

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: P453371

Luminaire Tested: **GALN-SA4B-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453371
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-SA4B-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16864 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

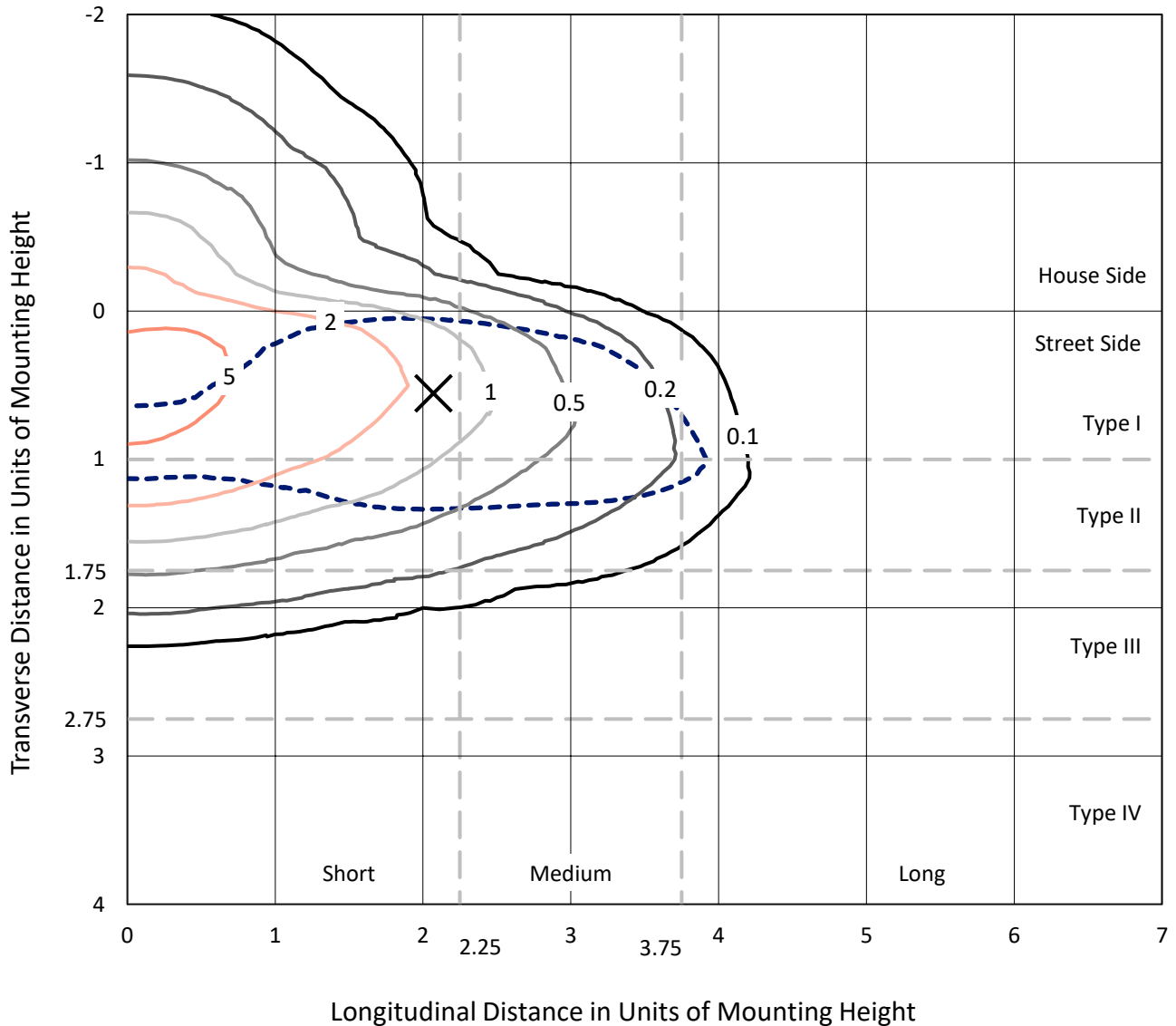
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

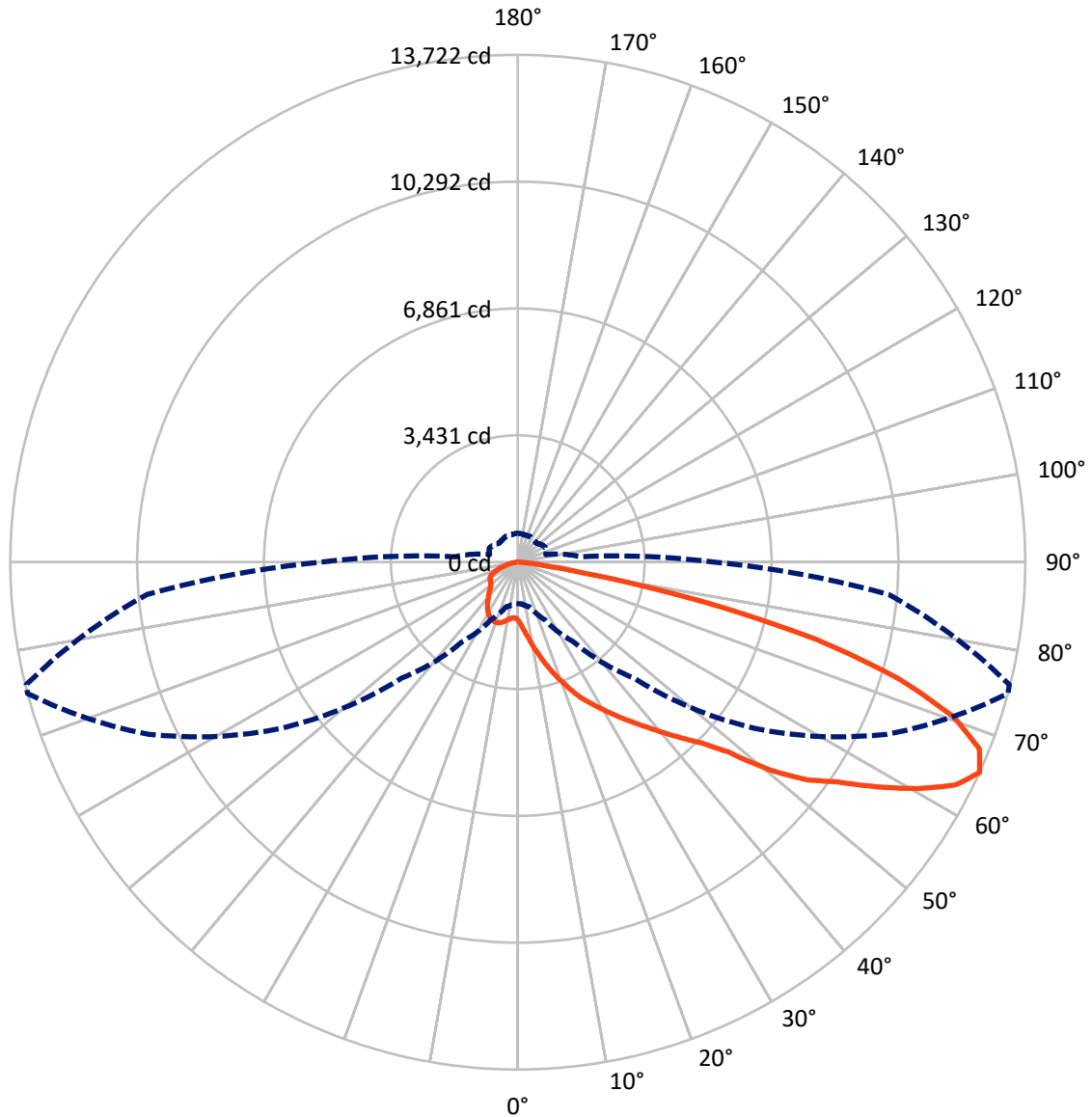
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 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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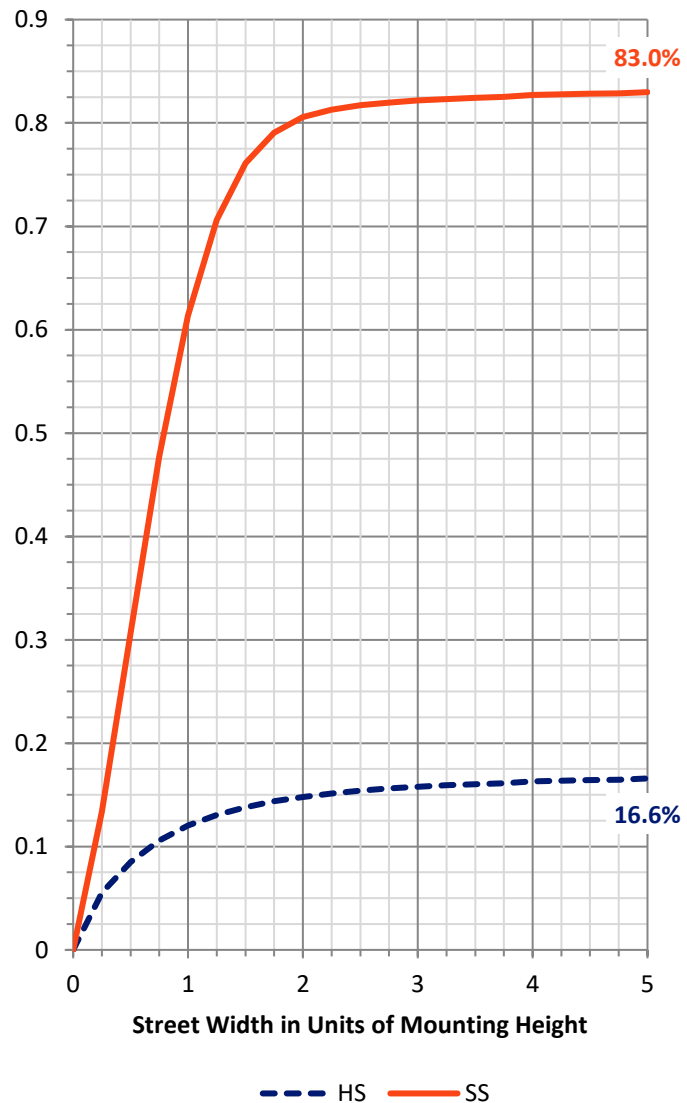
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2835.1	0.0	2835.1
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	14028.9	0.0	14028.9
	% Fixture	83.2	0.0	83.2
Total	Lumens	16864.0	0.0	16864.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.4	1.1
10°-20°	745.7	4.4
20°-30°	1440.4	8.5
30°-40°	2339.6	13.9
40°-50°	3218.3	19.1
50°-60°	3799.7	22.5
60°-70°	3329.2	19.7
70°-80°	1589.4	9.4
80°-90°	211.5	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°	16864.0	100.0
0°-180°	16864.0	100.0



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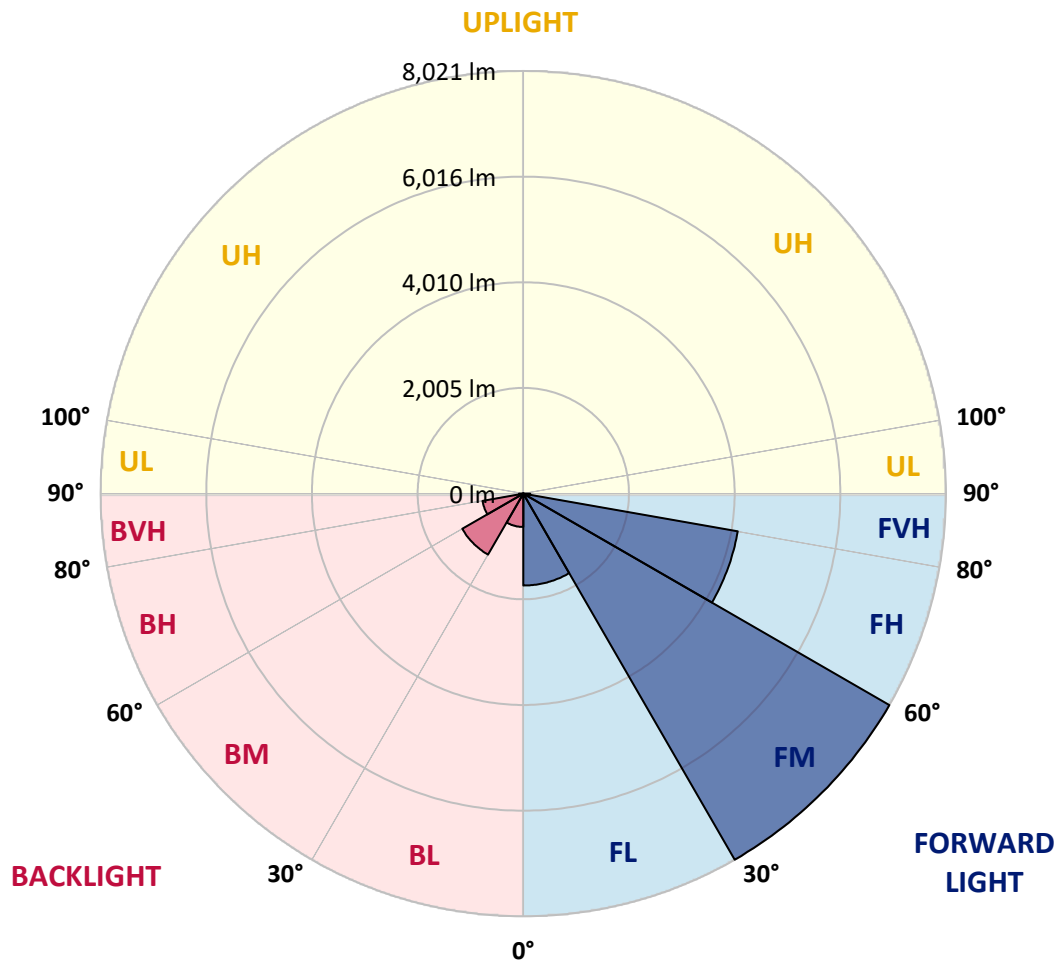
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1743.5	10.3			
FM	(30°-60°)	8020.9	47.6			
FH	(60°-80°)	4132.4	24.5			G2/5000
FVH	(80°-90°)	132.2	0.8			G2/225
BL	(0°-30°)	632.9	3.8	B2/1000		
BM	(30°-60°)	1336.7	7.9	B2/2500		
BH	(60°-80°)	786.1	4.7	B2/1000		G2/1000
BVH	(80°-90°)	79.3	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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9
2.5°	2081.9	2068.1	2053.5	2013.3	1970.3	1921.8	1852.3	1785.5	1696.8	1694.0	1628.2
5°	2659.0	2649.9	2584.9	2547.4	2447.7	2315.1	2202.6	2027.9	1866.0	1846.8	1718.7
7.5°	3189.6	3153.9	3129.2	3061.5	2962.7	2792.6	2574.9	2338.9	2068.1	2042.5	1830.3
10°	3589.3	3585.6	3572.8	3514.3	3440.2	3271.0	3029.5	2691.0	2324.2	2273.9	1965.7
12.5°	3888.4	3891.1	3889.3	3888.4	3835.3	3691.7	3430.1	3073.4	2583.1	2547.4	2122.1
15°	4085.0	4112.5	4123.5	4169.2	4173.8	4077.7	3852.7	3442.9	2874.9	2821.8	2290.4
17.5°	4214.9	4228.7	4279.9	4357.6	4420.7	4403.4	4203.0	3785.0	3173.1	3084.4	2465.1
20°	4339.3	4363.1	4402.4	4508.5	4620.1	4671.4	4530.5	4135.4	3468.5	3411.8	2658.1
22.5°	4598.2	4632.0	4645.8	4699.7	4794.8	4885.4	4821.4	4471.0	3792.3	3715.5	2863.0
25°	5036.3	5072.0	5033.6	5020.8	5051.9	5096.7	5083.0	4787.5	4097.8	3988.1	3056.9
27.5°	5607.1	5611.7	5536.7	5465.3	5388.5	5365.6	5323.5	5068.3	4363.1	4271.6	3251.8
30°	6220.0	6198.0	6073.6	5944.6	5814.7	5686.7	5565.9	5339.1	4658.6	4553.4	3442.9
32.5°	6788.9	6777.0	6638.9	6438.6	6219.0	6098.3	5854.1	5612.6	4975.0	4873.5	3639.6
35°	7215.1	7232.5	7080.7	6862.1	6622.4	6515.4	6207.1	5899.8	5302.5	5191.8	3853.6
37.5°	7517.9	7508.8	7374.3	7185.0	6974.6	6881.3	6619.7	6213.5	5654.7	5548.6	4087.8
40°	7625.8	7620.4	7520.7	7382.5	7249.0	7216.1	7051.4	6552.0	6058.0	5933.6	4369.5
42.5°	7557.2	7569.1	7503.3	7465.8	7441.1	7464.9	7480.4	6995.6	6498.0	6383.7	4675.0
45°	7346.9	7340.5	7331.3	7392.6	7531.6	7688.0	7904.8	7414.5	6976.4	6884.9	5084.8
47.5°	6970.9	7016.7	7039.5	7208.7	7512.4	7882.9	8393.3	7976.2	7670.7	7591.1	5709.5
50°	6445.0	6481.6	6616.9	6917.9	7370.6	7956.0	8870.7	8894.5	8828.7	8679.6	6388.3
52.5°	5623.6	5680.3	5959.3	6510.8	7079.8	7925.9	9159.8	9682.1	9769.0	9657.4	7056.9
55°	4704.3	4783.9	5078.4	5801.9	6679.1	7761.2	9359.2	10138.5	10485.2	10381.8	7700.8
57.5°	3804.2	3888.4	4191.1	4891.8	5980.3	7397.2	9490.0	10647.1	11460.3	11325.8	8502.1
60°	2851.1	2938.9	3198.7	3920.4	4985.1	6685.5	9401.3	11088.0	12434.4	12376.8	9304.3
62.5°	1839.5	1936.4	2162.3	2759.6	3831.7	5713.2	8926.5	11331.3	13277.8	13208.2	9889.7
65°	1120.5	1131.5	1255.9	1713.2	2622.4	4423.5	7840.8	11008.4	13722.3	13701.3	10068.1
67.5°	724.4	741.8	798.5	1026.3	1572.4	3072.5	6269.3	9942.8	13462.5	13455.2	9699.5
70°	611.9	617.4	643.0	692.4	913.8	1863.2	4402.4	8244.2	12475.6	12475.6	8813.1
72.5°	547.0	554.3	563.5	579.0	652.2	1055.6	2627.0	6417.5	10771.5	10842.8	7501.4
75°	496.7	494.9	500.3	503.1	556.1	689.7	1358.3	4746.4	8332.9	8190.2	5432.4
77.5°	425.3	428.1	425.3	437.2	491.2	525.0	689.7	3185.0	5050.1	4865.3	2726.7
80°	349.4	354.0	358.6	365.9	419.8	398.8	414.4	1451.6	1867.8	1828.5	842.4
82.5°	262.5	268.9	276.2	293.6	330.2	263.4	261.6	620.2	674.1	617.4	310.1
85°	106.1	125.3	189.3	206.7	207.6	144.5	161.0	258.9	275.3	268.9	121.7
87.5°	24.7	29.3	61.3	92.4	85.1	54.0	59.5	84.2	96.0	88.7	41.2
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°	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9	1566.9
2.5°	1598.0	1566.0	1511.1	1469.0	1438.8	1412.3	1395.8	1385.8	1382.1	1381.2	1382.1
5°	1651.9	1595.2	1508.3	1453.5	1423.3	1405.9	1395.8	1394.9	1395.8	1396.7	1394.0
7.5°	1726.0	1644.6	1531.2	1480.0	1457.1	1444.3	1439.7	1437.9	1438.8	1437.9	1437.9
10°	1824.8	1713.2	1576.0	1523.0	1503.8	1489.1	1481.8	1477.2	1473.6	1469.9	1468.1
12.5°	1933.7	1789.2	1624.5	1573.3	1545.8	1523.0	1506.5	1494.6	1486.4	1478.2	1476.3
15°	2055.3	1869.6	1678.5	1607.1	1567.8	1533.9	1505.6	1486.4	1471.7	1459.9	1458.9
17.5°	2171.5	1945.6	1715.1	1622.7	1565.0	1517.5	1480.0	1453.5	1435.2	1419.6	1417.8
20°	2295.9	2017.8	1731.5	1612.6	1537.6	1480.0	1430.6	1398.6	1377.5	1360.2	1357.4
22.5°	2421.2	2079.1	1729.7	1580.6	1490.0	1422.4	1370.2	1336.4	1311.7	1294.3	1287.9
25°	2541.0	2128.5	1706.8	1529.4	1424.2	1353.8	1300.7	1269.6	1247.6	1226.6	1226.6
27.5°	2649.0	2157.8	1663.8	1467.2	1356.5	1282.4	1240.3	1212.0	1191.9	1178.1	1169.9
30°	2755.1	2171.5	1605.3	1388.5	1285.2	1222.0	1188.2	1171.7	1153.4	1137.9	1136.1
32.5°	2850.2	2168.8	1532.1	1311.7	1217.5	1172.6	1158.9	1146.1	1126.9	1105.0	1099.5
35°	2942.6	2150.5	1445.2	1227.5	1160.8	1143.4	1147.0	1128.7	1094.0	1066.5	1062.0
37.5°	3043.2	2117.5	1350.1	1158.9	1113.2	1129.7	1138.8	1098.6	1041.8	998.9	988.8
40°	3159.4	2080.0	1251.3	1090.3	1075.7	1116.8	1116.8	1042.8	965.0	938.5	931.2
42.5°	3295.7	2048.9	1169.0	1032.7	1044.6	1085.7	1081.2	968.7	936.7	922.9	919.3
45°	3511.5	2037.9	1083.9	982.4	1019.0	1049.2	1011.7	943.1	924.8	913.8	910.1
47.5°	3852.7	2050.8	1008.9	944.9	989.7	1012.6	933.9	925.7	912.9	897.3	895.5
50°	4169.2	2038.9	955.9	923.8	964.1	968.7	901.9	904.6	897.3	879.9	876.3
52.5°	4428.1	2001.4	922.0	912.9	942.1	891.8	871.7	881.8	879.0	857.1	853.4
55°	4712.5	1978.5	905.6	912.9	927.5	825.1	843.4	858.0	854.3	838.8	837.9
57.5°	5057.4	1983.1	893.7	915.6	912.9	791.2	815.0	832.4	831.5	826.9	826.9
60°	5410.4	1984.9	875.4	914.7	895.5	764.7	785.7	810.4	812.3	815.0	815.0
62.5°	5527.5	1905.3	839.7	898.2	857.1	739.1	758.3	792.1	790.3	797.6	798.5
65°	5308.9	1684.9	786.6	860.7	807.7	720.8	737.2	768.3	758.3	777.5	781.2
67.5°	4832.4	1394.0	704.3	793.0	752.8	701.6	723.5	735.4	717.1	754.6	755.5
70°	4176.5	1088.5	600.0	697.0	690.6	681.5	712.6	694.3	668.6	714.4	705.2
72.5°	3492.3	831.5	479.3	569.9	607.4	651.3	693.3	641.2	605.5	619.3	602.8
75°	2623.4	614.7	385.1	446.4	505.8	608.3	676.0	577.2	522.3	509.5	505.8
77.5°	1337.3	401.6	288.1	333.9	379.6	549.7	652.2	502.2	432.7	412.5	403.4
80°	477.5	249.7	203.1	230.5	256.1	472.9	569.9	415.3	335.7	332.0	335.7
82.5°	221.4	161.0	136.3	150.9	151.8	315.6	434.5	310.1	255.2	387.8	327.5
85°	95.1	80.5	76.8	75.0	69.5	140.9	244.2	166.5	259.8	116.2	107.0
87.5°	28.4	32.0	28.4	21.0	15.5	15.5	24.7	9.1	6.4	4.6	4.6
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)