

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: P302804

Luminaire Tested: **GLNA-AF-08-LED-E1-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302804
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-08-LED-E1-T4W-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41018.3 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

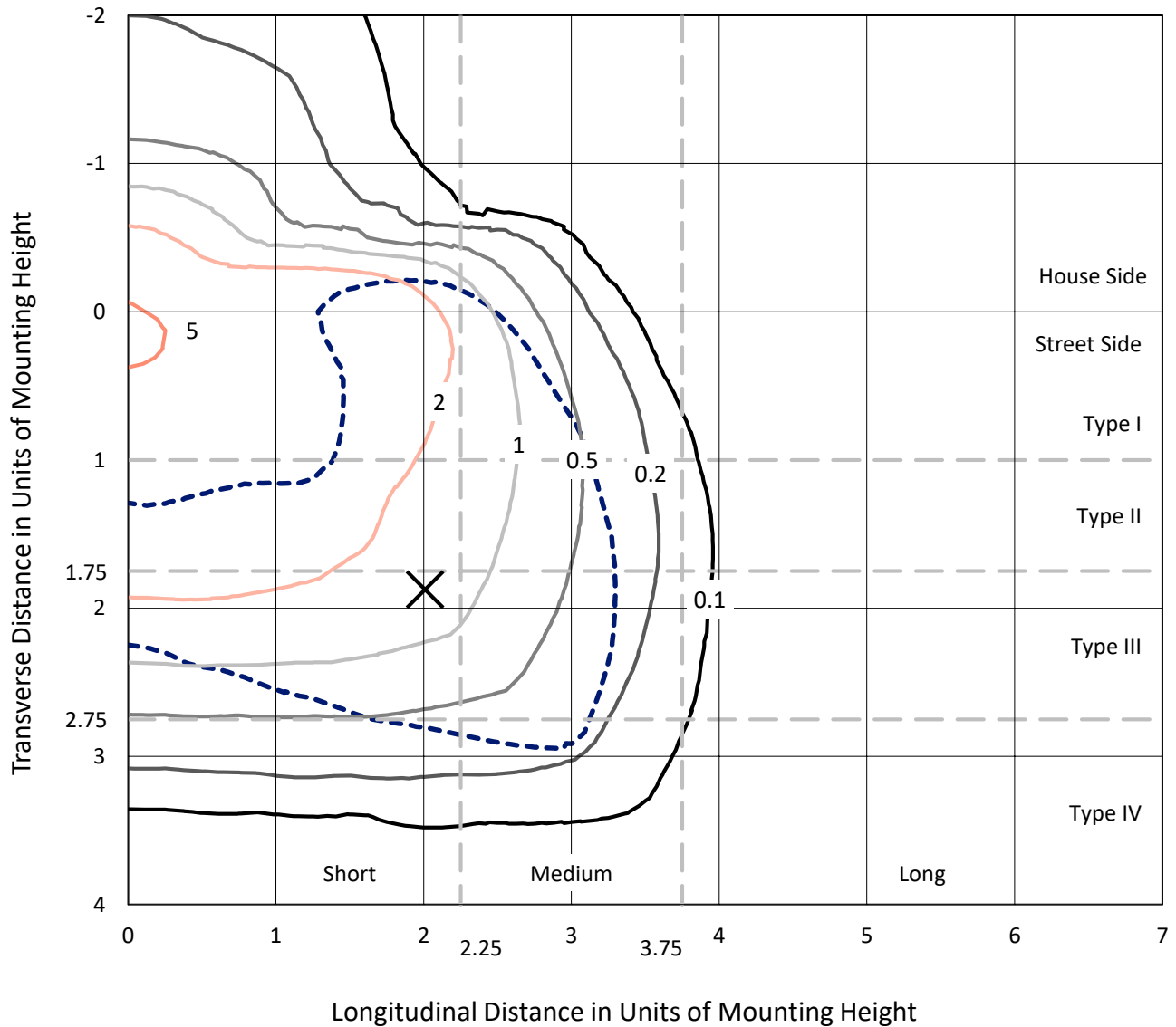
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

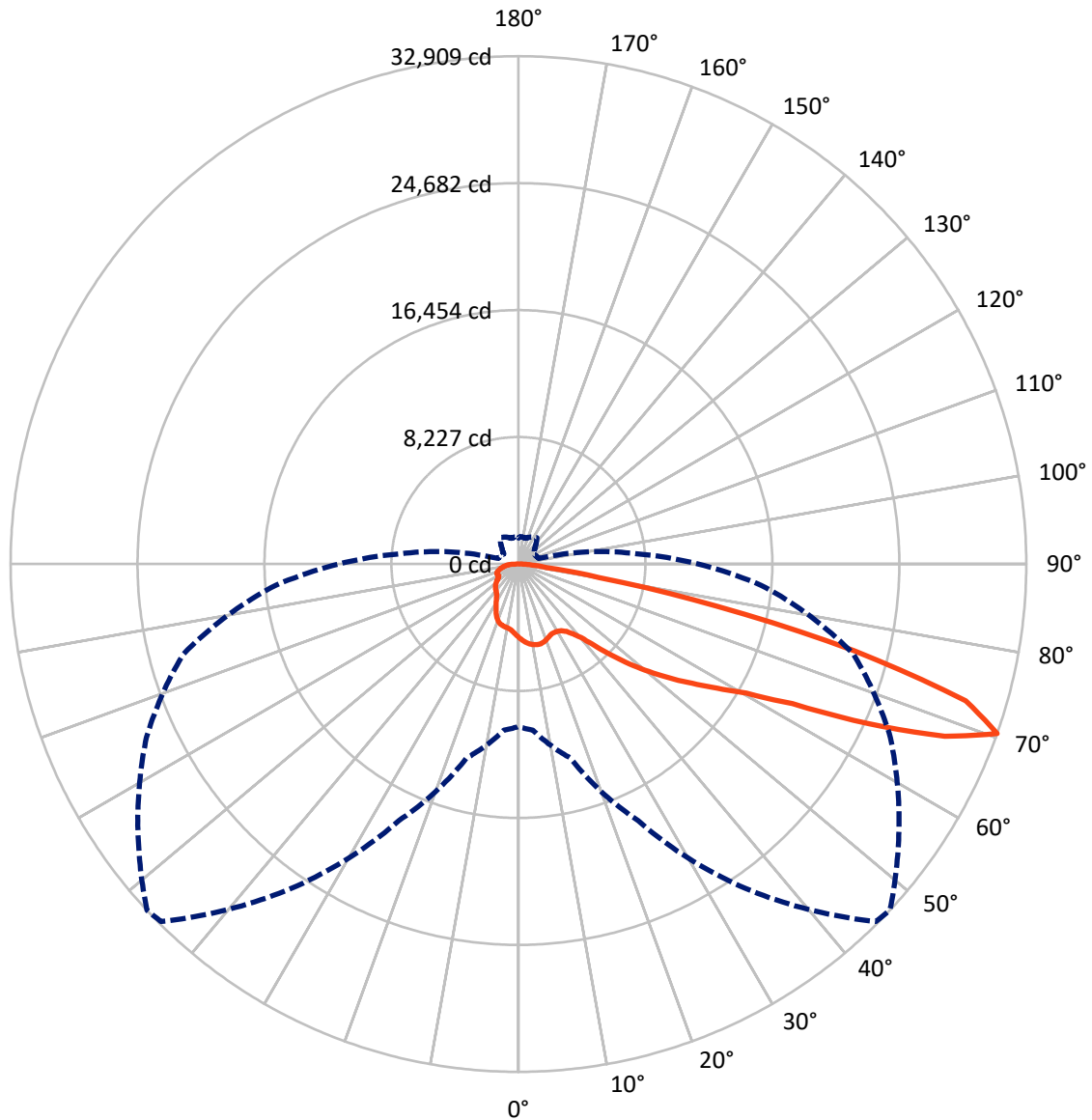
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.1 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
House Side	Lumens	8557.2	0.0	8557.2
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	32461.1	0.0	32461.1
	% Fixture	79.1	0.0	79.1
Total	Lumens	41018.3	0.0	41018.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	456.0	1.1
10°-20°	1337.9	3.3
20°-30°	1975.7	4.8
30°-40°	2871.6	7.0
40°-50°	5167.9	12.6
50°-60°	8952.9	21.8
60°-70°	12778.3	31.2
70°-80°	6559.7	16.0
80°-90°	918.4	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°	41018.3	100.0
0°-180°	41018.3	100.0



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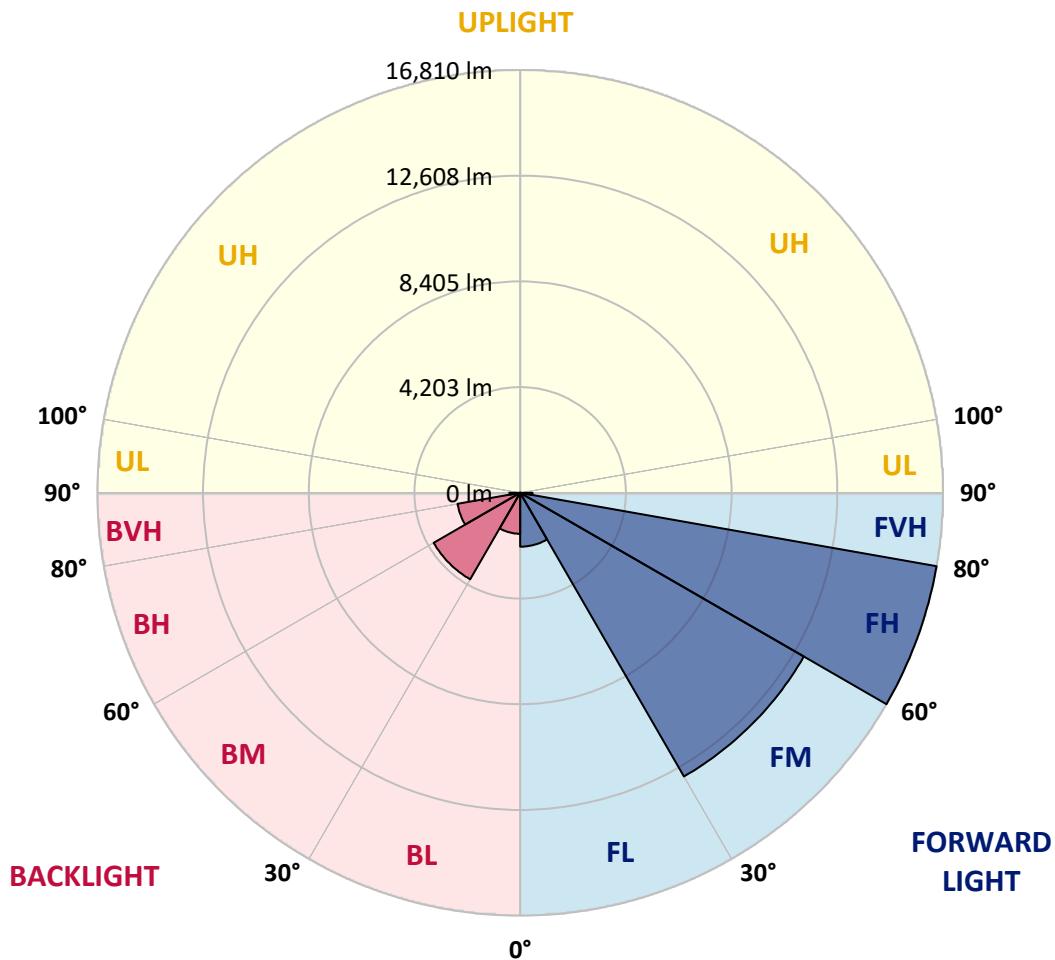
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2140.3	5.2			
FM	(30°-60°)	13020.3	31.7			
FH	(60°-80°)	16810.4	41.0			G5
FVH	(80°-90°)	490.1	1.2			G3/500
BL	(0°-30°)	1629.3	4.0	B3/2500		
BM	(30°-60°)	3972.0	9.7	B3/5000		
BH	(60°-80°)	2527.6	6.2	B4/5000		G4/5000
BVH	(80°-90°)	428.3	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°	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3
2.5°	5039.0	5029.0	5025.1	5017.1	5007.2	4956.8	4946.9	4911.1	4861.4	4809.0	4755.3
5°	5370.4	5368.4	5345.8	5306.1	5242.4	5132.4	5106.6	5019.1	4901.1	4787.1	4673.8
7.5°	5661.3	5643.4	5601.7	5521.5	5410.1	5260.3	5224.5	5102.6	4940.9	4785.1	4631.4
10°	5874.7	5864.8	5773.3	5663.3	5517.5	5351.8	5310.0	5174.2	4996.6	4799.1	4607.5
12.5°	5996.7	5976.8	5870.7	5739.5	5565.9	5404.2	5361.7	5224.5	5025.1	4799.1	4573.7
15°	5988.7	5974.8	5868.8	5724.9	5550.0	5408.1	5370.4	5232.5	5019.1	4779.2	4530.0
17.5°	5829.0	5835.0	5745.5	5603.6	5459.8	5351.8	5318.0	5190.7	4978.7	4739.4	4478.3
20°	5550.0	5577.8	5517.5	5392.2	5312.0	5238.5	5216.6	5108.6	4917.0	4681.7	4421.9
22.5°	5270.3	5296.1	5272.3	5166.2	5154.3	5110.6	5098.6	5021.1	4863.3	4646.0	4388.1
25°	5064.8	5088.7	5084.7	4992.6	5029.0	5027.0	5017.1	4978.7	4851.4	4646.0	4394.1
27.5°	5009.2	5017.1	5009.2	4925.0	4974.7	5015.1	5007.2	5000.5	4887.2	4703.6	4470.3
30°	5200.7	5188.8	5126.5	4956.8	5003.2	5058.9	5050.9	5054.9	4994.6	4855.4	4640.0
32.5°	5964.9	5910.5	5715.0	5238.5	5116.5	5146.3	5150.3	5216.6	5226.5	5088.7	4903.1
35°	7108.1	7048.5	6794.6	5992.7	5469.8	5366.4	5366.4	5465.8	5525.4	5424.0	5312.0
37.5°	8319.6	8253.4	8118.2	7038.5	6212.1	5747.5	5737.5	5807.1	5892.6	5917.1	5945.0
40°	9696.2	9626.6	9664.4	8211.6	7248.0	6407.6	6265.7	6216.0	6447.3	6601.1	6825.1
42.5°	11203.3	11170.8	11184.8	9518.6	8427.0	7395.8	7194.3	6936.5	7216.1	7489.2	7958.4
45°	12597.8	12625.6	12611.7	10917.7	9740.6	8600.7	8387.2	7888.2	8161.9	8630.5	9395.3
47.5°	13819.2	13703.3	13882.9	12446.0	11211.3	9950.0	9686.3	9018.2	9295.2	9873.8	11166.9
50°	15301.8	15285.9	15022.8	14486.0	12988.8	11304.7	10959.4	10185.3	10616.1	11420.7	13400.4
52.5°	16860.7	16571.0	16329.8	16072.0	14875.0	12693.9	12270.4	11348.5	12169.0	13180.3	16122.3
55°	17179.4	17050.2	17349.1	17782.6	16693.0	14136.7	13643.6	12807.2	13917.3	15192.5	19261.2
57.5°	17862.1	17860.1	18479.1	19251.2	18564.6	15667.0	15170.0	14569.5	15882.4	17496.9	22593.5
60°	18323.4	18452.6	19602.5	21101.0	20402.5	17435.3	16978.0	16602.8	18117.9	20073.1	25698.6
62.5°	18564.6	18740.2	20309.0	21851.3	23000.5	20378.6	19922.0	19381.1	21075.2	22899.1	27514.5
65°	17561.2	17905.8	20199.0	22500.1	25275.7	25149.8	24944.4	23994.6	24772.7	25131.9	26858.4
67.5°	14782.9	15136.1	17806.4	21895.0	26900.2	29752.0	29795.8	28173.3	27048.0	25323.5	22581.6
70°	10532.6	10809.6	13019.3	18357.2	25662.8	32759.0	32908.8	30098.7	26594.6	22457.7	15777.0
72.5°	5000.5	5170.2	7261.9	11947.6	20364.7	30015.1	30304.8	27640.5	22613.4	16626.7	8606.6
75°	1837.8	1889.5	2454.2	5082.7	11811.7	22134.9	22476.2	19813.9	14990.3	8277.9	3278.7
77.5°	1101.5	1135.3	1377.2	2145.4	4646.0	12652.1	13156.5	10775.8	6551.4	3081.2	1612.5
80°	770.1	794.0	987.5	1334.8	2195.1	4821.6	5270.3	4398.1	2610.0	1949.8	1173.1
82.5°	520.9	532.9	694.6	902.0	1458.7	1721.9	1857.7	1955.8	1760.3	1450.8	744.3
85°	341.3	353.3	471.2	594.5	927.9	890.1	910.0	1151.2	1285.1	985.5	412.9
87.5°	195.5	203.5	283.7	317.5	455.3	377.1	381.1	606.4	822.5	664.7	251.2
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°	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3	4759.3
2.5°	4741.4	4715.5	4657.9	4621.4	4587.6	4579.7	4565.8	4563.8	4561.8	4561.8	4555.8
5°	4635.4	4591.6	4502.1	4451.8	4410.0	4406.0	4404.1	4414.0	4418.0	4421.9	4416.0
7.5°	4567.8	4508.1	4396.1	4324.5	4274.8	4262.2	4282.8	4328.5	4358.3	4370.3	4364.3
10°	4526.0	4451.8	4322.5	4244.3	4202.6	4196.6	4222.5	4276.8	4338.4	4362.3	4360.3
12.5°	4478.3	4394.1	4256.3	4174.7	4150.9	4162.8	4196.6	4246.3	4310.6	4348.4	4350.4
15°	4429.9	4332.5	4190.6	4119.1	4109.1	4125.0	4156.8	4194.6	4244.3	4282.8	4286.7
17.5°	4372.2	4270.2	4129.0	4054.8	4046.8	4054.8	4056.8	4076.6	4109.1	4144.9	4154.9
20°	4310.6	4206.5	4058.8	3985.2	3949.4	3917.6	3881.1	3885.1	3895.0	3931.5	3939.5
22.5°	4266.2	4162.8	4005.1	3903.0	3807.6	3711.5	3639.9	3629.9	3633.9	3663.7	3673.7
25°	4270.2	4160.8	3991.2	3815.5	3606.1	3452.3	3356.2	3340.3	3338.3	3360.2	3374.8
27.5°	4348.4	4238.4	4042.8	3725.4	3386.7	3158.7	3057.3	3045.4	3029.5	3035.4	3051.4
30°	4522.0	4420.0	4168.8	3633.9	3148.8	2871.7	2765.7	2753.8	2731.9	2722.0	2733.9
32.5°	4805.0	4721.5	4352.4	3545.8	2911.5	2625.9	2518.5	2492.6	2478.7	2466.8	2476.7
35°	5276.2	5240.5	4597.6	3450.3	2702.1	2436.3	2338.9	2299.1	2279.2	2301.1	2317.0
37.5°	6014.6	6034.4	4919.0	3300.6	2540.4	2311.0	2228.9	2183.1	2153.3	2171.2	2189.1
40°	7060.4	7074.3	5274.3	3089.1	2400.5	2236.8	2149.3	2107.6	2065.2	2033.4	2031.4
42.5°	8433.0	8291.8	5623.5	2859.8	2238.8	2191.1	2093.7	2041.3	1977.7	1889.5	1871.6
45°	10061.4	9565.0	5888.6	2596.0	2057.2	2135.4	2031.4	1959.8	1859.7	1764.3	1754.3
47.5°	11937.7	10931.6	6018.5	2323.0	1887.5	2053.2	1955.8	1841.8	1715.9	1668.2	1662.2
50°	14228.2	12554.0	6080.2	2057.2	1740.4	1945.9	1845.8	1711.9	1606.5	1596.6	1590.6
52.5°	16836.8	14505.9	6100.7	1839.8	1618.5	1806.0	1756.3	1626.4	1542.2	1550.9	1550.9
55°	19566.7	16521.3	5829.0	1682.1	1506.5	1662.2	1696.0	1592.6	1522.4	1554.8	1566.8
57.5°	22072.6	18307.5	4974.7	1560.8	1401.1	1552.9	1674.1	1624.4	1576.7	1705.9	1713.9
60°	23996.6	19362.6	3715.4	1450.8	1322.9	1514.4	1732.5	1746.4	1758.3	2067.2	2109.6
62.5°	24399.6	19012.0	2554.3	1365.3	1287.1	1546.9	1837.8	1839.8	1825.9	2041.3	2067.2
65°	22549.8	16790.4	1857.7	1316.9	1257.3	1604.5	1928.0	1885.6	1794.1	1957.8	1909.4
67.5°	17907.8	12650.1	1546.9	1281.1	1213.5	1600.6	2023.4	1928.0	1776.2	1918.0	1839.8
70°	11624.2	7648.9	1377.2	1251.3	1161.2	1524.4	2079.1	1924.0	1723.8	1784.2	1692.0
72.5°	5671.3	3420.5	1263.2	1207.6	1107.5	1419.0	2077.1	1887.5	1670.2	1666.2	1616.5
75°	2218.9	1566.8	1159.2	1141.3	1016.0	1299.0	2021.4	1835.8	1606.5	1542.2	1524.4
77.5°	1299.0	1117.4	1027.9	1043.8	906.0	1179.1	1939.9	1746.4	1518.4	1442.8	1422.9
80°	945.8	836.4	876.2	902.0	774.1	1059.8	1829.9	1636.4	1421.0	1458.7	1430.9
82.5°	606.4	538.8	710.5	736.3	644.9	937.8	1709.9	1520.4	1283.1	1165.1	1137.3
85°	309.5	341.3	528.9	560.7	497.1	770.1	1564.8	1367.3	1127.4	969.6	985.5
87.5°	173.6	233.3	337.3	377.1	351.3	592.5	1269.2	1127.4	919.9	748.3	658.8
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)