

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: P299650

Luminaire Tested: **GLNA-AF-03-LED-E1-5MQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299650  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
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-E1-5MQ-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15369.9 lumens  
Efficiency: N/A  
Efficacy: 124.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 124  
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

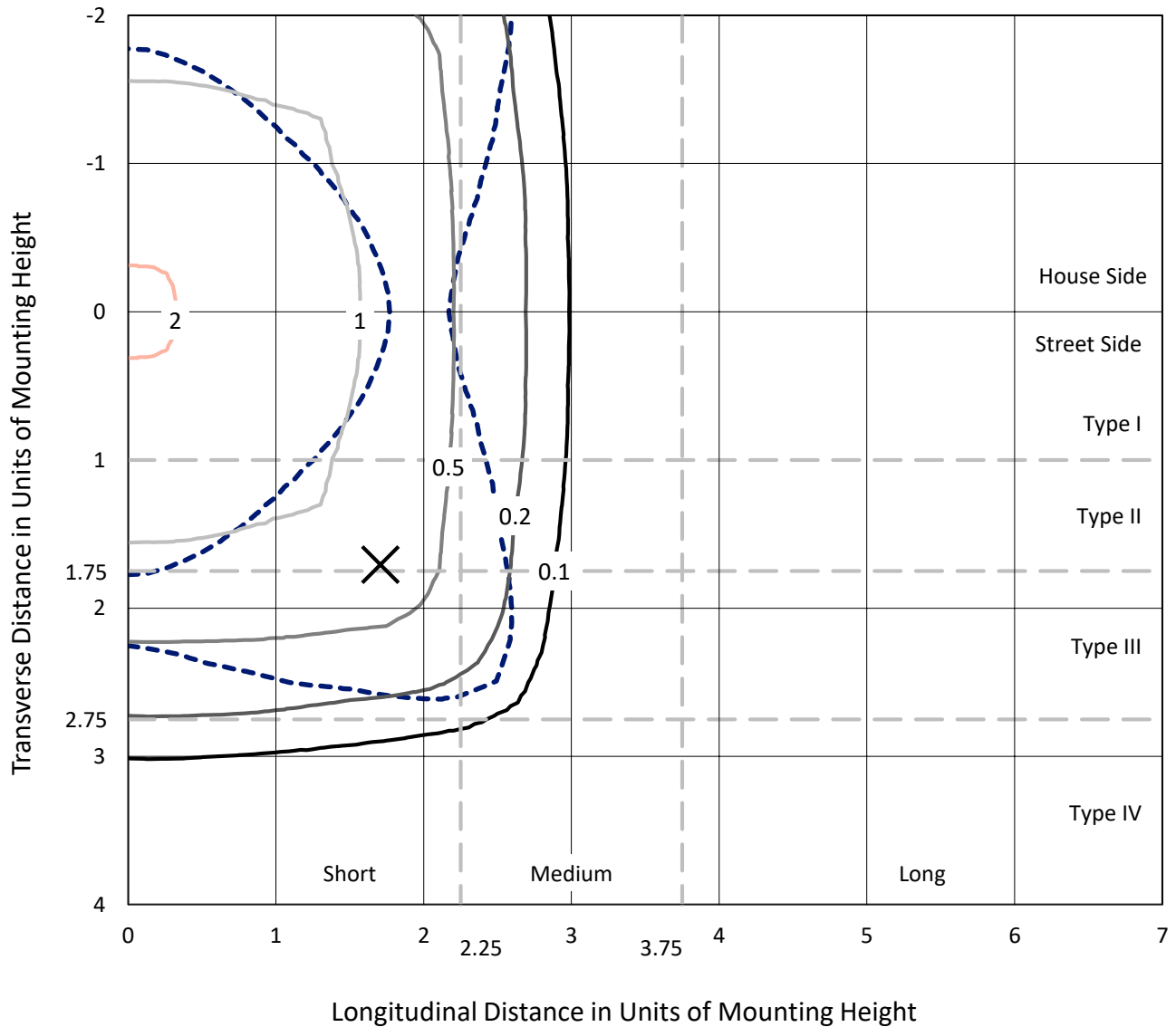


REPORT NUMBER: P299650

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-800

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

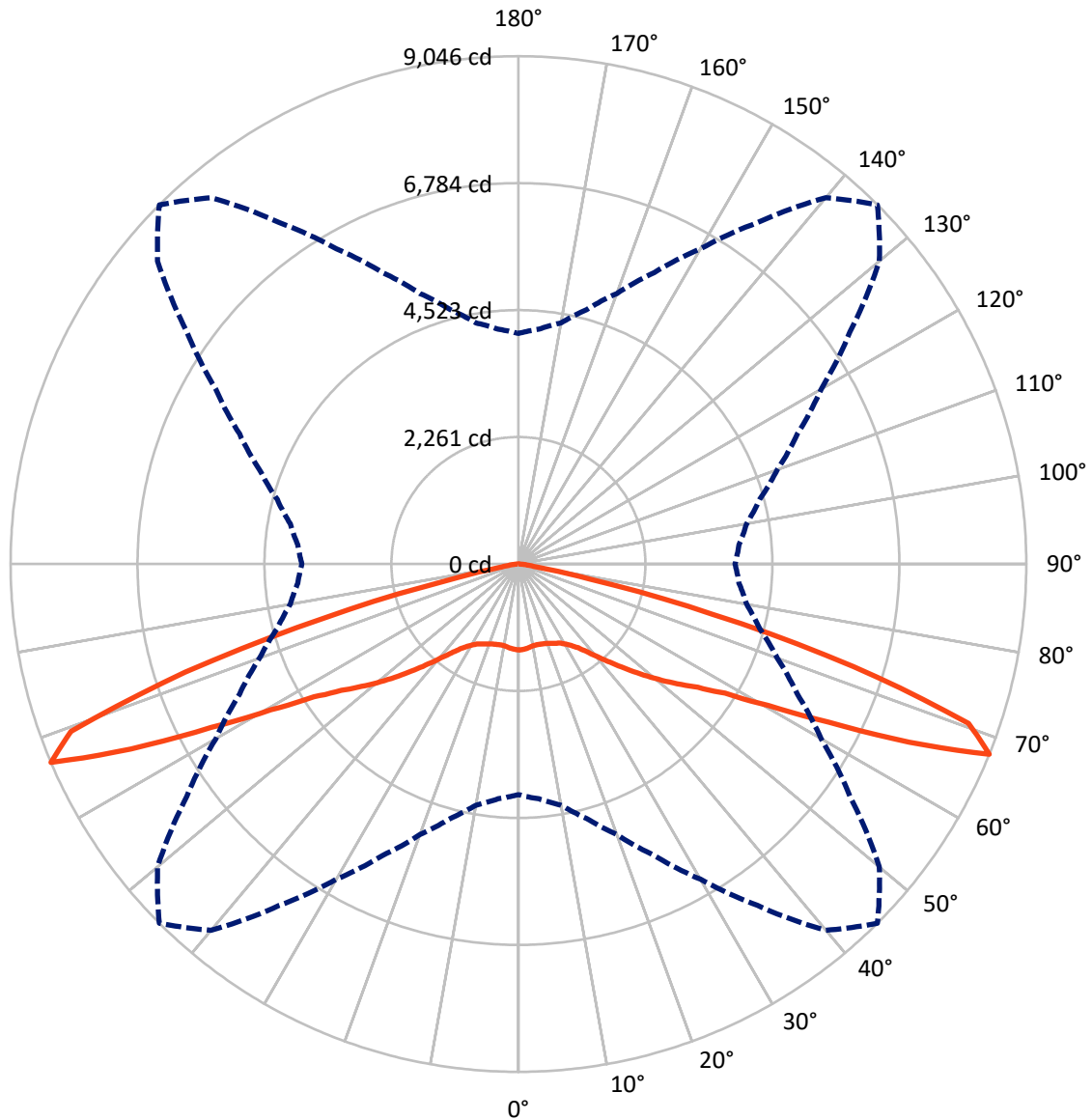


Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P299650

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7685.0	0.0	7685.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7685.0	0.0	7685.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15369.9	0.0	15369.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.4	0.9
10°-20°	416.0	2.7
20°-30°	707.2	4.6
30°-40°	1156.0	7.5
40°-50°	2063.7	13.4
50°-60°	3479.5	22.6
60°-70°	5399.7	35.1
70°-80°	1897.2	12.3
80°-90°	107.2	0.7
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°	15369.9	100.0
0°-180°	15369.9	100.0



REPORT NUMBER: P299650

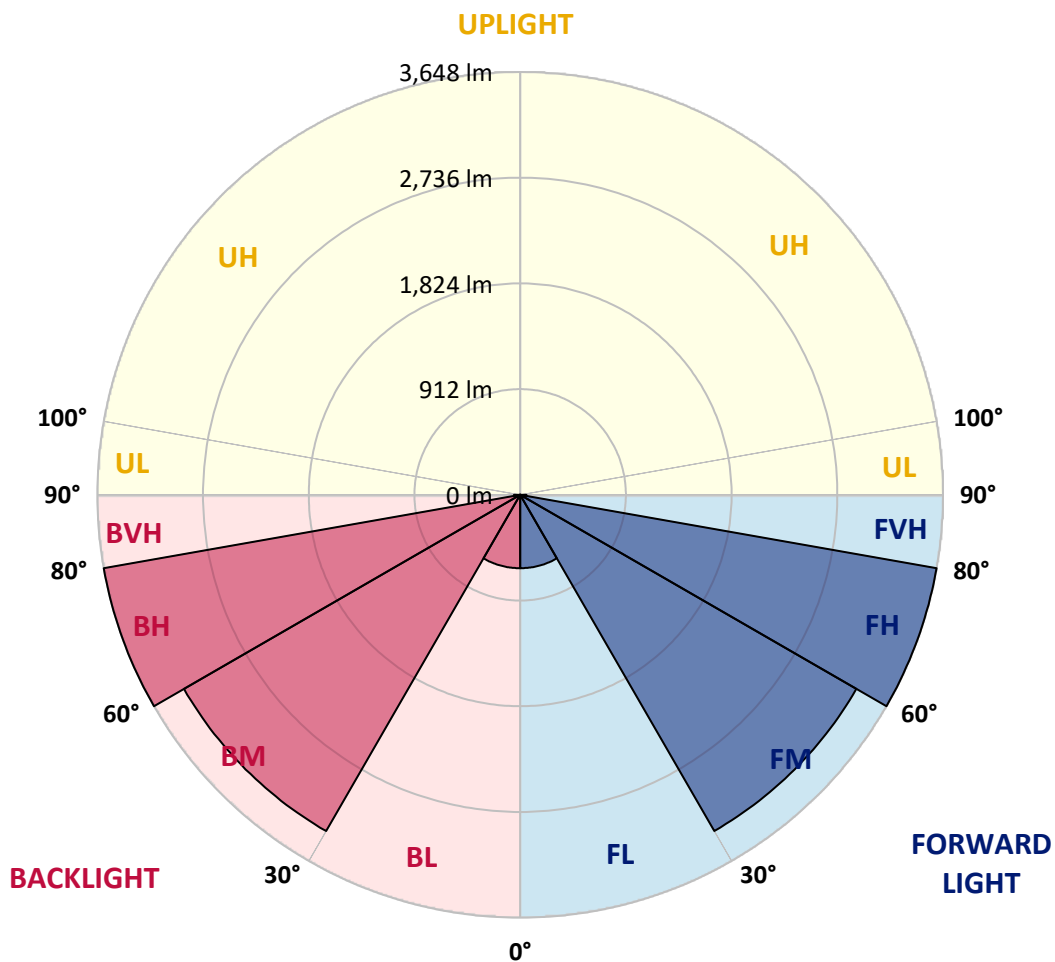
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	633.3	4.1			
FM	(30°-60°)	3349.6	21.8			
FH	(60°-80°)	3648.5	23.7			G2/5000
FVH	(80°-90°)	53.6	0.3			G1/100
BL	(0°-30°)	633.3	4.1	B2/1000		
BM	(30°-60°)	3349.6	21.8	B3/5000		
BH	(60°-80°)	3648.5	23.7	B4/5000		G2/5000
BVH	(80°-90°)	53.6	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





REPORT NUMBER: P299650

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7
2.5°	1526.0	1527.4	1527.4	1527.4	1526.7	1526.7	1525.3	1526.7	1526.0	1523.9	1524.6
5°	1513.3	1514.7	1514.7	1514.0	1516.1	1515.4	1513.3	1514.7	1514.0	1512.6	1513.3
7.5°	1494.9	1497.0	1497.0	1496.3	1498.5	1497.8	1496.3	1497.0	1497.0	1494.9	1494.9
10°	1474.4	1475.8	1475.8	1475.1	1478.7	1478.7	1478.0	1480.1	1480.8	1478.7	1477.3
12.5°	1455.3	1457.5	1457.5	1460.3	1463.8	1465.2	1468.8	1471.6	1474.4	1473.7	1470.9
15°	1444.0	1445.4	1448.3	1451.8	1457.5	1462.4	1468.1	1474.4	1480.1	1481.5	1477.3
17.5°	1437.0	1439.1	1443.3	1448.3	1456.0	1464.5	1473.0	1481.5	1489.3	1492.1	1487.1
20°	1434.8	1436.3	1440.5	1449.0	1459.6	1472.3	1484.3	1494.2	1504.8	1508.4	1504.8
22.5°	1439.1	1441.9	1446.9	1456.8	1470.9	1487.1	1501.3	1514.7	1528.1	1534.5	1529.6
25°	1458.2	1461.0	1467.4	1480.1	1495.6	1512.6	1528.9	1544.4	1556.4	1562.8	1559.2
27.5°	1493.5	1497.0	1504.8	1517.5	1534.5	1552.9	1570.6	1583.3	1593.2	1595.3	1591.1
30°	1546.5	1554.3	1563.5	1577.6	1597.4	1613.0	1630.6	1641.9	1654.0	1654.0	1650.4
32.5°	1629.2	1637.0	1646.9	1660.3	1675.9	1692.8	1708.4	1718.3	1731.0	1731.7	1723.2
35°	1752.9	1756.4	1764.9	1773.4	1787.5	1802.4	1815.8	1822.2	1832.8	1833.5	1825.7
37.5°	1916.2	1916.9	1922.6	1925.4	1938.1	1954.4	1967.1	1971.3	1981.2	1979.8	1972.0
40°	2106.3	2109.9	2112.0	2116.2	2129.6	2145.2	2158.6	2160.7	2171.4	2169.2	2159.3
42.5°	2326.1	2327.6	2339.6	2345.9	2358.7	2366.4	2383.4	2385.5	2398.2	2392.6	2381.3
45°	2572.8	2585.5	2596.9	2609.6	2623.0	2632.2	2645.6	2642.8	2651.3	2642.8	2636.4
47.5°	2832.2	2841.4	2866.9	2886.7	2908.6	2916.3	2935.4	2926.9	2935.4	2923.4	2921.3
50°	3117.8	3134.0	3156.0	3178.6	3201.9	3214.6	3239.4	3228.8	3240.1	3228.8	3222.4
52.5°	3399.1	3403.3	3451.4	3484.6	3517.1	3532.0	3546.8	3541.9	3542.6	3541.9	3535.5
55°	3666.3	3676.2	3724.2	3769.5	3826.0	3867.7	3893.2	3890.3	3884.0	3877.6	3867.0
57.5°	3967.4	3977.3	4032.4	4088.2	4152.6	4211.9	4263.5	4316.6	4337.0	4342.7	4319.4
60°	4374.5	4373.8	4447.3	4515.2	4607.1	4695.4	4808.5	4923.7	5055.9	5117.4	5036.1
62.5°	4788.7	4805.7	4911.7	5031.9	5221.3	5405.8	5614.3	5819.3	6028.5	6198.8	6017.9
65°	4739.2	4804.3	4961.9	5234.0	5583.9	5999.5	6449.0	6924.7	7354.5	7649.9	7318.4
67.5°	4107.3	4199.9	4360.4	4691.2	5128.7	5728.1	6483.0	7423.7	8517.2	9045.9	8390.7
70°	2977.1	3081.7	3250.0	3573.0	4006.3	4576.0	5395.9	6525.4	7972.9	8505.9	7784.2
72.5°	1481.5	1538.0	1641.9	1847.6	2175.6	2637.9	3381.4	4467.1	5747.9	6237.0	5577.5
75°	503.3	529.4	547.1	614.2	718.1	899.8	1269.4	1952.9	2979.2	3571.6	2936.8
77.5°	290.5	291.2	303.2	315.2	332.9	352.7	402.2	528.0	913.2	1297.0	945.0
80°	188.0	187.3	197.2	206.4	218.4	228.3	231.1	244.6	282.0	334.3	299.0
82.5°	97.5	109.6	131.5	143.5	166.1	170.3	164.7	159.7	168.9	175.3	179.5
85°	53.7	46.7	70.0	90.5	100.4	101.8	101.8	96.1	99.7	97.5	106.0
87.5°	24.7	22.6	27.6	44.5	47.4	40.3	42.4	37.5	26.9	26.2	29.7
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°	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7	1531.7
2.5°	1524.6	1525.3	1525.3	1527.4	1528.1	1529.6	1531.0	1531.7
5°	1512.6	1514.7	1513.3	1515.4	1515.4	1516.8	1516.8	1517.5
7.5°	1494.9	1497.0	1497.0	1497.0	1496.3	1498.5	1498.5	1498.5
10°	1476.5	1478.0	1477.3	1475.8	1474.4	1476.5	1475.8	1475.1
12.5°	1470.9	1467.4	1464.5	1463.1	1460.3	1461.0	1458.9	1458.9
15°	1474.4	1468.1	1463.1	1461.0	1458.2	1456.8	1455.3	1456.0
17.5°	1483.6	1475.8	1469.5	1465.9	1462.4	1460.3	1457.5	1458.2
20°	1499.9	1490.7	1481.5	1474.4	1468.1	1464.5	1462.4	1461.7
22.5°	1523.9	1510.5	1497.0	1486.4	1478.0	1473.0	1470.9	1469.5
25°	1551.5	1536.6	1521.1	1509.1	1500.6	1494.2	1490.0	1490.0
27.5°	1586.1	1574.1	1560.0	1545.8	1538.0	1531.7	1528.9	1527.4
30°	1644.1	1632.8	1621.4	1608.0	1598.1	1591.8	1586.8	1582.6
32.5°	1718.3	1709.1	1699.9	1690.0	1680.8	1672.3	1664.6	1661.0
35°	1822.9	1815.8	1809.5	1798.2	1794.6	1789.7	1785.4	1781.9
37.5°	1967.1	1964.3	1964.3	1952.2	1949.4	1947.3	1943.0	1943.8
40°	2156.5	2159.3	2155.8	2151.6	2149.4	2143.8	2143.8	2148.7
42.5°	2380.6	2382.7	2390.5	2383.4	2391.2	2384.1	2379.9	2383.4
45°	2640.7	2648.5	2664.0	2656.9	2661.9	2649.9	2635.0	2635.7
47.5°	2932.6	2939.7	2946.0	2941.1	2941.8	2922.0	2902.2	2897.3
50°	3235.8	3238.7	3242.2	3235.1	3236.5	3214.6	3192.0	3192.7
52.5°	3535.5	3548.9	3563.1	3544.0	3539.8	3515.0	3483.2	3470.5
55°	3878.3	3897.4	3881.1	3847.9	3814.7	3781.5	3739.8	3732.7
57.5°	4301.0	4268.5	4217.6	4154.7	4108.7	4062.1	4019.7	4002.0
60°	4889.1	4766.8	4674.9	4581.6	4522.9	4465.7	4409.9	4401.4
62.5°	5720.3	5509.0	5325.9	5132.9	4975.3	4852.3	4754.1	4726.5
65°	6762.1	6262.4	5829.1	5424.8	5073.6	4808.5	4641.7	4568.2
67.5°	7210.3	6223.6	5480.7	4906.7	4447.3	4126.4	3946.2	3856.4
70°	6335.9	5161.2	4353.3	3778.7	3360.2	3018.1	2854.8	2758.7
72.5°	4359.0	3283.2	2596.2	2119.0	1784.7	1498.5	1385.4	1376.9
75°	1957.2	1296.3	893.4	688.4	579.6	504.0	480.6	463.0
77.5°	547.8	405.0	361.2	337.9	315.2	289.1	279.2	281.3
80°	266.5	251.6	241.7	226.9	206.4	184.5	174.6	178.8
82.5°	176.7	174.6	180.9	170.3	140.7	119.5	100.4	91.9
85°	107.4	108.9	111.0	111.7	94.7	66.4	45.2	50.9
87.5°	42.4	48.8	53.0	55.1	51.6	31.8	25.4	26.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)