

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: P651828

Luminaire Tested: **GALN-SA4A-840-U-AFL-GRSWH**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P651828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-28)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4A-840-U-AFL-GRSWH
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH WHITE GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13728.5 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

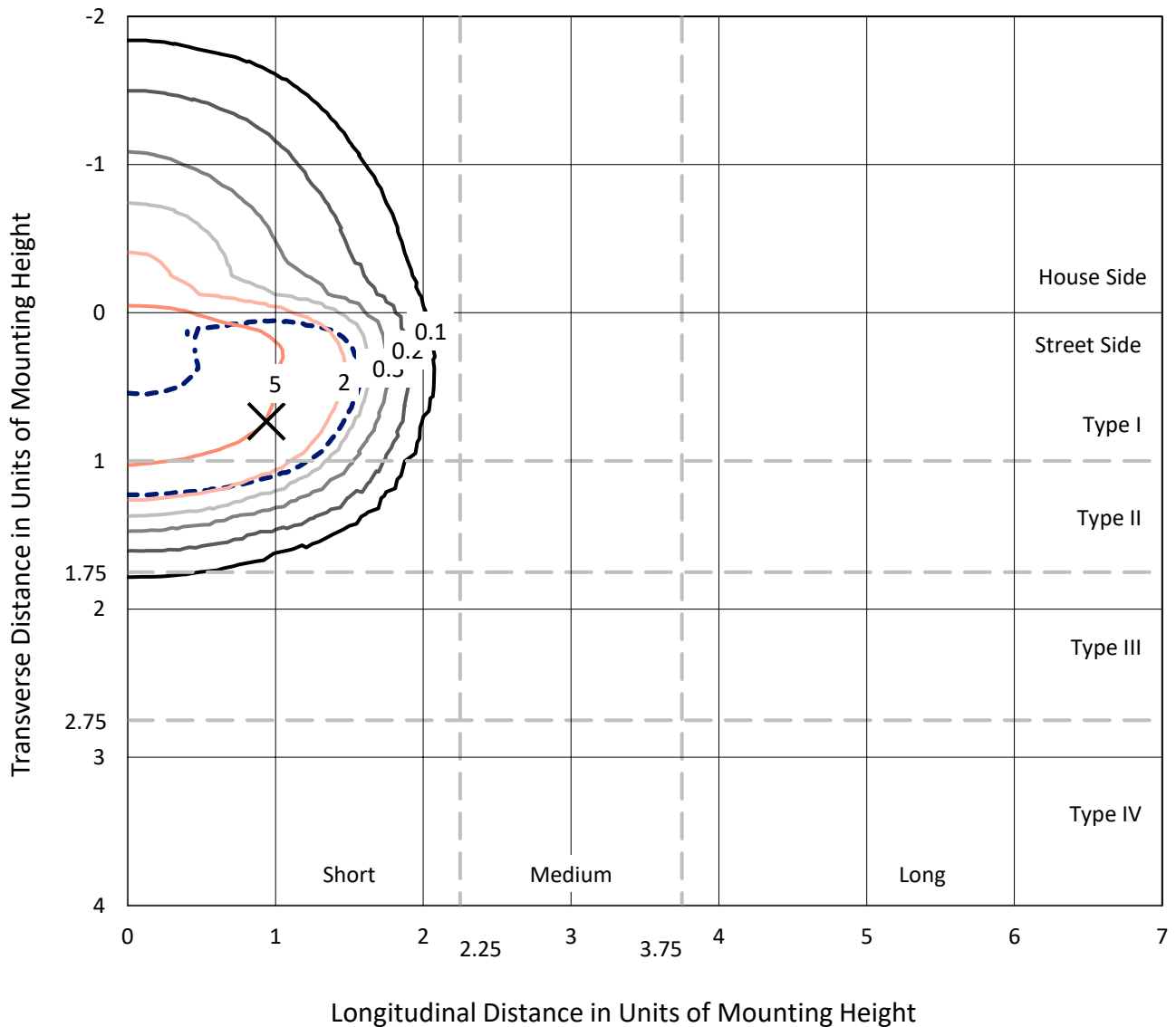
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

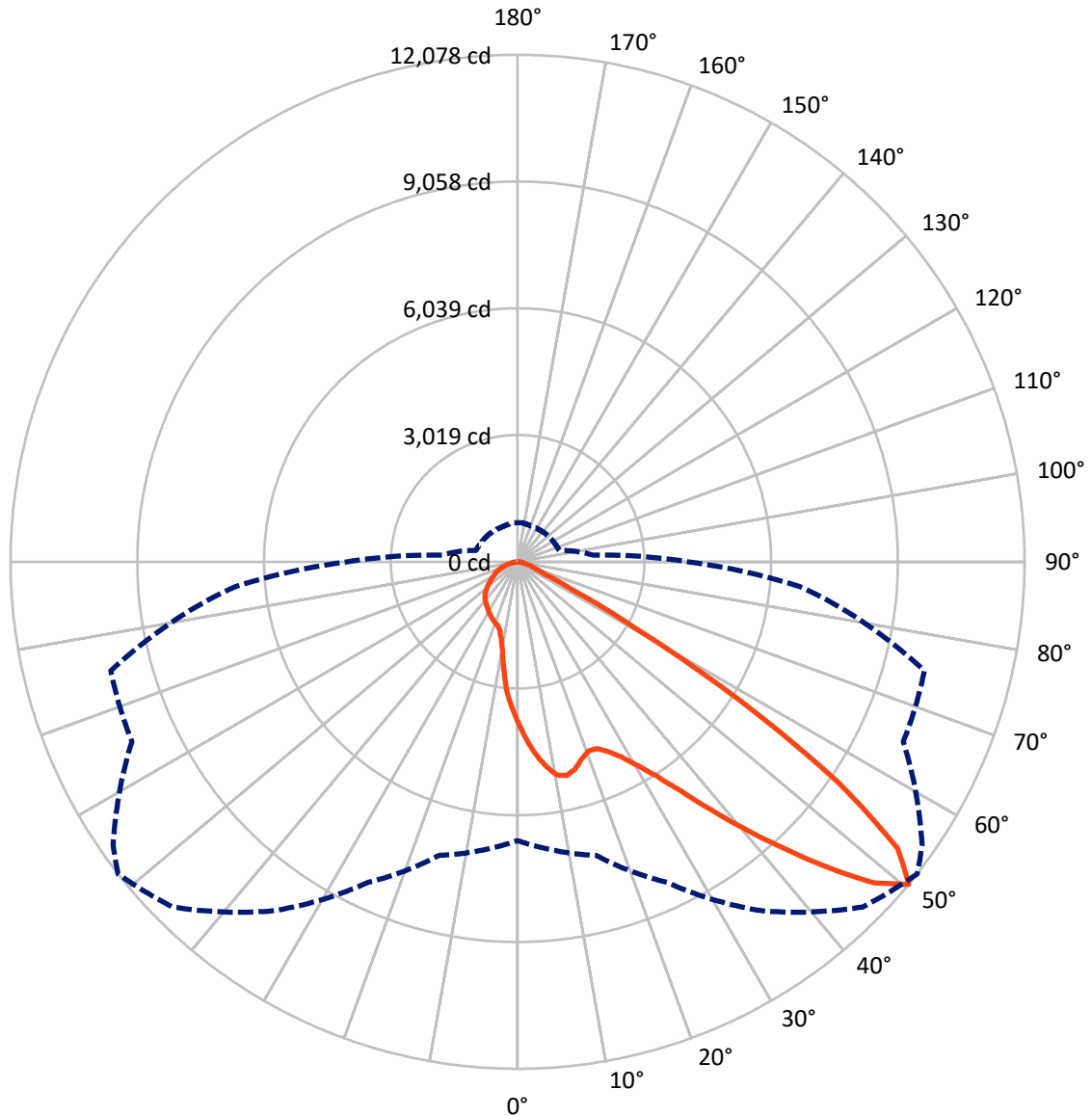
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 52-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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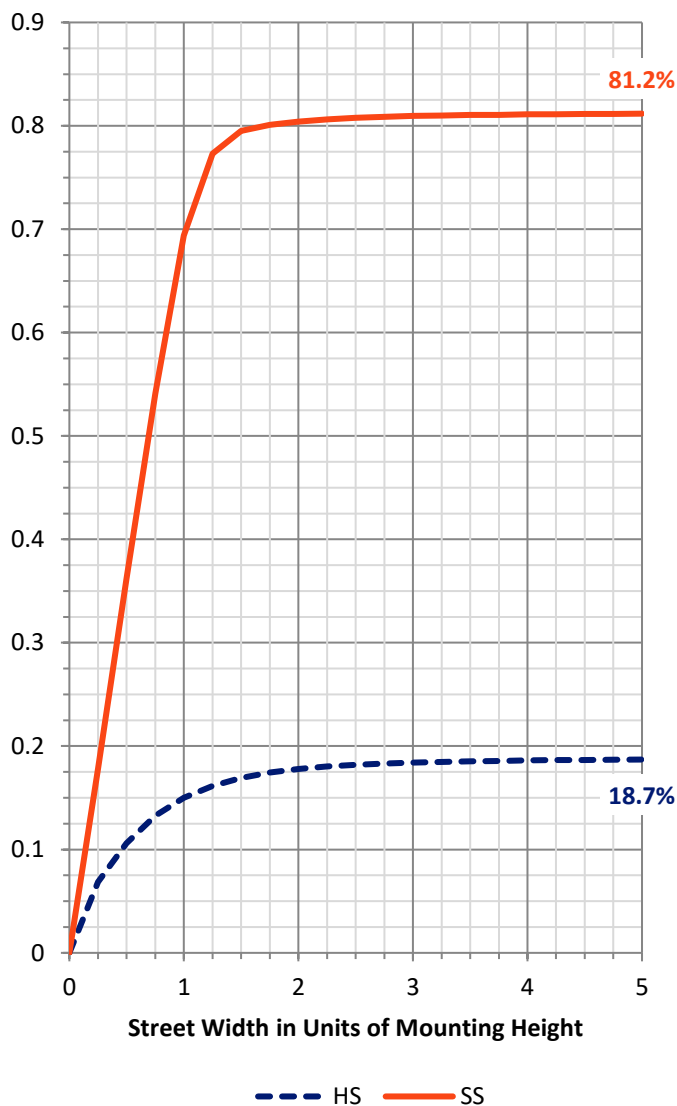
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2580.6	0.0	2580.6
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	11147.9	0.0	11147.9
	% Fixture	81.2	0.0	81.2
Total	Lumens	13728.5	0.0	13728.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.7	2.6
10°-20°	956.0	7.0
20°-30°	1610.3	11.7
30°-40°	2702.3	19.7
40°-50°	4133.8	30.1
50°-60°	3013.9	22.0
60°-70°	670.7	4.9
70°-80°	241.9	1.8
80°-90°	42.8	0.3
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°	13728.5	100.0
0°-180°	13728.5	100.0

Coefficient of Utilization



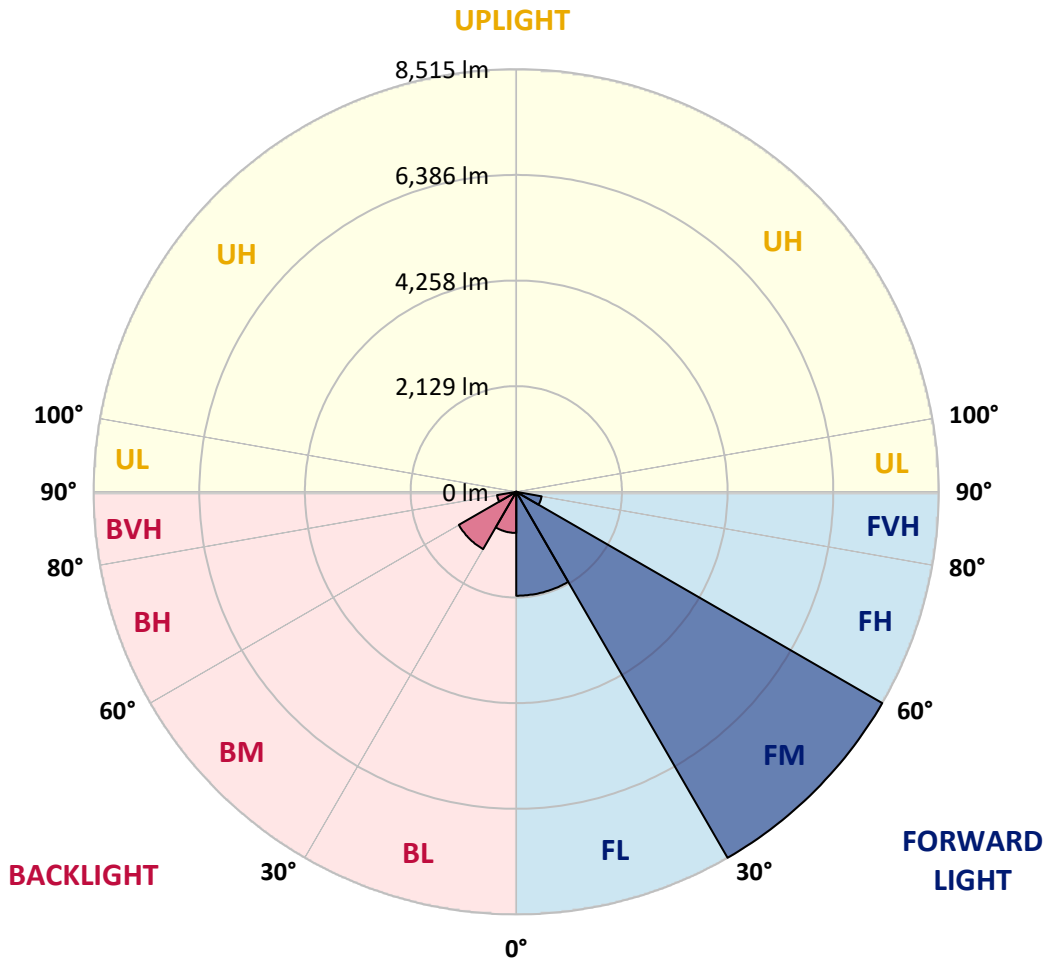
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2094.1	15.3			
FM (30°-60°)	8515.1	62.0			
FH (60°-80°)	519.5	3.8			G0/660
FVH (80°-90°)	19.2	0.1			G1/100
BL (0°-30°)	828.9	6.0	B2/1000		
BM (30°-60°)	1334.9	9.7	B2/2500		
BH (60°-80°)	393.2	2.9	B1/500		G1/500
BVH (80°-90°)	23.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	52°	55°	65°	75°	85°
0°	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9
2.5°	4556.5	4468.7	4478.7	4415.8	4348.0	4328.1	4258.7	4192.5	4142.9	4037.0	3939.3
5°	4980.0	4953.5	4913.8	4864.2	4812.9	4687.1	4616.0	4533.2	4351.2	4187.5	4025.4
7.5°	5041.2	5036.2	5057.8	5057.8	5075.9	5028.0	4927.1	4869.1	4675.5	4409.2	4108.1
10°	4611.0	4625.9	4730.1	4865.9	5054.4	5185.2	5168.6	5153.7	4942.0	4578.0	4205.7
12.5°	4268.6	4235.4	4296.7	4412.5	4695.4	5011.4	5224.9	5226.5	5171.9	4847.6	4276.8
15°	4075.0	4098.1	4114.7	4169.3	4382.7	4748.4	5124.0	5234.8	5474.7	5037.9	4389.3
17.5°	4199.1	4121.3	4118.0	4131.2	4240.4	4515.1	4937.0	5127.2	5640.2	5282.7	4528.3
20°	4361.2	4359.6	4313.2	4296.7	4295.1	4539.9	4814.6	5072.7	5727.8	5600.4	4669.0
22.5°	4645.8	4645.8	4569.7	4533.2	4455.5	4655.7	4831.1	5006.5	5873.4	5818.8	4736.8
25°	5122.3	5044.5	4913.8	4824.5	4779.8	4851.0	5006.5	5163.7	6000.8	6050.4	4877.4
27.5°	5562.4	5439.9	5375.4	5221.5	5162.0	5120.6	5262.9	5421.8	6149.7	6411.1	4953.5
30°	6062.0	6040.5	5924.7	5726.2	5578.9	5502.8	5633.5	5790.7	6422.7	6780.1	5128.9
32.5°	6955.4	6760.2	6603.0	6359.8	6120.0	5957.8	6086.8	6191.1	6876.0	7165.6	5320.8
35°	7920.0	7857.1	7585.8	7147.3	6780.1	6634.5	6710.6	6788.3	7403.8	7754.5	5643.4
37.5°	8868.0	8782.0	8558.6	8189.7	7743.0	7446.8	7501.4	7592.4	7996.1	8548.7	6037.2
40°	9549.6	9443.8	9331.3	9276.7	8833.3	8427.9	8396.5	8419.7	8796.9	9293.2	6474.0
42.5°	9599.3	9730.0	9764.8	9984.8	9880.6	9548.0	9354.4	9359.4	9561.2	10029.4	6915.7
45°	9495.1	9374.3	9630.7	10231.4	10575.4	10731.0	10405.0	10363.6	10034.4	10456.3	7135.8
47.5°	8401.4	8434.6	8868.0	9817.7	10812.1	11506.9	11430.8	11293.5	10287.5	10441.4	7101.1
50°	6641.1	6841.3	7243.3	8426.3	10150.3	11629.3	12077.7	11760.0	10137.0	10031.1	6747.0
52.5°	4422.4	4505.2	4769.9	6297.0	8161.6	10395.1	11333.2	11406.0	9998.1	9493.4	6298.6
55°	1968.9	1962.2	2334.4	3289.2	5120.6	7910.1	9260.2	9703.5	9463.6	8945.8	5861.9
57.5°	833.9	862.0	1014.2	1421.2	2518.1	4773.2	6273.8	6662.6	7278.1	7345.9	4496.9
60°	564.1	567.5	608.9	711.4	1053.9	2241.9	3290.7	3757.3	4197.4	4167.7	2385.7
62.5°	443.4	455.0	486.4	527.8	625.4	1017.5	1472.5	1732.2	1760.4	1480.7	905.0
65°	378.9	380.6	412.0	446.7	489.7	592.3	709.8	723.0	731.2	704.8	665.1
67.5°	312.7	316.0	340.9	380.6	420.2	453.3	486.4	503.0	541.0	615.4	605.5
70°	248.2	253.1	274.7	307.7	344.1	364.0	405.4	420.2	455.0	512.9	536.1
72.5°	188.6	190.2	208.5	231.6	264.7	284.6	319.3	335.9	359.0	408.6	430.2
75°	135.7	140.6	153.9	165.4	170.4	183.7	216.7	235.0	268.0	289.6	291.2
77.5°	71.1	74.4	77.8	77.8	94.3	119.1	140.6	150.5	173.8	190.2	182.0
80°	28.1	29.8	38.0	51.3	66.2	86.0	100.9	105.9	125.7	135.7	140.6
82.5°	16.6	18.2	24.8	36.4	48.0	61.2	72.8	77.8	91.0	102.6	105.9
85°	8.2	9.9	14.9	23.1	31.5	38.0	36.4	34.7	34.7	33.1	34.7
87.5°	3.3	3.3	5.0	5.0	5.0	6.6	8.2	8.2	8.2	9.9	9.9
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°	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9	3869.9
2.5°	3874.8	3808.6	3747.4	3634.9	3512.4	3477.7	3335.4	3284.1	3247.8	3204.7	3191.5
5°	3894.7	3807.0	3610.1	3383.4	3203.1	2971.4	2819.2	2655.5	2536.3	2506.5	2498.3
7.5°	3936.0	3785.4	3446.2	3103.8	2734.8	2420.5	2180.6	2051.5	1937.4	1930.8	1919.2
10°	3982.3	3720.9	3267.6	2729.9	2258.3	1967.2	1823.2	1767.0	1738.9	1732.2	1728.9
12.5°	4020.4	3707.7	3067.4	2365.9	1920.8	1745.5	1702.4	1697.5	1709.1	1712.4	1719.0
15°	4037.0	3654.7	2825.8	2040.0	1710.8	1646.2	1664.4	1684.3	1692.5	1714.0	1697.5
17.5°	4068.3	3586.9	2528.0	1781.9	1593.3	1604.9	1636.2	1659.5	1672.7	1687.6	1666.0
20°	4084.9	3525.7	2248.4	1628.0	1551.9	1573.4	1616.4	1634.7	1651.1	1657.8	1633.0
22.5°	4070.0	3400.0	2001.9	1504.0	1512.2	1540.3	1578.4	1598.2	1588.3	1561.8	1546.9
25°	4030.3	3223.0	1745.5	1424.5	1455.9	1505.6	1535.3	1520.4	1502.3	1487.4	1482.4
27.5°	4028.6	3006.2	1560.1	1351.7	1408.0	1475.8	1465.9	1452.7	1460.9	1449.3	1436.1
30°	4037.0	2796.1	1408.0	1310.4	1373.2	1406.3	1417.9	1404.6	1414.6	1393.0	1399.7
32.5°	3993.9	2591.0	1308.7	1262.3	1331.9	1330.2	1368.2	1378.1	1355.0	1310.4	1317.0
35°	4012.2	2425.4	1224.3	1240.9	1285.6	1285.6	1315.3	1303.7	1242.5	1216.0	1222.6
37.5°	4137.9	2263.3	1183.0	1211.0	1240.9	1254.1	1244.2	1194.6	1179.7	1179.7	1183.0
40°	4257.0	2124.4	1158.1	1204.5	1199.5	1207.8	1135.0	1140.0	1140.0	1141.6	1133.3
42.5°	4362.9	2030.1	1138.3	1164.8	1173.0	1130.1	1085.3	1080.3	1092.0	1090.3	1083.7
45°	4401.0	1952.3	1110.1	1120.0	1126.7	1055.5	1034.0	1024.1	1037.4	1042.3	1049.0
47.5°	4255.3	1887.8	1078.8	1058.9	1045.6	999.3	971.2	953.0	969.5	997.7	1004.2
50°	4068.3	1803.4	1029.0	991.0	962.9	943.0	923.2	905.0	916.6	936.5	931.5
52.5°	3792.1	1671.1	966.2	926.5	878.5	883.5	865.3	855.4	862.0	862.0	857.1
55°	3398.3	1373.2	860.3	832.2	792.5	805.8	809.0	795.8	782.6	794.2	784.2
57.5°	2319.6	969.5	767.7	767.7	728.0	746.1	744.5	713.1	681.6	685.0	678.4
60°	1341.8	772.6	708.1	701.5	660.1	675.0	678.4	656.8	608.9	612.2	605.5
62.5°	762.7	660.1	618.8	608.9	600.6	613.8	613.8	585.7	544.3	547.7	541.0
65°	648.6	612.2	552.6	550.9	547.7	550.9	537.7	508.0	471.5	456.7	458.3
67.5°	589.0	565.8	508.0	493.0	483.1	481.5	456.7	428.5	412.0	398.7	397.0
70°	516.2	498.0	455.0	435.1	425.2	402.0	377.2	359.0	335.9	329.3	335.9
72.5°	408.6	407.0	390.5	368.9	347.4	329.3	307.7	282.9	261.4	256.4	244.9
75°	282.9	286.2	289.6	286.2	268.0	244.9	220.0	200.2	173.8	158.9	155.5
77.5°	185.3	190.2	195.2	188.6	177.0	155.5	139.0	114.1	94.3	82.8	81.1
80°	135.7	142.3	145.6	140.6	127.4	110.8	92.7	72.8	57.9	48.0	48.0
82.5°	104.2	110.8	114.1	105.9	92.7	79.4	66.2	51.3	39.7	31.5	29.8
85°	36.4	34.7	41.4	43.0	51.3	48.0	39.7	29.8	23.1	16.6	14.9
87.5°	9.9	9.9	11.6	11.6	9.9	8.2	8.2	8.2	6.6	5.0	5.0
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)