

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: P401919

Luminaire Tested: **ENT-SA1F-827-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401919
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-827-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS 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: 4796 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

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

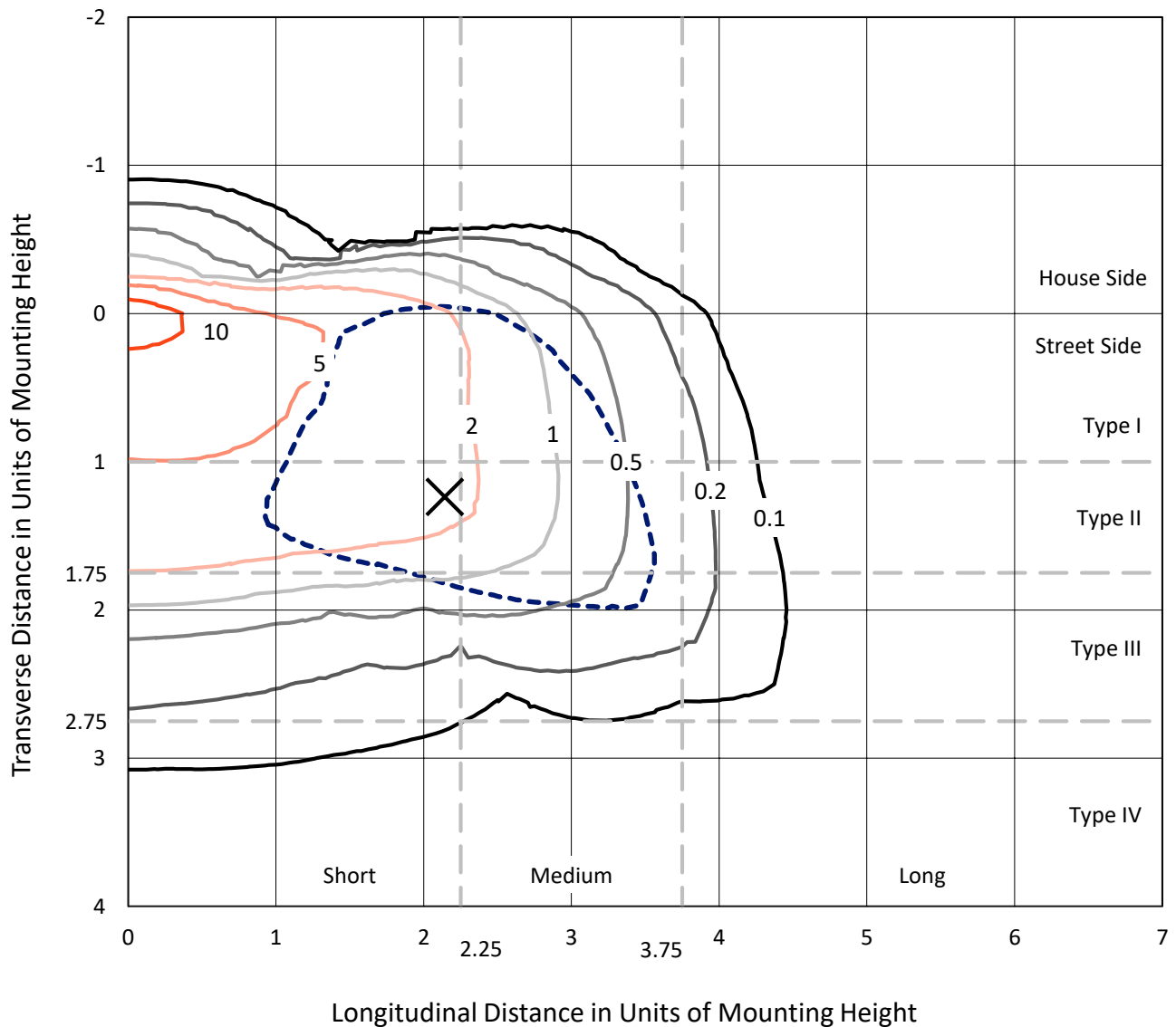


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

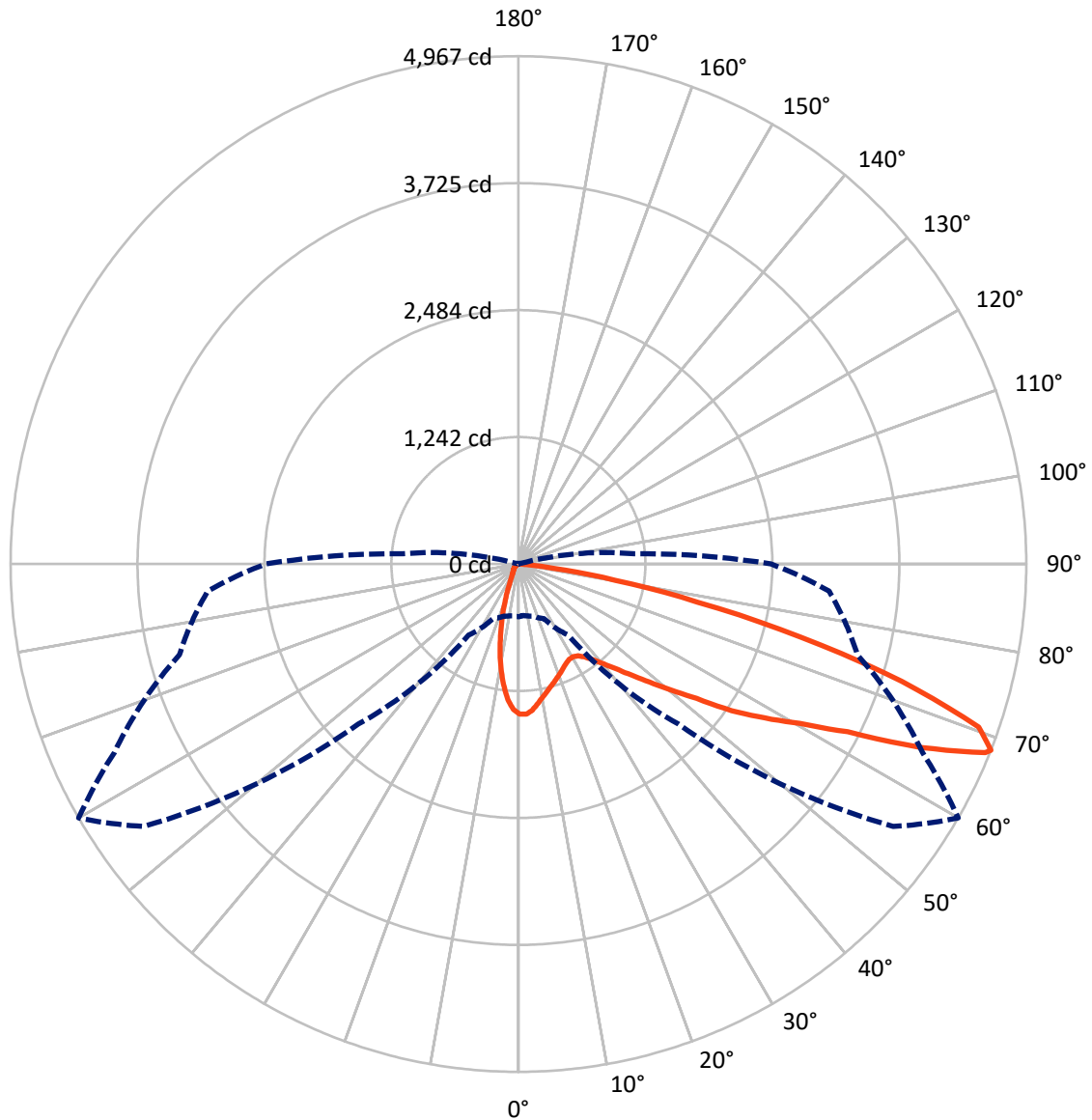


Based on 10 foot mounting height. Maximum calculated value = 14.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	536.2	0.0	536.2
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	4259.8	0.0	4259.8
	% Fixture	88.8	0.0	88.8
Total	Lumens	4796.0	0.0	4796.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	2.5
10°-20°	243.0	5.1
20°-30°	319.9	6.7
30°-40°	441.5	9.2
40°-50°	669.2	14.0
50°-60°	1079.8	22.5
60°-70°	1282.7	26.7
70°-80°	604.7	12.6
80°-90°	36.1	0.8
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°	4796.0	100.0
0°-180°	4796.0	100.0



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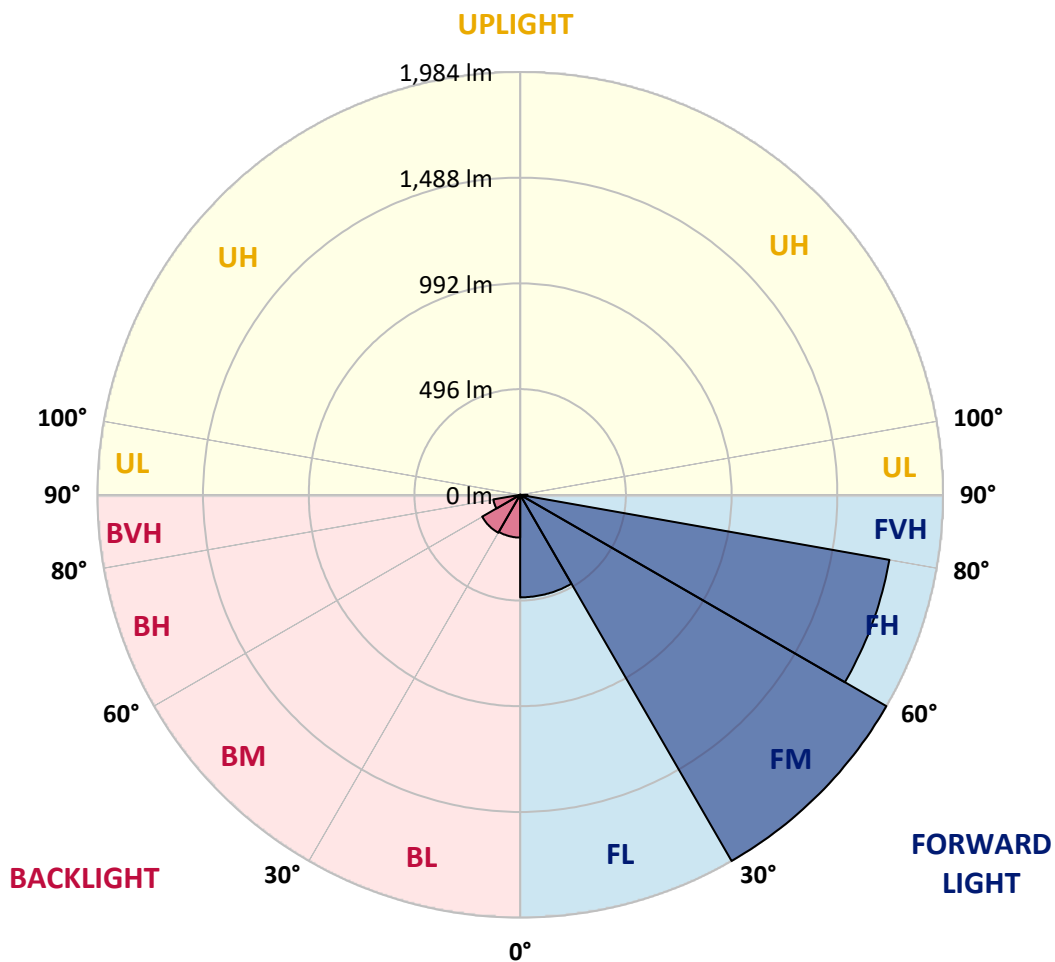
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	481.3	10.0			
FM	(30°-60°)	1984.4	41.4			
FH	(60°-80°)	1759.5	36.7			G1/1800
FVH	(80°-90°)	34.6	0.7			G1/100
BL	(0°-30°)	200.7	4.2	B1/500		
BM	(30°-60°)	206.1	4.3	B0/220		
BH	(60°-80°)	127.9	2.7	B1/500		G1/500
BVH	(80°-90°)	1.5	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0
2.5°	1455.0	1451.7	1460.7	1463.1	1465.6	1470.4	1469.6	1470.4	1471.3	1469.6	1459.9
5°	1355.7	1361.4	1369.5	1380.1	1390.7	1415.1	1424.9	1434.6	1441.1	1446.0	1437.1
7.5°	1258.1	1269.4	1276.0	1295.5	1311.8	1337.0	1358.1	1375.2	1391.5	1409.4	1400.5
10°	1179.9	1184.0	1189.7	1207.6	1232.0	1270.3	1297.9	1319.1	1338.6	1368.7	1361.4
12.5°	1103.4	1105.9	1117.3	1136.8	1162.0	1209.2	1245.8	1270.3	1292.2	1329.7	1330.5
15°	1047.3	1048.1	1055.4	1073.3	1102.6	1153.1	1200.3	1227.1	1258.1	1303.6	1306.1
17.5°	1010.7	1009.9	1011.5	1022.9	1050.5	1098.6	1155.5	1187.3	1223.9	1282.5	1284.9
20°	999.3	997.7	994.4	992.0	1009.0	1050.5	1114.8	1149.8	1193.0	1267.0	1267.8
22.5°	1009.0	1005.8	998.5	984.6	989.5	1016.4	1070.1	1112.4	1165.3	1258.9	1253.2
25°	1032.6	1032.6	1022.9	1000.9	989.5	995.2	1038.3	1079.0	1137.6	1254.8	1242.6
27.5°	1071.7	1070.1	1057.1	1034.3	1013.1	997.7	1018.8	1057.1	1117.3	1259.7	1237.7
30°	1118.9	1114.0	1100.2	1083.9	1057.9	1024.5	1022.9	1051.4	1107.5	1275.1	1241.0
32.5°	1163.7	1163.7	1158.0	1142.5	1117.3	1073.3	1048.1	1070.9	1119.7	1300.4	1251.5
35°	1219.0	1218.2	1219.8	1214.1	1192.1	1145.8	1105.1	1116.5	1157.2	1342.7	1276.8
37.5°	1262.9	1263.8	1277.6	1287.3	1277.6	1228.8	1186.4	1186.4	1220.6	1406.2	1319.9
40°	1306.1	1307.7	1333.7	1362.2	1364.7	1325.6	1284.9	1284.1	1303.6	1484.3	1386.6
42.5°	1345.1	1351.6	1389.1	1437.9	1466.4	1440.3	1410.2	1400.5	1410.2	1602.3	1494.9
45°	1386.6	1399.6	1451.7	1522.5	1568.9	1569.7	1558.3	1546.9	1551.8	1734.9	1639.7
47.5°	1440.3	1455.0	1520.1	1607.2	1695.0	1717.8	1728.4	1724.3	1711.3	1902.5	1826.9
50°	1527.4	1541.2	1602.3	1699.9	1820.4	1902.5	1931.0	1935.9	1918.8	2088.1	2039.3
52.5°	1675.5	1683.6	1740.6	1817.9	1953.0	2106.8	2181.7	2182.5	2144.2	2305.3	2268.7
55°	1834.2	1855.3	1922.1	2011.6	2150.7	2323.3	2510.4	2530.8	2412.8	2495.8	2436.4
57.5°	1836.6	1857.0	1967.6	2139.3	2430.7	2659.3	2826.1	2840.8	2709.8	2648.8	2594.2
60°	1643.0	1653.5	1807.3	2058.8	2530.8	3112.6	3185.8	3163.9	2918.1	2806.6	2792.0
62.5°	1159.6	1164.5	1346.8	1677.9	2309.4	3329.0	3733.5	3615.5	3214.3	3039.4	3088.2
65°	729.9	727.5	803.2	1067.6	1717.8	3115.8	4410.5	4324.3	3758.7	3330.7	3319.3
67.5°	538.7	525.7	546.0	628.2	981.4	2446.1	4535.0	4924.0	4277.1	3451.9	3119.1
68°	516.7	505.3	526.5	590.0	848.7	2214.2	4474.8	4967.1	4359.2	3432.4	3050.7
70°	438.6	428.0	445.9	493.9	590.8	1437.1	3948.3	4775.9	4434.1	3266.4	2688.6
72.5°	311.7	317.4	364.6	424.0	500.5	737.3	2907.5	3922.3	3814.0	2905.1	2045.8
75°	184.7	195.3	257.1	341.8	459.8	486.6	1875.7	2851.4	2798.5	2011.6	1108.3
77.5°	65.1	69.2	127.8	227.8	379.2	385.7	1044.9	1792.7	1667.4	821.9	327.1
80°	23.6	23.6	47.2	126.9	244.9	294.6	555.0	957.0	658.3	213.2	90.3
82.5°	4.1	4.1	10.6	43.1	108.2	157.1	258.0	340.1	195.3	47.2	44.8
85°	0.0	0.0	0.0	0.0	1.6	1.6	75.7	76.5	35.8	6.5	19.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.6	1.6	1.6	1.6	2.4
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°	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0	1468.0
2.5°	1455.8	1454.2	1445.2	1428.9	1415.1	1392.3	1388.3	1366.3	1358.1	1351.6	1358.1
5°	1430.6	1421.6	1391.5	1354.9	1305.3	1246.7	1212.5	1165.3	1155.5	1129.5	1144.9
7.5°	1389.1	1368.7	1312.6	1233.6	1142.5	1053.0	984.6	918.7	862.6	843.0	837.3
10°	1345.1	1316.6	1222.2	1100.2	968.4	830.8	729.1	633.9	581.0	531.4	529.8
12.5°	1303.6	1260.5	1123.8	953.7	769.8	606.2	474.4	374.3	311.7	277.5	286.4
15°	1270.3	1212.5	1024.5	807.2	574.5	390.6	268.5	204.3	182.3	171.7	173.3
17.5°	1237.7	1161.2	928.5	654.3	409.3	240.9	174.1	152.2	145.7	143.2	141.6
20°	1208.4	1111.6	827.6	515.9	270.2	166.8	143.2	135.9	133.5	131.8	131.8
22.5°	1179.1	1059.5	726.7	382.5	184.7	136.7	128.6	125.3	123.7	121.2	121.2
25°	1152.3	1009.0	625.8	267.7	141.6	122.1	116.4	113.1	109.9	107.4	107.4
27.5°	1131.9	970.8	532.2	189.6	118.8	109.9	104.2	98.5	94.4	91.1	91.1
30°	1118.9	933.4	441.9	143.2	105.8	97.6	90.3	83.0	76.5	72.4	71.6
32.5°	1111.6	902.4	358.0	117.2	94.4	85.4	76.5	68.4	61.0	56.1	56.1
35°	1114.8	878.0	274.2	99.3	85.4	74.9	65.1	55.3	48.8	44.8	43.9
37.5°	1136.0	864.2	204.3	87.9	76.5	65.1	55.3	45.6	39.1	35.8	35.0
40°	1175.9	867.5	155.4	79.7	70.0	57.0	45.6	37.4	31.7	28.5	28.5
42.5°	1256.4	891.1	122.9	73.2	62.7	48.8	38.2	30.9	26.0	23.6	22.8
45°	1363.0	935.8	100.9	67.5	55.3	41.5	32.5	26.0	21.2	18.7	18.7
47.5°	1524.2	1007.4	87.1	61.8	48.0	35.0	26.9	21.2	16.3	14.6	13.8
50°	1710.5	1107.5	76.5	55.3	42.3	29.3	22.8	16.3	13.0	10.6	10.6
52.5°	1900.9	1219.0	69.2	49.6	36.6	25.2	17.9	12.2	9.0	7.3	7.3
55°	2075.9	1312.6	61.8	44.8	30.9	21.2	14.6	9.8	6.5	4.9	4.9
57.5°	2245.1	1398.0	53.7	39.1	25.2	17.1	11.4	7.3	4.9	3.3	3.3
60°	2457.5	1508.7	46.4	33.4	20.3	13.8	9.0	5.7	3.3	2.4	1.6
62.5°	2713.9	1589.3	39.1	26.9	16.3	10.6	6.5	4.1	2.4	0.8	0.8
65°	2808.2	1482.6	32.5	22.0	13.0	8.1	4.9	3.3	1.6	0.8	0.8
67.5°	2544.6	1194.6	26.0	17.1	9.8	5.7	4.1	2.4	1.6	0.8	0.8
68°	2471.4	1136.0	25.2	16.3	9.0	5.7	3.3	2.4	0.8	0.8	0.0
70°	2086.5	912.2	20.3	12.2	7.3	4.9	3.3	1.6	0.8	0.8	0.0
72.5°	1546.9	629.0	14.6	8.1	4.9	3.3	2.4	1.6	0.8	0.8	0.0
75°	816.2	244.9	11.4	6.5	4.1	3.3	2.4	2.4	1.6	0.8	0.8
77.5°	234.4	77.3	9.0	4.9	4.1	4.1	4.1	3.3	3.3	2.4	1.6
80°	68.4	25.2	5.7	3.3	4.1	4.1	4.9	4.1	4.1	3.3	3.3
82.5°	36.6	9.8	3.3	2.4	2.4	3.3	4.1	3.3	2.4	1.6	0.8
85°	15.5	3.3	2.4	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8
87.5°	0.8	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)