

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: P300348

Luminaire Tested: **GLNA-AF-09-LED-E1-T4FT-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300348  
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-09-LED-E1-T4FT-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Forward Throw OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 53353.3 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G5

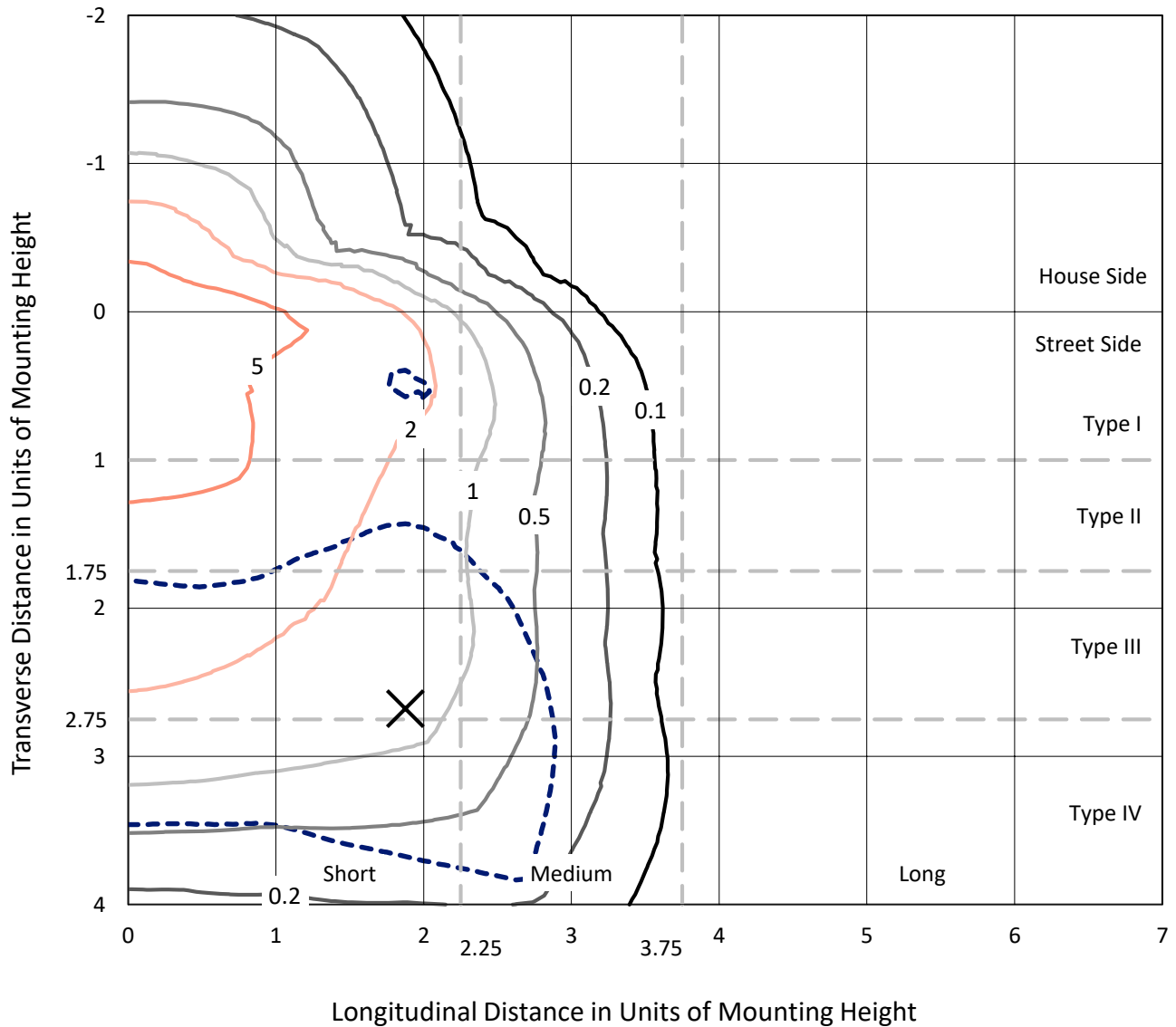
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

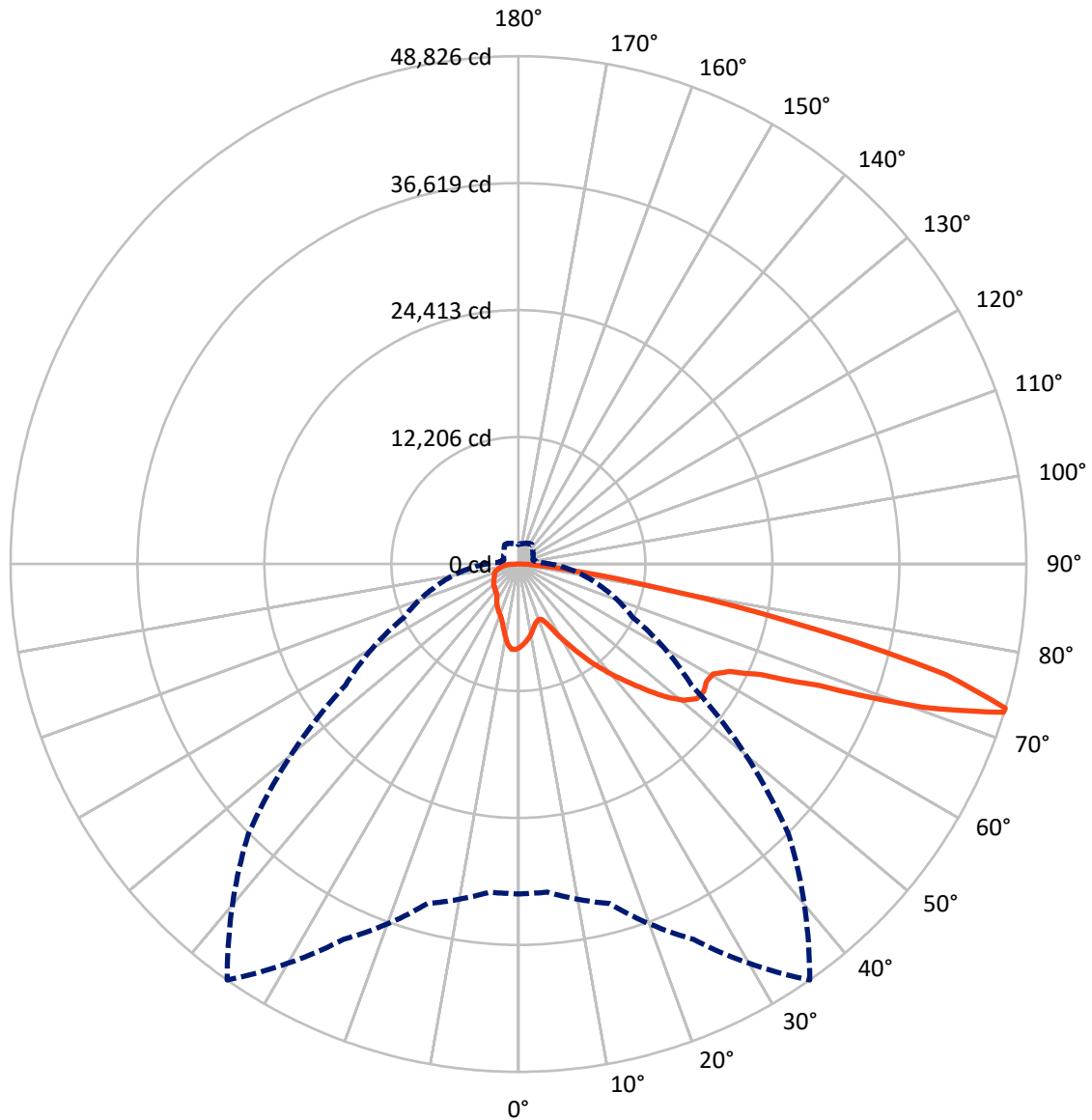
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.9 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	10176.0	0.0	10176.0
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	43177.4	0.0	43177.4
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	53353.3	0.0	53353.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	729.0	1.4
10°-20°	1819.5	3.4
20°-30°	2941.4	5.5
30°-40°	4932.4	9.2
40°-50°	7603.0	14.3
50°-60°	10200.3	19.1
60°-70°	13588.8	25.5
70°-80°	10364.2	19.4
80°-90°	1174.7	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°	53353.3	100.0
0°-180°	53353.3	100.0



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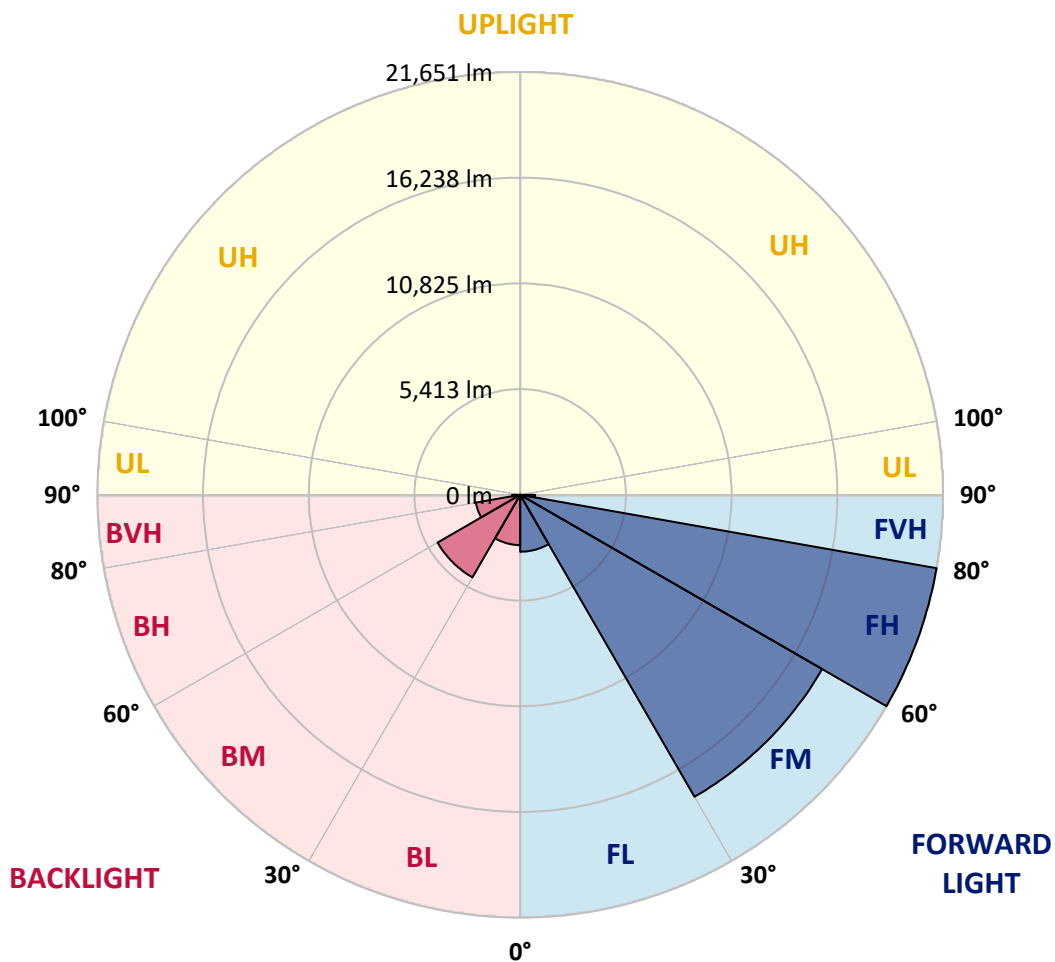
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2914.9	5.5			
FM	(30°-60°)	17852.4	33.5			
FH	(60°-80°)	21650.8	40.6			G5
FVH	(80°-90°)	759.3	1.4			G5
BL	(0°-30°)	2575.0	4.8	B4/5000		
BM	(30°-60°)	4883.3	9.2	B3/5000		
BH	(60°-80°)	2302.2	4.3	B3/2500		G3/2500
BVH	(80°-90°)	415.4	0.8			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°	55°	65°	75°	85°	90°
0°	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7
2.5°	7735.0	7750.3	7732.4	7755.5	7793.9	7834.9	7863.1	7904.1	7950.2	8014.2	8029.6
5°	7371.2	7394.2	7394.2	7435.2	7509.5	7576.1	7637.6	7704.2	7801.6	7911.8	7955.3
7.5°	6971.5	6984.3	7007.3	7068.8	7176.4	7271.2	7358.3	7466.0	7599.2	7745.2	7822.1
10°	6489.8	6507.7	6543.6	6630.7	6776.7	6907.4	7033.0	7181.6	7350.7	7532.6	7629.9
12.5°	6149.0	6143.9	6159.3	6223.3	6351.4	6510.3	6692.2	6881.8	7089.3	7302.0	7419.8
15°	6033.7	6005.6	5946.6	5931.3	6000.4	6159.3	6369.4	6602.5	6851.0	7107.3	7253.3
17.5°	6105.5	6056.8	5895.4	5777.5	5767.3	5887.7	6110.6	6371.9	6658.9	6971.5	7153.4
20°	6556.4	6441.1	6044.0	5769.8	5675.0	5734.0	5928.7	6205.4	6543.6	6958.7	7191.8
22.5°	7635.0	7466.0	6623.0	6113.2	5792.9	5721.2	5867.2	6161.8	6556.4	7117.5	7414.7
25°	9205.6	8964.8	7617.1	6968.9	6307.9	5926.1	5959.4	6261.8	6738.3	7486.4	7845.1
27.5°	10445.7	10289.4	8916.1	8175.7	7245.6	6479.5	6259.2	6512.9	7109.8	8091.1	8457.5
30°	11183.6	11088.8	10304.8	9543.8	8442.1	7360.9	6833.1	6984.3	7691.4	8928.9	9231.2
32.5°	12039.3	11982.9	11598.6	10899.2	9733.4	8519.0	7742.7	7688.9	8470.3	9935.8	10074.2
35°	12925.8	12907.8	12682.4	12180.2	11119.5	10046.0	8949.4	8585.6	9318.3	10981.1	10894.0
37.5°	13750.8	13720.0	13589.4	13297.3	12569.6	11685.7	10179.2	9505.4	10233.0	11980.4	11593.5
40°	15270.1	15029.3	14580.9	14360.6	14035.2	13066.7	11155.4	10363.7	11181.0	12933.5	12198.1
42.5°	17122.5	16730.5	15895.3	15592.9	15546.8	14155.6	11821.5	11196.4	12136.7	13878.9	12792.6
45°	18580.3	18211.4	17491.4	17109.7	17278.8	15142.0	12490.2	12085.4	13120.5	14870.4	13404.9
47.5°	20135.5	19556.5	18603.4	18718.7	19087.6	16074.6	13171.7	13041.1	14199.1	15979.8	14165.8
50°	20191.9	19748.6	19331.0	20020.2	20594.1	16932.9	14024.9	14042.9	15518.6	17376.1	15177.9
52.5°	19021.0	18926.2	19589.8	20673.6	21501.1	17611.9	14996.0	15077.9	17207.0	18980.0	16289.8
55°	18611.1	18503.5	19269.5	20445.5	21624.1	18173.0	16049.0	16197.6	19249.0	20671.0	17373.6
57.5°	19610.3	19372.0	19423.3	20337.9	21324.3	18787.9	17196.8	17496.6	21467.8	22149.3	18070.5
60°	22403.0	21893.1	20924.6	20901.6	21485.7	19710.2	18524.0	18890.3	23773.7	22856.5	17798.9
62.5°	26320.4	25810.6	23996.6	22815.5	22728.4	21232.1	20153.5	20250.8	25106.0	21898.2	16141.2
65°	30560.7	30104.6	28078.0	26410.1	25605.6	23753.2	22046.8	20858.0	24670.4	19261.8	13240.9
67.5°	35707.9	35218.6	33476.4	31936.5	31162.8	27821.8	23376.6	20276.4	21905.9	14921.7	9518.2
70°	39307.7	38808.1	38121.4	39369.2	41262.6	33691.6	23548.2	17911.6	16361.6	9917.9	5728.8
72.5°	34611.4	34378.2	35631.1	40885.9	48772.1	37252.9	21285.9	13041.1	9502.8	5265.1	3315.4
73°	31711.1	31659.8	33796.6	39822.7	48825.9	36704.6	20294.4	12121.3	8150.0	4657.9	3031.0
75°	14319.6	14732.1	19415.6	30417.2	42420.6	30245.6	14283.7	6953.5	4604.1	3218.0	2288.0
77.5°	3440.9	3584.4	6074.7	14445.1	26789.3	18024.4	6471.9	3438.3	2943.8	2272.6	1670.5
80°	1465.5	1514.2	2339.2	5336.8	12613.2	7258.4	2982.3	2303.3	2036.9	1585.9	1170.9
82.5°	814.7	866.0	1327.2	2421.2	5090.9	2475.0	1819.1	1603.9	1340.0	955.7	760.9
85°	461.2	489.4	776.3	1352.8	2157.3	994.1	1088.9	1065.8	755.8	491.9	374.1
87.5°	217.8	235.7	374.1	627.7	845.5	389.4	553.4	609.8	474.0	299.8	194.7
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°	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7	8052.7
2.5°	8047.5	8093.7	8147.5	8175.7	8201.3	8232.0	8262.8	8262.8	8267.9	8270.4
5°	7991.2	8086.0	8170.5	8206.4	8214.1	8214.1	8206.4	8165.4	8129.5	8144.9
7.5°	7873.3	8011.7	8083.4	8070.6	7973.2	7860.5	7765.7	7650.4	7591.5	7581.2
10°	7704.2	7863.1	7875.9	7747.8	7506.9	7266.1	7066.3	6871.5	6779.3	6756.3
12.5°	7517.2	7663.2	7581.2	7317.3	6930.5	6579.5	6325.8	6128.5	6041.4	6018.4
15°	7366.0	7466.0	7258.4	6843.4	6356.6	5985.1	5775.0	5628.9	5567.4	5549.5
17.5°	7286.6	7307.1	6927.9	6366.8	5849.3	5539.3	5408.6	5339.4	5316.4	5303.5
20°	7325.0	7181.6	6612.8	5923.6	5434.2	5216.4	5185.7	5167.8	5162.6	5154.9
22.5°	7517.2	7143.1	6323.3	5503.4	5070.4	4975.6	5001.2	4998.7	4993.5	4988.4
25°	7860.5	7176.4	6041.4	5103.7	4765.5	4745.0	4791.1	4791.1	4770.6	4770.6
27.5°	8314.0	7245.6	5726.3	4724.5	4488.8	4491.4	4527.2	4517.0	4493.9	4478.5
30°	8867.4	7289.2	5357.3	4383.7	4230.0	4219.8	4230.0	4186.5	4117.3	4112.2
32.5°	9433.6	7235.4	4929.5	4081.4	3955.9	3932.8	3925.1	3863.6	3784.2	3761.2
35°	9946.1	7038.1	4493.9	3840.6	3694.5	3643.3	3679.2	3658.7	3586.9	3569.0
37.5°	10320.1	6671.7	4101.9	3627.9	3507.5	3494.7	3517.8	3525.4	3440.9	3423.0
40°	10571.2	6174.7	3766.3	3448.6	3471.6	3423.0	3346.1	3292.3	3266.7	3259.0
42.5°	10773.6	5657.1	3484.5	3364.0	3479.3	3338.4	3171.9	3084.8	3130.9	3151.4
45°	11006.8	5152.4	3248.7	3259.0	3440.9	3241.1	3051.5	2966.9	2984.8	2990.0
47.5°	11327.0	4537.5	2995.1	3089.9	3312.8	3174.4	2977.2	2856.7	2772.2	2733.8
50°	11770.3	3809.8	2731.2	2900.3	3187.2	3125.8	2861.9	2733.8	2577.5	2541.6
52.5°	12077.7	3130.9	2513.4	2741.4	3074.5	3028.4	2769.6	2603.1	2439.1	2408.4
55°	11911.2	2600.5	2323.8	2564.7	2925.9	2908.0	2692.8	2469.9	2341.8	2316.1
57.5°	11078.5	2264.9	2177.8	2398.1	2744.0	2805.5	2590.3	2357.1	2264.9	2247.0
60°	9490.0	2054.8	2085.5	2285.4	2595.4	2703.0	2487.8	2295.6	2234.1	2221.3
62.5°	7363.5	1913.9	2016.4	2203.4	2480.1	2631.3	2431.4	2288.0	2264.9	2249.5
65°	5275.4	1801.2	1942.1	2121.4	2375.1	2564.7	2410.9	2277.7	2282.8	2270.0
67.5°	3584.4	1701.2	1852.4	2029.2	2272.6	2505.7	2382.8	2241.8	2305.9	2290.5
70°	2508.3	1603.9	1747.4	1911.3	2144.5	2423.7	2331.5	2188.0	2182.9	2121.4
72.5°	1957.4	1475.8	1603.9	1747.4	1980.5	2308.4	2229.0	2067.6	1983.1	1919.0
73°	1867.8	1445.0	1568.0	1711.5	1944.6	2280.3	2200.8	2034.3	1939.5	1880.6
75°	1544.9	1311.8	1424.5	1552.6	1790.9	2147.0	2062.5	1883.1	1762.7	1726.9
77.5°	1214.4	1122.2	1229.8	1345.1	1578.3	1952.3	1857.5	1685.9	1619.2	1588.5
80°	899.3	930.0	1024.8	1127.3	1368.2	1744.8	1660.2	1488.6	1785.8	1711.5
82.5°	632.8	704.6	791.7	883.9	1147.8	1542.4	1439.9	1263.1	1306.7	1086.3
85°	374.1	461.2	543.2	622.6	827.6	1278.5	1188.8	1006.9	825.0	786.6
87.5°	217.8	256.2	279.3	361.3	568.8	963.3	837.8	745.6	427.9	289.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)