

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: P299588

Luminaire Tested: **GLNA-AF-03-LED-E1-5MQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299588
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-03-LED-E1-5MQ-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18402.5 lumens
Efficiency: N/A
Efficacy: 110.9 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

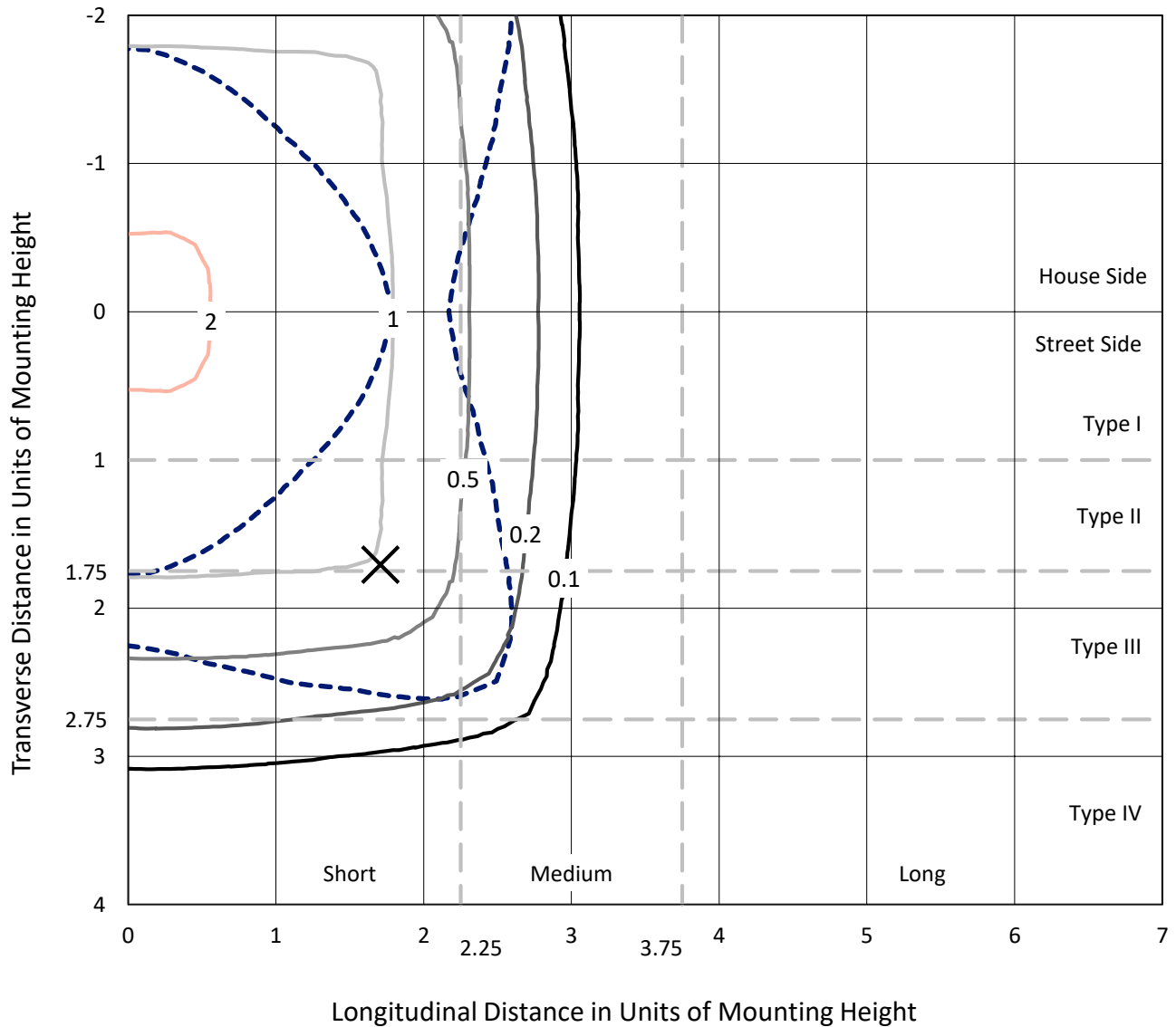
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

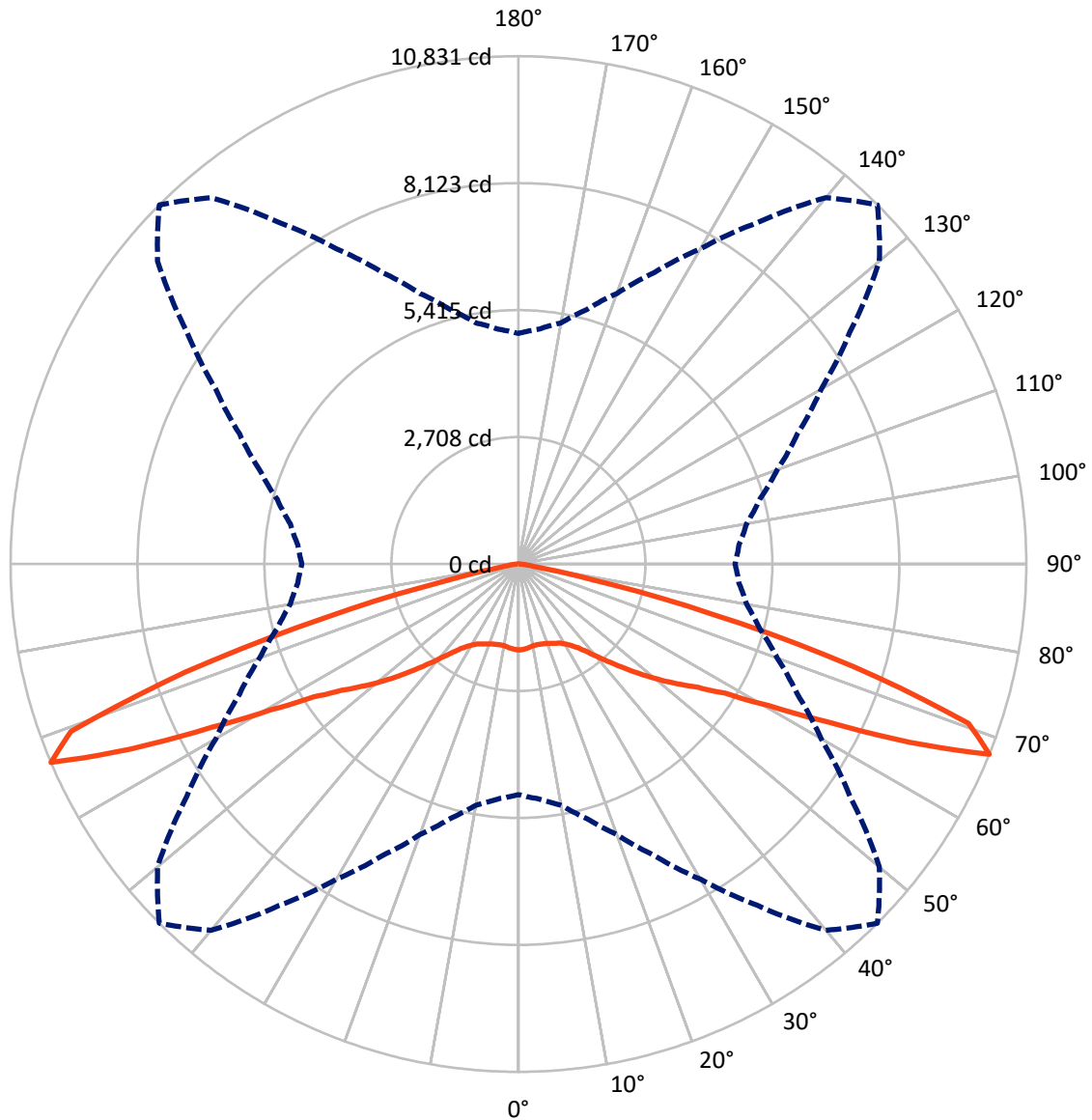
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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
House Side	Lumens	9201.2	0.0	9201.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9201.2	0.0	9201.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	18402.5	0.0	18402.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.6	0.9
10°-20°	498.1	2.7
20°-30°	846.7	4.6
30°-40°	1384.1	7.5
40°-50°	2470.9	13.4
50°-60°	4166.0	22.6
60°-70°	6465.1	35.1
70°-80°	2271.5	12.3
80°-90°	128.4	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°	18402.5	100.0
0°-180°	18402.5	100.0



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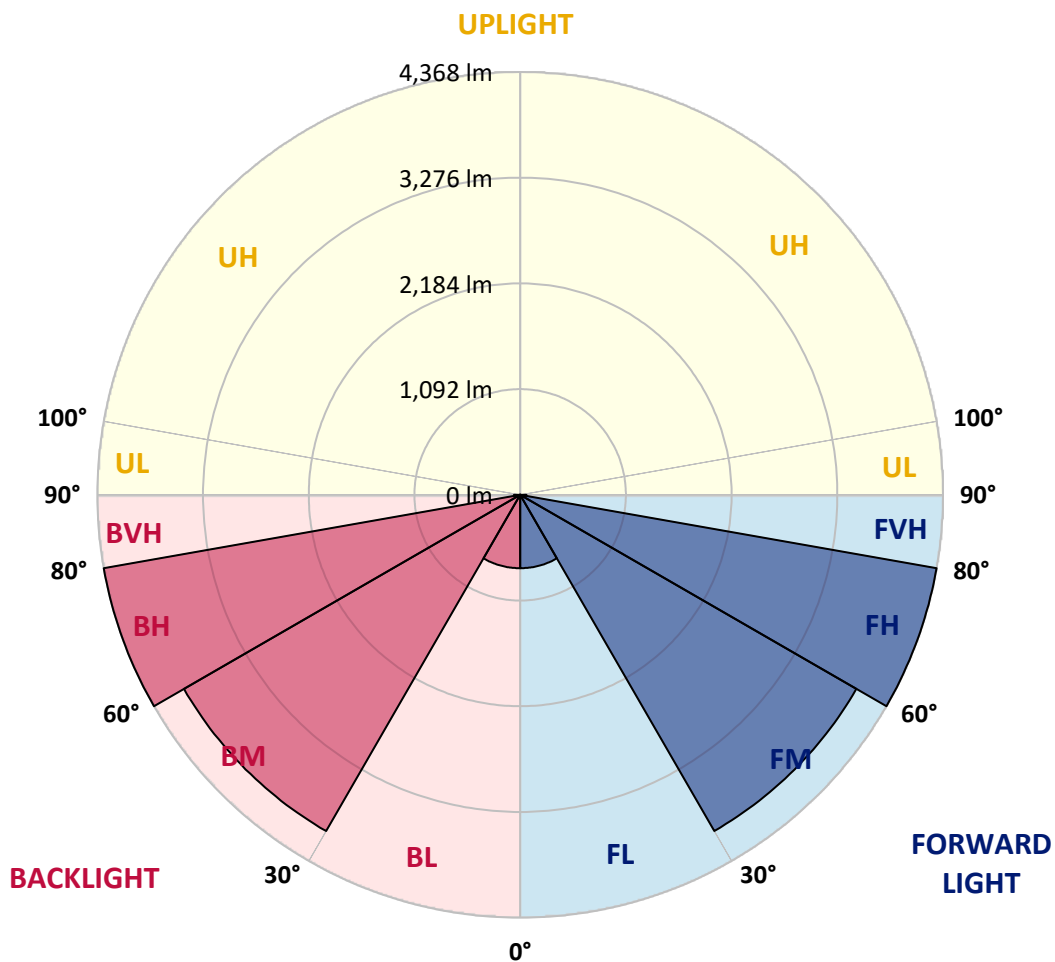
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	758.2	4.1			
FM	(30°-60°)	4010.5	21.8			
FH	(60°-80°)	4368.3	23.7			G2/5000
FVH	(80°-90°)	64.2	0.3			G1/100
BL	(0°-30°)	758.2	4.1	B2/1000		
BM	(30°-60°)	4010.5	21.8	B3/5000		
BH	(60°-80°)	4368.3	23.7	B4/5000		G2/5000
BVH	(80°-90°)	64.2	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°	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9
2.5°	1827.1	1828.8	1828.8	1828.8	1828.0	1828.0	1826.3	1828.0	1827.1	1824.6	1825.4
5°	1811.9	1813.6	1813.6	1812.7	1815.3	1814.4	1811.9	1813.6	1812.7	1811.0	1811.9
7.5°	1789.9	1792.4	1792.4	1791.6	1794.1	1793.3	1791.6	1792.4	1792.4	1789.9	1789.9
10°	1765.3	1767.0	1767.0	1766.2	1770.4	1770.4	1769.6	1772.1	1773.0	1770.4	1768.7
12.5°	1742.5	1745.0	1745.0	1748.4	1752.6	1754.3	1758.6	1762.0	1765.3	1764.5	1761.1
15°	1728.9	1730.6	1734.0	1738.3	1745.0	1751.0	1757.7	1765.3	1772.1	1773.8	1768.7
17.5°	1720.5	1723.0	1728.1	1734.0	1743.3	1753.5	1763.6	1773.8	1783.1	1786.5	1780.6
20°	1717.9	1719.6	1724.7	1734.9	1747.6	1762.8	1777.2	1789.0	1801.7	1806.0	1801.7
22.5°	1723.0	1726.4	1732.3	1744.2	1761.1	1780.6	1797.5	1813.6	1829.7	1837.3	1831.3
25°	1745.9	1749.3	1756.9	1772.1	1790.7	1811.0	1830.5	1849.1	1863.5	1871.1	1866.9
27.5°	1788.2	1792.4	1801.7	1817.0	1837.3	1859.3	1880.4	1895.7	1907.5	1910.1	1905.0
30°	1851.7	1861.0	1872.0	1888.9	1912.6	1931.2	1952.4	1965.9	1980.3	1980.3	1976.1
32.5°	1950.7	1960.0	1971.8	1987.9	2006.5	2026.8	2045.5	2057.3	2072.5	2073.4	2063.2
35°	2098.8	2103.0	2113.2	2123.3	2140.2	2158.0	2174.1	2181.7	2194.4	2195.2	2185.9
37.5°	2294.3	2295.1	2301.9	2305.3	2320.5	2340.0	2355.2	2360.3	2372.1	2370.4	2361.1
40°	2521.9	2526.1	2528.7	2533.8	2549.8	2568.5	2584.5	2587.1	2599.8	2597.2	2585.4
42.5°	2785.1	2786.8	2801.2	2808.8	2824.0	2833.3	2853.7	2856.2	2871.4	2864.7	2851.1
45°	3080.5	3095.7	3109.2	3124.5	3140.5	3151.5	3167.6	3164.2	3174.4	3164.2	3156.6
47.5°	3391.0	3402.0	3432.5	3456.2	3482.4	3491.7	3514.6	3504.4	3514.6	3500.2	3497.7
50°	3732.9	3752.4	3778.6	3805.7	3833.6	3848.9	3878.5	3865.8	3879.3	3865.8	3858.2
52.5°	4069.8	4074.8	4132.4	4172.2	4211.1	4228.9	4246.6	4240.7	4241.5	4240.7	4233.1
55°	4389.6	4401.5	4459.0	4513.2	4580.9	4630.8	4661.3	4657.9	4650.3	4642.7	4630.0
57.5°	4750.2	4762.0	4828.0	4894.9	4971.9	5043.0	5104.8	5168.2	5192.8	5199.5	5171.6
60°	5237.6	5236.8	5324.8	5406.0	5516.0	5621.8	5757.2	5895.2	6053.4	6127.1	6029.7
62.5°	5733.5	5753.8	5880.8	6024.7	6251.5	6472.3	6722.0	6967.4	7217.9	7421.9	7205.2
65°	5674.3	5752.2	5940.9	6266.7	6685.6	7183.2	7721.4	8291.0	8805.5	9159.3	8762.4
67.5°	4917.7	5028.6	5220.7	5616.8	6140.6	6858.2	7762.1	8888.5	10197.7	10830.7	10046.2
70°	3564.5	3689.8	3891.2	4277.9	4796.7	5478.8	6460.5	7812.8	9546.0	10184.1	9320.1
72.5°	1773.8	1841.5	1965.9	2212.2	2604.8	3158.3	4048.6	5348.5	6881.9	7467.6	6678.0
75°	602.6	633.9	655.0	735.4	859.8	1077.3	1519.9	2338.3	3567.1	4276.2	3516.3
77.5°	347.8	348.7	363.1	377.4	398.6	422.3	481.5	632.2	1093.4	1552.9	1131.5
80°	225.1	224.3	236.1	247.1	261.5	273.3	276.7	292.8	337.7	400.3	358.0
82.5°	116.8	131.2	157.4	171.8	198.9	204.0	197.2	191.3	202.3	209.9	215.0
85°	64.3	55.9	83.8	108.3	120.2	121.9	121.9	115.1	119.3	116.8	126.9
87.5°	29.6	27.1	33.0	53.3	56.7	48.2	50.8	44.9	32.2	31.3	35.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9	1833.9
2.5°	1825.4	1826.3	1826.3	1828.8	1829.7	1831.3	1833.0	1833.9
5°	1811.0	1813.6	1811.9	1814.4	1814.4	1816.1	1816.1	1817.0
7.5°	1789.9	1792.4	1792.4	1792.4	1791.6	1794.1	1794.1	1794.1
10°	1767.9	1769.6	1768.7	1767.0	1765.3	1767.9	1767.0	1766.2
12.5°	1761.1	1756.9	1753.5	1751.8	1748.4	1749.3	1746.7	1746.7
15°	1765.3	1757.7	1751.8	1749.3	1745.9	1744.2	1742.5	1743.3
17.5°	1776.3	1767.0	1759.4	1755.2	1751.0	1748.4	1745.0	1745.9
20°	1795.8	1784.8	1773.8	1765.3	1757.7	1753.5	1751.0	1750.1
22.5°	1824.6	1808.5	1792.4	1779.7	1769.6	1763.6	1761.1	1759.4
25°	1857.6	1839.8	1821.2	1806.8	1796.6	1789.0	1784.0	1784.0
27.5°	1899.0	1884.7	1867.7	1850.8	1841.5	1833.9	1830.5	1828.8
30°	1968.4	1954.9	1941.4	1925.3	1913.4	1905.8	1899.9	1894.8
32.5°	2057.3	2046.3	2035.3	2023.5	2012.5	2002.3	1993.0	1988.8
35°	2182.6	2174.1	2166.5	2152.9	2148.7	2142.8	2137.7	2133.5
37.5°	2355.2	2351.8	2351.8	2337.4	2334.0	2331.5	2326.4	2327.3
40°	2582.0	2585.4	2581.2	2576.1	2573.5	2566.8	2566.8	2572.7
42.5°	2850.3	2852.8	2862.1	2853.7	2863.0	2854.5	2849.4	2853.7
45°	3161.7	3171.0	3189.6	3181.2	3187.1	3172.7	3154.9	3155.8
47.5°	3511.2	3519.7	3527.3	3521.4	3522.2	3498.5	3474.8	3468.9
50°	3874.3	3877.6	3881.9	3873.4	3875.1	3848.9	3821.8	3822.6
52.5°	4233.1	4249.2	4266.1	4243.2	4238.2	4208.5	4170.5	4155.2
55°	4643.5	4666.4	4646.9	4607.1	4567.4	4527.6	4477.7	4469.2
57.5°	5149.6	5110.7	5049.7	4974.4	4919.4	4863.6	4812.8	4791.6
60°	5853.7	5707.3	5597.3	5485.6	5415.3	5346.8	5279.9	5269.8
62.5°	6848.9	6595.9	6376.7	6145.7	5957.0	5809.7	5692.1	5659.1
65°	8096.3	7498.0	6979.3	6495.2	6074.6	5757.2	5557.5	5469.5
67.5°	8632.9	7451.5	6562.0	5874.9	5324.8	4940.6	4724.8	4617.3
70°	7586.0	6179.5	5212.2	4524.2	4023.2	3613.6	3418.1	3303.0
72.5°	5219.0	3931.0	3108.4	2537.1	2136.9	1794.1	1658.7	1648.6
75°	2343.3	1552.1	1069.7	824.3	693.9	603.4	575.5	554.3
77.5°	655.9	484.9	432.4	404.5	377.4	346.1	334.3	336.8
80°	319.0	301.3	289.4	271.7	247.1	220.9	209.0	214.1
82.5°	211.6	209.0	216.6	204.0	168.4	143.0	120.2	110.0
85°	128.6	130.3	132.9	133.7	113.4	79.6	54.2	60.9
87.5°	50.8	58.4	63.5	66.0	61.8	38.1	30.5	31.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)