

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: P299707

Luminaire Tested: **GLNA-AF-03-LED-E1-SL2-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299707  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
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-SL2-7027-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7825.6 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - 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

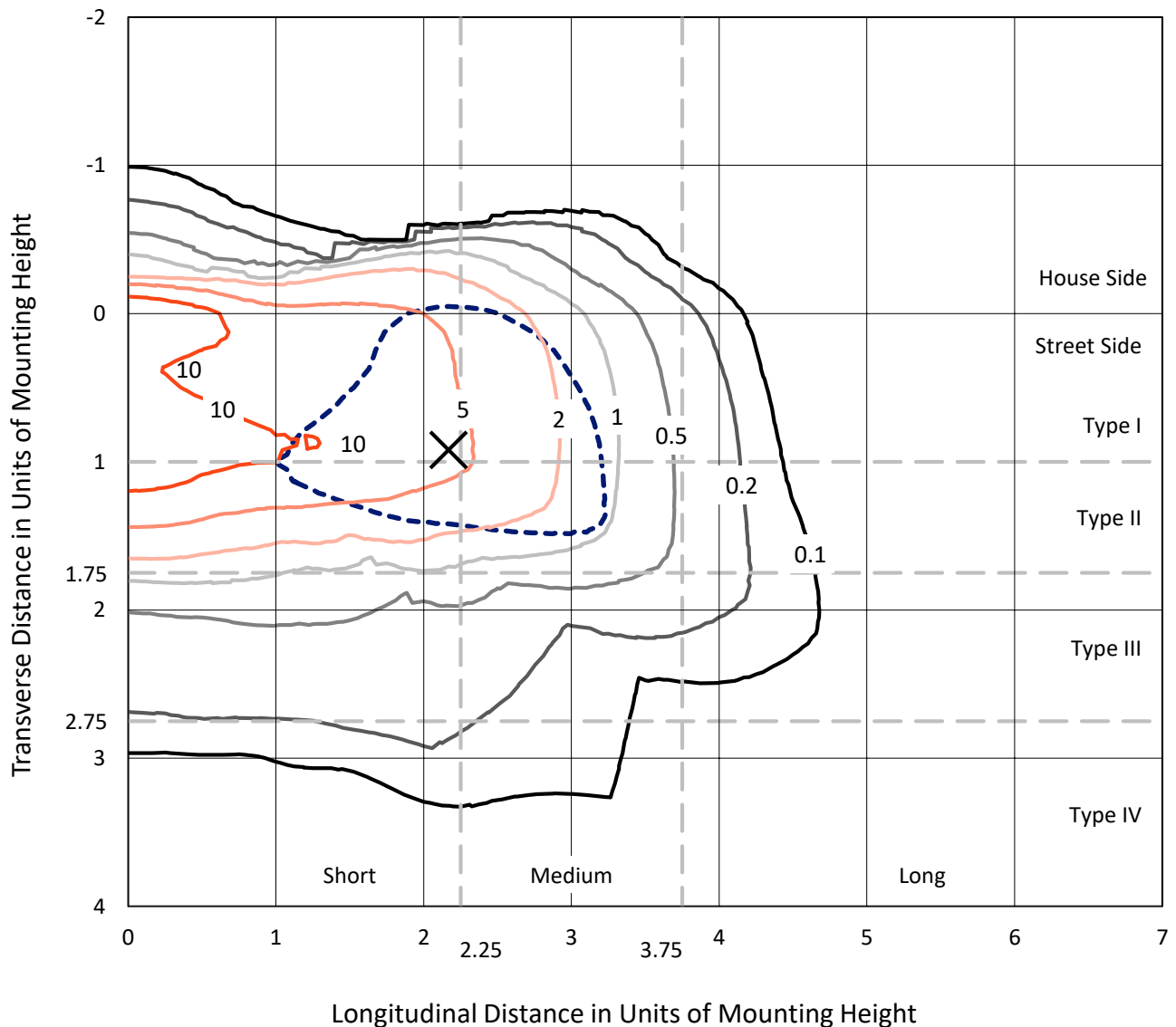


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

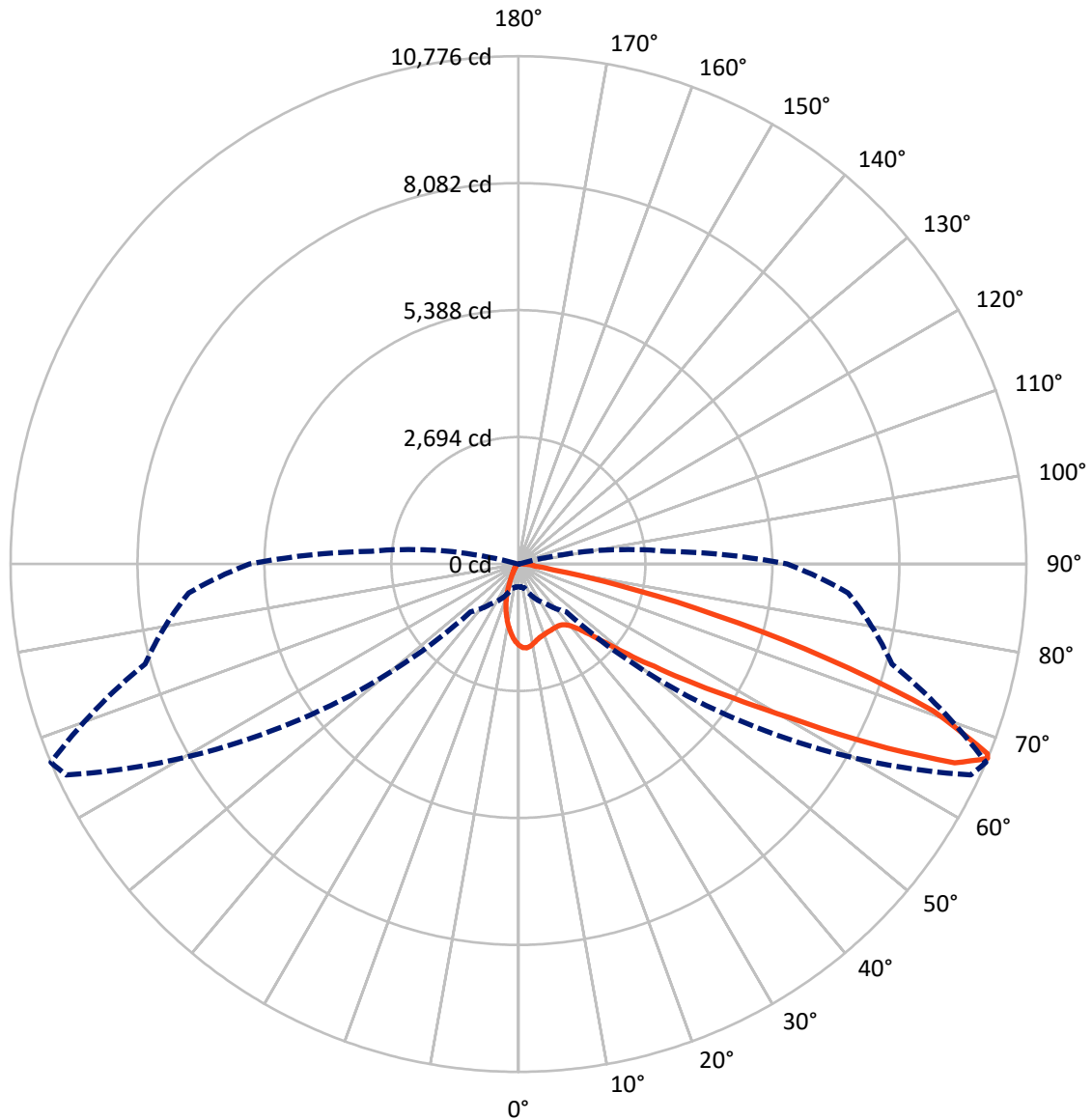


Based on 10 foot mounting height. Maximum calculated value = 17.3 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	812.5	0.0	812.5
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	7013.1	0.0	7013.1
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	7825.6	0.0	7825.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.4	1.8
10°-20°	298.9	3.8
20°-30°	434.6	5.6
30°-40°	677.9	8.7
40°-50°	1200.9	15.3
50°-60°	1900.3	24.3
60°-70°	2176.5	27.8
70°-80°	902.8	11.5
80°-90°	93.3	1.2
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°	7825.6	100.0
0°-180°	7825.6	100.0

**Coefficient of Utilization**



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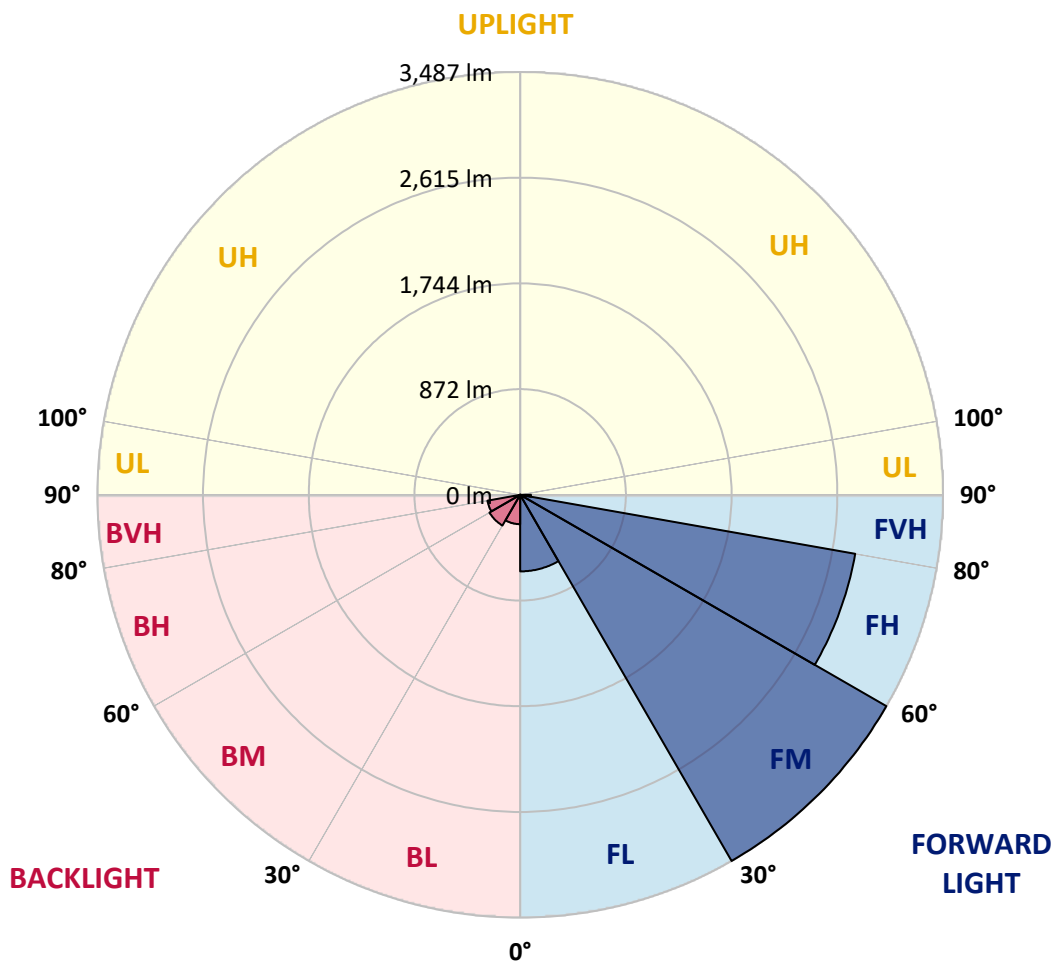
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	631.4	8.1			
FM (30°-60°)	3487.1	44.6			
FH (60°-80°)	2805.5	35.9			G2/5000
FVH (80°-90°)	89.1	1.1			G1/100
BL (0°-30°)	242.5	3.1	B1/500		
BM (30°-60°)	292.0	3.7	B1/1000		
BH (60°-80°)	273.9	3.5	B1/500		G1/500
BVH (80°-90°)	4.2	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8
2.5°	1784.3	1787.9	1787.5	1790.2	1796.6	1797.0	1790.6	1778.3	1775.6	1759.6	1731.8
5°	1645.5	1656.0	1662.4	1688.4	1717.6	1752.8	1779.2	1788.8	1787.5	1776.0	1734.0
7.5°	1487.1	1497.6	1504.9	1535.5	1574.3	1634.5	1703.5	1760.1	1765.1	1777.4	1732.2
10°	1381.7	1383.5	1393.5	1422.8	1463.4	1525.0	1607.2	1706.2	1721.3	1766.5	1727.7
12.5°	1294.9	1296.3	1309.6	1341.0	1384.4	1446.5	1532.8	1647.3	1670.6	1752.8	1726.7
15°	1233.3	1238.3	1250.2	1283.1	1329.2	1390.8	1479.4	1604.0	1631.8	1747.7	1735.0
17.5°	1212.8	1218.3	1221.9	1245.6	1287.6	1347.9	1438.7	1575.7	1607.2	1750.5	1750.9
20°	1234.2	1238.3	1230.1	1236.1	1262.1	1315.9	1404.5	1551.5	1588.9	1753.7	1771.5
22.5°	1314.1	1315.9	1293.6	1267.6	1263.0	1292.7	1377.6	1532.3	1572.5	1762.3	1795.7
25°	1451.1	1447.9	1411.3	1355.2	1302.2	1288.6	1361.6	1520.4	1564.3	1771.5	1820.8
27.5°	1616.3	1620.9	1570.6	1488.9	1388.1	1315.9	1359.3	1515.4	1560.6	1777.9	1842.7
30°	1817.1	1823.5	1766.0	1663.3	1518.6	1383.5	1380.3	1514.5	1558.3	1773.8	1844.5
32.5°	2022.1	2029.8	1984.6	1878.7	1693.0	1496.7	1427.8	1524.5	1562.9	1759.6	1834.0
35°	2236.6	2247.6	2217.4	2126.6	1929.4	1660.1	1511.3	1555.1	1584.3	1758.2	1823.5
37.5°	2532.8	2542.9	2486.3	2390.0	2215.6	1879.2	1645.5	1612.6	1635.0	1780.2	1826.3
40°	2975.1	2973.8	2827.7	2680.3	2530.1	2157.6	1834.0	1716.7	1728.1	1846.3	1860.0
42.5°	3457.1	3454.9	3239.0	3014.8	2879.3	2500.4	2081.9	1896.5	1888.8	1968.2	1947.7
45°	3828.7	3828.2	3652.0	3399.6	3299.7	2893.9	2402.3	2146.7	2134.8	2166.3	2109.3
47.5°	3987.1	3989.8	3901.3	3723.7	3765.7	3426.1	2806.2	2509.1	2491.3	2478.5	2391.8
50°	3863.8	3869.3	3876.6	3841.9	4107.6	4141.4	3348.1	3019.9	3011.2	2954.1	2818.6
52.5°	3461.3	3489.1	3574.9	3684.9	4226.3	4827.9	4197.5	3654.3	3607.8	3547.1	3397.8
55°	2783.0	2813.6	2976.5	3243.5	4049.6	5278.8	5387.9	4472.3	4394.7	4213.5	3998.0
57.5°	1841.8	1889.2	2125.7	2465.3	3536.6	5351.4	6575.6	5607.5	5337.3	4841.1	4598.3
60°	1014.7	1060.3	1316.9	1624.5	2554.3	4992.6	7374.4	7085.5	6608.0	5542.7	5327.2
62.5°	624.9	649.5	839.0	1125.1	1531.8	3940.5	7539.6	8942.7	8390.0	6446.0	6207.7
65°	497.5	508.0	600.7	919.7	1098.2	2343.9	7006.0	10358.7	10174.2	7539.6	6996.0
67°	482.9	487.0	530.9	789.7	1035.2	1436.9	5869.5	10589.2	10776.3	8201.5	7020.6
67.5°	486.1	490.7	532.2	753.6	1033.4	1320.5	5477.8	10498.3	10734.8	8254.0	6911.6
70°	468.8	482.9	609.4	753.1	982.7	1097.3	3280.5	9096.1	9342.1	7669.3	5864.5
72.5°	166.1	167.1	263.4	609.4	1068.5	1109.2	1647.3	6668.3	6850.4	5866.7	4228.1
75°	98.6	84.0	87.6	173.5	1021.1	1077.2	950.3	4261.0	4329.0	3361.7	2141.2
77.5°	68.0	59.3	61.2	76.7	388.9	1062.2	755.0	2222.0	2149.4	1179.0	456.0
80°	38.8	34.2	36.5	67.1	141.5	991.0	712.1	901.0	768.2	199.9	126.0
82.5°	20.5	17.3	21.0	55.2	98.6	617.6	713.4	435.5	345.1	67.6	85.8
85°	7.3	5.9	10.0	37.9	65.7	189.4	661.4	366.1	287.6	32.9	65.3
87.5°	1.4	1.4	4.1	15.5	26.5	58.0	391.2	217.3	145.6	19.6	44.7
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°	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8	1725.8
2.5°	1720.4	1700.7	1674.3	1641.8	1603.5	1569.7	1544.6	1518.6	1513.1	1504.0	1502.6
5°	1708.9	1675.2	1609.4	1534.1	1453.8	1381.2	1322.3	1269.8	1246.6	1226.5	1224.2
7.5°	1692.1	1641.4	1529.6	1408.1	1282.6	1168.5	1071.7	1003.3	940.3	910.2	905.6
10°	1672.4	1599.9	1439.6	1271.2	1097.8	936.6	792.9	672.3	599.3	556.0	550.5
12.5°	1654.2	1559.2	1347.9	1129.3	898.7	683.3	498.4	383.4	306.7	275.7	272.0
15°	1645.5	1526.4	1262.1	984.1	690.6	435.0	272.5	210.9	185.8	178.5	178.0
17.5°	1644.6	1498.5	1178.1	833.9	483.8	252.9	177.6	162.0	157.0	155.2	155.2
20°	1644.1	1472.0	1094.1	678.3	307.2	168.4	147.9	144.2	140.6	138.3	138.3
22.5°	1649.2	1448.3	1006.5	519.4	193.5	136.5	130.1	126.4	121.9	118.7	118.2
25°	1654.2	1430.1	917.0	369.7	140.1	118.7	112.3	107.3	100.9	96.8	96.3
27.5°	1655.1	1407.2	821.2	247.4	117.3	103.6	95.4	87.6	80.3	76.2	75.8
30°	1641.4	1368.9	714.8	167.1	103.6	89.9	79.0	70.7	63.9	60.7	60.7
32.5°	1614.5	1321.4	597.9	126.0	92.2	77.1	65.3	57.5	52.9	51.6	51.1
35°	1590.3	1270.3	477.9	106.8	82.6	65.3	53.4	48.4	45.6	45.2	44.7
37.5°	1576.1	1229.2	365.2	96.8	73.5	54.8	45.2	41.5	40.2	39.3	39.7
40°	1587.1	1195.0	269.8	88.6	64.4	45.6	38.3	36.5	35.1	34.7	34.7
42.5°	1635.0	1189.0	200.4	81.2	55.7	37.9	33.3	32.0	31.0	30.6	31.0
45°	1761.0	1225.6	155.6	74.4	47.0	32.0	28.3	27.8	27.4	27.4	27.4
47.5°	1950.4	1300.9	129.6	66.6	39.3	27.4	24.6	24.2	23.7	24.2	24.2
50°	2271.3	1438.7	115.9	58.9	32.4	23.3	21.0	21.0	21.0	21.0	21.5
52.5°	2759.2	1709.9	106.8	51.1	26.5	19.6	17.8	17.8	18.3	18.3	18.7
55°	3302.9	2069.5	98.6	43.4	22.4	16.4	14.6	15.1	15.5	16.0	16.0
57.5°	3892.6	2468.0	91.7	35.6	19.2	13.2	12.3	12.8	13.2	14.1	14.1
60°	4604.2	2899.4	81.7	27.8	16.0	10.5	9.6	10.5	11.9	12.8	13.2
62.5°	5385.6	3316.6	68.9	21.9	13.2	8.2	7.8	9.6	11.4	12.3	12.8
65°	5919.7	3447.6	52.9	17.8	10.0	5.9	6.4	8.7	11.0	12.3	12.3
67°	5703.3	3125.8	43.4	15.1	8.2	4.6	5.9	8.7	11.0	11.9	12.3
67.5°	5553.2	2999.8	41.5	14.6	7.8	4.6	5.9	8.7	11.0	12.3	12.3
70°	4518.4	2253.5	34.7	11.0	6.4	4.1	5.0	8.2	10.5	11.9	11.9
72.5°	3139.5	1389.4	31.0	7.8	5.5	3.7	4.6	7.8	10.0	11.4	11.9
75°	1492.6	503.0	26.5	5.9	5.0	3.2	4.1	7.8	10.0	11.4	11.4
77.5°	304.5	116.9	21.5	5.0	4.1	3.2	3.7	7.3	9.6	11.0	11.0
80°	100.0	45.2	16.0	4.6	4.1	3.2	3.7	6.8	9.6	10.5	11.0
82.5°	72.1	22.8	10.5	4.6	4.1	3.2	3.2	6.8	9.1	10.5	10.5
85°	55.2	16.0	6.8	4.6	4.1	3.2	3.2	6.4	8.7	10.0	10.0
87.5°	36.5	6.4	5.5	4.6	4.1	3.2	3.2	6.4	8.2	9.6	10.0
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)