

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: McGRAW-EDISON

Report Number: P301932

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-7027-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301932
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-SL4-7027-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7670 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

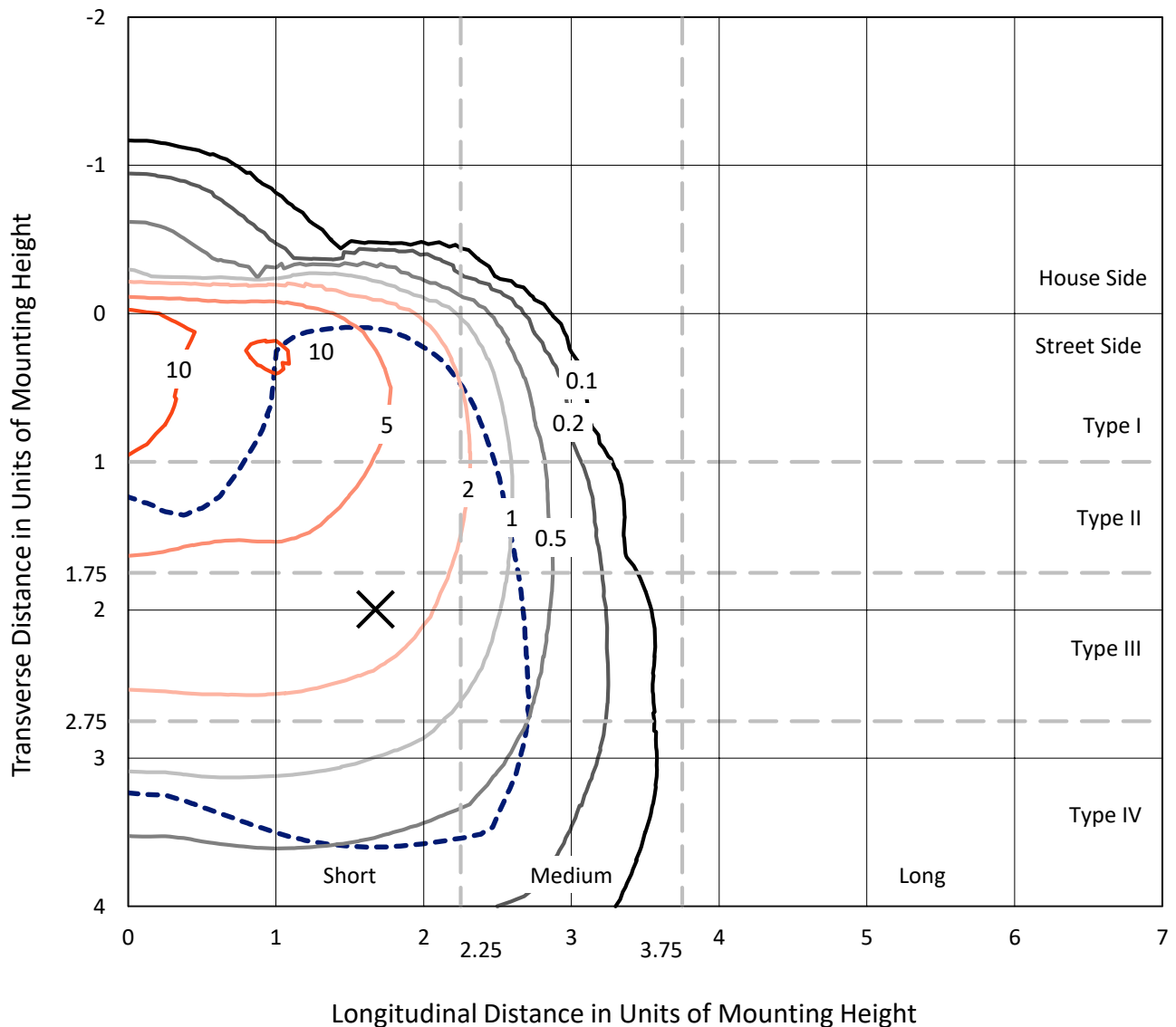


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

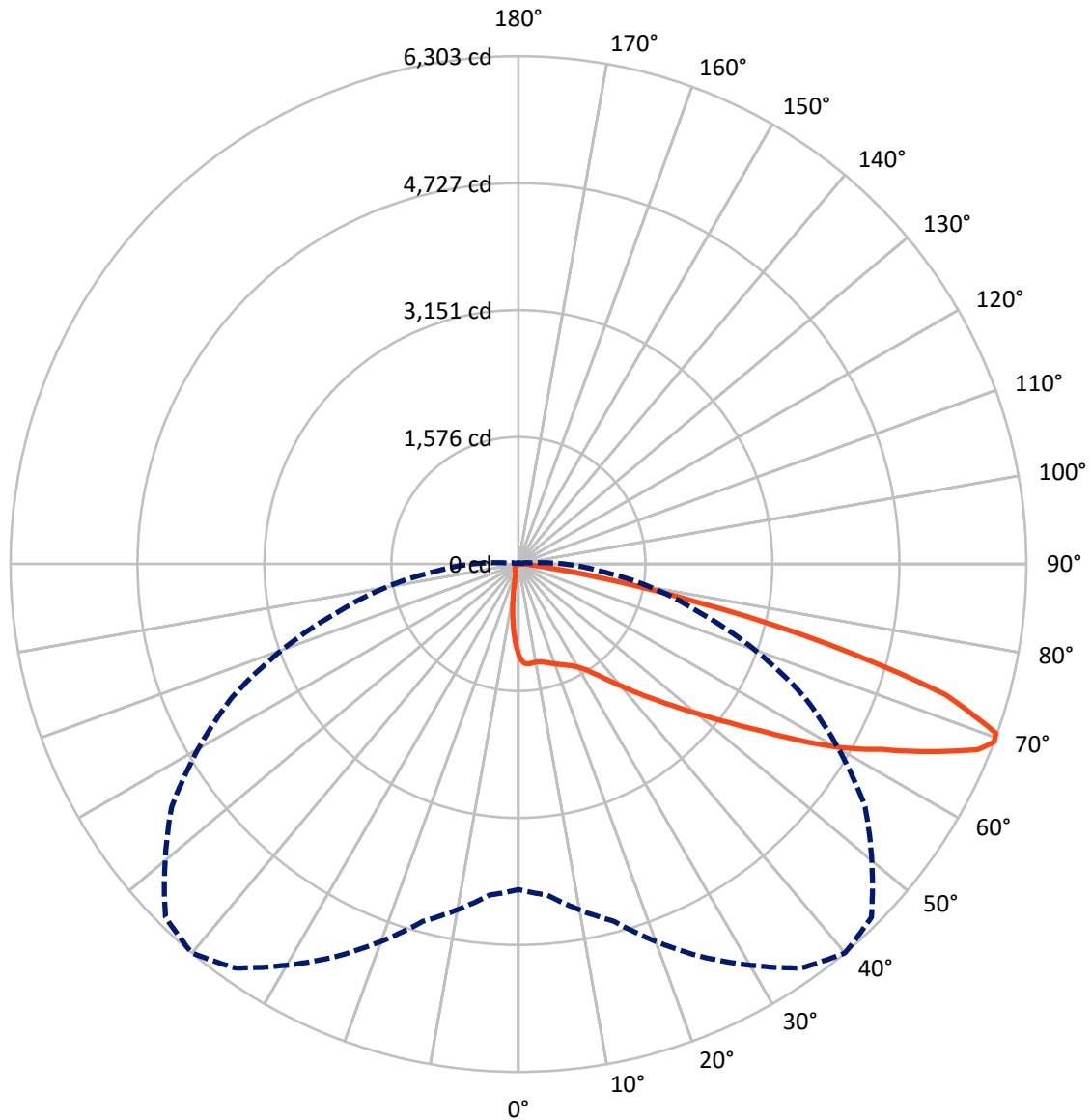


Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	448.7	0.0	448.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	7221.2	0.0	7221.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	7670.0	0.0	7670.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.9	1.2
10°-20°	228.5	3.0
20°-30°	384.9	5.0
30°-40°	630.0	8.2
40°-50°	1090.9	14.2
50°-60°	1718.2	22.4
60°-70°	2243.9	29.3
70°-80°	1155.7	15.1
80°-90°	125.0	1.6
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°	7670.0	100.0
0°-180°	7670.0	100.0

Coefficient of Utilization



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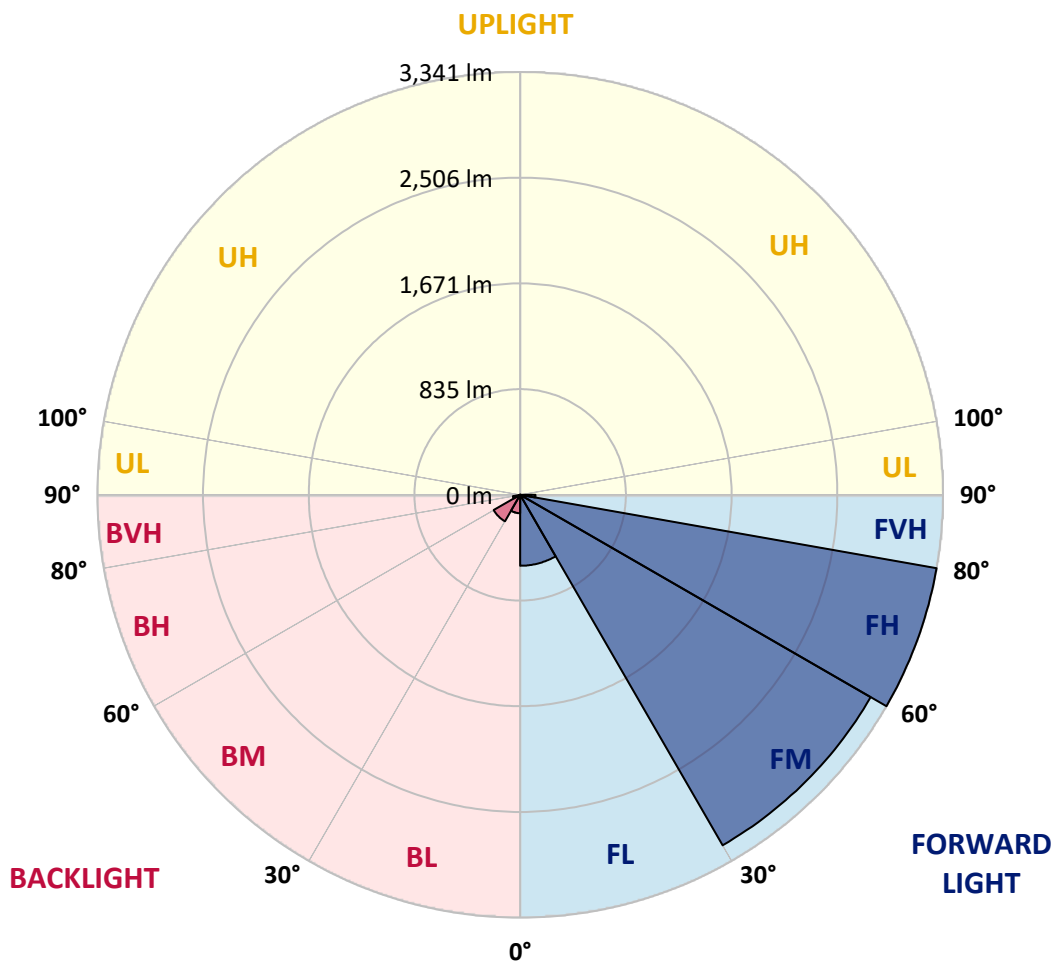
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	560.9	7.3			
FM	(30°-60°)	3197.9	41.7			
FH	(60°-80°)	3341.4	43.6			G2/5000
FVH	(80°-90°)	121.1	1.6			G2/225
BL	(0°-30°)	145.4	1.9	B1/500		
BM	(30°-60°)	241.2	3.1	B1/1000		
BH	(60°-80°)	58.3	0.8	B0/110		G0/110
BVH	(80°-90°)	3.9	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9
2.5°	1258.2	1251.4	1247.3	1241.8	1235.0	1229.0	1226.7	1209.9	1193.9	1172.0	1146.8
5°	1281.5	1279.2	1271.9	1264.6	1256.4	1247.3	1242.3	1222.2	1199.4	1167.4	1123.6
7.5°	1283.8	1281.1	1271.9	1261.9	1250.5	1239.5	1230.9	1210.8	1189.8	1157.3	1103.9
10°	1280.2	1277.0	1270.1	1259.2	1245.0	1234.5	1225.8	1206.7	1188.8	1159.6	1100.3
12.5°	1276.1	1272.9	1269.7	1264.2	1251.9	1244.5	1237.2	1219.0	1203.0	1178.3	1113.5
15°	1280.2	1278.3	1282.0	1279.7	1272.9	1266.5	1259.2	1242.7	1228.1	1207.6	1137.7
17.5°	1297.5	1297.5	1308.9	1310.3	1303.9	1294.8	1284.3	1267.8	1255.5	1238.2	1166.5
20°	1338.1	1336.8	1351.4	1354.1	1338.6	1324.4	1308.9	1288.8	1279.2	1268.3	1194.8
22.5°	1408.0	1401.6	1410.3	1407.5	1376.9	1355.0	1335.9	1311.2	1306.2	1301.2	1226.3
25°	1498.8	1495.2	1501.1	1474.2	1420.3	1390.6	1367.8	1340.0	1340.0	1345.0	1261.9
27.5°	1630.8	1617.1	1597.0	1549.5	1468.7	1430.8	1406.2	1376.5	1384.3	1403.0	1308.9
30°	1765.9	1750.9	1704.7	1631.7	1527.6	1487.9	1459.1	1428.1	1446.3	1480.6	1371.9
32.5°	1899.2	1882.3	1817.1	1724.8	1612.1	1572.3	1544.5	1510.3	1540.8	1598.4	1464.1
35°	2028.4	2013.4	1938.0	1829.4	1724.4	1691.5	1665.9	1636.3	1675.5	1755.9	1594.3
37.5°	2173.6	2157.2	2065.4	1947.6	1860.9	1837.1	1818.4	1788.8	1857.2	1975.0	1775.5
40°	2352.1	2324.3	2200.6	2083.2	2018.9	2007.4	1994.7	1990.5	2096.9	2259.9	2017.0
42.5°	2556.7	2511.0	2342.1	2226.1	2192.3	2200.6	2197.4	2215.6	2396.9	2614.2	2311.0
45°	2761.2	2702.3	2499.6	2378.6	2383.2	2411.9	2429.7	2502.8	2772.6	3020.5	2627.4
47.5°	2934.7	2876.7	2650.7	2543.4	2598.2	2654.8	2703.2	2841.6	3158.9	3420.5	2873.5
50°	3083.1	3028.3	2811.0	2724.7	2847.9	2939.3	3017.8	3222.8	3574.3	3725.0	3046.1
52.5°	3204.5	3168.0	2977.1	2932.4	3133.3	3267.1	3382.1	3627.7	3942.3	3972.4	3180.3
55°	3322.8	3296.7	3155.7	3179.4	3468.4	3650.6	3796.2	4057.3	4259.1	4178.8	3309.1
57.5°	3458.8	3435.1	3359.3	3492.6	3909.0	4138.1	4297.0	4438.1	4538.1	4389.7	3430.5
60°	3597.6	3583.9	3585.7	3840.5	4414.8	4634.9	4722.5	4759.1	4812.0	4588.3	3437.3
62.5°	3730.0	3756.0	3844.6	4227.6	4899.2	5068.1	5112.4	5148.5	5086.4	4619.8	3175.7
65°	3954.2	3996.6	4208.0	4745.8	5432.0	5612.8	5658.4	5534.7	5129.8	4212.6	2583.1
67.5°	4063.7	4141.3	4518.4	5228.8	5948.8	6149.7	6132.8	5559.8	4603.4	3212.3	1657.7
69°	4040.9	4123.5	4590.1	5376.8	6120.5	6302.6	6195.3	5252.6	3921.7	2327.0	1017.6
70°	3950.5	4034.1	4553.1	5371.3	6142.4	6286.7	6079.4	4873.2	3315.9	1701.6	636.4
72.5°	3299.0	3371.1	4042.3	4854.9	5658.4	5541.1	5085.9	3376.2	1615.7	463.4	143.4
75°	2030.7	2070.9	2900.4	3657.4	4273.7	3972.4	3388.5	1679.6	481.7	131.0	79.4
77.5°	1072.9	1091.1	1587.9	2155.8	2709.2	2241.6	1736.7	655.1	221.9	82.2	57.5
80°	634.1	647.8	855.1	985.7	1172.4	979.3	694.4	402.2	158.9	51.6	51.1
82.5°	363.0	371.6	620.0	547.9	462.0	394.5	345.6	381.2	95.4	34.7	53.0
85°	133.3	135.1	348.8	416.8	274.8	163.4	171.7	315.9	25.6	21.9	41.5
87.5°	62.1	60.7	179.4	255.2	160.7	103.6	133.8	69.4	10.0	14.2	11.4
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°	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9	1145.9
2.5°	1132.2	1115.3	1084.8	1053.3	1021.3	996.6	972.4	953.3	946.9	935.0	935.9
5°	1097.5	1066.5	1002.6	937.7	870.2	814.5	762.0	719.5	699.0	678.0	678.0
7.5°	1067.4	1022.2	922.2	816.8	707.6	615.9	533.2	471.2	436.9	409.5	409.1
10°	1056.0	994.8	855.1	704.0	552.0	426.9	328.7	265.7	233.3	212.3	211.4
12.5°	1061.0	985.2	803.5	599.9	409.1	274.4	190.4	149.7	136.1	129.7	129.7
15°	1075.6	982.5	751.9	498.1	289.0	171.7	126.5	115.5	114.6	114.6	114.6
17.5°	1093.4	983.4	699.0	399.0	196.8	122.8	109.1	107.7	108.7	108.7	108.7
20°	1111.7	983.9	641.9	307.3	138.8	106.8	102.7	102.3	103.2	103.2	103.6
22.5°	1134.1	986.1	584.8	229.6	114.6	100.9	97.7	97.7	98.2	98.2	97.7
25°	1159.6	990.7	525.5	170.3	104.5	96.8	94.0	93.6	94.0	93.6	93.1
27.5°	1191.6	997.1	459.3	133.3	100.0	92.7	90.4	90.4	89.9	89.5	89.0
30°	1231.8	1004.4	384.9	113.2	95.4	89.0	86.7	86.3	85.8	84.9	84.9
32.5°	1292.9	1020.4	311.4	102.7	90.4	84.0	82.2	82.2	81.3	80.4	79.9
35°	1387.0	1051.9	245.6	96.3	84.9	78.5	76.2	76.2	75.3	74.9	74.4
37.5°	1517.1	1099.8	190.8	90.4	79.4	72.6	70.3	69.9	68.9	68.0	67.6
40°	1690.1	1159.2	150.2	84.9	74.0	66.7	64.8	63.9	62.1	60.7	60.7
42.5°	1907.5	1226.7	121.9	79.0	67.6	61.2	59.8	58.4	55.2	53.9	53.4
45°	2134.8	1287.5	103.2	72.1	61.2	55.7	54.8	52.5	48.4	47.0	47.0
47.5°	2298.7	1301.6	90.9	65.7	55.2	49.8	49.3	45.2	41.5	40.6	40.2
50°	2401.0	1273.8	80.8	59.4	49.8	44.3	42.9	37.9	35.6	34.7	34.2
52.5°	2469.9	1224.0	72.6	53.9	44.7	39.3	36.1	32.4	30.6	29.7	29.7
55°	2525.2	1153.7	64.4	48.9	40.6	35.2	30.6	27.8	26.0	25.1	25.1
57.5°	2540.7	1058.3	56.2	44.7	36.5	31.0	26.0	24.2	21.9	21.5	21.5
60°	2427.9	886.2	49.8	39.7	32.9	26.9	22.8	20.5	18.3	17.8	17.3
62.5°	2130.7	685.7	43.8	35.2	28.8	23.3	19.6	16.9	15.1	15.1	15.1
65°	1625.3	459.7	38.3	30.6	25.1	19.6	16.9	13.7	12.8	12.8	13.2
67.5°	972.9	250.2	32.9	26.0	21.5	16.4	14.2	11.9	11.4	11.9	11.9
69°	570.2	147.0	29.7	23.3	18.7	14.6	12.3	10.5	11.4	11.9	11.9
70°	352.0	99.1	27.4	21.0	16.9	13.2	11.4	10.0	11.0	11.4	11.4
72.5°	98.2	51.1	21.9	16.4	13.7	11.0	9.1	9.1	10.5	11.0	11.0
75°	63.9	37.9	16.9	12.3	10.5	8.7	7.8	8.7	10.0	10.5	10.5
77.5°	53.0	31.0	13.7	10.0	8.7	8.2	7.3	7.8	9.1	9.6	9.6
80°	48.4	21.9	11.0	9.1	7.8	7.3	6.8	6.4	8.2	8.7	8.7
82.5°	46.1	17.3	9.6	8.2	7.3	6.4	5.9	6.4	7.3	7.8	8.2
85°	28.8	11.4	8.7	7.8	6.4	5.9	5.9	5.9	6.8	7.3	7.3
87.5°	10.5	9.1	7.8	6.4	5.5	5.5	5.5	5.5	5.9	6.8	6.8
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)