

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: P651840

Luminaire Tested: **GALN-SA4A-840-U-SL3-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-17)
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-SL3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12585.5 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

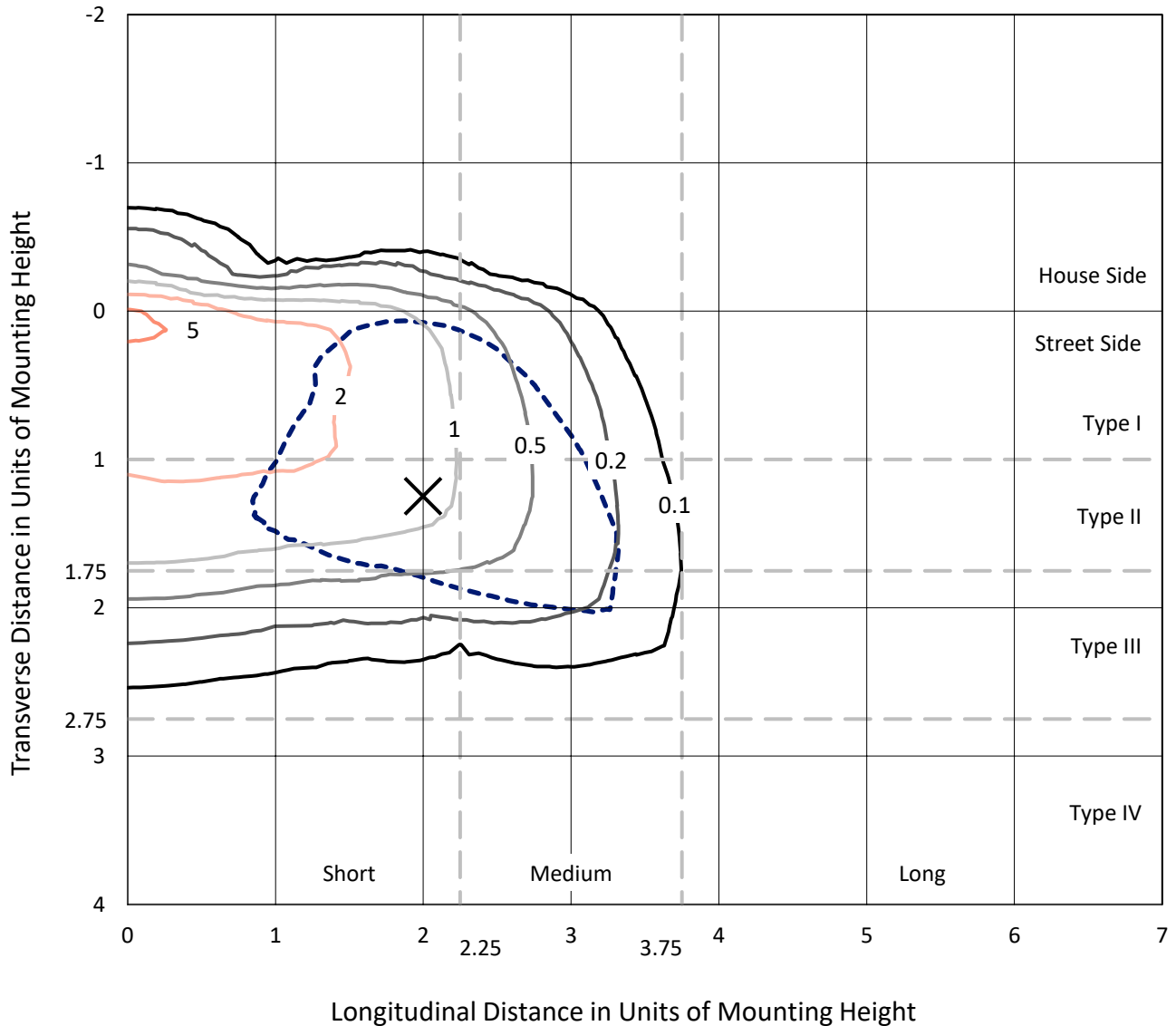
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

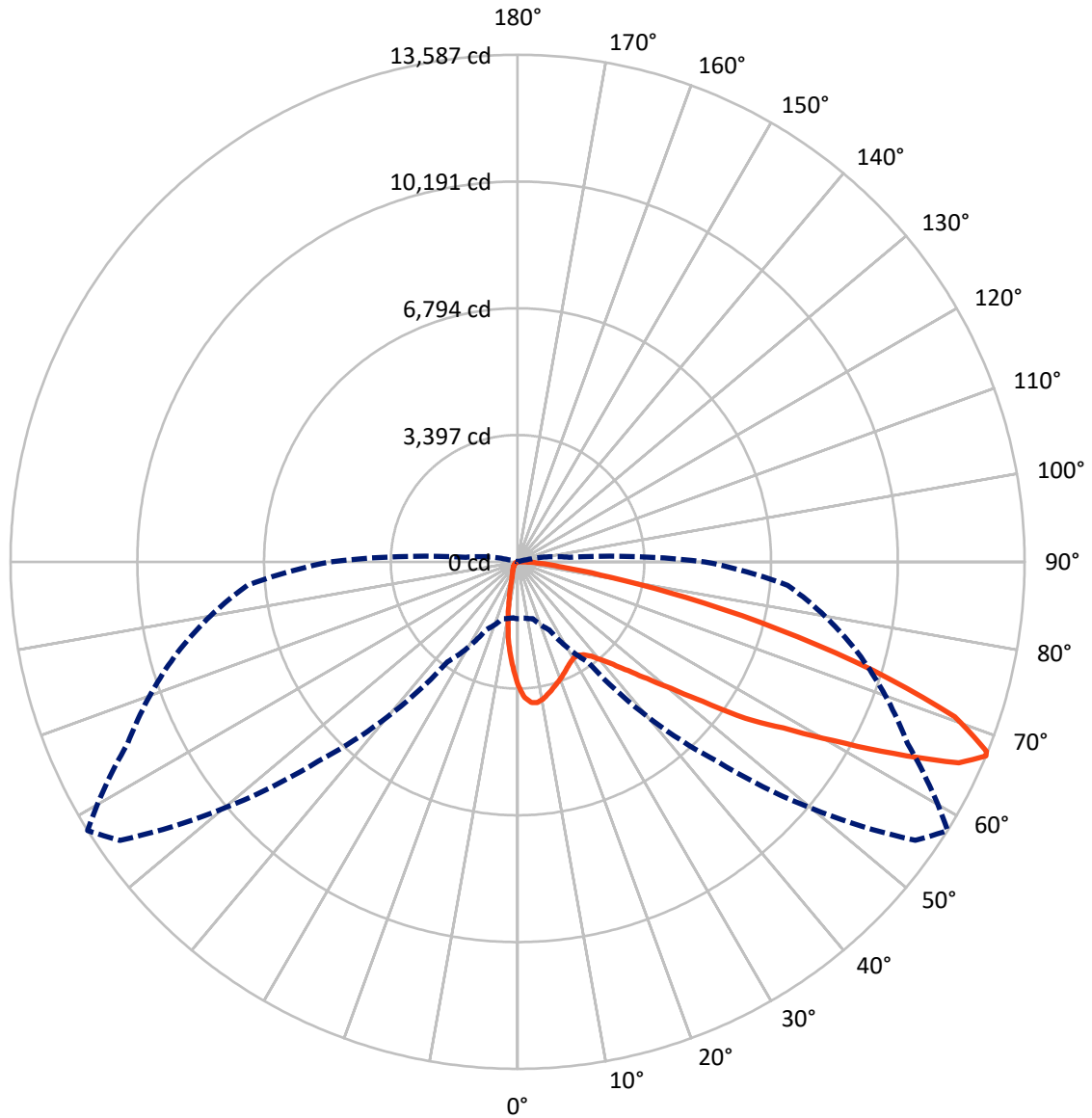
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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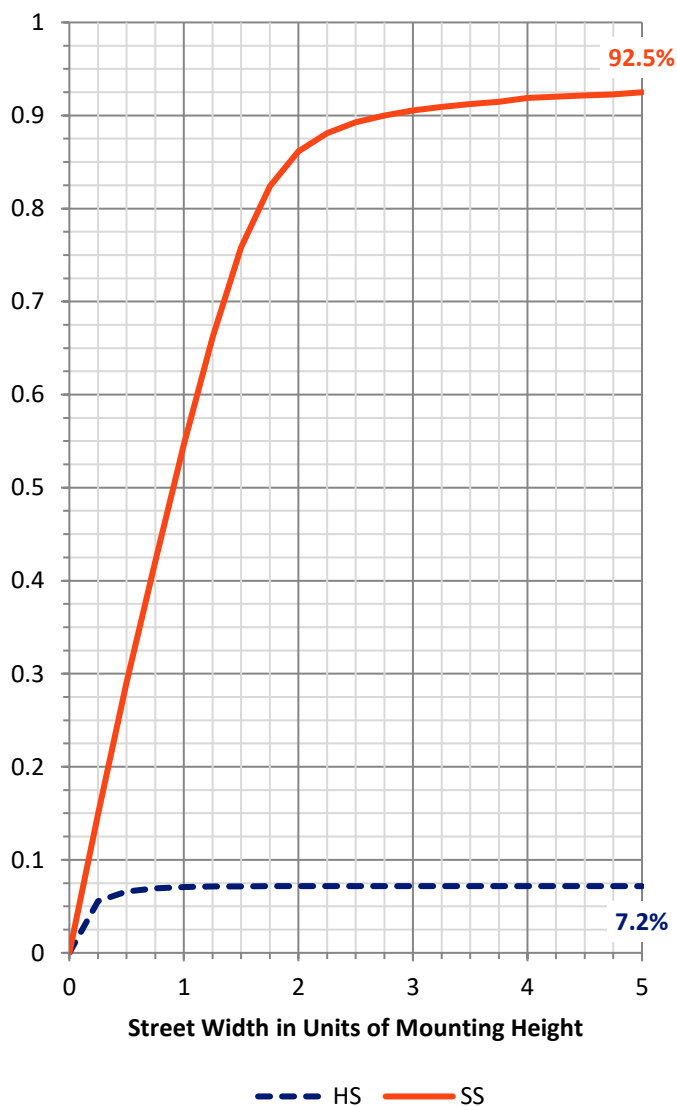
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	908.2	0.0	908.2
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	11677.3	0.0	11677.3
	% Fixture	92.8	0.0	92.8
Total	Lumens	12585.5	0.0	12585.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.7	2.2
10°-20°	584.7	4.6
20°-30°	792.3	6.3
30°-40°	1098.9	8.7
40°-50°	1752.7	13.9
50°-60°	3029.6	24.1
60°-70°	3460.8	27.5
70°-80°	1442.8	11.5
80°-90°	153.0	1.2
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°	12585.5	100.0
0°-180°	12585.5	100.0

Coefficient of Utilization



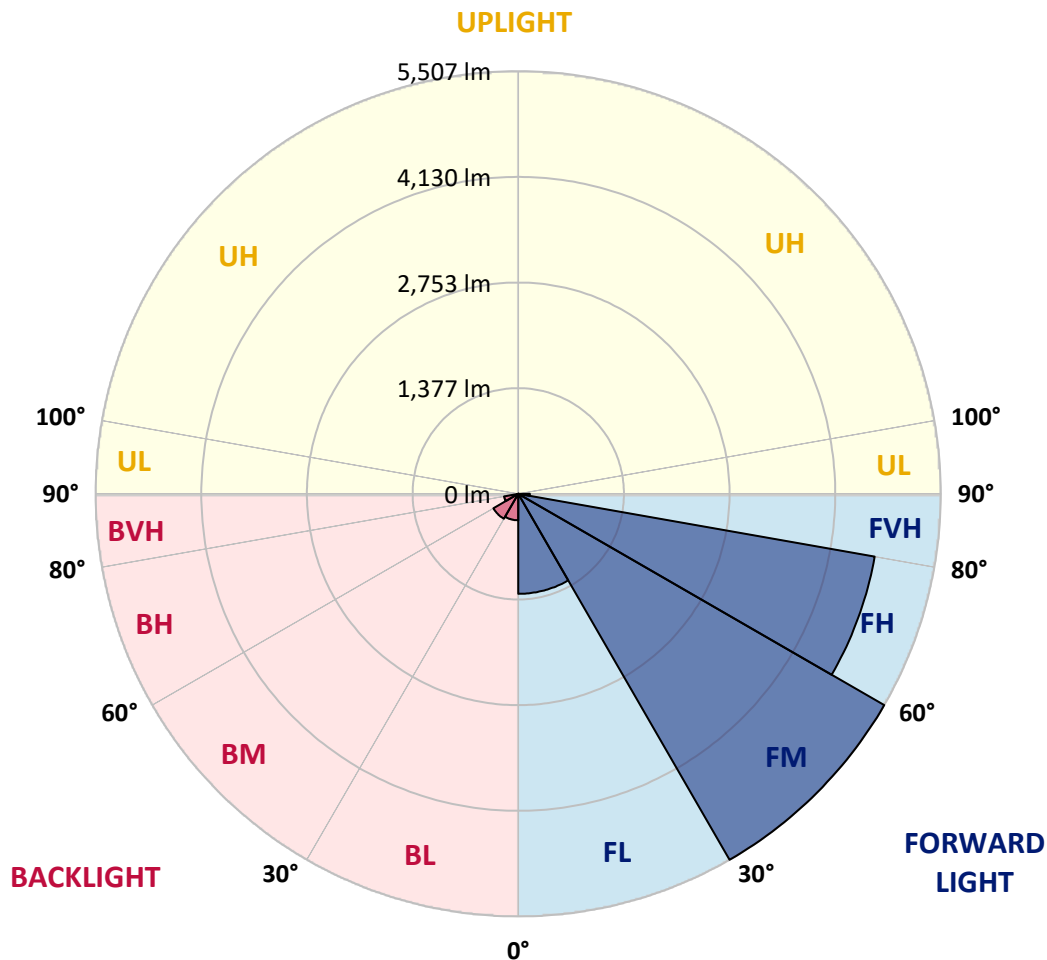
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1302.9	10.4			
FM (30°-60°)	5506.7	43.8			
FH (60°-80°)	4715.8	37.5			G2/5000
FVH (80°-90°)	151.9	1.2			G2/225
BL (0°-30°)	344.9	2.7	B1/500		
BM (30°-60°)	374.5	3.0	B1/1000		
BH (60°-80°)	187.8	1.5	B1/500		G1/500
BVH (80°-90°)	1.1	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3
2.5°	3872.0	3877.9	3856.1	3838.4	3793.0	3744.2	3679.5	3645.0	3586.1	3484.3	3371.7
5°	3962.9	3970.4	3967.1	3962.9	3945.2	3898.1	3815.7	3785.4	3698.8	3533.1	3329.6
7.5°	3761.0	3788.8	3792.2	3825.0	3856.1	3860.3	3829.2	3806.5	3726.6	3532.3	3254.8
10°	3493.6	3512.1	3539.0	3576.9	3651.7	3713.9	3744.2	3740.9	3694.6	3506.2	3167.3
12.5°	3223.6	3233.7	3274.9	3339.7	3431.4	3537.3	3618.1	3634.0	3634.9	3475.1	3094.1
15°	2991.5	2987.3	3019.3	3094.1	3222.8	3355.7	3500.3	3525.6	3565.9	3444.8	3026.0
17.5°	2793.0	2814.9	2820.0	2902.4	3021.0	3193.4	3377.5	3422.1	3502.8	3418.7	2969.7
20°	2670.3	2682.0	2693.0	2739.2	2846.0	3027.7	3262.3	3323.7	3444.0	3395.2	2906.6
22.5°	2634.1	2641.7	2632.4	2646.7	2722.4	2883.9	3137.0	3218.6	3387.6	3373.3	2855.3
25°	2661.8	2669.4	2647.6	2630.7	2656.8	2767.0	3015.9	3115.1	3342.2	3369.1	2816.6
27.5°	2729.1	2743.4	2713.2	2682.9	2667.7	2703.9	2920.9	3036.1	3311.1	3389.3	2798.9
30°	2834.3	2842.7	2820.0	2783.0	2748.5	2712.3	2871.3	2981.4	3302.7	3436.4	2797.3
32.5°	2948.6	2966.3	2953.7	2929.3	2884.7	2798.9	2885.6	2983.1	3322.9	3504.5	2818.3
35°	3089.9	3110.1	3121.9	3116.8	3059.6	2952.8	2976.4	3058.8	3376.7	3629.8	2875.5
37.5°	3228.7	3246.3	3312.8	3335.5	3285.0	3184.1	3153.0	3207.7	3495.3	3793.8	2978.9
40°	3387.6	3411.2	3504.5	3591.2	3566.8	3460.8	3403.6	3449.0	3676.9	4041.1	3174.9
42.5°	3539.9	3581.9	3724.0	3877.1	3899.8	3781.2	3743.4	3758.5	3946.1	4396.8	3448.2
45°	3756.0	3795.5	3978.9	4186.6	4293.4	4200.9	4162.2	4159.7	4315.3	4897.2	3891.4
47.5°	4068.0	4103.3	4319.5	4524.7	4714.7	4727.3	4654.2	4679.4	4779.5	5482.6	4434.7
50°	4450.7	4533.9	4676.0	4889.7	5143.6	5348.8	5371.6	5337.9	5423.7	6160.5	5087.3
52.5°	5006.6	5038.5	5168.9	5344.6	5642.4	5990.6	6260.6	6214.3	6187.4	6806.4	5746.6
55°	5421.2	5464.1	5666.7	5908.1	6344.7	6803.9	7389.2	7405.2	7065.4	7427.0	6391.8
57.5°	5295.9	5361.5	5668.4	6153.8	7113.3	7952.7	8388.3	8399.2	7877.8	8030.0	7120.1
60°	4652.5	4683.6	5123.5	5771.0	7178.9	9197.3	9805.4	9717.1	8704.5	8704.5	7763.4
62.5°	3299.3	3348.1	3704.7	4657.5	6483.4	9629.6	11502.6	11320.1	9843.2	9349.6	8146.9
65°	2108.5	2061.4	2297.7	2940.2	4829.9	8991.3	12980.2	12991.2	10914.8	9607.8	7937.5
67°	1527.3	1508.8	1576.9	2010.1	3274.9	7558.2	13011.4	13587.4	11530.4	9444.6	7268.1
67.5°	1396.9	1411.2	1460.8	1813.2	2975.5	6877.9	12870.1	13552.1	11669.1	9346.2	7025.9
70°	1058.8	1034.4	1088.3	1282.5	1783.8	4338.8	11071.2	12429.4	11496.7	8369.8	5613.8
72.5°	778.8	776.2	851.1	1048.7	1373.4	2311.2	8310.9	9966.1	9392.5	6373.3	3534.8
75°	525.6	549.2	668.6	876.3	1244.7	1498.7	5665.9	7230.2	6520.4	3618.9	1444.8
77.5°	299.4	301.1	430.6	703.9	1117.7	1206.0	3357.4	4606.2	3451.5	1203.5	428.9
80°	129.5	142.1	213.6	511.3	926.8	1068.1	1925.0	2531.5	1396.1	254.8	138.8
82.5°	47.9	56.3	94.2	314.5	676.2	879.7	1163.1	1208.5	473.5	90.0	86.6
85°	0.0	1.7	34.5	147.2	352.4	392.7	777.1	716.5	209.4	42.9	56.3
87.5°	0.0	0.0	0.0	15.1	46.3	146.3	241.4	269.1	50.5	15.1	13.5
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°	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3	3336.3
2.5°	3311.1	3256.4	3119.4	2982.3	2880.5	2795.6	2667.7	2597.9	2560.9	2506.3	2509.6
5°	3227.8	3116.8	2875.5	2625.7	2423.8	2227.1	1991.6	1896.5	1816.6	1771.1	1740.9
7.5°	3104.2	2940.2	2582.8	2249.8	1939.3	1595.4	1337.2	1164.8	1048.7	1005.8	964.6
10°	2968.8	2751.0	2285.9	1824.1	1393.5	1038.6	820.0	661.9	605.5	553.4	558.4
12.5°	2843.5	2578.6	2013.4	1439.8	976.4	660.2	514.7	449.9	431.4	425.5	425.5
15°	2740.9	2413.8	1720.7	1082.4	669.4	474.3	412.1	394.4	387.7	386.0	386.0
17.5°	2631.6	2257.3	1456.6	799.8	486.9	397.0	375.9	364.2	361.6	359.9	359.9
20°	2534.0	2100.1	1206.0	595.4	393.6	357.4	344.0	336.4	333.9	332.2	333.0
22.5°	2441.5	1960.4	970.5	449.9	346.5	325.5	312.0	304.4	299.4	295.2	296.0
25°	2359.1	1825.8	780.4	368.4	312.0	293.5	280.1	269.1	258.2	253.1	252.3
27.5°	2301.1	1708.1	608.0	315.4	280.9	260.7	243.9	230.4	216.1	208.6	206.9
30°	2253.1	1588.6	481.1	278.4	249.8	230.4	209.4	190.1	174.9	167.4	164.0
32.5°	2222.0	1475.1	379.3	248.1	223.7	200.2	176.6	157.3	140.4	132.9	131.2
35°	2217.0	1380.1	310.3	222.9	200.2	174.9	150.5	129.5	115.2	107.6	106.0
37.5°	2253.1	1306.9	259.9	202.7	180.8	153.1	126.2	106.8	94.2	88.3	87.5
40°	2349.8	1260.7	225.4	185.9	163.2	132.9	107.6	90.8	78.2	72.3	72.3
42.5°	2534.0	1262.3	202.7	169.9	145.5	113.5	91.7	75.7	64.8	59.7	58.0
45°	2821.6	1319.5	183.3	153.9	128.7	98.4	78.2	62.2	51.3	47.1	47.1
47.5°	3206.8	1433.1	166.5	137.9	113.5	84.1	66.4	50.5	41.2	37.0	37.0
50°	3710.6	1615.6	152.2	124.5	100.9	72.3	53.8	41.2	32.0	28.6	27.8
52.5°	4237.0	1840.9	135.4	112.7	86.6	61.4	43.7	32.0	24.4	21.9	21.0
55°	4818.2	2061.4	119.4	100.9	70.6	51.3	34.5	25.2	17.7	15.1	15.1
57.5°	5404.4	2277.5	100.1	84.1	55.5	37.8	26.9	18.5	11.8	9.3	9.3
60°	5900.5	2347.3	84.9	68.1	42.0	26.9	19.3	11.8	6.7	4.2	4.2
62.5°	5968.7	2111.8	71.5	52.1	30.3	18.5	10.1	6.7	2.5	1.7	1.7
65°	5598.6	1715.6	59.7	39.5	20.2	9.3	4.2	2.5	0.8	0.0	0.0
67°	5016.6	1391.0	48.8	29.4	14.3	5.9	2.5	0.8	0.0	0.0	0.0
67.5°	4867.8	1326.3	47.1	27.8	12.6	5.0	1.7	0.8	0.0	0.0	0.0
70°	3819.9	993.2	33.6	16.8	7.6	3.4	0.0	0.0	0.0	0.0	0.0
72.5°	2374.2	561.8	24.4	10.1	5.0	1.7	0.0	0.0	0.0	0.0	0.0
75°	897.3	196.8	16.8	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	279.2	74.8	10.1	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	94.2	28.6	6.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	58.0	11.8	4.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	36.2	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	1.7	0.8	0.0	0.0	0.0	0.0	0.0	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)