

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: P299902

Luminaire Tested: **GLNA-AF-05-LED-E1-5WQ-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299902
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-5WQ-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25227.7 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 210
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

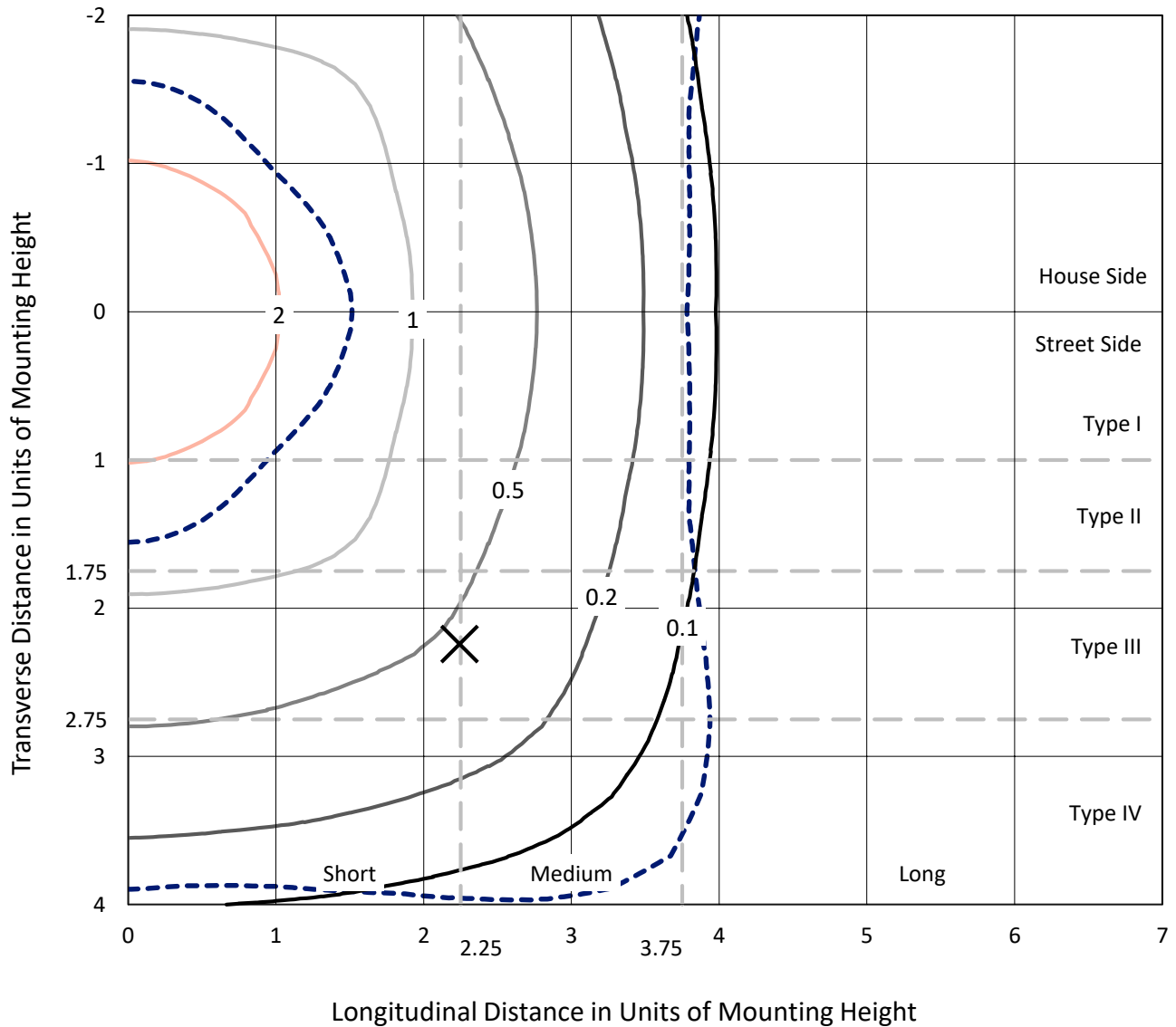


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

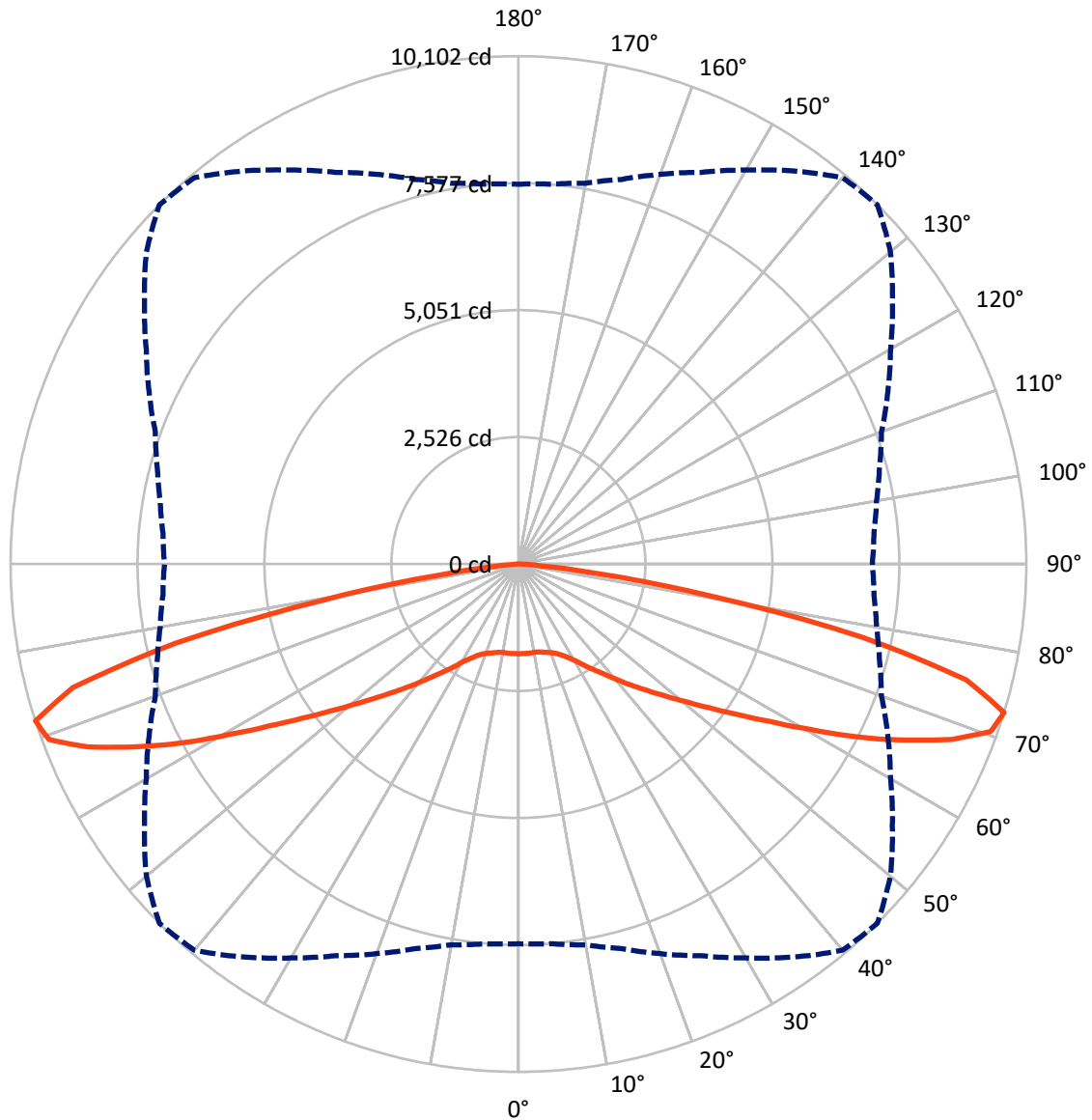


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12613.9	0.0	12613.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12613.9	0.0	12613.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	25227.7	0.0	25227.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.6	0.7
10°-20°	518.1	2.1
20°-30°	946.8	3.8
30°-40°	1632.4	6.5
40°-50°	2790.6	11.1
50°-60°	4523.2	17.9
60°-70°	7503.9	29.7
70°-80°	6609.2	26.2
80°-90°	532.9	2.1
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°	25227.7	100.0
0°-180°	25227.7	100.0



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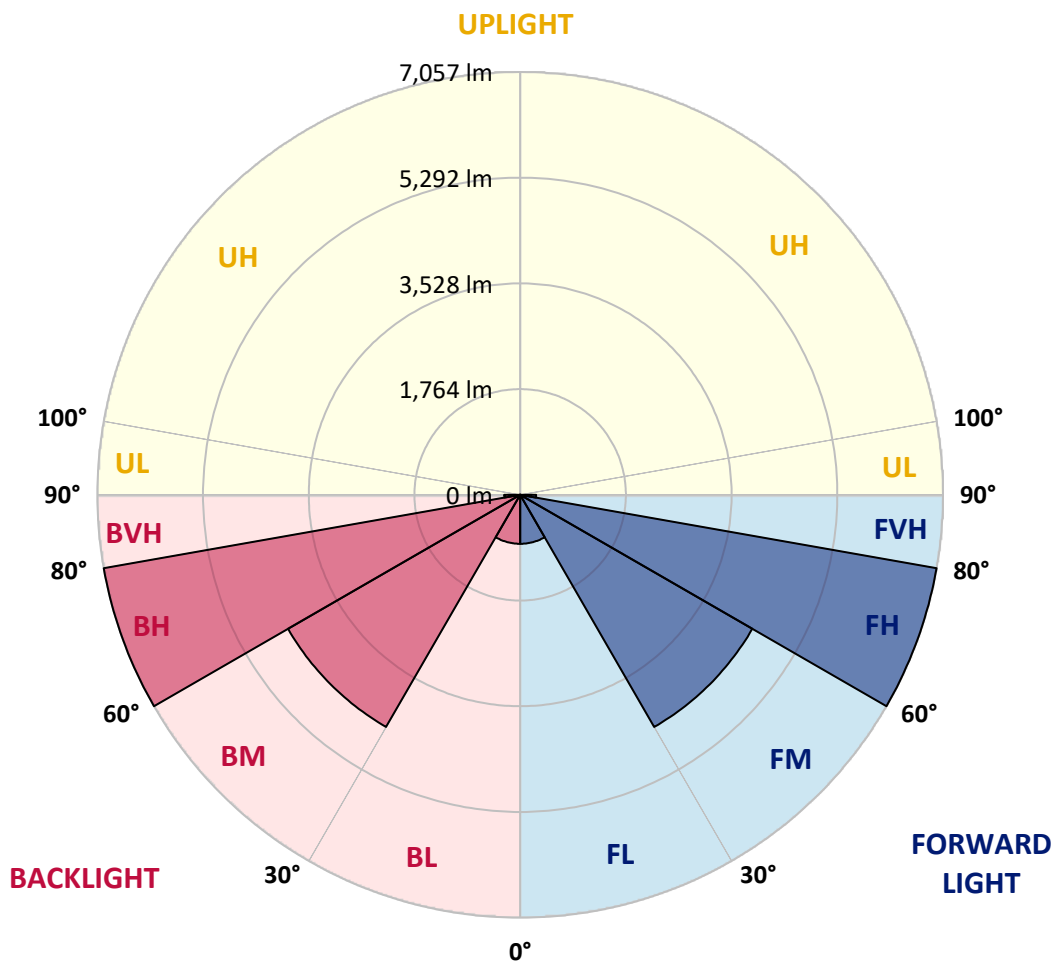
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	817.7	3.2			
FM	(30°-60°)	4473.1	17.7			
FH	(60°-80°)	7056.5	28.0			G3/7500
FVH	(80°-90°)	266.4	1.1			G3/500
BL	(0°-30°)	817.7	3.2	B2/1000		
BM	(30°-60°)	4473.1	17.7	B3/5000		
BH	(60°-80°)	7056.5	28.0	B5		G3/7500
BVH	(80°-90°)	266.4	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5
2.5°	1786.5	1787.7	1788.8	1787.7	1787.7	1786.5	1785.4	1786.5	1785.4	1783.0	1784.2
5°	1792.3	1794.6	1794.6	1792.3	1793.5	1792.3	1790.0	1791.1	1788.8	1785.4	1785.4
7.5°	1799.2	1800.4	1800.4	1798.1	1799.2	1796.9	1794.6	1793.5	1791.1	1786.5	1783.0
10°	1809.7	1810.8	1809.7	1807.3	1807.3	1803.9	1798.1	1795.8	1791.1	1784.2	1780.7
12.5°	1821.2	1822.4	1821.2	1818.9	1817.8	1812.0	1807.3	1803.9	1800.4	1794.6	1788.8
15°	1837.4	1839.7	1837.4	1832.8	1829.3	1824.7	1822.4	1823.5	1824.7	1820.1	1814.3
17.5°	1867.5	1868.7	1865.2	1854.8	1850.2	1845.5	1845.5	1847.8	1851.3	1849.0	1843.2
20°	1923.0	1919.6	1911.5	1898.7	1893.0	1884.9	1883.7	1884.9	1884.9	1883.7	1879.1
22.5°	1992.5	1990.2	1979.7	1963.5	1955.4	1950.8	1943.9	1938.1	1936.9	1933.5	1928.8
25°	2075.8	2074.6	2061.9	2048.0	2042.2	2036.4	2030.7	2022.6	2015.6	2007.5	2002.9
27.5°	2182.2	2177.6	2159.1	2152.1	2144.0	2140.6	2132.5	2123.2	2117.4	2107.0	2101.2
30°	2299.1	2299.1	2284.1	2281.7	2281.7	2273.6	2264.4	2248.2	2237.8	2227.4	2223.9
32.5°	2416.0	2417.1	2402.1	2406.7	2410.2	2416.0	2418.3	2412.5	2405.5	2404.4	2397.4
35°	2584.9	2580.3	2565.2	2568.7	2567.5	2566.4	2566.4	2579.1	2581.4	2583.7	2569.8
37.5°	2794.3	2794.3	2779.3	2779.3	2772.3	2765.4	2756.1	2764.2	2777.0	2780.4	2771.2
40°	3033.8	3041.9	3023.4	3022.3	3024.6	3002.6	2992.2	3004.9	3013.0	3026.9	3016.5
42.5°	3316.2	3310.4	3291.9	3289.5	3276.8	3269.9	3260.6	3271.0	3283.8	3293.0	3296.5
45°	3586.9	3582.3	3561.5	3561.5	3548.7	3542.9	3547.6	3564.9	3570.7	3583.4	3596.2
47.5°	3854.2	3848.4	3834.5	3840.3	3841.5	3851.9	3866.9	3883.1	3899.3	3916.7	3922.5
50°	4127.3	4128.4	4113.4	4127.3	4144.6	4173.5	4214.0	4240.7	4274.2	4296.2	4303.1
52.5°	4376.0	4380.7	4396.9	4429.3	4464.0	4520.7	4590.1	4654.9	4710.4	4747.5	4745.1
55°	4674.6	4681.5	4720.8	4776.4	4833.1	4918.7	5021.7	5136.2	5228.8	5282.0	5248.5
57.5°	5056.4	5071.4	5115.4	5190.6	5275.1	5386.2	5527.3	5699.7	5843.2	5914.9	5860.6
60°	5580.5	5589.8	5643.0	5726.3	5828.2	5965.8	6154.4	6385.9	6588.3	6683.2	6620.7
62.5°	6271.3	6288.7	6331.5	6415.9	6520.1	6676.3	6906.5	7195.8	7448.1	7580.0	7438.8
65°	7096.3	7151.8	7187.7	7273.3	7370.5	7536.0	7776.7	8086.8	8357.5	8444.3	8281.1
67.5°	7913.2	7961.8	8024.3	8122.6	8221.0	8407.3	8630.6	8931.4	9228.8	9307.5	9054.1
70°	8270.7	8298.5	8395.7	8529.9	8718.5	8938.4	9196.4	9534.2	9902.2	9967.0	9645.3
72.5°	7554.5	7582.3	7691.0	7919.0	8247.6	8597.0	9047.1	9543.5	10029.5	10102.4	9659.2
75°	5713.6	5668.5	5829.3	6131.3	6574.5	7061.6	7691.0	8402.6	9105.0	9196.4	8667.6
77.5°	2952.8	2947.1	3068.5	3443.4	3972.2	4526.5	5219.5	6023.7	6711.0	6988.7	6558.3
80°	831.9	841.2	899.0	1085.3	1394.3	1794.6	2336.1	3089.4	3651.7	3938.7	3698.0
82.5°	326.3	351.7	373.7	408.4	448.9	508.0	678.0	1009.0	1353.8	1617.6	1324.8
85°	116.9	125.0	177.0	209.4	212.9	224.5	255.7	298.5	359.8	429.3	352.9
87.5°	44.0	48.6	56.7	93.7	92.6	84.5	103.0	107.6	81.0	74.1	91.4
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°	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5	1786.5
2.5°	1781.9	1783.0	1783.0	1784.2	1785.4	1785.4	1787.7	1787.7
5°	1783.0	1783.0	1780.7	1781.9	1780.7	1780.7	1781.9	1781.9
7.5°	1780.7	1779.6	1777.3	1776.1	1773.8	1773.8	1773.8	1773.8
10°	1777.3	1776.1	1773.8	1772.6	1771.5	1771.5	1771.5	1771.5
12.5°	1786.5	1783.0	1780.7	1779.6	1779.6	1779.6	1779.6	1779.6
15°	1810.8	1802.7	1796.9	1796.9	1798.1	1800.4	1800.4	1802.7
17.5°	1840.9	1831.6	1825.9	1821.2	1823.5	1827.0	1829.3	1831.6
20°	1876.8	1872.1	1864.0	1859.4	1859.4	1864.0	1866.4	1867.5
22.5°	1926.5	1923.0	1919.6	1913.8	1913.8	1916.1	1920.7	1920.7
25°	2000.6	1998.3	1995.9	1991.3	1990.2	1990.2	1992.5	1994.8
27.5°	2093.1	2094.3	2092.0	2090.8	2087.4	2086.2	2089.7	2088.5
30°	2216.9	2222.7	2228.5	2223.9	2218.1	2214.6	2211.2	2206.5
32.5°	2384.7	2377.8	2373.1	2365.0	2354.6	2345.4	2338.4	2330.3
35°	2543.2	2531.7	2527.0	2534.0	2532.8	2527.0	2518.9	2512.0
37.5°	2737.6	2735.3	2737.6	2750.4	2748.0	2753.8	2737.6	2736.5
40°	2982.9	2985.2	3001.4	3016.5	3024.6	3032.7	3023.4	3014.2
42.5°	3267.6	3266.4	3272.2	3293.0	3306.9	3316.2	3296.5	3294.2
45°	3568.4	3560.3	3564.9	3582.3	3596.2	3606.6	3584.6	3584.6
47.5°	3899.3	3885.4	3870.4	3890.1	3898.2	3905.1	3887.8	3882.0
50°	4268.4	4239.5	4207.1	4215.2	4215.2	4212.9	4190.9	4189.7
52.5°	4691.9	4638.7	4579.7	4557.7	4545.0	4531.1	4492.9	4474.4
55°	5179.0	5099.2	5006.6	4949.9	4919.9	4881.7	4818.0	4800.7
57.5°	5748.3	5623.4	5463.7	5394.3	5327.1	5264.7	5194.1	5174.4
60°	6422.9	6238.9	6027.2	5898.7	5825.8	5765.7	5692.8	5689.3
62.5°	7175.0	6884.6	6645.0	6529.3	6476.1	6422.9	6353.5	6362.7
65°	7939.8	7636.7	7412.2	7318.5	7268.7	7224.7	7155.3	7165.7
67.5°	8694.2	8415.4	8168.9	8072.9	8017.3	7961.8	7899.3	7909.7
70°	9235.7	8889.8	8612.1	8399.2	8266.1	8115.7	8018.5	7994.2
72.5°	9080.7	8547.3	8106.4	7684.1	7436.5	7235.2	7098.6	7039.6
75°	7858.8	7129.9	6562.9	6044.5	5752.9	5515.7	5343.3	5235.7
77.5°	5836.3	5017.0	4347.1	3750.1	3278.0	2960.9	2737.6	2593.0
80°	3194.7	2429.8	1776.1	1248.5	917.6	762.5	673.4	630.6
82.5°	995.1	642.2	473.2	408.4	379.5	363.3	336.7	293.9
85°	317.0	277.7	258.0	246.5	234.9	204.8	141.2	128.4
87.5°	122.6	126.1	125.0	118.0	120.3	86.8	69.4	61.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)