

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: P453141

Luminaire Tested: **GALN-SA4A-827-U-T3**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-827-U-T3
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13188 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

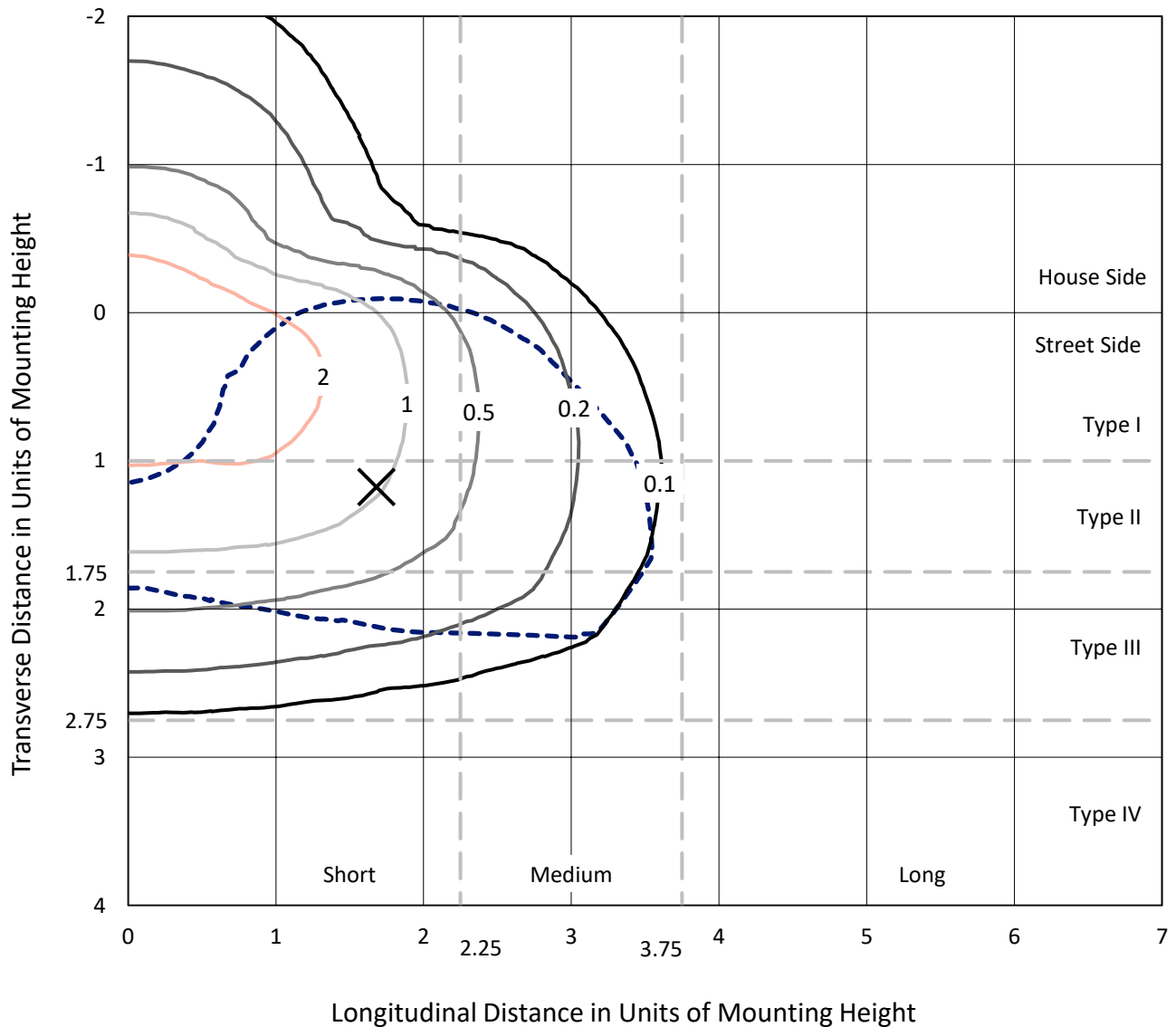
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

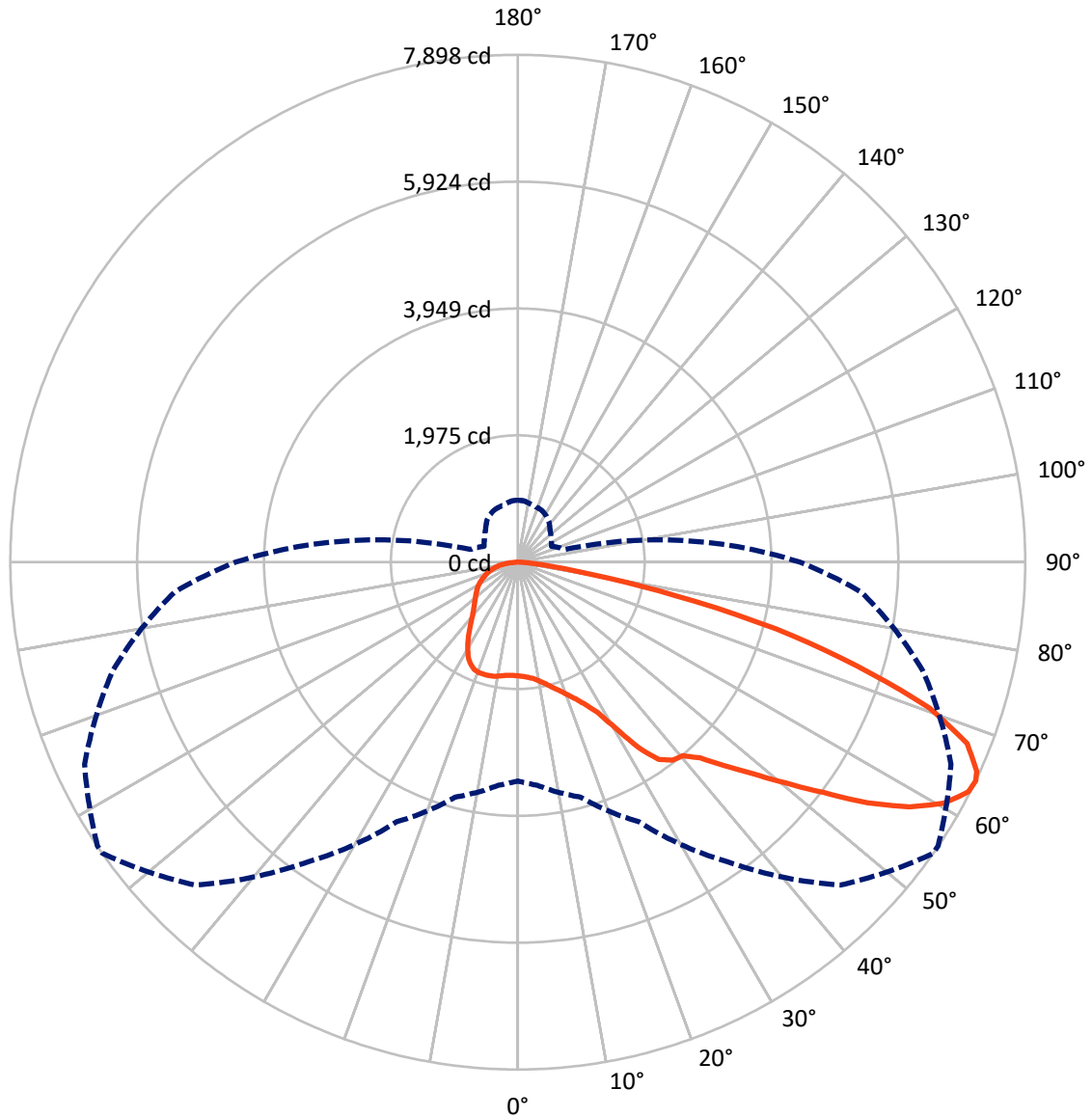
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical



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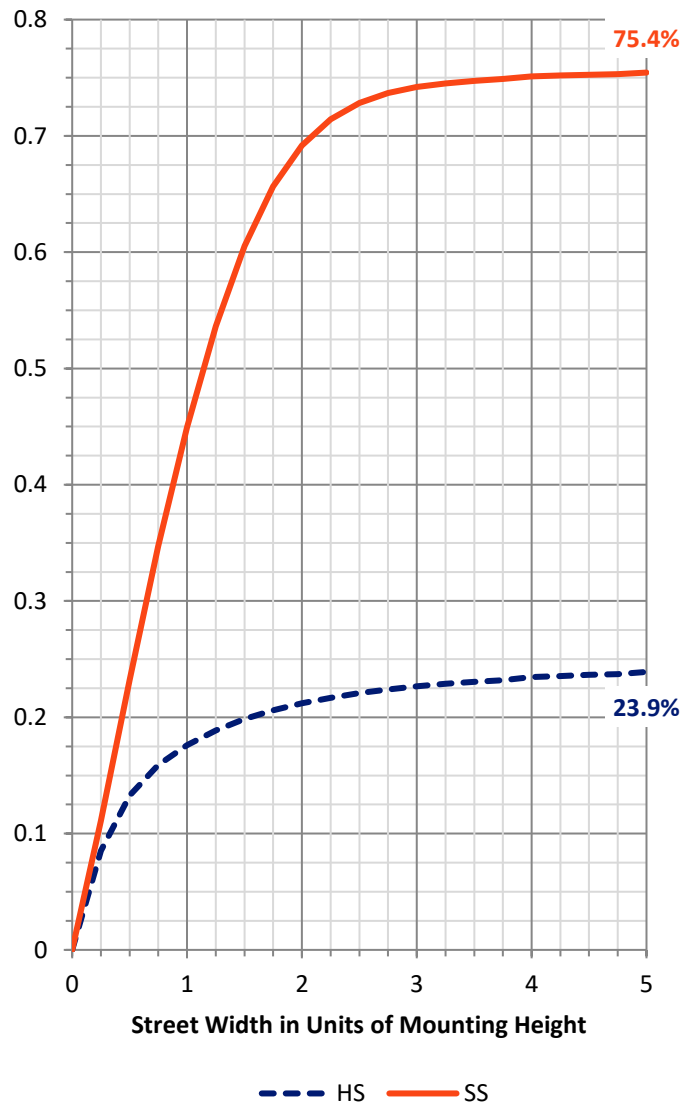
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3203.6	0.0	3203.6
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	9984.4	0.0	9984.4
	% Fixture	75.7	0.0	75.7
Total	Lumens	13188.0	0.0	13188.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.1	1.3
10°-20°	543.1	4.1
20°-30°	966.8	7.3
30°-40°	1487.6	11.3
40°-50°	2108.8	16.0
50°-60°	3052.4	23.1
60°-70°	3158.9	24.0
70°-80°	1479.3	11.2
80°-90°	219.0	1.7
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°	13188.0	100.0
0°-180°	13188.0	100.0



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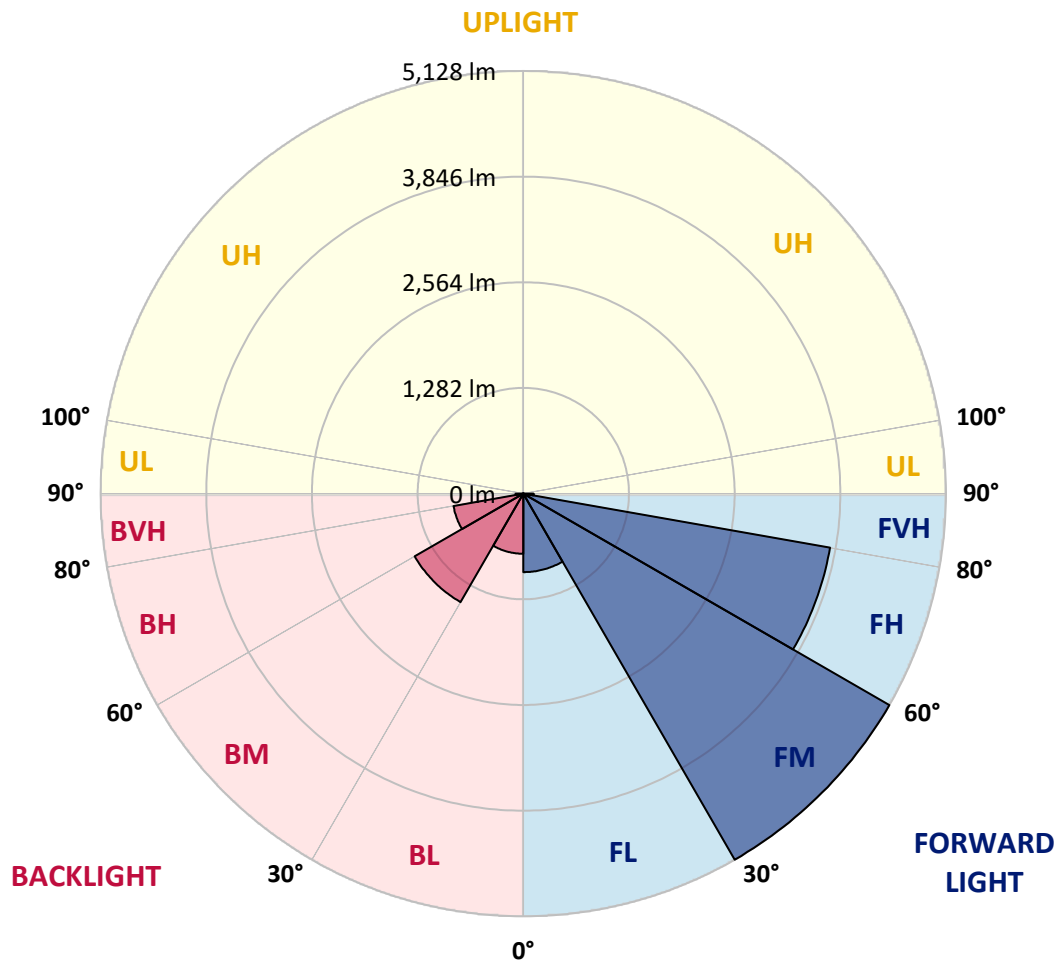
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	952.4	7.2			
FM	(30°-60°)	5127.9	38.9			
FH	(60°-80°)	3778.8	28.7			G2/5000
FVH	(80°-90°)	125.4	1.0			G2/225
BL	(0°-30°)	729.7	5.5	B2/1000		
BM	(30°-60°)	1520.9	11.5	B2/2500		
BH	(60°-80°)	859.5	6.5	B2/1000		G2/1000
BVH	(80°-90°)	93.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1789.3	1788.5	1790.7	1788.5	1790.0	1784.9	1782.7	1784.1	1781.9	1778.3	1771.6
5°	1811.3	1810.6	1811.3	1808.4	1809.9	1806.9	1801.8	1803.2	1799.6	1791.5	1781.9
7.5°	1848.8	1845.9	1845.9	1845.1	1842.2	1837.8	1834.1	1832.7	1829.0	1818.7	1804.0
10°	1897.3	1897.3	1898.1	1892.2	1895.9	1887.8	1884.1	1883.4	1870.9	1857.6	1837.1
12.5°	1961.3	1965.0	1962.8	1959.8	1958.4	1955.4	1942.9	1945.9	1931.9	1909.1	1884.1
15°	2040.7	2046.6	2042.9	2041.4	2037.7	2026.7	2021.6	2019.4	2001.0	1967.9	1934.8
17.5°	2145.8	2138.5	2135.5	2131.8	2116.4	2108.3	2099.5	2098.0	2081.9	2042.9	1991.4
20°	2237.7	2248.0	2242.1	2238.4	2223.0	2207.6	2200.9	2198.7	2184.8	2142.1	2059.8
22.5°	2347.2	2349.4	2351.6	2342.8	2335.5	2323.7	2311.9	2308.3	2303.1	2259.0	2158.3
25°	2464.1	2472.9	2465.6	2456.8	2447.9	2447.2	2458.2	2456.8	2454.6	2411.9	2289.2
27.5°	2654.5	2662.6	2664.8	2655.2	2621.4	2624.4	2649.4	2657.5	2691.3	2620.7	2457.5
30°	2761.8	2769.9	2788.3	2824.3	2878.0	2925.0	2985.3	3003.7	3036.0	2903.0	2657.5
32.5°	2828.0	2830.9	2864.0	2930.9	3091.9	3267.6	3431.5	3438.2	3458.7	3272.0	2840.5
35°	2932.4	2934.6	2961.1	3034.6	3223.5	3516.1	3769.7	3777.8	3760.9	3386.7	2925.8
37.5°	3061.0	3066.9	3083.8	3144.8	3370.5	3724.1	3910.1	3904.2	3754.3	3477.8	3076.5
40°	3248.5	3248.5	3228.6	3311.0	3525.6	3843.2	3959.4	3949.1	3909.4	3741.8	3305.8
42.5°	3413.9	3411.0	3458.0	3513.9	3719.7	4027.0	4165.9	4182.8	4248.3	4073.3	3566.8
45°	3629.3	3642.5	3669.0	3770.4	4049.8	4340.9	4520.2	4536.4	4629.0	4463.6	3871.9
47.5°	3846.9	3851.3	3934.4	4069.6	4458.5	4766.5	4913.5	4940.0	5024.5	4920.2	4200.5
50°	4001.3	4043.2	4176.2	4389.4	4879.7	5285.5	5400.2	5431.8	5581.0	5417.1	4583.5
52.5°	4164.4	4205.6	4368.1	4693.0	5363.4	5816.3	5957.4	5978.7	6133.8	5919.9	4975.3
55°	4304.1	4342.3	4526.9	4962.1	5748.6	6358.0	6613.9	6588.9	6663.1	6307.3	5277.4
57.5°	4326.9	4357.8	4590.1	5134.1	6038.3	6822.6	7189.5	7204.2	7118.2	6597.0	5526.6
60°	4150.5	4213.7	4480.6	5115.7	6168.4	7146.1	7618.8	7629.1	7385.0	6745.5	5625.9
62.5°	3838.1	3831.4	4154.2	4820.2	5986.1	7219.6	7871.7	7860.6	7489.4	6674.1	5529.6
64°	3406.5	3485.9	3787.3	4457.0	5692.0	7106.4	7898.1	7892.2	7439.4	6525.7	5365.6
65°	3143.4	3139.0	3436.7	4160.0	5399.4	6935.8	7851.1	7843.0	7335.0	6392.6	5238.5
67.5°	2269.3	2279.6	2573.7	3210.3	4389.4	6269.1	7544.5	7514.4	6923.4	5951.5	4754.7
70°	1374.7	1380.6	1611.4	2129.6	3150.7	5067.9	6800.6	6802.1	6293.4	5292.9	4046.8
72.5°	724.1	739.5	832.2	1209.3	1913.5	3555.8	5517.1	5647.9	5403.1	4517.3	3197.0
75°	402.8	405.1	470.5	596.2	976.2	1990.0	4146.8	4184.3	4277.7	3635.9	2364.1
77.5°	307.3	311.7	332.3	385.2	531.5	922.6	2509.7	2697.9	3014.7	2563.4	1348.9
80°	249.2	253.6	271.3	302.9	353.6	437.4	1165.9	1267.3	1613.6	1138.0	526.3
82.5°	194.1	191.1	213.9	234.5	257.3	258.8	478.6	529.3	657.2	489.6	227.9
85°	144.1	144.1	162.5	158.1	166.1	151.4	211.0	233.0	263.2	208.0	105.9
87.5°	57.3	63.2	106.6	95.6	74.2	59.5	77.9	82.3	91.2	81.6	44.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1772.4	1774.6	1769.4	1765.8	1764.3	1762.1	1759.9	1760.6	1763.6	1766.5	1765.8
5°	1781.2	1781.9	1773.1	1768.7	1765.8	1762.8	1762.8	1765.0	1770.9	1775.3	1775.3
7.5°	1803.2	1803.2	1790.7	1782.7	1778.3	1773.1	1771.6	1772.4	1776.8	1782.7	1783.4
10°	1837.8	1834.9	1818.7	1806.2	1798.1	1785.6	1774.6	1768.7	1770.9	1774.6	1774.6
12.5°	1879.7	1871.6	1851.0	1834.1	1814.3	1790.7	1768.0	1756.2	1755.5	1759.1	1757.7
15°	1924.5	1915.7	1887.1	1856.2	1821.6	1787.1	1759.9	1743.0	1729.7	1726.1	1734.1
17.5°	1976.7	1958.4	1918.7	1876.0	1824.6	1779.7	1737.1	1702.5	1679.0	1672.4	1674.6
20°	2040.0	2015.7	1962.0	1895.1	1822.4	1753.3	1687.1	1640.8	1602.6	1590.8	1592.3
22.5°	2127.4	2085.5	2006.9	1904.7	1804.0	1703.3	1611.4	1551.1	1504.8	1486.4	1497.4
25°	2226.7	2181.1	2049.5	1902.5	1756.2	1623.1	1521.7	1443.0	1401.1	1373.9	1379.8
27.5°	2363.4	2282.5	2095.1	1882.6	1687.8	1525.4	1407.8	1333.5	1295.3	1281.3	1287.9
30°	2538.4	2414.1	2144.3	1829.0	1579.8	1401.9	1293.1	1244.6	1221.8	1204.1	1210.0
32.5°	2664.8	2506.8	2155.4	1738.6	1462.9	1289.4	1215.2	1179.1	1154.1	1137.2	1140.9
35°	2755.2	2585.4	2150.2	1627.6	1340.9	1196.8	1153.4	1124.0	1083.6	1046.8	1040.2
37.5°	2876.5	2683.9	2112.7	1506.3	1220.3	1134.3	1103.4	1049.0	990.9	941.7	939.5
40°	3062.5	2799.3	2032.6	1363.6	1117.4	1088.0	1050.5	979.9	917.4	877.7	874.8
42.5°	3254.4	2905.9	1923.8	1213.7	1032.8	1039.5	993.9	924.0	885.8	860.1	857.1
45°	3488.9	3021.3	1806.2	1083.6	970.4	993.9	944.6	904.2	881.4	864.5	860.1
47.5°	3742.5	3139.7	1673.9	966.7	917.4	952.0	924.0	905.7	893.2	881.4	876.3
50°	4016.0	3272.0	1549.6	872.6	869.6	908.6	921.8	915.2	907.9	904.2	899.8
52.5°	4315.9	3407.3	1445.2	806.4	827.7	877.7	922.6	927.7	927.7	925.5	922.6
55°	4518.8	3501.4	1339.4	752.8	785.1	852.7	921.1	941.0	948.3	945.4	942.4
57.5°	4668.7	3552.8	1206.3	706.4	749.1	828.5	913.0	942.4	949.8	953.4	952.0
60°	4699.6	3505.0	1032.1	657.9	710.1	793.2	883.6	920.4	929.9	952.7	954.9
62.5°	4560.7	3358.0	858.6	610.1	662.3	739.5	843.9	895.4	914.5	949.8	953.4
64°	4390.1	3193.4	762.3	580.0	631.5	709.4	824.1	888.8	913.8	960.8	963.7
65°	4265.2	3073.5	702.0	560.9	611.6	689.5	813.0	891.0	920.4	977.7	982.1
67.5°	3805.0	2661.1	580.7	516.1	564.6	655.7	815.2	909.3	918.9	984.3	983.6
70°	3148.5	2118.6	486.6	474.9	519.0	628.5	806.4	879.9	880.7	924.0	913.8
72.5°	2357.5	1565.8	422.0	432.2	468.3	563.8	761.6	840.2	827.7	833.6	823.3
75°	1619.5	1035.8	363.1	386.7	415.3	498.4	698.4	763.1	743.2	735.9	728.5
77.5°	864.5	572.7	302.1	341.8	360.9	430.8	609.4	671.9	651.3	622.6	613.1
80°	349.9	269.8	243.3	283.0	294.0	347.0	507.2	546.2	530.8	480.8	464.6
82.5°	175.7	161.7	191.1	222.7	223.5	247.7	377.1	413.9	379.3	318.3	304.3
85°	91.9	94.8	131.6	156.6	138.2	133.8	226.4	250.7	230.1	200.0	180.1
87.5°	33.1	38.2	69.1	68.4	48.5	25.7	50.0	24.3	13.2	8.1	10.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)