	905.0	573.4	272.6	158.3	145.1	139.0	134.6	131.9	131.0
25°	1278.7	1170.6	835.5	452.9	178.5	139.0	130.2	122.2	116.1	112.6	112.6
27.5°	1276.1	1149.5	763.4	343.9	141.6	124.0	114.3	103.8	95.9	91.5	91.5
30°	1268.2	1124.0	693.9	240.1	124.0	110.8	98.5	85.3	75.6	71.2	69.5
32.5°	1256.8	1096.7	613.9	168.9	111.7	96.7	82.7	68.6	59.8	54.5	54.5
35°	1244.4	1069.4	527.7	129.3	101.1	85.3	69.5	55.4	47.5	44.0	43.1
37.5°	1238.3	1040.4	443.2	111.7	90.6	73.0	56.3	44.9	38.7	36.1	35.2
40°	1242.7	1018.4	360.6	100.3	80.9	61.6	46.6	37.8	32.5	29.0	29.0
42.5°	1269.1	1006.1	282.3	91.5	72.1	51.9	38.7	30.8	25.5	22.9	22.9
45°	1322.7	1014.9	214.6	83.5	61.6	43.1	32.5	24.6	19.3	16.7	16.7
47.5°	1412.4	1050.1	162.7	76.5	52.8	35.2	26.4	19.3	15.0	13.2	12.3
50°	1543.5	1119.6	127.5	69.5	44.0	29.9	22.0	15.0	11.4	9.7	9.7
52.5°	1732.5	1240.0	109.1	61.6	36.1	24.6	17.6	11.4	8.8	7.0	7.0
55°	1964.7	1393.1	98.5	54.5	29.0	20.2	14.1	8.8	6.2	5.3	4.4
57.5°	2152.9	1514.4	92.3	47.5	24.6	17.6	10.6	7.0	5.3	3.5	3.5
60°	2319.1	1592.7	81.8	39.6	21.1	14.1	8.8	5.3	3.5	2.6	2.6
62.5°	2453.7	1643.7	67.7	31.7	17.6	11.4	7.0	4.4	3.5	2.6	2.6
65°	2606.7	1685.1	55.4	24.6	15.0	9.7	6.2	3.5	2.6	2.6	2.6
67.5°	2906.6	1777.4	41.3	19.3	11.4	7.9	5.3	3.5	2.6	1.8	1.8
70°	3023.6	1669.2	32.5	15.8	8.8	7.0	5.3	3.5	1.8	1.8	1.8
72.5°	2573.3	1249.7	25.5	13.2	7.9	6.2	5.3	3.5	2.6	2.6	1.8
75°	2041.2	844.3	20.2	10.6	7.9	7.0	5.3	5.3	4.4	3.5	3.5
77.5°	1303.4	373.8	15.8	8.8	7.9	8.8	7.9	5.3	5.3	4.4	4.4
80°	388.7	89.7	11.4	7.0	6.2	7.0	7.9	5.3	3.5	2.6	2.6
82.5°	84.4	21.1	7.0	3.5	4.4	3.5	5.3	5.3	3.5	2.6	2.6
85°	28.1	7.9	4.4	3.5	2.6	2.6	2.6	2.6	2.6	2.6	1.8
87.5°	1.8	2.6	2.6	1.8	1.8	1.8	1.8	0.9	0.9	1.8	1.8
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)