

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: P301146

Luminaire Tested: **GLNA-AF-02-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301146  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
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-T3R-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8709.4 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

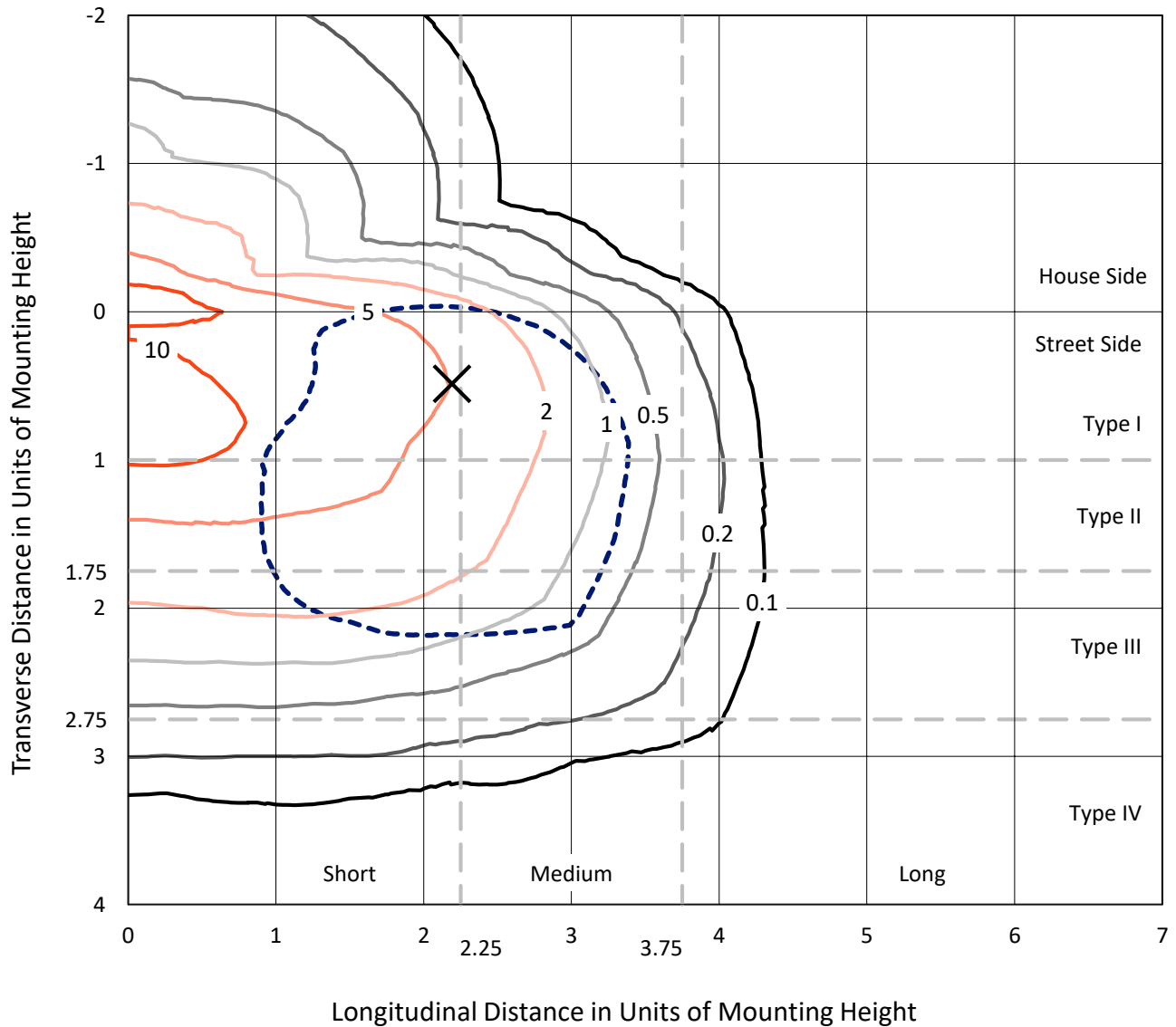
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

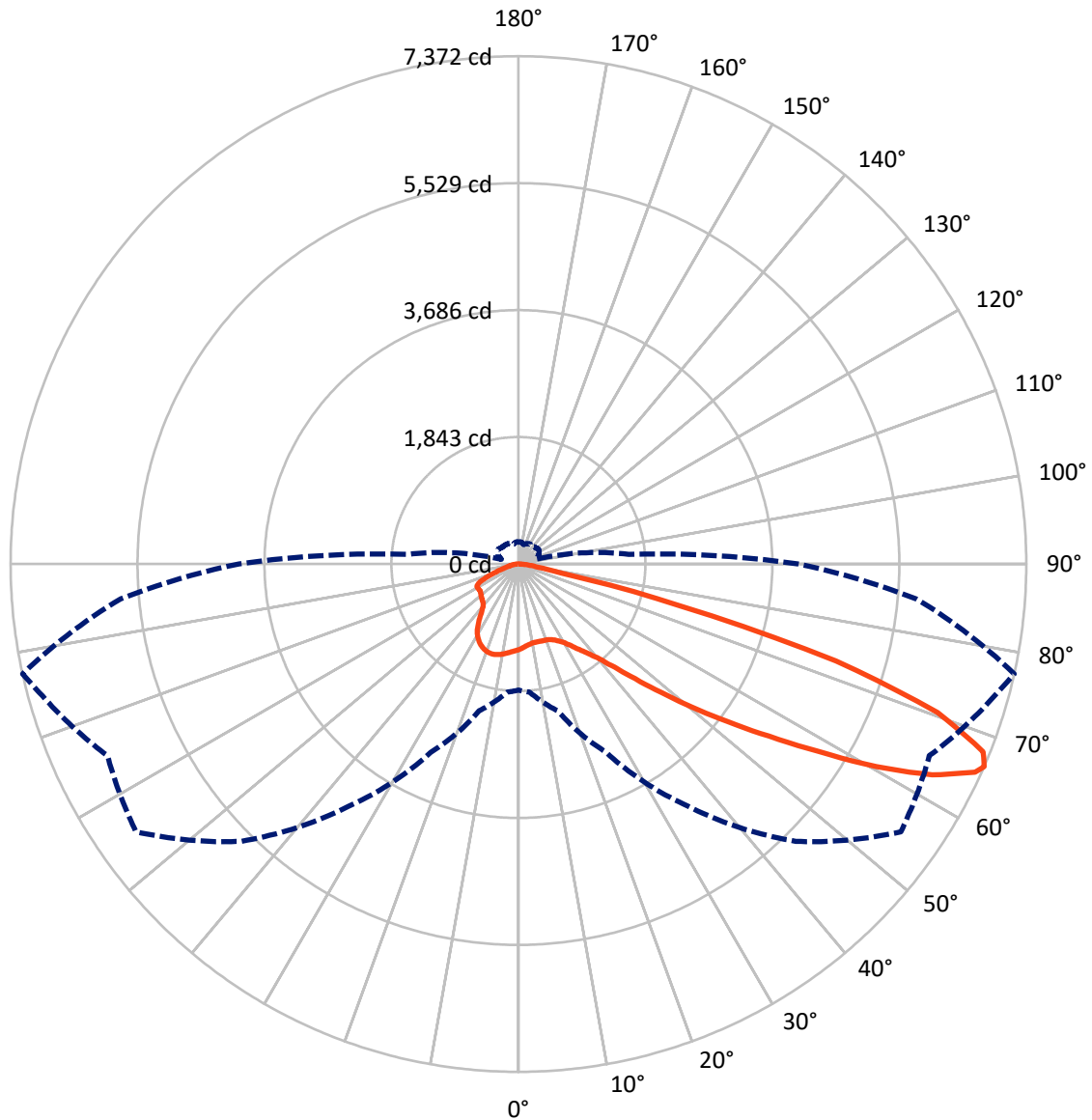
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.3 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1488.0	0.0	1488.0
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	7221.4	0.0	7221.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	8709.4	0.0	8709.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.9	1.3
10°-20°	312.8	3.6
20°-30°	533.9	6.1
30°-40°	854.6	9.8
40°-50°	1320.4	15.2
50°-60°	1872.7	21.5
60°-70°	2505.2	28.8
70°-80°	1088.0	12.5
80°-90°	110.9	1.3
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°	8709.4	100.0
0°-180°	8709.4	100.0



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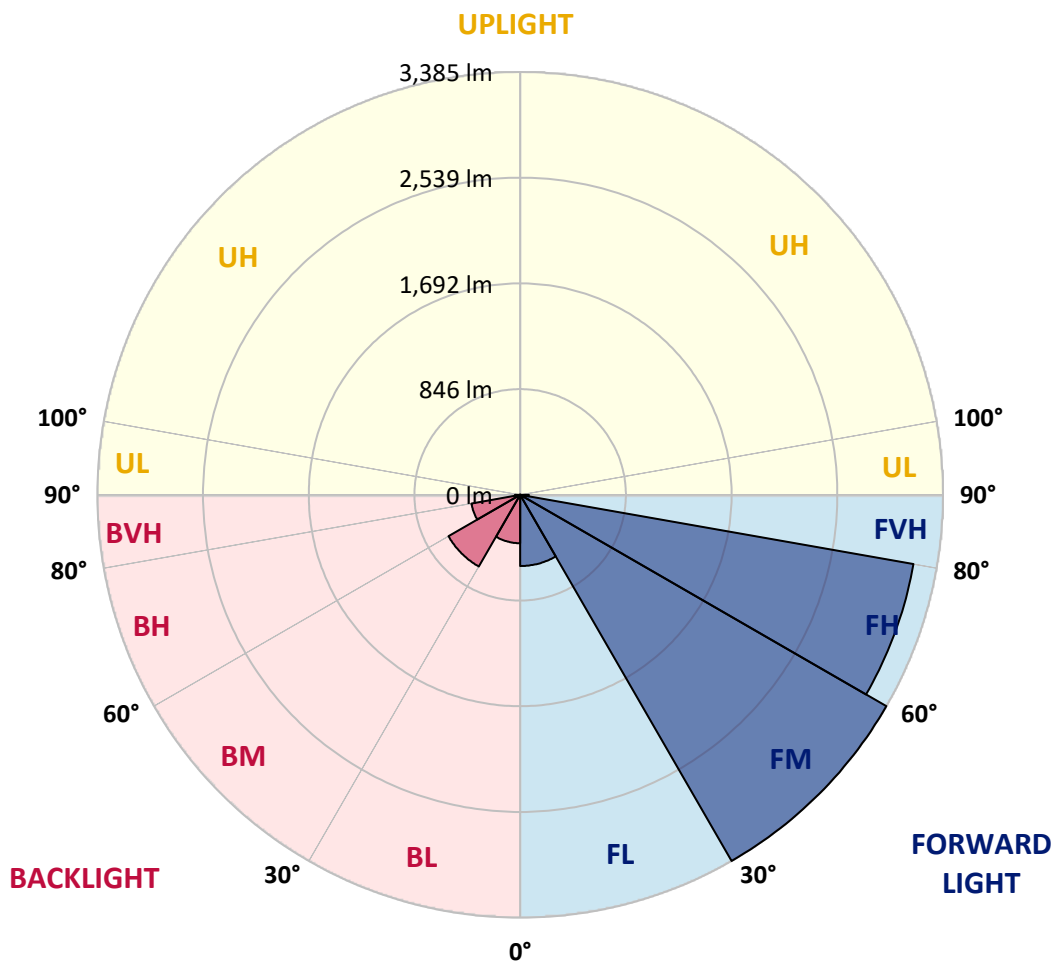
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	570.1	6.5			
FM	(30°-60°)	3384.9	38.9			
FH	(60°-80°)	3196.9	36.7			G2/5000
FVH	(80°-90°)	69.6	0.8			G1/100
BL	(0°-30°)	387.5	4.4	B1/500		
BM	(30°-60°)	662.8	7.6	B1/1000		
BH	(60°-80°)	396.3	4.5	B1/500		G1/500
BVH	(80°-90°)	41.4	0.5			G1/100
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°	65°	75°	77.5°	85°
0°	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1
2.5°	1098.0	1105.3	1111.5	1117.3	1128.7	1147.7	1169.5	1187.2	1212.7	1217.7	1231.3
5°	997.2	997.2	1002.0	1010.7	1026.3	1054.7	1084.4	1123.9	1179.4	1192.5	1228.8
7.5°	948.2	948.6	951.4	958.8	972.4	998.3	1030.8	1077.4	1152.7	1174.5	1236.1
10°	966.3	962.1	955.9	952.3	954.3	969.5	1000.4	1052.2	1136.2	1164.1	1252.7
12.5°	1067.4	1059.7	1038.3	1009.9	982.7	971.6	989.7	1040.3	1129.2	1161.7	1274.5
15°	1232.9	1229.7	1189.7	1130.8	1065.1	1009.9	997.5	1035.8	1130.0	1164.6	1300.4
17.5°	1440.3	1435.7	1383.2	1297.6	1190.2	1082.8	1025.1	1039.5	1132.8	1169.5	1325.5
20°	1649.8	1635.7	1579.0	1477.0	1339.0	1181.8	1070.8	1049.0	1136.6	1174.8	1351.9
22.5°	1806.2	1794.6	1743.6	1644.4	1485.6	1296.7	1132.1	1065.4	1148.5	1190.5	1384.3
25°	1943.6	1944.3	1893.8	1797.9	1633.7	1418.5	1211.1	1109.4	1178.9	1222.6	1428.8
27.5°	2113.5	2103.7	2056.4	1961.3	1780.2	1541.5	1306.5	1170.0	1224.3	1268.3	1487.2
30°	2316.8	2309.8	2255.1	2147.3	1942.7	1673.6	1415.6	1240.2	1282.7	1328.3	1563.7
32.5°	2555.9	2552.6	2495.8	2357.1	2130.4	1829.2	1543.6	1333.3	1369.9	1417.3	1673.6
35°	2836.6	2837.0	2769.9	2603.2	2335.7	2010.3	1688.8	1453.1	1476.1	1525.4	1804.5
37.5°	3009.4	3030.3	3005.3	2835.3	2568.2	2212.7	1877.3	1611.9	1597.1	1646.9	1944.8
40°	3046.4	3072.0	3151.3	3065.0	2828.4	2435.8	2044.4	1764.5	1746.1	1806.9	2125.5
42.5°	2994.6	3030.0	3197.9	3258.7	3104.5	2710.6	2269.0	1991.3	1967.9	2049.8	2350.2
45°	2963.7	2990.1	3184.3	3359.6	3343.9	3021.4	2555.1	2276.0	2267.4	2374.8	2609.4
47.5°	2910.2	2934.1	3120.9	3383.1	3484.7	3306.1	2898.8	2624.3	2641.1	2781.9	2902.0
50°	2939.0	2948.8	3050.1	3323.4	3525.5	3514.8	3282.6	3027.5	3085.2	3260.8	3233.3
52.5°	2934.9	2960.4	3041.9	3225.5	3530.8	3643.6	3660.8	3477.3	3598.7	3800.3	3600.7
55°	2372.8	2419.7	2945.2	3200.8	3549.7	3769.8	3997.5	3951.4	4177.6	4412.6	4015.5
57.5°	2265.8	2295.5	2586.8	3252.6	3650.1	4011.0	4371.9	4473.2	4851.7	5124.6	4520.9
60°	2244.7	2281.4	2583.0	3316.0	3853.8	4404.0	4927.1	5104.9	5671.9	5970.7	5106.9
62.5°	2179.3	2218.8	2558.7	3307.7	4143.1	4947.6	5637.8	5776.5	6449.7	6740.2	5597.0
65°	1972.0	2009.0	2360.9	3174.9	4338.2	5527.9	6478.8	6392.1	7063.7	7282.1	5841.4
66°	1830.0	1866.2	2204.9	3018.5	4292.9	5692.5	6776.9	6582.6	7201.1	7372.3	5793.7
67.5°	1570.3	1598.7	1902.0	2668.3	4052.2	5738.6	7027.4	6725.8	7215.4	7276.0	5520.9
70°	992.2	1000.4	1236.1	1841.9	3067.5	4976.8	6645.9	6370.3	6620.5	6456.6	4628.3
72.5°	430.5	427.6	593.5	937.0	1736.6	3339.5	5376.0	5256.3	5193.3	4819.7	3239.9
75°	239.5	242.8	308.3	435.0	705.7	1640.3	3516.8	3365.4	2841.4	2424.7	1469.1
77.5°	192.1	196.7	255.5	308.6	316.9	572.0	1645.7	1339.0	806.1	646.9	408.2
80°	151.9	160.1	223.0	240.3	213.6	235.7	531.7	425.1	319.0	292.6	211.6
82.5°	120.1	126.0	191.4	181.9	149.4	158.9	254.7	248.2	207.5	188.9	122.2
85°	86.5	97.1	157.2	137.1	97.9	107.0	169.1	162.1	118.9	97.1	54.0
87.5°	35.4	46.1	111.1	91.0	54.7	49.8	84.4	79.4	56.3	41.1	26.8
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°	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1	1241.1
2.5°	1239.9	1249.7	1262.5	1270.4	1274.5	1277.4	1281.9	1281.5	1282.7	1283.1	1284.7
5°	1248.1	1264.5	1283.1	1288.1	1288.1	1283.5	1279.0	1271.5	1268.7	1267.9	1268.7
7.5°	1269.5	1287.6	1303.7	1297.9	1285.6	1267.4	1244.0	1223.4	1212.3	1208.6	1207.8
10°	1296.7	1318.5	1325.1	1303.3	1267.0	1223.4	1176.9	1143.2	1123.9	1118.5	1116.9
12.5°	1329.6	1350.1	1341.2	1295.1	1227.9	1157.6	1093.3	1039.5	999.1	986.4	985.6
15°	1365.8	1381.9	1350.1	1269.5	1169.5	1065.8	951.4	858.5	808.3	792.2	790.9
17.5°	1399.6	1407.8	1344.8	1225.0	1083.5	915.7	763.8	692.1	674.9	679.1	679.8
20°	1428.4	1428.4	1326.7	1161.2	948.2	717.7	621.7	620.6	633.0	645.3	647.8
22.5°	1460.0	1441.1	1295.1	1071.2	756.3	587.2	573.3	584.7	598.7	612.3	614.4
25°	1499.2	1451.4	1251.0	934.6	594.6	533.3	538.6	548.1	555.1	563.8	565.0
27.5°	1542.8	1464.5	1193.0	746.5	516.1	499.6	503.7	507.0	506.1	509.5	510.2
30°	1595.0	1479.8	1113.5	583.5	483.6	470.7	463.4	460.5	460.5	465.9	467.9
32.5°	1665.0	1502.4	999.5	500.0	467.9	450.2	426.4	415.7	419.8	437.8	441.9
35°	1742.0	1526.7	845.3	471.6	464.6	440.7	403.7	383.9	384.4	401.2	406.6
37.5°	1825.9	1557.6	676.1	466.2	472.0	441.2	391.7	364.6	353.5	353.5	355.6
40°	1933.3	1589.2	547.4	470.0	487.7	446.1	385.6	349.4	318.1	319.0	320.6
42.5°	2073.2	1616.4	478.2	477.7	506.6	452.7	385.1	329.2	302.0	320.6	337.4
45°	2228.8	1630.0	447.7	484.8	521.8	456.8	378.7	325.9	304.1	359.2	391.4
47.5°	2407.7	1622.1	430.9	487.2	525.6	456.8	371.2	333.8	318.5	416.0	453.5
50°	2604.1	1599.6	414.4	482.3	524.3	455.9	378.2	341.5	323.8	425.9	451.8
52.5°	2835.0	1580.6	397.1	471.6	515.6	451.4	386.4	338.3	307.0	387.2	405.3
55°	3098.2	1586.0	377.8	456.4	502.0	442.8	383.5	325.1	289.3	341.1	352.2
57.5°	3434.9	1649.8	354.7	437.1	483.6	428.4	373.3	319.0	284.0	309.5	316.1
60°	3810.6	1760.8	325.9	417.7	460.5	405.3	365.4	321.8	286.4	307.0	310.2
62.5°	4086.3	1825.5	301.3	389.2	429.2	379.8	355.6	325.4	293.1	315.6	314.9
65°	4161.2	1719.3	270.4	347.8	386.9	353.1	343.1	329.6	295.9	322.6	319.0
66°	4056.3	1604.9	256.8	328.4	365.4	339.9	337.0	329.2	294.7	323.5	317.2
67.5°	3801.6	1370.3	233.4	300.0	331.3	320.2	327.2	325.4	291.3	322.6	314.0
70°	3100.4	935.0	199.6	249.8	275.7	281.8	308.3	312.4	280.6	308.3	289.3
72.5°	2166.3	569.5	176.6	193.9	223.0	240.3	282.3	294.2	266.3	269.1	251.1
75°	1046.9	302.5	160.1	150.3	173.2	200.9	251.1	269.5	243.6	225.1	218.5
77.5°	326.3	184.8	135.8	121.0	135.8	162.1	209.8	236.2	216.9	188.5	186.0
80°	175.3	135.8	104.5	97.1	107.4	127.2	165.0	197.1	186.4	169.1	151.0
82.5°	115.6	88.1	77.4	75.3	81.9	97.1	122.6	163.3	163.3	144.9	105.4
85°	59.7	54.0	53.1	53.1	57.2	64.7	83.5	126.0	134.2	76.5	63.4
87.5°	29.7	30.9	28.8	30.0	32.1	31.6	39.9	63.4	75.8	46.5	38.6
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)