

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: P453370

Luminaire Tested: **GALN-SA4B-827-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453370
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13248 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

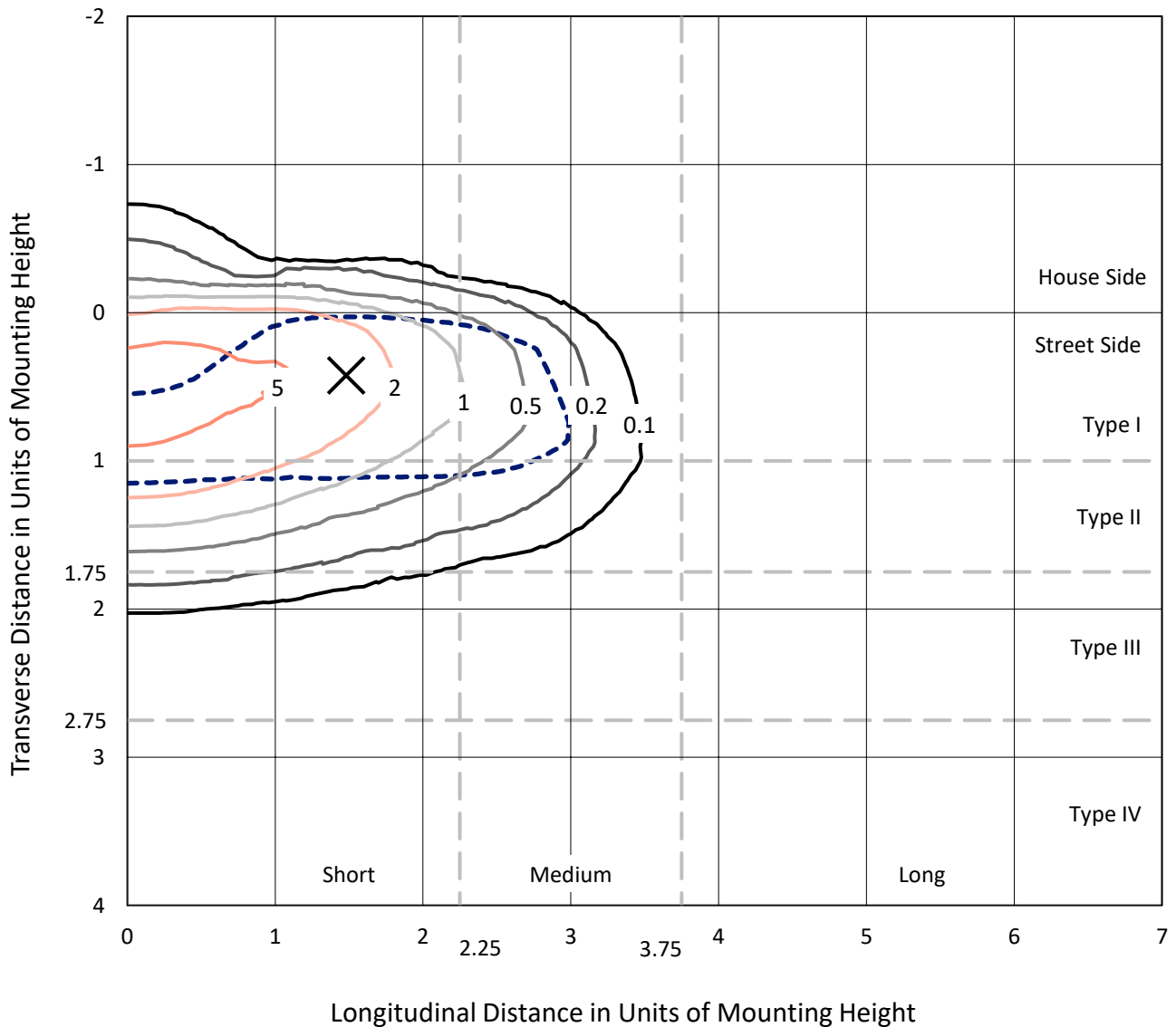
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

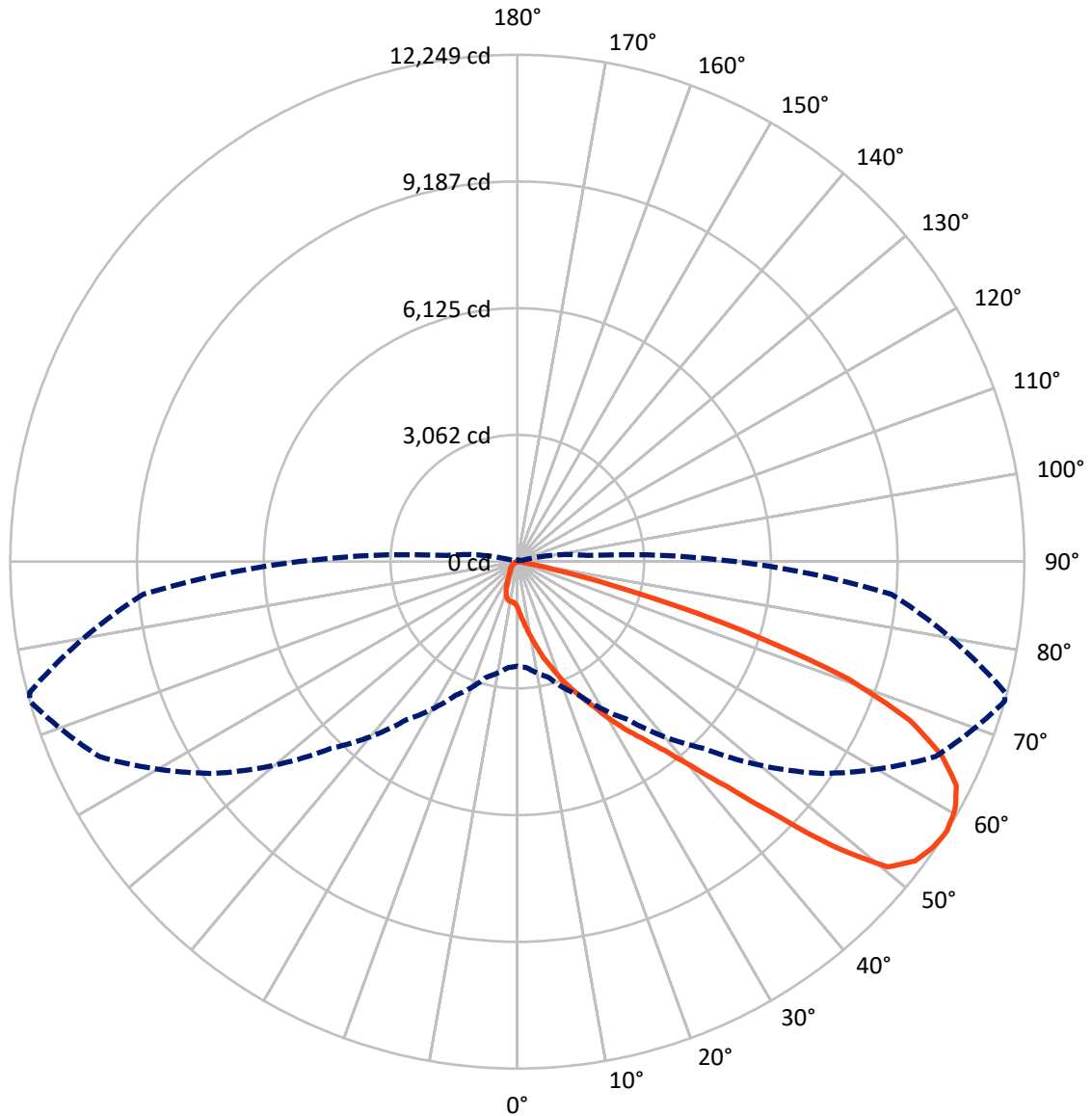
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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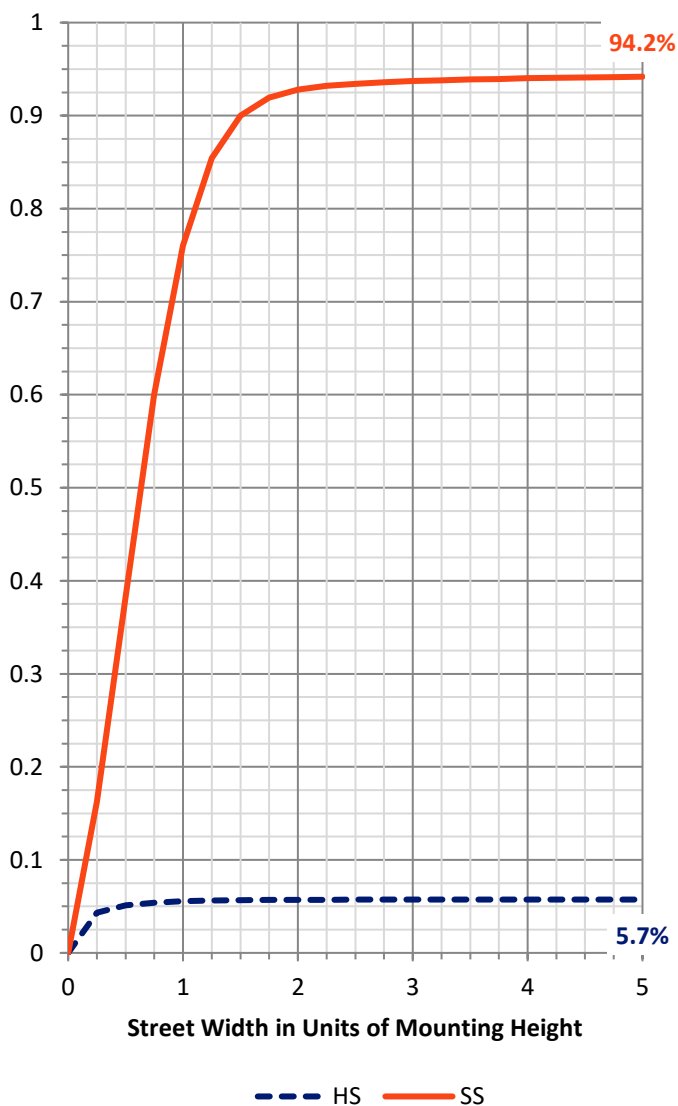
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	764.1	0.0	764.1
	% Fixture	5.8	0.0	5.8
Street Side	Lumens	12483.9	0.0	12483.9
	% Fixture	94.2	0.0	94.2
Total	Lumens	13248.0	0.0	13248.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.9	1.0
10°-20°	527.9	4.0
20°-30°	1129.5	8.5
30°-40°	2076.0	15.7
40°-50°	3182.5	24.0
50°-60°	3366.7	25.4
60°-70°	2198.5	16.6
70°-80°	600.7	4.5
80°-90°	32.3	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°	13248.0	100.0
0°-180°	13248.0	100.0

Coefficient of Utilization



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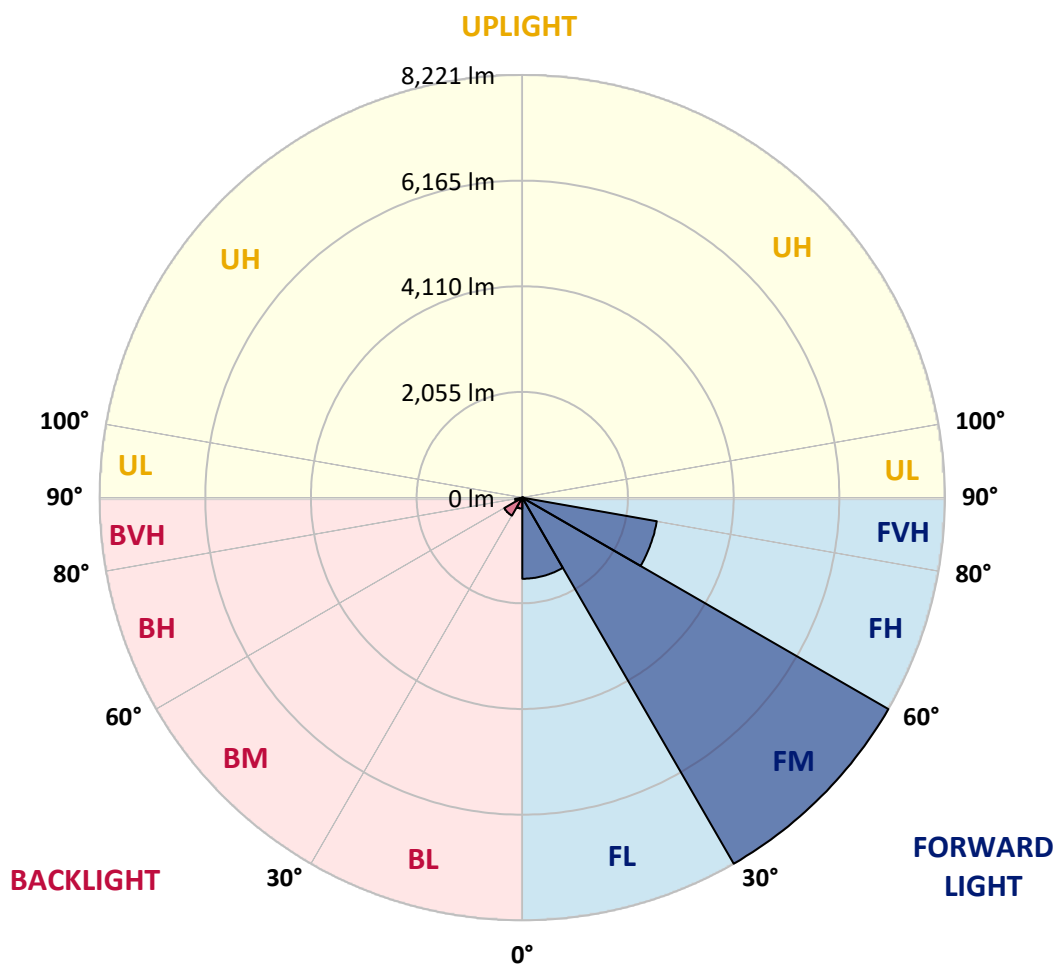
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1577.8	11.9			
FM (30°-60°)	8220.6	62.1			
FH (60°-80°)	2655.8	20.0			G2/5000
FVH (80°-90°)	29.7	0.2			G1/100
BL (0°-30°)	213.4	1.6	B1/500		
BM (30°-60°)	404.5	3.1	B1/1000		
BH (60°-80°)	143.5	1.1	B1/500		G1/500
BVH (80°-90°)	2.7	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°	65°	74°	75°	85°
0°	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5
2.5°	1623.6	1608.9	1579.6	1569.6	1526.6	1459.8	1401.3	1322.6	1260.4	1254.0	1179.0
5°	2174.2	2141.3	2127.5	2061.7	1958.3	1861.4	1694.9	1568.7	1423.2	1412.3	1261.3
7.5°	2704.7	2659.0	2645.2	2583.0	2462.3	2309.6	2093.7	1864.1	1633.6	1612.6	1372.0
10°	3088.9	3095.3	3070.6	3029.4	2931.5	2776.0	2509.9	2196.1	1867.8	1841.2	1496.4
12.5°	3364.2	3363.3	3367.8	3366.9	3314.8	3196.8	2916.9	2555.6	2125.7	2073.6	1639.1
15°	3543.5	3546.2	3559.9	3607.5	3613.0	3539.8	3306.6	2899.5	2424.8	2359.9	1793.7
17.5°	3724.6	3743.8	3765.7	3810.5	3850.8	3821.5	3656.9	3258.1	2695.6	2647.1	1959.2
20°	4023.7	4050.2	4037.4	4064.8	4085.9	4088.6	3961.5	3589.2	3023.9	2942.5	2148.6
22.5°	4502.0	4501.1	4468.2	4418.8	4377.6	4375.8	4260.6	3929.5	3322.1	3243.4	2338.8
25°	5106.6	5109.4	5045.4	4904.5	4802.1	4676.7	4544.1	4227.6	3641.3	3544.4	2539.1
27.5°	5800.0	5782.6	5685.6	5491.7	5288.7	5074.6	4883.5	4574.3	3979.8	3899.3	2768.7
30°	6422.9	6416.5	6303.0	6066.1	5799.0	5584.1	5307.0	5008.8	4417.9	4319.1	3025.8
32.5°	7002.8	7011.9	6854.6	6609.5	6351.5	6103.6	5810.9	5424.0	4847.8	4707.8	3305.6
35°	7455.5	7464.7	7301.9	7097.9	6832.6	6626.8	6347.9	5866.7	5272.2	5154.2	3627.6
37.5°	7697.0	7708.9	7614.7	7461.0	7295.5	7192.1	6932.3	6436.6	5788.1	5716.7	4008.1
40°	7742.7	7756.5	7715.3	7674.1	7665.0	7739.1	7663.2	7108.0	6503.4	6391.8	4575.2
42.5°	7605.5	7623.8	7642.1	7733.6	7920.2	8191.8	8456.2	8019.0	7424.4	7274.4	5268.5
45°	7245.2	7243.3	7315.6	7552.5	7970.5	8550.4	9284.9	9159.6	8679.4	8501.0	6248.2
47.5°	6628.7	6619.5	6775.9	7113.4	7764.7	8616.3	9960.8	10544.4	10281.0	10116.3	7300.9
50°	5689.3	5734.1	5980.2	6451.2	7253.4	8416.9	10169.4	11452.7	11595.4	11420.7	8151.6
52.5°	4588.9	4587.1	4973.1	5612.5	6496.0	7977.8	10023.9	11617.3	12022.5	11889.0	8570.5
55°	3396.2	3420.0	3821.5	4466.4	5512.8	7176.6	9549.2	11448.1	12185.3	12091.1	8846.8
57°	2526.3	2568.4	2890.4	3572.7	4656.6	6383.5	8917.2	11145.3	12249.3	12198.1	9076.3
57.5°	2358.0	2359.9	2673.6	3293.8	4406.0	6078.9	8736.1	11019.1	12247.5	12219.2	9113.8
60°	1451.6	1497.3	1714.1	2226.3	3225.1	4744.4	7522.3	10293.8	12152.4	12193.6	9273.9
62.5°	868.9	888.2	1029.0	1341.8	2079.1	3463.0	6155.8	9365.4	11904.5	12029.8	9262.9
65°	558.9	563.4	627.5	812.2	1299.8	2340.7	4743.5	8138.8	11263.3	11493.8	8900.7
67.5°	431.7	439.0	464.7	533.3	753.7	1458.0	3355.0	6829.9	10226.1	10523.4	8022.6
70°	383.2	386.9	396.1	418.0	498.5	823.2	2087.3	5335.3	8480.0	8564.1	6278.3
72.5°	312.8	322.9	351.2	358.6	395.1	514.0	1161.6	3581.0	5697.5	5718.6	3512.4
75°	242.4	244.2	286.3	307.3	332.9	354.0	518.6	1805.6	2736.7	2590.4	1353.7
77.5°	181.1	189.3	208.5	235.1	271.7	253.4	232.3	680.5	849.7	834.2	393.3
80°	116.2	120.7	145.4	176.5	211.3	165.6	130.8	199.4	186.6	192.1	94.2
82.5°	58.5	59.5	93.3	143.6	134.5	83.2	82.3	81.4	69.5	68.6	43.9
85°	6.4	13.7	60.4	82.3	60.4	27.4	38.4	37.5	36.6	37.5	25.6
87.5°	0.9	0.9	10.1	11.9	8.2	9.1	11.0	11.9	14.6	13.7	11.0
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°	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5	1109.5
2.5°	1142.4	1105.8	1038.2	973.2	924.7	893.6	853.4	838.8	817.7	815.0	804.9
5°	1191.8	1122.3	1004.3	911.0	836.0	779.3	729.9	688.8	655.8	648.5	652.2
7.5°	1262.3	1158.9	994.3	867.1	762.8	665.9	587.2	538.7	504.0	491.2	493.0
10°	1341.8	1207.4	992.4	820.5	661.3	542.4	456.4	413.4	393.3	386.0	377.8
12.5°	1436.0	1263.2	987.9	748.2	549.7	432.6	371.4	345.7	326.5	321.1	321.1
15°	1542.1	1322.6	965.9	658.6	446.4	357.6	316.5	296.4	290.0	284.5	284.5
17.5°	1652.8	1381.2	920.2	547.9	370.4	306.4	280.8	268.9	259.8	253.4	253.4
20°	1779.0	1438.8	847.0	450.0	312.8	273.5	253.4	239.6	232.3	226.8	225.0
22.5°	1898.9	1485.4	753.7	369.5	272.6	246.0	227.8	213.1	205.8	203.1	203.1
25°	2023.3	1513.8	641.2	305.5	248.8	223.2	203.1	191.2	184.8	182.9	182.0
27.5°	2144.0	1530.3	542.4	267.1	226.8	202.1	182.9	173.8	167.4	165.6	166.5
30°	2290.4	1533.0	446.4	239.6	207.6	182.0	164.6	156.4	152.8	150.9	150.0
32.5°	2438.5	1529.3	375.0	223.2	189.3	164.6	150.0	143.6	140.9	138.1	138.1
35°	2605.0	1510.1	319.2	206.7	172.0	150.0	137.2	131.7	128.1	125.3	124.4
37.5°	2811.7	1500.1	287.2	188.4	156.4	136.3	124.4	118.9	116.2	112.5	111.6
40°	3137.3	1544.9	277.1	172.0	140.9	123.5	112.5	106.1	102.4	98.8	97.9
42.5°	3543.5	1623.6	260.7	155.5	127.1	111.6	100.6	93.3	86.9	82.3	80.5
45°	4069.4	1726.9	235.1	138.1	115.2	98.8	88.7	79.6	71.3	67.7	66.8
47.5°	4620.9	1826.6	212.2	124.4	102.4	87.8	76.8	66.8	59.5	56.7	55.8
50°	4959.4	1846.7	197.6	108.8	89.6	75.9	64.9	55.8	51.2	48.5	48.5
52.5°	5114.0	1814.7	177.4	95.1	77.7	66.8	55.8	48.5	45.7	43.9	43.0
55°	5221.9	1765.3	150.9	82.3	66.8	56.7	49.4	43.9	40.2	38.4	37.5
57°	5285.0	1698.6	130.8	72.3	57.6	49.4	43.9	39.3	35.7	32.0	32.0
57.5°	5287.7	1672.9	125.3	71.3	54.9	47.6	43.0	38.4	33.8	30.2	29.3
60°	5206.3	1497.3	100.6	60.4	43.9	40.2	35.7	30.2	23.8	20.1	19.2
62.5°	4944.7	1274.1	83.2	51.2	35.7	31.1	25.6	22.9	16.5	11.9	11.9
65°	4548.7	1033.6	71.3	41.2	29.3	22.9	17.4	16.5	10.1	5.5	4.6
67.5°	3976.1	804.9	60.4	33.8	24.7	16.5	11.9	11.0	5.5	1.8	0.0
70°	3029.4	548.8	50.3	27.4	18.3	11.9	8.2	6.4	3.7	0.9	0.0
72.5°	1746.1	301.8	42.1	21.0	13.7	9.1	6.4	3.7	3.7	0.0	0.0
75°	623.8	129.9	32.0	15.5	11.0	7.3	4.6	1.8	2.7	0.9	0.0
77.5°	198.5	69.5	21.0	11.9	9.1	5.5	3.7	1.8	1.8	0.9	0.0
80°	58.5	36.6	12.8	10.1	6.4	4.6	2.7	0.9	1.8	0.9	0.0
82.5°	32.0	18.3	10.1	7.3	6.4	3.7	2.7	0.9	0.9	0.9	0.0
85°	16.5	11.0	8.2	7.3	6.4	3.7	2.7	0.9	0.0	0.9	0.9
87.5°	9.1	8.2	8.2	7.3	6.4	4.6	2.7	0.9	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)