

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: P453137

Luminaire Tested: **GALN-SA4A-827-U-T2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453137
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)
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-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13375 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

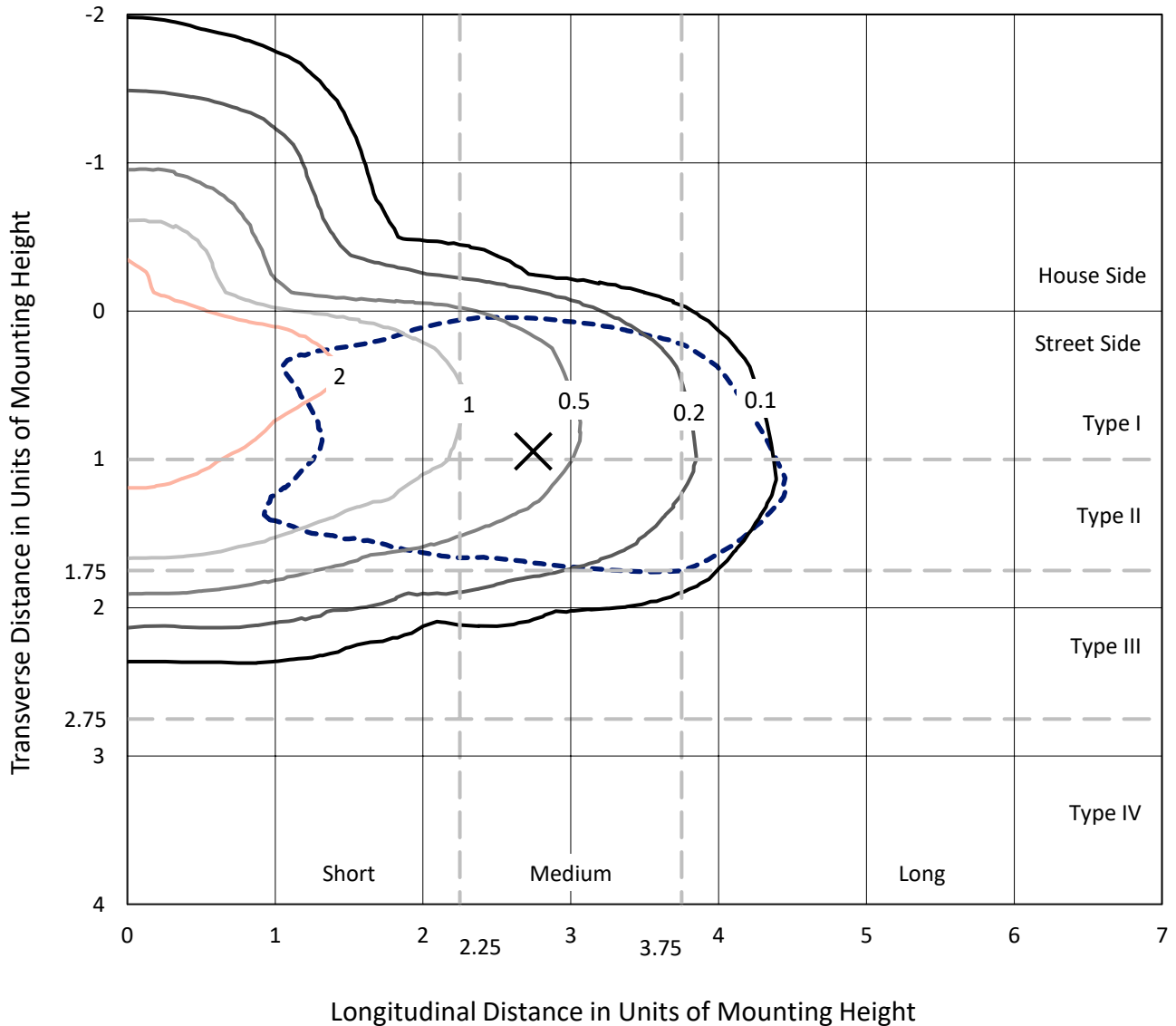
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

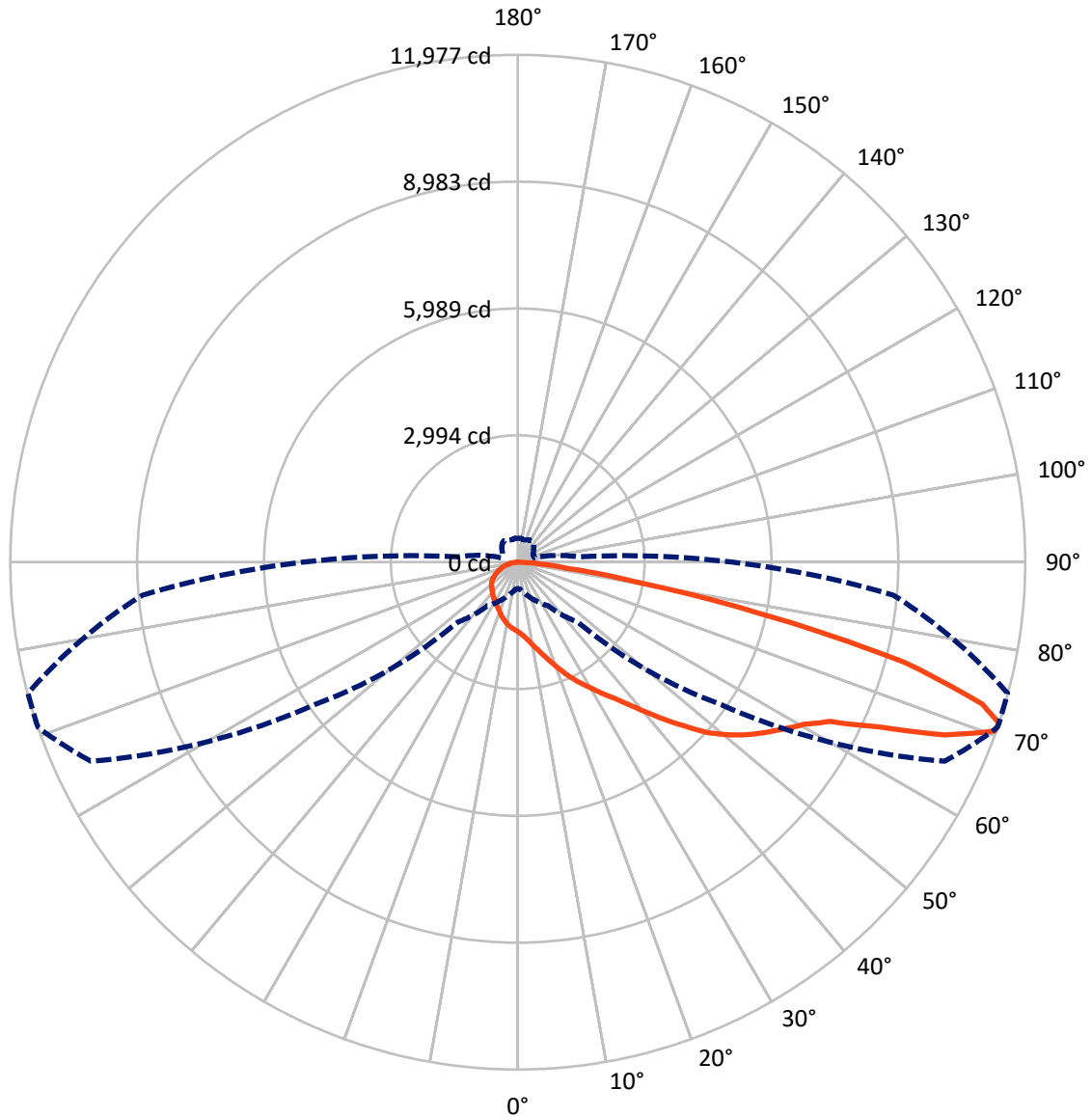
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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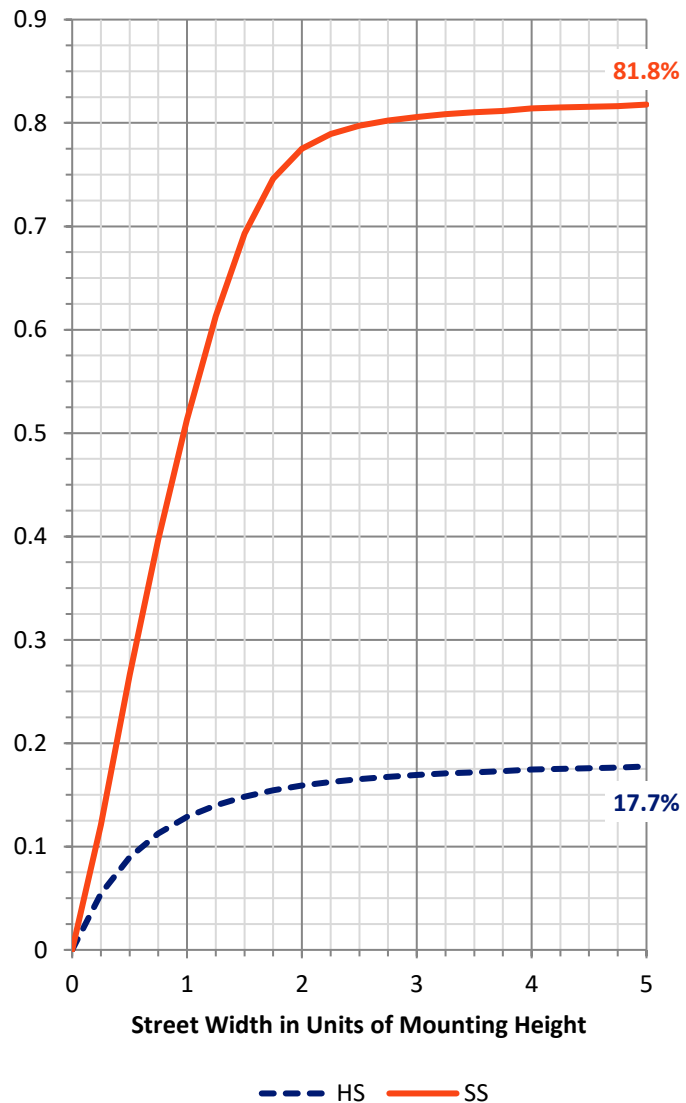
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2405.5	0.0	2405.5
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	10969.5	0.0	10969.5
	% Fixture	82.0	0.0	82.0
Total	Lumens	13375.0	0.0	13375.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.8	1.2
10°-20°	535.5	4.0
20°-30°	935.8	7.0
30°-40°	1391.9	10.4
40°-50°	2050.8	15.3
50°-60°	2871.1	21.5
60°-70°	3211.2	24.0
70°-80°	1961.5	14.7
80°-90°	252.3	1.9
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°	13375.0	100.0
0°-180°	13375.0	100.0



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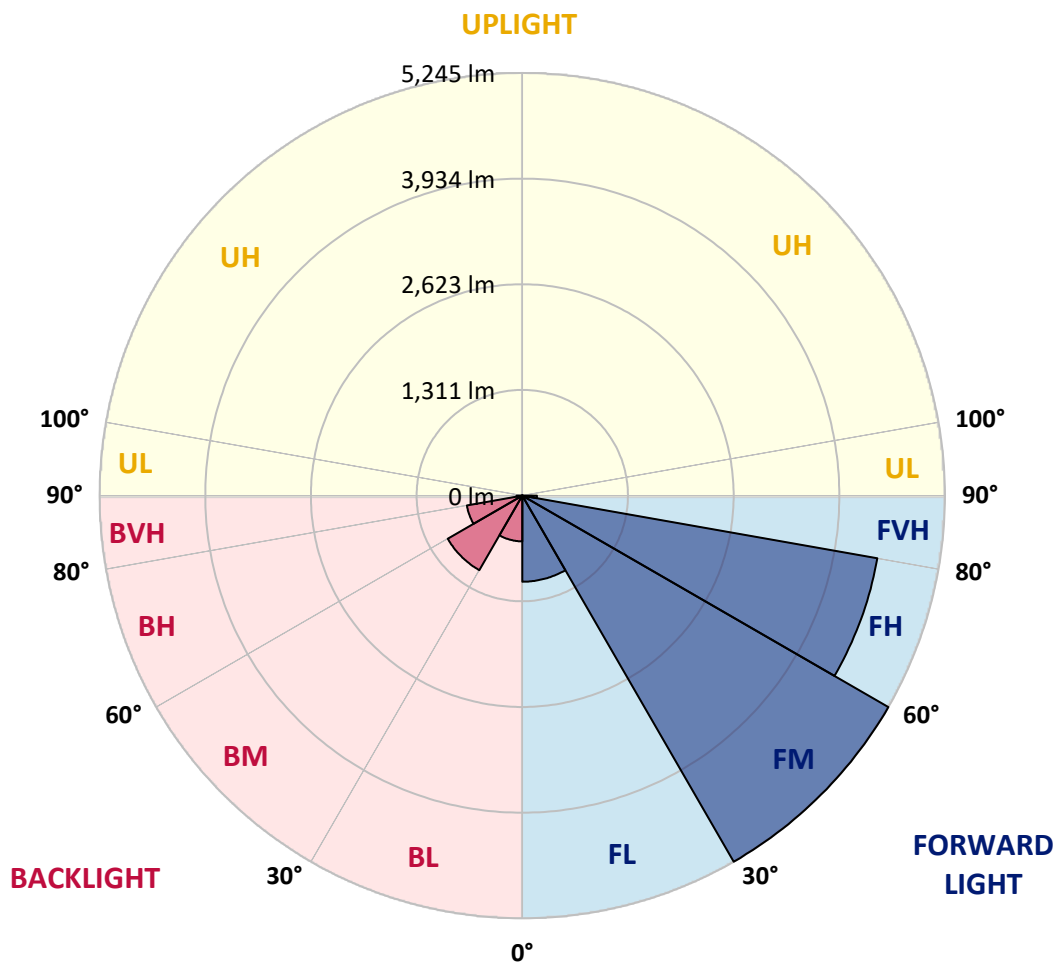
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1068.7	8.0			
FM	(30°-60°)	5245.4	39.2			
FH	(60°-80°)	4473.9	33.4			G2/5000
FVH	(80°-90°)	181.6	1.4			G2/225
BL	(0°-30°)	567.4	4.2	B2/1000		
BM	(30°-60°)	1068.4	8.0	B2/2500		
BH	(60°-80°)	698.9	5.2	B2/1000		G2/1000
BVH	(80°-90°)	70.8	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-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	71°	75°	85°
0°	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5
2.5°	1822.4	1813.5	1814.3	1801.8	1785.6	1768.0	1743.0	1720.9	1703.3	1693.0	1662.8
5°	2019.4	2010.5	1999.5	1972.3	1960.6	1917.2	1862.1	1812.1	1773.8	1752.5	1692.2
7.5°	2178.9	2176.7	2173.7	2158.3	2128.2	2067.9	2020.8	1934.1	1877.5	1837.1	1734.1
10°	2277.4	2281.1	2283.3	2286.2	2273.7	2242.1	2177.4	2067.9	1995.8	1944.4	1788.5
12.5°	2327.4	2331.1	2343.6	2370.8	2387.7	2384.0	2331.1	2223.7	2124.5	2056.9	1846.6
15°	2358.3	2364.1	2386.2	2422.2	2478.8	2514.8	2489.1	2389.9	2281.1	2200.9	1915.7
17.5°	2392.1	2398.7	2422.9	2474.4	2548.7	2626.6	2654.5	2569.2	2450.9	2355.3	1992.9
20°	2411.2	2420.0	2454.6	2522.2	2608.9	2722.1	2814.8	2769.9	2640.5	2534.7	2081.9
22.5°	2442.1	2449.4	2478.8	2550.9	2654.5	2796.4	2975.0	2965.5	2851.5	2714.8	2179.6
25°	2525.9	2537.6	2552.3	2595.7	2695.7	2872.1	3108.1	3174.2	3055.9	2903.0	2269.3
27.5°	2683.9	2693.5	2692.7	2698.6	2755.2	2937.5	3223.5	3380.8	3258.8	3093.4	2356.1
30°	2864.0	2867.7	2870.6	2857.4	2869.9	3004.4	3329.3	3585.2	3463.1	3288.9	2431.8
32.5°	3083.1	3090.4	3065.4	3031.6	3021.3	3103.7	3416.8	3789.5	3705.0	3487.4	2506.8
35°	3341.8	3361.0	3310.2	3250.7	3208.8	3246.3	3534.4	3998.3	3952.7	3741.0	2606.0
37.5°	3637.4	3660.9	3613.8	3497.0	3437.4	3447.7	3688.1	4256.3	4265.9	4029.9	2753.8
40°	3879.2	3910.1	3911.6	3746.2	3655.7	3667.5	3882.9	4534.2	4643.7	4387.2	2928.0
42.5°	4038.7	4068.9	4100.5	4003.5	3908.6	3975.5	4110.0	4835.6	5068.6	4820.9	3171.3
45°	4213.7	4240.9	4258.5	4214.4	4161.5	4335.0	4384.2	5156.1	5521.5	5305.3	3437.4
47.5°	4416.6	4446.7	4463.6	4421.7	4401.9	4650.4	4679.8	5455.3	6005.2	5775.8	3731.5
50°	4687.1	4709.9	4701.1	4674.6	4670.2	4892.2	4963.5	5735.4	6404.3	6282.3	4036.5
52.5°	5023.8	5051.0	5060.5	5023.1	5006.2	5065.0	5192.1	5990.5	6767.5	6717.5	4362.2
55°	5227.4	5270.8	5416.3	5475.2	5515.6	5288.4	5438.4	6272.0	7093.1	7176.2	4712.1
57.5°	4966.5	5022.3	5348.0	5642.0	6022.1	5847.1	5787.6	6566.1	7418.8	7621.0	5131.1
60°	4329.8	4342.3	4762.1	5303.9	6068.4	6565.3	6516.1	7033.6	7771.7	8069.4	5683.2
62.5°	3003.7	3030.2	3526.4	4390.9	5496.5	6824.1	7755.5	7840.8	8277.4	8740.5	6492.6
65°	1548.9	1514.3	1966.4	2759.6	4143.9	6209.5	8759.7	9325.0	9374.2	9790.3	7632.0
67.5°	953.4	968.9	1180.6	1611.4	2450.1	4512.9	8654.5	11138.5	10879.0	11079.0	8689.8
70°	716.0	735.1	880.7	1102.7	1493.8	2580.3	6960.1	11578.1	11940.5	11889.1	9011.8
71°	622.6	642.5	793.9	1003.4	1254.8	1991.4	5864.0	11117.9	11977.3	11968.4	8890.5
72.5°	530.8	543.3	661.6	849.8	1057.8	1396.0	4405.6	9971.1	11466.4	11759.7	8457.5
75°	416.8	426.4	479.3	648.4	832.9	857.1	2364.1	7475.4	9417.6	9976.3	7041.0
77.5°	339.6	346.2	373.4	481.5	642.5	607.2	1240.1	4865.7	5900.1	6462.4	4147.5
80°	269.8	277.1	293.3	326.4	481.5	433.0	591.8	2465.6	2850.1	2844.2	1655.5
82.5°	209.5	211.7	230.8	239.6	329.3	307.3	320.5	1043.9	1156.3	1194.6	597.7
85°	132.3	138.9	204.4	183.8	197.0	180.1	158.1	414.6	510.9	503.6	238.9
87.5°	40.4	42.6	69.1	77.9	87.5	78.7	58.1	122.0	149.2	161.7	59.5
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°	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5	1641.5
2.5°	1651.1	1643.0	1614.3	1590.8	1568.7	1544.5	1523.9	1518.0	1512.9	1510.7	1509.9
5°	1666.5	1642.3	1585.6	1539.3	1502.6	1468.8	1447.4	1437.9	1428.3	1428.3	1431.3
7.5°	1688.6	1644.5	1557.0	1487.9	1441.6	1410.0	1394.5	1393.0	1395.3	1397.5	1398.2
10°	1712.8	1643.0	1515.1	1429.1	1387.9	1373.2	1373.9	1386.4	1398.2	1407.0	1408.5
12.5°	1736.3	1634.2	1465.8	1373.9	1347.5	1350.4	1371.0	1398.9	1421.7	1434.2	1434.9
15°	1762.8	1620.2	1406.3	1321.7	1312.9	1335.7	1373.9	1416.6	1451.1	1471.7	1473.9
17.5°	1784.9	1596.7	1343.8	1271.0	1282.0	1323.9	1376.9	1432.0	1473.9	1499.6	1504.1
20°	1809.9	1566.5	1279.1	1222.5	1254.1	1310.7	1371.0	1430.5	1473.9	1498.9	1504.8
22.5°	1829.7	1523.9	1217.4	1182.8	1229.1	1294.5	1351.1	1398.9	1434.2	1447.4	1456.3
25°	1837.8	1470.2	1159.3	1150.5	1209.3	1268.1	1306.3	1333.5	1344.5	1343.1	1346.7
27.5°	1833.4	1408.5	1109.3	1124.7	1184.3	1226.9	1246.0	1243.8	1224.0	1205.6	1214.4
30°	1815.0	1335.0	1067.4	1098.3	1151.9	1175.5	1172.5	1143.8	1106.4	1071.8	1074.0
32.5°	1781.9	1255.6	1028.4	1068.1	1106.4	1116.6	1096.8	1059.3	1005.6	960.8	954.2
35°	1754.0	1179.9	993.9	1033.6	1060.8	1055.6	1036.5	988.0	939.5	899.8	893.2
37.5°	1749.6	1115.2	960.8	994.6	1010.1	1002.7	979.2	938.0	920.4	890.2	886.6
40°	1773.1	1069.6	927.0	953.4	960.8	954.9	929.2	905.7	921.8	914.5	914.5
42.5°	1837.1	1045.3	896.8	912.3	918.2	922.6	904.2	884.3	904.2	870.4	859.4
45°	1938.5	1046.1	869.6	871.8	889.5	904.9	892.4	863.0	852.7	785.1	771.9
47.5°	2087.7	1071.1	847.6	833.6	865.2	891.0	873.3	830.7	785.1	740.3	732.2
50°	2262.0	1115.9	827.7	793.9	832.9	873.3	860.1	810.1	763.1	735.9	730.7
52.5°	2455.3	1172.5	803.5	749.8	793.2	865.2	863.0	807.2	742.5	724.1	719.7
55°	2694.2	1228.4	773.3	698.4	757.9	858.6	854.9	782.9	738.1	724.8	723.4
57.5°	2972.1	1309.2	730.0	646.2	717.5	831.4	823.3	768.2	723.4	713.8	713.1
60°	3419.8	1434.9	668.2	598.4	676.3	783.6	793.9	743.2	699.8	697.6	696.9
62.5°	4008.6	1611.4	604.3	549.1	628.5	721.9	751.3	709.4	674.8	685.9	687.3
65°	4821.6	1759.9	538.1	507.2	575.6	662.3	710.9	677.8	646.9	668.2	668.2
67.5°	5351.7	1762.8	477.8	463.9	521.9	612.4	668.2	640.3	610.9	646.9	648.4
70°	5241.4	1544.5	427.8	418.3	469.7	558.7	621.2	599.1	565.3	597.7	585.9
71°	5063.5	1423.2	408.0	400.6	449.2	533.0	599.1	580.7	546.9	568.2	561.6
72.5°	4779.7	1235.7	375.6	377.1	418.3	500.6	568.2	549.1	515.3	527.1	524.9
75°	4040.2	1079.2	321.2	327.9	359.5	445.5	506.5	491.8	457.2	457.2	455.0
77.5°	2525.9	754.2	266.8	270.5	305.1	381.5	435.2	422.7	389.6	378.6	375.6
80°	942.4	389.6	208.8	213.2	234.5	300.7	360.2	348.4	314.6	302.1	290.4
82.5°	356.5	195.5	153.6	150.0	172.8	229.4	282.3	268.3	241.9	211.7	202.9
85°	134.5	97.0	94.1	91.2	101.4	136.0	175.0	172.0	144.1	122.8	120.6
87.5°	35.3	31.6	36.8	27.2	28.7	25.7	26.5	11.0	5.1	2.2	1.5
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)