

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: P299995

Luminaire Tested: **GLNA-AF-02-LED-E1-SL3-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299995  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)  
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-SL3-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6633.7 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 85  
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

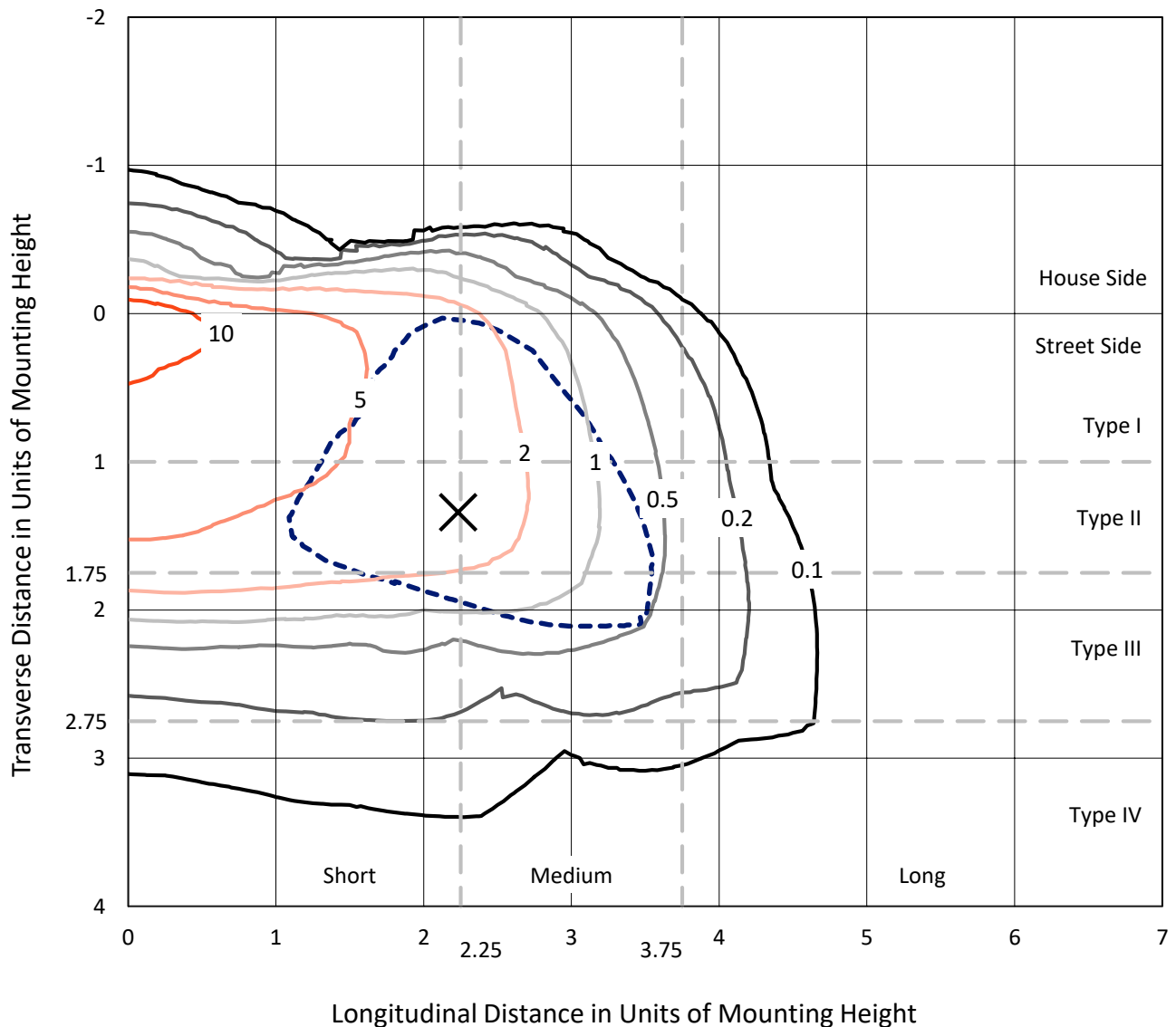


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

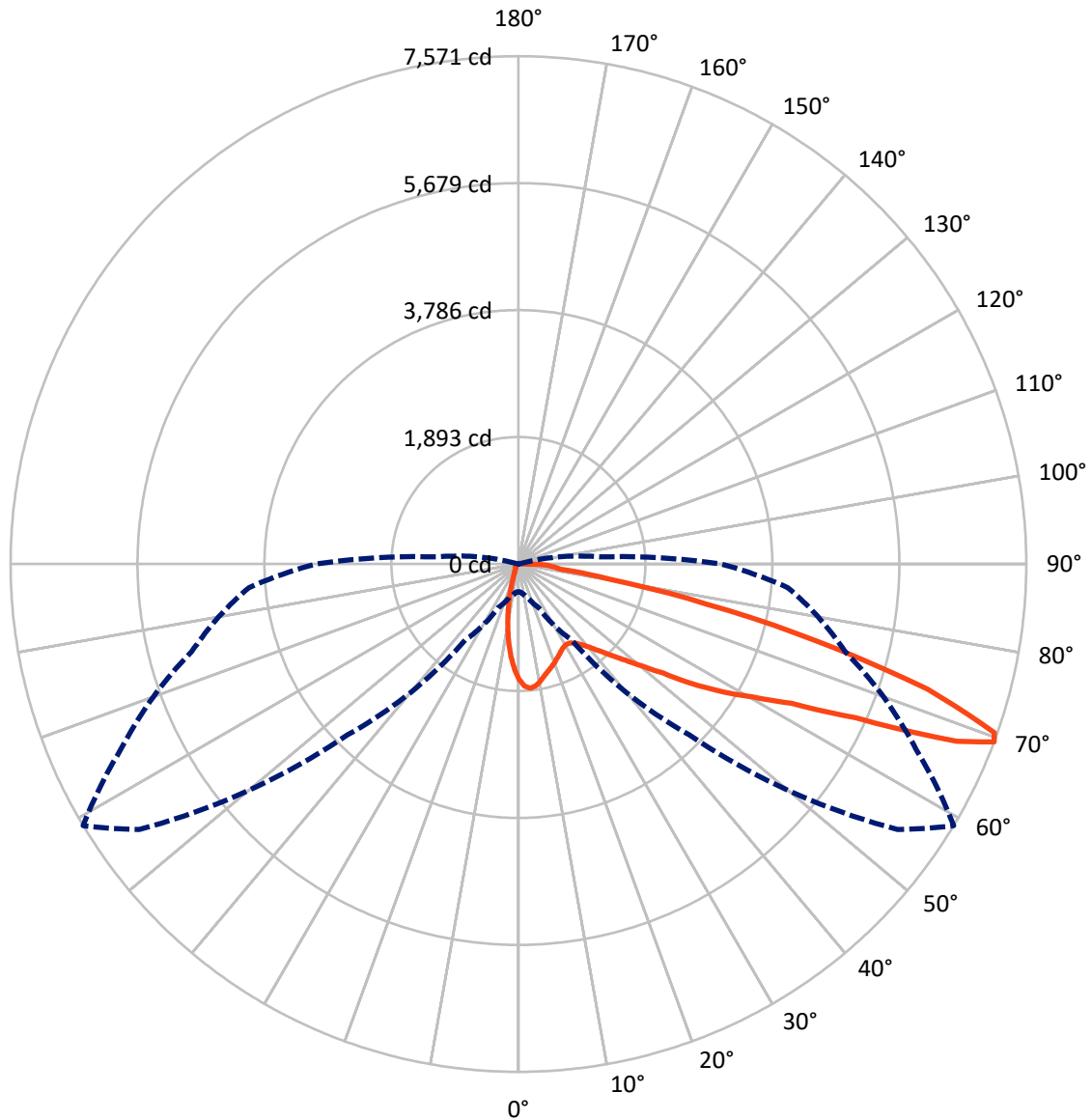


Based on 10 foot mounting height. Maximum calculated value = 17.3 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	540.2	0.0	540.2
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	6093.5	0.0	6093.5
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	6633.7	0.0	6633.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.2	2.1
10°-20°	289.6	4.4
20°-30°	389.7	5.9
30°-40°	565.8	8.5
40°-50°	942.1	14.2
50°-60°	1469.7	22.2
60°-70°	1818.6	27.4
70°-80°	921.7	13.9
80°-90°	96.4	1.5
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°	6633.7	100.0
0°-180°	6633.7	100.0



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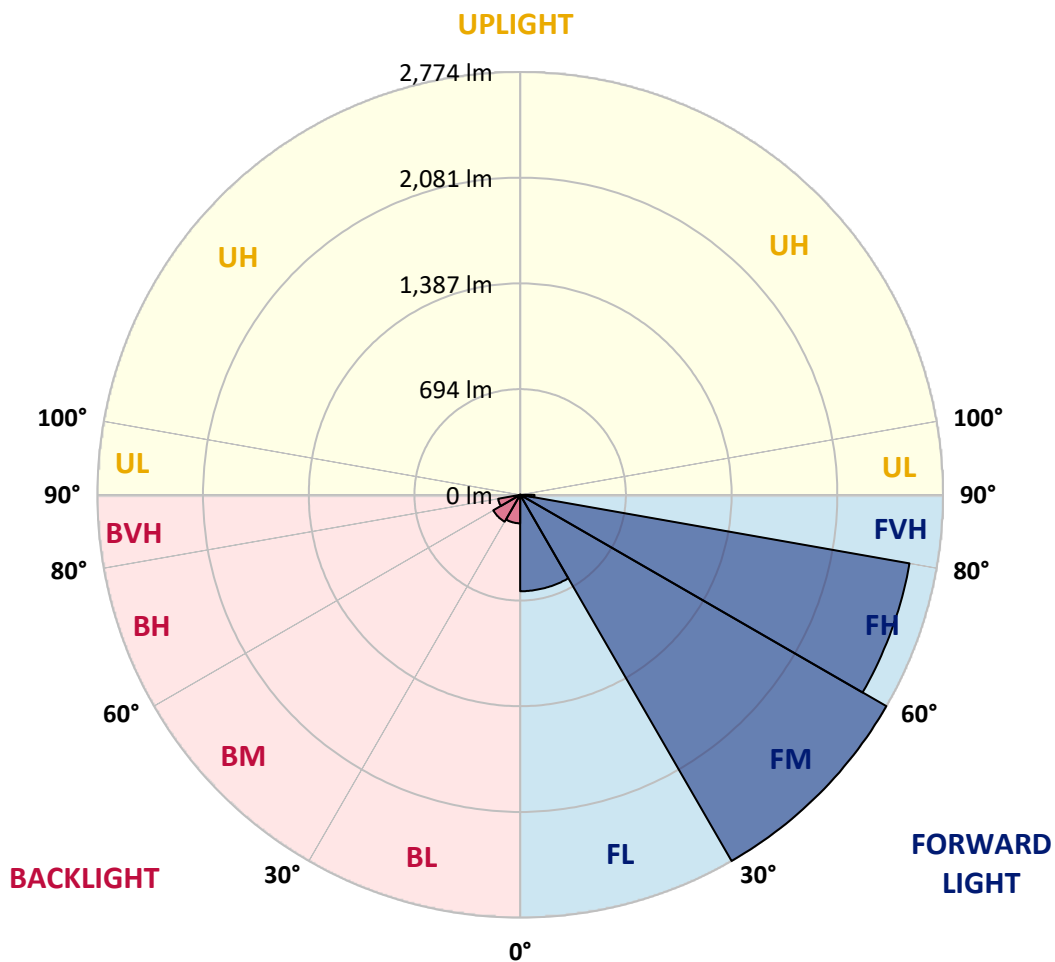
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	632.5	9.5			
FM	(30°-60°)	2774.0	41.8			
FH	(60°-80°)	2593.6	39.1			G2/5000
FVH	(80°-90°)	93.5	1.4			G1/100
BL	(0°-30°)	187.0	2.8	B1/500		
BM	(30°-60°)	203.5	3.1	B0/220		
BH	(60°-80°)	146.7	2.2	B1/500		G1/500
BVH	(80°-90°)	3.0	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-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6
2.5°	1892.5	1891.8	1883.5	1879.7	1872.9	1858.7	1836.6	1825.0	1806.3	1773.5	1729.7
5°	1875.2	1884.3	1889.0	1889.5	1894.4	1889.0	1869.2	1859.5	1833.6	1781.0	1702.3
7.5°	1758.2	1761.5	1775.5	1787.4	1810.7	1832.8	1840.0	1835.8	1820.4	1764.2	1659.5
10°	1632.9	1636.2	1652.8	1668.5	1700.1	1734.1	1770.1	1777.7	1784.1	1740.2	1618.3
12.5°	1524.8	1528.2	1545.1	1565.7	1602.5	1644.5	1700.4	1712.8	1740.9	1717.3	1585.2
15°	1431.8	1433.3	1449.9	1475.3	1519.3	1573.2	1636.7	1656.6	1699.7	1701.2	1556.4
17.5°	1352.6	1356.4	1366.6	1390.9	1439.0	1505.7	1579.7	1608.2	1658.7	1687.7	1528.2
20°	1304.3	1308.0	1307.7	1321.2	1364.3	1435.6	1522.7	1556.7	1618.3	1673.8	1503.1
22.5°	1294.9	1294.9	1285.2	1283.3	1308.8	1368.4	1463.4	1504.9	1581.8	1667.8	1485.5
25°	1328.3	1326.7	1302.4	1282.6	1283.7	1319.3	1405.9	1455.4	1551.2	1671.9	1476.1
27.5°	1398.9	1396.9	1366.2	1328.3	1297.9	1297.6	1362.4	1415.7	1526.8	1691.4	1479.8
30°	1496.3	1495.6	1462.2	1414.5	1359.5	1308.8	1347.4	1395.8	1511.0	1726.6	1488.5
32.5°	1602.8	1601.7	1576.6	1526.4	1456.6	1359.5	1363.2	1403.8	1515.5	1773.5	1509.5
35°	1715.8	1713.9	1703.0	1659.2	1582.3	1452.8	1415.0	1446.5	1544.0	1843.7	1550.7
37.5°	1838.1	1840.0	1847.8	1805.8	1725.2	1583.8	1501.7	1523.0	1601.4	1939.0	1617.8
40°	2018.5	2018.2	2020.8	1965.6	1888.0	1743.9	1622.7	1629.5	1697.4	2065.4	1719.9
42.5°	2345.9	2323.1	2253.7	2141.2	2063.2	1927.0	1775.5	1768.3	1814.9	2221.8	1862.8
45°	2786.0	2737.2	2557.2	2341.5	2241.7	2133.3	1963.3	1940.5	1970.1	2409.8	2039.2
47.5°	3164.5	3113.8	2859.2	2550.0	2431.1	2329.1	2183.5	2142.3	2152.1	2620.2	2262.7
50°	3293.1	3268.4	3046.0	2731.6	2614.5	2575.6	2439.1	2388.8	2374.9	2863.6	2521.9
52.5°	3248.5	3246.7	3098.5	2849.4	2782.6	2830.7	2760.5	2702.3	2651.3	3120.3	2785.6
55°	3176.8	3186.3	3119.8	2952.5	2950.3	3063.6	3200.1	3151.7	3004.0	3399.0	3013.0
57.5°	2979.2	3019.3	3107.9	3147.7	3239.9	3355.8	3566.3	3594.8	3420.0	3612.4	3201.6
60°	2417.3	2505.4	2795.0	3175.7	3613.2	3902.0	4008.2	4032.5	3761.3	3789.8	3456.3
62.5°	1715.8	1805.8	2173.1	2817.2	3618.7	4619.5	4666.5	4570.8	4137.2	4052.8	3895.6
65°	910.7	980.2	1280.3	2033.5	3137.5	4786.2	5817.7	5532.7	4800.4	4570.0	4463.2
67.5°	465.9	486.9	606.2	995.2	2157.0	4251.2	6849.6	7050.3	5943.3	5083.3	4435.8
69°	412.3	424.6	503.8	719.5	1381.2	3600.8	6900.0	7571.4	6541.8	5040.4	4031.0
70°	399.1	410.0	482.0	651.2	1079.6	3019.7	6707.5	7525.6	6694.7	4877.7	3728.7
72.5°	338.8	348.1	429.2	575.5	877.5	1498.9	5448.6	6377.1	6007.5	4063.3	2698.9
75°	226.6	257.4	411.9	539.5	816.2	851.6	3592.2	4608.3	4280.9	2740.6	1405.9
77.5°	54.4	58.5	116.3	429.2	746.5	749.5	1847.5	2864.7	2336.6	976.8	332.3
80°	29.3	28.2	32.6	85.2	695.1	703.4	831.7	1390.6	834.3	162.1	109.5
82.5°	20.7	19.5	21.0	35.7	218.7	640.7	601.7	629.4	345.8	62.2	49.2
85°	7.5	7.2	11.6	32.3	68.6	368.3	618.2	519.1	280.2	28.5	36.0
87.5°	2.6	2.3	4.5	17.6	21.0	156.8	381.5	392.4	110.3	17.3	16.9
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°	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6	1726.6
2.5°	1711.3	1688.0	1645.3	1601.4	1560.8	1512.1	1487.7	1463.7	1453.6	1449.9	1432.3
5°	1661.8	1622.4	1531.6	1440.4	1356.4	1267.1	1208.3	1161.0	1133.2	1119.7	1098.4
7.5°	1598.4	1533.9	1396.1	1255.5	1124.6	995.6	899.9	826.4	775.7	751.4	729.2
10°	1536.9	1451.0	1255.2	1063.5	885.6	714.6	582.5	486.9	425.8	397.6	379.7
12.5°	1481.8	1370.4	1119.0	876.3	653.0	452.8	318.5	242.4	204.4	191.3	184.9
15°	1432.6	1296.1	990.3	698.5	442.2	258.8	174.1	148.2	142.2	142.2	141.4
17.5°	1386.0	1223.3	866.1	531.5	277.6	158.3	132.4	129.0	129.0	130.5	130.5
20°	1341.4	1153.9	746.1	381.5	174.8	125.6	119.7	118.9	119.7	121.5	121.5
22.5°	1303.1	1090.9	634.0	261.8	129.8	113.2	110.3	109.1	109.5	110.6	111.4
25°	1274.6	1037.6	528.2	177.4	111.8	103.1	99.8	97.9	96.4	96.4	97.1
27.5°	1256.7	992.6	425.8	129.0	100.5	93.8	88.5	85.5	82.1	80.3	81.0
30°	1243.5	949.8	329.7	105.4	90.1	83.2	76.5	71.7	66.8	64.5	65.3
32.5°	1238.6	915.3	246.5	93.0	80.6	73.1	64.8	58.5	53.3	51.3	51.8
35°	1251.8	887.9	180.5	84.0	73.1	63.7	54.4	47.2	43.2	42.0	42.4
37.5°	1286.3	873.3	135.0	76.5	66.4	55.9	45.4	38.6	36.0	36.0	36.3
40°	1351.5	872.9	108.5	71.3	60.4	48.4	37.5	32.6	31.1	31.9	32.3
42.5°	1446.8	892.8	94.5	66.4	55.2	41.2	31.1	27.7	27.4	28.2	28.5
45°	1576.9	929.1	87.0	62.2	49.5	34.5	26.2	24.0	24.0	25.1	25.6
47.5°	1736.4	982.4	80.6	58.1	43.8	28.8	22.5	21.0	21.4	22.5	22.8
50°	1928.5	1049.6	74.3	53.6	39.8	24.0	19.5	18.4	18.7	20.2	20.7
52.5°	2147.2	1140.0	69.1	49.5	34.5	19.9	16.5	15.8	16.5	18.1	18.4
55°	2334.7	1221.0	62.7	46.1	27.7	16.5	13.5	13.5	14.3	16.1	16.5
57.5°	2515.2	1305.7	57.0	39.8	21.8	13.2	11.2	11.6	12.7	14.7	15.0
60°	2780.0	1449.4	50.3	33.4	16.5	10.4	9.4	9.8	11.2	13.2	13.5
62.5°	3229.8	1668.1	43.5	27.7	12.7	8.3	7.5	8.3	10.1	12.4	12.7
65°	3635.7	1757.1	35.7	23.3	9.8	6.4	6.4	7.5	9.8	12.0	12.4
67.5°	3409.4	1479.0	27.7	18.4	7.5	4.9	5.2	7.2	9.4	12.0	12.4
69°	3015.2	1209.4	23.6	14.7	6.4	4.5	4.9	7.2	9.4	11.6	12.0
70°	2708.0	1021.1	21.0	12.4	5.7	4.5	4.9	6.7	9.4	11.6	12.0
72.5°	1813.7	551.4	16.9	9.0	5.2	4.1	4.1	6.7	9.0	11.2	11.6
75°	779.4	152.3	13.5	6.4	4.5	3.7	3.7	6.4	8.6	10.9	11.6
77.5°	142.5	38.6	10.9	5.7	4.5	3.7	3.4	6.0	8.3	10.4	10.9
80°	56.7	19.1	8.6	4.9	4.1	3.4	3.0	5.7	7.8	10.1	10.4
82.5°	34.2	10.9	7.2	4.5	4.1	3.0	2.6	4.9	7.5	9.8	10.1
85°	27.7	7.5	5.7	4.5	3.7	3.0	2.3	4.5	6.7	9.4	9.8
87.5°	13.5	5.2	5.2	4.1	3.7	3.0	2.3	4.1	6.4	9.0	9.4
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)