

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: P453129

Luminaire Tested: **GALN-SA4A-827-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453129
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-827-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10939 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

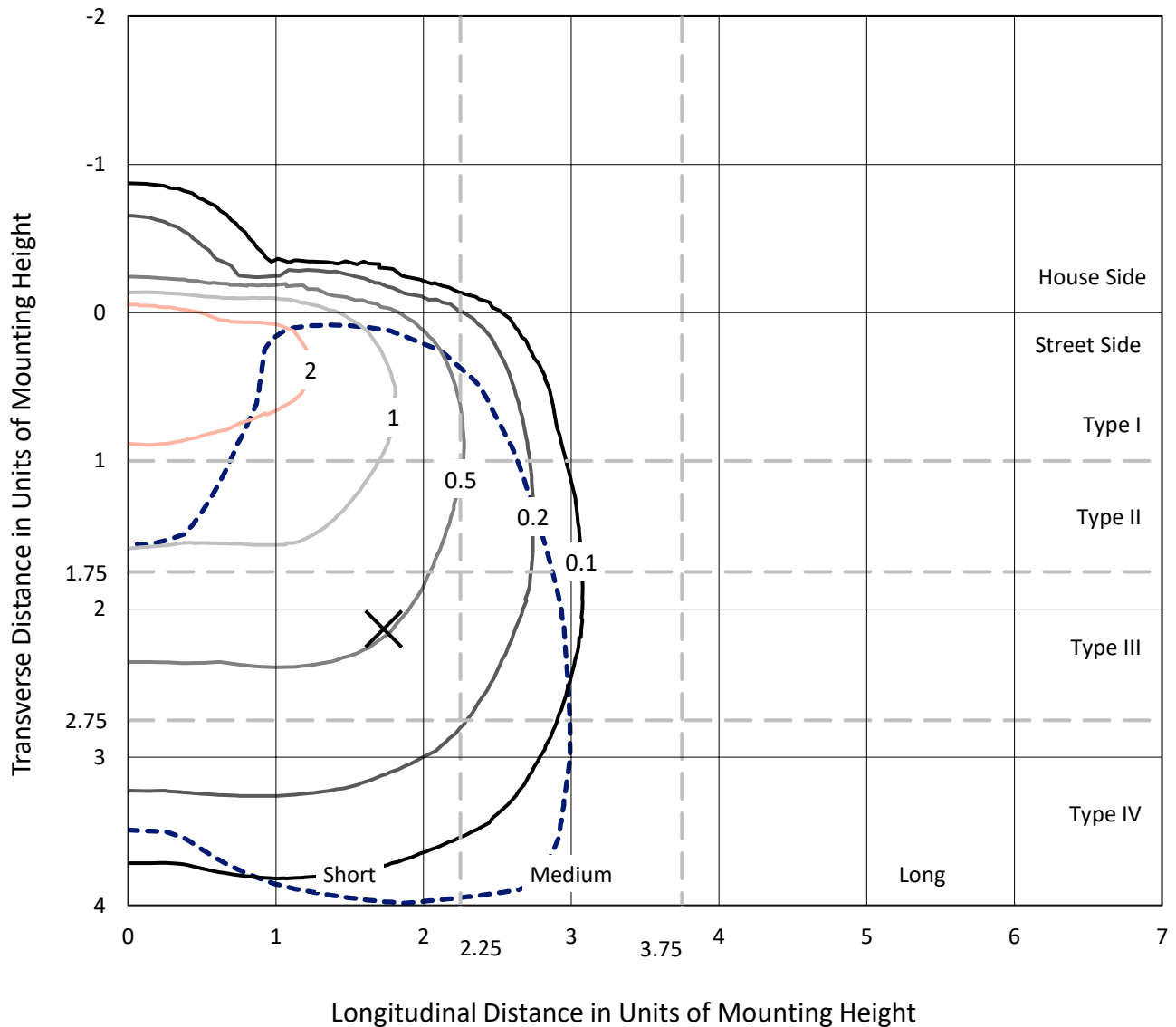
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

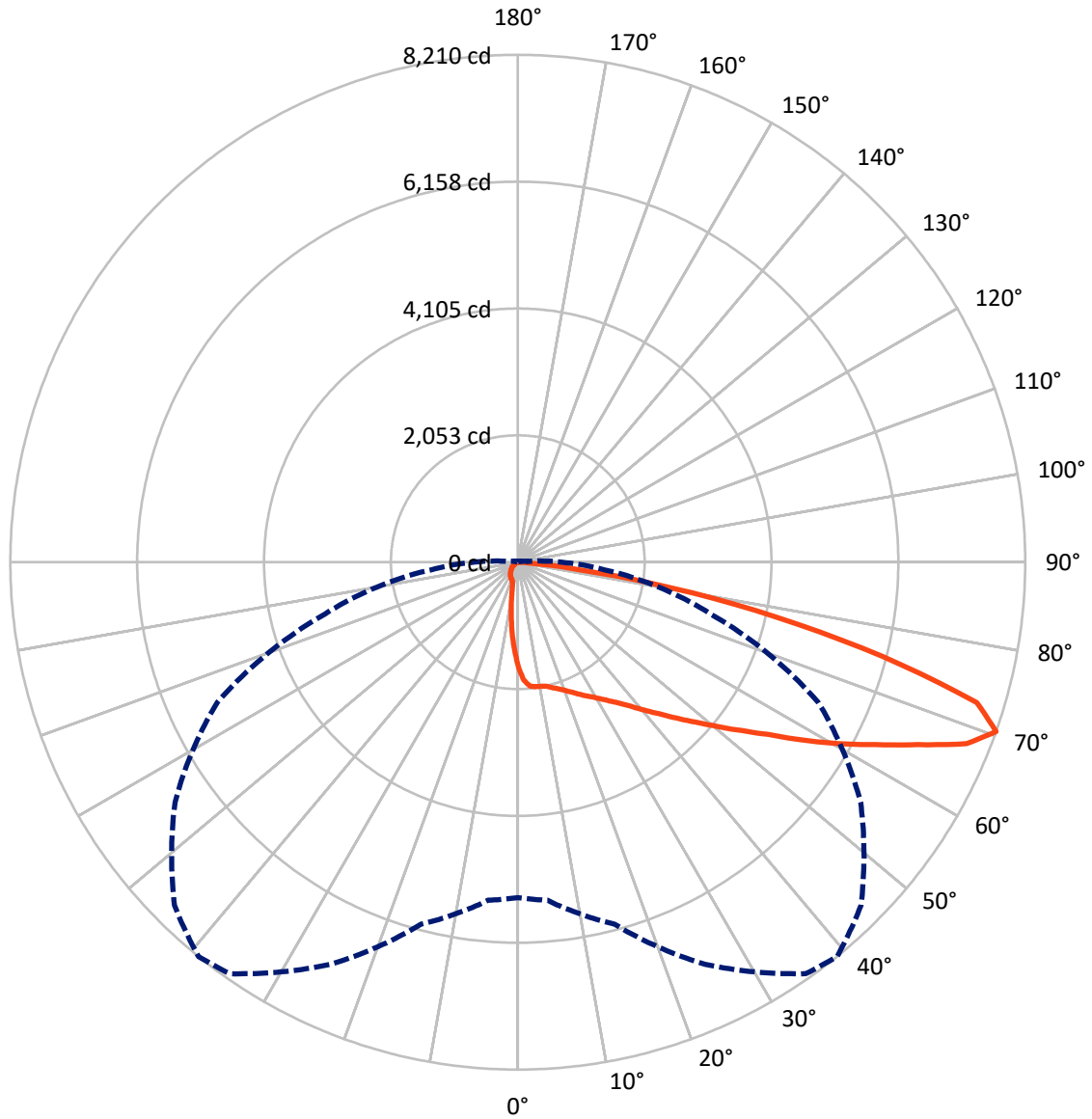
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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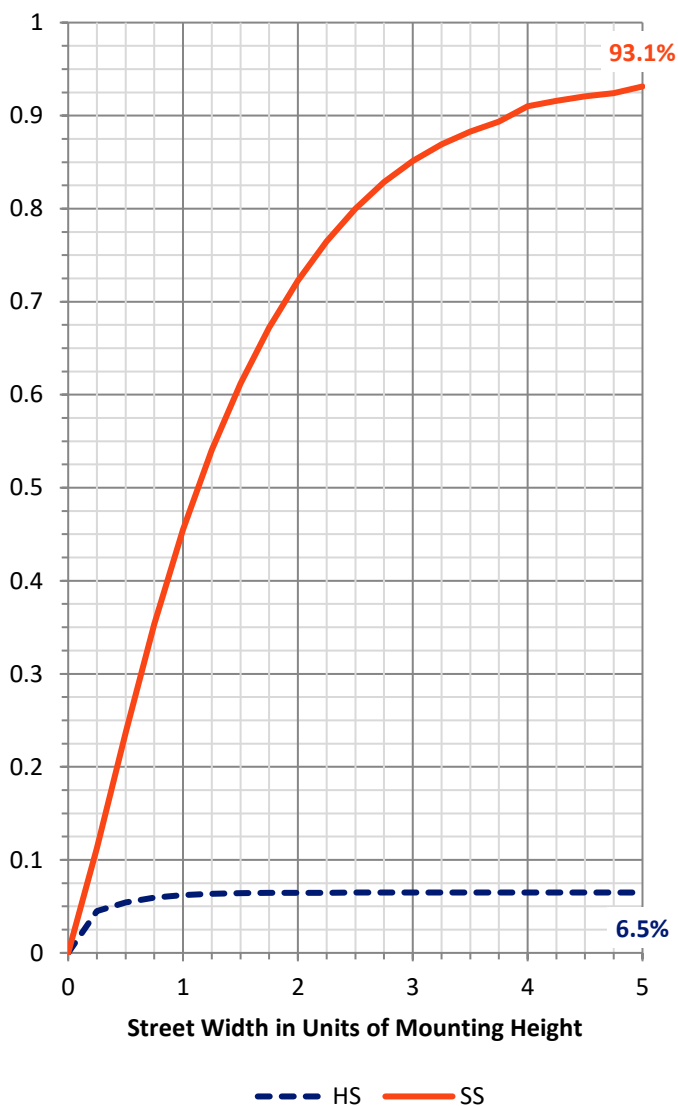
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	713.3	0.0	713.3
	% Fixture	6.5	0.0	6.5
Street Side	Lumens	10225.7	0.0	10225.7
	% Fixture	93.5	0.0	93.5
Total	Lumens	10939.0	0.0	10939.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.6	1.3
10°-20°	378.3	3.5
20°-30°	633.8	5.8
30°-40°	983.0	9.0
40°-50°	1557.7	14.2
50°-60°	2283.3	20.9
60°-70°	2926.7	26.8
70°-80°	1839.0	16.8
80°-90°	191.6	1.8
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°	10939.0	100.0
0°-180°	10939.0	100.0

Coefficient of Utilization



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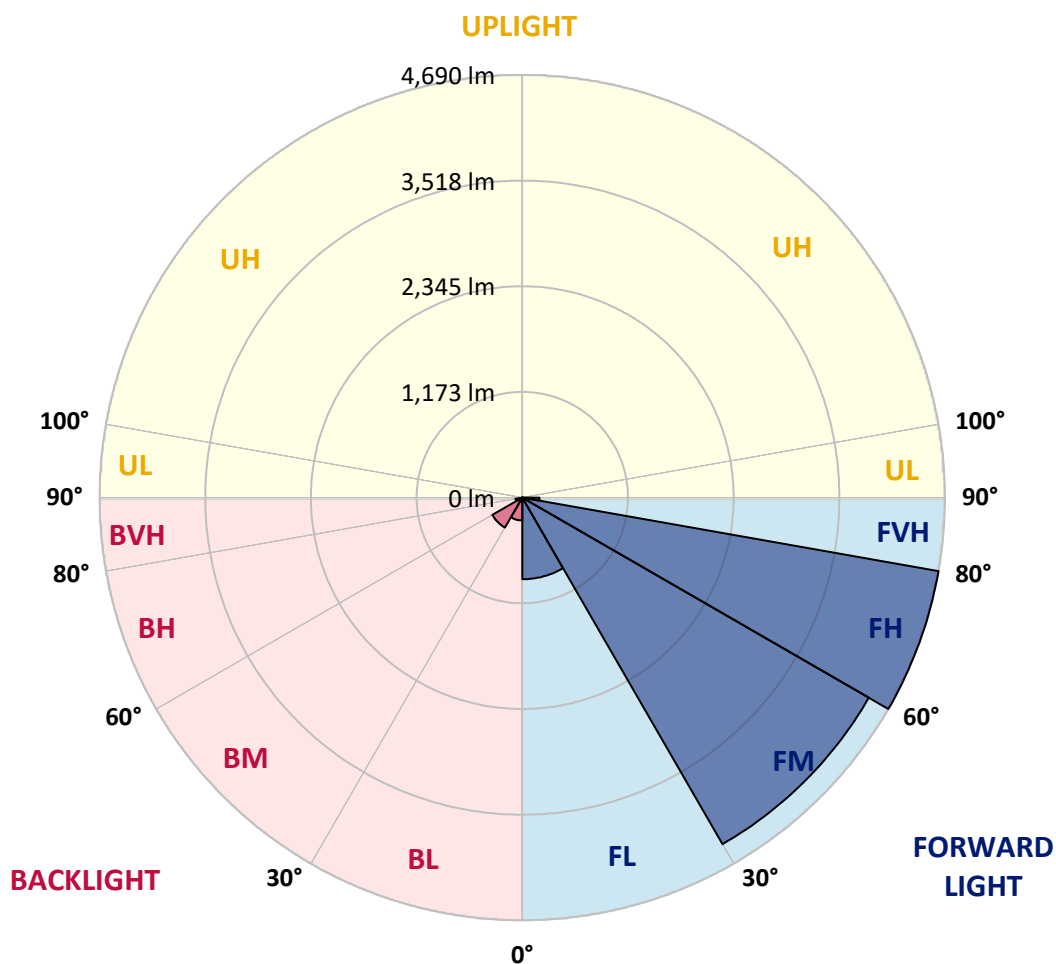
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	905.1	8.3			
FM (30°-60°)	4440.1	40.6			
FH (60°-80°)	4690.3	42.9			G2/5000
FVH (80°-90°)	190.2	1.7			G2/225
BL (0°-30°)	252.6	2.3	B1/500		
BM (30°-60°)	383.9	3.5	B1/1000		
BH (60°-80°)	75.4	0.7	B0/110		G0/110
BVH (80°-90°)	1.4	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9
2.5°	1972.2	1965.6	1956.8	1946.5	1917.1	1911.9	1894.3	1856.8	1812.0	1775.2	1724.5
5°	2065.6	2069.3	2062.6	2044.3	2022.9	2010.4	1988.4	1930.3	1872.3	1798.0	1714.9
7.5°	2086.9	2094.2	2086.2	2068.5	2047.9	2034.7	2017.1	1967.1	1899.5	1814.9	1701.0
10°	2084.7	2093.5	2088.4	2072.2	2055.3	2042.8	2023.7	1984.0	1929.6	1840.6	1705.4
12.5°	2081.0	2092.8	2092.0	2084.0	2070.0	2060.4	2048.7	2013.4	1962.7	1878.1	1729.6
15°	2070.7	2085.4	2098.7	2105.3	2106.0	2106.0	2091.3	2053.8	2005.3	1927.4	1761.3
17.5°	2075.1	2092.0	2125.1	2144.2	2157.5	2156.0	2140.6	2100.1	2046.5	1978.1	1794.3
20°	2102.3	2125.1	2171.4	2209.7	2222.9	2218.5	2197.9	2150.8	2089.8	2021.5	1826.7
22.5°	2169.2	2189.8	2247.9	2292.7	2302.3	2290.5	2261.1	2197.2	2142.0	2068.5	1865.6
25°	2269.2	2293.5	2347.1	2380.9	2380.9	2374.3	2333.1	2258.2	2200.8	2133.9	1916.4
27.5°	2390.5	2411.1	2464.0	2494.1	2476.5	2457.4	2416.2	2325.8	2270.7	2216.3	1977.4
30°	2513.2	2526.5	2582.3	2595.6	2577.2	2552.9	2508.8	2418.4	2369.9	2328.0	2065.6
32.5°	2629.4	2658.1	2704.4	2701.4	2676.4	2664.7	2624.2	2527.9	2500.7	2496.3	2189.1
35°	2745.5	2767.6	2808.7	2819.0	2797.0	2794.8	2765.4	2694.1	2694.8	2723.5	2381.7
37.5°	2845.5	2865.3	2913.9	2936.7	2941.1	2952.1	2940.3	2893.3	2960.2	3038.8	2636.7
40°	2929.3	2957.2	3019.0	3058.7	3104.2	3144.7	3146.9	3157.2	3291.7	3426.9	2969.7
42.5°	2994.7	3033.7	3123.4	3196.9	3301.3	3352.7	3393.9	3450.5	3676.9	3879.0	3362.3
45°	3080.0	3124.8	3236.6	3352.0	3515.2	3599.7	3657.0	3808.5	4129.7	4405.3	3765.1
47.5°	3221.1	3244.6	3358.6	3526.9	3741.6	3862.1	3973.9	4203.2	4615.6	4862.6	4100.3
50°	3402.7	3418.1	3504.1	3737.9	4015.8	4174.5	4378.1	4647.9	5119.8	5241.9	4289.9
52.5°	3603.4	3608.5	3673.2	3970.2	4323.0	4523.0	4750.8	5083.8	5530.8	5512.4	4415.6
55°	3836.4	3829.0	3884.2	4222.3	4686.9	4915.5	5180.9	5530.0	5887.3	5704.2	4487.7
57.5°	4103.2	4083.4	4137.0	4556.8	5152.9	5426.4	5696.1	5915.2	6163.7	5865.2	4522.2
60°	4382.6	4342.9	4406.8	4932.4	5702.0	5961.5	6185.7	6244.5	6454.8	5993.1	4462.7
62.5°	4605.3	4606.0	4725.1	5332.3	6266.6	6493.7	6612.8	6665.7	6705.4	5965.2	4149.5
65°	4953.0	4964.7	5155.1	5887.3	6920.1	7117.1	7198.7	7026.6	6716.4	5618.2	3679.1
67.5°	5311.7	5349.2	5697.6	6651.8	7675.0	7833.8	7728.6	7096.5	6416.5	4826.5	2789.6
70°	5428.6	5490.3	6064.4	7178.1	8127.8	8210.1	7854.3	6770.8	5363.9	3227.0	1404.0
72.5°	4974.3	5074.3	5853.5	6986.2	7838.9	7767.6	7027.4	5678.5	3410.0	1225.4	428.6
75°	3507.8	3551.9	4864.8	5795.4	6304.8	6102.6	5345.5	3660.7	1402.5	344.0	147.0
77.5°	1811.2	1789.9	2893.3	3845.2	4496.5	4287.0	3500.5	1895.0	531.5	143.3	91.2
80°	936.5	951.9	1251.8	2014.9	2744.8	2525.7	1866.4	878.4	283.0	79.4	69.8
82.5°	524.8	492.5	719.6	879.9	1283.5	1006.3	716.0	621.9	123.5	47.8	66.2
85°	95.6	100.0	394.7	475.6	445.5	283.0	230.8	415.3	36.0	26.5	46.3
87.5°	1.5	1.5	76.4	136.7	86.7	39.7	72.8	59.5	7.4	10.3	8.1
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°	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9	1706.9
2.5°	1698.8	1670.8	1618.6	1567.2	1501.8	1448.1	1412.1	1374.6	1336.4	1339.3	1348.1
5°	1669.4	1620.9	1517.9	1409.2	1304.8	1210.7	1118.1	1035.0	1001.2	970.3	971.8
7.5°	1640.0	1571.6	1420.9	1250.4	1092.3	932.1	815.9	720.4	669.7	631.4	620.4
10°	1626.7	1536.3	1332.0	1097.5	873.3	698.3	549.1	471.2	410.9	391.8	396.9
12.5°	1632.6	1518.7	1251.8	959.3	692.4	486.6	382.2	342.5	329.3	327.1	325.6
15°	1643.6	1506.2	1173.2	806.4	508.7	361.7	321.2	313.9	312.4	310.9	311.7
17.5°	1658.3	1495.2	1089.4	663.0	390.3	316.1	304.3	300.6	299.9	299.9	299.9
20°	1673.0	1482.7	996.0	535.1	325.6	298.4	291.1	288.9	288.2	288.2	287.4
22.5°	1690.0	1471.6	901.2	420.5	299.9	285.9	279.3	277.9	277.1	276.4	276.4
25°	1714.2	1457.7	800.5	344.0	283.7	274.2	267.6	266.1	265.4	262.4	263.2
27.5°	1746.6	1447.4	696.9	297.0	269.0	259.5	255.1	252.9	251.4	249.2	249.9
30°	1790.7	1438.6	586.6	271.2	252.1	244.0	239.6	238.2	236.7	234.5	234.5
32.5°	1867.1	1442.2	470.5	250.7	236.7	227.1	222.7	221.3	219.8	217.6	217.6
35°	1981.8	1463.5	376.4	233.0	218.3	208.8	204.4	204.4	202.1	199.2	198.5
37.5°	2169.2	1517.9	302.1	216.1	200.7	191.9	186.7	185.2	183.0	178.6	177.9
40°	2390.5	1602.5	254.3	199.2	184.5	175.7	171.3	166.9	161.0	156.6	155.8
42.5°	2668.3	1689.2	220.5	182.3	169.1	161.0	155.8	148.5	139.7	133.8	133.0
45°	2958.0	1768.6	197.7	166.9	154.4	147.8	141.9	130.1	119.1	111.7	111.0
47.5°	3174.1	1783.3	179.4	152.2	141.9	135.3	127.2	112.5	97.8	91.2	88.9
50°	3276.3	1712.0	160.2	137.5	129.4	122.0	111.7	94.8	78.7	70.6	69.1
52.5°	3312.3	1588.5	144.8	124.2	116.9	108.1	95.6	76.4	61.7	53.7	52.9
55°	3297.6	1432.7	130.8	111.7	102.2	91.9	79.4	61.0	45.6	39.0	37.5
57.5°	3220.4	1234.2	116.9	99.2	87.5	77.2	63.2	45.6	30.9	25.0	24.3
60°	3012.4	963.7	102.9	85.3	74.2	63.2	50.0	32.3	19.1	14.0	14.0
62.5°	2661.0	715.2	89.7	71.3	62.5	50.7	35.3	20.6	10.3	7.4	6.6
65°	2223.6	527.8	75.0	60.3	52.2	39.7	25.0	12.5	5.1	2.2	1.5
67.5°	1551.8	325.6	62.5	49.3	42.6	28.7	15.4	5.1	2.2	0.0	0.0
70°	704.9	155.1	47.8	37.5	32.3	20.6	8.1	2.9	1.5	0.0	0.0
72.5°	219.1	81.6	33.8	27.2	22.1	13.2	4.4	2.2	1.5	0.0	0.0
75°	101.4	52.2	21.3	14.7	12.5	6.6	2.9	1.5	0.7	0.0	0.0
77.5°	75.7	40.4	12.5	8.1	6.6	4.4	2.2	1.5	0.7	0.0	0.0
80°	66.2	20.6	7.4	5.1	3.7	2.9	1.5	0.7	0.0	0.0	0.0
82.5°	59.5	10.3	4.4	2.9	2.2	1.5	0.7	0.7	0.0	0.0	0.0
85°	32.3	5.9	2.9	2.2	1.5	0.7	0.7	0.0	0.0	0.0	0.0
87.5°	5.9	2.9	2.2	1.5	1.5	0.7	0.7	0.7	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)