

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: P300473

Luminaire Tested: **GLNA-AF-10-LED-E1-T4FT-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-T4FT-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

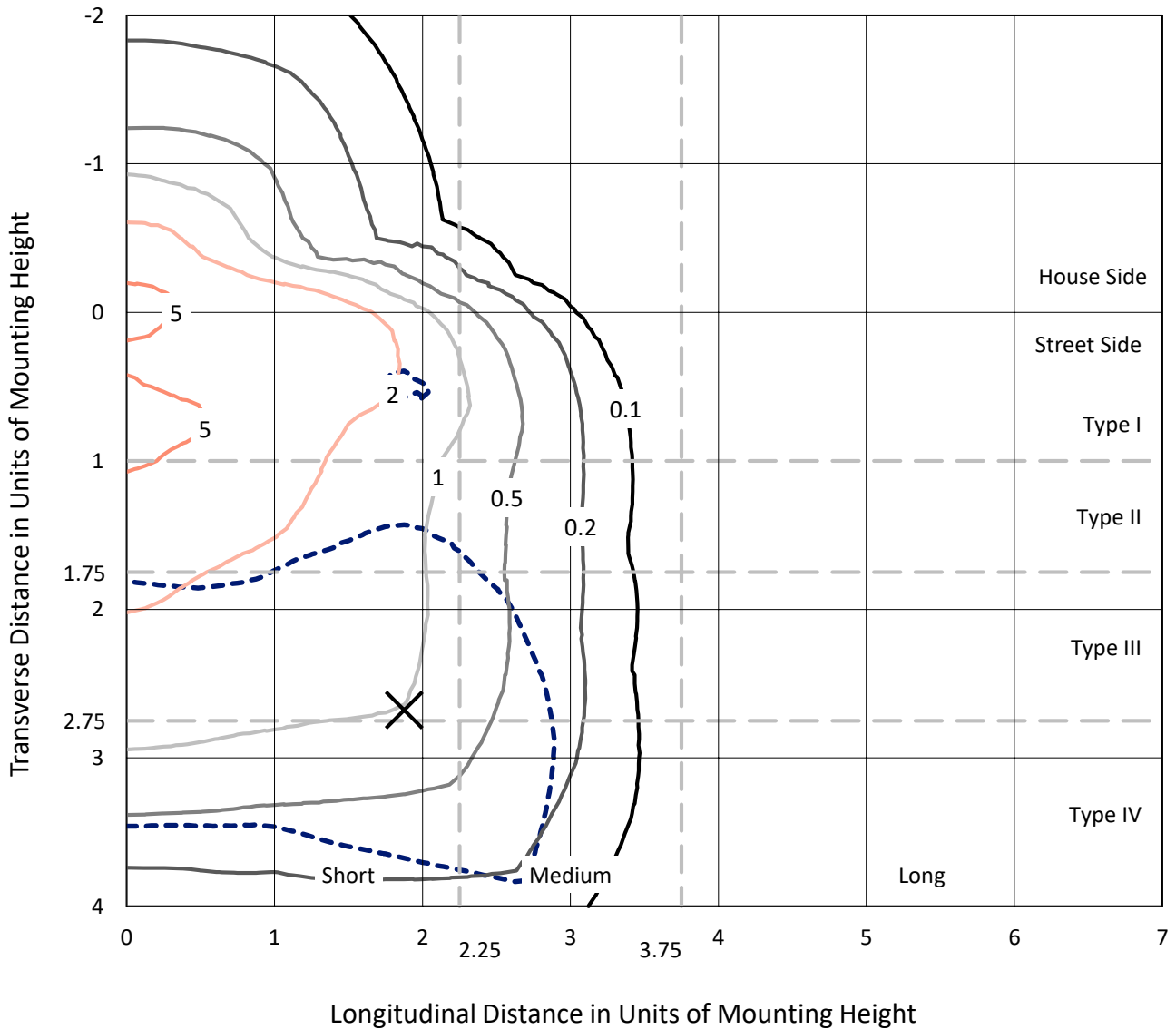
Lumens per Lamp: N/A  
Luminaire Lumens: 38913.6 lumens  
Efficiency: N/A  
Efficacy: 120.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 323  
Input Voltage (V): NR  
Input Current (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

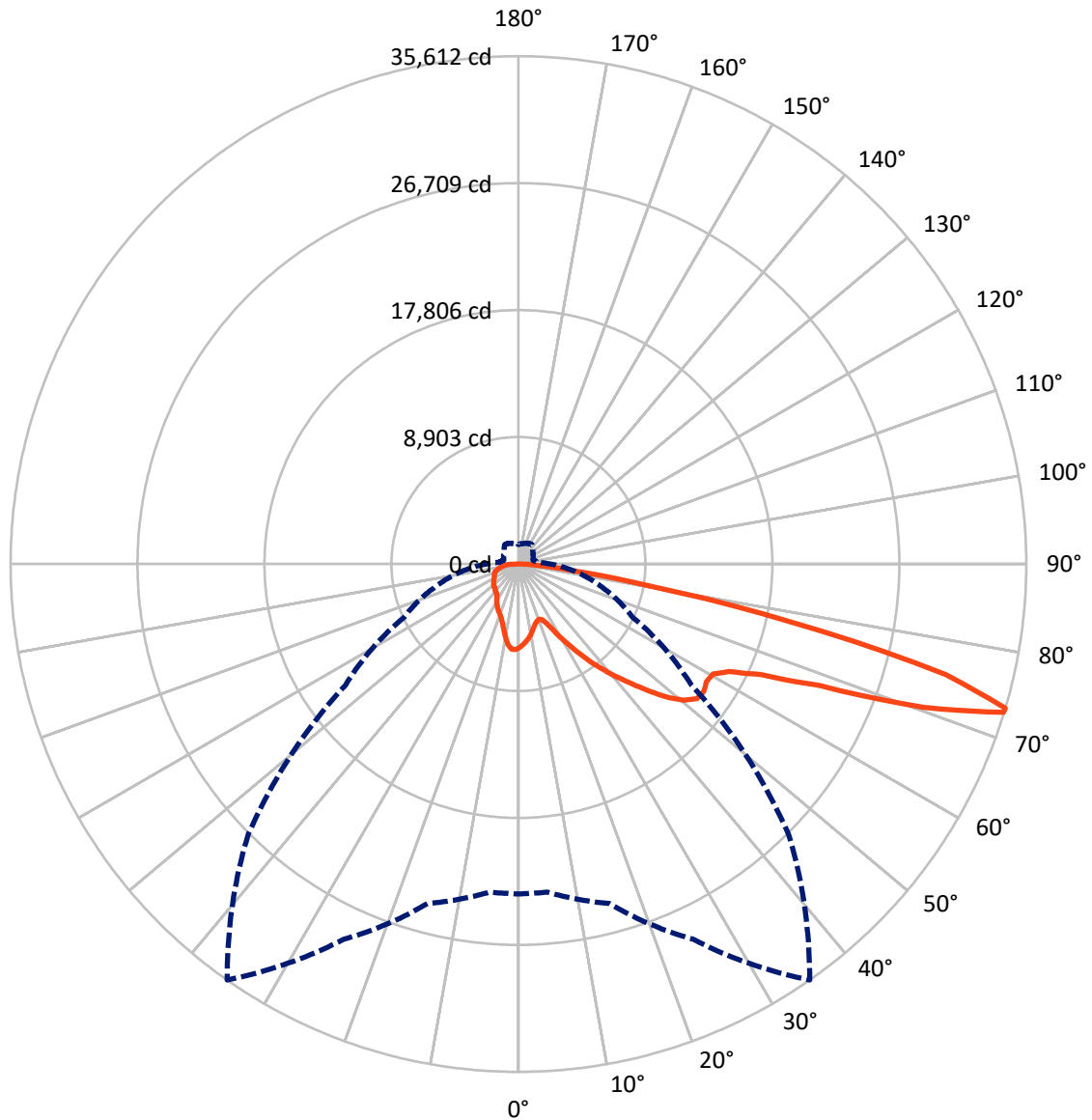
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7421.9	0.0	7421.9
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	31491.7	0.0	31491.7
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	38913.6	0.0	38913.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	531.7	1.4
10°-20°	1327.0	3.4
20°-30°	2145.4	5.5
30°-40°	3597.5	9.2
40°-50°	5545.3	14.3
50°-60°	7439.6	19.1
60°-70°	9911.1	25.5
70°-80°	7559.2	19.4
80°-90°	856.8	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°	38913.6	100.0
0°-180°	38913.6	100.0



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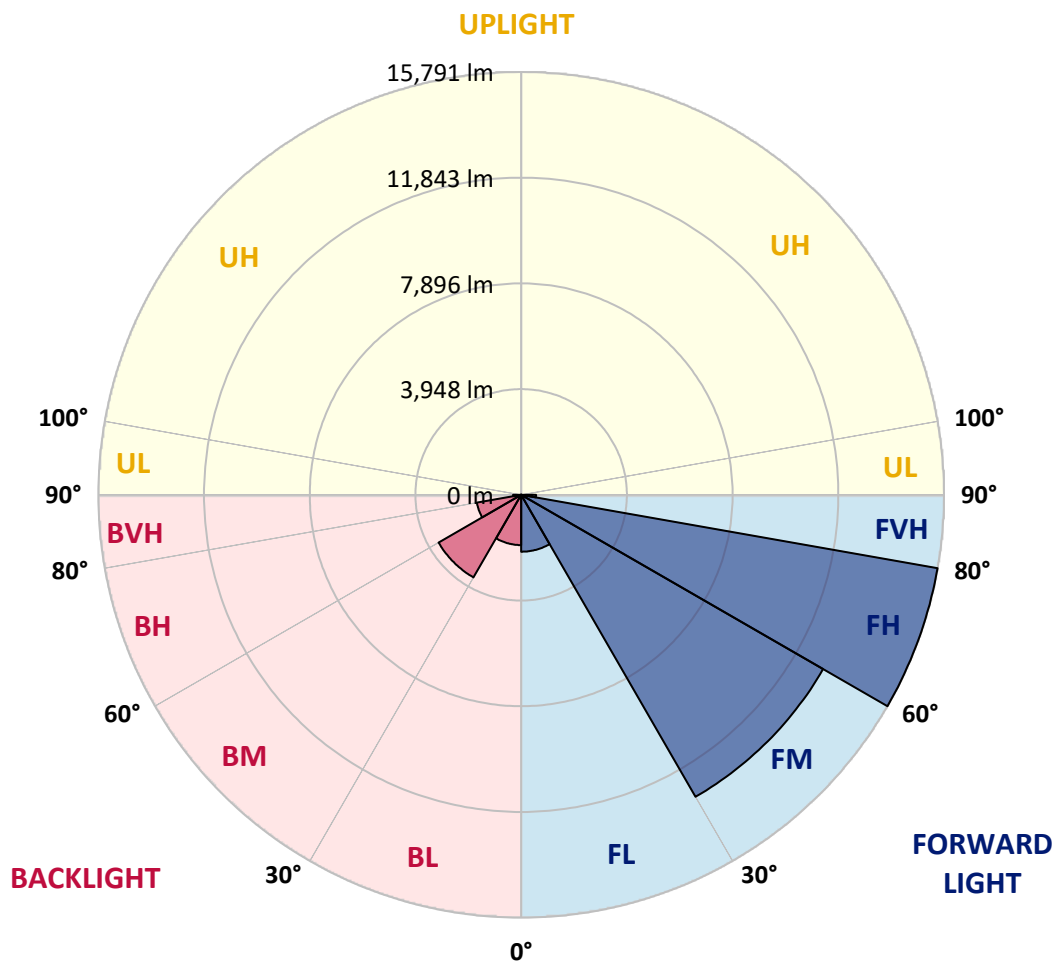
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2126.0	5.5			
FM	(30°-60°)	13020.7	33.5			
FH	(60°-80°)	15791.1	40.6			G5
FVH	(80°-90°)	553.8	1.4			G4/750
BL	(0°-30°)	1878.1	4.8	B3/2500		
BM	(30°-60°)	3561.7	9.2	B3/5000		
BH	(60°-80°)	1679.2	4.3	B3/2500		G3/2500
BVH	(80°-90°)	303.0	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3
2.5°	5641.6	5652.8	5639.7	5656.5	5684.5	5714.4	5735.0	5764.9	5798.5	5845.2	5856.5
5°	5376.2	5393.0	5393.0	5422.9	5477.1	5525.7	5570.5	5619.1	5690.1	5770.5	5802.3
7.5°	5084.7	5094.0	5110.8	5155.7	5234.2	5303.3	5366.9	5445.3	5542.5	5649.0	5705.1
10°	4733.4	4746.5	4772.6	4836.2	4942.7	5038.0	5129.5	5237.9	5361.3	5493.9	5564.9
12.5°	4484.8	4481.1	4492.3	4539.0	4632.5	4748.3	4881.0	5019.3	5170.6	5325.7	5411.7
15°	4400.7	4380.2	4337.2	4326.0	4376.5	4492.3	4645.5	4815.6	4996.9	5183.7	5290.2
17.5°	4453.1	4417.6	4299.8	4213.9	4206.4	4294.2	4456.8	4647.4	4856.7	5084.7	5217.4
20°	4782.0	4697.9	4408.2	4208.3	4139.1	4182.1	4324.1	4526.0	4772.6	5075.3	5245.4
22.5°	5568.7	5445.3	4830.5	4458.7	4225.1	4172.8	4279.3	4494.2	4782.0	5191.2	5408.0
25°	6714.2	6538.5	5555.6	5082.8	4600.7	4322.3	4346.6	4567.1	4914.6	5460.3	5721.9
27.5°	7618.6	7504.6	6503.0	5963.0	5284.6	4725.9	4565.2	4750.2	5185.6	5901.3	6168.5
30°	8156.8	8087.7	7515.8	6960.8	6157.3	5368.7	4983.8	5094.0	5609.8	6512.4	6732.9
32.5°	8780.9	8739.8	8459.5	7949.4	7099.1	6213.4	5647.2	5607.9	6177.9	7246.8	7347.7
35°	9427.5	9414.4	9250.0	8883.7	8110.1	7327.1	6527.3	6262.0	6796.4	8009.2	7945.6
37.5°	10029.2	10006.8	9911.5	9698.5	9167.8	8523.1	7424.3	6932.8	7463.5	8738.0	8455.8
40°	11137.4	10961.7	10634.7	10474.0	10236.6	9530.3	8136.2	7558.8	8154.9	9433.1	8896.8
42.5°	12488.4	12202.5	11593.3	11372.8	11339.2	10324.5	8622.1	8166.1	8852.0	10122.7	9330.3
45°	13551.7	13282.6	12757.5	12479.1	12602.4	11043.9	9109.8	8814.6	9569.5	10845.8	9777.0
47.5°	14686.0	14263.7	13568.5	13652.6	13921.7	11724.1	9606.9	9511.6	10356.2	11655.0	10332.0
50°	14727.1	14403.8	14099.2	14601.9	15020.5	12350.1	10229.2	10242.3	11318.6	12673.4	11070.1
52.5°	13873.1	13804.0	14288.0	15078.4	15682.0	12845.3	10937.4	10997.2	12550.1	13843.2	11881.1
55°	13574.1	13495.6	14054.4	14912.1	15771.7	13254.6	11705.4	11813.8	14039.4	15076.5	12671.5
57.5°	14302.9	14129.1	14166.5	14833.6	15553.1	13703.1	12542.6	12761.2	15657.7	16154.8	13179.8
60°	16339.8	15967.9	15261.5	15244.7	15670.8	14375.8	13510.6	13777.8	17339.5	16670.5	12981.7
62.5°	19197.0	18825.1	17502.1	16640.6	16577.1	15485.8	14699.1	14770.1	18311.2	15971.6	11772.7
65°	22289.7	21957.0	20478.9	19262.4	18675.6	17324.6	16080.0	15213.0	17993.6	14048.8	9657.4
67.5°	26043.8	25686.9	24416.2	23293.1	22728.8	20292.0	17049.9	14788.8	15977.2	10883.2	6942.2
70°	28669.3	28304.9	27804.1	28714.2	30095.1	24573.2	17175.1	13064.0	11933.4	7233.7	4178.4
72.5°	25244.0	25074.0	25987.8	29820.5	35572.3	27170.7	15525.0	9511.6	6930.9	3840.1	2418.1
73°	23128.7	23091.3	24649.8	29044.9	35611.5	26770.8	14801.8	8840.7	5944.3	3397.3	2210.7
75°	10444.1	10744.9	14160.9	22185.0	30939.8	22059.8	10417.9	5071.6	3358.0	2347.1	1668.7
77.5°	2509.6	2614.3	4430.6	10535.6	19539.0	13146.2	4720.3	2507.8	2147.1	1657.5	1218.4
80°	1068.9	1104.4	1706.1	3892.5	9199.5	5294.0	2175.1	1679.9	1485.6	1156.7	854.0
82.5°	594.2	631.6	968.0	1765.9	3713.1	1805.1	1326.8	1169.8	977.3	697.0	555.0
85°	336.4	356.9	566.2	986.7	1573.4	725.0	794.2	777.4	551.3	358.8	272.8
87.5°	158.8	171.9	272.8	457.8	616.7	284.0	403.6	444.7	345.7	218.6	142.0
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°	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3	5873.3
2.5°	5869.5	5903.2	5942.4	5963.0	5981.7	6004.1	6026.5	6026.5	6030.2	6032.1
5°	5828.4	5897.6	5959.2	5985.4	5991.0	5991.0	5985.4	5955.5	5929.3	5940.5
7.5°	5742.5	5843.4	5895.7	5886.4	5815.3	5733.1	5664.0	5579.9	5536.9	5529.4
10°	5619.1	5735.0	5744.3	5650.9	5475.2	5299.6	5153.8	5011.8	4944.5	4927.7
12.5°	5482.7	5589.2	5529.4	5337.0	5054.8	4798.8	4613.8	4469.9	4406.4	4389.5
15°	5372.5	5445.3	5294.0	4991.3	4636.2	4365.2	4212.0	4105.5	4060.6	4047.6
17.5°	5314.5	5329.5	5052.9	4643.7	4266.2	4040.1	3944.8	3894.3	3877.5	3868.2
20°	5342.6	5237.9	4823.1	4320.4	3963.5	3804.6	3782.2	3769.1	3765.4	3759.8
22.5°	5482.7	5209.9	4611.9	4013.9	3698.1	3629.0	3647.7	3645.8	3642.1	3638.3
25°	5733.1	5234.2	4406.4	3722.4	3475.8	3460.8	3494.4	3494.4	3479.5	3479.5
27.5°	6063.9	5284.6	4176.5	3445.9	3273.9	3275.8	3302.0	3294.5	3277.7	3266.5
30°	6467.5	5316.4	3907.4	3197.3	3085.2	3077.7	3085.2	3053.4	3003.0	2999.2
32.5°	6880.5	5277.2	3595.3	2976.8	2885.2	2868.4	2862.8	2818.0	2760.0	2743.2
35°	7254.2	5133.3	3277.7	2801.2	2694.6	2657.3	2683.4	2668.5	2616.2	2603.1
37.5°	7527.1	4866.1	2991.8	2646.1	2558.2	2548.9	2565.7	2571.3	2509.6	2496.6
40°	7710.2	4503.5	2747.0	2515.2	2532.1	2496.6	2440.5	2401.3	2382.6	2377.0
42.5°	7857.8	4126.1	2541.4	2453.6	2537.7	2434.9	2313.4	2249.9	2283.5	2298.5
45°	8027.9	3757.9	2369.5	2377.0	2509.6	2363.9	2225.6	2163.9	2177.0	2180.8
47.5°	8261.4	3309.4	2184.5	2253.6	2416.2	2315.3	2171.4	2083.6	2021.9	1993.9
50°	8584.7	2778.7	1992.0	2115.3	2324.6	2279.8	2087.3	1993.9	1879.9	1853.7
52.5°	8809.0	2283.5	1833.2	1999.5	2242.4	2208.8	2020.0	1898.6	1779.0	1756.6
55°	8687.5	1896.7	1694.9	1870.6	2134.0	2121.0	1964.0	1801.4	1708.0	1689.3
57.5°	8080.2	1651.9	1588.4	1749.1	2001.4	2046.2	1889.2	1719.2	1651.9	1638.8
60°	6921.6	1498.7	1521.1	1666.9	1893.0	1971.5	1814.5	1674.3	1629.5	1620.1
62.5°	5370.6	1395.9	1470.7	1607.1	1808.9	1919.1	1773.4	1668.7	1651.9	1640.7
65°	3847.6	1313.7	1416.5	1547.3	1732.3	1870.6	1758.4	1661.3	1665.0	1655.7
67.5°	2614.3	1240.8	1351.1	1480.0	1657.5	1827.6	1737.9	1635.1	1681.8	1670.6
70°	1829.4	1169.8	1274.4	1394.0	1564.1	1767.8	1700.5	1595.9	1592.1	1547.3
72.5°	1427.7	1076.4	1169.8	1274.4	1444.5	1683.7	1625.8	1508.0	1446.4	1399.6
73°	1362.3	1053.9	1143.6	1248.3	1418.3	1663.1	1605.2	1483.7	1414.6	1371.6
75°	1126.8	956.8	1039.0	1132.4	1306.2	1566.0	1504.3	1373.5	1285.7	1259.5
77.5°	885.8	818.5	897.0	981.1	1151.1	1423.9	1354.8	1229.6	1181.0	1158.6
80°	655.9	678.3	747.5	822.2	997.9	1272.6	1210.9	1085.7	1302.5	1248.3
82.5°	461.6	513.9	577.4	644.7	837.2	1124.9	1050.2	921.3	953.0	792.3
85°	272.8	336.4	396.2	454.1	603.6	932.5	867.1	734.4	601.7	573.7
87.5°	158.8	186.9	203.7	263.5	414.8	702.6	611.1	543.8	312.1	211.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)