

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: P454073

Luminaire Tested: **GALN-SA5A-827-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454073
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5A-827-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16798 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

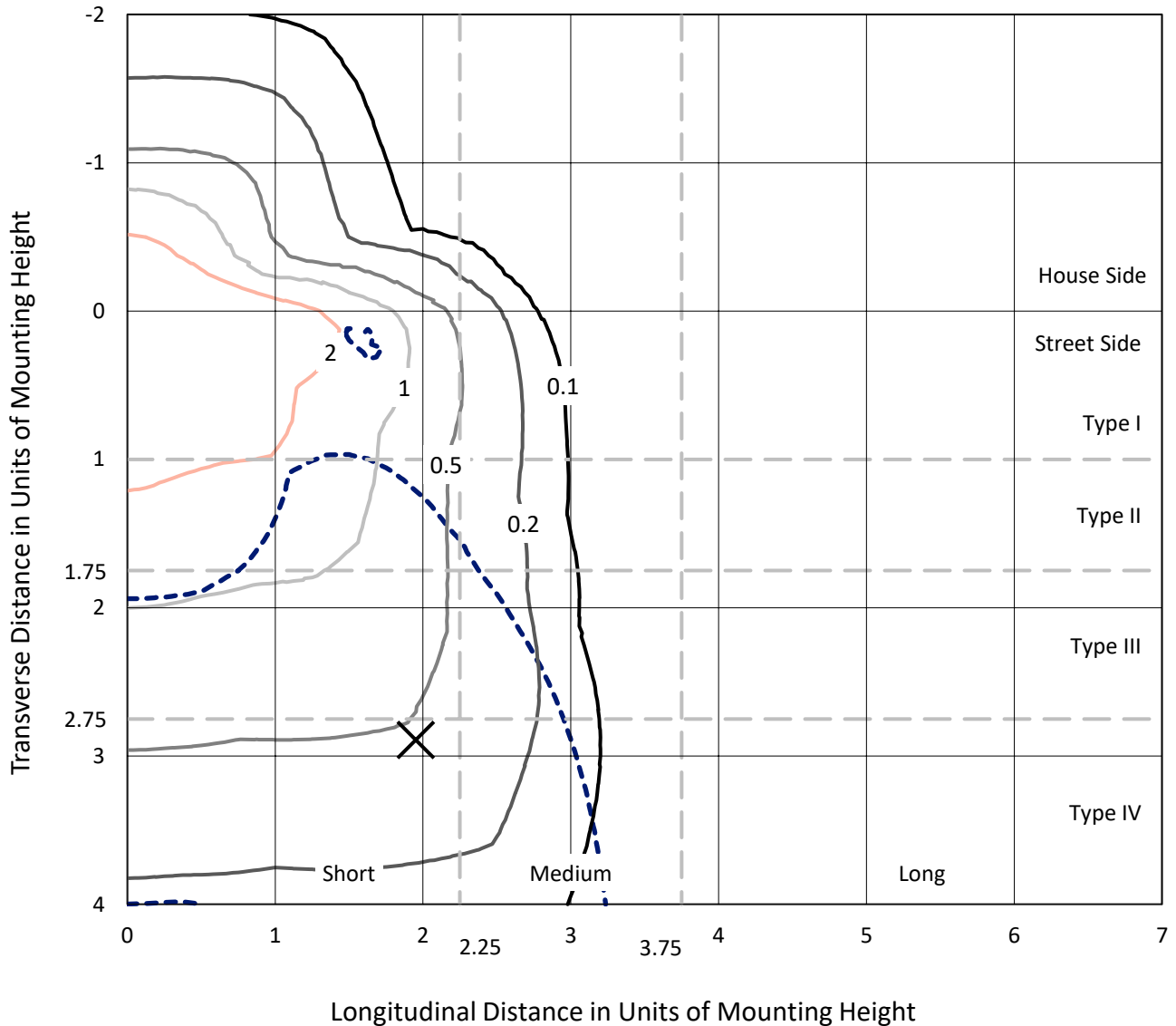
Input Watts (W): 154
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

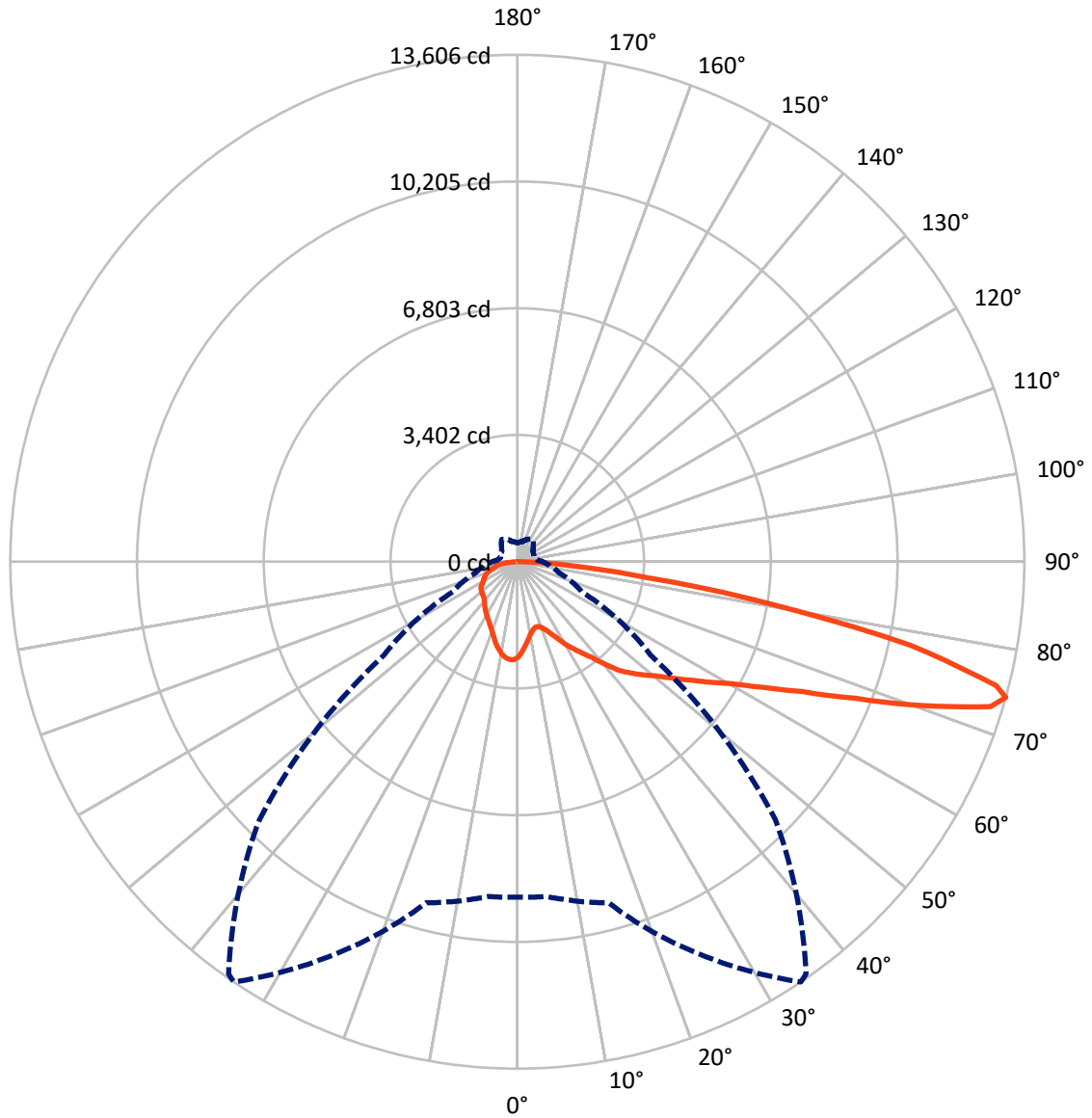
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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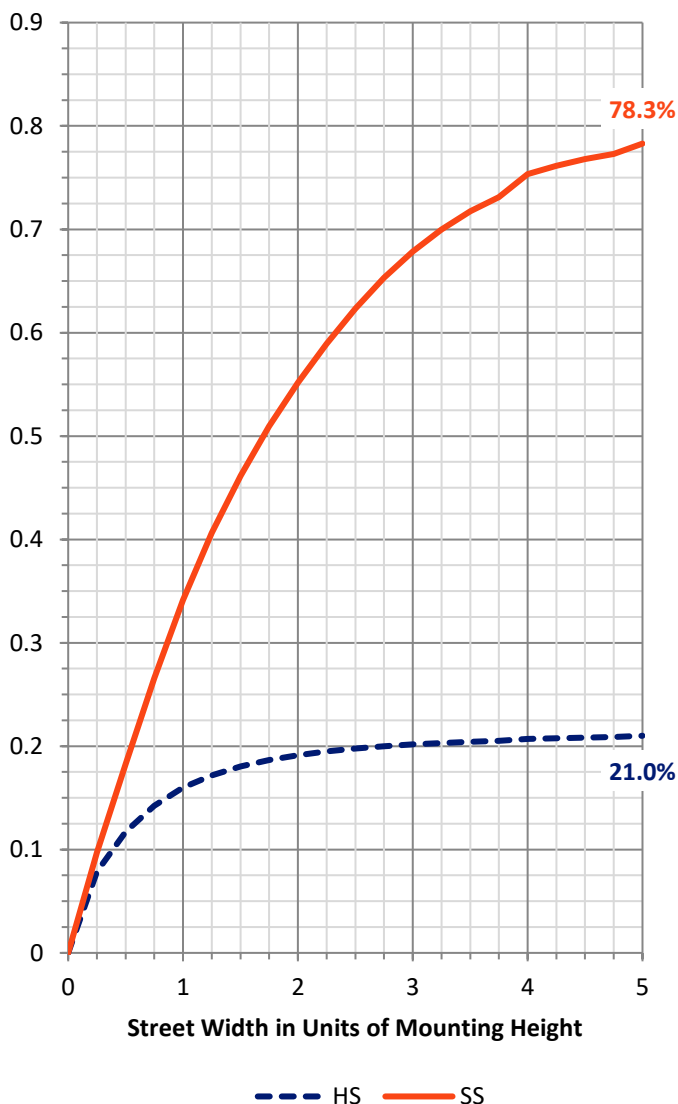
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3574.7	0.0	3574.7
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	13223.3	0.0	13223.3
	% Fixture	78.7	0.0	78.7
Total	Lumens	16798.0	0.0	16798.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.3	1.4
10°-20°	638.5	3.8
20°-30°	1052.7	6.3
30°-40°	1576.9	9.4
40°-50°	2292.4	13.6
50°-60°	3201.9	19.1
60°-70°	4008.6	23.9
70°-80°	3314.8	19.7
80°-90°	479.0	2.9
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°	16798.0	100.0
0°-180°	16798.0	100.0

Coefficient of Utilization



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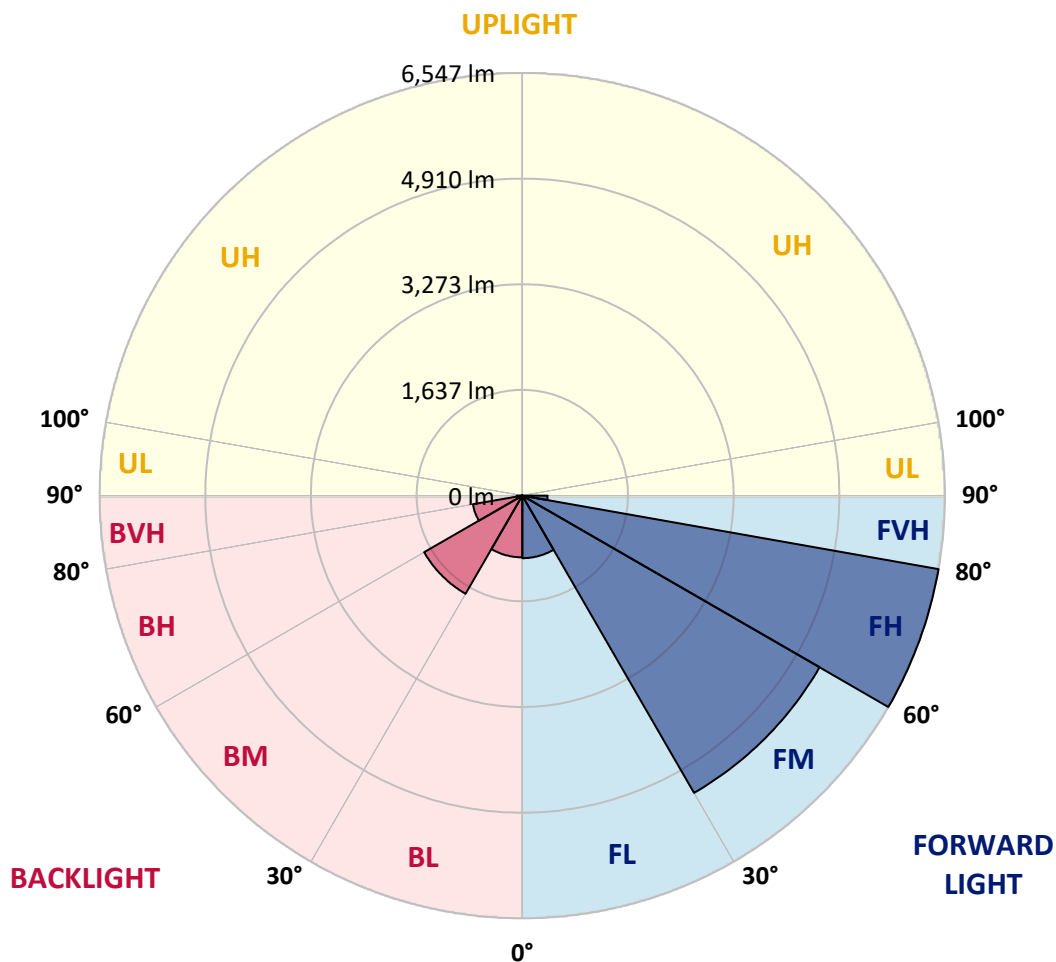
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	968.3	5.8			
FM	(30°-60°)	5315.6	31.6			
FH	(60°-80°)	6547.0	39.0			G3/7500
FVH	(80°-90°)	392.4	2.3			G3/500
BL	(0°-30°)	956.2	5.7	B2/1000		
BM	(30°-60°)	1755.6	10.5	B2/2500		
BH	(60°-80°)	776.4	4.6	B2/1000		G2/1000
BVH	(80°-90°)	86.6	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7
2.5°	2370.2	2382.3	2388.8	2412.1	2417.7	2425.1	2444.7	2470.7	2504.2	2534.0	2560.1
5°	2172.9	2191.6	2202.7	2223.2	2263.2	2266.9	2319.0	2378.6	2446.5	2509.8	2561.9
7.5°	1985.9	2006.4	2015.7	2052.9	2105.9	2114.3	2190.6	2284.6	2398.1	2494.0	2574.0
10°	1845.4	1855.6	1876.1	1904.0	1967.3	1972.9	2072.4	2198.1	2345.1	2486.6	2594.5
12.5°	1769.1	1774.6	1779.3	1809.1	1871.4	1879.8	1984.0	2126.4	2303.2	2492.1	2628.0
15°	1780.2	1782.1	1761.6	1767.2	1817.5	1829.6	1932.8	2079.0	2277.2	2506.1	2678.3
17.5°	1874.2	1867.7	1817.5	1791.4	1826.8	1832.3	1922.6	2060.3	2265.1	2532.2	2730.4
20°	2022.2	2012.9	1926.3	1868.6	1889.1	1893.8	1956.1	2074.3	2277.2	2575.0	2811.3
22.5°	2206.4	2202.7	2071.5	2001.7	2000.8	2000.8	2033.4	2124.6	2313.5	2633.6	2896.0
25°	2464.2	2444.7	2273.4	2183.2	2158.1	2156.2	2152.5	2207.4	2360.0	2695.9	2996.5
27.5°	2728.5	2695.0	2542.4	2403.7	2349.8	2343.2	2319.0	2324.6	2419.5	2766.7	3111.0
30°	2965.8	2944.4	2801.1	2647.5	2583.3	2568.4	2501.4	2470.7	2519.1	2894.2	3293.4
32.5°	3147.3	3134.2	3022.6	2883.0	2788.1	2785.3	2687.6	2662.4	2674.5	3048.6	3501.8
35°	3294.3	3299.0	3242.2	3121.2	3012.3	2996.5	2931.4	2899.7	2864.4	3272.0	3764.3
37.5°	3495.3	3505.6	3501.8	3397.6	3264.5	3268.3	3253.4	3201.2	3107.3	3521.4	4055.5
40°	3716.8	3724.2	3723.3	3683.3	3613.5	3617.2	3611.6	3552.1	3411.6	3838.7	4379.4
42.5°	4023.0	3987.6	3895.5	3935.5	3976.4	3994.1	4032.3	3975.5	3782.9	4177.4	4683.7
45°	4365.4	4298.4	4090.0	4108.6	4260.3	4293.8	4504.1	4425.9	4185.8	4566.4	5042.0
47.5°	4581.3	4515.3	4339.4	4335.6	4536.7	4569.2	4941.5	4912.6	4552.5	4986.1	5479.3
50°	4774.0	4764.7	4566.4	4613.9	4810.3	4858.6	5417.9	5390.9	4918.2	5481.2	5955.8
52.5°	5059.7	4984.3	4826.1	4923.8	5183.4	5246.7	5890.7	5811.6	5254.1	5918.6	6418.3
55°	5188.1	5170.4	5161.1	5245.8	5602.2	5647.8	6350.4	6168.9	5540.8	6289.0	6770.1
57.5°	5531.5	5498.9	5591.0	5648.7	6095.4	6165.2	6830.6	6542.1	5792.0	6583.0	6941.3
60°	5976.3	5958.6	6043.3	6147.5	6646.3	6752.4	7377.8	6860.4	5994.0	6731.0	6847.3
62.5°	6640.7	6638.9	6623.1	6846.4	7427.1	7524.8	8005.9	7170.2	6025.6	6620.3	6361.6
65°	7593.7	7560.2	7422.4	7666.2	8398.6	8513.1	8660.1	7343.3	5834.8	6051.7	5356.5
67.5°	8590.3	8588.5	8476.8	8793.2	9793.6	9911.8	9478.1	7305.2	5305.3	4902.4	3804.3
70°	9416.7	9376.7	9519.1	10362.2	11575.7	11712.5	10193.7	6855.7	4225.8	3237.5	2260.4
72.5°	9614.9	9616.8	9912.7	11572.0	13287.0	13308.5	10451.5	5556.6	2828.1	1785.8	1130.7
74°	9004.4	9020.3	9479.1	11632.4	13606.2	13509.5	9792.7	4367.3	1912.4	1166.0	815.2
75°	8219.0	8119.4	8783.0	11229.5	13275.0	13170.7	9021.2	3504.6	1459.2	931.5	713.8
77.5°	4394.3	4495.7	5519.4	8380.0	10784.7	10664.6	6116.8	1680.7	788.2	648.6	513.7
80°	1564.3	1725.3	2425.1	4385.0	6914.3	6951.6	2919.3	770.5	554.6	478.3	362.9
82.5°	638.4	656.1	1041.3	1945.9	3511.1	3544.6	1192.1	457.9	396.4	329.4	216.8
85°	249.4	256.8	460.6	874.8	1498.3	1596.0	412.3	242.0	243.8	188.9	110.7
87.5°	83.8	94.9	188.9	291.3	509.0	498.8	120.0	71.7	87.5	81.9	34.4
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°	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7	2564.7
2.5°	2573.1	2590.8	2602.9	2615.9	2628.0	2631.7	2628.9	2637.3	2638.2	2639.2	2640.1
5°	2588.0	2612.2	2635.4	2648.5	2654.1	2649.4	2633.6	2625.2	2617.8	2612.2	2614.0
7.5°	2608.5	2642.9	2664.3	2669.9	2655.0	2633.6	2594.5	2563.8	2544.2	2531.2	2530.3
10°	2640.1	2673.6	2691.3	2675.5	2634.5	2582.4	2521.0	2463.3	2419.5	2406.5	2405.6
12.5°	2680.1	2718.3	2717.3	2670.8	2599.2	2506.1	2406.5	2339.5	2280.0	2250.2	2262.3
15°	2732.2	2761.1	2734.1	2650.3	2536.8	2409.3	2286.5	2195.3	2128.3	2096.6	2098.5
17.5°	2792.7	2817.8	2746.2	2614.0	2449.3	2285.5	2143.2	2056.6	2003.6	1980.3	1978.4
20°	2868.1	2875.5	2746.2	2550.8	2336.7	2141.3	2005.4	1944.9	1915.2	1903.1	1906.8
22.5°	2949.1	2934.2	2731.3	2461.4	2188.8	1990.5	1899.3	1872.4	1857.5	1855.6	1857.5
25°	3040.3	2998.4	2700.6	2340.4	2034.3	1860.3	1807.2	1811.9	1814.7	1814.7	1821.2
27.5°	3151.9	3068.2	2649.4	2187.8	1853.7	1739.3	1724.4	1757.0	1771.9	1774.6	1779.3
30°	3299.0	3144.5	2564.7	1997.1	1700.2	1630.4	1656.5	1700.2	1716.9	1727.2	1725.3
32.5°	3473.9	3228.2	2450.3	1806.3	1576.4	1554.1	1585.7	1630.4	1649.0	1654.6	1647.2
35°	3679.6	3323.2	2299.5	1627.6	1468.5	1481.5	1518.7	1532.7	1549.4	1549.4	1553.2
37.5°	3901.1	3399.5	2115.2	1463.8	1384.7	1432.2	1459.2	1446.1	1438.7	1429.4	1434.0
40°	4126.3	3456.2	1876.1	1301.9	1301.0	1381.0	1388.4	1351.2	1321.4	1312.1	1307.5
42.5°	4322.6	3491.6	1660.2	1176.3	1221.9	1330.8	1336.3	1276.8	1229.3	1201.4	1192.1
45°	4554.3	3532.5	1448.9	1072.0	1148.4	1290.7	1304.7	1224.7	1154.9	1096.2	1081.4
47.5°	4871.7	3625.6	1282.4	991.1	1095.3	1265.6	1285.2	1181.9	1089.7	1013.4	1001.3
50°	5229.9	3753.1	1153.0	936.2	1054.4	1243.3	1267.5	1138.1	1029.2	944.6	935.2
52.5°	5558.4	3822.0	1041.3	886.9	1014.3	1202.3	1244.2	1106.5	969.7	875.7	867.3
55°	5738.1	3710.3	931.5	838.5	959.4	1149.3	1211.6	1062.7	912.0	839.4	827.3
57.5°	5762.2	3479.5	832.0	786.4	901.7	1084.1	1151.1	1009.7	874.8	814.3	804.0
60°	5575.2	3135.2	754.7	743.5	843.1	1010.6	1083.2	963.2	836.6	786.4	776.1
62.5°	5109.9	2761.1	700.7	704.5	783.6	933.4	1033.0	918.5	800.3	755.6	746.3
65°	4309.6	2279.0	648.6	664.4	730.5	872.9	987.4	881.3	764.0	732.4	724.0
67.5°	2993.7	1645.3	605.8	622.6	680.3	811.5	934.3	841.3	723.1	706.3	693.3
70°	1657.4	1012.5	555.6	575.1	628.2	742.6	874.8	780.8	663.5	656.1	637.5
72.5°	871.0	644.9	498.8	520.2	557.4	654.2	783.6	714.7	604.9	573.2	549.1
74°	680.3	528.6	460.6	483.0	508.1	602.1	729.6	667.2	563.0	525.8	507.2
75°	592.8	470.9	428.1	456.9	479.3	566.7	687.7	633.7	539.7	504.4	487.6
77.5°	418.8	352.7	349.9	384.3	396.4	496.9	619.8	577.0	481.1	443.9	428.1
80°	294.1	264.3	277.3	298.7	315.5	439.2	575.1	498.8	394.6	350.8	345.3
82.5°	191.7	173.1	198.2	217.8	223.3	323.8	464.4	378.8	287.6	233.6	216.8
85°	88.4	86.5	113.5	110.7	109.8	158.2	275.5	221.5	165.6	123.8	116.3
87.5°	22.3	21.4	27.9	23.3	27.9	24.2	25.1	6.5	0.9	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)