

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: P453406

Luminaire Tested: **GALN-SA4B-830-U-T4FT**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453406  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4B-830-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17848 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

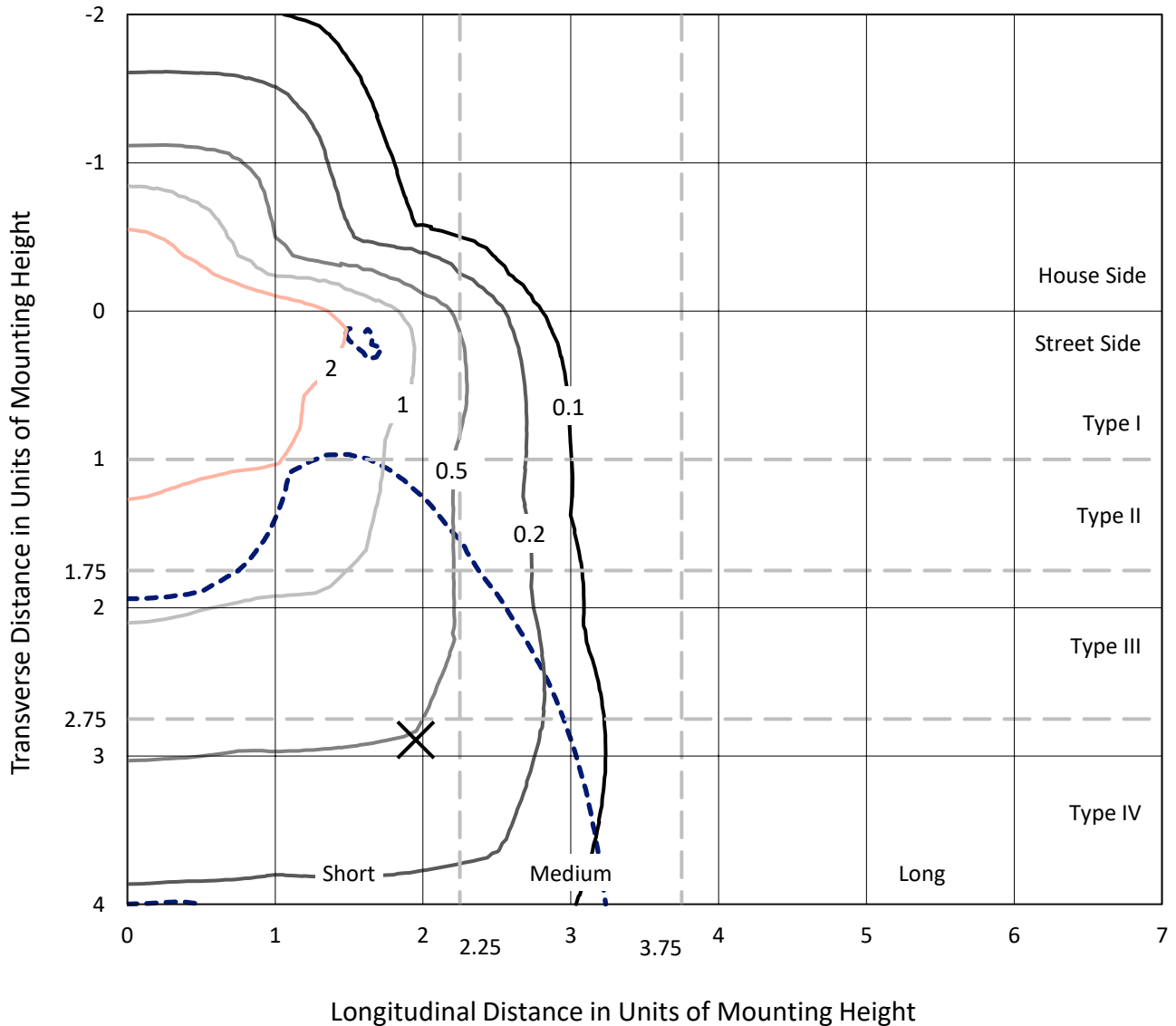
Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

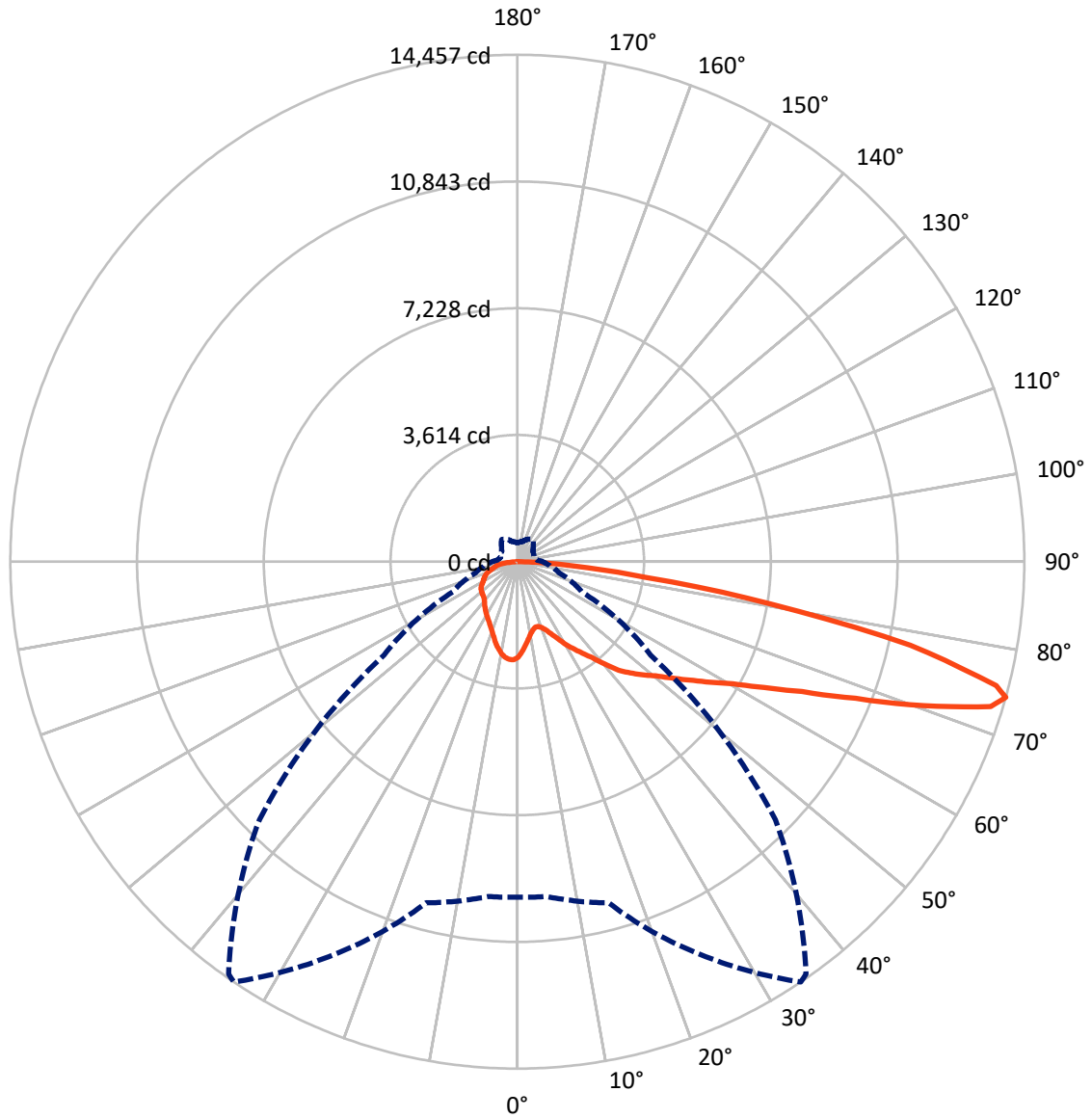
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3798.2	0.0	3798.2
	% Fixture	21.3	0.0	21.3
<b>Street Side</b>	Lumens	14049.8	0.0	14049.8
	% Fixture	78.7	0.0	78.7
<b>Total</b>	Lumens	17848.0	0.0	17848.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.8	1.4
10°-20°	678.4	3.8
20°-30°	1118.5	6.3
30°-40°	1675.5	9.4
40°-50°	2435.7	13.6
50°-60°	3402.0	19.1
60°-70°	4259.2	23.9
70°-80°	3522.0	19.7
80°-90°	508.9	2.9
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°	17848.0	100.0
0°-180°	17848.0	100.0

**Coefficient of Utilization**



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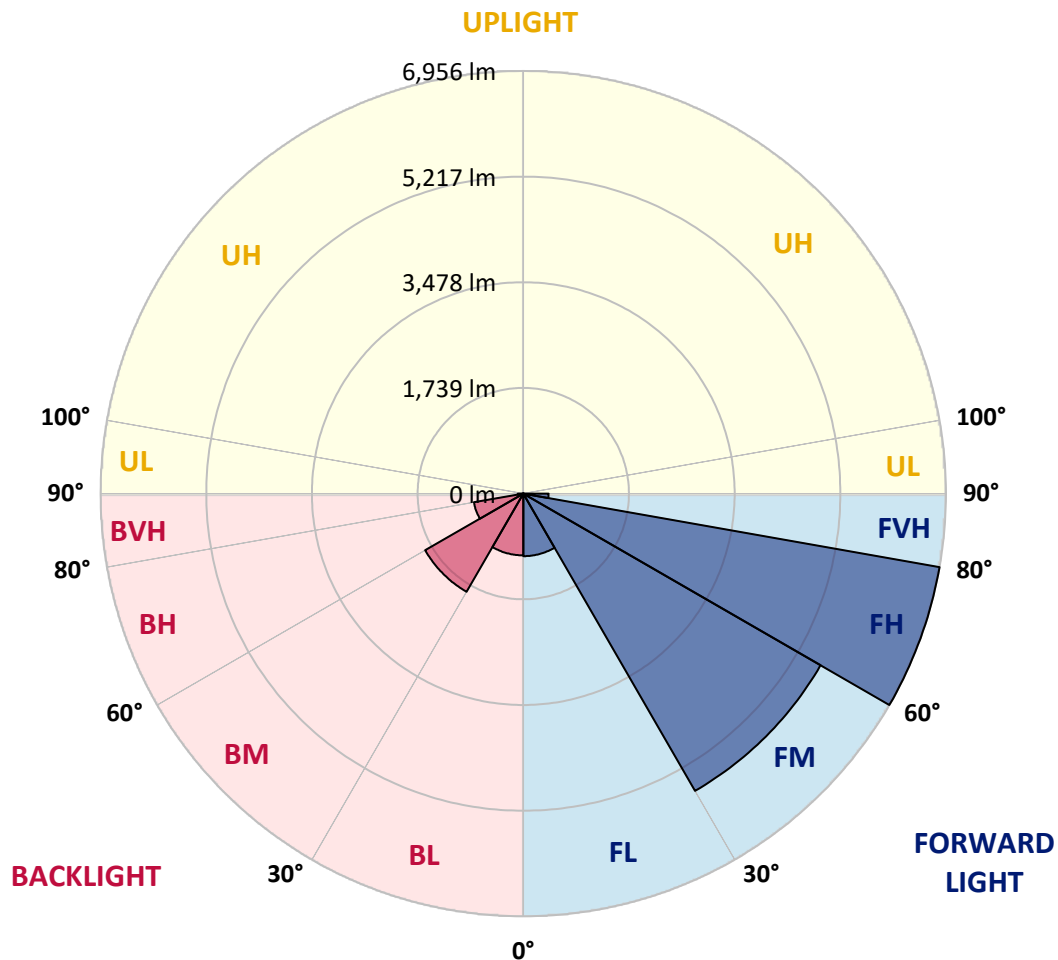
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1028.9	5.8			
FM	(30°-60°)	5647.8	31.6			
FH	(60°-80°)	6956.2	39.0			G3/7500
FVH	(80°-90°)	416.9	2.3			G3/500
BL	(0°-30°)	1016.0	5.7	B3/2500		
BM	(30°-60°)	1865.3	10.5	B2/2500		
BH	(60°-80°)	824.9	4.6	B2/1000		G2/1000
BVH	(80°-90°)	92.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0
2.5°	2518.4	2531.2	2538.2	2562.9	2568.8	2576.7	2597.5	2625.2	2660.8	2692.4	2720.1
5°	2308.8	2328.5	2340.4	2362.2	2404.7	2408.6	2464.0	2527.3	2599.5	2666.7	2722.1
7.5°	2110.0	2131.8	2141.7	2181.2	2237.6	2246.5	2327.6	2427.4	2548.0	2649.9	2734.9
10°	1960.7	1971.6	1993.4	2023.0	2090.2	2096.2	2202.0	2335.5	2491.7	2642.0	2756.7
12.5°	1879.6	1885.6	1890.5	1922.2	1988.4	1997.3	2108.0	2259.3	2447.2	2647.9	2792.3
15°	1891.5	1893.5	1871.7	1877.7	1931.1	1943.9	2053.7	2208.9	2419.5	2662.7	2845.7
17.5°	1991.4	1984.5	1931.1	1903.4	1940.9	1946.9	2042.8	2189.1	2406.7	2690.4	2901.0
20°	2148.6	2138.7	2046.7	1985.4	2007.2	2012.1	2078.4	2204.0	2419.5	2735.9	2987.1
22.5°	2344.4	2340.4	2201.0	2126.8	2125.8	2125.8	2160.5	2257.4	2458.1	2798.2	3077.0
25°	2618.2	2597.5	2415.6	2319.6	2292.9	2291.0	2287.0	2345.4	2507.5	2864.5	3183.8
27.5°	2899.1	2863.5	2701.3	2554.0	2496.6	2489.7	2464.0	2469.9	2570.8	2939.6	3305.4
30°	3151.2	3128.5	2976.2	2813.0	2744.8	2729.0	2657.8	2625.2	2676.6	3075.1	3499.2
32.5°	3344.0	3330.2	3211.5	3063.2	2962.3	2959.4	2855.6	2828.9	2841.7	3239.2	3720.7
35°	3500.2	3505.2	3444.9	3316.3	3200.6	3183.8	3114.6	3081.0	3043.4	3476.5	3999.6
37.5°	3713.8	3724.7	3720.7	3610.0	3468.6	3472.5	3456.7	3401.4	3301.5	3741.5	4309.0
40°	3949.1	3957.0	3956.0	3913.5	3839.4	3843.3	3837.4	3774.1	3624.8	4078.7	4653.1
42.5°	4274.4	4236.9	4139.0	4181.5	4225.0	4243.8	4284.3	4224.0	4019.3	4438.6	4976.5
45°	4638.3	4567.1	4345.6	4365.4	4526.6	4562.2	4785.6	4702.6	4447.5	4851.9	5357.1
47.5°	4867.7	4797.5	4610.6	4606.7	4820.2	4854.8	5250.3	5219.7	4837.0	5297.8	5821.8
50°	5072.4	5062.5	4851.9	4902.3	5110.9	5162.3	5756.6	5727.9	5225.6	5823.8	6328.1
52.5°	5375.9	5295.8	5127.7	5231.6	5507.4	5574.7	6258.9	6174.8	5582.6	6288.5	6819.5
55°	5512.4	5493.6	5483.7	5573.7	5952.4	6000.8	6747.3	6554.5	5887.1	6682.1	7193.3
57.5°	5877.2	5842.6	5940.5	6001.8	6476.4	6550.6	7257.5	6951.0	6154.1	6994.5	7375.2
60°	6349.8	6331.1	6421.0	6531.8	7061.8	7174.5	7838.9	7289.2	6368.6	7151.7	7275.3
62.5°	7055.8	7053.9	7037.0	7274.3	7891.3	7995.2	8506.3	7618.4	6402.3	7034.1	6759.2
65°	8068.3	8032.7	7886.4	8145.4	8923.6	9045.2	9201.4	7802.3	6199.6	6429.9	5691.3
67.5°	9127.3	9125.3	9006.7	9342.8	10405.8	10531.3	10070.6	7761.8	5636.9	5208.8	4042.1
70°	10005.3	9962.8	10114.1	11009.9	12299.2	12444.6	10830.9	7284.2	4490.0	3439.9	2401.7
72.5°	10215.9	10217.9	10532.3	12295.3	14117.6	14140.3	11104.8	5903.9	3004.9	1897.4	1201.3
74°	9567.3	9584.1	10071.6	12359.6	14456.7	14353.9	10404.8	4640.3	2031.9	1238.9	866.2
75°	8732.8	8627.0	9332.0	11931.4	14104.7	13994.0	9585.1	3723.7	1550.4	989.8	758.4
77.5°	4668.9	4776.7	5864.4	8903.8	11458.8	11331.2	6499.2	1785.7	837.5	689.2	545.8
80°	1662.1	1833.2	2576.7	4659.1	7346.5	7386.1	3101.8	818.7	589.3	508.2	385.6
82.5°	678.3	697.1	1106.4	2067.5	3730.6	3766.2	1266.6	486.5	421.2	350.0	230.4
85°	265.0	272.9	489.4	929.4	1591.9	1695.7	438.0	257.1	259.1	200.7	117.7
87.5°	89.0	100.9	200.7	309.5	540.9	530.0	127.6	76.1	92.9	87.0	36.6
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°	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0	2725.0
2.5°	2733.9	2752.7	2765.6	2779.4	2792.3	2796.2	2793.3	2802.2	2803.1	2804.1	2805.1
5°	2749.8	2775.5	2800.2	2814.0	2820.0	2815.0	2798.2	2789.3	2781.4	2775.5	2777.4
7.5°	2771.5	2808.1	2830.8	2836.8	2820.9	2798.2	2756.7	2724.0	2703.3	2689.4	2688.5
10°	2805.1	2840.7	2859.5	2842.7	2799.2	2743.8	2678.6	2617.3	2570.8	2556.9	2556.0
12.5°	2847.6	2888.2	2887.2	2837.8	2761.6	2662.7	2556.9	2485.8	2422.5	2390.8	2403.7
15°	2903.0	2933.7	2905.0	2816.0	2695.4	2559.9	2429.4	2332.5	2261.3	2227.7	2229.7
17.5°	2967.3	2994.0	2917.8	2777.4	2602.4	2428.4	2277.1	2185.2	2128.8	2104.1	2102.1
20°	3047.4	3055.3	2917.8	2710.2	2482.8	2275.1	2130.8	2066.5	2034.9	2022.0	2026.0
22.5°	3133.4	3117.6	2902.0	2615.3	2325.6	2115.0	2018.1	1989.4	1973.6	1971.6	1973.6
25°	3230.3	3185.8	2869.4	2486.7	2161.4	1976.5	1920.2	1925.1	1928.1	1928.1	1935.0
27.5°	3348.9	3260.0	2815.0	2324.6	1969.6	1848.0	1832.2	1866.8	1882.6	1885.6	1890.5
30°	3505.2	3341.0	2725.0	2121.9	1806.5	1732.3	1760.0	1806.5	1824.3	1835.1	1833.2
32.5°	3691.1	3430.0	2603.4	1919.2	1675.0	1651.2	1684.9	1732.3	1752.1	1758.0	1750.1
35°	3909.6	3530.9	2443.2	1729.4	1560.3	1574.1	1613.7	1628.5	1646.3	1646.3	1650.2
37.5°	4144.9	3612.0	2247.5	1555.3	1471.3	1521.7	1550.4	1536.5	1528.6	1518.7	1523.7
40°	4384.2	3672.3	1993.4	1383.3	1382.3	1467.3	1475.2	1435.7	1404.0	1394.2	1389.2
42.5°	4592.8	3709.8	1764.0	1249.8	1298.2	1413.9	1419.9	1356.6	1306.2	1276.5	1266.6
45°	4839.0	3753.4	1539.5	1139.1	1220.1	1371.4	1386.2	1301.2	1227.1	1164.8	1148.9
47.5°	5176.2	3852.2	1362.5	1053.0	1163.8	1344.7	1365.5	1255.7	1157.8	1076.8	1063.9
50°	5556.9	3987.7	1225.1	994.7	1120.3	1321.0	1346.7	1209.3	1093.6	1003.6	993.7
52.5°	5905.9	4060.9	1106.4	942.3	1077.8	1277.5	1322.0	1175.6	1030.3	930.4	921.5
55°	6096.7	3942.2	989.8	890.9	1019.4	1221.1	1287.4	1129.2	969.0	891.9	879.0
57.5°	6122.4	3697.0	884.0	835.5	958.1	1151.9	1223.1	1072.8	929.4	865.2	854.3
60°	5923.7	3331.1	801.9	790.0	895.8	1073.8	1150.9	1023.4	888.9	835.5	824.6
62.5°	5429.3	2933.7	744.5	748.5	832.5	991.7	1097.5	975.9	850.3	802.9	793.0
65°	4579.0	2421.5	689.2	706.0	776.2	927.5	1049.1	936.4	811.8	778.2	769.3
67.5°	3180.9	1748.1	643.7	661.5	722.8	862.2	992.7	893.8	768.3	750.5	736.6
70°	1761.0	1075.8	590.3	611.1	667.4	789.0	929.4	829.6	705.0	697.1	677.3
72.5°	925.5	685.2	530.0	552.7	592.3	695.1	832.5	759.4	642.7	609.1	583.4
74°	722.8	561.6	489.4	513.2	539.9	639.7	775.2	708.9	598.2	558.7	538.9
75°	629.8	500.3	454.8	485.5	509.2	602.2	730.7	673.3	573.5	535.9	518.1
77.5°	444.9	374.7	371.8	408.4	421.2	528.0	658.5	613.0	511.2	471.6	454.8
80°	312.4	280.8	294.7	317.4	335.2	466.7	611.1	530.0	419.2	372.8	366.8
82.5°	203.7	183.9	210.6	231.4	237.3	344.1	493.4	402.4	305.5	248.2	230.4
85°	93.9	92.0	120.6	117.7	116.7	168.1	292.7	235.3	176.0	131.5	123.6
87.5°	23.7	22.7	29.7	24.7	29.7	25.7	26.7	6.9	1.0	0.0	0.0
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)