

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: P453606

Luminaire Tested: **GALN-SA4C-827-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453606
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4C-827-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16007 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

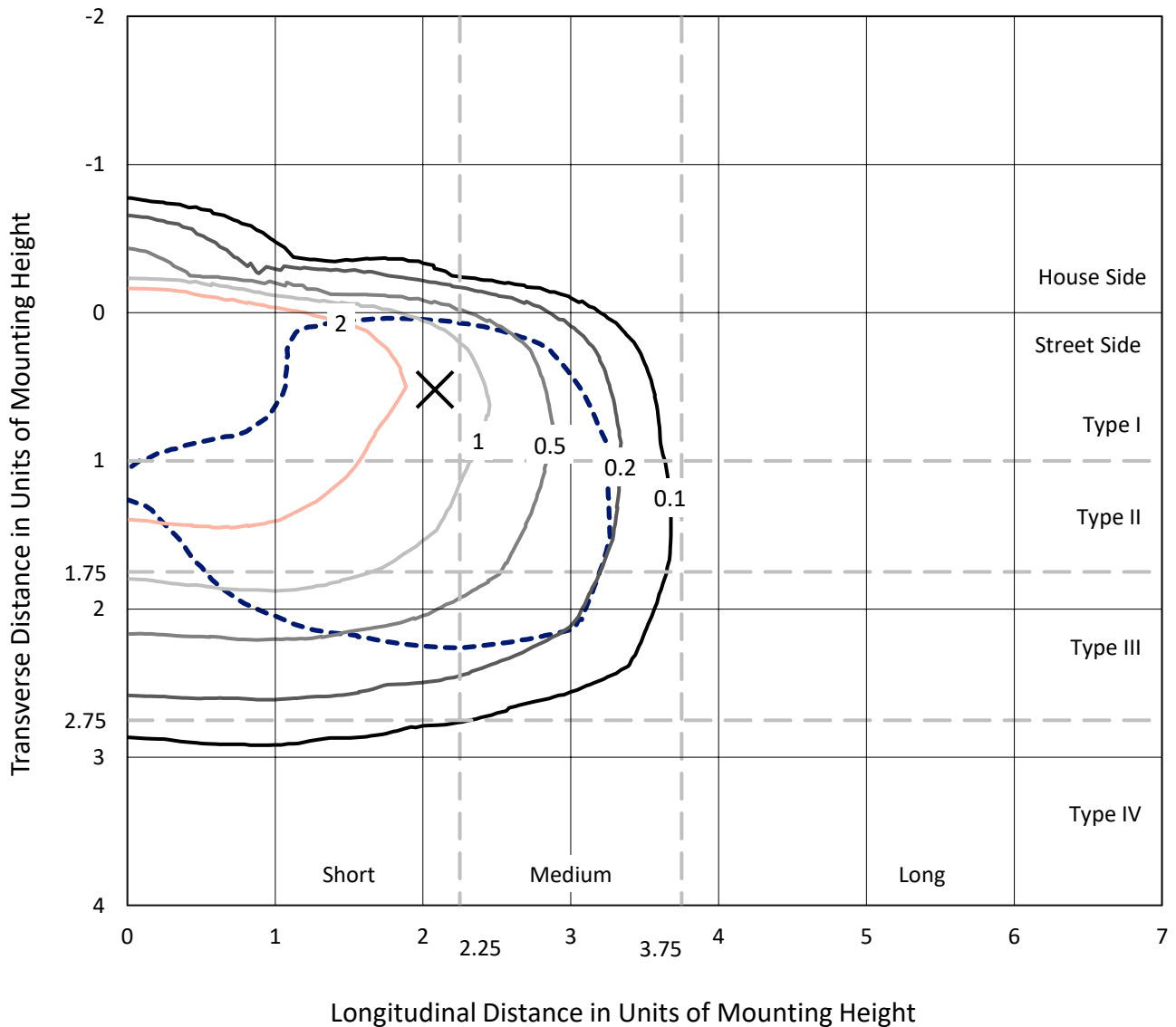
Input Watts (W): 213
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

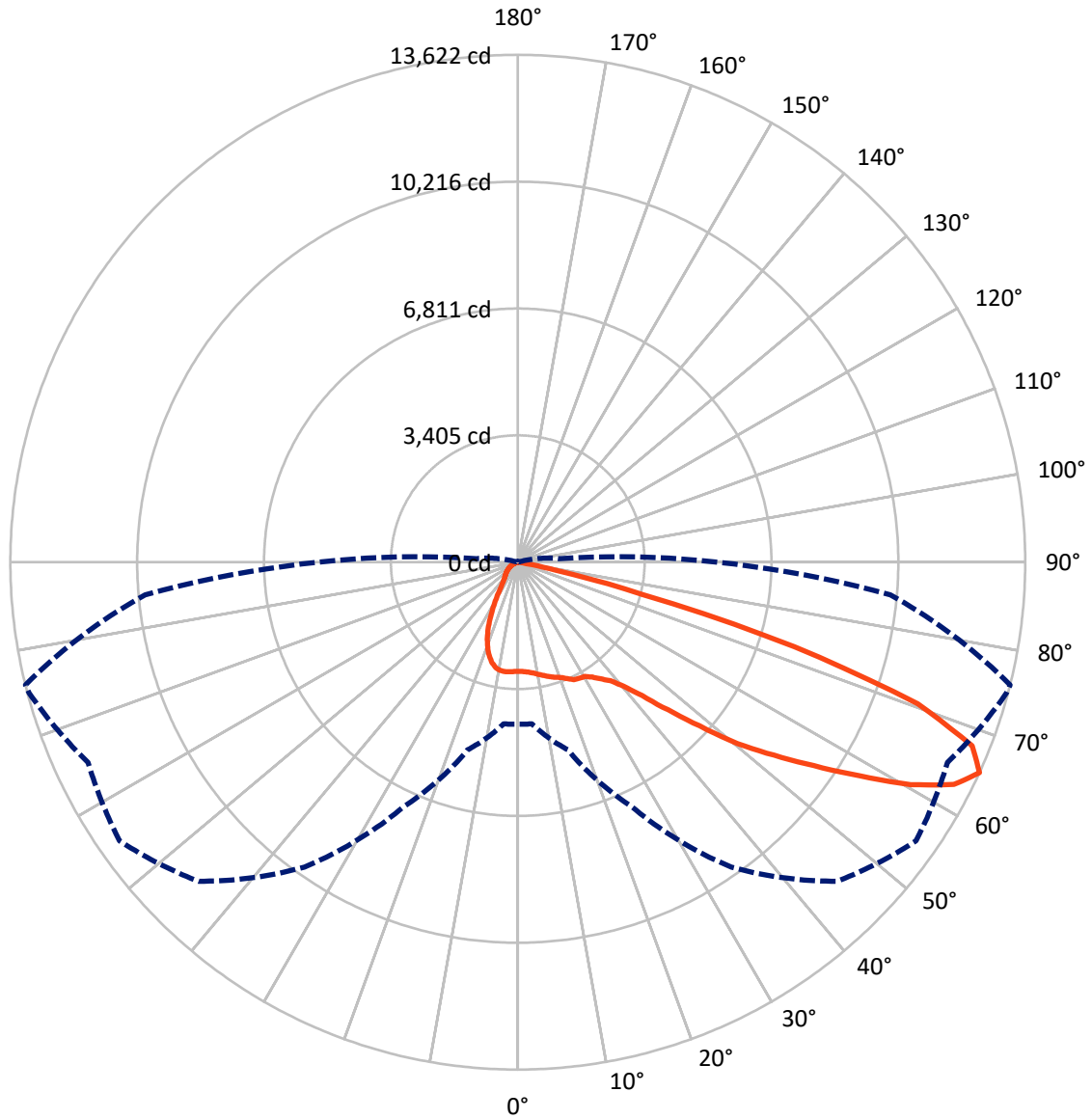
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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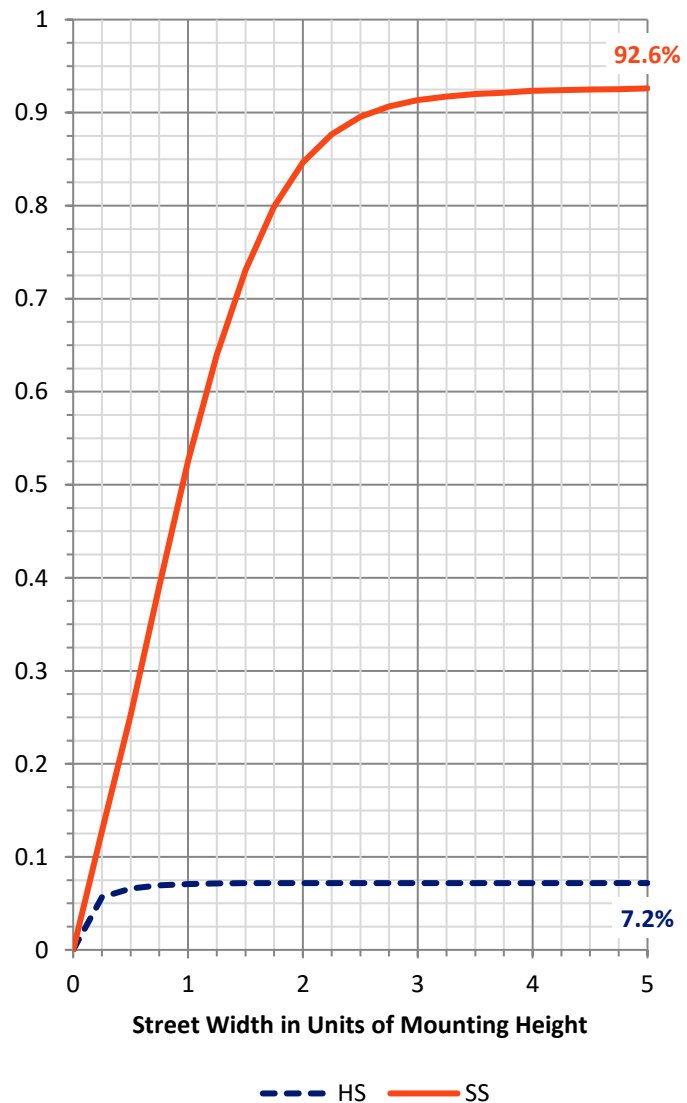
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1156.0	0.0	1156.0
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	14851.0	0.0	14851.0
	% Fixture	92.8	0.0	92.8
Total	Lumens	16007.0	0.0	16007.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.2	1.5
10°-20°	537.1	3.4
20°-30°	865.5	5.4
30°-40°	1504.8	9.4
40°-50°	2486.6	15.5
50°-60°	3841.3	24.0
60°-70°	4690.8	29.3
70°-80°	1780.3	11.1
80°-90°	59.4	0.4
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°	16007.0	100.0
0°-180°	16007.0	100.0



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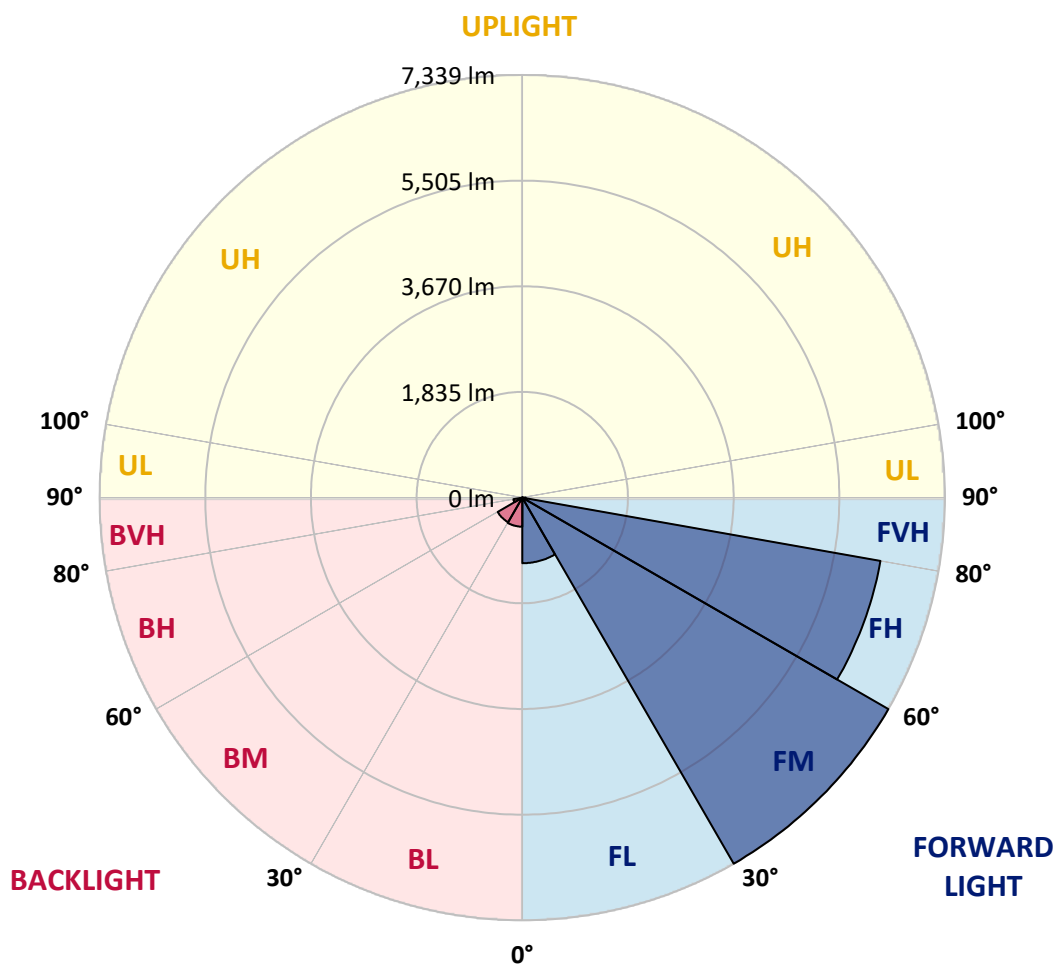
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1138.7	7.1			
FM (30°-60°)	7339.5	45.9			
FH (60°-80°)	6314.2	39.4			G3/7500
FVH (80°-90°)	58.6	0.4			G1/100
BL (0°-30°)	505.0	3.2	B2/1000		
BM (30°-60°)	493.3	3.1	B1/1000		
BH (60°-80°)	156.9	1.0	B1/500		G1/500
BVH (80°-90°)	0.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2
2.5°	2798.2	2799.4	2806.1	2823.1	2849.1	2870.6	2888.6	2918.0	2938.4	2940.6	2947.4
5°	2605.0	2591.4	2605.0	2649.0	2688.6	2748.5	2822.0	2895.4	2961.0	2965.5	2997.1
7.5°	2388.0	2399.3	2420.8	2466.0	2540.6	2632.1	2738.3	2869.4	2993.7	3005.0	3067.2
10°	2167.6	2192.5	2227.5	2296.4	2400.4	2519.1	2663.7	2851.3	3045.7	3061.5	3168.9
12.5°	1964.2	1975.5	2018.4	2111.1	2239.9	2407.2	2607.2	2841.2	3103.4	3122.6	3277.4
15°	1808.2	1822.9	1860.2	1943.8	2087.4	2302.1	2560.9	2837.8	3159.9	3187.0	3385.9
17.5°	1778.8	1787.9	1803.7	1860.2	1985.7	2218.5	2519.1	2836.6	3214.1	3246.9	3486.5
20°	1899.8	1891.9	1876.0	1870.4	1939.3	2154.0	2488.6	2845.7	3266.1	3303.4	3592.7
22.5°	2202.6	2212.8	2120.1	2010.5	1987.9	2143.9	2484.0	2888.6	3348.6	3392.7	3711.4
25°	2845.7	2767.7	2623.1	2360.9	2163.1	2206.0	2534.9	2990.3	3444.7	3493.3	3818.7
27.5°	3556.5	3532.8	3307.9	2876.2	2507.8	2337.1	2625.3	3068.3	3476.3	3526.0	3879.8
30°	4255.0	4283.2	4025.6	3548.6	3008.4	2580.1	2710.1	3097.7	3504.6	3556.5	3957.7
32.5°	4902.5	4936.4	4710.4	4238.0	3598.4	3000.5	2855.9	3211.9	3623.2	3676.3	4087.7
35°	5412.2	5416.8	5246.1	4869.8	4242.5	3511.3	3171.2	3411.9	3783.7	3845.9	4225.6
37.5°	5880.1	5873.3	5673.3	5348.9	4779.4	4018.8	3567.9	3642.4	3966.8	4031.2	4424.5
40°	6227.1	6231.6	6167.2	5862.0	5280.0	4487.8	3882.0	3858.3	4274.2	4374.8	4713.8
42.5°	6458.7	6500.6	6532.2	6377.4	5909.5	5065.3	4364.6	4320.5	4807.6	4891.2	5122.9
45°	6646.3	6720.9	6879.2	6871.2	6514.1	5773.9	5026.9	4936.4	5563.7	5653.0	5643.9
47.5°	6783.1	6858.8	7121.0	7279.2	7082.6	6461.0	5859.8	5781.8	6466.7	6563.8	6219.2
50°	6853.2	6943.6	7278.1	7584.4	7526.7	7123.3	6809.1	6813.6	7557.2	7651.0	6885.9
52.5°	6689.3	6806.8	7361.7	7913.2	8025.1	7757.3	7698.5	7847.7	8528.0	8608.3	7488.3
55°	6166.0	6314.1	7247.6	8193.5	8602.6	8505.4	8708.9	8936.0	9589.2	9641.2	8106.5
57.5°	5834.9	5992.0	6910.8	8432.0	9296.5	9445.7	9767.8	9933.9	10684.3	10816.6	8816.2
60°	5555.8	5679.0	6633.9	8482.8	10001.7	10596.2	10909.2	11081.0	12036.0	12121.9	9597.1
62.5°	5091.3	5232.5	6166.0	8128.0	10356.6	11517.3	12166.0	12089.1	13081.4	13141.3	10076.3
65°	4344.3	4356.7	5216.7	7236.3	9990.4	12115.1	13048.6	12726.5	13580.9	13621.6	10039.0
67.5°	3242.4	3362.2	4013.1	5688.0	8438.8	11604.3	13334.5	12743.5	13265.6	13152.6	9242.3
70°	2088.5	2180.0	2720.2	3944.2	6084.7	9684.2	12386.3	11869.9	11642.7	11391.8	7565.2
72.5°	964.0	1081.5	1616.1	2253.5	3608.5	6898.4	10054.9	9643.5	8380.0	7760.7	4808.7
75°	420.4	449.8	797.9	1188.9	1691.8	3648.1	6629.4	5986.3	3784.8	3457.1	1924.6
77.5°	256.5	275.8	418.2	637.4	664.5	1390.1	3571.2	2611.8	1169.7	1031.8	522.1
80°	174.0	195.5	304.0	333.4	227.2	387.6	1340.3	697.3	236.2	226.0	111.9
82.5°	84.8	107.4	224.9	186.5	98.3	124.3	389.9	149.2	68.9	64.4	39.6
85°	12.4	21.5	126.6	122.1	44.1	29.4	68.9	37.3	23.7	22.6	18.1
87.5°	0.0	0.0	42.9	19.2	4.5	4.5	7.9	7.9	9.0	7.9	9.0
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°	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2	2928.2
2.5°	2950.8	2956.4	2935.0	2904.5	2871.7	2838.9	2792.6	2750.8	2725.9	2740.6	2704.4
5°	3003.9	2999.4	2942.9	2850.2	2727.0	2579.0	2432.1	2306.6	2265.9	2204.9	2198.1
7.5°	3077.4	3064.9	2945.1	2732.7	2454.7	2176.6	1905.4	1725.7	1622.9	1535.9	1538.1
10°	3180.2	3144.0	2919.2	2525.9	2068.2	1648.9	1303.1	1065.7	962.9	930.1	904.1
12.5°	3286.4	3216.4	2846.8	2246.7	1610.4	1126.7	792.2	647.6	584.3	563.9	561.7
15°	3381.4	3270.6	2720.2	1911.1	1170.8	719.9	540.2	492.7	484.8	486.0	484.8
17.5°	3475.2	3313.6	2545.1	1555.1	795.6	516.5	464.5	453.2	456.6	461.1	460.0
20°	3553.2	3322.6	2321.3	1186.6	562.8	453.2	436.2	434.0	437.4	440.8	440.8
22.5°	3637.9	3329.4	2055.7	821.6	460.0	421.5	412.5	412.5	417.0	421.5	422.7
25°	3701.2	3292.1	1738.2	589.9	405.7	391.0	386.5	387.6	392.2	394.4	393.3
27.5°	3711.4	3187.0	1401.4	452.1	368.4	353.7	349.2	353.7	348.1	351.5	349.2
30°	3720.4	3053.6	1060.1	380.9	334.5	311.9	305.1	298.4	293.8	288.2	287.1
32.5°	3748.7	2896.5	774.1	342.4	302.9	278.0	262.2	243.0	228.3	223.8	222.6
35°	3761.1	2707.8	568.5	311.9	274.6	247.5	219.2	192.1	170.7	162.7	168.4
37.5°	3808.6	2524.7	440.8	289.3	249.8	215.9	179.7	145.8	125.4	120.9	123.2
40°	3905.8	2325.8	369.6	270.1	228.3	186.5	142.4	109.6	96.1	91.5	90.4
42.5°	4061.7	2128.1	328.9	252.0	206.8	157.1	111.9	85.9	74.6	71.2	71.2
45°	4251.6	1938.2	300.6	232.8	184.2	126.6	88.2	68.9	62.2	59.9	59.9
47.5°	4501.3	1772.1	276.9	213.6	159.3	100.6	71.2	59.9	55.4	56.5	57.6
50°	4754.5	1648.9	250.9	192.1	131.1	82.5	61.0	53.1	52.0	53.1	53.1
52.5°	4945.5	1576.5	215.9	162.7	102.8	68.9	54.2	49.7	48.6	46.3	46.3
55°	5203.2	1560.7	171.8	132.2	81.4	57.6	48.6	45.2	41.8	39.6	38.4
57.5°	5534.3	1578.8	132.2	102.8	63.3	47.5	42.9	37.3	32.8	28.3	28.3
60°	5740.0	1538.1	102.8	79.1	46.3	38.4	32.8	27.1	21.5	18.1	17.0
62.5°	5674.4	1366.3	81.4	58.8	32.8	28.3	21.5	18.1	12.4	9.0	7.9
65°	5336.5	1103.0	65.5	40.7	23.7	17.0	11.3	11.3	5.7	1.1	0.0
67.5°	4670.9	817.1	52.0	27.1	13.6	7.9	5.7	3.4	0.0	0.0	0.0
70°	3801.8	589.9	40.7	17.0	7.9	5.7	2.3	1.1	0.0	0.0	0.0
72.5°	2414.0	337.9	31.6	10.2	5.7	2.3	0.0	0.0	0.0	0.0	0.0
75°	933.5	132.2	21.5	6.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	264.5	62.2	12.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	68.9	27.1	6.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	32.8	11.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	19.2	4.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.0	1.1	0.0	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)