

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: STREETWORKS

Report Number: P299342

Luminaire Tested: **GAA-AF-02-LED-U-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299342
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-5NQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12109.4 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

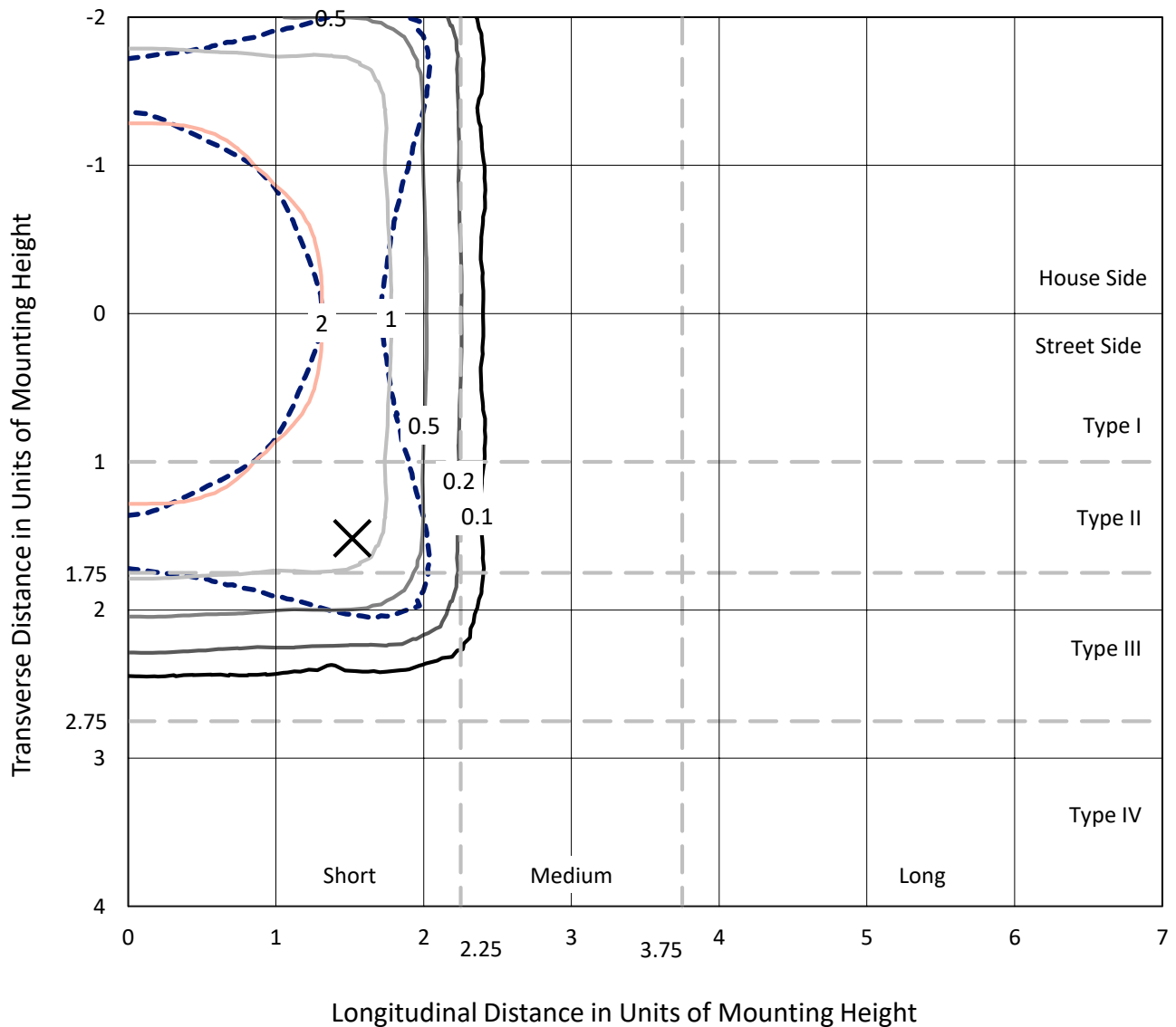
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

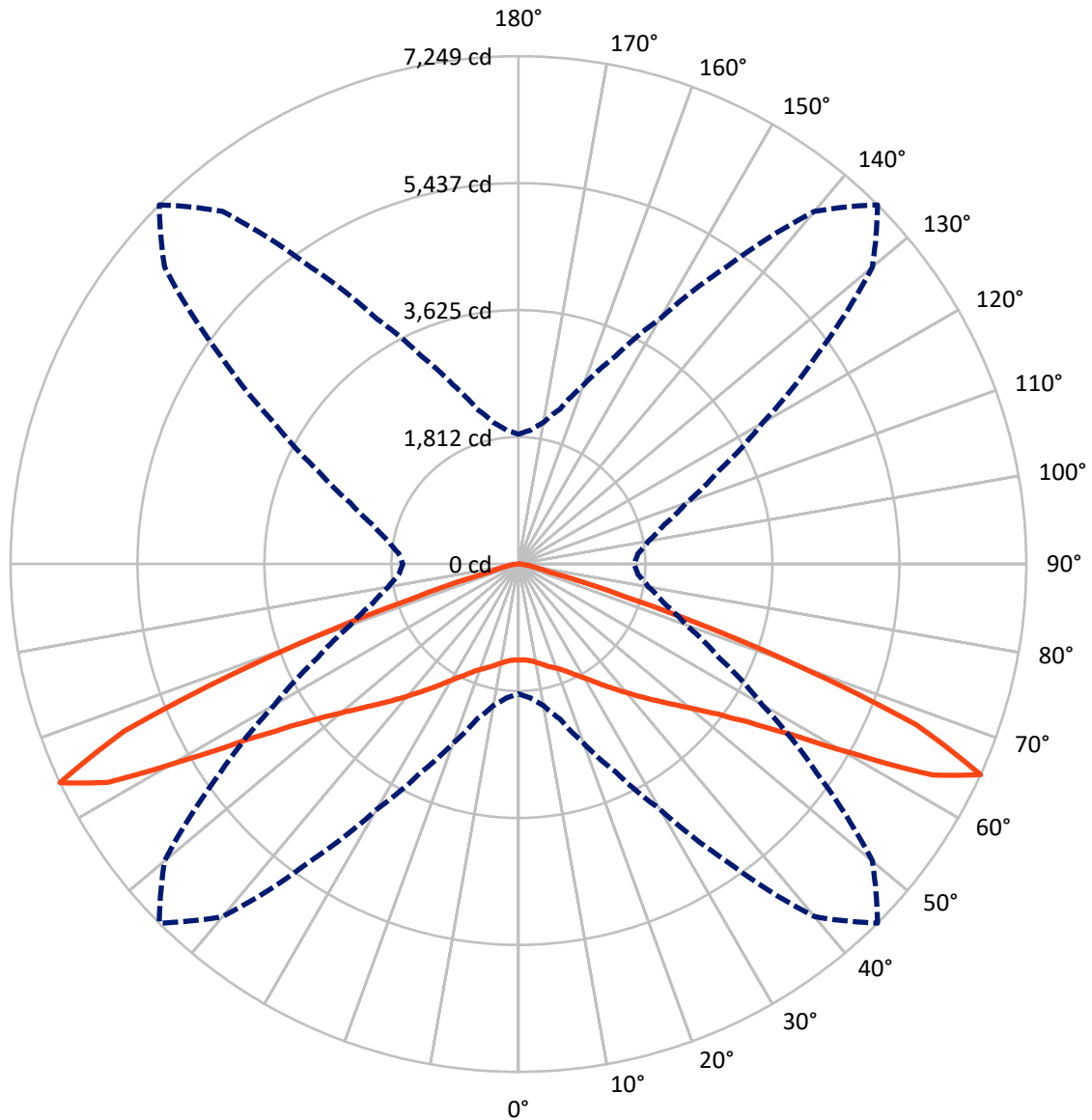
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6054.7	0.0	6054.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6054.7	0.0	6054.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	12109.4	0.0	12109.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.5	1.1
10°-20°	428.3	3.5
20°-30°	800.9	6.6
30°-40°	1354.5	11.2
40°-50°	2214.7	18.3
50°-60°	3521.8	29.1
60°-70°	3183.5	26.3
70°-80°	402.9	3.3
80°-90°	69.3	0.6
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°	12109.4	100.0
0°-180°	12109.4	100.0



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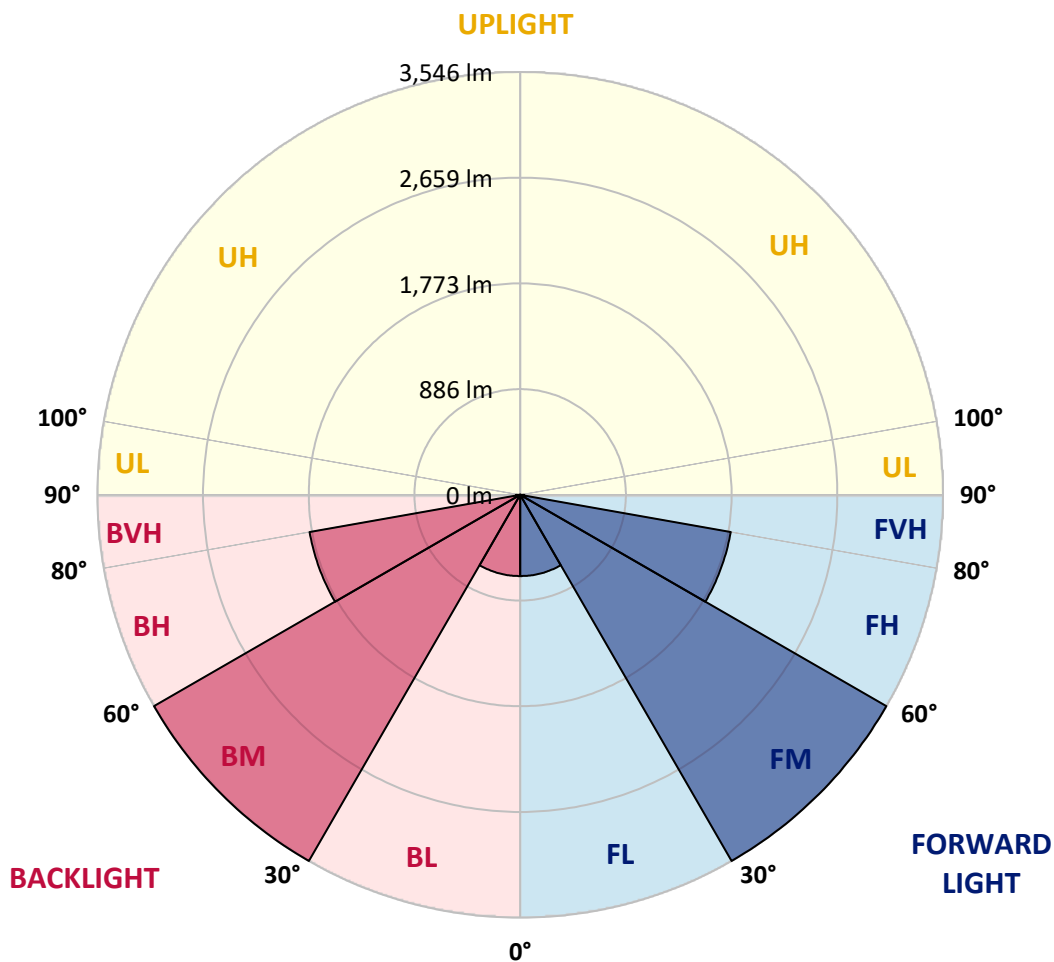
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	681.4	5.6			
FM	(30°-60°)	3545.5	29.3			
FH	(60°-80°)	1793.2	14.8			G1/1800
FVH	(80°-90°)	34.7	0.3			G1/100
BL	(0°-30°)	681.4	5.6	B2/1000		
BM	(30°-60°)	3545.5	29.3	B3/5000		
BH	(60°-80°)	1793.2	14.8	B3/2500		G1/1800
BVH	(80°-90°)	34.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2
2.5°	1371.3	1372.5	1373.6	1372.5	1373.6	1371.9	1370.8	1372.5	1370.8	1369.1	1370.2
5°	1383.2	1383.8	1383.8	1382.1	1383.8	1382.7	1381.0	1383.2	1381.5	1379.8	1381.0
7.5°	1403.1	1405.3	1403.6	1401.9	1403.1	1401.9	1400.8	1401.4	1400.8	1399.1	1399.7
10°	1429.7	1431.4	1430.3	1429.7	1430.9	1430.3	1429.2	1428.6	1429.2	1427.5	1427.5
12.5°	1462.1	1461.5	1460.9	1461.5	1463.2	1463.2	1462.6	1463.2	1464.3	1464.9	1463.8
15°	1493.8	1495.0	1495.0	1495.0	1498.4	1501.2	1502.9	1504.0	1506.3	1506.9	1504.6
17.5°	1533.5	1533.5	1533.0	1533.5	1536.9	1541.5	1543.2	1545.4	1547.7	1549.4	1546.6
20°	1577.8	1578.9	1578.9	1580.0	1584.6	1589.7	1589.7	1590.8	1589.7	1590.8	1589.1
22.5°	1631.6	1635.0	1635.0	1635.6	1640.1	1646.4	1644.7	1646.4	1643.5	1645.8	1643.5
25°	1702.0	1707.1	1705.9	1705.9	1709.3	1713.3	1713.9	1717.3	1716.7	1719.5	1717.8
27.5°	1781.4	1789.3	1791.6	1791.0	1793.3	1797.2	1798.4	1802.3	1800.1	1802.3	1801.2
30°	1876.6	1880.0	1884.6	1886.3	1889.1	1893.1	1893.1	1893.6	1890.8	1894.2	1895.9
32.5°	1975.3	1981.6	1986.1	1996.3	2001.4	2004.2	2003.7	2004.8	2002.0	2006.5	2009.9
35°	2105.8	2110.3	2117.7	2125.6	2132.4	2131.8	2130.1	2130.7	2130.7	2134.7	2138.1
37.5°	2262.8	2264.0	2273.6	2285.0	2288.4	2285.0	2274.8	2272.5	2267.4	2272.5	2278.2
40°	2429.0	2433.0	2452.3	2459.6	2461.3	2455.1	2440.4	2431.9	2420.5	2426.7	2434.7
42.5°	2603.1	2611.1	2628.6	2641.7	2647.4	2643.4	2623.0	2609.9	2595.2	2598.6	2606.5
45°	2795.9	2805.6	2830.5	2843.0	2853.8	2847.6	2827.7	2807.9	2784.6	2786.3	2798.8
47.5°	3011.5	3021.1	3053.4	3074.4	3080.1	3078.9	3056.8	3029.6	2997.8	2996.7	3007.5
50°	3253.1	3262.7	3303.0	3335.3	3351.7	3350.0	3323.9	3285.4	3246.8	3247.4	3261.0
52.5°	3489.0	3500.9	3542.9	3598.4	3630.8	3654.0	3638.1	3601.8	3554.8	3555.9	3568.4
55°	3710.2	3730.0	3778.2	3853.6	3913.8	3979.0	3997.7	3996.6	3968.2	3976.1	3988.6
57.5°	3817.3	3846.8	3921.1	4040.2	4162.7	4295.4	4407.7	4491.7	4527.4	4581.3	4568.8
60°	3614.3	3661.4	3770.8	3946.1	4188.3	4465.0	4761.6	5051.4	5298.7	5485.3	5378.1
62.5°	2959.3	3020.5	3153.2	3377.8	3744.2	4187.1	4754.8	5439.9	6186.2	6636.6	6315.0
65°	1851.7	1915.2	2050.2	2290.6	2719.4	3270.1	4040.2	5175.6	6570.2	7249.1	6594.6
67.5°	722.0	756.6	829.7	983.4	1305.5	1795.5	2568.5	3857.0	5525.0	6119.9	5422.3
70°	361.8	365.2	378.8	407.2	476.4	618.7	941.4	1788.2	3168.6	3827.0	3054.6
72.5°	261.4	262.0	268.8	281.3	303.4	335.2	396.4	547.3	1030.5	1574.9	965.8
75°	200.2	202.5	206.4	213.2	225.2	241.0	263.1	315.3	390.8	453.1	381.1
77.5°	154.3	158.8	161.6	167.9	175.2	186.0	192.3	212.1	246.7	259.7	255.8
80°	117.4	121.4	127.6	132.7	137.8	142.9	140.6	149.7	167.9	178.6	173.0
82.5°	74.9	79.4	97.5	102.1	104.4	107.8	103.8	104.4	112.3	119.1	112.3
85°	48.2	51.0	61.8	67.5	68.1	70.3	68.6	64.7	64.7	59.0	66.4
87.5°	22.1	22.7	27.8	32.9	34.0	30.6	30.1	28.9	23.3	22.1	23.8
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°	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2	1370.2
2.5°	1369.6	1370.8	1371.3	1373.0	1373.6	1373.6	1374.2	1375.3
5°	1380.4	1382.1	1382.7	1384.9	1385.5	1384.9	1386.1	1386.6
7.5°	1399.7	1402.5	1403.6	1405.9	1404.2	1406.5	1407.0	1407.0
10°	1428.0	1430.9	1431.4	1433.7	1432.6	1433.7	1433.7	1432.6
12.5°	1465.5	1466.0	1464.3	1466.0	1463.8	1464.9	1463.2	1462.1
15°	1506.9	1505.2	1501.2	1501.2	1497.8	1498.4	1497.8	1497.2
17.5°	1547.1	1543.7	1540.9	1539.8	1536.9	1536.4	1534.7	1534.7
20°	1591.4	1589.7	1588.0	1585.7	1582.9	1580.0	1579.5	1580.6
22.5°	1644.7	1644.1	1644.1	1643.0	1639.0	1636.2	1634.5	1634.5
25°	1716.1	1711.0	1711.0	1710.5	1708.8	1707.1	1703.7	1705.4
27.5°	1796.7	1793.8	1796.1	1795.5	1793.8	1793.8	1791.6	1791.6
30°	1895.9	1894.8	1898.2	1895.3	1889.7	1889.1	1886.8	1884.0
32.5°	2010.5	2009.3	2014.4	2011.0	2002.0	1996.9	1992.3	1990.1
35°	2138.1	2138.6	2144.9	2142.6	2132.4	2129.0	2121.1	2119.9
37.5°	2277.6	2286.7	2297.4	2299.7	2291.2	2288.9	2280.4	2275.9
40°	2441.5	2453.4	2469.8	2473.8	2464.7	2463.0	2451.1	2444.9
42.5°	2616.2	2636.6	2657.0	2660.4	2651.3	2642.3	2630.9	2626.4
45°	2811.3	2835.6	2862.3	2869.1	2855.5	2844.7	2830.0	2830.0
47.5°	3030.2	3060.8	3090.9	3109.6	3097.1	3085.8	3068.2	3056.8
50°	3288.8	3330.8	3369.9	3389.2	3369.3	3347.8	3317.1	3306.9
52.5°	3613.2	3658.6	3692.6	3682.4	3651.7	3621.7	3588.2	3574.6
55°	4027.2	4042.5	4042.5	4003.9	3942.7	3892.2	3839.5	3821.9
57.5°	4545.0	4486.0	4395.3	4280.1	4135.5	4009.6	3924.5	3884.3
60°	5153.5	4869.9	4549.5	4234.8	3976.1	3762.9	3636.4	3578.6
62.5°	5559.0	4817.2	4175.2	3669.9	3297.9	3040.9	2866.3	2798.2
65°	5195.5	4017.5	3157.8	2553.2	2147.7	1886.3	1713.3	1649.8
67.5°	3805.4	2517.5	1681.5	1205.2	883.0	704.4	633.5	604.0
70°	1708.2	886.4	543.3	424.2	365.8	335.7	322.7	318.2
72.5°	515.0	372.6	314.2	283.6	260.3	245.6	234.8	233.7
75°	310.8	258.6	229.7	211.5	196.8	184.9	179.2	177.5
77.5°	217.2	190.0	176.4	163.3	152.0	142.9	137.8	133.8
80°	152.6	139.5	133.3	125.9	118.5	110.0	102.7	99.2
82.5°	102.1	99.2	99.2	94.7	88.5	80.5	65.8	62.4
85°	65.8	65.2	66.4	64.7	60.1	51.6	42.5	40.3
87.5°	30.6	31.2	34.6	34.0	32.9	27.2	21.6	20.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)