

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: P301163

Luminaire Tested: **GLNA-AF-04-LED-E1-T3R-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301163  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-04-LED-E1-T3R-7060-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19764 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - U0 - G3

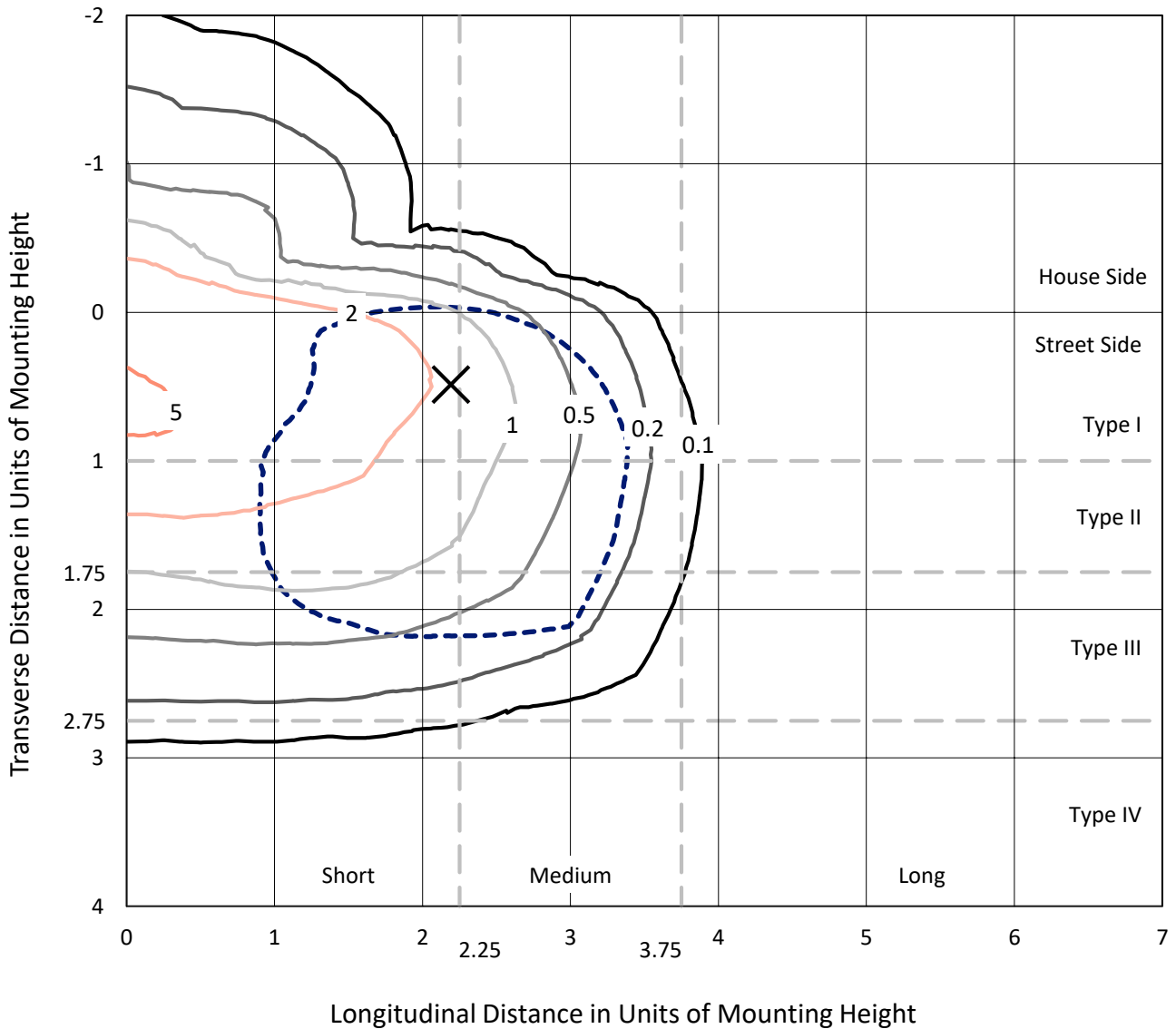
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

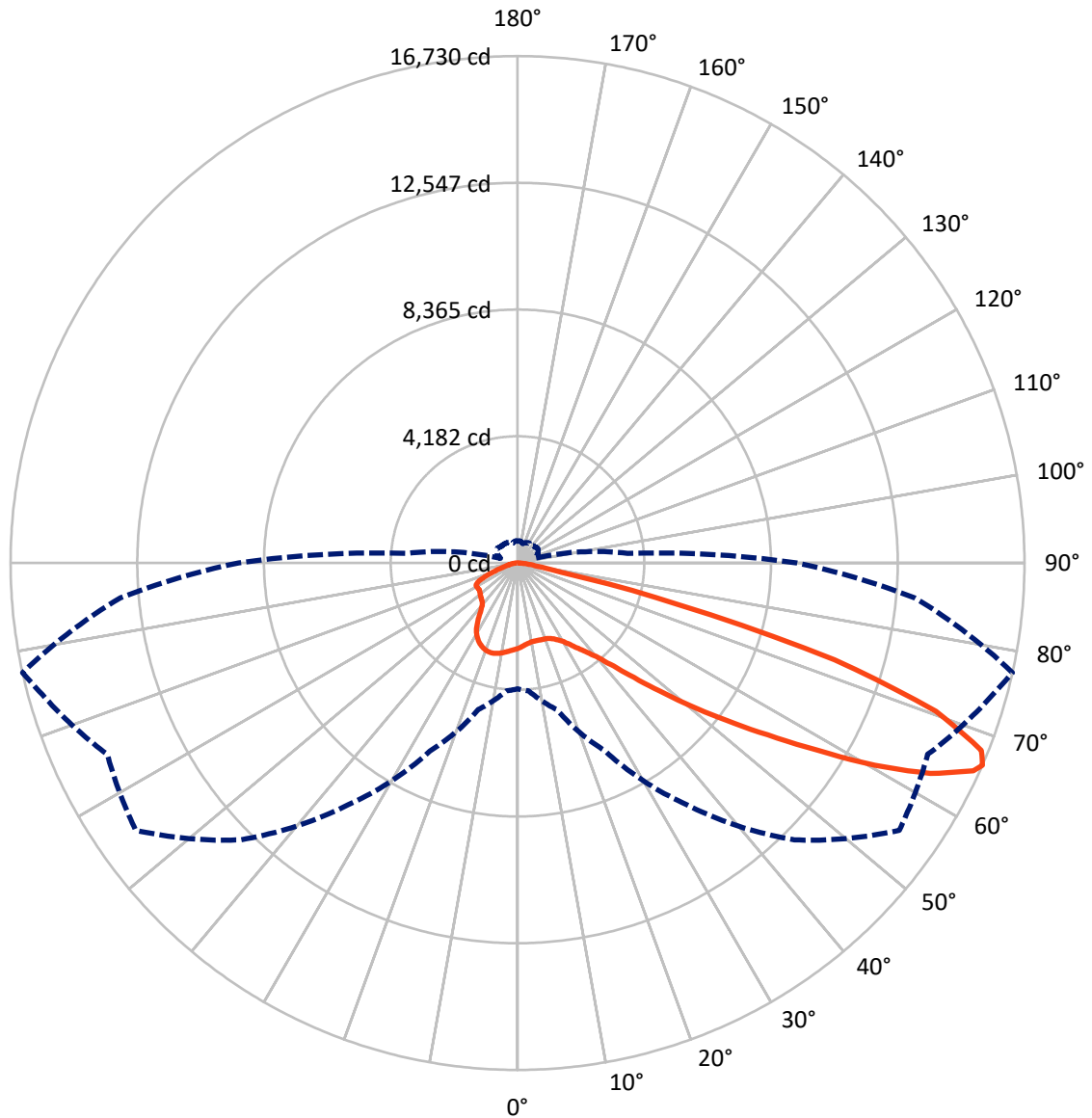
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3376.6	0.0	3376.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	16387.4	0.0	16387.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	19764.0	0.0	19764.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.6	1.3
10°-20°	709.9	3.6
20°-30°	1211.5	6.1
30°-40°	1939.4	9.8
40°-50°	2996.2	15.2
50°-60°	4249.7	21.5
60°-70°	5684.9	28.8
70°-80°	2468.9	12.5
80°-90°	251.7	1.3
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°	19764.0	100.0
0°-180°	19764.0	100.0



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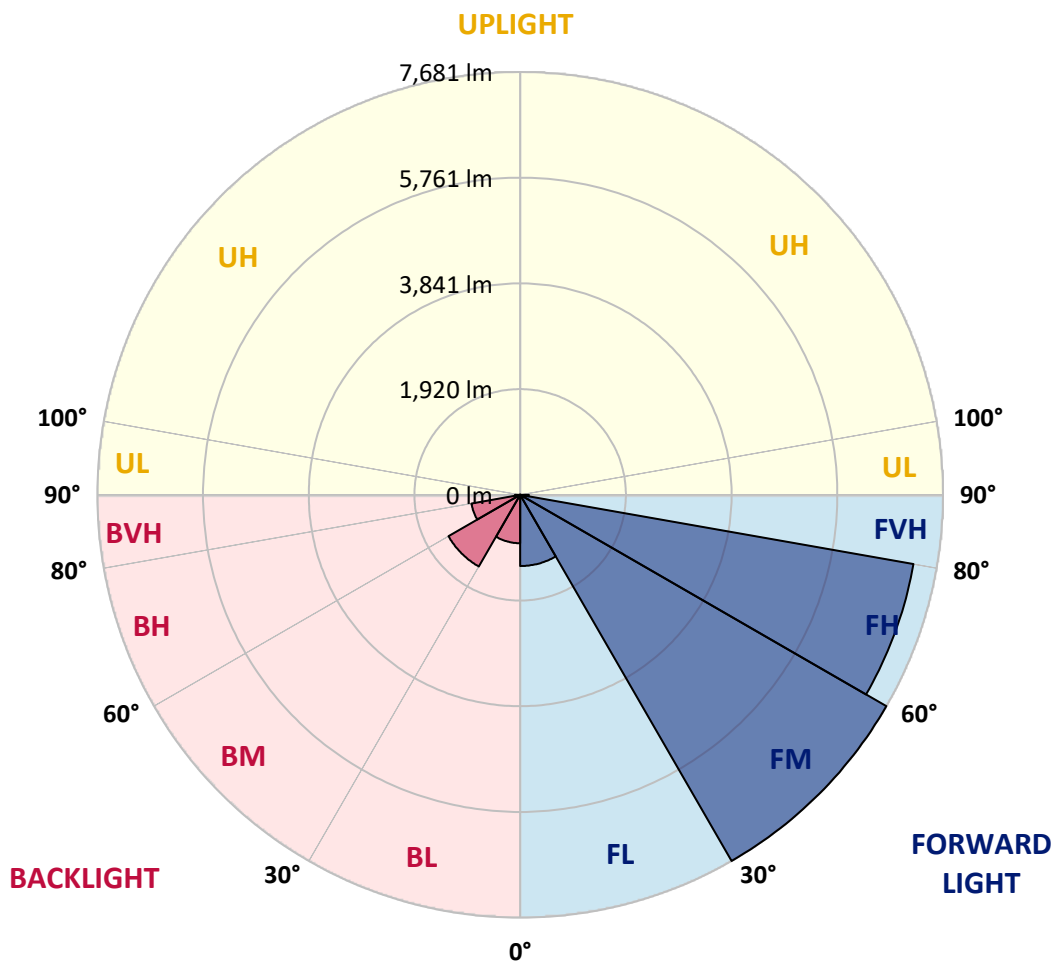
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1293.6	6.5			
FM (30°-60°)	7681.3	38.9			
FH (60°-80°)	7254.6	36.7			G3/7500
FVH (80°-90°)	157.9	0.8			G2/225
BL (0°-30°)	879.4	4.4	B2/1000		
BM (30°-60°)	1504.1	7.6	B2/2500		
BH (60°-80°)	899.3	4.5	B2/1000		G2/1000
BVH (80°-90°)	93.9	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4
2.5°	2491.6	2508.2	2522.4	2535.4	2561.4	2604.4	2653.9	2694.0	2752.0	2763.3	2794.1
5°	2262.8	2262.8	2273.8	2293.6	2329.0	2393.4	2460.7	2550.4	2676.5	2706.2	2788.4
7.5°	2151.7	2152.5	2159.0	2175.7	2206.5	2265.4	2339.2	2444.9	2615.7	2665.2	2805.1
10°	2192.7	2183.4	2169.2	2161.0	2165.6	2200.0	2270.2	2387.8	2578.4	2641.7	2842.7
12.5°	2422.3	2404.8	2356.1	2291.7	2230.0	2204.9	2245.9	2360.6	2562.5	2636.3	2892.2
15°	2797.8	2790.4	2699.7	2566.2	2416.9	2291.7	2263.7	2350.5	2564.2	2642.8	2951.0
17.5°	3268.5	3258.1	3138.8	2944.5	2700.8	2457.1	2326.2	2358.9	2570.7	2653.9	3007.9
20°	3743.8	3711.9	3583.2	3351.7	3038.7	2681.8	2429.9	2380.4	2579.2	2666.0	3067.8
22.5°	4098.7	4072.4	3956.7	3731.7	3371.2	2942.5	2569.0	2417.8	2606.4	2701.6	3141.3
25°	4410.6	4412.2	4297.5	4080.0	3707.4	3219.1	2748.3	2517.6	2675.3	2774.3	3242.2
27.5°	4796.2	4773.9	4666.4	4450.7	4039.9	3498.1	2964.9	2655.0	2778.3	2878.1	3374.9
30°	5257.4	5241.5	5117.4	4872.8	4408.6	3797.8	3212.3	2814.5	2910.9	3014.4	3548.5
32.5°	5800.0	5792.6	5663.7	5349.0	4834.4	4151.0	3502.9	3025.7	3108.8	3216.2	3797.8
35°	6437.0	6437.8	6285.7	5907.4	5300.4	4561.8	3832.3	3297.4	3349.7	3461.7	4095.0
37.5°	6829.2	6876.7	6819.8	6434.2	5828.0	5021.3	4260.1	3657.9	3624.2	3737.3	4413.4
40°	6913.1	6971.1	7151.2	6955.3	6418.3	5527.4	4639.3	4004.2	3962.4	4100.4	4823.4
42.5°	6795.5	6875.8	7257.0	7394.9	7044.9	6151.1	5149.1	4518.8	4465.7	4651.5	5333.2
45°	6725.4	6785.3	7226.1	7624.0	7588.3	6856.3	5798.3	5164.9	5145.4	5389.1	5921.5
47.5°	6604.1	6658.4	7082.2	7677.1	7907.8	7502.4	6578.1	5955.2	5993.4	6312.9	6585.4
50°	6669.4	6691.7	6921.6	7541.7	8000.3	7976.0	7449.2	6870.2	7001.1	7399.7	7337.3
52.5°	6660.1	6718.0	6903.0	7319.4	8012.5	8268.3	8307.4	7890.9	8166.6	8624.0	8171.1
55°	5384.6	5490.9	6683.5	7263.5	8055.1	8554.8	9071.3	8966.7	9480.2	10013.4	9112.3
57.5°	5141.7	5209.0	5870.1	7381.1	8283.0	9102.2	9921.0	10150.9	11009.8	11629.1	10259.2
60°	5094.0	5177.1	5861.6	7525.0	8745.3	9993.9	11180.9	11584.4	12871.2	13549.2	11588.9
62.5°	4945.5	5035.1	5806.5	7506.1	9401.9	11227.6	12793.7	13108.4	14636.1	15295.4	12701.2
65°	4475.0	4559.0	5357.5	7204.6	9844.6	12544.3	14702.2	14505.4	16029.4	16525.1	13255.7
66°	4152.7	4235.0	5003.5	6849.8	9741.7	12917.8	15378.5	14937.7	16341.3	16729.8	13147.4
67.5°	3563.4	3627.9	4316.1	6055.0	9195.5	13022.4	15947.2	15262.6	16373.8	16511.2	12528.5
70°	2251.5	2270.2	2805.1	4179.8	6960.9	11293.7	15081.4	14455.9	15023.7	14651.9	10502.9
72.5°	976.9	970.4	1346.7	2126.2	3940.9	7578.2	12199.6	11927.9	11785.1	10937.2	7352.2
75°	543.4	551.1	699.5	987.1	1601.5	3722.3	7980.5	7637.0	6448.0	5502.2	3333.9
77.5°	436.0	446.5	579.9	700.4	719.0	1298.1	3734.5	3038.7	1829.4	1468.0	926.3
80°	344.7	363.3	506.1	545.4	484.6	535.0	1206.5	964.7	723.8	663.9	480.1
82.5°	272.6	285.9	434.3	412.8	339.0	360.5	577.9	563.2	470.8	428.6	277.4
85°	196.2	220.3	356.8	311.0	222.2	242.9	383.7	367.9	269.7	220.3	122.4
87.5°	80.3	104.6	252.2	206.4	124.1	113.1	191.4	180.1	127.8	93.3	60.8
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°	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4	2816.4
2.5°	2813.6	2835.9	2865.1	2882.9	2892.2	2898.7	2908.9	2908.0	2910.9	2911.7	2915.4
5°	2832.3	2869.6	2911.7	2923.0	2923.0	2912.6	2902.4	2885.4	2878.9	2877.2	2878.9
7.5°	2880.9	2921.9	2958.4	2945.4	2917.4	2876.1	2822.9	2776.3	2751.1	2742.6	2740.9
10°	2942.5	2992.0	3007.0	2957.5	2875.2	2776.3	2670.8	2594.2	2550.4	2538.2	2534.5
12.5°	3017.2	3063.8	3043.5	2938.9	2786.5	2627.0	2481.1	2358.9	2267.3	2238.5	2236.5
15°	3099.5	3135.9	3063.8	2880.9	2653.9	2418.6	2159.0	1948.1	1834.2	1797.7	1794.9
17.5°	3176.1	3194.7	3051.7	2780.0	2458.8	2077.9	1733.2	1570.7	1531.6	1541.0	1542.7
20°	3241.4	3241.4	3010.7	2635.2	2151.7	1628.6	1410.9	1408.4	1436.3	1464.3	1470.0
22.5°	3313.2	3270.2	2938.9	2430.8	1716.3	1332.6	1300.9	1326.9	1358.6	1389.4	1394.2
25°	3402.0	3293.7	2838.8	2120.9	1349.3	1210.2	1222.3	1243.8	1259.6	1279.4	1282.3
27.5°	3501.0	3323.4	2707.3	1693.9	1171.1	1133.8	1143.1	1150.5	1148.5	1156.1	1157.8
30°	3619.4	3358.2	2526.9	1324.1	1097.3	1068.2	1051.5	1045.0	1045.0	1057.2	1061.7
32.5°	3778.3	3409.4	2268.2	1134.7	1061.7	1021.6	967.6	943.2	952.6	993.6	1002.9
35°	3953.1	3464.5	1918.1	1070.2	1054.4	1000.1	916.1	871.1	872.3	910.4	922.6
37.5°	4143.4	3534.6	1534.2	1058.0	1071.0	1001.2	889.0	827.3	802.2	802.2	807.0
40°	4387.1	3606.4	1242.1	1066.5	1106.7	1012.2	875.1	792.8	721.9	723.8	727.5
42.5°	4704.6	3668.1	1085.2	1084.0	1149.6	1027.2	874.0	747.0	685.4	727.5	765.7
45°	5057.8	3698.9	1015.9	1100.2	1184.1	1036.5	859.3	739.7	690.2	815.2	888.1
47.5°	5463.8	3681.1	977.7	1105.5	1192.6	1036.5	842.3	757.5	722.7	944.1	1029.2
50°	5909.4	3629.9	940.4	1094.5	1189.8	1034.6	858.1	775.0	734.9	966.4	1025.2
52.5°	6433.3	3586.9	901.1	1070.2	1170.0	1024.4	876.8	767.7	696.7	878.8	919.8
55°	7030.8	3599.1	857.3	1035.7	1139.2	1004.9	870.3	737.7	656.5	774.2	799.3
57.5°	7794.7	3743.8	805.0	991.9	1097.3	972.1	847.1	723.8	644.4	702.3	717.3
60°	8647.2	3995.8	739.7	947.8	1045.0	919.8	829.3	730.3	650.0	696.7	704.0
62.5°	9272.9	4142.5	683.7	883.3	974.1	861.8	807.0	738.5	665.0	716.2	714.5
65°	9442.9	3901.6	613.6	789.1	877.9	801.3	778.7	747.9	671.5	732.0	723.8
66°	9204.8	3642.1	582.7	745.3	829.3	771.3	764.8	747.0	668.7	734.0	719.9
67.5°	8626.9	3109.6	529.6	680.9	751.8	726.7	742.5	738.5	661.1	732.0	712.5
70°	7035.6	2121.7	453.0	566.9	625.7	639.6	699.5	708.8	636.7	699.5	656.5
72.5°	4915.8	1292.4	400.7	440.0	506.1	545.4	640.7	667.6	604.2	610.7	569.7
75°	2375.6	686.5	363.3	341.0	393.0	455.8	569.7	611.6	552.8	510.9	495.9
77.5°	740.5	419.3	308.2	274.5	308.2	367.9	476.1	536.1	492.3	427.8	422.1
80°	397.8	308.2	237.2	220.3	243.7	288.7	374.4	447.3	423.0	383.7	342.7
82.5°	262.4	199.9	175.6	170.8	185.8	220.3	278.2	370.7	370.7	328.8	239.2
85°	135.4	122.4	120.4	120.4	129.8	146.7	189.4	285.9	304.5	173.6	143.9
87.5°	67.3	70.1	65.3	68.1	72.9	71.8	90.5	143.9	171.9	105.5	87.7
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)