

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: P458884

Luminaire Tested: **GALN-SA4A-735-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458884
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-SA4A-735-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3500K, 615mA 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: 13194 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

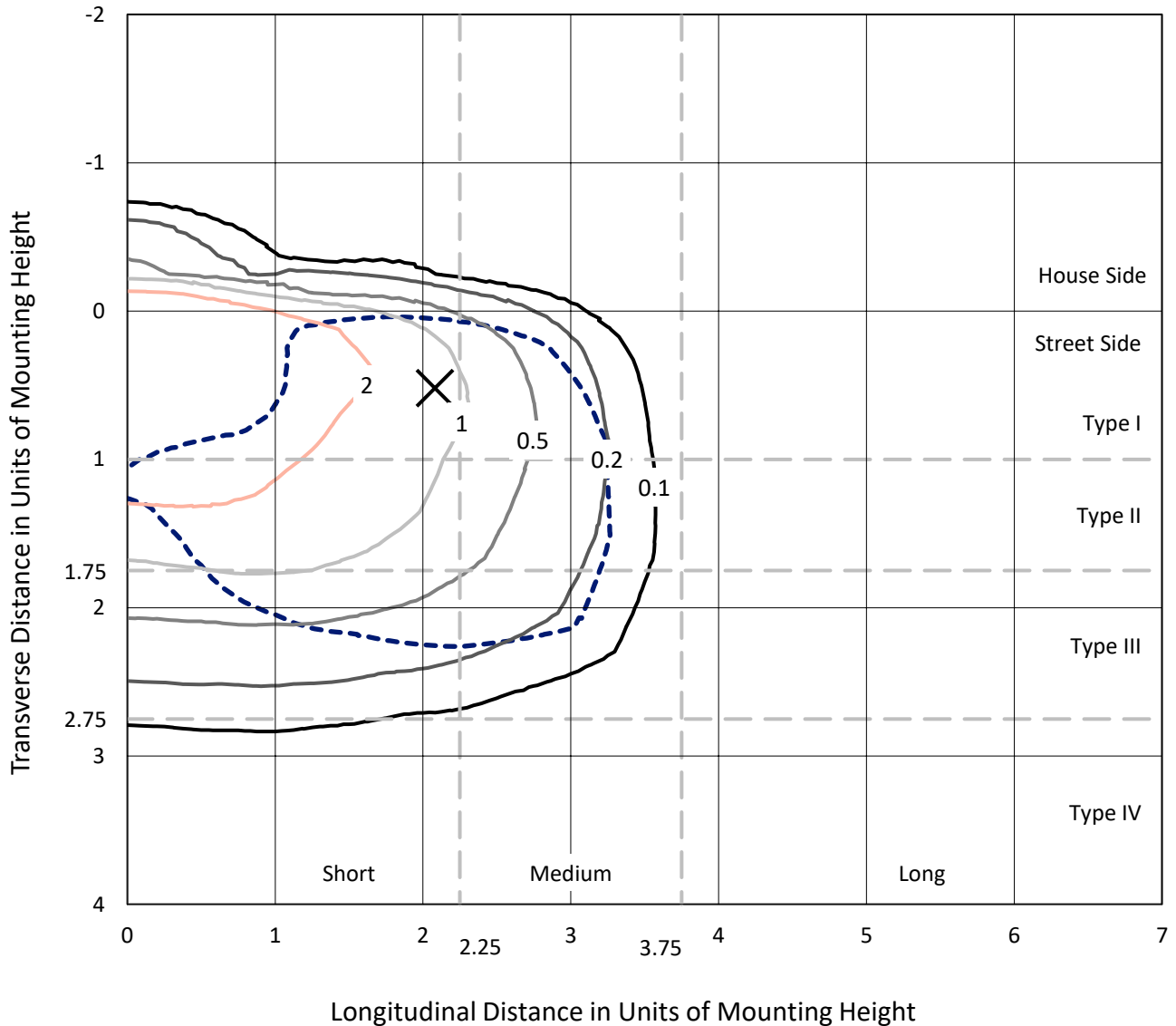
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

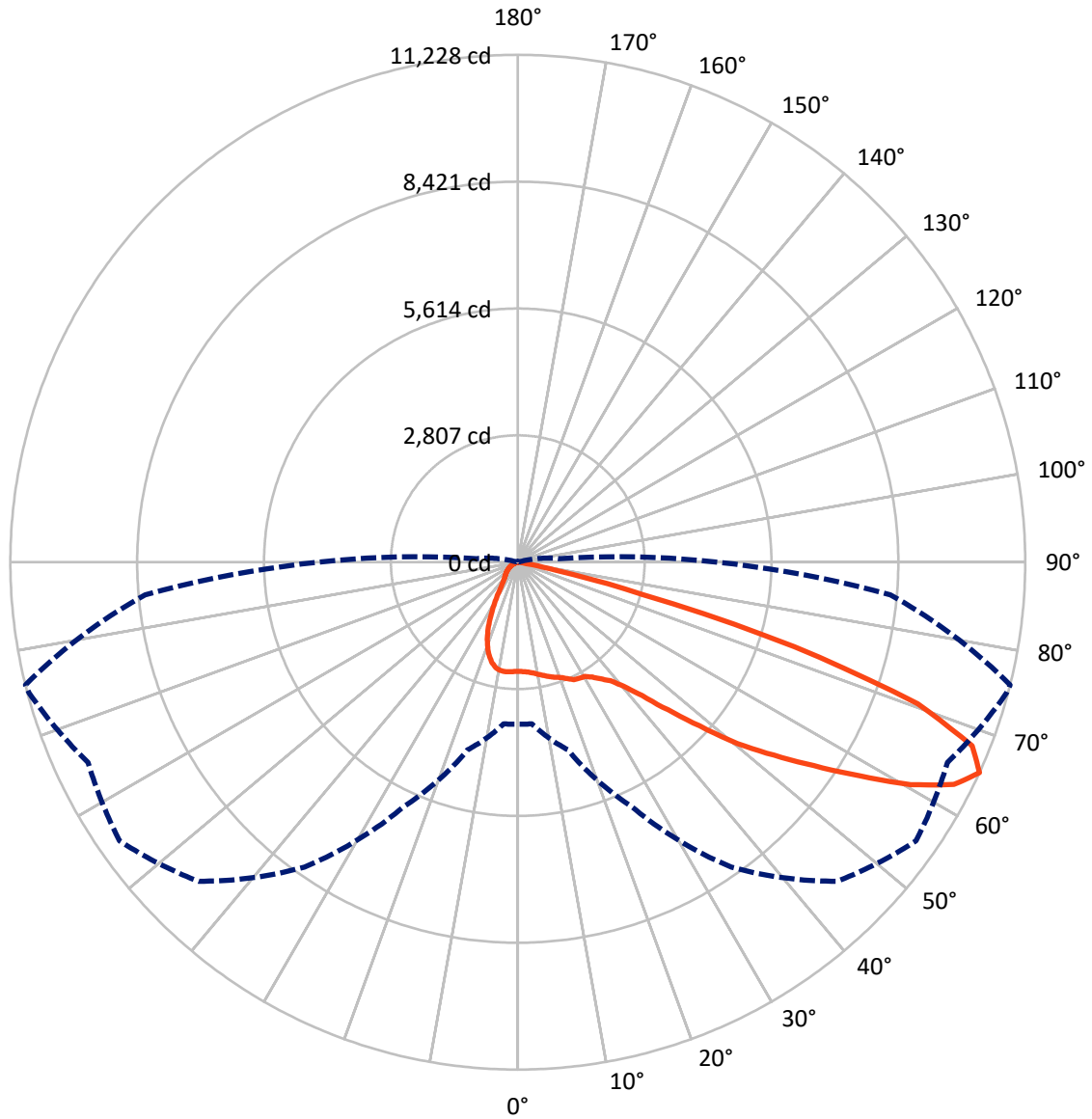
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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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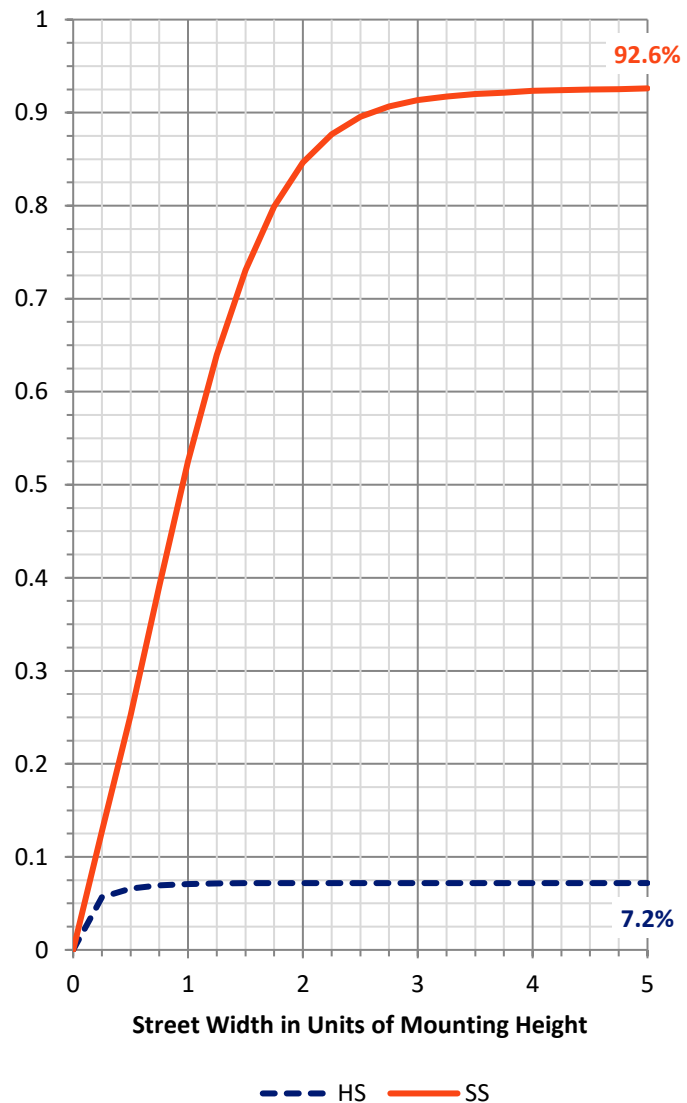
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	952.9	0.0	952.9
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	12241.1	0.0	12241.1
	% Fixture	92.8	0.0	92.8
Total	Lumens	13194.0	0.0	13194.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.8	1.5
10°-20°	442.7	3.4
20°-30°	713.4	5.4
30°-40°	1240.4	9.4
40°-50°	2049.6	15.5
50°-60°	3166.3	24.0
60°-70°	3866.5	29.3
70°-80°	1467.4	11.1
80°-90°	49.0	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°	13194.0	100.0
0°-180°	13194.0	100.0



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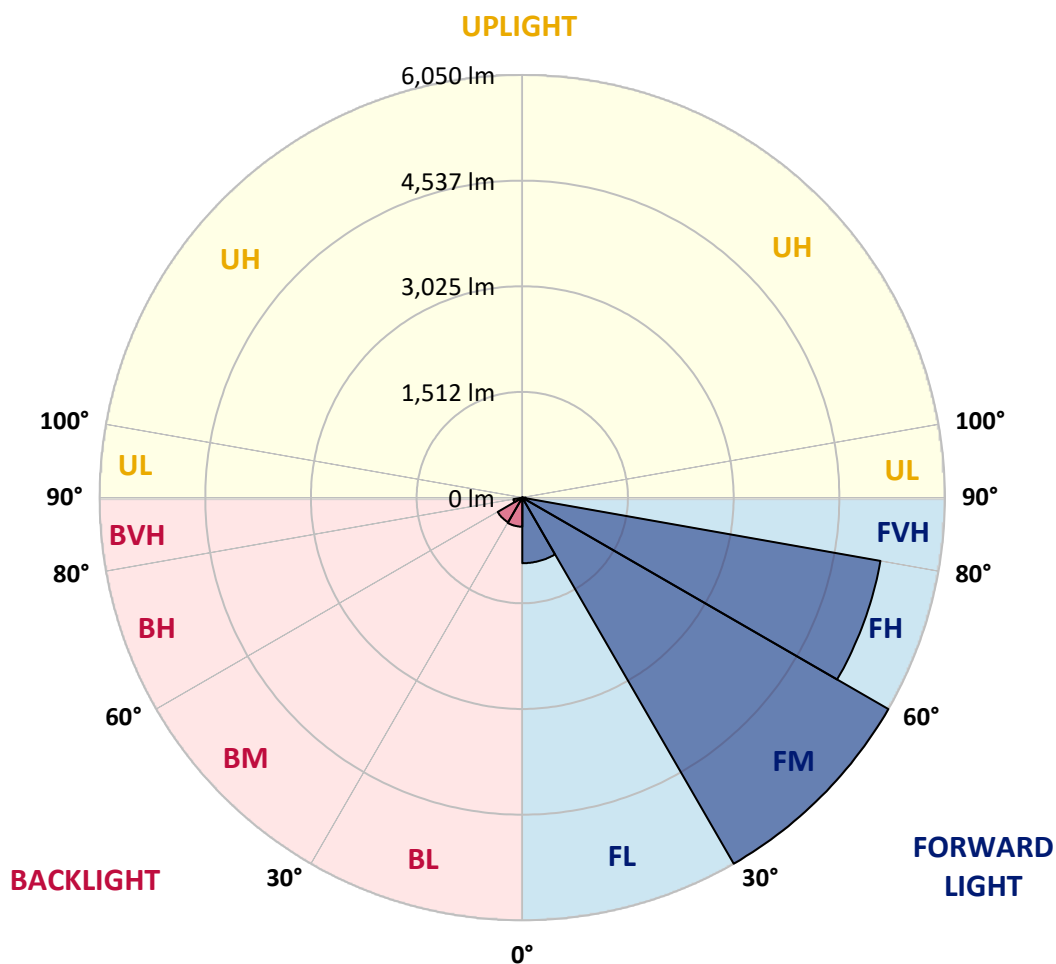
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	938.6	7.1			
FM	(30°-60°)	6049.6	45.9			
FH	(60°-80°)	5204.6	39.4			G3/7500
FVH	(80°-90°)	48.3	0.4			G1/100
BL	(0°-30°)	416.3	3.2	B1/500		
BM	(30°-60°)	406.6	3.1	B1/1000		
BH	(60°-80°)	129.3	1.0	B1/500		G1/500
BVH	(80°-90°)	0.7	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6
2.5°	2306.5	2307.4	2313.0	2327.0	2348.4	2366.1	2381.0	2405.2	2422.0	2423.9	2429.4
5°	2147.2	2136.0	2147.2	2183.5	2216.1	2265.5	2326.0	2386.6	2440.6	2444.3	2470.4
7.5°	1968.3	1977.6	1995.3	2032.6	2094.1	2169.5	2257.1	2365.2	2467.6	2476.9	2528.2
10°	1786.7	1807.2	1836.1	1892.9	1978.6	2076.4	2195.6	2350.3	2510.5	2523.5	2612.0
12.5°	1619.0	1628.3	1663.7	1740.1	1846.3	1984.2	2149.0	2341.9	2558.0	2573.8	2701.4
15°	1490.5	1502.6	1533.3	1602.2	1720.5	1897.5	2110.9	2339.1	2604.6	2626.9	2790.9
17.5°	1466.2	1473.7	1486.7	1533.3	1636.7	1828.6	2076.4	2338.1	2649.3	2676.3	2873.8
20°	1565.9	1559.4	1546.3	1541.7	1598.5	1775.5	2051.2	2345.6	2692.1	2722.9	2961.3
22.5°	1815.6	1823.9	1747.6	1657.2	1638.6	1767.1	2047.5	2381.0	2760.1	2796.5	3059.2
25°	2345.6	2281.3	2162.1	1946.0	1783.0	1818.4	2089.4	2464.8	2839.3	2879.4	3147.7
27.5°	2931.5	2912.0	2726.6	2370.8	2067.1	1926.4	2164.0	2529.1	2865.4	2906.4	3198.0
30°	3507.2	3530.5	3318.1	2925.0	2479.7	2126.7	2233.8	2553.3	2888.7	2931.5	3262.2
32.5°	4041.0	4068.9	3882.6	3493.3	2966.0	2473.2	2354.0	2647.4	2986.5	3030.3	3369.4
35°	4461.1	4464.8	4324.2	4014.0	3497.0	2894.3	2613.9	2812.3	3118.8	3170.0	3483.0
37.5°	4846.8	4841.2	4676.3	4408.9	3939.5	3312.5	2940.9	3002.3	3269.7	3322.8	3647.0
40°	5132.8	5136.5	5083.4	4831.9	4352.1	3699.1	3199.8	3180.3	3523.1	3606.0	3885.4
42.5°	5323.7	5358.2	5384.3	5256.6	4871.0	4175.1	3597.6	3561.3	3962.7	4031.7	4222.6
45°	5478.3	5539.8	5670.2	5663.7	5369.4	4759.2	4143.5	4068.9	4585.9	4659.5	4652.1
47.5°	5591.1	5653.5	5869.6	6000.0	5837.9	5325.6	4830.0	4765.7	5330.2	5410.3	5126.2
50°	5648.8	5723.3	5999.1	6251.5	6204.0	5871.5	5612.5	5616.2	6229.2	6306.5	5675.8
52.5°	5513.7	5610.6	6068.0	6522.6	6614.8	6394.0	6345.6	6468.6	7029.4	7095.5	6172.3
55°	5082.4	5204.5	5973.9	6753.6	7090.8	7010.7	7178.4	7365.6	7904.1	7946.9	6681.9
57.5°	4809.5	4939.0	5696.3	6950.2	7662.8	7785.8	8051.2	8188.2	8806.7	8915.7	7266.9
60°	4579.4	4681.0	5468.1	6992.1	8244.1	8734.1	8992.1	9133.7	9920.8	9991.6	7910.6
62.5°	4196.6	4313.0	5082.4	6699.6	8536.6	9493.3	10028.0	9964.6	10782.5	10831.9	8305.6
65°	3580.8	3591.1	4300.0	5964.6	8234.8	9986.0	10755.5	10490.0	11194.2	11227.8	8274.8
67.5°	2672.6	2771.3	3307.9	4688.4	6955.8	9565.0	10991.2	10504.0	10934.3	10841.2	7618.1
70°	1721.5	1796.9	2242.2	3251.1	5015.4	7982.3	10209.6	9783.9	9596.7	9389.9	6235.7
72.5°	794.6	891.5	1332.1	1857.5	2974.4	5686.1	8287.9	7948.8	6907.3	6396.8	3963.7
75°	346.5	370.8	657.7	980.0	1394.5	3007.0	5464.4	4934.3	3119.7	2849.6	1586.4
77.5°	211.5	227.3	344.7	525.4	547.7	1145.8	2943.6	2152.8	964.1	850.5	430.4
80°	143.5	161.2	250.6	274.8	187.2	319.5	1104.8	574.8	194.7	186.3	92.2
82.5°	69.9	88.5	185.4	153.7	81.0	102.5	321.4	123.0	56.8	53.1	32.6
85°	10.2	17.7	104.3	100.6	36.3	24.2	56.8	30.7	19.6	18.6	14.9
87.5°	0.0	0.0	35.4	15.8	3.7	3.7	6.5	6.5	7.5	6.5	7.5
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°	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6	2413.6
2.5°	2432.2	2436.9	2419.2	2394.0	2367.0	2340.0	2301.8	2267.4	2246.9	2259.0	2229.2
5°	2476.0	2472.3	2425.7	2349.3	2247.8	2125.8	2004.7	1901.3	1867.7	1817.4	1811.8
7.5°	2536.6	2526.3	2427.6	2252.4	2023.3	1794.1	1570.6	1422.5	1337.7	1266.0	1267.8
10°	2621.3	2591.5	2406.2	2082.0	1704.7	1359.1	1074.1	878.4	793.7	766.7	745.2
12.5°	2708.9	2651.1	2346.5	1851.9	1327.4	928.7	653.0	533.8	481.6	464.8	463.0
15°	2787.1	2695.9	2242.2	1575.2	965.1	593.4	445.3	406.1	399.6	400.6	399.6
17.5°	2864.5	2731.3	2097.8	1281.8	655.8	425.7	382.9	373.5	376.3	380.1	379.1
20°	2928.7	2738.7	1913.4	978.1	463.9	373.5	359.6	357.7	360.5	363.3	363.3
22.5°	2998.6	2744.3	1694.5	677.2	379.1	347.5	340.0	340.0	343.7	347.5	348.4
25°	3050.8	2713.6	1432.7	486.3	334.4	322.3	318.6	319.5	323.2	325.1	324.2
27.5°	3059.2	2626.9	1155.1	372.6	303.7	291.6	287.8	291.6	286.9	289.7	287.8
30°	3066.6	2517.0	873.8	313.9	275.7	257.1	251.5	245.9	242.2	237.5	236.6
32.5°	3089.9	2387.5	638.1	282.3	249.7	229.2	216.1	200.3	188.2	184.4	183.5
35°	3100.1	2232.0	468.6	257.1	226.4	204.0	180.7	158.4	140.7	134.1	138.8
37.5°	3139.3	2081.0	363.3	238.5	205.9	177.9	148.1	120.2	103.4	99.7	101.5
40°	3219.4	1917.1	304.6	222.6	188.2	153.7	117.4	90.4	79.2	75.5	74.5
42.5°	3347.9	1754.1	271.1	207.7	170.5	129.5	92.2	70.8	61.5	58.7	58.7
45°	3504.4	1597.6	247.8	191.9	151.8	104.3	72.7	56.8	51.2	49.4	49.4
47.5°	3710.3	1460.6	228.2	176.1	131.3	82.9	58.7	49.4	45.6	46.6	47.5
50°	3919.0	1359.1	206.8	158.4	108.1	68.0	50.3	43.8	42.9	43.8	43.8
52.5°	4076.4	1299.5	177.9	134.1	84.8	56.8	44.7	41.0	40.1	38.2	38.2
55°	4288.8	1286.4	141.6	109.0	67.1	47.5	40.1	37.3	34.5	32.6	31.7
57.5°	4561.7	1301.4	109.0	84.8	52.2	39.1	35.4	30.7	27.0	23.3	23.3
60°	4731.3	1267.8	84.8	65.2	38.2	31.7	27.0	22.4	17.7	14.9	14.0
62.5°	4677.2	1126.2	67.1	48.4	27.0	23.3	17.7	14.9	10.2	7.5	6.5
65°	4398.7	909.2	54.0	33.5	19.6	14.0	9.3	9.3	4.7	0.9	0.0
67.5°	3850.0	673.5	42.9	22.4	11.2	6.5	4.7	2.8	0.0	0.0	0.0
70°	3133.7	486.3	33.5	14.0	6.5	4.7	1.9	0.9	0.0	0.0	0.0
72.5°	1989.8	278.5	26.1	8.4	4.7	1.9	0.0	0.0	0.0	0.0	0.0
75°	769.4	109.0	17.7	5.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	218.0	51.2	10.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	56.8	22.4	5.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.0	9.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.8	3.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.5	0.9	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)