

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: P301215

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301215
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-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12196.9 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

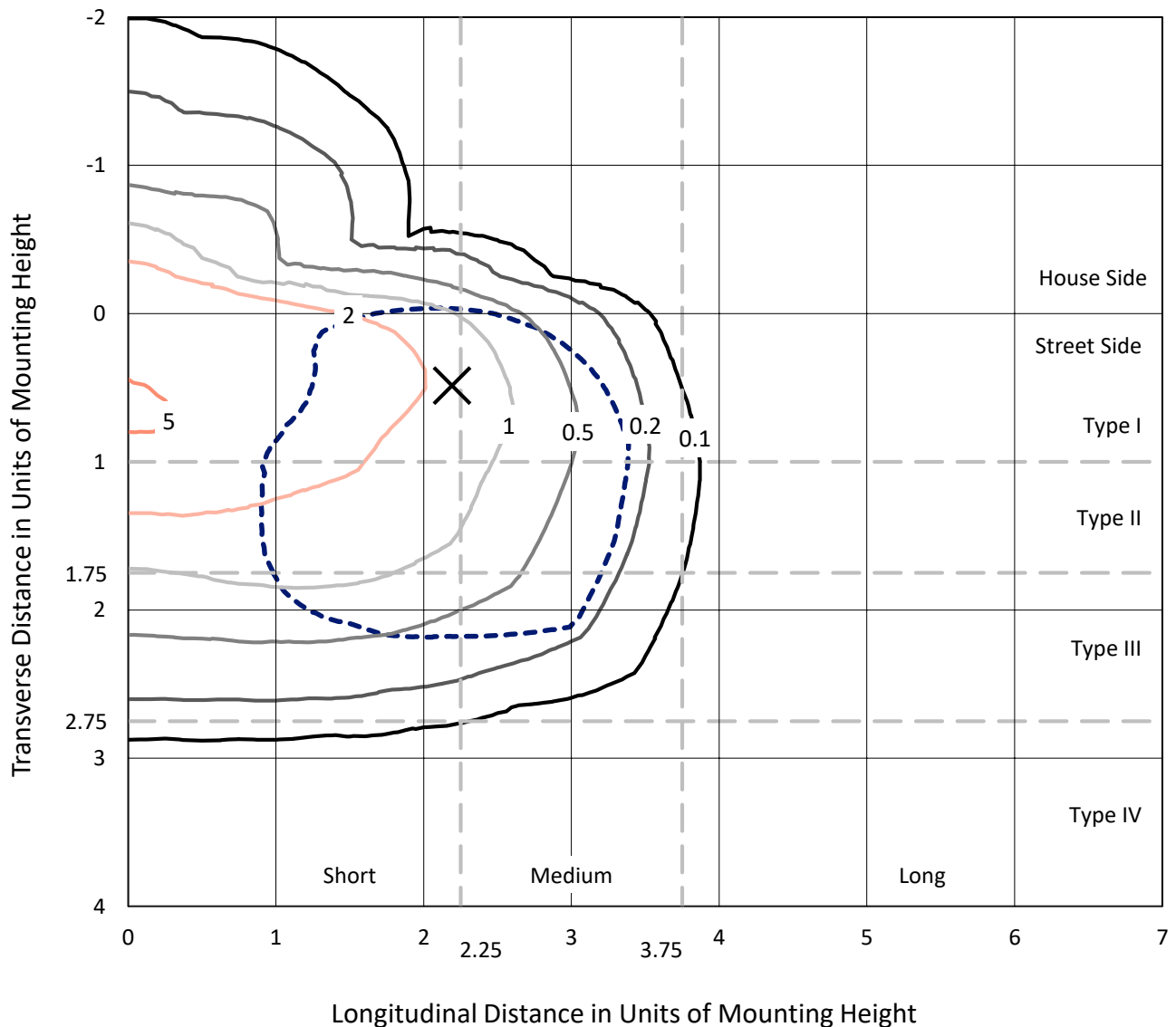
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

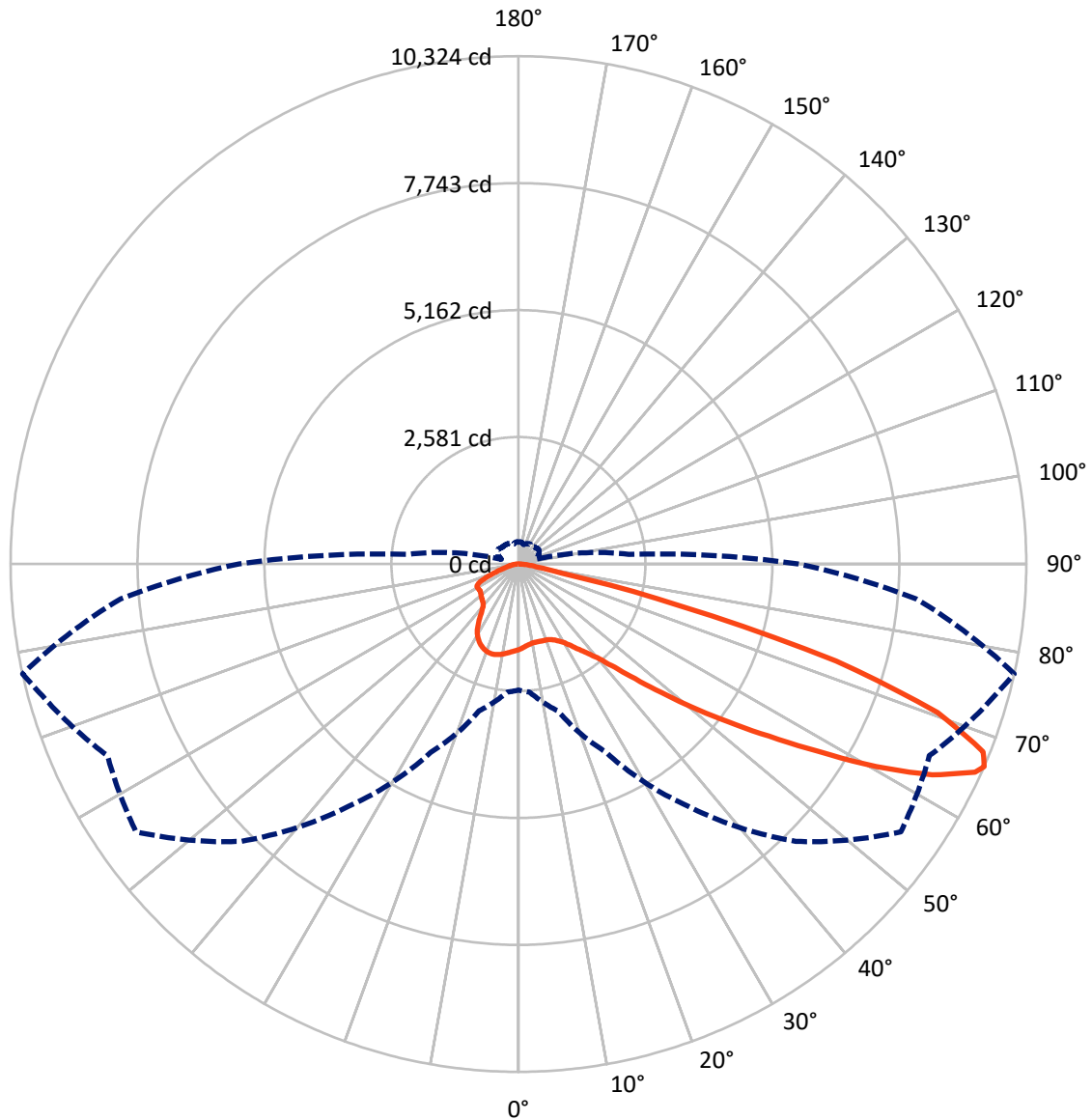
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 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
House Side	Lumens	2083.8	0.0	2083.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10113.2	0.0	10113.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	12196.9	0.0	12196.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.3	1.3
10°-20°	438.1	3.6
20°-30°	747.7	6.1
30°-40°	1196.9	9.8
40°-50°	1849.1	15.2
50°-60°	2622.6	21.5
60°-70°	3508.4	28.8
70°-80°	1523.6	12.5
80°-90°	155.4	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°	12196.9	100.0
0°-180°	12196.9	100.0



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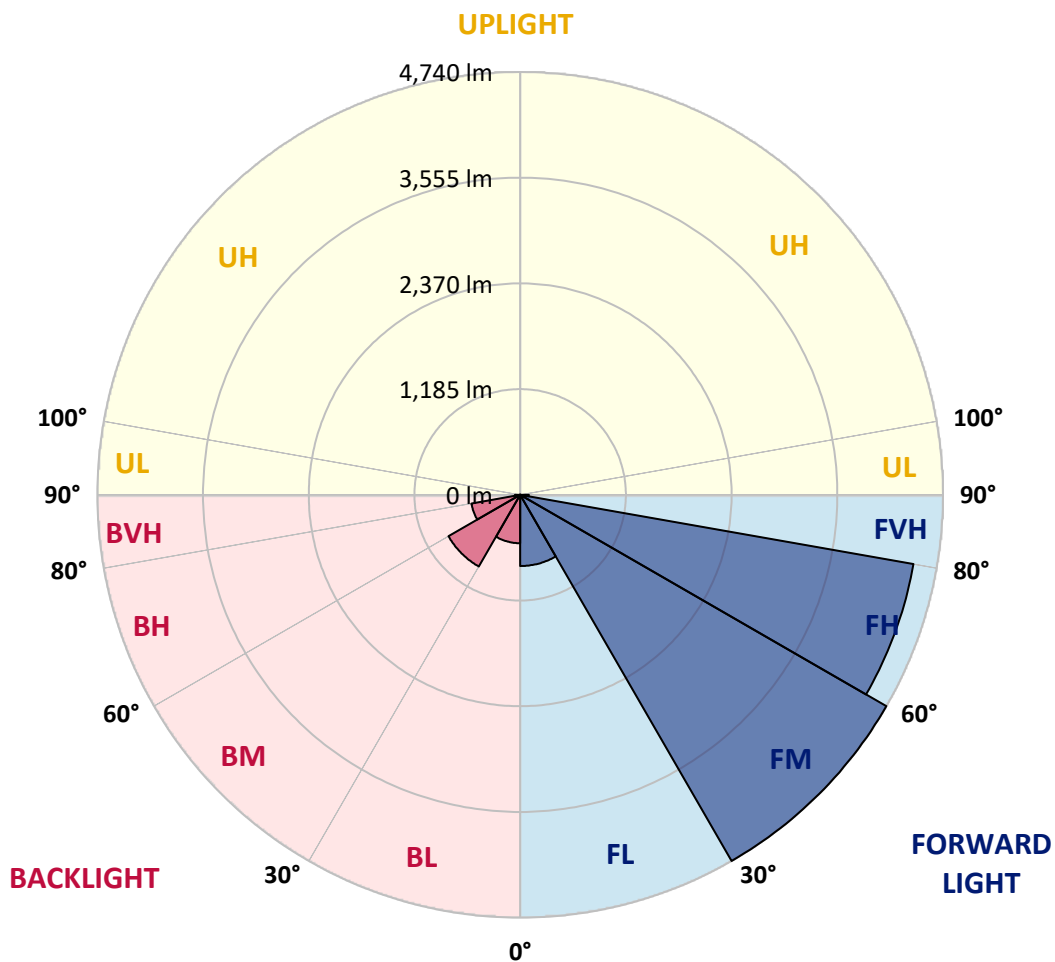
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	798.3	6.5			
FM	(30°-60°)	4740.4	38.9			
FH	(60°-80°)	4477.0	36.7			G2/5000
FVH	(80°-90°)	97.4	0.8			G1/100
BL	(0°-30°)	542.7	4.4	B2/1000		
BM	(30°-60°)	928.2	7.6	B1/1000		
BH	(60°-80°)	555.0	4.5	B2/1000		G2/1000
BVH	(80°-90°)	57.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-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°	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1
2.5°	1537.6	1547.9	1556.6	1564.7	1580.7	1607.2	1637.8	1662.5	1698.3	1705.3	1724.3
5°	1396.4	1396.4	1403.3	1415.5	1437.3	1477.1	1518.6	1573.9	1651.7	1670.1	1720.8
7.5°	1327.9	1328.4	1332.4	1342.7	1361.7	1398.0	1443.6	1508.8	1614.2	1644.8	1731.1
10°	1353.2	1347.4	1338.7	1333.6	1336.4	1357.7	1401.0	1473.6	1591.2	1630.3	1754.3
12.5°	1494.9	1484.0	1454.0	1414.2	1376.2	1360.7	1386.0	1456.8	1581.4	1627.0	1784.9
15°	1726.6	1722.0	1666.0	1583.7	1491.5	1414.2	1397.0	1450.5	1582.5	1631.0	1821.2
17.5°	2017.1	2010.7	1937.0	1817.1	1666.7	1516.3	1435.5	1455.8	1586.5	1637.8	1856.2
20°	2310.4	2290.7	2211.3	2068.4	1875.3	1655.0	1499.6	1469.0	1591.7	1645.3	1893.2
22.5°	2529.4	2513.2	2441.8	2302.9	2080.5	1815.9	1585.4	1492.1	1608.5	1667.3	1938.6
25°	2721.9	2722.9	2652.1	2517.9	2287.9	1986.6	1696.1	1553.7	1651.0	1712.1	2000.9
27.5°	2959.9	2946.1	2879.8	2746.7	2493.1	2158.8	1829.7	1638.5	1714.5	1776.1	2082.7
30°	3244.5	3234.7	3158.1	3007.2	2720.7	2343.8	1982.4	1736.9	1796.4	1860.2	2189.9
32.5°	3579.3	3574.8	3495.2	3301.0	2983.4	2561.7	2161.8	1867.2	1918.5	1984.8	2343.8
35°	3972.5	3973.0	3879.1	3645.6	3271.0	2815.2	2365.0	2034.9	2067.2	2136.3	2527.2
37.5°	4214.5	4243.8	4208.7	3970.7	3596.6	3098.8	2629.1	2257.4	2236.6	2306.4	2723.6
40°	4266.3	4302.1	4413.2	4292.3	3960.9	3411.1	2863.0	2471.1	2445.3	2530.5	2976.6
42.5°	4193.7	4243.3	4478.5	4563.6	4347.6	3796.0	3177.7	2788.7	2755.9	2870.5	3291.2
45°	4150.4	4187.4	4459.5	4705.0	4683.0	4231.2	3578.3	3187.4	3175.4	3325.8	3654.4
47.5°	4075.6	4109.1	4370.6	4737.8	4880.2	4629.9	4059.5	3675.1	3698.7	3895.9	4064.1
50°	4115.9	4129.7	4271.5	4654.2	4937.2	4922.2	4597.1	4239.8	4320.6	4566.6	4528.0
52.5°	4110.1	4145.9	4260.0	4517.0	4944.7	5102.6	5126.7	4869.7	5039.8	5322.1	5042.6
55°	3323.0	3388.6	4124.6	4482.5	4971.1	5279.4	5598.2	5533.6	5850.5	6179.6	5623.5
57.5°	3173.1	3214.6	3622.6	4555.1	5111.7	5617.2	6122.5	6264.4	6794.5	7176.6	6331.2
60°	3143.6	3194.9	3617.4	4643.9	5397.0	6167.6	6900.1	7149.1	7943.2	8361.6	7151.9
62.5°	3052.0	3107.3	3583.3	4632.2	5802.2	6928.9	7895.4	8089.6	9032.3	9439.3	7838.3
65°	2761.7	2813.5	3306.3	4446.2	6075.4	7741.5	9073.2	8951.7	9892.2	10198.1	8180.5
66°	2562.7	2613.5	3087.8	4227.2	6011.9	7972.0	9490.6	9218.5	10084.7	10324.4	8113.6
67.5°	2199.1	2238.9	2663.6	3736.7	5674.8	8036.5	9841.5	9419.0	10104.8	10189.6	7731.7
70°	1389.5	1401.0	1731.1	2579.5	4295.8	6969.7	9307.2	8921.2	9271.6	9042.1	6481.6
72.5°	602.9	598.9	831.1	1312.2	2432.1	4676.7	7528.8	7361.1	7273.0	6749.7	4537.3
75°	335.4	340.1	431.7	609.1	988.3	2297.2	4925.0	4713.0	3979.3	3395.6	2057.4
77.5°	269.1	275.5	357.9	432.2	443.7	801.1	2304.7	1875.3	1129.0	906.0	571.6
80°	212.7	224.2	312.3	336.6	299.1	330.1	744.6	595.4	446.7	409.7	296.3
82.5°	168.2	176.4	268.0	254.8	209.2	222.5	356.7	347.6	290.5	264.5	171.2
85°	121.1	135.9	220.2	191.9	137.1	149.9	236.8	227.0	166.5	135.9	75.6
87.5°	49.6	64.6	155.6	127.4	76.6	69.8	118.1	111.2	78.9	57.6	37.5
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°	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1	1738.1
2.5°	1736.4	1750.1	1768.1	1779.1	1784.9	1788.9	1795.2	1794.6	1796.4	1796.9	1799.2
5°	1747.9	1770.9	1796.9	1803.9	1803.9	1797.4	1791.1	1780.7	1776.7	1775.6	1776.7
7.5°	1777.9	1803.2	1825.7	1817.7	1800.4	1774.9	1742.1	1713.3	1697.8	1692.6	1691.5
10°	1815.9	1846.5	1855.7	1825.2	1774.4	1713.3	1648.2	1601.0	1573.9	1566.4	1564.1
12.5°	1862.0	1890.8	1878.2	1813.7	1719.6	1621.2	1531.2	1455.8	1399.2	1381.4	1380.2
15°	1912.8	1935.3	1890.8	1777.9	1637.8	1492.6	1332.4	1202.2	1131.9	1109.4	1107.7
17.5°	1960.1	1971.6	1883.3	1715.6	1517.4	1282.3	1069.6	969.3	945.2	951.0	952.0
20°	2000.4	2000.4	1858.0	1626.3	1327.9	1005.1	870.7	869.1	886.4	903.7	907.2
22.5°	2044.7	2018.2	1813.7	1500.1	1059.2	822.4	802.8	818.9	838.4	857.4	860.4
25°	2099.5	2032.6	1751.9	1308.9	832.7	746.8	754.3	767.6	777.4	789.6	791.3
27.5°	2160.5	2051.0	1670.7	1045.4	722.7	699.7	705.5	710.0	708.8	713.5	714.5
30°	2233.7	2072.4	1559.4	817.1	677.2	659.2	648.9	644.9	644.9	652.4	655.2
32.5°	2331.7	2104.0	1399.8	700.2	655.2	630.4	597.1	582.1	587.9	613.2	618.9
35°	2439.6	2138.0	1183.7	660.4	650.7	617.2	565.4	537.6	538.3	561.9	569.4
37.5°	2557.0	2181.3	946.8	652.9	661.0	617.9	548.6	510.6	495.0	495.0	498.0
40°	2707.4	2225.6	766.5	658.2	683.0	624.7	540.0	489.3	445.5	446.7	449.0
42.5°	2903.4	2263.7	669.7	669.0	709.5	633.9	539.4	461.0	423.0	449.0	472.5
45°	3121.3	2282.7	626.9	678.9	730.8	639.7	530.3	456.5	425.9	503.1	548.1
47.5°	3371.9	2271.7	603.4	682.3	736.0	639.7	519.8	467.5	446.0	582.6	635.1
50°	3646.9	2240.1	580.4	675.5	734.3	638.5	529.6	478.3	453.5	596.4	632.7
52.5°	3970.2	2213.6	556.1	660.4	722.0	632.2	541.1	473.7	429.9	542.3	567.6
55°	4338.9	2221.1	529.1	639.2	703.0	620.1	537.1	455.2	405.2	477.8	493.3
57.5°	4810.4	2310.4	496.8	612.1	677.2	599.9	522.8	446.7	397.7	433.4	442.7
60°	5336.5	2465.9	456.5	584.9	644.9	567.6	511.8	450.7	401.2	429.9	434.5
62.5°	5722.6	2556.5	421.9	545.1	601.1	531.8	498.0	455.8	410.4	442.0	440.9
65°	5827.5	2407.8	378.6	487.0	541.8	494.5	480.5	461.5	414.4	451.8	446.7
66°	5680.5	2247.6	359.6	460.0	511.8	476.0	472.0	461.0	412.7	453.0	444.3
67.5°	5323.9	1919.0	326.8	420.2	464.0	448.4	458.2	455.8	408.0	451.8	439.7
70°	4341.9	1309.4	279.5	349.9	386.1	394.7	431.7	437.4	393.0	431.7	405.2
72.5°	3033.7	797.6	247.3	271.5	312.3	336.6	395.4	412.0	372.9	376.9	351.6
75°	1466.1	423.7	224.2	210.4	242.5	281.3	351.6	377.4	341.1	315.3	306.1
77.5°	457.0	258.8	190.2	169.4	190.2	227.0	293.8	330.8	303.8	264.0	260.5
80°	245.5	190.2	146.4	135.9	150.4	178.2	231.0	276.0	261.0	236.8	211.5
82.5°	161.9	123.4	108.4	105.4	114.6	135.9	171.7	228.8	228.8	202.9	147.6
85°	83.6	75.6	74.3	74.3	80.1	90.6	116.9	176.4	187.9	107.1	88.8
87.5°	41.5	43.3	40.3	42.1	45.0	44.3	55.8	88.8	106.1	65.1	54.1
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)