

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: P453139

Luminaire Tested: **GALN-SA4A-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453139
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-SA4A-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13553 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

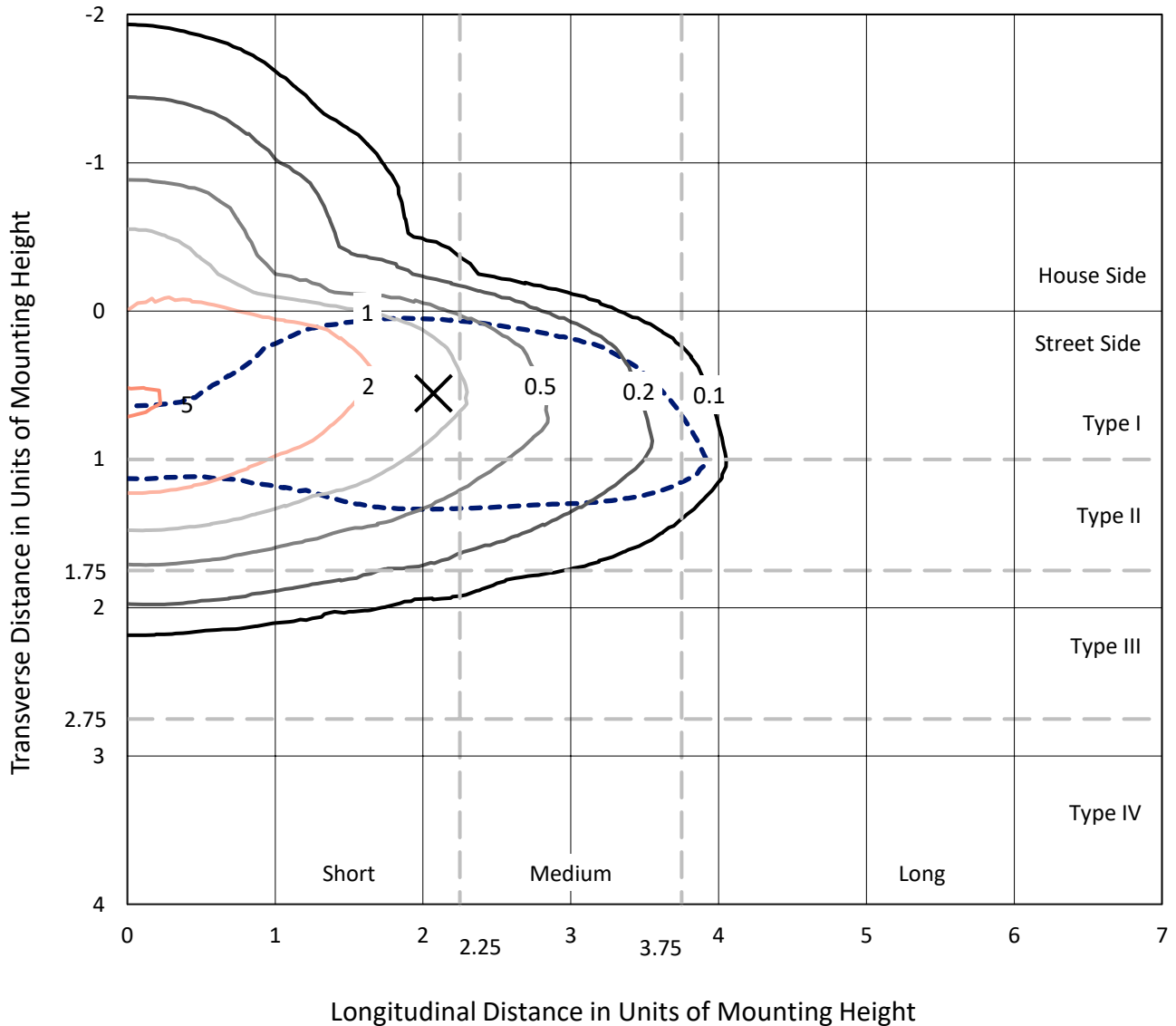
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

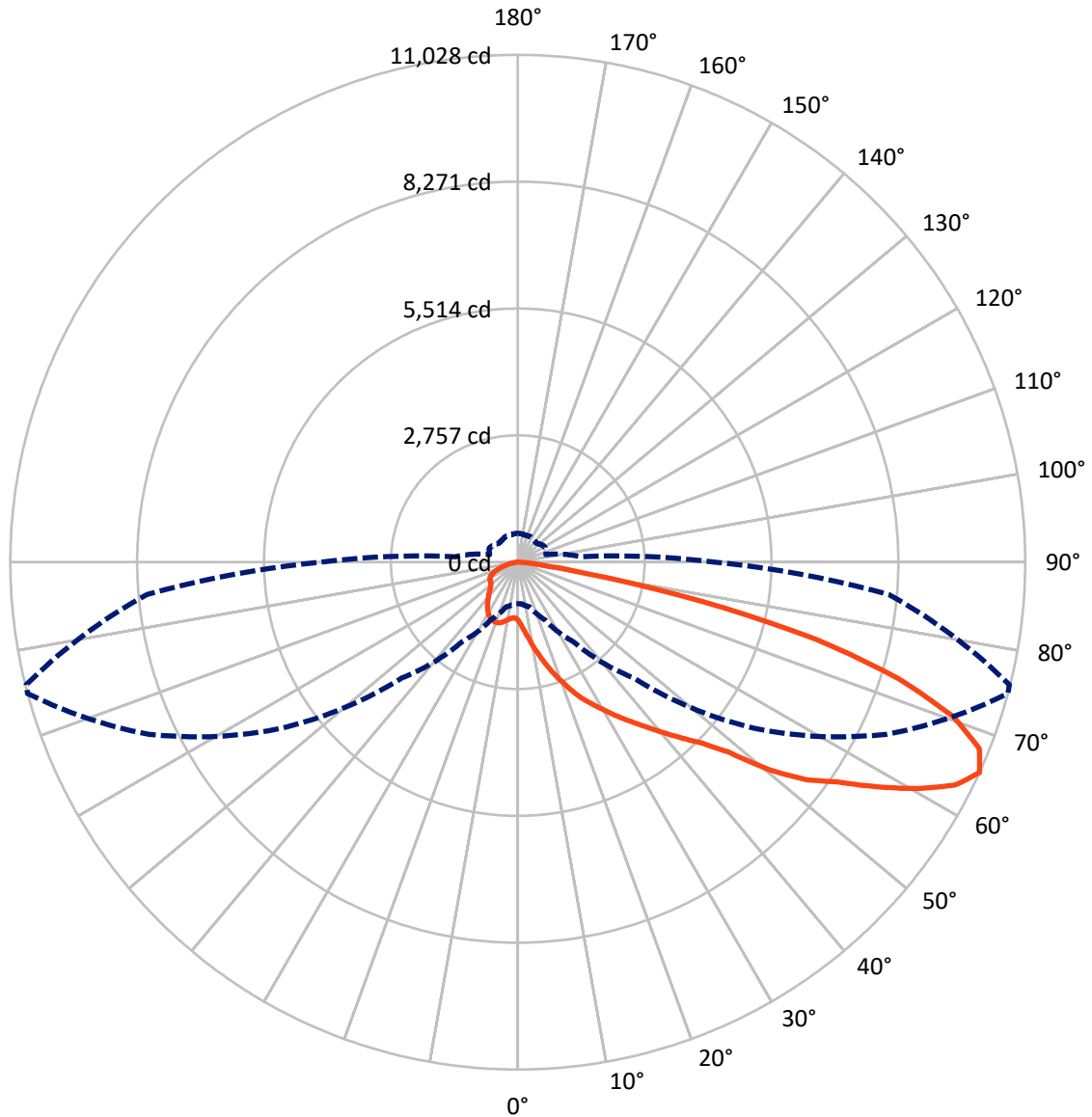
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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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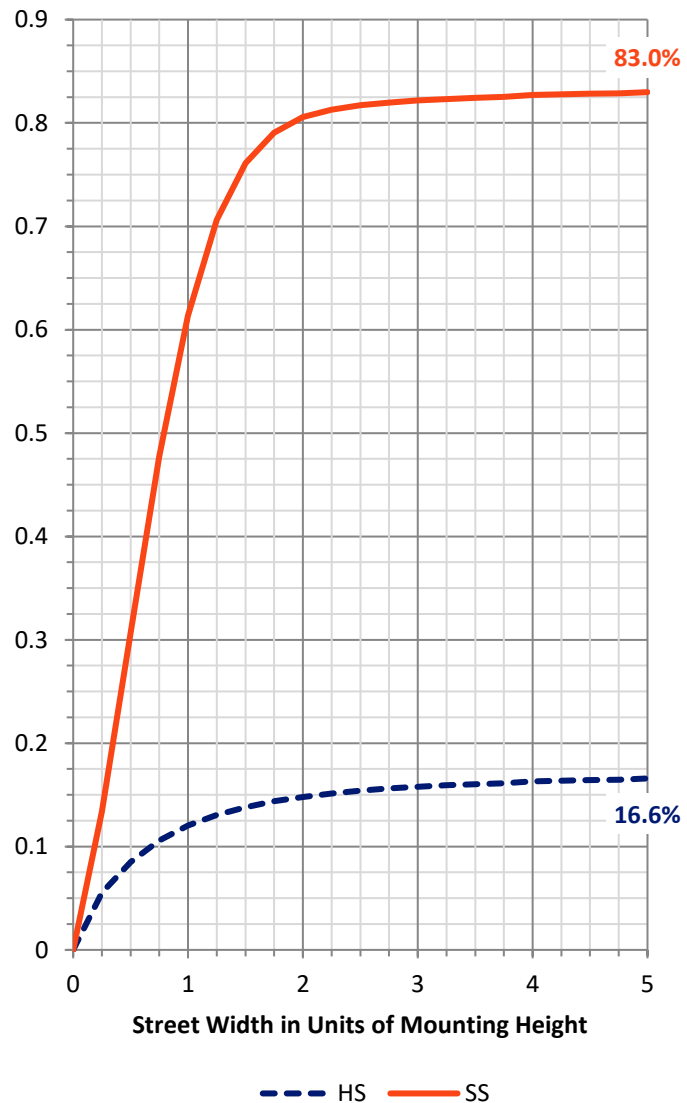
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2278.4	0.0	2278.4
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	11274.6	0.0	11274.6
	% Fixture	83.2	0.0	83.2
Total	Lumens	13553.0	0.0	13553.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.0	1.1
10°-20°	599.3	4.4
20°-30°	1157.6	8.5
30°-40°	1880.2	13.9
40°-50°	2586.4	19.1
50°-60°	3053.7	22.5
60°-70°	2675.5	19.7
70°-80°	1277.3	9.4
80°-90°	170.0	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°	13553.0	100.0
0°-180°	13553.0	100.0



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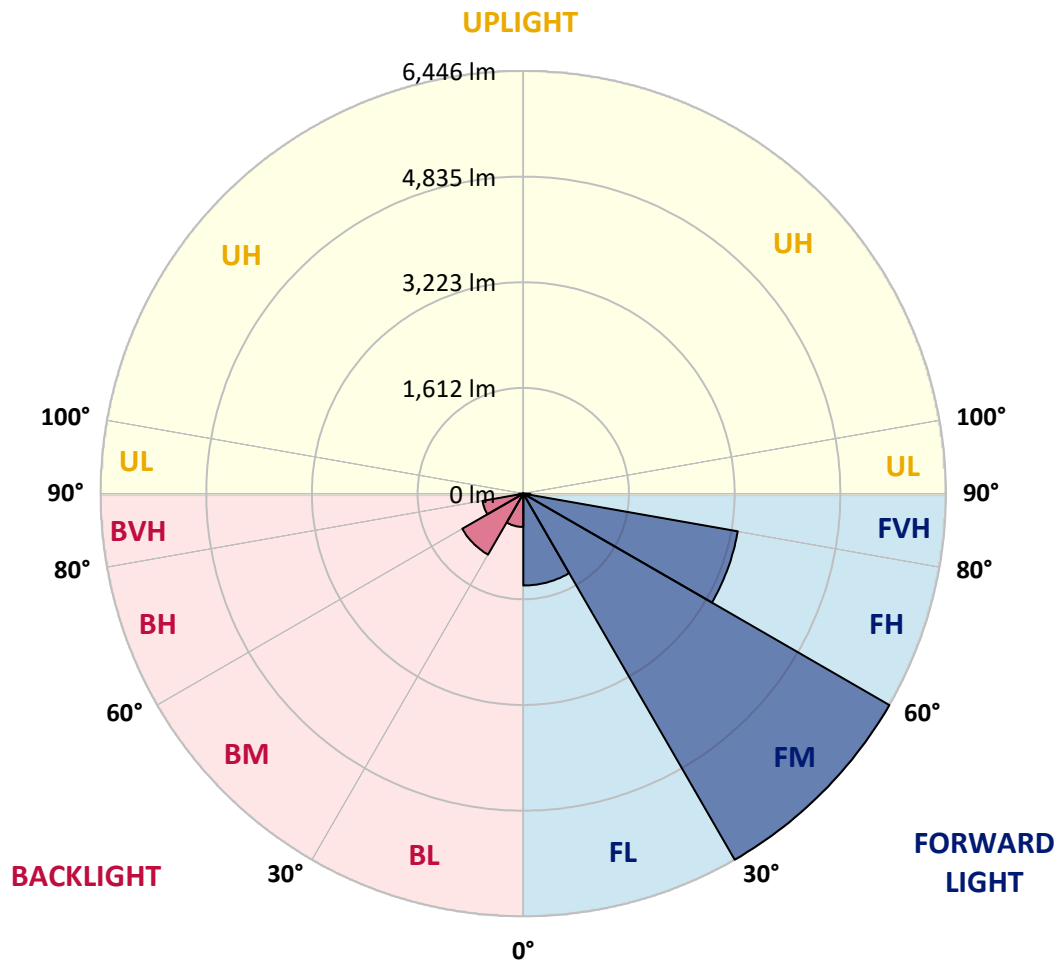
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1401.2	10.3			
FM	(30°-60°)	6446.1	47.6			
FH	(60°-80°)	3321.1	24.5			G2/5000
FVH	(80°-90°)	106.2	0.8			G2/225
BL	(0°-30°)	508.7	3.8	B2/1000		
BM	(30°-60°)	1074.3	7.9	B2/2500		
BH	(60°-80°)	631.8	4.7	B2/1000		G2/1000
BVH	(80°-90°)	63.7	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°	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2
2.5°	1673.1	1662.1	1650.3	1618.0	1583.4	1544.5	1488.6	1434.9	1363.6	1361.4	1308.5
5°	2137.0	2129.6	2077.4	2047.3	1967.2	1860.6	1770.1	1629.7	1499.6	1484.2	1381.3
7.5°	2563.3	2534.7	2514.8	2460.4	2381.0	2244.3	2069.3	1879.7	1662.1	1641.5	1471.0
10°	2884.6	2881.6	2871.3	2824.3	2764.8	2628.8	2434.7	2162.7	1867.9	1827.5	1579.8
12.5°	3125.0	3127.2	3125.7	3125.0	3082.3	2966.9	2756.7	2470.0	2076.0	2047.3	1705.5
15°	3283.0	3305.1	3313.9	3350.6	3354.3	3277.1	3096.3	2767.0	2310.5	2267.8	1840.7
17.5°	3387.4	3398.4	3439.6	3502.1	3552.8	3538.8	3377.8	3041.9	2550.1	2478.8	1981.1
20°	3487.4	3506.5	3538.1	3623.4	3713.0	3754.2	3641.0	3323.4	2787.5	2742.0	2136.2
22.5°	3695.4	3722.6	3733.6	3777.0	3853.5	3926.2	3874.8	3593.2	3047.8	2986.0	2300.9
25°	4047.5	4076.2	4045.3	4035.0	4060.0	4096.0	4085.0	3847.6	3293.3	3205.1	2456.7
27.5°	4506.2	4509.9	4449.6	4392.3	4330.5	4312.2	4278.3	4073.2	3506.5	3433.0	2613.3
30°	4998.8	4981.1	4881.1	4777.5	4673.1	4570.2	4473.1	4290.8	3743.9	3659.4	2767.0
32.5°	5456.0	5446.4	5335.4	5174.4	4998.0	4901.0	4704.7	4510.6	3998.3	3916.7	2925.0
35°	5798.6	5812.5	5690.5	5514.8	5322.2	5236.2	4988.5	4741.5	4261.4	4172.5	3097.0
37.5°	6041.9	6034.5	5926.5	5774.3	5605.2	5530.2	5320.0	4993.6	4544.5	4459.2	3285.2
40°	6128.6	6124.2	6044.1	5933.1	5825.8	5799.3	5667.0	5265.6	4868.6	4768.7	3511.6
42.5°	6073.5	6083.0	6030.1	6000.0	5980.1	5999.2	6011.7	5622.1	5222.2	5130.3	3757.2
45°	5904.4	5899.3	5891.9	5941.2	6052.9	6178.6	6352.8	5958.8	5606.7	5533.2	4086.5
47.5°	5602.3	5639.0	5657.4	5793.4	6037.5	6335.2	6745.4	6410.2	6164.6	6100.7	4588.6
50°	5179.6	5209.0	5317.8	5559.6	5923.5	6394.0	7129.1	7148.2	7095.3	6975.5	5134.0
52.5°	4519.5	4565.0	4789.2	5232.5	5689.8	6369.7	7361.4	7781.1	7851.0	7761.3	5671.4
55°	3780.7	3844.6	4081.3	4662.8	5367.8	6237.4	7521.7	8148.0	8426.6	8343.5	6188.9
57.5°	3057.3	3125.0	3368.3	3931.4	4806.2	5944.8	7626.8	8556.7	9210.2	9102.1	6832.9
60°	2291.3	2361.9	2570.7	3150.7	4006.4	5372.9	7555.5	8911.0	9993.1	9946.8	7477.5
62.5°	1478.3	1556.2	1737.8	2217.8	3079.4	4591.5	7173.9	9106.6	10670.9	10615.0	7948.0
65°	900.5	909.3	1009.3	1376.9	2107.6	3555.0	6301.4	8847.1	11028.1	11011.2	8091.4
67.5°	582.2	596.2	641.8	824.8	1263.7	2469.2	5038.4	7990.7	10819.4	10813.5	7795.1
70°	491.8	496.2	516.8	556.5	734.4	1497.4	3538.1	6625.6	10026.2	10026.2	7082.8
72.5°	439.6	445.5	452.8	465.3	524.1	848.3	2111.2	5157.5	8656.7	8714.0	6028.6
75°	399.2	397.7	402.1	404.3	446.9	554.3	1091.6	3814.5	6696.9	6582.2	4365.8
77.5°	341.8	344.0	341.8	351.4	394.8	422.0	554.3	2559.7	4058.5	3910.1	2191.4
80°	280.8	284.5	288.2	294.0	337.4	320.5	333.0	1166.6	1501.1	1469.5	677.0
82.5°	211.0	216.1	222.0	236.0	265.4	211.7	210.2	498.4	541.8	496.2	249.2
85°	85.3	100.7	152.2	166.1	166.9	116.1	129.4	208.0	221.3	216.1	97.8
87.5°	19.8	23.5	49.3	74.2	68.4	43.4	47.8	67.6	77.2	71.3	33.1
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°	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2	1259.2
2.5°	1284.2	1258.5	1214.4	1180.6	1156.3	1135.0	1121.8	1113.7	1110.8	1110.0	1110.8
5°	1327.6	1282.0	1212.2	1168.1	1143.8	1129.9	1121.8	1121.0	1121.8	1122.5	1120.3
7.5°	1387.2	1321.7	1230.6	1189.4	1171.0	1160.7	1157.1	1155.6	1156.3	1155.6	1155.6
10°	1466.5	1376.9	1266.6	1224.0	1208.5	1196.8	1190.9	1187.2	1184.3	1181.3	1179.9
12.5°	1554.0	1437.9	1305.6	1264.4	1242.3	1224.0	1210.7	1201.2	1194.6	1187.9	1186.5
15°	1651.8	1502.6	1348.9	1291.6	1260.0	1232.8	1210.0	1194.6	1182.8	1173.2	1172.5
17.5°	1745.2	1563.6	1378.3	1304.1	1257.8	1219.5	1189.4	1168.1	1153.4	1140.9	1139.4
20°	1845.1	1621.7	1391.6	1296.0	1235.7	1189.4	1149.7	1124.0	1107.1	1093.1	1090.9
22.5°	1945.8	1670.9	1390.1	1270.3	1197.5	1143.1	1101.2	1074.0	1054.1	1040.2	1035.0
25°	2042.1	1710.6	1371.7	1229.1	1144.6	1088.0	1045.3	1020.3	1002.7	985.8	985.8
27.5°	2128.9	1734.1	1337.2	1179.1	1090.2	1030.6	996.8	974.0	957.8	946.8	940.2
30°	2214.2	1745.2	1290.1	1115.9	1032.8	982.1	954.9	941.7	927.0	914.5	913.0
32.5°	2290.6	1742.9	1231.3	1054.1	978.4	942.4	931.4	921.1	905.7	888.0	883.6
35°	2364.9	1728.2	1161.5	986.5	932.9	918.9	921.8	907.1	879.2	857.1	853.5
37.5°	2445.7	1701.8	1085.0	931.4	894.6	907.9	915.2	882.9	837.3	802.7	794.7
40°	2539.1	1671.6	1005.6	876.3	864.5	897.6	897.6	838.0	775.5	754.2	748.3
42.5°	2648.6	1646.6	939.5	829.9	839.5	872.6	868.9	778.5	752.8	741.7	738.8
45°	2822.1	1637.8	871.1	789.5	818.9	843.2	813.0	757.9	743.2	734.4	731.4
47.5°	3096.3	1648.1	810.8	759.4	795.4	813.8	750.5	743.9	733.6	721.1	719.7
50°	3350.6	1638.6	768.2	742.5	774.8	778.5	724.8	727.0	721.1	707.2	704.2
52.5°	3558.7	1608.4	741.0	733.6	757.2	716.7	700.6	708.6	706.4	688.8	685.9
55°	3787.3	1590.0	727.8	733.6	745.4	663.1	677.8	689.5	686.6	674.1	673.4
57.5°	4064.4	1593.7	718.2	735.8	733.6	635.9	655.0	669.0	668.2	664.5	664.5
60°	4348.2	1595.2	703.5	735.1	719.7	614.6	631.5	651.3	652.8	655.0	655.0
62.5°	4442.3	1531.2	674.8	721.9	688.8	594.0	609.4	636.6	635.1	641.0	641.8
65°	4266.6	1354.1	632.2	691.7	649.1	579.3	592.5	617.5	609.4	624.8	627.8
67.5°	3883.6	1120.3	566.0	637.3	605.0	563.8	581.5	591.0	576.3	606.5	607.2
70°	3356.5	874.8	482.2	560.2	555.0	547.7	572.7	557.9	537.4	574.1	566.8
72.5°	2806.7	668.2	385.2	458.0	488.1	523.4	557.2	515.3	486.6	497.7	484.4
75°	2108.3	494.0	309.5	358.7	406.5	488.8	543.2	463.9	419.7	409.5	406.5
77.5°	1074.7	322.7	231.6	268.3	305.1	441.8	524.1	403.6	347.7	331.5	324.2
80°	383.7	200.7	163.2	185.2	205.8	380.1	458.0	333.7	269.8	266.8	269.8
82.5°	177.9	129.4	109.5	121.3	122.0	253.6	349.2	249.2	205.1	311.7	263.2
85°	76.5	64.7	61.7	60.3	55.9	113.2	196.3	133.8	208.8	93.4	86.0
87.5°	22.8	25.7	22.8	16.9	12.5	12.5	19.8	7.4	5.1	3.7	3.7
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)