

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: P651335

Luminaire Tested: **GALN-SA4D-840-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651335
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-840-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25988.6 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

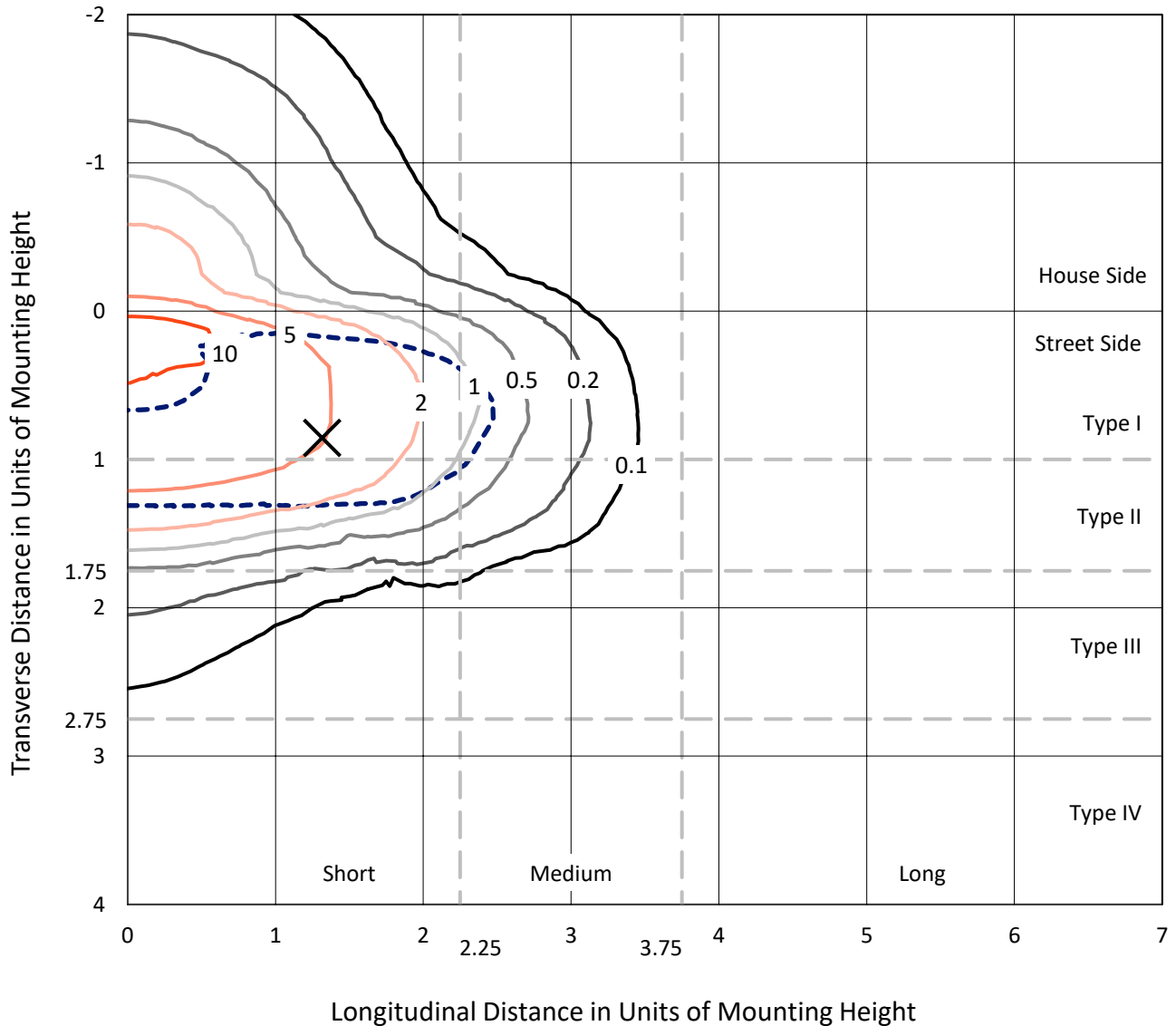
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P651335
 CATALOG NUMBER: GALN-SA4D-840-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

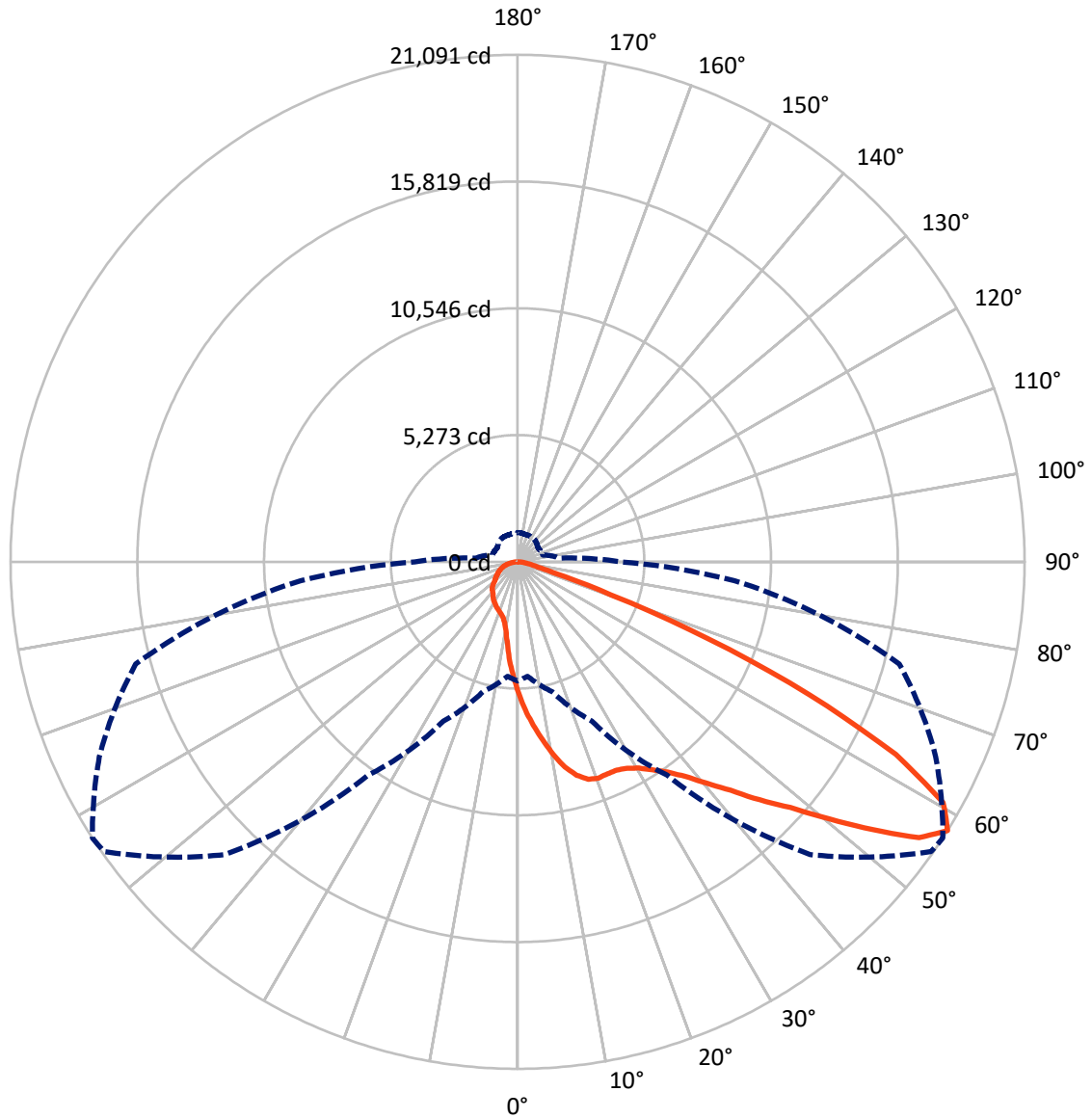
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.3 fc
 Type II - Short - N/A

REPORT NUMBER: P651335
CATALOG NUMBER: GALN-SA4D-840-U-AFL

Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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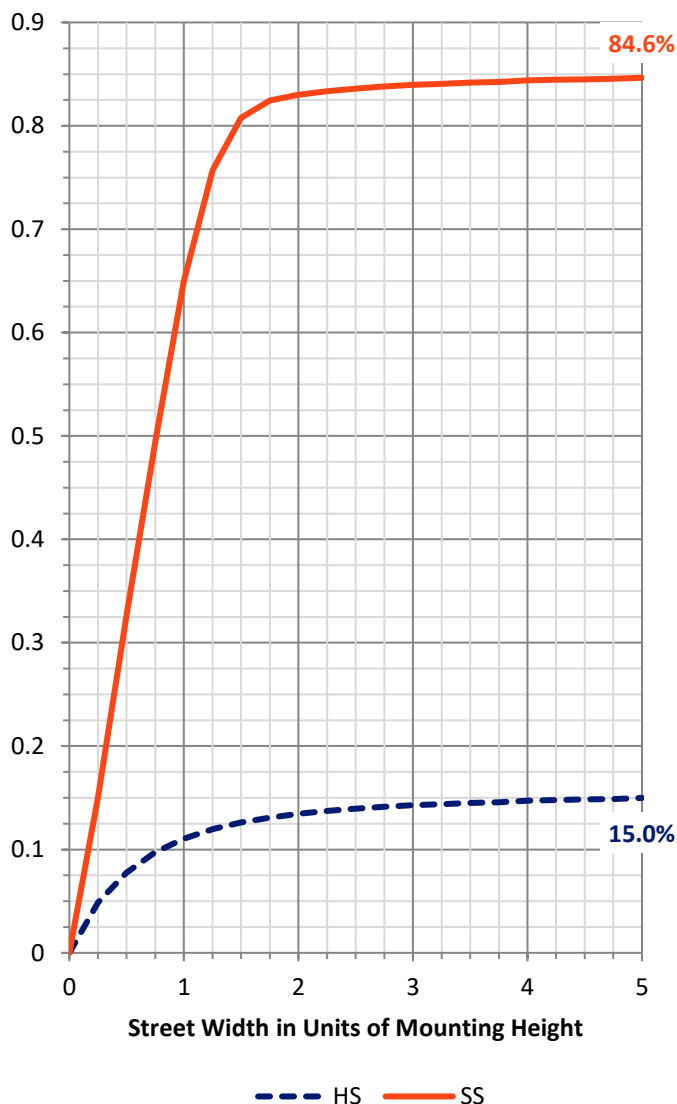
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3952.1	0.0	3952.1
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	22036.5	0.0	22036.5
	% Fixture	84.8	0.0	84.8
Total	Lumens	25988.6	0.0	25988.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	524.7	2.0
10°-20°	1546.5	6.0
20°-30°	2567.9	9.9
30°-40°	3868.1	14.9
40°-50°	5807.5	22.3
50°-60°	6509.5	25.0
60°-70°	3809.7	14.7
70°-80°	1126.9	4.3
80°-90°	227.8	0.9
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°	25988.6	100.0
0°-180°	25988.6	100.0

Coefficient of Utilization

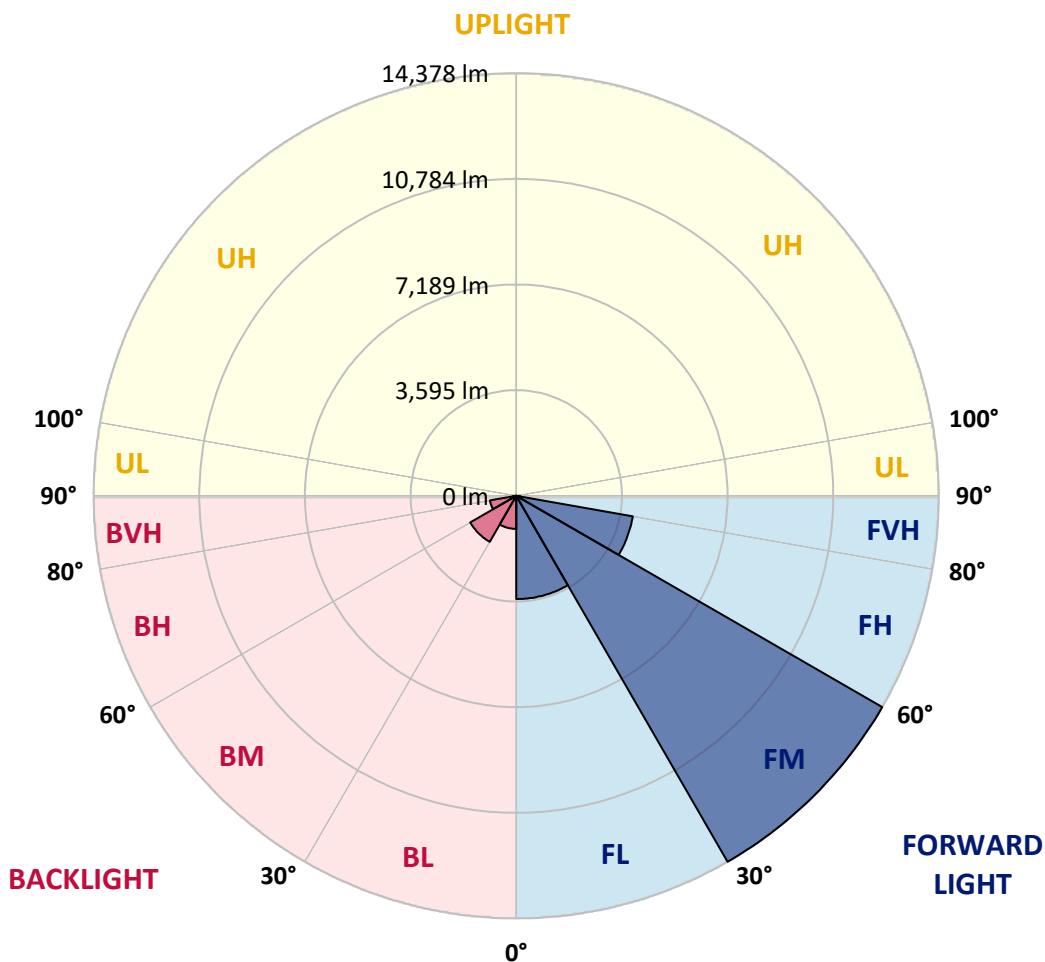


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3513.1	13.5			
FM (30°-60°)	14378.0	55.3			
FH (60°-80°)	4027.2	15.5			G2/5000
FVH (80°-90°)	118.2	0.5			G2/225
BL (0°-30°)	1126.1	4.3	B3/2500		
BM (30°-60°)	1807.1	7.0	B2/2500		
BH (60°-80°)	909.4	3.5	B2/1000		G2/1000
BVH (80°-90°)	109.6	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9
2.5°	6784.3	6710.3	6652.1	6600.8	6534.0	6353.3	6172.6	6169.7	6026.1	5804.2	5576.6
5°	7889.7	7790.1	7802.9	7643.6	7484.2	7222.5	6839.9	6819.9	6514.0	6098.7	5676.2
7.5°	8609.5	8610.9	8571.1	8480.1	8307.9	8010.6	7576.7	7478.6	7053.2	6423.0	5789.9
10°	8572.6	8610.9	8677.8	8756.1	8808.7	8662.1	8266.7	8147.2	7593.8	6815.6	5916.5
12.5°	8080.3	8140.0	8235.4	8431.7	8748.9	8990.8	8855.6	8758.9	8219.8	7206.9	6056.0
15°	7773.0	7808.6	7861.2	7993.5	8335.0	8913.9	9264.0	9212.7	8810.1	7649.2	6212.5
17.5°	7679.2	7714.7	7731.8	7812.9	8056.1	8649.3	9424.7	9515.7	9333.6	8056.1	6370.3
20°	7773.0	7790.1	7790.1	7838.5	8029.1	8494.3	9417.5	9601.0	9763.3	8544.1	6518.3
22.5°	8019.1	8026.3	8016.3	8033.4	8175.6	8537.0	9350.7	9578.3	10110.3	8958.1	6633.6
25°	8418.9	8430.3	8364.8	8325.0	8428.8	8724.8	9387.7	9596.8	10382.1	9353.5	6710.3
27.5°	8872.7	8886.9	8807.3	8714.8	8763.1	8956.6	9532.8	9720.5	10585.5	9743.3	6758.7
30°	9429.0	9434.6	9300.9	9189.9	9158.7	9302.3	9780.3	9955.3	10838.7	10202.8	6831.3
32.5°	9998.0	10040.6	9868.5	9712.0	9659.4	9703.5	10145.9	10315.2	11140.3	10696.4	6947.9
35°	10771.9	10778.9	10572.7	10382.1	10208.5	10265.4	10613.9	10736.3	11557.1	11267.0	7112.9
37.5°	11737.8	11803.3	11518.8	11163.1	10949.7	10867.1	11180.2	11313.9	12141.9	11966.8	7361.9
40°	12810.4	12834.6	12591.4	12369.4	11979.6	11740.6	11956.9	12102.0	12863.1	12801.9	7650.7
42.5°	13484.8	13537.4	13555.8	13533.1	13240.0	12838.9	12921.4	12989.7	13716.6	13585.8	7946.6
45°	13712.3	13790.6	14055.2	14615.7	14647.0	14251.5	14059.5	14124.9	14647.0	14376.7	8229.7
47.5°	13335.4	13469.1	13957.1	15106.5	15967.1	15997.0	15418.1	15274.3	15494.8	15032.5	8434.6
50°	12360.8	12389.4	13136.2	14800.7	16585.9	17665.7	17066.8	16799.4	16300.0	15517.6	8575.3
52.5°	10852.9	10885.7	11511.6	13379.5	16204.7	18832.3	18995.8	18517.9	17118.1	15894.6	8667.9
55°	8056.1	8245.3	8933.9	10739.1	14398.0	18722.7	20529.4	20257.7	18106.7	16193.4	8812.9
57.5°	4953.5	4779.9	5596.4	7306.4	10828.8	17217.6	21003.1	21091.4	19195.0	16443.7	9056.2
60°	2279.0	2313.2	2650.3	3768.4	6600.8	13469.1	19782.5	20340.2	19796.8	16435.2	9117.4
62.5°	1570.6	1539.3	1453.9	1654.5	3010.2	8518.5	16709.7	17654.4	18590.4	15924.5	8874.1
65°	1404.1	1372.8	1207.8	1152.3	1382.8	3712.9	12147.5	13339.6	15652.8	14635.6	8268.1
67.5°	1311.6	1269.0	1098.3	990.1	987.2	1478.1	7162.7	8598.1	11609.8	12373.7	7164.1
70°	1214.9	1180.8	1011.5	892.0	840.7	929.0	3148.2	4121.2	7538.3	8916.8	5580.8
72.5°	1118.2	1078.3	926.1	798.1	731.2	695.7	1206.3	1569.1	4259.2	5346.1	3421.4
75°	977.3	957.4	828.0	722.7	650.1	562.0	765.4	873.5	2037.2	2455.4	1717.1
77.5°	855.0	833.6	735.5	631.6	579.0	456.7	543.5	593.2	859.2	995.8	775.3
80°	626.0	647.3	620.2	557.7	516.4	358.5	365.6	406.9	510.7	564.7	473.7
82.5°	396.9	436.7	478.0	429.6	391.2	283.1	253.2	268.9	348.5	369.9	210.5
85°	166.4	169.3	277.4	261.7	223.4	167.9	152.2	160.7	186.4	194.9	98.1
87.5°	64.0	62.6	98.1	91.1	69.7	48.4	48.4	54.1	74.0	68.3	31.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P651335

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9	5459.9
2.5°	5478.4	5377.4	5176.8	4927.8	4745.8	4540.9	4360.2	4230.8	4182.4	4159.7	4116.9
5°	5474.2	5275.0	4859.6	4424.2	4074.3	3715.8	3412.8	3216.5	3199.4	3068.6	3055.7
7.5°	5475.6	5171.1	4509.6	3869.4	3336.0	2969.0	2718.5	2653.1	2574.9	2555.0	2565.0
10°	5479.8	5038.9	4134.0	3320.4	2803.9	2563.5	2469.6	2444.0	2446.9	2455.4	2456.8
12.5°	5485.5	4910.8	3744.3	2903.5	2505.2	2405.6	2395.7	2418.4	2442.6	2461.1	2465.4
15°	5492.7	4764.3	3364.4	2567.7	2355.8	2347.3	2380.0	2418.4	2452.5	2479.6	2483.8
17.5°	5484.1	4593.5	3045.8	2361.5	2273.3	2314.5	2368.6	2416.9	2448.3	2473.9	2476.7
20°	5464.1	4402.9	2738.5	2216.4	2222.1	2288.9	2347.3	2392.8	2427.0	2439.7	2449.7
22.5°	5387.4	4175.3	2471.0	2104.0	2160.9	2253.4	2323.1	2350.1	2311.7	2284.7	2291.8
25°	5256.5	3879.4	2222.1	2012.9	2105.4	2203.6	2274.7	2209.3	2178.0	2166.6	2172.3
27.5°	5092.8	3555.1	2034.3	1917.6	2034.3	2148.1	2128.2	2116.8	2102.6	2084.1	2088.4
30°	4916.5	3237.8	1875.0	1843.6	1957.5	2022.9	2031.4	2049.9	2034.3	2005.9	2017.2
32.5°	4752.9	2939.0	1754.1	1781.1	1903.4	1893.4	1957.5	1978.8	1906.3	1810.9	1815.2
35°	4613.5	2661.7	1663.0	1719.9	1810.9	1815.2	1879.2	1805.3	1727.0	1681.5	1684.4
37.5°	4508.2	2445.5	1603.3	1667.3	1692.8	1746.9	1712.8	1674.4	1664.4	1633.1	1634.6
40°	4445.6	2256.2	1564.8	1626.0	1621.8	1658.7	1549.2	1587.6	1601.9	1591.8	1593.3
42.5°	4383.0	2122.5	1525.0	1569.1	1567.7	1495.1	1471.0	1503.7	1540.6	1544.9	1542.1
45°	4333.3	2018.7	1483.8	1482.3	1510.8	1397.0	1389.8	1409.8	1462.4	1488.1	1486.6
47.5°	4277.7	1931.9	1421.2	1381.3	1389.8	1335.8	1324.4	1333.0	1397.0	1438.3	1449.6
50°	4208.0	1845.1	1342.9	1288.8	1253.3	1278.9	1281.8	1283.2	1347.2	1394.1	1404.1
52.5°	4152.5	1779.6	1253.3	1213.5	1170.8	1227.7	1249.1	1251.9	1290.3	1328.7	1335.8
55°	4185.2	1742.6	1165.1	1136.6	1098.3	1175.0	1216.3	1222.0	1230.6	1259.0	1263.3
57.5°	4283.4	1751.2	1094.0	1057.0	1028.5	1112.5	1182.2	1186.5	1180.8	1214.9	1220.5
60°	4313.3	1746.9	1041.3	968.7	951.7	1045.6	1132.4	1140.9	1139.5	1189.3	1199.3
62.5°	4188.1	1692.8	988.7	894.8	883.5	977.3	1062.7	1096.8	1103.9	1175.0	1187.8
65°	3893.7	1581.9	919.0	816.5	816.5	904.7	995.8	1042.8	1062.7	1158.0	1172.2
67.5°	3505.3	1451.1	847.9	749.7	746.9	835.0	924.7	973.0	1004.3	1133.8	1142.3
70°	2909.2	1274.6	759.7	677.2	677.2	756.8	837.9	896.3	941.8	1088.3	1088.3
72.5°	1993.1	1059.8	653.0	594.7	596.1	670.0	752.5	818.0	872.0	997.3	1000.1
75°	1260.4	828.0	536.3	506.5	512.2	581.8	667.2	735.5	843.6	985.8	990.1
77.5°	670.0	581.8	426.8	419.7	426.8	490.8	586.1	680.0	846.5	855.0	840.7
80°	433.9	412.5	337.2	322.9	325.8	395.5	522.1	645.9	680.0	688.5	657.2
82.5°	236.2	261.7	239.0	224.8	224.8	308.7	445.3	513.5	487.9	405.4	386.9
85°	101.0	122.4	123.8	108.2	103.9	190.7	298.7	280.2	260.4	248.9	246.1
87.5°	28.4	39.9	39.9	29.9	22.8	52.6	59.7	17.1	0.0	1.4	2.9
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)