

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: P301194

Luminaire Tested: **GLNA-AF-10-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301194  
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-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

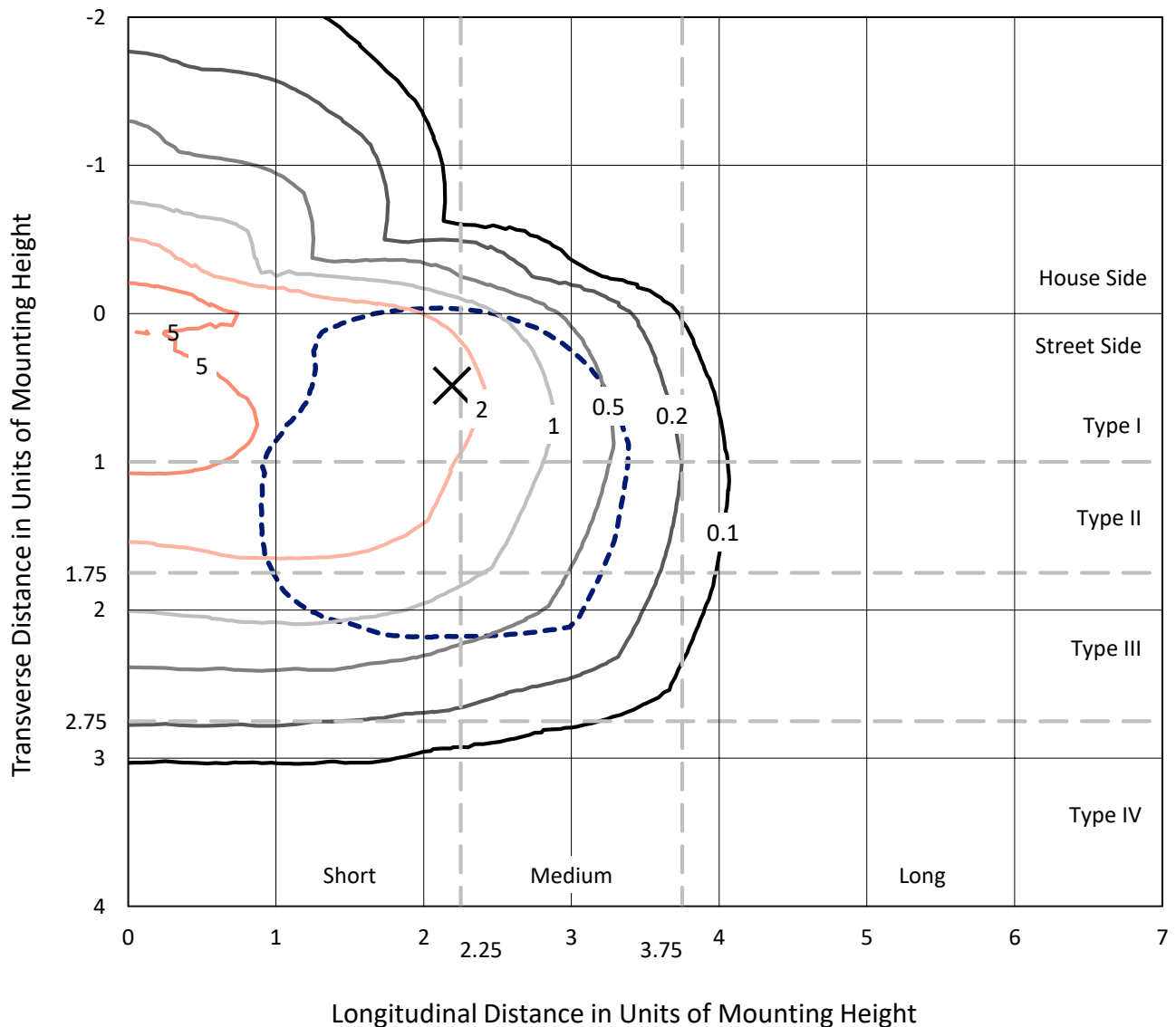
Lumens per Lamp: N/A  
Luminaire Lumens: 42134.6 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 419  
Input Voltage (V): NR  
Input Current (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



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### Iso-Footcandle Lines of Horizontal Illumination

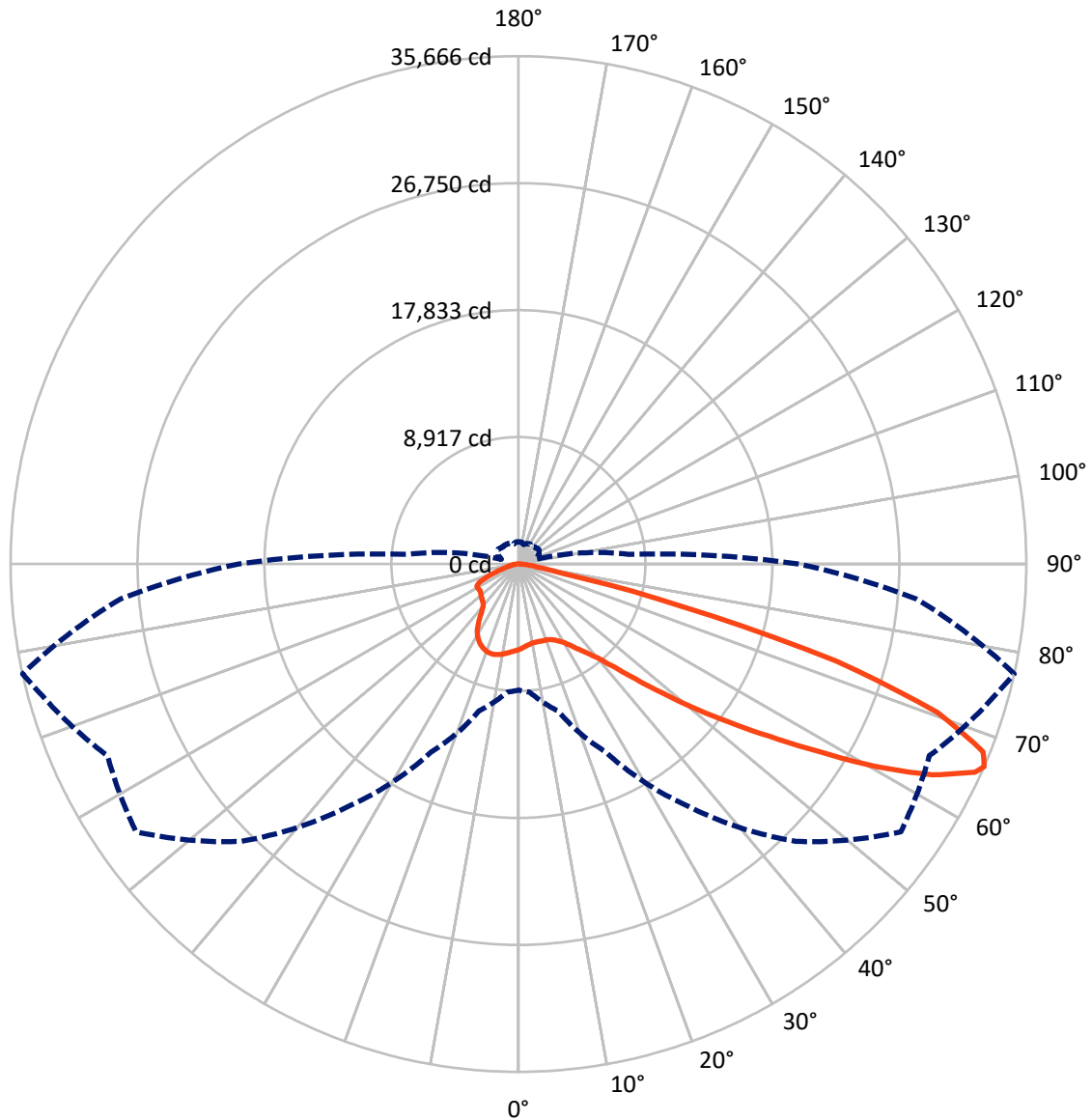
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.2 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
<b>House Side</b>	Lumens	7198.4	0.0	7198.4
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	34936.1	0.0	34936.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	42134.6	0.0	42134.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	536.4	1.3
10°-20°	1513.4	3.6
20°-30°	2582.8	6.1
30°-40°	4134.6	9.8
40°-50°	6387.6	15.2
50°-60°	9059.9	21.5
60°-70°	12119.7	28.8
70°-80°	5263.4	12.5
80°-90°	536.7	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°	42134.6	100.0
0°-180°	42134.6	100.0



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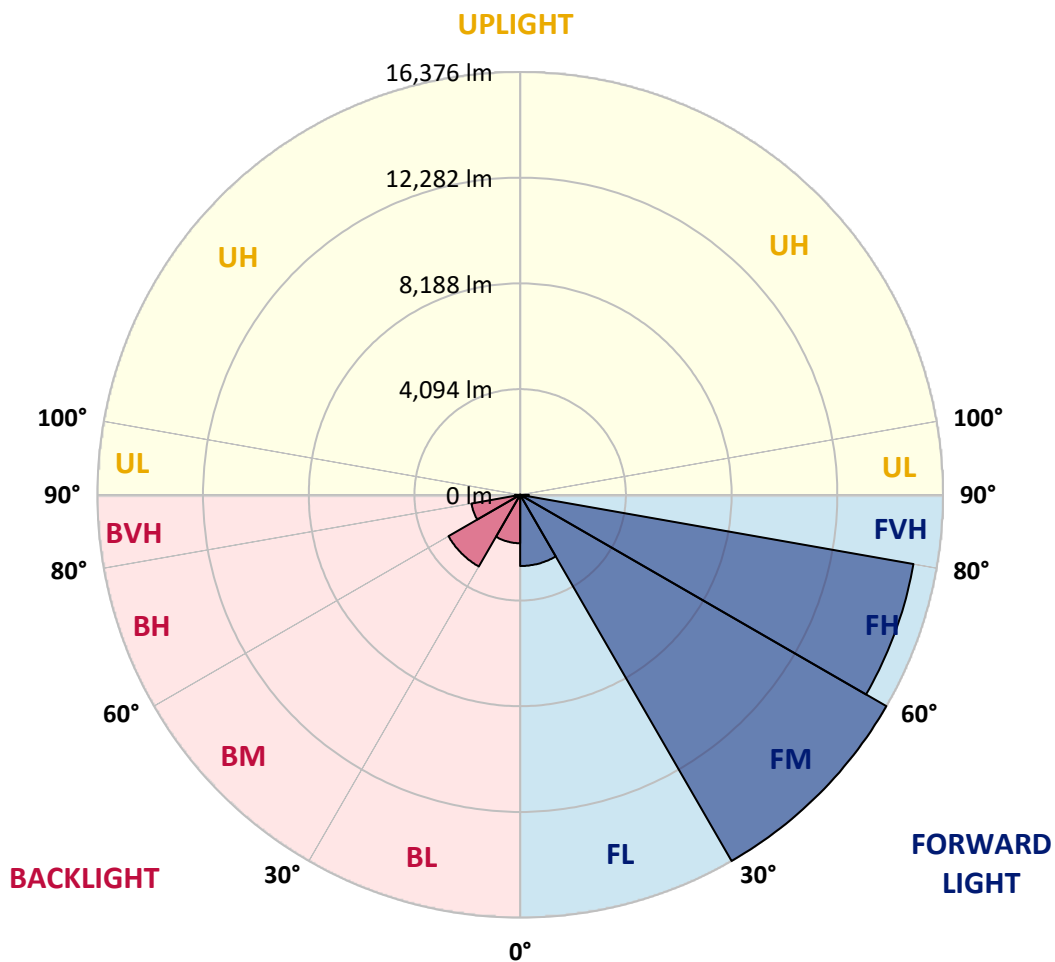
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2757.9	6.5			
FM	(30°-60°)	16375.7	38.9			
FH	(60°-80°)	15465.9	36.7			G5
FVH	(80°-90°)	336.6	0.8			G3/500
BL	(0°-30°)	1874.8	4.4	B3/2500		
BM	(30°-60°)	3206.5	7.6	B3/5000		
BH	(60°-80°)	1917.1	4.5	B3/2500		G3/2500
BVH	(80°-90°)	200.1	0.5			G2/225
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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3
2.5°	5311.7	5347.3	5377.4	5405.1	5460.6	5552.2	5657.7	5743.3	5866.9	5891.0	5956.7
5°	4824.1	4824.1	4847.6	4889.8	4965.1	5102.6	5246.0	5437.1	5705.9	5769.2	5944.6
7.5°	4587.2	4589.0	4602.8	4638.4	4704.1	4829.5	4986.8	5212.3	5576.3	5681.8	5980.2
10°	4674.6	4654.7	4624.5	4607.1	4616.7	4690.2	4839.7	5090.5	5496.8	5631.8	6060.4
12.5°	5164.0	5126.7	5023.0	4885.6	4754.1	4700.5	4787.9	5032.6	5463.0	5620.3	6165.9
15°	5964.5	5948.9	5755.4	5470.9	5152.6	4885.6	4825.9	5010.9	5466.6	5634.2	6291.2
17.5°	6968.2	6945.9	6691.5	6277.4	5757.8	5238.2	4959.1	5029.0	5480.5	5657.7	6412.4
20°	7981.4	7913.3	7639.1	7145.4	6478.1	5717.4	5180.3	5074.8	5498.6	5683.6	6540.2
22.5°	8737.9	8681.9	8435.3	7955.5	7187.0	6273.2	5476.9	5154.4	5556.4	5759.6	6696.9
25°	9402.8	9406.4	9161.7	8698.1	7903.7	6862.7	5859.0	5367.2	5703.5	5914.5	6912.1
27.5°	10225.0	10177.4	9948.3	9488.4	8612.6	7457.6	6320.8	5660.1	5922.9	6135.7	7194.8
30°	11208.1	11174.4	10909.8	10388.4	9398.6	8096.6	6848.2	6000.1	6205.6	6426.3	7564.9
32.5°	12364.9	12349.2	12074.3	11403.4	10306.4	8849.4	7467.9	6450.4	6627.6	6856.6	8096.6
35°	13722.9	13724.8	13400.5	12593.9	11299.8	9725.3	8170.1	7029.6	7141.2	7379.9	8730.1
37.5°	14559.0	14660.3	14539.1	13716.9	12424.5	10704.8	9082.1	7798.2	7726.5	7967.6	9408.8
40°	14738.0	14861.6	15245.6	14827.8	13683.2	11783.8	9890.5	8536.6	8447.4	8741.5	10282.9
42.5°	14487.3	14658.5	15471.0	15765.2	15018.9	13113.5	10977.3	9633.7	9520.3	9916.4	11369.7
45°	14337.8	14465.6	15405.3	16253.4	16177.5	14616.9	12361.3	11011.0	10969.4	11489.0	12624.1
47.5°	14079.2	14194.9	15098.5	16366.7	16858.6	15994.2	14023.7	12695.8	12777.2	13458.3	14039.4
50°	14218.4	14266.0	14756.1	16078.0	17055.7	17003.9	15880.9	14646.4	14925.5	15775.4	15642.2
52.5°	14198.5	14322.1	14716.3	15604.2	17081.6	17627.2	17710.3	16822.4	17410.2	18385.5	17419.8
55°	11479.4	11706.0	14248.6	15484.9	17172.7	18237.8	19339.1	19116.0	20210.7	21347.5	19426.5
57.5°	10961.6	11105.1	12514.4	15735.6	17658.5	19404.8	21150.4	21640.5	23471.7	24791.8	21871.4
60°	10859.7	11036.9	12496.3	16042.4	18644.1	21305.9	23836.4	24696.6	27439.9	28885.3	24706.2
62.5°	10543.3	10734.3	12378.7	16002.1	20043.7	23935.9	27274.7	27945.6	31202.4	32608.1	27077.6
65°	9540.2	9719.3	11421.5	15359.5	20987.7	26743.0	31343.5	30923.9	34172.9	35229.6	28259.6
66°	8853.1	9028.5	10666.8	14603.0	20768.3	27539.3	32785.3	31845.6	34837.8	35666.0	28028.8
67.5°	7596.9	7734.3	9201.5	12908.6	19603.7	27762.3	33997.5	32538.2	34907.1	35200.1	26709.3
70°	4800.0	4839.7	5980.2	8910.9	14839.9	24076.9	32151.8	30818.5	32028.8	31236.2	22391.0
72.5°	2082.6	2068.7	2871.1	4532.9	8401.6	16155.8	26008.2	25429.0	25124.6	23316.8	15674.1
75°	1158.5	1174.8	1491.3	2104.3	3414.2	7935.6	17013.5	16281.1	13746.5	11730.1	7107.4
77.5°	929.5	951.8	1236.3	1493.1	1532.9	2767.4	7961.5	6478.1	3900.0	3129.6	1974.7
80°	734.8	774.6	1079.0	1162.8	1033.2	1140.5	2572.1	2056.7	1543.1	1415.3	1023.5
82.5°	581.1	609.4	925.9	880.1	722.7	768.5	1232.1	1200.7	1003.6	913.8	591.3
85°	418.3	469.6	760.7	663.1	473.8	517.8	818.0	784.2	575.1	469.6	261.0
87.5°	171.2	223.0	537.7	440.0	264.6	241.1	408.1	384.0	272.5	198.9	129.6
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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3	6004.3
2.5°	5998.3	6045.9	6108.0	6146.0	6165.9	6179.7	6201.4	6199.6	6205.6	6207.5	6215.3
5°	6038.1	6117.6	6207.5	6231.6	6231.6	6209.3	6187.6	6151.4	6137.5	6133.9	6137.5
7.5°	6141.7	6229.2	6306.9	6279.2	6219.5	6131.5	6018.2	5918.7	5865.1	5847.0	5843.4
10°	6273.2	6378.6	6410.6	6305.1	6129.7	5918.7	5693.9	5530.5	5437.1	5411.2	5403.3
12.5°	6432.3	6531.7	6488.3	6265.3	5940.4	5600.5	5289.4	5029.0	4833.7	4772.2	4768.0
15°	6607.7	6685.5	6531.7	6141.7	5657.7	5156.2	4602.8	4153.2	3910.2	3832.5	3826.5
17.5°	6771.1	6810.8	6505.8	5926.6	5241.8	4429.8	3695.1	3348.5	3265.3	3285.2	3288.8
20°	6910.3	6910.3	6418.4	5617.9	4587.2	3472.0	3007.9	3002.5	3062.1	3121.8	3133.9
22.5°	7063.4	6971.8	6265.3	5182.1	3658.9	2840.9	2773.4	2828.9	2896.4	2962.1	2972.3
25°	7252.7	7021.8	6051.9	4521.5	2876.5	2579.9	2605.8	2651.6	2685.4	2727.6	2733.6
27.5°	7463.7	7085.1	5771.6	3611.3	2496.7	2417.2	2437.0	2452.7	2448.5	2464.8	2468.4
30°	7716.2	7159.2	5387.1	2822.8	2339.4	2277.3	2241.7	2227.9	2227.9	2253.8	2263.4
32.5°	8055.0	7268.3	4835.5	2419.0	2263.4	2177.9	2062.7	2010.9	2030.8	2118.2	2138.1
35°	8427.5	7385.9	4089.3	2281.5	2247.8	2132.0	1953.0	1857.2	1859.6	1941.0	1966.9
37.5°	8833.2	7535.4	3270.7	2255.6	2283.3	2134.5	1895.1	1763.7	1710.1	1710.1	1720.3
40°	9352.8	7688.5	2648.0	2273.7	2359.3	2158.0	1865.6	1690.2	1538.9	1543.1	1551.0
42.5°	10029.7	7819.9	2313.5	2311.1	2450.9	2189.9	1863.2	1592.6	1461.1	1551.0	1632.3
45°	10782.6	7885.6	2165.8	2345.4	2524.5	2209.8	1831.9	1576.9	1471.4	1737.8	1893.3
47.5°	11648.2	7847.6	2084.4	2356.9	2542.5	2209.8	1795.7	1614.9	1540.7	2012.7	2194.1
50°	12598.1	7738.5	2004.9	2333.4	2536.5	2205.6	1829.4	1652.2	1566.6	2060.3	2185.7
52.5°	13715.1	7646.9	1921.1	2281.5	2494.3	2183.9	1869.2	1636.6	1485.3	1873.4	1960.9
55°	14988.8	7672.8	1827.6	2208.0	2428.6	2142.3	1855.4	1572.7	1399.7	1650.4	1704.1
57.5°	16617.5	7981.4	1716.1	2114.6	2339.4	2072.4	1805.9	1543.1	1373.7	1497.3	1529.3
60°	18434.9	8518.5	1576.9	2020.5	2227.9	1960.9	1768.0	1557.0	1385.8	1485.3	1500.9
62.5°	19768.8	8831.4	1457.5	1883.1	2076.6	1837.3	1720.3	1574.5	1417.7	1526.8	1523.2
65°	20131.1	8317.8	1308.0	1682.4	1871.6	1708.3	1660.1	1594.4	1431.6	1560.6	1543.1
66°	19623.6	7764.4	1242.3	1588.9	1768.0	1644.4	1630.5	1592.6	1425.6	1564.8	1534.7
67.5°	18391.5	6629.4	1129.0	1451.5	1602.8	1549.2	1582.9	1574.5	1409.3	1560.6	1519.0
70°	14999.0	4523.3	965.7	1208.6	1334.0	1363.5	1491.3	1511.2	1357.5	1491.3	1399.7
72.5°	10480.0	2755.3	854.1	937.9	1079.0	1162.8	1365.9	1423.2	1288.1	1302.0	1214.6
75°	5064.6	1463.6	774.6	727.0	837.9	971.7	1214.6	1303.8	1178.4	1089.2	1057.3
77.5°	1578.7	893.9	657.0	585.3	657.0	784.2	1015.1	1142.9	1049.4	912.0	900.0
80°	848.1	657.0	505.7	469.6	519.6	615.4	798.1	953.6	901.8	818.0	730.6
82.5°	559.4	426.2	374.3	364.1	396.0	469.6	593.1	790.2	790.2	701.0	510.0
85°	288.7	261.0	256.8	256.8	276.7	312.8	403.9	609.4	649.2	370.1	306.8
87.5°	143.5	149.5	139.2	145.3	155.5	153.1	192.9	306.8	366.5	224.8	186.9
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)