

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: P321098

Luminaire Tested: **GLEON-SA4D-827-U-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321098
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-29)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23605 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

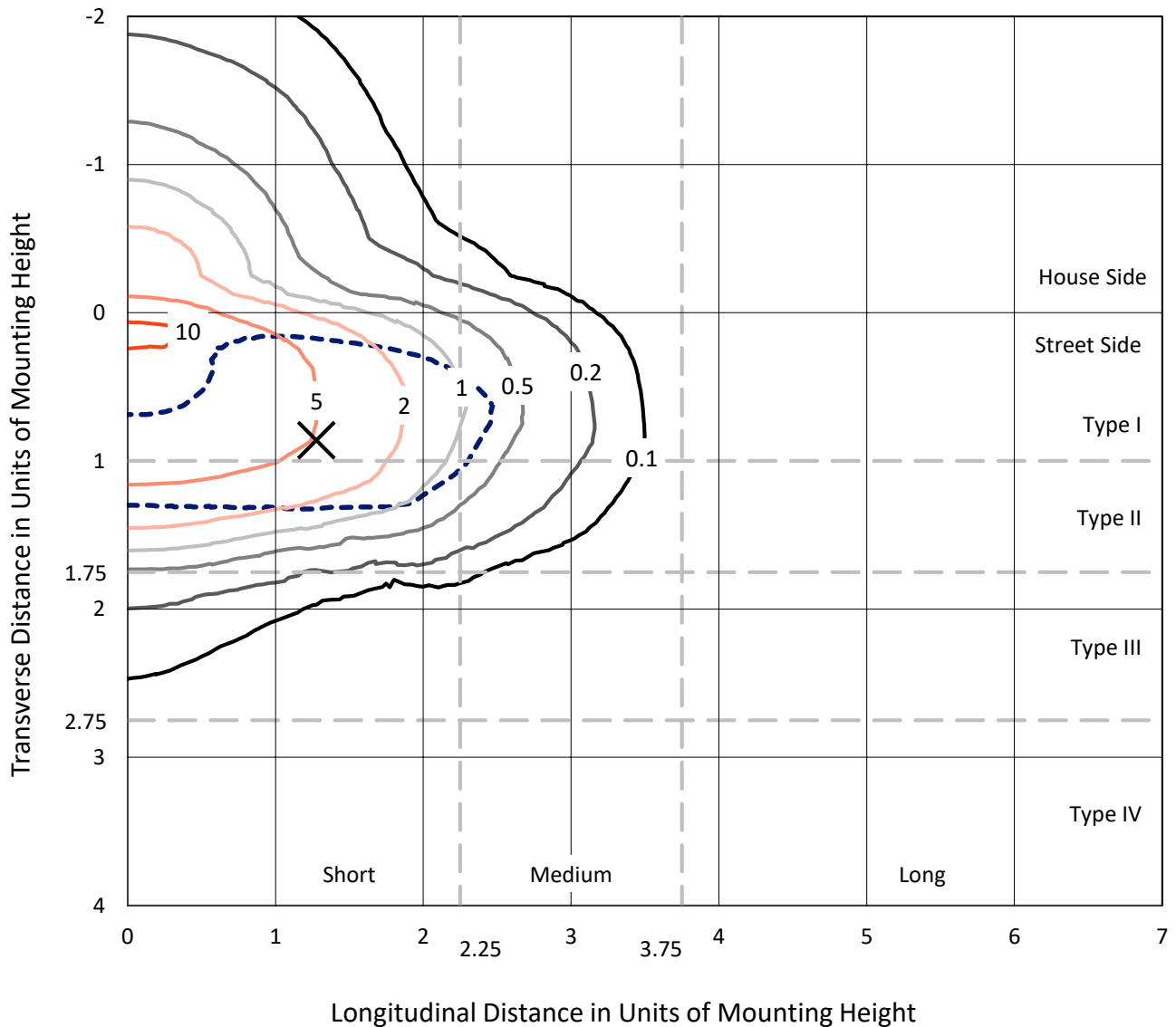
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

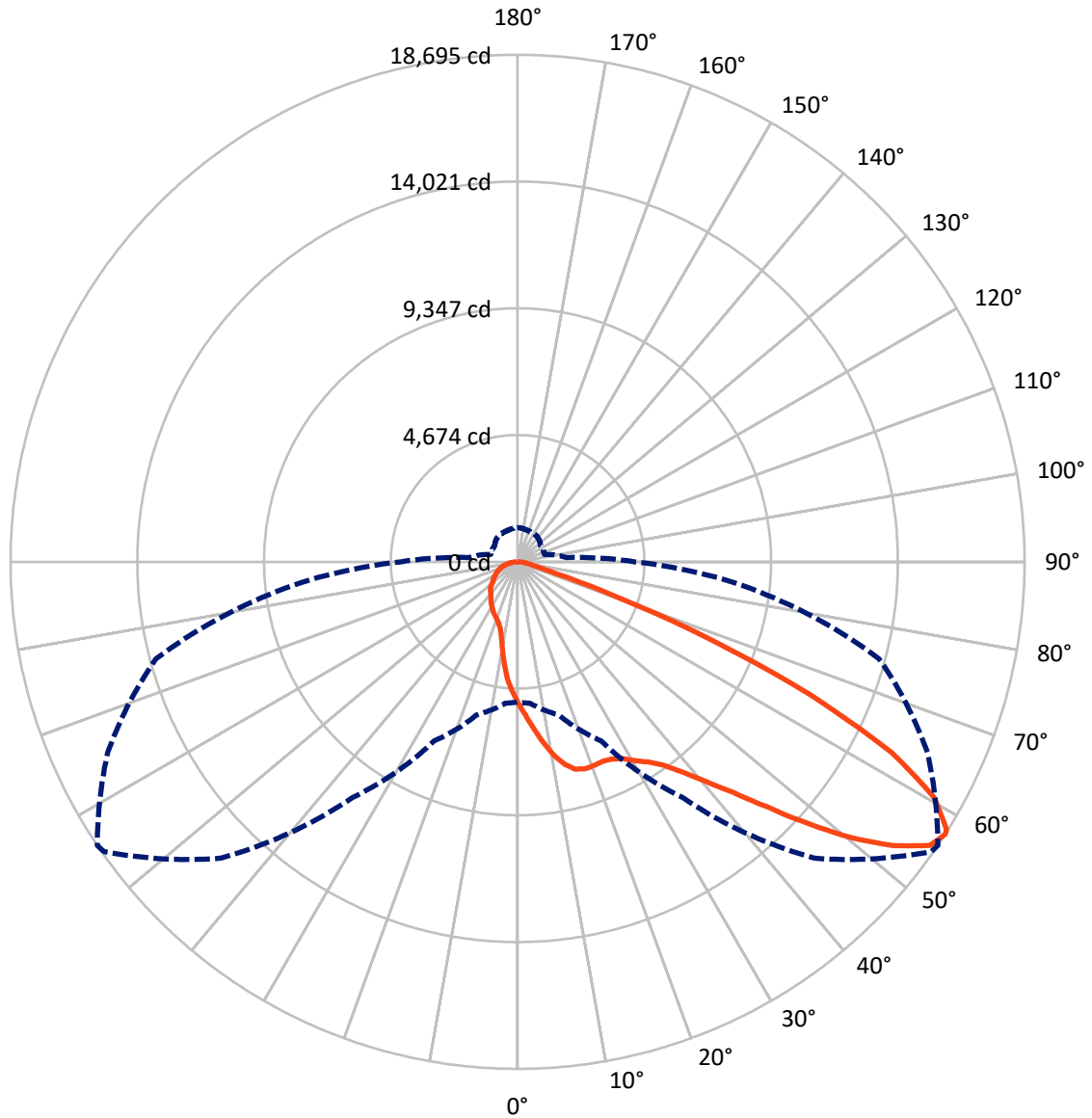
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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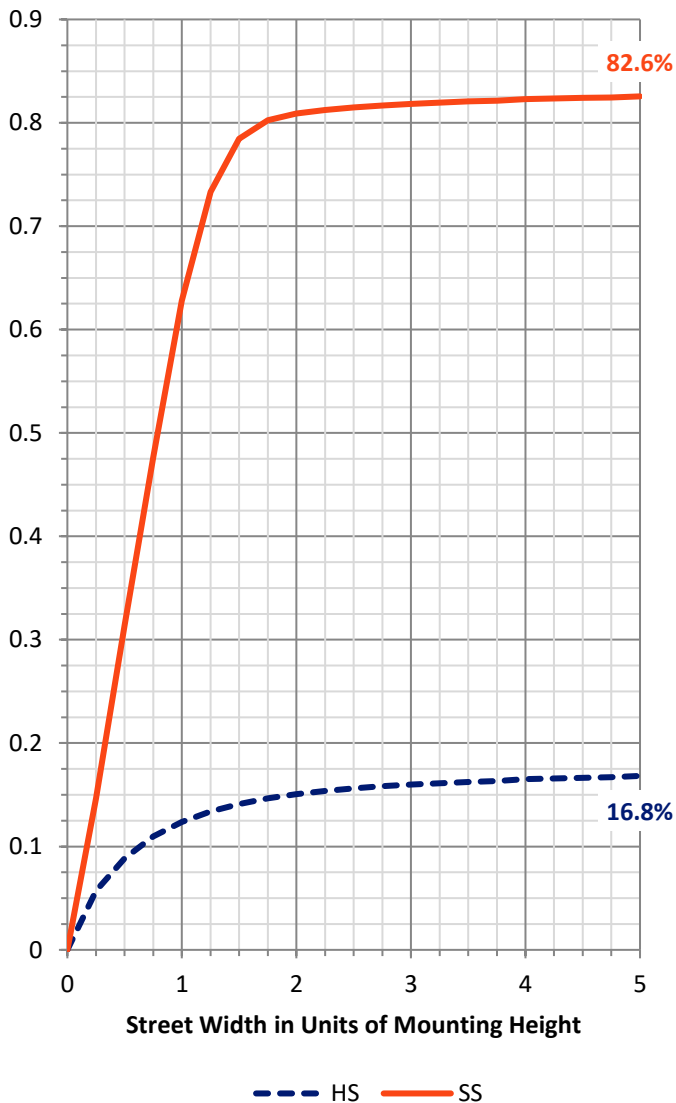
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4069.0	0.0	4069.0
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	19536.0	0.0	19536.0
	% Fixture	82.8	0.0	82.8
Total	Lumens	23605.0	0.0	23605.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	500.1	2.1
10°-20°	1414.0	6.0
20°-30°	2303.1	9.8
30°-40°	3442.9	14.6
40°-50°	5222.2	22.1
50°-60°	5853.1	24.8
60°-70°	3457.1	14.6
70°-80°	1132.7	4.8
80°-90°	279.8	1.2
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°	23605.0	100.0
0°-180°	23605.0	100.0

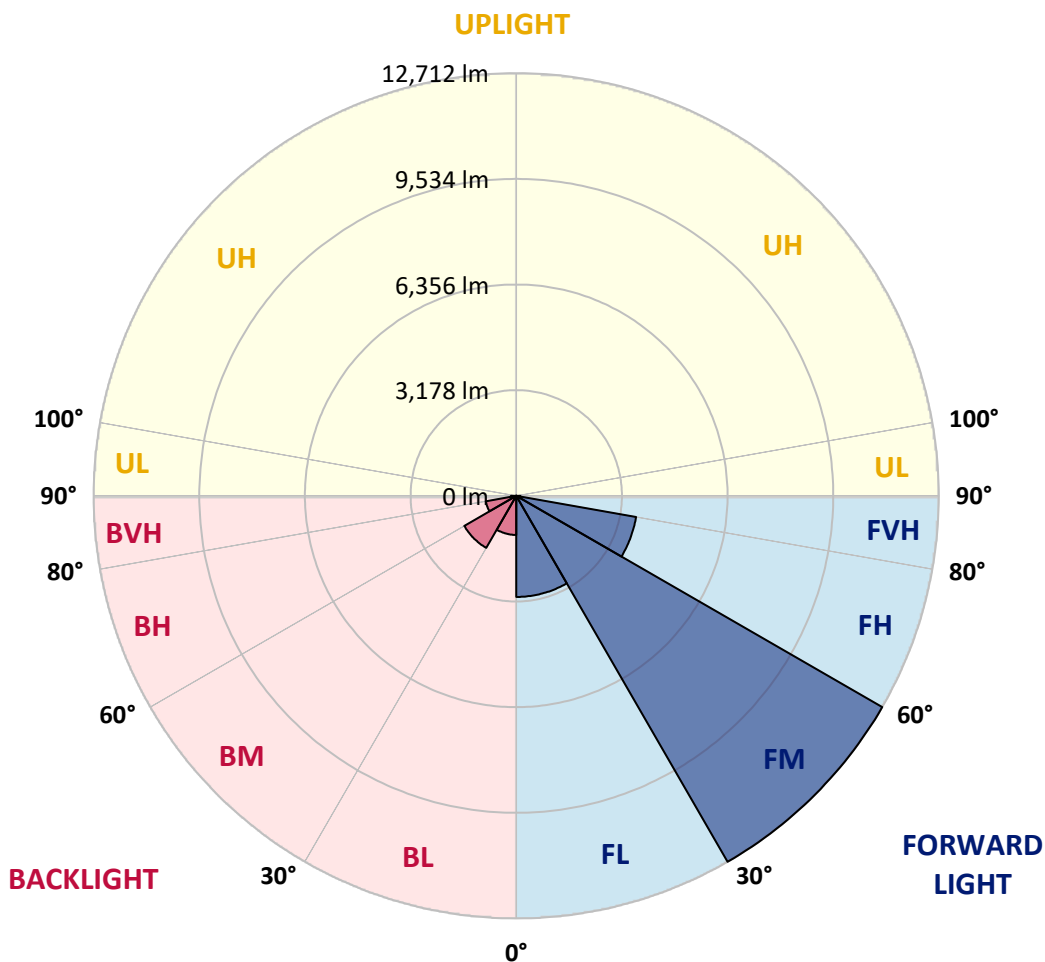


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3040.7	12.9			
FM (30°-60°)	12712.1	53.9			
FH (60°-80°)	3660.0	15.5			G2/5000
FVH (80°-90°)	123.2	0.5			G2/225
BL (0°-30°)	1176.6	5.0	B3/2500		
BM (30°-60°)	1806.1	7.7	B2/2500		
BH (60°-80°)	929.7	3.9	B2/1000		G2/1000
BVH (80°-90°)	156.6	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6
2.5°	6011.9	6067.1	6042.8	5958.4	5893.5	5801.8	5699.6	5668.8	5560.9	5440.0	5294.8
5°	6963.5	6935.9	6896.2	6764.8	6626.0	6464.6	6208.3	6167.7	5927.6	5654.2	5365.4
7.5°	7505.4	7503.0	7479.4	7402.4	7275.8	7064.9	6755.8	6708.0	6345.4	5905.7	5457.9
10°	7426.7	7421.0	7460.0	7540.3	7578.4	7534.6	7274.2	7226.3	6781.0	6183.9	5565.0
12.5°	6979.7	6983.0	7045.4	7214.2	7443.7	7719.6	7677.4	7653.9	7232.8	6498.7	5694.8
15°	6631.7	6639.0	6688.5	6835.3	7106.3	7606.8	7922.4	7930.5	7670.1	6845.9	5846.5
17.5°	6479.2	6494.6	6517.3	6620.4	6868.6	7382.1	7980.8	8024.6	8053.0	7206.1	5992.5
20°	6527.9	6542.5	6549.0	6614.7	6818.3	7245.8	7940.2	8018.9	8346.6	7545.2	6138.5
22.5°	6746.1	6755.0	6759.1	6776.1	6934.3	7284.8	7913.4	7996.2	8559.2	7849.4	6248.8
25°	7107.9	7101.4	7075.5	7053.6	7159.8	7438.9	7975.1	8053.8	8732.0	8125.2	6321.0
27.5°	7541.1	7533.0	7482.7	7422.7	7483.5	7679.0	8152.8	8215.2	8886.9	8383.1	6357.5
30°	8061.1	8040.0	7945.1	7873.7	7897.2	8039.2	8445.6	8502.4	9126.2	8676.0	6393.2
32.5°	8662.2	8639.5	8502.4	8384.0	8384.0	8502.4	8747.4	8794.4	9329.0	9007.0	6450.8
35°	9415.0	9386.6	9208.2	9009.4	8953.4	9013.5	9158.7	9191.9	9694.1	9423.9	6555.5
37.5°	10302.5	10264.4	10033.2	9767.1	9644.6	9641.3	9746.0	9814.1	10277.3	9971.5	6733.1
40°	11192.4	11165.6	10963.6	10754.3	10514.2	10437.1	10598.6	10619.7	11039.9	10651.3	6960.3
42.5°	11880.3	11875.4	11838.1	11865.7	11619.9	11464.2	11590.7	11607.7	11971.2	11387.1	7202.0
45°	12243.7	12251.8	12432.7	12833.5	12924.3	12810.8	12873.2	12878.1	13035.5	12129.4	7423.5
47.5°	11952.5	11994.7	12452.2	13348.6	14092.5	14469.7	14365.9	14425.9	14067.4	12767.0	7597.1
50°	10817.6	10869.5	11648.3	13119.0	14637.6	16075.1	16020.8	16007.0	14899.7	13234.2	7691.2
52.5°	9411.8	9452.3	10094.8	11925.7	14237.7	16962.6	17461.5	17390.1	15639.5	13583.9	7709.0
55°	7271.0	7334.2	7950.0	9544.0	12620.1	16623.5	18521.0	18456.9	16313.6	13767.2	7687.9
57°	5169.1	5235.6	5847.3	7283.9	10616.4	15449.7	18626.4	18694.6	16677.9	13798.0	7711.5
57.5°	4612.6	4680.7	5286.7	6682.0	9991.8	15025.4	18535.6	18649.1	16743.6	13793.2	7724.4
60°	2322.5	2348.5	2734.6	3730.0	6316.2	12147.2	17350.4	17643.2	16802.8	13554.7	7780.4
62.5°	1444.0	1425.3	1413.1	1718.2	3072.9	8055.4	14904.5	15468.3	15669.5	12977.1	7644.9
65°	1269.6	1234.7	1100.8	1076.5	1357.2	3912.5	11224.0	11925.7	13248.0	12066.9	7322.1
67.5°	1192.5	1158.4	1007.5	916.7	917.5	1551.1	6968.4	7758.5	10320.3	10528.0	6560.3
70°	1113.0	1082.2	941.0	833.9	781.2	859.1	3205.9	3805.4	6727.4	8275.2	5483.0
72.5°	1010.8	989.7	855.8	745.5	689.5	643.3	1227.4	1449.6	3894.7	5557.7	3807.9
75°	903.7	884.2	769.8	664.4	596.2	506.2	691.2	744.7	1978.6	2843.3	1874.7
77.5°	786.1	774.7	684.7	587.3	533.0	419.4	489.2	515.1	848.5	1219.3	940.2
80°	625.5	647.4	598.7	523.2	472.9	335.8	346.4	363.4	494.0	595.4	533.8
82.5°	407.2	445.4	468.9	425.1	389.4	264.5	249.0	256.3	322.1	363.4	232.0
85°	169.5	190.6	308.3	278.2	258.8	193.1	167.1	170.4	199.6	206.9	94.9
87.5°	75.4	80.3	135.5	127.4	109.5	66.5	71.4	77.9	106.3	100.6	36.5
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°	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6	5235.6
2.5°	5240.5	5172.3	5055.5	4926.5	4821.1	4736.7	4651.5	4593.1	4525.0	4488.5	4469.8
5°	5244.5	5110.7	4864.9	4612.6	4387.1	4181.0	3984.7	3833.8	3692.7	3616.4	3595.3
7.5°	5261.6	5060.4	4662.9	4247.5	3846.8	3480.9	3198.6	3021.8	2894.4	2837.6	2821.4
10°	5275.4	5001.2	4413.0	3798.1	3253.0	2882.3	2663.2	2564.3	2520.5	2513.2	2505.9
12.5°	5307.8	4940.3	4150.2	3329.2	2791.4	2535.1	2458.8	2452.3	2464.5	2482.3	2482.3
15°	5358.9	4880.3	3850.0	2926.9	2497.7	2407.7	2423.1	2458.8	2492.1	2519.6	2523.7
17.5°	5396.2	4806.5	3527.2	2604.8	2341.2	2365.5	2420.7	2471.0	2505.0	2531.8	2534.2
20°	5423.0	4692.1	3182.4	2359.0	2251.1	2326.6	2395.5	2440.1	2463.7	2490.4	2494.5
22.5°	5409.2	4538.8	2876.6	2183.0	2178.1	2269.8	2335.5	2389.0	2371.2	2345.2	2362.3
25°	5342.7	4327.9	2561.8	2051.6	2101.1	2193.5	2274.7	2239.0	2178.9	2167.6	2174.1
27.5°	5224.3	4058.5	2270.6	1929.9	2011.8	2123.0	2118.1	2082.4	2061.3	2046.7	2055.6
30°	5096.9	3766.5	2015.9	1823.6	1912.9	2004.5	1985.9	1985.1	1964.0	1940.4	1951.8
32.5°	4971.2	3472.8	1813.9	1736.0	1838.2	1850.4	1891.0	1903.1	1861.7	1812.3	1809.0
35°	4861.6	3195.4	1660.6	1656.5	1748.2	1749.8	1809.0	1792.0	1689.0	1637.9	1637.9
37.5°	4779.7	2918.8	1543.8	1585.1	1629.7	1671.9	1701.9	1631.4	1614.3	1585.9	1585.1
40°	4744.0	2675.4	1470.7	1530.8	1546.2	1599.7	1522.7	1550.2	1558.4	1543.8	1543.8
42.5°	4706.7	2463.7	1407.5	1489.4	1487.0	1479.7	1440.7	1476.4	1508.9	1509.7	1507.2
45°	4669.4	2281.1	1351.5	1401.0	1435.0	1356.4	1363.7	1401.8	1447.2	1463.4	1463.4
47.5°	4628.0	2136.8	1300.4	1307.7	1360.4	1307.7	1302.0	1331.2	1384.8	1410.7	1416.4
50°	4537.2	2007.0	1242.0	1225.8	1240.4	1258.2	1263.1	1276.9	1336.1	1377.5	1387.2
52.5°	4411.4	1891.0	1167.3	1150.3	1150.3	1217.6	1240.4	1244.4	1294.7	1344.2	1353.9
55°	4306.8	1817.1	1090.3	1087.0	1083.8	1174.6	1213.6	1220.1	1255.0	1293.9	1298.8
57°	4314.1	1811.5	1031.1	1034.3	1033.5	1130.8	1188.4	1202.2	1220.1	1253.3	1259.0
57.5°	4318.1	1815.5	1018.1	1019.7	1018.9	1118.7	1181.1	1196.5	1210.3	1245.2	1250.9
60°	4379.0	1826.1	965.4	947.5	951.6	1053.8	1139.8	1159.2	1168.2	1214.4	1221.7
62.5°	4288.9	1779.0	923.2	880.2	880.2	985.6	1082.2	1113.0	1126.8	1189.2	1201.4
65°	4027.7	1646.8	873.7	803.9	812.0	917.5	1013.2	1063.5	1084.6	1162.5	1175.5
67.5°	3624.5	1493.5	821.0	735.8	743.9	846.1	941.8	996.2	1029.4	1133.3	1143.8
70°	3099.7	1306.1	749.6	663.6	673.3	768.2	857.5	919.1	968.6	1105.7	1108.9
72.5°	2285.2	1070.8	649.8	584.1	594.6	677.4	772.3	843.7	910.2	1036.7	1035.1
75°	1358.8	837.2	539.5	503.8	511.1	588.1	695.2	782.0	881.8	1010.0	1025.4
77.5°	824.2	630.3	439.7	421.8	430.8	509.4	640.1	732.5	869.6	952.4	947.5
80°	498.1	450.2	351.3	339.9	348.8	435.6	592.2	695.2	760.1	813.7	813.7
82.5°	260.4	275.0	258.0	249.0	261.2	353.7	538.6	606.8	671.7	576.8	538.6
85°	106.3	143.6	156.6	155.8	163.1	245.0	464.8	519.2	433.2	411.3	421.0
87.5°	35.7	60.8	76.3	65.7	69.0	154.1	322.1	250.7	297.7	207.7	197.1
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)