

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: P301089

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301089
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
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12408 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 113
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

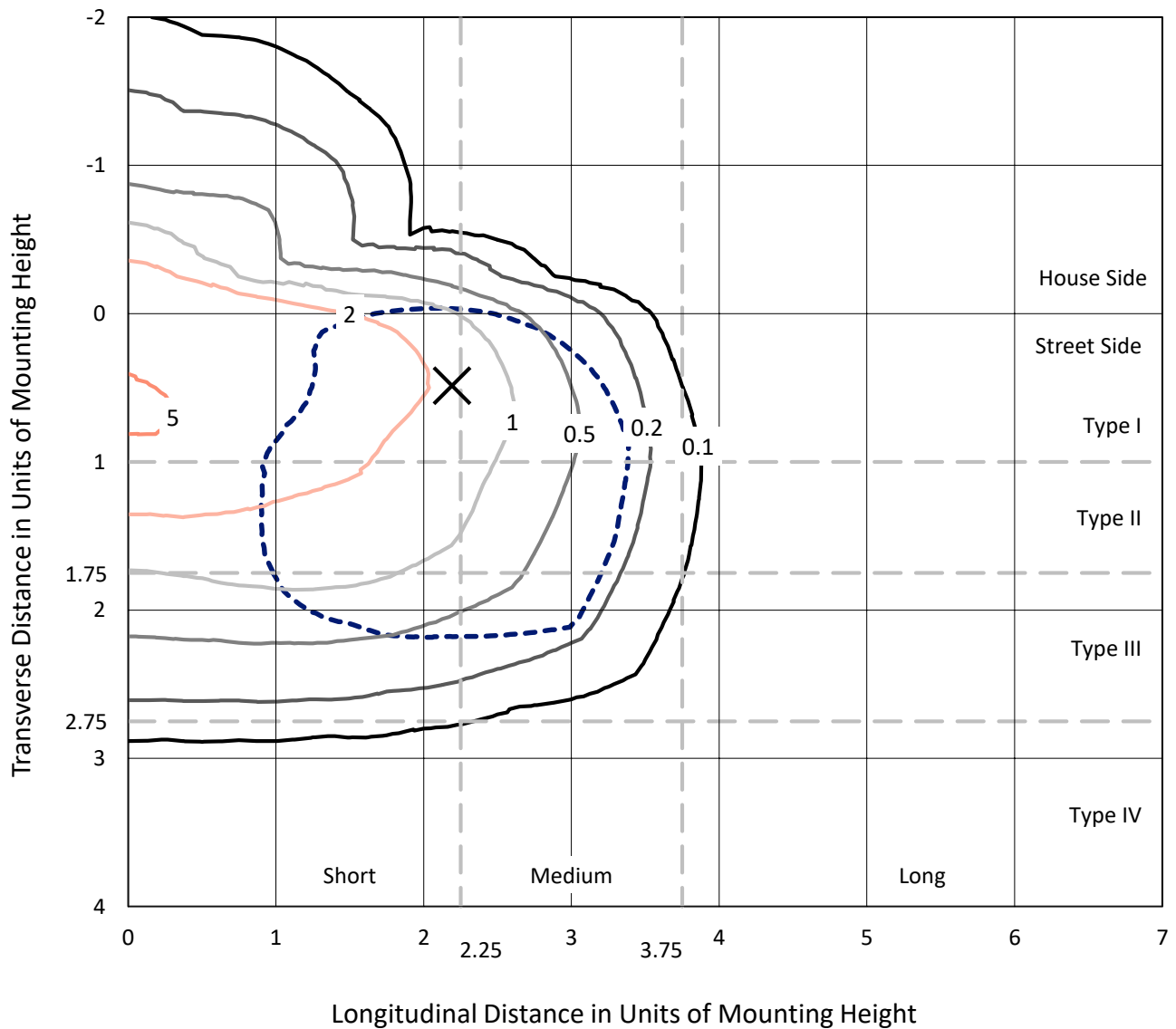


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

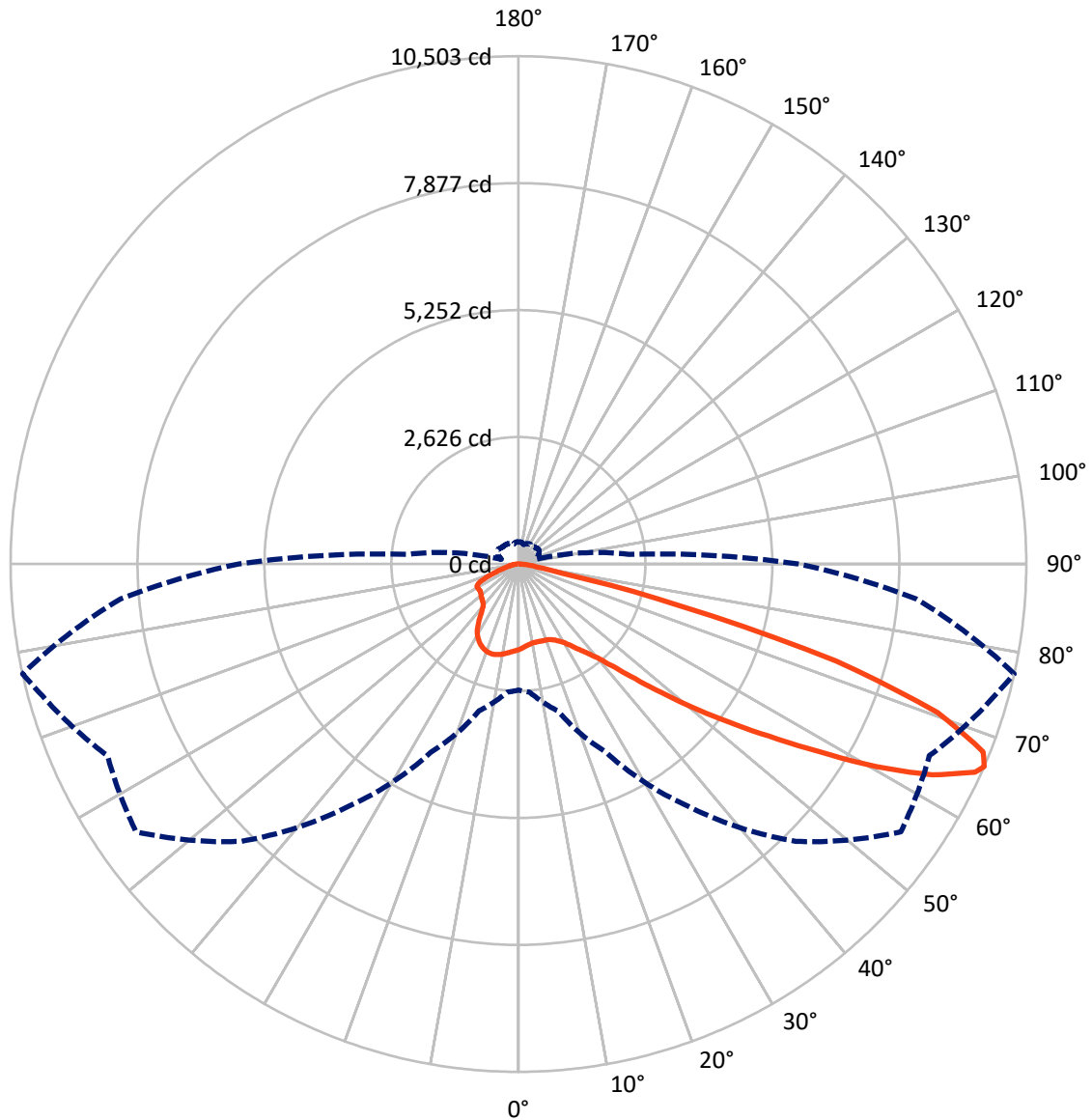


Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - Full Cutoff

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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	2119.8	0.0	2119.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10288.1	0.0	10288.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	12408.0	0.0	12408.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	1.3
10°-20°	445.7	3.6
20°-30°	760.6	6.1
30°-40°	1217.6	9.8
40°-50°	1881.1	15.2
50°-60°	2668.0	21.5
60°-70°	3569.1	28.8
70°-80°	1550.0	12.5
80°-90°	158.0	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°	12408.0	100.0
0°-180°	12408.0	100.0



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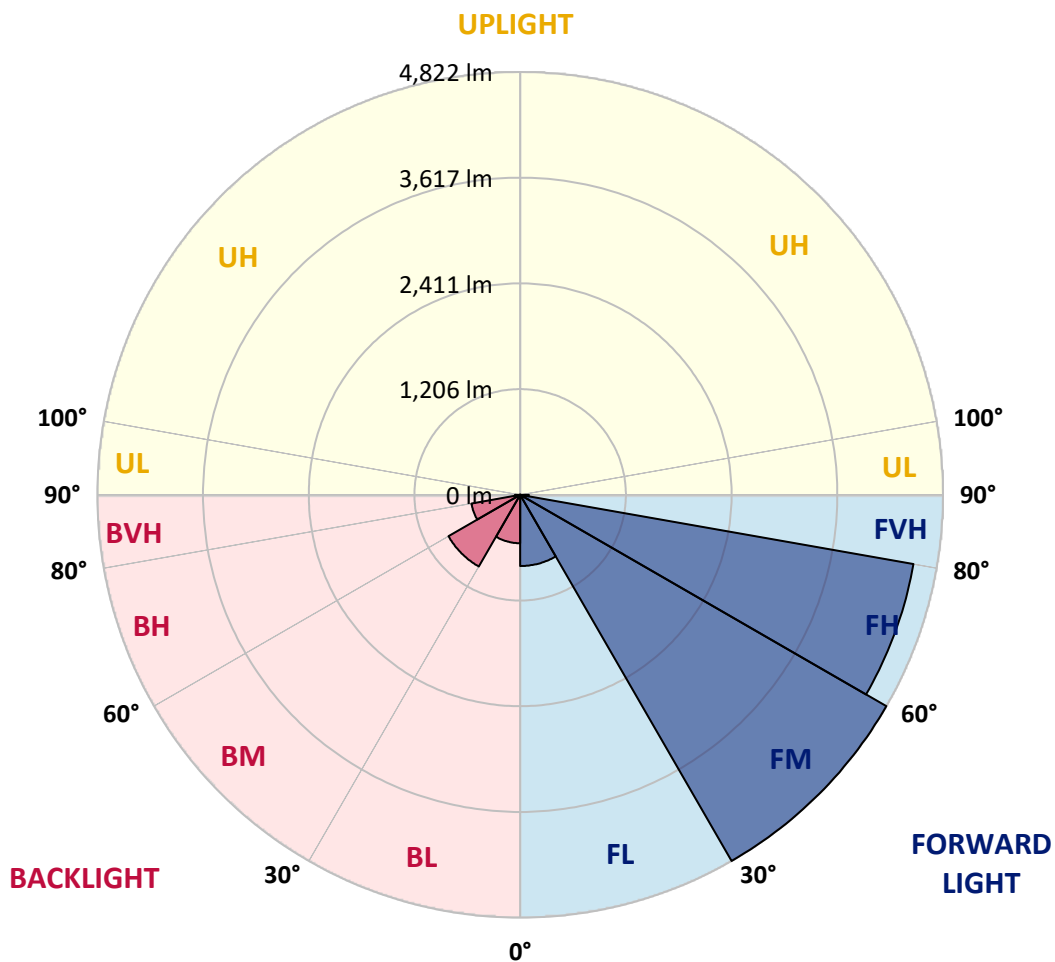
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	812.2	6.5			
FM	(30°-60°)	4822.4	38.9			
FH	(60°-80°)	4554.5	36.7			G2/5000
FVH	(80°-90°)	99.1	0.8			G1/100
BL	(0°-30°)	552.1	4.4	B2/1000		
BM	(30°-60°)	944.3	7.6	B1/1000		
BH	(60°-80°)	564.6	4.5	B2/1000		G2/1000
BVH	(80°-90°)	58.9	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°	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2
2.5°	1564.2	1574.7	1583.6	1591.7	1608.1	1635.0	1666.1	1691.3	1727.7	1734.8	1754.2
5°	1420.6	1420.6	1427.5	1440.0	1462.1	1502.6	1544.9	1601.1	1680.3	1698.9	1750.6
7.5°	1350.9	1351.4	1355.5	1365.9	1385.3	1422.2	1468.5	1534.9	1642.1	1673.2	1761.1
10°	1376.6	1370.7	1361.9	1356.7	1359.5	1381.2	1425.2	1499.1	1618.7	1658.5	1784.7
12.5°	1520.7	1509.7	1479.2	1438.7	1400.0	1384.2	1410.0	1482.0	1608.8	1655.1	1815.7
15°	1756.5	1751.8	1694.9	1611.1	1517.4	1438.7	1421.1	1475.6	1609.8	1659.2	1852.7
17.5°	2052.0	2045.4	1970.5	1848.6	1695.6	1542.6	1460.4	1481.0	1613.9	1666.1	1888.4
20°	2350.4	2330.4	2249.6	2104.2	1907.7	1683.7	1525.5	1494.5	1619.2	1673.7	1926.0
22.5°	2573.2	2556.7	2484.1	2342.8	2116.5	1847.3	1612.9	1517.9	1636.3	1696.1	1972.1
25°	2769.0	2770.0	2698.0	2561.5	2327.5	2021.0	1725.4	1580.5	1679.6	1741.7	2035.5
27.5°	3011.1	2997.1	2929.6	2794.2	2536.3	2196.2	1861.4	1666.8	1744.2	1806.9	2118.8
30°	3300.6	3290.7	3212.8	3059.2	2767.7	2384.3	2016.7	1766.9	1827.5	1892.4	2227.7
32.5°	3641.3	3636.6	3555.7	3358.1	3035.1	2606.0	2199.2	1899.5	1951.7	2019.2	2384.3
35°	4041.2	4041.7	3946.2	3708.7	3327.6	2863.9	2406.0	2070.1	2103.0	2173.3	2570.9
37.5°	4287.4	4317.2	4281.5	4039.4	3658.8	3152.4	2674.5	2296.4	2275.3	2346.3	2770.8
40°	4340.1	4376.5	4489.6	4366.6	4029.5	3470.1	2912.6	2513.9	2487.6	2574.2	3028.1
42.5°	4266.3	4316.7	4556.0	4642.6	4422.8	3861.7	3232.6	2837.0	2803.6	2920.2	3348.2
45°	4222.3	4259.9	4536.6	4786.4	4764.0	4304.4	3640.2	3242.6	3230.3	3383.3	3717.6
47.5°	4146.1	4180.2	4446.3	4819.7	4964.6	4710.0	4129.8	3738.7	3762.7	3963.3	4134.4
50°	4187.1	4201.1	4345.4	4734.7	5022.6	5007.4	4676.7	4313.1	4395.3	4645.6	4606.4
52.5°	4181.2	4217.6	4333.7	4595.2	5030.3	5190.9	5215.4	4953.9	5127.0	5414.2	5129.9
55°	3380.5	3447.2	4196.0	4560.1	5057.1	5370.7	5695.1	5629.4	5951.7	6286.5	5720.8
57.5°	3228.0	3270.3	3685.3	4633.9	5200.2	5714.4	6228.5	6372.8	6912.1	7300.8	6440.8
60°	3198.0	3250.2	3680.0	4724.2	5490.4	6274.3	7019.5	7272.8	8080.6	8506.3	7275.6
62.5°	3104.8	3161.1	3645.3	4712.4	5902.6	7048.7	8032.0	8229.5	9188.6	9602.6	7973.9
65°	2809.4	2862.2	3363.5	4523.1	6180.5	7875.4	9230.2	9106.6	10063.4	10374.6	8322.0
66°	2607.1	2658.7	3141.2	4300.4	6115.9	8109.9	9654.8	9378.0	10259.2	10503.1	8254.0
67.5°	2237.2	2277.6	2709.7	3801.4	5773.0	8175.6	10011.7	9582.0	10279.6	10365.9	7865.5
70°	1413.5	1425.2	1761.1	2624.1	4370.1	7090.3	9468.2	9075.5	9432.0	9198.6	6593.8
72.5°	613.3	609.2	845.5	1334.9	2474.1	4757.6	7659.0	7488.4	7398.8	6866.4	4615.8
75°	341.2	346.0	439.2	619.7	1005.4	2336.9	5010.2	4794.5	4048.1	3454.3	2093.0
77.5°	273.7	280.3	364.1	439.7	451.4	814.9	2344.6	1907.7	1148.5	921.6	581.5
80°	216.4	228.1	317.7	342.4	304.3	335.8	757.4	605.7	454.4	416.8	301.4
82.5°	171.1	179.5	272.7	259.2	212.8	226.3	362.8	353.6	295.6	269.1	174.1
85°	123.2	138.3	224.0	195.3	139.5	152.5	240.9	230.9	169.3	138.3	76.9
87.5°	50.4	65.7	158.3	129.6	77.9	71.0	120.2	113.1	80.2	58.6	38.2
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°	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2	1768.2
2.5°	1766.4	1780.4	1798.7	1809.9	1815.7	1819.8	1826.2	1825.7	1827.5	1828.0	1830.3
5°	1778.1	1801.5	1828.0	1835.1	1835.1	1828.5	1822.1	1811.5	1807.4	1806.3	1807.4
7.5°	1808.6	1834.4	1857.3	1849.1	1831.5	1805.6	1772.3	1743.0	1727.2	1721.8	1720.8
10°	1847.3	1878.4	1887.8	1856.8	1805.1	1743.0	1676.8	1628.7	1601.1	1593.5	1591.2
12.5°	1894.2	1923.5	1910.7	1845.0	1749.4	1649.2	1557.6	1481.0	1423.5	1405.3	1404.1
15°	1945.9	1968.8	1923.5	1808.6	1666.1	1518.4	1355.5	1223.0	1151.5	1128.6	1126.8
17.5°	1994.0	2005.7	1915.9	1745.3	1543.6	1304.5	1088.1	986.1	961.6	967.4	968.5
20°	2035.0	2035.0	1890.1	1654.4	1350.9	1022.5	885.8	884.2	901.8	919.3	922.9
22.5°	2080.1	2053.1	1845.0	1526.1	1077.5	836.6	816.7	833.1	852.9	872.3	875.3
25°	2135.8	2067.8	1782.2	1331.5	847.1	759.7	767.4	780.9	790.8	803.2	805.0
27.5°	2197.9	2086.5	1699.7	1063.5	735.2	711.8	717.7	722.3	721.0	725.8	726.9
30°	2272.3	2108.3	1586.4	831.3	688.9	670.6	660.2	656.1	656.1	663.7	666.5
32.5°	2372.1	2140.4	1424.0	712.3	666.5	641.3	607.4	592.2	598.0	623.8	629.6
35°	2481.8	2175.0	1204.2	671.9	661.9	627.9	575.1	546.9	547.6	571.6	579.2
37.5°	2601.2	2219.1	963.2	664.2	672.4	628.6	558.1	519.4	503.6	503.6	506.6
40°	2754.2	2264.1	779.8	669.6	694.8	635.5	549.4	497.7	453.2	454.4	456.7
42.5°	2953.6	2302.8	681.3	680.6	721.8	644.9	548.7	469.0	430.3	456.7	480.7
45°	3175.3	2322.2	637.8	690.7	743.4	650.8	539.5	464.4	433.3	511.8	557.6
47.5°	3430.2	2311.0	613.8	694.1	748.7	650.8	528.8	475.5	453.7	592.7	646.1
50°	3710.0	2278.9	590.4	687.1	747.0	649.5	538.7	486.6	461.3	606.7	643.7
52.5°	4038.9	2251.9	565.7	671.9	734.5	643.1	550.5	481.9	437.4	551.7	577.4
55°	4414.0	2259.5	538.2	650.2	715.2	630.9	546.4	463.1	412.2	486.0	501.8
57.5°	4893.6	2350.4	505.4	622.7	688.9	610.3	531.8	454.4	404.5	440.9	450.3
60°	5428.8	2508.6	464.4	595.0	656.1	577.4	520.6	458.5	408.1	437.4	442.0
62.5°	5821.6	2600.7	429.2	554.5	611.5	541.1	506.6	463.7	417.5	449.6	448.6
65°	5928.3	2449.5	385.2	495.4	551.2	503.1	488.9	469.5	421.6	459.6	454.4
66°	5778.8	2286.5	365.8	467.9	520.6	484.2	480.2	469.0	419.8	460.8	451.9
67.5°	5416.0	1952.3	332.5	427.4	472.0	456.2	466.1	463.7	415.0	459.6	447.3
70°	4417.0	1332.0	284.4	355.9	392.8	401.5	439.2	445.0	399.8	439.2	412.2
72.5°	3086.2	811.4	251.5	276.2	317.7	342.4	402.2	419.1	379.3	383.4	357.7
75°	1491.4	431.0	228.1	214.1	246.7	286.1	357.7	384.0	347.0	320.8	311.4
77.5°	464.9	263.2	193.5	172.4	193.5	230.9	298.9	336.6	309.0	268.6	265.0
80°	249.8	193.5	148.9	138.3	153.0	181.2	235.0	280.8	265.6	240.9	215.1
82.5°	164.7	125.5	110.2	107.2	116.6	138.3	174.7	232.7	232.7	206.4	150.2
85°	85.0	76.9	75.6	75.6	81.5	92.1	118.9	179.5	191.2	109.0	90.4
87.5°	42.2	44.0	41.0	42.8	45.8	45.1	56.8	90.4	107.9	66.2	55.0
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)