

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: P302881

Luminaire Tested: **GLNA-AF-10-LED-E1-T4W-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302881  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7060-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

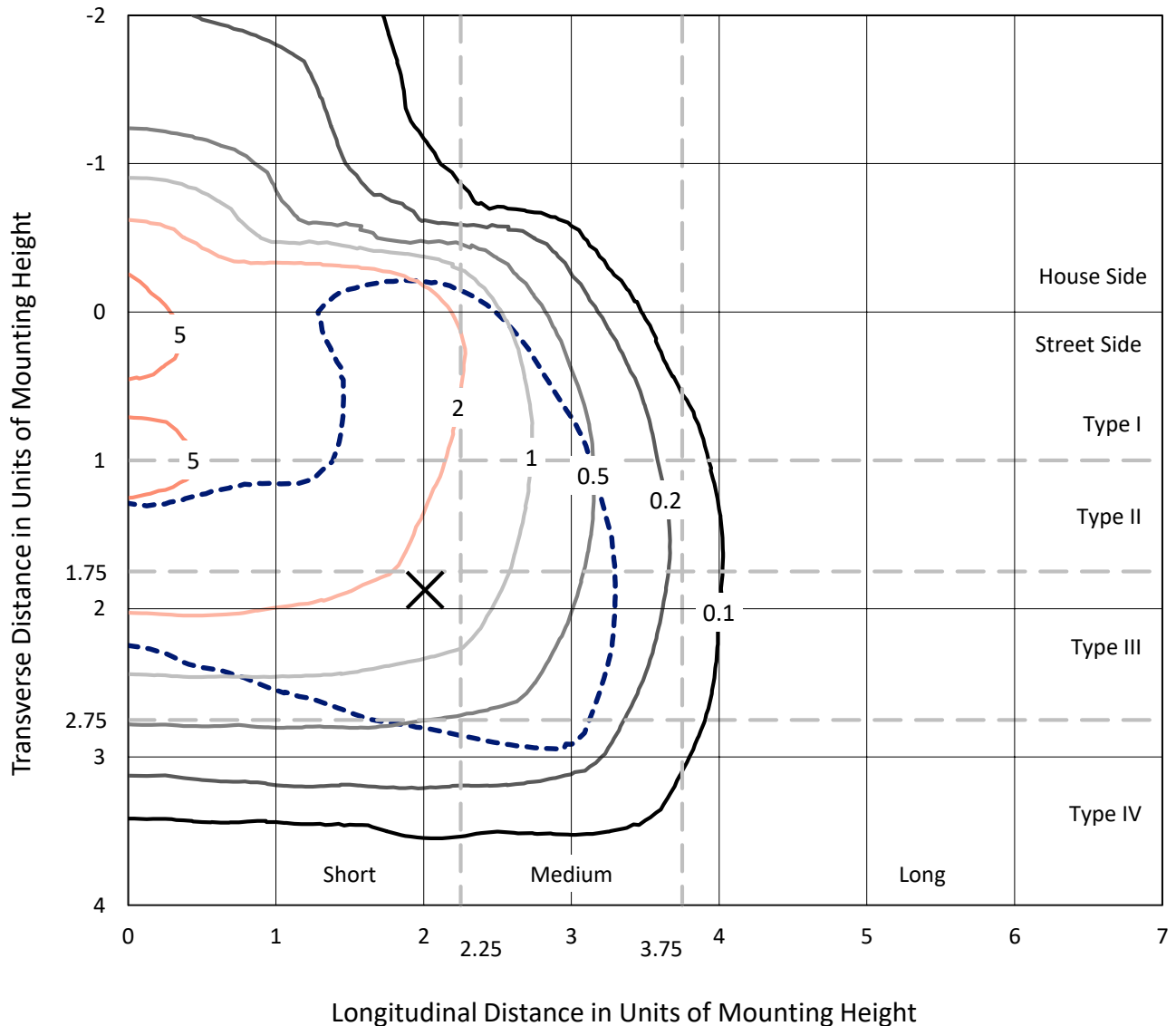
Lumens per Lamp: N/A  
Luminaire Lumens: 47104.8 lumens  
Efficiency: N/A  
Efficacy: 112.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 419  
Input Voltage (V): NR  
Input Current (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

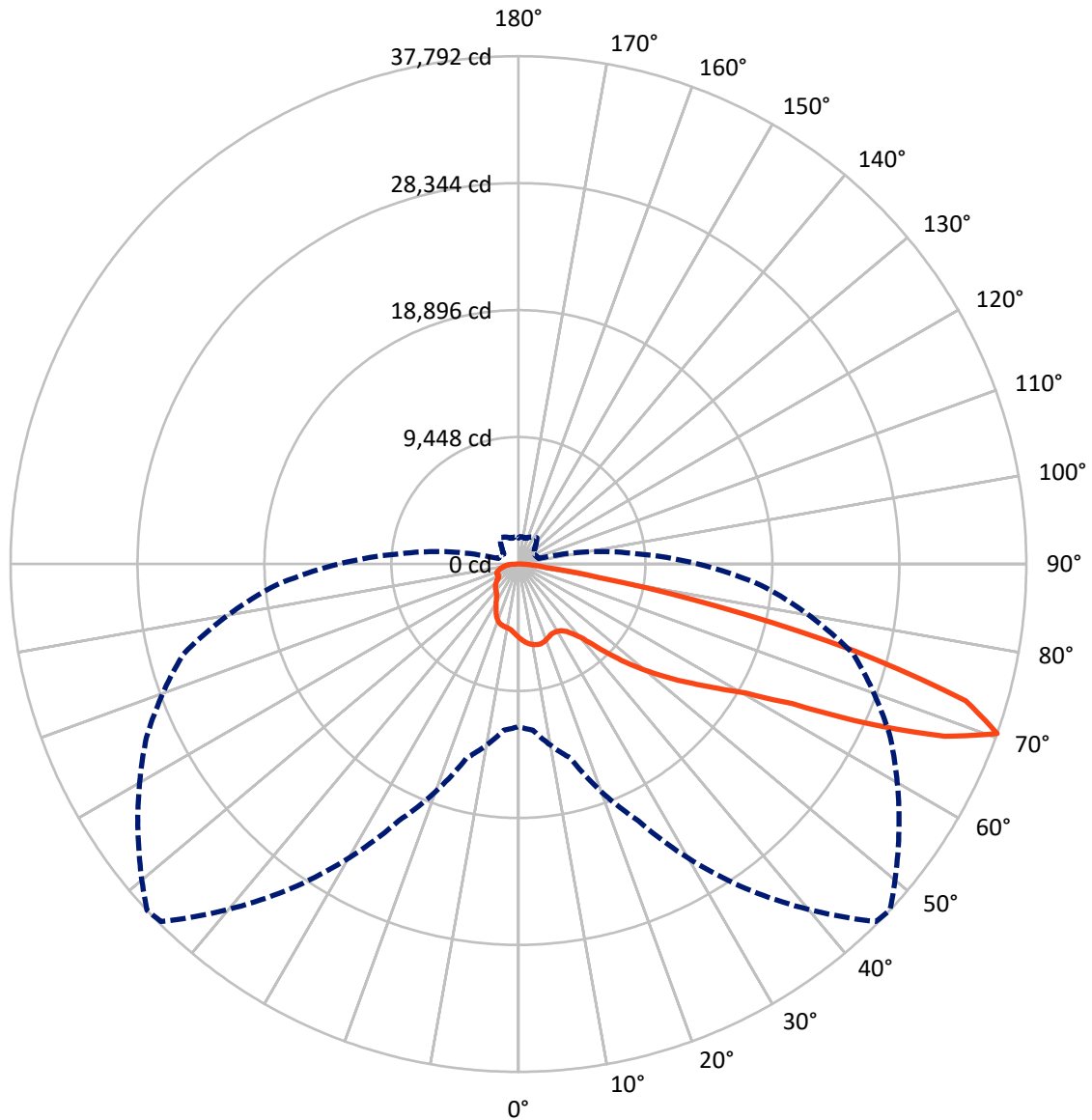
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9827.0	0.0	9827.0
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	37277.8	0.0	37277.8
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	47104.8	0.0	47104.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	523.7	1.1
10°-20°	1536.4	3.3
20°-30°	2268.9	4.8
30°-40°	3297.7	7.0
40°-50°	5934.7	12.6
50°-60°	10281.3	21.8
60°-70°	14674.4	31.2
70°-80°	7533.0	16.0
80°-90°	1054.6	2.2
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°	47104.8	100.0
0°-180°	47104.8	100.0

**Coefficient of Utilization**



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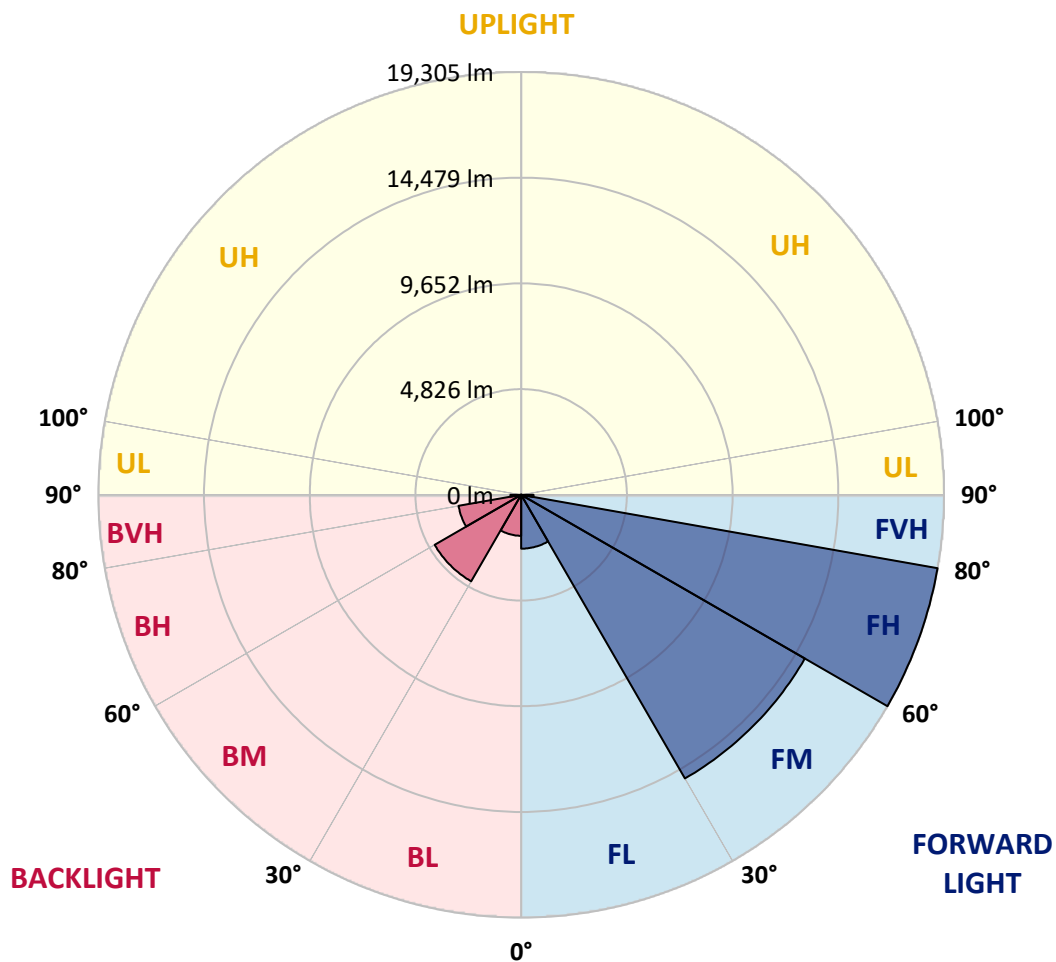
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2457.8	5.2			
FM	(30°-60°)	14952.4	31.7			
FH	(60°-80°)	19304.8	41.0			G5
FVH	(80°-90°)	562.8	1.2			G4/750
BL	(0°-30°)	1871.1	4.0	B3/2500		
BM	(30°-60°)	4561.4	9.7	B3/5000		
BH	(60°-80°)	2902.6	6.2	B4/5000		G4/5000
BVH	(80°-90°)	491.9	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5
2.5°	5786.7	5775.3	5770.7	5761.6	5750.2	5692.3	5680.9	5639.8	5582.7	5522.6	5460.9
5°	6167.2	6165.0	6139.1	6093.4	6020.4	5894.0	5864.3	5763.9	5628.4	5497.5	5367.3
7.5°	6501.4	6480.8	6432.9	6340.8	6212.9	6040.9	5999.8	5859.8	5674.0	5495.2	5318.6
10°	6746.4	6735.0	6630.0	6503.7	6336.2	6145.9	6098.0	5942.0	5738.0	5511.2	5291.2
12.5°	6886.5	6863.7	6741.9	6591.2	6391.8	6206.1	6157.4	5999.8	5770.7	5511.2	5252.4
15°	6877.4	6861.4	6739.6	6574.4	6373.5	6210.6	6167.2	6008.9	5763.9	5488.3	5202.2
17.5°	6693.9	6700.8	6598.0	6435.2	6270.0	6145.9	6107.1	5961.0	5717.4	5442.7	5142.8
20°	6373.5	6405.5	6336.2	6192.4	6100.3	6015.8	5990.7	5866.6	5646.6	5376.5	5078.1
22.5°	6052.3	6082.0	6054.6	5932.8	5919.1	5868.9	5855.2	5766.1	5585.0	5335.4	5039.3
25°	5816.4	5843.8	5839.2	5733.4	5775.3	5773.0	5761.6	5717.4	5571.3	5335.4	5046.1
27.5°	5752.4	5761.6	5752.4	5655.8	5712.9	5759.3	5750.2	5742.5	5612.4	5401.6	5133.7
30°	5972.4	5958.7	5887.2	5692.3	5745.6	5809.5	5800.4	5805.0	5735.7	5575.9	5328.5
32.5°	6850.0	6787.5	6563.0	6015.8	5875.7	5910.0	5914.6	5990.7	6002.1	5843.8	5630.7
35°	8162.9	8094.4	7802.9	6881.9	6281.4	6162.7	6162.7	6276.8	6345.3	6228.9	6100.3
37.5°	9554.2	9478.1	9322.8	8082.9	7133.8	6600.3	6588.9	6668.8	6767.0	6795.2	6827.1
40°	11135.0	11055.1	11098.5	9430.1	8323.5	7358.4	7195.5	7138.4	7404.0	7580.6	7837.9
42.5°	12865.7	12828.4	12844.4	10931.0	9677.5	8493.2	8261.8	7965.7	8286.9	8600.5	9139.4
45°	14467.1	14499.1	14483.1	12537.7	11186.0	9876.9	9631.8	9058.7	9373.0	9911.1	10789.4
47.5°	15869.8	15736.6	15942.9	14292.8	12874.9	11426.5	11123.6	10356.4	10674.5	11339.0	12823.9
50°	17572.4	17554.2	17252.0	16635.5	14916.2	12982.2	12585.7	11696.7	12191.4	13115.4	15388.8
52.5°	19362.5	19029.9	18752.9	18456.8	17082.3	14577.5	14091.1	13032.4	13974.7	15136.1	18514.7
55°	19728.6	19580.2	19923.5	20421.2	19170.0	16234.4	15668.1	14707.6	15982.5	17446.8	22119.3
57.5°	20512.6	20510.3	21221.2	22107.9	21319.3	17991.8	17421.0	16731.4	18239.2	20093.2	25946.1
60°	21042.3	21190.7	22511.2	24232.1	23429.9	20022.4	19497.3	19066.5	20806.4	23051.6	29511.9
62.5°	21319.3	21521.0	23322.6	25093.7	26413.4	23402.5	22878.1	22257.0	24202.4	26297.0	31597.3
65°	20167.0	20562.8	23196.2	25838.8	29026.3	28881.7	28645.8	27555.1	28448.6	28861.2	30843.8
67.5°	16976.5	17382.1	20448.6	25143.9	30891.8	34166.8	34217.1	32353.9	31061.5	29081.1	25932.4
70°	12095.5	12413.6	14951.2	21081.1	29470.8	37620.0	37792.0	34564.9	30540.9	25790.1	18118.1
72.5°	5742.5	5937.4	8339.4	13720.5	23386.5	34469.0	34801.6	31741.9	25968.9	19093.9	9883.7
75°	2110.5	2169.9	2818.4	5836.9	13564.4	25419.4	25811.4	22754.0	17214.7	9506.2	3765.2
77.5°	1265.0	1303.8	1581.6	2463.7	5335.4	14529.5	15108.7	12374.8	7523.5	3538.4	1851.8
80°	884.4	911.8	1134.0	1532.9	2520.8	5537.0	6052.3	5050.7	2997.2	2239.2	1347.2
82.5°	598.2	611.9	797.6	1035.9	1675.2	1977.4	2133.4	2246.0	2021.5	1666.1	854.7
85°	392.0	405.7	541.1	682.7	1065.5	1022.2	1045.0	1322.0	1475.8	1131.8	474.2
87.5°	224.5	233.7	325.8	364.6	522.9	433.1	437.6	696.4	944.5	763.4	288.5
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°	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5	5465.5
2.5°	5445.0	5415.3	5349.1	5307.2	5268.4	5259.2	5243.3	5241.0	5238.7	5238.7	5231.8
5°	5323.2	5272.9	5170.2	5112.4	5064.4	5059.8	5057.6	5069.0	5073.5	5078.1	5071.3
7.5°	5245.5	5177.0	5048.4	4966.2	4909.1	4894.7	4918.3	4970.8	5005.0	5018.7	5011.9
10°	5197.6	5112.4	4963.9	4874.1	4826.2	4819.3	4849.0	4911.4	4982.2	5009.6	5007.3
12.5°	5142.8	5046.1	4887.8	4794.2	4766.8	4780.5	4819.3	4876.4	4950.2	4993.6	4995.9
15°	5087.2	4975.4	4812.5	4730.3	4718.9	4737.1	4773.7	4817.0	4874.1	4918.3	4922.8
17.5°	5021.0	4903.8	4741.7	4656.4	4647.3	4656.4	4658.7	4681.6	4718.9	4760.0	4771.4
20°	4950.2	4830.7	4661.0	4576.5	4535.4	4498.9	4457.0	4461.6	4473.0	4514.9	4524.0
22.5°	4899.2	4780.5	4599.4	4482.2	4372.6	4262.2	4180.0	4168.6	4173.1	4207.4	4218.8
25°	4903.8	4778.2	4583.4	4381.7	4141.2	3964.6	3854.2	3836.0	3833.7	3858.8	3875.6
27.5°	4993.6	4867.3	4642.7	4278.2	3889.3	3627.4	3511.0	3497.3	3479.0	3485.9	3504.1
30°	5193.0	5075.8	4787.4	4173.1	3616.0	3297.9	3176.1	3162.4	3137.3	3125.9	3139.6
32.5°	5518.0	5422.1	4998.2	4071.9	3343.5	3015.5	2892.2	2862.5	2846.5	2832.8	2844.3
35°	6059.2	6018.1	5279.8	3962.3	3103.0	2797.8	2685.9	2640.3	2617.4	2642.6	2660.8
37.5°	6907.0	6929.9	5648.9	3790.3	2917.3	2654.0	2559.6	2507.1	2472.8	2493.4	2513.9
40°	8108.1	8124.0	6056.9	3547.5	2756.7	2568.7	2468.3	2420.3	2371.6	2335.1	2332.8
42.5°	9684.3	9522.2	6458.0	3284.2	2571.0	2516.2	2404.3	2344.2	2271.1	2169.9	2149.4
45°	11554.4	10984.3	6762.4	2981.3	2362.5	2452.3	2332.8	2250.6	2135.7	2026.1	2014.6
47.5°	13709.0	12553.7	6911.6	2667.7	2167.6	2357.9	2246.0	2115.1	1970.5	1915.7	1908.9
50°	16339.4	14416.9	6982.4	2362.5	1998.7	2234.6	2119.7	1965.9	1844.9	1833.5	1826.7
52.5°	19335.1	16658.3	7006.0	2112.8	1858.6	2074.0	2016.9	1867.8	1771.1	1781.0	1781.0
55°	22470.1	18972.9	6693.9	1931.7	1730.0	1908.9	1947.7	1828.9	1748.3	1785.6	1799.3
57.5°	25347.9	21024.0	5712.9	1792.4	1609.0	1783.3	1922.6	1865.5	1810.7	1959.1	1968.2
60°	27557.4	22235.7	4266.8	1666.1	1519.2	1739.1	1989.5	2005.5	2019.2	2373.9	2422.6
62.5°	28020.1	21833.1	2933.3	1567.9	1478.1	1776.4	2110.5	2112.8	2096.8	2344.2	2373.9
65°	25895.9	19281.9	2133.4	1512.3	1443.8	1842.6	2214.1	2165.3	2060.3	2248.3	2192.7
67.5°	20565.1	14527.2	1776.4	1471.2	1393.6	1838.1	2323.7	2214.1	2039.8	2202.6	2112.8
70°	13349.0	8783.9	1581.6	1437.0	1333.5	1750.5	2387.6	2209.5	1979.6	2048.9	1943.1
72.5°	6512.8	3928.1	1450.7	1386.7	1271.8	1629.5	2385.3	2167.6	1918.0	1913.4	1856.3
75°	2548.2	1799.3	1331.2	1310.6	1166.8	1491.8	2321.4	2108.3	1844.9	1771.1	1750.5
77.5°	1491.8	1283.2	1180.5	1198.7	1040.4	1354.0	2227.8	2005.5	1743.7	1656.9	1634.1
80°	1086.1	960.5	1006.2	1035.9	889.0	1217.0	2101.4	1879.2	1631.8	1675.2	1643.2
82.5°	696.4	618.8	815.9	845.6	740.6	1077.0	1963.7	1746.0	1473.5	1338.0	1306.1
85°	355.4	392.0	607.4	643.9	570.8	884.4	1797.0	1570.2	1294.6	1113.5	1131.8
87.5°	199.4	267.9	387.4	433.1	403.4	680.4	1457.5	1294.6	1056.4	859.3	756.5
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)