

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: P302775

Luminaire Tested: **GLNA-AF-03-LED-E1-T4W-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302775  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-T4W-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17395.6 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

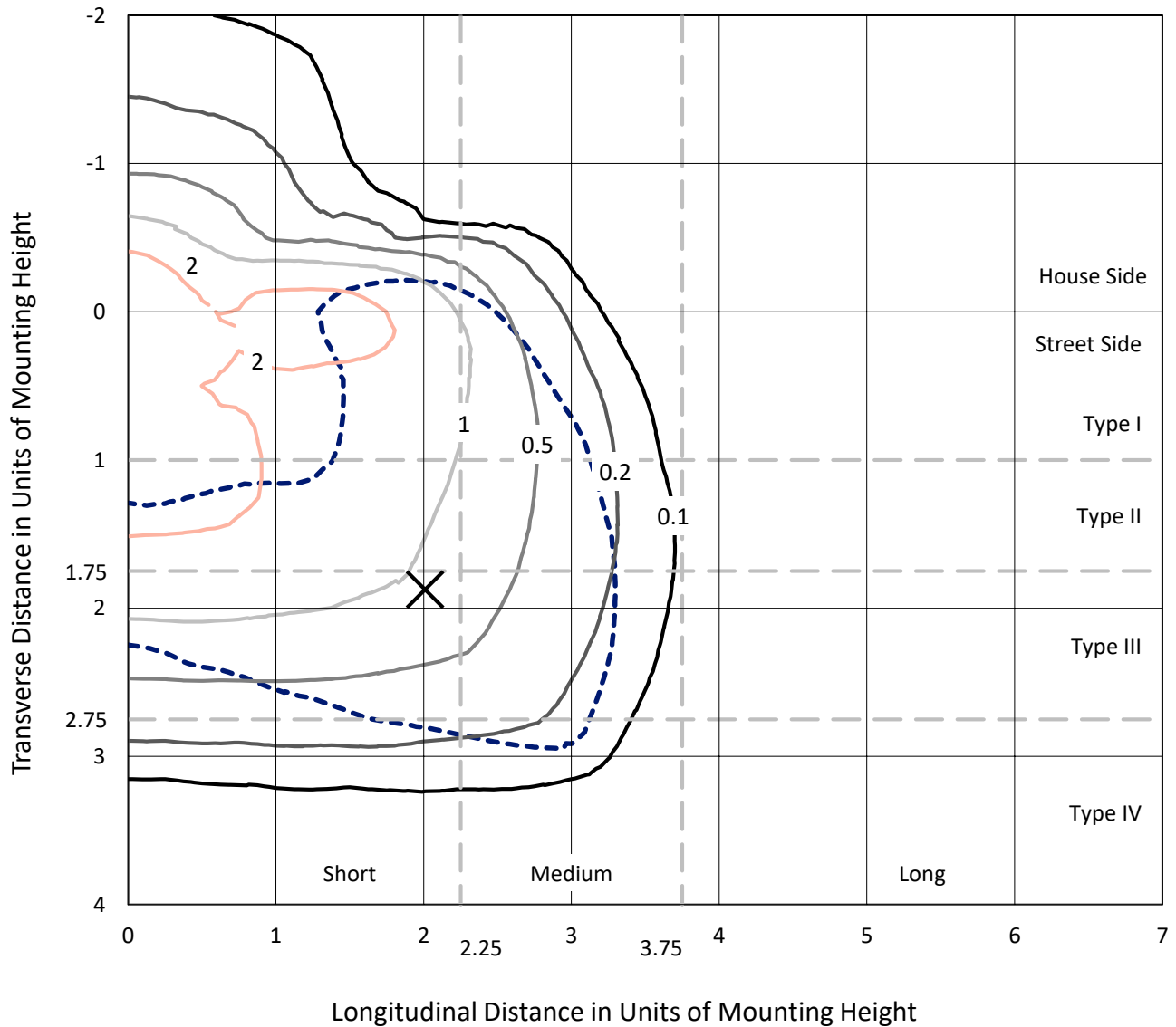
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

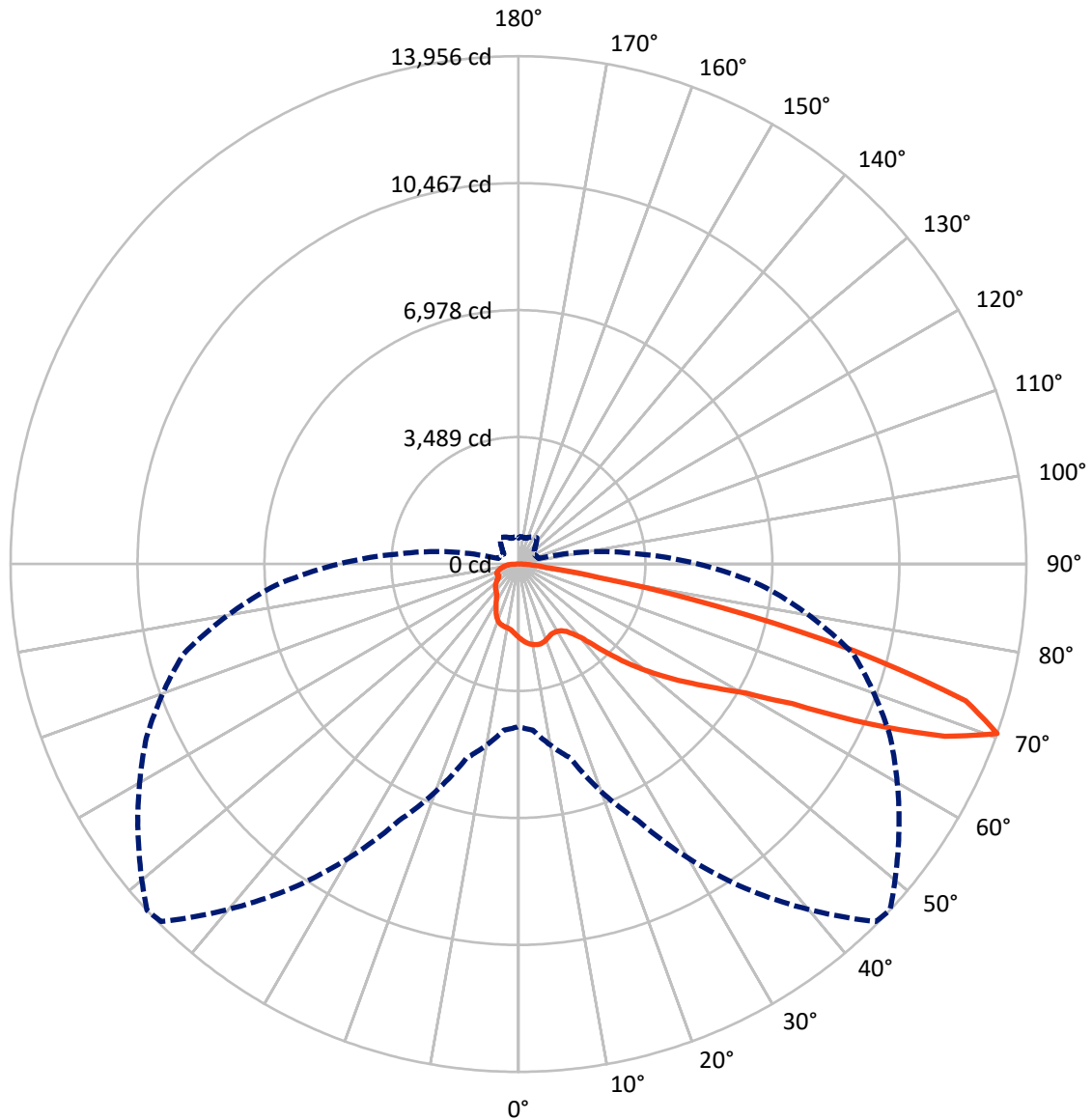
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3629.1	0.0	3629.1
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	13766.5	0.0	13766.5
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	17395.6	0.0	17395.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.4	1.1
10°-20°	567.4	3.3
20°-30°	837.9	4.8
30°-40°	1217.8	7.0
40°-50°	2191.7	12.6
50°-60°	3796.8	21.8
60°-70°	5419.2	31.2
70°-80°	2781.9	16.0
80°-90°	389.5	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°	17395.6	100.0
0°-180°	17395.6	100.0



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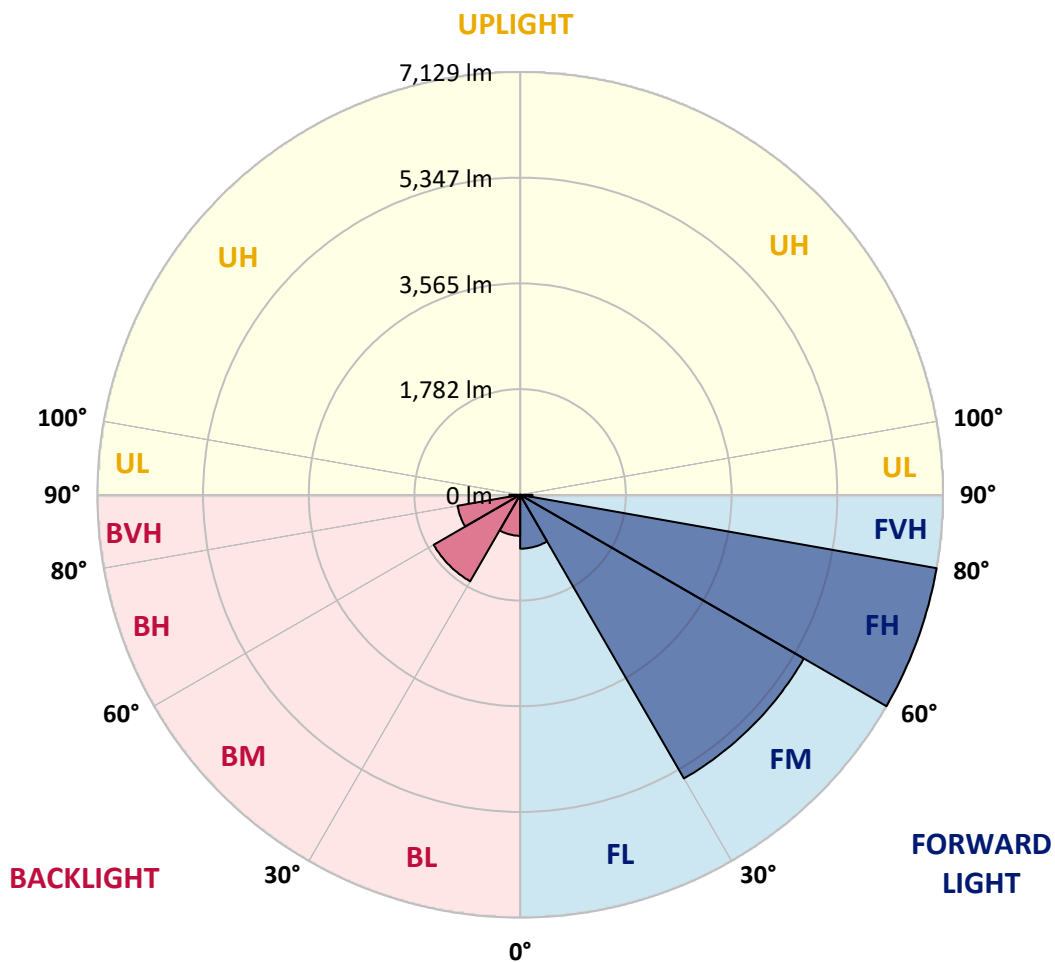
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	907.7	5.2			
FM	(30°-60°)	5521.8	31.7			
FH	(60°-80°)	7129.2	41.0			G3/7500
FVH	(80°-90°)	207.8	1.2			G2/225
BL	(0°-30°)	691.0	4.0	B2/1000		
BM	(30°-60°)	1684.5	9.7	B2/2500		
BH	(60°-80°)	1071.9	6.2	B3/2500		G3/2500
BVH	(80°-90°)	181.6	1.0			G2/225
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°	35°	45°	47°	55°	65°	75°	85°
0°	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4
2.5°	2137.0	2132.8	2131.1	2127.7	2123.5	2102.1	2097.9	2082.7	2061.7	2039.5	2016.7
5°	2277.5	2276.7	2267.1	2250.3	2223.3	2176.6	2165.7	2128.6	2078.5	2030.2	1982.1
7.5°	2400.9	2393.3	2375.6	2341.6	2294.4	2230.9	2215.7	2164.0	2095.4	2029.3	1964.1
10°	2491.4	2487.2	2448.4	2401.8	2339.9	2269.7	2252.0	2194.3	2119.0	2035.2	1954.0
12.5°	2543.1	2534.7	2489.7	2434.1	2360.4	2291.9	2273.9	2215.7	2131.1	2035.2	1939.7
15°	2539.8	2533.9	2488.9	2427.9	2353.7	2293.6	2277.5	2219.1	2128.6	2026.8	1921.1
17.5°	2472.0	2474.6	2436.6	2376.5	2315.5	2269.7	2255.3	2201.4	2111.4	2010.0	1899.2
20°	2353.7	2365.5	2339.9	2286.8	2252.8	2221.6	2212.3	2166.5	2085.3	1985.5	1875.3
22.5°	2235.1	2246.1	2235.9	2191.0	2185.9	2167.4	2162.3	2129.4	2062.5	1970.3	1861.0
25°	2148.0	2158.1	2156.4	2117.3	2132.8	2131.9	2127.7	2111.4	2057.5	1970.3	1863.5
27.5°	2124.3	2127.7	2124.3	2088.7	2109.7	2126.9	2123.5	2120.7	2072.6	1994.8	1895.8
30°	2205.6	2200.5	2174.1	2102.1	2121.8	2145.4	2142.1	2143.7	2118.2	2059.1	1967.8
32.5°	2529.7	2506.6	2423.7	2221.6	2169.9	2182.5	2184.2	2212.3	2216.5	2158.1	2079.4
35°	3014.5	2989.2	2881.6	2541.5	2319.7	2275.8	2275.8	2318.0	2343.3	2300.3	2252.8
37.5°	3528.3	3500.2	3442.9	2985.0	2634.5	2437.5	2433.2	2462.8	2499.0	2509.4	2521.2
40°	4112.1	4082.6	4098.6	3482.5	3073.8	2717.4	2657.3	2636.2	2734.3	2799.5	2894.5
42.5°	4751.3	4737.5	4743.4	4036.8	3573.8	3136.5	3051.0	2941.7	3060.3	3176.1	3375.1
45°	5342.6	5354.4	5348.5	4630.1	4130.9	3647.5	3557.0	3345.3	3461.4	3660.1	3984.5
47.5°	5860.6	5811.5	5887.6	5278.3	4754.6	4219.7	4107.9	3824.6	3942.0	4187.4	4735.8
50°	6489.4	6482.7	6371.1	6143.4	5508.5	4794.3	4647.8	4319.5	4502.2	4843.4	5683.0
52.5°	7150.5	7027.7	6925.4	6816.0	6308.4	5383.4	5203.8	4812.8	5160.8	5589.7	6837.4
55°	7285.7	7230.9	7357.6	7541.5	7079.4	5995.3	5786.2	5431.4	5902.2	6443.0	8168.5
57.5°	7575.2	7574.3	7836.9	8164.3	7873.1	6644.3	6433.5	6178.8	6735.6	7420.3	9581.8
60°	7770.8	7825.6	8313.3	8948.8	8652.5	7394.2	7200.2	7041.2	7683.7	8512.8	10898.6
62.5°	7873.1	7947.6	8612.9	9267.0	9754.3	8642.4	8448.8	8219.4	8937.8	9711.3	11668.7
65°	7447.6	7593.7	8566.3	9542.1	10719.3	10665.9	10578.7	10176.0	10505.9	10658.3	11390.5
67.5°	6269.3	6419.1	7551.6	9285.5	11408.2	12617.6	12636.2	11948.1	11470.9	10739.5	9576.7
70°	4466.8	4584.3	5521.4	7785.2	10883.4	13892.9	13956.4	12764.6	11278.6	9524.1	6690.9
72.5°	2120.7	2192.6	3079.7	5066.9	8636.5	12729.2	12852.1	11722.1	9590.2	7051.3	3650.0
75°	779.4	801.3	1040.8	2155.5	5009.3	9387.3	9532.0	8403.0	6357.3	3510.6	1390.5
77.5°	467.1	481.5	584.1	909.8	1970.3	5365.7	5579.6	4570.0	2778.4	1306.7	683.8
80°	326.6	336.7	418.8	566.1	930.9	2044.8	2235.1	1865.2	1106.9	826.9	497.5
82.5°	220.9	226.0	294.6	382.5	618.6	730.2	787.8	829.4	746.5	615.3	315.6
85°	144.8	149.8	199.8	252.1	393.5	377.5	385.9	488.2	545.0	418.0	175.1
87.5°	82.9	86.3	120.3	134.6	193.1	159.9	161.6	257.2	348.8	281.9	106.5
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°	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4	2018.4
2.5°	2010.8	1999.8	1975.4	1959.9	1945.6	1942.2	1936.3	1935.5	1934.6	1934.6	1932.1
5°	1965.8	1947.3	1909.3	1888.0	1870.3	1868.6	1867.7	1871.9	1873.6	1875.3	1872.8
7.5°	1937.2	1911.9	1864.4	1834.0	1812.9	1807.6	1816.3	1835.7	1848.3	1853.4	1850.9
10°	1919.4	1888.0	1833.2	1800.0	1782.3	1779.8	1790.7	1813.8	1839.9	1850.0	1849.2
12.5°	1899.2	1863.5	1805.0	1770.5	1760.4	1765.4	1779.8	1800.8	1828.1	1844.1	1845.0
15°	1878.7	1837.4	1777.2	1746.9	1742.7	1749.4	1762.9	1778.9	1800.0	1816.3	1818.0
17.5°	1854.2	1811.0	1751.1	1719.6	1716.2	1719.6	1720.4	1728.9	1742.7	1757.8	1762.0
20°	1828.1	1784.0	1721.3	1690.1	1674.9	1661.4	1646.0	1647.6	1651.9	1667.3	1670.7
22.5°	1809.3	1765.4	1698.5	1655.2	1614.8	1574.0	1543.7	1539.4	1541.1	1553.8	1558.0
25°	1811.0	1764.6	1692.6	1618.1	1529.3	1464.1	1423.4	1416.6	1415.8	1425.0	1431.2
27.5°	1844.1	1797.5	1714.5	1579.9	1436.3	1339.6	1296.6	1291.5	1284.8	1287.3	1294.1
30°	1917.8	1874.5	1767.9	1541.1	1335.4	1217.9	1172.9	1167.9	1158.6	1154.4	1159.4
32.5°	2037.8	2002.4	1845.8	1503.7	1234.8	1113.6	1068.1	1057.1	1051.2	1046.2	1050.4
35°	2237.6	2222.4	1949.8	1463.3	1145.9	1033.2	991.9	975.0	966.6	975.9	982.6
37.5°	2550.7	2559.2	2086.1	1399.7	1077.4	980.1	945.2	925.9	913.2	920.8	928.4
40°	2994.3	3000.2	2236.8	1310.1	1018.0	948.6	911.5	893.8	875.8	862.3	861.5
42.5°	3576.4	3516.5	2384.9	1212.8	949.5	929.2	887.9	865.7	838.7	801.3	793.7
45°	4267.0	4056.4	2497.3	1101.0	872.4	905.6	861.5	831.1	788.7	748.2	744.0
47.5°	5062.7	4636.0	2552.4	985.2	800.5	870.8	829.4	781.1	727.7	707.5	704.9
50°	6034.1	5324.1	2578.6	872.4	738.1	825.2	782.8	726.0	681.3	677.1	674.6
52.5°	7140.4	6151.8	2587.3	780.3	686.4	765.9	744.8	689.8	654.1	657.7	657.7
55°	8298.1	7006.6	2472.0	713.4	638.9	704.9	719.3	675.4	645.6	659.4	664.5
57.5°	9360.8	7764.1	2109.7	661.9	594.2	658.6	710.0	688.9	668.7	723.5	726.9
60°	10176.8	8211.5	1575.7	615.3	561.0	642.3	734.7	740.6	745.7	876.7	894.7
62.5°	10347.7	8062.9	1083.3	579.0	545.8	656.0	779.4	780.3	774.4	865.7	876.7
65°	9563.2	7120.7	787.8	558.5	533.2	680.5	817.6	799.7	760.9	830.3	809.8
67.5°	7594.6	5364.8	656.0	543.3	514.6	678.8	858.1	817.6	753.3	813.4	780.3
70°	4929.7	3243.9	584.1	530.7	492.4	646.5	881.7	816.0	731.1	756.6	717.6
72.5°	2405.1	1450.6	535.7	512.1	469.7	601.8	880.9	800.5	708.3	706.6	685.5
75°	941.0	664.5	491.6	484.0	430.9	550.9	857.3	778.6	681.3	654.1	646.5
77.5°	550.9	473.9	435.9	442.7	384.2	500.0	822.7	740.6	643.9	611.9	603.5
80°	401.1	354.7	371.6	382.5	328.3	449.4	776.0	694.0	602.6	618.6	606.8
82.5°	257.2	228.5	301.3	312.3	273.5	397.7	725.2	644.8	544.2	494.1	482.3
85°	131.3	144.8	224.3	237.8	210.8	326.6	663.6	579.9	478.1	411.2	418.0
87.5°	73.6	98.9	143.1	159.9	149.0	251.3	538.3	478.1	390.1	317.3	279.4
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)