

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: P652354

Luminaire Tested: **GALN-SA4B-840-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P652354
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4B-840-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19293.4 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

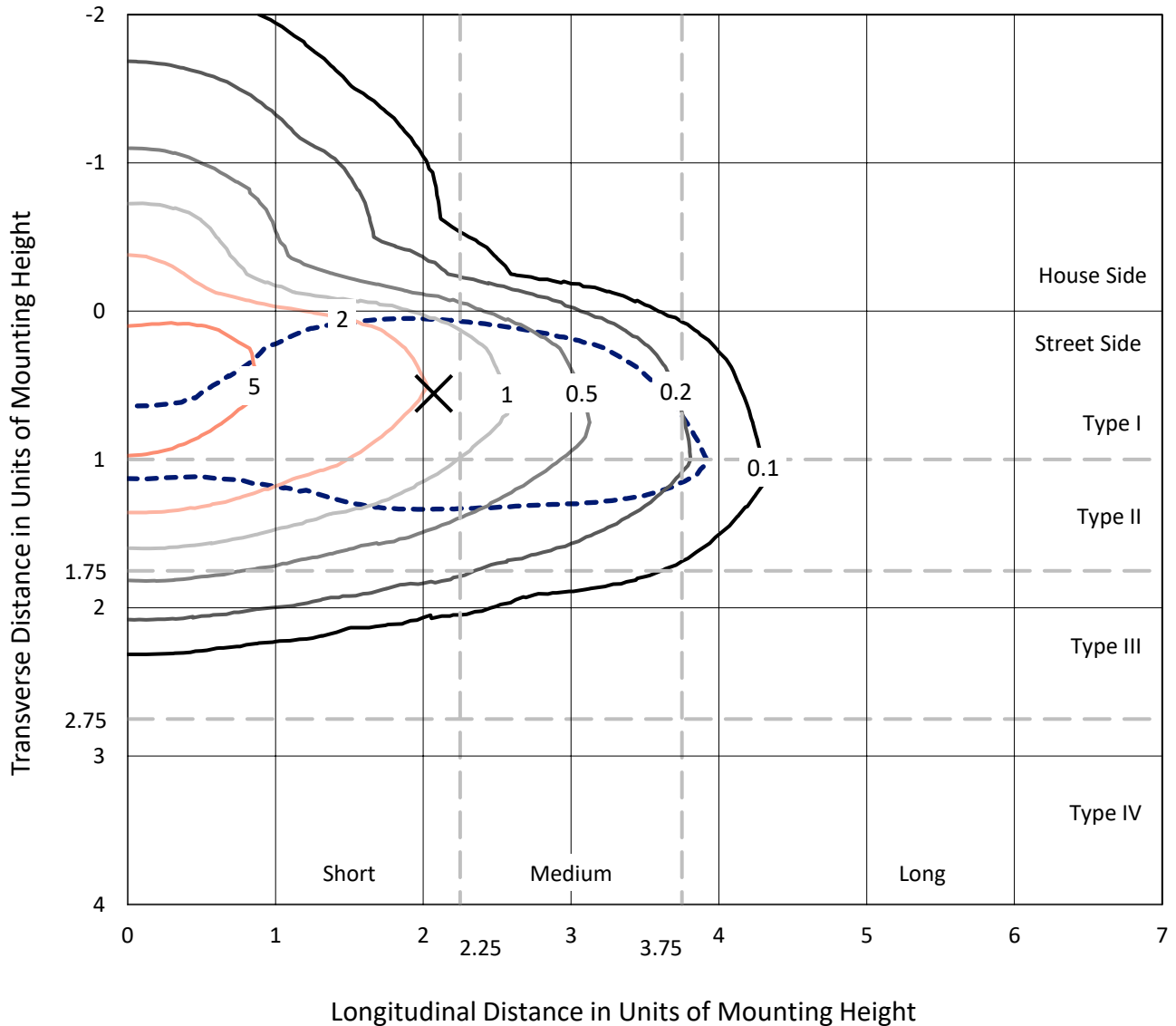
Input Watts (W): 164
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

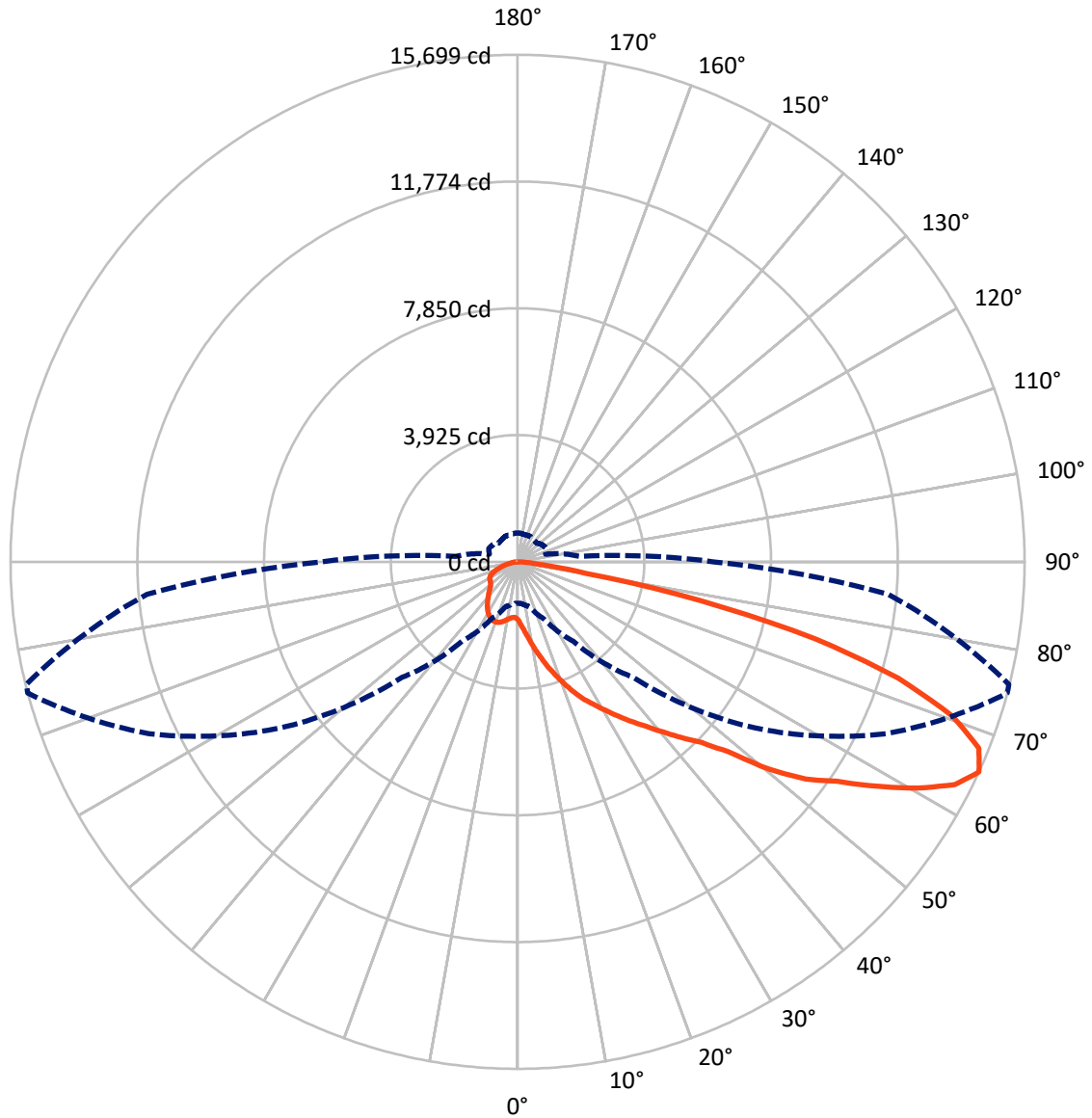
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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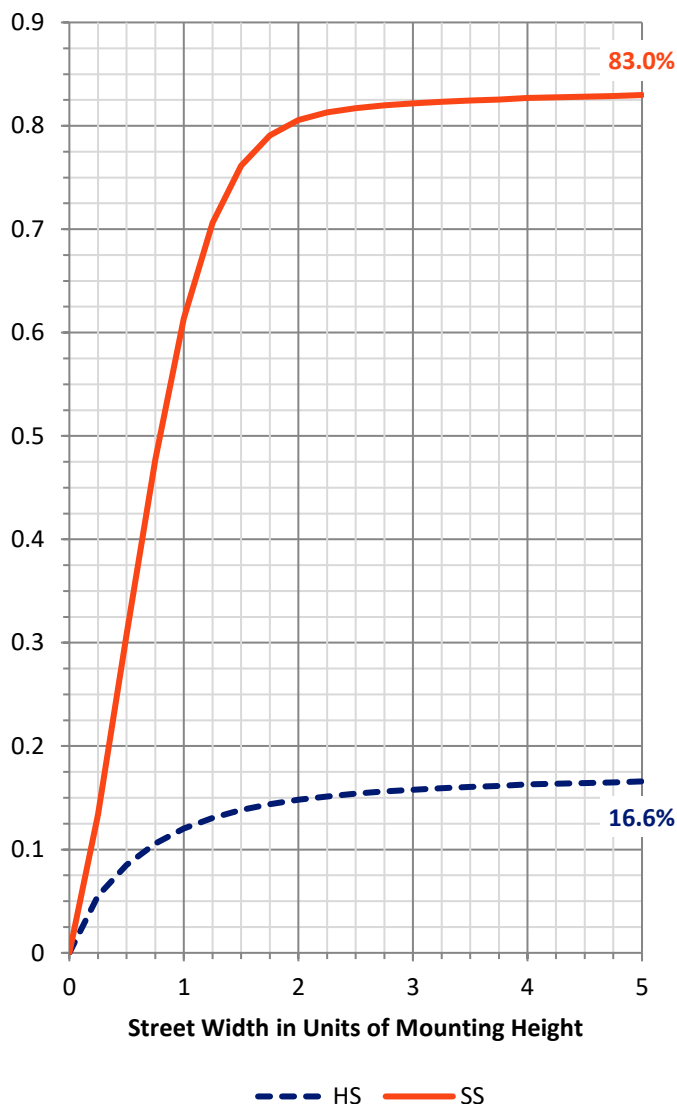
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3243.5	0.0	3243.5
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	16049.9	0.0	16049.9
	% Fixture	83.2	0.0	83.2
Total	Lumens	19293.4	0.0	19293.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.8	1.1
10°-20°	853.1	4.4
20°-30°	1647.8	8.5
30°-40°	2676.6	13.9
40°-50°	3681.9	19.1
50°-60°	4347.1	22.5
60°-70°	3808.8	19.7
70°-80°	1818.3	9.4
80°-90°	242.0	1.3
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°	19293.4	100.0
0°-180°	19293.4	100.0

Coefficient of Utilization



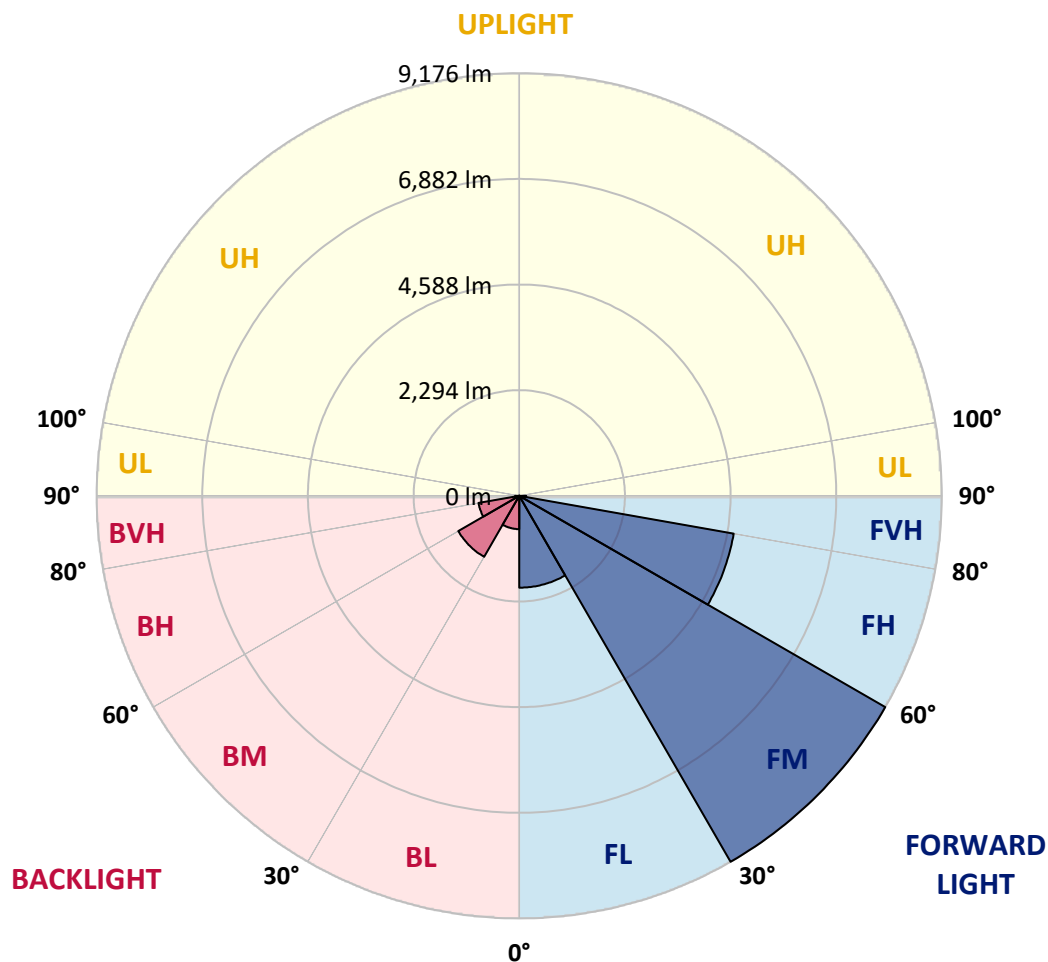
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1994.6	10.3			
FM (30°-60°)	9176.3	47.6			
FH (60°-80°)	4727.7	24.5			G2/5000
FVH (80°-90°)	151.2	0.8			G2/225
BL (0°-30°)	724.1	3.8	B2/1000		
BM (30°-60°)	1529.3	7.9	B2/2500		
BH (60°-80°)	899.4	4.7	B2/1000		G2/1000
BVH (80°-90°)	90.7	0.5			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6
2.5°	2381.8	2366.1	2349.3	2303.2	2254.1	2198.6	2119.1	2042.7	1941.2	1938.1	1862.7
5°	3042.1	3031.6	2957.3	2914.4	2800.4	2648.6	2519.9	2320.0	2134.8	2112.8	1966.3
7.5°	3649.0	3608.2	3580.0	3502.5	3389.5	3194.9	2945.8	2675.8	2366.1	2336.8	2094.0
10°	4106.4	4102.1	4087.5	4020.6	3935.8	3742.2	3465.9	3078.7	2659.1	2601.5	2248.8
12.5°	4448.6	4451.7	4449.6	4448.6	4387.8	4223.5	3924.3	3516.1	2955.2	2914.4	2427.8
15°	4673.5	4704.9	4717.5	4769.8	4775.0	4665.1	4407.7	3938.9	3289.1	3228.3	2620.4
17.5°	4822.1	4837.9	4896.4	4985.4	5057.6	5037.7	4808.5	4330.3	3630.2	3528.7	2820.2
20°	4964.4	4991.7	5036.7	5158.0	5285.7	5344.3	5183.2	4731.0	3968.2	3903.3	3041.1
22.5°	5260.6	5299.3	5315.0	5376.8	5485.6	5589.2	5516.0	5115.1	4338.6	4250.8	3275.4
25°	5761.9	5802.6	5758.7	5744.0	5779.6	5830.9	5815.2	5477.2	4688.2	4562.6	3497.3
27.5°	6414.8	6420.1	6334.2	6252.7	6164.7	6138.5	6090.4	5798.4	4991.7	4887.0	3720.2
30°	7116.0	7090.9	6948.5	6801.0	6652.4	6505.9	6367.7	6108.3	5329.7	5209.3	3938.9
32.5°	7766.9	7753.3	7595.2	7366.1	7114.9	6976.8	6697.4	6421.1	5691.7	5575.6	4163.9
35°	8254.5	8274.4	8100.7	7850.6	7576.4	7454.0	7101.3	6749.7	6066.4	5939.7	4408.8
37.5°	8600.9	8590.5	8436.7	8220.0	7979.3	7872.6	7573.3	7108.6	6469.2	6347.9	4676.6
40°	8724.4	8718.1	8604.0	8446.1	8293.3	8255.6	8067.2	7495.8	6930.8	6788.5	4999.0
42.5°	8645.9	8659.5	8584.2	8541.3	8513.0	8540.2	8558.0	8003.4	7434.1	7303.3	5348.5
45°	8405.2	8397.9	8387.5	8457.5	8616.6	8795.6	9043.6	8482.7	7981.4	7876.7	5817.3
47.5°	7975.1	8027.4	8053.6	8247.2	8594.6	9018.5	9602.4	9125.2	8775.7	8684.7	6532.0
50°	7373.4	7415.3	7570.2	7914.4	8432.5	9102.1	10148.7	10175.8	10100.5	9929.9	7308.5
52.5°	6433.6	6498.6	6817.7	7448.7	8099.7	9067.7	10479.4	11076.9	11176.3	11048.6	8073.5
55°	5382.0	5473.1	5810.0	6637.8	7641.3	8879.3	10707.4	11599.1	11995.7	11877.4	8810.2
57.5°	4352.3	4448.6	4794.9	5596.5	6841.8	8462.8	10857.1	12180.9	13111.2	12957.4	9726.9
60°	3261.8	3362.3	3659.5	4485.1	5703.2	7648.6	10755.6	12685.3	14225.7	14159.7	10644.7
62.5°	2104.4	2215.4	2473.9	3157.2	4383.6	6536.3	10212.5	12963.7	15190.6	15111.0	11314.4
65°	1281.9	1294.5	1436.8	1960.0	3000.2	5060.7	8970.4	12594.2	15699.1	15675.1	11518.5
67.5°	828.8	848.7	913.6	1174.1	1798.9	3515.0	7172.5	11375.1	15401.9	15393.5	11096.7
70°	700.0	706.4	735.7	792.1	1045.4	2131.7	5036.7	9431.8	14272.8	14272.8	10082.7
72.5°	625.8	634.2	644.6	662.5	746.1	1207.6	3005.5	7342.0	12323.2	12404.8	8582.1
75°	568.3	566.2	572.4	575.6	636.2	789.0	1554.0	5430.1	9533.3	9370.1	6215.0
77.5°	486.6	489.7	486.6	500.2	562.0	600.6	789.0	3643.8	5777.6	5566.2	3119.5
80°	399.7	404.9	410.2	418.6	480.3	456.2	474.1	1660.7	2136.9	2091.9	963.8
82.5°	300.3	307.6	316.0	335.9	377.8	301.4	299.3	709.5	771.3	706.4	354.7
85°	121.4	143.4	216.6	236.5	237.6	165.3	184.2	296.1	315.0	307.6	139.2
87.5°	28.3	33.5	70.1	105.7	97.3	61.7	68.0	96.3	109.9	101.5	47.1
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°	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6	1792.6
2.5°	1828.2	1791.6	1728.8	1680.7	1646.1	1615.7	1596.9	1585.4	1581.2	1580.2	1581.2
5°	1889.9	1825.1	1725.6	1662.8	1628.3	1608.4	1596.9	1595.9	1596.9	1598.0	1594.8
7.5°	1974.7	1881.6	1751.8	1693.2	1667.0	1652.4	1647.1	1645.1	1646.1	1645.1	1645.1
10°	2087.7	1960.0	1803.1	1742.4	1720.4	1703.6	1695.3	1690.1	1685.9	1681.7	1679.6
12.5°	2212.3	2046.9	1858.5	1799.9	1768.5	1742.4	1723.5	1709.9	1700.5	1691.1	1689.0
15°	2351.4	2139.0	1920.3	1838.7	1793.7	1754.9	1722.5	1700.5	1683.8	1670.1	1669.1
17.5°	2484.3	2225.9	1962.1	1856.4	1790.5	1736.1	1693.2	1662.8	1641.9	1624.1	1622.0
20°	2626.6	2308.5	1981.0	1844.9	1759.1	1693.2	1636.7	1600.1	1575.9	1556.1	1553.0
22.5°	2770.0	2378.6	1978.9	1808.3	1704.7	1627.3	1567.6	1528.9	1500.6	1480.7	1473.4
25°	2907.1	2435.1	1952.7	1749.7	1629.4	1548.8	1488.1	1452.5	1427.3	1403.3	1403.3
27.5°	3030.5	2468.6	1903.5	1678.6	1551.9	1467.1	1419.0	1386.6	1363.5	1347.9	1338.5
30°	3152.0	2484.3	1836.6	1588.6	1470.3	1398.1	1359.4	1340.6	1319.6	1301.8	1299.7
32.5°	3260.8	2481.2	1752.8	1500.6	1392.9	1341.6	1325.8	1311.2	1289.3	1264.1	1257.9
35°	3366.5	2460.3	1653.4	1404.4	1327.9	1308.1	1312.3	1291.4	1251.6	1220.2	1214.9
37.5°	3481.6	2422.6	1544.6	1325.8	1273.5	1292.4	1302.9	1256.8	1191.9	1142.8	1131.2
40°	3614.5	2379.7	1431.6	1247.4	1230.6	1277.7	1277.7	1193.0	1104.1	1073.7	1065.3
42.5°	3770.5	2344.1	1337.4	1181.4	1195.1	1242.2	1236.9	1108.2	1071.6	1055.9	1051.7
45°	4017.4	2331.5	1240.1	1123.9	1165.8	1200.3	1157.4	1078.9	1058.0	1045.4	1041.2
47.5°	4407.7	2346.2	1154.3	1081.0	1132.2	1158.5	1068.4	1059.0	1044.4	1026.6	1024.5
50°	4769.8	2332.6	1093.6	1057.0	1103.0	1108.2	1031.8	1034.9	1026.6	1006.7	1002.6
52.5°	5065.9	2289.7	1054.9	1044.4	1077.8	1020.3	997.3	1008.8	1005.7	980.5	976.3
55°	5391.4	2263.5	1036.0	1044.4	1061.1	943.9	964.9	981.6	977.4	959.6	958.6
57.5°	5785.9	2268.8	1022.4	1047.5	1044.4	905.2	932.4	952.3	951.3	946.0	946.0
60°	6189.8	2270.9	1001.5	1046.5	1024.5	874.8	898.9	927.2	929.3	932.4	932.4
62.5°	6323.8	2179.8	960.7	1027.6	980.5	845.5	867.5	906.3	904.2	912.5	913.6
65°	6073.7	1927.6	900.0	984.7	924.0	824.6	843.4	879.0	867.5	889.5	893.6
67.5°	5528.5	1594.8	805.8	907.3	861.3	802.7	827.8	841.3	820.4	863.4	864.4
70°	4778.1	1245.3	686.5	797.4	790.1	779.6	815.2	794.2	765.0	817.3	806.9
72.5°	3995.4	951.3	548.3	651.9	694.8	745.1	793.2	733.6	692.7	708.5	689.6
75°	3001.3	703.2	440.6	510.7	578.7	695.9	773.3	660.4	597.5	582.9	578.7
77.5°	1529.9	459.4	329.7	382.0	434.3	628.9	746.1	574.5	495.0	472.0	461.5
80°	546.2	285.7	232.3	263.7	293.0	541.0	651.9	475.1	384.1	379.9	384.1
82.5°	253.2	184.2	155.9	172.7	173.8	361.0	497.0	354.7	292.0	443.7	374.7
85°	108.8	92.1	87.9	85.8	79.6	161.1	279.4	190.5	297.2	132.9	122.4
87.5°	32.5	36.7	32.5	24.1	17.8	17.8	28.3	10.4	7.3	5.2	5.2
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)