

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: P299411

Luminaire Tested: **GLNA-AF-03-LED-E1-5NQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299411
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-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15091.7 lumens
Efficiency: N/A
Efficacy: 121.7 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

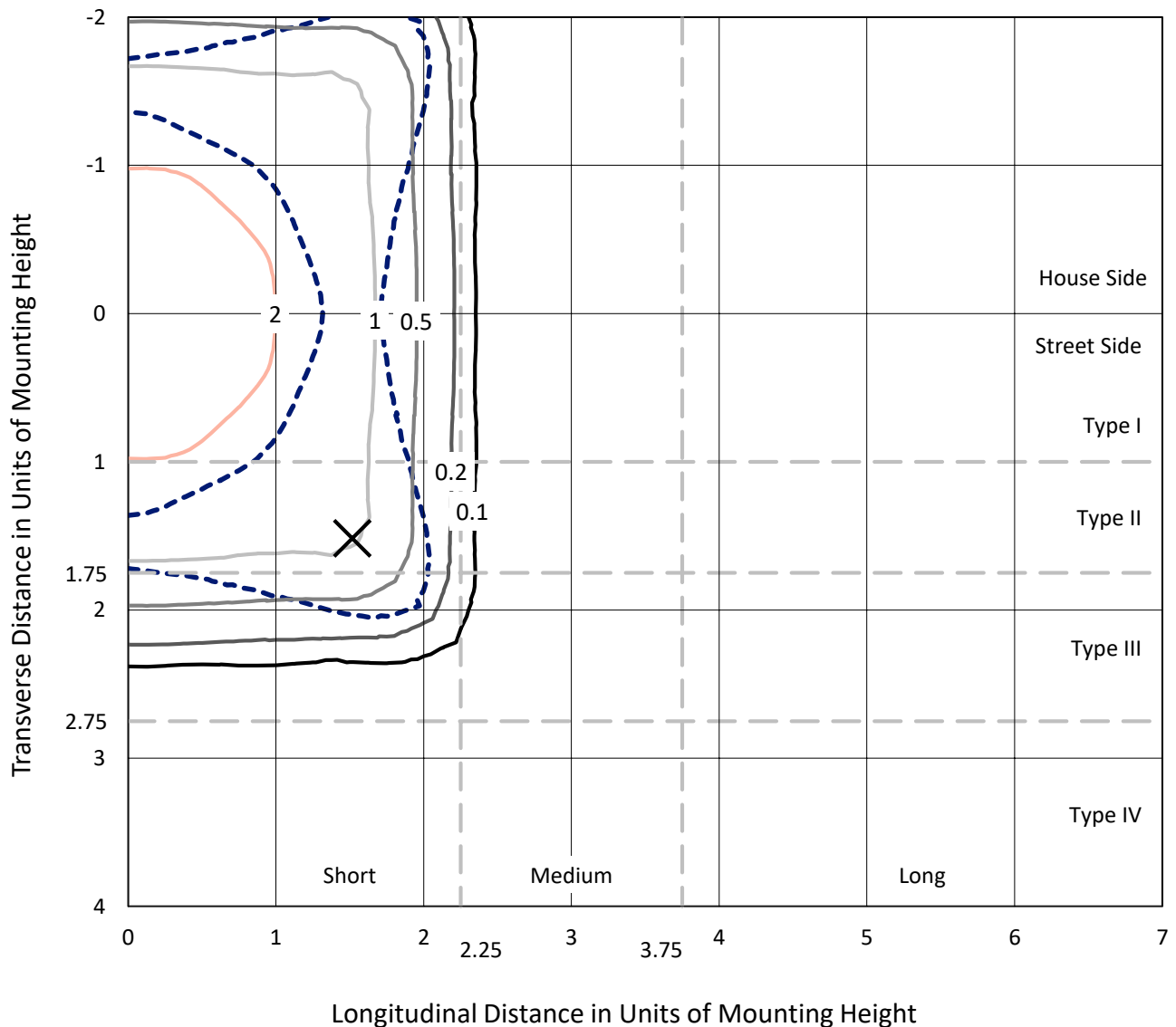
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

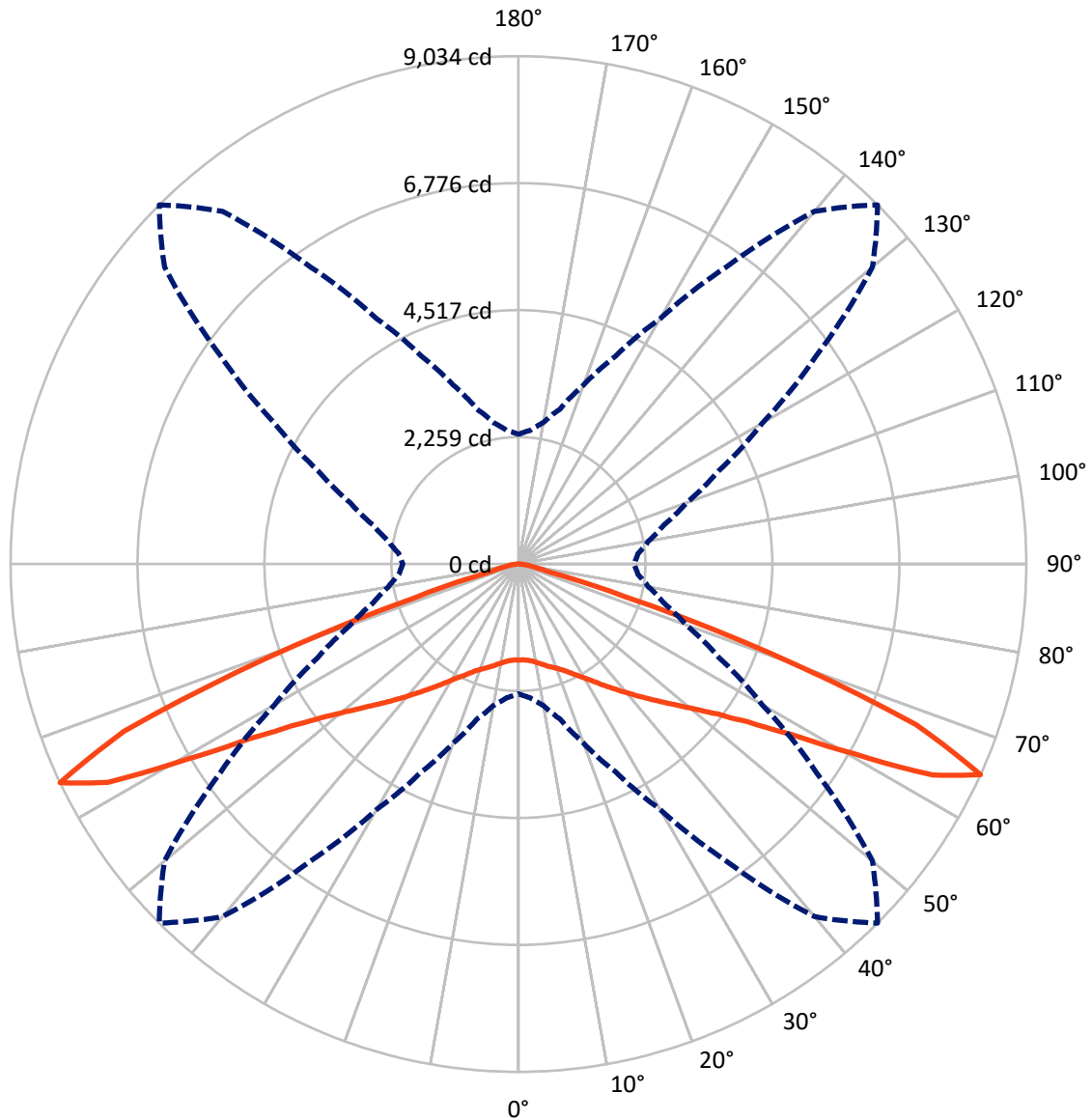
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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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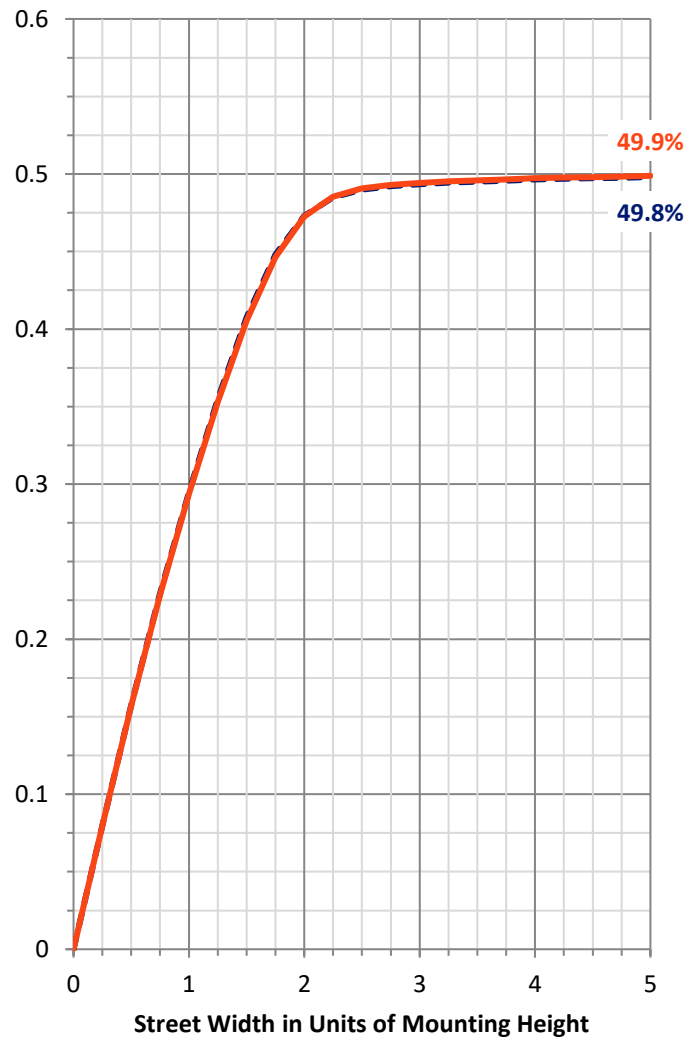
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7545.8	0.0	7545.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7545.8	0.0	7545.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	15091.7	0.0	15091.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.4	1.1
10°-20°	533.8	3.5
20°-30°	998.1	6.6
30°-40°	1688.1	11.2
40°-50°	2760.2	18.3
50°-60°	4389.1	29.1
60°-70°	3967.5	26.3
70°-80°	502.1	3.3
80°-90°	86.4	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°	15091.7	100.0
0°-180°	15091.7	100.0



--- HS — SS

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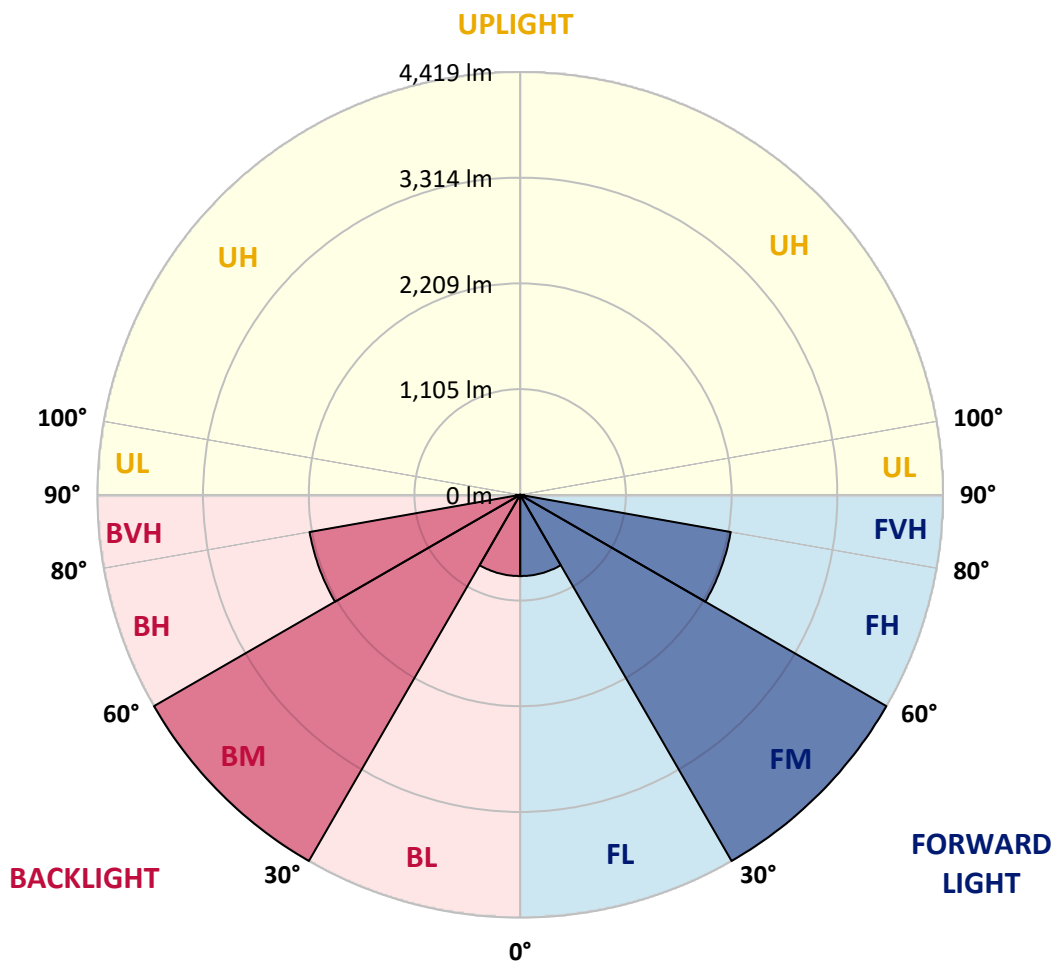
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	849.2	5.6			
FM	(30°-60°)	4418.7	29.3			
FH	(60°-80°)	2234.8	14.8			G2/5000
FVH	(80°-90°)	43.2	0.3			G1/100
BL	(0°-30°)	849.2	5.6	B2/1000		
BM	(30°-60°)	4418.7	29.3	B3/5000		
BH	(60°-80°)	2234.8	14.8	B3/2500		G2/5000
BVH	(80°-90°)	43.2	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°	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6
2.5°	1709.0	1710.5	1711.9	1710.5	1711.9	1709.8	1708.3	1710.5	1708.3	1706.2	1707.6
5°	1723.9	1724.6	1724.6	1722.5	1724.6	1723.2	1721.1	1723.9	1721.8	1719.6	1721.1
7.5°	1748.6	1751.5	1749.3	1747.2	1748.6	1747.2	1745.8	1746.5	1745.8	1743.7	1744.4
10°	1781.8	1784.0	1782.6	1781.8	1783.3	1782.6	1781.1	1780.4	1781.1	1779.0	1779.0
12.5°	1822.1	1821.4	1820.7	1821.4	1823.5	1823.5	1822.8	1823.5	1825.0	1825.7	1824.3
15°	1861.7	1863.1	1863.1	1863.1	1867.4	1870.9	1873.0	1874.4	1877.3	1878.0	1875.1
17.5°	1911.2	1911.2	1910.5	1911.2	1915.4	1921.1	1923.2	1926.0	1928.9	1931.0	1927.4
20°	1966.3	1967.7	1967.7	1969.2	1974.8	1981.2	1981.2	1982.6	1981.2	1982.6	1980.5
22.5°	2033.5	2037.7	2037.7	2038.4	2044.1	2051.8	2049.7	2051.8	2048.3	2051.1	2048.3
25°	2121.1	2127.5	2126.1	2126.1	2130.3	2135.2	2136.0	2140.2	2139.5	2143.0	2140.9
27.5°	2220.1	2230.0	2232.8	2232.1	2234.9	2239.9	2241.3	2246.2	2243.4	2246.2	2244.8
30°	2338.8	2343.0	2348.7	2350.8	2354.4	2359.3	2359.3	2360.0	2356.5	2360.7	2362.8
32.5°	2461.8	2469.6	2475.2	2487.9	2494.3	2497.8	2497.1	2498.5	2495.0	2500.7	2504.9
35°	2624.4	2630.0	2639.2	2649.1	2657.6	2656.9	2654.7	2655.5	2655.5	2660.4	2664.6
37.5°	2820.1	2821.6	2833.6	2847.7	2851.9	2847.7	2835.0	2832.2	2825.8	2832.2	2839.2
40°	3027.2	3032.2	3056.2	3065.4	3067.5	3059.7	3041.4	3030.8	3016.6	3024.4	3034.3
42.5°	3244.2	3254.1	3276.0	3292.3	3299.4	3294.4	3269.0	3252.7	3234.3	3238.6	3248.5
45°	3484.5	3496.6	3527.7	3543.2	3556.6	3548.9	3524.1	3499.4	3470.4	3472.5	3488.1
47.5°	3753.1	3765.1	3805.4	3831.6	3838.6	3837.2	3809.7	3775.7	3736.2	3734.7	3748.2
50°	4054.2	4066.2	4116.4	4156.7	4177.2	4175.1	4142.6	4094.5	4046.4	4047.1	4064.1
52.5°	4348.2	4363.1	4415.4	4484.7	4524.9	4553.9	4534.1	4488.9	4430.2	4431.7	4447.2
55°	4623.9	4648.6	4708.7	4802.7	4877.6	4958.9	4982.2	4980.8	4945.5	4955.4	4970.9
57.5°	4757.5	4794.2	4886.8	5035.3	5187.9	5353.3	5493.3	5597.9	5642.4	5709.5	5694.0
60°	4504.5	4563.1	4699.5	4917.9	5219.7	5564.7	5934.3	6295.5	6603.7	6836.2	6702.6
62.5°	3688.1	3764.4	3929.8	4209.7	4666.3	5218.3	5925.8	6779.6	7709.8	8271.0	7870.2
65°	2307.7	2386.9	2555.1	2854.8	3389.1	4075.4	5035.3	6450.3	8188.3	9034.3	8218.7
67.5°	899.8	942.9	1034.1	1225.6	1627.1	2237.7	3201.1	4807.0	6885.7	7627.1	6757.7
70°	450.9	455.2	472.1	507.5	593.7	771.1	1173.3	2228.5	3948.9	4769.5	3806.8
72.5°	325.8	326.5	335.0	350.6	378.1	417.7	494.1	682.1	1284.3	1962.8	1203.7
75°	249.5	252.3	257.3	265.8	280.6	300.4	328.0	393.0	487.0	564.7	475.0
77.5°	192.3	197.9	201.4	209.2	218.4	231.8	239.6	264.3	307.5	323.7	318.8
80°	146.3	151.3	159.0	165.4	171.8	178.1	175.3	186.6	209.2	222.6	215.6
82.5°	93.3	99.0	121.6	127.2	130.1	134.3	129.3	130.1	139.9	148.4	139.9
85°	60.1	63.6	77.0	84.1	84.8	87.6	85.5	80.6	80.6	73.5	82.7
87.5°	27.6	28.3	34.6	41.0	42.4	38.2	37.5	36.0	29.0	27.6	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°	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6
2.5°	1706.9	1708.3	1709.0	1711.2	1711.9	1711.9	1712.6	1714.0
5°	1720.4	1722.5	1723.2	1726.0	1726.7	1726.0	1727.4	1728.1
7.5°	1744.4	1747.9	1749.3	1752.2	1750.0	1752.9	1753.6	1753.6
10°	1779.7	1783.3	1784.0	1786.8	1785.4	1786.8	1786.8	1785.4
12.5°	1826.4	1827.1	1825.0	1827.1	1824.3	1825.7	1823.5	1822.1
15°	1878.0	1875.9	1870.9	1870.9	1866.7	1867.4	1866.7	1866.0
17.5°	1928.2	1923.9	1920.4	1919.0	1915.4	1914.7	1912.6	1912.6
20°	1983.3	1981.2	1979.0	1976.2	1972.7	1969.2	1968.4	1969.9
22.5°	2049.7	2049.0	2049.0	2047.6	2042.7	2039.1	2037.0	2037.0
25°	2138.8	2132.4	2132.4	2131.7	2129.6	2127.5	2123.2	2125.4
27.5°	2239.1	2235.6	2238.4	2237.7	2235.6	2235.6	2232.8	2232.8
30°	2362.8	2361.4	2365.7	2362.1	2355.1	2354.4	2351.5	2348.0
32.5°	2505.6	2504.2	2510.6	2506.3	2495.0	2488.7	2483.0	2480.2
35°	2664.6	2665.4	2673.1	2670.3	2657.6	2653.3	2643.4	2642.0
37.5°	2838.5	2849.8	2863.3	2866.1	2855.5	2852.7	2842.1	2836.4
40°	3042.8	3057.6	3078.1	3083.1	3071.8	3069.6	3054.8	3047.0
42.5°	3260.5	3285.9	3311.4	3315.6	3304.3	3293.0	3278.9	3273.2
45°	3503.6	3534.0	3567.2	3575.7	3558.7	3545.3	3526.9	3526.9
47.5°	3776.4	3814.6	3852.1	3875.4	3859.8	3845.7	3823.8	3809.7
50°	4098.7	4151.0	4199.8	4223.9	4199.1	4172.3	4134.1	4121.4
52.5°	4503.0	4559.6	4602.0	4589.3	4551.1	4513.6	4471.9	4455.0
55°	5019.0	5038.1	5038.1	4990.0	4913.7	4850.8	4785.1	4763.1
57.5°	5664.3	5590.8	5477.7	5334.2	5154.0	4997.1	4891.1	4840.9
60°	6422.7	6069.3	5670.0	5277.7	4955.4	4689.6	4532.0	4459.9
62.5°	6928.1	6003.6	5203.5	4573.7	4110.1	3789.9	3572.2	3487.4
65°	6475.0	5007.0	3935.5	3182.0	2676.7	2350.8	2135.2	2056.1
67.5°	4742.6	3137.5	2095.7	1502.0	1100.5	877.8	789.5	752.7
70°	2128.9	1104.7	677.1	528.7	455.9	418.4	402.2	396.5
72.5°	641.8	464.4	391.6	353.4	324.4	306.0	292.6	291.2
75°	387.3	322.3	286.3	263.6	245.3	230.4	223.3	221.2
77.5°	270.7	236.8	219.8	203.6	189.4	178.1	171.8	166.8
80°	190.1	173.9	166.1	156.9	147.7	137.1	127.9	123.7
82.5°	127.2	123.7	123.7	118.0	110.3	100.4	82.0	77.7
85°	82.0	81.3	82.7	80.6	74.9	64.3	53.0	50.2
87.5°	38.2	38.9	43.1	42.4	41.0	33.9	26.9	25.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)