

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: P299714

Luminaire Tested: **GLNA-AF-04-LED-E1-5MQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299714
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-04-LED-E1-5MQ-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16018.2 lumens
Efficiency: N/A
Efficacy: 124.2 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): 129
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

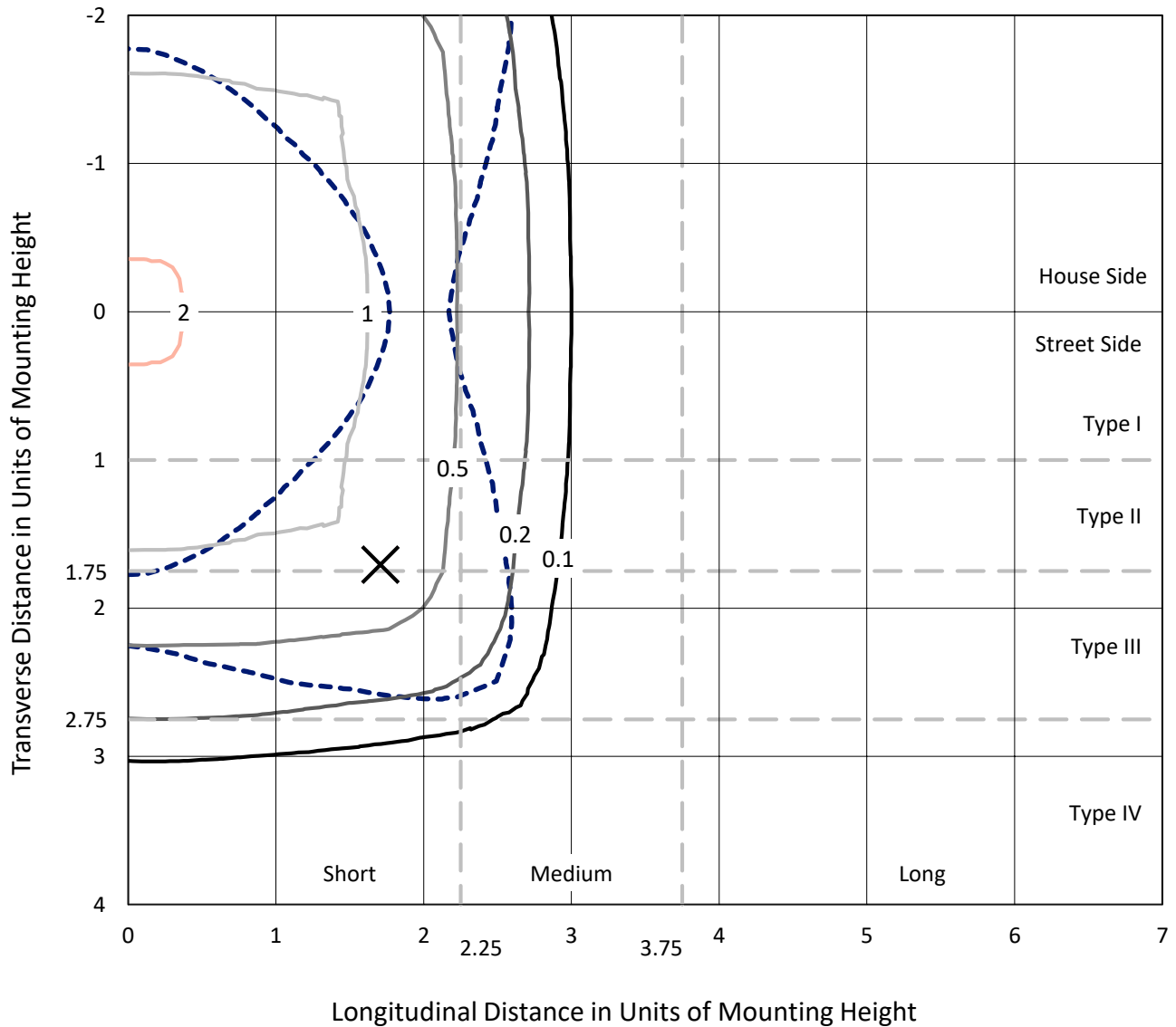


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

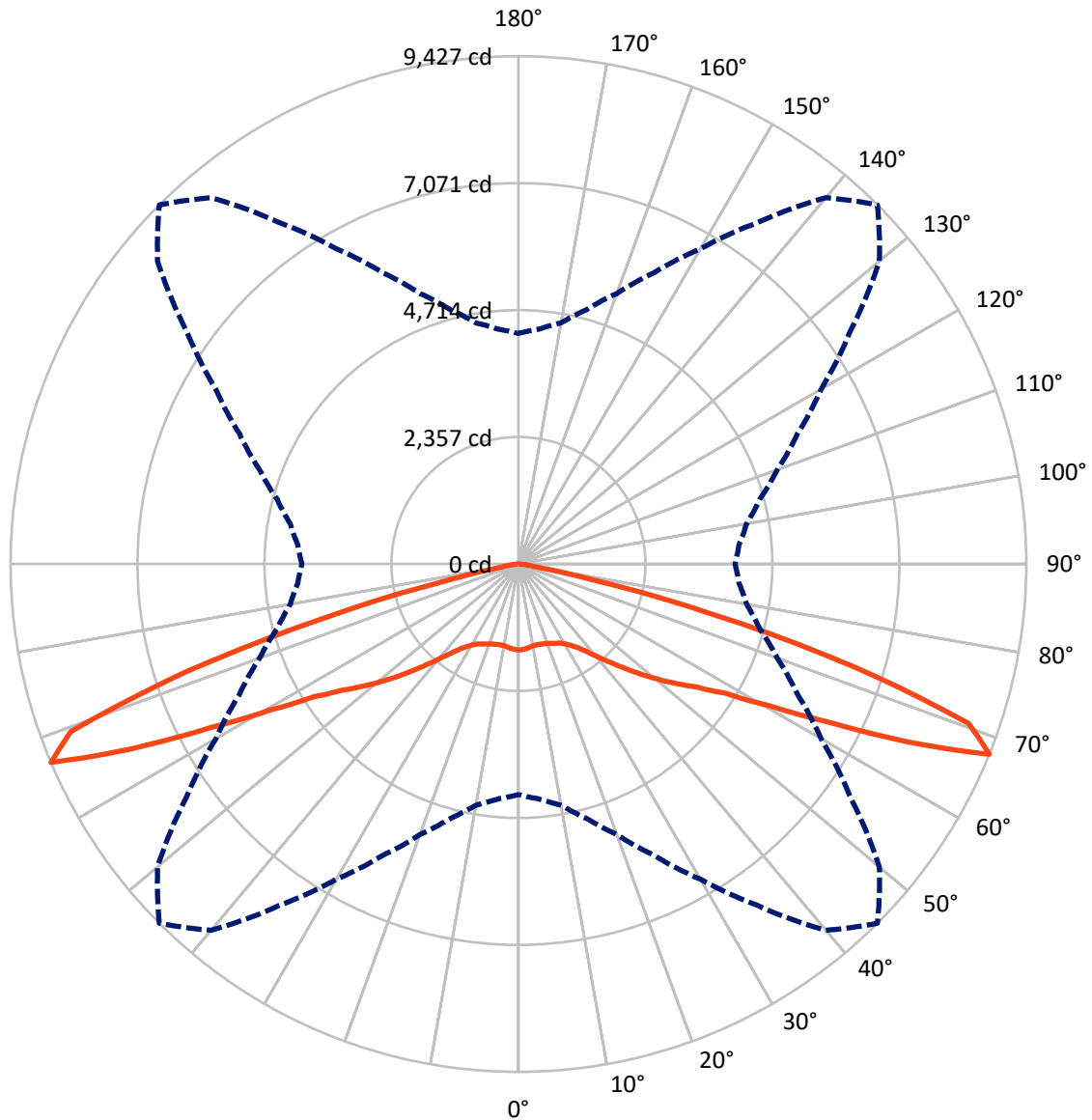


Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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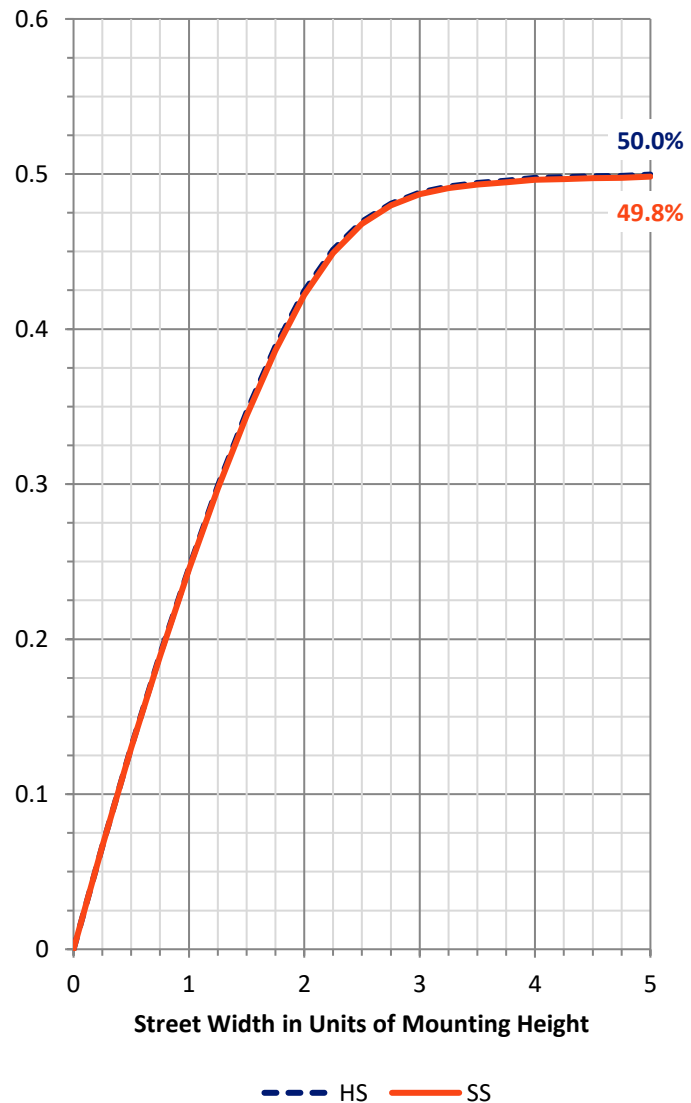
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8009.1	0.0	8009.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8009.1	0.0	8009.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	16018.2	0.0	16018.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.4	0.9
10°-20°	433.5	2.7
20°-30°	737.0	4.6
30°-40°	1204.8	7.5
40°-50°	2150.8	13.4
50°-60°	3626.3	22.6
60°-70°	5627.4	35.1
70°-80°	1977.2	12.3
80°-90°	111.7	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°	16018.2	100.0
0°-180°	16018.2	100.0



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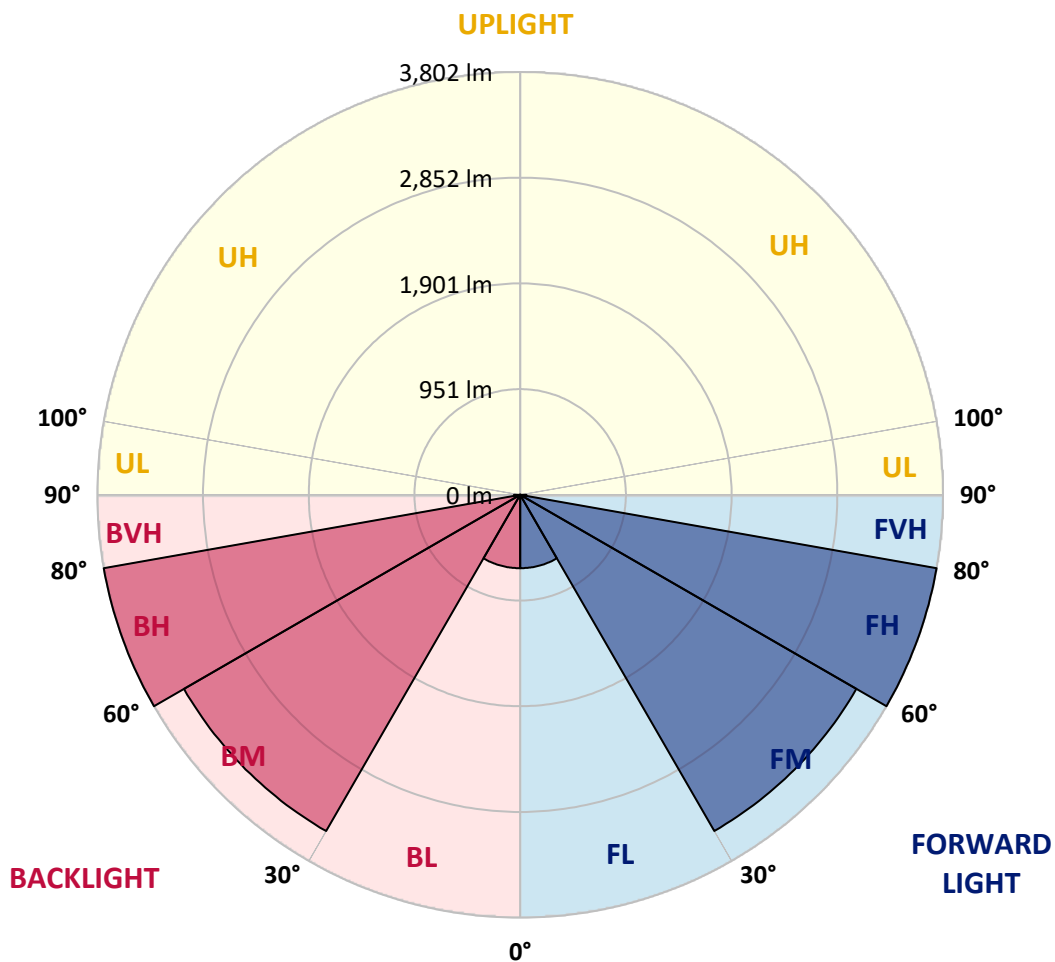
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	660.0	4.1			
FM (30°-60°)	3490.9	21.8			
FH (60°-80°)	3802.3	23.7			G2/5000
FVH (80°-90°)	55.9	0.3			G1/100
BL (0°-30°)	660.0	4.1	B2/1000		
BM (30°-60°)	3490.9	21.8	B3/5000		
BH (60°-80°)	3802.3	23.7	B4/5000		G2/5000
BVH (80°-90°)	55.9	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3
2.5°	1590.4	1591.9	1591.9	1591.9	1591.1	1591.1	1589.6	1591.1	1590.4	1588.2	1588.9
5°	1577.1	1578.6	1578.6	1577.9	1580.1	1579.3	1577.1	1578.6	1577.9	1576.4	1577.1
7.5°	1558.0	1560.2	1560.2	1559.4	1561.7	1560.9	1559.4	1560.2	1560.2	1558.0	1558.0
10°	1536.6	1538.1	1538.1	1537.3	1541.0	1541.0	1540.3	1542.5	1543.2	1541.0	1539.6
12.5°	1516.7	1518.9	1518.9	1521.9	1525.6	1527.0	1530.7	1533.7	1536.6	1535.9	1532.9
15°	1504.9	1506.4	1509.4	1513.0	1518.9	1524.1	1530.0	1536.6	1542.5	1544.0	1539.6
17.5°	1497.6	1499.8	1504.2	1509.4	1517.5	1526.3	1535.1	1544.0	1552.1	1555.0	1549.9
20°	1495.4	1496.8	1501.3	1510.1	1521.1	1534.4	1546.9	1557.2	1568.3	1572.0	1568.3
22.5°	1499.8	1502.7	1507.9	1518.2	1532.9	1549.9	1564.6	1578.6	1592.6	1599.2	1594.1
25°	1519.7	1522.6	1529.2	1542.5	1558.7	1576.4	1593.3	1609.5	1622.1	1628.7	1625.0
27.5°	1556.5	1560.2	1568.3	1581.5	1599.2	1618.4	1636.8	1650.1	1660.4	1662.6	1658.2
30°	1611.7	1619.8	1629.4	1644.2	1664.8	1681.0	1699.4	1711.2	1723.7	1723.7	1720.0
32.5°	1697.9	1706.0	1716.3	1730.3	1746.5	1764.2	1780.4	1790.7	1804.0	1804.7	1795.9
35°	1826.8	1830.5	1839.4	1848.2	1862.9	1878.4	1892.4	1899.0	1910.1	1910.8	1902.7
37.5°	1997.0	1997.7	2003.6	2006.6	2019.8	2036.8	2050.0	2054.5	2064.8	2063.3	2055.2
40°	2195.2	2198.8	2201.1	2205.5	2219.5	2235.7	2249.7	2251.9	2262.9	2260.7	2250.4
42.5°	2424.2	2425.7	2438.2	2444.9	2458.1	2466.2	2483.9	2486.1	2499.4	2493.5	2481.7
45°	2681.3	2694.6	2706.4	2719.6	2733.6	2743.2	2757.2	2754.3	2763.1	2754.3	2747.6
47.5°	2951.7	2961.3	2987.8	3008.4	3031.2	3039.3	3059.2	3050.4	3059.2	3046.7	3044.5
50°	3249.3	3266.2	3289.1	3312.6	3336.9	3350.2	3376.0	3364.9	3376.7	3364.9	3358.3
52.5°	3542.5	3546.9	3597.0	3631.6	3665.5	3680.9	3696.4	3691.3	3692.0	3691.3	3684.6
55°	3820.9	3831.2	3881.3	3928.4	3987.4	4030.8	4057.4	4054.4	4047.8	4041.2	4030.1
57.5°	4134.7	4145.0	4202.5	4260.7	4327.7	4389.6	4443.4	4498.6	4520.0	4525.9	4501.5
60°	4559.0	4558.3	4634.9	4705.6	4801.4	4893.4	5011.3	5131.4	5269.1	5333.2	5248.5
62.5°	4990.7	5008.3	5118.8	5244.1	5441.5	5633.7	5851.1	6064.7	6282.7	6460.2	6271.7
65°	4939.1	5006.9	5171.1	5454.7	5819.4	6252.5	6721.0	7216.8	7664.6	7972.5	7627.1
67.5°	4280.6	4377.1	4544.3	4889.0	5345.0	5969.6	6756.4	7736.8	8876.4	9427.4	8744.5
70°	3102.7	3211.7	3387.0	3723.7	4175.2	4768.9	5623.4	6800.6	8309.2	8864.6	8112.5
72.5°	1544.0	1602.9	1711.2	1925.6	2267.3	2749.1	3524.0	4655.5	5990.3	6500.0	5812.7
75°	524.5	551.7	570.2	640.1	748.4	937.7	1323.0	2035.3	3104.9	3722.2	3060.7
77.5°	302.8	303.5	316.0	328.5	347.0	367.6	419.1	550.3	951.7	1351.7	984.9
80°	195.9	195.2	205.5	215.1	227.6	237.9	240.9	254.9	293.9	348.4	311.6
82.5°	101.7	114.2	137.0	149.5	173.1	177.5	171.6	166.5	176.1	182.7	187.1
85°	56.0	48.6	72.9	94.3	104.6	106.1	106.1	100.2	103.9	101.7	110.5
87.5°	25.8	23.6	28.7	46.4	49.4	42.0	44.2	39.0	28.0	27.3	30.9
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°	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3	1596.3
2.5°	1588.9	1589.6	1589.6	1591.9	1592.6	1594.1	1595.5	1596.3
5°	1576.4	1578.6	1577.1	1579.3	1579.3	1580.8	1580.8	1581.5
7.5°	1558.0	1560.2	1560.2	1560.2	1559.4	1561.7	1561.7	1561.7
10°	1538.8	1540.3	1539.6	1538.1	1536.6	1538.8	1538.1	1537.3
12.5°	1532.9	1529.2	1526.3	1524.8	1521.9	1522.6	1520.4	1520.4
15°	1536.6	1530.0	1524.8	1522.6	1519.7	1518.2	1516.7	1517.5
17.5°	1546.2	1538.1	1531.5	1527.8	1524.1	1521.9	1518.9	1519.7
20°	1563.1	1553.6	1544.0	1536.6	1530.0	1526.3	1524.1	1523.4
22.5°	1588.2	1574.2	1560.2	1549.1	1540.3	1535.1	1532.9	1531.5
25°	1616.9	1601.4	1585.2	1572.7	1563.9	1557.2	1552.8	1552.8
27.5°	1653.0	1640.5	1625.7	1611.0	1602.9	1596.3	1593.3	1591.9
30°	1713.4	1701.6	1689.8	1675.8	1665.5	1658.9	1653.7	1649.3
32.5°	1790.7	1781.2	1771.6	1761.3	1751.7	1742.9	1734.8	1731.1
35°	1899.8	1892.4	1885.8	1874.0	1870.3	1865.1	1860.7	1857.0
37.5°	2050.0	2047.1	2047.1	2034.6	2031.6	2029.4	2025.0	2025.7
40°	2247.5	2250.4	2246.7	2242.3	2240.1	2234.2	2234.2	2239.4
42.5°	2481.0	2483.2	2491.3	2483.9	2492.0	2484.7	2480.2	2483.9
45°	2752.0	2760.2	2776.4	2769.0	2774.1	2761.6	2746.2	2746.9
47.5°	3056.3	3063.6	3070.3	3065.1	3065.9	3045.2	3024.6	3019.4
50°	3372.3	3375.2	3378.9	3371.6	3373.0	3350.2	3326.6	3327.4
52.5°	3684.6	3698.6	3713.4	3693.5	3689.0	3663.3	3630.1	3616.9
55°	4041.9	4061.8	4044.8	4010.2	3975.6	3941.0	3897.5	3890.1
57.5°	4482.4	4448.5	4395.5	4329.9	4282.0	4233.4	4189.2	4170.8
60°	5095.3	4967.8	4872.1	4774.8	4713.7	4654.0	4595.8	4587.0
62.5°	5961.5	5741.3	5550.5	5349.4	5185.1	5057.0	4954.6	4925.8
65°	7047.3	6526.5	6075.0	5653.6	5287.5	5011.3	4837.4	4760.8
67.5°	7514.4	6486.0	5711.8	5113.7	4634.9	4300.4	4112.6	4019.1
70°	6603.2	5378.9	4536.9	3938.0	3501.9	3145.4	2975.2	2875.1
72.5°	4542.8	3421.6	2705.6	2208.4	1860.0	1561.7	1443.8	1435.0
75°	2039.7	1351.0	931.1	717.5	604.0	525.2	500.9	482.5
77.5°	570.9	422.1	376.4	352.1	328.5	301.3	291.0	293.2
80°	277.7	262.2	251.9	236.5	215.1	192.3	181.9	186.4
82.5°	184.2	181.9	188.6	177.5	146.6	124.5	104.6	95.8
85°	112.0	113.4	115.7	116.4	98.7	69.2	47.1	53.0
87.5°	44.2	50.8	55.2	57.5	53.8	33.1	26.5	27.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)