

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: P298861

Luminaire Tested: **GLNA-AF-02-LED-E1-T2-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298861
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
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-T2-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10347.8 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

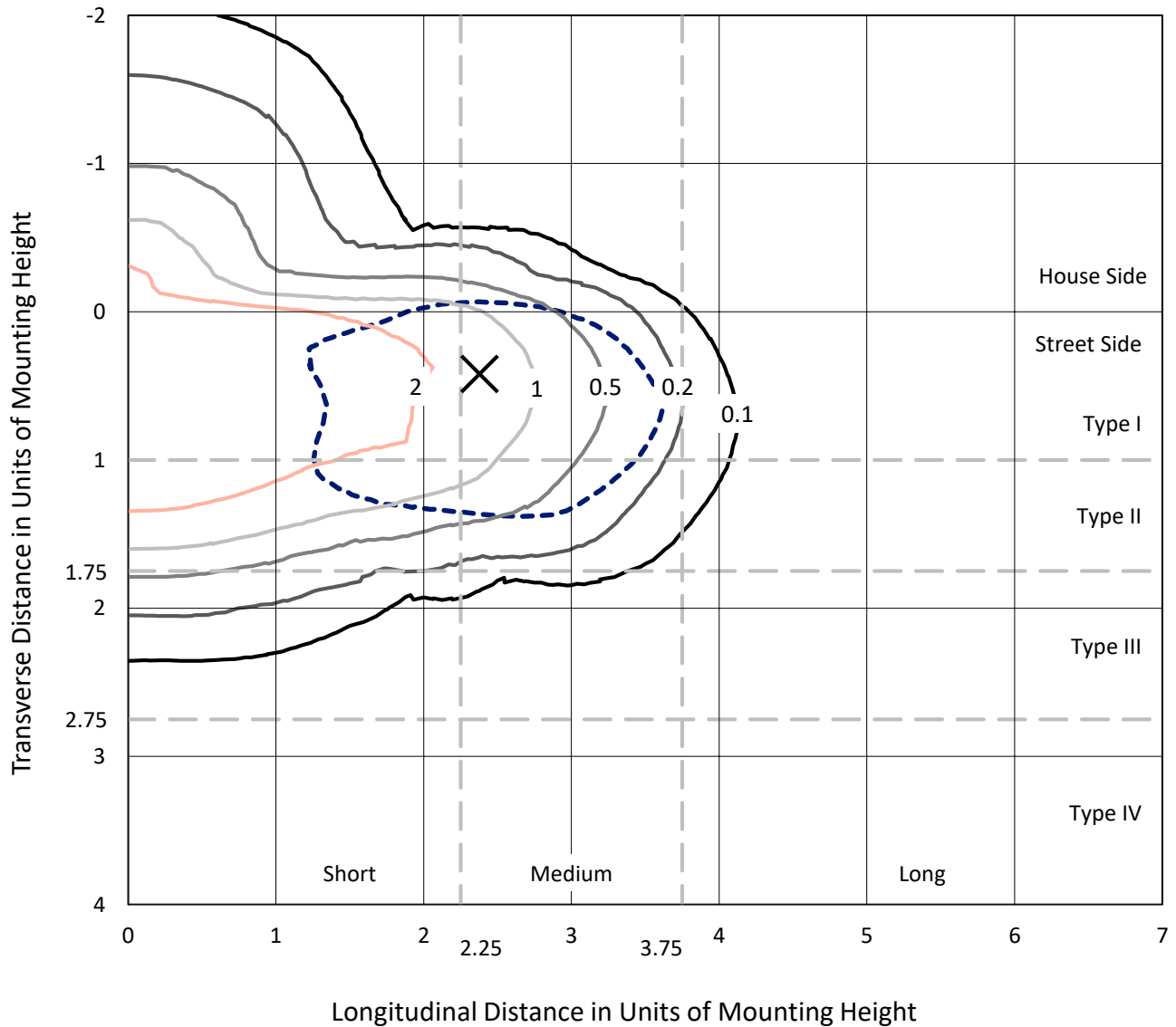
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

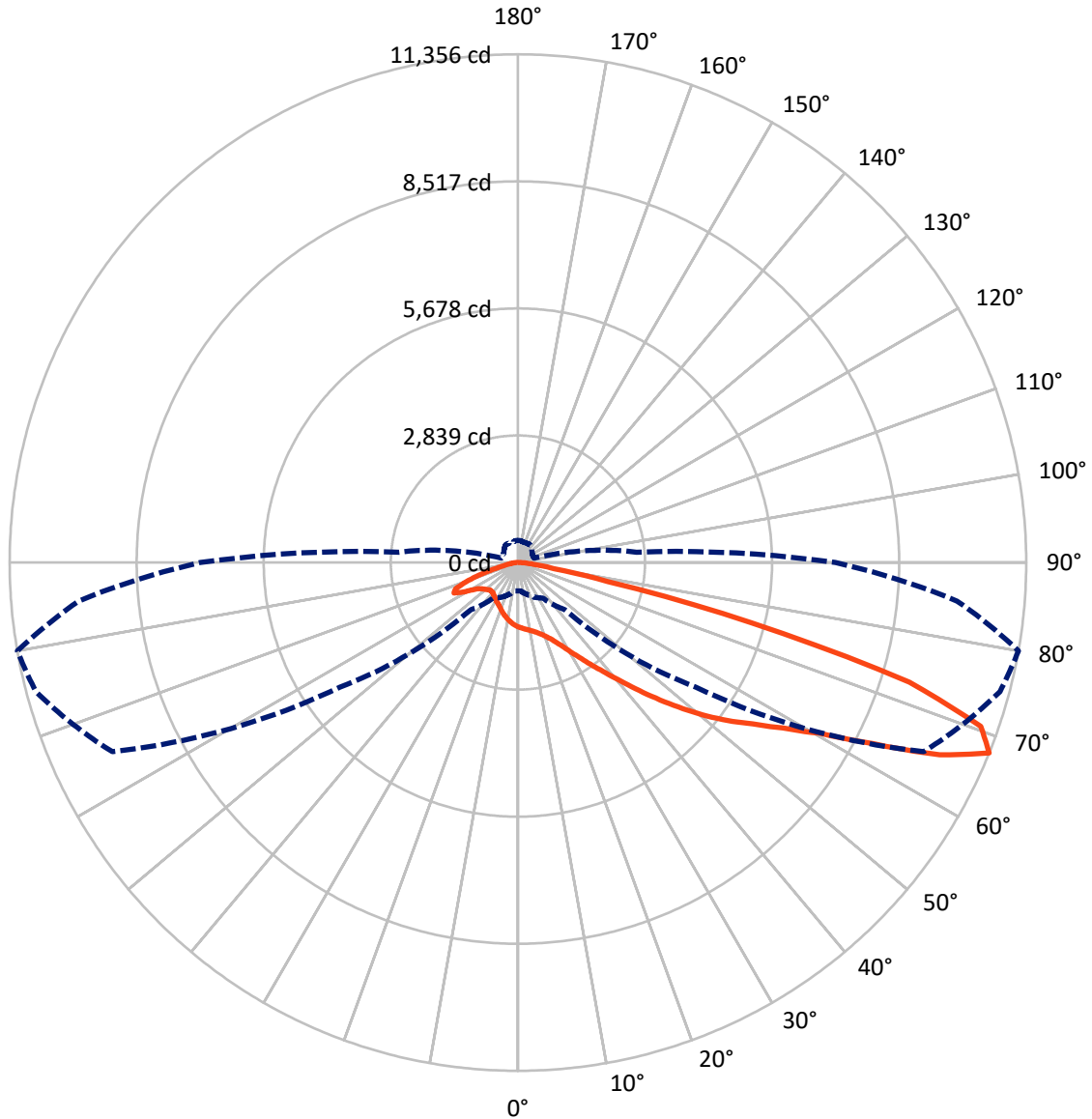
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1905.7	0.0	1905.7
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	8442.1	0.0	8442.1
	% Fixture	81.6	0.0	81.6
Total	Lumens	10347.8	0.0	10347.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.6	1.3
10°-20°	382.0	3.7
20°-30°	632.3	6.1
30°-40°	1034.3	10.0
40°-50°	1670.0	16.1
50°-60°	2411.0	23.3
60°-70°	2660.7	25.7
70°-80°	1226.4	11.9
80°-90°	198.4	1.9
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°	10347.8	100.0
0°-180°	10347.8	100.0



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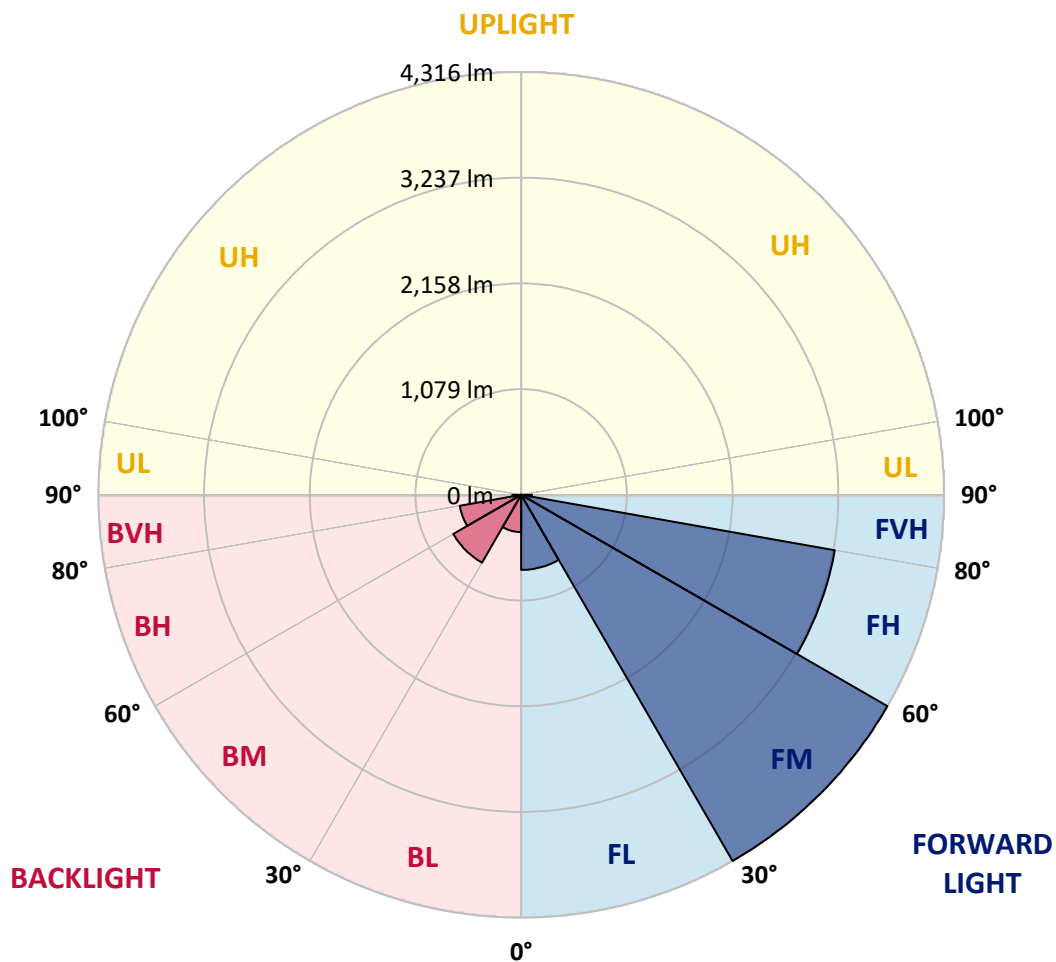
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	766.8	7.4			
FM (30°-60°)	4315.8	41.7			
FH (60°-80°)	3250.5	31.4			G2/5000
FVH (80°-90°)	109.1	1.1			G2/225
BL (0°-30°)	380.2	3.7	B1/500		
BM (30°-60°)	799.6	7.7	B1/1000		
BH (60°-80°)	636.6	6.2	B2/1000		G2/1000
BVH (80°-90°)	89.3	0.9			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6
2.5°	1572.6	1563.4	1565.0	1562.4	1554.8	1541.5	1527.3	1501.3	1474.3	1460.0	1448.8
5°	1704.0	1701.5	1697.9	1689.8	1670.4	1642.9	1608.8	1562.9	1513.5	1487.5	1462.6
7.5°	1802.4	1800.8	1796.2	1791.2	1772.3	1739.2	1687.7	1622.5	1550.7	1515.0	1476.3
10°	1810.5	1813.1	1816.6	1830.4	1832.9	1815.1	1762.6	1683.7	1589.4	1543.6	1494.2
12.5°	1741.2	1746.8	1760.6	1795.7	1832.9	1854.8	1827.8	1747.9	1634.8	1579.2	1516.6
15°	1649.5	1652.6	1669.4	1717.8	1784.5	1852.3	1877.8	1818.7	1693.3	1625.1	1550.2
17.5°	1610.3	1611.8	1623.6	1655.6	1717.8	1814.6	1905.8	1895.6	1765.2	1682.1	1591.5
20°	1590.4	1594.0	1610.8	1642.4	1681.6	1766.2	1909.9	1978.6	1850.8	1753.5	1643.4
22.5°	1647.0	1645.5	1651.6	1667.4	1700.5	1751.4	1906.8	2064.2	1959.8	1845.2	1711.2
25°	1778.9	1784.5	1773.8	1756.0	1766.7	1802.4	1923.1	2156.9	2096.3	1962.8	1799.8
27.5°	1966.9	1961.3	1945.5	1903.7	1881.8	1897.1	1977.1	2256.8	2265.9	2117.7	1917.0
30°	2154.4	2149.8	2134.5	2083.6	2038.7	2026.0	2082.0	2371.4	2468.2	2303.6	2060.6
32.5°	2349.0	2343.9	2329.6	2278.7	2224.7	2195.1	2231.3	2503.8	2706.6	2525.8	2229.8
35°	2588.9	2579.2	2549.2	2478.4	2425.4	2402.5	2419.3	2670.4	2981.7	2788.6	2435.1
37.5°	2814.6	2829.4	2798.8	2701.0	2632.2	2624.1	2642.9	2873.7	3278.2	3082.6	2670.9
40°	3041.3	3043.8	3016.3	2936.4	2865.5	2852.3	2899.7	3120.3	3628.2	3434.1	2957.7
42.5°	3275.6	3280.7	3234.4	3160.5	3108.5	3111.1	3165.1	3409.1	4029.6	3848.2	3287.9
45°	3553.3	3560.9	3510.0	3413.2	3365.8	3461.1	3438.6	3733.1	4469.7	4318.9	3666.9
47.5°	3843.6	3855.4	3816.6	3726.0	3666.9	3797.8	3712.2	4092.2	4943.5	4823.8	4083.1
50°	4002.1	4018.9	4056.6	4050.0	4037.2	4015.3	4017.4	4477.4	5432.0	5349.5	4511.0
52.5°	3917.0	3916.5	4054.0	4221.1	4399.4	4412.7	4389.2	4883.4	5888.5	5863.5	4914.0
55°	3527.8	3554.3	3762.6	4086.1	4573.1	4877.3	4946.6	5348.5	6336.8	6365.8	5323.0
57.5°	2879.8	2901.7	3182.9	3633.8	4338.8	5153.4	5739.2	6024.5	6838.1	6973.6	5867.6
60°	1953.2	1979.6	2277.7	2819.2	3708.1	4999.5	6493.7	7230.8	7438.2	7746.4	6631.8
62.5°	1147.7	1171.7	1414.7	1778.4	2610.8	4284.8	6824.8	8947.1	8391.3	8912.5	7797.3
65°	790.1	806.4	924.6	1107.0	1500.3	2885.9	6414.2	10132.0	9858.0	10357.2	9148.8
67.5°	635.8	633.7	727.5	851.8	965.9	1488.0	4850.3	9998.1	11147.8	11356.2	9850.3
70°	523.7	521.7	585.3	688.2	771.8	838.0	2641.9	8437.2	10885.0	10969.5	9204.4
72.5°	438.1	440.1	480.9	557.3	633.2	631.2	1161.0	5935.4	8563.0	9147.8	7337.3
75°	369.8	370.9	397.9	451.9	514.0	508.4	629.7	3215.5	4977.6	5384.7	4067.3
77.5°	314.8	315.8	333.2	363.2	407.5	405.5	459.5	1389.2	2076.4	2051.0	1391.3
80°	280.7	280.7	288.8	294.5	318.9	309.7	340.8	667.4	877.7	810.5	555.3
82.5°	220.1	221.1	271.0	269.0	251.1	239.4	239.4	393.3	465.1	430.0	325.0
85°	123.8	123.3	174.7	210.9	221.1	168.6	167.1	220.1	253.2	223.1	157.4
87.5°	53.0	54.0	81.0	93.7	125.3	104.9	103.4	113.6	128.9	111.6	72.8
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°	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6
2.5°	1438.1	1424.9	1395.8	1359.7	1327.1	1305.7	1286.3	1258.3	1259.8	1240.5	1226.2
5°	1437.1	1409.6	1342.3	1262.4	1185.4	1129.9	1088.1	1050.4	1041.3	1023.4	1012.7
7.5°	1438.1	1393.3	1280.2	1152.3	1057.1	986.8	951.1	931.2	926.7	920.5	921.0
10°	1441.7	1378.5	1211.9	1049.4	949.6	903.2	894.6	900.7	907.8	909.8	910.4
12.5°	1449.8	1365.3	1137.0	957.7	882.3	868.1	882.8	903.7	917.5	924.1	923.6
15°	1468.2	1355.1	1065.2	885.9	845.1	852.8	880.3	909.8	929.7	938.9	939.4
17.5°	1488.0	1340.3	991.3	830.9	817.6	837.0	871.1	905.8	930.2	940.4	942.4
20°	1514.0	1322.0	913.9	789.6	791.7	813.6	845.7	880.3	907.3	916.0	920.0
22.5°	1548.2	1302.1	846.2	756.0	762.1	778.9	803.9	833.9	857.4	861.4	865.0
25°	1594.0	1280.7	792.2	725.4	728.0	737.7	754.5	772.3	788.6	784.0	787.6
27.5°	1655.6	1262.4	751.9	697.4	692.8	694.9	703.5	709.1	717.8	705.1	706.6
30°	1728.0	1242.5	720.8	673.0	660.2	656.7	658.7	661.7	668.4	651.1	648.5
32.5°	1812.0	1218.6	691.8	651.6	633.7	626.6	627.6	635.8	661.2	650.5	644.9
35°	1909.9	1191.6	661.2	628.1	615.9	605.7	604.7	630.2	706.1	699.4	694.4
37.5°	2024.5	1164.6	630.7	601.6	602.7	591.4	587.9	616.9	714.7	688.7	685.2
40°	2170.2	1150.3	604.7	573.6	586.4	584.8	577.7	592.5	657.7	610.3	604.2
42.5°	2350.5	1152.3	585.3	543.6	567.0	583.3	572.1	572.6	596.0	560.4	554.8
45°	2573.1	1176.3	571.6	519.6	545.1	581.8	570.1	561.9	563.9	545.1	542.0
47.5°	2832.9	1225.7	561.9	499.8	524.2	576.2	569.5	558.8	554.3	544.1	541.5
50°	3121.8	1297.5	554.8	480.9	505.4	567.0	570.1	555.8	550.7	546.6	545.1
52.5°	3405.5	1379.5	544.1	464.6	490.6	555.8	571.6	552.7	547.1	544.1	542.5
55°	3721.9	1481.9	527.8	450.8	478.4	541.5	571.6	548.1	542.0	542.5	542.0
57.5°	4149.3	1647.5	508.4	439.1	463.6	524.2	561.9	543.1	535.4	535.9	536.4
60°	4817.2	1939.4	485.0	427.4	445.2	503.8	548.7	531.8	524.2	526.2	526.7
62.5°	5799.3	2367.8	454.4	410.1	425.9	481.9	530.3	517.6	509.9	515.0	515.0
65°	6820.2	2745.8	416.7	388.2	405.5	458.0	507.4	499.8	492.1	503.8	503.3
67.5°	7094.8	2661.3	379.0	364.2	385.1	431.5	479.9	475.8	471.7	492.1	491.1
70°	6302.7	2136.5	344.4	339.8	362.7	403.0	450.3	450.3	447.8	463.1	459.5
72.5°	4801.9	1515.0	311.3	313.8	337.2	371.9	418.2	421.8	417.7	425.4	422.3
75°	2570.6	867.0	278.1	285.3	305.7	340.3	382.6	386.1	383.6	383.1	384.6
77.5°	854.3	423.8	243.5	254.7	272.5	307.7	345.4	351.0	344.9	343.9	343.4
80°	380.5	266.4	205.3	220.1	235.9	270.5	306.2	310.8	304.1	313.3	301.6
82.5°	244.5	175.2	164.5	180.8	196.1	233.3	266.9	268.0	261.8	304.1	259.3
85°	118.7	108.5	123.8	138.6	151.8	183.4	221.1	221.6	206.3	188.0	181.4
87.5°	59.1	63.2	82.5	95.8	102.4	125.8	161.0	157.9	151.3	137.5	126.8
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)