

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: P453835

Luminaire Tested: **GALN-SA4D-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22927 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

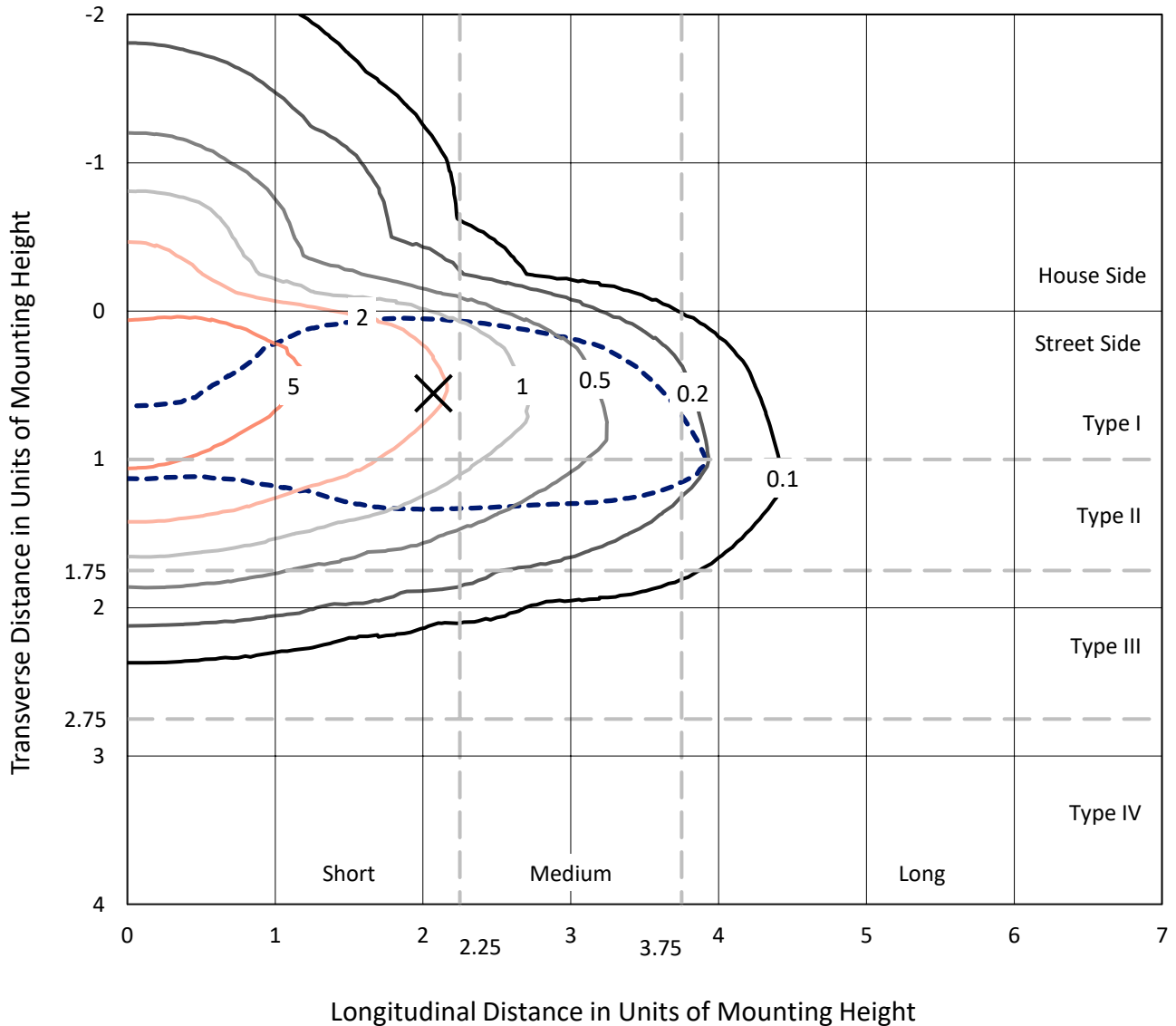
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

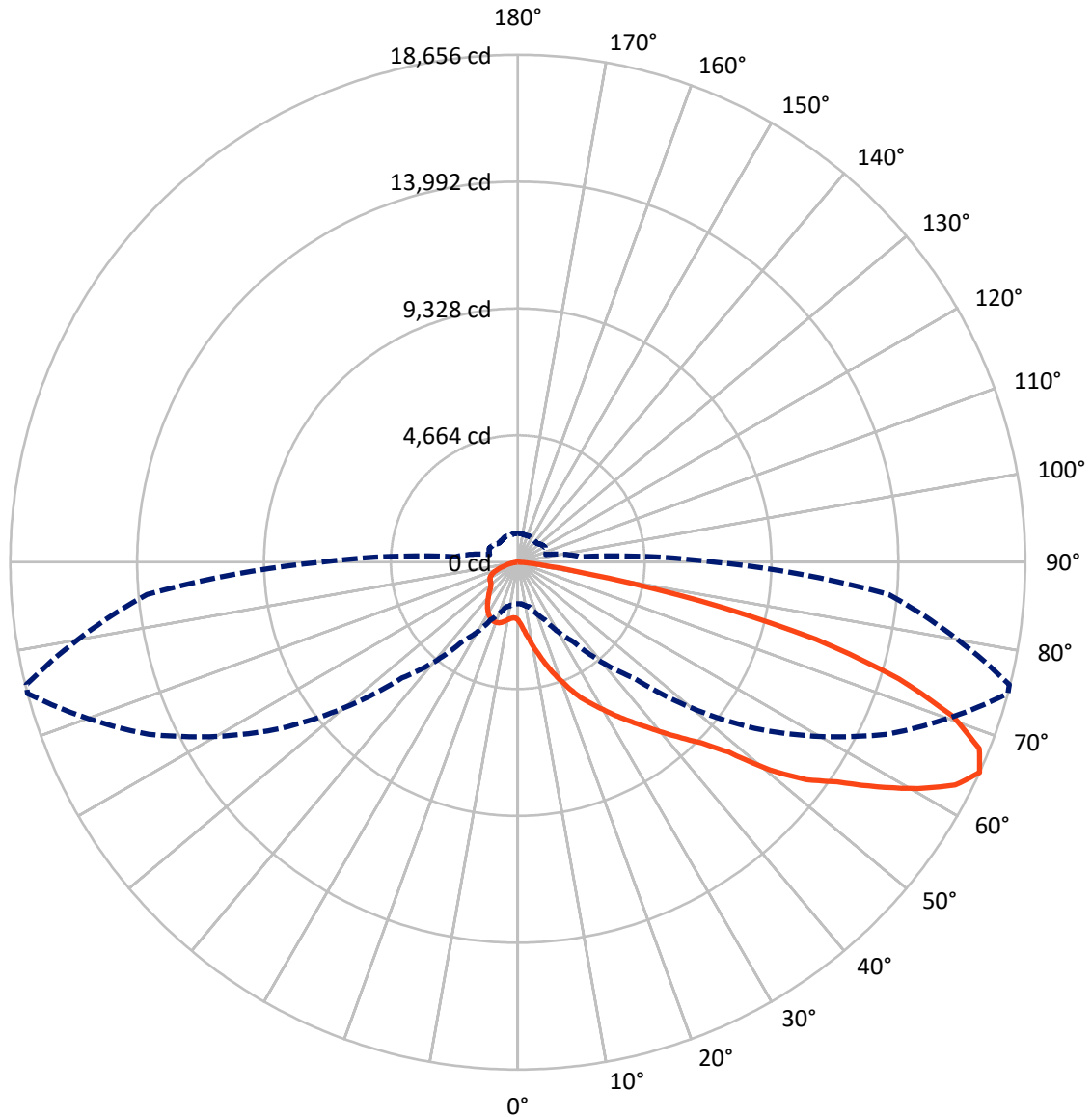
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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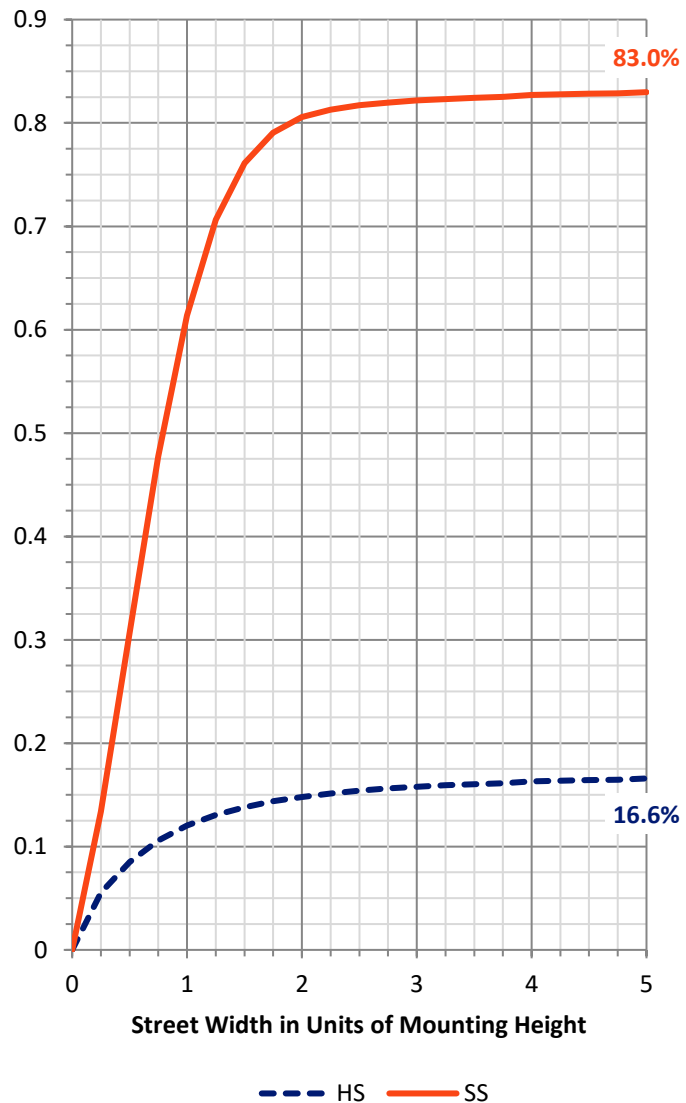
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3854.3	0.0	3854.3
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	19072.7	0.0	19072.7
	% Fixture	83.2	0.0	83.2
Total	Lumens	22927.0	0.0	22927.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.8	1.1
10°-20°	1013.7	4.4
20°-30°	1958.2	8.5
30°-40°	3180.7	13.9
40°-50°	4375.3	19.1
50°-60°	5165.8	22.5
60°-70°	4526.1	19.7
70°-80°	2160.8	9.4
80°-90°	287.5	1.3
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°	22927.0	100.0
0°-180°	22927.0	100.0



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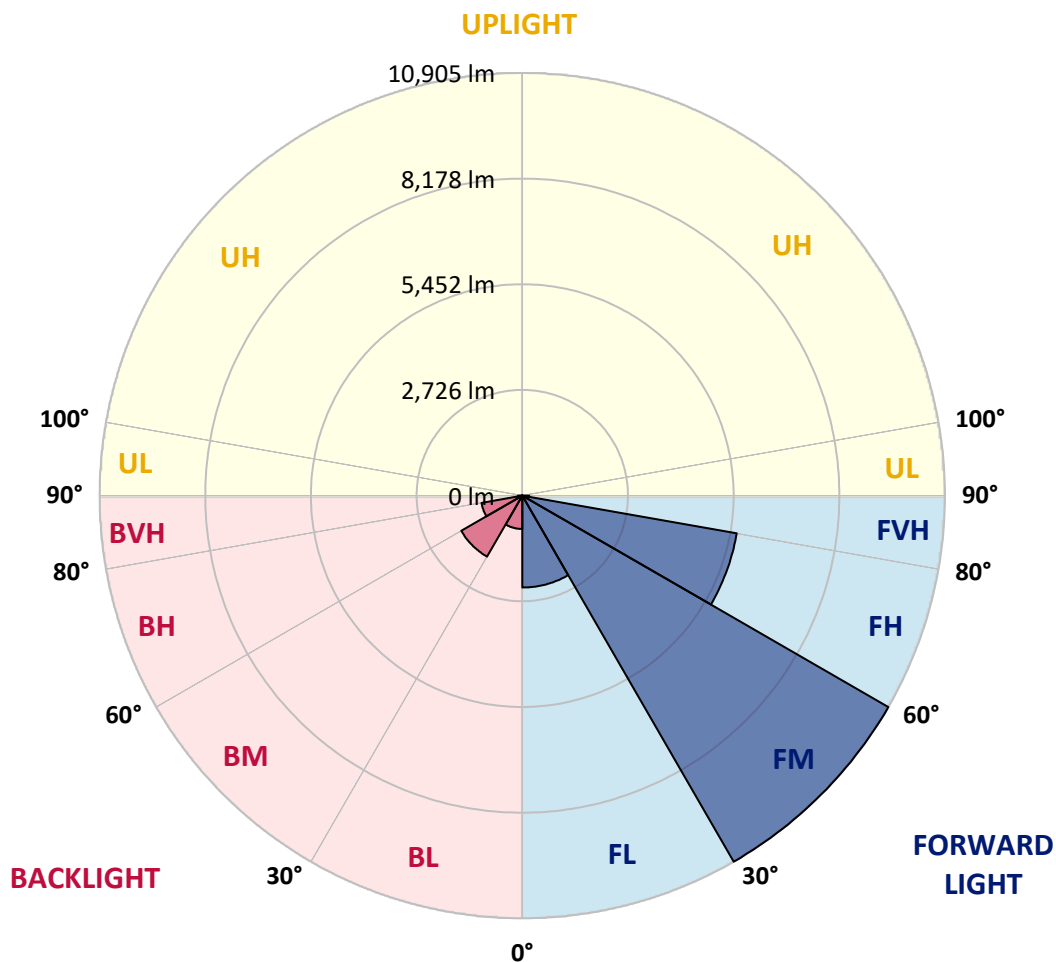
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2370.3	10.3			
FM	(30°-60°)	10904.6	47.6			
FH	(60°-80°)	5618.1	24.5			G3/7500
FVH	(80°-90°)	179.7	0.8			G2/225
BL	(0°-30°)	860.5	3.8	B2/1000		
BM	(30°-60°)	1817.3	7.9	B2/2500		
BH	(60°-80°)	1068.7	4.7	B3/2500		G3/2500
BVH	(80°-90°)	107.8	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2
2.5°	2830.3	2811.7	2791.8	2737.1	2678.6	2612.7	2518.2	2427.4	2306.8	2303.1	2213.5
5°	3615.0	3602.6	3514.3	3463.3	3327.8	3147.4	2994.5	2757.0	2536.9	2510.7	2336.6
7.5°	4336.3	4287.8	4254.2	4162.2	4027.9	3796.6	3500.6	3179.8	2811.7	2776.9	2488.4
10°	4879.7	4874.7	4857.3	4777.7	4677.0	4446.9	4118.7	3658.5	3159.9	3091.5	2672.4
12.5°	5286.3	5290.1	5287.6	5286.3	5214.2	5019.0	4663.3	4178.3	3511.8	3463.3	2885.0
15°	5553.7	5591.0	5605.9	5668.1	5674.3	5543.8	5237.8	4680.7	3908.5	3836.4	3113.9
17.5°	5730.3	5748.9	5818.6	5924.3	6010.1	5986.5	5714.1	5145.8	4313.9	4193.3	3351.4
20°	5899.4	5931.8	5985.2	6129.5	6281.2	6350.8	6159.3	5622.1	4715.6	4638.5	3613.8
22.5°	6251.3	6297.4	6316.0	6389.4	6518.7	6641.8	6554.8	6078.5	5155.8	5051.3	3892.3
25°	6847.0	6895.5	6843.3	6825.9	6868.1	6929.1	6910.4	6508.8	5571.1	5421.9	4156.0
27.5°	7623.0	7629.2	7527.2	7430.2	7325.8	7294.7	7237.5	6890.5	5931.8	5807.4	4420.8
30°	8456.2	8426.3	8257.2	8081.9	7905.3	7731.2	7567.0	7258.6	6333.4	6190.4	4680.7
32.5°	9229.7	9213.5	9025.7	8753.4	8454.9	8290.8	7958.7	7630.4	6763.7	6625.7	4948.1
35°	9809.2	9832.8	9626.4	9329.1	9003.3	8857.8	8438.8	8020.9	7208.9	7058.4	5239.1
37.5°	10220.8	10208.3	10025.5	9768.1	9482.1	9355.3	8999.6	8447.5	7687.7	7543.4	5557.4
40°	10367.5	10360.0	10224.5	10036.7	9855.2	9810.4	9586.6	8907.6	8236.1	8066.9	5940.5
42.5°	10274.2	10290.4	10200.9	10149.9	10116.3	10148.6	10169.8	9510.7	8834.2	8678.8	6355.8
45°	9988.2	9979.5	9967.1	10050.4	10239.4	10452.1	10746.8	10080.2	9484.6	9360.2	6912.9
47.5°	9477.1	9539.3	9570.4	9800.4	10213.3	10716.9	11410.9	10843.8	10428.4	10320.3	7762.3
50°	8762.1	8811.8	8995.9	9405.0	10020.6	10816.4	12060.0	12092.3	12002.8	11800.1	8685.0
52.5°	7645.4	7722.5	8101.8	8851.6	9625.1	10775.4	12452.9	13163.0	13281.2	13129.4	9594.0
55°	6395.6	6503.8	6904.2	7887.9	9080.4	10551.6	12724.0	13783.6	14254.9	14114.3	10469.5
57.5°	5171.9	5286.3	5698.0	6650.5	8130.4	10056.6	12901.9	14475.0	15580.5	15397.7	11558.8
60°	3876.2	3995.5	4348.7	5329.9	6777.4	9089.1	12781.2	15074.4	16904.9	16826.5	12649.4
62.5°	2500.8	2632.6	2939.8	3751.8	5209.2	7767.2	12135.8	15405.1	18051.4	17956.9	13445.3
65°	1523.4	1538.3	1707.4	2329.2	3565.3	6013.8	10659.7	14966.2	18655.8	18627.2	13687.8
67.5°	984.9	1008.5	1085.6	1395.3	2137.7	4177.1	8523.3	13517.4	18302.6	18292.7	13186.6
70°	831.9	839.4	874.2	941.4	1242.3	2533.1	5985.2	11208.2	16960.8	16960.8	11981.6
72.5°	743.6	753.6	766.0	787.2	886.7	1435.1	3571.5	8724.8	14644.1	14741.1	10198.4
75°	675.2	672.8	680.2	684.0	756.1	937.6	1846.7	6452.8	11328.8	11134.8	7385.5
77.5°	578.3	582.0	578.3	594.4	667.8	713.8	937.6	4330.1	6865.7	6614.5	3707.0
80°	475.0	481.3	487.5	497.4	570.8	542.2	563.3	1973.5	2539.3	2485.9	1145.3
82.5°	356.9	365.6	375.6	399.2	448.9	358.1	355.7	843.1	916.5	839.4	421.6
85°	144.3	170.4	257.4	281.0	282.3	196.5	218.9	351.9	374.3	365.6	165.4
87.5°	33.6	39.8	83.3	125.6	115.7	73.4	80.8	114.4	130.6	120.6	56.0
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°	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2	2130.2
2.5°	2172.5	2129.0	2054.4	1997.1	1956.1	1920.0	1897.7	1884.0	1879.0	1877.8	1879.0
5°	2245.9	2168.8	2050.6	1976.0	1935.0	1911.3	1897.7	1896.4	1897.7	1898.9	1895.2
7.5°	2346.6	2235.9	2081.7	2012.1	1981.0	1963.6	1957.4	1954.9	1956.1	1954.9	1954.9
10°	2480.9	2329.2	2142.6	2070.5	2044.4	2024.5	2014.6	2008.3	2003.4	1998.4	1995.9
12.5°	2628.9	2432.4	2208.6	2138.9	2101.6	2070.5	2048.1	2032.0	2020.8	2009.6	2007.1
15°	2794.3	2541.8	2281.9	2184.9	2131.5	2085.4	2046.9	2020.8	2000.9	1984.7	1983.5
17.5°	2952.2	2645.0	2331.7	2206.1	2127.7	2063.1	2012.1	1976.0	1951.1	1930.0	1927.5
20°	3121.3	2743.3	2354.0	2192.4	2090.4	2012.1	1944.9	1901.4	1872.8	1849.2	1845.4
22.5°	3291.7	2826.6	2351.6	2148.9	2025.7	1933.7	1862.8	1816.8	1783.3	1759.6	1750.9
25°	3454.6	2893.7	2320.5	2079.2	1936.2	1840.5	1768.3	1726.1	1696.2	1667.6	1667.6
27.5°	3601.3	2933.5	2262.0	1994.7	1844.2	1743.5	1686.3	1647.7	1620.4	1601.7	1590.5
30°	3745.6	2952.2	2182.4	1887.7	1747.2	1661.4	1615.4	1593.0	1568.1	1547.0	1544.5
32.5°	3874.9	2948.5	2083.0	1783.3	1655.2	1594.2	1575.6	1558.2	1532.1	1502.2	1494.8
35°	4000.5	2923.6	1964.8	1668.8	1578.1	1554.4	1559.4	1534.5	1487.3	1450.0	1443.8
37.5°	4137.3	2878.8	1835.5	1575.6	1513.4	1535.8	1548.2	1493.5	1416.4	1358.0	1344.3
40°	4295.2	2827.8	1701.2	1482.3	1462.4	1518.4	1518.4	1417.7	1311.9	1275.9	1265.9
42.5°	4480.5	2785.6	1589.3	1404.0	1420.1	1476.1	1469.9	1316.9	1273.4	1254.7	1249.8
45°	4774.0	2770.6	1473.6	1335.6	1385.3	1426.4	1375.4	1282.1	1257.2	1242.3	1237.3
47.5°	5237.8	2788.0	1371.6	1284.6	1345.5	1376.6	1269.7	1258.5	1241.1	1219.9	1217.4
50°	5668.1	2771.9	1299.5	1256.0	1310.7	1316.9	1226.1	1229.9	1219.9	1196.3	1191.3
52.5°	6020.0	2720.9	1253.5	1241.1	1280.9	1212.5	1185.1	1198.8	1195.1	1165.2	1160.2
55°	6406.8	2689.8	1231.1	1241.1	1261.0	1121.7	1146.6	1166.5	1161.5	1140.3	1139.1
57.5°	6875.6	2696.0	1215.0	1244.8	1241.1	1075.7	1108.0	1131.6	1130.4	1124.2	1124.2
60°	7355.6	2698.5	1190.1	1243.6	1217.4	1039.6	1068.2	1101.8	1104.3	1108.0	1108.0
62.5°	7514.8	2590.3	1141.6	1221.2	1165.2	1004.8	1030.9	1076.9	1074.4	1084.4	1085.6
65°	7217.6	2290.6	1069.5	1170.2	1098.1	979.9	1002.3	1044.6	1030.9	1057.0	1062.0
67.5°	6569.7	1895.2	957.5	1078.2	1023.4	953.8	983.7	999.8	974.9	1025.9	1027.2
70°	5678.1	1479.8	815.8	947.6	938.9	926.4	968.7	943.9	909.0	971.2	958.8
72.5°	4747.9	1130.4	651.6	774.7	825.7	885.4	942.6	871.7	823.2	841.9	819.5
75°	3566.5	835.7	523.5	606.9	687.7	827.0	919.0	784.7	710.1	692.7	687.7
77.5°	1818.1	545.9	391.7	453.9	516.1	747.4	886.7	682.7	588.2	560.8	548.4
80°	649.1	339.5	276.1	313.4	348.2	642.9	774.7	564.6	456.4	451.4	456.4
82.5°	300.9	218.9	185.3	205.2	206.4	429.0	590.7	421.6	347.0	527.3	445.2
85°	129.3	109.4	104.5	102.0	94.5	191.5	332.0	226.3	353.2	157.9	145.5
87.5°	38.6	43.5	38.6	28.6	21.1	21.1	33.6	12.4	8.7	6.2	6.2
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)