

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: P299654

Luminaire Tested: **GLNA-AF-04-LED-E1-5MQ-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299654  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
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-E1-5MQ-7030-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19644 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

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

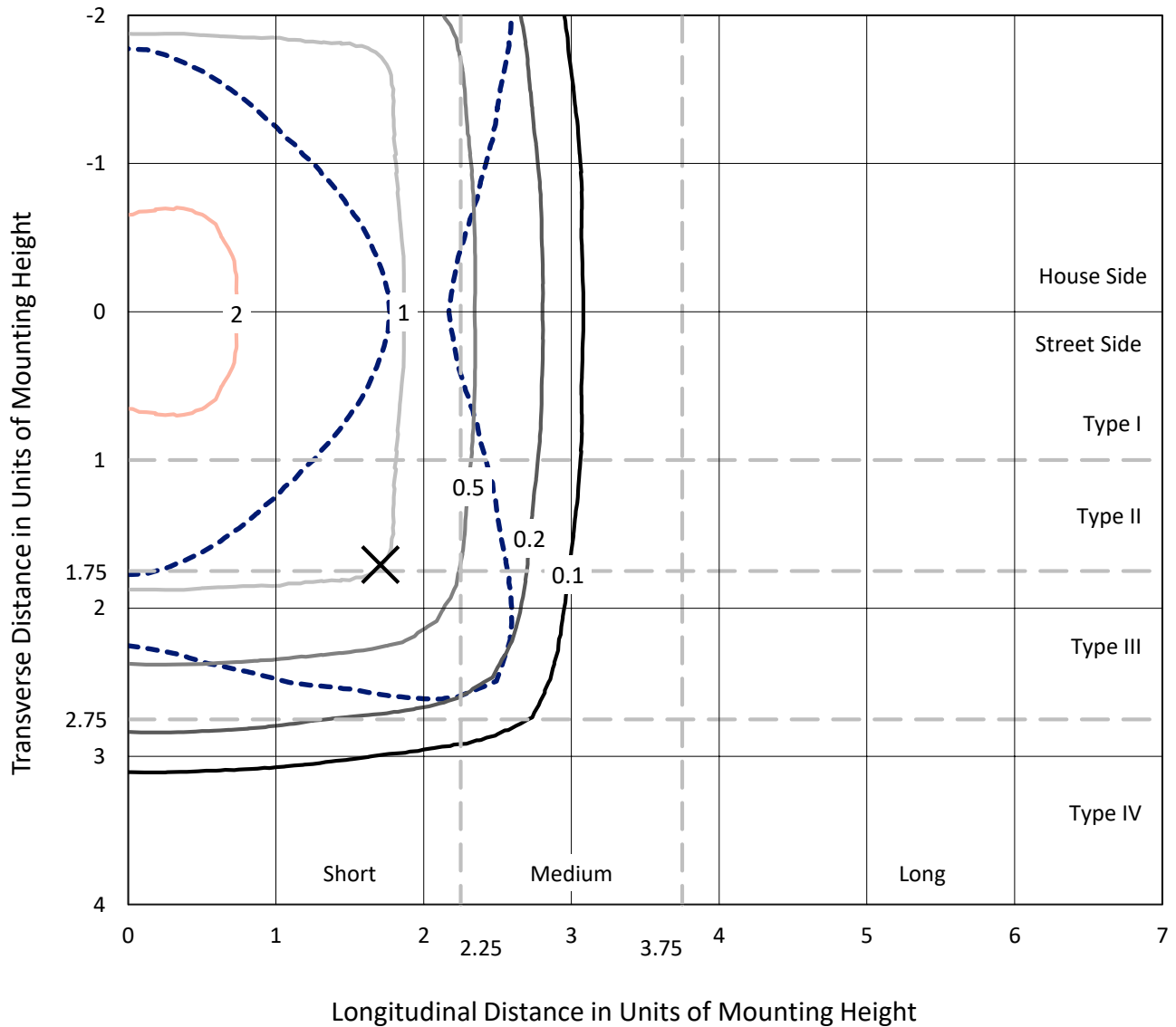


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

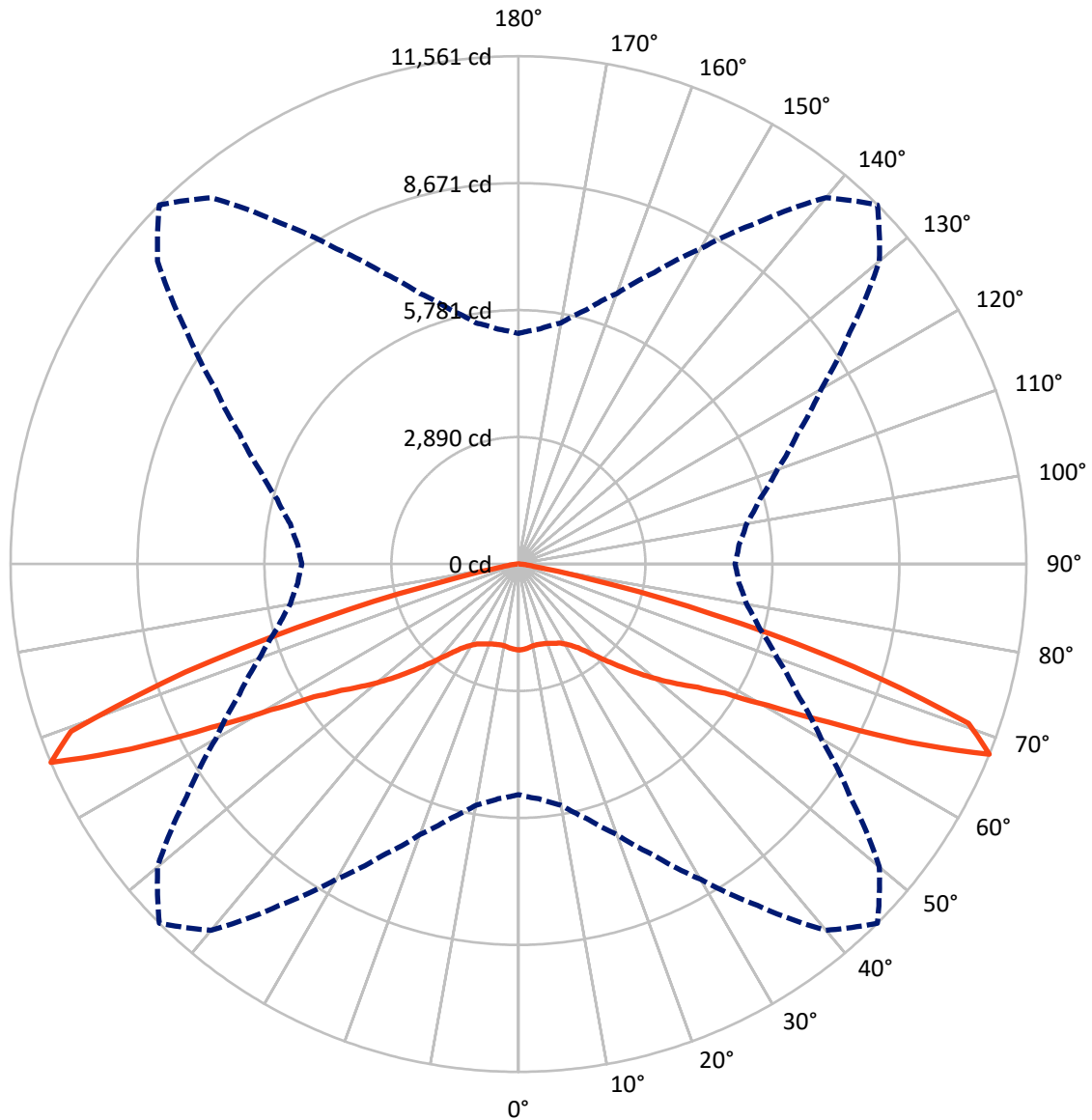


Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9822.0	0.0	9822.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9822.0	0.0	9822.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	19644.0	0.0	19644.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.2	0.9
10°-20°	531.7	2.7
20°-30°	903.8	4.6
30°-40°	1477.5	7.5
40°-50°	2637.6	13.4
50°-60°	4447.1	22.6
60°-70°	6901.2	35.1
70°-80°	2424.8	12.3
80°-90°	137.0	0.7
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°	19644.0	100.0
0°-180°	19644.0	100.0

**Coefficient of Utilization**



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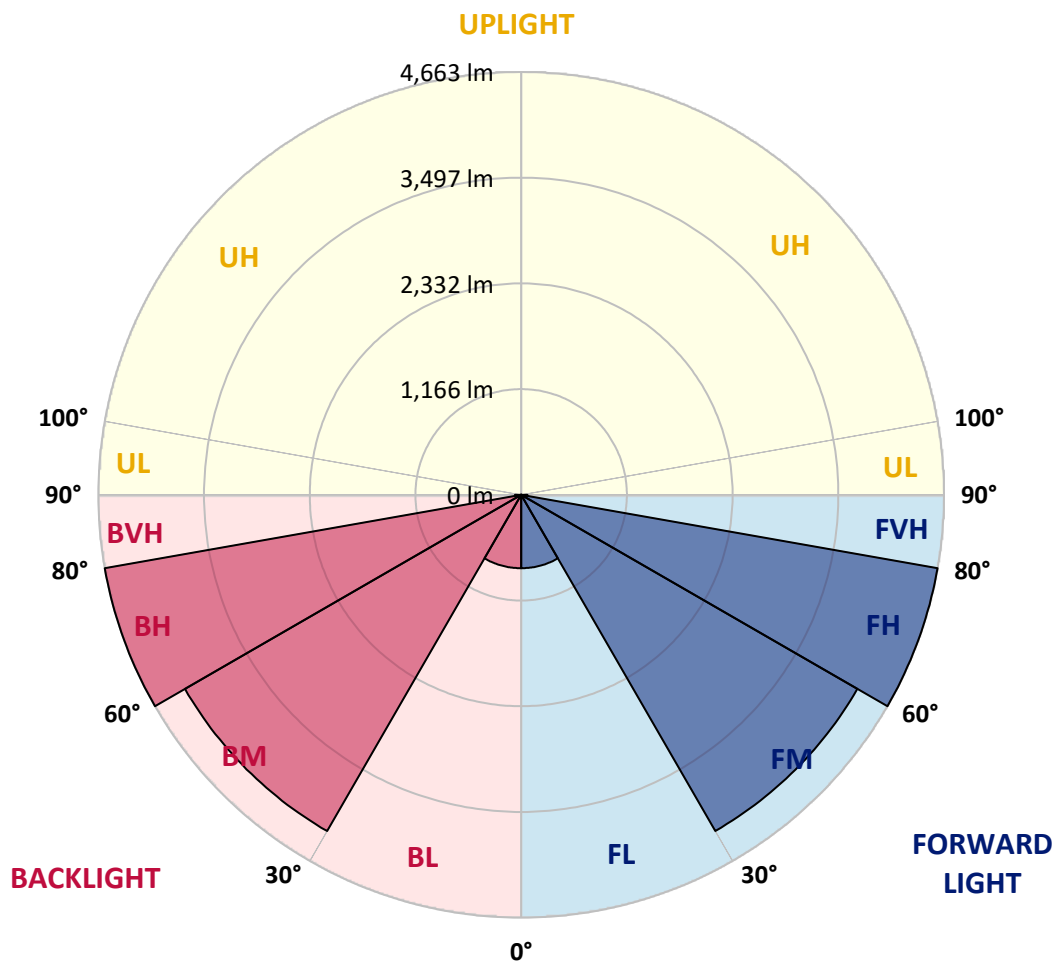
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	809.4	4.1			
FM (30°-60°)	4281.1	21.8			
FH (60°-80°)	4663.0	23.7			G2/5000
FVH (80°-90°)	68.5	0.3			G1/100
BL (0°-30°)	809.4	4.1	B2/1000		
BM (30°-60°)	4281.1	21.8	B3/5000		
BH (60°-80°)	4663.0	23.7	B4/5000		G2/5000
BVH (80°-90°)	68.5	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6
2.5°	1950.4	1952.2	1952.2	1952.2	1951.3	1951.3	1949.5	1951.3	1950.4	1947.7	1948.6
5°	1934.1	1935.9	1935.9	1935.0	1937.7	1936.8	1934.1	1935.9	1935.0	1933.2	1934.1
7.5°	1910.6	1913.3	1913.3	1912.4	1915.2	1914.2	1912.4	1913.3	1913.3	1910.6	1910.6
10°	1884.4	1886.2	1886.2	1885.3	1889.9	1889.9	1889.0	1891.7	1892.6	1889.9	1888.0
12.5°	1860.0	1862.8	1862.8	1866.4	1870.9	1872.7	1877.2	1880.8	1884.4	1883.5	1879.9
15°	1845.6	1847.4	1851.0	1855.5	1862.8	1869.1	1876.3	1884.4	1891.7	1893.5	1888.0
17.5°	1836.6	1839.3	1844.7	1851.0	1860.9	1871.8	1882.6	1893.5	1903.4	1907.0	1900.7
20°	1833.8	1835.7	1841.1	1851.9	1865.5	1881.7	1897.1	1909.7	1923.3	1927.8	1923.3
22.5°	1839.3	1842.9	1849.2	1861.9	1879.9	1900.7	1918.8	1935.9	1953.1	1961.2	1954.9
25°	1863.7	1867.3	1875.4	1891.7	1911.5	1933.2	1954.0	1973.9	1989.2	1997.4	1992.8
27.5°	1908.8	1913.3	1923.3	1939.5	1961.2	1984.7	2007.3	2023.6	2036.2	2038.9	2033.5
30°	1976.6	1986.5	1998.3	2016.3	2041.6	2061.5	2084.1	2098.5	2113.9	2113.9	2109.4
32.5°	2082.3	2092.2	2104.9	2122.0	2141.9	2163.6	2183.5	2196.1	2212.4	2213.3	2202.4
35°	2240.4	2244.9	2255.7	2266.6	2284.6	2303.6	2320.8	2328.9	2342.4	2343.3	2333.4
37.5°	2449.0	2449.9	2457.2	2460.8	2477.0	2497.8	2514.1	2519.5	2532.2	2530.3	2520.4
40°	2692.1	2696.6	2699.3	2704.7	2721.9	2741.7	2758.9	2761.6	2775.2	2772.5	2759.8
42.5°	2973.0	2974.8	2990.2	2998.3	3014.6	3024.5	3046.2	3048.9	3065.1	3057.9	3043.5
45°	3288.3	3304.5	3319.0	3335.3	3352.4	3364.2	3381.3	3377.7	3388.6	3377.7	3369.6
47.5°	3619.8	3631.6	3664.1	3689.4	3717.4	3727.3	3751.7	3740.9	3751.7	3736.3	3733.6
50°	3984.8	4005.6	4033.6	4062.5	4092.3	4108.5	4140.2	4126.6	4141.1	4126.6	4118.5
52.5°	4344.3	4349.7	4411.2	4453.6	4495.2	4514.2	4533.1	4526.8	4527.7	4526.8	4518.7
55°	4685.8	4698.4	4759.9	4817.7	4890.0	4943.3	4975.8	4972.2	4964.0	4955.9	4942.4
57.5°	5070.6	5083.3	5153.7	5225.1	5307.3	5383.2	5449.1	5516.9	5543.1	5550.3	5520.5
60°	5591.0	5590.1	5684.0	5770.7	5888.2	6001.1	6145.6	6292.9	6461.8	6540.4	6436.5
62.5°	6120.4	6142.0	6277.5	6431.1	6673.2	6909.0	7175.5	7437.5	7704.9	7922.6	7691.3
65°	6057.1	6140.2	6341.7	6689.5	7136.6	7667.8	8242.4	8850.3	9399.6	9777.2	9353.5
67.5°	5249.5	5367.8	5572.9	5995.7	6554.9	7320.9	8285.7	9488.1	10885.6	11561.4	10723.9
70°	3805.0	3938.7	4153.7	4566.5	5120.3	5848.4	6896.3	8339.9	10190.0	10871.2	9948.8
72.5°	1893.5	1965.7	2098.5	2361.4	2780.6	3371.4	4321.7	5709.3	7346.2	7971.4	7128.5
75°	643.2	676.6	699.2	785.0	917.8	1150.0	1622.5	2496.0	3807.7	4564.7	3753.5
77.5°	371.3	372.2	387.5	402.9	425.5	450.8	514.0	674.8	1167.2	1657.7	1207.8
80°	240.3	239.4	252.0	263.8	279.1	291.8	295.4	312.6	360.4	427.3	382.1
82.5°	124.7	140.0	168.0	183.4	212.3	217.7	210.5	204.2	215.9	224.0	229.5
85°	68.7	59.6	89.4	115.6	128.3	130.1	130.1	122.9	127.4	124.7	135.5
87.5°	31.6	28.9	35.2	56.9	60.5	51.5	54.2	47.9	34.3	33.4	37.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6	1957.6
2.5°	1948.6	1949.5	1949.5	1952.2	1953.1	1954.9	1956.7	1957.6
5°	1933.2	1935.9	1934.1	1936.8	1936.8	1938.6	1938.6	1939.5
7.5°	1910.6	1913.3	1913.3	1913.3	1912.4	1915.2	1915.2	1915.2
10°	1887.1	1889.0	1888.0	1886.2	1884.4	1887.1	1886.2	1885.3
12.5°	1879.9	1875.4	1871.8	1870.0	1866.4	1867.3	1864.6	1864.6
15°	1884.4	1876.3	1870.0	1867.3	1863.7	1861.9	1860.0	1860.9
17.5°	1896.2	1886.2	1878.1	1873.6	1869.1	1866.4	1862.8	1863.7
20°	1917.0	1905.2	1893.5	1884.4	1876.3	1871.8	1869.1	1868.2
22.5°	1947.7	1930.5	1913.3	1899.8	1889.0	1882.6	1879.9	1878.1
25°	1982.9	1963.9	1944.1	1928.7	1917.9	1909.7	1904.3	1904.3
27.5°	2027.2	2011.8	1993.7	1975.7	1965.7	1957.6	1954.0	1952.2
30°	2101.2	2086.8	2072.3	2055.2	2042.5	2034.4	2028.1	2022.7
32.5°	2196.1	2184.4	2172.6	2160.0	2148.2	2137.4	2127.4	2122.9
35°	2329.8	2320.8	2312.6	2298.2	2293.7	2287.3	2281.9	2277.4
37.5°	2514.1	2510.5	2510.5	2495.1	2491.5	2488.8	2483.4	2484.3
40°	2756.2	2759.8	2755.3	2749.9	2747.2	2739.9	2739.9	2746.3
42.5°	3042.6	3045.3	3055.2	3046.2	3056.1	3047.1	3041.7	3046.2
45°	3375.0	3384.9	3404.8	3395.8	3402.1	3386.7	3367.8	3368.7
47.5°	3748.1	3757.1	3765.3	3758.9	3759.8	3734.5	3709.2	3702.9
50°	4135.6	4139.3	4143.8	4134.7	4136.5	4108.5	4079.6	4080.5
52.5°	4518.7	4535.8	4553.9	4529.5	4524.1	4492.5	4451.8	4435.6
55°	4956.8	4981.2	4960.4	4918.0	4875.5	4833.0	4779.7	4770.7
57.5°	5497.0	5455.5	5390.4	5310.0	5251.3	5191.7	5137.5	5114.9
60°	6248.6	6092.3	5974.9	5855.7	5780.7	5707.5	5636.1	5625.3
62.5°	7311.0	7040.9	6806.9	6560.3	6358.8	6201.7	6076.1	6040.9
65°	8642.6	8003.9	7450.1	6933.4	6484.4	6145.6	5932.4	5838.5
67.5°	9215.3	7954.2	7004.8	6271.2	5684.0	5273.9	5043.5	4928.8
70°	8097.8	6596.4	5563.9	4829.4	4294.6	3857.4	3648.7	3525.9
72.5°	5571.1	4196.2	3318.1	2708.3	2281.0	1915.2	1770.6	1759.8
75°	2501.4	1656.8	1141.9	879.9	740.8	644.1	614.3	591.7
77.5°	700.1	517.6	461.6	431.8	402.9	369.5	356.8	359.5
80°	340.6	321.6	309.0	290.0	263.8	235.8	223.1	228.6
82.5°	225.8	223.1	231.3	217.7	179.8	152.7	128.3	117.4
85°	137.3	139.1	141.8	142.7	121.1	84.9	57.8	65.0
87.5°	54.2	62.3	67.8	70.5	65.9	40.7	32.5	33.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)