

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: P647374

Luminaire Tested: **GALN-SA4D-835-U-AFL-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P647374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-835-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19632.2 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

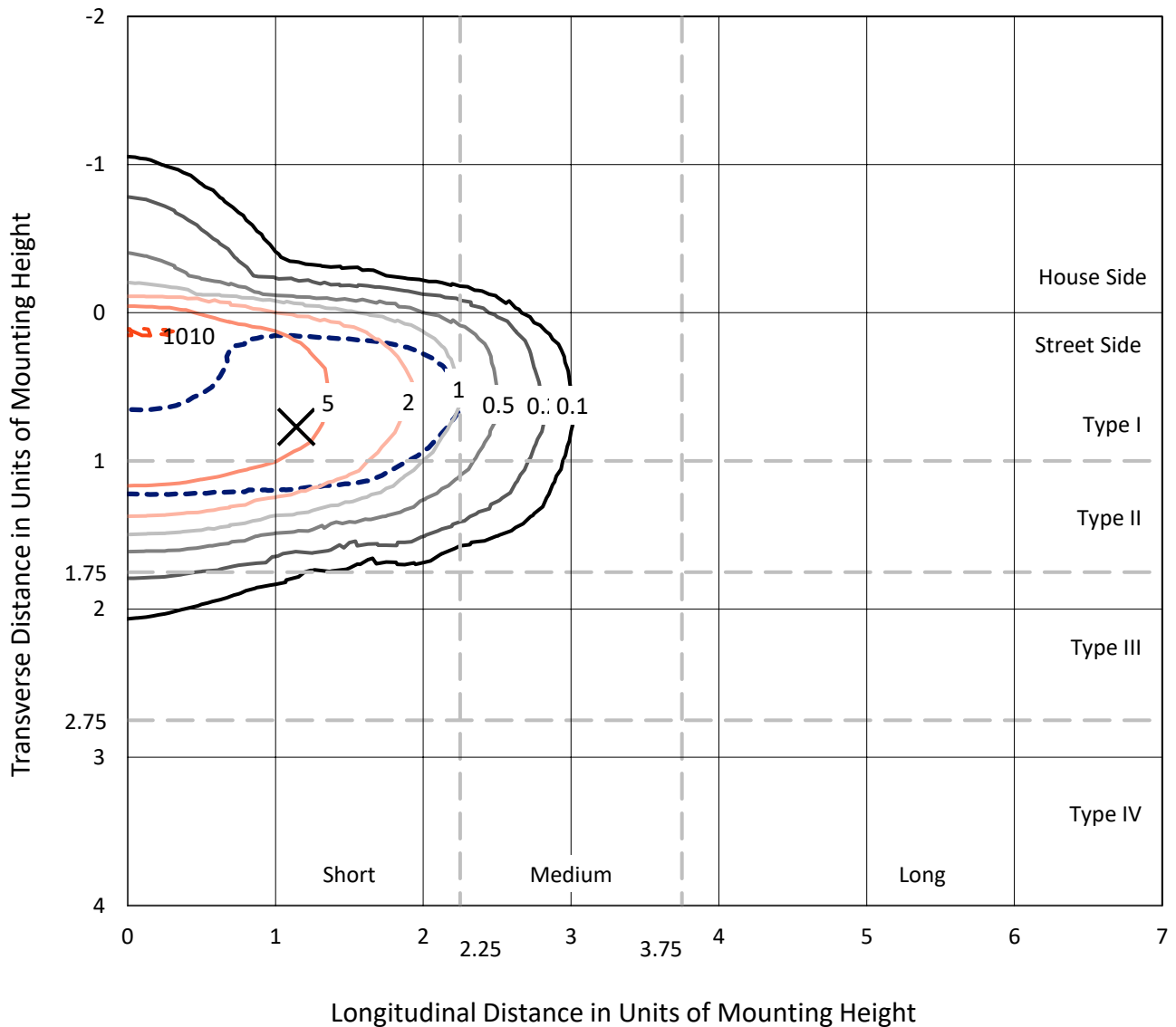
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

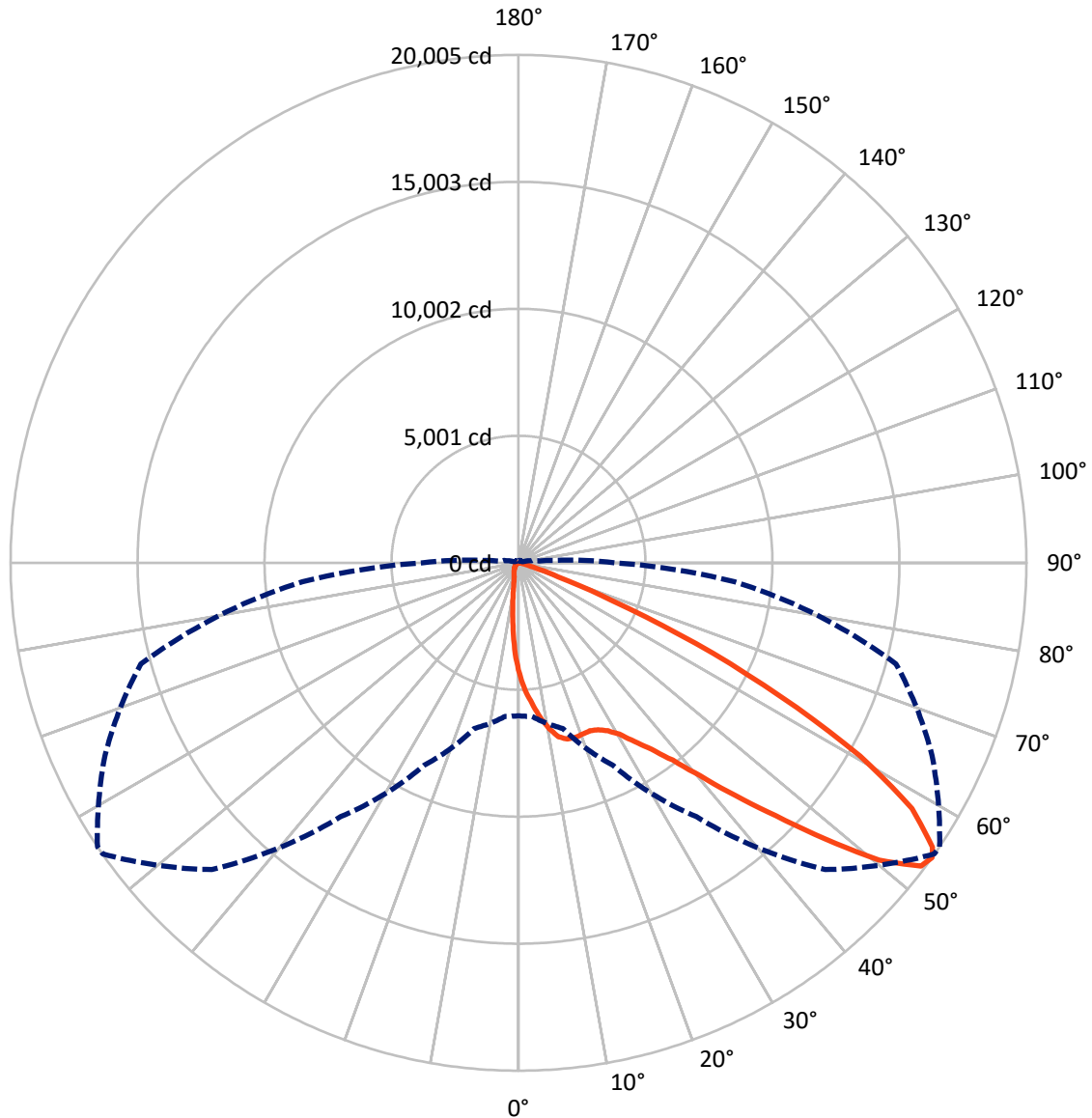
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral      - - - Horizontal Cone Through 54-Deg Vertical

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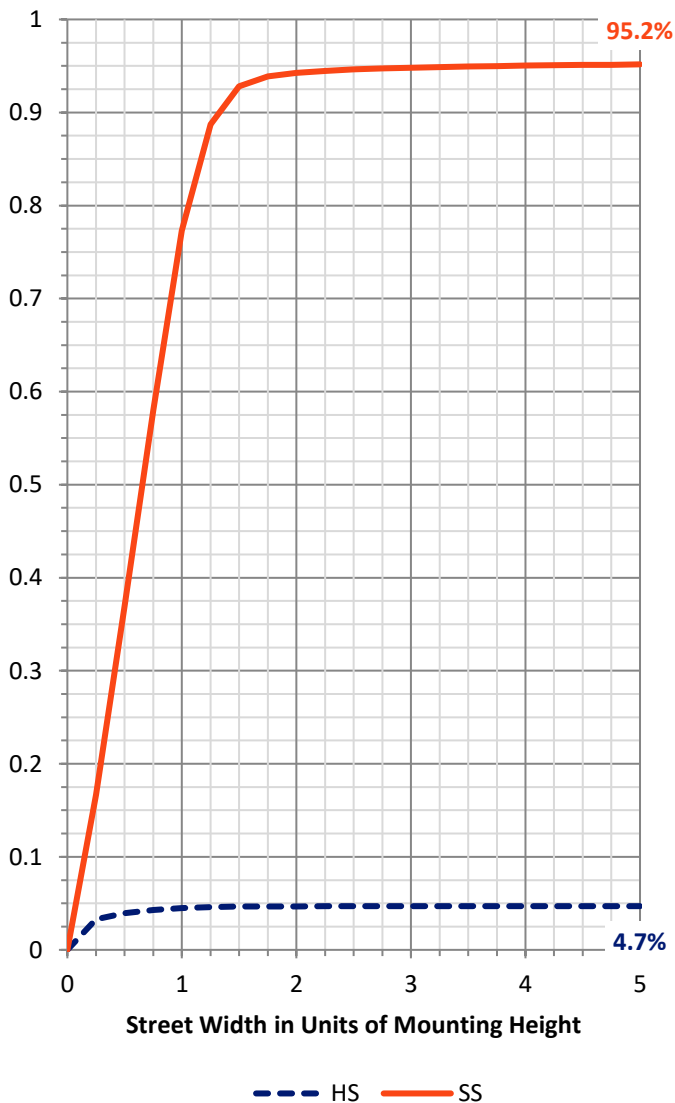
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	928.4	0.0	928.4
	% Fixture	4.7	0.0	4.7
<b>Street Side</b>	Lumens	18703.8	0.0	18703.8
	% Fixture	95.3	0.0	95.3
<b>Total</b>	Lumens	19632.2	0.0	19632.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	385.4	2.0
10°-20°	1041.9	5.3
20°-30°	1804.5	9.2
30°-40°	3114.9	15.9
40°-50°	5301.7	27.0
50°-60°	5246.7	26.7
60°-70°	2394.7	12.2
70°-80°	307.5	1.6
80°-90°	34.7	0.2
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°	19632.2	100.0
0°-180°	19632.2	100.0

**Coefficient of Utilization**



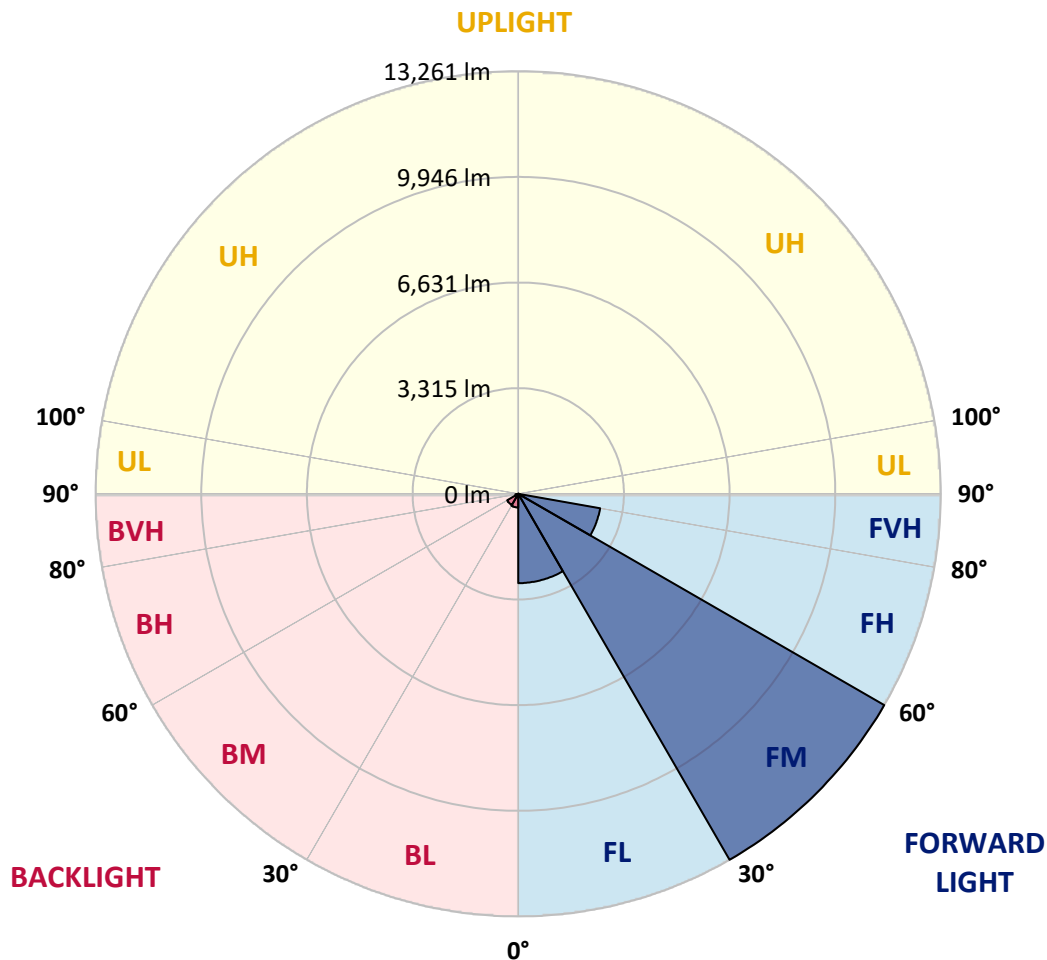
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2802.6	14.3			
FM (30°-60°)	13261.0	67.5			
FH (60°-80°)	2609.3	13.3			G2/5000
FVH (80°-90°)	30.9	0.2			G1/100
BL (0°-30°)	429.3	2.2	B1/500		
BM (30°-60°)	402.3	2.0	B1/1000		
BH (60°-80°)	93.0	0.5	B0/110		G0/110
BVH (80°-90°)	3.7	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7
2.5°	5543.2	5504.8	5451.8	5410.8	5314.1	5175.0	5028.0	5028.0	4886.2	4688.8	4487.5
5°	6393.5	6368.4	6316.7	6210.8	6102.2	5907.4	5612.1	5560.4	5307.4	4949.8	4573.7
7.5°	6739.3	6751.2	6753.8	6726.0	6674.4	6482.3	6189.5	6153.8	5749.8	5270.4	4686.2
10°	6408.2	6466.4	6523.3	6638.6	6801.5	6847.9	6682.3	6645.2	6247.9	5594.8	4808.1
12.5°	5915.4	5947.2	5979.0	6160.4	6487.5	6862.4	7036.0	7034.6	6698.2	5918.1	4963.0
15°	5686.2	5714.0	5716.7	5797.5	6080.9	6626.7	7186.9	7206.8	7137.9	6316.7	5129.9
17.5°	5733.9	5756.5	5737.9	5757.8	5906.1	6367.0	7169.7	7235.9	7494.2	6699.5	5280.9
20°	6045.2	6088.9	6017.4	5961.8	6006.8	6298.1	7111.4	7204.1	7745.9	7073.0	5418.7
22.5°	6604.1	6628.0	6537.9	6385.6	6306.1	6442.5	7095.5	7186.9	7960.4	7379.0	5498.1
25°	7225.4	7217.4	7118.1	6947.2	6780.3	6734.0	7200.2	7282.3	8138.0	7654.5	5522.0
27.5°	7846.5	7870.4	7703.5	7491.6	7291.6	7171.0	7434.7	7495.6	8337.9	7968.4	5551.2
30°	8568.4	8530.0	8365.8	8123.4	7894.2	7726.0	7812.1	7829.4	8613.5	8384.3	5628.0
32.5°	9507.5	9401.6	9217.5	8793.6	8629.4	8344.6	8365.8	8386.9	8948.6	8796.2	5720.7
35°	10781.8	10776.4	10416.2	9845.3	9445.3	9091.6	8998.9	9016.1	9455.9	9408.2	5926.0
37.5°	12315.6	12336.7	11926.1	11351.3	10614.8	10053.3	9862.5	9865.2	10226.8	10253.2	6238.6
40°	13564.6	13620.2	13375.2	12987.1	12259.9	11381.8	11061.2	11032.1	11310.2	11277.1	6684.9
42.5°	14102.4	14154.0	14245.4	14380.5	13980.5	13256.0	12499.7	12539.4	12624.2	12392.4	7185.6
45°	13838.7	13920.9	14279.8	15114.3	15490.5	15246.7	14344.7	14205.7	13846.7	13604.3	7688.9
47.5°	12740.7	12940.7	13540.7	14930.2	16246.8	17070.7	16426.9	16242.8	15070.6	14489.1	8009.5
50°	10935.4	10947.3	11783.1	13559.3	15854.7	18221.7	18552.8	18415.1	16211.0	14985.8	8171.1
52.5°	7927.3	8188.3	8953.8	11010.9	14156.6	18046.8	19907.8	19850.9	17387.2	15240.2	8404.2
54°	6026.7	6076.9	6757.8	8798.9	12205.6	17086.5	19991.2	20004.5	17971.3	15393.8	8541.9
55°	4940.5	4820.0	5535.3	7495.6	10874.5	16237.5	19718.4	19781.9	18233.6	15473.3	8643.9
57.5°	2341.8	2343.1	2890.1	3953.8	6810.8	12608.3	18050.8	18276.0	18262.7	15609.7	8957.8
60°	1185.5	1193.4	1314.0	1825.3	3364.3	8381.7	14924.9	15461.4	16857.4	15629.5	9061.2
62.5°	829.2	819.9	800.0	878.1	1415.9	4259.7	11111.6	11577.8	14322.2	14873.2	8732.6
65°	709.9	690.1	634.5	622.6	715.3	1696.8	6920.7	7681.0	10935.4	12878.5	7797.6
67.5°	606.7	598.7	548.3	517.9	506.0	739.1	3570.9	3971.0	7474.4	9257.2	5906.1
70°	515.2	511.3	480.8	442.4	409.3	442.4	1324.5	1641.1	4165.6	4984.3	2786.9
72.5°	418.6	422.5	427.8	378.8	344.4	313.9	565.6	658.3	1743.1	1781.5	974.8
75°	366.9	362.9	362.9	329.8	287.4	233.1	311.2	335.1	533.8	495.4	226.5
77.5°	258.3	249.0	291.4	271.5	239.8	165.6	177.5	188.1	221.2	189.4	105.9
80°	178.8	178.8	186.7	243.7	215.9	120.5	108.6	116.6	131.2	112.6	60.9
82.5°	100.7	103.3	121.8	129.8	125.8	80.8	71.5	72.8	87.4	76.8	38.4
85°	11.9	19.9	70.2	68.9	51.7	35.8	39.7	41.0	54.3	47.7	22.6
87.5°	1.3	2.7	14.6	18.6	13.2	14.6	14.6	14.6	18.6	21.2	15.9
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°	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7	4361.7
2.5°	4378.9	4278.2	4038.5	3760.4	3582.9	3294.2	3050.4	2874.2	2830.5	2745.7	2771.0
5°	4373.6	4164.3	3675.6	3159.0	2608.0	2197.4	1891.4	1650.4	1544.4	1474.2	1425.2
7.5°	4376.3	4049.1	3265.0	2442.4	1784.1	1381.5	1098.1	951.0	853.0	812.0	817.2
10°	4384.3	3919.3	2788.2	1809.4	1204.0	892.8	719.2	649.0	615.9	610.6	609.3
12.5°	4402.7	3777.6	2332.5	1343.1	842.4	649.0	582.8	559.0	548.3	548.3	544.4
15°	4422.6	3621.3	1953.7	998.7	649.0	557.7	527.2	515.2	508.6	508.6	507.3
17.5°	4422.6	3441.1	1600.1	774.9	559.0	512.6	488.7	472.9	467.5	467.5	466.2
20°	4394.8	3231.8	1286.2	623.9	507.3	470.2	446.4	429.2	422.5	419.8	418.6
22.5°	4298.1	2952.4	1023.9	536.4	464.9	433.2	402.7	382.8	377.5	374.8	376.2
25°	4125.9	2637.1	810.6	471.5	426.5	388.1	361.6	347.0	341.7	341.7	343.0
27.5°	3948.4	2307.3	642.4	422.5	380.1	345.7	324.5	315.2	313.9	317.9	319.2
30°	3784.2	1976.2	520.5	382.8	339.1	309.9	295.3	292.7	292.7	294.0	295.3
32.5°	3601.4	1686.1	435.7	348.4	306.0	280.8	272.9	272.9	275.5	275.5	278.1
35°	3486.2	1437.1	382.8	315.2	280.8	259.6	254.3	255.6	259.6	264.9	267.6
37.5°	3423.9	1238.5	348.4	288.8	257.0	242.4	237.1	239.8	249.0	258.3	259.6
40°	3429.2	1088.8	320.6	266.2	238.4	222.5	218.5	226.5	235.8	245.0	246.3
42.5°	3487.5	977.5	294.0	239.8	222.5	200.0	198.6	206.6	210.6	219.9	221.2
45°	3556.4	896.7	266.2	212.0	193.4	173.5	174.8	181.5	186.7	201.3	204.0
47.5°	3577.6	841.1	234.4	180.2	158.9	152.3	153.6	157.6	168.2	181.5	182.8
50°	3601.4	806.6	204.0	152.3	135.1	133.8	135.1	137.7	144.4	149.7	148.4
52.5°	3703.4	805.3	178.8	132.5	115.3	117.9	119.2	117.9	112.6	104.6	102.0
54°	3798.8	809.3	166.9	123.2	105.9	109.9	108.6	102.0	88.7	80.8	76.8
55°	3875.6	813.3	160.3	116.6	100.7	102.0	103.3	90.0	72.8	64.9	62.2
57.5°	4026.6	804.0	144.4	102.0	88.7	83.5	82.1	59.6	39.7	34.5	31.8
60°	3951.1	725.8	131.2	87.4	75.5	67.6	55.6	33.1	19.9	14.6	14.6
62.5°	3654.4	615.9	116.6	71.5	62.2	51.7	29.1	18.6	9.2	5.3	4.0
65°	3268.9	517.9	104.6	56.9	49.0	33.1	15.9	11.9	4.0	0.0	0.0
67.5°	2430.5	384.1	88.7	45.0	37.1	21.2	10.6	6.7	1.3	0.0	0.0
70°	1125.9	234.4	75.5	34.5	26.5	15.9	7.9	4.0	0.0	0.0	0.0
72.5°	323.2	147.0	62.2	25.1	18.6	13.2	6.7	2.7	1.3	0.0	0.0
75°	112.6	117.9	46.4	18.6	14.6	9.2	5.3	2.7	1.3	0.0	0.0
77.5°	67.6	95.4	29.1	15.9	11.9	7.9	5.3	2.7	1.3	1.3	0.0
80°	38.4	63.6	18.6	13.2	10.6	6.7	4.0	2.7	1.3	1.3	0.0
82.5°	21.2	30.5	14.6	11.9	9.2	6.7	4.0	2.7	1.3	1.3	1.3
85°	17.2	15.9	11.9	10.6	7.9	5.3	4.0	1.3	0.0	0.0	0.0
87.5°	13.2	10.6	10.6	10.6	7.9	5.3	4.0	1.3	0.0	0.0	0.0
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)