

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: P298914

Luminaire Tested: **GLNA-AF-10-LED-E1-T2-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298914  
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-10-LED-E1-T2-7060  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 57618.2 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G5

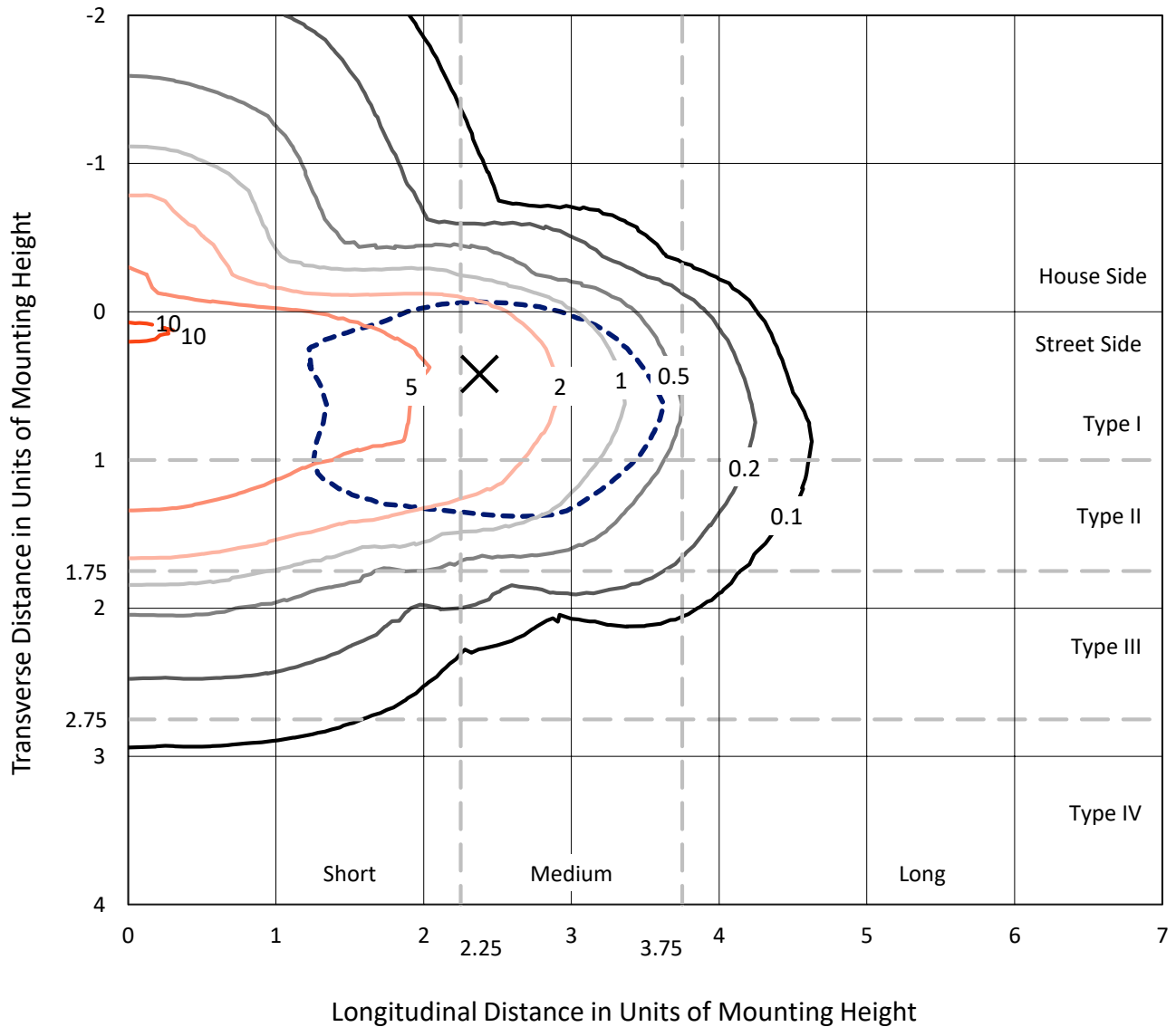
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

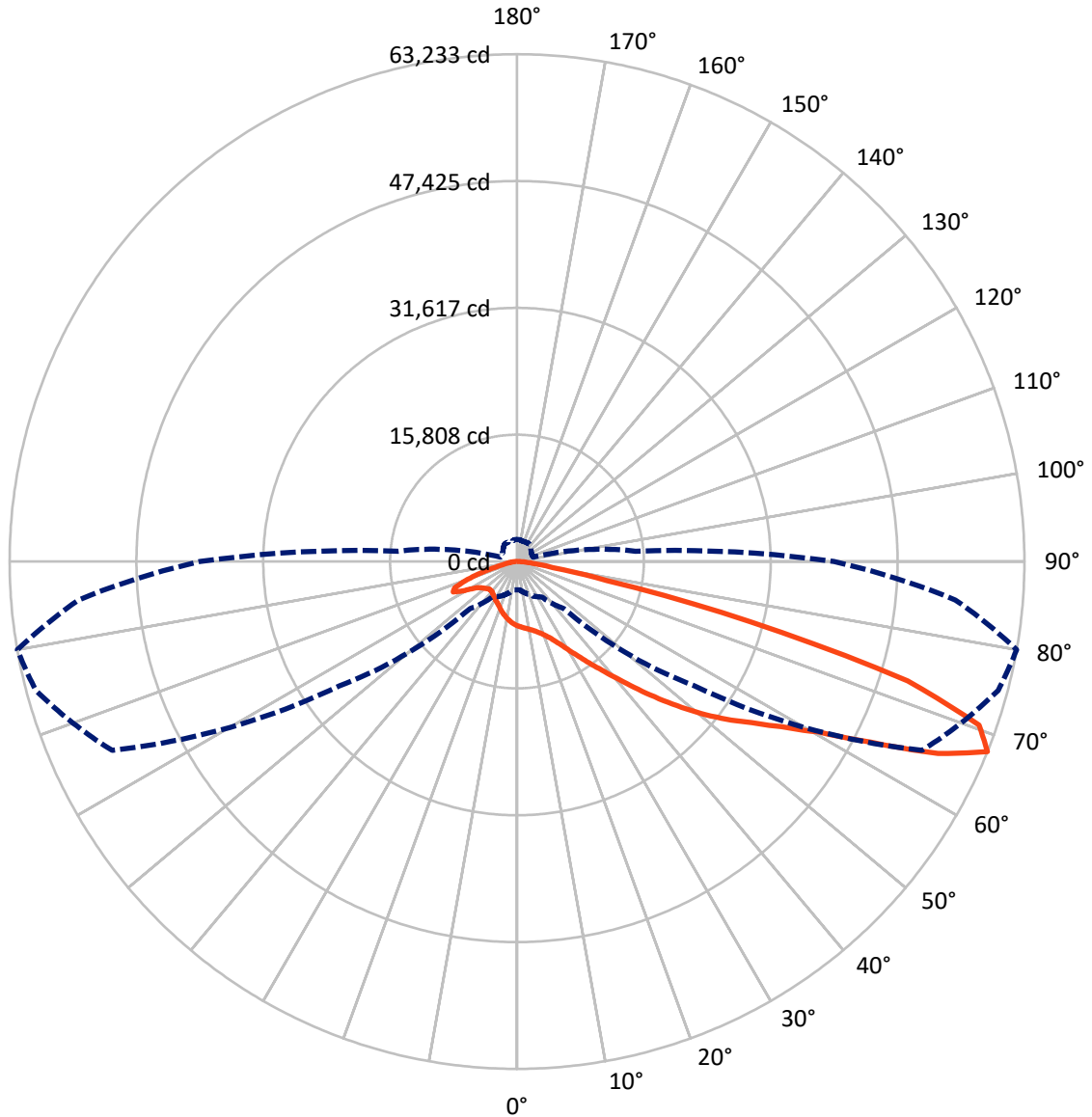
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.8 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	10611.1	0.0	10611.1
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	47007.1	0.0	47007.1
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	57618.2	0.0	57618.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	738.4	1.3
10°-20°	2127.1	3.7
20°-30°	3520.9	6.1
30°-40°	5759.3	10.0
40°-50°	9298.9	16.1
50°-60°	13424.9	23.3
60°-70°	14815.2	25.7
70°-80°	6828.9	11.9
80°-90°	1104.5	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°	57618.2	100.0
0°-180°	57618.2	100.0



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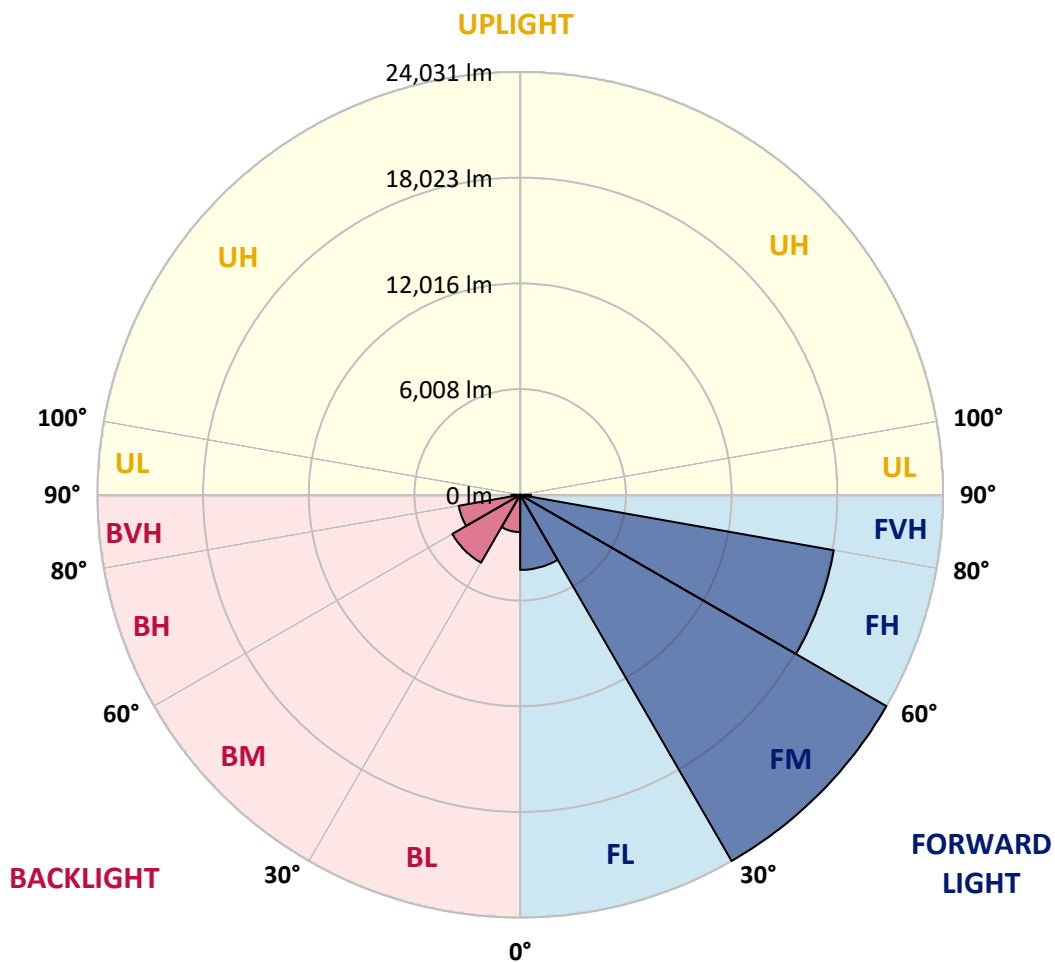
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4269.4	7.4			
FM	(30°-60°)	24031.1	41.7			
FH	(60°-80°)	18099.4	31.4			G5
FVH	(80°-90°)	607.3	1.1			G4/750
BL	(0°-30°)	2117.1	3.7	B3/2500		
BM	(30°-60°)	4452.0	7.7	B3/5000		
BH	(60°-80°)	3544.7	6.2	B4/5000		G4/5000
BVH	(80°-90°)	497.3	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°	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8
2.5°	8756.5	8705.5	8714.0	8699.8	8657.3	8583.5	8504.1	8359.4	8209.1	8129.7	8067.3
5°	9488.4	9474.2	9454.3	9409.0	9301.2	9148.0	8957.9	8702.6	8427.5	8282.8	8143.8
7.5°	10035.8	10027.3	10001.8	9973.4	9868.5	9684.1	9397.6	9034.5	8634.6	8436.0	8220.4
10°	10081.2	10095.4	10115.3	10191.9	10206.0	10106.8	9814.6	9374.9	8850.2	8594.9	8319.7
12.5°	9695.5	9726.7	9803.2	9999.0	10206.0	10328.0	10177.7	9732.3	9102.6	8793.4	8444.5
15°	9184.9	9201.9	9295.5	9565.0	9936.6	10313.8	10455.7	10126.6	9428.8	9048.7	8631.7
17.5°	8966.5	8975.0	9040.2	9218.9	9565.0	10103.9	10611.7	10554.9	9828.8	9366.4	8861.5
20°	8855.8	8875.7	8969.3	9145.2	9363.6	9834.4	10634.4	11017.3	10305.3	9763.5	9150.8
22.5°	9170.7	9162.2	9196.2	9284.1	9468.5	9752.2	10617.3	11493.8	10912.3	10274.1	9528.1
25°	9905.4	9936.6	9877.0	9777.7	9837.3	10035.8	10708.1	12010.1	11672.6	10929.4	10021.7
27.5°	10952.1	10920.9	10832.9	10600.3	10478.4	10563.4	11008.8	12566.1	12617.1	11791.7	10674.1
30°	11995.9	11970.4	11885.3	11601.6	11352.0	11281.1	11593.1	13204.3	13743.3	12827.0	11474.0
32.5°	13079.5	13051.1	12971.7	12688.1	12387.4	12222.9	12424.2	13941.8	15070.8	14063.8	12415.7
35°	14415.5	14361.6	14194.3	13800.0	13505.0	13377.3	13470.9	14869.4	16602.5	15527.5	13558.9
37.5°	15672.1	15754.4	15584.2	15039.6	14656.6	14611.3	14716.2	16001.2	18253.4	17164.2	14872.2
40°	16934.4	16948.6	16795.4	16350.1	15955.8	15882.0	16145.9	17374.1	20202.2	19121.4	16469.2
42.5°	18239.3	18267.6	18009.5	17598.2	17308.9	17323.0	17623.7	18982.4	22437.4	21427.6	18307.3
45°	19785.2	19827.7	19544.1	19005.1	18741.3	19271.8	19147.0	20786.5	24888.2	24048.6	20417.8
47.5°	21402.0	21467.3	21251.7	20746.8	20417.8	21146.8	20670.2	22786.3	27526.2	26859.6	22735.2
50°	22284.2	22377.8	22587.7	22550.9	22479.9	22358.0	22369.3	24930.8	30246.5	29787.0	25118.0
52.5°	21810.5	21807.7	22573.6	23504.0	24496.8	24570.5	24440.0	27191.5	32788.1	32649.1	27361.7
55°	19643.4	19790.9	20951.0	22752.3	25464.0	27157.5	27543.3	29781.3	35284.3	35446.0	29639.5
57.5°	16035.2	16157.2	17723.0	20233.4	24159.2	28694.9	31957.0	33545.5	38075.5	38830.0	32671.8
60°	10875.5	11023.0	12682.4	15697.7	20647.5	27838.3	36158.0	40262.5	41417.0	43133.1	36926.7
62.5°	6390.8	6524.1	7877.2	9902.5	14537.5	23858.5	38001.8	49819.0	46724.3	49626.1	43416.8
65°	4399.5	4490.3	5148.4	6163.9	8353.7	16069.3	35715.5	56416.9	54890.8	57670.6	50942.3
67.5°	3540.1	3528.7	4050.6	4742.8	5378.2	8285.7	27007.1	55670.8	62073.0	63233.2	54848.2
70°	2916.0	2904.7	3259.2	3832.2	4297.4	4666.2	14710.5	46979.5	60609.3	61080.2	51251.4
72.5°	2439.5	2450.8	2677.7	3103.2	3525.9	3514.5	6464.6	33049.1	47680.2	50936.6	40855.4
75°	2059.4	2065.0	2215.4	2516.1	2862.1	2830.9	3506.0	17904.5	27716.3	29982.7	22647.3
77.5°	1753.0	1758.7	1855.1	2022.5	2269.3	2257.9	2558.6	7735.4	11561.9	11420.1	7746.7
80°	1563.0	1563.0	1608.3	1639.5	1775.7	1724.6	1897.7	3715.9	4887.4	4513.0	3091.9
82.5°	1225.4	1231.1	1509.1	1497.7	1398.4	1333.2	1333.2	2189.8	2589.8	2394.1	1809.7
85°	689.3	686.5	972.9	1174.3	1231.1	938.9	930.4	1225.4	1409.8	1242.4	876.5
87.5°	295.0	300.7	451.0	521.9	697.8	584.3	575.8	632.6	717.7	621.2	405.6
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°	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8	8004.8
2.5°	8007.7	7933.9	7772.2	7570.8	7389.3	7270.2	7162.4	7006.4	7014.9	6907.1	6827.7
5°	8002.0	7848.8	7474.4	7029.1	6600.7	6291.5	6058.9	5849.0	5798.0	5698.7	5639.1
7.5°	8007.7	7758.1	7128.3	6416.4	5885.9	5494.5	5295.9	5185.3	5159.8	5125.7	5128.5
10°	8027.5	7675.8	6748.2	5843.4	5287.4	5029.3	4981.0	5015.1	5054.8	5066.1	5069.0
12.5°	8072.9	7602.1	6331.3	5332.8	4913.0	4833.5	4915.8	5032.1	5108.7	5145.6	5142.7
15°	8175.0	7545.3	5931.3	4932.8	4705.9	4748.4	4901.6	5066.1	5176.8	5227.8	5230.7
17.5°	8285.7	7463.1	5520.0	4626.5	4552.7	4660.5	4850.6	5043.5	5179.6	5236.3	5247.7
20°	8430.3	7360.9	5088.8	4396.7	4408.1	4530.0	4708.7	4901.6	5052.0	5100.2	5122.9
22.5°	8620.4	7250.3	4711.6	4209.5	4243.5	4337.1	4476.1	4643.5	4774.0	4796.7	4816.5
25°	8875.7	7131.2	4410.9	4039.3	4053.5	4107.4	4201.0	4300.3	4391.0	4365.5	4385.4
27.5°	9218.9	7029.1	4186.8	3883.3	3857.8	3869.1	3917.3	3948.5	3996.8	3925.8	3934.3
30°	9621.7	6918.4	4013.8	3747.1	3676.2	3656.4	3667.7	3684.7	3721.6	3625.2	3611.0
32.5°	10089.7	6785.1	3852.1	3628.0	3528.7	3489.0	3494.7	3540.1	3681.9	3622.3	3591.1
35°	10634.4	6634.8	3681.9	3497.5	3429.4	3372.7	3367.0	3508.9	3931.5	3894.6	3866.3
37.5°	11272.6	6484.4	3511.7	3350.0	3355.7	3293.3	3273.4	3435.1	3979.7	3835.1	3815.2
40°	12083.9	6405.0	3367.0	3194.0	3264.9	3256.4	3216.7	3299.0	3662.0	3398.2	3364.2
42.5°	13088.0	6416.4	3259.2	3026.6	3157.1	3247.9	3185.5	3188.3	3318.8	3120.2	3089.0
45°	14327.6	6549.7	3182.7	2893.3	3035.1	3239.4	3174.1	3128.8	3140.1	3035.1	3018.1
47.5°	15774.3	6824.8	3128.8	2782.7	2918.8	3208.2	3171.3	3111.7	3086.2	3029.5	3015.3
50°	17382.6	7224.8	3089.0	2677.7	2813.9	3157.1	3174.1	3094.7	3066.4	3043.7	3035.1
52.5°	18962.6	7681.5	3029.5	2587.0	2731.6	3094.7	3182.7	3077.7	3046.5	3029.5	3021.0
55°	20724.1	8251.6	2938.7	2510.4	2663.6	3015.3	3182.7	3052.2	3018.1	3021.0	3018.1
57.5°	23104.0	9173.5	2830.9	2445.1	2581.3	2918.8	3128.8	3023.8	2981.3	2984.1	2986.9
60°	26822.8	10798.9	2700.4	2379.9	2479.2	2805.4	3055.0	2961.4	2918.8	2930.2	2933.0
62.5°	32291.7	13184.5	2530.2	2283.5	2371.4	2683.4	2952.9	2882.0	2839.4	2867.8	2867.8
65°	37976.2	15289.2	2320.3	2161.5	2257.9	2550.1	2825.2	2782.7	2740.1	2805.4	2802.5
67.5°	39505.1	14818.3	2110.4	2028.2	2144.5	2402.6	2672.1	2649.4	2626.7	2740.1	2734.5
70°	35094.2	11896.6	1917.5	1892.0	2019.6	2243.7	2507.5	2507.5	2493.4	2578.5	2558.6
72.5°	26737.7	8436.0	1733.2	1747.3	1877.8	2070.7	2328.8	2348.7	2326.0	2368.5	2351.5
75°	14313.4	4827.9	1548.8	1588.5	1702.0	1894.8	2130.3	2150.1	2135.9	2133.1	2141.6
77.5°	4757.0	2360.0	1355.9	1418.3	1517.6	1713.3	1923.2	1954.4	1920.4	1914.7	1911.9
80°	2118.9	1483.5	1143.1	1225.4	1313.3	1506.2	1704.8	1730.3	1693.4	1744.5	1679.3
82.5°	1361.6	975.8	916.2	1007.0	1092.1	1299.2	1486.4	1492.0	1458.0	1693.4	1443.8
85°	660.9	604.2	689.3	771.6	845.3	1021.2	1231.1	1233.9	1148.8	1046.7	1009.8
87.5°	329.0	351.7	459.5	533.3	570.2	700.6	896.4	879.3	842.5	765.9	706.3
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)