

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: P299833

Luminaire Tested: **GLNA-AF-04-LED-E1-5WQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299833
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K 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: 21897.4 lumens
Efficiency: N/A
Efficacy: 97.3 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

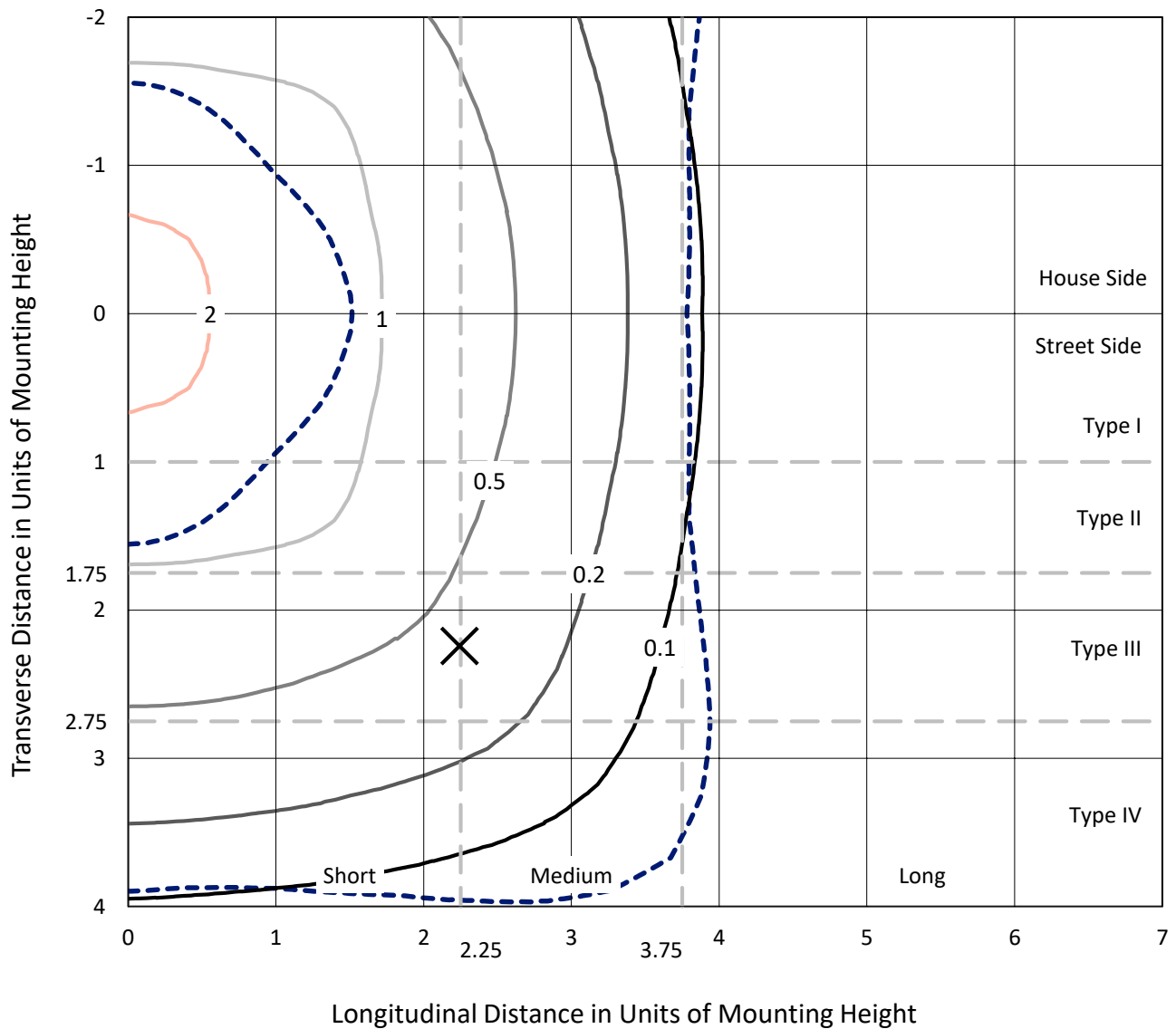
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

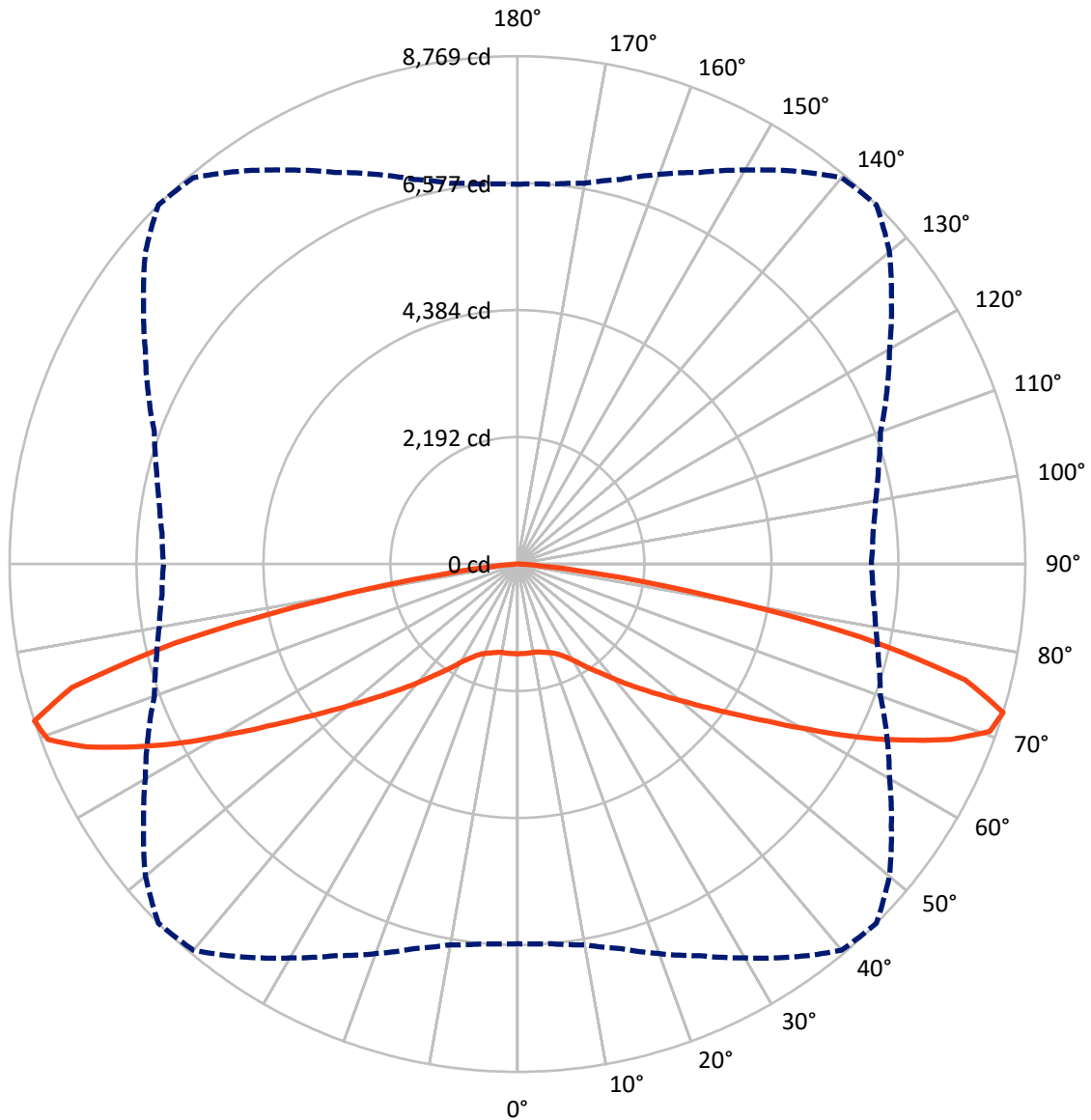
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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	10948.7	0.0	10948.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10948.7	0.0	10948.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	21897.4	0.0	21897.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	0.7
10°-20°	449.7	2.1
20°-30°	821.8	3.8
30°-40°	1416.9	6.5
40°-50°	2422.2	11.1
50°-60°	3926.1	17.9
60°-70°	6513.3	29.7
70°-80°	5736.7	26.2
80°-90°	462.5	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°	21897.4	100.0
0°-180°	21897.4	100.0



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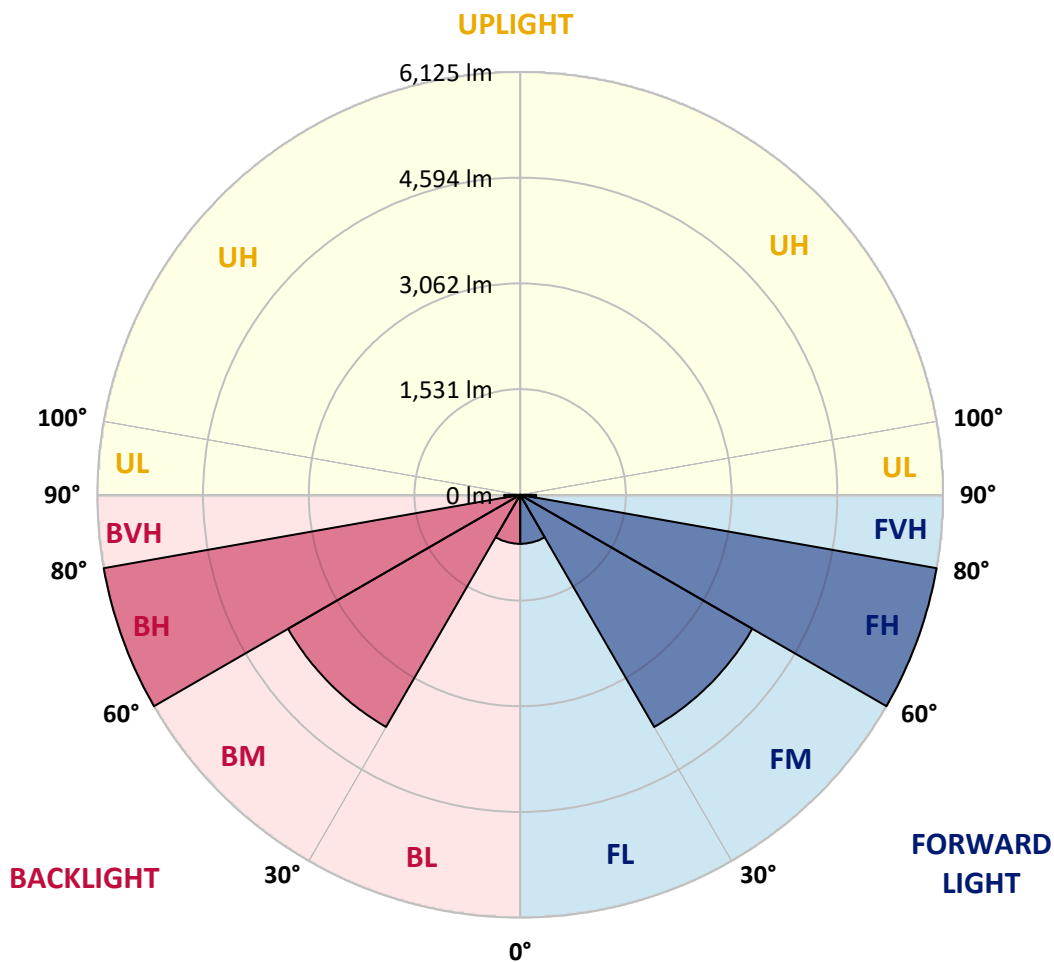
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	709.8	3.2			
FM	(30°-60°)	3882.6	17.7			
FH	(60°-80°)	6125.0	28.0			G3/7500
FVH	(80°-90°)	231.3	1.1			G3/500
BL	(0°-30°)	709.8	3.2	B2/1000		
BM	(30°-60°)	3882.6	17.7	B3/5000		
BH	(60°-80°)	6125.0	28.0	B5		G3/7500
BVH	(80°-90°)	231.3	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°	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7
2.5°	1550.7	1551.7	1552.7	1551.7	1551.7	1550.7	1549.7	1550.7	1549.7	1547.7	1548.7
5°	1555.7	1557.7	1557.7	1555.7	1556.7	1555.7	1553.7	1554.7	1552.7	1549.7	1549.7
7.5°	1561.7	1562.7	1562.7	1560.7	1561.7	1559.7	1557.7	1556.7	1554.7	1550.7	1547.7
10°	1570.8	1571.8	1570.8	1568.8	1568.8	1565.7	1560.7	1558.7	1554.7	1548.7	1545.7
12.5°	1580.8	1581.8	1580.8	1578.8	1577.8	1572.8	1568.8	1565.7	1562.7	1557.7	1552.7
15°	1594.9	1596.9	1594.9	1590.8	1587.8	1583.8	1581.8	1582.8	1583.8	1579.8	1574.8
17.5°	1621.0	1622.0	1619.0	1609.9	1605.9	1601.9	1601.9	1603.9	1606.9	1604.9	1599.9
20°	1669.2	1666.2	1659.1	1648.1	1643.1	1636.0	1635.0	1636.0	1636.0	1635.0	1631.0
22.5°	1729.4	1727.4	1718.4	1704.3	1697.3	1693.3	1687.3	1682.2	1681.2	1678.2	1674.2
25°	1801.8	1800.7	1789.7	1777.7	1772.6	1767.6	1762.6	1755.6	1749.5	1742.5	1738.5
27.5°	1894.2	1890.1	1874.1	1868.0	1861.0	1858.0	1851.0	1842.9	1837.9	1828.9	1823.8
30°	1995.6	1995.6	1982.5	1980.5	1980.5	1973.5	1965.5	1951.4	1942.4	1933.3	1930.3
32.5°	2097.0	2098.0	2085.0	2089.0	2092.0	2097.0	2099.0	2094.0	2088.0	2087.0	2081.0
35°	2243.7	2239.6	2226.6	2229.6	2228.6	2227.6	2227.6	2238.6	2240.6	2242.7	2230.6
37.5°	2425.4	2425.4	2412.4	2412.4	2406.4	2400.3	2392.3	2399.3	2410.4	2413.4	2405.4
40°	2633.3	2640.4	2624.3	2623.3	2625.3	2606.2	2597.2	2608.2	2615.3	2627.3	2618.3
42.5°	2878.4	2873.4	2857.3	2855.3	2844.2	2838.2	2830.2	2839.2	2850.3	2858.3	2861.3
45°	3113.4	3109.4	3091.3	3091.3	3080.3	3075.2	3079.3	3094.3	3099.3	3110.4	3121.4
47.5°	3345.4	3340.4	3328.3	3333.3	3334.3	3343.4	3356.4	3370.5	3384.6	3399.6	3404.7
50°	3582.4	3583.4	3570.4	3582.4	3597.5	3622.6	3657.7	3680.8	3710.0	3729.0	3735.1
52.5°	3798.3	3802.4	3816.4	3844.5	3874.7	3923.9	3984.1	4040.4	4088.6	4120.7	4118.7
55°	4057.5	4063.5	4097.6	4145.8	4195.1	4269.4	4358.8	4458.2	4538.5	4584.7	4555.6
57.5°	4388.9	4401.9	4440.1	4505.4	4578.7	4675.1	4797.6	4947.3	5071.8	5134.1	5086.9
60°	4843.8	4851.9	4898.1	4970.4	5058.8	5178.3	5342.0	5542.9	5718.6	5801.0	5746.7
62.5°	5443.4	5458.5	5495.7	5569.0	5659.4	5794.9	5994.8	6245.9	6464.8	6579.3	6456.8
65°	6159.5	6207.7	6238.8	6313.2	6397.5	6541.2	6750.0	7019.2	7254.2	7329.5	7187.9
67.5°	6868.6	6910.7	6965.0	7050.3	7135.7	7297.4	7491.2	7752.4	8010.5	8078.8	7858.8
70°	7178.9	7203.0	7287.4	7403.9	7567.6	7758.4	7982.4	8275.6	8595.0	8651.2	8372.0
72.5°	6557.2	6581.3	6675.7	6873.6	7158.8	7462.1	7852.8	8283.6	8705.5	8768.7	8384.1
75°	4959.3	4920.2	5059.8	5321.9	5706.6	6129.4	6675.7	7293.4	7903.0	7982.4	7523.4
77.5°	2563.0	2558.0	2663.5	2988.9	3447.8	3928.9	4530.5	5228.5	5825.1	6066.1	5692.5
80°	722.1	730.1	780.4	942.1	1210.2	1557.7	2027.7	2681.5	3169.6	3418.7	3209.8
82.5°	283.2	305.3	324.4	354.5	389.7	440.9	588.5	875.8	1175.1	1404.0	1149.9
85°	101.4	108.5	153.7	181.8	184.8	194.8	222.0	259.1	312.3	372.6	306.3
87.5°	38.2	42.2	49.2	81.4	80.3	73.3	89.4	93.4	70.3	64.3	79.3
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°	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7	1550.7
2.5°	1546.7	1547.7	1547.7	1548.7	1549.7	1549.7	1551.7	1551.7
5°	1547.7	1547.7	1545.7	1546.7	1545.7	1545.7	1546.7	1546.7
7.5°	1545.7	1544.6	1542.6	1541.6	1539.6	1539.6	1539.6	1539.6
10°	1542.6	1541.6	1539.6	1538.6	1537.6	1537.6	1537.6	1537.6
12.5°	1550.7	1547.7	1545.7	1544.6	1544.6	1544.6	1544.6	1544.6
15°	1571.8	1564.7	1559.7	1559.7	1560.7	1562.7	1562.7	1564.7
17.5°	1597.9	1589.8	1584.8	1580.8	1582.8	1585.8	1587.8	1589.8
20°	1629.0	1625.0	1618.0	1613.9	1613.9	1618.0	1620.0	1621.0
22.5°	1672.2	1669.2	1666.2	1661.1	1661.1	1663.2	1667.2	1667.2
25°	1736.5	1734.5	1732.5	1728.4	1727.4	1727.4	1729.4	1731.5
27.5°	1816.8	1817.8	1815.8	1814.8	1811.8	1810.8	1813.8	1812.8
30°	1924.3	1929.3	1934.3	1930.3	1925.3	1922.3	1919.3	1915.2
32.5°	2069.9	2063.9	2059.9	2052.8	2043.8	2035.8	2029.7	2022.7
35°	2207.5	2197.5	2193.4	2199.5	2198.5	2193.4	2186.4	2180.4
37.5°	2376.2	2374.2	2376.2	2387.3	2385.3	2390.3	2376.2	2375.2
40°	2589.1	2591.2	2605.2	2618.3	2625.3	2632.3	2624.3	2616.3
42.5°	2836.2	2835.2	2840.2	2858.3	2870.4	2878.4	2861.3	2859.3
45°	3097.3	3090.3	3094.3	3109.4	3121.4	3130.5	3111.4	3111.4
47.5°	3384.6	3372.5	3359.5	3376.5	3383.6	3389.6	3374.5	3369.5
50°	3704.9	3679.8	3651.7	3658.7	3658.7	3656.7	3637.7	3636.7
52.5°	4072.5	4026.3	3975.1	3956.0	3945.0	3932.9	3899.8	3883.7
55°	4495.3	4426.0	4345.7	4296.5	4270.4	4237.2	4182.0	4166.9
57.5°	4989.5	4881.0	4742.4	4682.2	4623.9	4569.7	4508.4	4491.3
60°	5575.0	5415.3	5231.5	5120.0	5056.8	5004.5	4941.3	4938.3
62.5°	6227.8	5975.7	5767.8	5667.4	5621.2	5575.0	5514.7	5522.8
65°	6891.7	6628.5	6433.7	6352.3	6309.2	6271.0	6210.7	6219.8
67.5°	7546.5	7304.4	7090.5	7007.2	6958.9	6910.7	6856.5	6865.5
70°	8016.5	7716.2	7475.2	7290.4	7174.9	7044.3	6960.0	6938.9
72.5°	7881.9	7418.9	7036.3	6669.7	6454.8	6280.0	6161.5	6110.3
75°	6821.4	6188.6	5696.5	5246.6	4993.5	4787.6	4638.0	4544.6
77.5°	5065.8	4354.7	3773.2	3255.0	2845.2	2570.1	2376.2	2250.7
80°	2772.9	2109.1	1541.6	1083.7	796.4	661.8	584.5	547.4
82.5°	863.7	557.4	410.8	354.5	329.4	315.4	292.3	255.1
85°	275.2	241.0	224.0	213.9	203.9	177.8	122.5	111.5
87.5°	106.5	109.5	108.5	102.4	104.4	75.3	60.3	53.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)