

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: P301149

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301149
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-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10024.2 lumens
Efficiency: N/A
Efficacy: 117.9 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

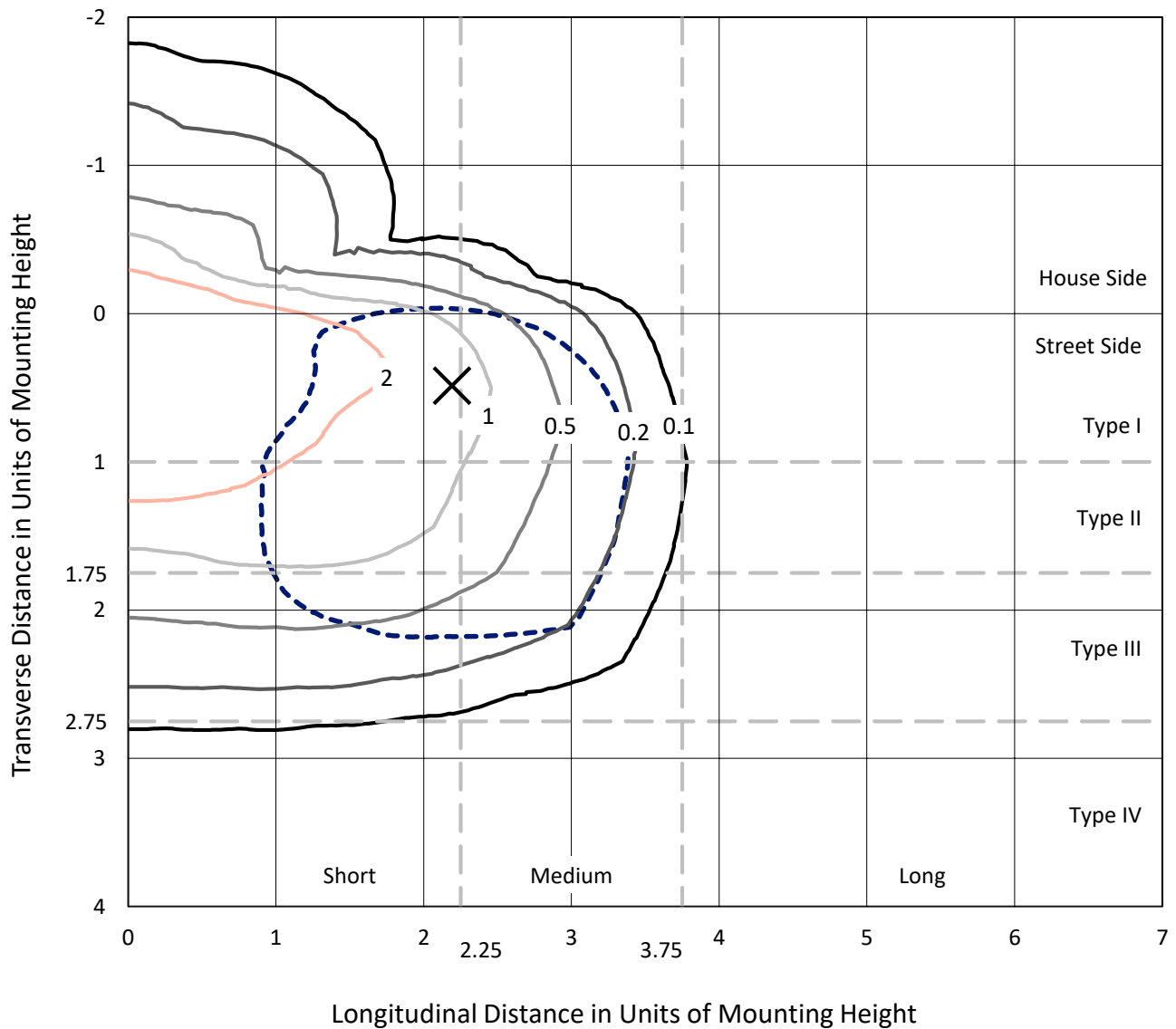
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P301149
 CATALOG NUMBER: GLNA-AF-02-LED-E1-T3R-800

Iso-Footcandle Lines of Horizontal Illumination

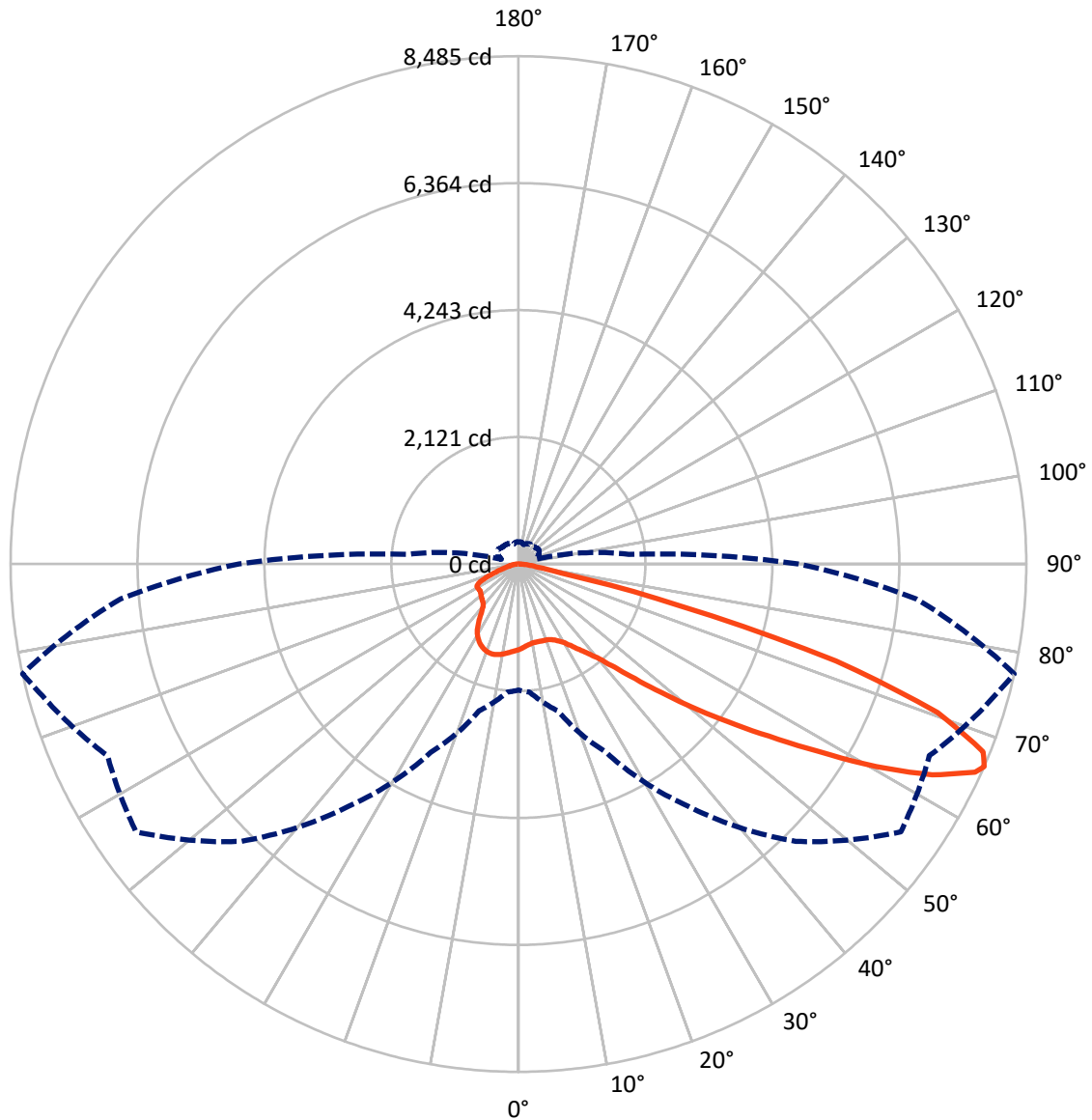
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P301149
CATALOG NUMBER: GLNA-AF-02-LED-E1-T3R-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301149

CATALOG NUMBER: GLNA-AF-02-LED-E1-T3R-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1712.6	0.0	1712.6
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8311.6	0.0	8311.6
	% Fixture	82.9	0.0	82.9
Total	Lumens	10024.2	0.0	10024.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.6	1.3
10°-20°	360.1	3.6
20°-30°	614.5	6.1
30°-40°	983.7	9.8
40°-50°	1519.7	15.2
50°-60°	2155.4	21.5
60°-70°	2883.4	28.8
70°-80°	1252.2	12.5
80°-90°	127.7	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°	10024.2	100.0
0°-180°	10024.2	100.0



REPORT NUMBER: P301149

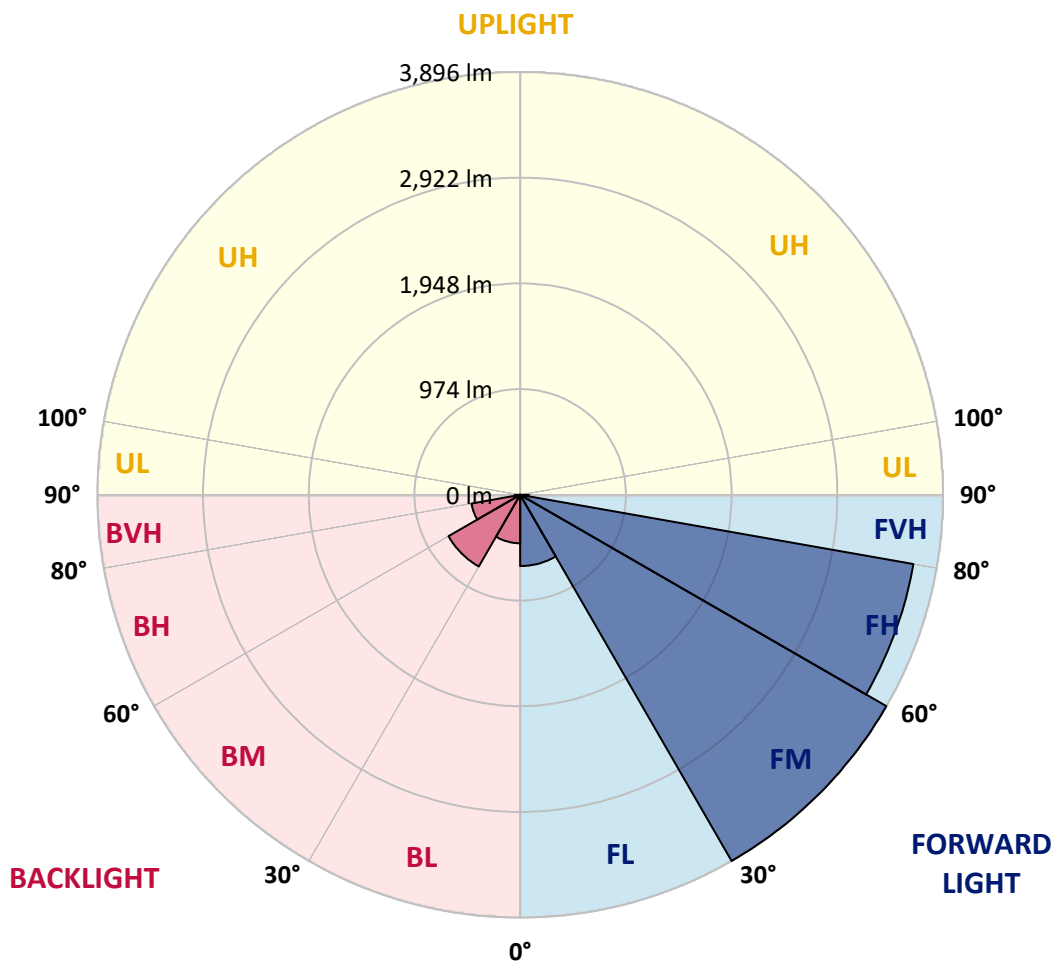
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	656.1	6.5			
FM	(30°-60°)	3895.9	38.9			
FH	(60°-80°)	3679.5	36.7			G2/5000
FVH	(80°-90°)	80.1	0.8			G1/100
BL	(0°-30°)	446.0	4.4	B1/500		
BM	(30°-60°)	762.8	7.6	B1/1000		
BH	(60°-80°)	456.1	4.5	B1/500		G1/500
BVH	(80°-90°)	47.6	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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 CATALOG NUMBER: GLNA-AF-02-LED-E1-T3R-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5
2.5°	1263.7	1272.2	1279.3	1285.9	1299.1	1320.9	1346.0	1366.4	1395.8	1401.5	1417.1
5°	1147.7	1147.7	1153.3	1163.3	1181.2	1213.9	1248.1	1293.5	1357.5	1372.5	1414.3
7.5°	1091.3	1091.8	1095.1	1103.5	1119.1	1149.0	1186.4	1240.0	1326.7	1351.8	1422.7
10°	1112.1	1107.4	1100.2	1096.1	1098.4	1115.8	1151.4	1211.1	1307.7	1339.9	1441.8
12.5°	1228.6	1219.7	1195.0	1162.3	1131.1	1118.3	1139.1	1197.3	1299.7	1337.1	1466.9
15°	1419.0	1415.3	1369.2	1301.6	1225.8	1162.3	1148.1	1192.1	1300.6	1340.4	1496.7
17.5°	1657.8	1652.5	1592.0	1493.4	1369.8	1246.2	1179.8	1196.4	1303.9	1346.0	1525.6
20°	1898.9	1882.6	1817.4	1699.9	1541.2	1360.2	1232.4	1207.3	1308.2	1352.2	1556.0
22.5°	2078.8	2065.5	2006.8	1892.7	1709.8	1492.4	1303.0	1226.3	1321.9	1370.3	1593.3
25°	2237.0	2237.9	2179.6	2069.4	1880.4	1632.7	1393.9	1276.9	1356.9	1407.1	1644.4
27.5°	2432.6	2421.3	2366.8	2257.4	2049.0	1774.2	1503.8	1346.6	1409.1	1459.7	1711.7
30°	2666.5	2658.5	2595.5	2471.5	2236.0	1926.2	1629.2	1427.5	1476.4	1528.9	1799.8
32.5°	2941.7	2938.0	2872.6	2713.0	2452.0	2105.4	1776.7	1534.6	1576.8	1631.3	1926.2
35°	3264.8	3265.2	3188.1	2996.2	2688.3	2313.7	1943.7	1672.4	1698.9	1755.7	2077.0
37.5°	3463.7	3487.8	3459.0	3263.4	2955.9	2546.8	2160.7	1855.3	1838.2	1895.6	2238.4
40°	3506.3	3535.7	3627.0	3527.7	3255.3	2803.5	2353.0	2030.9	2009.7	2079.7	2446.4
42.5°	3446.6	3487.4	3680.7	3750.7	3573.1	3119.8	2611.6	2291.9	2265.0	2359.2	2704.9
45°	3411.1	3441.5	3665.0	3866.8	3848.8	3477.5	2940.8	2619.6	2609.7	2733.3	3003.4
47.5°	3349.6	3377.1	3592.1	3893.8	4010.8	3805.2	3336.4	3020.4	3039.8	3201.8	3340.1
50°	3382.7	3394.0	3510.6	3825.1	4057.7	4045.4	3778.2	3484.5	3550.9	3753.1	3721.4
52.5°	3377.9	3407.3	3501.1	3712.4	4063.9	4193.6	4213.4	4002.2	4142.0	4374.1	4144.3
55°	2731.0	2785.0	3389.9	3684.0	4085.5	4338.9	4600.9	4547.9	4808.3	5078.8	4621.7
57.5°	2607.9	2642.0	2977.3	3743.6	4201.1	4616.6	5031.9	5148.5	5584.1	5898.2	5203.4
60°	2583.6	2625.8	2973.0	3816.6	4435.6	5068.9	5670.9	5875.5	6528.2	6872.1	5877.8
62.5°	2508.3	2553.8	2945.0	3807.0	4768.6	5694.5	6488.9	6648.5	7423.3	7757.7	6442.0
65°	2269.7	2312.3	2717.3	3654.2	4993.1	6362.4	7456.9	7357.1	8130.0	8381.4	6723.2
66°	2106.2	2147.9	2537.7	3474.2	4940.9	6551.8	7799.9	7576.3	8288.2	8485.2	6668.3
67.5°	1807.4	1840.1	2189.1	3071.1	4663.9	6604.9	8088.3	7741.1	8304.7	8374.4	6354.4
70°	1141.9	1151.4	1422.7	2120.0	3530.5	5728.1	7649.2	7332.0	7619.9	7431.3	5327.0
72.5°	495.5	492.2	683.0	1078.4	1998.8	3843.6	6187.6	6049.8	5977.3	5547.3	3729.0
75°	275.6	279.5	354.8	500.6	812.3	1888.0	4047.7	3873.4	3270.4	2790.7	1690.9
77.5°	221.1	226.4	294.1	355.2	364.7	658.4	1894.1	1541.2	927.8	744.6	469.8
80°	174.8	184.3	256.7	276.6	245.8	271.3	611.9	489.3	367.1	336.7	243.5
82.5°	138.2	145.0	220.3	209.4	171.9	182.8	293.1	285.7	238.8	217.4	140.7
85°	99.5	111.7	181.0	157.7	112.7	123.2	194.6	186.6	136.8	111.7	62.1
87.5°	40.7	53.1	127.9	104.7	63.0	57.4	97.1	91.4	64.8	47.3	30.8
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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CATALOG NUMBER: GLNA-AF-02-LED-E1-T3R-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5	1428.5
2.5°	1427.0	1438.4	1453.1	1462.2	1466.9	1470.2	1475.4	1474.9	1476.4	1476.8	1478.7
5°	1436.5	1455.4	1476.8	1482.5	1482.5	1477.2	1472.1	1463.5	1460.2	1459.3	1460.2
7.5°	1461.2	1482.0	1500.5	1493.9	1479.7	1458.7	1431.8	1408.1	1395.3	1391.0	1390.2
10°	1492.4	1517.5	1525.1	1500.0	1458.3	1408.1	1354.6	1315.8	1293.5	1287.4	1285.5
12.5°	1530.3	1554.0	1543.6	1490.6	1413.3	1332.4	1258.4	1196.4	1150.0	1135.4	1134.3
15°	1572.0	1590.5	1554.0	1461.2	1346.0	1226.7	1095.1	988.1	930.3	911.8	910.3
17.5°	1610.9	1620.4	1547.8	1410.0	1247.1	1053.9	879.1	796.6	776.8	781.6	782.4
20°	1644.0	1644.0	1527.0	1336.6	1091.3	826.0	715.6	714.3	728.5	742.7	745.6
22.5°	1680.4	1658.6	1490.6	1232.9	870.5	675.9	659.8	673.0	689.1	704.7	707.1
25°	1725.5	1670.5	1439.8	1075.7	684.3	613.8	619.9	630.8	638.9	648.9	650.4
27.5°	1775.7	1685.6	1373.1	859.2	594.0	575.1	579.8	583.5	582.5	586.4	587.3
30°	1835.8	1703.2	1281.6	671.6	556.6	541.8	533.3	530.0	530.0	536.2	538.5
32.5°	1916.3	1729.2	1150.4	575.5	538.5	518.1	490.7	478.4	483.1	503.9	508.7
35°	2005.0	1757.2	972.9	542.8	534.8	507.2	464.6	441.8	442.4	461.8	467.9
37.5°	2101.5	1792.7	778.1	536.6	543.2	507.8	450.9	419.6	406.8	406.8	409.3
40°	2225.1	1829.2	630.0	540.9	561.3	513.4	443.8	402.1	366.1	367.1	369.0
42.5°	2386.1	1860.4	550.4	549.8	583.1	521.0	443.3	378.9	347.6	369.0	388.3
45°	2565.3	1876.0	515.3	558.0	600.6	525.7	435.8	375.2	350.1	413.4	450.4
47.5°	2771.2	1867.0	495.9	560.7	604.9	525.7	427.2	384.2	366.5	478.8	522.0
50°	2997.2	1841.1	477.0	555.1	603.5	524.7	435.2	393.1	372.7	490.2	520.0
52.5°	3262.9	1819.3	457.0	542.8	593.4	519.6	444.7	389.3	353.4	445.7	466.5
55°	3566.0	1825.4	434.8	525.3	577.8	509.7	441.4	374.1	333.0	392.6	405.4
57.5°	3953.4	1898.9	408.3	503.1	556.6	493.0	429.6	367.1	326.8	356.2	363.8
60°	4385.8	2026.6	375.2	480.7	530.0	466.5	420.6	370.4	329.7	353.4	357.1
62.5°	4703.2	2101.1	346.8	448.0	494.0	437.1	409.3	374.6	337.3	363.2	362.4
65°	4789.4	1978.9	311.2	400.2	445.3	406.4	394.9	379.3	340.6	371.3	367.1
66°	4668.6	1847.2	295.6	378.0	420.6	391.2	387.9	378.9	339.2	372.3	365.1
67.5°	4375.5	1577.2	268.6	345.3	381.3	368.6	376.6	374.6	335.3	371.3	361.4
70°	3568.4	1076.1	229.7	287.5	317.4	324.4	354.8	359.5	323.0	354.8	333.0
72.5°	2493.3	655.5	203.2	223.1	256.7	276.6	325.0	338.6	306.5	309.8	289.0
75°	1204.9	348.2	184.3	172.9	199.3	231.2	289.0	310.2	280.4	259.1	251.5
77.5°	375.6	212.7	156.3	139.2	156.3	186.6	241.5	271.9	249.7	217.0	214.1
80°	201.8	156.3	120.3	111.7	123.6	146.4	189.9	226.9	214.5	194.6	173.8
82.5°	133.1	101.4	89.1	86.6	94.2	111.7	141.1	188.0	188.0	166.8	121.3
85°	68.7	62.1	61.1	61.1	65.8	74.4	96.1	145.0	154.4	88.1	73.0
87.5°	34.1	35.6	33.1	34.6	37.0	36.4	45.9	73.0	87.2	53.5	44.5
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)