

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: P301811

Luminaire Tested: **GLNA-AF-02-LED-E1-SL4-7060-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301811  
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-SL4-7060-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

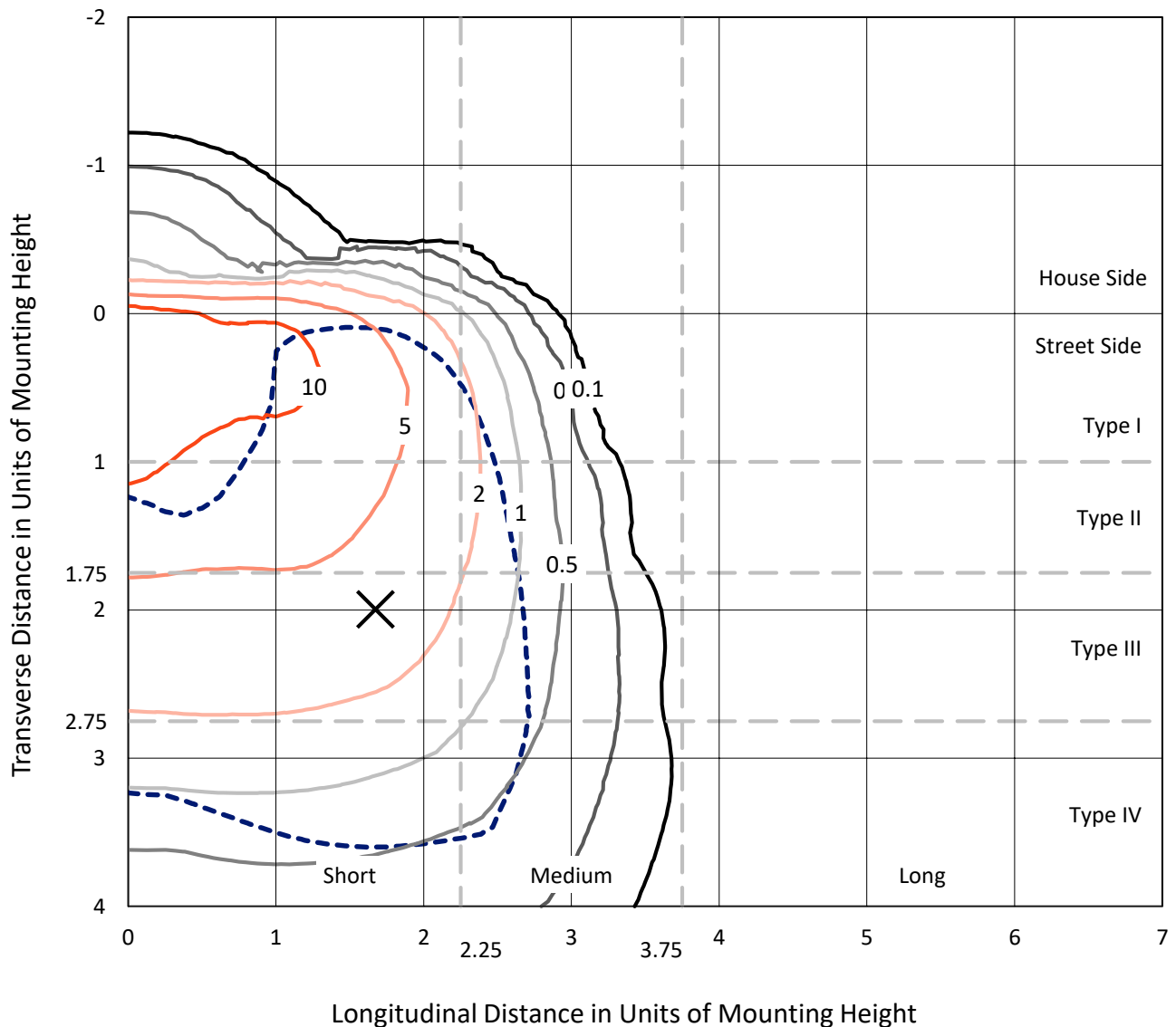
Lumens per Lamp: N/A  
Luminaire Lumens: 8980.6 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (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

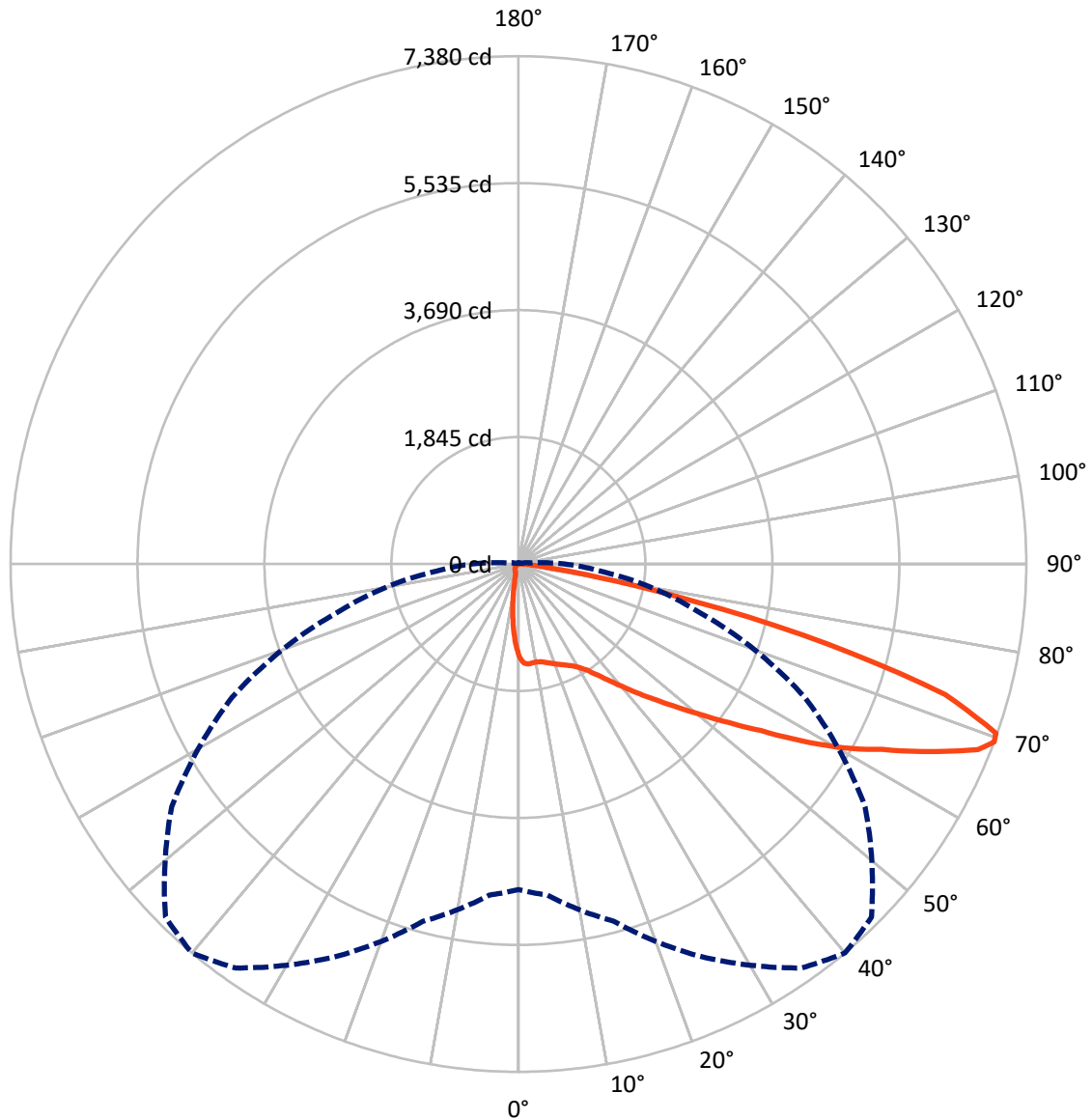
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.7 fc  
 Type 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	525.4	0.0	525.4
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	8455.2	0.0	8455.2
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	8980.6	0.0	8980.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.8	1.2
10°-20°	267.5	3.0
20°-30°	450.6	5.0
30°-40°	737.7	8.2
40°-50°	1277.3	14.2
50°-60°	2011.8	22.4
60°-70°	2627.3	29.3
70°-80°	1353.2	15.1
80°-90°	146.4	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°	8980.6	100.0
0°-180°	8980.6	100.0



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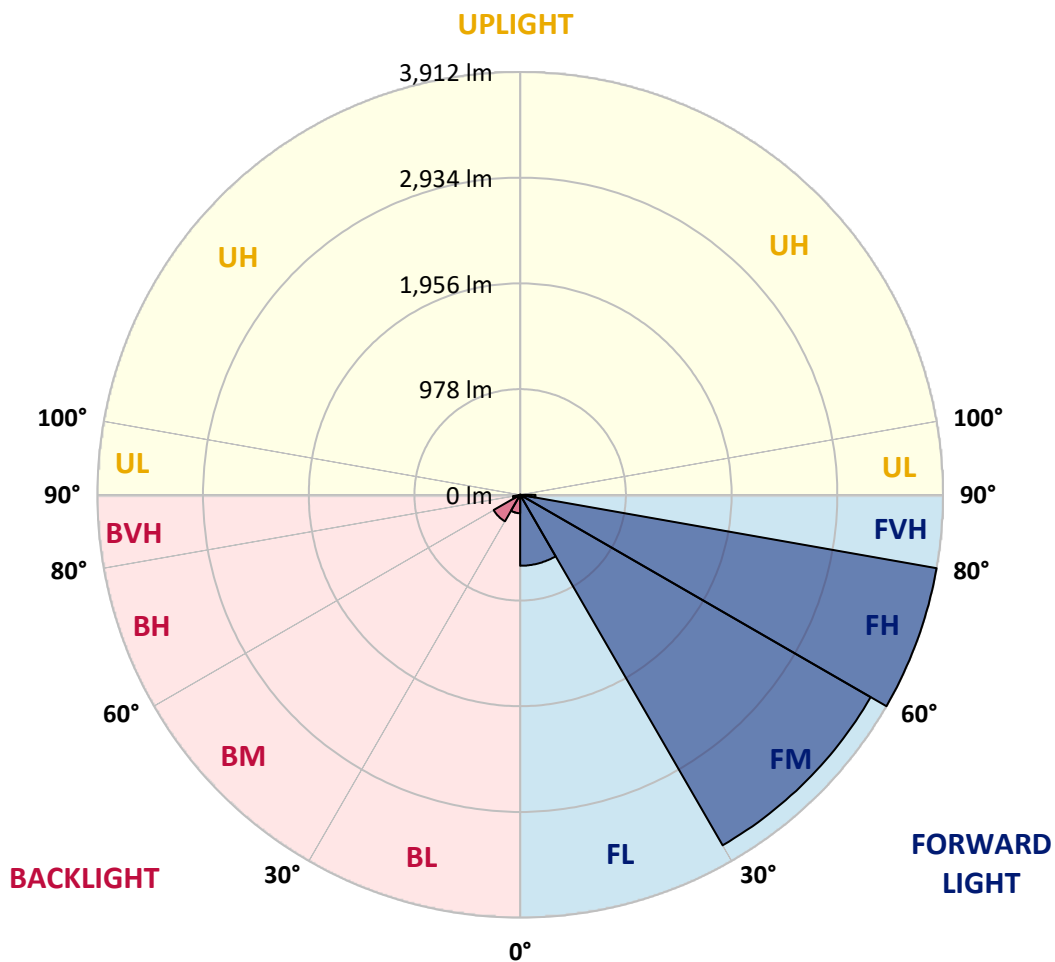
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	656.7	7.3			
FM	(30°-60°)	3744.3	41.7			
FH	(60°-80°)	3912.3	43.6			G2/5000
FVH	(80°-90°)	141.8	1.6			G2/225
BL	(0°-30°)	170.2	1.9	B1/500		
BM	(30°-60°)	282.4	3.1	B1/1000		
BH	(60°-80°)	68.2	0.8	B0/110		G0/110
BVH	(80°-90°)	4.6	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°	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7
2.5°	1473.2	1465.2	1460.4	1454.0	1446.0	1439.0	1436.4	1416.6	1397.9	1372.2	1342.8
5°	1500.5	1497.8	1489.3	1480.7	1471.1	1460.4	1454.5	1431.0	1404.3	1366.9	1315.6
7.5°	1503.2	1500.0	1489.3	1477.5	1464.2	1451.3	1441.2	1417.7	1393.1	1355.1	1292.6
10°	1498.9	1495.2	1487.1	1474.3	1457.7	1445.5	1435.3	1412.8	1392.0	1357.8	1288.3
12.5°	1494.1	1490.4	1486.6	1480.2	1465.8	1457.2	1448.7	1427.3	1408.6	1379.7	1303.8
15°	1498.9	1496.8	1501.0	1498.4	1490.4	1482.9	1474.3	1455.1	1438.0	1413.9	1332.1
17.5°	1519.2	1519.2	1532.6	1534.2	1526.7	1516.0	1503.7	1484.5	1470.0	1449.7	1365.8
20°	1566.8	1565.2	1582.3	1585.5	1567.3	1550.8	1532.6	1509.1	1497.8	1485.0	1398.9
22.5°	1648.6	1641.1	1651.3	1648.0	1612.2	1586.6	1564.1	1535.3	1529.4	1523.5	1435.8
25°	1755.0	1750.7	1757.6	1726.1	1663.0	1628.3	1601.5	1568.9	1568.9	1574.8	1477.5
27.5°	1909.4	1893.4	1869.9	1814.3	1719.7	1675.3	1646.4	1611.7	1620.8	1642.7	1532.6
30°	2067.7	2050.0	1996.0	1910.5	1788.6	1742.1	1708.5	1672.1	1693.5	1733.6	1606.4
32.5°	2223.8	2204.0	2127.6	2019.6	1887.5	1841.0	1808.4	1768.3	1804.1	1871.5	1714.3
35°	2375.1	2357.4	2269.2	2142.0	2019.0	1980.5	1950.6	1915.9	1961.8	2055.9	1866.7
37.5°	2545.0	2525.8	2418.4	2280.4	2178.9	2151.1	2129.2	2094.4	2174.6	2312.5	2078.9
40°	2754.1	2721.4	2576.6	2439.2	2363.8	2350.5	2335.5	2330.7	2455.2	2646.1	2361.7
42.5°	2993.5	2940.1	2742.3	2606.5	2567.0	2576.6	2572.8	2594.2	2806.4	3060.9	2705.9
45°	3233.0	3164.1	2926.7	2785.1	2790.4	2824.1	2844.9	2930.5	3246.4	3536.7	3076.4
47.5°	3436.2	3368.3	3103.7	2978.0	3042.2	3108.5	3165.1	3327.1	3698.6	4004.9	3364.5
50°	3609.9	3545.7	3291.3	3190.3	3334.6	3441.5	3533.4	3773.5	4185.1	4361.5	3566.6
52.5°	3752.1	3709.3	3485.9	3433.5	3668.7	3825.3	3960.0	4247.6	4615.9	4651.2	3723.7
55°	3890.5	3860.1	3694.9	3722.7	4061.1	4274.3	4444.9	4750.6	4986.9	4892.8	3874.5
57.5°	4049.8	4022.0	3933.3	4089.4	4576.9	4845.3	5031.3	5196.5	5313.5	5139.8	4016.7
60°	4212.3	4196.3	4198.4	4496.7	5169.2	5426.9	5529.5	5572.3	5634.3	5372.3	4024.7
62.5°	4367.4	4397.8	4501.5	4950.0	5736.4	5934.2	5986.0	6028.2	5955.5	5409.2	3718.4
65°	4629.8	4679.5	4927.0	5556.8	6360.2	6571.9	6625.3	6480.5	6006.3	4932.4	3024.5
67.5°	4758.1	4849.0	5290.5	6122.3	6965.3	7200.5	7180.7	6509.9	5390.0	3761.2	1941.0
69°	4731.4	4828.1	5374.5	6295.5	7166.3	7379.6	7254.0	6150.1	4591.9	2724.7	1191.5
70°	4625.6	4723.4	5331.2	6289.1	7192.0	7360.9	7118.2	5705.9	3882.5	1992.3	745.2
72.5°	3862.7	3947.2	4733.0	5684.5	6625.3	6488.0	5955.0	3953.1	1891.8	542.6	167.9
75°	2377.7	2424.8	3396.1	4282.4	5004.0	4651.2	3967.5	1966.6	564.0	153.4	93.0
77.5°	1256.2	1277.6	1859.2	2524.2	3172.1	2624.7	2033.5	767.1	259.8	96.2	67.4
80°	742.5	758.5	1001.2	1154.1	1372.8	1146.6	813.1	470.9	186.0	60.4	59.9
82.5°	425.0	435.1	725.9	641.5	541.0	461.9	404.7	446.4	111.7	40.6	62.0
85°	156.1	158.2	408.4	488.1	321.8	191.4	201.0	369.9	29.9	25.7	48.6
87.5°	72.7	71.1	210.1	298.8	188.2	121.3	156.6	81.3	11.8	16.6	13.4
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°	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7	1341.7
2.5°	1325.7	1305.9	1270.1	1233.2	1195.8	1166.9	1138.6	1116.2	1108.7	1094.8	1095.8
5°	1285.1	1248.7	1173.9	1098.0	1018.9	953.7	892.2	842.5	818.4	793.8	793.8
7.5°	1249.8	1196.9	1079.8	956.3	828.6	721.1	624.4	551.7	511.6	479.5	479.0
10°	1236.4	1164.8	1001.2	824.3	646.3	499.8	384.9	311.1	273.2	248.6	247.5
12.5°	1242.3	1153.6	940.8	702.4	479.0	321.3	222.9	175.3	159.3	151.8	151.8
15°	1259.4	1150.4	880.4	583.2	338.4	201.0	148.1	135.2	134.2	134.2	134.2
17.5°	1280.3	1151.4	818.4	467.2	230.4	143.8	127.8	126.2	127.2	127.2	127.2
20°	1301.7	1152.0	751.6	359.8	162.5	125.1	120.3	119.7	120.8	120.8	121.3
22.5°	1327.8	1154.7	684.8	268.9	134.2	118.1	114.4	114.4	114.9	114.9	114.4
25°	1357.8	1160.0	615.3	199.4	122.4	113.3	110.1	109.6	110.1	109.6	109.1
27.5°	1395.2	1167.5	537.8	156.1	117.1	108.5	105.8	105.8	105.3	104.8	104.2
30°	1442.2	1176.0	450.6	132.6	111.7	104.2	101.6	101.0	100.5	99.4	99.4
32.5°	1513.9	1194.7	364.6	120.3	105.8	98.4	96.2	96.2	95.2	94.1	93.5
35°	1624.0	1231.6	287.6	112.8	99.4	91.9	89.3	89.3	88.2	87.7	87.1
37.5°	1776.3	1287.8	223.4	105.8	93.0	85.0	82.3	81.8	80.7	79.6	79.1
40°	1978.9	1357.2	175.9	99.4	86.6	78.0	75.9	74.8	72.7	71.1	71.1
42.5°	2233.4	1436.4	142.7	92.5	79.1	71.6	70.0	68.4	64.7	63.1	62.5
45°	2499.6	1507.5	120.8	84.5	71.6	65.2	64.1	61.5	56.7	55.1	55.1
47.5°	2691.5	1524.0	106.4	77.0	64.7	58.3	57.7	52.9	48.6	47.6	47.0
50°	2811.3	1491.4	94.6	69.5	58.3	51.9	50.2	44.4	41.7	40.6	40.1
52.5°	2892.0	1433.2	85.0	63.1	52.4	46.0	42.2	38.0	35.8	34.7	34.7
55°	2956.7	1350.8	75.4	57.2	47.6	41.2	35.8	32.6	30.5	29.4	29.4
57.5°	2974.8	1239.1	65.8	52.4	42.8	36.4	30.5	28.3	25.7	25.1	25.1
60°	2842.8	1037.6	58.3	46.5	38.5	31.5	26.7	24.1	21.4	20.8	20.3
62.5°	2494.8	802.9	51.3	41.2	33.7	27.3	23.0	19.8	17.6	17.6	17.6
65°	1903.0	538.3	44.9	35.8	29.4	23.0	19.8	16.0	15.0	15.0	15.5
67.5°	1139.1	292.9	38.5	30.5	25.1	19.2	16.6	13.9	13.4	13.9	13.9
69°	667.7	172.1	34.7	27.3	21.9	17.1	14.4	12.3	13.4	13.9	13.9
70°	412.1	116.0	32.1	24.6	19.8	15.5	13.4	11.8	12.8	13.4	13.4
72.5°	114.9	59.9	25.7	19.2	16.0	12.8	10.7	10.7	12.3	12.8	12.8
75°	74.8	44.4	19.8	14.4	12.3	10.2	9.1	10.2	11.8	12.3	12.3
77.5°	62.0	36.4	16.0	11.8	10.2	9.6	8.6	9.1	10.7	11.2	11.2
80°	56.7	25.7	12.8	10.7	9.1	8.6	8.0	7.5	9.6	10.2	10.2
82.5°	54.0	20.3	11.2	9.6	8.6	7.5	6.9	7.5	8.6	9.1	9.6
85°	33.7	13.4	10.2	9.1	7.5	6.9	6.9	6.9	8.0	8.6	8.6
87.5°	12.3	10.7	9.1	7.5	6.4	6.4	6.4	6.4	6.9	8.0	8.0
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)