

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: P299834

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299834
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-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 24378.4 lumens
Efficiency: N/A
Efficacy: 108.3 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

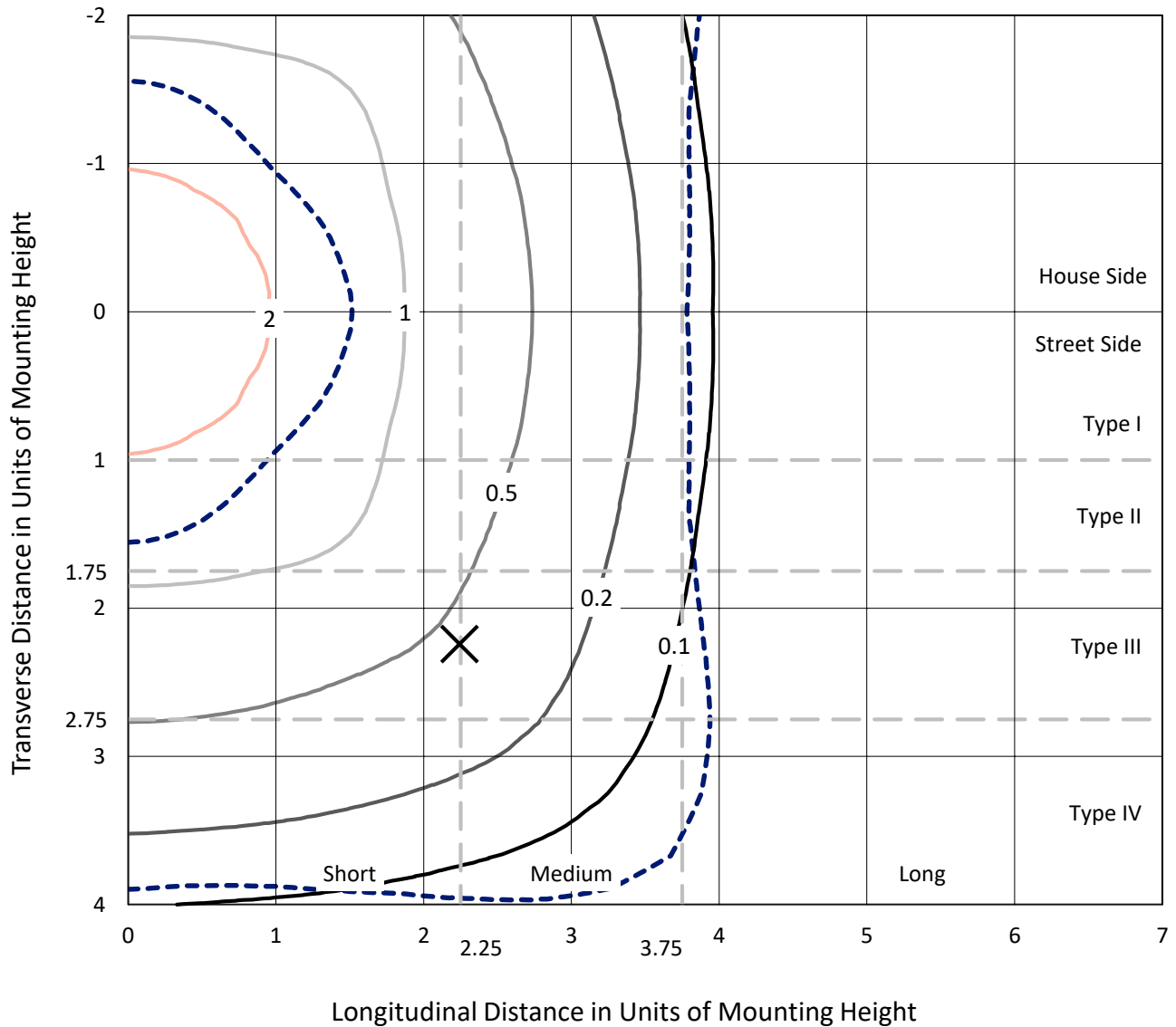
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

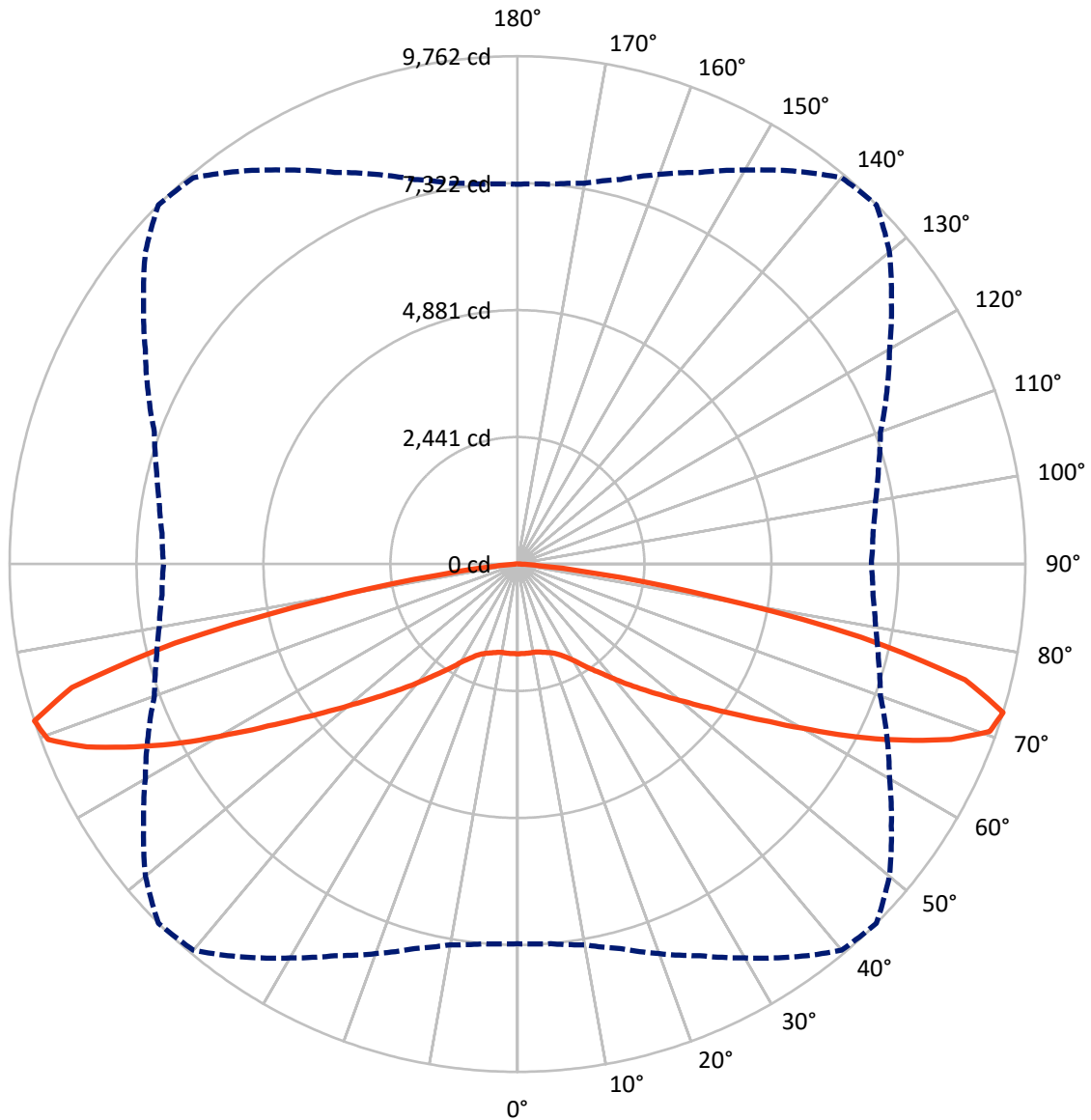
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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	12189.2	0.0	12189.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12189.2	0.0	12189.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	24378.4	0.0	24378.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.8	0.7
10°-20°	500.7	2.1
20°-30°	914.9	3.8
30°-40°	1577.5	6.5
40°-50°	2696.7	11.1
50°-60°	4371.0	17.9
60°-70°	7251.3	29.7
70°-80°	6386.7	26.2
80°-90°	514.9	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°	24378.4	100.0
0°-180°	24378.4	100.0

Coefficient of Utilization



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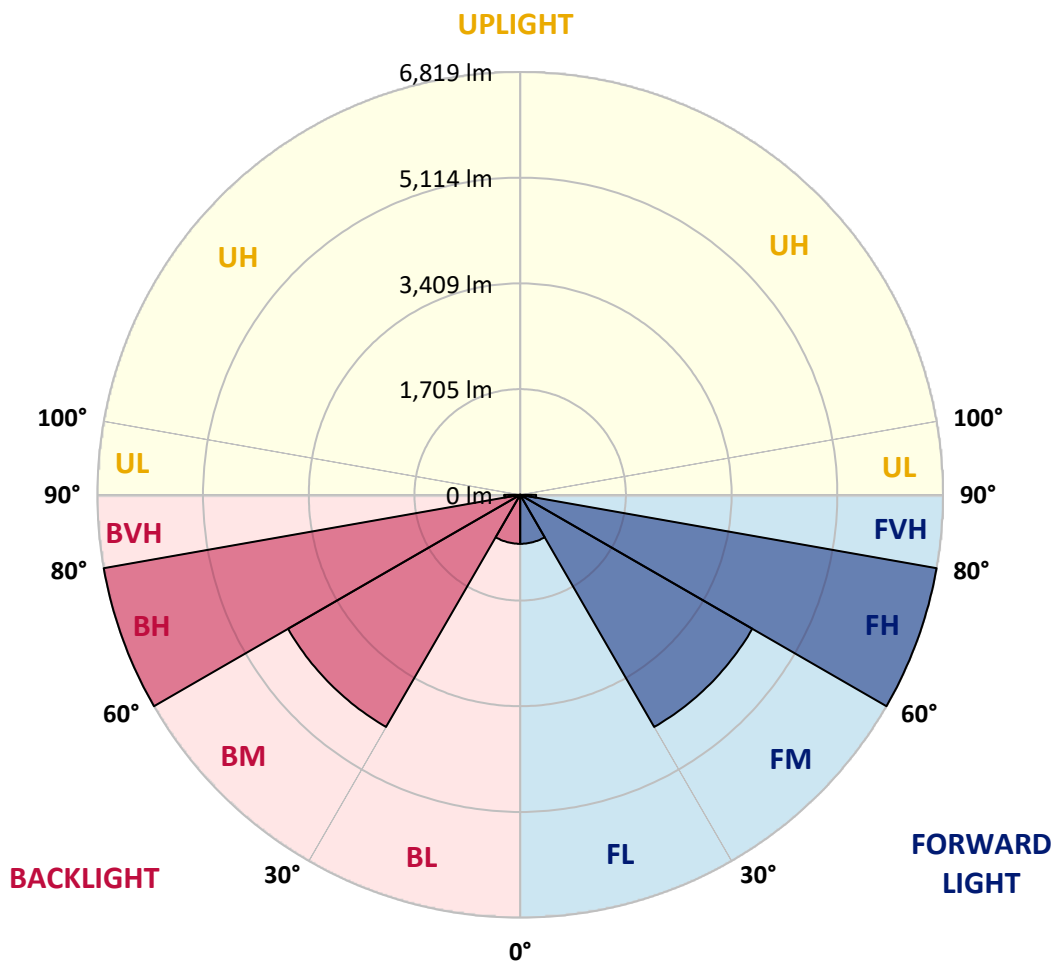
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	790.2	3.2			
FM	(30°-60°)	4322.5	17.7			
FH	(60°-80°)	6819.0	28.0			G3/7500
FVH	(80°-90°)	257.5	1.1			G3/500
BL	(0°-30°)	790.2	3.2	B2/1000		
BM	(30°-60°)	4322.5	17.7	B3/5000		
BH	(60°-80°)	6819.0	28.0	B5		G3/7500
BVH	(80°-90°)	257.5	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°	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4
2.5°	1726.4	1727.5	1728.6	1727.5	1727.5	1726.4	1725.2	1726.4	1725.2	1723.0	1724.1
5°	1732.0	1734.2	1734.2	1732.0	1733.1	1732.0	1729.7	1730.8	1728.6	1725.2	1725.2
7.5°	1738.7	1739.8	1739.8	1737.5	1738.7	1736.4	1734.2	1733.1	1730.8	1726.4	1723.0
10°	1748.7	1749.8	1748.7	1746.5	1746.5	1743.1	1737.5	1735.3	1730.8	1724.1	1720.8
12.5°	1759.9	1761.0	1759.9	1757.7	1756.6	1751.0	1746.5	1743.1	1739.8	1734.2	1728.6
15°	1775.6	1777.8	1775.6	1771.1	1767.7	1763.3	1761.0	1762.1	1763.3	1758.8	1753.2
17.5°	1804.6	1805.8	1802.4	1792.3	1787.9	1783.4	1783.4	1785.6	1789.0	1786.7	1781.2
20°	1858.3	1854.9	1847.1	1834.8	1829.2	1821.4	1820.3	1821.4	1821.4	1820.3	1815.8
22.5°	1925.4	1923.2	1913.1	1897.4	1889.6	1885.1	1878.4	1872.8	1871.7	1868.4	1863.9
25°	2005.9	2004.8	1992.5	1979.1	1973.5	1967.9	1962.3	1954.5	1947.8	1939.9	1935.5
27.5°	2108.8	2104.3	2086.4	2079.7	2071.9	2068.5	2060.7	2051.7	2046.1	2036.1	2030.5
30°	2221.7	2221.7	2207.2	2204.9	2204.9	2197.1	2188.1	2172.5	2162.4	2152.4	2149.0
32.5°	2334.6	2335.7	2321.2	2325.7	2329.0	2334.6	2336.9	2331.3	2324.6	2323.4	2316.7
35°	2497.9	2493.4	2478.9	2482.2	2481.1	2480.0	2480.0	2492.3	2494.5	2496.7	2483.3
37.5°	2700.2	2700.2	2685.7	2685.7	2679.0	2672.3	2663.3	2671.2	2683.5	2686.8	2677.9
40°	2931.7	2939.5	2921.6	2920.5	2922.7	2901.5	2891.4	2903.7	2911.6	2925.0	2914.9
42.5°	3204.5	3198.9	3181.0	3178.8	3166.5	3159.8	3150.8	3160.9	3173.2	3182.2	3185.5
45°	3466.2	3461.7	3441.6	3441.6	3429.3	3423.7	3428.1	3444.9	3450.5	3462.8	3475.1
47.5°	3724.4	3718.8	3705.4	3711.0	3712.1	3722.2	3736.7	3752.4	3768.0	3784.8	3790.4
50°	3988.3	3989.4	3974.9	3988.3	4005.1	4033.0	4072.2	4097.9	4130.3	4151.6	4158.3
52.5°	4228.7	4233.2	4248.8	4280.1	4313.7	4368.5	4435.6	4498.2	4551.8	4587.6	4585.4
55°	4517.2	4523.9	4561.9	4615.6	4670.4	4753.1	4852.6	4963.3	5052.8	5104.2	5071.8
57.5°	4886.2	4900.7	4943.2	5015.9	5097.5	5204.8	5341.2	5507.8	5646.5	5715.8	5663.2
60°	5392.7	5401.6	5453.0	5533.5	5631.9	5765.0	5947.2	6170.9	6366.5	6458.2	6397.8
62.5°	6060.2	6076.9	6118.3	6199.9	6300.6	6451.5	6674.0	6953.5	7197.3	7324.8	7188.3
65°	6857.4	6911.1	6945.7	7028.5	7122.4	7282.3	7514.8	7814.5	8076.1	8160.0	8002.3
67.5°	7646.8	7693.7	7754.1	7849.2	7944.2	8124.2	8340.0	8630.7	8918.1	8994.1	8749.2
70°	7992.3	8019.1	8113.0	8242.7	8425.0	8637.4	8886.8	9213.3	9568.8	9631.4	9320.6
72.5°	7300.2	7327.0	7432.1	7652.4	7969.9	8307.6	8742.5	9222.2	9691.8	9762.2	9334.0
75°	5521.2	5477.6	5633.1	5924.9	6353.1	6823.8	7432.1	8119.7	8798.4	8886.8	8375.8
77.5°	2853.4	2847.8	2965.2	3327.5	3838.5	4374.1	5043.8	5820.9	6485.1	6753.4	6337.5
80°	803.9	812.9	868.8	1048.8	1347.3	1734.2	2257.5	2985.4	3528.8	3806.1	3573.5
82.5°	315.3	339.9	361.2	394.7	433.8	490.9	655.2	975.0	1308.2	1563.1	1280.2
85°	112.9	120.8	171.1	202.4	205.7	216.9	247.1	288.5	347.7	414.8	341.0
87.5°	42.5	47.0	54.8	90.6	89.4	81.6	99.5	104.0	78.3	71.6	88.3
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°	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4	1726.4
2.5°	1721.9	1723.0	1723.0	1724.1	1725.2	1725.2	1727.5	1727.5
5°	1723.0	1723.0	1720.8	1721.9	1720.8	1720.8	1721.9	1721.9
7.5°	1720.8	1719.7	1717.4	1716.3	1714.1	1714.1	1714.1	1714.1
10°	1717.4	1716.3	1714.1	1712.9	1711.8	1711.8	1711.8	1711.8
12.5°	1726.4	1723.0	1720.8	1719.7	1719.7	1719.7	1719.7	1719.7
15°	1749.8	1742.0	1736.4	1736.4	1737.5	1739.8	1739.8	1742.0
17.5°	1778.9	1770.0	1764.4	1759.9	1762.1	1765.5	1767.7	1770.0
20°	1813.6	1809.1	1801.3	1796.8	1796.8	1801.3	1803.5	1804.6
22.5°	1861.7	1858.3	1854.9	1849.4	1849.4	1851.6	1856.1	1856.1
25°	1933.2	1931.0	1928.7	1924.3	1923.2	1923.2	1925.4	1927.6
27.5°	2022.7	2023.8	2021.5	2020.4	2017.1	2016.0	2019.3	2018.2
30°	2142.3	2147.9	2153.5	2149.0	2143.4	2140.1	2136.7	2132.2
32.5°	2304.4	2297.7	2293.3	2285.4	2275.4	2266.4	2259.7	2251.9
35°	2457.6	2446.4	2442.0	2448.7	2447.5	2442.0	2434.1	2427.4
37.5°	2645.5	2643.2	2645.5	2657.8	2655.5	2661.1	2645.5	2644.3
40°	2882.5	2884.7	2900.4	2914.9	2922.7	2930.6	2921.6	2912.7
42.5°	3157.6	3156.4	3162.0	3182.2	3195.6	3204.5	3185.5	3183.3
45°	3448.3	3440.4	3444.9	3461.7	3475.1	3485.2	3463.9	3463.9
47.5°	3768.0	3754.6	3740.1	3759.1	3766.9	3773.6	3756.9	3751.3
50°	4124.7	4096.8	4065.5	4073.3	4073.3	4071.1	4049.8	4048.7
52.5°	4533.9	4482.5	4425.5	4404.2	4391.9	4378.5	4341.6	4323.7
55°	5004.7	4927.5	4838.1	4783.3	4754.2	4717.3	4655.8	4639.1
57.5°	5554.8	5434.0	5279.7	5212.6	5147.8	5087.4	5019.2	5000.2
60°	6206.6	6028.9	5824.3	5700.1	5629.7	5571.6	5501.1	5497.8
62.5°	6933.4	6652.8	6421.3	6309.5	6258.1	6206.6	6139.6	6148.5
65°	7672.5	7379.5	7162.6	7072.1	7024.0	6981.5	6914.4	6924.5
67.5°	8401.5	8132.0	7893.9	7801.1	7747.4	7693.7	7633.4	7643.4
70°	8924.8	8590.5	8322.1	8116.4	7987.8	7842.4	7748.5	7725.0
72.5°	8775.0	8259.5	7833.5	7425.4	7186.1	6991.6	6859.6	6802.6
75°	7594.2	6889.8	6341.9	5841.0	5559.3	5330.0	5163.4	5059.5
77.5°	5639.8	4848.1	4200.8	3623.8	3167.6	2861.3	2645.5	2505.7
80°	3087.1	2348.0	1716.3	1206.4	886.7	736.8	650.7	609.4
82.5°	961.6	620.6	457.3	394.7	366.7	351.1	325.4	284.0
85°	306.4	268.3	249.3	238.2	227.0	197.9	136.4	124.1
87.5°	118.5	121.9	120.8	114.0	116.3	83.9	67.1	59.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)