

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: P299963

Luminaire Tested: **GLNA-AF-05-LED-E1-5WQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299963
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-05-LED-E1-5WQ-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20571.2 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 162
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

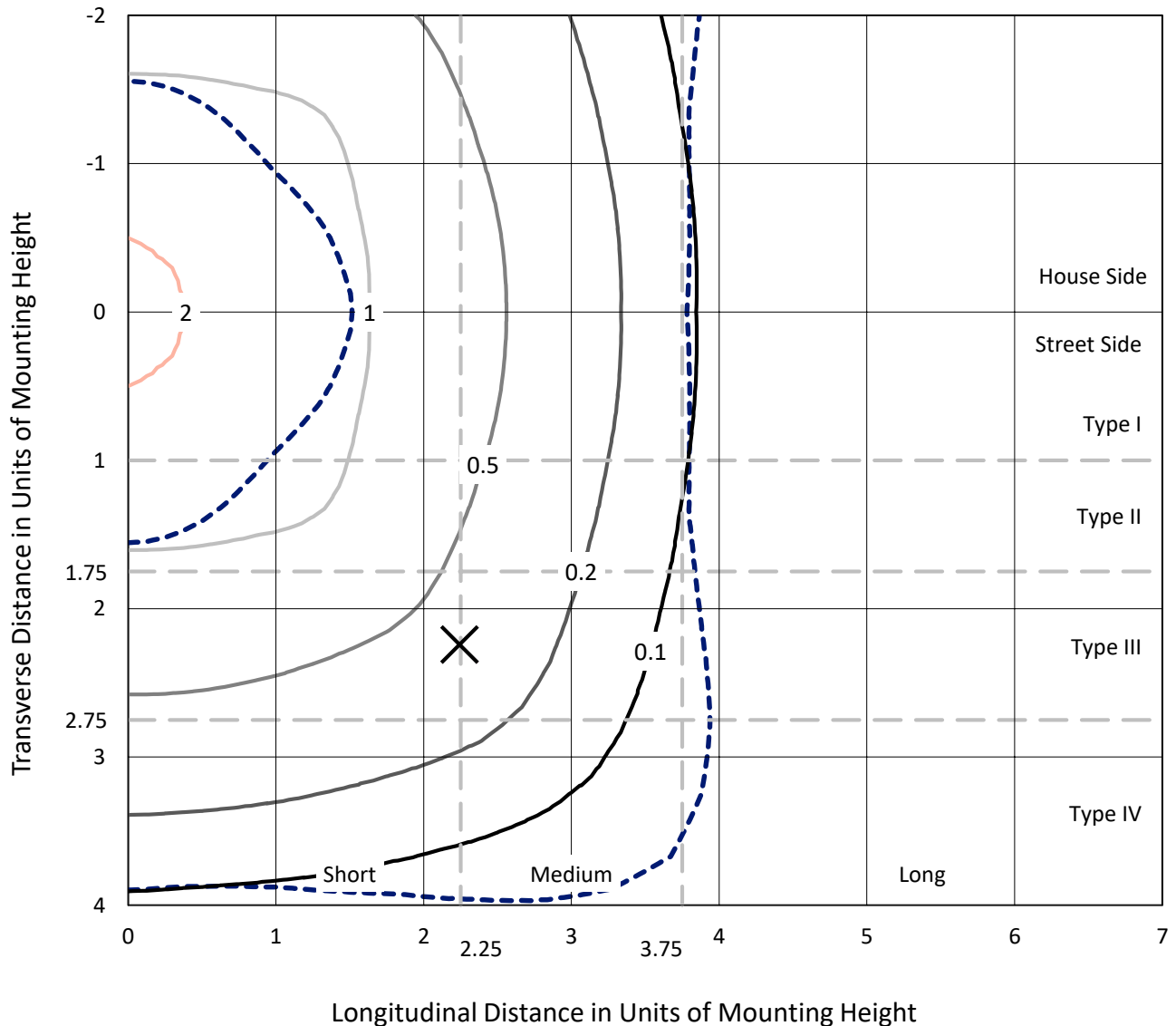


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

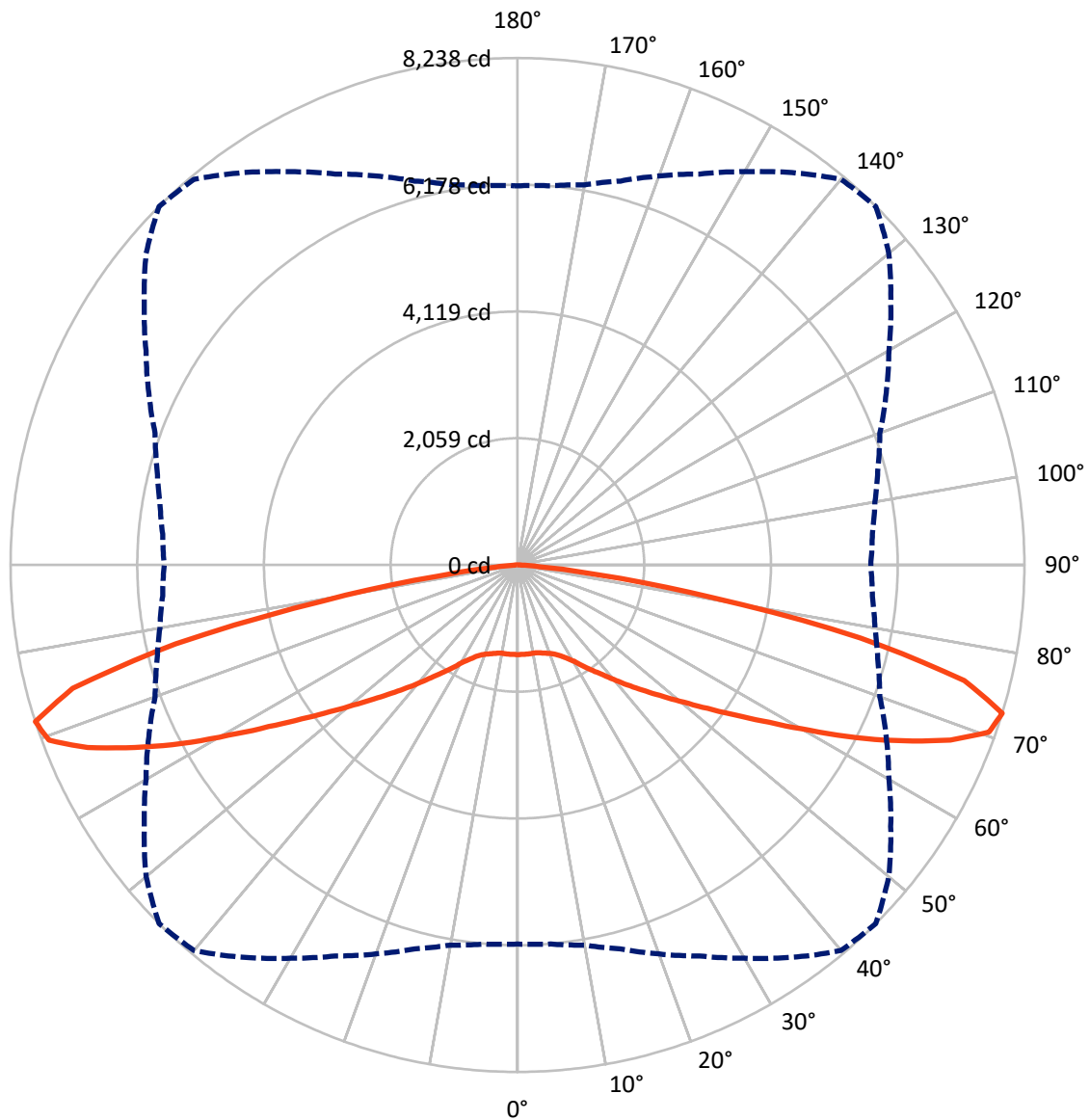


Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type V - Short - Semi-Cutoff

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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	10285.6	0.0	10285.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10285.6	0.0	10285.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	20571.2	0.0	20571.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.1	0.7
10°-20°	422.5	2.1
20°-30°	772.0	3.8
30°-40°	1331.1	6.5
40°-50°	2275.5	11.1
50°-60°	3688.4	17.9
60°-70°	6118.8	29.7
70°-80°	5389.3	26.2
80°-90°	434.5	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°	20571.2	100.0
0°-180°	20571.2	100.0



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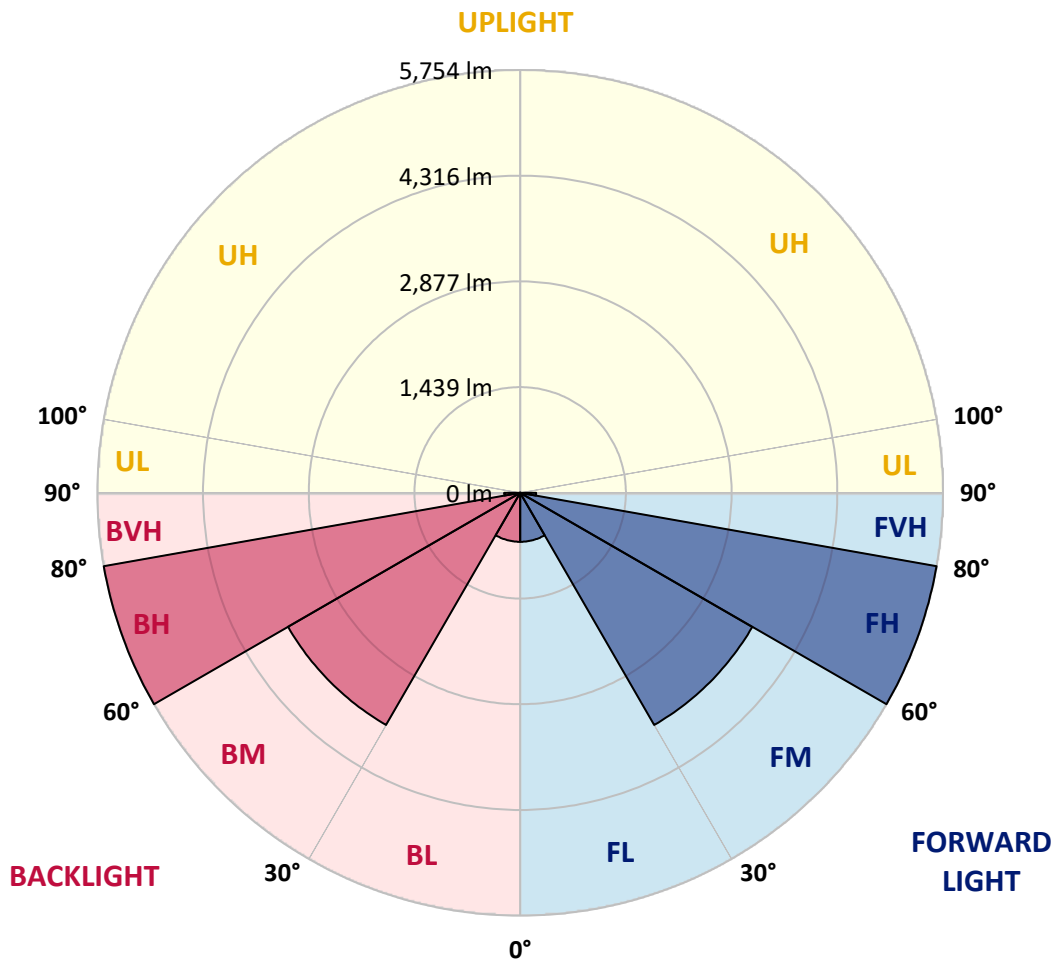
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	666.8	3.2			
FM (30°-60°)	3647.5	17.7			
FH (60°-80°)	5754.1	28.0			G3/7500
FVH (80°-90°)	217.3	1.1			G2/225
BL (0°-30°)	666.8	3.2	B2/1000		
BM (30°-60°)	3647.5	17.7	B3/5000		
BH (60°-80°)	5754.1	28.0	B5		G3/7500
BVH (80°-90°)	217.3	1.1			G2/225
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°	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1456.8	1457.7	1458.6	1457.7	1457.7	1456.8	1455.8	1456.8	1455.8	1453.9	1454.9
5°	1461.5	1463.4	1463.4	1461.5	1462.4	1461.5	1459.6	1460.5	1458.6	1455.8	1455.8
7.5°	1467.1	1468.1	1468.1	1466.2	1467.1	1465.3	1463.4	1462.4	1460.5	1456.8	1453.9
10°	1475.6	1476.6	1475.6	1473.7	1473.7	1470.9	1466.2	1464.3	1460.5	1454.9	1452.0
12.5°	1485.1	1486.0	1485.1	1483.2	1482.2	1477.5	1473.7	1470.9	1468.1	1463.4	1458.6
15°	1498.3	1500.2	1498.3	1494.5	1491.7	1487.9	1486.0	1487.0	1487.9	1484.1	1479.4
17.5°	1522.8	1523.8	1520.9	1512.4	1508.7	1504.9	1504.9	1506.8	1509.6	1507.7	1503.0
20°	1568.1	1565.3	1558.7	1548.3	1543.6	1537.0	1536.0	1537.0	1537.0	1536.0	1532.2
22.5°	1624.7	1622.8	1614.3	1601.1	1594.5	1590.7	1585.1	1580.4	1579.4	1576.6	1572.8
25°	1692.6	1691.7	1681.3	1670.0	1665.3	1660.6	1655.8	1649.2	1643.6	1637.0	1633.2
27.5°	1779.4	1775.7	1760.6	1754.9	1748.3	1745.5	1738.9	1731.3	1726.6	1718.1	1713.4
30°	1874.7	1874.7	1862.5	1860.6	1860.6	1854.0	1846.4	1833.2	1824.7	1816.2	1813.4
32.5°	1970.0	1971.0	1958.7	1962.5	1965.3	1970.0	1971.9	1967.2	1961.5	1960.6	1954.9
35°	2107.8	2104.0	2091.7	2094.6	2093.6	2092.7	2092.7	2103.1	2104.9	2106.8	2095.5
37.5°	2278.6	2278.6	2266.3	2266.3	2260.6	2255.0	2247.4	2254.0	2264.4	2267.2	2259.7
40°	2473.9	2480.5	2465.4	2464.4	2466.3	2448.4	2439.9	2450.3	2456.9	2468.2	2459.7
42.5°	2704.1	2699.4	2684.3	2682.4	2672.0	2666.3	2658.8	2667.3	2677.7	2685.2	2688.0
45°	2924.8	2921.1	2904.1	2904.1	2893.7	2889.0	2892.8	2906.9	2911.6	2922.0	2932.4
47.5°	3142.8	3138.1	3126.8	3131.5	3132.4	3140.9	3153.2	3166.4	3179.6	3193.7	3198.5
50°	3365.5	3366.4	3354.1	3365.5	3379.6	3403.2	3436.2	3457.9	3485.3	3503.2	3508.9
52.5°	3568.3	3572.1	3585.3	3611.7	3640.0	3686.3	3742.9	3795.7	3841.0	3871.2	3869.3
55°	3811.7	3817.4	3849.5	3894.8	3941.0	4010.8	4094.8	4188.2	4263.7	4307.1	4279.7
57.5°	4123.1	4135.4	4171.2	4232.5	4301.4	4392.0	4507.1	4647.7	4764.7	4823.2	4778.8
60°	4550.5	4558.0	4601.4	4669.4	4752.4	4864.7	5018.5	5207.2	5372.3	5449.7	5398.7
62.5°	5113.8	5127.9	5162.8	5231.7	5316.6	5444.0	5631.7	5867.6	6073.3	6180.9	6065.8
65°	5786.5	5831.8	5861.0	5930.8	6010.1	6145.0	6341.3	6594.1	6814.9	6885.7	6752.6
67.5°	6452.6	6492.2	6543.2	6623.4	6703.6	6855.5	7037.6	7282.9	7525.4	7589.5	7382.9
70°	6744.1	6766.8	6846.0	6955.5	7109.3	7288.5	7498.9	7774.4	8074.5	8127.3	7865.0
72.5°	6160.1	6182.8	6271.4	6457.3	6725.3	7010.2	7377.2	7782.0	8178.3	8237.7	7876.3
75°	4659.0	4622.2	4753.3	4999.6	5361.0	5758.2	6271.4	6851.7	7424.4	7498.9	7067.8
77.5°	2407.8	2403.1	2502.2	2807.9	3239.0	3691.0	4256.1	4911.9	5472.3	5698.7	5347.8
80°	678.4	685.9	733.1	885.0	1136.9	1463.4	1904.9	2519.1	2977.7	3211.7	3015.4
82.5°	266.1	286.8	304.8	333.1	366.1	414.2	552.9	822.7	1103.9	1319.0	1080.3
85°	95.3	101.9	144.4	170.8	173.6	183.0	208.5	243.4	293.4	350.0	287.8
87.5°	35.9	39.6	46.2	76.4	75.5	68.9	84.0	87.7	66.0	60.4	74.5
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°	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1453.0	1453.9	1453.9	1454.9	1455.8	1455.8	1457.7	1457.7
5°	1453.9	1453.9	1452.0	1453.0	1452.0	1452.0	1453.0	1453.0
7.5°	1452.0	1451.1	1449.2	1448.3	1446.4	1446.4	1446.4	1446.4
10°	1449.2	1448.3	1446.4	1445.4	1444.5	1444.5	1444.5	1444.5
12.5°	1456.8	1453.9	1452.0	1451.1	1451.1	1451.1	1451.1	1451.1
15°	1476.6	1470.0	1465.3	1465.3	1466.2	1468.1	1468.1	1470.0
17.5°	1501.1	1493.6	1488.8	1485.1	1487.0	1489.8	1491.7	1493.6
20°	1530.4	1526.6	1520.0	1516.2	1516.2	1520.0	1521.9	1522.8
22.5°	1570.9	1568.1	1565.3	1560.5	1560.5	1562.4	1566.2	1566.2
25°	1631.3	1629.4	1627.5	1623.8	1622.8	1622.8	1624.7	1626.6
27.5°	1706.8	1707.7	1705.8	1704.9	1702.1	1701.1	1704.0	1703.0
30°	1807.7	1812.5	1817.2	1813.4	1808.7	1805.9	1803.0	1799.3
32.5°	1944.6	1938.9	1935.1	1928.5	1920.0	1912.5	1906.8	1900.2
35°	2073.8	2064.4	2060.6	2066.3	2065.3	2060.6	2054.0	2048.3
37.5°	2232.3	2230.4	2232.3	2242.7	2240.8	2245.5	2232.3	2231.4
40°	2432.3	2434.2	2447.4	2459.7	2466.3	2472.9	2465.4	2457.8
42.5°	2664.4	2663.5	2668.2	2685.2	2696.5	2704.1	2688.0	2686.1
45°	2909.8	2903.1	2906.9	2921.1	2932.4	2940.9	2923.0	2923.0
47.5°	3179.6	3168.3	3156.0	3172.0	3178.6	3184.3	3170.2	3165.4
50°	3480.6	3457.0	3430.6	3437.2	3437.2	3435.3	3417.4	3416.4
52.5°	3825.9	3782.5	3734.4	3716.4	3706.1	3694.7	3663.6	3648.5
55°	4223.1	4158.0	4082.5	4036.3	4011.8	3980.6	3928.7	3914.6
57.5°	4687.3	4585.4	4455.2	4398.6	4343.9	4292.9	4235.4	4219.3
60°	5237.4	5087.3	4914.7	4810.0	4750.5	4701.5	4642.0	4639.2
62.5°	5850.6	5613.8	5418.5	5324.2	5280.8	5237.4	5180.8	5188.3
65°	6474.3	6227.1	6044.1	5967.6	5927.1	5891.2	5834.6	5843.1
67.5°	7089.5	6862.1	6661.1	6582.8	6537.5	6492.2	6441.3	6449.8
70°	7531.0	7248.9	7022.5	6848.9	6740.4	6617.7	6538.4	6518.6
72.5°	7404.6	6969.6	6610.2	6265.8	6063.9	5899.7	5788.4	5740.2
75°	6408.2	5813.8	5351.5	4928.8	4691.1	4497.7	4357.1	4269.3
77.5°	4759.0	4091.0	3544.7	3057.9	2672.9	2414.4	2232.3	2114.4
80°	2605.0	1981.3	1448.3	1018.0	748.2	621.8	549.1	514.2
82.5°	811.4	523.6	385.9	333.1	309.5	296.3	274.6	239.6
85°	258.5	226.4	210.4	201.0	191.5	167.0	115.1	104.7
87.5°	100.0	102.8	101.9	96.2	98.1	70.8	56.6	50.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)