

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: P300969

Luminaire Tested: **GLNA-AF-02-LED-E1-SL4-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300969  
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-02-LED-E1-SL4-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7596.6 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

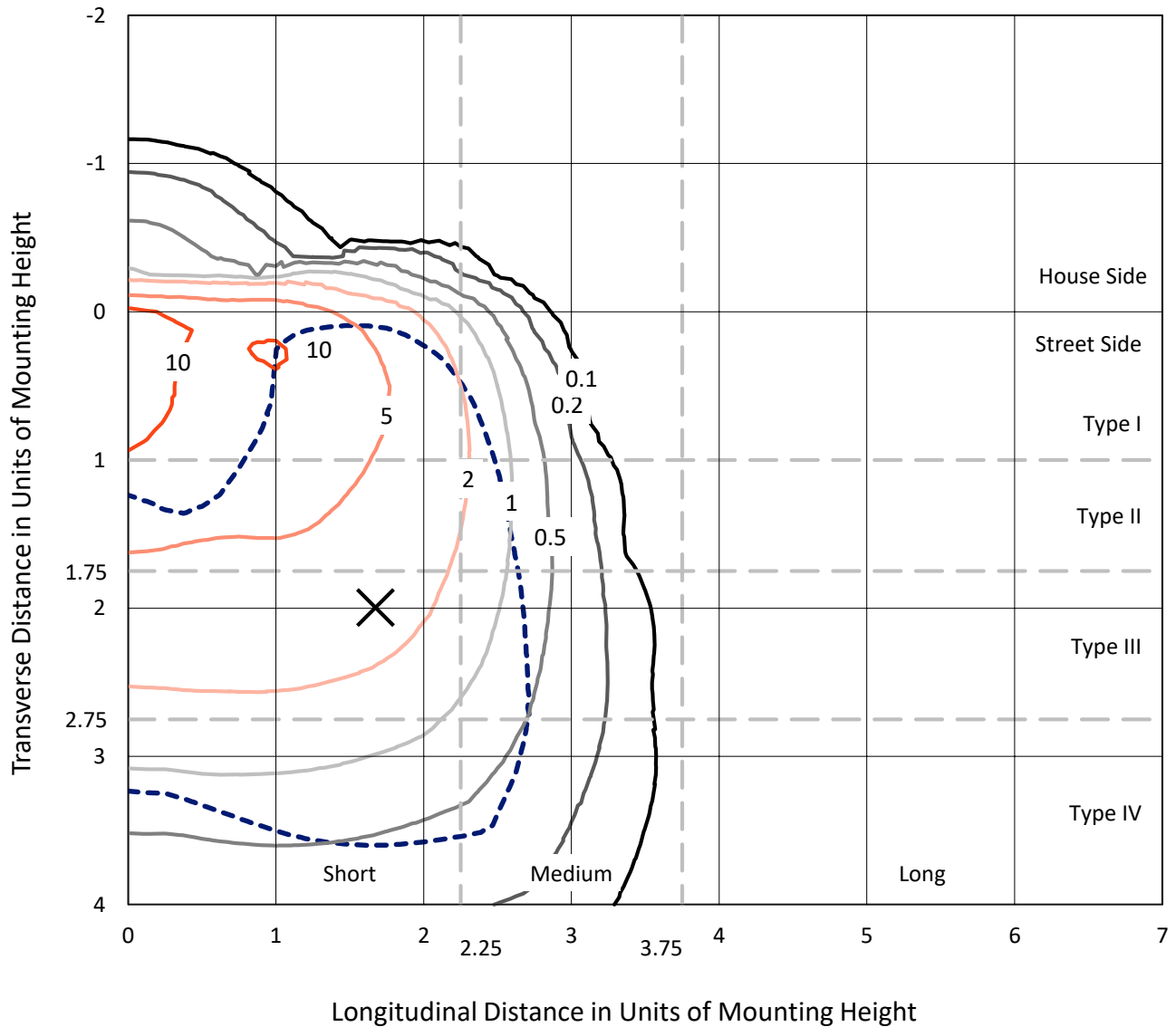
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

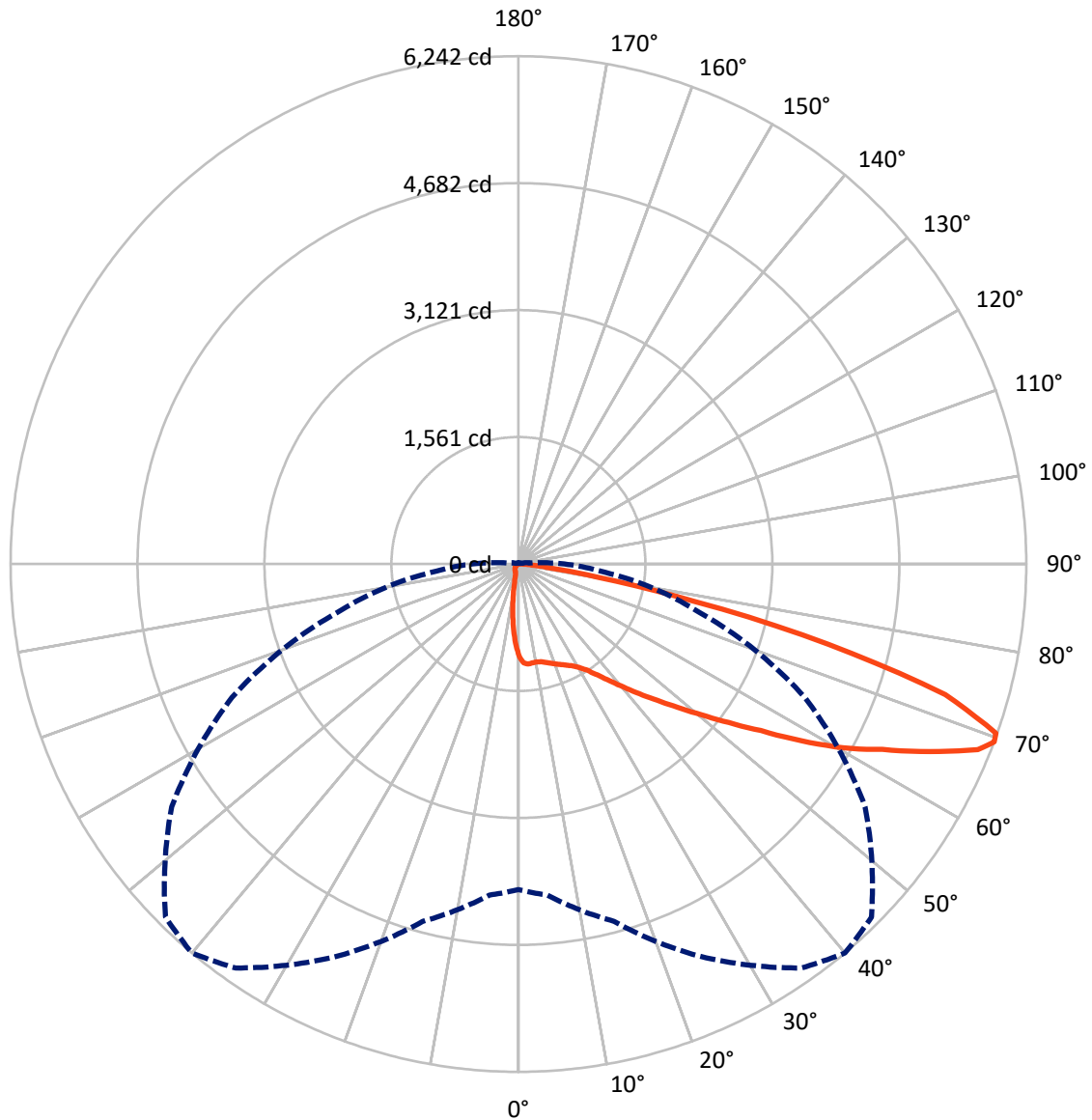
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.4 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
<b>House Side</b>	Lumens	444.4	0.0	444.4
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	7152.2	0.0	7152.2
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	7596.6	0.0	7596.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.0	1.2
10°-20°	226.3	3.0
20°-30°	381.2	5.0
30°-40°	624.0	8.2
40°-50°	1080.4	14.2
50°-60°	1701.8	22.4
60°-70°	2222.4	29.3
70°-80°	1144.7	15.1
80°-90°	123.8	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°	7596.6	100.0
0°-180°	7596.6	100.0



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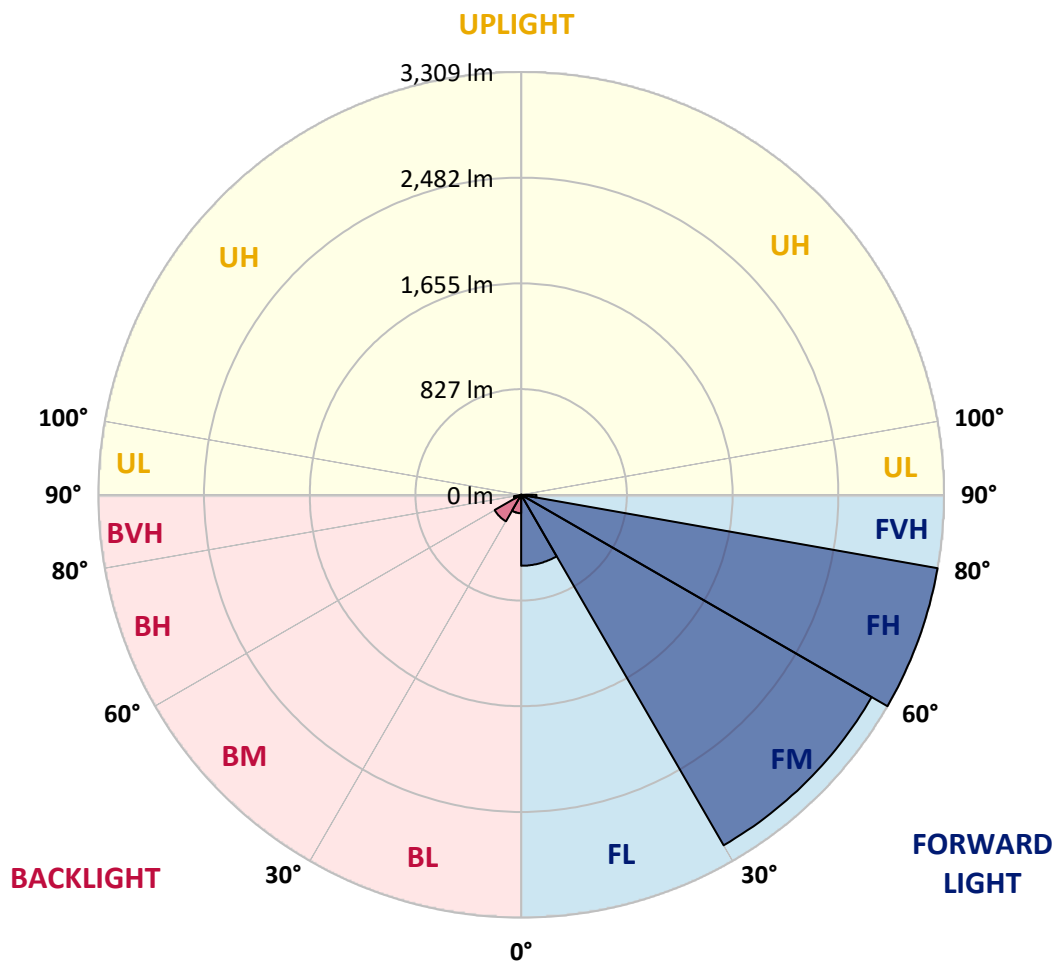
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	555.5	7.3			
FM	(30°-60°)	3167.3	41.7			
FH	(60°-80°)	3309.4	43.6			G2/5000
FVH	(80°-90°)	119.9	1.6			G2/225
BL	(0°-30°)	144.0	1.9	B1/500		
BM	(30°-60°)	238.9	3.1	B1/1000		
BH	(60°-80°)	57.7	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°	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1246.2	1239.4	1235.4	1229.9	1223.1	1217.3	1215.0	1198.3	1182.5	1160.7	1135.9
5°	1269.3	1267.0	1259.8	1252.5	1244.4	1235.4	1230.4	1210.5	1187.9	1156.2	1112.8
7.5°	1271.5	1268.8	1259.8	1249.8	1238.5	1227.7	1219.1	1199.2	1178.4	1146.3	1093.4
10°	1267.9	1264.7	1258.0	1247.1	1233.1	1222.7	1214.1	1195.1	1177.5	1148.5	1089.8
12.5°	1263.8	1260.7	1257.5	1252.1	1239.9	1232.6	1225.4	1207.3	1191.5	1167.1	1102.9
15°	1267.9	1266.1	1269.7	1267.5	1260.7	1254.3	1247.1	1230.8	1216.4	1196.0	1126.8
17.5°	1285.1	1285.1	1296.4	1297.8	1291.4	1282.4	1272.0	1255.7	1243.5	1226.3	1155.3
20°	1325.3	1324.0	1338.5	1341.2	1325.8	1311.8	1296.4	1276.5	1267.0	1256.2	1183.4
22.5°	1394.5	1388.2	1396.8	1394.1	1363.8	1342.1	1323.1	1298.7	1293.7	1288.7	1214.6
25°	1484.5	1480.9	1486.8	1460.1	1406.7	1377.3	1354.7	1327.1	1327.1	1332.1	1249.8
27.5°	1615.2	1601.6	1581.7	1534.7	1454.7	1417.1	1392.7	1363.3	1371.0	1389.5	1296.4
30°	1749.0	1734.1	1688.4	1616.1	1513.0	1473.7	1445.2	1414.4	1432.5	1466.4	1358.8
32.5°	1881.1	1864.3	1799.7	1708.3	1596.6	1557.3	1529.7	1495.8	1526.1	1583.1	1450.1
35°	2009.0	1994.1	1919.5	1811.9	1707.9	1675.3	1650.0	1620.6	1659.5	1739.1	1579.0
37.5°	2152.8	2136.5	2045.7	1929.0	1843.1	1819.6	1801.0	1771.6	1839.5	1956.1	1758.5
40°	2329.6	2302.0	2179.5	2063.3	1999.5	1988.2	1975.6	1971.5	2076.9	2238.3	1997.7
42.5°	2532.2	2487.0	2319.7	2204.8	2171.4	2179.5	2176.3	2194.4	2373.9	2589.2	2288.9
45°	2734.8	2676.5	2475.7	2355.9	2360.4	2388.9	2406.5	2478.8	2746.1	2991.6	2602.3
47.5°	2906.6	2849.2	2625.4	2519.1	2573.4	2629.4	2677.4	2814.4	3128.6	3387.7	2846.0
50°	3053.6	2999.3	2784.1	2698.6	2820.7	2911.1	2988.9	3191.9	3540.1	3689.3	3016.9
52.5°	3173.9	3137.7	2948.7	2904.4	3103.3	3235.8	3349.7	3593.0	3904.6	3934.4	3149.9
55°	3291.0	3265.2	3125.5	3149.0	3435.2	3615.6	3759.9	4018.5	4218.4	4138.8	3277.4
57.5°	3425.7	3402.2	3327.1	3459.2	3871.6	4098.6	4255.9	4395.6	4494.7	4347.7	3397.7
60°	3563.2	3549.6	3551.4	3803.7	4372.6	4590.5	4677.3	4713.5	4766.0	4544.4	3404.5
62.5°	3694.3	3720.1	3807.8	4187.2	4852.3	5019.6	5063.5	5099.2	5037.7	4575.6	3145.4
65°	3916.3	3958.4	4167.7	4700.4	5380.0	5559.1	5604.3	5481.8	5080.7	4172.3	2558.4
67.5°	4024.9	4101.7	4475.2	5178.8	5891.9	6090.9	6074.1	5506.6	4559.3	3181.5	1641.9
69°	4002.2	4084.1	4546.2	5325.3	6061.9	6242.3	6136.1	5202.3	3884.2	2304.8	1007.9
70°	3912.7	3995.5	4509.6	5319.9	6083.6	6226.5	6021.2	4826.6	3284.2	1685.3	630.3
72.5°	3267.5	3338.9	4003.6	4808.5	5604.3	5488.1	5037.3	3343.9	1600.3	459.0	142.0
75°	2011.3	2051.1	2872.7	3622.4	4232.9	3934.4	3356.1	1663.6	477.0	129.8	78.7
77.5°	1062.6	1080.7	1572.7	2135.2	2683.2	2220.2	1720.1	648.9	219.8	81.4	57.0
80°	628.1	641.6	846.9	976.3	1161.2	969.9	687.8	398.4	157.4	51.1	50.6
82.5°	359.5	368.1	614.1	542.6	457.6	390.7	342.3	377.6	94.5	34.4	52.5
85°	132.0	133.8	345.5	412.8	272.2	161.9	170.0	312.9	25.3	21.7	41.1
87.5°	61.5	60.1	177.7	252.8	159.2	102.6	132.5	68.7	9.9	14.0	11.3
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°	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1121.4	1104.7	1074.4	1043.2	1011.5	987.1	963.1	944.2	937.8	926.1	927.0
5°	1087.0	1056.3	993.0	928.8	861.9	806.7	754.7	712.6	692.3	671.5	671.5
7.5°	1057.2	1012.4	913.4	808.9	700.9	610.0	528.1	466.6	432.7	405.6	405.2
10°	1045.9	985.3	846.9	697.3	546.7	422.8	325.6	263.2	231.1	210.3	209.4
12.5°	1050.9	975.8	795.8	594.2	405.2	271.8	188.6	148.3	134.7	128.4	128.4
15°	1065.3	973.1	744.7	493.3	286.2	170.0	125.3	114.4	113.5	113.5	113.5
17.5°	1083.0	974.0	692.3	395.2	194.9	121.6	108.1	106.7	107.6	107.6	107.6
20°	1101.1	974.4	635.8	304.3	137.5	105.8	101.7	101.3	102.2	102.2	102.6
22.5°	1123.2	976.7	579.2	227.4	113.5	99.9	96.8	96.8	97.2	97.2	96.8
25°	1148.5	981.2	520.5	168.7	103.5	95.9	93.1	92.7	93.1	92.7	92.2
27.5°	1180.2	987.6	454.9	132.0	99.0	91.8	89.5	89.5	89.1	88.6	88.2
30°	1220.0	994.8	381.2	112.1	94.5	88.2	85.9	85.5	85.0	84.1	84.1
32.5°	1280.6	1010.6	308.4	101.7	89.5	83.2	81.4	81.4	80.5	79.6	79.1
35°	1373.7	1041.8	243.3	95.4	84.1	77.8	75.5	75.5	74.6	74.2	73.7
37.5°	1502.6	1089.3	189.0	89.5	78.7	71.9	69.6	69.2	68.3	67.4	66.9
40°	1674.0	1148.1	148.8	84.1	73.3	66.0	64.2	63.3	61.5	60.1	60.1
42.5°	1889.2	1215.0	120.7	78.2	66.9	60.6	59.2	57.9	54.7	53.4	52.9
45°	2114.4	1275.1	102.2	71.4	60.6	55.2	54.3	52.0	47.9	46.6	46.6
47.5°	2276.7	1289.2	90.0	65.1	54.7	49.3	48.8	44.8	41.1	40.2	39.8
50°	2378.0	1261.6	80.0	58.8	49.3	43.9	42.5	37.5	35.3	34.4	33.9
52.5°	2446.3	1212.3	71.9	53.4	44.3	38.9	35.7	32.1	30.3	29.4	29.4
55°	2501.0	1142.7	63.8	48.4	40.2	34.8	30.3	27.6	25.8	24.9	24.9
57.5°	2516.4	1048.2	55.6	44.3	36.2	30.7	25.8	24.0	21.7	21.3	21.3
60°	2404.7	877.7	49.3	39.3	32.6	26.7	22.6	20.3	18.1	17.6	17.2
62.5°	2110.3	679.2	43.4	34.8	28.5	23.1	19.4	16.7	14.9	14.9	14.9
65°	1609.8	455.3	38.0	30.3	24.9	19.4	16.7	13.6	12.7	12.7	13.1
67.5°	963.6	247.8	32.6	25.8	21.3	16.3	14.0	11.8	11.3	11.8	11.8
69°	564.8	145.6	29.4	23.1	18.5	14.5	12.2	10.4	11.3	11.8	11.8
70°	348.6	98.1	27.1	20.8	16.7	13.1	11.3	9.9	10.9	11.3	11.3
72.5°	97.2	50.6	21.7	16.3	13.6	10.9	9.0	9.0	10.4	10.9	10.9
75°	63.3	37.5	16.7	12.2	10.4	8.6	7.7	8.6	9.9	10.4	10.4
77.5°	52.5	30.7	13.6	9.9	8.6	8.1	7.2	7.7	9.0	9.5	9.5
80°	47.9	21.7	10.9	9.0	7.7	7.2	6.8	6.3	8.1	8.6	8.6
82.5°	45.7	17.2	9.5	8.1	7.2	6.3	5.9	6.3	7.2	7.7	8.1
85°	28.5	11.3	8.6	7.7	6.3	5.9	5.9	5.9	6.8	7.2	7.2
87.5°	10.4	9.0	7.7	6.3	5.4	5.4	5.4	5.4	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)