

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: P298898

Luminaire Tested: **GLNA-AF-08-LED-E1-T2-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298898  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-T2-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45126.5 lumens  
Efficiency: N/A  
Efficacy: 101.4 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G5

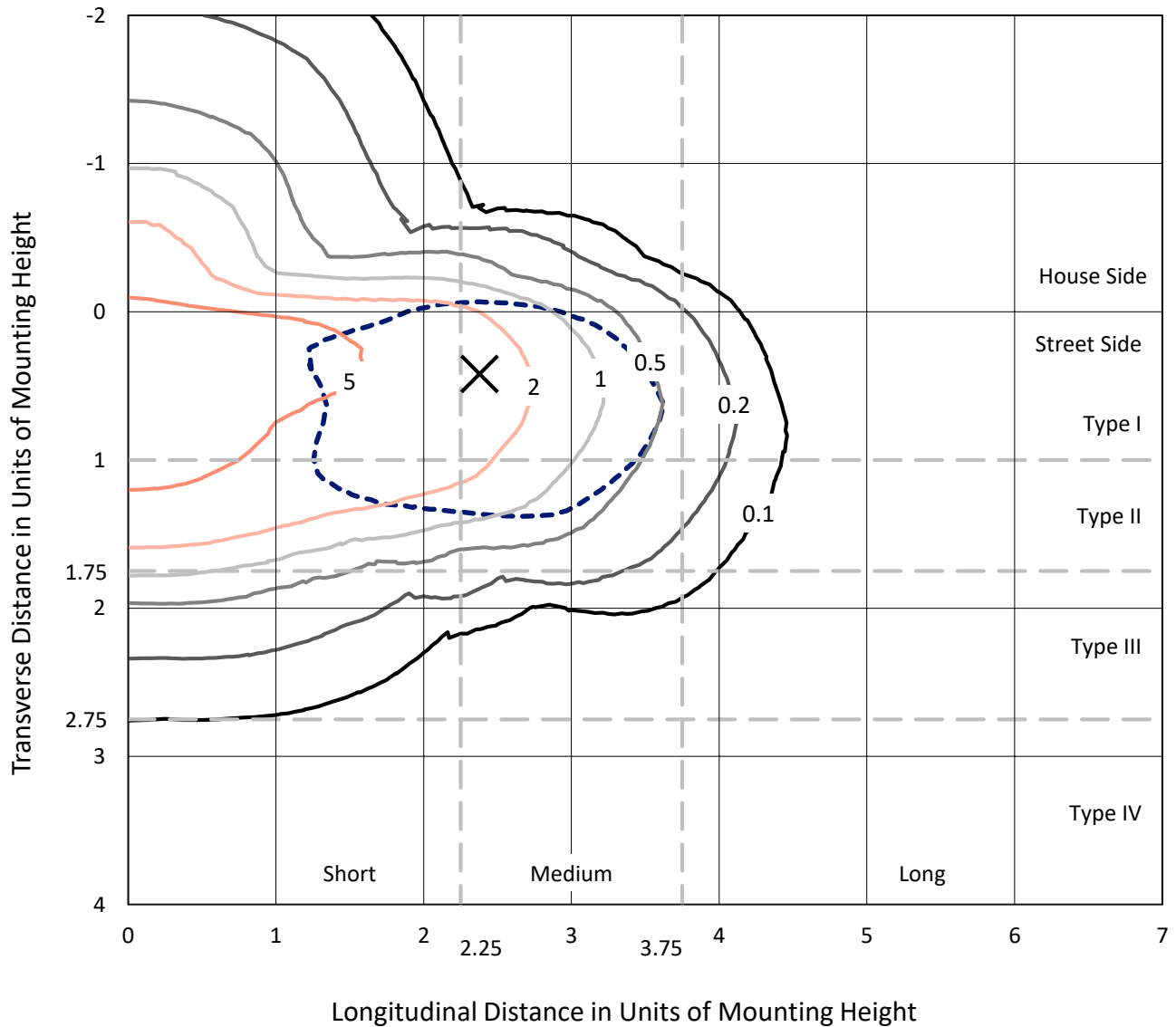
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

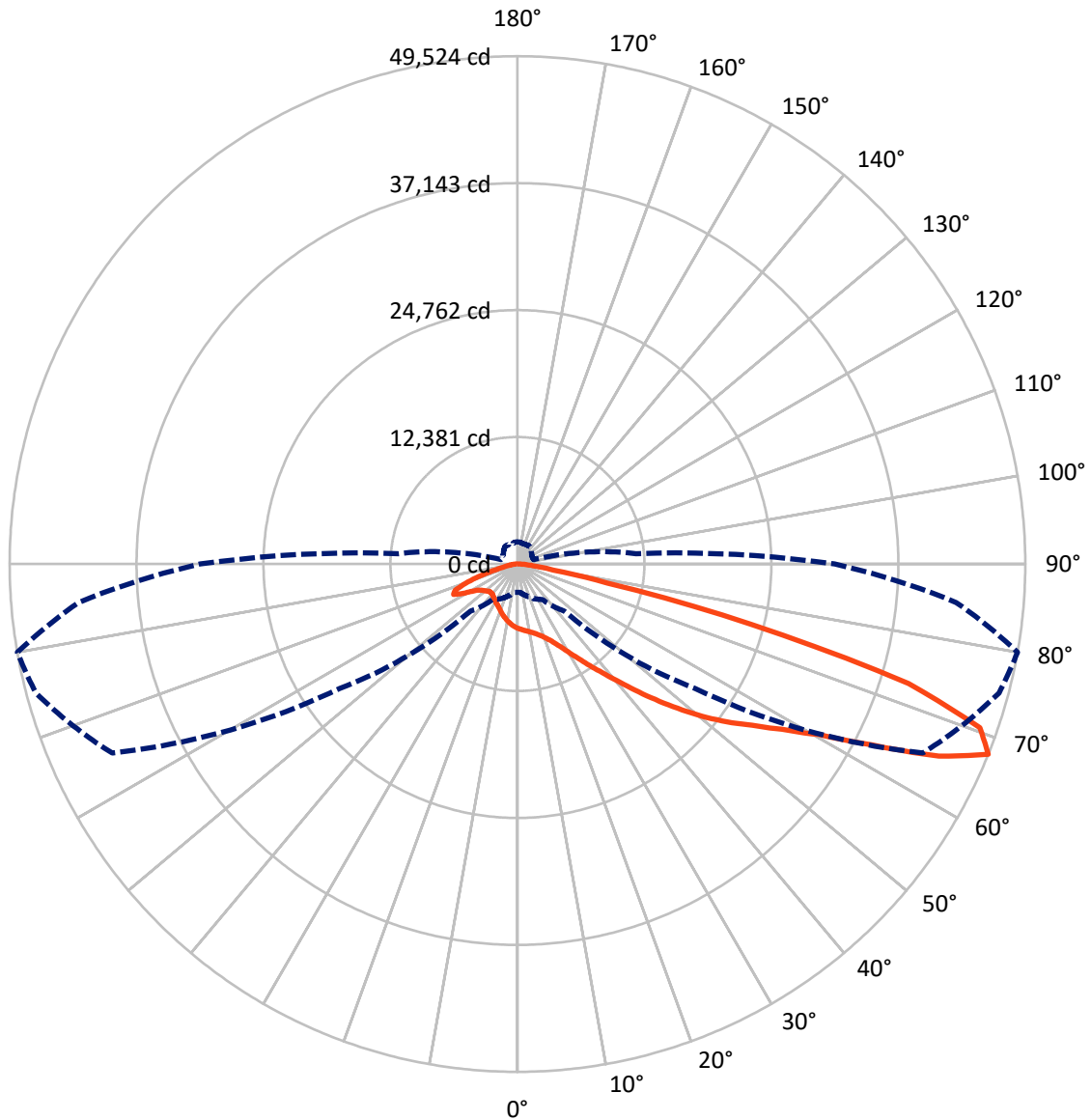
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8310.6	0.0	8310.6
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	36815.9	0.0	36815.9
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	45126.5	0.0	45126.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	578.3	1.3
10°-20°	1666.0	3.7
20°-30°	2757.6	6.1
30°-40°	4510.7	10.0
40°-50°	7282.9	16.1
50°-60°	10514.4	23.3
60°-70°	11603.3	25.7
70°-80°	5348.4	11.9
80°-90°	865.1	1.9
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°	45126.5	100.0
0°-180°	45126.5	100.0



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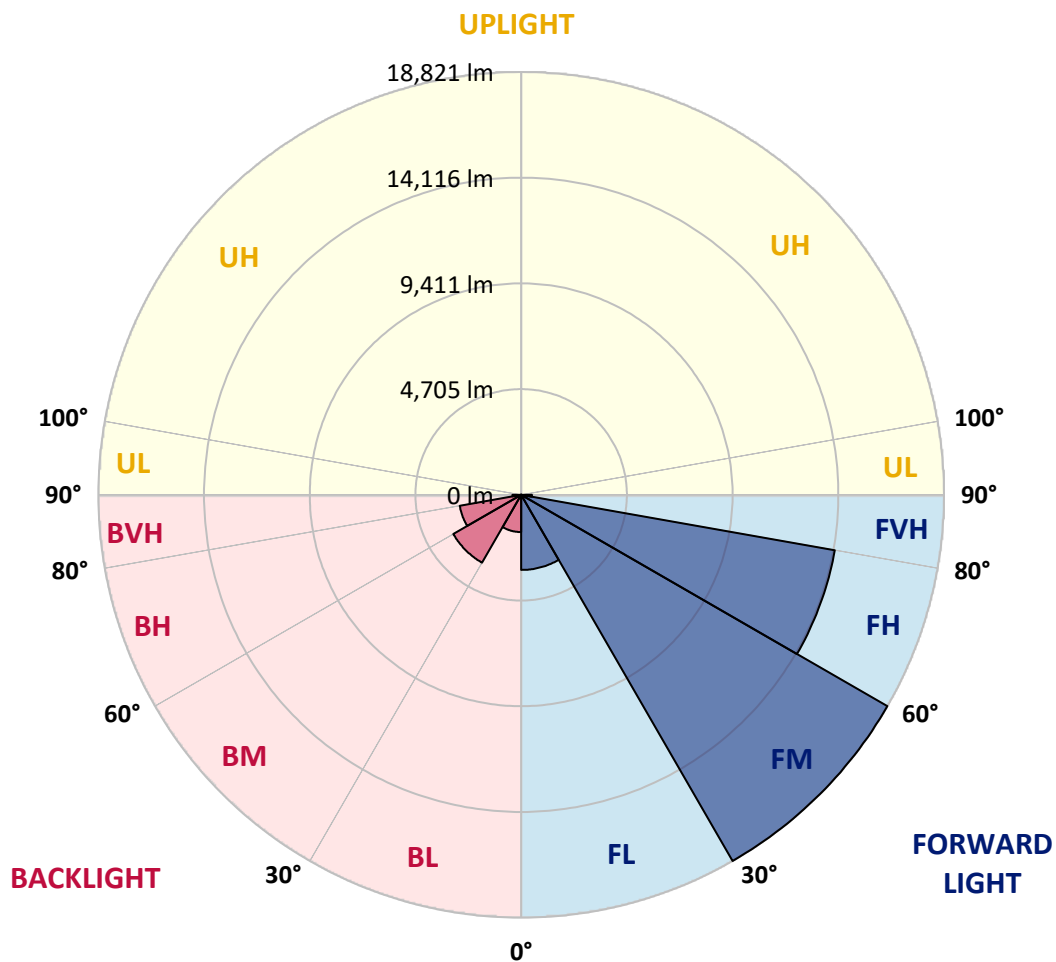
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3343.8	7.4			
FM (30°-60°)	18821.1	41.7			
FH (60°-80°)	14175.4	31.4			G5
FVH (80°-90°)	475.6	1.1			G3/500
BL (0°-30°)	1658.1	3.7	B3/2500		
BM (30°-60°)	3486.8	7.7	B3/5000		
BH (60°-80°)	2776.2	6.2	B4/5000		G4/5000
BVH (80°-90°)	389.5	0.9			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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4
2.5°	6858.1	6818.1	6824.8	6813.7	6780.4	6722.6	6660.4	6547.1	6429.3	6367.1	6318.3
5°	7431.3	7420.2	7404.6	7369.1	7284.7	7164.7	7015.8	6815.9	6600.4	6487.1	6378.2
7.5°	7860.1	7853.4	7833.4	7811.2	7729.0	7584.6	7360.2	7075.8	6762.6	6607.1	6438.2
10°	7895.6	7906.7	7922.3	7982.3	7993.4	7915.6	7686.8	7342.4	6931.4	6731.5	6516.0
12.5°	7593.5	7617.9	7677.9	7831.2	7993.4	8088.9	7971.1	7622.3	7129.2	6887.0	6613.7
15°	7193.6	7206.9	7280.2	7491.3	7782.3	8077.8	8188.9	7931.2	7384.6	7086.9	6760.4
17.5°	7022.5	7029.2	7080.3	7220.2	7491.3	7913.4	8311.0	8266.6	7697.9	7335.8	6940.3
20°	6935.9	6951.4	7024.7	7162.5	7333.5	7702.3	8328.8	8628.7	8071.1	7646.8	7166.9
22.5°	7182.5	7175.8	7202.5	7271.3	7415.7	7637.9	8315.5	9002.0	8546.5	8046.7	7462.4
25°	7757.9	7782.3	7735.7	7657.9	7704.5	7860.1	8386.6	9406.3	9141.9	8559.9	7849.0
27.5°	8577.6	8553.2	8484.3	8302.2	8206.6	8273.3	8622.1	9841.7	9881.7	9235.2	8359.9
30°	9395.2	9375.2	9308.6	9086.4	8890.9	8835.3	9079.7	10341.6	10763.7	10046.1	8986.4
32.5°	10243.9	10221.6	10159.4	9937.3	9701.8	9572.9	9730.7	10919.2	11803.4	11014.8	9724.0
35°	11290.2	11248.0	11116.9	10808.1	10577.1	10477.1	10550.4	11645.7	13003.1	12161.1	10619.3
37.5°	12274.4	12338.8	12205.5	11779.0	11479.1	11443.5	11525.7	12532.1	14296.1	13443.0	11647.9
40°	13263.0	13274.1	13154.2	12805.4	12496.6	12438.8	12645.4	13607.4	15822.3	14975.9	12898.7
42.5°	14285.0	14307.2	14105.0	13782.9	13556.3	13567.4	13802.9	14867.0	17572.9	16782.1	14338.3
45°	15495.7	15529.1	15306.9	14884.8	14678.2	15093.6	14995.9	16280.0	19492.4	18834.8	15991.2
47.5°	16762.1	16813.2	16644.3	16248.9	15991.2	16562.1	16188.9	17846.2	21558.5	21036.4	17806.2
50°	17453.0	17526.3	17690.7	17661.8	17606.3	17510.7	17519.6	19525.7	23689.0	23329.1	19672.4
52.5°	17082.0	17079.8	17679.6	18408.3	19185.8	19243.6	19141.4	21296.4	25679.6	25570.8	21429.7
55°	15384.7	15500.2	16408.8	17819.5	19943.4	21269.7	21571.8	23324.7	27634.6	27761.3	23213.6
57.5°	12558.8	12654.3	13880.6	15846.8	18921.5	22473.8	25028.7	26272.8	29820.7	30411.6	25588.5
60°	8517.7	8633.2	9932.8	12294.4	16171.1	21802.9	28318.9	31533.6	32437.8	33781.8	28920.9
62.5°	5005.3	5109.7	6169.4	7755.6	11385.8	18686.0	29762.9	39018.2	36594.4	38867.1	34004.0
65°	3445.7	3516.8	4032.2	4827.6	6542.6	12585.4	27972.3	44185.6	42990.4	45167.6	39897.9
67.5°	2772.6	2763.7	3172.5	3714.5	4212.2	6489.3	21152.0	43601.4	48615.5	49524.2	42957.1
70°	2283.8	2274.9	2552.6	3001.4	3365.7	3654.6	11521.3	36794.3	47469.2	47838.0	40140.1
72.5°	1910.6	1919.5	2097.2	2430.4	2761.5	2752.6	5063.1	25884.0	37343.1	39893.5	31997.9
75°	1612.9	1617.3	1735.1	1970.6	2241.6	2217.2	2745.9	14022.8	21707.4	23482.4	17737.3
77.5°	1373.0	1377.4	1452.9	1584.0	1777.3	1768.4	2003.9	6058.3	9055.3	8944.2	6067.2
80°	1224.1	1224.1	1259.7	1284.1	1390.7	1350.7	1486.3	2910.3	3827.8	3534.6	2421.6
82.5°	959.7	964.2	1181.9	1173.0	1095.3	1044.2	1044.2	1715.1	2028.3	1875.0	1417.4
85°	539.9	537.6	762.0	919.7	964.2	735.4	728.7	959.7	1104.1	973.1	686.5
87.5°	231.0	235.5	353.2	408.8	546.5	457.7	451.0	495.4	562.1	486.5	317.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4	6269.4
2.5°	6271.6	6213.8	6087.2	5929.5	5787.3	5694.0	5609.6	5487.4	5494.0	5409.6	5347.4
5°	6267.2	6147.2	5853.9	5505.2	5169.7	4927.5	4745.4	4581.0	4541.0	4463.2	4416.6
7.5°	6271.6	6076.1	5582.9	5025.3	4609.8	4303.3	4147.7	4061.1	4041.1	4014.5	4016.7
10°	6287.2	6011.7	5285.2	4576.5	4141.1	3938.9	3901.2	3927.8	3958.9	3967.8	3970.0
12.5°	6322.7	5953.9	4958.6	4176.6	3847.8	3785.6	3850.1	3941.1	4001.1	4030.0	4027.8
15°	6402.7	5909.5	4645.4	3863.4	3685.7	3719.0	3838.9	3967.8	4054.4	4094.4	4096.7
17.5°	6489.3	5845.1	4323.3	3623.4	3565.7	3650.1	3799.0	3950.0	4056.7	4101.1	4110.0
20°	6602.6	5765.1	3985.6	3443.5	3452.4	3547.9	3687.9	3838.9	3956.7	3994.5	4012.2
22.5°	6751.5	5678.4	3690.1	3296.9	3323.5	3396.8	3505.7	3636.8	3739.0	3756.7	3772.3
25°	6951.4	5585.1	3454.6	3163.6	3174.7	3216.9	3290.2	3368.0	3439.1	3419.1	3434.6
27.5°	7220.2	5505.2	3279.1	3041.4	3021.4	3030.3	3068.0	3092.5	3130.3	3074.7	3081.4
30°	7535.7	5418.5	3143.6	2934.7	2879.2	2863.7	2872.5	2885.9	2914.8	2839.2	2828.1
32.5°	7902.3	5314.1	3016.9	2841.4	2763.7	2732.6	2737.0	2772.6	2883.7	2837.0	2812.6
35°	8328.8	5196.3	2883.7	2739.2	2685.9	2641.5	2637.1	2748.1	3079.2	3050.3	3028.1
37.5°	8828.7	5078.6	2750.4	2623.7	2628.2	2579.3	2563.7	2690.4	3116.9	3003.6	2988.1
40°	9464.1	5016.4	2637.1	2501.5	2557.1	2550.4	2519.3	2583.7	2868.1	2661.5	2634.8
42.5°	10250.5	5025.3	2552.6	2370.5	2472.7	2543.7	2494.9	2497.1	2599.3	2443.8	2419.3
45°	11221.4	5129.7	2492.6	2266.0	2377.1	2537.1	2486.0	2450.4	2459.3	2377.1	2363.8
47.5°	12354.4	5345.2	2450.4	2179.4	2286.0	2512.6	2483.8	2437.1	2417.1	2372.7	2361.6
50°	13614.0	5658.4	2419.3	2097.2	2203.8	2472.7	2486.0	2423.8	2401.6	2383.8	2377.1
52.5°	14851.5	6016.1	2372.7	2026.1	2139.4	2423.8	2492.6	2410.4	2386.0	2372.7	2366.0
55°	16231.1	6462.7	2301.6	1966.1	2086.1	2361.6	2492.6	2390.5	2363.8	2366.0	2363.8
57.5°	18095.0	7184.7	2217.2	1915.0	2021.7	2286.0	2450.4	2368.2	2334.9	2337.1	2339.4
60°	21007.6	8457.7	2115.0	1863.9	1941.7	2197.2	2392.7	2319.4	2286.0	2294.9	2297.1
62.5°	25290.8	10326.1	1981.7	1788.4	1857.3	2101.6	2312.7	2257.2	2223.8	2246.0	2246.0
65°	29742.9	11974.5	1817.3	1692.9	1768.4	1997.2	2212.7	2179.4	2146.1	2197.2	2195.0
67.5°	30940.4	11605.7	1652.9	1588.5	1679.5	1881.7	2092.8	2075.0	2057.2	2146.1	2141.6
70°	27485.8	9317.4	1501.8	1481.8	1581.8	1757.3	1963.9	1963.9	1952.8	2019.4	2003.9
72.5°	20940.9	6607.1	1357.4	1368.5	1470.7	1621.8	1823.9	1839.5	1821.7	1855.0	1841.7
75°	11210.3	3781.2	1213.0	1244.1	1333.0	1484.0	1668.4	1684.0	1672.9	1670.7	1677.3
77.5°	3725.6	1848.4	1061.9	1110.8	1188.6	1341.9	1506.3	1530.7	1504.0	1499.6	1497.4
80°	1659.5	1161.9	895.3	959.7	1028.6	1179.7	1335.2	1355.2	1326.3	1366.3	1315.2
82.5°	1066.4	764.2	717.6	788.7	855.3	1017.5	1164.1	1168.6	1141.9	1326.3	1130.8
85°	517.6	473.2	539.9	604.3	662.0	799.8	964.2	966.4	899.8	819.8	790.9
87.5°	257.7	275.5	359.9	417.7	446.5	548.7	702.0	688.7	659.8	599.8	553.2
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)