

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: P301212

Luminaire Tested: **GLNA-AF-03-LED-E1-T3R-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301212
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-03-LED-E1-T3R-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10597.2 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

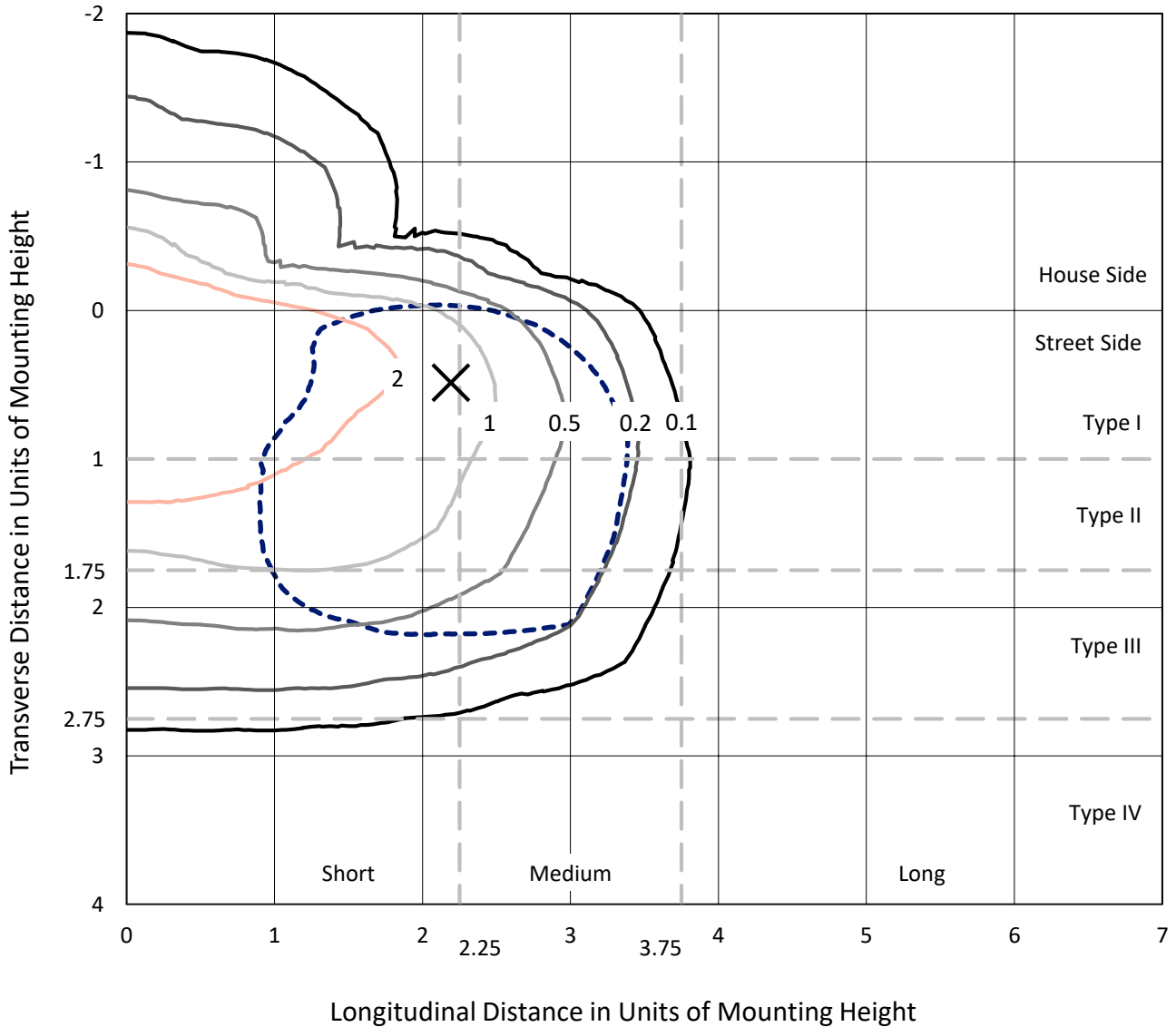
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P301212
 CATALOG NUMBER: GLNA-AF-03-LED-E1-T3R-7027-600

Iso-Footcandle Lines of Horizontal Illumination

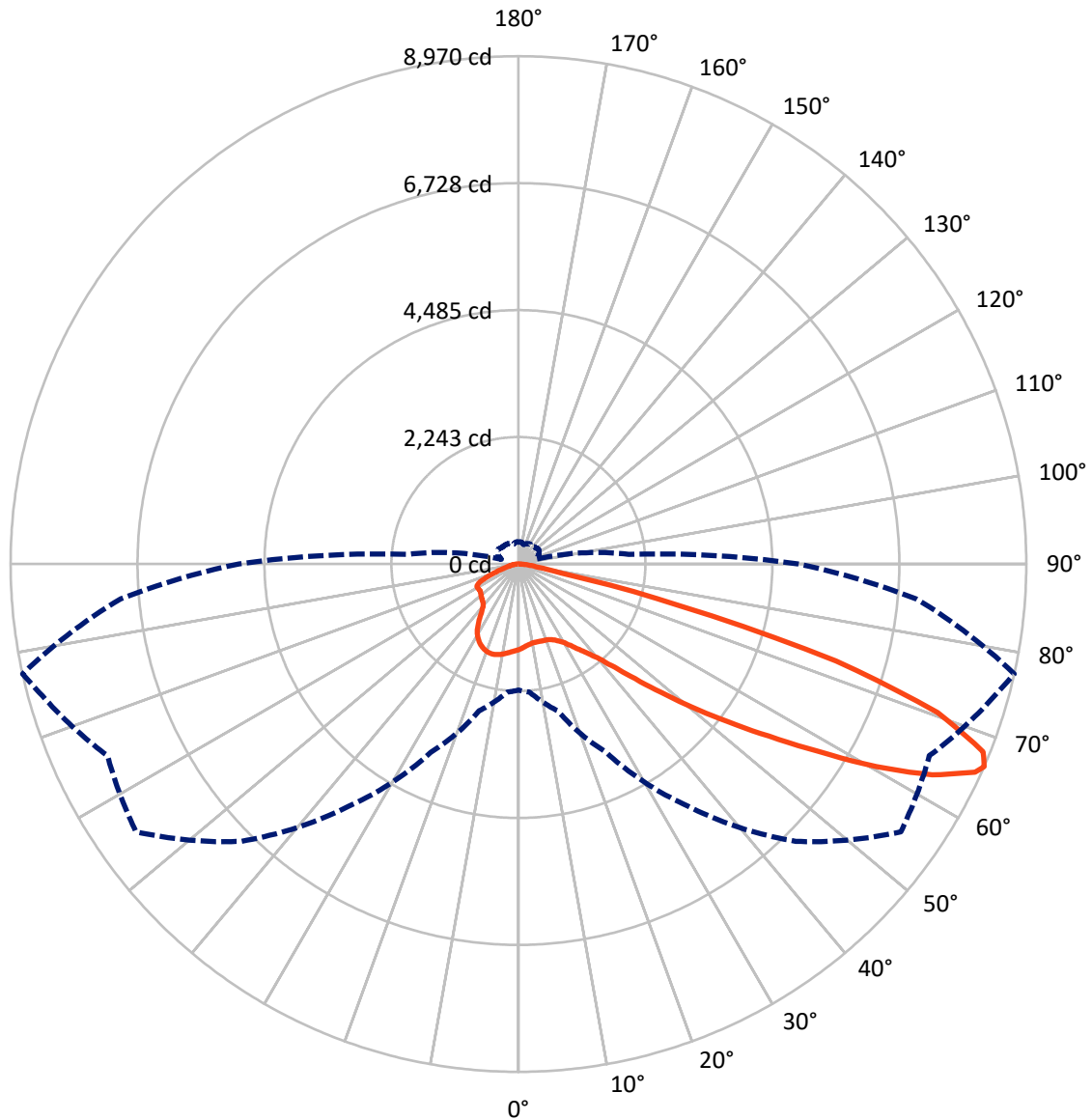
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P301212
CATALOG NUMBER: GLNA-AF-03-LED-E1-T3R-7027-600

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLNA-AF-03-LED-E1-T3R-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1810.5	0.0	1810.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8786.7	0.0	8786.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	10597.2	0.0	10597.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.9	1.3
10°-20°	380.6	3.6
20°-30°	649.6	6.1
30°-40°	1039.9	9.8
40°-50°	1606.5	15.2
50°-60°	2278.6	21.5
60°-70°	3048.2	28.8
70°-80°	1323.8	12.5
80°-90°	135.0	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°	10597.2	100.0
0°-180°	10597.2	100.0

Coefficient of Utilization



REPORT NUMBER: P301212

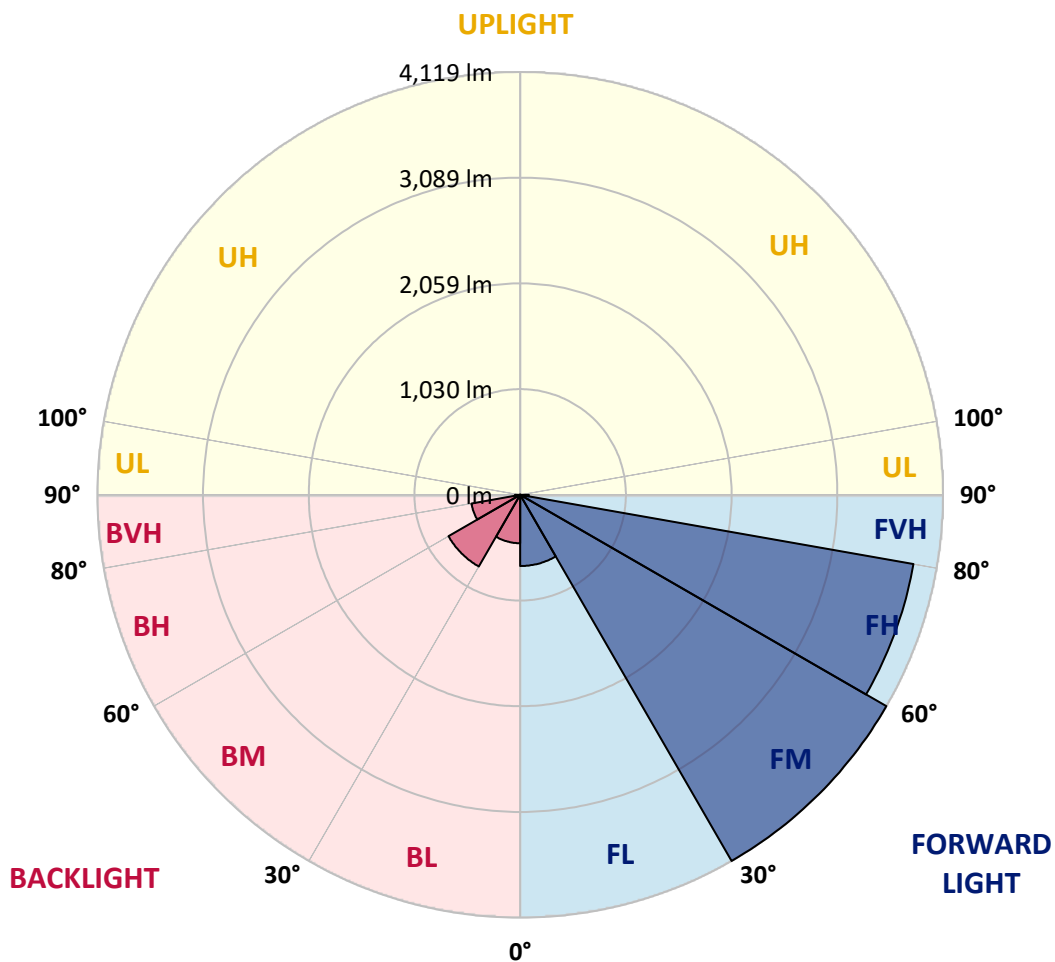
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	693.6	6.5			
FM	(30°-60°)	4118.6	38.9			
FH	(60°-80°)	3889.8	36.7			G2/5000
FVH	(80°-90°)	84.7	0.8			G1/100
BL	(0°-30°)	471.5	4.4	B1/500		
BM	(30°-60°)	806.5	7.6	B1/1000		
BH	(60°-80°)	482.2	4.5	B1/500		G1/500
BVH	(80°-90°)	50.3	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





REPORT NUMBER: P301212

CATALOG NUMBER: GLNA-AF-03-LED-E1-T3R-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1
2.5°	1335.9	1344.9	1352.5	1359.4	1373.4	1396.4	1423.0	1444.5	1475.6	1481.6	1498.2
5°	1213.3	1213.3	1219.2	1229.8	1248.8	1283.3	1319.4	1367.5	1435.1	1451.0	1495.1
7.5°	1153.7	1154.2	1157.7	1166.6	1183.1	1214.7	1254.2	1310.9	1402.5	1429.0	1504.1
10°	1175.7	1170.7	1163.1	1158.7	1161.1	1179.6	1217.2	1280.3	1382.5	1416.4	1524.2
12.5°	1298.8	1289.4	1263.3	1228.8	1195.7	1182.2	1204.2	1265.7	1374.0	1413.6	1550.8
15°	1500.1	1496.2	1447.5	1376.0	1295.9	1228.8	1213.7	1260.3	1374.9	1417.0	1582.3
17.5°	1752.5	1746.9	1683.0	1578.8	1448.1	1317.4	1247.2	1264.8	1378.4	1423.0	1612.8
20°	2007.4	1990.3	1921.3	1797.1	1629.3	1438.0	1302.9	1276.4	1382.9	1429.5	1644.9
22.5°	2197.7	2183.6	2121.6	2000.9	1807.6	1577.7	1377.5	1296.4	1397.5	1448.6	1684.3
25°	2364.9	2365.8	2304.2	2187.7	1987.8	1726.0	1473.6	1349.9	1434.5	1487.5	1738.4
27.5°	2571.7	2559.7	2502.1	2386.4	2166.1	1875.6	1589.7	1423.6	1489.7	1543.2	1809.5
30°	2818.9	2810.4	2743.9	2612.7	2363.8	2036.4	1722.4	1509.1	1560.8	1616.3	1902.6
32.5°	3109.9	3105.9	3036.8	2868.1	2592.1	2225.7	1878.2	1622.3	1666.9	1724.5	2036.4
35°	3451.4	3451.9	3370.3	3167.5	2842.0	2446.0	2054.8	1768.0	1796.1	1856.1	2195.7
37.5°	3661.7	3687.2	3656.7	3449.9	3124.9	2692.3	2284.2	1961.3	1943.3	2003.9	2366.4
40°	3706.7	3737.8	3834.4	3729.3	3441.4	2963.7	2487.5	2147.0	2124.6	2198.6	2586.2
42.5°	3643.7	3686.7	3891.1	3965.1	3777.4	3298.2	2760.9	2422.9	2394.4	2494.0	2859.6
45°	3606.1	3638.2	3874.6	4087.9	4068.8	3676.3	3109.0	2769.4	2758.9	2889.6	3175.1
47.5°	3541.0	3570.1	3797.4	4116.4	4240.1	4022.7	3527.1	3193.1	3213.6	3384.9	3531.0
50°	3576.0	3588.0	3711.3	4043.7	4289.6	4276.6	3994.2	3683.7	3753.9	3967.6	3934.1
52.5°	3571.0	3602.1	3701.3	3924.6	4296.2	4433.4	4454.3	4231.0	4378.8	4624.1	4381.2
55°	2887.2	2944.2	3583.6	3894.6	4319.1	4586.9	4863.9	4807.8	5083.1	5369.1	4885.9
57.5°	2756.9	2793.0	3147.5	3957.6	4441.3	4880.4	5319.5	5442.7	5903.3	6235.3	5500.8
60°	2731.3	2775.9	3142.9	4034.8	4689.1	5358.6	5995.0	6211.4	6901.3	7264.9	6213.8
62.5°	2651.7	2699.8	3113.3	4024.6	5041.1	6020.1	6859.8	7028.5	7847.6	8201.2	6810.2
65°	2399.4	2444.5	2872.6	3863.0	5278.6	6726.1	7883.1	7777.6	8594.8	8860.5	7107.5
66°	2226.6	2270.7	2682.8	3672.8	5223.4	6926.3	8245.8	8009.4	8762.0	8970.3	7049.5
67.5°	1910.7	1945.2	2314.2	3246.6	4930.5	6982.4	8550.6	8183.6	8779.4	8853.1	6717.6
70°	1207.2	1217.2	1504.1	2241.2	3732.3	6055.5	8086.4	7751.1	8055.5	7856.1	5631.5
72.5°	523.8	520.3	722.1	1140.1	2113.1	4063.3	6541.3	6395.6	6319.0	5864.4	3942.2
75°	291.4	295.5	375.1	529.3	858.7	1995.9	4279.0	4094.8	3457.3	2950.2	1787.6
77.5°	233.8	239.4	310.9	375.5	385.5	696.0	2002.4	1629.3	980.9	787.1	496.7
80°	184.8	194.8	271.4	292.4	259.8	286.8	646.9	517.3	388.1	356.0	257.4
82.5°	146.1	153.3	232.9	221.3	181.8	193.3	309.9	302.0	252.4	229.8	148.7
85°	105.2	118.1	191.3	166.8	119.2	130.2	205.7	197.2	144.6	118.1	65.6
87.5°	43.1	56.1	135.2	110.7	66.6	60.6	102.6	96.6	68.5	50.0	32.6
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-03-LED-E1-T3R-7027-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1	1510.1
2.5°	1508.6	1520.6	1536.2	1545.8	1550.8	1554.2	1559.7	1559.3	1560.8	1561.2	1563.2
5°	1518.6	1538.6	1561.2	1567.3	1567.3	1561.7	1556.2	1547.1	1543.6	1542.7	1543.6
7.5°	1544.7	1566.7	1586.2	1579.3	1564.3	1542.1	1513.6	1488.6	1475.1	1470.6	1469.7
10°	1577.7	1604.3	1612.3	1585.8	1541.7	1488.6	1432.1	1391.0	1367.5	1361.0	1359.0
12.5°	1617.8	1642.8	1631.9	1575.8	1494.1	1408.6	1330.3	1264.8	1215.7	1200.3	1199.2
15°	1661.9	1681.4	1642.8	1544.7	1423.0	1296.8	1157.7	1044.6	983.5	963.9	962.4
17.5°	1703.0	1713.0	1636.3	1490.6	1318.4	1114.1	929.3	842.2	821.2	826.2	827.2
20°	1738.0	1738.0	1614.3	1413.0	1153.7	873.2	756.5	755.1	770.2	785.2	788.2
22.5°	1776.5	1753.5	1575.8	1303.3	920.2	714.5	697.5	711.5	728.5	745.0	747.6
25°	1824.1	1766.0	1522.1	1137.2	723.5	648.9	655.4	666.9	675.4	686.0	687.5
27.5°	1877.2	1782.0	1451.6	908.3	627.9	607.9	612.9	616.9	615.8	619.9	620.8
30°	1940.7	1800.6	1354.9	710.0	588.4	572.8	563.8	560.3	560.3	566.8	569.3
32.5°	2025.9	1828.0	1216.2	608.4	569.3	547.7	518.8	505.8	510.8	532.7	537.7
35°	2119.6	1857.6	1028.5	573.8	565.3	536.2	491.2	467.1	467.7	488.2	494.7
37.5°	2221.6	1895.2	822.6	567.3	574.3	536.8	476.6	443.6	430.1	430.1	432.7
40°	2352.3	1933.7	666.0	571.9	593.4	542.7	469.2	425.1	387.0	388.1	390.1
42.5°	2522.5	1966.8	581.9	581.3	616.4	550.8	468.6	400.5	367.5	390.1	410.5
45°	2711.9	1983.3	544.7	589.9	634.9	555.8	460.7	396.6	370.1	437.1	476.2
47.5°	2929.6	1973.7	524.2	592.8	639.5	555.8	451.6	406.1	387.5	506.2	551.8
50°	3168.5	1946.3	504.2	586.9	638.0	554.7	460.1	415.5	394.0	518.2	549.7
52.5°	3449.5	1923.3	483.2	573.8	627.3	549.3	470.1	411.6	373.6	471.2	493.2
55°	3769.8	1929.8	459.7	555.3	610.8	538.8	466.6	395.5	352.0	415.1	428.6
57.5°	4179.4	2007.4	431.6	531.8	588.4	521.2	454.2	388.1	345.5	376.6	384.6
60°	4636.5	2142.5	396.6	508.2	560.3	493.2	444.7	391.6	348.5	373.6	377.5
62.5°	4972.0	2221.2	366.6	473.6	522.3	462.1	432.7	396.0	356.6	384.0	383.1
65°	5063.1	2092.0	329.0	423.1	470.7	429.6	417.5	401.0	360.1	392.5	388.1
66°	4935.5	1952.8	312.5	399.6	444.7	413.6	410.1	400.5	358.5	393.6	386.0
67.5°	4625.6	1667.3	284.0	365.1	403.1	389.6	398.1	396.0	354.5	392.5	382.0
70°	3772.4	1137.6	242.9	304.0	335.5	342.9	375.1	380.1	341.4	375.1	352.0
72.5°	2635.8	693.0	214.8	235.9	271.4	292.4	343.5	357.9	324.0	327.5	305.5
75°	1273.8	368.1	194.8	182.8	210.7	244.4	305.5	327.9	296.4	273.9	265.9
77.5°	397.1	224.8	165.2	147.2	165.2	197.2	255.3	287.4	263.9	229.4	226.3
80°	213.3	165.2	127.2	118.1	130.7	154.8	200.7	239.8	226.8	205.7	183.7
82.5°	140.7	107.2	94.1	91.6	99.6	118.1	149.2	198.8	198.8	176.3	128.3
85°	72.6	65.6	64.6	64.6	69.6	78.7	101.6	153.3	163.3	93.1	77.2
87.5°	36.1	37.6	35.0	36.5	39.1	38.5	48.5	77.2	92.2	56.5	47.0
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)