

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: P651364

Luminaire Tested: **GALN-SA4D-840-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651364
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-840-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 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: 26229.1 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

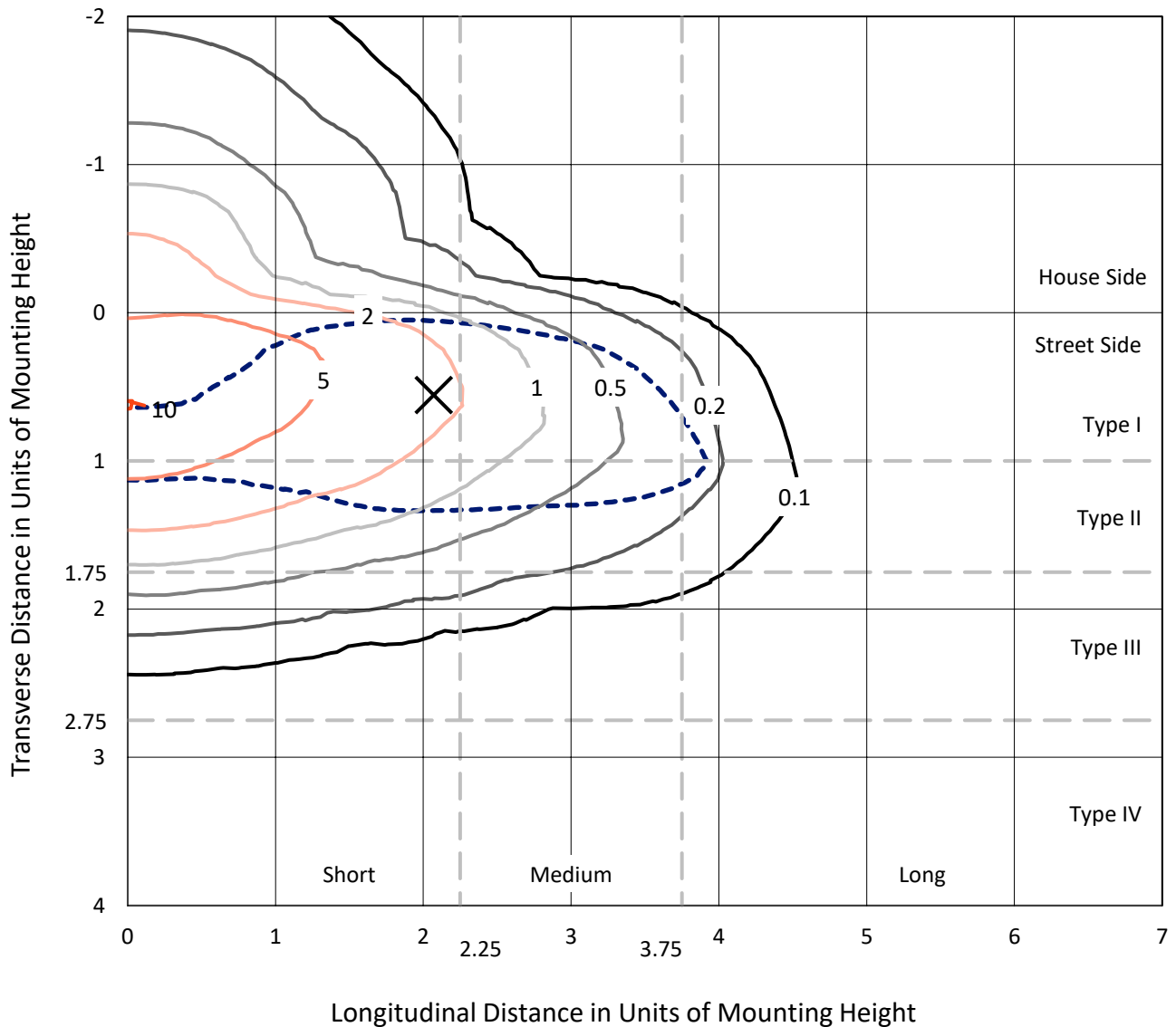
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

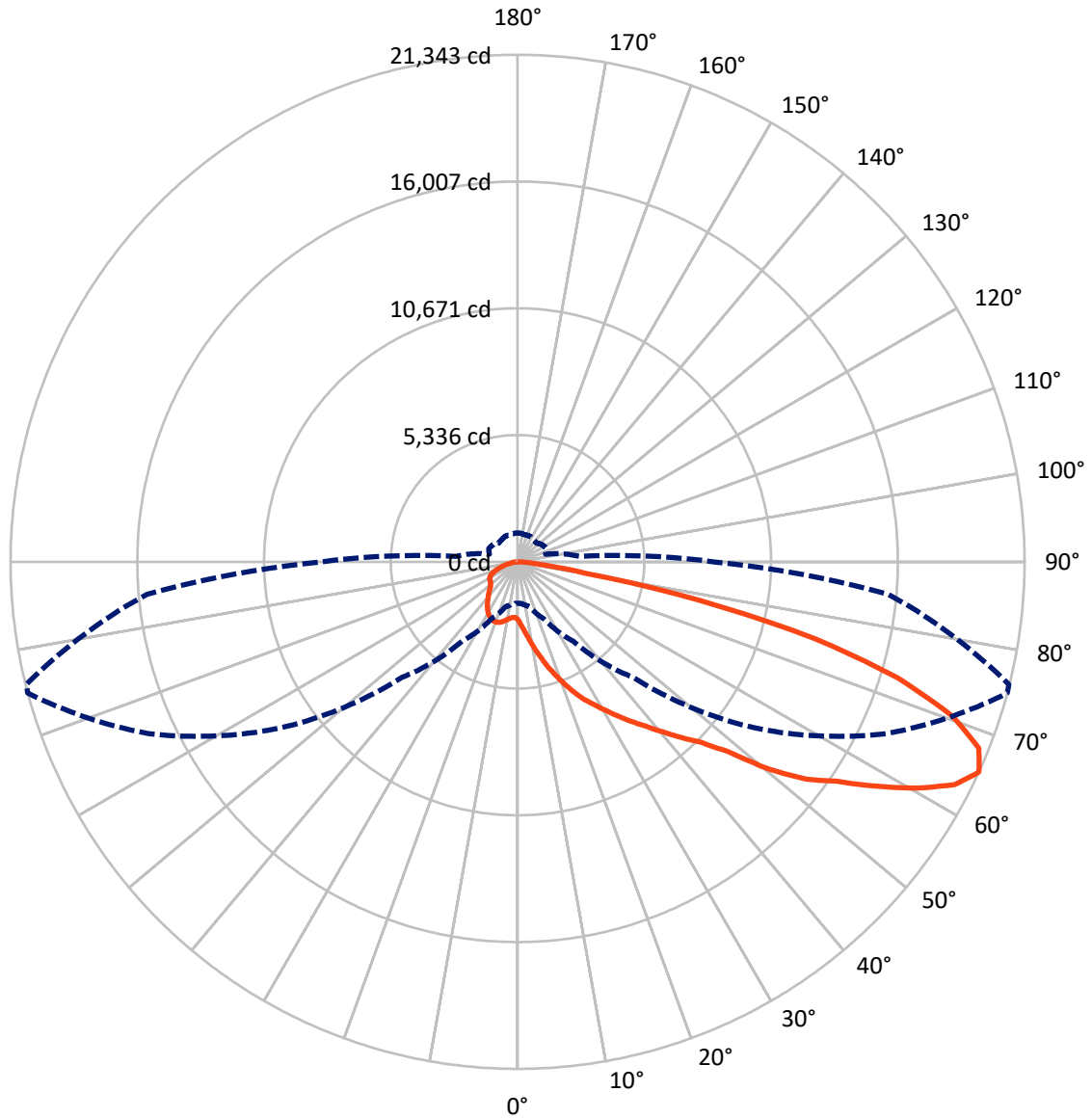
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 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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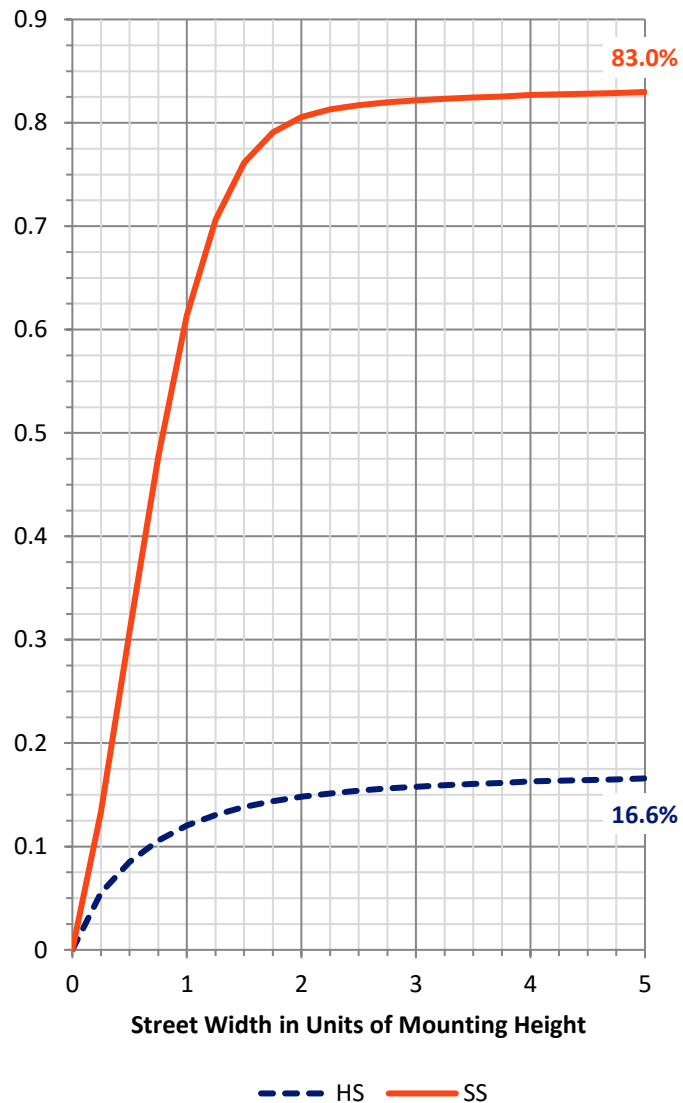
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4409.5	0.0	4409.5
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	21819.6	0.0	21819.6
	% Fixture	83.2	0.0	83.2
Total	Lumens	26229.1	0.0	26229.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.1	1.1
10°-20°	1159.7	4.4
20°-30°	2240.2	8.5
30°-40°	3638.8	13.9
40°-50°	5005.5	19.1
50°-60°	5909.8	22.5
60°-70°	5178.0	19.7
70°-80°	2472.0	9.4
80°-90°	328.9	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°	26229.1	100.0
0°-180°	26229.1	100.0

Coefficient of Utilization

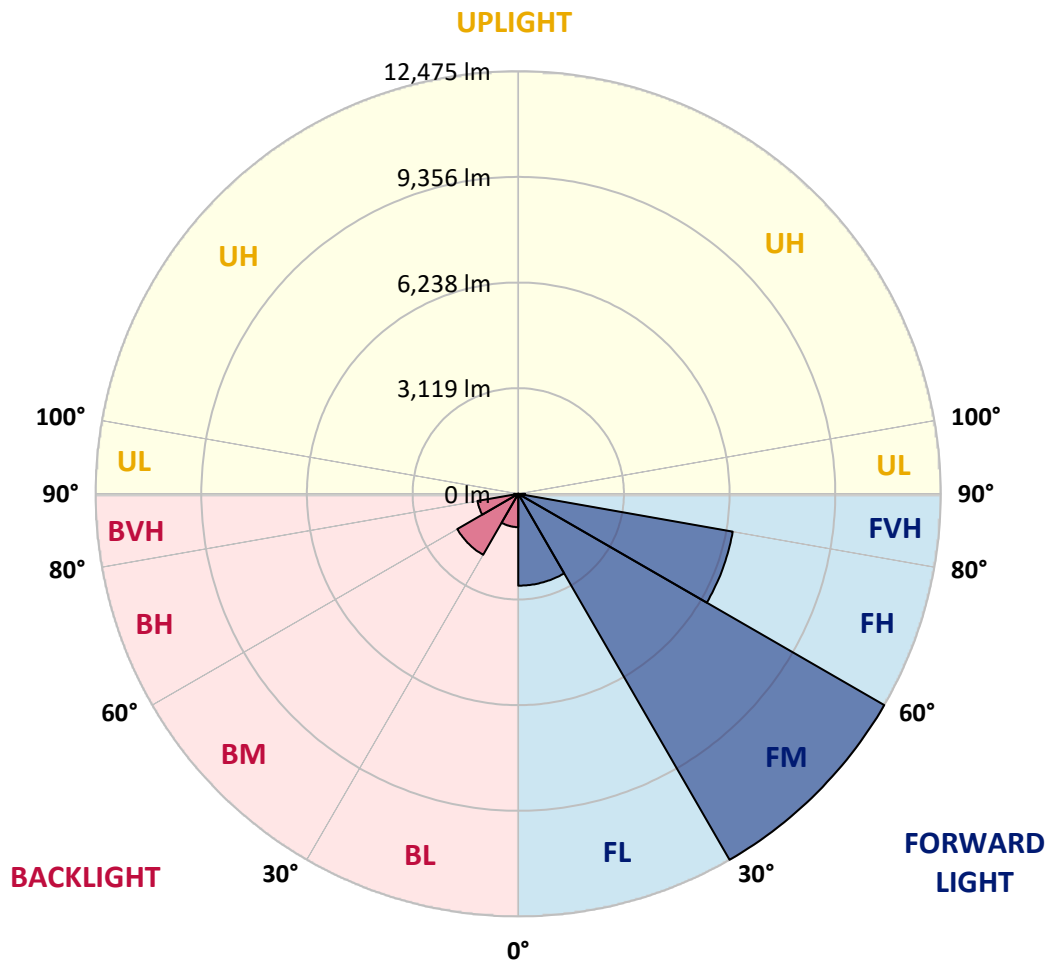


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2711.7	10.3			
FM (30°-60°)	12475.1	47.6			
FH (60°-80°)	6427.3	24.5			G3/7500
FVH (80°-90°)	205.6	0.8			G2/225
BL (0°-30°)	984.4	3.8	B2/1000		
BM (30°-60°)	2079.0	7.9	B2/2500		
BH (60°-80°)	1222.7	4.7	B3/2500		G3/2500
BVH (80°-90°)	123.4	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°	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0
2.5°	3237.9	3216.7	3193.9	3131.3	3064.4	2989.0	2880.8	2777.1	2639.1	2634.8	2532.3
5°	4135.7	4121.4	4020.4	3962.1	3807.0	3600.7	3425.7	3154.0	2902.2	2872.4	2673.2
7.5°	4960.8	4905.3	4867.0	4761.7	4608.0	4343.3	4004.8	3637.7	3216.7	3176.8	2846.7
10°	5582.5	5576.8	5556.9	5465.8	5350.6	5087.5	4711.9	4185.5	3615.0	3536.7	3057.3
12.5°	6047.7	6052.0	6049.1	6047.7	5965.2	5741.8	5335.0	4780.2	4017.6	3962.1	3300.6
15°	6353.6	6396.3	6413.4	6484.4	6491.6	6342.2	5992.2	5354.9	4471.4	4388.9	3562.3
17.5°	6555.6	6577.0	6656.6	6777.5	6875.7	6848.7	6537.1	5887.0	4935.2	4797.2	3834.0
20°	6749.1	6786.1	6847.3	7012.3	7185.8	7265.5	7046.4	6431.9	5394.8	5306.5	4134.3
22.5°	7151.7	7204.3	7225.7	7309.6	7457.6	7598.4	7498.9	6954.0	5898.4	5778.8	4452.9
25°	7833.2	7888.7	7828.9	7808.9	7857.4	7927.1	7905.7	7446.2	6373.5	6202.8	4754.5
27.5°	8720.9	8728.0	8611.3	8500.4	8380.9	8345.3	8279.9	7882.9	6786.1	6643.8	5057.5
30°	9674.1	9640.0	9446.4	9245.9	9043.9	8844.7	8656.9	8304.0	7245.6	7082.0	5354.9
32.5°	10559.0	10540.5	10325.6	10014.1	9672.7	9484.9	9105.0	8729.4	7737.9	7579.9	5660.8
35°	11222.0	11249.0	11012.8	10672.8	10300.1	10133.6	9654.2	9176.2	8247.2	8075.0	5993.6
37.5°	11692.8	11678.6	11469.5	11175.0	10847.8	10702.7	10295.8	9664.1	8794.8	8629.8	6357.9
40°	11860.7	11852.2	11697.1	11482.3	11274.6	11223.4	10967.3	10190.5	9422.3	9228.8	6796.0
42.5°	11754.0	11772.5	11670.1	11611.8	11573.3	11610.3	11634.5	10880.5	10106.5	9928.8	7271.2
45°	11426.8	11416.8	11402.6	11497.9	11714.2	11957.4	12294.7	11532.0	10850.6	10708.4	7908.6
47.5°	10842.1	10913.2	10948.8	11212.0	11684.3	12260.5	13054.3	12405.6	11930.4	11806.6	8880.2
50°	10024.0	10081.0	10291.5	10759.6	11463.8	12374.3	13796.9	13833.9	13731.5	13499.6	9935.8
52.5°	8746.5	8834.7	9268.7	10126.5	11011.4	12327.4	14246.5	15058.9	15194.0	15020.4	10975.8
55°	7316.7	7440.5	7898.6	9023.9	10388.3	12071.3	14556.6	15768.8	16307.9	16147.2	11977.4
57.5°	5916.9	6047.7	6518.6	7608.4	9301.4	11505.0	14760.1	16559.8	17824.5	17615.3	13223.6
60°	4434.4	4571.0	4975.0	6097.5	7753.5	10398.2	14622.1	17245.5	19339.6	19250.0	14471.3
62.5°	2861.0	3011.8	3363.2	4292.1	5959.5	8885.9	13883.7	17623.9	20651.3	20543.2	15381.8
65°	1742.7	1759.8	1953.3	2664.6	4078.8	6880.0	12195.0	17121.7	21342.7	21310.0	15659.3
67.5°	1126.8	1153.8	1242.0	1596.2	2445.5	4778.7	9750.9	15464.3	20938.7	20927.4	15085.9
70°	951.8	960.3	1000.1	1077.0	1421.2	2897.9	6847.3	12822.4	19403.6	19403.6	13707.3
72.5°	850.8	862.1	876.3	900.5	1014.3	1641.7	4085.9	9981.4	16753.2	16864.2	11667.2
75°	772.5	769.7	778.2	782.5	865.0	1072.7	2112.7	7382.2	12960.4	12738.5	8449.2
77.5°	661.5	665.8	661.5	680.0	764.0	816.6	1072.7	4953.7	7854.5	7567.1	4240.9
80°	543.5	550.6	557.7	569.1	653.0	620.2	644.5	2257.7	2905.1	2843.9	1310.3
82.5°	408.3	418.2	429.7	456.7	513.6	409.7	406.9	964.5	1048.5	960.3	482.3
85°	165.0	194.9	294.5	321.5	322.9	224.8	250.4	402.6	428.2	418.2	189.2
87.5°	38.4	45.5	95.3	143.7	132.3	83.9	92.5	130.9	149.4	138.0	64.0
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°	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0	2437.0
2.5°	2485.4	2435.6	2350.3	2284.8	2237.8	2196.6	2171.0	2155.3	2149.7	2148.3	2149.7
5°	2569.3	2481.1	2346.0	2260.6	2213.7	2186.6	2171.0	2169.5	2171.0	2172.4	2168.1
7.5°	2684.6	2557.9	2381.5	2301.9	2266.3	2246.4	2239.2	2236.4	2237.8	2236.4	2236.4
10°	2838.2	2664.6	2451.3	2368.8	2338.8	2316.1	2304.7	2297.6	2291.9	2286.2	2283.4
12.5°	3007.5	2782.7	2526.6	2447.0	2404.3	2368.8	2343.1	2324.6	2311.8	2299.0	2296.2
15°	3196.7	2907.9	2610.5	2499.6	2438.5	2385.8	2341.7	2311.8	2289.0	2270.5	2269.1
17.5°	3377.4	3026.0	2667.5	2523.8	2434.2	2360.2	2301.9	2260.6	2232.2	2208.0	2205.1
20°	3570.9	3138.4	2693.1	2508.1	2391.5	2301.9	2225.0	2175.2	2142.5	2115.5	2111.2
22.5°	3765.7	3233.7	2690.3	2458.3	2317.5	2212.3	2131.2	2078.5	2040.1	2013.1	2003.1
25°	3952.1	3310.5	2654.7	2378.7	2215.1	2105.5	2023.0	1974.7	1940.5	1907.8	1907.8
27.5°	4120.1	3356.1	2587.8	2282.0	2109.8	1994.6	1929.1	1885.0	1853.7	1832.4	1819.6
30°	4285.1	3377.4	2496.8	2159.6	1998.8	1900.7	1848.0	1822.4	1793.9	1769.8	1766.9
32.5°	4433.0	3373.2	2383.0	2040.1	1893.6	1823.9	1802.5	1782.6	1752.7	1718.6	1710.0
35°	4576.7	3344.7	2247.8	1909.2	1805.4	1778.3	1784.0	1755.6	1701.5	1658.8	1651.7
37.5°	4733.1	3293.4	2099.8	1802.5	1731.4	1757.0	1771.2	1708.6	1620.4	1553.6	1537.9
40°	4913.9	3235.2	1946.2	1695.8	1673.1	1737.1	1737.1	1621.9	1500.9	1459.6	1448.3
42.5°	5125.8	3186.7	1818.2	1606.1	1624.6	1688.7	1681.6	1506.6	1456.8	1435.5	1429.8
45°	5461.6	3169.6	1685.9	1527.9	1584.9	1631.8	1573.4	1466.8	1438.3	1421.2	1415.6
47.5°	5992.2	3189.6	1569.2	1469.6	1539.3	1574.9	1452.6	1439.7	1419.8	1395.6	1392.8
50°	6484.4	3171.1	1486.7	1436.8	1499.5	1506.6	1402.7	1407.0	1395.6	1368.6	1362.9
52.5°	6887.1	3112.8	1434.1	1419.8	1465.4	1387.1	1355.8	1371.4	1367.2	1333.1	1327.4
55°	7329.6	3077.2	1408.4	1419.8	1442.6	1283.2	1311.7	1334.4	1328.8	1304.6	1303.1
57.5°	7865.9	3084.3	1389.9	1424.1	1419.8	1230.6	1267.6	1294.6	1293.2	1286.1	1286.1
60°	8415.0	3087.1	1361.5	1422.6	1392.8	1189.3	1222.1	1260.5	1263.4	1267.6	1267.6
62.5°	8597.1	2963.4	1306.0	1397.1	1333.1	1149.5	1179.4	1232.1	1229.2	1240.6	1242.0
65°	8257.1	2620.6	1223.5	1338.7	1256.2	1121.1	1146.7	1195.1	1179.4	1209.3	1215.0
67.5°	7515.9	2168.1	1095.5	1233.4	1170.8	1091.2	1125.3	1143.8	1115.3	1173.7	1175.1
70°	6495.9	1692.9	933.3	1084.0	1074.1	1059.9	1108.3	1079.8	1040.0	1111.1	1096.8
72.5°	5431.7	1293.2	745.5	886.3	944.6	1012.9	1078.4	997.3	941.8	963.1	937.5
75°	4080.2	956.0	599.0	694.2	786.8	946.0	1051.3	897.7	812.3	792.4	786.8
77.5°	2080.0	624.5	448.2	519.2	590.4	855.0	1014.3	781.0	672.9	641.6	627.4
80°	742.6	388.4	315.8	358.5	398.4	735.5	886.3	645.9	522.1	516.5	522.1
82.5°	344.3	250.4	212.0	234.7	236.2	490.8	675.7	482.3	397.0	603.2	509.3
85°	147.9	125.2	119.5	116.6	108.2	219.1	379.9	258.9	404.0	180.6	166.4
87.5°	44.1	49.8	44.1	32.7	24.2	24.2	38.4	14.2	9.9	7.1	7.1
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)