

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: P652325

Luminaire Tested: **GALN-SA4B-840-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P652325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4B-840-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19115.9 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

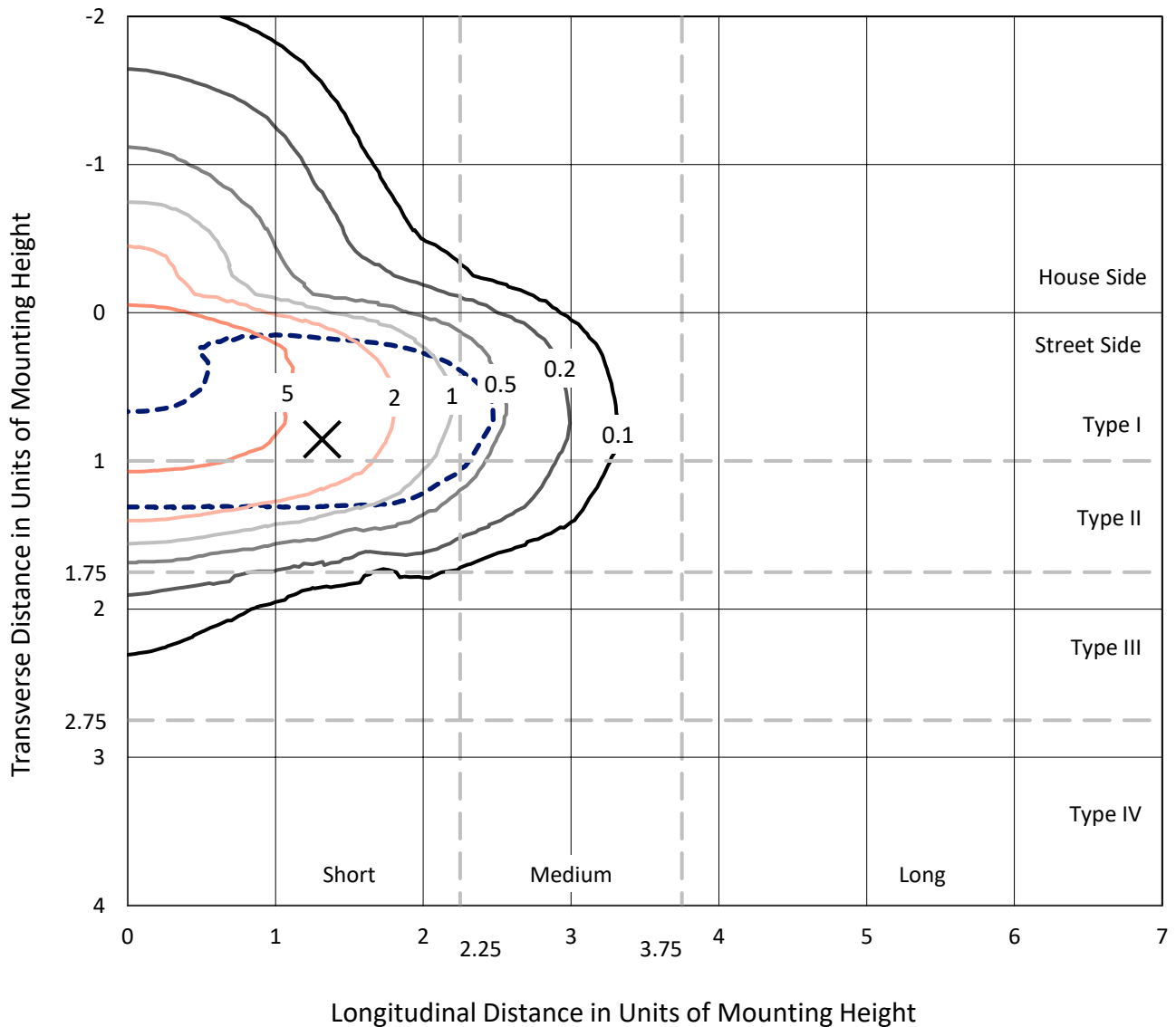
Input Watts (W): 164
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

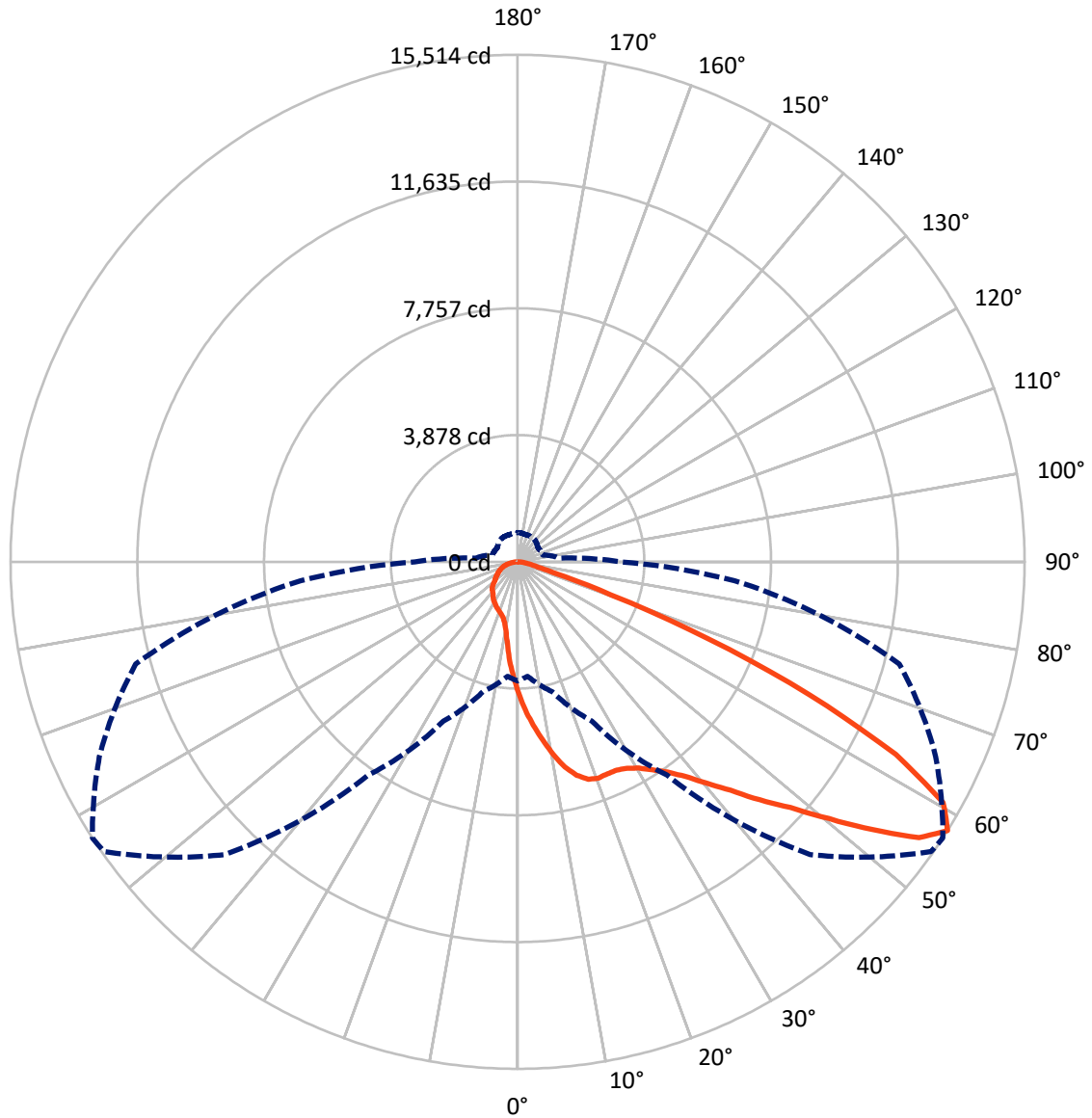
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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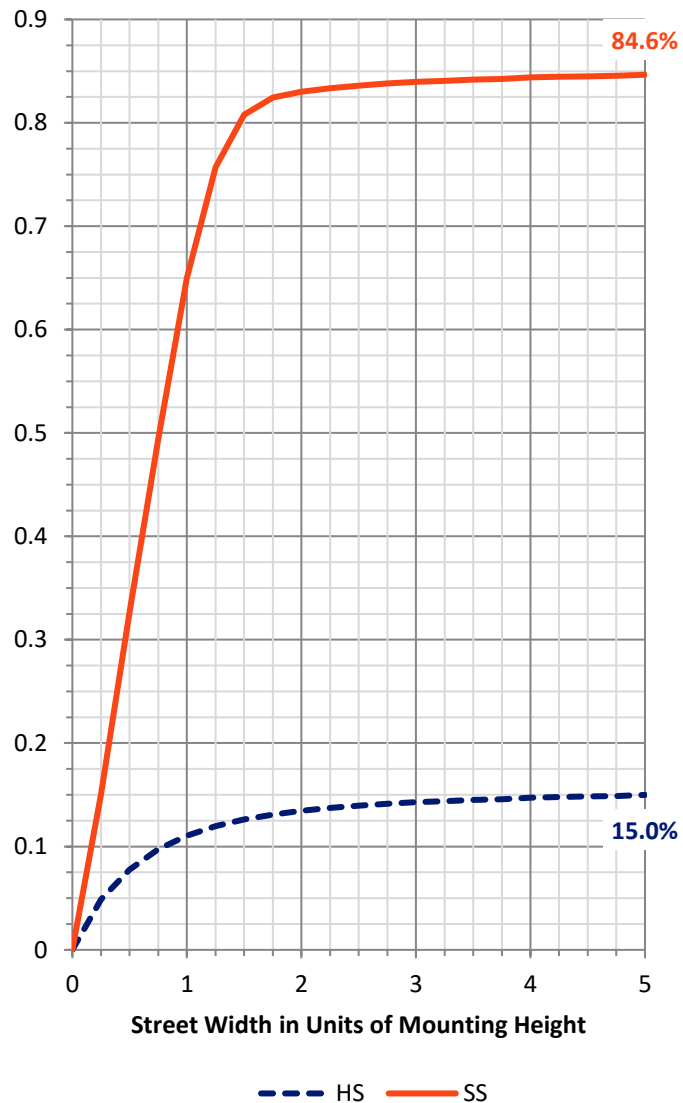
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2907.0	0.0	2907.0
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	16208.9	0.0	16208.9
	% Fixture	84.8	0.0	84.8
Total	Lumens	19115.9	0.0	19115.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.0	2.0
10°-20°	1137.5	6.0
20°-30°	1888.8	9.9
30°-40°	2845.2	14.9
40°-50°	4271.7	22.3
50°-60°	4788.1	25.0
60°-70°	2802.2	14.7
70°-80°	828.9	4.3
80°-90°	167.5	0.9
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°	19115.9	100.0
0°-180°	19115.9	100.0

Coefficient of Utilization



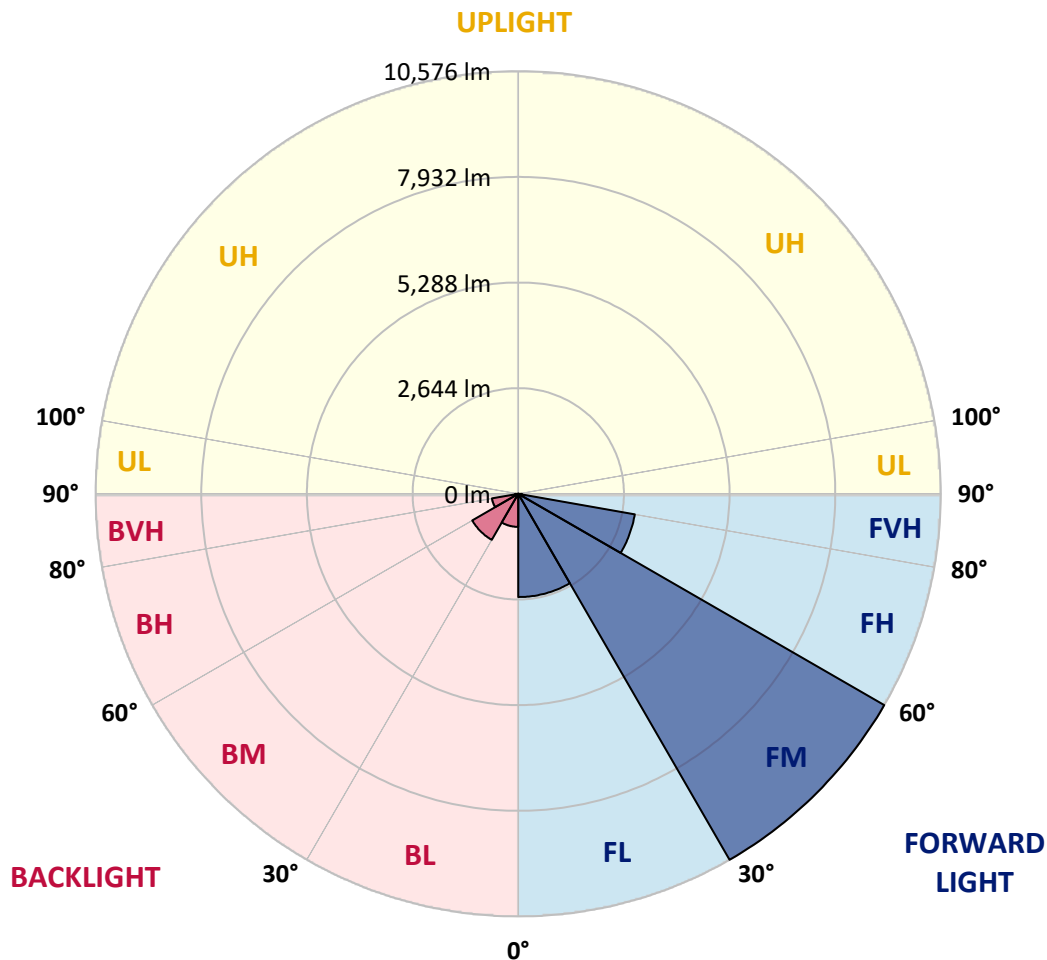
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2584.0	13.5			
FM (30°-60°)	10575.8	55.3			
FH (60°-80°)	2962.2	15.5			G2/5000
FVH (80°-90°)	86.9	0.5			G1/100
BL (0°-30°)	828.3	4.3	B2/1000		
BM (30°-60°)	1329.2	7.0	B2/2500		
BH (60°-80°)	668.9	3.5	B2/1000		G2/1000
BVH (80°-90°)	80.6	0.4			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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0
2.5°	4990.2	4935.8	4892.9	4855.3	4806.1	4673.2	4540.3	4538.2	4432.5	4269.3	4101.8
5°	5803.2	5730.0	5739.4	5622.3	5505.0	5312.5	5031.0	5016.4	4791.4	4485.9	4175.1
7.5°	6332.7	6333.8	6304.5	6237.5	6110.9	5892.2	5573.1	5500.9	5188.0	4724.4	4258.8
10°	6305.6	6333.8	6382.9	6440.5	6479.2	6371.5	6080.6	5992.6	5585.6	5013.3	4351.9
12.5°	5943.5	5987.4	6057.6	6202.0	6435.2	6613.2	6513.8	6442.6	6046.0	5301.0	4454.4
15°	5717.5	5743.6	5782.4	5879.7	6130.8	6556.7	6814.1	6776.4	6480.2	5626.5	4569.6
17.5°	5648.4	5674.6	5687.1	5746.8	5925.7	6362.1	6932.4	6999.3	6865.3	5925.7	4685.7
20°	5717.5	5730.0	5730.0	5765.6	5905.8	6248.0	6927.1	7062.0	7181.4	6284.6	4794.5
22.5°	5898.5	5903.7	5896.4	5909.0	6013.6	6279.4	6878.0	7045.3	7436.7	6589.1	4879.3
25°	6192.5	6200.9	6152.8	6123.5	6199.9	6417.5	6905.1	7058.9	7636.5	6880.0	4935.8
27.5°	6526.3	6536.8	6478.2	6410.2	6445.8	6588.1	7011.8	7149.9	7786.1	7166.7	4971.4
30°	6935.5	6939.7	6841.3	6759.7	6736.7	6842.3	7193.9	7322.6	7972.4	7504.7	5024.7
32.5°	7354.0	7385.4	7258.8	7143.7	7104.9	7137.4	7462.9	7587.3	8194.3	7867.8	5110.6
35°	7923.2	7928.4	7776.7	7636.5	7508.9	7550.8	7807.1	7897.1	8500.8	8287.4	5231.9
37.5°	8633.8	8681.9	8472.6	8211.0	8054.1	7993.4	8223.6	8321.9	8930.9	8802.2	5415.0
40°	9422.7	9440.5	9261.6	9098.4	8811.7	8635.8	8794.9	8901.6	9461.4	9416.4	5627.5
42.5°	9918.8	9957.4	9971.1	9954.3	9738.7	9443.7	9504.3	9554.6	10089.3	9993.0	5845.1
45°	10086.1	10143.7	10338.3	10750.6	10773.6	10482.7	10341.4	10389.6	10773.6	10574.8	6053.3
47.5°	9808.8	9907.2	10266.1	11111.6	11744.6	11766.6	11340.7	11235.1	11397.2	11057.2	6204.1
50°	9092.1	9113.0	9662.3	10886.7	12199.9	12994.0	12553.5	12356.8	11989.5	11414.0	6307.7
52.5°	7982.9	8007.0	8467.4	9841.3	11919.4	13852.1	13972.5	13620.8	12591.2	11691.3	6375.6
55°	5925.7	6064.9	6571.3	7899.2	10590.5	13771.5	15100.4	14900.6	13318.4	11911.0	6482.3
57.5°	3643.5	3515.9	4116.5	5374.2	7965.1	12664.5	15448.9	15513.8	14118.9	12095.2	6661.3
60°	1676.3	1701.4	1949.4	2771.9	4855.3	9907.2	14551.1	14961.2	14561.6	12089.0	6706.3
62.5°	1155.2	1132.2	1069.4	1216.9	2214.2	6265.8	12290.9	12985.7	13674.2	11713.3	6527.3
65°	1032.7	1009.8	888.3	847.6	1017.1	2731.1	8935.1	9811.9	11513.4	10765.2	6081.6
67.5°	964.8	933.3	807.8	728.3	726.2	1087.2	5268.5	6324.4	8539.6	9101.5	5269.6
70°	893.6	868.5	743.9	656.1	618.4	683.3	2315.7	3031.4	5544.8	6558.8	4105.0
72.5°	822.5	793.1	681.2	587.0	537.8	511.7	887.3	1154.2	3132.9	3932.3	2516.5
75°	718.9	704.3	609.0	531.6	478.2	413.4	563.0	642.5	1498.4	1806.0	1263.0
77.5°	628.9	613.2	541.0	464.6	425.9	335.9	399.7	436.3	632.0	732.5	570.3
80°	460.4	476.1	456.2	410.2	379.9	263.7	269.0	299.2	375.7	415.5	348.4
82.5°	291.9	321.3	351.6	316.0	287.8	208.2	186.3	197.8	256.3	272.1	154.8
85°	122.4	124.6	204.0	192.5	164.2	123.5	111.9	118.2	137.1	143.4	72.2
87.5°	47.1	46.0	72.2	66.9	51.3	35.6	35.6	39.8	54.4	50.2	23.0
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°	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0	4016.0
2.5°	4029.7	3955.3	3807.8	3624.7	3490.7	3340.0	3207.2	3112.0	3076.4	3059.6	3028.3
5°	4026.5	3880.0	3574.5	3254.2	2996.8	2733.2	2510.3	2365.9	2353.3	2257.1	2247.7
7.5°	4027.5	3803.6	3317.1	2846.2	2453.8	2183.8	1999.6	1951.5	1893.9	1879.3	1886.6
10°	4030.7	3706.3	3040.8	2442.3	2062.5	1885.6	1816.6	1797.7	1799.8	1806.0	1807.1
12.5°	4034.9	3612.1	2754.1	2135.7	1842.7	1769.5	1762.1	1778.9	1796.6	1810.3	1813.4
15°	4040.1	3504.4	2474.7	1888.7	1732.8	1726.6	1750.6	1778.9	1803.9	1823.9	1827.0
17.5°	4033.9	3378.8	2240.3	1737.0	1672.2	1702.4	1742.2	1777.8	1800.8	1819.7	1821.8
20°	4019.1	3238.6	2014.3	1630.3	1634.5	1683.6	1726.6	1760.0	1785.1	1794.5	1801.8
22.5°	3962.7	3071.2	1817.6	1547.6	1589.5	1657.4	1708.7	1728.6	1700.4	1680.5	1685.7
25°	3866.4	2853.5	1634.5	1480.7	1548.6	1620.9	1673.2	1625.1	1602.0	1593.6	1597.8
27.5°	3746.1	2614.9	1496.3	1410.5	1496.3	1580.1	1565.4	1557.0	1546.6	1533.0	1536.1
30°	3616.3	2381.5	1379.2	1356.1	1439.8	1488.0	1494.2	1507.8	1496.3	1475.4	1483.8
32.5°	3496.0	2161.9	1290.2	1310.1	1400.1	1392.8	1439.8	1455.5	1402.2	1332.1	1335.2
35°	3393.4	1957.8	1223.2	1265.1	1332.1	1335.2	1382.3	1327.9	1270.3	1236.9	1239.0
37.5°	3316.0	1798.7	1179.3	1226.3	1245.2	1285.0	1259.8	1231.6	1224.2	1201.3	1202.3
40°	3270.0	1659.5	1151.0	1196.0	1192.9	1220.1	1139.6	1167.7	1178.2	1170.9	1171.9
42.5°	3223.9	1561.2	1121.7	1154.2	1153.1	1099.8	1081.9	1106.0	1133.2	1136.4	1134.3
45°	3187.3	1484.8	1091.4	1090.4	1111.3	1027.5	1022.3	1037.0	1075.7	1094.6	1093.5
47.5°	3146.5	1421.0	1045.4	1016.0	1022.3	982.5	974.2	980.4	1027.5	1057.9	1066.3
50°	3095.2	1357.2	987.8	948.1	921.9	940.7	942.8	943.9	991.0	1025.4	1032.7
52.5°	3054.4	1309.0	921.9	892.6	861.2	903.1	918.7	920.8	949.1	977.3	982.5
55°	3078.5	1281.9	857.0	836.0	807.8	864.3	894.7	898.9	905.1	926.0	929.2
57.5°	3150.6	1288.1	804.7	777.5	756.6	818.3	869.5	872.7	868.5	893.6	897.8
60°	3172.7	1285.0	766.0	712.6	700.0	769.1	832.9	839.2	838.1	874.8	882.1
62.5°	3080.6	1245.2	727.2	658.2	649.8	718.9	781.6	806.8	812.0	864.3	873.7
65°	2863.9	1163.6	676.0	600.6	600.6	665.5	732.5	767.0	781.6	851.8	862.2
67.5°	2578.3	1067.3	623.7	551.4	549.3	614.3	680.1	715.7	738.7	833.9	840.2
70°	2139.8	937.5	558.8	498.0	498.0	556.7	616.3	659.3	692.7	800.5	800.5
72.5°	1466.0	779.5	480.3	437.4	438.4	492.8	553.5	601.7	641.4	733.5	735.6
75°	927.1	609.0	394.5	372.5	376.7	428.0	490.7	541.0	620.5	725.1	728.3
77.5°	492.8	428.0	313.9	308.6	313.9	361.0	431.1	500.1	622.6	628.9	618.4
80°	319.2	303.4	248.0	237.5	239.6	290.9	384.0	475.1	500.1	506.5	483.4
82.5°	173.7	192.5	175.8	165.3	165.3	227.1	327.5	377.8	358.9	298.2	284.6
85°	74.3	90.0	91.0	79.6	76.4	140.2	219.8	206.1	191.5	183.1	181.0
87.5°	20.9	29.3	29.3	22.0	16.7	38.7	44.0	12.5	0.0	1.0	2.1
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)