

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: P299470

Luminaire Tested: **GLNA-AF-03-LED-E1-5NQ-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299470  
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: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-5NQ-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

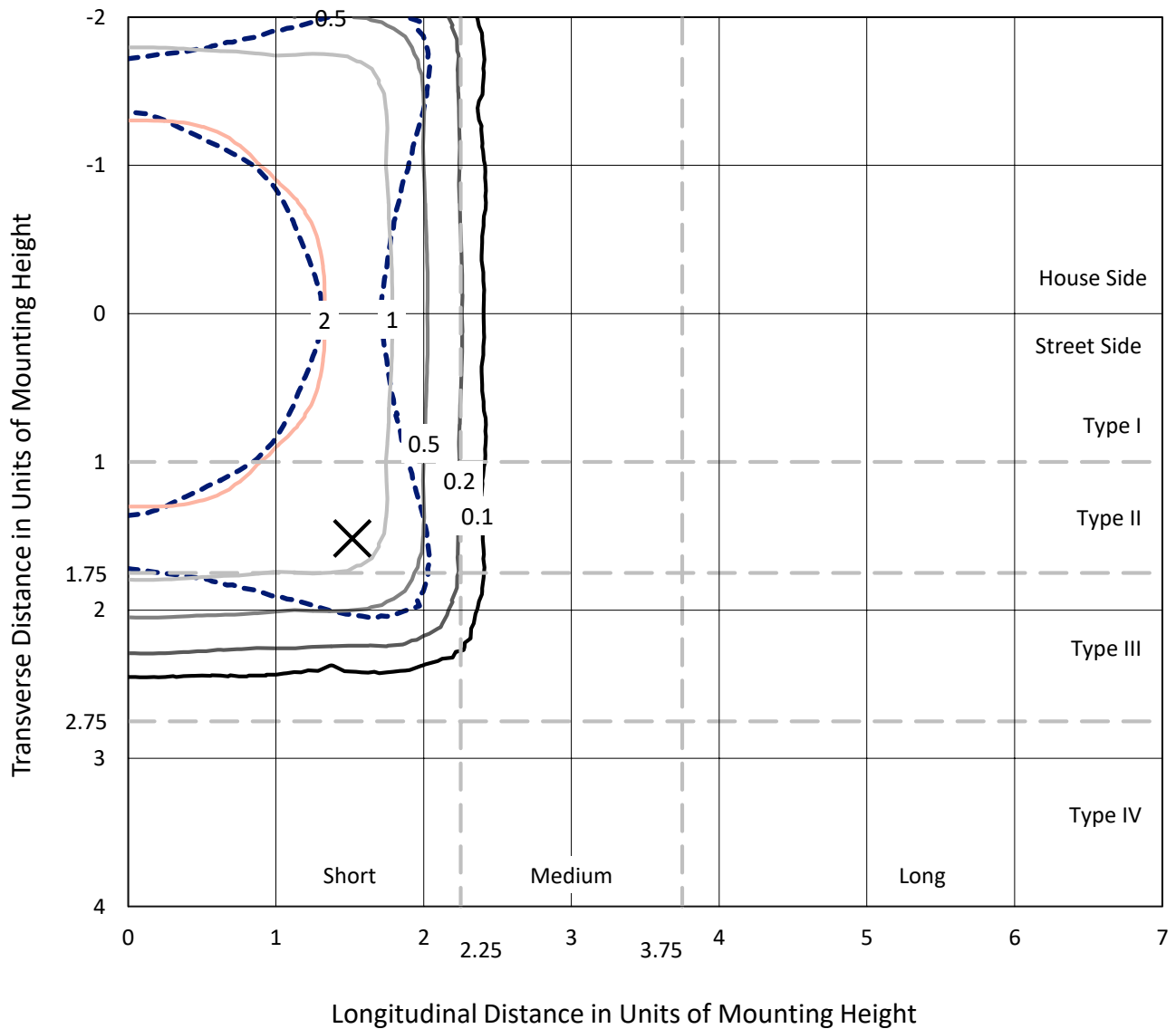
Lumens per Lamp: N/A  
Luminaire Lumens: 12306.1 lumens  
Efficiency: N/A  
Efficacy: 128.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (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

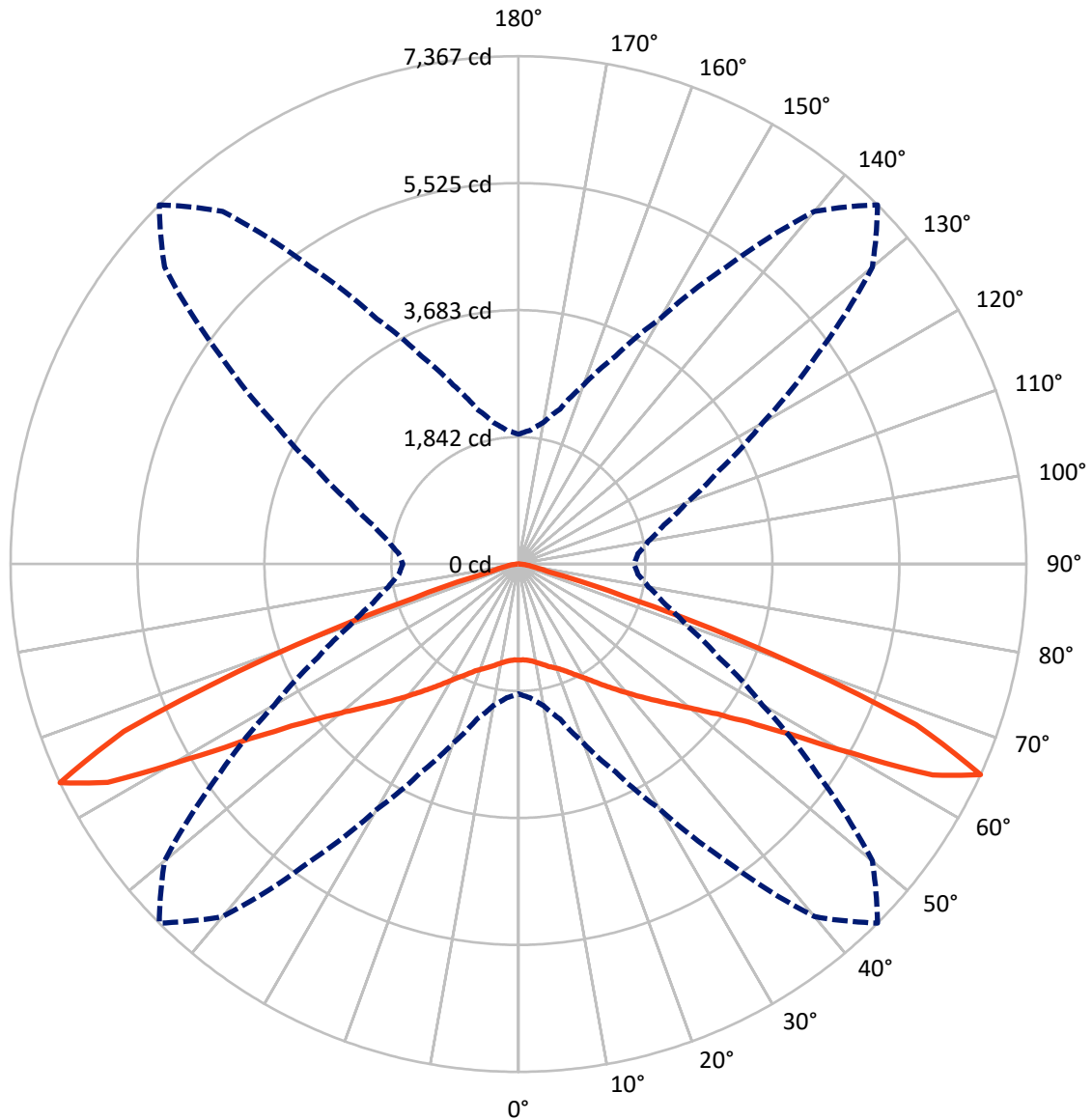
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 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
<b>House Side</b>	Lumens	6153.1	0.0	6153.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6153.1	0.0	6153.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12306.1	0.0	12306.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.7	1.1
10°-20°	435.3	3.5
20°-30°	813.9	6.6
30°-40°	1376.5	11.2
40°-50°	2250.7	18.3
50°-60°	3579.0	29.1
60°-70°	3235.2	26.3
70°-80°	409.4	3.3
80°-90°	70.4	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°	12306.1	100.0
0°-180°	12306.1	100.0

**Coefficient of Utilization**



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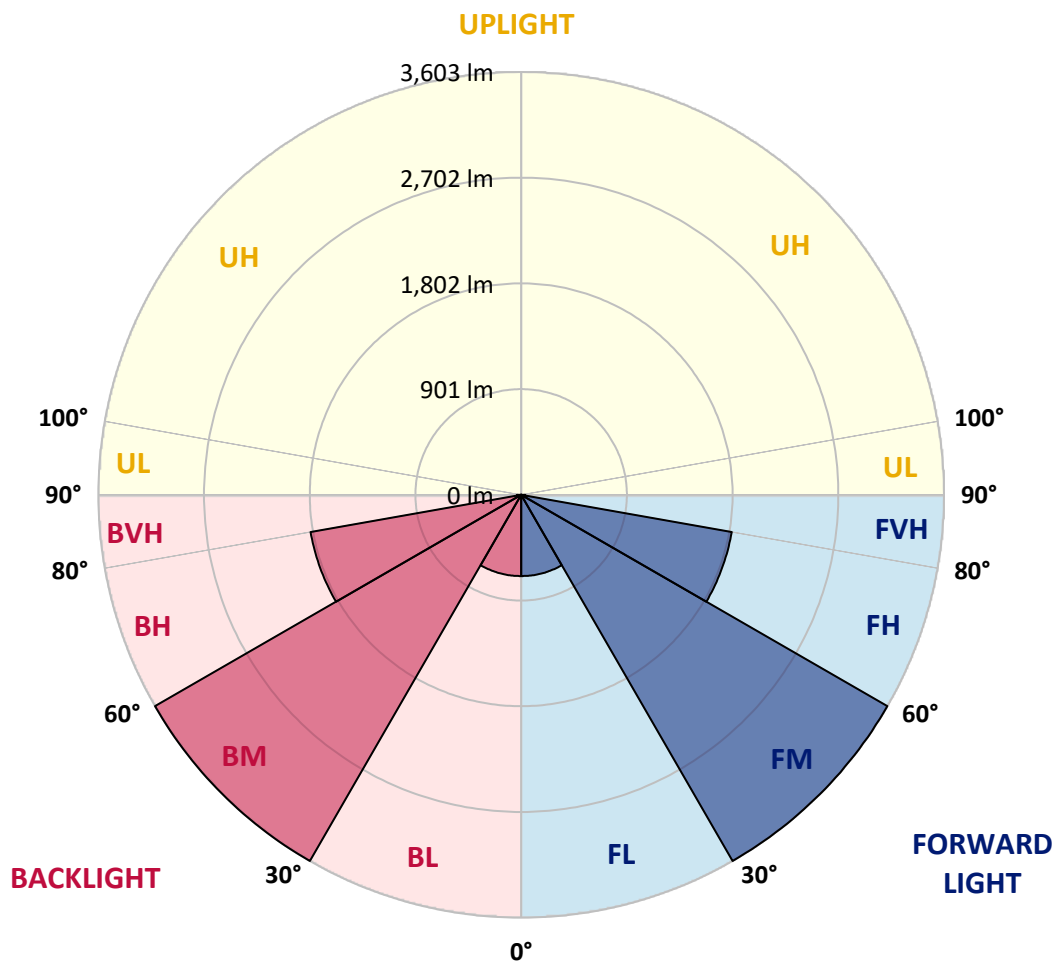
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	692.4	5.6			
FM (30°-60°)	3603.1	29.3			
FH (60°-80°)	1822.3	14.8			G2/5000
FVH (80°-90°)	35.2	0.3			G1/100
BL (0°-30°)	692.4	5.6	B2/1000		
BM (30°-60°)	3603.1	29.3	B3/5000		
BH (60°-80°)	1822.3	14.8	B3/2500		G2/5000
BVH (80°-90°)	35.2	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4
2.5°	1393.6	1394.7	1395.9	1394.7	1395.9	1394.2	1393.0	1394.7	1393.0	1391.3	1392.4
5°	1405.7	1406.3	1406.3	1404.5	1406.3	1405.1	1403.4	1405.7	1404.0	1402.2	1403.4
7.5°	1425.9	1428.2	1426.4	1424.7	1425.9	1424.7	1423.6	1424.1	1423.6	1421.8	1422.4
10°	1453.0	1454.7	1453.5	1453.0	1454.1	1453.5	1452.4	1451.8	1452.4	1450.7	1450.7
12.5°	1485.8	1485.2	1484.7	1485.2	1487.0	1487.0	1486.4	1487.0	1488.1	1488.7	1487.5
15°	1518.1	1519.2	1519.2	1519.2	1522.7	1525.6	1527.3	1528.5	1530.8	1531.3	1529.0
17.5°	1558.4	1558.4	1557.9	1558.4	1561.9	1566.5	1568.2	1570.5	1572.8	1574.6	1571.7
20°	1603.4	1604.5	1604.5	1605.7	1610.3	1615.5	1615.5	1616.6	1615.5	1616.6	1614.9
22.5°	1658.1	1661.6	1661.6	1662.2	1666.8	1673.1	1671.4	1673.1	1670.2	1672.5	1670.2
25°	1729.6	1734.8	1733.6	1733.6	1737.1	1741.1	1741.7	1745.2	1744.6	1747.5	1745.7
27.5°	1810.3	1818.4	1820.7	1820.1	1822.4	1826.4	1827.6	1831.6	1829.3	1831.6	1830.5
30°	1907.1	1910.6	1915.2	1916.9	1919.8	1923.8	1923.8	1924.4	1921.5	1925.0	1926.7
32.5°	2007.4	2013.7	2018.4	2028.7	2033.9	2036.8	2036.2	2037.4	2034.5	2039.1	2042.6
35°	2140.0	2144.6	2152.1	2160.1	2167.0	2166.5	2164.7	2165.3	2165.3	2169.4	2172.8
37.5°	2299.6	2300.8	2310.6	2322.1	2325.5	2322.1	2311.7	2309.4	2304.2	2309.4	2315.2
40°	2468.5	2472.5	2492.1	2499.6	2501.3	2495.0	2480.0	2471.4	2459.8	2466.2	2474.2
42.5°	2645.4	2653.5	2671.3	2684.6	2690.4	2686.3	2665.6	2652.3	2637.3	2640.8	2648.9
45°	2841.4	2851.2	2876.5	2889.2	2900.2	2893.8	2873.6	2853.5	2829.8	2831.6	2844.2
47.5°	3060.4	3070.2	3103.0	3124.4	3130.1	3129.0	3106.5	3078.8	3046.5	3045.4	3056.3
50°	3305.9	3315.7	3356.6	3389.5	3406.2	3404.5	3377.9	3338.7	3299.6	3300.1	3314.0
52.5°	3545.7	3557.8	3600.4	3656.9	3689.7	3713.4	3697.2	3660.3	3612.5	3613.7	3626.3
55°	3770.4	3790.6	3839.6	3916.2	3977.3	4043.6	4062.6	4061.5	4032.7	4040.7	4053.4
57.5°	3879.4	3909.3	3984.8	4105.9	4230.4	4365.2	4479.3	4564.6	4600.9	4655.7	4643.0
60°	3673.0	3720.9	3832.1	4010.2	4256.3	4537.5	4839.0	5133.5	5384.8	5574.4	5465.5
62.5°	3007.4	3069.6	3204.5	3432.7	3805.0	4255.1	4832.1	5528.3	6286.7	6744.4	6417.6
65°	1881.8	1946.3	2083.5	2327.8	2763.6	3323.2	4105.9	5259.7	6676.9	7366.8	6701.7
67.5°	733.7	768.8	843.2	999.4	1326.7	1824.7	2610.3	3919.7	5614.7	6219.3	5510.4
70°	367.7	371.2	385.0	413.8	484.1	628.8	956.7	1817.2	3220.0	3889.2	3104.2
72.5°	265.7	266.3	273.2	285.9	308.3	340.6	402.9	556.2	1047.2	1600.5	981.5
75°	203.4	205.8	209.8	216.7	228.8	244.9	267.4	320.4	397.1	460.5	387.3
77.5°	156.8	161.4	164.3	170.6	178.1	189.0	195.4	215.6	250.7	264.0	259.9
80°	119.3	123.3	129.7	134.9	140.1	145.2	142.9	152.2	170.6	181.5	175.8
82.5°	76.1	80.7	99.1	103.7	106.0	109.5	105.5	106.0	114.1	121.0	114.1
85°	49.0	51.9	62.8	68.6	69.2	71.5	69.7	65.7	65.7	59.9	67.4
87.5°	22.5	23.1	28.2	33.4	34.6	31.1	30.5	29.4	23.6	22.5	24.2
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°	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4	1392.4
2.5°	1391.9	1393.0	1393.6	1395.3	1395.9	1395.9	1396.5	1397.6
5°	1402.8	1404.5	1405.1	1407.4	1408.0	1407.4	1408.6	1409.2
7.5°	1422.4	1425.3	1426.4	1428.8	1427.0	1429.3	1429.9	1429.9
10°	1451.2	1454.1	1454.7	1457.0	1455.8	1457.0	1457.0	1455.8
12.5°	1489.3	1489.8	1488.1	1489.8	1487.5	1488.7	1487.0	1485.8
15°	1531.3	1529.6	1525.6	1525.6	1522.1	1522.7	1522.1	1521.5
17.5°	1572.3	1568.8	1565.9	1564.8	1561.9	1561.3	1559.6	1559.6
20°	1617.2	1615.5	1613.8	1611.5	1608.6	1605.7	1605.1	1606.3
22.5°	1671.4	1670.8	1670.8	1669.7	1665.6	1662.7	1661.0	1661.0
25°	1744.0	1738.8	1738.8	1738.2	1736.5	1734.8	1731.3	1733.1
27.5°	1825.9	1823.0	1825.3	1824.7	1823.0	1823.0	1820.7	1820.7
30°	1926.7	1925.6	1929.0	1926.1	1920.4	1919.8	1917.5	1914.6
32.5°	2043.1	2042.0	2047.2	2043.7	2034.5	2029.3	2024.7	2022.4
35°	2172.8	2173.4	2179.7	2177.4	2167.0	2163.6	2155.5	2154.4
37.5°	2314.6	2323.8	2334.8	2337.1	2328.4	2326.1	2317.5	2312.9
40°	2481.2	2493.3	2510.0	2514.0	2504.8	2503.1	2491.0	2484.6
42.5°	2658.7	2679.4	2700.2	2703.6	2694.4	2685.2	2673.7	2669.0
45°	2856.9	2881.7	2908.8	2915.7	2901.9	2890.9	2875.9	2875.9
47.5°	3079.4	3110.5	3141.1	3160.1	3147.4	3135.9	3118.0	3106.5
50°	3342.2	3384.9	3424.6	3444.2	3424.0	3402.1	3371.0	3360.7
52.5°	3671.9	3718.0	3752.6	3742.2	3711.1	3680.5	3646.5	3632.7
55°	4092.6	4108.2	4108.2	4069.0	4006.7	3955.4	3901.8	3884.0
57.5°	4618.8	4558.9	4466.7	4349.7	4202.7	4074.7	3988.3	3947.4
60°	5237.2	4949.0	4623.4	4303.5	4040.7	3824.0	3695.5	3636.7
62.5°	5649.3	4895.4	4243.0	3729.5	3351.4	3090.3	2912.8	2843.7
65°	5279.9	4082.8	3209.1	2594.7	2182.6	1916.9	1741.1	1676.6
67.5°	3867.3	2558.4	1708.9	1224.7	897.4	715.8	643.8	613.8
70°	1735.9	900.8	552.1	431.1	371.7	341.2	327.9	323.3
72.5°	523.3	378.7	319.3	288.2	264.5	249.6	238.6	237.5
75°	315.8	262.8	233.4	215.0	200.0	187.9	182.1	180.4
77.5°	220.7	193.1	179.2	166.0	154.5	145.2	140.1	136.0
80°	155.0	141.8	135.4	127.9	120.5	111.8	104.3	100.9
82.5°	103.7	100.9	100.9	96.2	89.9	81.8	66.9	63.4
85°	66.9	66.3	67.4	65.7	61.1	52.4	43.2	40.9
87.5°	31.1	31.7	35.2	34.6	33.4	27.7	21.9	20.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)