

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: P651334

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

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651334  
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-840-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 4000K, 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: 21086.4 lumens  
Efficiency: N/A  
Efficacy: 86.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

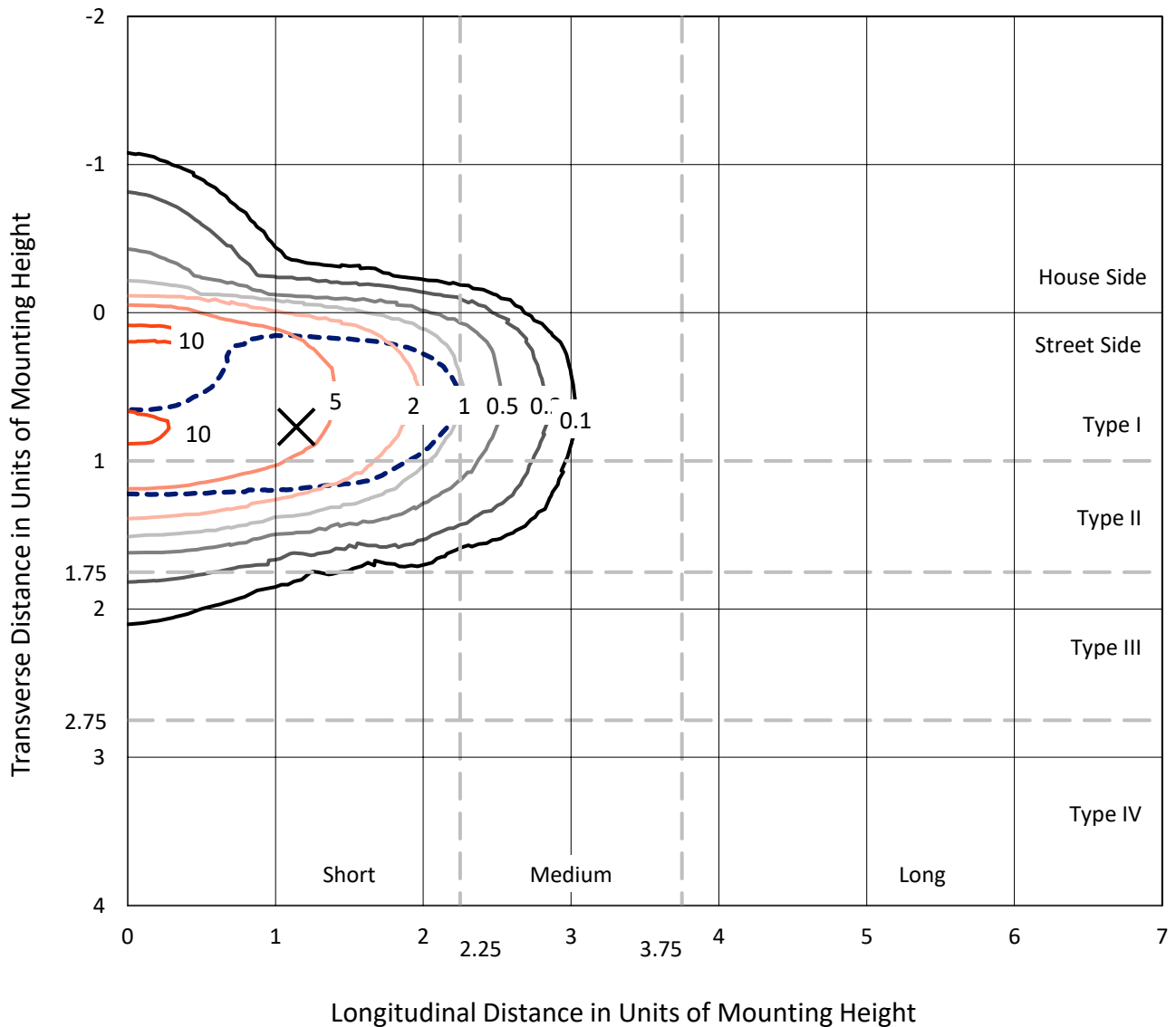
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

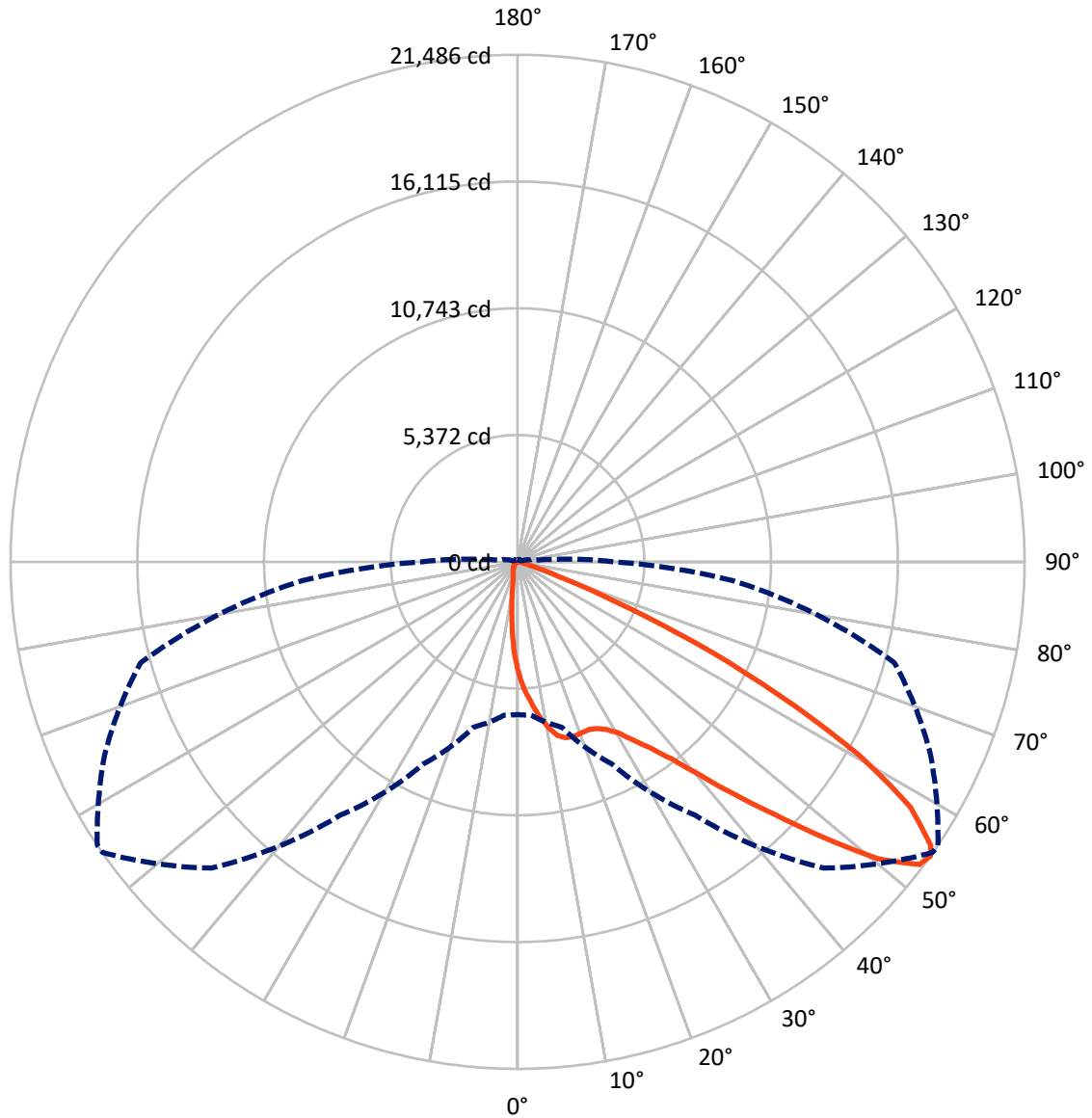
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 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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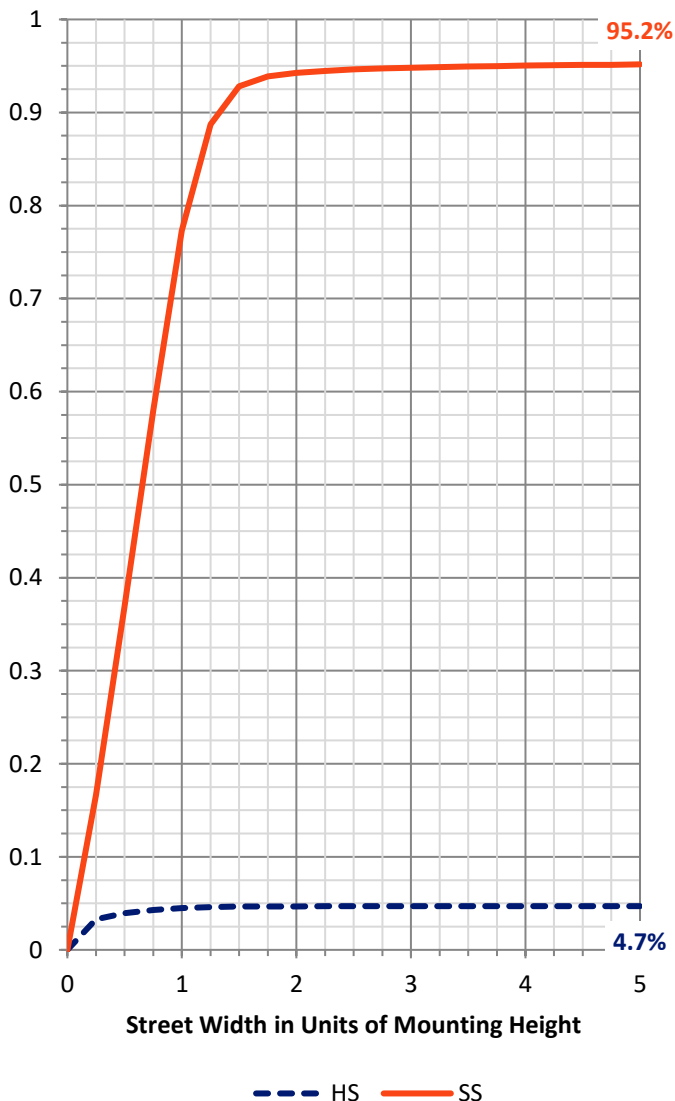
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	997.1	0.0	997.1
	% Fixture	4.7	0.0	4.7
<b>Street Side</b>	Lumens	20089.3	0.0	20089.3
	% Fixture	95.3	0.0	95.3
<b>Total</b>	Lumens	21086.4	0.0	21086.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	414.0	2.0
10°-20°	1119.1	5.3
20°-30°	1938.2	9.2
30°-40°	3345.7	15.9
40°-50°	5694.4	27.0
50°-60°	5635.4	26.7
60°-70°	2572.1	12.2
70°-80°	330.3	1.6
80°-90°	37.2	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°	21086.4	100.0
0°-180°	21086.4	100.0

**Coefficient of Utilization**

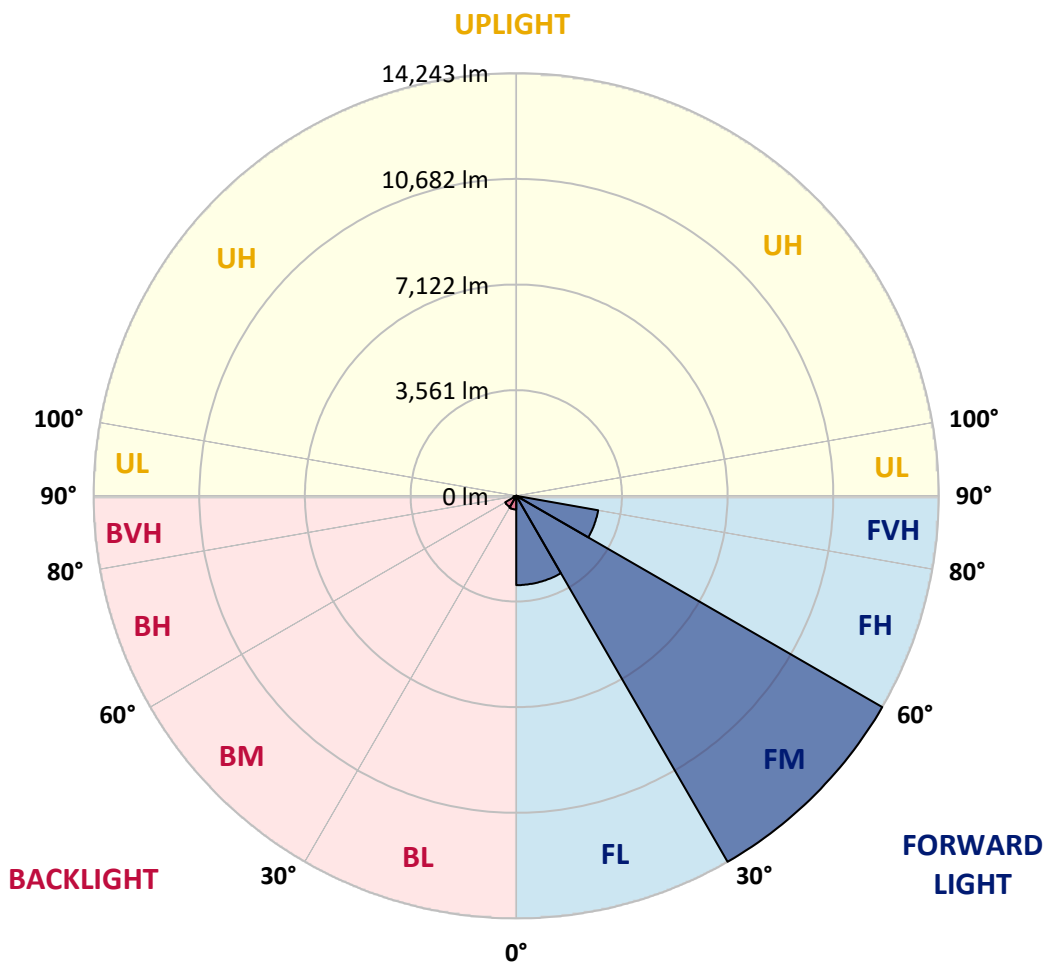


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3010.2	14.3			
FM (30°-60°)	14243.3	67.5			
FH (60°-80°)	2802.6	13.3			G2/5000
FVH (80°-90°)	33.2	0.2			G1/100
BL (0°-30°)	461.1	2.2	B1/500		
BM (30°-60°)	432.1	2.0	B1/1000		
BH (60°-80°)	99.8	0.5	B0/110		G0/110
BVH (80°-90°)	4.0	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°	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8
2.5°	5953.8	5912.6	5855.6	5811.6	5707.7	5558.3	5400.4	5400.4	5248.2	5036.2	4819.9
5°	6867.1	6840.1	6784.6	6670.8	6554.2	6345.0	6027.8	5972.3	5700.6	5316.5	4912.4
7.5°	7238.5	7251.3	7254.1	7224.2	7168.8	6962.5	6648.0	6609.7	6175.7	5660.8	5033.3
10°	6882.8	6945.4	7006.5	7130.3	7305.3	7355.1	7177.3	7137.5	6710.7	6009.3	5164.2
12.5°	6353.6	6387.7	6421.9	6616.7	6968.1	7370.8	7557.1	7555.7	7194.3	6356.4	5330.7
15°	6107.4	6137.3	6140.1	6226.9	6531.4	7117.6	7719.3	7740.6	7666.6	6784.6	5509.9
17.5°	6158.6	6182.9	6162.9	6184.3	6343.6	6838.7	7700.8	7771.9	8049.4	7195.8	5672.1
20°	6492.9	6540.0	6463.1	6403.4	6451.7	6764.7	7638.2	7737.8	8319.7	7596.9	5820.1
22.5°	7093.3	7119.0	7022.2	6858.6	6773.2	6919.7	7621.1	7719.3	8550.1	7925.6	5905.4
25°	7760.6	7752.0	7645.4	7461.8	7282.6	7232.8	7733.5	7821.7	8740.8	8221.5	5931.1
27.5°	8427.7	8453.4	8274.2	8046.5	7831.7	7702.2	7985.4	8050.8	8955.6	8558.7	5962.4
30°	9203.1	9161.9	8985.5	8725.1	8479.0	8298.3	8390.8	8409.3	9251.5	9005.3	6044.9
32.5°	10211.8	10098.0	9900.3	9445.0	9268.6	8962.7	8985.5	9008.2	9611.5	9447.8	6144.4
35°	11580.4	11574.7	11187.7	10574.6	10144.9	9765.1	9665.5	9683.9	10156.3	10105.1	6364.9
37.5°	13227.8	13250.5	12809.5	12192.1	11401.1	10797.9	10593.1	10595.9	10984.3	11012.7	6700.7
40°	14569.4	14629.1	14366.0	13949.1	13168.0	12224.9	11880.6	11849.3	12148.0	12112.4	7180.1
42.5°	15147.0	15202.4	15300.6	15445.7	15016.1	14237.9	13425.6	13468.3	13559.3	13310.3	7717.9
45°	14863.8	14952.1	15337.6	16233.9	16637.9	16376.1	15407.3	15257.9	14872.4	14612.0	8258.5
47.5°	13684.5	13899.3	14543.7	16036.1	17450.2	18335.1	17643.8	17446.0	16186.9	15562.4	8602.8
50°	11745.4	11758.2	12655.9	14563.7	17029.2	19571.4	19927.1	19779.1	17411.8	16095.9	8776.3
52.5°	8514.5	8794.8	9617.1	11826.5	15205.3	19383.6	21382.4	21321.3	18675.2	16369.1	9026.7
54°	6473.1	6527.1	7258.3	9450.7	13109.8	18352.2	21472.1	21486.3	19302.5	16534.1	9174.6
55°	5306.5	5177.0	5945.3	8050.8	11680.0	17440.3	21179.0	21247.3	19584.2	16619.4	9284.2
57.5°	2515.3	2516.7	3104.2	4246.6	7315.3	13542.2	19387.9	19629.8	19615.5	16765.9	9621.4
60°	1273.3	1281.8	1411.3	1960.5	3613.5	9002.6	16030.5	16606.6	18106.1	16787.3	9732.4
62.5°	890.6	880.6	859.2	943.2	1520.8	4575.2	11934.6	12435.4	15383.2	15975.0	9379.5
65°	762.5	741.2	681.5	668.7	768.3	1822.4	7433.3	8250.0	11745.4	13832.4	8375.2
67.5°	651.6	643.0	589.0	556.2	543.5	793.8	3835.5	4265.1	8028.0	9942.9	6343.6
70°	553.4	549.2	516.5	475.2	439.6	475.2	1422.6	1762.7	4474.2	5353.5	2993.3
72.5°	449.6	453.8	459.5	406.9	369.9	337.2	607.5	707.0	1872.2	1913.4	1047.0
75°	394.1	389.8	389.8	354.2	308.7	250.4	334.3	359.9	573.3	532.1	243.3
77.5°	277.4	267.4	313.0	291.7	257.5	177.9	190.7	202.0	237.6	203.4	113.8
80°	192.1	192.1	200.6	261.8	231.9	129.4	116.6	125.2	140.9	120.9	65.4
82.5°	108.2	110.9	130.9	139.4	135.1	86.8	76.8	78.2	93.9	82.5	41.3
85°	12.8	21.4	75.4	74.0	55.5	38.4	42.6	44.1	58.4	51.2	24.2
87.5°	1.4	2.9	15.6	19.9	14.2	15.6	15.6	15.6	19.9	22.8	17.1
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°	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8	4684.8
2.5°	4703.3	4595.1	4337.6	4038.9	3848.2	3538.2	3276.4	3087.1	3040.2	2949.1	2976.2
5°	4697.6	4472.8	3947.8	3393.0	2801.2	2360.2	2031.5	1772.7	1658.8	1583.4	1530.8
7.5°	4700.4	4349.1	3506.8	2623.3	1916.3	1483.9	1179.4	1021.5	916.2	872.1	877.8
10°	4709.0	4209.6	2994.7	1943.4	1293.2	958.9	772.5	697.1	661.5	655.8	654.4
12.5°	4728.9	4057.4	2505.3	1442.6	904.8	697.1	626.0	600.4	589.0	589.0	584.7
15°	4750.2	3889.5	2098.4	1072.7	697.1	599.0	566.2	553.4	546.3	546.3	544.9
17.5°	4750.2	3696.0	1718.6	832.3	600.4	550.6	525.0	507.9	502.2	502.2	500.7
20°	4720.4	3471.2	1381.4	670.1	544.9	505.0	479.5	461.0	453.8	450.9	449.6
22.5°	4616.5	3171.1	1099.7	576.2	499.4	465.2	432.5	411.2	405.4	402.6	404.0
25°	4431.6	2832.5	870.7	506.5	458.1	416.8	388.4	372.7	367.0	367.0	368.4
27.5°	4240.9	2478.3	690.0	453.8	408.3	371.3	348.5	338.6	337.2	341.4	342.9
30°	4064.6	2122.6	559.1	411.2	364.2	332.9	317.2	314.4	314.4	315.8	317.2
32.5°	3868.2	1811.0	468.0	374.2	328.7	301.6	293.1	293.1	295.9	295.9	298.7
35°	3744.4	1543.6	411.2	338.6	301.6	278.9	273.2	274.6	278.9	284.5	287.4
37.5°	3677.5	1330.2	374.2	310.2	276.0	260.4	254.7	257.5	267.4	277.4	278.9
40°	3683.2	1169.4	344.3	285.9	256.1	239.0	234.7	243.3	253.2	263.1	264.6
42.5°	3745.8	1049.9	315.8	257.5	239.0	214.8	213.4	221.9	226.2	236.2	237.6
45°	3819.8	963.1	285.9	227.7	207.7	186.4	187.8	194.9	200.6	216.2	219.1
47.5°	3842.6	903.4	251.8	193.5	170.7	163.6	165.0	169.3	180.6	194.9	196.3
50°	3868.2	866.4	219.1	163.6	145.1	143.7	145.1	147.9	155.1	160.8	159.4
52.5°	3977.8	865.0	192.1	142.3	123.8	126.7	128.0	126.7	120.9	112.4	109.6
54°	4080.2	869.3	179.2	132.3	113.8	118.1	116.6	109.6	95.3	86.8	82.5
55°	4162.7	873.5	172.2	125.2	108.2	109.6	110.9	96.7	78.2	69.7	66.9
57.5°	4324.8	863.5	155.1	109.6	95.3	89.7	88.2	64.0	42.6	37.0	34.1
60°	4243.8	779.6	140.9	93.9	81.1	72.6	59.7	35.6	21.4	15.6	15.6
62.5°	3925.1	661.5	125.2	76.8	66.9	55.5	31.3	19.9	9.9	5.7	4.3
65°	3511.1	556.2	112.4	61.1	52.6	35.6	17.1	12.8	4.3	0.0	0.0
67.5°	2610.5	412.6	95.3	48.4	39.9	22.8	11.4	7.1	1.4	0.0	0.0
70°	1209.3	251.8	81.1	37.0	28.4	17.1	8.5	4.3	0.0	0.0	0.0
72.5°	347.2	157.9	66.9	27.0	19.9	14.2	7.1	2.9	1.4	0.0	0.0
75°	120.9	126.7	49.8	19.9	15.6	9.9	5.7	2.9	1.4	0.0	0.0
77.5°	72.6	102.4	31.3	17.1	12.8	8.5	5.7	2.9	1.4	1.4	0.0
80°	41.3	68.3	19.9	14.2	11.4	7.1	4.3	2.9	1.4	1.4	0.0
82.5°	22.8	32.7	15.6	12.8	9.9	7.1	4.3	2.9	1.4	1.4	1.4
85°	18.5	17.1	12.8	11.4	8.5	5.7	4.3	1.4	0.0	0.0	0.0
87.5°	14.2	11.4	11.4	11.4	8.5	5.7	4.3	1.4	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)