

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: P299971

Luminaire Tested: **GLNA-AF-07-LED-E1-5WQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299971
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-07-LED-E1-5WQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25294.1 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 226
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

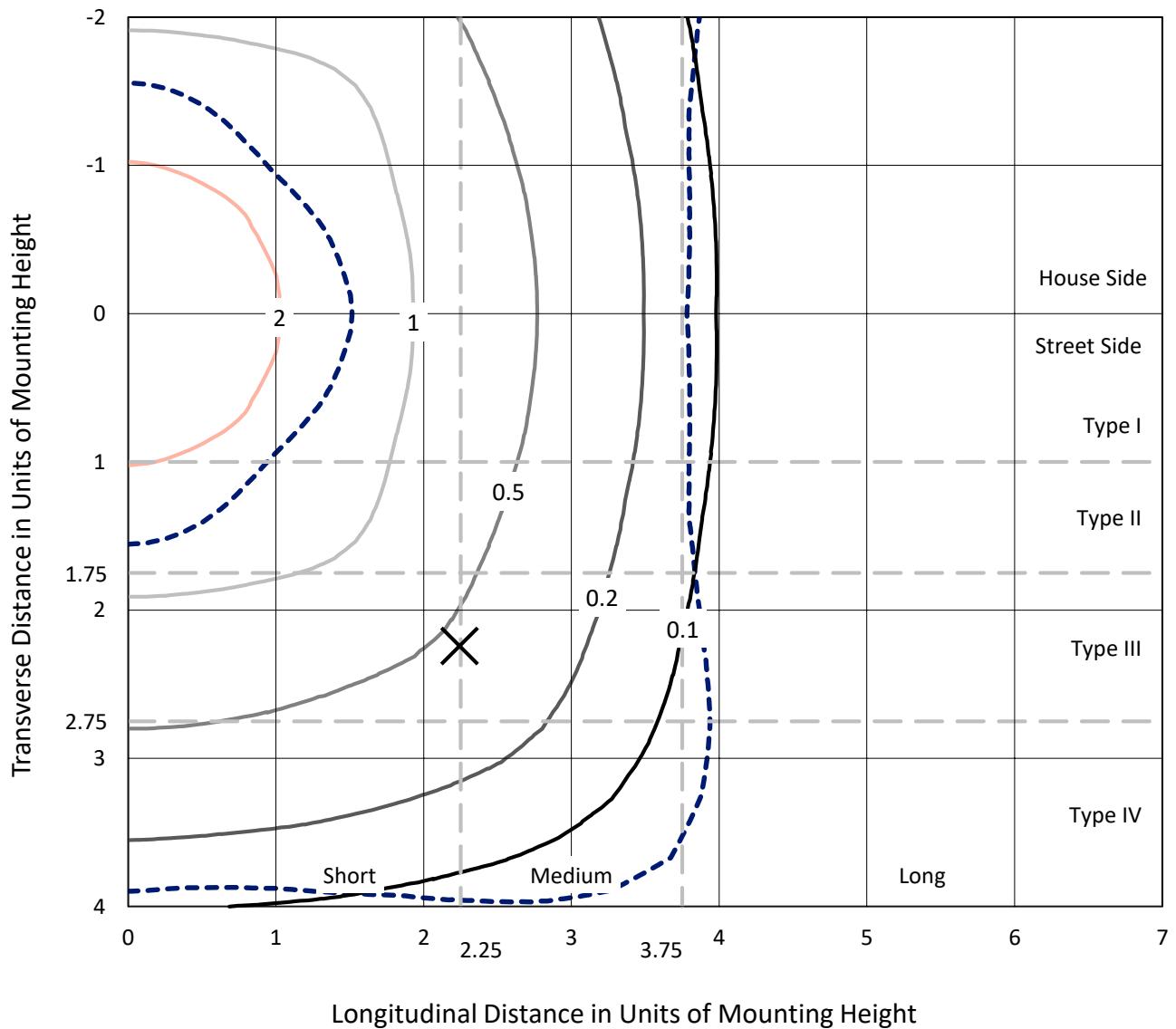


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

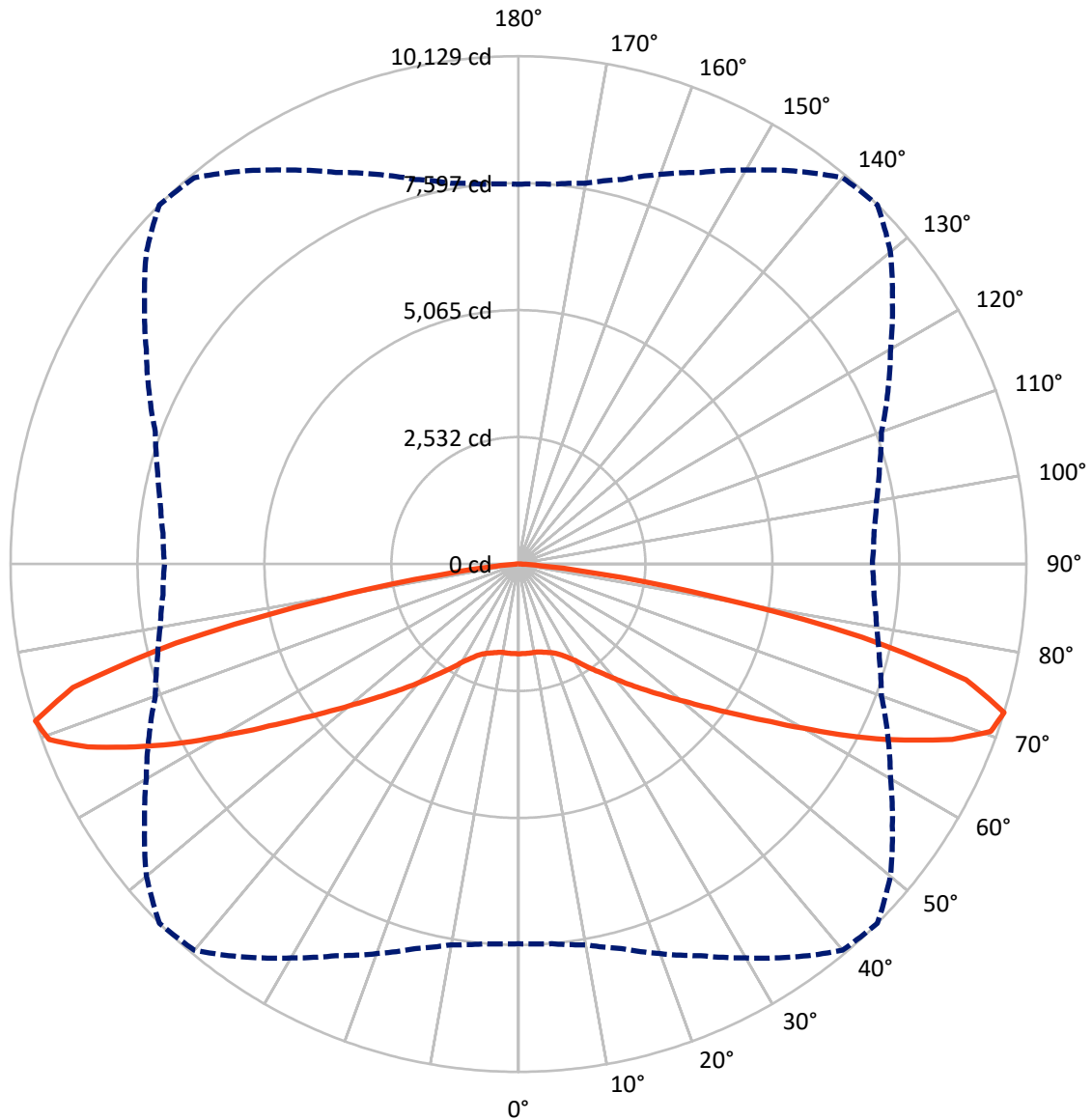


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Semi-Cutoff

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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	12647.1	0.0	12647.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12647.1	0.0	12647.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	25294.1	0.0	25294.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	0.7
10°-20°	519.5	2.1
20°-30°	949.3	3.8
30°-40°	1636.7	6.5
40°-50°	2798.0	11.1
50°-60°	4535.2	17.9
60°-70°	7523.6	29.7
70°-80°	6626.6	26.2
80°-90°	534.3	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°	25294.1	100.0
0°-180°	25294.1	100.0



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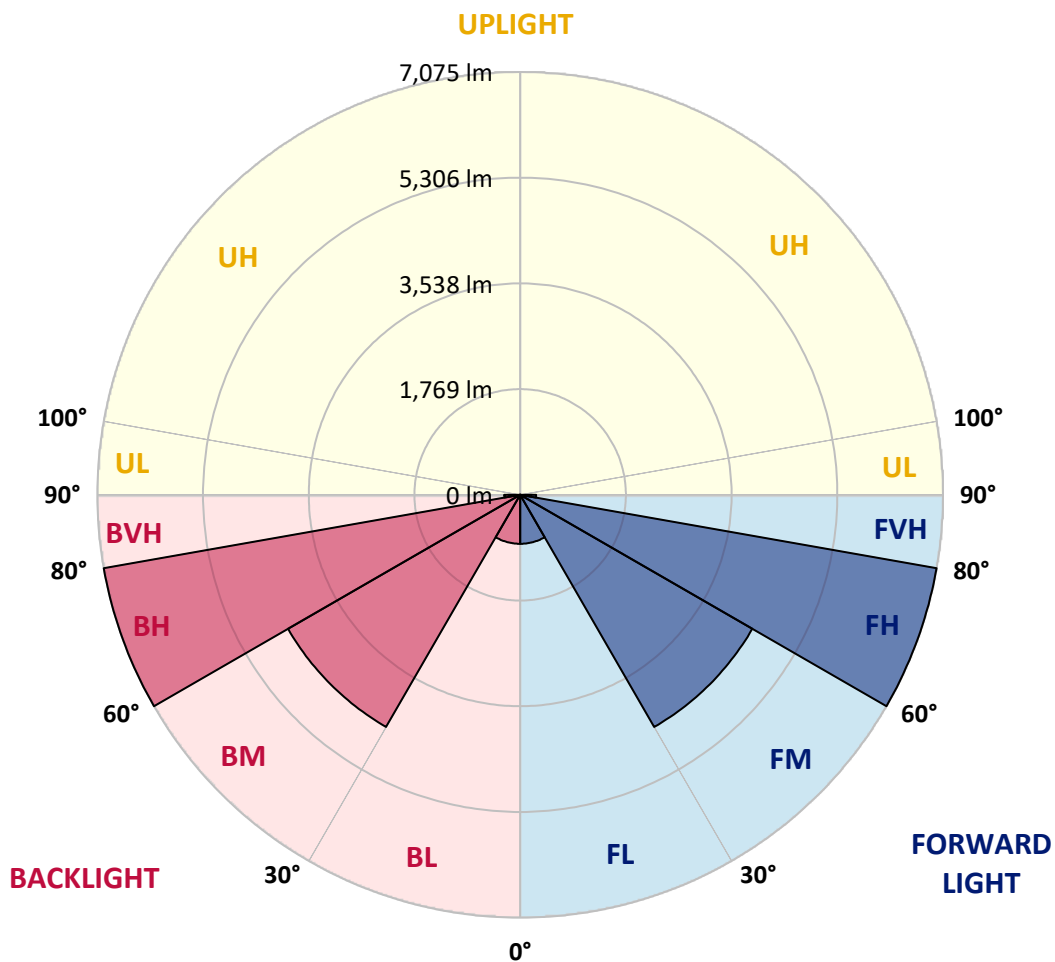
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	819.9	3.2			
FM	(30°-60°)	4484.9	17.7			
FH	(60°-80°)	7075.1	28.0			G3/7500
FVH	(80°-90°)	267.1	1.1			G3/500
BL	(0°-30°)	819.9	3.2	B2/1000		
BM	(30°-60°)	4484.9	17.7	B3/5000		
BH	(60°-80°)	7075.1	28.0	B5		G3/7500
BVH	(80°-90°)	267.1	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°	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2
2.5°	1791.2	1792.4	1793.5	1792.4	1792.4	1791.2	1790.1	1791.2	1790.1	1787.7	1788.9
5°	1797.0	1799.3	1799.3	1797.0	1798.2	1797.0	1794.7	1795.9	1793.5	1790.1	1790.1
7.5°	1804.0	1805.1	1805.1	1802.8	1804.0	1801.7	1799.3	1798.2	1795.9	1791.2	1787.7
10°	1814.4	1815.6	1814.4	1812.1	1812.1	1808.6	1802.8	1800.5	1795.9	1788.9	1785.4
12.5°	1826.0	1827.2	1826.0	1823.7	1822.5	1816.7	1812.1	1808.6	1805.1	1799.3	1793.5
15°	1842.3	1844.6	1842.3	1837.6	1834.1	1829.5	1827.2	1828.3	1829.5	1824.9	1819.1
17.5°	1872.4	1873.6	1870.1	1859.7	1855.0	1850.4	1850.4	1852.7	1856.2	1853.9	1848.1
20°	1928.1	1924.6	1916.5	1903.7	1897.9	1889.8	1888.7	1889.8	1889.8	1888.7	1884.0
22.5°	1997.7	1995.4	1985.0	1968.7	1960.6	1956.0	1949.0	1943.2	1942.0	1938.6	1933.9
25°	2081.2	2080.1	2067.3	2053.4	2047.6	2041.8	2036.0	2027.9	2020.9	2012.8	2008.2
27.5°	2188.0	2183.3	2164.8	2157.8	2149.7	2146.2	2138.1	2128.8	2123.0	2112.6	2106.8
30°	2305.1	2305.1	2290.1	2287.7	2287.7	2279.6	2270.3	2254.1	2243.7	2233.2	2229.7
32.5°	2422.3	2423.5	2408.4	2413.0	2416.5	2422.3	2424.6	2418.8	2411.9	2410.7	2403.8
35°	2591.7	2587.1	2572.0	2575.5	2574.3	2573.1	2573.1	2585.9	2588.2	2590.5	2576.6
37.5°	2801.7	2801.7	2786.6	2786.6	2779.6	2772.7	2763.4	2771.5	2784.3	2787.8	2778.5
40°	3041.8	3049.9	3031.4	3030.2	3032.5	3010.5	3000.1	3012.8	3020.9	3034.9	3024.4
42.5°	3324.9	3319.1	3300.5	3298.2	3285.4	3278.5	3269.2	3279.6	3292.4	3301.7	3305.2
45°	3596.4	3591.7	3570.8	3570.8	3558.1	3552.3	3556.9	3574.3	3580.1	3592.9	3605.6
47.5°	3864.3	3858.5	3844.6	3850.4	3851.6	3862.0	3877.1	3893.3	3909.6	3927.0	3932.8
50°	4138.1	4139.3	4124.2	4138.1	4155.5	4184.5	4225.1	4251.8	4285.5	4307.5	4314.5
52.5°	4387.6	4392.2	4408.4	4440.9	4475.7	4532.6	4602.2	4667.1	4722.8	4760.0	4757.6
55°	4686.9	4693.8	4733.3	4789.0	4845.8	4931.6	5034.9	5149.8	5242.6	5295.9	5262.3
57.5°	5069.7	5084.8	5128.9	5204.3	5289.0	5400.3	5541.9	5714.7	5858.6	5930.5	5876.0
60°	5595.2	5604.5	5657.9	5741.4	5843.5	5981.6	6170.7	6402.7	6605.7	6700.8	6638.2
62.5°	6287.8	6305.2	6348.1	6432.8	6537.2	6693.9	6924.7	7214.8	7467.7	7599.9	7458.4
65°	7115.0	7170.7	7206.6	7292.5	7389.9	7555.8	7797.1	8108.0	8379.5	8466.5	8302.9
67.5°	7934.0	7982.8	8045.4	8144.0	8242.6	8429.4	8653.3	8954.9	9253.1	9332.0	9077.9
70°	8292.5	8320.3	8417.8	8552.4	8741.5	8961.9	9220.6	9559.3	9928.3	9993.2	9670.7
72.5°	7574.4	7602.2	7711.3	7939.8	8269.3	8619.7	9070.9	9568.6	10055.9	10129.0	9684.6
75°	5728.6	5683.4	5844.7	6147.4	6591.8	7080.2	7711.3	8424.8	9128.9	9220.6	8690.4
77.5°	2960.6	2954.8	3076.6	3452.5	3982.7	4538.4	5233.3	6039.6	6728.7	7007.1	6575.5
80°	834.1	843.4	901.4	1088.2	1397.9	1799.3	2342.3	3097.5	3661.3	3949.0	3707.7
82.5°	327.2	352.7	374.7	409.5	450.1	509.3	679.8	1011.6	1357.3	1621.8	1328.3
85°	117.2	125.3	177.5	210.0	213.5	225.1	256.4	299.3	360.8	430.4	353.8
87.5°	44.1	48.7	56.8	94.0	92.8	84.7	103.3	107.9	81.2	74.2	91.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2	1791.2
2.5°	1786.6	1787.7	1787.7	1788.9	1790.1	1790.1	1792.4	1792.4
5°	1787.7	1787.7	1785.4	1786.6	1785.4	1785.4	1786.6	1786.6
7.5°	1785.4	1784.3	1781.9	1780.8	1778.5	1778.5	1778.5	1778.5
10°	1781.9	1780.8	1778.5	1777.3	1776.1	1776.1	1776.1	1776.1
12.5°	1791.2	1787.7	1785.4	1784.3	1784.3	1784.3	1784.3	1784.3
15°	1815.6	1807.5	1801.7	1801.7	1802.8	1805.1	1805.1	1807.5
17.5°	1845.7	1836.5	1830.7	1826.0	1828.3	1831.8	1834.1	1836.5
20°	1881.7	1877.1	1868.9	1864.3	1864.3	1868.9	1871.3	1872.4
22.5°	1931.6	1928.1	1924.6	1918.8	1918.8	1921.2	1925.8	1925.8
25°	2005.8	2003.5	2001.2	1996.6	1995.4	1995.4	1997.7	2000.0
27.5°	2098.6	2099.8	2097.5	2096.3	2092.8	2091.7	2095.2	2094.0
30°	2222.8	2228.6	2234.4	2229.7	2223.9	2220.5	2217.0	2212.3
32.5°	2391.0	2384.0	2379.4	2371.3	2360.8	2351.6	2344.6	2336.5
35°	2549.9	2538.3	2533.7	2540.7	2539.5	2533.7	2525.6	2518.6
37.5°	2744.8	2742.5	2744.8	2757.6	2755.3	2761.1	2744.8	2743.7
40°	2990.8	2993.1	3009.3	3024.4	3032.5	3040.7	3031.4	3022.1
42.5°	3276.2	3275.0	3280.8	3301.7	3315.6	3324.9	3305.2	3302.8
45°	3577.8	3569.7	3574.3	3591.7	3605.6	3616.1	3594.0	3594.0
47.5°	3909.6	3895.7	3880.6	3900.3	3908.4	3915.4	3898.0	3892.2
50°	4279.7	4250.7	4218.2	4226.3	4226.3	4224.0	4201.9	4200.8
52.5°	4704.3	4650.9	4591.7	4569.7	4556.9	4543.0	4504.7	4486.2
55°	5192.7	5112.6	5019.8	4963.0	4932.8	4894.5	4830.7	4813.3
57.5°	5763.5	5638.2	5478.1	5408.5	5341.2	5278.5	5207.8	5188.0
60°	6439.8	6255.3	6043.0	5914.3	5841.2	5780.9	5707.8	5704.3
62.5°	7193.9	6902.7	6662.5	6546.5	6493.2	6439.8	6370.2	6379.5
65°	7960.7	7656.8	7431.7	7337.7	7287.8	7243.8	7174.2	7184.6
67.5°	8717.1	8437.5	8190.4	8094.1	8038.4	7982.8	7920.1	7930.5
70°	9260.0	8913.2	8634.7	8421.3	8287.9	8137.0	8039.6	8015.2
72.5°	9104.6	8569.8	8127.8	7704.3	7456.1	7254.2	7117.3	7058.1
75°	7879.5	7148.6	6580.2	6060.4	5768.1	5530.3	5357.4	5249.5
77.5°	5851.6	5030.3	4358.6	3759.9	3286.6	2968.7	2744.8	2599.8
80°	3203.1	2436.2	1780.8	1251.8	920.0	764.5	675.2	632.3
82.5°	997.7	643.9	474.5	409.5	380.5	364.3	337.6	294.7
85°	317.9	278.4	258.7	247.1	235.5	205.3	141.5	128.8
87.5°	123.0	126.5	125.3	118.3	120.7	87.0	69.6	61.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)