

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: P301198

Luminaire Tested: **GLNA-AF-10-LED-E1-T3R-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301198
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-10-LED-E1-T3R-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48495.3 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

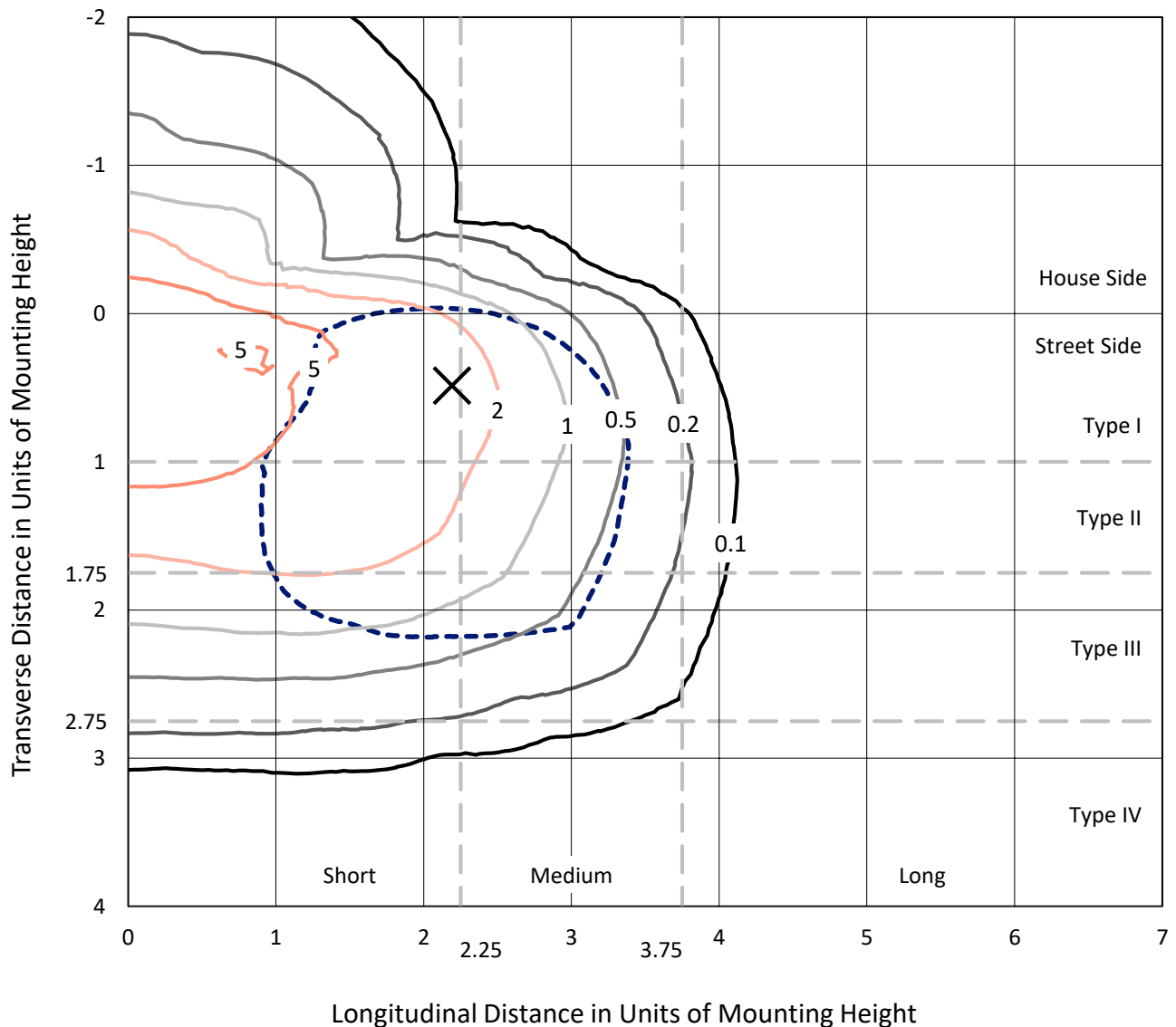
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P301198
 CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7050-800

Iso-Footcandle Lines of Horizontal Illumination

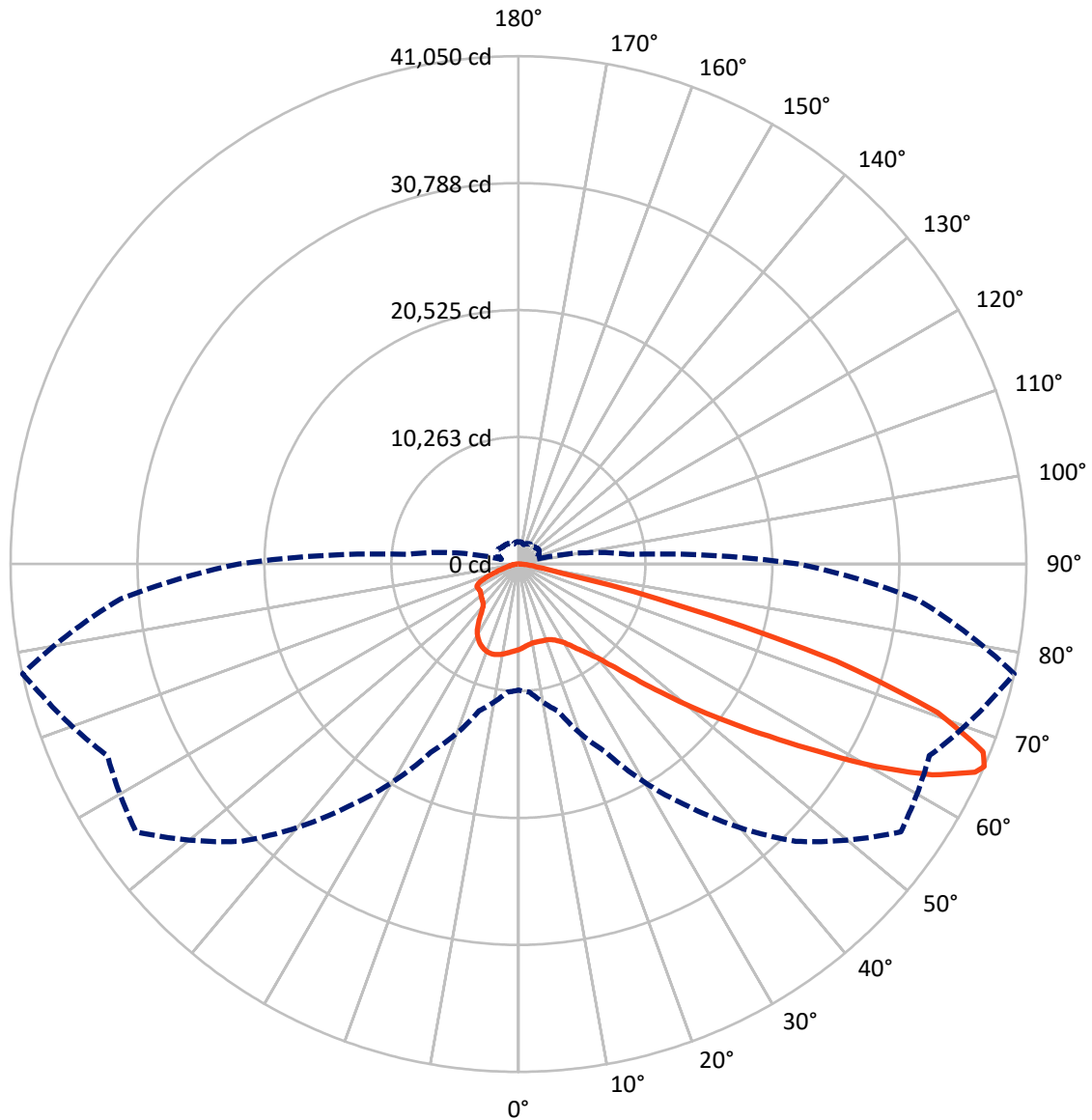
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.5 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P301198
CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7050-800

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-10-LED-E1-T3R-7050-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8285.1	0.0	8285.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	40210.1	0.0	40210.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	48495.3	0.0	48495.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	617.4	1.3
10°-20°	1741.9	3.6
20°-30°	2972.7	6.1
30°-40°	4758.8	9.8
40°-50°	7351.9	15.2
50°-60°	10427.6	21.5
60°-70°	13949.3	28.8
70°-80°	6057.9	12.5
80°-90°	617.7	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°	48495.3	100.0
0°-180°	48495.3	100.0



REPORT NUMBER: P301198

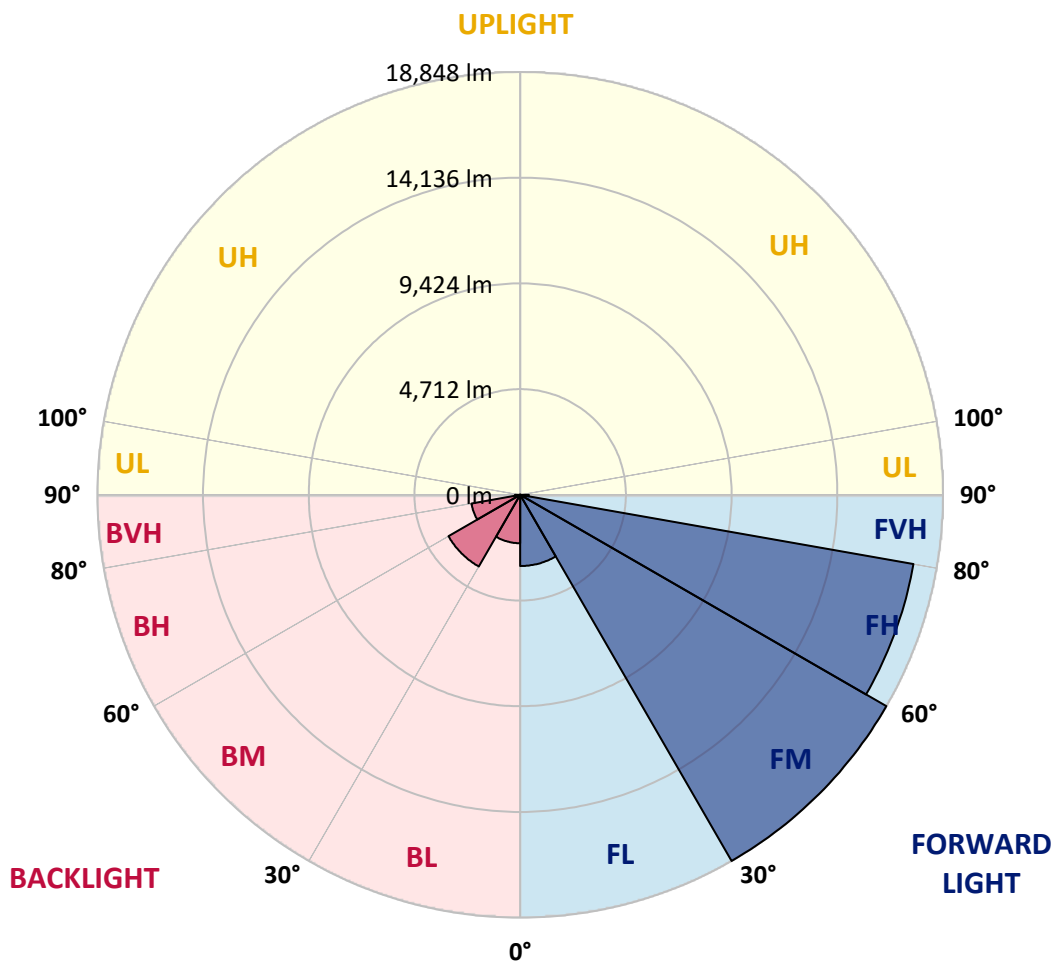
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3174.2	6.5			
FM	(30°-60°)	18847.8	38.9			
FH	(60°-80°)	17800.7	36.7			G5
FVH	(80°-90°)	387.4	0.8			G3/500
BL	(0°-30°)	2157.8	4.4	B3/2500		
BM	(30°-60°)	3690.5	7.6	B3/5000		
BH	(60°-80°)	2206.5	4.5	B3/2500		G3/2500
BVH	(80°-90°)	230.3	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short





REPORT NUMBER: P301198

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7050-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7
2.5°	6113.6	6154.5	6189.2	6221.1	6284.9	6390.4	6511.8	6610.3	6752.6	6780.3	6855.9
5°	5552.3	5552.3	5579.4	5627.9	5714.7	5872.8	6038.0	6257.9	6567.3	6640.2	6842.1
7.5°	5279.7	5281.7	5297.7	5338.6	5414.3	5558.6	5739.6	5999.1	6418.2	6539.6	6883.0
10°	5380.3	5357.4	5322.7	5302.6	5313.7	5398.3	5570.4	5859.0	6326.6	6482.0	6975.3
12.5°	5943.6	5900.6	5781.3	5623.1	5471.8	5410.1	5510.7	5792.4	6287.7	6468.8	7096.7
15°	6864.9	6846.9	6624.2	6296.7	5930.4	5623.1	5554.4	5767.4	6291.9	6484.8	7241.0
17.5°	8020.1	7994.4	7701.6	7225.0	6627.0	6028.9	5707.7	5788.2	6307.8	6511.8	7380.4
20°	9186.3	9107.9	8792.3	8224.1	7456.0	6580.5	5962.3	5840.9	6328.7	6541.6	7527.5
22.5°	10057.0	9992.5	9708.7	9156.5	8271.9	7220.2	6303.7	5932.5	6395.3	6629.1	7707.9
25°	10822.3	10826.4	10544.8	10011.2	9096.8	7898.7	6743.5	6177.4	6564.5	6807.4	7955.6
27.5°	11768.6	11713.8	11450.1	10920.8	9912.7	8583.4	7275.0	6514.6	6817.1	7062.0	8280.9
30°	12900.1	12861.3	12556.7	11956.6	10817.4	9318.8	7882.0	6905.9	7142.5	7396.4	8706.9
32.5°	14231.5	14213.5	13897.1	13124.9	11862.2	10185.4	8595.2	7424.1	7628.1	7891.7	9318.8
35°	15794.6	15796.7	15423.4	14495.1	13005.6	11193.4	9403.5	8090.9	8219.2	8493.9	10048.0
37.5°	16756.8	16873.4	16734.0	15787.6	14300.2	12320.8	10453.2	8975.4	8892.9	9170.4	10829.2
40°	16962.9	17105.1	17547.1	17066.3	15748.8	13562.7	11383.5	9825.3	9722.6	10061.2	11835.2
42.5°	16674.3	16871.3	17806.5	18145.1	17286.2	15093.2	12634.4	11088.0	10957.5	11413.4	13086.1
45°	16502.2	16649.3	17730.9	18707.1	18619.6	16823.5	14227.3	12673.3	12625.4	13223.4	14529.8
47.5°	16204.6	16337.8	17377.8	18837.5	19403.6	18408.7	16140.8	14612.4	14706.0	15490.0	16158.8
50°	16364.9	16419.7	16983.7	18505.2	19630.5	19570.8	18278.3	16857.4	17178.7	18156.9	18003.6
52.5°	16342.0	16484.2	16937.9	17959.9	19660.3	20288.2	20383.9	19362.0	20038.4	21161.0	20049.5
55°	13212.3	13473.2	16399.6	17822.5	19765.1	20991.0	22258.5	22001.8	23261.7	24570.2	22359.1
57.5°	12616.4	12781.5	14403.6	18111.1	20324.3	22334.1	24343.3	24907.4	27015.1	28534.4	25173.1
60°	12499.1	12703.1	14382.7	18464.2	21458.6	24522.3	27434.8	28424.8	31582.2	33245.9	28435.9
62.5°	12134.9	12354.8	14247.5	18417.8	23069.5	27549.3	31392.1	32164.3	35912.8	37530.7	31165.3
65°	10980.4	11186.5	13145.7	17678.2	24156.0	30780.2	36075.1	35592.3	39331.7	40547.9	32525.8
66°	10189.5	10391.4	12277.1	16807.5	23903.5	31696.7	37734.7	36653.1	40097.0	41050.2	32260.0
67.5°	8743.7	8901.9	10590.5	14857.3	22563.1	31953.4	39129.8	37450.2	40176.8	40513.9	30741.4
70°	5524.6	5570.4	6883.0	10256.1	17080.2	27711.6	37005.5	35470.9	36864.0	35951.6	25771.1
72.5°	2397.0	2381.1	3304.5	5217.2	9669.9	18594.7	29934.5	29267.8	28917.4	26836.8	18040.3
75°	1333.4	1352.2	1716.4	2422.0	3929.6	9133.6	19581.9	18739.0	15821.6	13500.9	8180.4
77.5°	1069.8	1095.5	1422.9	1718.5	1764.3	3185.1	9163.4	7456.0	4488.8	3602.1	2272.8
80°	845.7	891.5	1241.9	1338.3	1189.1	1312.6	2960.4	2367.2	1776.1	1629.0	1178.0
82.5°	668.8	701.4	1065.6	1012.9	831.8	884.6	1418.1	1382.0	1155.1	1051.8	680.6
85°	481.5	540.5	875.5	763.2	545.3	596.0	941.5	902.6	661.9	540.5	300.4
87.5°	197.0	256.7	618.9	506.5	304.6	277.5	469.7	441.9	313.6	228.9	149.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P301198

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3R-7050-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7	6910.7
2.5°	6903.8	6958.6	7030.1	7073.8	7096.7	7112.6	7137.6	7135.5	7142.5	7144.5	7153.6
5°	6949.6	7041.2	7144.5	7172.3	7172.3	7146.6	7121.6	7080.0	7064.1	7059.9	7064.1
7.5°	7068.9	7169.5	7259.0	7227.1	7158.4	7057.1	6926.7	6812.2	6750.5	6729.7	6725.5
10°	7220.2	7341.6	7378.3	7256.9	7055.0	6812.2	6553.4	6365.4	6257.9	6228.1	6219.0
12.5°	7403.3	7517.8	7467.8	7211.1	6837.2	6445.9	6087.9	5788.2	5563.4	5492.7	5487.8
15°	7605.2	7694.7	7517.8	7068.9	6511.8	5934.6	5297.7	4780.1	4500.5	4411.0	4404.1
17.5°	7793.2	7839.0	7488.0	6821.2	6033.1	5098.6	4252.9	3853.9	3758.2	3781.1	3785.3
20°	7953.5	7953.5	7387.4	6466.0	5279.7	3996.2	3462.0	3455.7	3524.4	3593.1	3607.0
22.5°	8129.7	8024.3	7211.1	5964.4	4211.2	3269.8	3192.1	3255.9	3333.6	3409.2	3421.0
25°	8347.6	8081.8	6965.5	5204.0	3310.7	2969.4	2999.2	3051.9	3090.8	3139.4	3146.3
27.5°	8590.4	8154.7	6642.9	4156.4	2873.6	2782.1	2804.9	2823.0	2818.1	2836.9	2841.0
30°	8881.1	8240.0	6200.3	3249.0	2692.6	2621.1	2580.2	2564.2	2564.2	2594.0	2605.1
32.5°	9271.0	8365.6	5565.5	2784.1	2605.1	2506.6	2374.1	2314.4	2337.3	2437.9	2460.8
35°	9699.7	8500.9	4706.6	2626.0	2587.1	2453.9	2247.8	2137.5	2140.3	2234.0	2263.8
37.5°	10166.6	8672.9	3764.4	2596.1	2628.0	2456.7	2181.2	2030.0	1968.3	1968.3	1980.0
40°	10764.7	8849.2	3047.8	2616.9	2715.5	2483.7	2147.2	1945.4	1771.2	1776.1	1785.1
42.5°	11543.8	9000.4	2662.7	2659.9	2820.9	2520.5	2144.5	1833.0	1681.7	1785.1	1878.8
45°	12410.3	9076.0	2492.7	2699.5	2905.5	2543.4	2108.4	1814.9	1693.5	2000.2	2179.2
47.5°	13406.6	9032.3	2399.1	2712.7	2926.4	2543.4	2066.8	1858.6	1773.3	2316.5	2525.4
50°	14500.0	8906.7	2307.5	2685.6	2919.4	2538.5	2105.6	1901.6	1803.1	2371.3	2515.6
52.5°	15785.6	8801.3	2211.1	2626.0	2870.9	2513.6	2151.4	1883.6	1709.5	2156.3	2256.9
55°	17251.5	8831.1	2103.5	2541.3	2795.2	2465.7	2135.5	1810.1	1611.0	1899.6	1961.3
57.5°	19126.1	9186.3	1975.2	2433.8	2692.6	2385.2	2078.6	1776.1	1581.1	1723.3	1760.1
60°	21217.9	9804.5	1814.9	2325.5	2564.2	2256.9	2034.9	1792.0	1595.0	1709.5	1727.5
62.5°	22753.2	10164.6	1677.6	2167.4	2390.1	2114.6	1980.0	1812.2	1631.8	1757.3	1753.2
65°	23170.1	9573.5	1505.5	1936.3	2154.2	1966.2	1910.7	1835.0	1647.7	1796.2	1776.1
66°	22586.0	8936.6	1429.9	1828.8	2034.9	1892.6	1876.7	1833.0	1640.8	1801.1	1766.4
67.5°	21167.9	7630.2	1299.4	1670.6	1844.8	1783.0	1821.9	1812.2	1622.1	1796.2	1748.3
70°	17263.3	5206.1	1111.4	1391.0	1535.3	1569.3	1716.4	1739.3	1562.4	1716.4	1611.0
72.5°	12062.0	3171.3	983.1	1079.5	1241.9	1338.3	1572.1	1638.0	1482.6	1498.6	1398.0
75°	5829.1	1684.5	891.5	836.7	964.4	1118.4	1398.0	1500.6	1356.3	1253.7	1216.9
77.5°	1817.0	1028.9	756.2	673.7	756.2	902.6	1168.3	1315.4	1207.9	1049.7	1035.8
80°	976.1	756.2	582.1	540.5	598.0	708.3	918.6	1097.6	1037.9	941.5	840.9
82.5°	643.8	490.5	430.8	419.0	455.8	540.5	682.7	909.5	909.5	806.9	586.9
85°	332.3	300.4	295.5	295.5	318.4	360.1	464.8	701.4	747.2	426.0	353.1
87.5°	165.1	172.1	160.3	167.2	179.0	176.2	222.0	353.1	421.8	258.8	215.1
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)