

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: P301180

Luminaire Tested: **GLNA-AF-07-LED-E1-T3R-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301180  
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-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 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: 34655.5 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

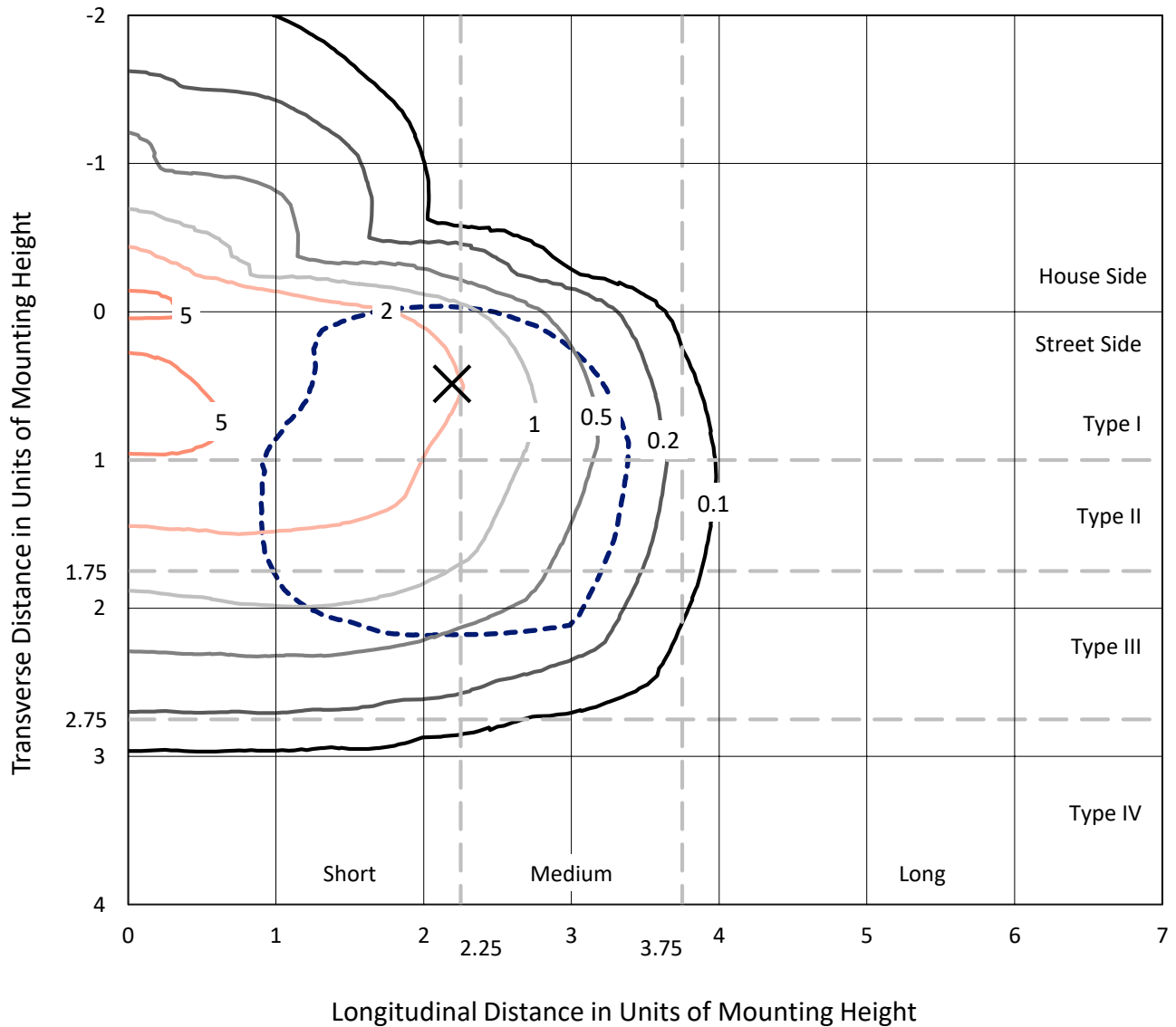
Input Watts (W): 295  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

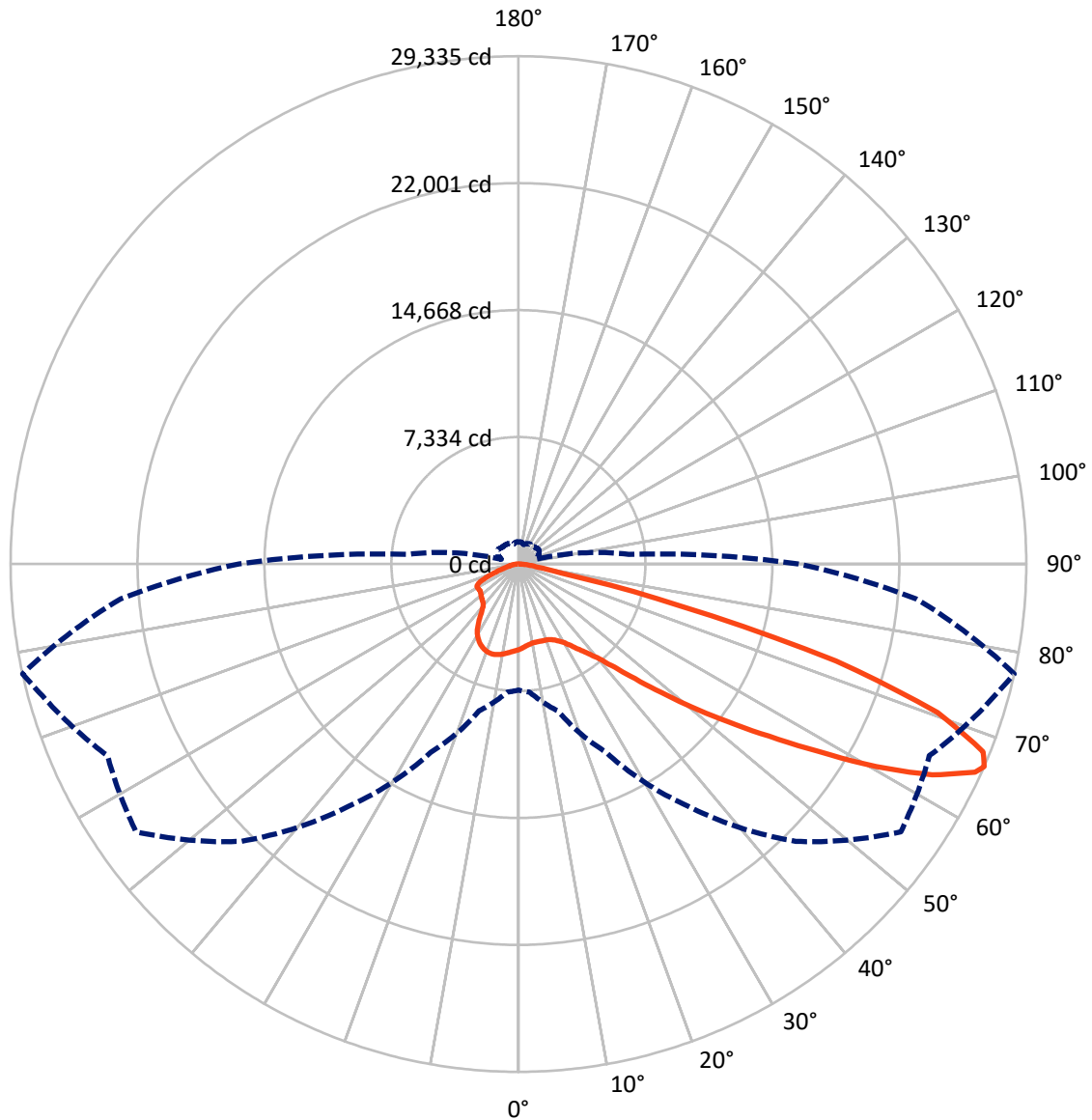
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 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	5920.7	0.0	5920.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	28734.8	0.0	28734.8
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	34655.5	0.0	34655.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	441.2	1.3
10°-20°	1244.8	3.6
20°-30°	2124.4	6.1
30°-40°	3400.7	9.8
40°-50°	5253.8	15.2
50°-60°	7451.7	21.5
60°-70°	9968.4	28.8
70°-80°	4329.1	12.5
80°-90°	441.4	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°	34655.5	100.0
0°-180°	34655.5	100.0



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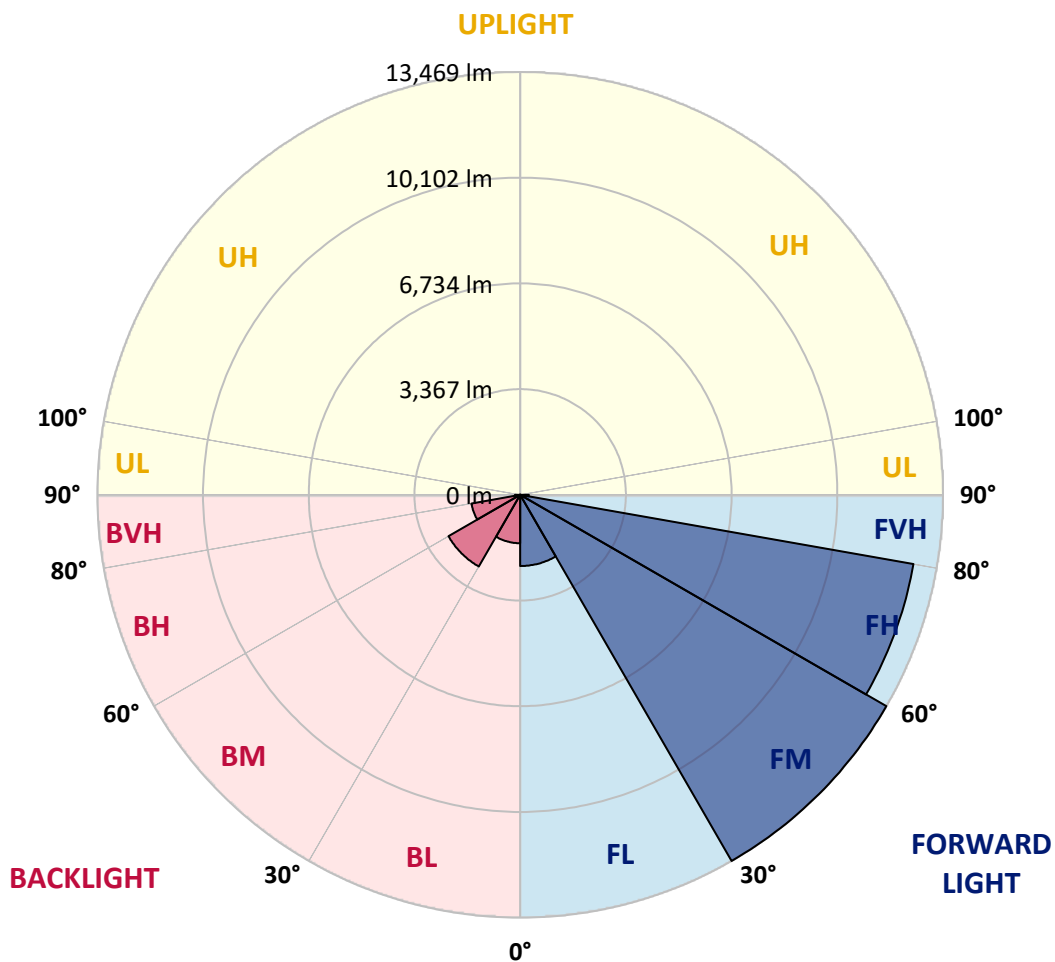
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2268.4	6.5			
FM (30°-60°)	13468.9	38.9			
FH (60°-80°)	12720.7	36.7			G5
FVH (80°-90°)	276.9	0.8			G3/500
BL (0°-30°)	1542.0	4.4	B3/2500		
BM (30°-60°)	2637.3	7.6	B3/5000		
BH (60°-80°)	1576.8	4.5	B3/2500		G3/2500
BVH (80°-90°)	164.6	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°	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5
2.5°	4368.9	4398.1	4422.9	4445.7	4491.3	4566.7	4653.5	4723.9	4825.5	4845.3	4899.4
5°	3967.8	3967.8	3987.1	4021.8	4083.8	4196.8	4314.8	4472.0	4693.1	4745.2	4889.4
7.5°	3772.9	3774.4	3785.8	3815.1	3869.1	3972.2	4101.6	4287.1	4586.5	4673.3	4918.7
10°	3844.8	3828.5	3803.7	3789.3	3797.2	3857.7	3980.7	4186.9	4521.1	4632.1	4984.6
12.5°	4247.4	4216.7	4131.4	4018.3	3910.3	3866.1	3938.0	4139.3	4493.3	4622.7	5071.4
15°	4905.8	4892.9	4733.8	4499.8	4238.0	4018.3	3969.3	4121.5	4496.3	4634.1	5174.5
17.5°	5731.3	5712.9	5503.7	5163.1	4735.8	4308.4	4078.8	4136.3	4507.7	4653.5	5274.2
20°	6564.7	6508.7	6283.1	5877.1	5328.2	4702.5	4260.8	4174.0	4522.6	4674.8	5379.3
22.5°	7186.9	7140.8	6938.0	6543.4	5911.3	5159.6	4504.7	4239.5	4570.2	4737.2	5508.2
25°	7733.8	7736.7	7535.5	7154.2	6500.7	5644.5	4819.0	4414.5	4691.1	4864.7	5685.2
27.5°	8410.0	8370.9	8182.5	7804.2	7083.8	6133.9	5198.8	4655.4	4871.6	5046.6	5917.7
30°	9218.7	9190.9	8973.2	8544.4	7730.3	6659.4	5632.6	4935.1	5104.1	5285.6	6222.1
32.5°	10170.1	10157.2	9931.1	9379.3	8477.0	7278.6	6142.3	5305.4	5451.2	5639.6	6659.4
35°	11287.1	11288.6	11021.8	10358.5	9294.0	7999.0	6719.9	5781.9	5873.6	6069.9	7180.5
37.5°	11974.7	12058.0	11958.4	11282.1	10219.1	8804.7	7470.0	6414.0	6355.0	6553.3	7738.7
40°	12122.0	12223.6	12539.4	12195.8	11254.3	9692.1	8134.9	7021.3	6947.9	7189.9	8457.6
42.5°	11915.7	12056.5	12724.9	12966.8	12353.0	10785.8	9028.8	7923.7	7830.4	8156.2	9351.5
45°	11792.8	11897.9	12670.8	13368.4	13305.9	12022.3	10167.1	9056.5	9022.3	9449.7	10383.3
47.5°	11580.1	11675.3	12418.5	13461.6	13866.2	13155.2	11534.5	10442.3	10509.2	11069.4	11547.4
50°	11694.6	11733.8	12136.8	13224.1	14028.3	13985.6	13062.0	12046.6	12276.2	12975.2	12865.7
52.5°	11678.2	11779.9	12104.1	12834.4	14049.6	14498.3	14566.7	13836.4	14319.8	15122.0	14327.7
55°	9441.8	9628.2	11719.4	12736.3	14124.5	15000.5	15906.3	15722.9	16623.2	17558.3	15978.2
57.5°	9015.9	9133.9	10293.0	12942.5	14524.1	15960.4	17396.1	17799.2	19305.4	20391.2	17989.1
60°	8932.1	9077.8	10278.1	13194.9	15334.7	17524.1	19605.4	20312.9	22569.2	23758.1	20320.8
62.5°	8671.8	8829.0	10181.5	13161.6	16485.9	19687.2	22433.3	22985.1	25663.9	26820.1	22271.2
65°	7846.8	7994.1	9394.2	12633.1	17262.3	21996.1	25779.9	25434.8	28107.1	28976.2	23243.5
66°	7281.6	7425.9	8773.4	12010.9	17081.8	22651.0	26965.8	26192.9	28654.0	29335.2	23053.6
67.5°	6248.4	6361.4	7568.2	10617.3	16124.0	22834.4	27962.8	26762.5	28711.0	28951.9	21968.3
70°	3947.9	3980.7	4918.7	7329.2	12205.8	19803.2	26444.7	25348.1	26343.6	25691.6	18416.5
72.5°	1712.9	1701.5	2361.4	3728.3	6910.3	13288.1	21391.7	20915.2	20664.9	19178.0	12891.9
75°	952.9	966.3	1226.6	1730.8	2808.1	6527.0	13993.6	13391.2	11306.4	9648.0	5845.8
77.5°	764.5	782.8	1016.9	1228.1	1260.8	2276.2	6548.3	5328.2	3207.7	2574.1	1624.2
80°	604.4	637.1	887.5	956.4	849.8	938.0	2115.5	1691.6	1269.2	1164.1	841.8
82.5°	477.9	501.2	761.5	723.8	594.4	632.1	1013.4	987.6	825.5	751.6	486.4
85°	344.1	386.2	625.7	545.4	389.7	425.9	672.8	645.0	473.0	386.2	214.7
87.5°	140.8	183.4	442.2	361.9	217.7	198.3	335.6	315.8	224.1	163.6	106.6
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°	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5	4938.5
2.5°	4933.6	4972.7	5023.8	5055.0	5071.4	5082.8	5100.6	5099.2	5104.1	5105.6	5112.1
5°	4966.3	5031.7	5105.6	5125.4	5125.4	5107.1	5089.2	5059.5	5048.1	5045.1	5048.1
7.5°	5051.6	5123.5	5187.4	5164.6	5115.5	5043.1	4949.9	4868.1	4824.0	4809.1	4806.2
10°	5159.6	5246.4	5272.7	5185.9	5041.7	4868.1	4683.2	4548.8	4472.0	4450.7	4444.2
12.5°	5290.5	5372.3	5336.6	5153.2	4886.0	4606.4	4350.5	4136.3	3975.7	3925.1	3921.7
15°	5434.8	5498.8	5372.3	5051.6	4653.5	4241.0	3785.8	3416.0	3216.2	3152.2	3147.3
17.5°	5569.2	5601.9	5351.0	4874.6	4311.4	3643.5	3039.2	2754.1	2685.7	2702.0	2705.0
20°	5683.7	5683.7	5279.1	4620.7	3772.9	2855.7	2474.0	2469.5	2518.6	2567.7	2577.6
22.5°	5809.6	5734.3	5153.2	4262.3	3009.4	2336.6	2281.1	2326.7	2382.3	2436.3	2444.7
25°	5965.3	5775.4	4977.7	3718.9	2365.9	2122.0	2143.3	2181.0	2208.7	2243.4	2248.4
27.5°	6138.8	5827.5	4747.2	2970.3	2053.5	1988.1	2004.5	2017.4	2013.9	2027.3	2030.2
30°	6346.6	5888.5	4430.8	2321.8	1924.1	1873.1	1843.8	1832.4	1832.4	1853.7	1861.7
32.5°	6625.2	5978.2	3977.2	1989.6	1861.7	1791.3	1696.6	1653.9	1670.3	1742.2	1758.6
35°	6931.6	6074.9	3363.4	1876.6	1848.8	1753.6	1606.3	1527.5	1529.5	1596.4	1617.8
37.5°	7265.3	6197.8	2690.1	1855.2	1878.0	1755.6	1558.8	1450.7	1406.5	1406.5	1415.0
40°	7692.6	6323.8	2178.0	1870.1	1940.5	1774.9	1534.5	1390.2	1265.7	1269.2	1275.7
42.5°	8249.4	6431.8	1902.8	1900.8	2015.9	1801.2	1532.5	1309.9	1201.8	1275.7	1342.6
45°	8868.6	6485.9	1781.4	1929.1	2076.4	1817.6	1506.7	1297.0	1210.2	1429.4	1557.3
47.5°	9580.6	6454.6	1714.4	1938.5	2091.2	1817.6	1476.9	1328.2	1267.2	1655.4	1804.7
50°	10361.9	6364.9	1649.0	1919.2	2086.3	1814.1	1504.7	1359.0	1288.5	1694.6	1797.7
52.5°	11280.6	6289.5	1580.1	1876.6	2051.6	1796.2	1537.4	1346.1	1221.6	1540.9	1612.8
55°	12328.2	6310.9	1503.2	1816.1	1997.5	1762.0	1526.0	1293.5	1151.2	1357.5	1401.6
57.5°	13667.8	6564.7	1411.5	1739.2	1924.1	1704.5	1485.4	1269.2	1129.9	1231.5	1257.8
60°	15162.6	7006.5	1297.0	1661.9	1832.4	1612.8	1454.1	1280.6	1139.8	1221.6	1234.5
62.5°	16259.8	7263.8	1198.8	1548.8	1708.0	1511.2	1415.0	1295.0	1166.1	1255.8	1252.9
65°	16557.8	6841.4	1075.9	1383.7	1539.4	1405.1	1365.4	1311.4	1177.5	1283.6	1269.2
66°	16140.3	6386.2	1021.8	1306.9	1454.1	1352.5	1341.1	1309.9	1172.5	1287.1	1262.3
67.5°	15126.9	5452.7	928.6	1193.9	1318.3	1274.2	1301.9	1295.0	1159.1	1283.6	1249.4
70°	12336.7	3720.4	794.2	994.1	1097.2	1121.5	1226.6	1242.9	1116.5	1226.6	1151.2
72.5°	8619.7	2266.2	702.5	771.4	887.5	956.4	1123.5	1170.6	1059.5	1070.9	999.0
75°	4165.6	1203.8	637.1	597.9	689.1	799.2	999.0	1072.4	969.3	895.9	869.6
77.5°	1298.5	735.3	540.4	481.4	540.4	645.0	834.9	940.0	863.2	750.1	740.2
80°	697.6	540.4	416.0	386.2	427.4	506.2	656.4	784.3	741.7	672.8	600.9
82.5°	460.1	350.5	307.9	299.5	325.7	386.2	487.9	650.0	650.0	576.6	419.4
85°	237.5	214.7	211.2	211.2	227.6	257.3	332.2	501.2	534.0	304.4	252.4
87.5°	118.0	123.0	114.5	119.5	127.9	125.9	158.7	252.4	301.4	184.9	153.7
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)