

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: P302873

Luminaire Tested: **GLNA-AF-09-LED-E1-T4W-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302873
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-09-LED-E1-T4W-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42545.6 lumens
Efficiency: N/A
Efficacy: 113.8 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

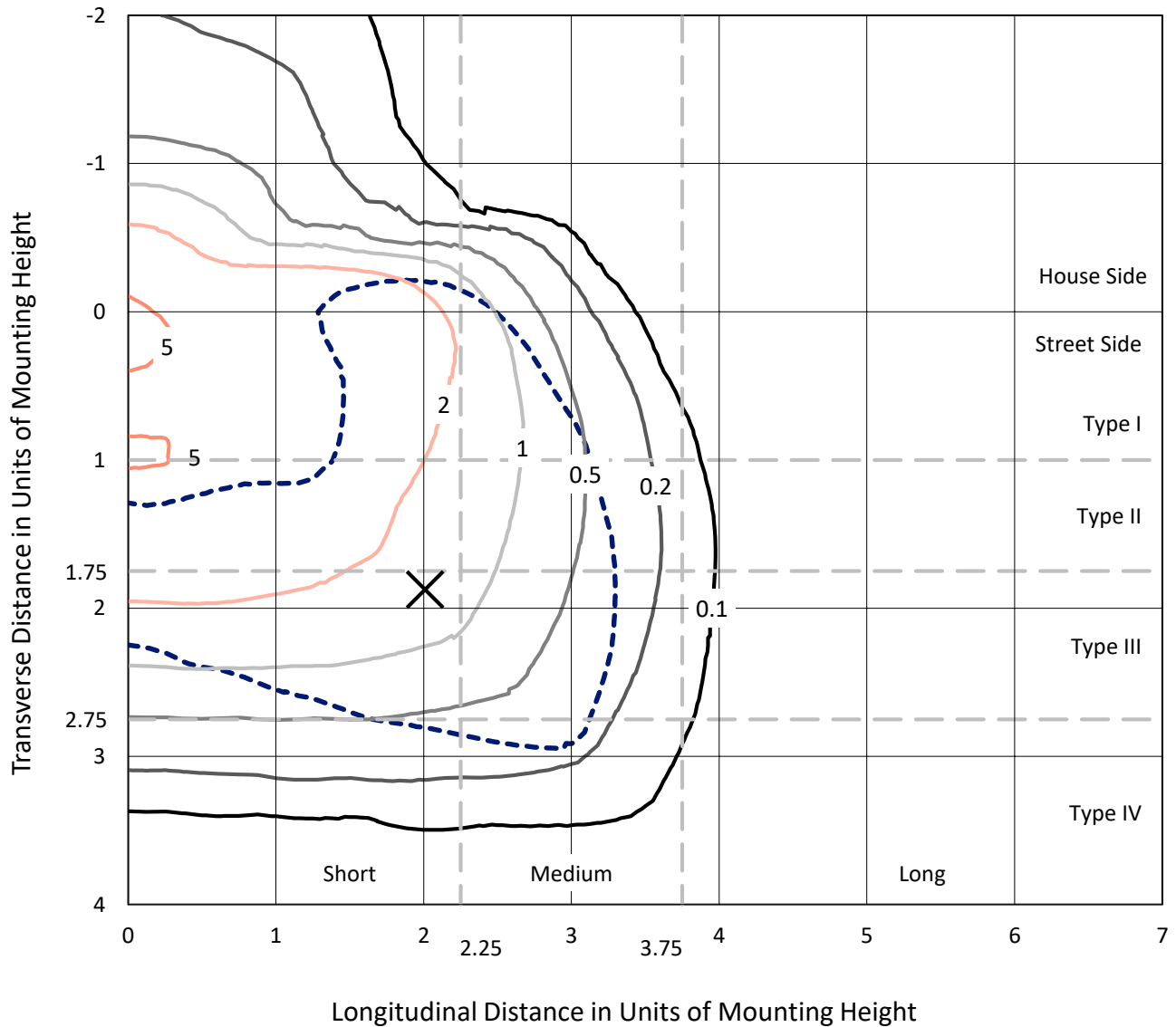
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

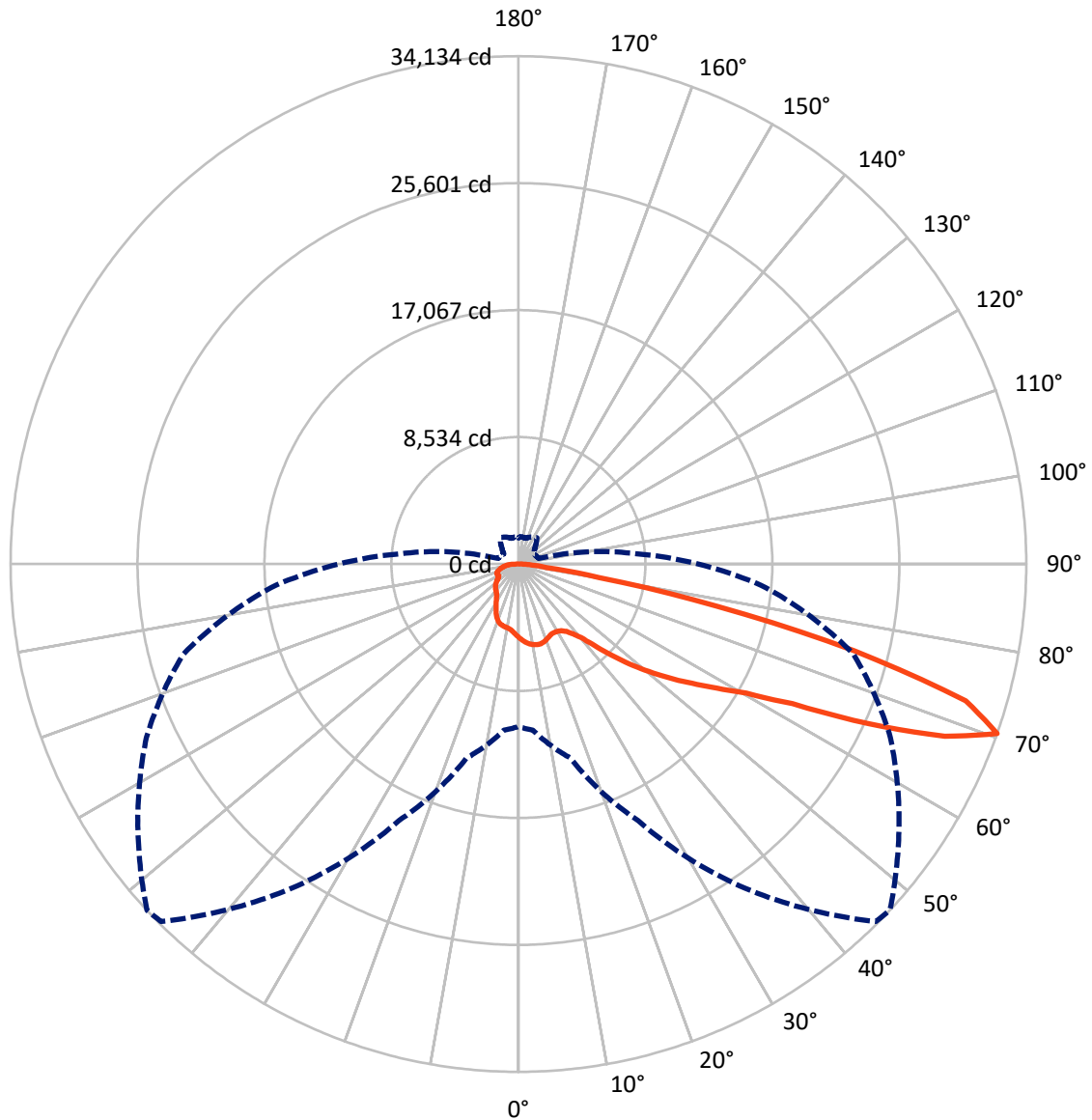
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.3 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	8875.9	0.0	8875.9
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	33669.8	0.0	33669.8
	% Fixture	79.1	0.0	79.1
Total	Lumens	42545.6	0.0	42545.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.0	1.1
10°-20°	1387.7	3.3
20°-30°	2049.3	4.8
30°-40°	2978.6	7.0
40°-50°	5360.3	12.6
50°-60°	9286.2	21.8
60°-70°	13254.1	31.2
70°-80°	6803.9	16.0
80°-90°	952.6	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°	42545.6	100.0
0°-180°	42545.6	100.0

Coefficient of Utilization



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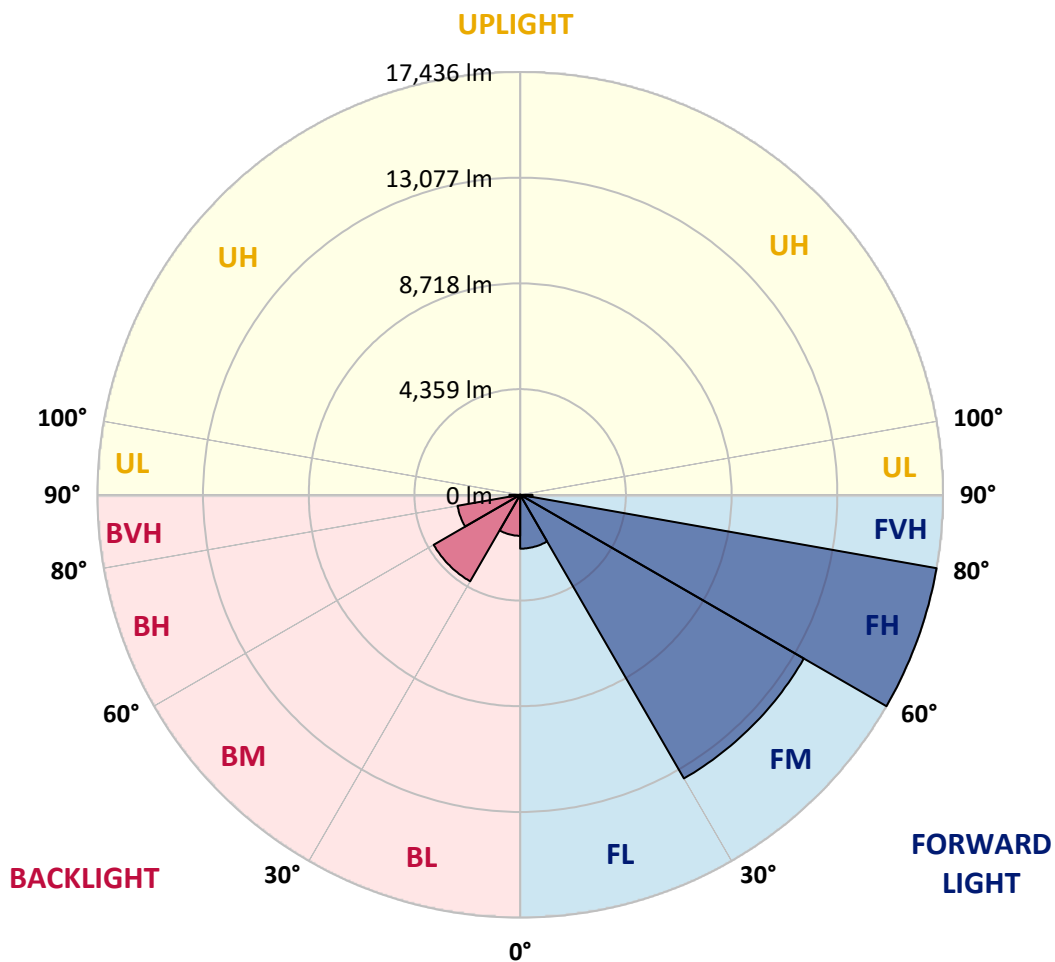
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2220.0	5.2			
FM	(30°-60°)	13505.2	31.7			
FH	(60°-80°)	17436.4	41.0			G5
FVH	(80°-90°)	508.3	1.2			G4/750
BL	(0°-30°)	1690.0	4.0	B3/2500		
BM	(30°-60°)	4119.9	9.7	B3/5000		
BH	(60°-80°)	2621.7	6.2	B4/5000		G4/5000
BVH	(80°-90°)	444.3	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°	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5
2.5°	5226.6	5216.3	5212.2	5203.9	5193.6	5141.4	5131.1	5093.9	5042.4	4988.1	4932.4
5°	5570.3	5568.3	5544.9	5503.6	5437.7	5323.5	5296.7	5206.0	5083.6	4965.4	4847.8
7.5°	5872.1	5853.6	5810.2	5727.1	5611.6	5456.2	5419.1	5292.6	5124.9	4963.3	4803.8
10°	6093.5	6083.2	5988.3	5874.2	5722.9	5551.1	5507.8	5366.8	5182.6	4977.8	4779.1
12.5°	6220.0	6199.3	6089.3	5953.2	5773.1	5605.4	5561.4	5419.1	5212.2	4977.8	4744.0
15°	6211.7	6197.3	6087.3	5938.1	5756.6	5609.5	5570.3	5427.3	5206.0	4957.1	4698.7
17.5°	6046.0	6052.2	5959.4	5812.3	5663.1	5551.1	5516.0	5384.0	5164.1	4915.9	4645.0
20°	5756.6	5785.5	5722.9	5593.0	5509.8	5433.5	5410.8	5298.8	5100.1	4856.1	4586.6
22.5°	5466.5	5493.3	5468.6	5358.6	5346.2	5300.9	5288.5	5208.0	5044.4	4819.0	4551.5
25°	5253.4	5278.2	5274.0	5178.5	5216.3	5214.2	5203.9	5164.1	5032.1	4819.0	4557.7
27.5°	5195.7	5203.9	5195.7	5108.4	5159.9	5201.9	5193.6	5186.7	5069.2	4878.8	4636.8
30°	5394.3	5382.0	5317.4	5141.4	5189.5	5247.2	5239.0	5243.1	5180.5	5036.2	4812.8
32.5°	6187.0	6130.6	5927.8	5433.5	5307.0	5338.0	5342.1	5410.8	5421.2	5278.2	5085.7
35°	7372.8	7310.9	7047.6	6215.8	5673.4	5566.2	5566.2	5669.3	5731.2	5626.0	5509.8
37.5°	8629.4	8560.7	8420.5	7300.6	6443.4	5961.5	5951.2	6023.4	6112.0	6137.5	6166.3
40°	10057.3	9985.1	10024.3	8517.4	7517.8	6646.2	6499.1	6447.5	6687.4	6846.9	7079.3
42.5°	11620.5	11586.8	11601.2	9873.0	8740.8	7671.1	7462.2	7194.7	7484.8	7768.1	8254.8
45°	13066.9	13095.7	13081.3	11324.2	10103.3	8920.9	8699.6	8181.9	8465.8	8951.8	9745.2
47.5°	14333.8	14213.5	14399.8	12909.4	11628.7	10320.5	10046.9	9354.0	9641.3	10241.5	11582.7
50°	15871.6	15855.1	15582.2	15025.4	13472.5	11725.7	11367.5	10564.6	11011.4	11846.0	13899.4
52.5°	17488.5	17188.1	16937.8	16670.4	15428.9	13166.5	12727.3	11771.0	12622.1	13671.1	16722.7
55°	17819.1	17685.1	17995.1	18444.7	17314.6	14663.1	14151.6	13284.1	14435.6	15758.2	19978.4
57.5°	18527.2	18525.1	19167.2	19968.1	19255.9	16250.4	15734.8	15112.0	16473.8	18148.4	23434.8
60°	19005.7	19139.7	20332.4	21886.7	21162.2	18084.5	17610.2	17221.1	18792.6	20820.5	26655.5
62.5°	19255.9	19438.1	21065.2	22664.9	23856.9	21137.4	20663.8	20102.8	21859.9	23751.7	28539.1
65°	18215.1	18572.6	20951.1	23337.9	26216.9	26086.3	25873.2	24888.1	25695.1	26067.7	27858.5
67.5°	15333.4	15699.8	18469.5	22710.3	27901.8	30859.9	30905.3	29222.4	28055.1	26266.4	23422.5
70°	10924.8	11212.2	13504.1	19040.7	26618.4	33978.8	34134.2	31219.4	27584.9	23293.9	16364.5
72.5°	5186.7	5362.7	7532.3	12392.5	21123.0	31132.8	31433.2	28669.7	23455.5	17245.8	8927.1
75°	1906.3	1959.9	2545.6	5272.0	12251.6	22959.1	23313.2	20551.7	15548.5	8586.1	3400.8
77.5°	1142.5	1177.6	1428.5	2225.2	4819.0	13123.2	13646.4	11177.1	6795.3	3195.9	1672.5
80°	798.8	823.6	1024.3	1384.5	2276.8	5001.1	5466.5	4561.9	2707.1	2022.4	1216.8
82.5°	540.3	552.7	720.4	935.6	1513.1	1786.0	1926.9	2028.6	1825.8	1504.8	772.0
85°	354.0	366.4	488.8	616.6	962.4	923.2	943.9	1194.1	1332.9	1022.2	428.3
87.5°	202.8	211.0	294.2	329.3	472.3	391.2	395.3	629.0	853.1	689.5	260.5
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°	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5	4936.5
2.5°	4917.9	4891.1	4831.3	4793.5	4758.5	4750.2	4735.8	4733.7	4731.7	4731.7	4725.5
5°	4808.0	4762.6	4669.8	4617.5	4574.2	4570.1	4568.0	4578.4	4582.5	4586.6	4580.4
7.5°	4737.8	4676.0	4559.8	4485.5	4434.0	4420.9	4442.2	4489.7	4520.6	4533.0	4526.8
10°	4694.5	4617.5	4483.5	4402.4	4359.1	4352.9	4379.7	4436.1	4500.0	4524.7	4522.7
12.5°	4645.0	4557.7	4414.7	4330.2	4305.4	4317.8	4352.9	4404.4	4471.1	4510.3	4512.4
15°	4594.9	4493.8	4346.7	4272.4	4262.1	4278.6	4311.6	4350.8	4402.4	4442.2	4446.4
17.5°	4535.0	4429.2	4282.8	4205.8	4197.5	4205.8	4207.8	4228.4	4262.1	4299.3	4309.6
20°	4471.1	4363.2	4209.9	4133.6	4096.5	4063.5	4025.7	4029.8	4040.1	4077.9	4086.1
22.5°	4425.1	4317.8	4154.2	4048.3	3949.3	3849.7	3775.4	3765.1	3769.2	3800.2	3810.5
25°	4429.2	4315.7	4139.8	3957.6	3740.4	3580.9	3481.2	3464.7	3462.6	3485.3	3500.4
27.5°	4510.3	4396.2	4193.4	3864.1	3512.8	3276.3	3171.2	3158.8	3142.3	3148.5	3165.0
30°	4690.4	4584.5	4324.0	3769.2	3266.0	2978.7	2868.7	2856.3	2833.6	2823.3	2835.7
32.5°	4983.9	4897.3	4514.4	3677.8	3019.9	2723.6	2612.3	2585.5	2571.0	2558.7	2569.0
35°	5472.7	5435.6	4768.8	3578.8	2802.7	2527.0	2426.0	2384.7	2364.1	2386.8	2403.3
37.5°	6238.5	6259.1	5102.2	3423.5	2635.0	2397.1	2311.9	2264.4	2233.5	2252.1	2270.6
40°	7323.3	7337.7	5470.6	3204.2	2489.9	2320.1	2229.4	2186.1	2142.1	2109.1	2107.0
42.5°	8747.0	8600.6	5832.9	2966.3	2322.2	2272.7	2171.6	2117.3	2051.3	1959.9	1941.3
45°	10436.0	9921.1	6107.9	2692.7	2133.8	2214.9	2107.0	2032.8	1929.0	1830.0	1819.7
47.5°	12382.2	11338.6	6242.6	2409.5	1957.8	2129.7	2028.6	1910.4	1779.8	1730.3	1724.1
50°	14758.0	13021.5	6306.6	2133.8	1805.2	2018.3	1914.5	1775.7	1666.4	1656.0	1649.9
52.5°	17463.7	15046.0	6327.9	1908.3	1678.7	1873.3	1821.7	1687.0	1599.7	1608.6	1608.6
55°	20295.3	17136.5	6046.0	1744.7	1562.6	1724.1	1759.2	1651.9	1579.1	1612.7	1625.1
57.5°	22894.5	18989.2	5159.9	1618.9	1453.2	1610.7	1736.5	1684.9	1635.4	1769.5	1777.7
60°	24890.1	20083.6	3853.8	1504.8	1372.1	1570.8	1797.0	1811.4	1823.8	2144.1	2188.1
62.5°	25308.1	19719.9	2649.4	1416.1	1335.0	1604.5	1906.3	1908.3	1893.9	2117.3	2144.1
65°	23389.5	17415.6	1926.9	1365.9	1304.1	1664.3	1999.8	1955.8	1860.9	2030.7	1980.5
67.5°	18574.6	13121.2	1604.5	1328.8	1258.7	1660.2	2098.8	1999.8	1842.3	1989.5	1908.3
70°	12057.0	7933.7	1428.5	1297.9	1204.4	1581.1	2156.5	1995.6	1788.0	1850.6	1755.0
72.5°	5882.4	3547.9	1310.3	1252.5	1148.7	1471.8	2154.4	1957.8	1732.3	1728.2	1676.7
75°	2301.5	1625.1	1202.3	1183.8	1053.8	1347.4	2096.7	1904.2	1666.4	1599.7	1581.1
77.5°	1347.4	1159.0	1066.2	1082.7	939.7	1223.0	2012.1	1811.4	1574.9	1496.6	1475.9
80°	981.0	867.5	908.8	935.6	802.9	1099.2	1898.0	1697.3	1473.9	1513.1	1484.2
82.5°	629.0	558.9	736.9	763.7	668.9	972.7	1773.6	1577.0	1330.9	1208.5	1179.6
85°	321.0	354.0	548.6	581.6	515.6	798.8	1623.0	1418.2	1169.3	1005.7	1022.2
87.5°	180.1	242.0	349.9	391.2	364.3	614.6	1316.4	1169.3	954.2	776.1	683.3
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)