

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: P301116

Luminaire Tested: **GLNA-AF-07-LED-E1-T3R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301116  
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-07-LED-E1-T3R-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37270.4 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 391  
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

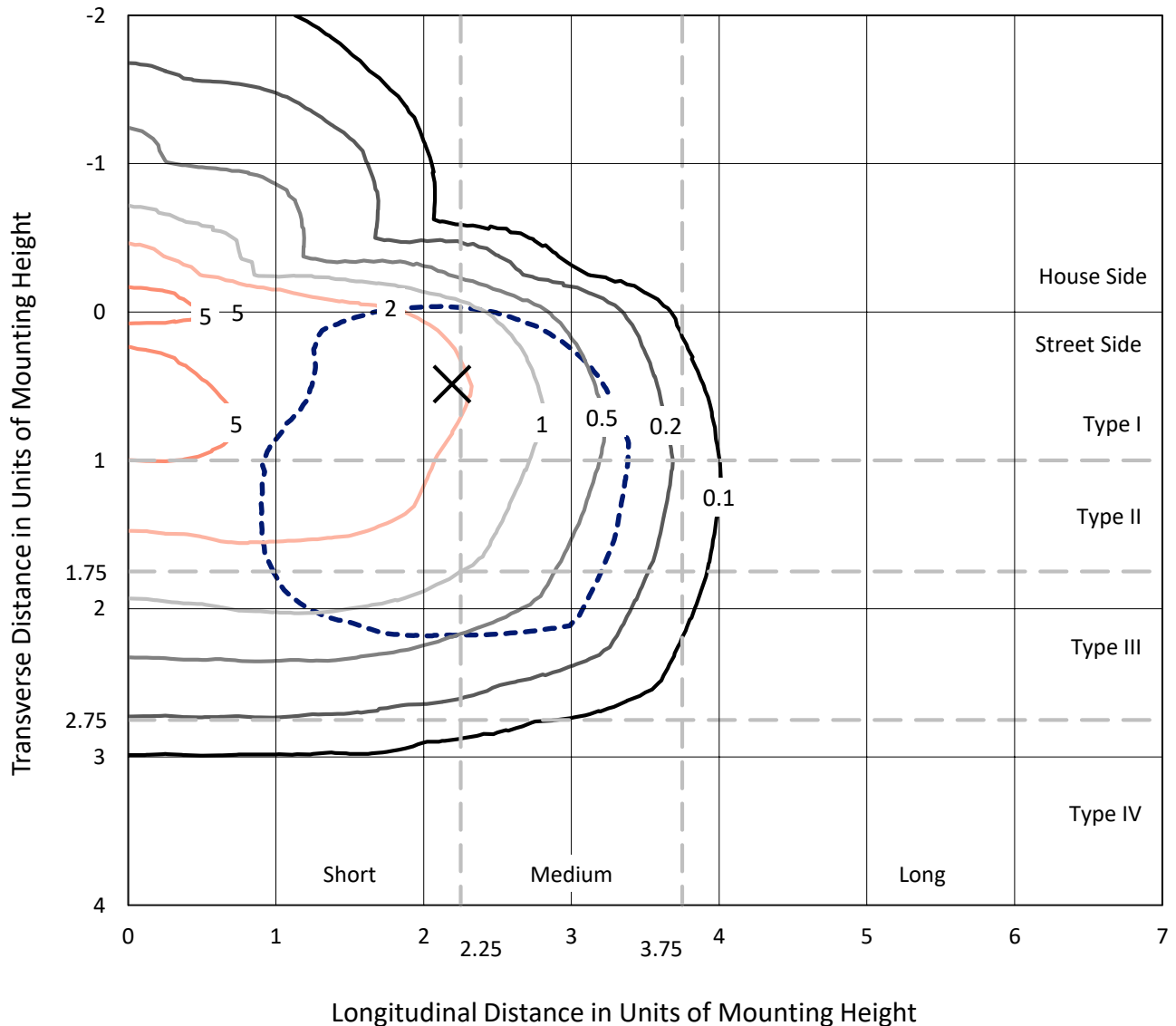


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### Iso-Footcandle Lines of Horizontal Illumination

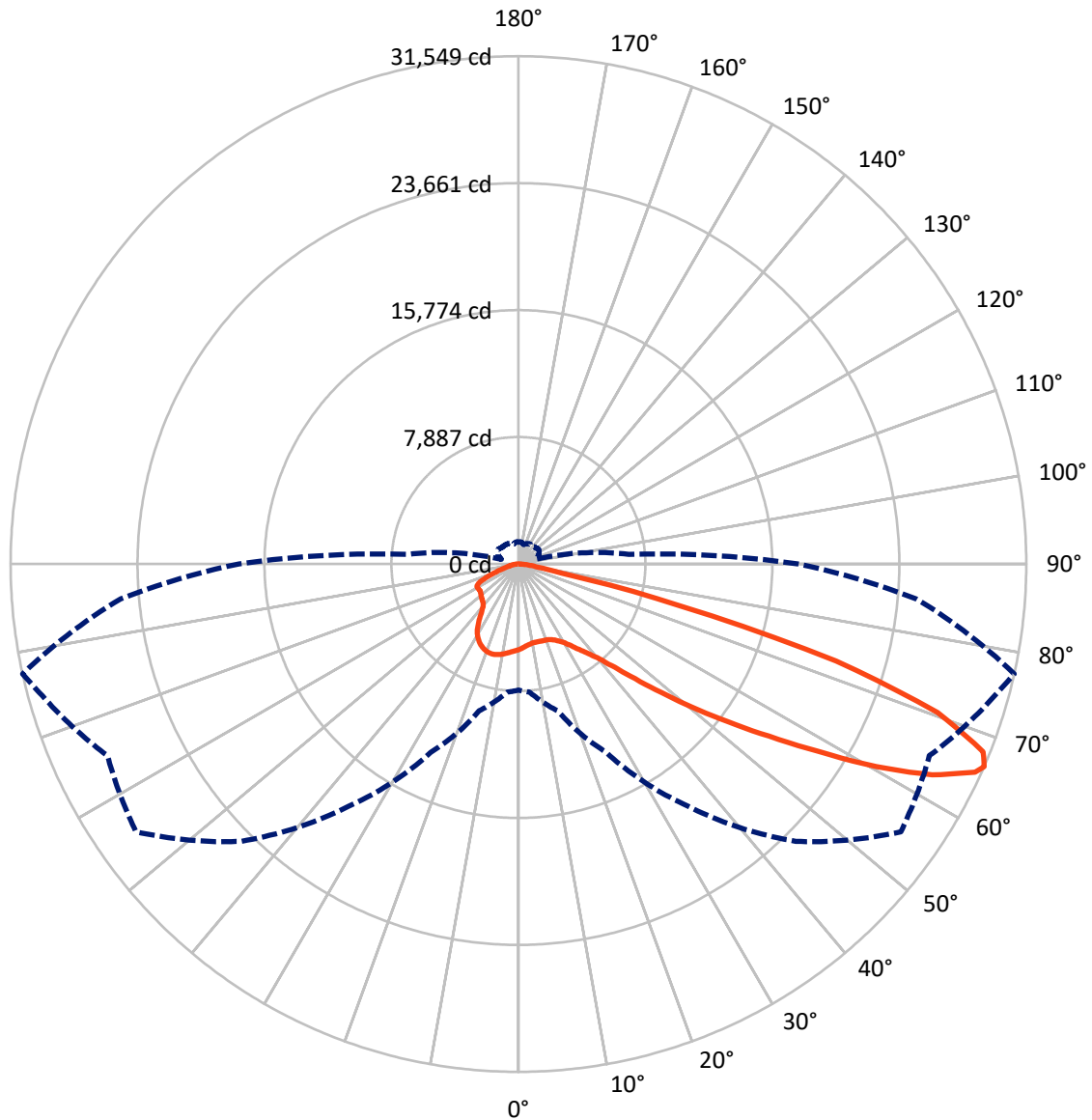
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.3 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	6367.4	0.0	6367.4
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	30903.0	0.0	30903.0
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	37270.4	0.0	37270.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	474.5	1.3
10°-20°	1338.7	3.6
20°-30°	2284.7	6.1
30°-40°	3657.3	9.8
40°-50°	5650.2	15.2
50°-60°	8014.0	21.5
60°-70°	10720.5	28.8
70°-80°	4655.7	12.5
80°-90°	474.7	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°	37270.4	100.0
0°-180°	37270.4	100.0

**Coefficient of Utilization**



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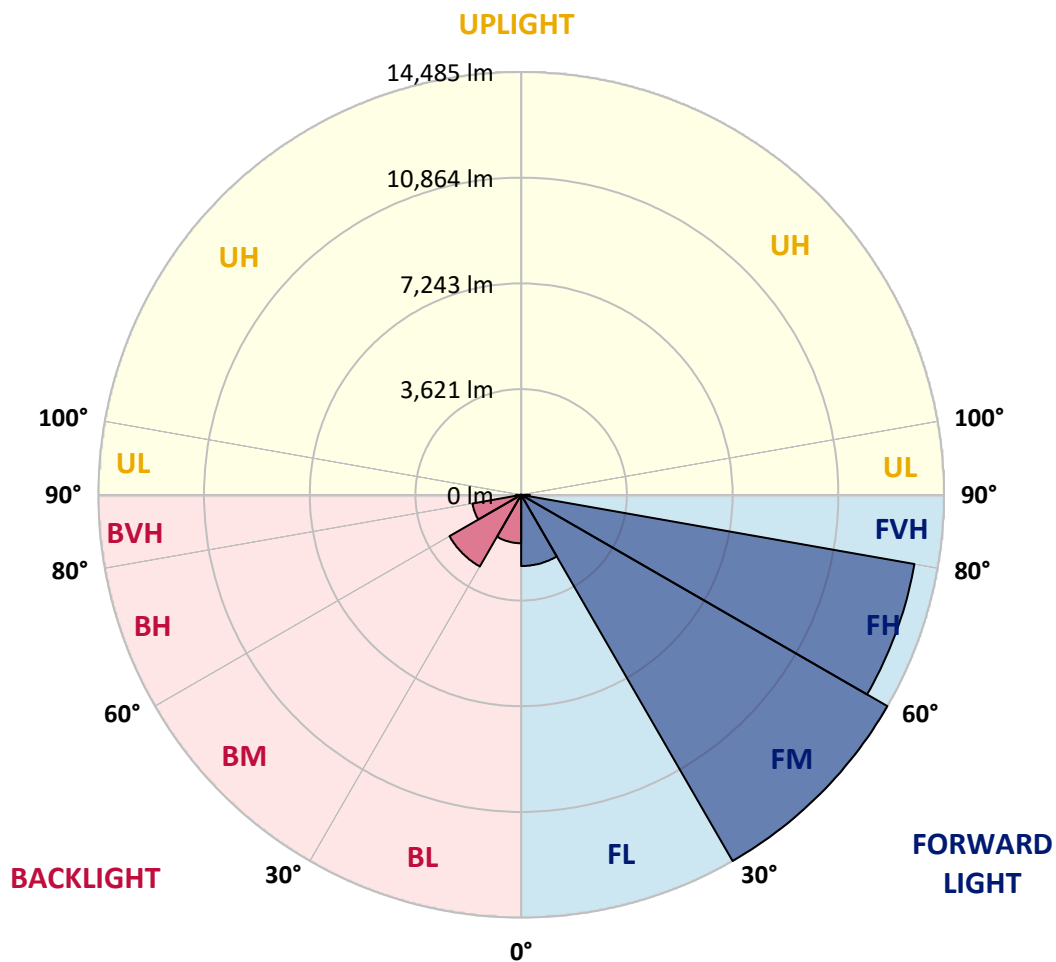
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2439.5	6.5			
FM	(30°-60°)	14485.2	38.9			
FH	(60°-80°)	13680.5	36.7			G5
FVH	(80°-90°)	297.7	0.8			G3/500
BL	(0°-30°)	1658.3	4.4	B3/2500		
BM	(30°-60°)	2836.3	7.6	B3/5000		
BH	(60°-80°)	1695.8	4.5	B3/2500		G3/2500
BVH	(80°-90°)	177.0	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°	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2
2.5°	4698.5	4730.0	4756.6	4781.2	4830.2	4911.3	5004.6	5080.3	5189.6	5210.9	5269.0
5°	4267.2	4267.2	4288.0	4325.3	4391.9	4513.5	4640.4	4809.4	5047.2	5103.2	5258.4
7.5°	4057.6	4059.2	4071.5	4102.9	4161.1	4272.0	4411.1	4610.5	4932.6	5025.9	5289.8
10°	4134.9	4117.3	4090.7	4075.2	4083.7	4148.8	4281.0	4502.8	4862.2	4981.6	5360.7
12.5°	4567.9	4534.8	4443.1	4321.5	4205.3	4157.9	4235.2	4451.6	4832.3	4971.5	5454.1
15°	5276.0	5262.1	5090.9	4839.3	4557.8	4321.5	4268.8	4432.5	4835.5	4983.8	5565.0
17.5°	6163.7	6144.0	5919.0	5552.7	5093.1	4633.5	4386.6	4448.4	4847.8	5004.6	5672.1
20°	7060.0	6999.8	6757.2	6320.5	5730.3	5057.4	4582.3	4489.0	4863.8	5027.5	5785.2
22.5°	7729.2	7679.6	7461.5	7037.1	6357.3	5549.0	4844.6	4559.4	4915.0	5094.7	5923.8
25°	8317.3	8320.5	8104.0	7694.0	6991.3	6070.4	5182.7	4747.6	5045.1	5231.7	6114.2
27.5°	9044.6	9002.5	8799.9	8393.0	7618.3	6596.7	5591.1	5006.7	5239.2	5427.4	6364.2
30°	9914.2	9884.4	9650.3	9189.1	8313.6	7161.9	6057.6	5307.4	5489.2	5684.4	6691.6
32.5°	10937.4	10923.6	10680.4	10087.0	9116.6	7827.8	6605.8	5705.7	5862.5	6065.1	7161.9
35°	12138.7	12140.3	11853.5	11140.0	9995.3	8602.6	7226.9	6218.1	6316.8	6527.9	7722.3
37.5°	12878.3	12967.8	12860.7	12133.4	10990.2	9469.0	8033.7	6897.9	6834.5	7047.8	8322.6
40°	13036.6	13145.9	13485.6	13116.1	12103.5	10423.4	8748.7	7551.1	7472.2	7732.4	9095.8
42.5°	12814.8	12966.2	13685.0	13945.2	13285.1	11599.7	9710.0	8521.5	8421.3	8771.6	10057.1
45°	12682.6	12795.6	13626.9	14377.1	14309.9	12929.5	10934.2	9739.9	9703.1	10162.7	11166.7
47.5°	12453.8	12556.2	13355.5	14477.3	14912.4	14147.8	12404.8	11230.2	11302.1	11904.7	12418.7
50°	12577.0	12619.1	13052.6	14221.9	15086.8	15040.9	14047.6	12955.6	13202.4	13954.3	13836.4
52.5°	12559.4	12668.7	13017.4	13802.8	15109.7	15592.2	15665.8	14880.4	15400.3	16263.0	15408.8
55°	10154.2	10354.7	12603.7	13697.3	15190.2	16132.4	17106.5	16909.2	17877.5	18883.1	17183.8
57.5°	9696.2	9823.1	11069.7	13919.1	15620.0	17164.6	18708.8	19142.2	20762.1	21929.8	19346.5
60°	9606.0	9762.8	11053.7	14190.5	16491.7	18846.3	21084.7	21845.5	24272.1	25550.7	21854.1
62.5°	9326.1	9495.1	10949.7	14154.7	17729.8	21172.7	24126.0	24719.5	27600.3	28843.7	23951.7
65°	8438.9	8597.2	10103.0	13586.4	18564.8	23655.7	27725.1	27354.0	30227.9	31162.6	24997.3
66°	7831.0	7986.2	9435.4	12917.2	18370.7	24360.1	29000.5	28169.2	30816.0	31548.6	24793.0
67.5°	6719.9	6841.4	8139.2	11418.4	17340.6	24557.4	30072.7	28781.9	30877.3	31136.5	23625.9
70°	4245.8	4281.0	5289.8	7882.2	13126.7	21297.4	28440.1	27260.7	28331.3	27630.2	19806.1
72.5°	1842.2	1829.9	2539.6	4009.6	7431.7	14290.7	23005.8	22493.4	22224.1	20625.1	13864.7
75°	1024.8	1039.2	1319.1	1861.4	3020.0	7019.5	15049.4	14401.6	12159.5	10376.0	6286.9
77.5°	822.2	841.9	1093.6	1320.7	1355.9	2447.9	7042.4	5730.3	3449.8	2768.4	1746.7
80°	650.0	685.2	954.4	1028.5	913.9	1008.8	2275.1	1819.3	1365.0	1251.9	905.4
82.5°	514.0	539.1	819.0	778.5	639.3	679.8	1089.9	1062.1	887.8	808.3	523.1
85°	370.0	415.4	672.9	586.5	419.1	458.0	723.5	693.7	508.7	415.4	230.9
87.5°	151.4	197.3	475.6	389.2	234.1	213.3	361.0	339.6	241.0	176.0	114.6
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°	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2	5311.2
2.5°	5305.8	5347.9	5402.9	5436.5	5454.1	5466.3	5485.5	5483.9	5489.2	5490.8	5497.8
5°	5341.0	5411.4	5490.8	5512.2	5512.2	5492.4	5473.3	5441.3	5429.0	5425.8	5429.0
7.5°	5432.7	5510.0	5578.8	5554.3	5501.5	5423.7	5323.4	5235.4	5188.0	5172.0	5168.8
10°	5549.0	5642.3	5670.5	5577.2	5422.1	5235.4	5036.6	4892.1	4809.4	4786.5	4779.6
12.5°	5689.7	5777.7	5739.3	5542.0	5254.6	4953.9	4678.8	4448.4	4275.7	4221.3	4217.6
15°	5844.9	5913.7	5777.7	5432.7	5004.6	4561.0	4071.5	3673.7	3458.8	3390.1	3384.7
17.5°	5989.4	6024.6	5754.8	5242.4	4636.7	3918.5	3268.5	2961.9	2888.3	2905.9	2909.1
20°	6112.6	6112.6	5677.5	4969.4	4057.6	3071.2	2660.6	2655.8	2708.6	2761.4	2772.1
22.5°	6248.0	6166.9	5542.0	4583.9	3236.5	2512.9	2453.2	2502.3	2562.0	2620.1	2629.2
25°	6415.4	6211.2	5353.3	3999.5	2544.4	2282.1	2305.0	2345.5	2375.4	2412.7	2418.0
27.5°	6602.0	6267.2	5105.3	3194.4	2208.5	2138.1	2155.7	2169.6	2165.8	2180.2	2183.4
30°	6825.4	6332.8	4765.2	2497.0	2069.3	2014.4	1983.0	1970.7	1970.7	1993.6	2002.1
32.5°	7125.1	6429.3	4277.3	2139.7	2002.1	1926.4	1824.6	1778.7	1796.3	1873.6	1891.2
35°	7454.6	6533.2	3617.2	2018.1	1988.3	1885.9	1727.6	1642.8	1644.9	1716.9	1739.8
37.5°	7813.4	6665.5	2893.1	1995.2	2019.7	1888.0	1676.4	1560.1	1512.7	1512.7	1521.7
40°	8273.1	6800.9	2342.3	2011.2	2086.9	1908.8	1650.2	1495.1	1361.2	1365.0	1371.9
42.5°	8871.8	6917.1	2046.4	2044.3	2168.0	1937.1	1648.1	1408.7	1292.5	1371.9	1443.9
45°	9537.8	6975.3	1915.8	2074.7	2233.0	1954.7	1620.4	1394.8	1301.5	1537.2	1674.8
47.5°	10303.5	6941.7	1843.8	2084.8	2249.0	1954.7	1588.4	1428.4	1362.8	1780.3	1940.8
50°	11143.8	6845.2	1773.4	2064.0	2243.7	1951.0	1618.2	1461.5	1385.8	1822.5	1933.4
52.5°	12131.8	6764.1	1699.3	2018.1	2206.4	1931.8	1653.4	1447.6	1313.8	1657.2	1734.5
55°	13258.4	6787.0	1616.6	1953.1	2148.2	1895.0	1641.2	1391.1	1238.1	1459.9	1507.3
57.5°	14699.1	7060.0	1518.0	1870.4	2069.3	1833.1	1597.5	1365.0	1215.2	1324.5	1352.7
60°	16306.7	7535.1	1394.8	1787.3	1970.7	1734.5	1563.9	1377.2	1225.8	1313.8	1327.7
62.5°	17486.7	7811.8	1289.3	1665.7	1836.9	1625.2	1521.7	1392.7	1254.1	1350.6	1347.4
65°	17807.1	7357.6	1157.0	1488.1	1655.6	1511.1	1468.4	1410.3	1266.3	1380.4	1365.0
66°	17358.2	6868.1	1098.9	1405.5	1563.9	1454.6	1442.3	1408.7	1261.0	1384.2	1357.5
67.5°	16268.3	5864.1	998.7	1283.9	1417.8	1370.3	1400.2	1392.7	1246.6	1380.4	1343.7
70°	13267.5	4001.1	854.2	1069.1	1180.0	1206.1	1319.1	1336.7	1200.8	1319.1	1238.1
72.5°	9270.1	2437.2	755.5	829.7	954.4	1028.5	1208.2	1258.9	1139.4	1151.7	1074.4
75°	4479.9	1294.6	685.2	643.0	741.1	859.5	1074.4	1153.3	1042.4	963.5	935.2
77.5°	1396.4	790.7	581.2	517.7	581.2	693.7	897.9	1010.9	928.3	806.7	796.1
80°	750.2	581.2	447.4	415.4	459.6	544.4	706.0	843.5	797.7	723.5	646.2
82.5°	494.8	377.0	331.1	322.0	350.3	415.4	524.7	699.0	699.0	620.1	451.1
85°	255.4	230.9	227.1	227.1	244.7	276.7	357.2	539.1	574.3	327.4	271.4
87.5°	126.9	132.2	123.2	128.5	137.6	135.4	170.6	271.4	324.2	198.9	165.3
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)