

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: P650837

Luminaire Tested: **GALN-SA4C-840-U-AFL-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P650837
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-840-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17448.2 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

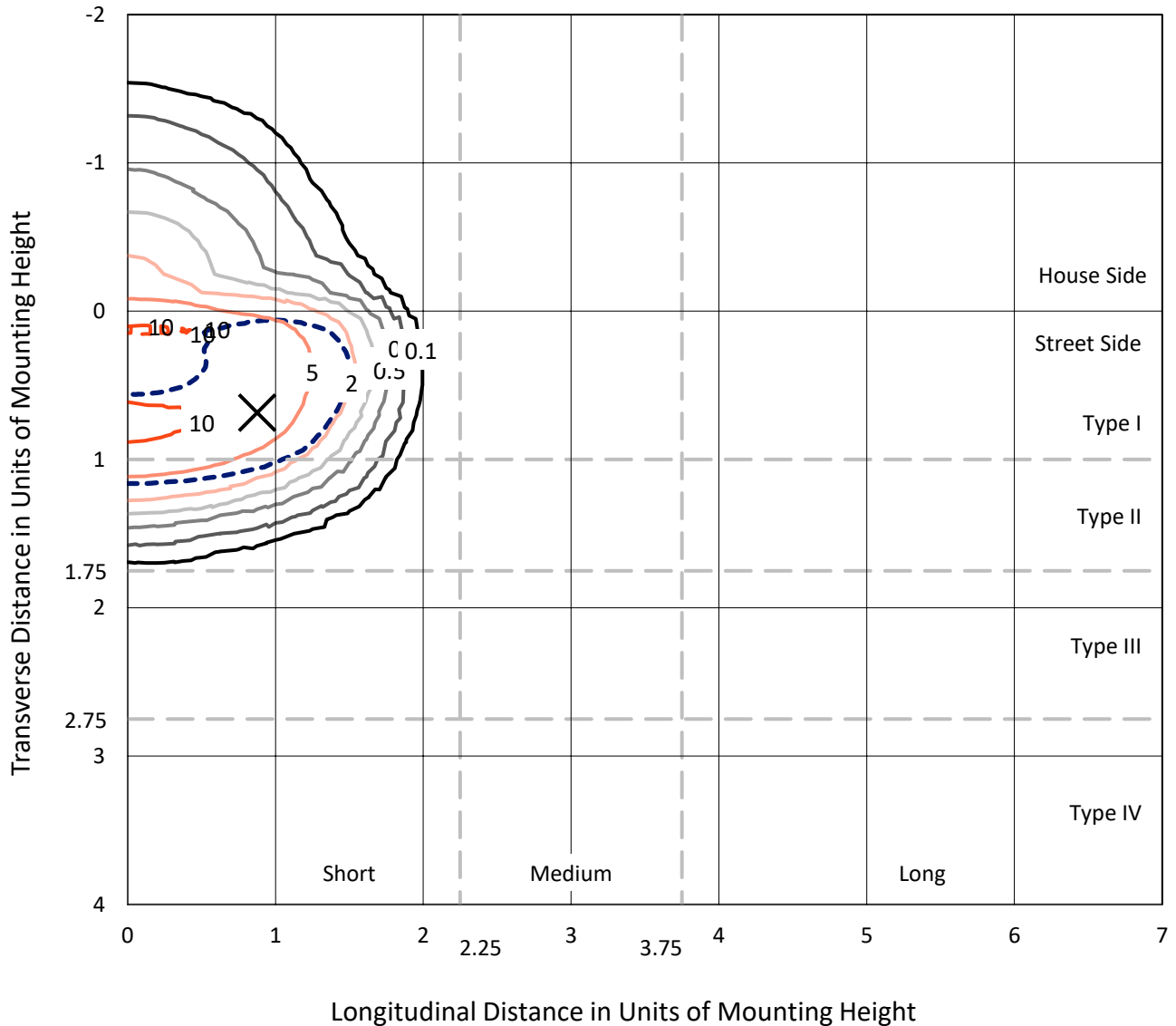
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

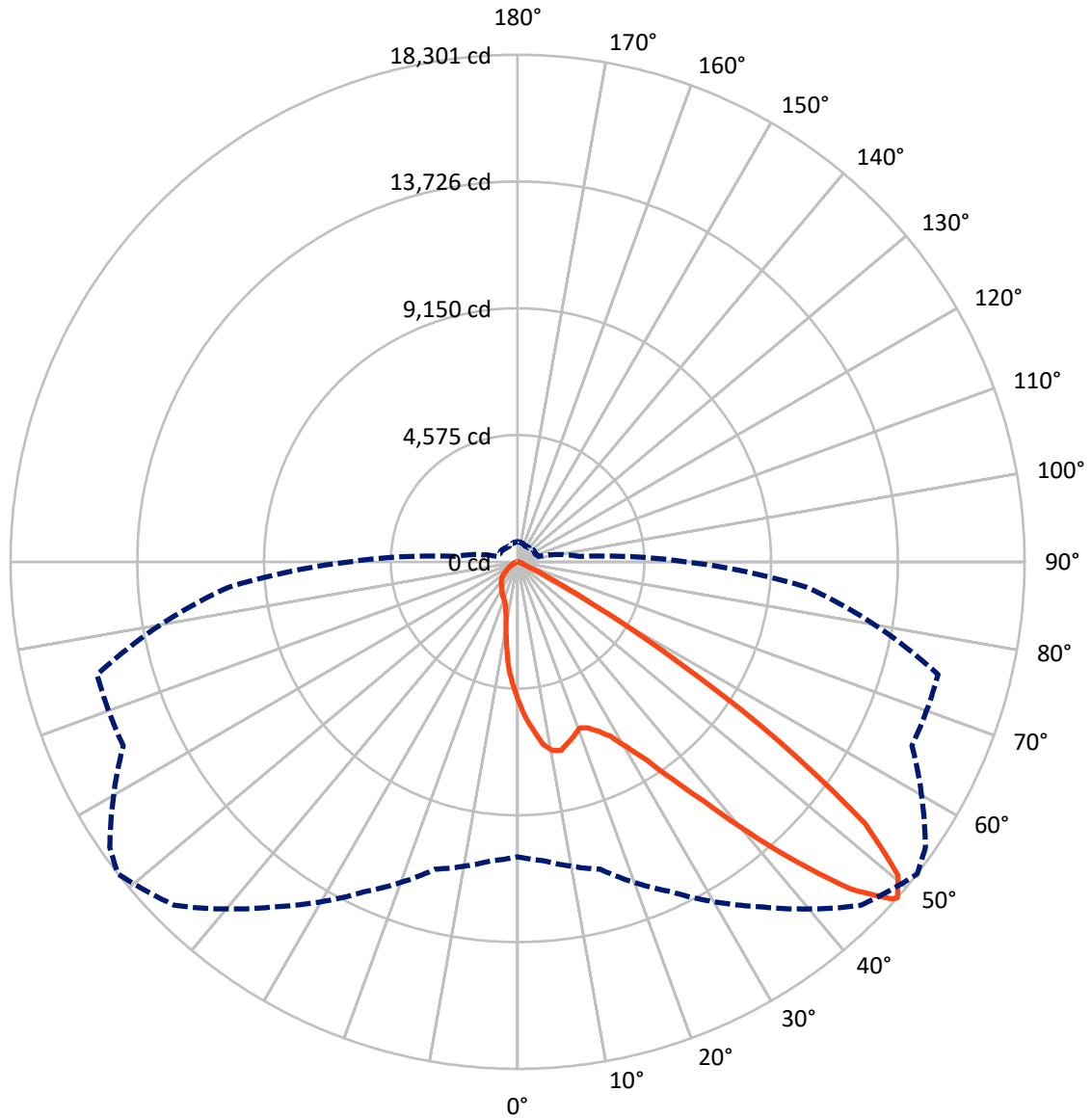
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 52-Deg Lateral - - - Horizontal Cone Through 48-Deg Vertical

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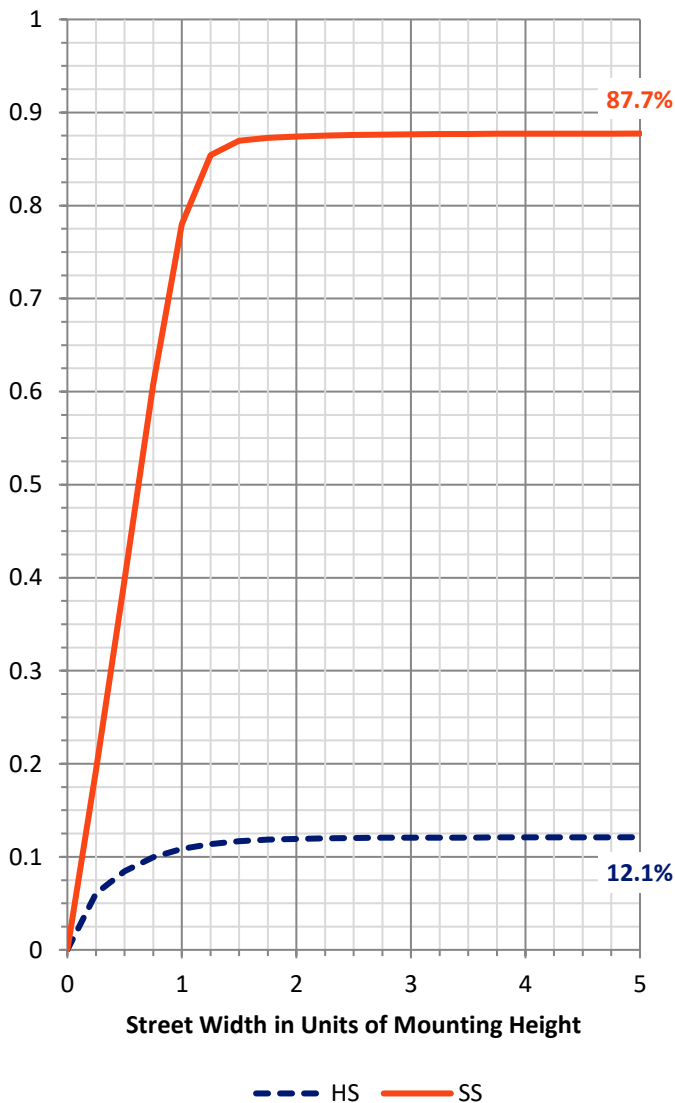
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2124.5	0.0	2124.5
	% Fixture	12.2	0.0	12.2
Street Side	Lumens	15323.8	0.0	15323.8
	% Fixture	87.8	0.0	87.8
Total	Lumens	17448.2	0.0	17448.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	461.2	2.6
10°-20°	1205.3	6.9
20°-30°	2057.9	11.8
30°-40°	3789.6	21.7
40°-50°	5885.2	33.7
50°-60°	3541.9	20.3
60°-70°	409.7	2.3
70°-80°	79.3	0.5
80°-90°	18.3	0.1
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°	17448.2	100.0
0°-180°	17448.2	100.0

Coefficient of Utilization

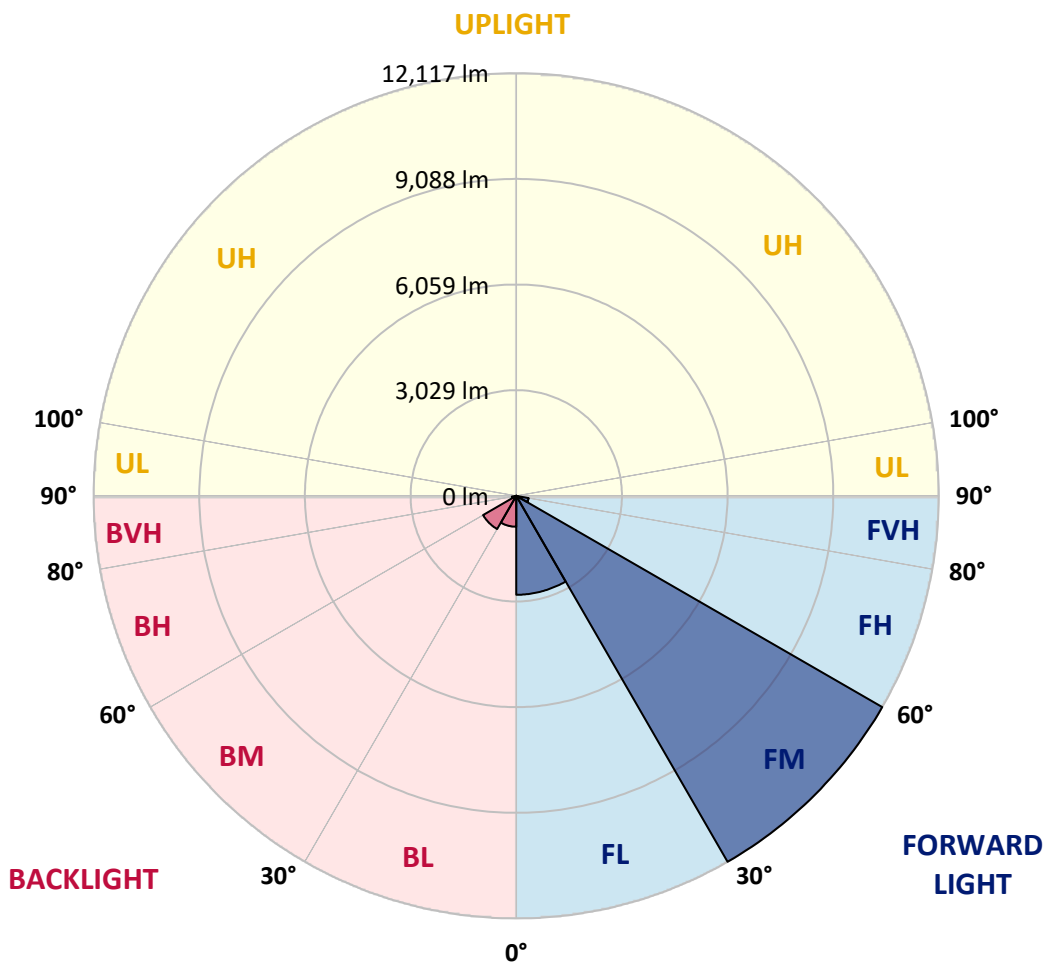


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2836.9	16.3			
FM (30°-60°)	12117.5	69.4			
FH (60°-80°)	360.7	2.1			G0/660
FVH (80°-90°)	8.7	0.1			G0/10
BL (0°-30°)	887.5	5.1	B2/1000		
BM (30°-60°)	1099.2	6.3	B2/2500		
BH (60°-80°)	128.2	0.7	B1/500		G1/500
BVH (80°-90°)	9.6	0.1			G0/10
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°	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8
2.5°	6107.0	5967.1	5979.8	5888.3	5834.9	5748.4	5631.4	5608.5	5481.3	5308.4	5132.9
5°	6656.4	6623.4	6666.6	6534.4	6539.4	6397.0	6122.3	6127.4	5834.9	5552.5	5280.4
7.5°	6692.1	6615.7	6659.0	6776.0	6844.6	6819.2	6664.1	6529.3	6252.0	5837.5	5440.6
10°	5992.5	6137.5	6183.4	6376.6	6651.4	6941.4	6923.5	6931.2	6699.7	6157.9	5578.0
12.5°	5572.9	5476.3	5631.4	5748.4	6163.0	6725.1	6982.1	7038.0	7055.8	6468.2	5715.4
15°	5382.1	5382.1	5407.5	5440.6	5740.8	6259.6	6783.6	6946.4	7330.5	6875.2	5931.6
17.5°	5501.7	5496.6	5532.2	5463.6	5575.4	5974.8	6600.5	6786.2	7638.3	7274.6	6102.0
20°	5865.4	5883.2	5860.3	5661.9	5669.5	5969.7	6397.0	6689.5	7846.9	7620.5	6328.4
22.5°	6371.6	6381.8	6252.0	6035.9	5972.3	6119.8	6514.0	6737.8	8014.7	8035.1	6397.0
25°	6956.6	6915.9	6890.5	6585.2	6391.9	6519.1	6778.5	6908.2	8119.0	8391.2	6592.9
27.5°	7768.0	7686.6	7531.4	7259.3	7116.8	6936.2	7121.9	7335.5	8416.6	8889.7	6806.5
30°	8966.0	8894.8	8592.1	8241.0	7867.2	7689.1	7747.6	7864.6	8953.3	9467.1	7088.9
32.5°	10769.3	10619.3	10181.8	9512.9	9004.2	8513.3	8498.0	8622.6	9434.0	10265.8	7424.6
35°	12755.9	12710.1	12066.6	11377.3	10392.9	9634.9	9647.6	9713.8	10354.7	11313.6	7864.6
37.5°	14076.0	14327.8	13918.3	13178.1	12351.4	11267.9	10993.2	11016.1	11618.9	12555.0	8658.2
40°	15096.0	14882.3	14930.6	14757.6	14193.0	13455.3	12847.5	12727.9	13081.4	13928.5	9446.7
42.5°	14650.8	14661.0	14958.6	15368.1	15508.0	15454.6	14834.0	14607.6	14332.8	15052.7	10197.0
45°	13394.3	13656.2	14042.9	15126.5	16077.7	16970.5	16848.4	16472.0	15197.6	15942.9	10629.5
47.5°	11390.0	11379.8	12013.2	13422.3	15536.0	17626.8	18181.2	17916.7	15810.6	15843.8	10540.4
48°	10649.8	10832.9	11486.6	13145.0	15192.6	17530.1	18300.7	17967.5	15706.3	15711.5	10464.1
50°	7872.3	7839.2	8653.1	10687.9	13569.8	16472.0	17797.2	18056.6	15703.8	15042.5	9930.0
52.5°	4158.7	4301.1	4893.8	6720.0	9594.2	13480.8	15698.8	16103.1	15149.4	13948.8	9161.9
55°	1767.8	1597.3	2052.6	3034.4	5397.4	9006.7	11517.2	12417.6	12809.3	12343.8	8014.7
57.5°	630.8	689.3	793.6	1142.1	2268.8	4929.4	6867.6	7567.1	8874.4	9057.6	5460.9
60°	404.4	412.1	445.1	523.9	852.1	1900.0	3258.3	3815.3	4407.9	4550.4	2548.7
62.5°	312.9	315.4	330.7	343.4	404.4	737.6	1223.4	1449.8	1505.8	1294.6	668.9
65°	262.0	264.5	269.6	269.6	287.5	345.9	427.3	470.5	457.8	452.7	379.0
67.5°	200.9	206.0	216.2	216.2	226.4	211.1	236.6	251.8	284.8	345.9	323.0
70°	157.7	160.2	167.9	173.0	173.0	152.6	170.4	185.7	208.6	256.9	254.3
72.5°	122.1	127.2	132.3	132.3	124.6	104.3	122.1	134.8	150.0	178.0	173.0
75°	94.1	94.1	96.6	78.9	61.1	53.4	73.8	89.1	111.9	117.0	96.6
77.5°	25.4	28.0	25.4	22.9	25.4	38.2	48.4	55.9	71.2	71.2	63.6
80°	0.0	2.5	7.7	15.2	25.4	35.6	43.2	48.4	55.9	61.1	58.5
82.5°	0.0	2.5	7.7	15.2	22.9	28.0	38.2	40.7	45.8	53.4	53.4
85°	0.0	2.5	5.0	10.2	15.2	17.8	17.8	15.2	15.2	12.7	10.2
87.5°	0.0	0.0	2.5	5.0	5.0	7.7	7.7	7.7	7.7	7.7	7.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8	5038.8
2.5°	5064.2	4985.4	4865.8	4677.6	4497.0	4380.0	4268.1	4143.4	4074.7	4069.7	4031.5
5°	5125.2	4947.2	4662.3	4339.3	3993.3	3695.8	3395.6	3199.8	3024.2	2927.6	2909.8
7.5°	5158.3	4926.8	4466.5	3924.7	3334.6	2848.8	2513.0	2266.3	2169.6	2098.5	2095.9
10°	5227.0	4891.3	4174.0	3375.3	2645.3	2154.4	1922.9	1811.0	1757.6	1737.3	1706.7
12.5°	5277.9	4825.1	3873.8	2810.6	2090.8	1785.5	1683.9	1658.4	1661.0	1671.1	1658.4
15°	5349.1	4766.6	3469.4	2307.0	1755.1	1607.5	1607.5	1612.6	1648.2	1653.3	1650.8
17.5°	5344.0	4652.2	3052.2	1900.0	1551.6	1531.2	1538.9	1587.1	1610.1	1617.7	1599.9
20°	5405.0	4545.4	2622.4	1622.8	1437.1	1467.6	1518.5	1531.2	1559.2	1564.3	1543.9
22.5°	5387.2	4278.3	2223.0	1404.0	1350.6	1409.1	1460.0	1475.3	1467.6	1452.3	1449.8
25°	5354.1	4049.3	1856.8	1259.1	1287.1	1350.6	1398.9	1371.0	1355.7	1358.2	1360.8
27.5°	5295.7	3759.4	1554.1	1157.3	1200.5	1294.6	1292.1	1281.9	1297.2	1284.5	1297.2
30°	5285.5	3469.4	1304.8	1065.7	1136.9	1205.7	1210.7	1228.5	1246.4	1223.4	1246.4
32.5°	5300.7	3151.5	1126.8	1009.8	1098.9	1101.4	1157.3	1175.1	1162.4	1111.5	1116.6
35°	5417.7	2907.3	997.1	979.3	1037.8	1040.3	1093.7	1070.8	1014.8	984.4	1002.1
37.5°	5664.5	2703.8	936.0	951.3	956.4	989.4	992.0	946.2	951.3	948.7	958.9
40°	5979.8	2548.7	892.8	925.9	920.7	943.7	852.1	877.5	900.4	908.0	913.2
42.5°	6196.1	2436.7	864.8	885.2	875.0	834.3	783.4	808.9	826.6	854.6	859.8
45°	6292.7	2347.7	831.7	813.9	813.9	740.2	719.8	724.9	765.6	796.1	791.0
47.5°	6135.0	2261.2	773.2	719.8	737.6	676.6	653.7	653.7	696.9	735.1	727.5
48°	6074.0	2225.6	775.8	699.5	712.2	666.4	643.5	638.4	686.8	722.3	722.3
50°	5771.3	2093.3	709.6	643.5	618.1	613.0	597.7	602.8	633.4	666.4	666.4
52.5°	5181.2	1808.5	600.3	551.9	506.2	536.7	544.3	534.1	549.4	580.0	577.3
55°	4324.0	1388.7	480.7	457.8	422.3	455.3	470.5	457.8	442.6	465.5	465.5
57.5°	2769.9	747.8	384.1	389.1	353.6	386.6	399.3	368.8	340.9	358.6	356.1
60°	1248.9	447.7	315.4	307.8	284.8	323.0	343.4	307.8	269.6	282.3	295.0
62.5°	468.0	318.0	239.1	234.0	228.9	264.5	274.7	246.7	208.6	216.2	218.7
65°	343.4	279.8	190.7	173.0	183.2	208.6	203.5	175.5	150.0	150.0	155.2
67.5°	292.5	244.1	155.2	134.8	134.8	137.3	127.2	111.9	104.3	109.4	114.5
70°	228.9	193.3	122.1	104.3	94.1	83.9	73.8	71.2	63.6	71.2	68.7
72.5°	147.5	129.7	94.1	78.9	71.2	58.5	48.4	45.8	38.2	35.6	35.6
75°	78.9	78.9	73.8	63.6	55.9	45.8	38.2	30.5	20.4	15.2	15.2
77.5°	55.9	61.1	66.1	61.1	50.9	38.2	30.5	20.4	10.2	5.0	5.0
80°	53.4	61.1	66.1	58.5	50.9	38.2	28.0	15.2	7.7	2.5	2.5
82.5°	48.4	55.9	61.1	53.4	45.8	33.1	25.4	15.2	7.7	2.5	2.5
85°	10.2	12.7	15.2	15.2	17.8	22.9	17.8	12.7	5.0	2.5	2.5
87.5°	7.7	7.7	7.7	7.7	7.7	7.7	5.0	5.0	2.5	2.5	2.5
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)