

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: P651829

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

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651829
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-SA4A-840-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA 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: 12465.3 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

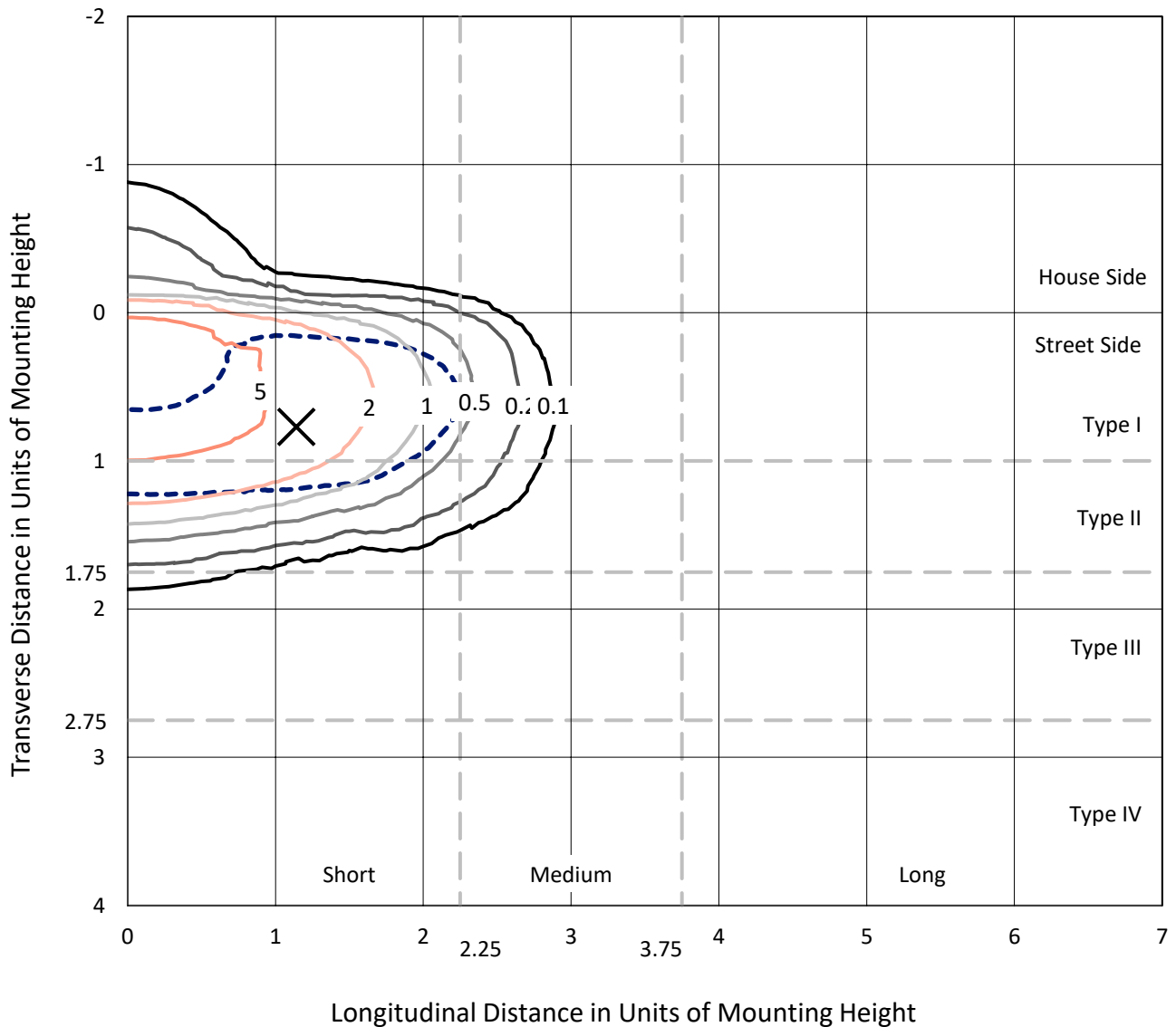
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

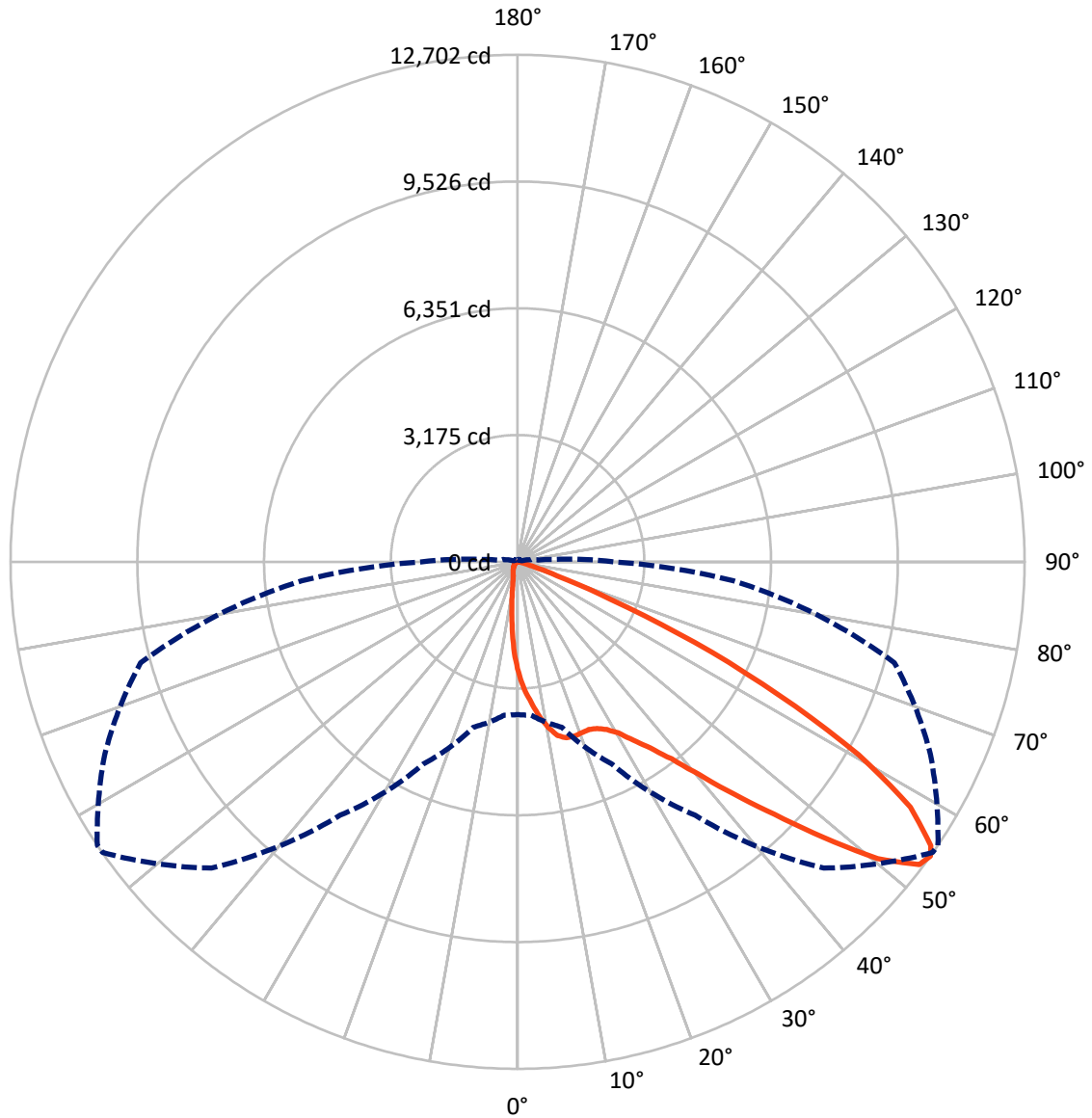
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 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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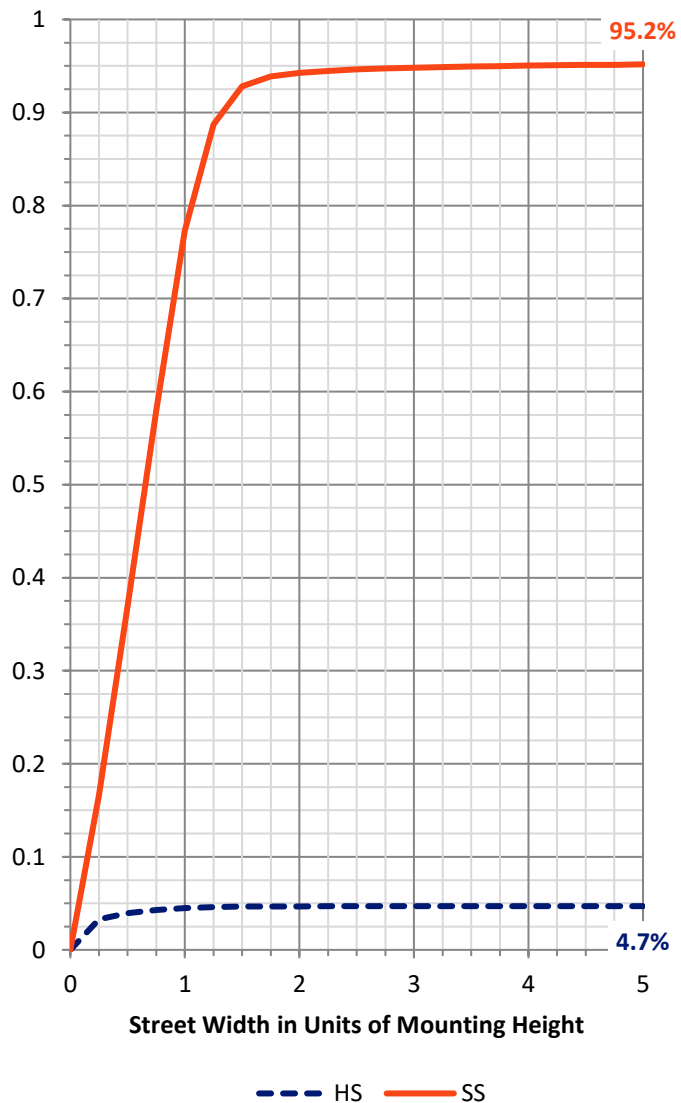
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	589.4	0.0	589.4
	% Fixture	4.7	0.0	4.7
Street Side	Lumens	11875.8	0.0	11875.8
	% Fixture	95.3	0.0	95.3
Total	Lumens	12465.3	0.0	12465.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.7	2.0
10°-20°	661.6	5.3
20°-30°	1145.8	9.2
30°-40°	1977.8	15.9
40°-50°	3366.3	27.0
50°-60°	3331.4	26.7
60°-70°	1520.5	12.2
70°-80°	195.3	1.6
80°-90°	22.0	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°	12465.3	100.0
0°-180°	12465.3	100.0

Coefficient of Utilization



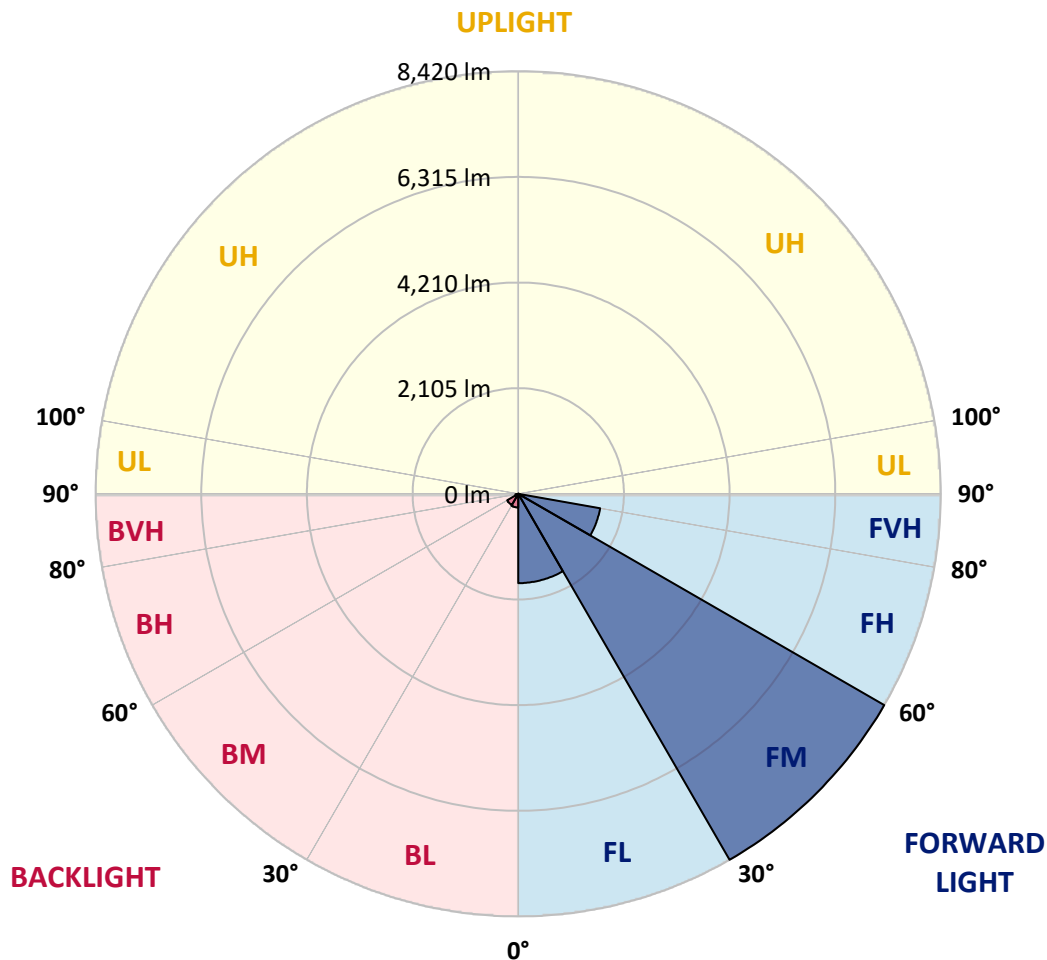
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1779.5	14.3			
FM (30°-60°)	8420.0	67.5			
FH (60°-80°)	1656.7	13.3			G1/1800
FVH (80°-90°)	19.7	0.2			G1/100
BL (0°-30°)	272.6	2.2	B1/500		
BM (30°-60°)	255.5	2.0	B1/1000		
BH (60°-80°)	59.0	0.5	B0/110		G0/110
BVH (80°-90°)	2.4	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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4
2.5°	3519.6	3495.2	3461.6	3435.5	3374.1	3285.8	3192.4	3192.4	3102.4	2977.1	2849.3
5°	4059.5	4043.5	4010.7	3943.4	3874.5	3750.9	3563.3	3530.5	3369.9	3142.8	2904.0
7.5°	4279.0	4286.6	4288.3	4270.6	4237.8	4115.9	3930.0	3907.3	3650.8	3346.3	2975.5
10°	4068.8	4105.8	4141.9	4215.1	4318.5	4348.0	4242.8	4219.3	3967.0	3552.4	3052.8
12.5°	3755.9	3776.1	3796.3	3911.5	4119.2	4357.2	4467.4	4466.6	4252.9	3757.6	3151.2
15°	3610.4	3628.1	3629.8	3681.1	3861.0	4207.5	4563.3	4575.9	4532.1	4010.7	3257.2
17.5°	3640.7	3655.0	3643.2	3655.8	3750.0	4042.7	4552.3	4594.4	4758.4	4253.8	3353.1
20°	3838.3	3866.1	3820.7	3785.3	3813.9	3999.0	4515.3	4574.2	4918.2	4490.9	3440.5
22.5°	4193.2	4208.4	4151.2	4054.5	4004.0	4090.6	4505.2	4563.3	5054.4	4685.2	3491.0
25°	4587.7	4582.6	4519.5	4411.0	4305.1	4275.6	4571.7	4623.8	5167.1	4860.1	3506.1
27.5°	4982.1	4997.2	4891.3	4756.7	4629.7	4553.2	4720.5	4759.2	5294.1	5059.5	3524.6
30°	5440.4	5416.0	5311.8	5157.9	5012.4	4905.6	4960.2	4971.2	5469.0	5323.5	3573.4
32.5°	6036.7	5969.4	5852.5	5583.4	5479.1	5298.3	5311.8	5325.2	5681.8	5585.1	3632.3
35°	6845.8	6842.5	6613.7	6251.2	5997.2	5772.6	5713.8	5724.7	6003.9	5973.6	3762.6
37.5°	7819.7	7833.2	7572.4	7207.5	6739.9	6383.3	6262.2	6263.9	6493.4	6510.3	3961.1
40°	8612.8	8648.1	8492.5	8246.1	7784.4	7226.8	7023.3	7004.8	7181.4	7160.4	4244.5
42.5°	8954.2	8987.0	9045.0	9130.8	8876.8	8416.8	7936.6	7961.8	8015.7	7868.5	4562.4
45°	8786.9	8839.0	9066.9	9596.7	9835.6	9680.8	9108.1	9019.8	8791.9	8638.0	4882.0
47.5°	8089.7	8216.7	8597.6	9479.8	10315.8	10838.9	10430.2	10313.3	9569.0	9199.8	5085.5
50°	6943.4	6950.9	7481.6	8609.4	10066.9	11569.7	11780.0	11692.5	10293.1	9515.2	5188.1
52.5°	5033.4	5199.1	5685.2	6991.3	8988.7	11458.7	12640.3	12604.2	11039.9	9676.6	5336.1
54°	3826.6	3858.5	4290.8	5586.8	7749.9	10849.0	12693.3	12701.7	11410.8	9774.2	5423.6
55°	3136.9	3060.4	3514.5	4759.2	6904.7	10309.9	12520.1	12560.4	11577.3	9824.6	5488.4
57.5°	1486.9	1487.7	1835.1	2510.4	4324.4	8005.6	11461.2	11604.2	11595.8	9911.3	5687.7
60°	752.7	757.7	834.3	1158.9	2136.1	5321.8	9476.5	9817.1	10703.5	9923.9	5753.3
62.5°	526.5	520.6	508.0	557.6	899.0	2704.7	7055.2	7351.3	9093.8	9443.7	5544.7
65°	450.8	438.2	402.8	395.3	454.1	1077.3	4394.2	4877.0	6943.4	8177.1	4951.0
67.5°	385.2	380.1	348.2	328.8	321.3	469.3	2267.3	2521.3	4745.8	5877.7	3750.0
70°	327.1	324.6	305.3	280.9	259.9	280.9	841.0	1042.0	2644.9	3164.7	1769.5
72.5°	265.8	268.3	271.6	240.5	218.7	199.3	359.1	418.0	1106.8	1131.1	619.0
75°	233.0	230.4	230.4	209.4	182.5	148.0	197.6	212.8	338.9	314.5	143.8
77.5°	164.0	158.1	185.0	172.4	152.2	105.1	112.7	119.4	140.4	120.3	67.3
80°	113.5	113.5	118.6	154.7	137.1	76.5	69.0	74.0	83.3	71.5	38.7
82.5°	63.9	65.6	77.4	82.4	79.9	51.3	45.4	46.3	55.5	48.8	24.4
85°	7.6	12.6	44.6	43.7	32.8	22.7	25.2	26.1	34.5	30.3	14.3
87.5°	0.8	1.7	9.3	11.8	8.4	9.3	9.3	9.3	11.8	13.5	10.1
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°	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4	2769.4
2.5°	2780.3	2716.4	2564.2	2387.6	2274.9	2091.6	1936.8	1825.0	1797.2	1743.4	1759.4
5°	2777.0	2644.1	2333.8	2005.8	1655.9	1395.2	1200.9	1047.9	980.6	936.0	904.9
7.5°	2778.7	2570.9	2073.1	1550.8	1132.8	877.2	697.2	603.8	541.6	515.5	518.9
10°	2783.7	2488.5	1770.3	1148.8	764.5	566.8	456.7	412.1	391.1	387.7	386.9
12.5°	2795.5	2398.5	1481.0	852.8	534.9	412.1	370.0	354.9	348.2	348.2	345.7
15°	2808.1	2299.3	1240.5	634.1	412.1	354.1	334.7	327.1	322.9	322.9	322.1
17.5°	2808.1	2184.9	1015.9	492.0	354.9	325.5	310.3	300.2	296.9	296.9	296.0
20°	2790.4	2052.0	816.6	396.1	322.1	298.6	283.4	272.5	268.3	266.6	265.8
22.5°	2729.0	1874.6	650.1	340.6	295.2	275.0	255.7	243.0	239.7	238.0	238.8
25°	2619.7	1674.4	514.7	299.4	270.8	246.4	229.6	220.3	217.0	217.0	217.8
27.5°	2507.0	1465.0	407.9	268.3	241.4	219.5	206.0	200.2	199.3	201.8	202.7
30°	2402.7	1254.8	330.5	243.0	215.3	196.8	187.5	185.9	185.9	186.7	187.5
32.5°	2286.7	1070.6	276.7	221.2	194.3	178.3	173.2	173.2	174.9	174.9	176.6
35°	2213.5	912.5	243.0	200.2	178.3	164.8	161.5	162.3	164.8	168.2	169.9
37.5°	2174.0	786.3	221.2	183.3	163.2	153.9	150.5	152.2	158.1	164.0	164.8
40°	2177.3	691.3	203.5	169.0	151.4	141.3	138.8	143.8	149.7	155.6	156.4
42.5°	2214.4	620.7	186.7	152.2	141.3	127.0	126.2	131.2	133.7	139.6	140.4
45°	2258.1	569.4	169.0	134.6	122.8	110.2	111.0	115.2	118.6	127.8	129.5
47.5°	2271.5	534.0	148.9	114.4	100.9	96.7	97.6	100.1	106.8	115.2	116.1
50°	2286.7	512.2	129.5	96.7	85.8	84.9	85.8	87.5	91.7	95.0	94.2
52.5°	2351.4	511.3	113.5	84.1	73.2	74.8	75.7	74.8	71.5	66.4	64.8
54°	2412.0	513.9	106.0	78.2	67.3	69.8	69.0	64.8	56.3	51.3	48.8
55°	2460.8	516.4	101.8	74.0	63.9	64.8	65.6	57.2	46.3	41.2	39.5
57.5°	2556.6	510.5	91.7	64.8	56.3	53.0	52.1	37.8	25.2	21.9	20.2
60°	2508.7	460.9	83.3	55.5	47.9	42.9	35.3	21.0	12.6	9.3	9.3
62.5°	2320.3	391.1	74.0	45.4	39.5	32.8	18.5	11.8	5.9	3.4	2.5
65°	2075.6	328.8	66.4	36.2	31.1	21.0	10.1	7.6	2.5	0.0	0.0
67.5°	1543.2	243.9	56.3	28.6	23.5	13.5	6.7	4.2	0.8	0.0	0.0
70°	714.8	148.9	47.9	21.9	16.8	10.1	5.0	2.5	0.0	0.0	0.0
72.5°	205.2	93.4	39.5	16.0	11.8	8.4	4.2	1.7	0.8	0.0	0.0
75°	71.5	74.8	29.4	11.8	9.3	5.9	3.4	1.7	0.8	0.0	0.0
77.5°	42.9	60.6	18.5	10.1	7.6	5.0	3.4	1.7	0.8	0.8	0.0
80°	24.4	40.4	11.8	8.4	6.7	4.2	2.5	1.7	0.8	0.8	0.0
82.5°	13.5	19.3	9.3	7.6	5.9	4.2	2.5	1.7	0.8	0.8	0.8
85°	10.9	10.1	7.6	6.7	5.0	3.4	2.5	0.8	0.0	0.0	0.0
87.5°	8.4	6.7	6.7	6.7	5.0	3.4	2.5	0.8	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)