

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: P299131

Luminaire Tested: **GLNA-AF-07-LED-E1-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299131  
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-07-LED-E1-T3-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

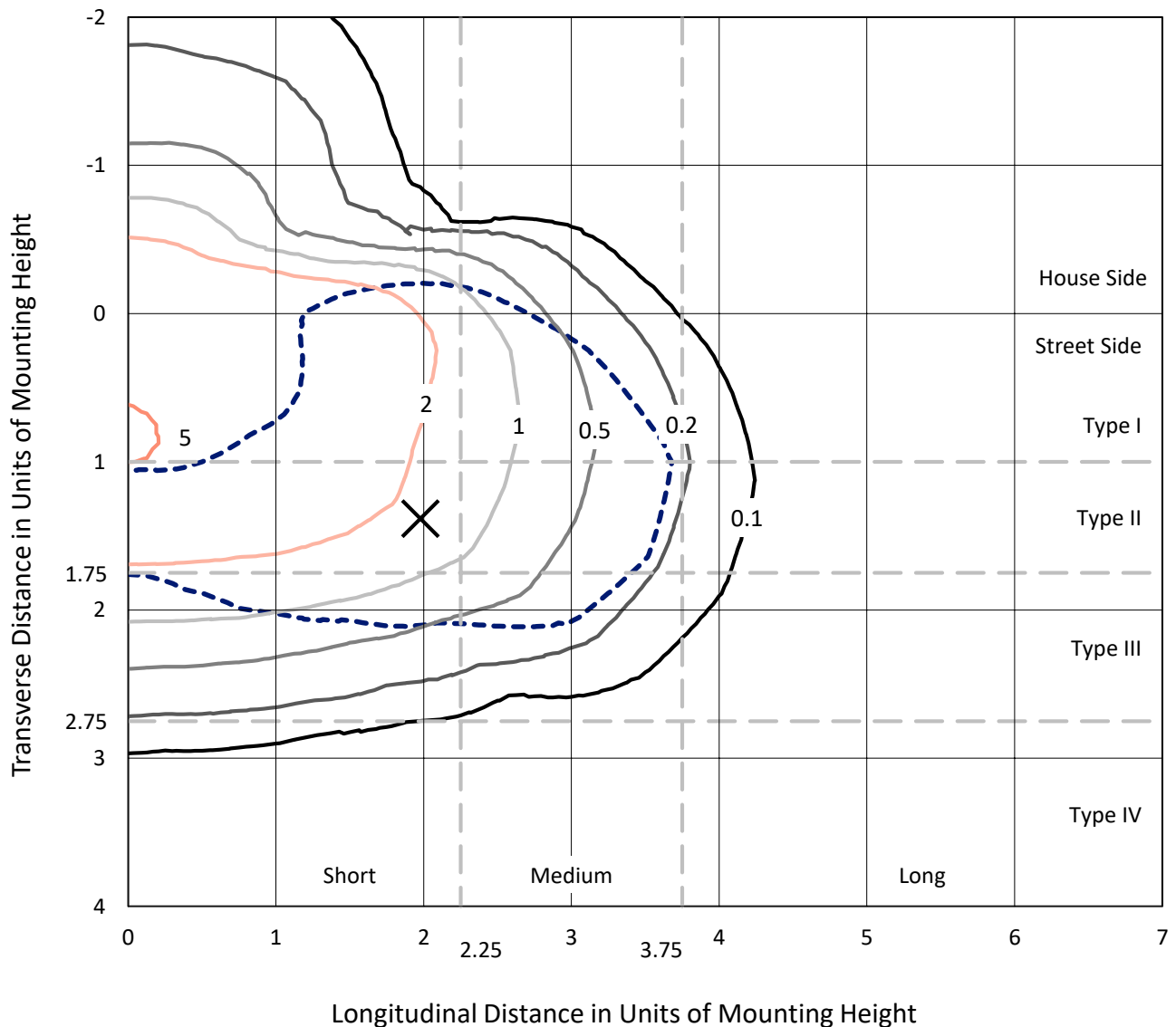
Lumens per Lamp: N/A  
Luminaire Lumens: 36462.5 lumens  
Efficiency: N/A  
Efficacy: 93.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 391  
Input Voltage (V): NR  
Input Current (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

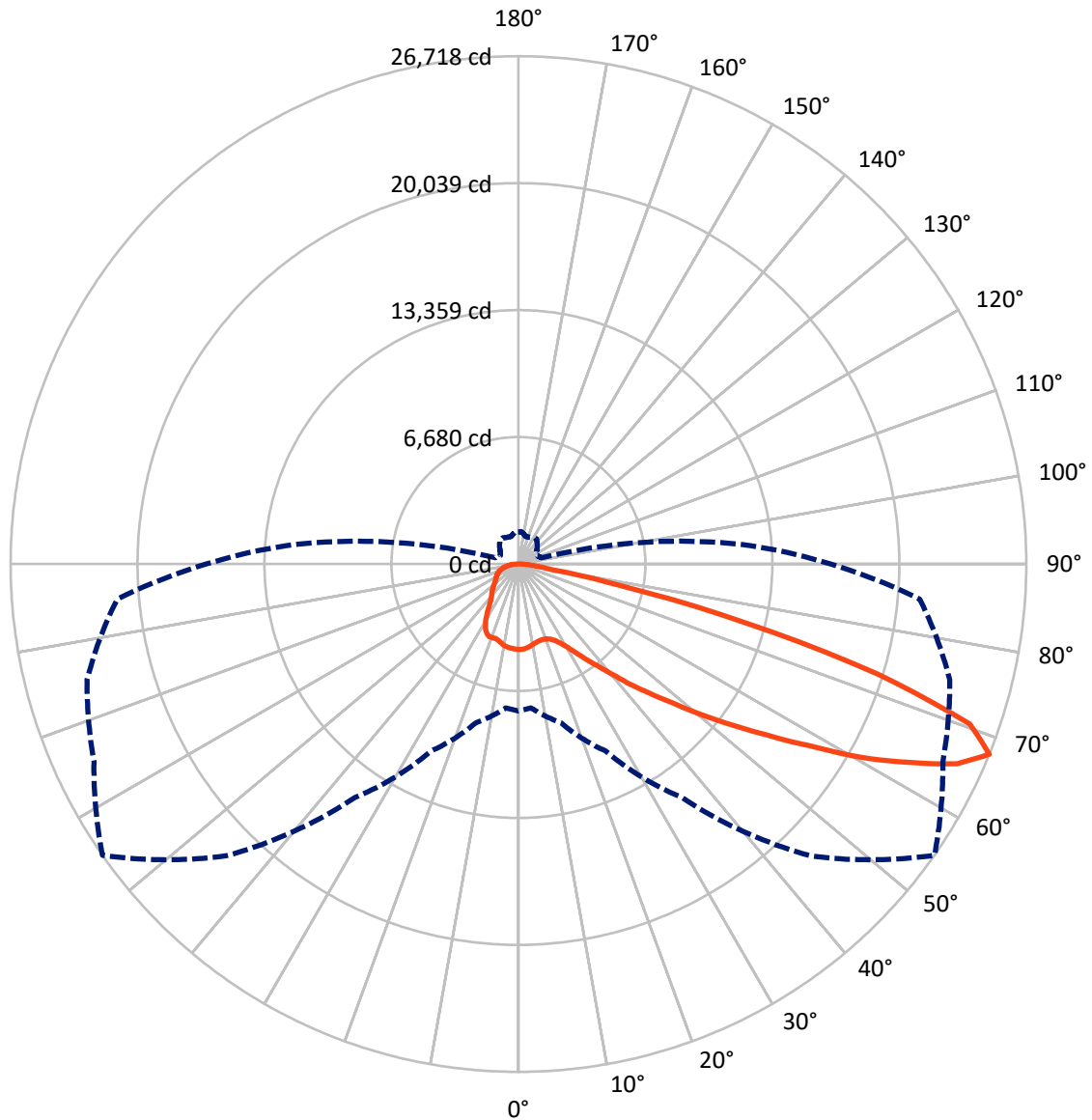
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.1 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	7876.7	0.0	7876.7
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	28585.8	0.0	28585.8
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	36462.5	0.0	36462.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.7	1.2
10°-20°	1188.6	3.3
20°-30°	1991.0	5.5
30°-40°	3274.1	9.0
40°-50°	5511.3	15.1
50°-60°	8674.4	23.8
60°-70°	10352.0	28.4
70°-80°	4445.3	12.2
80°-90°	606.1	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°	36462.5	100.0
0°-180°	36462.5	100.0



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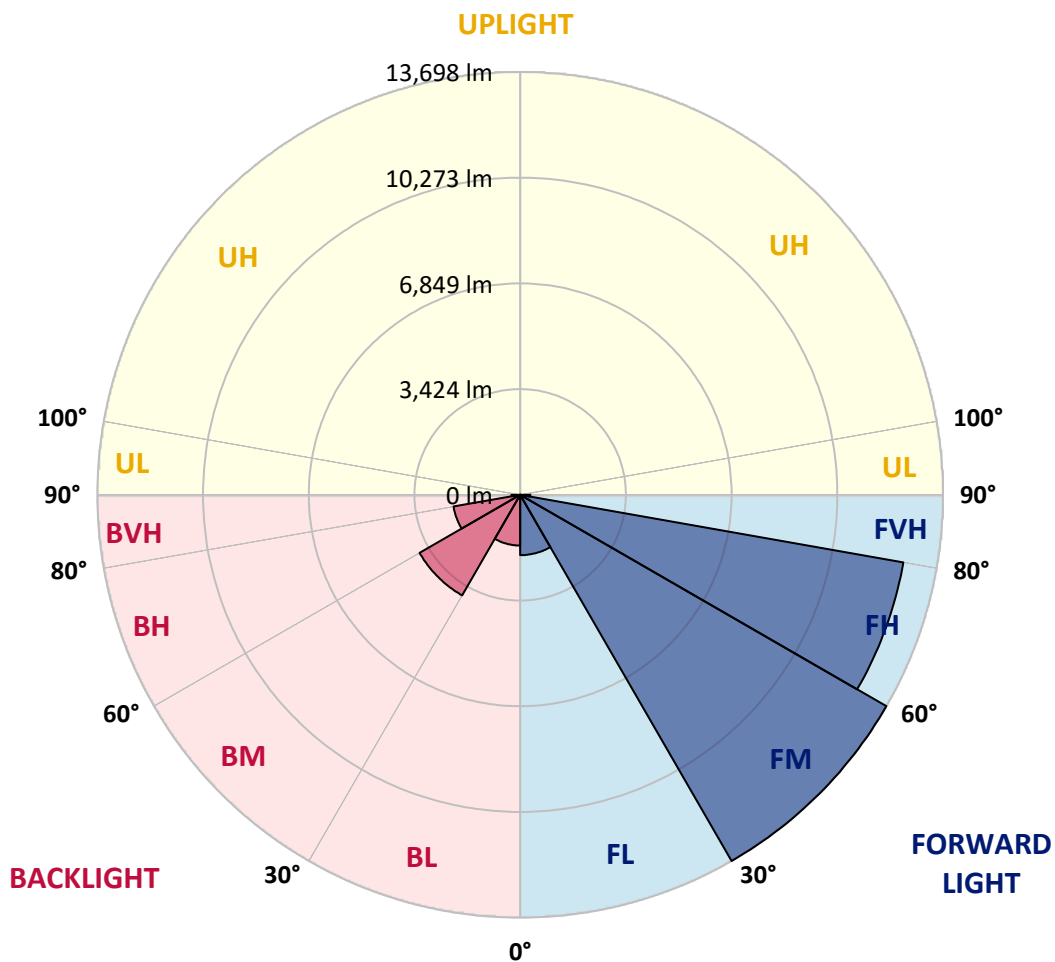
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1954.5	5.4			
FM	(30°-60°)	13698.0	37.6			
FH	(60°-80°)	12605.3	34.6			G5
FVH	(80°-90°)	328.1	0.9			G3/500
BL	(0°-30°)	1644.8	4.5	B3/2500		
BM	(30°-60°)	3761.8	10.3	B3/5000		
BH	(60°-80°)	2192.0	6.0	B3/2500		G3/2500
BVH	(80°-90°)	278.0	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°	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2
2.5°	4457.5	4459.2	4462.8	4476.8	4489.2	4485.7	4487.4	4480.4	4478.6	4468.0	4478.6
5°	4401.1	4406.4	4408.2	4431.1	4445.1	4448.7	4443.4	4434.6	4424.0	4413.4	4418.7
7.5°	4272.6	4286.6	4288.4	4320.1	4343.0	4372.9	4374.7	4376.5	4371.2	4364.1	4374.7
10°	4191.5	4195.1	4193.3	4216.2	4233.8	4267.3	4286.6	4320.1	4334.2	4337.7	4344.8
12.5°	4186.3	4182.7	4177.5	4177.5	4172.2	4186.3	4221.5	4269.0	4302.5	4313.1	4321.9
15°	4242.6	4240.9	4223.2	4196.8	4163.4	4152.8	4182.7	4235.6	4279.6	4302.5	4311.3
17.5°	4369.4	4358.9	4330.7	4270.8	4198.6	4170.4	4173.9	4218.0	4269.0	4299.0	4307.8
20°	4601.9	4601.9	4542.0	4429.3	4300.7	4233.8	4202.1	4228.5	4277.8	4318.3	4330.7
22.5°	5003.4	5007.0	4906.6	4721.6	4505.0	4362.4	4283.1	4277.8	4336.0	4381.7	4395.8
25°	5572.3	5558.2	5417.3	5153.1	4823.8	4587.8	4450.4	4418.7	4468.0	4519.1	4536.7
27.5°	6234.5	6183.4	6016.1	5697.3	5271.1	4925.9	4714.6	4663.5	4711.1	4769.2	4786.8
30°	6889.6	6836.8	6637.8	6289.1	5815.3	5378.6	5075.6	4992.9	5059.8	5142.6	5153.1
32.5°	7544.8	7544.8	7322.9	6916.0	6400.0	5919.2	5556.4	5457.8	5568.8	5669.1	5692.0
35°	8328.5	8332.0	8117.1	7627.5	7072.8	6563.8	6164.0	6091.8	6259.1	6329.6	6384.2
37.5°	9291.8	9311.2	9034.7	8443.0	7835.4	7300.0	6824.5	6725.8	6893.1	7085.1	7261.2
40°	10332.7	10357.3	10052.7	9323.5	8715.9	8155.9	7641.6	7463.8	7742.0	8108.3	8335.5
42.5°	11326.0	11452.8	11158.7	10408.4	9755.0	9175.6	8654.3	8395.4	8744.1	9297.1	9494.4
45°	12761.3	12852.9	12340.4	11660.6	11045.9	10397.8	9707.5	9434.5	9922.3	10619.7	10660.3
47.5°	13717.6	13648.9	13388.3	12965.6	12576.4	11970.5	10931.5	10632.1	11280.2	12100.9	11873.7
50°	14226.6	14247.7	14212.5	14237.1	14251.2	13870.8	12432.0	12021.6	12794.8	13786.3	13263.2
52.5°	14702.1	14561.2	14677.4	15255.1	15952.5	15811.6	14064.6	13636.6	14418.5	15656.6	14732.0
55°	14691.5	14476.7	14855.3	15875.0	17387.9	17549.9	15897.9	15404.8	16135.7	17662.6	16288.9
57.5°	14172.0	14182.6	14765.5	16100.4	18388.2	19184.2	18025.4	17285.7	17956.7	19695.0	17710.1
60°	13457.0	13553.8	14393.9	16063.5	19189.5	20524.5	20635.4	19312.8	19740.7	21542.4	18886.6
62.5°	12303.4	12405.6	13564.4	15679.5	19068.0	21815.4	22995.4	21612.9	21605.8	22662.5	19231.8
65°	10484.1	10454.2	11671.2	14244.2	18048.3	22769.9	25339.4	23601.2	23011.2	22680.1	18537.9
67.5°	7731.5	7597.6	8642.0	10848.7	15001.5	21700.9	26718.4	24636.8	23490.2	21188.4	16417.5
70°	4011.9	3878.1	4723.4	6334.9	9866.0	16937.0	25191.5	24101.4	22431.8	17761.2	12861.7
72.5°	1715.4	1692.5	2035.9	2779.1	4772.7	9769.1	19753.1	20860.8	19247.6	13233.3	8842.7
75°	1153.6	1146.5	1275.1	1514.6	2146.8	3964.4	12361.5	14807.8	14082.2	8205.2	4973.5
77.5°	905.2	896.4	972.2	1088.4	1391.3	1563.9	5486.0	7949.8	7358.1	3571.6	2176.8
80°	708.0	700.9	748.5	811.9	1000.3	986.2	1805.2	3163.0	2448.0	1368.4	1058.5
82.5°	558.3	558.3	597.0	598.8	709.7	672.8	942.2	1393.1	1222.2	797.8	648.1
85°	510.7	510.7	551.2	447.3	463.2	424.4	584.7	826.0	774.9	327.6	281.8
87.5°	257.1	250.1	463.2	396.3	251.8	225.4	285.3	399.8	429.7	181.4	140.9
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°	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2	4496.2
2.5°	4475.1	4473.3	4476.8	4478.6	4492.7	4512.1	4520.9	4533.2	4540.2	4536.7
5°	4422.3	4425.8	4439.9	4450.4	4475.1	4506.8	4524.4	4538.5	4550.8	4545.5
7.5°	4378.2	4387.0	4408.2	4417.0	4431.1	4439.9	4438.1	4443.4	4454.0	4441.6
10°	4353.6	4364.1	4380.0	4367.7	4334.2	4286.6	4242.6	4219.7	4226.8	4218.0
12.5°	4328.9	4343.0	4330.7	4272.6	4179.2	4117.6	4084.1	4087.6	4103.5	4107.0
15°	4314.8	4320.1	4267.3	4158.1	4063.0	4054.2	4071.8	4068.3	4070.0	4070.0
17.5°	4314.8	4300.7	4202.1	4092.9	4052.4	4036.6	3982.0	3913.3	3883.3	3872.8
20°	4337.7	4300.7	4181.0	4108.8	4020.7	3885.1	3740.7	3613.9	3557.5	3541.7
22.5°	4406.4	4343.0	4240.9	4115.8	3865.7	3638.5	3409.6	3258.1	3156.0	3138.4
25°	4545.5	4475.1	4358.9	4022.5	3619.2	3295.1	3034.5	2865.4	2763.2	2749.2
27.5°	4788.6	4742.8	4422.3	3816.4	3291.6	2944.6	2703.4	2573.0	2497.3	2492.0
30°	5154.9	5132.0	4390.6	3511.7	2888.3	2604.7	2488.5	2412.8	2356.4	2354.7
32.5°	5739.6	5554.7	4286.6	3140.1	2520.2	2363.5	2315.9	2270.1	2226.1	2226.1
35°	6491.6	5896.3	4089.4	2742.1	2296.5	2229.6	2169.7	2097.5	2039.4	2035.9
37.5°	7375.7	6107.7	3735.4	2421.6	2190.9	2139.8	2051.7	1944.3	1842.2	1824.6
40°	8268.6	6171.1	3237.0	2224.3	2123.9	2050.0	1942.6	1815.7	1717.1	1711.8
42.5°	9087.5	6049.6	2708.7	2088.7	2057.0	1958.4	1845.7	1733.0	1655.5	1653.7
45°	9774.4	5734.3	2264.8	1960.2	1986.6	1875.6	1775.2	1683.7	1623.8	1611.5
47.5°	10420.7	5288.7	1953.1	1824.6	1916.1	1829.8	1745.3	1659.0	1600.9	1592.1
50°	11171.0	4807.9	1734.7	1692.5	1854.5	1814.0	1770.0	1680.1	1583.3	1572.7
52.5°	12079.7	4392.3	1563.9	1576.2	1806.9	1835.1	1833.4	1740.0	1570.9	1556.9
55°	13094.2	3930.9	1435.3	1481.1	1787.6	1873.9	1849.2	1796.4	1581.5	1560.4
57.5°	14092.7	3392.0	1345.5	1408.9	1759.4	1870.3	1773.5	1697.8	1606.2	1576.2
60°	14841.2	2668.1	1276.8	1345.5	1697.8	1812.2	1690.7	1590.3	1600.9	1578.0
62.5°	14890.5	2062.3	1194.1	1290.9	1604.4	1754.1	1636.1	1542.8	1623.8	1602.6
65°	14015.2	1558.6	1114.8	1225.8	1504.0	1717.1	1583.3	1516.4	1671.3	1648.4
67.5°	11799.7	1253.9	1047.9	1158.8	1403.6	1639.6	1535.7	1491.7	1713.6	1673.1
70°	8518.7	1069.0	982.7	1077.8	1313.8	1551.6	1493.5	1447.7	1599.1	1535.7
72.5°	5244.7	926.4	908.8	970.4	1245.1	1460.0	1430.1	1364.9	1440.6	1389.5
75°	2618.8	803.1	826.0	864.7	1148.3	1356.1	1324.4	1259.2	1269.8	1259.2
77.5°	1253.9	686.8	729.1	759.1	1023.2	1238.1	1204.6	1137.7	1125.4	1127.1
80°	794.3	574.1	614.6	635.8	914.0	1100.7	1067.3	1000.3	1141.2	1058.5
82.5°	496.6	466.7	477.3	516.0	796.0	958.1	914.0	854.2	1028.5	813.7
85°	274.7	325.8	339.9	373.4	612.9	801.3	757.3	681.6	611.1	600.6
87.5°	163.8	193.7	199.0	223.7	412.1	579.4	512.5	486.1	403.3	401.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)