

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: P299837

Luminaire Tested: **GLNA-AF-04-LED-E1-5WQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299837  
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-04-LED-E1-5WQ-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25203 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

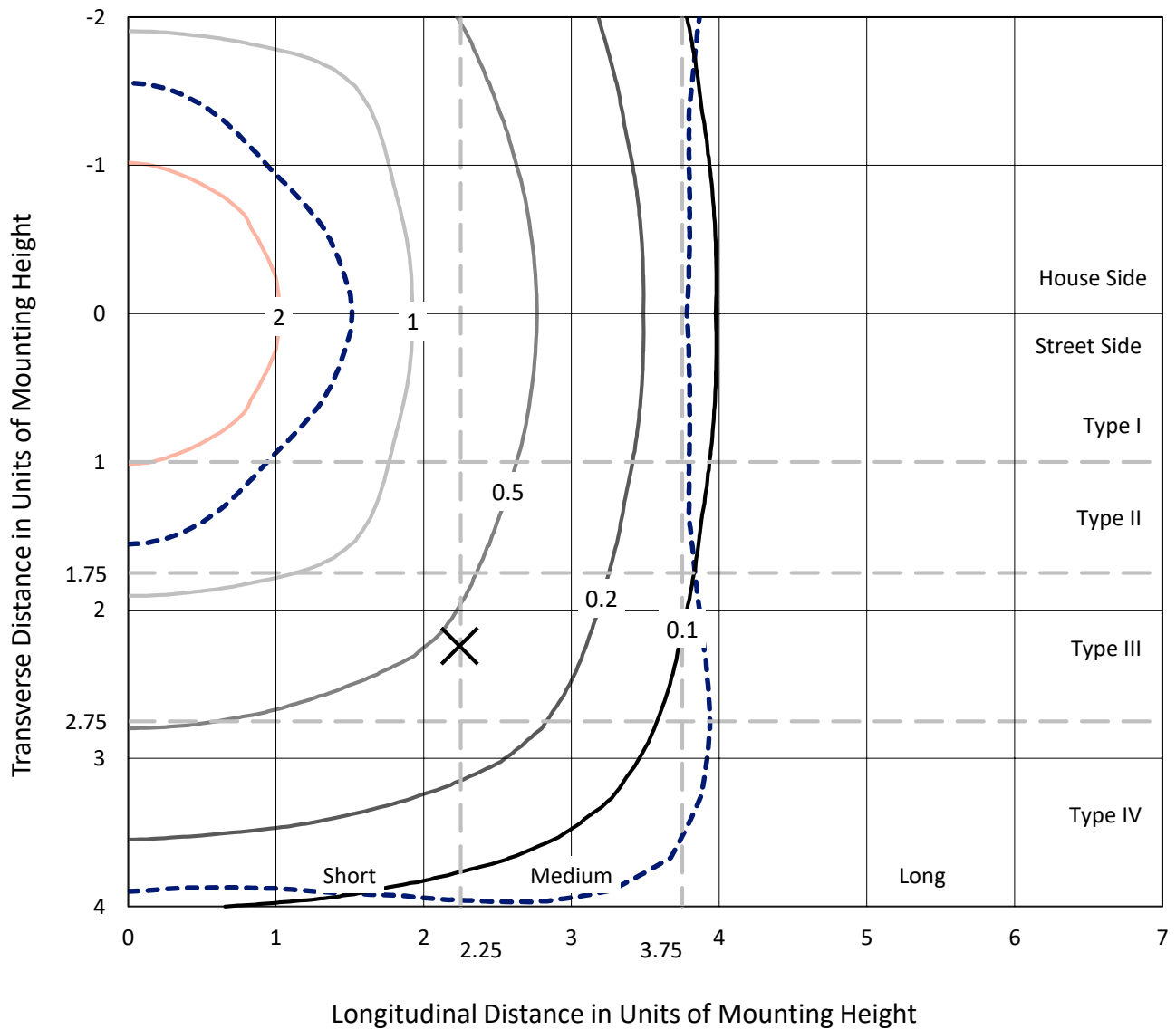
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

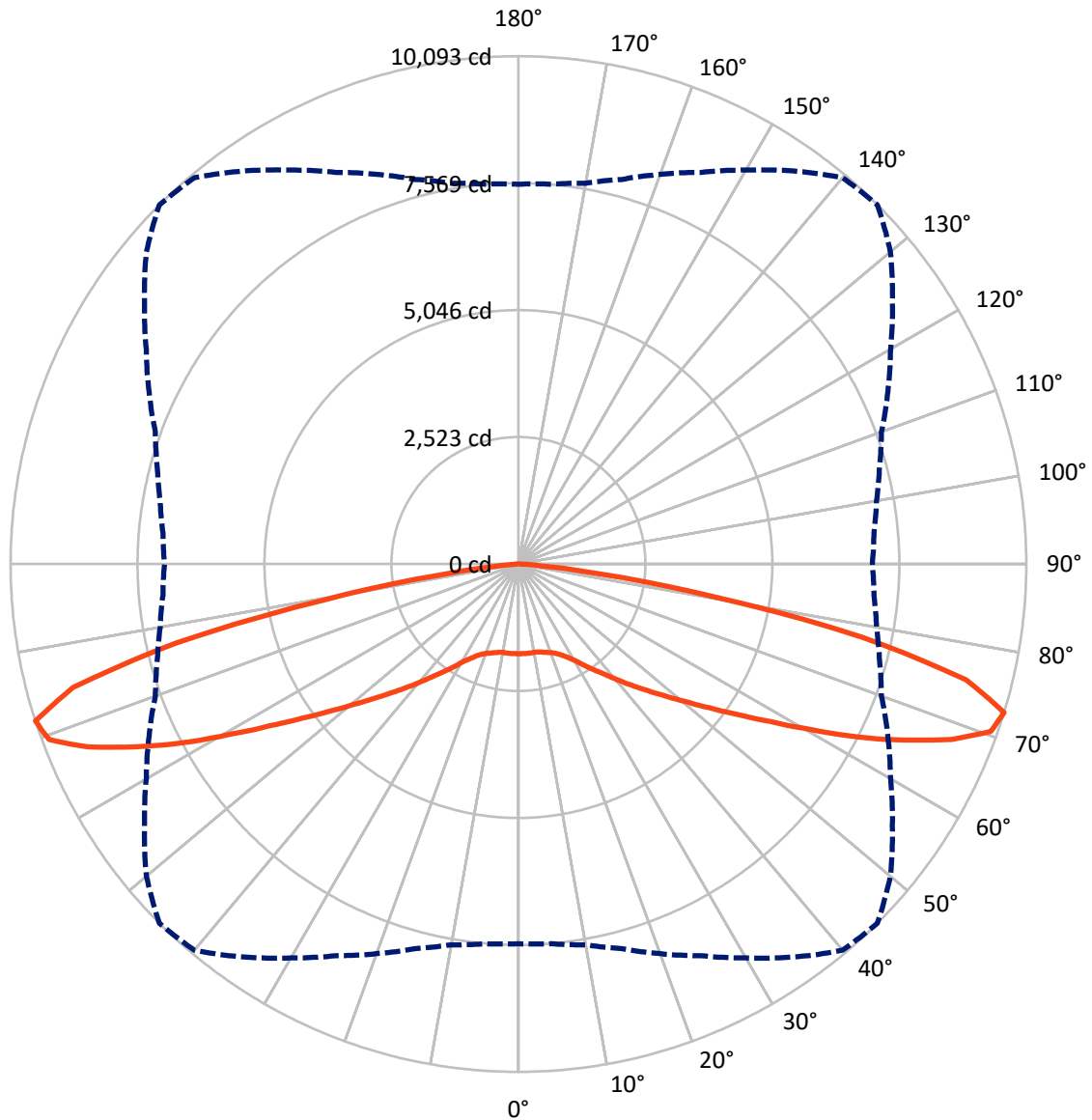
× Max cd  
 - - - 1/2 Max cd



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
<b>House Side</b>	Lumens	12601.5	0.0	12601.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12601.5	0.0	12601.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25203.0	0.0	25203.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.4	0.7
10°-20°	517.6	2.1
20°-30°	945.9	3.8
30°-40°	1630.8	6.5
40°-50°	2787.9	11.1
50°-60°	4518.8	17.9
60°-70°	7496.5	29.7
70°-80°	6602.7	26.2
80°-90°	532.4	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°	25203.0	100.0
0°-180°	25203.0	100.0



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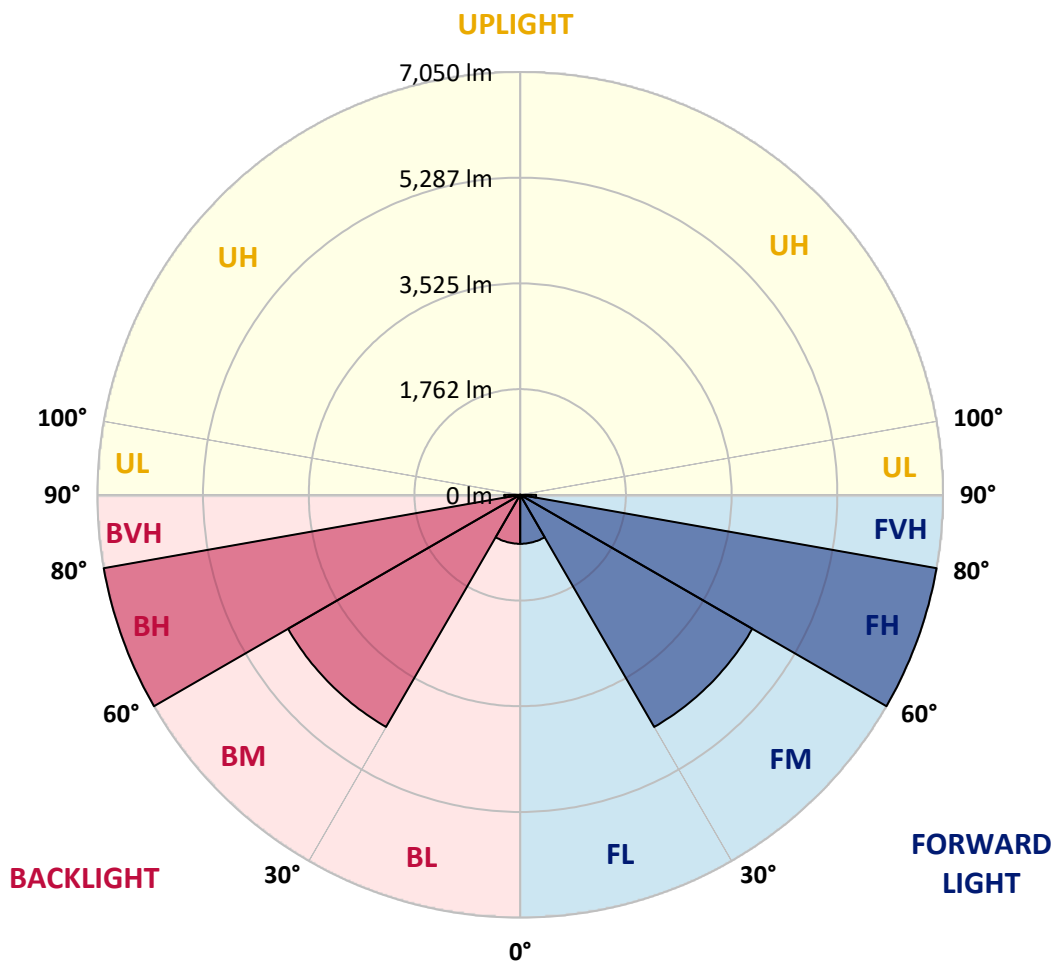
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	816.9	3.2			
FM (30°-60°)	4468.8	17.7			
FH (60°-80°)	7049.6	28.0			G3/7500
FVH (80°-90°)	266.2	1.1			G3/500
BL (0°-30°)	816.9	3.2	B2/1000		
BM (30°-60°)	4468.8	17.7	B3/5000		
BH (60°-80°)	7049.6	28.0	B5		G3/7500
BVH (80°-90°)	266.2	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°	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1784.8	1785.9	1787.1	1785.9	1785.9	1784.8	1783.6	1784.8	1783.6	1781.3	1782.5
5°	1790.5	1792.9	1792.9	1790.5	1791.7	1790.5	1788.2	1789.4	1787.1	1783.6	1783.6
7.5°	1797.5	1798.6	1798.6	1796.3	1797.5	1795.2	1792.9	1791.7	1789.4	1784.8	1781.3
10°	1807.9	1809.0	1807.9	1805.6	1805.6	1802.1	1796.3	1794.0	1789.4	1782.5	1779.0
12.5°	1819.4	1820.6	1819.4	1817.1	1816.0	1810.2	1805.6	1802.1	1798.6	1792.9	1787.1
15°	1835.6	1837.9	1835.6	1831.0	1827.5	1822.9	1820.6	1821.8	1822.9	1818.3	1812.5
17.5°	1865.7	1866.8	1863.4	1853.0	1848.3	1843.7	1843.7	1846.0	1849.5	1847.2	1841.4
20°	1921.2	1917.7	1909.6	1896.9	1891.1	1883.0	1881.9	1883.0	1883.0	1881.9	1877.2
22.5°	1990.5	1988.2	1977.8	1961.6	1953.5	1948.9	1942.0	1936.2	1935.0	1931.6	1926.9
25°	2073.7	2072.6	2059.9	2046.0	2040.2	2034.4	2028.7	2020.6	2013.6	2005.5	2000.9
27.5°	2180.1	2175.5	2157.0	2150.0	2141.9	2138.5	2130.4	2121.1	2115.4	2105.0	2099.2
30°	2296.8	2296.8	2281.8	2279.5	2279.5	2271.4	2262.2	2246.0	2235.6	2225.2	2221.7
32.5°	2413.6	2414.8	2399.7	2404.3	2407.8	2413.6	2415.9	2410.1	2403.2	2402.0	2395.1
35°	2582.4	2577.7	2562.7	2566.2	2565.0	2563.9	2563.9	2576.6	2578.9	2581.2	2567.3
37.5°	2791.6	2791.6	2776.6	2776.6	2769.6	2762.7	2753.4	2761.5	2774.2	2777.7	2768.5
40°	3030.9	3039.0	3020.5	3019.3	3021.6	2999.7	2989.3	3002.0	3010.1	3023.9	3013.5
42.5°	3312.9	3307.1	3288.6	3286.3	3273.6	3266.7	3257.4	3267.8	3280.5	3289.8	3293.3
45°	3583.4	3578.8	3558.0	3558.0	3545.3	3539.5	3544.1	3561.4	3567.2	3579.9	3592.6
47.5°	3850.4	3844.6	3830.8	3836.6	3837.7	3848.1	3863.1	3879.3	3895.5	3912.8	3918.6
50°	4123.2	4124.4	4109.4	4123.2	4140.6	4169.5	4209.9	4236.5	4270.0	4292.0	4298.9
52.5°	4371.8	4376.4	4392.6	4424.9	4459.6	4516.2	4585.6	4650.3	4705.8	4742.8	4740.5
55°	4670.0	4676.9	4716.2	4771.7	4828.3	4913.9	5016.8	5131.2	5223.7	5276.8	5243.3
57.5°	5051.4	5066.5	5110.4	5185.5	5269.9	5380.9	5521.9	5694.1	5837.5	5909.1	5854.8
60°	5575.1	5584.3	5637.5	5720.7	5822.5	5960.0	6148.4	6379.6	6581.9	6676.7	6614.3
62.5°	6265.2	6282.5	6325.3	6409.7	6513.7	6669.8	6899.8	7188.8	7440.8	7572.5	7431.5
65°	7089.4	7144.8	7180.7	7266.2	7363.3	7528.6	7769.0	8078.8	8349.3	8436.0	8273.0
67.5°	7905.4	7954.0	8016.4	8114.7	8212.9	8399.0	8622.1	8922.7	9219.7	9298.4	9045.2
70°	8262.6	8290.4	8387.5	8521.6	8710.0	8929.6	9187.4	9524.9	9892.5	9957.2	9635.9
72.5°	7547.1	7574.9	7683.5	7911.2	8239.5	8588.6	9038.3	9534.2	10019.7	10092.5	9649.8
75°	5708.0	5662.9	5823.6	6125.3	6568.0	7054.7	7683.5	8394.4	9096.1	9187.4	8659.1
77.5°	2949.9	2944.2	3065.5	3440.1	3968.3	4522.0	5214.4	6017.8	6704.4	6981.9	6551.8
80°	831.1	840.4	898.2	1084.3	1392.9	1792.9	2333.8	3086.3	3648.1	3934.8	3694.4
82.5°	326.0	351.4	373.4	408.0	448.5	507.5	677.4	1008.0	1352.4	1616.0	1323.5
85°	116.7	124.8	176.9	209.2	212.7	224.3	255.5	298.2	359.5	428.9	352.6
87.5°	43.9	48.5	56.6	93.6	92.5	84.4	102.9	107.5	80.9	74.0	91.3
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°	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1780.1	1781.3	1781.3	1782.5	1783.6	1783.6	1785.9	1785.9
5°	1781.3	1781.3	1779.0	1780.1	1779.0	1779.0	1780.1	1780.1
7.5°	1779.0	1777.8	1775.5	1774.4	1772.1	1772.1	1772.1	1772.1
10°	1775.5	1774.4	1772.1	1770.9	1769.7	1769.7	1769.7	1769.7
12.5°	1784.8	1781.3	1779.0	1777.8	1777.8	1777.8	1777.8	1777.8
15°	1809.0	1800.9	1795.2	1795.2	1796.3	1798.6	1798.6	1800.9
17.5°	1839.1	1829.8	1824.1	1819.4	1821.8	1825.2	1827.5	1829.8
20°	1874.9	1870.3	1862.2	1857.6	1857.6	1862.2	1864.5	1865.7
22.5°	1924.6	1921.2	1917.7	1911.9	1911.9	1914.2	1918.9	1918.9
25°	1998.6	1996.3	1994.0	1989.4	1988.2	1988.2	1990.5	1992.8
27.5°	2091.1	2092.2	2089.9	2088.8	2085.3	2084.2	2087.6	2086.5
30°	2214.8	2220.6	2226.3	2221.7	2215.9	2212.5	2209.0	2204.4
32.5°	2382.4	2375.4	2370.8	2362.7	2352.3	2343.1	2336.1	2328.1
35°	2540.7	2529.2	2524.6	2531.5	2530.3	2524.6	2516.5	2509.5
37.5°	2734.9	2732.6	2734.9	2747.7	2745.3	2751.1	2734.9	2733.8
40°	2980.0	2982.3	2998.5	3013.5	3021.6	3029.7	3020.5	3011.2
42.5°	3264.4	3263.2	3269.0	3289.8	3303.7	3312.9	3293.3	3291.0
45°	3564.9	3556.8	3561.4	3578.8	3592.6	3603.1	3581.1	3581.1
47.5°	3895.5	3881.6	3866.6	3886.3	3894.3	3901.3	3883.9	3878.2
50°	4264.2	4235.4	4203.0	4211.1	4211.1	4208.8	4186.8	4185.6
52.5°	4687.3	4634.1	4575.2	4553.2	4540.5	4526.6	4488.5	4470.0
55°	5174.0	5094.2	5001.7	4945.1	4915.0	4876.9	4813.3	4796.0
57.5°	5742.7	5617.9	5458.3	5389.0	5321.9	5259.5	5189.0	5169.3
60°	6416.6	6232.8	6021.3	5893.0	5820.1	5760.0	5687.2	5683.7
62.5°	7168.0	6877.8	6638.5	6522.9	6469.8	6416.6	6347.2	6356.5
65°	7932.0	7629.2	7404.9	7311.3	7261.6	7217.7	7148.3	7158.7
67.5°	8685.7	8407.1	8160.9	8065.0	8009.5	7954.0	7891.6	7902.0
70°	9226.7	8881.1	8603.6	8390.9	8258.0	8107.7	8010.6	7986.4
72.5°	9071.8	8538.9	8098.5	7676.6	7429.2	7228.1	7091.7	7032.7
75°	7851.1	7122.9	6556.5	6038.6	5747.3	5510.3	5338.1	5230.6
77.5°	5830.5	5012.1	4342.9	3746.4	3274.8	2958.0	2734.9	2590.5
80°	3191.5	2427.5	1774.4	1247.3	916.7	761.8	672.8	630.0
82.5°	994.1	641.5	472.8	408.0	379.1	363.0	336.4	293.6
85°	316.7	277.4	257.8	246.2	234.7	204.6	141.0	128.3
87.5°	122.5	126.0	124.8	117.9	120.2	86.7	69.4	61.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)