

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: P651332

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

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P651332
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-SA4D-840-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA 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: 19199.2 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

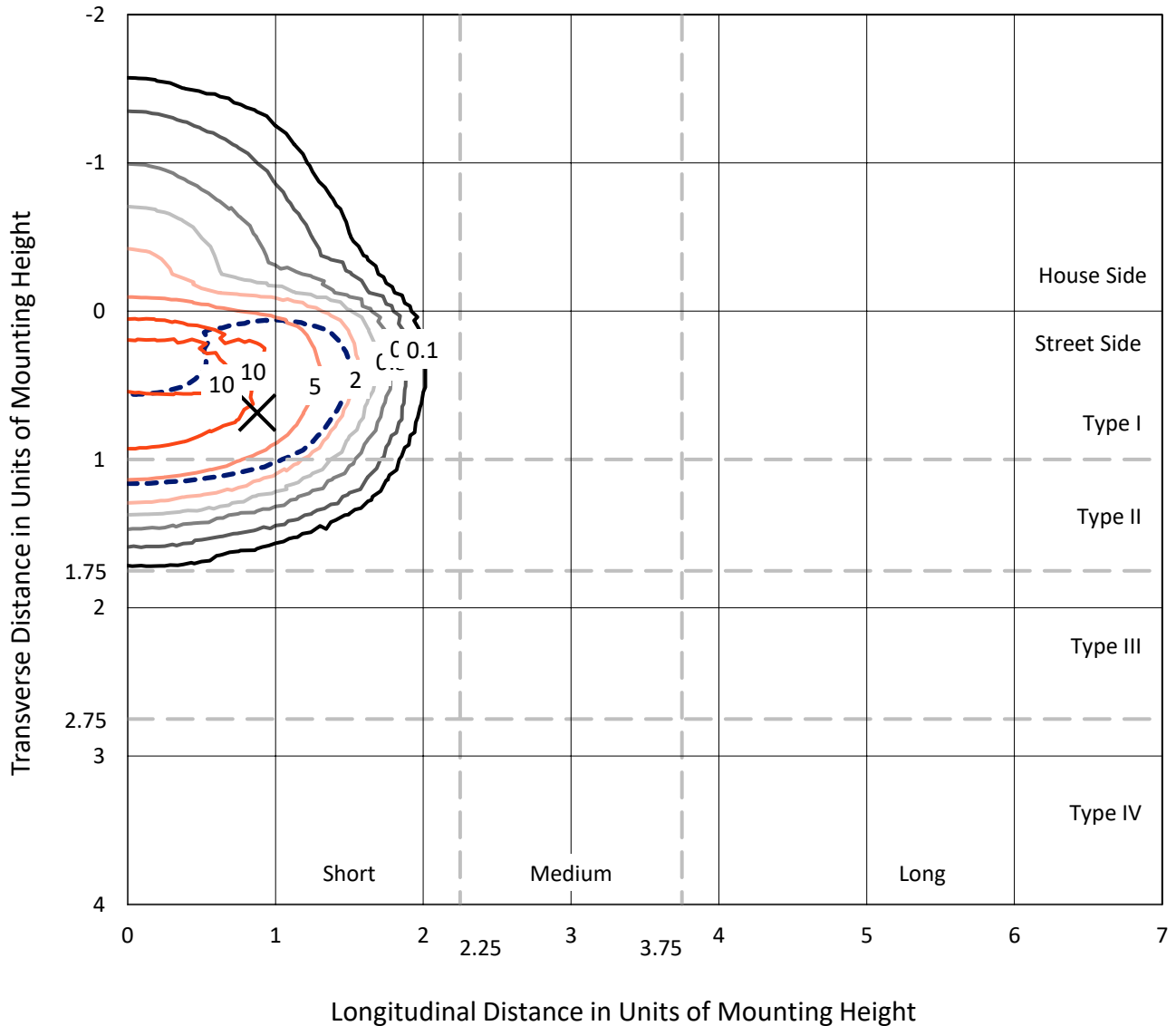
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

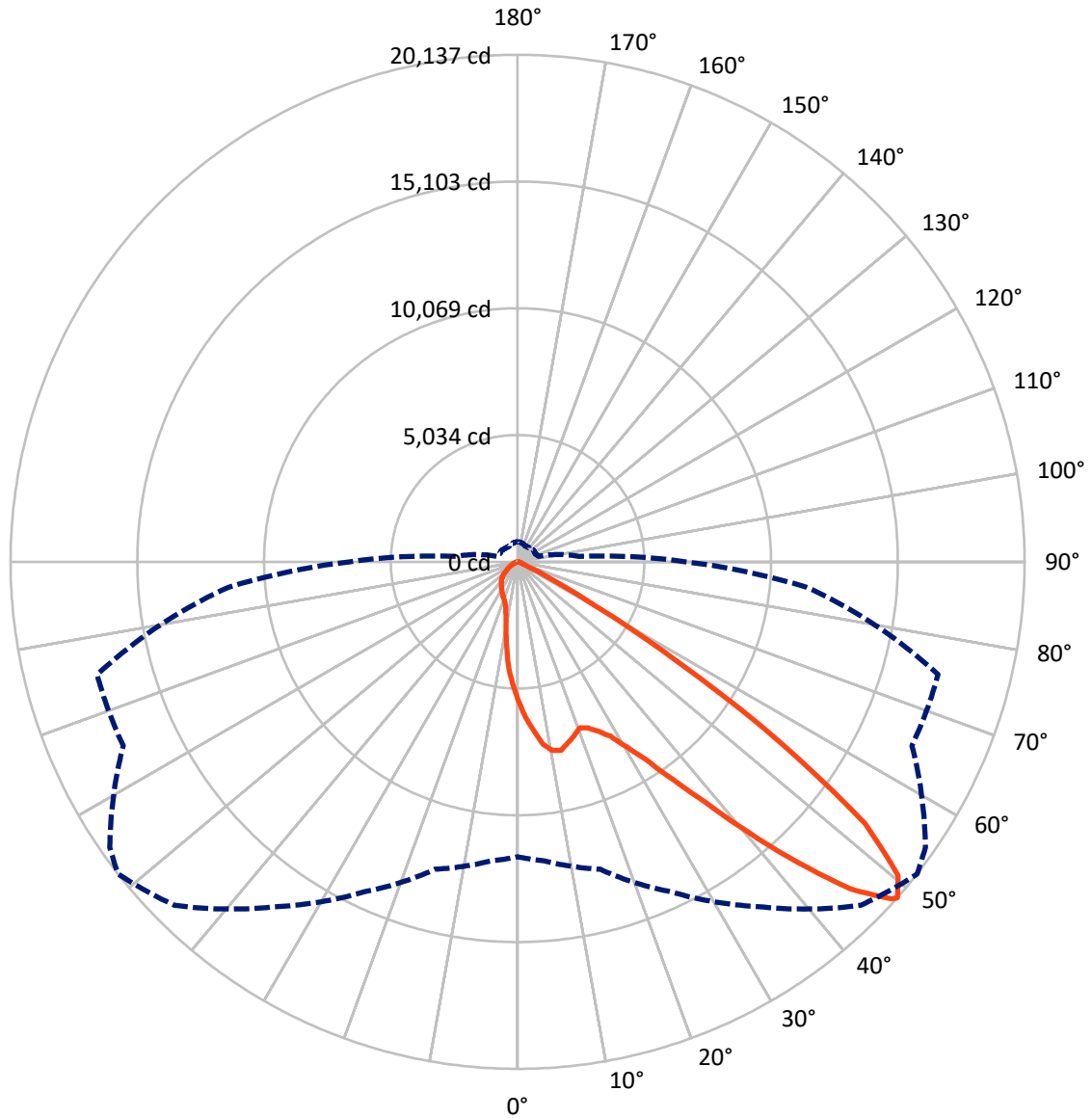
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 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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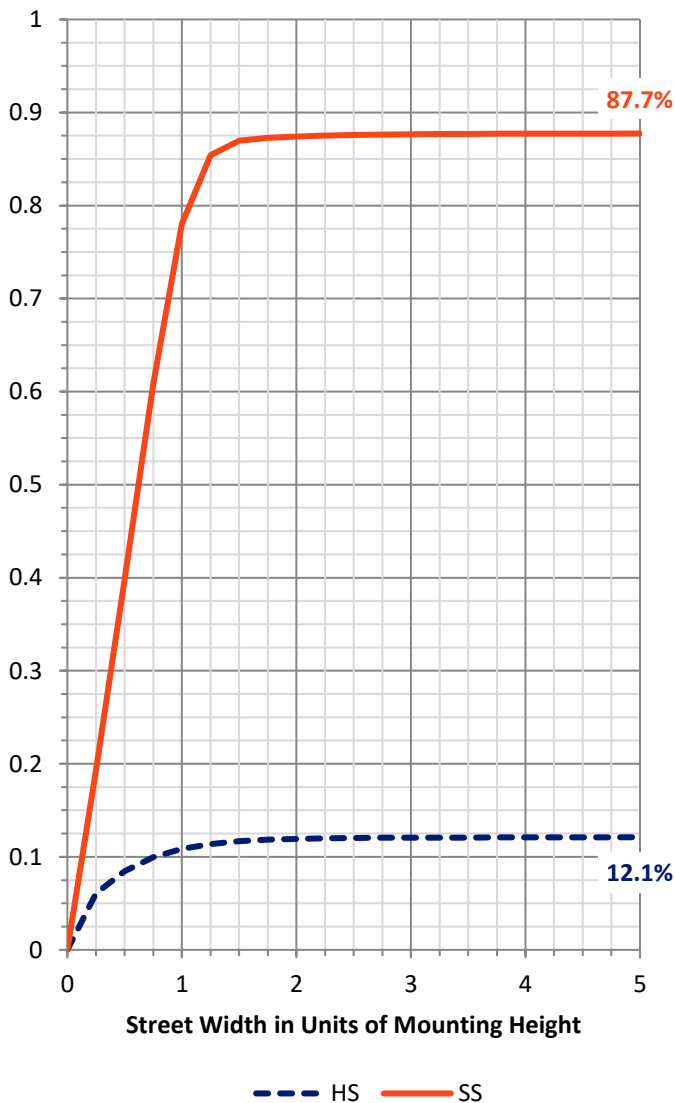
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2337.7	0.0	2337.7
	% Fixture	12.2	0.0	12.2
Street Side	Lumens	16861.5	0.0	16861.5
	% Fixture	87.8	0.0	87.8
Total	Lumens	19199.2	0.0	19199.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	507.5	2.6
10°-20°	1326.2	6.9
20°-30°	2264.4	11.8
30°-40°	4169.8	21.7
40°-50°	6475.8	33.7
50°-60°	3897.3	20.3
60°-70°	450.8	2.3
70°-80°	87.3	0.5
80°-90°	20.2	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°	19199.2	100.0
0°-180°	19199.2	100.0

Coefficient of Utilization



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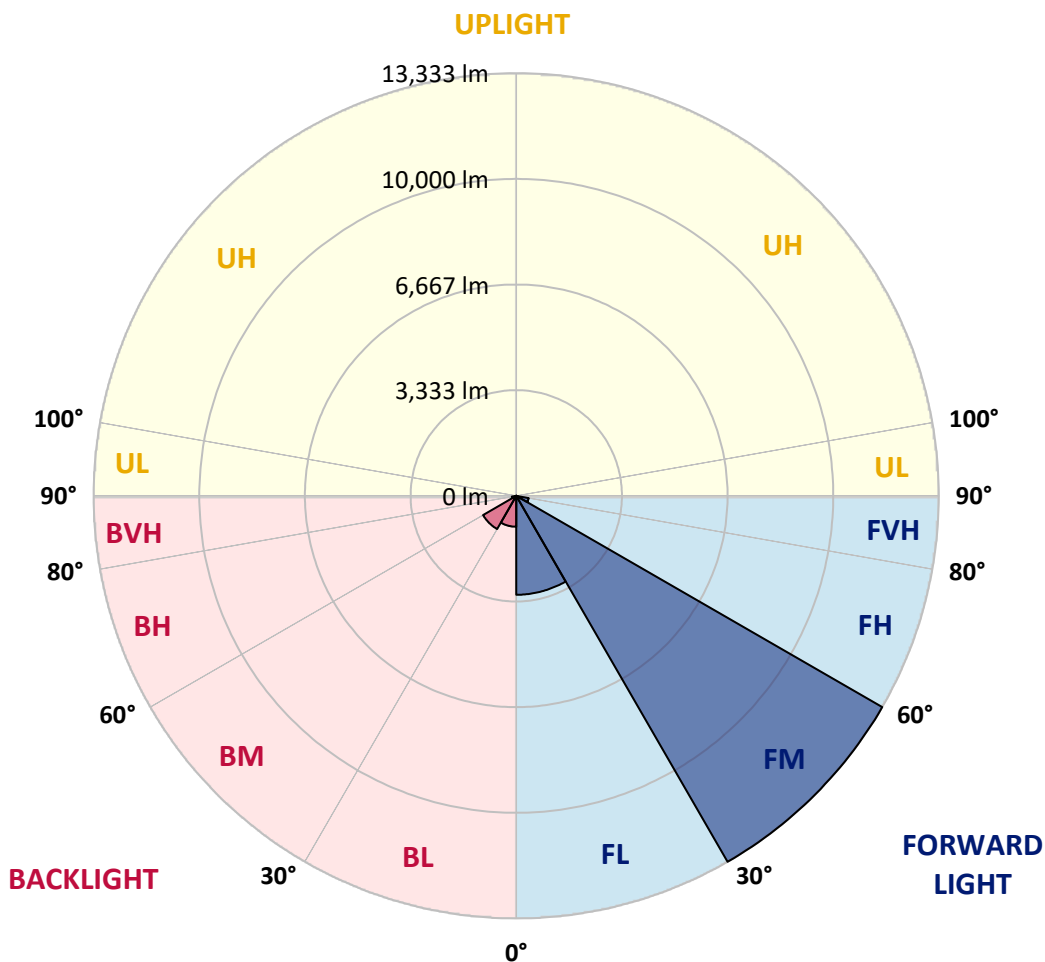
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3121.5	16.3			
FM (30°-60°)	13333.5	69.4			
FH (60°-80°)	396.9	2.1			G0/660
FVH (80°-90°)	9.6	0.1			G0/10
BL (0°-30°)	976.5	5.1	B2/1000		
BM (30°-60°)	1209.5	6.3	B2/2500		
BH (60°-80°)	141.1	0.7	B1/500		G1/500
BVH (80°-90°)	10.6	0.1			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°	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4
2.5°	6719.9	6565.9	6580.0	6479.2	6420.4	6325.2	6196.5	6171.3	6031.4	5841.1	5648.0
5°	7324.4	7288.0	7335.6	7190.1	7195.7	7039.0	6736.7	6742.3	6420.4	6109.8	5810.3
7.5°	7363.6	7279.7	7327.2	7456.0	7531.6	7503.6	7332.8	7184.5	6879.5	6423.2	5986.6
10°	6593.9	6753.5	6803.9	7016.5	7318.8	7637.9	7618.3	7626.7	7372.0	6775.9	6137.8
12.5°	6132.2	6025.8	6196.5	6325.2	6781.5	7400.0	7682.7	7744.3	7763.9	7117.3	6288.9
15°	5922.2	5922.2	5950.2	5986.6	6316.8	6887.8	7464.4	7643.5	8066.1	7565.1	6526.7
17.5°	6053.8	6048.2	6087.4	6011.8	6134.9	6574.3	7262.9	7467.2	8404.8	8004.6	6714.3
20°	6454.0	6473.6	6448.5	6230.1	6238.5	6568.8	7039.0	7360.9	8634.3	8385.2	6963.4
22.5°	7011.0	7022.2	6879.5	6641.5	6571.6	6733.9	7167.7	7414.0	8819.0	8841.3	7039.0
25°	7654.7	7610.0	7582.0	7246.1	7033.4	7173.3	7458.7	7601.5	8933.8	9233.3	7254.5
27.5°	8547.5	8457.9	8287.2	7987.7	7831.1	7632.3	7836.6	8071.7	9261.2	9781.8	7489.5
30°	9865.8	9787.4	9454.4	9068.1	8656.7	8460.7	8525.1	8653.9	9851.7	10417.1	7800.3
32.5°	11850.1	11684.9	11203.5	10467.5	9907.7	9367.6	9350.7	9487.9	10380.7	11295.9	8169.6
35°	14036.0	13985.6	13277.5	12519.0	11435.8	10601.8	10615.9	10688.6	11393.9	12449.0	8653.9
37.5°	15488.5	15765.6	15315.0	14500.5	13590.9	12398.6	12096.4	12121.6	12784.9	13814.9	9527.1
40°	16610.8	16375.7	16428.9	16238.6	15617.3	14805.6	14136.7	14005.2	14394.2	15326.2	10394.7
42.5°	16121.0	16132.2	16459.7	16910.3	17064.2	17005.4	16322.5	16073.4	15771.2	16563.2	11220.4
45°	14738.4	15026.7	15452.1	16644.4	17691.2	18673.6	18539.2	18125.0	16722.8	17542.8	11696.1
47.5°	12533.0	12521.8	13218.7	14769.2	17095.0	19395.6	20005.8	19714.7	17397.3	17433.7	11598.2
48°	11718.6	11920.1	12639.3	14464.2	16717.1	19289.3	20137.3	19770.6	17282.6	17288.1	11514.2
50°	8662.3	8625.9	9521.5	11760.5	14931.5	18125.0	19583.1	19868.6	17279.8	16552.1	10926.5
52.5°	4576.0	4732.7	5384.8	7394.4	10557.1	14833.6	17274.1	17719.1	16669.6	15348.6	10081.2
55°	1945.1	1757.6	2258.6	3338.9	5939.1	9910.5	12672.9	13663.7	14094.7	13582.6	8819.0
57.5°	694.1	758.5	873.2	1256.6	2496.5	5424.0	7556.7	8326.4	9765.0	9966.5	6009.0
60°	445.0	453.4	489.8	576.6	937.6	2090.7	3585.3	4198.2	4850.3	5007.1	2804.4
62.5°	344.2	347.1	363.8	377.9	445.0	811.6	1346.2	1595.3	1656.9	1424.6	736.0
65°	288.3	291.1	296.7	296.7	316.3	380.6	470.2	517.8	503.8	498.2	417.1
67.5°	221.1	226.7	237.9	237.9	249.1	232.3	260.3	277.1	313.4	380.6	355.4
70°	173.5	176.4	184.7	190.3	190.3	167.9	187.5	204.3	229.5	282.7	279.9
72.5°	134.3	139.9	145.6	145.6	137.2	114.7	134.3	148.4	165.1	196.0	190.3
75°	103.5	103.5	106.4	86.8	67.2	58.8	81.2	98.0	123.1	128.8	106.4
77.5°	28.0	30.8	28.0	25.2	28.0	42.0	53.2	61.6	78.4	78.4	70.0
80°	0.0	2.8	8.4	16.8	28.0	39.2	47.6	53.2	61.6	67.2	64.3
82.5°	0.0	2.8	8.4	16.8	25.2	30.8	42.0	44.7	50.4	58.8	58.8
85°	0.0	2.8	5.6	11.2	16.8	19.6	19.6	16.8	16.8	14.0	11.2
87.5°	0.0	0.0	2.8	5.6	5.6	8.4	8.4	8.4	8.4	8.4	8.4
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°	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4	5544.4
2.5°	5572.4	5485.6	5354.1	5147.0	4948.3	4819.5	4696.4	4559.2	4483.6	4478.1	4436.1
5°	5639.6	5443.6	5130.2	4774.8	4394.1	4066.7	3736.4	3520.8	3327.8	3221.5	3201.9
7.5°	5675.9	5421.3	4914.7	4318.5	3669.2	3134.7	2765.2	2493.7	2387.3	2309.0	2306.2
10°	5751.5	5382.1	4592.8	3714.0	2910.8	2370.6	2115.9	1992.7	1934.0	1911.6	1878.0
12.5°	5807.5	5309.3	4262.5	3092.7	2300.6	1964.7	1852.8	1824.8	1827.6	1838.8	1824.8
15°	5885.8	5244.9	3817.6	2538.5	1931.2	1768.9	1768.9	1774.4	1813.6	1819.3	1816.4
17.5°	5880.3	5119.0	3358.5	2090.7	1707.2	1684.9	1693.3	1746.4	1771.7	1780.1	1760.5
20°	5947.5	5001.4	2885.6	1785.6	1581.3	1614.9	1670.9	1684.9	1715.6	1721.3	1698.9
22.5°	5927.9	4707.6	2446.1	1544.9	1486.1	1550.6	1606.5	1623.3	1614.9	1598.1	1595.3
25°	5891.5	4455.7	2043.1	1385.4	1416.2	1486.1	1539.4	1508.6	1491.8	1494.5	1497.3
27.5°	5827.1	4136.6	1710.1	1273.4	1321.0	1424.6	1421.8	1410.6	1427.3	1413.4	1427.3
30°	5815.9	3817.6	1435.8	1172.7	1251.1	1326.6	1332.2	1351.8	1371.4	1346.2	1371.4
32.5°	5832.7	3467.7	1239.9	1111.1	1209.1	1211.9	1273.4	1293.0	1279.1	1223.1	1228.7
35°	5961.4	3199.0	1097.1	1077.6	1141.9	1144.7	1203.5	1178.3	1116.7	1083.1	1102.7
37.5°	6232.9	2975.1	1030.0	1046.7	1052.3	1088.8	1091.5	1041.2	1046.7	1043.9	1055.1
40°	6580.0	2804.4	982.4	1018.8	1013.2	1038.4	937.6	965.6	990.8	999.2	1004.7
42.5°	6817.8	2681.3	951.6	974.0	962.8	918.0	862.0	890.0	909.6	940.4	946.0
45°	6924.2	2583.3	915.2	895.6	895.6	814.4	792.1	797.7	842.4	876.0	870.4
47.5°	6750.7	2488.1	850.8	792.1	811.6	744.5	719.3	719.3	766.9	808.9	800.5
48°	6683.5	2448.9	853.6	769.7	783.6	733.3	708.1	702.5	755.6	794.8	794.8
50°	6350.5	2303.4	780.9	708.1	680.1	674.5	657.7	663.3	696.9	733.3	733.3
52.5°	5701.1	1990.0	660.5	607.4	557.0	590.6	599.0	587.8	604.5	638.2	635.3
55°	4758.0	1528.2	529.0	503.8	464.6	501.0	517.8	503.8	487.0	512.2	512.2
57.5°	3047.9	822.8	422.6	428.2	389.0	425.4	439.4	405.9	375.0	394.6	391.8
60°	1374.2	492.6	347.1	338.7	313.4	355.4	377.9	338.7	296.7	310.7	324.6
62.5°	514.9	349.9	263.1	257.5	251.9	291.1	302.3	271.5	229.5	237.9	240.7
65°	377.9	307.9	209.9	190.3	201.5	229.5	223.9	193.1	165.1	165.1	170.7
67.5°	321.9	268.7	170.7	148.4	148.4	151.1	139.9	123.1	114.7	120.3	126.0
70°	251.9	212.7	134.3	114.7	103.5	92.3	81.2	78.4	70.0	78.4	75.6
72.5°	162.3	142.7	103.5	86.8	78.4	64.3	53.2	50.4	42.0	39.2	39.2
75°	86.8	86.8	81.2	70.0	61.6	50.4	42.0	33.6	22.4	16.8	16.8
77.5°	61.6	67.2	72.7	67.2	56.0	42.0	33.6	22.4	11.2	5.6	5.6
80°	58.8	67.2	72.7	64.3	56.0	42.0	30.8	16.8	8.4	2.8	2.8
82.5°	53.2	61.6	67.2	58.8	50.4	36.4	28.0	16.8	8.4	2.8	2.8
85°	11.2	14.0	16.8	16.8	19.6	25.2	19.6	14.0	5.6	2.8	2.8
87.5°	8.4	8.4	8.4	8.4	8.4	8.4	5.6	5.6	2.8	2.8	2.8
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)