

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: P299203

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299203  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)  
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-T3-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37231.4 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - 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

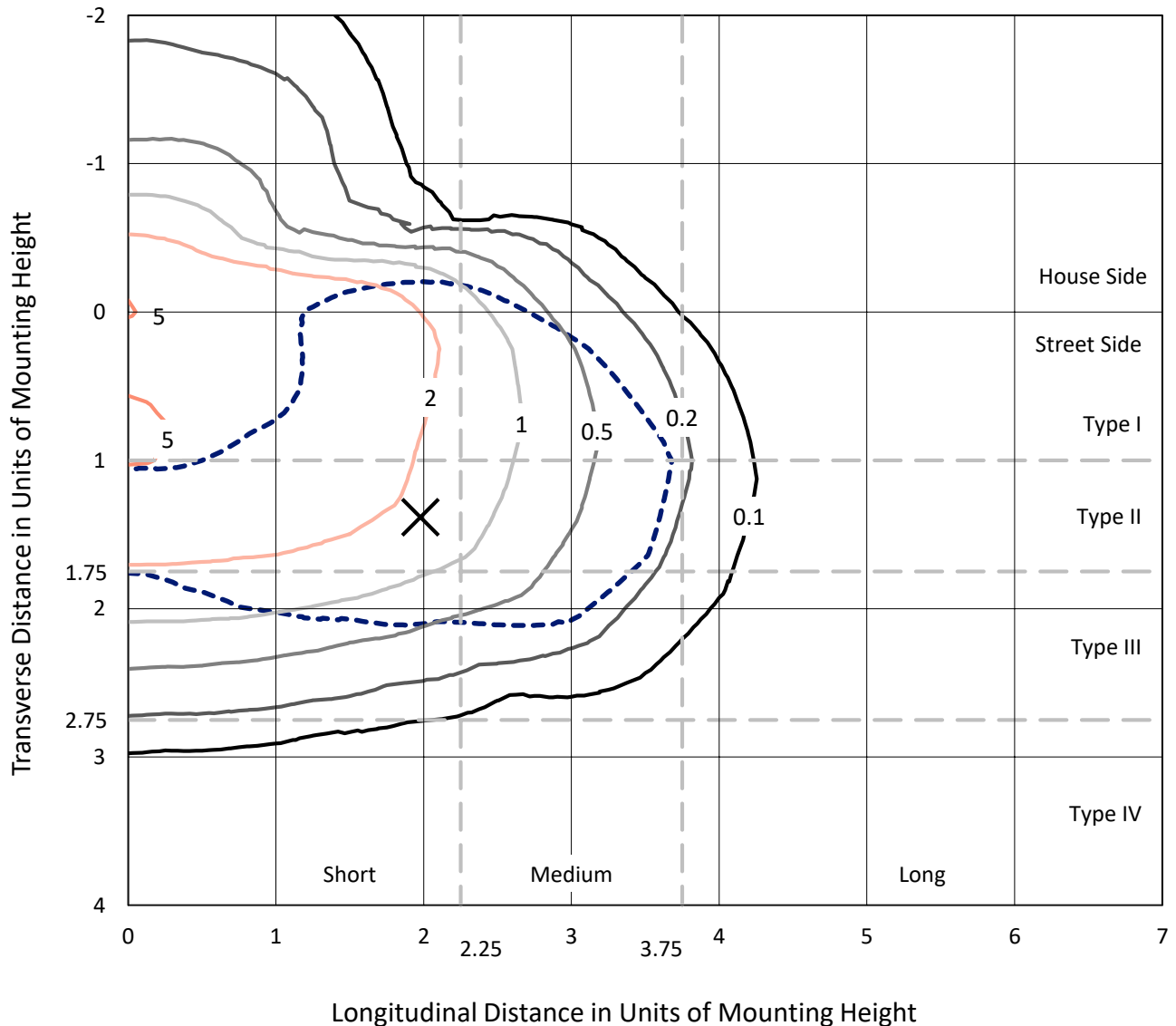


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### Iso-Footcandle Lines of Horizontal Illumination

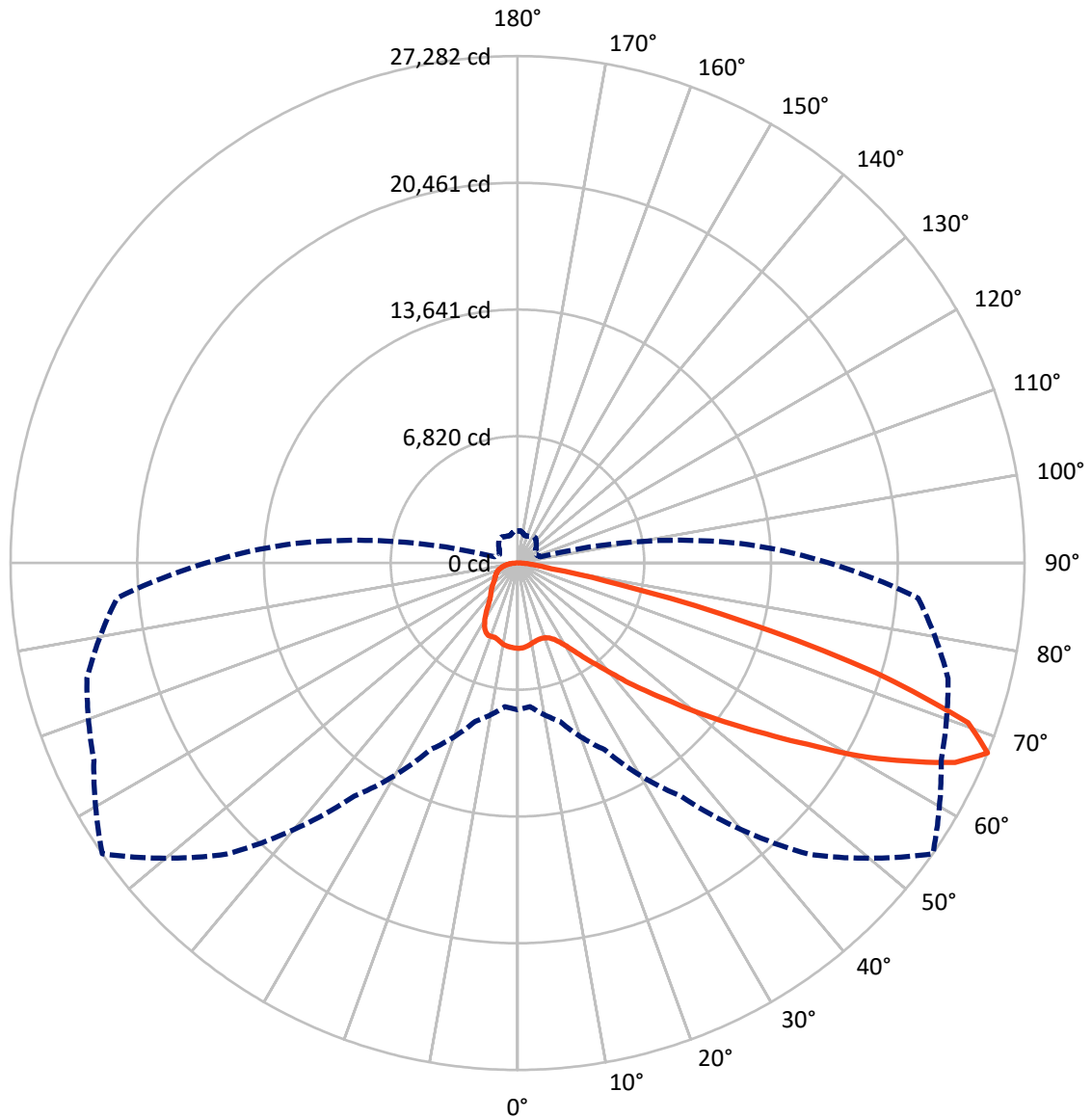
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.3 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8042.8	0.0	8042.8
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	29188.7	0.0	29188.7
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	37231.4	0.0	37231.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	428.5	1.2
10°-20°	1213.6	3.3
20°-30°	2033.0	5.5
30°-40°	3343.1	9.0
40°-50°	5627.5	15.1
50°-60°	8857.3	23.8
60°-70°	10570.3	28.4
70°-80°	4539.1	12.2
80°-90°	618.9	1.7
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°	37231.4	100.0
0°-180°	37231.4	100.0



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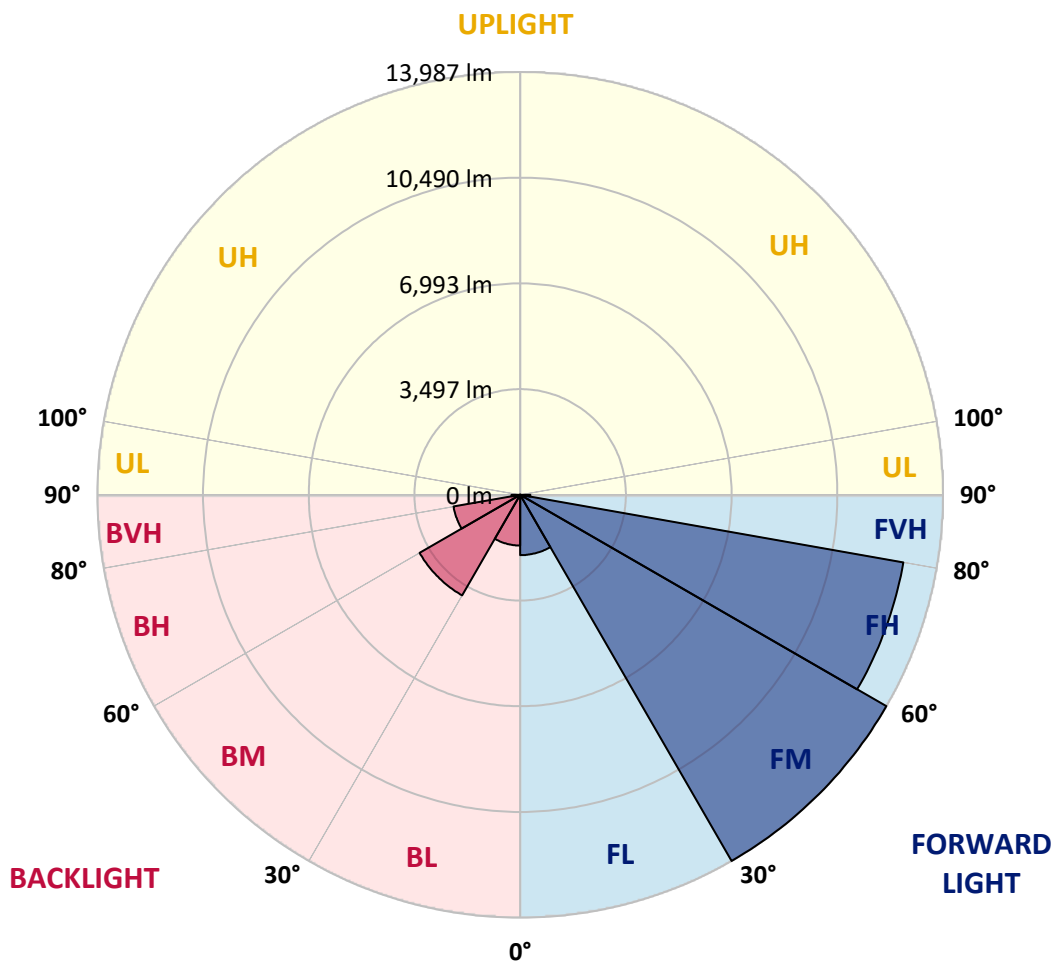
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1995.7	5.4			
FM (30°-60°)	13986.9	37.6			
FH (60°-80°)	12871.1	34.6			G5
FVH (80°-90°)	335.0	0.9			G3/500
BL (0°-30°)	1679.5	4.5	B3/2500		
BM (30°-60°)	3841.2	10.3	B3/5000		
BH (60°-80°)	2238.3	6.0	B3/2500		G3/2500
BVH (80°-90°)	283.9	0.8			G3/500
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°	85°	90°
0°	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0
2.5°	4551.5	4553.3	4556.9	4571.3	4583.8	4580.3	4582.1	4574.9	4573.1	4562.3	4573.1
5°	4493.9	4499.3	4501.1	4524.5	4538.9	4542.5	4537.1	4528.1	4517.3	4506.5	4511.9
7.5°	4362.7	4377.0	4378.8	4411.2	4434.6	4465.2	4467.0	4468.8	4463.4	4456.2	4467.0
10°	4279.9	4283.5	4281.7	4305.1	4323.1	4357.3	4377.0	4411.2	4425.6	4429.2	4436.4
12.5°	4274.5	4270.9	4265.6	4265.6	4260.2	4274.5	4310.5	4359.1	4393.2	4404.0	4413.0
15°	4332.1	4330.3	4312.3	4285.3	4251.2	4240.4	4270.9	4324.9	4369.9	4393.2	4402.2
17.5°	4461.6	4450.8	4422.0	4360.9	4287.1	4258.4	4262.0	4306.9	4359.1	4389.6	4398.6
20°	4698.9	4698.9	4637.8	4522.7	4391.4	4323.1	4290.7	4317.7	4368.1	4409.4	4422.0
22.5°	5109.0	5112.5	5010.0	4821.2	4600.0	4454.4	4373.4	4368.1	4427.4	4474.2	4488.5
25°	5689.8	5675.4	5531.6	5261.8	4925.5	4684.6	4544.3	4511.9	4562.3	4614.4	4632.4
27.5°	6366.0	6313.8	6143.0	5817.5	5382.3	5029.8	4814.0	4761.9	4810.4	4869.8	4887.8
30°	7034.9	6981.0	6777.8	6421.7	5938.0	5492.0	5182.7	5098.2	5166.5	5251.0	5261.8
32.5°	7703.9	7703.9	7477.3	7061.9	6535.0	6044.1	5673.6	5572.9	5686.2	5788.7	5812.1
35°	8504.1	8507.7	8288.3	7788.4	7221.9	6702.2	6294.0	6220.3	6391.1	6463.1	6518.8
37.5°	9487.8	9507.6	9225.2	8621.0	8000.6	7453.9	6968.4	6867.7	7038.5	7234.5	7414.4
40°	10550.6	10575.8	10264.7	9520.2	8899.8	8327.9	7802.8	7621.2	7905.3	8279.3	8511.3
42.5°	11564.8	11694.3	11394.0	10627.9	9960.7	9369.1	8836.8	8572.5	8928.5	9493.2	9694.6
45°	13030.4	13123.9	12600.6	11906.5	11278.9	10617.1	9912.2	9633.5	10131.6	10843.7	10885.1
47.5°	14006.9	13936.8	13670.6	13239.0	12841.6	12223.0	11162.0	10856.3	11518.1	12356.1	12124.1
50°	14526.6	14548.2	14512.2	14537.4	14551.8	14163.4	12694.2	12275.2	13064.6	14077.0	13542.9
52.5°	15012.2	14868.3	14987.0	15576.8	16288.9	16145.1	14361.2	13924.2	14722.6	15986.8	15042.7
55°	15001.4	14782.0	15168.6	16209.8	17754.6	17920.0	16233.2	15729.7	16476.0	18035.1	16632.4
57.5°	14470.9	14481.7	15076.9	16440.0	18776.0	19588.8	18405.5	17650.2	18335.4	20110.3	18083.6
60°	13740.8	13839.7	14697.5	16402.2	19594.2	20957.3	21070.6	19720.1	20157.1	21996.7	19284.9
62.5°	12562.9	12667.2	13850.5	16010.2	19470.1	22275.5	23480.3	22068.7	22061.5	23140.4	19637.4
65°	10705.2	10674.7	11917.3	14544.6	18428.9	23250.1	25873.8	24098.9	23496.5	23158.4	18928.8
67.5°	7894.5	7757.8	8824.2	11077.5	15317.9	22158.6	27281.9	25156.3	23985.6	21635.3	16763.7
70°	4096.5	3959.8	4823.0	6468.5	10074.0	17294.2	25722.8	24609.6	22904.9	18135.8	13132.9
72.5°	1751.5	1728.2	2078.8	2837.7	4873.4	9975.1	20169.7	21300.8	19653.5	13512.4	9029.2
75°	1177.9	1170.7	1302.0	1546.5	2192.1	4048.0	12622.2	15120.1	14379.2	8378.2	5078.4
77.5°	924.3	915.3	992.7	1111.3	1420.7	1596.9	5601.7	8117.5	7513.3	3646.9	2222.7
80°	722.9	715.7	764.3	829.0	1021.4	1007.0	1843.3	3229.7	2499.6	1397.3	1080.8
82.5°	570.1	570.1	609.6	611.4	724.7	686.9	962.1	1422.5	1248.0	814.6	661.8
85°	521.5	521.5	562.9	456.8	473.0	433.4	597.0	843.4	791.2	334.5	287.7
87.5°	262.6	255.4	473.0	404.6	257.2	230.2	291.3	408.2	438.8	185.2	143.9
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0	4591.0
2.5°	4569.5	4567.7	4571.3	4573.1	4587.4	4607.2	4616.2	4628.8	4636.0	4632.4
5°	4515.5	4519.1	4533.5	4544.3	4569.5	4601.8	4619.8	4634.2	4646.8	4641.4
7.5°	4470.6	4479.5	4501.1	4510.1	4524.5	4533.5	4531.7	4537.1	4547.9	4535.3
10°	4445.4	4456.2	4472.4	4459.8	4425.6	4377.0	4332.1	4308.7	4315.9	4306.9
12.5°	4420.2	4434.6	4422.0	4362.7	4267.4	4204.4	4170.2	4173.8	4190.0	4193.6
15°	4405.8	4411.2	4357.3	4245.8	4148.7	4139.7	4157.7	4154.1	4155.9	4155.9
17.5°	4405.8	4391.4	4290.7	4179.2	4137.9	4121.7	4065.9	3995.8	3965.2	3954.4
20°	4429.2	4391.4	4269.1	4195.4	4105.5	3967.0	3819.6	3690.1	3632.6	3616.4
22.5°	4499.3	4434.6	4330.3	4202.6	3947.3	3715.3	3481.5	3326.8	3222.5	3204.6
25°	4641.4	4569.5	4450.8	4107.3	3695.5	3364.6	3098.5	2925.8	2821.5	2807.1
27.5°	4889.6	4842.8	4515.5	3896.9	3361.0	3006.7	2760.4	2627.3	2550.0	2544.6
30°	5263.6	5240.2	4483.1	3585.8	2949.2	2659.7	2541.0	2463.7	2406.1	2404.3
32.5°	5860.6	5671.8	4377.0	3206.4	2573.4	2413.3	2364.8	2318.0	2273.0	2273.0
35°	6628.5	6020.7	4175.6	2799.9	2345.0	2276.6	2215.5	2141.8	2082.4	2078.8
37.5°	7531.3	6236.5	3814.2	2472.7	2237.1	2184.9	2095.0	1985.3	1881.0	1863.0
40°	8443.0	6301.2	3305.3	2271.2	2168.7	2093.2	1983.5	1854.0	1753.3	1747.9
42.5°	9279.2	6177.1	2765.8	2132.8	2100.4	1999.7	1884.6	1769.5	1690.4	1688.6
45°	9980.5	5855.2	2312.6	2001.5	2028.5	1915.2	1812.7	1719.2	1658.0	1645.4
47.5°	10640.5	5400.3	1994.3	1863.0	1956.5	1868.4	1782.1	1694.0	1634.6	1625.7
50°	11406.6	4909.3	1771.3	1728.2	1893.6	1852.2	1807.3	1715.6	1616.7	1605.9
52.5°	12334.5	4484.9	1596.9	1609.5	1845.0	1873.8	1872.0	1776.7	1604.1	1589.7
55°	13370.3	4013.8	1465.6	1512.4	1825.3	1913.4	1888.2	1834.3	1614.9	1593.3
57.5°	14389.9	3463.5	1373.9	1438.6	1796.5	1909.8	1810.9	1733.6	1640.0	1609.5
60°	15154.2	2724.4	1303.8	1373.9	1733.6	1850.4	1726.4	1623.9	1634.6	1611.3
62.5°	15204.6	2105.8	1219.2	1318.1	1638.2	1791.1	1670.6	1575.3	1658.0	1636.4
65°	14310.8	1591.5	1138.3	1251.6	1535.7	1753.3	1616.7	1548.3	1706.6	1683.2
67.5°	12048.6	1280.4	1070.0	1183.3	1433.2	1674.2	1568.1	1523.2	1749.7	1708.4
70°	8698.3	1091.6	1003.4	1100.6	1341.5	1584.3	1525.0	1478.2	1632.9	1568.1
72.5°	5355.3	945.9	927.9	990.9	1271.4	1490.8	1460.2	1393.7	1471.0	1418.9
75°	2674.1	820.0	843.4	883.0	1172.5	1384.7	1352.3	1285.8	1296.6	1285.8
77.5°	1280.4	701.3	744.5	775.1	1044.8	1264.2	1230.0	1161.7	1149.1	1150.9
80°	811.0	586.2	627.6	649.2	933.3	1123.9	1089.8	1021.4	1165.3	1080.8
82.5°	507.1	476.5	487.3	526.9	812.8	978.3	933.3	872.2	1050.2	830.8
85°	280.5	332.7	347.1	381.2	625.8	818.2	773.3	695.9	624.0	613.2
87.5°	167.2	197.8	203.2	228.4	420.8	591.6	523.3	496.3	411.8	410.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)