

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: P299653

Luminaire Tested: **GLNA-AF-04-LED-E1-5MQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299653
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-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K 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: 17644.8 lumens
Efficiency: N/A
Efficacy: 103.2 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): 171
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

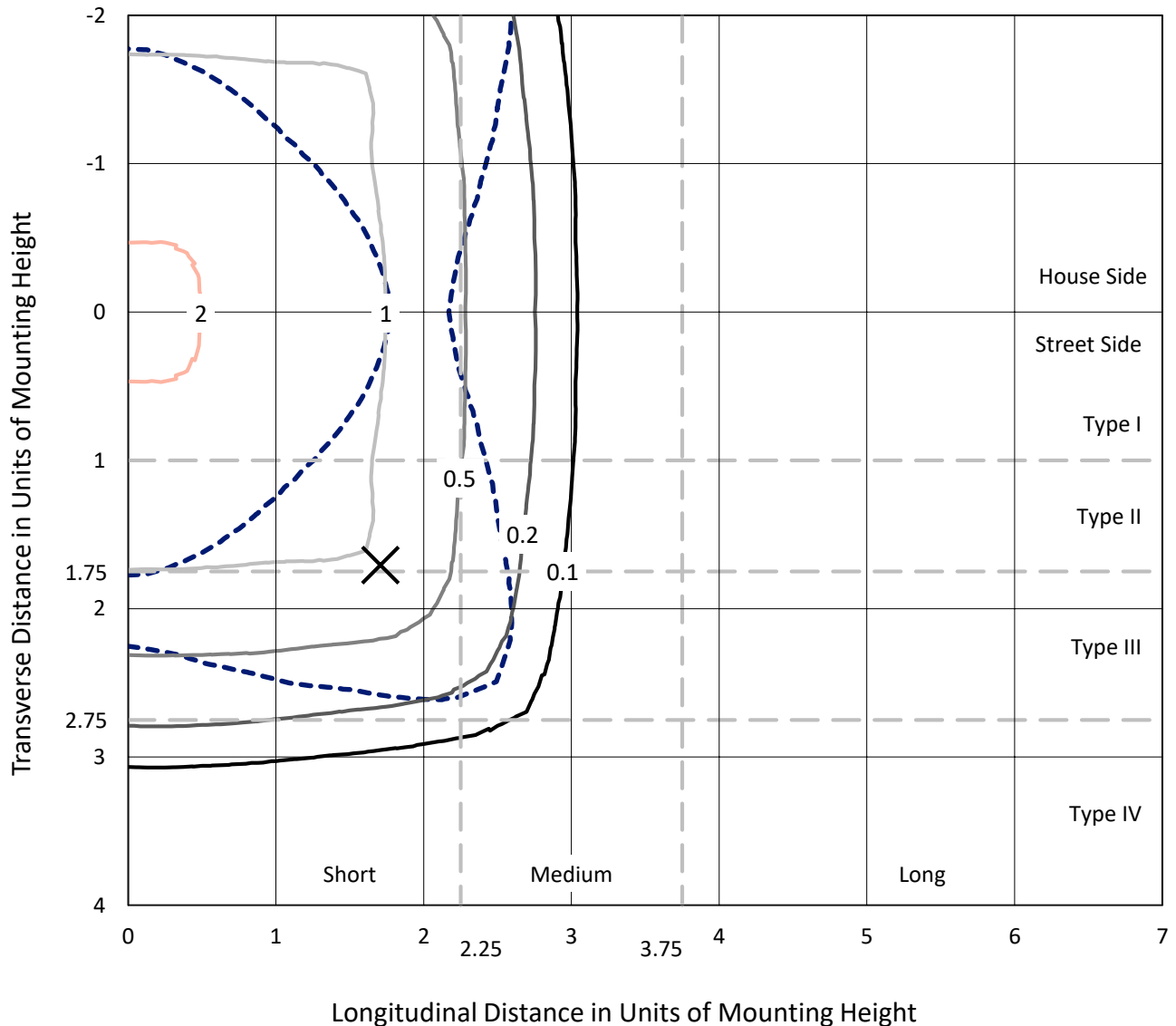


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

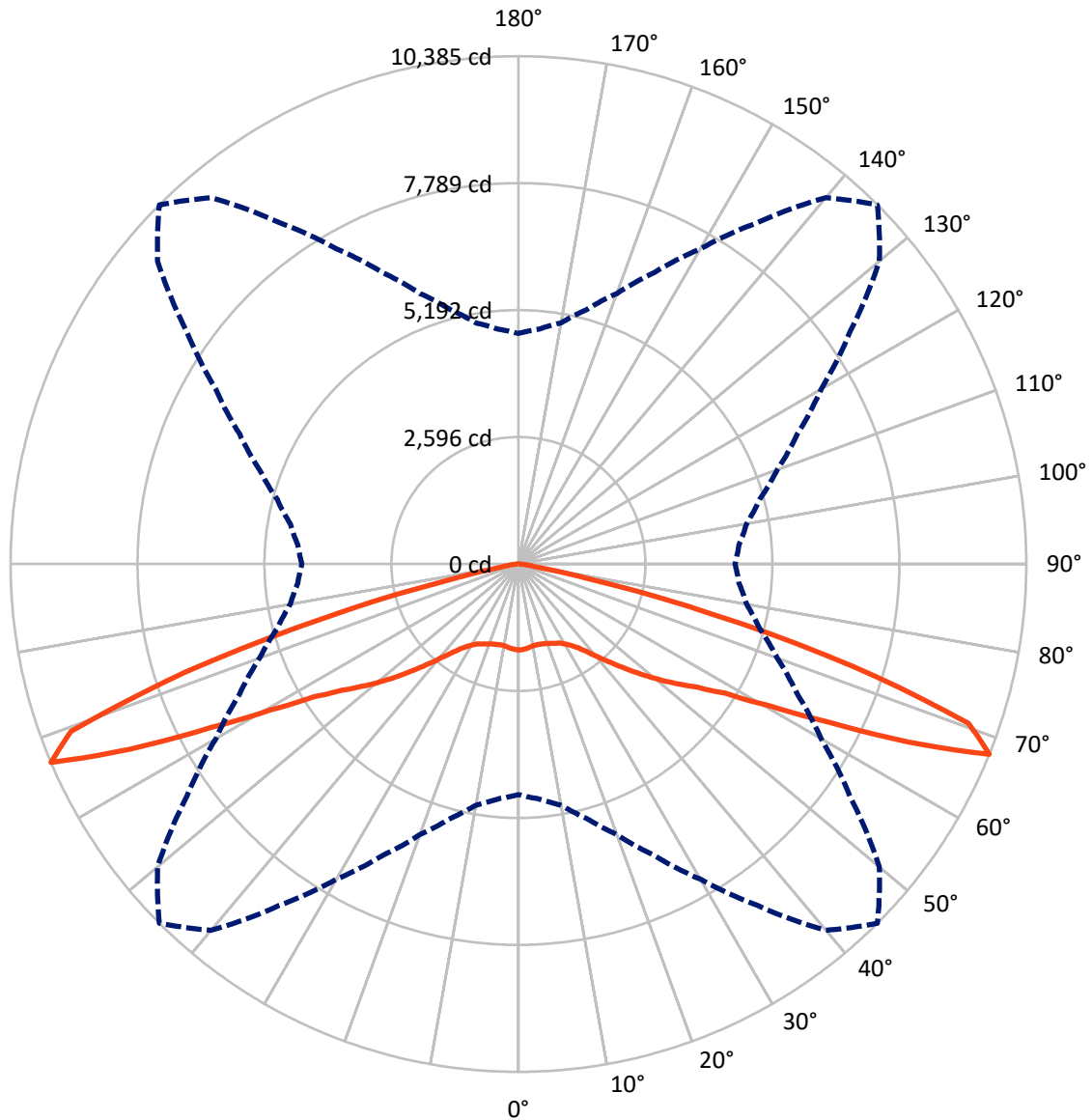


Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Full Cutoff

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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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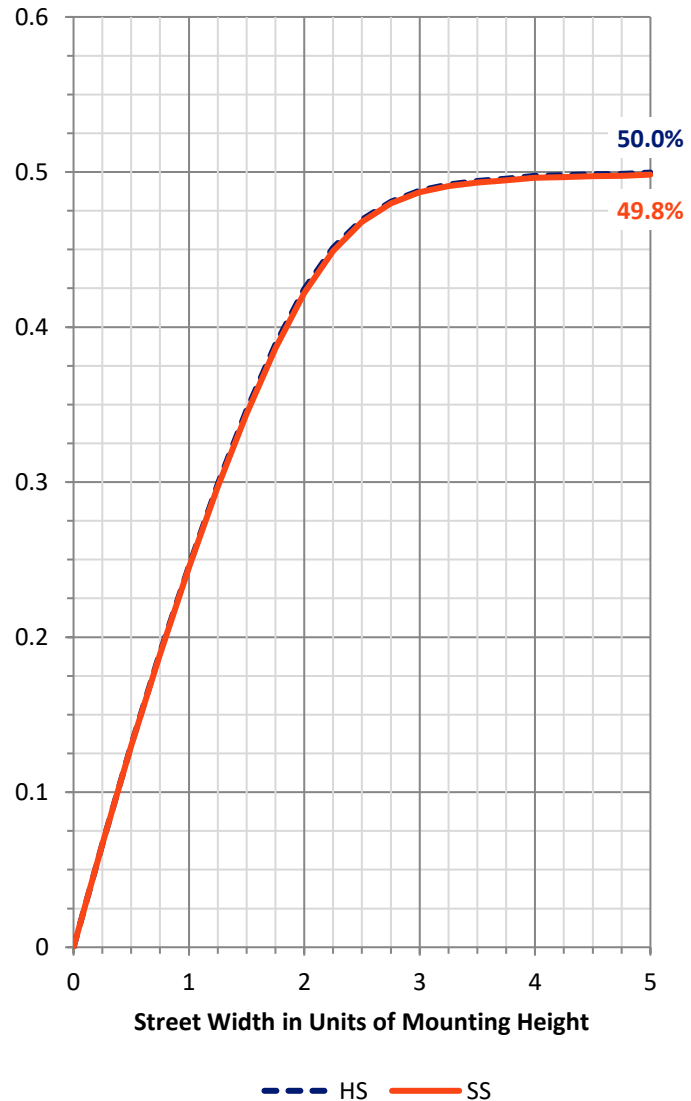
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8822.4	0.0	8822.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8822.4	0.0	8822.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	17644.8	0.0	17644.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.6	0.9
10°-20°	477.6	2.7
20°-30°	811.9	4.6
30°-40°	1327.1	7.5
40°-50°	2369.2	13.4
50°-60°	3994.5	22.6
60°-70°	6198.9	35.1
70°-80°	2178.0	12.3
80°-90°	123.1	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°	17644.8	100.0
0°-180°	17644.8	100.0



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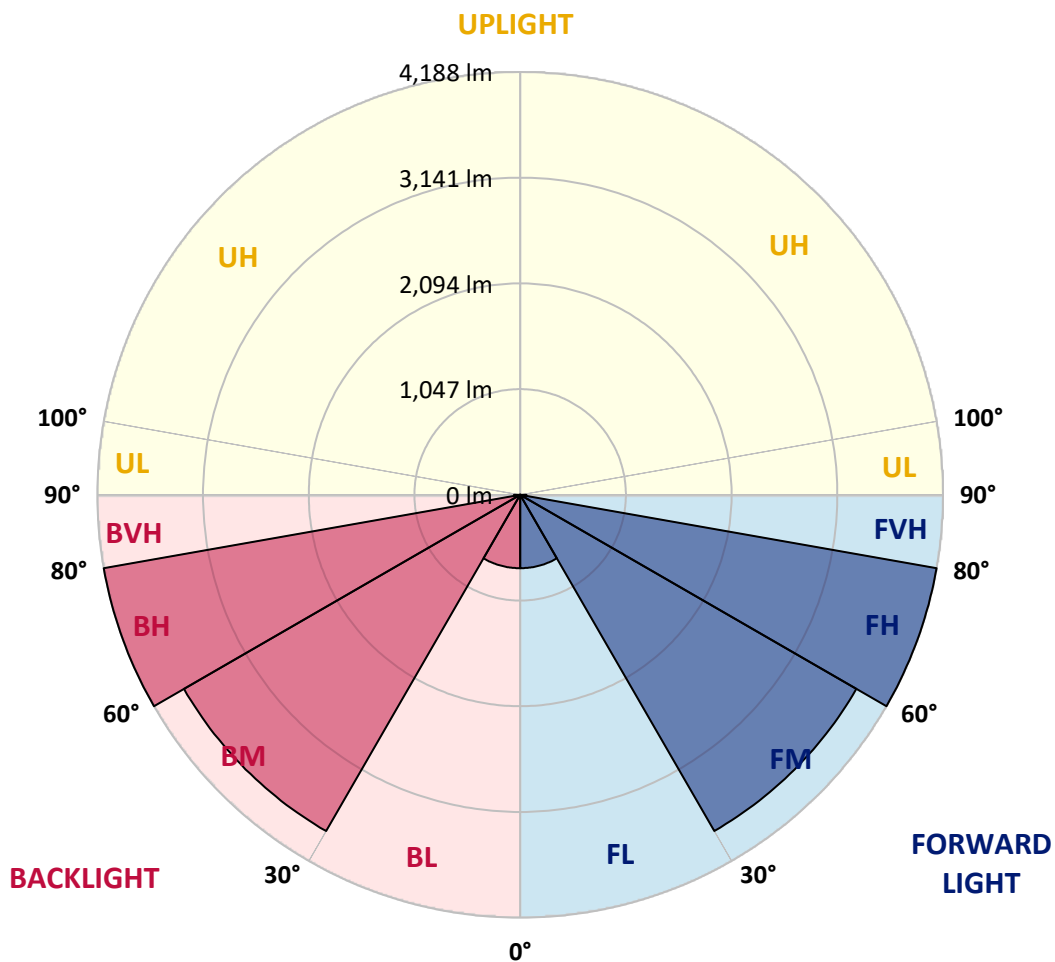
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	727.0	4.1			
FM	(30°-60°)	3845.4	21.8			
FH	(60°-80°)	4188.5	23.7			G2/5000
FVH	(80°-90°)	61.5	0.3			G1/100
BL	(0°-30°)	727.0	4.1	B2/1000		
BM	(30°-60°)	3845.4	21.8	B3/5000		
BH	(60°-80°)	4188.5	23.7	B4/5000		G2/5000
BVH	(80°-90°)	61.5	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°	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4
2.5°	1751.9	1753.5	1753.5	1753.5	1752.7	1752.7	1751.1	1752.7	1751.9	1749.5	1750.3
5°	1737.3	1738.9	1738.9	1738.1	1740.5	1739.7	1737.3	1738.9	1738.1	1736.5	1737.3
7.5°	1716.2	1718.6	1718.6	1717.8	1720.2	1719.4	1717.8	1718.6	1718.6	1716.2	1716.2
10°	1692.7	1694.3	1694.3	1693.5	1697.5	1697.5	1696.7	1699.1	1700.0	1697.5	1695.9
12.5°	1670.7	1673.2	1673.2	1676.4	1680.5	1682.1	1686.2	1689.4	1692.7	1691.8	1688.6
15°	1657.8	1659.4	1662.6	1666.7	1673.2	1678.9	1685.4	1692.7	1699.1	1700.8	1695.9
17.5°	1649.6	1652.1	1657.0	1662.6	1671.6	1681.3	1691.0	1700.8	1709.7	1712.9	1707.3
20°	1647.2	1648.8	1653.7	1663.4	1675.6	1690.2	1704.0	1715.4	1727.5	1731.6	1727.5
22.5°	1652.1	1655.3	1661.0	1672.4	1688.6	1707.3	1723.5	1738.9	1754.3	1761.6	1755.9
25°	1674.0	1677.2	1684.5	1699.1	1717.0	1736.5	1755.1	1773.0	1786.8	1794.1	1790.0
27.5°	1714.6	1718.6	1727.5	1742.2	1761.6	1782.7	1803.0	1817.6	1829.0	1831.4	1826.5
30°	1775.4	1784.3	1794.9	1811.1	1833.8	1851.7	1872.0	1885.0	1898.8	1898.8	1894.7
32.5°	1870.4	1879.3	1890.6	1906.1	1923.9	1943.4	1961.2	1972.6	1987.2	1988.0	1978.3
35°	2012.4	2016.4	2026.2	2035.9	2052.1	2069.2	2084.6	2091.9	2104.1	2104.9	2095.9
37.5°	2199.8	2200.6	2207.1	2210.4	2225.0	2243.6	2258.2	2263.1	2274.5	2272.8	2263.9
40°	2418.1	2422.1	2424.6	2429.4	2444.9	2462.7	2478.1	2480.6	2492.7	2490.3	2478.9
42.5°	2670.4	2672.1	2685.9	2693.2	2707.8	2716.7	2736.2	2738.6	2753.2	2746.7	2733.7
45°	2953.6	2968.2	2981.2	2995.8	3011.2	3021.8	3037.2	3034.0	3043.7	3034.0	3026.7
47.5°	3251.4	3262.0	3291.2	3313.9	3339.1	3348.0	3369.9	3360.2	3369.9	3356.1	3353.7
50°	3579.2	3597.9	3623.1	3649.0	3675.8	3690.4	3718.8	3706.6	3719.6	3706.6	3699.3
52.5°	3902.2	3907.1	3962.2	4000.4	4037.7	4054.7	4071.8	4066.1	4066.9	4066.1	4058.8
55°	4208.9	4220.3	4275.5	4327.4	4392.3	4440.2	4469.4	4466.1	4458.8	4451.5	4439.4
57.5°	4554.6	4566.0	4629.2	4693.3	4767.2	4835.3	4894.6	4955.4	4979.0	4985.5	4958.7
60°	5022.0	5021.2	5105.6	5183.5	5288.9	5390.4	5520.2	5652.5	5804.2	5874.8	5781.5
62.5°	5497.5	5517.0	5638.7	5776.6	5994.1	6205.9	6445.2	6680.6	6920.7	7116.3	6908.6
65°	5440.7	5515.3	5696.3	6008.7	6410.3	6887.5	7403.5	7949.6	8443.0	8782.2	8401.6
67.5°	4715.3	4821.6	5005.7	5385.5	5887.8	6575.9	7442.5	8522.5	9777.8	10384.8	9632.6
70°	3417.8	3537.9	3731.0	4101.8	4599.2	5253.2	6194.5	7491.2	9153.0	9764.8	8936.3
72.5°	1700.8	1765.7	1885.0	2121.1	2497.6	3028.3	3881.9	5128.3	6598.6	7160.1	6403.0
75°	577.7	607.8	628.1	705.1	824.4	1033.0	1457.3	2242.0	3420.2	4100.2	3371.5
77.5°	333.5	334.3	348.1	361.9	382.2	404.9	461.7	606.1	1048.4	1489.0	1084.9
80°	215.8	215.0	226.4	236.9	250.7	262.1	265.3	280.8	323.8	383.8	343.2
82.5°	112.0	125.8	150.9	164.7	190.7	195.6	189.1	183.4	193.9	201.2	206.1
85°	61.7	53.6	80.3	103.9	115.2	116.8	116.8	110.4	114.4	112.0	121.7
87.5°	28.4	26.0	31.6	51.1	54.4	46.3	48.7	43.0	30.8	30.0	34.1
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°	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4	1758.4
2.5°	1750.3	1751.1	1751.1	1753.5	1754.3	1755.9	1757.6	1758.4
5°	1736.5	1738.9	1737.3	1739.7	1739.7	1741.3	1741.3	1742.2
7.5°	1716.2	1718.6	1718.6	1718.6	1717.8	1720.2	1720.2	1720.2
10°	1695.1	1696.7	1695.9	1694.3	1692.7	1695.1	1694.3	1693.5
12.5°	1688.6	1684.5	1681.3	1679.7	1676.4	1677.2	1674.8	1674.8
15°	1692.7	1685.4	1679.7	1677.2	1674.0	1672.4	1670.7	1671.6
17.5°	1703.2	1694.3	1687.0	1682.9	1678.9	1676.4	1673.2	1674.0
20°	1721.9	1711.3	1700.8	1692.7	1685.4	1681.3	1678.9	1678.0
22.5°	1749.5	1734.0	1718.6	1706.5	1696.7	1691.0	1688.6	1687.0
25°	1781.1	1764.1	1746.2	1732.4	1722.7	1715.4	1710.5	1710.5
27.5°	1820.9	1807.1	1790.8	1774.6	1765.7	1758.4	1755.1	1753.5
30°	1887.4	1874.4	1861.4	1846.0	1834.7	1827.4	1821.7	1816.8
32.5°	1972.6	1962.1	1951.5	1940.1	1929.6	1919.9	1910.9	1906.9
35°	2092.7	2084.6	2077.3	2064.3	2060.2	2054.6	2049.7	2045.6
37.5°	2258.2	2255.0	2255.0	2241.2	2237.9	2235.5	2230.6	2231.4
40°	2475.7	2478.9	2474.9	2470.0	2467.6	2461.1	2461.1	2466.8
42.5°	2732.9	2735.4	2744.3	2736.2	2745.1	2737.0	2732.1	2736.2
45°	3031.5	3040.5	3058.3	3050.2	3055.9	3042.1	3025.0	3025.8
47.5°	3366.6	3374.8	3382.1	3376.4	3377.2	3354.5	3331.8	3326.1
50°	3714.8	3718.0	3722.1	3713.9	3715.6	3690.4	3664.4	3665.3
52.5°	4058.8	4074.2	4090.4	4068.5	4063.7	4035.3	3998.8	3984.2
55°	4452.3	4474.3	4455.6	4417.5	4379.3	4341.2	4293.3	4285.2
57.5°	4937.6	4900.3	4841.8	4769.6	4716.9	4663.3	4614.6	4594.4
60°	5612.7	5472.3	5366.8	5259.7	5192.4	5126.7	5062.5	5052.8
62.5°	6567.0	6324.3	6114.2	5892.6	5711.7	5570.5	5457.7	5426.1
65°	7763.0	7189.3	6691.9	6227.8	5824.5	5520.2	5328.7	5244.3
67.5°	8277.5	7144.7	6291.9	5633.0	5105.6	4737.2	4530.2	4427.2
70°	7273.7	5925.1	4997.6	4337.9	3857.6	3464.8	3277.4	3167.0
72.5°	5004.1	3769.1	2980.4	2432.7	2048.9	1720.2	1590.4	1580.7
75°	2246.9	1488.2	1025.7	790.3	665.4	578.6	551.8	531.5
77.5°	628.9	465.0	414.6	387.9	361.9	331.9	320.5	323.0
80°	305.9	288.9	277.5	260.5	236.9	211.8	200.4	205.3
82.5°	202.9	200.4	207.7	195.6	161.5	137.1	115.2	105.5
85°	123.3	125.0	127.4	128.2	108.7	76.3	51.9	58.4
87.5°	48.7	56.0	60.9	63.3	59.2	36.5	29.2	30.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)